Just Released New Books

English Titles

Sorted by author and title within the main subject
Architecture & Design

Re-imaging the City
A New Conceptualisation of the Urban Logic of the “Islamic city”

Somaiyeh Falahat investigates the spatial and morphological logic of pre-modern Middle Eastern and North African cities, so-called “Islamic cities”. She bases her argument on the fact that the city and consequently its form and structure, similar to other human products, have deep roots in the thought-structure of the people. Thus, to know such places properly, one has to refer to this life-world and use it as a structure to observe the city. This approach aims at opening new levels of understanding of the city by grasping indigenous concepts and structures; it puts forward claims for the possibility of a new method of analysis. The author studies the historic city of Isfahan as the[...]

Features
Somaiyeh Falahat investigates the spatial and morphological logic of pre-modern Middle Eastern and North African cities, so-called “Islamic cities”. She bases her argument on the fact that the city, and consequently its form and structure, similar to other human products, have deep roots in the thought-structure of the people. Thus, to know such places properly, one has to refer to this life-world and use[...]

Contents
The Model of “Islamic City”. The Idea of Labyrinth.- Discovering the City.- Towards a New Terminology.

Fields of interest
Architecture (general); Architectural History and Theory; Urbanism

Target groups
Research

Type of publication
Ph.D. thesis

More on www.springer.com/978-3-658-04595-1

Softcover
$89.99
ISBN 978-3-658-04595-1

usually dispatched within 3 to 5 business days

Biomedicine

White Matter Injury in Stroke and CNS Disease

White matter injury can result from both ischemic and hemorrhagic stroke as well as a host of other CNS diseases and conditions such as neonatal injuries, neurodegenerative disorders including Alzheimer’s disease, traumatic brain injuries, carbon monoxide poisoning, and drug or alcohol overdoses. The extent of white matter injury is extremely important to patient outcomes. Several recent technological developments including advanced neuroimaging and the breeding of new rodent models of white matter injury have provided growing insight into initial damage and repair after a stroke or other damaging event. The proposed book will be the first to provide a systematic expert summary of[...]

Features
The first book to provide a systematic expert summary of normal white matter morphology as well as white matter injury following stroke and other CNS injuries. White matter injury can result from both ischemic and hemorrhagic stroke as well as a host of other CNS diseases and conditions such as neonatal injuries, neurodegenerative disorders including Alzheimer’s disease, traumatic brain injuries, carbon[...]

Contents

Fields of interest
Neurosciences; Neurology; Neurobiology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9122-4

Hardcover
2014. XVII, 592 p. 26 illus., 81 illus. in color. (Advances in Neurobiology, Vol. 8)
$239.00
ISBN 978-1-4614-9122-4

usually dispatched within 3 to 5 business days

Cell Adhesion Molecules

Implications in Neurological Diseases

Cell Adhesion Molecules: Implications in Neurological Diseases contains review articles on recent developments in the field of neural cell adhesion molecules (CAMs). The main focus is on the role of cell adhesion molecules in various neurological and neurodegenerative diseases. This perspective has been essentially overlooked in recently published books on neural CAMs. In addition, the contributors cover many newly identified cell adhesion molecules and some that have not received much attention in recent years. This book fills an important gap in the currently available literature.

Features
Cell Adhesion Molecules: Implications in Neurological Diseases contains review articles on recent developments in the field of neural cell adhesion molecules (CAMs). The main focus is on the role of cell adhesion molecules in various neurological and neurodegenerative diseases. This perspective has been essentially overlooked in recently published books on neural CAMs. In addition, the contributors cover many[...]

Contents
Introduction.- Part I: Cell adhesion Molecules Belonging to the Immunoglobulin Superfamily.- Thy-1 modulates neurological cell-cell and cell-matrix interactions through multiple molecular interactions.- The IgCAMs CAR, BT-IgSF and CLMP: structure, function and diseases.- GLIALCAM, a glial cell adhesion molecule implicated in neurological disease.- The neuroplasmins: multifunctional neuronal adhesion molecules; involvement in behaviour and disease.- Roles of nectins and nectin-like molecules in the nervous system.- ICAM 5 - a neuronal dendritin adhesion molecule involved in immune[...]

Fields of interest
Neurosciences; Human Physiology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8089-1

Hardcover
2014. XXI, 409 p. 50 illus., 39 illus. in color. (Advances in Neurobiology, Vol. 8)
$209.00
ISBN 978-1-4614-8089-1

usually dispatched within 3 to 5 business days

V. Berezin, University of Copenhagen, Copenhagen, Denmark; P.S. Walmod, University of Copenhagen, Copenhagen, Denmark (Eds.)
Cancer Prevention

Dietary Factors and Pharmacology

Focused on the discovery of precise molecular targets for the development of the cancer preventive agents. Cancer Prevention: Dietary Factors and Pharmacology provides researchers and non-researchers with practical methodologies for developing and validating small molecule and phytochemical-derived drug discovery and mechanisms by which these compounds can modulate distinct target proteins involved in oncogenic signaling. While this volume is primarily focused toward cancer prevention research, the range of techniques demonstrated in the book also provides an introduction of cancer prevention research methods to researchers outside the field. Chapters deal with a critical discussion.[...]

Contents
Combining Computational and Experimental Methods for Identifying Molecular Targets of Phytochemicals.- Common Methods Used for the Discovery of Natural Anticancer Compounds.- Nrf2-Target Approaches in Cancer Chemoprevention Mediated by Dietary Phytochemicals.- Methods to Analyze Chemopreventive Effect of Silybin on Prostate Cancer Biomarkers Protein Expression.- An Approach to the Evaluation of Berries for Cancer Prevention with Emphasis on Exophagial Cancer.- The Use of Mouse Models for Lung Cancer Chemoprevention Studies.- The Anthoxanthene Plus Dextran Sulfate Sodium-Induced Mouse[...]

Fields of interest
Pharmacology / Toxicology; Oncology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2014. XV, 288 p. 48 illus., 32 illus. in color. (Methods in Pharmacology and Toxicology) $119.00
usually dispatched within 3 to 5 business days

Drugs Targeting B-Cells in Autoimmune Diseases

This book provides a detailed overview of B-cell directed therapies in patients with rheumatic and systemic autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus, Sjögren syndrome, ANCA-associated vasculitis and cryoglobulinemia. Organ-specific autoimmune diseases are discussed with respect to the use of B-cell directed therapies in neurological autoimmune diseases and autoimmune cytopenias. Situations in which B-cell targeted therapy may be indicated are identified, thereby offering comprehensive support for therapeutic decisions on the basis of the latest published evidence. The book also offers a valuable reference tool for rheumatologists, internists,[...]

Features
This book provides a detailed overview of B-cell directed therapies in patients with rheumatic and systemic autoimmune diseases, including rheumatoid arthritis, systemic lupus erythematosus, Sjögren syndrome, ANCA-associated vasculitis and cryoglobulinemia. Organ-specific autoimmune diseases are discussed with respect to the use of B-cell directed therapies in neurological autoimmune diseases and autoimmune[...]

Contents

Fields of interest
Pharmacology / Toxicology; Immunology; Rheumatology; Internal Medicine

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-0348-0705-0

Hardcover
2014. XI, 292 p. 3 illus., 2 illus. in color. (Milestones in Drug Therapy) $189.00
ISBN 978-3-0348-0705-0
usually dispatched within 3 to 5 business days

An Introduction to Markov State Models and Their Application to Long Timescale Molecular Simulation

The aim of this book volume is to explain the importance of Markov state models to molecular simulation, how they work, and how they can be applied to a range of problems. The Markov state model (MSM) approach aims to address two key challenges of molecular simulation: 1) How to reach long timescales using short simulations of detailed molecular models. 2) How to systematically gain insight from the resulting sea of data. MSMs do this by providing a compact representation of the vast conformational space available to biomolecules by decomposing it into states sets of rapidly interconverting conformations and the rates of transitioning between states. This kinetic definition allows one to[...]

Features
This book volume is to explain the importance of Markov state models to molecular simulation, how they work, and how they can be applied to a range of problems. The Markov state model (MSM) approach aims to address two key challenges of molecular simulation: 1) How to reach long timescales using short simulations of detailed molecular models 2) How to systematically gain[...]

Contents

Fields of interest
Molecular Medicine; Theoretical, Mathematical and Computational Physics; Computer Applications in Life Sciences; Physical Chemistry; Mathematics (general)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-94-007-7605-0

Hardcover
2014. XII, 139 p. 65 illus., 48 illus. in color. (Advances in Experimental Medicine and Biology, Vol. 797) $209.00
ISBN 978-94-007-7605-0
usually dispatched within 3 to 5 business days
Obesity and Breast Cancer
The Role of Dysregulated Estrogen Metabolism

Obesity is a risk factor for breast cancer in older women. A number of adipose-derived and obesity-related factors have been shown to affect tumour cell growth. These include adipokines, insulin, IGF-1 and oestrogens. The majority of obesity-related post-menopausal breast cancers are oestrogen-dependent. Since the ovaries no longer produce oestrogens after menopause, and that circulating levels are negligible, it is evident that it is the oestrogens produced locally within the breast adipose that are responsible for the increased growth of breast cancer cells. Aromatase is the enzyme that converts androgens into oestrogens and its regulation is dependent on the activity of a number of [...]

Contents

Fields of interest
Cancer Research; Metabolic Diseases; Enzymology

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4899-8001-4

Softcover
2014 IX, 56 p. 9 illus., 7 illus. in color. (SpringerBriefs in Cancer Research)
$54.99
ISBN 978-1-4899-8001-4
usually dispatched within 3 to 5 business days

P.C. Burcham, The University of Western Australia, Perth, Australia

An Introduction to Toxicology

This book provides a readable introduction to modern toxicology with a particular focus on the mechanisms underlying the induction of toxicity by foreign substances. Since bioactivation is central to many toxic syndromes, special interest is devoted to chemicals that undergo conversion to toxic metabolites that induce toxic effects as diverse as cancer, birth defects and organ injury. The molecular consequences accompanying damage to cellular DNA and proteins is explored together with the relevance of toxicological paradigms to human diseases caused by alcohol and tobacco. The discipline of toxicology has developed rapidly since the thalidomide disaster in the 1960’s as scientists [...]

Features
This book provides a readable introduction to modern toxicology with a particular focus on the mechanisms underlying the induction of toxicity by foreign substances. Since bioactivation is central to many toxic syndromes, special interest is devoted to chemicals that undergo conversion to toxic metabolites that induce toxic effects as diverse as cancer, birth defects and organ injury. The molecular [...]

Contents

Fields of interest
Pharmacology / Toxicology; Molecular Medicine; Biomedicine (general)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Hardcover
2014. XVI, 327 p. 93 illus., 1 illus. in color.
$89.99
usually dispatched within 3 to 5 business days

S.M. Cacciò, Istituto Superiore di Sanità, Rome, Italy; G. Widmer, Tufts Cummings School of Veterinary Medi, North Grafton, USA (Eds.)

Cryptosporidium: parasite and disease

This new volume on Cryptosporidium and Cryptosporidiosis discusses all relevant aspects of the biology, molecular biology, host-parasite interaction, epidemiology as well as diagnosis and treatment of these widespread parasites. It represents a useful guide for physicians, microbiologists, veterinarians and water professionals seeking advanced knowledge and guidance about these important parasitic pathogens. A section on practical lab procedures discusses step-by-step guidelines for sample preparation and lab procedures. The new book may further serve as a reference work for graduate students in medical and veterinary microbiology.

Features
This new volume on Cryptosporidium and Cryptosporidiosis discusses all relevant aspects of the biology, molecular biology, host-parasite interaction, epidemiology as well as diagnosis and treatment of these widespread parasites. It represents a useful guide for physicians, microbiologists, veterinarians and water professionals seeking advanced knowledge and guidance about these important parasitic pathogens. A [...]

Contents
Section 1: Taxonomy and epidemiology of Cryptosporidium. - Taxonomy and molecular taxonomy. - Epidemiology of human cryptosporidiosis. - Molecular epidemiology of human cryptosporidiosis. - Cryptosporidiosis in farmed animals. - Cryptosporidiosis in other vertebrates. - Section 2: Molecular Biology. - Cryptosporidium: current state of genomics and systems biological research. - From Genome to Proteome: transcriptional and proteomic analysis of Cryptosporidium parasites. - Cryptosporidium metabolism. - Section 3: Host-parasite interaction. - Human Cryptosporidiosis: A Clinical Perspective. [...]
Mechanisms of Gene Regulation

This textbook aims to describe the fascinating area of eukaryotic gene regulation for graduate students in all areas of the biomedical sciences. Gene expression is essential in shaping the various phenotypes of cells and tissues and as such, regulation of expression is a fundamental aspect of nearly all processes in physiology, both in healthy and in diseased states. This pivotal role for the regulation of gene expression makes this textbook essential reading from students of all the biomedical sciences in order to better prepare for their specialized disciplines. A complete understanding of transcription factors and the processes that alter their activity is a major goal of modern.[…]

Contents

Fields of interest
Gene Expression; Protein Structure

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-94-007-7904-4

Hardcover
2014. XV, 210 p. 83 illus., 64 illus. in color.
$89.99
ISBN 978-94-007-7904-4
usually dispatched within 3 to 5 business days

Machine Learning in Medicine

Part Three
Machine learning is concerned with the analysis of large data and multiple variables. It is also often more sensitive than traditional statistical methods to analyze small data. The first and second volumes reviewed subjects like optimal scaling, neural networks, factor analysis, partial least squares, discriminant analysis, canonical analysis, fuzzy modeling, various clustering models, support vector machines, Bayesian networks, discrete wavelet analysis, association rule learning, anomaly detection, and correspondence analysis. This third volume addresses more advanced methods and includes subjects like evolutionary programming, stochastic methods, complex sampling, optional.[…]

Contents

Fields of interest
Biomedicine (general); Medicine (general); Statistics (general); Computer Imaging, Vision, Pattern Recognition and Graphics

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-94-007-7868-9

Hardcover
2013. XIX, 224 p. 41 illus.
$89.99
ISBN 978-94-007-7868-9
usually dispatched within 3 to 5 business days

Molecular Pathology and Diagnostics of Cancer

Molecular pathology is based on the emergence of new techniques that greatly enhance the diagnostic accuracy when facing with challenging differential diagnoses. In addition, new molecular techniques are entering the clinical arena for their value in predicting therapy response and tumor prognosis. This book provides a guide for the practicing pathologist and for both pathology residents and fellows during the daily sign-out of challenging cases. The book is organized by anatomical systems and provides a detailed description of molecular tests that may help in the diagnosis. Furthermore, a description of the current molecular tests required to identify patients for treatment is[…]

Contents
Preface - Molecular Pathology and Diagnostics of Gliomas. - Molecular Pathology and Diagnostics of Thyroid and Parathyroid Malignancies. - Molecular Pathology and Diagnostics of Breast Cancer. - Molecular Pathology and Diagnostics of Non-Small Cell Lung Carcinoma. - Molecular Pathology and Diagnostics of Colorectal Cancer. - Molecular Pathology and Diagnostics of Esophago-Gastric Cancer. - Molecular Genetic Testing in Hepatocellular Carcinoma and Its Premalignant Conditions. - Molecular Diagnostics of Pancreatic Cancer. - Molecular Pathology and Diagnostics of Prostate Cancer. - Molecular[…]

Fields of interest
Cancer Research; Pathology; Biomedicine (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7191-8

Hardcover
2014. VIII, 601 p. 31 illus., 19 illus. in color. (Cancer Growth and Progression, Vol. 16)
$209.00
ISBN 978-94-007-7191-8
usually dispatched within 3 to 5 business days
The Computing Dendrite
From Structure to Function

Neuronal dendritic trees are complex structures that endow the cell with powerful computing capabilities and allow for high neural interconnectivity. Studying the function of dendritic structures has a long tradition in theoretical neuroscience, starting with the pioneering work by Wilfrid Rall in the 1950s. Recent advances in experimental techniques allow us to study dendrites with a new perspective and in greater detail. The goal of this volume is to provide a résumé of the state-of-the-art in experimental, computational, and mathematical investigations into the functions of dendrites in a variety of neural systems. The book first looks at morphological properties of dendrites and [...] 

Contents

Features
Neuronal dendritic trees are complex structures that endow the cell with powerful computing capabilities and allow for high neural interconnectivity. Studying the function of dendritic structures has a long tradition in theoretical neuroscience, starting with the pioneering work by Wilfrid Rall in the 1950s. Recent advances in experimental techniques allow us to study dendrites with a new perspective and in [...] 

Fields of interest
Neurosciences; Neurobiology; Mathematical Models of Cognitive Processes and Neural Networks 

Encyclopedia of Pain
This is the most comprehensive overview available anywhere on the broad, multi-faceted and complex topic of pain – and the rapidly evolving scientific and medical disciplines that seek to understand, assess and treat pain. The second edition of the Encyclopaedia of Pain is fully updated and has been expanded by over 100 new essays. It includes more than 3,000 entries and provides clear, detailed and up-to-date coverage of the current state of research, and treatment of pain. In addition, detailed essays provide in-depth information on all aspects of nociception and pain, including substrates, causes, pathophysiology, symptoms and signs, diagnoses and treatment. More than 600 color [...] 

Features
The Encyclopedia of Pain includes more than 3,000 entries and provides clear, detailed and up-to-date coverage of the current state of research, and treatment of pain. In addition, detailed essays provide in-depth information on all aspects of nociception and pain, including substrates, causes, pathophysiology, symptoms and signs, diagnoses and treatment. A thousand color figures enhance understanding of [...] 

Fields of interest
Neurosciences; Pain Medicine; Psychiatry 

New Frontiers in Social Neuroscience
Traditionally, neuroscience has considered the nervous system as an isolated entity and largely ignored influences of the social environments in which humans and many animal species live. However, there is mounting evidence that the social environment affects behavior across species, from microbes to humans. This volume brings together scholars who work with animal and human models of social behavior to discuss the challenges and opportunities in this interdisciplinary academic field. 

Features
Traditionally, neuroscience has considered the nervous system as an isolated entity and largely ignored influences of the social environments in which humans and many animal species live. In fact, we now recognize the considerable impact of social structures on the operations of the brain and body. These social factors operate on the individual through a continuous interplay of neural, neuro-endocrine, [...] 

Contents

Fields of interest
Neurosciences; Behavioral Therapy 

Target groups
Research 

Type of publication
Encyclop(a)edia 

More on www.springer.com/978-3-642-28754-1 

Hardcover
2013, LXXVII, 4348 p. 795 illus., 485 illus. in color. Print + eReference. In 7 volumes, not available separately. $3,400.00 ISBN 978-3-642-28754-1 

Online orders shipping within 2-3 days.
A New Foundation for Representation in Cognitive and Brain Science

Category Theory and the Hippocampus

The purpose of the book is to advance in the understanding of brain function by defining a general framework for representation based on category theory. The idea is to bring this mathematical formalism into the domain of neural representation of physical spaces, setting the basis for a theory of mental representation, able to relate empirical findings, uniting them into a sound theoretical corpus. The innovative approach presented in the book provides a horizon of interdisciplinary collaboration that aims to set up a common agenda that synthesizes mathematical formalization and empirical procedures in a systemic way. Category theory has been successfully applied to qualitative [...]}

Features
The purpose of the book is to advance in the understanding of brain function by defining a general framework for representation based on category theory. The idea is to bring this mathematical formalism into the domain of neural representation of physical spaces, setting the basis for a theory of mental representation, able to relate empirical findings, uniting them into a sound theoretical [...]}

Contents

Fields of interest
Neurosciences; Category Theory, Homological Algebra; Philosophy (general); Neurology; Artificial Intelligence (incl. Robotics); Biological Psychology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-7737-8

Hardcover
2014. XXIII, 193 p. 73 illus., 40 illus. in color. (Springer Series in Cognitive and Neural Systems, Vol. 7)
$129.00
ISBN 978-94-007-7737-8
usually dispatched within 3 to 5 business days

Drug Delivery to the Brain

Physiological Concepts, Methodologies and Approaches

The development of new CNS drugs is notoriously difficult. Drugs must reach CNS target sites for action and these sites are protected by a number of barriers, the most important being the blood–brain barrier (BBB). Many factors are therefore critical to consider for CNS drug delivery, e.g. active/passive transport across the BBB, intra-brain distribution, and central/systemic pharmacokinetics, to name a few. Neurological disease and trauma conditions add further complexity because CNS barriers, drug distribution and pharmacokinetics are dynamic and often changed by disease/trauma. Knowledge of all these factors and their interplay in different conditions is of utmost importance for [...]}

Features
This book describes the different approaches for drug delivery to the brain with an emphasis on the physiology of the blood–brain barrier (BBB) and the governing principles and concepts for drug delivery across the BBB. It contains cutting-edge methods for studying drug delivery and administering drugs into the brain. The book also explores different approaches for predicting human brain concentrations [...]}

Contents

Fields of interest
Pharmacological Sciences / Technology; Biomedicine (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9104-0

Hardcover
2014. XX, 731 p. 150 illus., 126 illus. in color. (AAPS Advances in the Pharmaceutical Sciences Series, Vol. 10)
$239.00
ISBN 978-1-4614-9104-0
usually dispatched within 3 to 5 business days

Developmental Aspects of the Lymphatic Vascular System

The book focuses on the lymphatic vascular system from a developmental biologist’s point of view. It provides an overview on the many recent advances in understanding the development of lymphatic vessels, using advanced genetic models in conjunction with state of the art imaging. For each chapter a synopsis is provided, highlighting the main points in a concise manner. The book is intended for professors and researchers in vascular biology, angiogenesis research and developmental biology. It furthermore offers an excellent basis for entry level researchers and newcomers to this field, as well as for teachers, graduate students, advanced science and medical students.

Features
For decades, lymphatic vessels were considered to be of “lesser significance” than blood vessels, and the fundamental importance of lymphatic vessels for physiological tissue homeostasis and their involvement in many pathological processes have only recently been fully appreciated. It is clear by now that all higher vertebrates possess a lymphatic vessel system, and that malfunctioning of the lymphatic [...]}

Contents
Introduction by Friedemann Kiefer.- Transcriptional control of lymphatic endothelial cell type specification by Ying Yang and Guilleromo Oliver.- Mechanosensing in developing lymphatic vessels by Lara Planas-Paz and Eckard Lammert.- Plasticity of airway lymphatics in development and disease by Li-Chin Yao and Donald M. MacDonald.- Regulation of lymphatic vasculature by extracellular matrix by Sophie Lutter and Taija Makkinen.- Interplay of mechanotransduction, FOXC2, connexins and calcineurin signaling in lymphatic valve formation by Amelie Sabine and Tatiana V. Petrova.- Development of [...]}

Fields of interest
Human Physiology; Cell Biology; Immunology; Developmental Biology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-7091-1645-6

Softcover
2014. XII, 204 p. 27 illus. in color. (Advances in Anatomy, Embryology and Cell Biology, Vol. 214)
$189.00
ISBN 978-3-7091-1645-6
usually dispatched within 3 to 5 business days
Interaction of Immune and Cancer Cells

The tumor environment is a dynamic network that includes cancer cells, immune cells, fibroblasts, endothelial cells, extracellular matrix, cytokines and receptors. The aim of this book is to summarize the role of these components, especially immune cells, in tumor suppression and/or progression and describe in detail why tumor cells can survive and spread in spite of the antitumor response of immune cells. Since immunotherapy is an attractive approach to cancer therapy, this book also provides information on the two main strategies: monoclonal antibodies and adaptive T cell immunotherapy, with a focus on recent human clinical trials. The book provides a state-of-the-art, comprehensive...[

Contents
Immune cells within tumor microenvironment. - Tumor-stroma interaction and cancer progression. - The role of tumor associated macrophages (TAMs) in tumor progression. - Dendritic cells dysfunction and tumor progression. - Myeloid-derived suppressor cells (MDSC) and tumor growth. - Tumor infiltrating lymphocytes and their role in solid tumor progression. - Polymorphonuclear neutrophils and tumor: friend or foe?. - Cancer immunosurveillance and immunoeediting. - Adoptive T cell immunotherapy. - Perfecting self-defense. - Monoclonal antibodies to CTLA4 with focus on ipilimumab.

Fields of interest
Immunology; Cancer Research; Vaccine; Cytokines and Growth Factors; Molecular Medicine

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-7091-1299-1

Hardcover
2014, XX, 263 p. 21 illus., 17 illus. in color. $209.00 ISBN 978-3-7091-1299-1 usually dispatched within 3 to 5 business days

Tumor Microenvironment and Cellular Stress

Signaling, Metabolism, Imaging, and Therapeutic Targets

The collection of chapters in this proceeding volume reflects the latest research presented at the Aegean meeting on Tumor Microenvironment and Cellular Stress held in Crete in Fall of 2012. The book provides critical insight to how the tumor microenvironment affects tumor metabolism, cell stenness, cell viability, genomic instability and more. Additional topics include identifying common pathways that are potential candidates for therapeutic intervention, which will stimulate collaboration between groups that are more focused on elucidation of biochemical aspects of stress biology and groups that study the pathophysiological aspects of stress pathways or engaged in drug discovery.

Features
The collection of chapters in this proceeding volume reflects the latest research presented at the Aegean meeting on Tumor Microenvironment and Cellular Stress held in Crete in Fall of 2012. The book provides critical insight to how the tumor microenvironment affects tumor metabolism, cell stenness, cell viability, genomic instability and more. Additional topics include identifying common pathways that are [...]

Contents

Fields of interest
Cancer Research; Immunology; Human Physiology; Medical Microbiology

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4614-5914-9

Hardcover
2014, X, 290 p. 38 illus., 30 illus. in color. (Advances in Experimental Medicine and Biology, Vol. 772) $189.00 ISBN 978-1-4614-5914-9 usually dispatched within 3 to 5 business days

Human Fungal Pathogens

Whereas plant and insect infections are commonly caused by fungi, only a small minority of the vast diversity of fungal species is pathogenic to humans. Despite this, fungal infections cause considerable morbidity and mortality worldwide. This volume is dedicated to the biology, clinical presentation and management of invasive fungal infections. Major pathogenic fungi are introduced by world-leading experts and the basic principles of fungal virulence are reviewed in the light of new results and experimental technologies that offer unprecedented insights into invasive infections caused by Aspergillus, Candida, Cryptococcus, Pneumocystis and Mucorales. In parallel, the clinical...[

Features
Whereas plant and insect infections are commonly caused by fungi, only a small minority of the vast diversity of fungal species is pathogenic to humans. Despite this, fungal infections cause considerable morbidity and mortality worldwide. This volume is dedicated to the biology, clinical presentation and management of invasive fungal infections. Major pathogenic fungi are introduced by world-leading experts [...]

Contents

Fields of interest
Medical Microbiology; Immunology; Allergology; Cell Biology; Eukaryotic Microbiology; Microbial Genetics and Genomics

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-3-642-39431-7

Hardcover
2014, XXII, 298 p. 59 illus., 33 illus. in color. (The Mycota, Vol. 12) $269.00 ISBN 978-3-642-39431-7 usually dispatched within 3 to 5 business days
The Therapeutic Use of Ayahuasca

This book presents a series of perspectives on the therapeutic potential of the ritual and clinical use of the Amazonian hallucinogenic brew ayahuasca in the treatment and management of various diseases and ailments, especially its role in psychological well-being and substance dependence. Biomedical and anthropological data on the use of ayahuasca for treating depression, PTSD, and substance dependence in different settings, such as indigenous contexts, neo-shamanic rituals, contemporary therapeutic circles, and in ayahuasca religions, in both South and North America, are presented and critiqued. Though multiple anecdotal reports on the therapeutic use of ayahuasca exist, there has[...]

Features
This book presents a series of perspectives on the therapeutic potential of the ritual and clinical use of the Amazonian hallucinogenic brew ayahuasca in the treatment and management of various diseases and ailments, especially its role in psychological well-being and substance dependence. Biomedical and anthropological data on the use of ayahuasca for treating depression, PTSD, and substance dependence in[...]

Contents

Fields of interest
Pharmacology / Toxicology; Complementary & Alternative Medicine; Psychopharmacology; Psychotherapy

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-40425-2

Hardcover
2014. XIX, 226 p. 45 illus., 35 illus. in color. $189.00 ISBN 978-3-642-40425-2 usually dispatched within 3 to 5 business days

Therapeutic Applications of Ribozymes and Riboswitches

Methods and Protocols
In Therapeutic Applications of Ribozymes and Riboswitches: Methods and Protocols, expert researchers in the field provide a complete overview of protocols used in the development of RNA molecule as drugs and drug target. These include methods and protocols on recent and precise RNA molecule approaches or studies in the development of an RNA therapeutic tool. We are convinced that these methods will help researchers from various domains of life sciences, including clinicians, biochemists and virologists. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents,[...]

Features
In Therapeutic Applications of Ribozymes and Riboswitches: Methods and Protocols, expert researchers in the field provide a complete overview of protocols used in the development of RNA molecule as drugs and drug target. These include methods and protocols on recent and precise RNA molecule approaches or studies in the development of an RNA therapeutic tool. We are convinced that these methods will[...]

Contents

Fields of interest
Virology; Human Genetics

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-62703-729-7

Hardcover
2014. XI, 278 p. 53 illus., 19 illus. in color. (Methods in Molecular Biology, Vol. 1103) $119.00 ISBN 978-1-62703-729-7 usually dispatched within 3 to 5 business days

One Health: The Human-Animal-Environment Interfaces in Emerging Infectious Diseases

Food Safety and Security, and International and National Plans for Implementation of One Health Activities

One Health is an emerging concept that aims to bring together human, animal, and environmental health. Achieving harmonized approaches for disease detection and prevention is difficult because traditional boundaries of medical and veterinary practice must be crossed. In the 19th and early 20th centuries this was not the case—then researchers like Louis Pasteur and Robert Koch and physicians like William Osler and Rudolph Virchow crossed the boundaries between animal and human health. More recently Calvin Schwabe revised the concept of One Medicine. This was critical for the advancement of the field of epidemiology, especially as applied to zoonotic diseases. The future of One Health[...]

Features
The second volume on One Health explains in detail how to implement three key aspects of the One Health paradigm—food safety and security, national plans for a holistic one health approach, and relevant new technologies and approaches. The fourteen chapters, each by an internationally recognized authority, are organized into three sections of four or five chapters each, that break new ground in clarifying[...]

Contents
Food Safety and Food Security: a One Health Paradigm.- Food safety: at the center of a One Health approach for combating zoonoses.- The importance of a One Health approach to preventing the development and spread of antibiotic resistance.- Bovine spongiform encephalopathy: A tipping point in One Health and food safety.- Pathogenic Escherichia coli and One Health implications.- National Plans for Developing a One Health Approach.- FAO and the One Health approach.- Development of a One Health national capacity in Africa: The Southern African Centre for Infectious Disease Surveillance[...]

Fields of interest
Virology; Parasitology; Chemistry (general); Infectious Diseases; Medicine (general)

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-3-642-35845-6

Hardcover
2013. XVII, 235 p. 23 illus., 16 illus. in color. (Current Topics in Microbiology and Immunology, Vol. 366) $189.00 ISBN 978-3-642-35845-6 usually dispatched within 3 to 5 business days
One Health: The Human-Animal-Environment Interfaces in Emerging Infectious Diseases

The Concept and Examples of a One Health Approach

One Health is an emerging concept that aims to bring together human, animal, and environmental health. Achieving harmonized approaches for disease detection and prevention is difficult because traditional boundaries of medical and veterinary practice must be crossed. In the 19th and early 20th centuries this was not the case—then researchers like Louis Pasteur and Robert Koch and physicians like William Osler and Rudolph Virchow crossed the boundaries between animal and human health. More recently Calvin Schwabe revised the concept of One Medicine. This was critical for the advancement of the field of epidemiology, especially as applied to zoonotic diseases. The future of One Health [...]"
Protein Deimination in Human Health and Disease

Deimination is a relatively new post-translational modification of proteins, whose recognition is ever-increasing. First linked to the pathology of rheumatoid arthritis (RA), deimination is a process by which selected positively charged arginine amino acids are converted to neutral citrulline amino acids by the peptidyl arginine deiminase (PAD) family of enzymes. Although the medical literature is rich with articles about the possible significance of deaminated proteins in RA, Protein Deimination in Human Health and Disease is the first publication to compile this knowledge and the growing amount of new information now known about the presence of deaminated proteins in the eye, skin. [...] Features

Deimination is a relatively new post-translational modification of proteins, whose recognition is ever-increasing. First linked to the pathology of rheumatoid arthritis (RA), deimination is a process by which selected positively charged arginine amino acids are converted to neutral citrulline amino acids by the peptidyl arginine deiminase (PAD) family of enzymes. Although the medical literature is [...] Contents

Physiological pathways of PAD activity and citrullinated epitope generation. - from citrullination to specific immunity and disease in rheumatoid arthritis. - The role of citrullinated proteins in the pathophysiology of rheumatoid arthritis. - Protein citrullination: the link between rheumatoid arthritis and periodontitis. - From genes and environment to anti-culture immunity in rheumatoid arthritis: The role of the lungs. - Neutrophils and their contribution to autoimmunity in rheumatoid arthritis. - Deimination in skin and regulation of PAD expression in keratinocytes. - Importance of [...] Fields of interest

Neurosciences; Immunology; Protein Science

Gene Function Analysis

The determination of protein function has been a major goal of molecular biology since the founding of the discipline. However, as we learn more about gene function, we discover that the context within which a gene is expressed controls the specific function of that gene. It has become critical to establish the background in which gene function is determined and to perform experiments in multiple applicable backgrounds. In Gene Function Analysis, Second Edition, a number of computational and experimental techniques are presented for identifying not only the function of an individual gene, but also the partners that work with that gene. The theme of data integration runs strongly... [...] Features

The determination of protein function has been a major goal of molecular biology since the founding of the discipline. However, as we learn more about gene function, we discover that the context within which a gene is expressed controls the specific function of that gene. It has become critical to establish the background in which gene function is determined and to perform experiments in multiple applicable [...] Contents


Human Genetics; Gene Function

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-40828-1

Hardcover

2014. X, 194 p. 33 Illus., 19 illus. in color. (Current Topics in Microbiology and Immunology, Vol. 375) $199.00
ISBN 978-3-642-40828-1
usually dispatched within 3 to 5 business days

Plant Viral Vectors

In this volume, the authors provide an excellent overview of how far the plant viral vector field has come. The discipline is no longer exclusively the domain of academics – there is a small, but growing number of small biotechnology companies that exploit plant viruses as a platform for commercial innovation in crop improvement, industrial product manufacturing, and human and veterinary health care.

Features

In this volume, the authors provide an excellent overview of how far the plant viral vector field has come. This discipline is no longer exclusively the domain of academics – there is a small, but growing number of small biotechnology companies that exploit plant viruses as a platform for commercial innovation in crop improvement, industrial product manufacturing, and human and veterinary health care. [...] Contents


Virology; Vaccine

Target groups

Research

Type of publication

Handbook

More on www.springer.com/978-3-642-40828-1

Hardcover

2014. X, 194 p. 33 Illus., 19 illus. in color. (Current Topics in Microbiology and Immunology, Vol. 375) $199.00
ISBN 978-3-642-40828-1
usually dispatched within 3 to 5 business days
Pathogenesis of Mycobacterium tuberculosis and its Interaction with the Host Organism

Mycobacterium tuberculosis is one of the most notorious pathogens on earth, causing the death of approximately 1.5 million people annually. A major problem in the fight against tuberculosis is the emergence of strains that have acquired resistance to all available antibiotics. One key to the success of M. tuberculosis as a pathogen is its ability to circumvent host immune responses at different levels. This is not only a result of the special makeup of M. tuberculosis in terms of genetic diversity and DNA metabolism and its possession of specialized secretion systems, but also of its ability to hijack the host's innate immune defence mechanisms. In this volume, researchers from [...] report on their findings.

Features
Mycobacterium tuberculosis is one of the most notorious pathogens on earth, causing the death of approximately 1.5 million people annually. A major problem in the fight against tuberculosis is the emergence of strains that have acquired resistance to all available antibiotics. One key to the success of M. tuberculosis as a pathogen is its ability to circumvent host immune responses at [...].

Contents

Areas of interest
Medical Microbiology; Immunology; Molecular Medicine; Drug Resistance; Microbial Genetics and Genomics

Type of publication
Research

Proteins and Proteomics of Leishmania and Trypanosoma

This book contains a collection of critical reviews on the expression of biologically functional proteins in Leishmania and Trypanosoma, which was written by renowned researchers on this field. Species belonging to these trypanosomatids' genera are etiological agents of leishmaniasis, Chagas' disease and sleeping sickness that are extremely debilitating human infection diseases, which remain a major health problem especially in countries from Latin America, Africa and Middle East. Substantiating the problem, the currently accepted drugs for these diseases are quiet unsatisfying due to their low efficacy and high toxicity. In order to solve these real problems, several research groups [...] report on their findings.

Features
This book contains a collection of critical reviews on the expression of biologically functional proteins in Leishmania and Trypanosoma, which was written by renowned researchers on this field. Species belonging to these trypanosomatids' genera are etiological agents of leishmaniasis, Chagas' disease and sleeping sickness that are extremely debilitating human infection diseases, which remain a major health [...]

Contents

Areas of interest
Parasitology; Microbial Genetics and Genomics; Infectious Diseases

Type of publication
Research

Biopatent: European vs. US Patent Law

SpringerBriefs in Biotech Patents presents timely reports on intellectual properties (IP) issues and patent aspects in the field of biotechnology. This volume focuses on particular aspects of the US patent law, which can have tremendous differences compared to the European law. This includes questions of biopatent prosecution, novelty, inventive step, written disclosure and sufficiency of enablement as well as questions of law enforcement of biotech patents.

Features
SpringerBriefs in Biotech Patents presents timely reports on intellectual properties (IP) issues and patent aspects in the field of biotechnology. This volume focuses on particular aspects of the US patent law, which can have tremendous differences compared to the European law. This includes questions of biopatent prosecution, novelty, inventive step, written disclosure and sufficiency of [...]
Solving the Mind-Body Problem by the CODAM Neural Model of Consciousness?

This book details a model of consciousness supported by scientific experimental data from the human brain. It presents how the Corollary Discharge of Attention Movement (CODAM) neural network model allows for a scientific understanding of consciousness as well as provides a solution to the Mind-Body problem. The book provides readers with a general approach to consciousness that is powerful enough to lead to the inner self and its ramifications for the vast range of human experiences. It also offers an approach to the evolution of human consciousness and features chapters on mental disease (especially schizophrenia) and on meditative states (including drug-induced states of mind). [...]

Contents

Features
This book details a model of consciousness supported by scientific experimental data from the human brain. It presents how the Corollary Discharge of Attention Movement (CODAM) neural network model allows for a scientific understanding of consciousness as well as provides a solution to the Mind-Body problem. The book provides readers with a general approach to consciousness that is powerful enough to lead to the inner self and its ramifications for the vast range of human experiences. It also offers an approach to the evolution of human consciousness and features chapters on mental disease (especially schizophrenia) and on meditative states (including drug-induced states of mind). [...]

Adverse Events with Biomedicines
Prevention Through Understanding

This monograph gathers and evaluates data on adverse events (AEs) associated specifically with those “biomedicines” – monoclonal antibodies, fusion proteins, and cytokines – that have recently entered therapeutic use in humans. All AEs observed when using each member of this new drug class are covered, with a view to improving understanding of pathogenesis, facilitating prevention, monitoring, and control, and contributing to the development of better drugs that provide benefits while minimizing risk. Further aspects here examined include the role of drug mechanisms of action and immunogenicity in relation to AEs outcome and induction of systemic syndromes. Additional data on AEs in [...]
Fundamentals of Pharmaceutical Nanoscience

Nanoscience or the science of the very small offers the pharmaceutical scientist a wealth of opportunities. By fabricating at the nanoscale, it is possible to exert unprecedented control on drug activity. This textbook will showcase a variety of nanosystems working from their design and construction to their application in the field of drug delivery. The book is intended for graduate students in drug delivery, physical and polymer chemistry, and applied pharmaceutical sciences courses that involve fundamental nanoscience. The purpose of the text is to present physicochemical and biomedical properties of synthetic polymers with an emphasis on their application in polymer therapeutics...

Features
The emerging discipline of nanoscience has resulted in a number of new technologies. These groundbreaking advances are firing the imagination of a generation of scientists and leading to new materials with a wealth of functionality. In the biomedical sciences these technological advances are finally translating into clinically relevant products and bringing patients exciting new therapies and treatments.

Contents
Nanoscience and nanotechnology overview.
- Liposomes preparation and characterization.
- Solid polymeric nanoparticles.
- Lipid nanoparticles.
- Polymeric vesicles.
- Low molecular weight amphiphilic micelles.
- Polymeric micelles.
- Niosomes.
- Quantum dots.
- Magnetic particles.
- Drug nanoparticles.
- Polymeric prodrugs.
- Therapeutic Applications of pharmaceutically functionalized nanoparticles.
- Drug solubilisation.
- Gene therapy.
- Chemotherapy.
- Tissue engineering.
- Anti-infectives.
- Vaccination.
- Anti-arthritic drugs.
- Imaging agents.
- Commercial exploitation of pharmaceutical nanosystems.
- Future...

Fields of interest
Pharmacology / Toxicology; Pharmacy; Nanotechnology; Physical Chemistry; Polymer Sciences; Biotechnology

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-9163-7

Hardcover
2013.XX, 598 p. 155 illus., 99 illus. in color.
$119.00
ISBN 978-1-4614-9163-7
usually dispatched within 3 to 5 business days

Bone Metastases
A translational and Clinical Approach

The second edition of this book serves both as an introductory and reference book focusing on the field of metastatic bone disease. Featuring contributions from experts in the field, this volume describes the molecular and cellular mechanisms involved in the formation of bone metastases, presents the newer advances made in the understanding of the clinical picture and symptoms of patients, analyses the role of bone markers in research and clinical practice and deals with all aspects of imaging modalities applied for the detection and evaluation of bone metastases. Moreover, the use of all available treatment methods, such as radiotherapy, surgery and systemic treatments for the...

Features
The second edition of this book serves both as an introductory and reference book focusing on the field of metastatic bone disease. Featuring contributions from experts in the field, this volume describes the molecular and cellular mechanisms involved in the formation of bone metastases, presents the newer advances made in the understanding of the clinical picture and symptoms of patients, analyses the role...

Contents
- Pathophysiolog of metastatic bone disease.
- Bone metastases: epidemiology, clinical picture, SREs and prognosis.
- Pain in bone metastases: types and mechanisms.
- II Investigations Of Bone Metastases.
- Radiological evaluations: radiography, CT, MRI.
- Nuclear medicine imaging modalities: bone scintigraphy, PET-CT, SPECT.
- Bone turnover markers.
- New omics approaches for bone metastases.
- III Therapeutic Management.
- Analgesic treatment for bone mets.
- Radiotherapy: external beam and radio-surgery.
- Radionuclide therapy.
- Bisphosphonates.
- New treatments...

Fields of interest
Cancer Research; Oncology; Biomedicine (general); Medicine (general)

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7568-8

Hardcover
2014.XX, 590 p. 154 illus., 20 illus. in color.
$189.00
ISBN 978-94-007-7568-8
usually dispatched within 3 to 5 business days

Fundamentals of Chromatin

While there has been an increasing number of books on various aspects of epigenetics, there has been a gap over the years in books that provide a comprehensive understanding of the fundamentals of chromatin. Chromatin is the combination of DNA and proteins that make up the genetic material of chromosomes. Its primary function is to package DNA to fit into the cell, to strengthen the DNA to prevent damage, to allow mitosis and meiosis, and to control the expression of genes and DNA replication. The audience for this book includes newly established scientists and graduate students. Rather than going into the more specific areas of recent research on chromatin the...

Features
Chromatin is the combination of DNA and proteins that make up the genetic material of chromosomes. It is essential for packaging DNA, regulation of gene expression, DNA replication and repair. The audience for this book includes newly established scientists, graduate students and scientists seeking detailed overviews of various aspects of chromatin structure and function to gain entry into this field.

Contents
Preface.
- Histone, Nucleosome and Chromatin Structure.
- Histone Chaperones in the Assembly and Disassembly of Chromatin.
- Chromatin Remodeling Complexes.
- Regulating Chromatin by Histone Acetylation.
- Histone Methylation in Chromatin Signaling.
- Histone Ubiquitylation Control of Gene Expression.
- Regulation of Chromatin Structure and Function by PARP-1 and ADP-ribosylation.
- Histone phosphorylation and chromatin dynamics.
- Reading histone modifications.
- Properties and functions of histone variants.
- Transcription through Chromatin.
- Chromatin remodeling in DNA repair and replication.

Fields of interest
Human Genetics; Biomedicine (general); Gene Expression

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8623-7

Hardcover
2014.XX, 587 p. 98 illus., 94 illus. in color.
$209.00
usually dispatched within 3 to 5 business days
miRNomics: MicroRNA Biology and Computational Analysis

In miRNomics: MicroRNA Biology and Computational Analysis, expert researchers in the field present an overview of the current state of the art and aim to put the respective areas of research into a larger perspective. These include methods and techniques ranging from miRNA biogenesis, their biological function, computational analyses to their medical implications and applications. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known[...]

Features
In miRNomics: MicroRNA Biology and Computational Analysis, expert researchers in the field present an overview of the current state of the art and aim to put the respective areas of research into a larger perspective. These include methods and techniques ranging from miRNA biogenesis, their biological function, computational analyses to their medical implications and applications. Written in the [...] contents.

Contents

Fields of interest
Human Genetics; Gene Function

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-62703-747-1

Hardcover
2014, XII, 333 p. 69 illus., 1 illus. in color. (Methods in Molecular Biology, Vol. 1107)
$139.00
usually dispatched within 3 to 5 business days

Chemistry

C. Anandharamakrishnan, CSR-Central Food Tech. Research In, Myalore, India

Techniques for Nanoencapsulation of Food Ingredients

Nanoencapsulation has the potential to improve human health through its capacity to both protect bioactive compounds and release them at a specific time and location into various substances, including food. Numerous nanoencapsulation technologies have emerged in recent years, each with its own advantages and disadvantages. The goal of this Brief is to discuss the various nanoencapsulation technologies, such as emulsification, coalescence, inclusion encapsulation, anti-solvent precipitation, nanoprecipitation, freeze drying, and spray drying, including their limitations. Recent safety and regulatory issues concerning the various nanoencapsulation technologies will also be covered.

Features
Nanoencapsulation has the potential to improve human health through its capacity to both protect bioactive compounds and release them at a specific time and location into various substances, including food. Numerous nanoencapsulation technologies have emerged in recent years, each with its own advantages and disadvantages. The goal of this Brief is to discuss the various nanoencapsulation technologies, such as [...] fields of interest.

Fields of interest
Food Science; Nanochemistry; Nanotechnology and Microengineering

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-9386-0

Softcover
2014, X, 89 p. 24 illus., 5 illus. in color. (SpringerBriefs in Food, Health, and Nutrition)
$54.99
ISBN 978-1-4614-9386-0
usually dispatched within 3 to 5 business days

A Practical Guide to the Manufacture of Sulfuric Acid, Oleums, and Sulphonating Agents

This critical volume provides practical insights on sulfuric acid and related plant design and on techniques to improve and enhance substantially the efficiency of an existing plant by means of small modifications. The book provides readers with a better understanding of the state-of-art in sulfuric acid manufacture as well as, importantly, in the manufacture of value-added products based on sulfur that are also associated with the manufacture of sulfuric acid. Overall, engineers and plant managers will be introduced to technologies for making their sulfuric acid enterprises more productive, remunerative, and environmentally friendly. A Practical Guide to the Manufacture of Sulfuric[...]

Features
This critical volume provides practical insights on sulfuric acid and related plant design and on techniques to improve and enhance substantially the efficiency of an existing plant by means of small modifications. The book provides readers with a better understanding of the state-of-art in sulfuric acid manufacture as well as, importantly, in the manufacture of value-added products based on sulfur that are [...] fields of interest.

Fields of interest
Industrial Chemistry / Chemical Engineering; Industrial and Production Engineering; Quality Control, Reliability, Safety and Risk; Facility Management; Manufacturing, Machines, Tools

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-02041-9

Hardcover
2013, XIII, 146 p. 7 illus., 4 illus. in color.
$79.99
ISBN 978-3-319-02041-9
usually dispatched within 3 to 5 business days
Optical Spectroscopy and Computational Methods in Biology and Medicine

This multi-author contributed volume gives a comprehensive overview of recent progress in various vibrational spectroscopic techniques and chemometric methods and their applications in chemistry, biology, and medicine. In order to meet the needs of readers, the book focuses on recent advances in technical development and potential exploitations of the theory, as well as the new applications of vibrational methods to problems of recent general interest that were difficult or even impossible to achieve in the not so distant past. Integrating vibrational spectroscopy and computational approaches serves as a handbook for people performing vibrational spectroscopy followed by chemometric.[...]

Features
This multi-author contributed volume gives a comprehensive overview of recent progress in various vibrational spectroscopic techniques and chemometric methods and their applications in chemistry, biology, and medicine. In order to meet the needs of readers, the book focuses on recent advances in technical development and potential exploitations of the theory, as well as the new applications of vibrational methods to problems of recent general interest that were difficult or even impossible to achieve in the not so distant past. Integrating vibrational spectroscopy and computational approaches serves as a handbook for people performing vibrational spectroscopy followed by chemometric.[...]

Phase Transformation of Kaolinite Clay

The book depicts comprehensive studies on thermal decomposition of Kaolinite by different physico-chemical methods carried out by various scientists in last 100 years and results of the studies conducted by author in past 33 years. It also provides a critical analysis of different views on Kaolinite–Mullite reaction series, characterization of controversial spinel phase in Kaolinite–Mullite reaction series and explanation of DTA events of Kaolinite. The book helps both researchers and students to realise the new mechanism of transformation of Kaolinite to Mullite. The new reaction processes discussed in the book also help ceramic experts to synthesise Mullite grains in commercial way.[...]

Contents

Fields of interest
Inorganic Chemistry; Ceramics, Glass, Composites, Natural Materials; Crystallography

Direct Alcohol Fuel Cells

Materials, Performance, Durability and Applications

Direct Alcohol Fuel Cells: Materials, Performance, Durability and Applications begins with an introductory overview of direct alcohol fuel cells (DAFC); it focuses on the main goals and challenges in the areas of materials development, performance, and commercialization. The preparation and the properties of the anodic catalysts used for the oxidation of methanol, higher alcohols, and alcohol tolerant cathodes are then described. The membranes used as proton conductors in DAFC are examined, as well as alkaline membranes, focusing on the electrical conductivity and alcohol permeability. The use of different kinds of carbon materials as catalyst supports, gas diffusion layers, and[...]

Features
Direct Alcohol Fuel Cells: Materials, Performance, Durability and Applications begins with an introductory overview of direct alcohol fuel cells (DAFC); it focuses on the main goals and challenges in the areas of materials development, performance, and commercialization. The preparation and the properties of the anodic catalysts used for the oxidation of methanol, higher alcohols, and alcohol [...]
Targeted Delivery of Pesticides Using Biodegradable Polymeric Nanoparticles

The brief is the first to focus exclusively on environmentally friendly delivery of pesticides (controlled-release nanoparticulate formulation of pesticides using biodegradable polymers as carriers). The brief also introduces pesticides like Chlorpyrifos and biodegradable polymers like guar-gum. The brief will be extremely useful to the researchers in the field of agrochemicals and will be equally useful for advanced professionals in the field of biology, chemistry, environmental biology, entomology and horticulture.

Features
The brief is the first to focus exclusively on environmentally friendly delivery of pesticides (controlled-release nanoparticulate formulation of pesticides using biodegradable polymers as carriers). The brief also introduces pesticides like Chlorpyrifos and biodegradable polymers like guar-gum. The brief will be extremely useful to the researchers in the field of agrochemicals and will be equally useful for [...]
Polylefins: 50 years after Ziegler and Natta II
Polylefins by Metallocenes and Other Single-Site Catalysts

Advances in Polymer Science enjoys a longstanding tradition and good reputation in its community. Each volume is dedicated to a current topic, and each review critically surveys a topic of that theme. The volumes are typically summarized in the context of the volume. The volumes critically present selected examples, explaining and illustrating the important principles, and bringing together many important references of primary literature. On that basis, future research directions in the area can be discussed. Advances in Polymer Science volumes thus are important references for every polymer scientist. […]

Contents
From the Contents: Methylaluminoxane: key component for new polymerization catalysts. - Development of ansa-metallocenes for isotactic olefin polymerization. - Syndiotactic polypropylene: discovery, development, and industrialization via bridged metallocene catalysts. - Polylefins with cyclic comonomers.

Fields of interest
Polymer Sciences; Catalysis; Organometallic Chemistry

Target groups
Research

Type of publication
Reviews

More on www.springer.com/978-3-642-40804-5

Hardcover
2013. VIII, 366 p. 60 illus., 26 illus. in color. (Advances in Polymer Science, Vol. 258)
$349.00
ISBN 978-3-642-40804-5
usually dispatched within 3 to 5 business days

Copper Electrodeposition for Nanofabrication of Electronics Devices

This book discusses the scientific mechanism of copper electrodeposition and its wide range of applications. The book will cover everything from the basic fundamentals to practical applications. In addition, the book will also cover important topics such as: ULSI wiring material based upon copper nanowiring • Printed circuit boards • Stacked semiconductors • Through Silicon Via • Smooth copper foil for Lithium-Ion battery electrodes. This book is ideal for nanotechnologists, industry professionals, and practitioners.

Features
This book discusses the scientific mechanism of copper electrodeposition and its wide range of applications. The book will cover everything from the basic fundamentals to practical applications. In addition, the book will also cover important topics such as: ULSI wiring material based upon copper nanowiring • Printed circuit boards • Stacked semiconductors • Through Silicon Via • Smooth copper foil for Lithium-Ion battery electrodes. This book is ideal for nanotechnologists, industry professionals, and practitioners.

Contents

Fields of interest
Electrochemistry; Nanotechnology; Electronics and Microelectronics, Instrumentation; Solid State Physics

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-9175-0

Hardcover
2014. VIII, 282 p. 190 illus., 75 illus. in color. (Nanostructure Science and Technology)
$129.00
ISBN 978-1-4614-9175-0
Temporarily unavailable, ready for shipping 4-6 weeks.

Transmission Electron Microscopy Characterization of Nanomaterials

Third volume of a 40 volume series on nanoscience and nanotechnology, edited by the renowned scientist Challa S.S.R. Kumar. This handbook gives a comprehensive overview about Transmission electron microscopy characterization of nanomaterials. Modern applications and state-of-the-art techniques are covered and make this volume an essential reading for research scientists in academia and industry.

Features
Third volume of a 40 volume series on nanoscience and nanotechnology, edited by the renowned scientist Challa S.S.R. Kumar. This handbook gives a comprehensive overview about Transmission electron microscopy characterization of nanomaterials. Modern applications and state-of-the-art techniques are covered and make this volume an essential reading for research scientists in academia and industry.

Contents

Fields of interest
Chemistry (general); Materials Science (general); Nanochemistry; Nanoscale Science and Technology

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-3-642-38933-7

Hardcover
2014. IX, 716 p. 402 illus., 264 illus. in color.
$339.00
ISBN 978-3-642-38933-7
usually dispatched within 3 to 5 business days
Chemical Diagnostics

From Bench to Bedside


Features

Contents

Fields of interest
Medicinal Chemistry; Proteomics; Microbial Genetics and Genomics

Target groups
Research

Type of publication
Reviews

More on www.springer.com/978-3-642-39941-1

Hardcover
2014, VII, 200 p. 50 illus., 24 illus. in color. (Topics in Current Chemistry, Vol. 336)
$259.00
ISBN 978-3-642-39941-1 usually dispatched within 3 to 5 business days

Food Quality, Safety and Technology

The present book collects selected contributions from researchers working in the field of food science, and participating at the second spring school for “Food Quality, Safety and Technology,” which was held in Botucatu (São Paulo, Brazil), from September 24th to 27th, 2012, at the Botucatu Campus of the Universidade Estadual Paulista “Julio Mesquita Filho” (UNESP). The goal of the conference was to provide a scientific forum covering large areas of agronomy, nutrition, food science and technology, veterinary and other areas related to food technology development. Teachers, professionals, graduate and post-graduate students in Food Science; Food and Agriculture Engineering; [...] Features
The present book collects selected contributions from researchers working in the field of food science, and participating at the second spring school for “Food Quality, Safety and Technology,” which was held in Botucatu (São Paulo, Brazil), from September 24th to 27th, 2012, at the Botucatu Campus of the Universidade Estadual Paulista “Julio Mesquita Filho” (UNESP). The goal of the conference was to provide [...] Contents
Antioxidants in Brazilian plant species.- Quality and potential healthy traits in vegetables and berries.- Unit processing operations used in minimally processed horticultural products: quality and safety preservation.- Analytical aspects for tropical meat quality assessment.- Lycopene bio-availability and effects on health.- The Post-Harvest of Tropical Fruits in Brazil.- Impact of animal feeding on the nutritional value and safety of food of animal origin.- Surveillance of anabolic abuse in cattle: suitability of transcriptomic technologies as screening tools.- The dairy products; [...] Fields of interest
Food Science; Biochemistry; Nutrition

Target groups
Professional/practitioner

Type of publication
Proceedings

More on www.springer.com/978-3-7091-1639-5

Hardcover
2013, X, 195 p. 38 illus., 27 illus. in color. $259.00 ISBN 978-3-7091-1639-5 usually dispatched within 3 to 5 business days

Atmospheric and Aerosol Chemistry


Fields of interest
Physical Chemistry; Atmospheric Sciences; Geophysics and Environmental Physics

Target groups
Research

Type of publication
Reviews

More on www.springer.com/978-3-642-41214-1

Hardcover
2014, VII, 264 p. 63 illus., 26 illus. in color. (Topics in Current Chemistry, Vol. 339) $309.00 ISBN 978-3-642-41214-1 usually dispatched within 3 to 5 business days
Polyelectrolyte Complexes in the Dispersed and Solid State II

Application Aspects

Polyelectrolyte Complexes for Tailoring of Wood Fibre Surfaces. Polyelectrolyte Complexes in Floculation Applications. Spontaneous Assembly and Induced Aggregation of Food Proteins. Polyelectrolyte Complexes of DNA and Polycations as Gene Delivery Vectors. Sizing, Shaping and Pharmaceutical Applications of Polyelectrolyte Complex Nanoparticles.

Features


Contents

- Polyelectrolyte Complexes for Tailoring of Wood Fibre Surfaces
- Polyelectrolyte Complexes in Floculation Applications
- Spontaneous Assembly and Induced Aggregation of Food Proteins
- Polyelectrolyte Complexes of DNA and Polycations as Gene Delivery Vectors
- Sizing, Shaping and Pharmaceutical Applications of Polyelectrolyte Complex Nanoparticles

Fields of interest

Polymer Sciences; Electrochemistry; Biochemistry

Target groups

Research

Type of publication

Reviews

More on www.springer.com/978-3-642-40745-1

Hardcover

2014, VII, 264 p. 137 illus., 1 illus. in color. (Advances in Polymer Science, Vol. 256)

$259.00

ISBN 978-3-642-40745-1

usually dispatched within 3 to 5 business days

Polyelectrolyte Complexes in the Dispersed and Solid State I

Principles and Theory

Advances in Polymer Science enjoys a longstanding tradition and good reputation in its community. Each volume is dedicated to a current topic, and each review critically surveys one aspect of that topic, to place it within the context of the volume. The volumes typically summarize the significant developments of the last 5 to 10 years and discuss them critically, presenting selected examples, explaining and illustrating the important principles, and bringing together many important references of primary literature. On that basis, future research directions in the area can be discussed. Advances in Polymer Science volumes thus are important references for every polymer scientist.

Features


Contents

- Strong and Weak Polyelectrolyte Adsorption onto Oppositely Charged Curved Surfaces
- Aggregation of Charged Colloidal Particles
- Ion Conduction in Solid Polyelectrolyte Complex Materials
- Relaxation phenomena during polyelectrolyte complex formation
- Advanced Functional Structures Based on Interpolyelectrolyte Complexes

Fields of interest

Polymer Sciences; Electrochemistry; Biochemistry

Target groups

Research

Type of publication

Reviews

More on www.springer.com/978-3-642-40733-8

Hardcover

2014, VII, 229 p. 70 illus., 4 illus. in color. (Advances in Polymer Science, Vol. 255)

$259.00

ISBN 978-3-642-40733-8

usually dispatched within 3 to 5 business days

π-Stacked Polymers and Molecules

Theory, Synthesis, and Properties

This book covers broad aspects of the chemistry of π-stacked polymers and low-molecular-weight molecules, from synthesis through theory. It is intended for graduate students and researchers in academia and industry and consists of chapters written by renowned scientists who have made significant contributions to this field in the past decade. π-Stacked polymers and low-molecular-weight molecules are expected to replace main-chain conjugated polymers such as polyacetylenes and polythiophenes as organic conducting and energy-transferring substances that are important as materials for photonic, electronic applications. π-Stacked polymers and molecules have significant advantages over[...]

Features

This book covers broad aspects of the chemistry of π-stacked polymers and low-molecular-weight molecules, from synthesis through theory. It is intended for graduate students and researchers in academia and industry and consists of chapters written by renowned scientists who have made significant contributions to this field in the past decade. π-Stacked polymers and low-molecular-weight molecules are[...]

Contents


Fields of interest

Polymer Sciences; Optical and Electronic Materials; Electrochemistry; Energy Efficiency (incl. Buildings)

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-4-431-54128-8

Hardcover

2014, XII, 270 p. 269 illus., 43 illus. in color.

$129.00

ISBN 978-4-431-54128-8

usually dispatched within 3 to 5 business days
The Thermodynamics of Linear Fluids and Fluid Mixtures

In this book, Samohýl and Pekař offer a consistent and general non-equilibrium thermodynamic description for a model of chemically reacting mixtures. This type of model is frequently encountered in practice and up until now, chemically reacting systems (out of equilibrium) have rarely been described in books on non-equilibrium thermodynamics. Readers of this book benefit from the systematic development of the theory; this starts with general principles, going through the applications to single component fluid systems, and finishing with the theory of mixtures, including chemical reactions. The authors describe the simplest mixture model – the linear fluid – and highlight many [...] 

Contents

Fields of interest
Physical Chemistry; Thermodynamics; Surfaces and Interfaces, Thin Films; Industrial Chemistry / Chemical Engineering

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02513-1

Hardcover
2014. X. 308 p. 3 illus. $129.00 ISBN 978-3-319-02513-1 usually dispatched within 3 to 5 business days

Animal Cell Biotechnology

Methods and Protocols
Animal Cell Biotechnology: Methods and Protocols, Third Edition constitutes a comprehensive manual of state-of-the-art and new techniques for setting up mammalian cell lines for production of biopharmaceuticals, and for optimizing critical parameters for cell culture from lab to final production. The volume is divided into five parts that reflect the processes required for different stages of production. In Part I, basic techniques for establishment of production cell lines are addressed, especially high-throughput synchronization, insect cell lines, transient gene and protein expression, DNA Profiling and Characterisation. Part II addresses tools for process and medium optimization[...]

Features
Animal Cell Biotechnology: Methods and Protocols, Third Edition constitutes a comprehensive manual of state-of-the-art and new techniques for setting up mammalian cell lines for production of biopharmaceuticals, and for optimizing critical parameters for cell culture from lab to final production. The volume is divided into five parts that reflect the processes required for different stages of production. In Part I basic techniques for establishment of production cell lines are addressed, especially high-throughput synchronization, insect cell lines, transient gene and protein expression, DNA Profiling and Characterisation. Part II addresses tools for process and medium optimization[...]

Contents

Fields of interest
Biotechnology; Cell Culture

Target groups
Biotechnology

Type of publication
Monograph

More on www.springer.com/978-1-62703-732-7

Hardcover
2014. XIV. 498 p. 83 illus., 28 illus. in color. (Methods in Molecular Biology, Vol. 1104) $139.00 ISBN 978-1-62703-732-7 usually dispatched within 3 to 5 business days

Rheology of Fluid, Semisolid, and Solid Foods

Principles and Applications

This revised third edition of Rheology of Fluid, Semisolid, and Solid Foods includes the following important additions: A section on microstructure - Discussion of the quantitative characterization of nanometer-scale milk protein fibrils in terms of persistence and contour length. A phase diagram of a colloidal glass of hard spheres and its relationship to milk protein dispersions - Microrheology, including detailed descriptions of single particle and multi-particle microrheological measurements - Diffusive Wave Spectroscopy - Correlation of Bostwick consistometer data with property-based dimensionless groups A section on the[...]

Features
This revised third edition includes the following important additions: A section on microstructure - Discussion of the quantitative characterization of nanometer-scale milk protein fibrils in terms of persistence and contour length. A phase diagram of a colloidal glass of hard spheres and its relationship to milk protein dispersions - Microrheology, including detailed descriptions of single particle and multi-particle microrheological measurements - Diffusive Wave Spectroscopy - Correlation of Bostwick consistometer data with property-based dimensionless groups A section on the[...]

Contents

Fields of interest
Food Science; Biotechnology; Theoretical and Applied Mechanics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-9229-0

Hardcover
2014. XIII. 461 p. 202 illus., 1 illus. in color. (Food Engineering Series) $179.00 ISBN 978-1-4614-9229-0 usually dispatched within 3 to 5 business days
Cryptosporidium as a Foodborne Pathogen

Although widely recognized as an important waterborne pathogen, Cryptosporidium spp. can also be transmitted by contamination of food. The same properties of this protozoan parasite that mean that water is an excellent transmission vehicle are also important for foodborne transmission. These include the low infective dose, the high number of oocysts that are excreted, and the robustness of these transmission stages. However, many more outbreaks of waterborne cryptosporidiosis have been reported than foodborne outbreaks. This is probably partly due to epidemiological tracing being much more difficult for foodborne outbreaks than waterborne outbreaks, and the number of persons exposed.[…]

Features
Although widely recognized as an important waterborne pathogen, Cryptosporidium spp. can also be transmitted by contamination of food. The same properties of this protozoan parasite that mean that water is an excellent transmission vehicle are also important for foodborne transmission. These include the low infective dose, the high number of oocysts that are excreted, and the robustness of these transmission stages.[…]

Contents
Introduction to Cryptosporidium – the parasite and the disease. - Transmission routes and factors that lend themselves to foodborne transmission. - Documented foodborne outbreaks of cryptosporidiosis. - Approaches to detecting Cryptosporidium oocysts in different food matrices. - Occurrence of Cryptosporidium oocysts in different food matrices: results of surveys. - Inactivation or decontamination procedures. - Risk assessment and regulations. - Future challenges. - Conclusions. - References.

Fields of interest
Food Science, Parasitology

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-9377-8

Softcover
2014. VI, 90 p. (SpringerBriefs in Food, Health, and Nutrition)
$54.99
ISBN 978-1-4614-9377-8
usually dispatched within 3 to 5 business days

The Chemistry of Superheavy Elements

The second edition of ‘The Chemistry of the Superheavy Elements’ provides a complete coverage of the chemistry of a series of elements beginning with atomic number 104 – the transactinides or superheavy elements – including their nuclear properties and production in nuclear reactions at heavy-ion accelerators. The contributors to this work include many renowned scientists who, during the last decades, have made vast contributions towards understanding the physics and chemistry of these elusive elements, both experimentally and theoretically. The main emphasis here is on demonstrating the fascinating studies involved in probing the architecture of the Periodic Table at its uppermost.[…]

Features
The second edition of ‘The Chemistry of the Superheavy Elements’ provides a complete coverage of the chemistry of a series of elements beginning with atomic number 104 – the transactinides or superheavy elements – including their nuclear properties and production in nuclear reactions at heavy-ion accelerators. The contributors to this work include many renowned scientists who, during the last decades, have […]

Contents

Fields of interest
Nuclear Chemistry; Nuclear Physics, Heavy Ions, Hadrons; Physical Chemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-37465-4

Hardcover
2014, XIII, 521 p., 217 illus., 84 illus. in color.
$229.00
ISBN 978-3-642-37465-4
usually dispatched within 3 to 5 business days

Chemical and Bioprocess Engineering

Fundamental Concepts for First-Year Students

The goal of this textbook is to provide first-year engineering students with a firm grounding in the fundamentals of chemical and bioprocess engineering. However, instead of being a general overview of the two topics, Fundamentals of Chemical and Bioprocess Engineering will identify and focus on specific areas in which attaining a solid competency is desired. This strategy is the direct result of studies showing that broad-based courses at the freshman level often leave students grappling with a lot of material, which results in a low rate of retention. Specifically, strong emphasis will be placed on the topic of material balances, with the intent that students exiting a course based[…]

Features
This is a unique introductory textbook that covers all aspects of both chemical and bioprocess engineering and provides a thorough grounding in the fundamentals so that the background may be used in future work. Included are more than 400 proposed and solved exercises, each classified by its level of difficulty. Each chapter contains references and selected web pages to vividly illustrate examples. To aid […]

Contents

Fields of interest
Biochemical Engineering; Chemistry (general); Engineering (general)

Target groups
Lower undergraduate

Type of publication
Undergraduate textbook


Hardcover
2013, XX, 352 p., 208 illus., 84 illus. in color.
$79.99
usually dispatched within 3 to 5 business days
Essentials of Food Science

The fourth edition of this classic text continues to use a multidisciplinary approach to expose the non-major food science student to the physical and chemical composition of foods. Additionally, food preparation and processing, food safety, food chemistry, and food technology applications are discussed in this single source of information. The book begins with an Introduction to Food Components, Quality and Water. Next, it addresses Carbohydrates in Food, Starches, Pectins and Gums, Grains, Cereals, Flour, Rice, and Pasta, and Vegetables and Fruits follow. Proteins in Food, Meat, Poultry, Fish, and Dry Beans; Eggs and Egg Products, Milk and Milk Products as well as Fats and Oils [...]

Contents


Fields of interest

Food Science 

Target groups

Lower undergraduate 

Type of publication

Monograph

More on www.springer.com/978-1-4614-9137-8

Softcover

2014. XXIV, 495 p. 136 illus., 42 illus. in color. (Food Science Text Series) $79.99 ISBN 978-1-4614-9137-8 usually dispatched within 3 to 5 business days

Yellow Biotechnology I

Insect Biotechnology in Drug Discovery and Preclinical Research

Utility of Insects for Studying Human Pathogens and Evaluating New Antimicrobial Agents, by Yan Wang, De-Dong Li, Yuan-Ying Jiang and Eleftherios Mylonakis. Galleria Mellonella as a Model Host to Study Gut Microbe Homeostasis and Brain Infection by the Human Pathogen Listeria Monocytogenes, by Krishnendu Mukherjee, Ramya Raju, Rainer Fischer and Andreas Vilcinskas. Drosophila as a Model to Study Metabolic Disorders, by Julia Hoffmann, Renja Romy, Christine Fink and Thomas Roeder. The Fruit Fly Drosophila melanogaster as a Model for Aging Research, by Annely Brandt and Andreas Vilcinskas. Drosophila and the Hallmarks of Cancer, by Theodoulakis Christofi and Yiorgos Apidianakis. The [...] 

Features

Yan Wang, De-Dong Li, Yuan-Ying Jiang and Eleftherios MylonakisUtility of Insects for Studying Human Pathogens and Evaluating New Antimicrobial AgentsKrishnendu Mukherjee, Ramya Raju, Rainer Fischer and Andreas VilcinskasGalleria Mellonella as a Model Host to Study Gut Microbe Homeostasis and Brain Infection by the Human Pathogen Listeria MonocytogenesDisordersJulia Hoffmann, Renja [...] 

Contents

Utility of Insects for Studying Human Pathogens and Evaluating New Antimicrobial AgentsKrischnendu Mukherjee, Ramya Raju, Rainer Fischer and Andreas Vilcinskas Galleria Mellonella as a Model Host to Study Gut Microbe Homeostasis and Brain Infection by the Human Pathogen Listeria Monocytogenes Drosophila as a Model to Study Metabolic Disorders - The Fruit Fly Drosophila melanogaster as a Model for Aging Research Drosophila and the Hallmarks of Cancer The red flour beetle Tribolium castaneum as a model to Study Metabolic Disorders, by Julia Hoffmann, Renja Romy, Christine Fink and Thomas Roeder. The Fruit Fly Drosophila melanogaster as a Model for Aging Research, by Annely Brandt and Andreas Vilcinskas. Drosophila and the Hallmarks of Cancer, by Theodoulakis Christofi and Yiorgos Apidianakis. The [...] 

Fields of interest

Biotechnology; Applied Ecology; Biomedical Engineering 

Target groups

Research 

Type of publication

Monograph 

More on www.springer.com/978-3-642-42007-8

Softcover

2014. VIII, 154 p. 3 illus., 3 illus. in color. (Advances in Biotechnology/ Biotechnology, Vol. 135) $259.00 ISBN 978-3-642-39862-9 usually dispatched within 3 to 5 business days

Applications of Monolithic Column and Isotope Dimethylation Labeling in Shotgun Proteome Analysis

In this thesis, the author outlines the development of new monolithic columns and isotope dimethyl labeling strategies and their applications in high-performance proteome analyses. Though different types of monolithic columns have been widely developed for chromatography and electrophoresis separation, their application in proteomics for complex peptide mixtures separation is still a challenge. The author discusses the preparation of new monolithic columns and optimization of chromatography separation capability to improve coverage and accuracy of proteome analysis. Further, the author describes a novel online multidimensional chromatography system combined with automated online [...]

Features

In this thesis, the author outlines the development of new monolithic columns and isotope dimethyl labeling strategies and their applications in high-performance proteome analyses. Though different types of monolithic columns have been widely developed for chromatography and electrophoresis separation, their application in proteomics for complex peptide mixtures separation is still a challenge. The author [...] 

Contents

Introduction - Online sample injection and multidimensional chromatography separation by using strong cation exchange monolithic column - Development of polymer-based hydrophobic monolithic columns and their applications in proteome analysis - Large-scale proteome and phosphoproteome quantification by using dimethylation isotope labeling

Fields of interest

Chromatography; Proteomics; Mass Spectrometry 

Target groups

Research 

Type of publication

Monograph 

More on www.springer.com/978-3-642-42007-8

Softcover

2014. XIII, 94 p. 42 illus., 23 illus. in color. (Springer Theses) $129.00 ISBN 978-3-642-42007-8 usually dispatched within 3 to 5 business days
**Fundamentals and Application of New Bioproduction Systems**


**Features**


**Contents**


**Fields of interest**

Biotechnology; Industrial and Production Engineering; Enzymology

**Target groups**

Research

**Type of publication**

Reviews

More on www.springer.com/978-3-642-41520-3

**Hardcover**


$259.00

ISBN 978-3-642-41520-3

usually dispatched within 3 to 5 business days

---

**A New-Generation Density Functional**

Towards Chemical Accuracy for Chemistry of Main Group Elements

A New-Generation Density Functional: Towards Chemical Accuracy for Chemistry of Main Group Elements covers the most recent progress in the development of a new generation of density functional theory (DFT) for accurate descriptions of thermochemistry, thermochemical kinetics, and nonbonded interactions of main group molecules. In this book, the authors present the doubly hybrid density functionals (DHDFs), which dramatically improve the accuracy for predictions of critical properties by including the role of the virtual (unoccupied) orbitals. The authors not only discuss the theoretical bases of three classes of DHDFs but also demonstrate their performance using some well-established[...]

**Features**

A New-Generation Density Functional: Towards Chemical Accuracy for Chemistry of Main Group Elements covers the most recent progress in the development of a new generation of density functional theory (DFT) for accurate descriptions of thermochemistry, thermochemical kinetics, and nonbonded interactions of main group molecules. In this book, the authors present the doubly hybrid density functionals[...]

**Contents**

An overview of modern density functional theory (DFT). A new generation of doubly hybrid density functionals (DHDFs). Benchmarking the performance of DHDFs for the main group chemistry. XYG3 results for some selected applications. Conclusion remarks.

**Fields of interest**

Theoretical and Computational Chemistry; Quantum Physics; Computer Applications in Life Sciences; Computer Applications in Chemistry

**Target groups**

Research

**Type of publication**

Brief

More on www.springer.com/978-3-642-40420-7

**Softcover**

2014. IX, 110 p. 31 illus., 15 illus. in color. (SpringerBriefs in Molecular Science)

$54.99

ISBN 978-3-642-40420-7

usually dispatched within 3 to 5 business days

---

**Growth Mechanisms and Novel Properties of Silicon Nanostructures from Quantum-Mechanical Calculations**

In this volume, Prof. Zhang reviews the systematic theoretical studies in his group on the growth mechanisms and properties of silicon quantum dots, nanotubes and nanowires, including: mechanisms of oxide-assisted growth of silicon nanowires, energetic stability of pristine silicon nanowires and nanotubes, thermal stability of hydrogen terminated silicon nanostructures, size-dependent oxidation of hydrogen terminated silicon nanostructures, excited-state relaxation of hydrogen terminated silicon nanostructures, and direct-indirect energy band transitions of silicon nanowires and sheets by surface engineering and straining. He also discusses the potential applications of these findings. This[...]

**Features**

In this volume, Prof. Zhang reviews the systematic theoretical studies in his group on the growth mechanisms and properties of silicon quantum dots, nanotubes and nanowires, including: mechanisms of oxide-assisted growth of silicon nanowires, energetic stability of pristine silicon nanowires and nanotubes, thermal stability of hydrogen terminated silicon nanostructures, size-dependent oxidation of hydrogen terminated silicon nanostructures, and direct-indirect energy band transitions of silicon nanowires and sheets by surface engineering and straining. He also discusses the potential applications of these findings. This[...]

**Contents**


**Fields of interest**

Theoretical and Computational Chemistry; Nanotechnology; Nanoscience and Technology; Characterization and Evaluation of Materials

**Target groups**

Research

**Type of publication**

Brief

More on www.springer.com/978-3-642-40904-2

**Softcover**

2014. VIII, 66 p. 31 illus., 15 illus. in color. (SpringerBriefs in Molecular Science)

$54.99

ISBN 978-3-642-40904-2

usually dispatched within 3 to 5 business days
Proceedings of the 2012
International Conference on
Applied Biotechnology (ICAB 2012)

Volume 1

The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Features
The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Contents

Fields of interest
Biotechnology; Biological Techniques; Environmental Engineering / Biotechnology; Biomaterials; Pharmaceutical Sciences / Technology; Industrial Chemistry / Chemical Engineering

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-37915-4

Hardcover
2014, XVII, 645 p. 259 illus. (Lecture Notes in Electrical Engineering, Vol. 249)
$279.00
ISBN 978-3-642-37915-4
usually dispatched within 3 to 5 business days

Proceedings of the 2012
International Conference on
Applied Biotechnology (ICAB 2012)

Volume 2

The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Features
The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Contents

Fields of interest
Biotechnology; Biological Techniques; Environmental Engineering / Biotechnology; Biomaterials; Pharmaceutical Sciences / Technology; Industrial Chemistry / Chemical Engineering

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-37921-5

Hardcover
2014, XVII, 1276 p. 222 illus. (Lecture Notes in Electrical Engineering, Vol. 250)
$279.00
ISBN 978-3-642-37921-5
usually dispatched within 3 to 5 business days

Proceedings of the 2012
International Conference on
Applied Biotechnology (ICAB 2012)

Volume 3

The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Features
The 2012 International Conference on Applied Biotechnology (ICAB 2012) was held in Tianjin, China on October 18-19, 2012. It provides not only a platform for domestic and foreign researchers to exchange their ideas and experiences with the application-oriented research of biotechnology, but also an opportunity to promote the development and prosperity of the biotechnology industry. The proceedings of ICAB 2012 mainly focus on the world’s latest scientific research and techniques in applied biotechnology, including Industrial Microbial Technology, Food Biotechnology, Pharmaceutical Biotechnology, Environmental Biotechnology, Marine Biotechnology, Agricultural Biotechnology, Biological [...]

Contents

Fields of interest
Biotechnology; Biological Techniques; Environmental Engineering / Biotechnology; Biomaterials; Pharmaceutical Sciences / Technology; Industrial Chemistry / Chemical Engineering

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-37924-6

Hardcover
2014, XVII, 604 p. 231 illus. (Lecture Notes in Electrical Engineering, Vol. 251)
$349.00
ISBN 978-3-642-37924-6
usually dispatched within 3 to 5 business days
Computer Science

Quantum Dots for DNA Biosensing

E. Agmon

The Languages of Western Tonality

Tonal music, from a historical perspective, is far from homogenous; yet an enduring feature is a background “diatonic” system of exactly seven notes orderable cyclically by fifth. What is the source of the durability of the diatonic system, the octave of which is representable in terms of two particular integers, namely 12 and 7? And how is this durability consistent with the equally remarkable variety of musical styles — or languages — that the history of Western tonal music has taught us exist? This book is an attempt to answer these questions. Using mathematical tools to describe and explain the Western musical system as a highly sophisticated communication system, this [...]?

Contents

Fields of interest
Biochemical Engineering; Nanotechnology; Nanoscale Science and Technology; Spectroscopy / Spectrometry

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-642-44909-3

Softcover
2013. VIII, 91 p. 41 illus., 22 illus. in color. (SpringerBriefs in Molecular Science) $54.99
ISBN 978-3-642-44909-3
usually dispatched within 3 to 5 business days

Oracle Database 12c Performance Tuning Recipes

E. Agmon

A Problem-Solution Approach

Performance problems are rarely “problems” per se. They are more often “crises” during which you’re pressured for results by a manager standing outside your cubicle while your phone rings with queries from the help desk. You won’t have the time for a leisurely perusal of the manuals, nor to lean back and read a book on theory. What you need in that situation is a book of solutions, and solutions are precisely what Oracle Database 12c Performance Tuning Recipes delivers. Oracle Database 12c Performance Tuning Recipes is a ready reference for database administrators in need of immediate help with performance issues relating to Oracle Database. The book takes an example-based[...]?

Features
Performance problems are rarely “problems” per se. They are more often “crises” during which you’re pressured for results by a manager standing outside your cubicle while your phone rings with queries from the help desk. You won’t have the time for a leisurely perusal of the manuals, nor to lean back and read a book on theory. What you need in that situation is a book of solutions, and solutions are [...]?

Contents
Chap. 1 Prototonal Theory: Tapping into Ninth-Century Insights.- Part I Prototonicity.- Chap. 2 Preliminaries.- Chap. 3 Communicating Pitches and Transmitting Notes.- Chap. 4 The Conventional Nomenclatures for Notes and Intervals.- Chap. 5 Communicating the Primary Intervals.- Chap. 6 Receiving Notes.- Chap. 7 Harmonic Systems.- Chap. 8 Prototonicity.- Part II The Languages of Western Tonality.- Chap. 9 Tonal Preliminaries.- Chap. 10 Modal Communication.- Chap. 11 Topics in Dyadic and Triadic Theory.- Chap. 12 Modes, Semikeys, and Keys: A Reality Check.- Chap. 13 A[...]?

Fields of interest
Database Management

Target groups
Popular/general

Type of publication
Professional book


Softcover
2013. 636 p. $59.99
usually dispatched within 3 to 5 business days
Wireless Multimodal Sensor Networks on Reconfigurable Hardware

Information Reduction Techniques

Traditional wireless sensor networks (WSNs) capture scalar data such as temperature, vibration, pressure, or humidity. Motivated by the success of WSNs and also with the emergence of new technology in the form of low-cost image sensors, researchers have proposed combining image and audio sensors with WSNs to form wireless multimedia sensor networks (WMSNs). This introduces practical and research challenges, because multimedia sensors, particularly image sensors, generate huge amounts of data to be processed and distributed within the network, while sensor nodes have restricted battery power and hardware resources. This book describes how reconfigurable hardware technologies such as... [...

Features

Traditional wireless sensor networks (WSNs) capture scalar data such as temperature, vibration, pressure, or humidity. Motivated by the success of WSNs and also with the emergence of new technology in the form of low-cost image sensors, researchers have proposed combining image and audio sensors with WSNs to form wireless multimedia sensor networks (WMSNs). This introduces practical and research challenges, [...[...]

Contents


Fields of interest

Image Processing and Computer Vision; Electrical Engineering; Computer Systems Organization and Communication Networks; Multimedia Information Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38202-4

Hardcover

2013. XXI, 283 p. 73 illus. $109.00
ISBN 978-3-642-38202-4
usually dispatched within 3 to 5 business days

Ambient Media and Systems

Third International ICST Conference, AMBI-SYS 2013, Athens, Greece, March 15, 2013, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the Third International ICST Conference on Ambient Media and Systems, AMBI-SYS 2013, held in Athens, Greece, in March 2013. The 12 revised full papers presented were carefully reviewed and selected from various submissions. The papers focus on emerging technologies, services and solutions for new, human-centric intelligent ambient environments.

Features

This book constitutes the thoroughly refereed post-conference proceedings of the Third International ICST Conference on Ambient Media and Systems, AMBI-SYS 2013, held in Athens, Greece, in March 2013. The 12 revised full papers presented were carefully reviewed and selected from various submissions. The papers focus on emerging technologies, services and solutions for new, human-centric intelligent ambient [...[...]

Contents

Health Informatics; Computers and Society; Computer Systems Organization and Communication Networks; Information Systems Applications (incl.Internet)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-04101-8

Softcover

2013. X, 131 p. 65 illus. (Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, Vol. 118) $72.00
ISBN 978-3-319-04101-8
usually dispatched within 3 to 5 business days
Intelligent Multimedia Surveillance

Current Trends and Research

Intelligent multimedia surveillance concerns the analysis of multiple sensing inputs including video and audio streams, radio-frequency identification (RFID), and depth data. These data are processed for the automated detection and tracking of people, vehicles, and other objects. The goal is to locate moving targets, to understand their behavior, and to detect suspicious or abnormal activities for crime prevention. Despite its benefits, there is societal apprehension regarding the use of such technology, so an important challenge in this research area is to balance public safety and privacy. This edited book presents recent findings in the field of intelligent multimedia surveillance.[...]

Features

Intelligent multimedia surveillance concerns the analysis of multiple sensing inputs including video and audio streams, radio-frequency identification (RFID), and depth data. These data are processed for the automated detection and tracking of people, vehicles, and other objects. The goal is to locate moving targets, to understand their behavior, and to detect suspicious or abnormal activities for crime.[...]

Contents


Fields of interest

Artificial Intelligence (incl. Robotics); Multimedia Information Systems; Image Processing and Computer Vision; Signal, Image and Speech Processing

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-41511-1

Hardcover

2013. IX, 192 p. 76 illus., 57 illus. in color. $109.00
ISBN 978-3-642-41511-1
usually dispatched within 3 to 5 business days

Ubiquitous Social Media Analysis


This book constitutes the thoroughly refereed joint post-proceedings of the Third International Workshop on Mining Ubiquitous and Social Environments, MUSE 2012, held in Bristol, UK, in September 2012, and the Third International Workshop on Modeling Social Media, MSM 2012, held in Milwaukee, WI, USA, in June 2012. The 8 full papers included in the book are revised and significantly extended versions of papers submitted to the workshops. They cover a wide range of topics organized in three main themes: communities and group structure in ubiquitous social media; ubiquitous modeling and aspects of social interactions and influence. [...]

Features

This book constitutes the thoroughly refereed joint post-proceedings of the Third International Workshop on Mining Ubiquitous and Social Environments, MUSE 2012, held in Bristol, UK, in September 2012, and the Third International Workshop on Modeling Social Media, MSM 2012, held in Milwaukee, WI, USA, in June 2012. The 8 full papers included in the book are revised and significantly extended versions of papers [...]

Contents

How to Cover the World: Learning and Collaboration for Structure Recommendation. - A Topological Approach for Detecting Twitter Communities with Common Interests. - Using Geographic Cost Functions to Discover Vessel Itineraries from AIS Messages. - Social Media as a Source of Sensing to Study City Dynamics and Urban Social Behavior: Approaches, Models and Opportunities. - An Analysis of Interactions within and between Extreme Right Communities in Social Media. - Who will Interact with Whom? A Case-Study in Second Life Using Online Social Network and Location-Based Social Network Features. [...]

Fields of interest

Ubiquitous Modeling and Social Aspects of Ubiquitous Computing; Social Networks and Social Media Analysis; Ubiquitous Social Media; Ubiquitous Social Networks; Ubiquitous Social Interaction Analysis; Ubiquitous Social Interaction Extraction

Target groups

Database Management

Type of publication

Professional book

More on www.springer.com/978-1-4302-4428-8

Softcover

2013. 488 p. $54.99
ISBN 978-1-4302-4428-8
usually dispatched within 3 to 5 business days

Expert Consolidation in Oracle Database 12c

Expert Consolidation in Oracle Database 12c is your key to reducing data management costs and increasing data center efficiency. Consolidation and cloud computing are converging trends sweeping the industry. The same technologies enabling cloud computing enable consolidation as well, leading to savings on all fronts from the amount of power used for servers to the amount of floor space consumed to the number of administrators needed to manage an installation. Yet the consolidation process can be a long and winding road. Success requires planning, and consideration to the impacts on supporting infrastructure. Expert Consolidation in Oracle Database 12c guides you through planning and [...]

Features

Expert Consolidation in Oracle Database 12c is your key to reducing data management costs and increasing data center efficiency. Consolidation and cloud computing are converging trends sweeping the industry. The same technologies enabling cloud computing enable consolidation as well, leading to savings on all fronts from the amount of power used for servers to the amount of floor space consumed to the [...]
Computational and Robotic Models of the Hierarchical Organization of Behavior

Current robots and other artificial systems are typically able to accomplish only one single task. Overcoming this limitation requires the development of control architectures and learning algorithms that can support the acquisition and deployment of several different skills, which in turn seems to require a modular and hierarchical organization. In this way, different modules can acquire different skills without catastrophic interference, and higher-level components of the system can solve complex tasks by exploiting the skills encapsulated in the lower-level modules. While machine learning and robotics recognize the fundamental importance of the hierarchical organization of behavior."

Features

Current robots and other artificial systems are typically able to accomplish only one single task. Overcoming this limitation requires the development of control architectures and learning algorithms that can support the acquisition and deployment of several different skills, which in turn seems to require a modular and hierarchical organization. In this way, different modules can acquire different skills."

Contents


Fields of interest

Artificial Intelligence (incl. Robotics); Control; Robotics, Mechatronics; Computational Intelligence; Neurosciences; Psychology Research

Type of publication

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-45209-3

Softcover

2013. 372 p. 3 illus. (Programming and Software Engineering, Vol. 8338)

$72.00

ISBN 978-3-642-45209-3

Due: December 12, 2013

C. Bell

Beginning Sensor Networks with Arduino and Raspberry Pi

Beginning Sensor Networks with Arduino and Raspberry Pi teaches you how to build sensor networks with Arduino, Raspberry Pi, and XBee radio modules, and even shows you how to turn your Raspberry Pi into a MySQL database server to store your sensor data. First you’ll learn about the different types of sensors and sensor networks, including how to build a simple XBee network. Then you’ll walk through building an Arduino-based temperature sensor and data collector, followed by building a Raspberry Pi-based sensor node. Next you’ll learn different ways to store sensor data, including writing to an SD card, sending data to the cloud, and setting up a Raspberry Pi MySQL server to host your..."

Features

Beginning Sensor Networks with Arduino and Raspberry Pi teaches you how to build sensor networks with Arduino, Raspberry Pi, and XBee radio modules, and even shows you how to turn your Raspberry Pi into a MySQL database server to store your sensor data. First you’ll learn about the different types of sensors and sensor networks, including how to build a simple XBee network. Then you’ll walk through..."

Fields of interest

Computer Science (general)

Type of publication

Popular/general

Type of publication

Professional book

More on www.springer.com/978-1-4302-5824-7

Softcover


$39.99

ISBN 978-1-4302-5824-7

usually dispatched within 3 to 5 business days

J. Barnes, John Barnes Informatics, Reading, United Kingdom

Ada 2012 Rationale

The Language – The Standard Libraries

Ada 2012 is the latest version of the international standard for the programming language Ada. It is designated ISO/IEC 8652:2012 (E) and is a new edition replacing the 2005 version. The primary goals for the new version were to further enhance its capabilities particularly in those areas where its reliability and predictability are of great value. Many important new features have been included such as those defining dynamic contracts and for handling multiprocessors and are integrated within the existing language framework in an elegant and coherent manner. The Ada 2012 Rationale describes not only the changes from Ada 2005 but also the reason for the changes. It starts with..."
Practical OpenCV

Practical OpenCV is a hands-on project book that shows you how to get the best results from OpenCV, the open-source computer vision library. Computer vision is key to technologies like object recognition, shape detection, and depth estimation. OpenCV is an open-source library with over 2500 algorithms that you can use to do all of these, as well as track moving objects, extract 3D models, and overlay augmented reality. It’s used by major companies like Google (in its autonomous car), Intel, and Sony, and it is the backbone of the Robot Operating System’s computer vision capability. In short, if you’re working with computer vision at all, you need to know OpenCV. With Practical OpenCV,[…]

Features

Practical OpenCV is a hands-on project book that shows you how to get the best results from OpenCV, the open-source computer vision library. Computer vision is key to technologies like object recognition, shape detection, and depth estimation. OpenCV is an open-source library with over 2500 algorithms that you can use to do all of these, as well as track moving objects, extract 3D […]

Fields of interest

Artificial Intelligence (incl. Robotics)

Target groups

Popular/general

Type of publication

Professional book

More on www.springer.com/978-1-4302-6079-0

Softcover

2013, 244 p.

$59.99

ISBN 978-1-4302-6079-0

usually dispatched within 3 to 5 business days

Introduction to Public Key Infrastructures

The introduction of public key cryptography (PKC) was a critical advance in IT security. In contrast to symmetric key cryptography, it enables confidential communication between entities in open networks, in particular the Internet, without prior contact. Beyond this PKC also enables protection techniques that have no analogue in traditional cryptography, most importantly digital signatures which for example support Internet security by authenticating software downloads and updates. Although PKC does not require the confidential exchange of secret keys, proper management of the private and public keys used in PKC is still of vital importance: the private keys must remain private, and […]

Features

The introduction of public key cryptography (PKC) was a critical advance in IT security. In contrast to symmetric key cryptography, it enables confidential communication between entities in open networks, in particular the Internet, without prior contact. Beyond this PKC also enables protection techniques that have no analogue in traditional cryptography, most importantly digital signatures which for […]

Contents


Fields of interest

Data Structures, Cryptology and Information Theory; Systems and Data Security; e-commerce / e-business; Security Science and Technology

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-40656-0

Hardcover

2013, XV, 194 p. 146 illus.

$69.99

ISBN 978-3-642-40656-0

usually dispatched within 3 to 5 business days

Critical Infrastructure Protection VII

7th IFIP WG 11.10 International Conference, ICCIP 2013, Washington, DC, USA, March 18-20, 2013, Revised Selected Papers

The information infrastructure - comprising computers, embedded devices, networks and software systems - is vital to day-to-day operations in every sector: information and telecommunications, banking and finance, energy, chemicals and hazardous materials, agriculture, food, water, public health, emergency services, transportation, postal and shipping, government and defense. Global business and industry, governments, indeed society itself, cannot function effectively if major components of the critical information infrastructure are degraded, disabled or destroyed. Critical Infrastructure Protection VII describes original research results and innovative applications in the […]

Features

The information infrastructure - comprising computers, embedded devices, networks and software systems - is vital to day-to-day operations in every sector: information and telecommunications, banking and finance, energy, chemicals and hazardous materials, agriculture, food, water, public health, emergency services, transportation, postal and shipping, government and defense. Global business and industry, […]

Contents


Fields of interest

Systems and Data Security; Management of Computing and Information Systems; Legal Aspects of Computing; Computers and Society

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-45329-8

Hardcover

2013, XVI, 227 p. 68 illus. (IFIP Advances in Information and Communication Technology, Vol. 417)

$109.00

ISBN 978-3-642-45329-8

usually dispatched within 3 to 5 business days
R. Böhme (Ed.)

The Economics of Information Security and Privacy

In the late 1990s, researchers began to grasp that the roots of many information security failures can be better explained with the language of economics than by pointing to instances of technical flaws. This led to a thriving new interdisciplinary research field combining economic and engineering insights, measurement approaches and methodologies to ask fundamental questions concerning the viability of a free and open information society. While economics and information security comprise the nucleus of an academic movement that quickly drew the attention of thinktanks, industry, and governments, the field has expanded to surrounding areas such as management of information security,...

Features
In the late 1990s, researchers began to grasp that the roots of many information security failures can be better explained with the language of economics than by pointing to instances of technical flaws. This led to a thriving new interdisciplinary research field combining economic and engineering insights, measurement approaches and methodologies to ask fundamental questions concerning the viability of a [...]\\

Contents

Fields of interest
Data Structures, Cryptology and Information Theory; Economics; Systems and Data Security

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-39497-3

Hardcover
2013. XIII, 321 p. 57 illus.
$129.00
ISBN 978-3-642-39497-3
usually dispatched within 3 to 5 business days

C. Canal, M. Villari, University of Messina, Messina, Italy (Eds.)

Advances in Service-Oriented and Cloud Computing

Workshops of ESOCC 2013, Málaga, Spain, September 11-13, 2013, Revised Selected Papers

This book contains the proceedings of the five high-quality workshops organized at the Second European Conference on Service-Oriented and Cloud Computing, ESOCC 2013, held in Malaga, Spain, in September 2013. The workshops are: Cloud for IoT (CLOUD 2013), CLOUD Storage Optimization (CLOSO 2013), 12th International Workshop on Foundations of Coordination Languages and Self-Adaptive Systems (FOCLASA 2013), First Workshop on Mobile Cloud and Social Perspectives (MoCSoP 2013), and the 3rd International Workshop on Adaptive Services for the Future Internet (WA4SFT 2013). The 29 papers presented were carefully reviewed and selected from 51 submissions. They focus on specific topics in [...]\\

Features
This book contains the proceedings of the five high-quality workshops organized at the Second European Conference on Service-Oriented and Cloud Computing, ESOCC 2013, held in Malaga, Spain, in September 2013. The workshops are: Cloud for IoT (CLOUD 2013), CLOUD Storage Optimization (CLOSO 2013), 12th International Workshop on Foundations of Coordination Languages and Self-Adaptive Systems (FOCLASA 2013), [...]\\

Contents
Cloud environments - Smart connectivity - Context-aware computation - Cloud for IoT - Storage clouds - Coordination languages - Formal approaches to modeling and reasoning - Self-systems - Services for mobile devices - Wireless sensor networks

Fields of interest
Software Engineering; Information Storage and Retrieval; Database Management; Business Information Systems

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45363-2

Softcover
2013. XXXIII, 372 p. 114 illus. (Communications in Computer and Information Science, Vol. 393)
$107.00
ISBN 978-3-642-45363-2
usually dispatched within 3 to 5 business days

November 23, 2013
Behavior and Social Computing

International Workshop on Behavior and Social Informatics, BSI 2013, Gold Coast, Australia, April 14-17, and International Workshop on Social Informatics and Computing, BSIC 2013, Beijing, China, August 3-9, 2013, Revised Selected Papers

This book constitutes the thoroughly refereed proceedings of the International Workshops on Behavior and Social Informatics and Computing, BSI 2013, held as collocated event of IJCAI 2013, in Beijing, China in August 2013 and the International Workshop on Behavior and Social Informatics, BSI 2013, held as satellite workshop of PAKDD 2013, in Gold Coast, Australia, in April 2013. The 23 papers presented were carefully reviewed and selected from 58 submissions. The papers study a wide range of techniques and methods for behavior/social-oriented analyses including behavioral and social interaction and network, behavioral/social patterns, behavioral/social impacts, the formation of,...]

Contents
Behavior/social-oriented analyses including behavioral and social interaction and network.- Behavioral/social patterns.- Behavioral/social impacts.- The formation of behavioral/social-Oriented groups and collective intelligence.- Behavioral/social Intelligence emergence.

Fields of interest
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Information Storage and Retrieval; Computer Appl. in Social and Behavioral Sciences; Computer Communication Networks; Database Management

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4471-5534-8

Hardcover
2013. XXIX, 361 p. 151 illus., 106 illus. in color. (Springer Series on Cultural Computing) $129.00 ISBN 978-1-4471-5534-8 usually dispatched within 3 to 5 business days

Visual Heritage in the Digital Age

Heritage is everywhere, and an understanding of our past is increasingly critical to the understanding of our contemporary cultural context and place in global society. Visual Heritage in the Digital Age presents the state-of-the-art in the application of digital technologies to heritage studies, with the chapters collectively demonstrating the ways in which current developments are liberating the study, conservation and management of the past. Digital approaches to heritage have developed significantly over recent decades in terms of both the quantity and range of applications. However, rather than merely improving and enriching the ways in which we understand and engage with the[...]

Features
Heritage is everywhere, and an understanding of our past is increasingly critical to the understanding of our contemporary cultural context and place in global society. Visual Heritage in the Digital Age presents the state-of-the-art in the application of digital technologies to heritage studies, with the chapters collectively demonstrating the ways in which current developments are liberating[...]

Contents

Fields of interest
User Interfaces and Human Computer Interaction; Archaeology; Cultural Heritage; Simulation and Modeling

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4471-5534-8

Distributed Computing and Networking

15th International Conference, ICDCN 2014, Coimbatore, India, January 4-7, 2014, Proceedings

This book constitutes the proceedings of the 15th International Conference on Distributed Computing and Networking, ICDCN 2014, held in Coimbatore, India, in January 2014. The 32 full papers and 8 short papers presented in this volume were carefully reviewed and selected from 110 submissions. They are organized in topical sections named: mutual exclusion, agreement and consensus; parallel and multi-core computing; distributed algorithms; transactional memory; P2P and distributed networks; resource sharing and scheduling; cellular and cognitive radio networks and backbone networks.

Features
This book constitutes the proceedings of the 15th International Conference on Distributed Computing and Networking, ICDCN 2014, held in Coimbatore, India, in January 2014. The 32 full papers and 8 short papers presented in this volume were carefully reviewed and selected from 110 submissions. They are organized in topical sections named: mutual exclusion, agreement and consensus; parallel and multi-core[...]

Contents

Fields of interest
Computer Communication Networks; Programming Techniques; Software Engineering; Systems and Data Security; Algorithm Analysis and Problem Complexity; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45248-2

Softcover
2014. XVIII, 552 p. 147 illus. (Theoretical Computer Science and General Issues, Vol. 8314) $107.00 ISBN 978-3-642-45248-2 usually dispatched within 3 to 5 business days
Fault-Tolerant Search Algorithms
F. Cicalese

Reliable Computation with Unreliable Information

Why a book on fault-tolerant search algorithms? Searching is one of the fundamental problems in computer science. Time and again algorithmic and combinatorial issues originally studied in the context of search find application in the most diverse areas of computer science and discrete mathematics. On the other hand, fault-tolerance is a necessary ingredient of computing. Due to their inherent complexity, information systems are naturally prone to errors, which may appear at any level – as imprecisions in the data, bugs in the software, or transient or permanent hardware failures. This book provides a concise, rigorous and up-to-date account of different approaches to fault-tolerance.[…]

Contents

Fields of interest
Theory of Computation; Algorithms

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-45403-5

Hardcover
$109.00
ISBN 978-3-642-17326-4
usually dispatched within 3 to 5 business days

Software and Data Technologies
7th International Conference, ICSOFT 2012, Rome, Italy, July 24-27, 2012, Revised Selected Papers
F. Cicalese

Reliable Computation with Unreliable Information

This book constitutes the thoroughly refereed proceedings of the 7th International Conference on Software and Data Technologies, ICSOFT 2012, held in Rome, Italy, in July 2012. The 14 revised full papers presented were carefully reviewed and selected from 127 submissions. The papers focus on the following research topics and applications: programming issues, theoretical aspects of software engineering, management information systems, distributed systems, ubiquity, data interoperability, context understanding.

Contents
Programming issues.- Theoretical aspects of software engineering.- Management information systems.- Distributed systems.- Ubiquity.- Data interoperability.- Context understanding.

Fields of interest
Software Engineering; Programming Languages, Compilers, Interpreters; Simulation and Modeling

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45403-5

Softcover
2013. XII, 219 p. 85 illus. (Communications in Computer and Information Science, Vol. 411)
$84.00
ISBN 978-3-642-45403-5
usually dispatched within 3 to 5 business days

Engineering Multi-Agent Systems
First International Workshop, EMAS 2013, St. Paul, MN, USA, May 6-7, 2013, Revised Selected Papers
M. Cossentino, ICAR-CNR, Palermo, Italy; A. El Fallah Seghrouchni, Université Pierre et Marie Curie, Paris, France; M. Winikoff, University of Otago, Dunedin, New Zealand (Eds.)

Reliable Computation with Unreliable Information

This book constitutes the refereed proceedings of the First International Workshop on Engineering Multi-Agent Systems, EMAS 2013, held in St. Paul, MN, USA, in May 2013. The 19 full papers were carefully reviewed and selected from 30 submissions. The focus of the papers is on following topics: agent-oriented software engineering, declarative agent languages and technologies, and programming multi-agent systems.

Contents

Fields of interest
Artificial Intelligence (incl. Robotics); Software Engineering; Programming Techniques; Computer Science (general)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45342-7

Softcover
2013. XVI, 391 p. 137 illus. (Lecture Notes in Artificial Intelligence, Vol. 8245)
$95.00
ISBN 978-3-642-45342-7
usually dispatched within 3 to 5 business days
Android Game Recipes
A Problem-Solution Approach

Android game apps are typically the most popular type of Android apps in the various Google Play, Amazon Appstore and other Android app stores. So, beyond the Android game tutorials out there, what about a day-to-day handy and complete code reference for Android game developers? Android Game Recipes is your first, reliable game coding reference for today's Android game apps. This book provides easy to follow real world game code problems and solutions, including source code. This book covers code recipe solutions that are common to 2D game development problems such as designing a game menu, collision detection, moving characters, moving backgrounds and more. This book also includes [...] Features

Android game apps are typically the most popular type of Android apps in the various Google Play, Amazon Appstore and other Android app stores. So, beyond the Android game tutorials out there, what about a day-to-day handy and complete code reference for Android game developers? Android Game Recipes is your first, reliable game coding reference for today's Android game [...] Fields of interest

Computer Science (general)

R.G. Downey, Victoria University, Wellington, New Zealand; M.R. Fellows, Charles Darwin University, Darwin, Australia

Fundamentals of Parameterized Complexity

This comprehensive and self-contained textbook presents an accessible overview of the state of the art of multivariate algorithmics and complexity. Increasingly, multivariate algorithmics is having significant practical impact in many application domains, with even more developments on the horizon. The text describes how the multivariate framework allows an extended dialog with a problem, enabling the reader who masters the complexity issues under discussion to use the positive and negative toolkits in their own research. Features: describes many of the standard algorithmic techniques available for establishing parametric tractability; reviews the classical hardness classes; explores [...] Features

The field of parameterized complexity/multivariate complexity algorithmics is an exciting and vibrant part of theoretical computer science, responding to the vital need for efficient algorithms in modern society. This comprehensive and self-contained textbook presents an accessible overview of the state of the art of multivariate algorithmics and complexity. Increasingly, multivariate algorithmics is [...] Contents


Algorithm Analysis and Problem Complexity; Mathematics of Algorithmic Complexity

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4471-5558-4

Hardcover

2013. XXX, 763 p. 83 illus. (Texts in Computer Science)

$99.00

ISBN 978-1-4471-5558-4

usually dispatched within 3 to 5 business days

Information and Communication Technologies in Education, Research, and Industrial Applications

9th International Conference, ICTERI 2013, Kherson, Ukraine, June 19–22, 2013, Revised Selected Papers

This book constitutes the thoroughly refereed proceedings of the 9th International Conference on Information and Communication Technologies in Education, Research, and Industrial Applications, held in Kherson, Ukraine, in June 2013. The 18 revised full papers presented were carefully reviewed and selected from 125 submissions. The papers are organized in topical sections on systems, infrastructures, and integration; semantics, knowledge engineering and management; ICT in teaching methodologies and didactics; model-driven software development and verification. Features

This book constitutes the thoroughly refereed proceedings of the 9th International Conference on Information and Communication Technologies in Education, Research, and Industrial Applications, held in Kherson, Ukraine, in June 2013. The 18 revised full papers presented were carefully reviewed and selected from 125 submissions. The papers are organized in topical sections on systems, infrastructures, and integration; semantics, knowledge engineering and management; ICT in teaching methodologies and didactics; model-driven software development and verification. Fields of interest

Computers and Education; Software Engineering; Logics and Meanings of Programs; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-03997-8

Softcover

2013. XII, 379 p. 89 illus. (Communications in Computer and Information Science, Vol. 412)

$95.00

ISBN 978-3-319-03997-8

usually dispatched within 3 to 5 business days

November 19, 2013
Enterprise Systems Integration
A Process-Oriented Approach

The field of enterprise systems integration is constantly evolving, as every new technology that is introduced appears to make all previous ones obsolete. Despite this continuous evolution, there is a set of underlying concepts and technologies that have been gaining an increasing importance in this field. Examples are asynchronous messaging through message queues, data and application adapters based on XML and Web services, the principles associated with the service-oriented architecture (SOA), service composition, orchestrations, and advanced mechanisms such as correlations and long-running transactions. Today, these concepts have reached a significant level of maturity and they [...]
Handbook of Medical and Healthcare Technologies

This book equips readers to understand a complex range of healthcare products that are used to diagnose, monitor, and treat diseases or medical conditions affecting humans. The first part of the book presents medical technologies such as medical information retrieval, tissue engineering techniques, 3D medical imaging, nanotechnology innovations in medicine, medical wireless sensor networks, and knowledge mining techniques in medicine. The second half of the book focuses on healthcare technologies including prediction hospital readmission risk, modeling e-health framework, personal Web in healthcare, security issues for medical records, and personalized services in healthcare. The[...]

Contents

Fields of interest
Health Informatics; Imaging / Radiology; Image Processing and Computer Vision; Communications Engineering, Networks; Biomedical Engineering

Git Recipes

A Problem-Solution Approach

Whether you’re relatively new to git or you need a refresher, or if you just need a quick, handy reference for common tasks in git, Git Recipes is just the reference book you need. With recipes to cover any task you can think of, including working with GitHub and git on BitBucket, Git Recipes shows you how to work with large repositories, new repositories, forks, cloning, conflicts, differences, and it even gives you practical scenarios you may find yourself dealing with while using git. If you work with Git at all, you need this hands-on, practical reference for all things[...]

Features
Whether you’re relatively new to git or you need a refresher, or if you just need a quick, handy reference for common tasks in git, Git Recipes is just the reference book you need. With recipes to cover any task you can think of, including working with GitHub and git on BitBucket, Git Recipes[...]

Fields of interest
Computer Science (general)

Type of publication
Popular/general

Type of publication
Professional book


Softcover
2013, XI, 442 p. 205 illus. $49.99
usually dispatched within 3 to 5 business days
Transactions on Computational Science XXI

Special Issue on Innovations in Nature-Inspired Computing and Applications

This, the 21st issue of the Transactions on Computational Science journal, edited by Ajith Abraham, is devoted to the topic of nature-inspired computing and applications. The 15 full papers included in the volume focus on the topics of neurocomputing, evolutionary algorithms, swarm intelligence, artificial immune systems, membrane computing, computing with words, artificial life and hybrid approaches.

Features
This, the 21st issue of the Transactions on Computational Science journal, edited by Ajith Abraham, is devoted to the topic of nature-inspired computing and applications. The 15 full papers included in the volume focus on the topics of neurocomputing, evolutionary algorithms, swarm intelligence, artificial immune systems, membrane computing, computing with words, artificial life and hybrid approaches.

Contents

Fields of interest
Computer Science (general)

Type of publication
Professional book

More on www.springer.com/978-1-4302-6169-8

Practical SharePoint 2013 Enterprise Content Management

Practical SharePoint 2013 Enterprise Content Management is the first book to guide you through planning and designing each phase of your information life cycle with SharePoint 2013. Author and SharePoint expert Steve Goodyear walks you through how to analyze and plan enterprise content management (ECM) solutions for an effective and end-to-end information design based on your organization’s needs and business requirements. Inside, you will develop a full understanding of how SharePoint 2013 manages content including identifying and understanding your organization’s information within SharePoint, collaborating on transitory content, and capturing and controlling your records. You’ll [...]
**iOS 7 Development Recipes**

**Problem-Solution Approach**

iOS 7 Development Recipes: A Problem-Solution Approach is your code reference and guide to developing solutions on the iPad, iPhone, and other iOS 7 SDK devices and platforms. This book provides in-depth code samples and discussions for scenarios that developers face every day. You’ll find numerous examples of real-world cases that will enable you to build fully functional applications quickly and efficiently. The recipes included in this book are wide in scope and have been geared toward the professional developer. You’ll find clear and concise code samples accompanying each recipe, and you will be presented with cutting-edge solutions that bring forth the best that the iOS 7 SDK has...

**Features**

iOS 7 Development Recipes: A Problem-Solution Approach is your code reference and guide to developing solutions on the iPad, iPhone, and other iOS 7 SDK devices and platforms. This book provides in-depth code samples and discussions for scenarios that developers face every day. You’ll find numerous examples of real-world cases that will enable you to build fully...

**Fields of interest**

Computer Science (general)

**Target groups**

Popular/general

**Type of publication**

Professional book

More on www.springer.com/978-1-4302-5959-6

**Softcover**

2013. 816 p. $44.99

ISBN 978-1-4302-5959-6

usually dispatched within 3 to 5 business days

---

**Applied Algorithms**


This book constitutes the refereed proceedings of the First International Conference on Applied Algorithms, ICAA 2014, held in Kolkata, India, in January 2014. ICAA is a new conference series with a mission to provide a quality forum for researchers working in applied algorithms. Papers presenting original contributions related to the design, analysis, implementation and experimental evaluation of efficient algorithms and data structures for problems with relevant real-world applications were sought, ideally bridging the gap between academia and industry. The 21 revised full papers presented together with 7 short papers were carefully reviewed and selected from 122 submissions.

**Features**

This book constitutes the refereed proceedings of the First International Conference on Applied Algorithms, ICAA 2014, held in Kolkata, India, in January 2014. ICAA is a new conference series with a mission to provide a quality forum for researchers working in applied algorithms. Papers presenting original contributions related to the design, analysis, implementation, and experimental evaluation of efficient [...]
C. Gurrin, F. Hopfgartner, Technische Universität Berlin, Berlin, Germany; W. Hurst, Universiteit Utrecht, Utrecht, Netherlands; H. Johansen, UiT The Arctic University of Norway, Tromsø, Norway; H. Lee, Singapore University, Queenstown, Singapore; N. O’Connor, Dublin City University, Dublin, Ireland (Eds.)

**Transactions on Large-Scale Data- and Knowledge-Centered Systems XI**

Special Issue on Advanced Data Stream Management and Continuous Query Processing

This, the 11th issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems, contains five selected papers focusing on Advanced Data Stream Management and Processing of Continuous Queries. The contributions cover different methods for avoiding unauthorized access to streaming data, modeling complex real-time behavior of stream processing applications, comparing different event-centric and data-centric platforms for the development of applications in pervasive environments, capturing localized repeated associative relationships from multiple time series, and obtaining uniform and fresh sampling strategies over input data streams generated by large open systems containing...

**Features**

This, the 11th issue of Transactions on Large-Scale Data- and Knowledge-Centered Systems, contains five selected papers focusing on Advanced Data Stream Management and Processing of Continuous Queries. The contributions cover different methods for avoiding unauthorized access to streaming data, modeling complex real-time behavior of stream processing applications, comparing different event-centric and data-centric platforms for the development of applications in pervasive environments, capturing localized repeated associative relationships from multiple time series, and obtaining uniform and fresh sampling strategies over input data streams generated by large open systems containing...

**Contents**


**Fields of interest**

Database Management; Data Mining and Knowledge Discovery

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-642-45314-4

**Softcover**

2013. X, 129 p. 39 illus. (Transactions on Large-Scale Data- and Knowledge-Centered Systems, Vol. 8320) $98.00 ISBN 978-3-642-45314-4 usually dispatched within 3 to 5 business days

C. Gurrin, F. Hopfgartner, Technische Universität Berlin, Berlin, Germany; W. Hurst, Universiteit Utrecht, Utrecht, Netherlands; H. Johansen, UiT The Arctic University of Norway, Tromsø, Norway; H. Lee, Singapore University, Queenstown, Singapore; N. O’Connor, Dublin City University, Dublin, Ireland (Eds.)

**Transactions on Large-Scale Data- and Knowledge-Centered Systems XII**

This, the 12th issue of Transactions on Large-Scale Data and Knowledge-Centered Systems, contains five revised selected regular papers. Topics covered include schema matching and schema mapping, update propagation in decision support systems, routing methods in peer-to-peer systems, distributed stream analytics and dynamic data partitioning.

**Features**

This, the 12th issue of Transactions on Large-Scale Data and Knowledge-Centered Systems, contains five revised selected regular papers. Topics covered include schema matching and schema mapping, update propagation in decision support systems, routing methods in peer-to-peer systems, distributed stream analytics and dynamic data partitioning.

**Contents**


**Fields of interest**

Database Management; Data Mining and Knowledge Discovery

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-642-45314-4

**Softcover**

2013. X, 129 p. 39 illus. (Transactions on Large-Scale Data- and Knowledge-Centered Systems, Vol. 8320) $98.00 ISBN 978-3-642-45314-4 usually dispatched within 3 to 5 business days
Design Science: Perspectives from Europe

European Design Science Symposium EDSS 2012, Leixlip, Ireland, December 6, 2012

This book constitutes the refereed proceedings of the European Design Science Symposium, EDSS 2012 held in Leixlip, Ireland, in December 2012 which was held in conjunction with the Intel European Research and Innovation Conference, ERIC 2012. The 14 papers (4 invited papers and 10 full papers) presented were carefully reviewed and selected from various submissions. The papers cover the following topics: software, formal logic, rigorous mathematics, informal natural language descriptions.

Contents
Software.- Formal logic.- Rigorous mathematics.- Informal natural.- Language descriptions.

Fields of interest
Management of Computing and Information Systems; Information Systems Applications (incl.Internet); User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-04089-9

Softcover
2013. XII, 171 p. 33 illus. (Communications in Computer and Information Science, Vol. 388)
$84.00
ISBN 978-3-319-04089-9
usually dispatched within 3 to 5 business days

C. Hofman, European Domain Centre, Frederiksborg C, Denmark
S. Keates, University of Greenwich, Chatham Maritime, United Kingdom

Counteracting Brandjacking in the Digital Age
… and Other Hidden Risks to Your Brand

The rise of the Internet and social media in particular offer great opportunities for brand owners to increase business and brand recognition. While this has clearly been of benefit to brand owners, who have seen a consequent rise in the value of their brands, it simultaneously makes those brands more attractive for exploitation or attack by others. Brand risks can come in many different types and this book provides examples of how these risks can arise as well as providing quantitative estimates of the adverse impacts that can result from such risks. Brand owners need to be aware of the risks and of the need to develop strategies for identifying and managing them. This book details [...]

Contents

Fields of interest
Legal Aspects of Computing; e-commerce / e-business

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4471-5579-9

Softcover
2013. VIII, 87 p. 18 illus. (SpringerBriefs in Computer Science)
$54.99
usually dispatched within 3 to 5 business days

J. Hunt

Scala Design Patterns
Patterns for Practical Reuse and Design

Scala is a new and exciting programming language that is a hybrid between object oriented languages such as Java and functional languages such as Haskell. As such it has its own programming idioms and development styles. Scala Design Patterns looks at how code reuse can be successfully achieved in Scala. A major aspect of this is the reinterpretation of the original Gang of Four design patterns in terms of Scala and its language structures (that is the use of Traits, Classes, Objects and Functions). It includes an exploration of functional design patterns and considers how these can be interpreted in Scala's uniquely hybrid style. A key aspect of the book is the many code examples that [...]

Contents

Fields of interest
Software Engineering / Programming and Operating Systems; Programming Techniques

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-3-319-02191-1

Hardcover
2013. XXII, 327 p. 90 illus., 49 illus. in color.
$109.00
ISBN 978-3-319-02191-1
usually dispatched within 3 to 5 business days

M. Helfert, Dublin City University, Dublin, Ireland; B. Donnellan (Eds.)

Computer Science 41

H. Hofman, European Domain Centre, Frederiksborg C, Denmark
S. Keates, University of Greenwich, Chatham Maritime, United Kingdom
Pro Node.js for Developers

Since its creation in 2009, Node.js has grown into a powerful and increasingly popular asynchronous-development framework for creating highly-scalable network applications using JavaScript. Respected companies such as Dow Jones and LinkedIn are among the many organizations to have seen Node’s potential and adopted it into their businesses. Pro Node.js for Developers provides a comprehensive guide to this exciting new technology. We introduce you to Node – what it is, why it matters and how to set it up – before diving deeply into the key concepts and APIs that underpin its operation. Building upon your existing JavaScript skills you’ll be shown how to use Node.js to build both Web […]

Features

Since its creation in 2009, Node.js has grown into a powerful and increasingly popular asynchronous-development framework for creating highly-scalable network applications using JavaScript. Respected companies such as Dow Jones and LinkedIn are among the many organizations to have seen Node’s potential and adopted it into their businesses. Pro Node.js for Developers provides a […]

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book


Softcover

2013. 308 p.

$49.99


usually dispatched within 3 to 5 business days

Pro Android Graphics

Pro Android Graphics is a comprehensive gold-mine of knowledge and techniques that will help you design, create, and optimize 2D graphics for use in your Android Jelly Bean applications. Android application developer and expert multimedia producer Wallace Jackson of Mind Taffy Design shows you how to leverage Android’s powerful graphics APIs in conjunction with professional open source graphics design tools such as GIMP 2.8.6 and more. You’ll learn about: The foundational graphics concepts behind the three core new media areas (digital imaging, digital video, and 2D animation) which relate to graphics design, and how to optimize these new media assets for your Android applications […]

Features

Pro Android Graphics is a comprehensive gold-mine of knowledge and techniques that will help you design, create, and optimize 2D graphics for use in your Android Jelly Bean applications. Android application developer and expert multimedia producer Wallace Jackson of Mind Taffy Design shows you how to leverage Android’s powerful graphics APIs in conjunction with professional open source […]

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book

More on www.springer.com/978-1-4302-5785-1

Softcover

2013. 620 p.

$49.99

ISBN 978-1-4302-5785-1

usually dispatched within 3 to 5 business days

Basics of Bioinformatics

Lecture Notes of the Graduate Summer School on Bioinformatics of China

This book outlines 11 courses and 15 research topics in bioinformatics, based on curriculums and talks in a graduate summer school on bioinformatics that was held in Tsinghua University. The courses include: Basics for Bioinformatics, Basic Statistics for Bioinformatics, Topics in Computational Genomics, Statistical Methods in Bioinformatics, Algorithms in Computational Biology, Multivariate Statistical Methods in Bioinformatics Research, Association Analysis for Human Diseases: Methods and Examples, Data Mining and Knowledge Discovery Methods with Case Examples, Applied Bioinformatics Tools, Foundations for the Study of Structure and Function of Proteins, Computational Systems […]

Features

This book outlines 11 courses and 15 research topics in bioinformatics, based on curriculums and talks in a graduate summer school on bioinformatics that was held in Tsinghua University. The courses include: Basics for Bioinformatics, Basic Statistics for Bioinformatics, Topics in Computational Genomics, Statistical Methods in Bioinformatics, Algorithms in Computational Biology, Multivariate Statistical Methods in Bioinformatics Research, Association Analysis for Human Diseases: Methods and Examples, Data Mining and Knowledge Discovery Methods with Case Examples, Applied Bioinformatics Tools, Foundations for the Study of Structure and Function of Proteins, Computational Systems Biology Approaches for Deciphering Traditional Chinese Medicine, Advanced Topics in Bioinformatics and […]

Fields of interest

Computational Biology / Bioinformatics; Bioinformatics; Gene Expression; Data Mining and Knowledge Discovery; Statistics for Life Sciences, Medicine, Health Sciences

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-38950-4

Distribution in China: Tsinghua University Press

Hardcover

Jointly published with Tsinghua University Press, Beijing, China


$129.00

ISBN 978-3-642-38950-4

usually dispatched within 3 to 5 business days
Beginning jQuery 2 for ASP.NET Developers

Using jQuery 2 with ASP.NET Web Forms and ASP.NET MVC

jQuery is the most popular JavaScript library in use today, appearing on nearly two thirds of the 10,000 most visited sites on the web. With this sort of popularity, it’s clear that ASP.NET developers can’t afford to miss out. By combining jQuery with ASP.NET you get the best of both worlds: the client-side interactivity and responsiveness of JavaScript with the robustness and extensibility of Microsoft’s web stack. Beginning jQuery 2 for ASP.NET Developers shows you how. To begin with, you’ll find out how jQuery hooks up with your ASP.NET controls, and simplifies event handling by keeping it in the browser. Then you’ll learn to handle dynamic content and responsive layouts.

Features
- jQuery is the most popular JavaScript library in use today, appearing on nearly two thirds of the 10,000 most visited sites on the web. With this sort of popularity, it’s clear that ASP.NET developers can’t afford to miss out. By combining jQuery with ASP.NET you get the best of both worlds: the client-side interactivity and responsiveness of JavaScript with the robustness and [...]

Fields of interest
- Computer Science (general)

Target groups
- Popular/general

Type of publication
- Professional book

More on www.springer.com/978-1-4302-6304-3

Softcover
- $44.99
- usually dispatched within 3 to 5 business days

iPad Application Sketch Book

For iPad Air, iPad Mini and Other iOS 7-Enabled iPads

Think you have the next great iPad app idea? The iPad Application Sketch Book is an essential tool for any aspiring iPad developer. This sketch book makes it easy to centralize and organize your ideas, featuring full-sized iPad templates to write on. Professionally printed on high-quality paper, it has a total of 150 gridded templates for you to draft ideas and doodle designs while providing ample room to make notes, and document the app name and screen name. Its flat binding and perforated pages make it ideally flexible for any use you might think of. This book is a must-have and an invaluable tool for bringing your next great iPad app idea to life!

Features
- Think you have the next great iPad app idea? The iPad Application Sketch Book is an essential tool for any aspiring iPad developer. This sketch book makes it easy to centralize and organize your ideas, featuring full-sized iPad templates to write on. Professionally printed on high-quality paper, it has a total of 150 gridded templates for you to draft ideas and doodle designs while providing ample room to make [...]

Fields of interest
- Computer Science (general)

Target groups
- Popular/general

Type of publication
- Professional book

More on www.springer.com/978-1-4302-6643-3

Softcover
- $14.99
- usually dispatched within 3 to 5 business days

Modern Cryptography Primer

Theoretical Foundations and Practical Applications

Cryptography has experienced rapid development, with major advances recently in both secret and public key ciphers, cryptographic hash functions, cryptographic algorithms and multiparty protocols, including their software engineering correctness verification, and various methods of cryptanalysis. This textbook introduces the reader to these areas, offering an understanding of the essential, most important, and most interesting ideas, based on the authors’ teaching and research experience. After introducing the basic mathematical and computational complexity concepts, and some historical context, including the story of Enigma, the authors explain symmetric and asymmetric cryptography.

Features
- Cryptography has experienced rapid development, with major advances recently in both secret and public key ciphers, cryptographic hash functions, cryptographic algorithms and multiparty protocols, including their software engineering correctness verification, and various methods of cryptanalysis. This textbook introduces the reader to these areas, offering an understanding of the essential, most important, [...]

Contents
- Chap. 1 Basic Concepts and Historical Overview
- Chap. 2 Mathematical Foundations of Cryptography
- Chap. 3 Foundations of Symmetric Cryptography
- Chap. 4 Foundations of Asymmetric Cryptography
- Chap. 5 An Electronic Signature and Hash Functions
- Chap. 6 PGP Systems and True Crypt
- Chap. 7 Public Key Infrastructure
- Chap. 8 Cryptographic Protocols
- Chap. 9 Cryptography Application for Data Security
- References
- Index

Fields of interest
- Data Structures, Cryptology and Information Theory, Systems and Data Security, e-commerce / e-business, Computer Systems Organization and Communication Networks

Target groups
- Graduate

Type of publication
- Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-41385-8

Hardcover
- 2013. XIV, 238 p. 97 illus.
- $69.99
- ISBN 978-3-642-41385-8
- usually dispatched within 3 to 5 business days
**Pro Puppet**

Pro Puppet, Second Edition, now updated for Puppet 3, is an in-depth guide to installing, using, and developing the popular configuration management tool Puppet. Puppet provides a way to automate everything from user management to server configuration. You’ll learn how Puppet has changed in the latest version, how to use it on a variety of platforms, including Windows, how to work with Puppet modules, and how to use Hiera. Puppet is a must-have tool for system administrators, and Pro Puppet will teach you how to maximize its capabilities and customize it for your environment. Install and configure Puppet to immediately start automating tasks and create reporting solutions. Learn insider[...]

**Features**

Pro Puppet, Second Edition, now updated for Puppet 3, is an in-depth guide to installing, using, and developing the popular configuration management tool Puppet. Puppet provides a way to automate everything from user management to server configuration. You’ll learn how Puppet has changed in the latest version, how to use it on a variety of platforms, including Windows, how to work with Puppet modules, [...]  

**Fields of interest**

Computer Science (general)

**Type of publication**

Professional book

More on [www.springer.com/978-1-4302-6040-0](http://www.springer.com/978-1-4302-6040-0)

**Softcover**

2013, 322 p.  

ISBN 978-1-4302-6040-0  

*usually dispatched within 3 to 5 business days*

**Worldwide Commonalities and Challenges in Information Literacy Research and Practice**

**European Conference, ECIL 2013, Istanbul, Turkey, October 22-25, 2013. Revised Selected Papers**

This book constitutes the refereed proceedings of the European Conference on Information Literacy, ECIL 2013, held in Istanbul Turkey, in October 2013. The 73 revised full papers presented together with two keynotes, 9 invited papers and four doctoral papers were carefully reviewed and selected from 236 submissions. The papers are organized in topical sections on overview and research; policies and strategies; theoretical framework; related concepts; citizenship and digital divide; disadvantaged groups; information literacy for the workplace and daily life; information literacy in Europe; different approaches to information literacy; teaching and learning information literacy; [...]  

**Features**

This book constitutes the refereed proceedings of the European Conference on Information Literacy, ECIL 2013, held in Istanbul Turkey, in October 2013. The 73 revised full papers presented together with two keynotes, 9 invited papers and four doctoral papers were carefully reviewed and selected from 236 submissions. The papers are organized in topical sections on overview and research; policies and strategies; [...]  

**Contents**

Overview and research. - Policies and strategies. - Theoretical framework. - Related concepts. - Citizenship and digital divide. - Disadvantaged groups. - Information literacy for the workplace and daily life. - Information literacy in Europe. - Different approaches to information literacy. - Teaching and learning information literacy. - Information literacy instruction. - Assessment of information literacy. - Information literacy and K-12. - Information literacy and higher education. - Information literacy skills of LIS students. - Librarians, libraries and ethics.

**Fields of interest**

Computers and Education; Computers and Society; Information Systems Applications (incl.Internet)

**Target groups**

Research

**Type of publication**

Proceedings

More on [www.springer.com/978-3-319-03918-3](http://www.springer.com/978-3-319-03918-3)

**Softcover**

2013, XXIV, 664 p. 47 illus. (Communications in Computer and Information Science, Vol. 397)  

$131.00  

ISBN 978-3-319-03918-3  

*usually dispatched within 3 to 5 business days*
**Resource Discovery**


This book constitutes the thoroughly refereed conference proceedings of the 5th International Workshop on Resource Discovery, RED 2010, co-located with the 9th Extended Semantic Web Conference, held in Heraklion, Greece, in May 2012. The 7 revised full papers presented were carefully reviewed and selected from 9 submissions. They deal with various issues related to resource discovery.

**Features**

This book constitutes the thoroughly refereed conference proceedings of the 5th International Workshop on Resource Discovery, RED 2010, co-located with the 9th Extended Semantic Web Conference, held in Heraklion, Greece, in May 2012. The 7 revised full papers presented were carefully reviewed and selected from 9 submissions. They deal with various issues related to resource discovery.

**Contents**


**Fields of interest**

Information Storage and Retrieval; Software Engineering; Information Systems Applications (incl.Internet); Database Management

**Target groups**

Research

**Type of publication**

Proceedings

More on www.springer.com/978-3-642-45262-8

**Softcover**


$72.00

ISBN 978-3-642-45262-8

usually dispatched within 3 to 5 business days

---

**Concise Guide to Databases**

P. Lake, P. Crowther

A Practical Introduction

This easy-to-read textbook/reference presents a comprehensive introduction to databases, opening with a concise history of databases and of data as an organisational asset. As relational database management systems are no longer the only database solution, the book takes a wider view of database technology, encompassing big data, NoSQL, object and object-relational and in-memory databases. The text also examines the issues of scalability, availability, performance and security encountered when building and running a database in the real world. Topics and features: presents review and discussion questions at the end of each chapter, in addition to skill building, hands-on exercises.[...]

**Features**

Modern businesses depend on data for their very survival, creating a need for sophisticated databases and database technologies to help store, organise and transport their valuable data. This easy-to-read textbook/reference presents a comprehensive introduction to databases, opening with a concise history of databases and of data as an organisational asset. As relational database management systems [...]

**Contents**


**Fields of interest**

Database Management; Information Storage and Retrieval; Data Structures, Cryptology and Information Theory; Software Engineering / Programming and Operating Systems

**Target groups**

Upper undergraduate

**Type of publication**

Undergraduate textbook

More on www.springer.com/978-1-4471-5600-0

**Softcover**

2013. XX, 307 p. 113 illus. (Undergraduate Topics in Computer Science)

$59.99

ISBN 978-1-4471-5600-0

usually dispatched within 3 to 5 business days

---

**Knowledge Sharing Through Technology**

J. Lam, The University of Hong Kong, Hong Kong, China (P.R.); K.C. Li, S.K.S. Cheung, Open University of Hong Kong, Hong Kong, China (P.R.); F.L. Wang, Cantas Institute of Higher Education, Hong Kong, China (P.R.) (Eds.)

8th International Conference on Information and Communication Technology in Teaching and Learning, ICT 2013, Hong Kong, China, July 10-11, 2013

This book constitutes the thoroughly revised selected papers of the 8th International Conference on Information and Communication Technology in Teaching and Learning, ICT 2013, held in Hong Kong, China, in July 2013. The 21 revised papers presented were carefully reviewed and selected from various submissions. The papers are organized in topical sections such as management and application of open education resources, application of ICT in support of knowledge sharing, application of mobile devices and social media to knowledge sharing, knowledge sharing for teaching and learning.

**Features**

This book constitutes the thoroughly revised selected papers of the 8th International Conference on Information and Communication Technology in Teaching and Learning, ICT 2013, held in Hong Kong, China, in July 2013. The 21 revised papers presented were carefully reviewed and selected from various submissions. The papers are organized in topical sections such as management and application of open education resources [...]}

**Contents**

Management and application of open education resources.- Application of ICT in support of knowledge sharing.- Application of mobile devices and social media to knowledge sharing.- Knowledge sharing for teaching and learning.

**Fields of interest**

Computers and Education; Information Systems Applications (incl.Internet); User Interfaces and Human Computer Interaction; Information Storage and Retrieval

**Target groups**

Research

**Type of publication**

Proceedings

More on www.springer.com/978-3-642-45271-0

**Softcover**

2013. VIII, 235 p. 125 illus. (Communications in Computer and Information Science, Vol. 407)

$84.00

ISBN 978-3-642-45271-0

usually dispatched within 3 to 5 business days
User-Level Workflow Design
A Bioinformatics Perspective

The continuous trend in computer science to lift programming to higher abstraction levels increases scalability and opens programming to a wider public. In particular, service-oriented programming and the support of semantics-based frameworks make application development accessible to users with almost no programming expertise. This monograph establishes requirement-centric scientific workflow design as an instance of consequent constraint-driven development. Requirements formulated in terms of user-level constraints are automatically transformed into running applications using temporal logic-based synthesis technology. The impact of this approach is illustrated by applying it to four [...]

Features
The continuous trend in computer science to lift programming to higher abstraction levels increases scalability and opens programming to a wider public. In particular, service-oriented programming and the support of semantics-based frameworks make application development accessible to users with almost no programming expertise. This monograph establishes requirement-centric scientific workflow design as an [...]

Contents

Fields of interest
Software Engineering; Logics and Meanings of Programs; Simulation and Modeling; Information Systems Applications (incl. Internet); Computational Biology / Bioinformatics

Target groups
Research

Type of publication
Ph.D. thesis

More on www.springer.com/978-3-642-45388-5

Softcover
2013. XXI, 223 p. 84 illus. (Programming and Software Engineering, Vol. 8311)
$72.00
ISBN 978-3-642-45388-5
usually dispatched within 3 to 5 business days

Mobile Payment

Paying with mobile devices such as mobile phones or smart phones will expand worldwide in the coming years. This development provides opportunities for various industries (banking, telecommunications, credit card business, manufacturers, suppliers, retail) and for consumers. The book comprehensively describes current status, trends and critical aspects of successful mobile payment. It combines theory and practice. Comprising essential aspects of a successful mobile payment as well as successful case studies and practical examples, this book is for all who are developing, offering and using mobile payment.

Features
Paying with mobile devices such as mobile phones or smart phones will expand worldwide in the coming years. This development provides opportunities for various industries (banking, telecommunications, credit card business, manufacturers, suppliers, retail) and for consumers. The book comprehensively describes current status, trends and critical aspects of successful mobile payment. It combines theory [...]
Chinese Lexical Semantics

14th Workshop, CLSW 2013, Zhengzhou, China, May 10-12, 2013. Revised Selected Papers

This book constitutes the refereed selected papers from the 14th Chinese Lexical Semantics Workshop, CLSW 2013, held in Zhengzhou, China, in May 2013. The 68 full papers and 4 short papers presented in this volume were carefully reviewed and selected from 153 submissions. They are organized in topical sections covering all major topics of lexical semantics; lexical resources; corpus linguistics and applications on natural language processing.

Features
This book constitutes the refereed selected papers from the 14th Chinese Lexical Semantics Workshop, CLSW 2013, held in Zhengzhou, China, in May 2013. The 68 full papers and 4 short papers presented in this volume were carefully reviewed and selected from 153 submissions. They are organized in topical sections covering all major topics of lexical semantics; lexical resources; corpus linguistics and applications on natural language processing.

Contents
Lexical semantics.- Lexical resources.- Corpus linguistics.- Applications on natural language processing.

Fields of interest
Artificial Intelligence (incl. Robotics); Language Translation and Linguistics; Chinese

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45184-3

Softcover
2013, XVI, 718 p. 133 illus. (Lecture Notes in Artificial Intelligence, Vol. 8229)
$131.00
ISBN 978-3-642-45184-3
usually dispatched within 3 to 5 business days

Pro ASP.NET 4.5 in VB

ASP.NET 4.5 remains Microsoft’s preferred technology for creating dynamic websites, providing developers with unrivalled power and flexibility. Pro ASP.NET 4.5 in VB is the most complete reference to ASP.NET that you will find. This comprehensively revised fifth edition will teach you everything you need to know in order to create well-designed ASP.NET websites. Beginning with core concepts the book progresses steadily through key professional skills. You’ll be shown how to query databases in detail, consider the myriad applications of XML, and step through all the considerations you need to be aware of when securing your site from intruders. Finally, you’ll consider advanced […]

Features
ASP.NET 4.5 remains Microsoft’s preferred technology for creating dynamic websites, providing developers with unrivalled power and flexibility. Pro ASP.NET 4.5 in VB is the most complete reference to ASP.NET that you will find. This comprehensively revised fifth edition will teach you everything you need to know in order to create well-designed ASP.NET websites. Beginning with core concepts […]

Fields of interest
Computer Science (general)

Target groups
Popular/general

Type of publication
Professional book

More on www.springer.com/978-1-4302-4353-3

Softcover
2013, 1224 p.
$59.99
Online orders shipping within 2-3 days.

Evaluation of Novel Approaches to Software Engineering

7th International Conference, ENASE 2012, Wroclaw, Poland, June 29-30, 2012. Revised Selected Papers

This book constitutes the thoroughly refereed proceedings of the 7th International Conference on Evaluation of Novel Approaches to Software Engineering, ENASE 2012, held in Wroclaw, Poland, in June 2012. The 11 full papers presented were carefully reviewed and selected from 54 submissions. The papers cover various topics in software engineering and focus on the comparison of novel approaches with established traditional practices and by evaluating them against software quality criteria.

Features
This book constitutes the thoroughly refereed proceedings of the 7th International Conference on Evaluation of Novel Approaches to Software Engineering, ENASE 2012, held in Wroclaw, Poland, in June 2012. The 11 full papers presented were carefully reviewed and selected from 54 submissions. The papers cover various topics in software engineering and focus on the comparison of novel approaches with established […]

Contents
Various topics in software engineering.- Focus on the comparison of novel approaches with established traditional practices.- Evaluating the novel approaches against software quality criteria.

Fields of interest
Software Engineering; Logics and Meanings of Programs; Programming Languages, Compilers, Interpreters; Information Systems Applications (incl.Internet); Management of Computing and Information Systems

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45421-9

Softcover
2013, X, 173 p. 49 illus. (Communications in Computer and Information Science, Vol. 410)
$84.00
ISBN 978-3-642-45421-9
usually dispatched within 3 to 5 business days
Physically Unclonable Functions
Constructions, Properties and Applications

Physically unclonable functions (PUFs) are innovative physical security primitives that produce unclonable and inherent instance-specific measurements of physical objects; in many ways they are the inanimate equivalent of biometrics for human beings. Since they are able to securely generate and store secrets, they allow us to bootstrap the physical implementation of an information security system. In this book the author discusses PUFs in all their facets: the multitude of their physical constructions, the algorithmic and physical properties which describe them, and the techniques required to deploy them in security applications. The author first presents an extensive overview and [...] Features
Physically unclonable functions (PUFs) are innovative physical security primitives that produce unclonable and inherent instance-specific measurements of physical objects; in many ways they are the inanimate equivalent of biometrics for human beings. Since they are able to securely generate and store secrets, they allow us to bootstrap the physical implementation of an information security system. In this [...] Contents
Chap. 1 - Introduction and Preview.- Chap. 2 - Physically Unclonable Functions: Concept and Constructions.- Chap. 3 - Physically Unclonable Functions: Properties.- Chap. 4 - Implementation and Experimental Analysis of Intrinsic PUFs.- Chap. 5 - PUF-Based Entity Identification and Authentication.- Chap. 6 - PUF-Based Key Generation.- Chap. 7 - Conclusion and Future Work.- App. A - Notation and Definitions from Probability Theory and Information Theory.- App. B - Non-intrinsic PUF(-like) Constructions.- References.

Fields of interest
Data Structures, Cryptology and Information Theory; Electrical Engineering; Security Science and Technology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-41394-0

Hardcover
2013. XVII, 193 p. 28 illus.
$109.00
ISBN 978-3-642-41394-0
usually dispatched within 3 to 5 business days

M. Mancas, N. d'Alessandro, University of Mons (UMONS), Mons, Belgium; X. Siebert, University of Mons (UMONS), Mons, Belgium; B. Gosselin, University of Mons (UMONS), Mons, Belgium; C. Valderrama, University of Mons (UMONS), Mons, Belgium; Y. Dutoit, Faculté Polytechnique de Mons, Mons, Belgium (Eds.)

Intelligent Technologies for Interactive Entertainment
5th International ICST Conference, INETEAIN 2013, Mons, Belgium, July 3-5, 2013, Revised Selected Papers

This book constitutes the proceedings of the 5th International Conference on Intelligent Technologies for Interactive Entertainment, INETEAIN 2013. The 23 full papers presented were carefully selected from numerous submissions. The conference aims at enhancing the understanding of recent and anticipated advances in interactive technologies, and their applications to entertainment, education, culture, and the arts. The papers are grouped in topical sections on linked media, gaming technologies, and technologies for live entertainment.

Features
This book constitutes the proceedings of the 5th International Conference on Intelligent Technologies for Interactive Entertainment, INETEAIN 2013. The 23 full papers presented were carefully selected from numerous submissions. The conference aims at enhancing the understanding of recent and anticipated advances in interactive technologies, and their applications to entertainment, education, culture, and the [...] Contents
Media Design; User Interfaces and Human Computer Interaction; Computer Imaging, Vision, Pattern Recognition and Graphics; Computer Applications

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03891-9

Softcover
$72.00
ISBN 978-3-319-03891-9
usually dispatched within 3 to 5 business days

J. McCarthy (Ed.)

Trends in Functional Programming
14th International Symposium, TFP 2013, Provo, UT, USA, May 14-16, 2013, Revised Selected Papers

This book constitutes the thoroughly refereed revised selected papers of the 14th International Symposium on Trends in Functional Programming, TFP 2013, held in Provo, UT, USA in May 2013. The 10 revised full papers included in this volume were carefully selected from 27 submissions. They cover topics such as distributed systems, education, functional language implementation, hardware synthesis, static analysis, testing and total programming.

Features
This book constitutes the thoroughly refereed revised selected papers of the 14th International Symposium on Trends in Functional Programming, TFP 2013, held in Provo, UT, USA in May 2013. The 10 revised full papers included in this volume were carefully selected from 27 submissions. They cover topics such as distributed systems, education, functional language implementation, hardware synthesis, static [...] Contents

Fields of interest
Programming Techniques; Programming Languages, Compilers, Interpreters; Logics and Meanings of Programs

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-45339-7

Softcover
$72.00
ISBN 978-3-642-45339-7
usually dispatched within 3 to 5 business days
Handbook of Human Computation

This volume addresses the emerging area of human computation. The chapters, written by leading international researchers, explore existing and future opportunities to combine the respective strengths of both humans and machines in order to create powerful problem-solving capabilities. The book bridges scientific communities, capturing and integrating the unique perspective and achievements of each. It coalesces contributions from industry and across related disciplines in order to motivate, define, and anticipate the future of this exciting new frontier in science and cultural evolution. Readers can expect to find valuable contributions covering Foundations; Application Domains; [...] Features

This volume addresses the emerging area of human computation. The chapters, written by leading international researchers, explore existing and future opportunities to combine the respective strengths of both humans and machines in order to create powerful problem-solving capabilities. The book bridges scientific communities, capturing and integrating the unique perspective and achievements of each. It [...] Contents


Artificial Intelligence (incl. Robotics); User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery; Computer Appl. in Social and Behavioral Sciences; Algorithm Analysis and Problem Complexity

Target groups

Research

Type of publication

Handbook

More on www.springer.com/978-1-4614-8805-7

Hardcover

2013. XII, 1059 p. 251 illus., 209 illus. in color. $189.00


usually dispatched within 3 to 5 business days

Aspect-Oriented Requirements Engineering

Broadly-scoped requirements such as security, privacy, and response time are a major source of complexity in modern software systems. This is due to their tangled inter-relationships with and effects on other requirements. Aspect-Oriented Requirements Engineering (AORE) aims to facilitate modularisation of such broadly-scoped requirements, so that software developers are able to reason about them in isolation - one at a time. AORE also captures these inter-relationships and effects in well-defined composition specifications, and, in so doing exposes the causes for potential conflicts, trade-offs, and roots for the key early architectural decisions. Over the last decade, significant [...] Features

Broadly-scoped requirements such as security, privacy, and response time are a major source of complexity in modern software systems. This is due to their tangled inter-relationships with and effects on other requirements. Aspect-Oriented Requirements Engineering (AORE) aims to facilitate modularisation of such broadly-scoped requirements, so that software developers are able to reason about them in [...] Contents

Chapter 1: Aspect-Oriented Requirements Engineering. - Section 1: Concern Identification in Requirements. - Chapter 2: Aspect Identification in Textual Requirements with EA-Miner. - Chapter 3: Reasoning about Dynamic Aspects. - Section 2: Concern Modelling and Composition. - Chapter 4: AO Aspect-Oriented Compositions for Dynamic Behaviour Models. - Chapter 5: Semantics-based Composition for Textual Requirements. - Chapter 6: Composing Goal and Scenario Models with the Aspect-oriented User Requirements Notation (AoURN) Based on Syntax and Semantics. - Chapter 7: Aspect Oriented [...] Fields of interest

Software Engineering; Management of Computing and Information Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38639-8

Hardcover

2013. XIX, 383 p. 195 illus. $129.00

ISBN 978-3-642-38639-8

usually dispatched within 3 to 5 business days
**Computer Aided Systems Theory -- EUROCAST 2013**

14th International Conference, Las Palmas de Gran Canaria, Spain, February 10-15, 2013. Revised Selected Papers, Part II

The two-volume set LNCS 8111 and LNCS 8112 constitute the papers presented at the 14th International Conference on Computer Aided Systems Theory, EUROCAST 2013, held in February 2013 in Las Palmas de Gran Canaria, Spain. The total of 131 papers presented were carefully reviewed and selected for inclusion in the books. The contributions are organized in topical sections on modelling biological systems; systems theory and applications; intelligent information processing; theory and applications of metaheuristic algorithms; model-based system design, verification and simulation; process modeling simulation and system optimization; mobile and autonomous transportation systems; computer [...]

**Contents**

Process modeling simulation and system optimization.
- Mobile and autonomous transportation systems.
- Computer vision, sensing, image processing and medical applications.
- Computer-based methods and virtual reality for clinical and academic medicine.
- Digital signal processing methods and applications.
- Mechatronic systems, robotics and marine robots.
- Mobile computing platforms and technologies.
- Systems applications.

**Fields of interest**

Simulation and Modeling; Artificial Intelligence (incl. Robotics); Pattern Recognition; Image Processing and Computer Vision; Computer Imaging, Vision, Pattern Recognition and Graphics; Computer-Aided Engineering (CAD, CAE) and Design

**Target groups**

Research

**Type of publication**

Proceedings

More on [www.springer.com/978-3-642-53861-2](http://www.springer.com/978-3-642-53861-2)

**Softcover**


$107.00

ISBN 978-3-642-53861-2

usually dispatched within 3 to 5 business days

---

**Computer Aided Systems Theory -- EUROCAST 2013**

14th International Conference, Las Palmas de Gran Canaria, Spain, February 10-15, 2013. Revised Selected Papers, Part I

The two-volume set LNCS 8111 and LNCS 8112 constitute the papers presented at the 14th International Conference on Computer Aided Systems Theory, EUROCAST 2013, held in February 2013 in Las Palmas de Gran Canaria, Spain. The total of 131 papers presented were carefully reviewed and selected for inclusion in the books. The contributions are organized in topical sections on modelling biological systems; systems theory and applications; intelligent information processing; theory and applications of metaheuristic algorithms; model-based system design, verification and simulation; process modeling simulation and system optimization; mobile and autonomous transportation systems; computer [...]

**Features**

The two-volume set LNCS 8111 and LNCS 8112 constitute the papers presented at the 14th International Conference on Computer Aided Systems Theory, EUROCAST 2013, held in February 2013 in Las Palmas de Gran Canaria, Spain. The total of 131 papers presented were carefully reviewed and selected for inclusion in the books. The contributions are organized in topical sections on modelling biological systems; systems theory and applications; intelligent information processing; theory and applications of metaheuristic algorithms; model-based system design, verification and simulation; process modeling simulation and system optimization; mobile and autonomous transportation systems; computer [...]

**Contents**

Modeling biological systems.
- Systems theory and applications.
- Intelligent information processing.
- Theory and applications of metaheuristic algorithms.
- Model-based system design, verification and simulation.
- Process modeling simulation and system optimization.

**Fields of interest**

Simulation and Modeling; Artificial Intelligence (incl. Robotics); Pattern Recognition; Image Processing and Computer Vision; Computer Imaging, Vision, Pattern Recognition and Graphics; Computer-Aided Engineering (CAD, CAE) and Design

**Target groups**

Research

**Type of publication**

Proceedings

More on [www.springer.com/978-3-642-53855-1](http://www.springer.com/978-3-642-53855-1)

**Softcover**

2013. 620 p.

$49.99


usually dispatched within 3 to 5 business days

---

**Beginning JavaScript Charts**

With jqPlot, d3, and Highcharts

Beginning JavaScript Charts shows how to convert your data into eye-catching, innovative, animated, and highly interactive browser-based charts. This book is suitable for developers of all experience levels and needs; for those who love fast and effective solutions, you can use the jqPlot library to generate charts with amazing effects and animations using only a few lines of code; if you want more power and need to create data visualization beyond traditional charts, then D3 is the JavaScript library for you; finally, if you need a high-performance, professional solution for interactive charts, then the Highcharts library is also covered. If you are an experienced developer and want [...] (continued)

**Features**

Beginning JavaScript Charts shows how to convert your data into eye-catching, innovative, animated, and highly interactive browser-based charts. This book is suitable for developers of all experience levels and needs; for those who love fast and effective solutions, you can use the jqPlot library to generate charts with amazing effects and animations using only a few lines of code; if you need a high-performance, professional solution for interactive charts, then the Highcharts library is also covered. If you are an experienced developer and want [...] (continued)

**Fields of interest**

Computer Science (general)

**Type of publication**

Professional book


**Softcover**

2013. 620 p.

$49.99


usually dispatched within 3 to 5 business days

---

F. Nelli
Learning and Intelligent Optimization

7th International Conference, LION 7, Catania, Italy, January 7-11, 2013, Revised Selected Papers

This book constitutes the proceedings of the 7th International Conference on Learning and Optimization, LION 7, which was held in Catania, Italy, in January 2013. The 49 contributions presented in this volume were carefully reviewed and selected from 101 submissions. They explore the intersections and uncharted territories between machine learning, artificial intelligence, mathematical programming and algorithms for hard optimization problems.

Features
This book constitutes the proceedings of the 7th International Conference on Learning and Optimization, LION 7, which was held in Catania, Italy, in January 2013. The 49 contributions presented in this volume were carefully reviewed and selected from 101 submissions. They explore the intersections and uncharted territories between machine learning, artificial intelligence, mathematical programming and [...]
Swarm, Evolutionary, and Memetic Computing
4th International Conference, SEMCCO 2013, Chennai, India, December 19-21, 2013, Proceedings, Part II

The two-volume set LNCS 8297 and LNCS 8298 constitutes the proceedings of the 4th International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2013, held in Chennai, India, in December 2013. The total of 123 papers presented in this volume was carefully reviewed and selected for inclusion in the proceedings. They cover cutting-edge research on swarm, evolutionary and memetic computing, neural and fuzzy computing and its application.

Contents

Fields of interest
Computation by Abstract Devices; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Pattern Recognition; Computer Communication Networks; Software Engineering

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03755-4

Softcover
2013. XXVI, 672 p. 275 illus. (Theoretical Computer Science and General Issues, Vol. 8298)
$119.00
ISBN 978-3-319-03755-4
usually dispatched within 3 to 5 business days

Swarm, Evolutionary, and Memetic Computing
4th International Conference, SEMCCO 2013, Chennai, India, December 19-21, 2013, Proceedings, Part I

The two-volume set LNCS 8297 and LNCS 8298 constitutes the proceedings of the 4th International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2013, held in Chennai, India, in December 2013. The total of 123 papers presented in this volume was carefully reviewed and selected for inclusion in the proceedings. They cover cutting-edge research on swarm, evolutionary and memetic computing, neural and fuzzy computing and its application.

Features
The two-volume set LNCS 8297 and LNCS 8298 constitutes the proceedings of the 4th International Conference on Swarm, Evolutionary and Memetic Computing, SEMCCO 2013, held in Chennai, India, in December 2013. The total of 123 papers presented in this volume was carefully reviewed and selected for inclusion in the proceedings. They cover cutting-edge research on swarm, evolutionary and memetic computing, neural and fuzzy computing and its application.

Contents

Features
The pattern recognition and machine learning communities have, until recently, focused mainly on feature-vector representations, typically considering objects in isolation. However, this paradigm is being increasingly challenged by similarity-based approaches, which recognize the importance of relational and similarity information. This accessible text/reference presents a coherent overview of [...]
Mining Intelligence and Knowledge Exploration

First International Conference, MIKE 2013, Tamil Nadu, India, December 18-20, 2013, Proceedings

This book constitutes the proceedings of the First International Conference on Mining Intelligence and Knowledge Exploration, MIKE 2013, held in Tamil Nadu, India on December 2013. The 82 papers presented were carefully reviewed and selected from 334 submissions. The papers cover the topics such as feature selection, classification, clustering, image processing, network security, speech processing, machine learning, information retrieval, recommender systems, natural language processing, language, cognition and computation and other certain problems in dynamical systems.

Features

This book constitutes the proceedings of the First International Conference on Mining Intelligence and Knowledge Exploration, MIKE 2013, held in Tamil Nadu, India on December 2013. The 82 papers presented were carefully reviewed and selected from 334 submissions. The papers cover the topics such as feature selection, classification, clustering, image processing, network security, speech processing, [...]
It’s certainly fun to build games that run on your iPhone and iPad. But, wouldn’t it be more fun to create games that allow you to play with other gamers in your social network? There’s a whole lot more things you can do. Most of the top best selling games around the world, like World of Warcraft, let you play with others online and share your experiences with your friends.Beginning iOS Social Games is your concise introduction to iOS social and other networked gaming app development using iOS Game Center, Game Kit, Store Kit, AirPlay, iOS 7 Game Controllers, iTunes App Store and integrating with social networks/media like Facebook and Twitter. Author Kyle Richter of Empirical...
Making the History of Computing Relevant

IFIP WG 9.7 International Conference, HC 2013, London, UK, June 17-18, 2013, Revised Selected Papers

This book constitutes the refereed post-proceedings of the IFIP WG 9.7 International Conference on the History of Computing, HC 2013, held in London, UK, in June 2013. The 29 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers cover a wide range of topics related to the history of computing, and offer a number of different approaches to making this history relevant. These range from discussion of approaches to describing and analyzing the history through storytelling and education to description of various collections, working installations and reconstruction projects. The papers have been organized in the following topical sections: [...] 

Features

This book constitutes the refereed post-proceedings of the IFIP WG 9.7 International Conference on the History of Computing, HC 2013, held in London, UK, in June 2013. The 29 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers cover a wide range of topics related to the history of computing and offer a number of different approaches to making this history relevant. [...] 

Contents

The importance of storytelling in museums. - Spotlight on some key collections and their future plans. - Thoughts on expanding the audience for computing history. - Spotlight on some research projects. - Integrating history with computer science education. - Putting the history of computing into different contexts. - Celebrating nostalgia for games - and its potential as Trojan horse. - The importance and challenges of working installations. - Reconstruction stories. 

Fields of interest

History of Computing; Computers and Education; User Interfaces and Human Computer Interaction 

Target groups

Research 

Type of publication

Proceedings 

More on www.springer.com/978-3-642-41649-1 

Hardcover 

2013, XII, 312 p. 133 illus. (IFIP Advances in Information and Communication Technology, Vol. 416) 

$129.00 

ISBN 978-3-642-41649-1 

usually dispatched within 3 to 5 business days

Massively Parallel Evolutionary Computation on GPGPUs

Evolutionary algorithms (EAs) are metaheuristics that learn from natural collective behavior and are applied to solve optimization problems in domains such as scheduling, engineering, bioinformatics, and finance. Such applications demand acceptable solutions with high-speed execution using finite computational resources. Therefore, there have been many attempts to develop platforms for running parallel EAs using multicore machines, massively parallel cluster machines, or grid computing environments. Recent advances in general-purpose computing on graphics processing units (GPGPU) have opened up this possibility for parallel EAs, and this is the first book dedicated to this exciting [...] 

Features

Evolutionary algorithms (EAs) are metaheuristics that learn from natural collective behavior and are applied to solve optimization problems in domains such as scheduling, engineering, bioinformatics, and finance. Such applications demand acceptable solutions with high-speed execution using finite computational resources. Therefore, there have been many attempts to develop platforms for running parallel EAs [...] 

Contents

Chap. 1 Why GPGPUs for Evolutionary Computation?. - Chap. 2 Understanding NVIDIA GPGPU Hardware. - Chap. 3 Automatic Parallelization of EC on GPGPUs and Clusters of GPGPU Machines with EASEA and EASEA-CLOUD. - Chap. 4 Generic Local Search (Memetic) Algorithm on a Single GPGPU Chip. - Chap. 5 arGA: Adaptive Resolution Micro-genetic Algorithm with Tabu Search to Solve MINLP Problems Using GPU. - Chap. 6 An Analytical Study of GPU Computation by Parallel GA with Independent Runs. - Chap. 7 Many-Threaded Differential Evolution on the GPU. - Chap. 8 Scheduling Using Multiple Swarm Particle. [...] 

Fields of interest

Artificial Intelligence (incl. Robotics); Computational Intelligence; Theory of Computation; Computer Systems Organization and Communication Networks; Electrical Engineering 

Target groups

Research 

Type of publication

Contributed volume 

More on www.springer.com/978-3-642-37958-1 

Hardcover 

2014, XII, 453 p. 199 illus., 95 illus. in color. (Natural Computing Series) 

$129.00 

ISBN 978-3-642-37958-1 

usually dispatched within 3 to 5 business days

Mathematics for Computer Graphics

John Vince explains a wide range of mathematical techniques and problem-solving strategies associated with computer games, computer animation, virtual reality, CAD and other areas of computer graphics in this updated and expanded fourth edition. The first four chapters revise number sets, algebra, trigonometry and coordinate systems, which are employed in the following chapters on vectors, transforms, interpolation, 3D curves and patches, analytic geometry and barycentric coordinates. Following this, the reader is introduced to the relatively new topic of geometric algebra, and the last two chapters provide an introduction to differential and integral calculus, with an emphasis on [...] 

Fields of interest

Computer Graphics; Mathematical Applications in Computer Science 

Target groups

Lower undergraduate 

Type of publication

Undergraduate textbook 

More on www.springer.com/978-1-4471-6289-6 

Softcover 

2014, XVII, 391 p. 282 illus. (Undergraduate Topics in Computer Science) 

$59.99 

ISBN 978-1-4471-6289-6 

usually dispatched within 3 to 5 business days

Massively Parallel Evolutionary Computation on GPGPUs

Evolutionary algorithms (EAs) are metaheuristics that learn from natural collective behavior and are applied to solve optimization problems in domains such as scheduling, engineering, bioinformatics, and finance. Such applications demand acceptable solutions with high-speed execution using finite computational resources. Therefore, there have been many attempts to develop platforms for running parallel EAs using multicore machines, massively parallel cluster machines, or grid computing environments. Recent advances in general-purpose computing on graphics processing units (GPGPU) have opened up this possibility for parallel EAs, and this is the first book dedicated to this exciting [...] 

Features

Evolutionary algorithms (EAs) are metaheuristics that learn from natural collective behavior and are applied to solve optimization problems in domains such as scheduling, engineering, bioinformatics, and finance. Such applications demand acceptable solutions with high-speed execution using finite computational resources. Therefore, there have been many attempts to develop platforms for running parallel EAs [...] 

Contents

Chap. 1 Why GPGPUs for Evolutionary Computation?. - Chap. 2 Understanding NVIDIA GPGPU Hardware. - Chap. 3 Automatic Parallelization of EC on GPGPUs and Clusters of GPGPU Machines with EASEA and EASEA-CLOUD. - Chap. 4 Generic Local Search (Memetic) Algorithm on a Single GPGPU Chip. - Chap. 5 arGA: Adaptive Resolution Micro-genetic Algorithm with Tabu Search to Solve MINLP Problems Using GPU. - Chap. 6 An Analytical Study of GPU Computation by Parallel GA with Independent Runs. - Chap. 7 Many-Threaded Differential Evolution on the GPU. - Chap. 8 Scheduling Using Multiple Swarm Particle. [...] 

Fields of interest

Artificial Intelligence (incl. Robotics); Computational Intelligence; Theory of Computation; Computer Systems Organization and Communication Networks; Electrical Engineering 

Target groups

Research 

Type of publication

Contributed volume 

More on www.springer.com/978-3-642-37958-1 

Hardcover 

2014, XII, 453 p. 199 illus., 95 illus. in color. (Natural Computing Series) 

$129.00 

ISBN 978-3-642-37958-1 

usually dispatched within 3 to 5 business days

Mathematics for Computer Graphics

John Vince explains a wide range of mathematical techniques and problem-solving strategies associated with computer games, computer animation, virtual reality, CAD and other areas of computer graphics in this updated and expanded fourth edition. The first four chapters revise number sets, algebra, trigonometry and coordinate systems, which are employed in the following chapters on vectors, transforms, interpolation, 3D curves and patches, analytic geometry and barycentric coordinates. Following this, the reader is introduced to the relatively new topic of geometric algebra, and the last two chapters provide an introduction to differential and integral calculus, with an emphasis on [...] 

Fields of interest

Computer Graphics; Mathematical Applications in Computer Science 

Target groups

Lower undergraduate 

Type of publication

Undergraduate textbook 

More on www.springer.com/978-1-4471-6289-6 

Softcover 

2014, XVII, 391 p. 282 illus. (Undergraduate Topics in Computer Science) 

$59.99 

ISBN 978-1-4471-6289-6 

usually dispatched within 3 to 5 business days
Pro JSF and HTML5

Building Rich Internet Components

Pro JSF and HTML5 shows you how to leverage the full potential of JavaServer Faces (JSF) and HTML5. This book is for Java developers who aspire to build sophisticated, enterprise-grade web experiences with HTML5-enabled JSF. Written by JSF experts and verified by established community figures, this book will serve as your primary resource, helping you build or integrate well-designed HTML5-enabled JSF components into your rich internet applications. Pro JSF and HTML5 starts by giving you a firm grounding in the design principles of component-based frameworks and the basics of JSF. It then details recent advancements in JSF 2.2 that make it friendlier, faster, and more productive than [...] 

Features

Pro JSF and HTML5 shows you how to leverage the full potential of JavaServer Faces (JSF) and HTML5. This book is for Java developers who aspire to build sophisticated, enterprise-grade web experiences with HTML5-enabled JSF. Written by JSF experts and verified by established community figures, this book will serve as your primary resource, helping you build or integrate well-designed HTML5-enabled JSF [...] 

Fields of interest

Computer Science (general) 

Target groups

Popular/general 

Type of publication

Professional book 

More on www.springer.com/978-1-4302-5010-4 

Softcover 


$54.99 

ISBN 978-1-4302-5010-4 

usually dispatched within 3 to 5 business days 

Practical PHP and MySQL Website Databases 

A Simplified Approach 

Practical PHP and MySQL Website Databases is a project-oriented book that demystifies building interactive, database-driven websites. The focus is on getting you up and running as quickly as possible. In the first two chapters you will set up your development and testing environment, and then build your first PHP and MySQL database-driven website. You will then increase its sophistication, security, and functionality throughout the course of the book. The PHP required is taught in context within each project so you can quickly learn how PHP integrates with MySQL to create powerful database-driven websites. Each project is fully illustrated, so you will see clearly what you are [...] 

Features

Practical PHP and MySQL Website Databases is a project-oriented book that demystifies building interactive, database-driven websites. The focus is on getting you up and running as quickly as possible. In the first two chapters you will set up your development and testing environment, and then build your first PHP and MySQL database-driven website. You will then increase its [...] 

Fields of interest

Computer Science (general) 

Target groups

Popular/general 

Type of publication

Professional book 

More on www.springer.com/978-1-4302-6076-9 

Softcover 

2013. 448 p. 

$49.99 


usually dispatched within 3 to 5 business days 

Molecular Biology - Not Only for Bioinformatics 

Bioinformatics, which can be defined as the application of computer science and information technology to the field of biology and medicine, has been rapidly developing over the past few decades. It generates new knowledge as well as the computational tools to create that knowledge. Understanding the basic processes in living organisms is therefore indispensable for bioinformaticians. This book addresses beginners in molecular biology, especially computer scientists who would like to work as bioinformaticians. It presents basic processes in living organisms in a condensed manner. Additionally, principles of several high-throughput technologies in molecular biology, which need the [...] 

Features

Bioinformatics, which can be defined as the application of computer science and information technology to the field of biology and medicine, has been rapidly developing over the past few decades. It generates new knowledge as well as the computational tools to create that knowledge. Understanding the basic processes in living organisms is therefore indispensable for bioinformaticians. This book addresses [...] 

Contents


Fields of interest

Computational Biology / Bioinformatics; Bioinformatics; Computer Science (general) 

Target groups

Upper undergraduate 

Type of publication

Graduate/advanced undergraduate textbook 

More on www.springer.com/978-3-642-45360-1 

Softcover 

2013. XI, 153 p. 122 illus. (Lecture Notes in Bioinformatics, Vol. 8248) 

$72.00 

ISBN 978-3-642-45360-1 

usually dispatched within 3 to 5 business days
Graph Drawing

21st International Symposium, GD 2013, Bordeaux, France, September 23-25, 2013, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 21st International Symposium on Graph Drawing, GD 2013, held in Bordeaux, France, in September 2013. The 42 revised full papers presented together with 12 revised short papers, 3 invited talks and 1 poster description were carefully reviewed and selected from 110 submissions. The papers are organized in topical sections on upward drawings, planarity, beyond planarity, geometric representations, 3D et al., universality, practical graph drawing, subgraphs, crossings, geometric graphs and geographic networks, angular restrictions, grids, curves and routes. The book also contains a short description of the [...]"}

Cloud Computing

Third International Conference, CloudComp 2012, Vienna, Austria, September 24-26, 2012, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the Third International Conference on Cloud Computing, Cloud Comp 2012, held in Vienna, Austria, in September 2012. The 14 revised full papers were carefully reviewed and selected from numerous submissions and cover various topics in the application of cloud computing technologies.

Features

This book constitutes the thoroughly refereed post-conference proceedings of the Third International Conference on Cloud Computing, CloudComp 2012, held in Vienna, Austria, in September 2012. The 14 revised full papers were carefully reviewed and selected from numerous submissions and cover various topics in the application of cloud computing technologies.

Contents


Fields of interest

Software Engineering; Computer Communication Networks; System Performance and Evaluation; Information Systems Applications (incl. Internet)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-03873-5

Softcover


$72.00

ISBN 978-3-319-03873-5

usually dispatched within 3 to 5 business days

PHP Objects, Patterns, and Practice

PHP Objects Patterns and Practice, Fourth Edition is revised and updated throughout. The book begins by covering PHP’s object-oriented features. It introduces key topics including class declaration, inheritance, reflection and much more. These provide the fundamentals of the PHP’s support for objects. It also introduces some principles of design. This edition introduces new object relevant features such as traits, reflection extension additions, callable type hinting, improvements to exception handling, and many smaller language enhancements. The next section is devoted to design patterns. These describe common problems and their solutions. The section describes the design principles [...]

Features

PHP Objects Patterns and Practice, Fourth Edition is revised and updated throughout. The book begins by covering PHP’s object-oriented features. It introduces key topics including class declaration, inheritance, reflection and much more. These provide the fundamentals of the PHP’s support for objects. It also introduces some principles of design. This edition introduces new object relevant features. [...]

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book

More on www.springer.com/978-1-4302-6031-8

Softcover

2013. 532 p. $54.99

ISBN 978-1-4302-6031-8

usually dispatched within 3 to 5 business days
Dentistry

Plastics in Dentistry and Estrogenicity

A Guide to Safe Practice

This book provides a timely and comprehensive review of our current knowledge of BPA release from dental polymers and the potential endocrinological consequences. After a review of the history and evolution of the issue within the broader biomedical context, the estrogenicity of BPA is explained. The basic chemistry of the polymers used in dentistry is then presented in a simplified and clinically relevant manner. Key chapters in the book carefully evaluate the release of BPA from polycarbonate products and composite resins and the estrogenicity of these materials. Currently available evidence on the potential estrogenic action of dental composites, sealants, and adhesives is [...]

Features

The polycarbonate products, adhesives, and composite resins used in dentistry may have the potential to release bisphenol-A (BPA). BPA is known to exert effects at very low doses and presents a risk to reproductive, neurological, behavioural, and metabolic development, however, the actual effects induced by dental materials have not been sufficiently covered and critically analyzed. Nevertheless, many [...]?

Contents


Fields of interest

Dentistry

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-29686-4

Hardcover

2014. VII, 142 p. 34 illus., 7 illus. in color.
ISBN 978-3-642-29686-4
usually dispatched within 3 to 5 business days

Forensic and Legal Dentistry

This book both explains in detail diverse aspects of the law as it relates to dentistry and examines key issues in forensic odontostomatology. A central aim is to enable the dentist to achieve a realistic assessment of the legal situation and to reduce uncertainties and liability risk. To this end, experts from across the world discuss the dental law in their own countries, covering both civil and criminal law and highlighting key aspects such as patient rights, insurance, and compensation. In the section on forensic odontostomatology, extensive guidance is provided on development of the dentition, clinical findings and documentation, personal identification, age estimation, and the [...]?

Features

There is an increasing need for legal knowledge in the relationship between dentist and patient, as more and more often the dentist and the patient are meeting again in court. It is therefore advisable for the dentist to be familiar with the basics of law as it relates to dentistry, and especially the law of tort (including negligence and breach of duty of care). In addition, of course, dentists may be [...]?

Contents

History. - History of Forensic and Legal Dentistry. - History of Legal Odontology in Argentina. - The Role of Dentists in Indonesian Disaster Victim Identification Operations. - Legal Dentistry: Liability in Dentistry - Belgium. - General Swiss Legal Bases. - Dental Law in France. - Dental Jurisprudence in Norway and Other Nordic Countries. - Dental Law in Finland. - Forensic Odontology in the United Kingdom. - Legal Aspects Related to Health Care Insurance, Dental Practitioners and Forensic Odontologists in South Africa. - Legal Odontology in [...]?

Fields of interest

Dentistry; Forensic Medicine

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-319-01329-9

Hardcover

2014. XVII, 330 p. 200 illus., 48 illus. in color.
ISBN 978-3-319-01329-9
usually dispatched within 3 to 5 business days

Earth Sciences

Data-Driven Modeling: Using MATLAB® in Water Resources and Environmental Engineering

"Data-Driven Modeling: Using MATLAB® in Water Resources and Environmental Engineering" provides a systematic account of major concepts and methodologies for data-driven models and presents a unified framework that makes the subject more accessible to and applicable for researchers and practitioners. It integrates important theories and applications of data-driven models and uses them to deal with a wide range of problems in the field of water resources and environmental engineering such as hydrological forecasting, flood analysis, water quality monitoring, regionalizing climatic data, and general function approximation. The book presents the statistical-based models including basic [...]?

Features

"Data-Driven Modeling: Using MATLAB® in Water Resources and Environmental Engineering" provides a systematic account of major concepts and methodologies for data-driven models and presents a unified framework that makes the subject more accessible to and applicable for researchers and practitioners. It integrates important theories and applications of data-driven models and uses them to deal with a wide [...]?

Contents


Fields of interest

Hydrogeology; Hydrology / Water Resources; Math. Appl. in Environmental Science; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Monitoring / Environmental Analysis; Environmental Management

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-94-007-7505-3

Hardcover

2014. XIII, 292 p. 142 illus., 79 illus. in color. (Water Science and Technology Library, Vol. 67)
ISBN 978-94-007-7505-3
usually dispatched within 3 to 5 business days
Disaster Education and Management
A Joyride for Students, Teachers and Disaster Managers

The book is expressly written for the young minds because they are our best hope for a safer tomorrow. The book is profusely illustrated, as it offers a joyride to the world of the whole range of hazards through simplified teaching-learning process, with less of teaching and more of learning. This is because most readers would love to learn without actually being taught. The book is designed to take advantage of distilled wisdom of centuries to inspire and enlighten the common man to turn them into prime movers of safer societies. Senior citizens, community leaders, self-trained disaster managers, social workers, media personnel, bureaucrats and those averse to the very thought of[...]

Features
The book is expressly written for the young minds because they are our best hope for a safer tomorrow. The book is profusely illustrated, as it offers a joyride to the world of the whole range of hazards through simplified teaching-learning process, with less of teaching and more of learning. This is because most readers would love to learn without actually being taught. The book is designed to take advantage[...]

Contents

Fields of interest
Natural Hazards, Science Education; Popular Science

Target groups
Popular/general

Type of publication
Monograph

More on www.springer.com/978-81-322-1565-3

Hardcover
2014, XXVIII, 349 p. 301 illus.
$179.00
usually dispatched within 3 to 5 business days

Rheological and Seismic Properties of Solid-Melt Systems
A Mechanical Spectroscopy Study

Our understanding of the rheological and seismic properties of the Earth's interior relies on interpreting geophysical observations using mineral physics data. The complexity of natural materials complicates these interpretations, but here the key features of such materials in controlling the attenuation of seismic waves are determined by a set of careful experiments. This thesis clearly explains how dynamic mechanical spectroscopy has been used to determine the visco-elastic properties of igneous and sedimentary rocks containing geological fluids. These experiments highlight, for the first time, the importance of mineral and rock microstructures as controls on geophysical properties[...]

Features
Our understanding of the rheological and seismic properties of the Earth's interior relies on interpreting geophysical observations using mineral physics data. The complexity of natural materials complicates these interpretations, but here the key features of such materials in controlling the attenuation of seismic waves are determined by a set of careful experiments. This thesis clearly explains how dynamic[...]

Contents
Introduction.- Experimental methods.- Sample characteristics.- Thermal relaxations in gabbro and basalt.- Glass transition and brittle failure of crystal-glass silicates.- Crackling noise in basalt and gabbro.- Fluid pressure and failure modes of sandstones.- Conclusion.

Fields of interest
Structural Geology; Quantitative Geology; Spectroscopy and Microscopy; Continuum Mechanics and Mechanics of Materials; Geophysics / Geodesy

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-03097-5

Hardcover
2014, XVIII, 159 p. 94 illus., 17 illus. in color. (Springer Theses)
$129.00
ISBN 978-3-319-03097-5
usually dispatched within 3 to 5 business days

Infrared spectra of mineral species
Extended library

Over the last 30 years, Dr. Nikita V. Chukanov has collected IR spectra of about 2000 mineral species, including 247 holotype samples. In this book, he presents 3309 spectra of these minerals with detailed description and analytical data for reference samples. In the course of this work, about 150 new mineral species have been discovered. After an introductory chapter, infrared spectra of minerals are given together with the descriptions of standard samples used (occurrence, appearance, associated minerals, empirical formula etc.) and some comments. Sections are organized according to different classes of compounds (silicates, phosphates, arsenates,...[...]

Features
Over the last 30 years, Dr. Nikita V. Chukanov has collected IR spectra of about 2000 mineral species, including 247 holotype samples. In this book, he presents 3309 spectra of these minerals with detailed description and analytical data for reference samples. In the course of this work, about 150 new mineral species have been discovered. This book presents spectra of each mineral together with a[...]

Contents

Fields of interest
Mineralogy; Spectroscopy and Microscopy; Characterization and Evaluation of Materials

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-7127-7

Hardcover
2014, IX, 1726 p. 3547 illus., 1 illus. in color. In 2 volumes, not available separately. (Springer Geochimistry/Mineralogy)
$279.00
ISBN 978-94-007-7127-7
usually dispatched within 3 to 5 business days
Weathering and the Riverine Denudation of Continents

In this monograph the authors present an overview of the state-of-the-art and use examples or case histories to illustrate the combined role of rock decay and rivers on continental denudation. The Earth’s surface dynamics would not be conceivable without the fundamental component of rock weathering and the subsequent transport of solid debris and dissolved components to the coastal ocean through riverine drainage pathways. In other words, continental wear away is highly dependent on the mechanisms that control mineral decay. Moreover, besides the significant role played by rivers in shaping the Earth’s outer skin, there is the important function that rivers perform in all geochemical [...]
New Trends in Earth-Science Outreach and Engagement
The Nature of Communication

Perhaps just as perplexing as the biggest issues at the core of Earth science is the nature of communicating about nature itself. New Trends in Earth-Science Outreach and Engagement: The Nature of Communication examines the processes of communication necessary in bridging the chasm between climate change and natural hazard knowledge and public opinion and policy. At this juncture of science and society, 17 chapters take a proactive and prescriptive approach to communicating with the public, the media, and policy makers about the importance of Earth science in everyday life. Book chapters come from some 40 authors who are geophysical scientists, social scientists, educators, scholars,

Contents
Preface.- Acknowledgements.- Foreword.- Part I – Framing Climate Change.- 1 Assessing Corporate Influence on Climate Change Dialogue.- 2 Reaching Out Beyond the “Usual Suspects” and Traditional Media.- 3 Investigating the Connections Between Oil and Gas Industry Affiliation and Climate Change Concerns.- Part II – The Role of Science in the Conversation.- 4 Science Communication and the Legal System.- 5 Reduction of Conflicts in Mining Using Good Neighbor Agreements.- 6 Science Communication and Tension Between Evidence-Based and Inclusive Features of Policy Making.- 7 Science and Policy

Fields of interest
Natural Hazards; Communication Studies; Public Relations; Environment (general); Geography (general); Earth System Sciences

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-3-319-01820-1

Hardcover
2014, XXVIII, 244 p. 49 illus., 47 illus. in color. (Advances in Natural and Technological Hazards Research, Vol. 38) $129.00
ISBN 978-3-319-01820-1
usually dispatched within 3 to 5 business days

Schumann Resonance for Tyros
Essentials of Global Electromagnetic Resonance in the Earth-Ionosphere Cavity

Schumann resonance has been studied for more than half a century. The field became popular among researchers of the terrestrial environment using natural sources of electromagnetic radiation—lightning strokes, primarily—and now many Schumann observatories have been established around the world. A huge number of publications can be found in the literature, the most recent collection of which was presented in a special Schumann resonance section of the journal Radio Science in 2007. The massive publications, however, impede finding information about how to organize measurements and start observations of global electromagnetic resonance. Relevant information is scattered throughout many...

Contents

Fields of interest
Geophysics / Geodesy; Atmospheric Sciences; Statistical Physics, Dynamical Systems and Complexity

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-4-431-54357-2

Hardcover
2014, XI, 348 p. 148 illus., 135 illus. in color. (Springer Geophysics) $129.00
usually dispatched within 3 to 5 business days
Petrology

Principles and Practice

This undergraduate textbook on the key subject of geology closely follows the core curriculum adopted by most universities throughout the world and is a must for every geology student. It covers all aspects of petrology, including not only the principles of petrology but also applications to the origin, composition, and field relationships of rocks. Although petrology is commonly taught in the junior year, this book is a useful resource for graduate students as well.

Features

This undergraduate textbook on the key subject of geology closely follows the core curriculum adopted by most universities throughout the world and is a must for every geology student. It covers all aspects of petrology, including not only the principles of petrology but also applications to the origin, composition, and field relationships of rocks. Although petrology is commonly taught in the junior year, this book is a useful resource for graduate students as well.

Contents


Fields of interest

Geology; Mineralogy; Geochemistry

Target groups

Upper undergraduate

Type of publication

Undergraduate textbook

More on www.springer.com/978-3-642-38799-9

Hardcover

2014. VII, 368 p. 102 illus. in color. $89.99
ISBN 978-3-642-38799-9
Currently out of stock, reprint ready for shipping 6 weeks.

Geological CO2 Storage Characterization

The Key to Deploying Clean Fossil Energy Technology

This book investigates geological CO2 storage and its role in greenhouse gas emissions reduction, enhanced oil recovery, and environmentally responsible use of fossil fuels. Written for energy/environmental regulators at every level of government (federal, state, etc.), scientists/academics, representatives from the power and fossil energy sectors, NGOs, and other interested parties, this book uses the characterization of the Rock Springs Uplift site in Wyoming as an integrated case study to illustrate the application of geological CO2 storage science, principles, and theory in a real-world scenario.

Features

This book investigates geological CO2 storage and its role in greenhouse gas emissions reduction, enhanced oil recovery, and environmentally responsible use of fossil fuels. Written for energy/environmental regulators at every level of government (federal, state, etc.), scientists/academics, representatives from the power and fossil energy sectors, NGOs, and other interested parties, this book.[...]

Contents


Fields of interest

Environmental Science and Engineering; Geotechnical Engineering & Applied Earth Sciences; Geoengineering, Foundations, Hydraulics; Economic Geology; Earth System Sciences; Fossil Fuels (incl. Carbon Capture)

Target groups

Research

Type of publication

Monograph


Hardcover

2013. XV, 174 p. 96 illus., 72 illus. in color. (GeoPlanet: Earth and Planetary Sciences) $179.00
usually dispatched within 3 to 5 business days

Atlantic Water in the Nordic Seas

Properties, Variability, Climatic Importance

The book presents a wide description of hydrographic conditions in the studied area of the Norwegian and Greenland Seas. Variability of the Atlantic Water properties have been presented on the basis of time series obtained from oceanographic measurements performed each summer from 2000 to 2007 by the Institute of Oceanology Polish Academy of Sciences. The warming observed in that period has been described in detail as well as cooling of the Atlantic Water flowing towards the Fram Strait in 2007. Furthermore, concepts regarding multi-branch structure of the West Spitsbergen Current have been presented, types of flows in individual branches as well as variability of the flows.[...]

Features

The book presents a wide description of hydrographic conditions in the studied area of the Norwegian and Greenland Seas. Variability of the Atlantic Water properties have been presented on the basis of time series obtained from oceanographic measurements performed each summer from 2000 to 2007 by the Institute of Oceanology Polish Academy of Sciences. The warming observed in that period has been described [...]

Contents


Fields of interest

Oceanography; Climate Change Impacts

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-01278-0

Hardcover

2014. XX, 174 p. 96 illus., 72 illus. in color. (GeoPlanet: Earth and Planetary Sciences) $129.00
ISBN 978-3-319-01278-0
usually dispatched within 3 to 5 business days
Flexible Global Ocean-Atmosphere-Land System Model

A Modeling Tool for the Climate Change Research Community

Coupled climate system models are of central importance for climate studies. A new model known as FGOALS (the Flexible Global Ocean-Atmosphere-Land System model), has been developed by the State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics, Institute of Atmospheric Physics, Chinese Academy of Sciences (LASG/IAP, CAS), a first-tier national geophysical laboratory. It serves as a powerful tool, both for deepening our understanding of fundamental mechanisms of the climate system and for making decadal prediction and scenario projections of future climate change. ‘Flexible Global Ocean-Atmosphere-Land System Model: A Modeling Tool for the’ [...]

Features
Coupled climate system models are of central importance for climate studies. A new model known as FGOALS (the Flexible Global Ocean-Atmosphere-Land System model), has been developed by the State Key Laboratory of Numerical Modeling for Atmospheric Sciences and Geophysical Fluid Dynamics, Institute of Atmospheric Physics, Chinese Academy of Sciences (LASG/IAP, CAS), a first-tier national geophysical [...]

Contents

Fields of interest
Earth System Sciences; Meteorology; Climatology; Geophysics and Environmental Physics; Climate Change

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-41800-6

Hardcover
2014. XVI, 483 p. 176 illus., 152 illus. in color. (Springer Earth System Sciences)
$229.00
ISBN 978-3-642-41800-6
usually dispatched within 3 to 5 business days

Economics

C. Devonshire-Ellis, Dezan Shira & Associates, Kowloon, Hong Kong; C. Fleming, Dezan Shira & Associates, Shanghai, China (P.R.); E. Ku (Eds.)

Human Resources and Payroll in China

Chinese law places significant obligations on employers to remain legally compliant in all labor matters. In this guide, we address the major issues in managing employment relationships in China. Including: Recruiting Professionals; Hiring Staff; Handling Payroll; Managing the Employment Relationship; Terminating the Employment Relationship; Organizing Visas. Within these topics, we address labor contracts, company rulebooks, salary packages, social insurance contributions, special circumstances for employees (extended sickness or pregnancy), termination and severance pay, and visas for foreign staff and Chinese staff being sent to work abroad.

Features
Chinese law places significant obligations on employers to remain legally compliant in all labor matters. In this guide, we address the major issues in managing employment relationships in China. Including: Recruiting Professionals; Hiring Staff; Handling Payroll; Managing the Employment Relationship; Terminating the Employment Relationship; Organizing Visas. Within these topics, we address labor contracts, company rulebooks, salary packages, social insurance contributions, special circumstances for employees (extended sickness or pregnancy), termination and severance pay, and visas for foreign staff and Chinese staff being sent to work abroad.

Contents
Recruiting Professionals; Hiring Staff; Handling Payroll; Managing the Employment Relationship; Terminating the Employment Relationship; Organizing Visas.

Fields of interest
Management/Busines for Professionals; Personnel Management

Target groups
Research

Type of publication
Professional book

More on www.springer.com/978-3-642-36041-1

Softcover
2014. VIII, 104 p. 6 illus. (SpringerBriefs in Information Systems)
$59.99
ISBN 978-3-319-02452-3
usually dispatched within 3 to 5 business days

SOA Maturity Model

A Delphi-Derived Proposal for Inter-Enterprise Setups

Companies have long sought to integrate existing Information Systems (IS) in order to support existing and potentially new business processes spread throughout their “territories” and possibly to collaborating organizations. A variety of designs can be used to this end, ranging from rigid point-to-point electronic data interchange (EDI) interactions to “Web auctions”. By updating older technologies, such as “Internet-enabling” EDI-based systems, companies can make their IT systems available to internal or external customers; but the resulting systems have not proven to be flexible enough to meet business demands. A more flexible, standardized architecture is required to better support[...]

Features
Companies have long sought to integrate existing Information Systems (IS) in order to support existing and potentially new business processes spread throughout their “territories” and possibly to collaborating organizations. A variety of designs can be used to this end, ranging from rigid point-to-point electronic data interchange (EDI) interactions to “Web auctions”. By updating older technologies, such as [...]

Contents

Fields of interest
Business Information Systems; Information Systems and Communication Service; Management of Computing and Information Systems

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02452-3

Softcover
2014. VIII, 104 p. 6 illus. (SpringerBriefs in Information Systems)
$59.99
ISBN 978-3-319-02452-3
usually dispatched within 3 to 5 business days
The Handbook of Financial Modeling

A Practical Approach to Creating and Implementing Valuation Projection Models

The ability to create and understand financial models that assess the valuation of a company, the projects it undertakes, and its future earnings/profit projections is one of the most valued skills in corporate finance. However, while many business professionals are familiar with financial statements and accounting reports, few are truly proficient at building an accurate and effective financial model from the ground up. That’s why, in The Financial Modeling Handbook, Jack Avon equips financial professionals with all the tools they need to precisely and effectively monitor a company’s assets and project its future performance. Based on the author’s extensive experience building[...]

Features
The ability to create and understand financial models that assess the valuation of a company, the projects it undertakes, and its future earnings/profit projections is one of the most valued skills in corporate finance. However, while many business professionals are familiar with financial statements and accounting reports, few are truly proficient at building an accurate and effective financial model from the [...]

Fields of interest
Business & Management Science

Target groups
Popular/general

Type of publication
Professional book

More on www.springer.com/978-1-4302-6205-3

Softcover
2013. 504 p.
$79.99
usually dispatched within 3 to 5 business days

China’s Road Ahead

Problems, Questions, Perspectives

This book provides a critical commentary on China’s situation and future outlook from the perspective of the 2012-13 generational power transfer. In this power transfer, taking place against the background of an increasingly unstable domestic situation, an apparently outstandingly successful generation of “half-communist” leaders, recently increasingly plagued by scandal, transferred responsibility to a generation confronted by mixed expectations and factional in-fighting. Many international observers doubt that the new leadership will have the will or the power to introduce serious reforms in a country that reports 100,000 riots involving more than 500 persons in public areas per[...]

Features
This book provides a critical commentary on China’s situation and future outlook from the perspective of the 2012-13 generational power transfer. In this power transfer, taking place against the background of an increasingly unstable domestic situation, an apparently outstandingly successful generation of “half-communist” leaders, recently increasingly plagued by scandal, transferred responsibility to a [...]

Contents
Foreword. - Preface. - Chapter 1 Xi Jinping’s China. - Chapter 2 The cry for Chinese democratization. - Chapter 3 The 2012-13 generational power transfer and it’s perspectives. - Chapter 4 The Ethnonationalism Problem. - Chapter 5 China’s new foreign policy and the West. - Chapter 6 China and its neighbors. - Chapter 7 China: The road ahead. - Chapter 8 Perspectives I: Basing China’s government on legitimacy and values: An Interview with Peng Bo. - Chapter 9 Perspectives II: Coexistence between Communitarian China and the Individualistic U.S.: An Interview with Robert Martin Less.

Fields of interest
Emerging Markets / Globalization; Social Policy; International Relations

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-9362-4

Softcover
2014. XVI, 132 p. 1 illus. (SpringerBriefs in Political Science)
$54.99
ISBN 978-1-4614-9362-4
usually dispatched within 3 to 5 business days

Due Diligence and the Business Transaction

Getting a Deal Done

Due Diligence and the Business Transaction: Getting a Deal Done is a practical guide to due diligence for anyone buying or selling a privately held business or entering into a major agreement with another company. When you’re buying a business, it’s wise to conduct due diligence. That’s the process of investigating and verifying the firm’s finances, labor record, exposure to environmental issues, store of intellectual property, hard assets, ownership structure, and much more. If you don’t, you may later stumble into serious, costly problems, or you may pay an inflated price for the business. This book not only shows you how to conduct such an examination and what to look for, but it[...]

Features
Due Diligence and the Business Transaction: Getting a Deal Done is a practical guide to due diligence for anyone buying or selling a privately held business or entering into a major agreement with another company. When you’re buying a business, it’s wise to conduct due diligence. That’s the process of investigating and verifying the firm’s finances, labor record, exposure to [...]
Integrated Reporting

Concepts and Cases that Redefine Corporate Accountability

This book focuses on Integrated Reporting as a contemporary social and managerial innovation where a number of initiatives, organizations and individuals began to converge in response to the need for a consistent, collaborative and internationally accepted approach to redesign corporate reporting. Integrated Reporting is a process that results in communication of the annual "integrated report" which describes value creation over time. An integrated report is a concise communication about how an organization’s strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term. This book offers a fresh perspective with expert contributions [...]"..."
Sustainable Product-Service Systems

Between Strategic Design and Transition Studies

This book investigates the potential contribution that a strategic design approach can make to stimulating and supporting the societal embedding of sustainable PSSs (product-service systems). A new strategic design role thus emerges; a role in which the ideation and development of sustainable PSS concepts is coupled with the designing of appropriate transition paths (sequence of socio-technical experiments) to gradually incubate, introduce and diffuse these concepts. The book also outlines the new design approach and capabilities needed by strategic designers, project managers and consultants to operate at such a strategic level. On a more operational point of view, the work presents [...] Contents


Fields of interest
Technology Management; Sustainable Development; Design (general); Business Strategy / Leadership

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-03794-3

The Social Web in the Hotel Industry

The Impact of the Social Web on the Information Process of German Hotel Guests

The social web is defined as the social part of the Internet that enables (personally unknown) people to socially interact with each other in order to cherish friendships and make new acquaintances. The social web’s current significance exceeds this initial focus, by also encompassing corporate and commercial activities. Nadine Chehimi examines to what extent the social web influences the information process of German hotel guests. In addition to the presentation of the social web’s development and current state of use, general and tourist information processes as well as the German hotel market are described. With the help of a standardized guest survey, the author presents the exact [...] Contents


Fields of interest
Business & Management Science; Marketing; Market Research

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04543-2

Softcover
2014. XXIV, 183 p. 79 illus. $89.99
usually dispatched within 3 to 5 business days

Rural Labor Migration, Discrimination, and the New Dual Labor Market in China

This book studies some important issues in China’s labor market, such as rural labor migration, employment and wage discrimination, the new dual labor market, and economic returns on schooling, using the newer and representative data and advanced estimation models. This approach has yielded many interesting results, including a solution to the dilemma of two ongoing crises since 2004: the rural labor surplus and severe shortage of migrant labor. While male workers generally received less favorable treatment and consequently enjoyed a lower average employment probability than female workers in 1996, they also received preferential treatment over female workers, who otherwise had [...] Contents


Fields of interest
Labor Economics; Social Sciences (general); Statistics for Social Science, Behavioral Science, Education, Public Policy, and Law

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-642-41108-3

Softcover
ISBN 978-3-642-41108-3
usually dispatched within 3 to 5 business days
Intelligent Fashion Forecasting Systems: Models and Applications

Forecasting is a crucial function for companies in the fashion industry, but for many real-life forecasting applications in the, the data patterns are notorious for being highly volatile and it is very difficult, if not impossible, to analytically learn about the underlying patterns. As a result, many traditional methods (such as pure statistical models) will fail to make a sound prediction. Over the past decade, advances in artificial intelligence and computing technologies have provided an alternative way of generating precise and accurate forecasting results for fashion businesses. Despite being an important and timely topic, there is currently an absence of a comprehensive [...]

Contents

Fields of interest
Business Information Systems; Information Systems Applications (incl. Internet); Production / Logistics

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-642-39868-1

Hardcover
2014. VIII, 194 p. 76 illus., 39 illus. in color.
$129.00
ISBN 978-3-642-39868-1
usually dispatched within 3 to 5 business days

The Good Society
A Comparative Study of Denmark and Switzerland

Denmark and Switzerland are small and successful countries with exceptionally content populations. However, they have very different political institutions and economic models. They have followed the general tendency in the West toward economic convergence, but both countries have managed to stay on top. They both have a strong liberal tradition, but otherwise their economic strategies are a welfare state model for Denmark and a safe haven model for Switzerland. The Danish welfare state is tax-based, while the expenditures for social welfare are insurance-based in Switzerland. The political institutions are a multiparty unicameral system in Denmark, and a permanent coalition system [...]

Features
Denmark and Switzerland are small and successful countries with exceptionally content populations. However, they have very different political institutions and economic models. They have followed the general tendency in the West toward economic convergence, but both countries have managed to stay on top. They both have a strong liberal tradition, but otherwise their economic strategies are a welfare state [...]

Contents

Fields of interest
Development Economics; Economic Growth; Public Finance & Economics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-37237-7

Hardcover
2013. IX, 148 p. 19 illus., 15 illus. in color. (Economic Studies in Inequality, Social Exclusion and Well-Being)
$59.99
ISBN 978-3-319-03136-1
usually dispatched within 3 to 5 business days

Infrastructure and Economic Growth in Asia

Public spending on infrastructure plays an important role in promoting economic growth and poverty alleviation. Empirical studies unequivocally show that under-investment in infrastructure limits economic growth. At the same time, numerous other studies have shown that investment in infrastructure can be a highly effective tool in fighting poverty reduction. In that context, the financing of infrastructure has been a critical element of most economic growth and poverty reduction strategies in developing countries, since the start of this millennium. This book provides a comparative analysis of the aggregate and sectoral implications of higher spending on infrastructure in three very [...]

Features
Public spending on infrastructure plays an important role in promoting economic growth and poverty alleviation. Empirical studies unequivocally show that under-investment in infrastructure limits economic growth. At the same time, numerous other studies have shown that investment in infrastructure can be an effective tool in fighting poverty reduction. In that context, the financing of infrastructure has been [...]

Contents

Fields of interest
Development Economics; Economic Growth; Public Finance & Economics

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-03136-1

Hardcover
2013. IX, 148 p. 19 illus., 15 illus. in color. (Economic Studies in Inequality, Social Exclusion and Well-Being)
$59.99
ISBN 978-3-319-03136-1
usually dispatched within 3 to 5 business days
Water Resources and Food Security in the Vietnam Mekong Delta

The Mekong River has been a main source of conquest, conflict, and cooperation in the Southeast Asian region. Much has been written on the vital and critical importance of the Mekong River fresh water to the sustainable economic development of the Mekong Delta. This book selects the Mekong Delta as a case study of regional cooperation for water and food security for not only for Vietnam but also for the world in a new century of global economy. It focuses not only on the Mekong Delta as an integral part of the River but also on Can Tho City and its 12 provinces that produce over 50 percent of the country’s rice output and 60 percent of total fishery output. The book takes a micro...[...]

Contents

Fields of interest
Environmental Economics; Hydrology / Water Resources; Agricultural Economics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02197-3

Hardcover
2014. XVI, 178 p. 5 illus. in color. (Natural Resource Management and Policy, Vol. 44)
$129.00
ISBN 978-3-319-02197-3
usually dispatched within 3 to 5 business days

Fourth Generation Mobile Communication: The Path to Superfast Connectivity

This book deals with the development of so-called fourth generation mobile communications or 4G. It covers all aspects of the technology in a form comprehensible to the general reader, a history of its implementation on a worldwide basis and information on how it will be used to improve business transactions. It is up-to-date, comprehensive, and is based upon information acquired from well over one thousand individual sources. All of the data are set up in a manner that simplifies comparisons between countries and service providers. Based on the extensive analysis of the different contexts and progress of 4G technology, future prospects for high-speed mobile communications are also...[...]

Features
This book deals with the development of so-called fourth generation mobile communications or 4G. It covers all aspects of the technology in a form comprehensible to the general reader, a history of its implementation on a worldwide basis and information on how it will be used to improve business transactions. It is up-to-date, comprehensive, and is based upon information acquired from well over one thousand [...]...[...]

Contents

Fields of interest
Business Information Systems; Technology Management; Communication Studies; Management of Computing and Information Systems

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-02209-3

Softcover
2013. XV, 237 p. (Management for Professionals)
$79.99
ISBN 978-3-319-02209-3
usually dispatched within 3 to 5 business days

Archetypes of Crowdfunding Platforms: A Multidimensional Comparison

Currently, a new potential paradigm of fundraising and financing, in particular crowdfunding (CF) attracts a lot of attention. Basically, CF is an open call for capital, mainly via the internet, where the desired campaign can be evaluated and financially supported by a large group of individuals, the crowd. The matchmaking process between campaign creators and potential investors is mainly established by a standardized CF platform (CFP). Scientific discourse on CF is still nascent, since existing studies and papers focus on the potential of CF and its basic principles. Florian Dannmayr addresses crowdfunding platforms as object of his analysis and contributes to the body of literature...[...]

Features
Currently, a new potential paradigm of fundraising and financing, in particular crowdfunding (CF) attracts a lot of attention. Basically, CF is an open call for capital, mainly via the internet, where the desired campaign can be evaluated and financially supported by a large group of individuals, the crowd. The matchmaking process between campaign creators and potential investors is mainly established by a [...]...[...]

Contents
Basic Principles of Web 2.0: From Crowdsourcing to Crowd funding.- Types of Crowd funding.- The Market of Crowd funding Platforms.- Crowd fund ing as a Source of Finance.- Motivational and Key Success Factors.- Legal Limitations of and Critique on Crowd funding.

Fields of interest
Business & Economics (general); Finance / Banking; Technology Management

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04558-6

Softcover
2014. XVIII, 117 p. 30 illus., 2 illus. in color. (BestMasters)
$89.99
ISBN 978-3-658-04558-6
usually dispatched within 3 to 5 business days
**The Environment in Economics and Development**

**Pluralist Extensions of Core Economic Models**

V. Dayal

This brief views the environment through diverse lenses – those of standard economics, institutional economics, political science, environmental science and ecology. Chapter 2 discusses diverse theoretical and statistical models – constrained optimization models, game theory, differential equations, and statistical models for causal inference – in a simple manner. Developing countries have certain distinct environmental problems – traditional pollution and traditional dependence on the commons. While chapters 3 and 4 discuss these specific problems, statistical graphs of the World Development Indicators explore the macro-context of developing countries in chapter 1. Chapter 5 examines [...] 

**Features**

This brief views the environment through diverse lenses – those of standard economics, institutional economics, political science, environmental science and ecology. Chapter 2 discusses diverse theoretical and statistical models – constrained optimization models, game theory, differential equations, and statistical models for causal inference – in a simple manner. Developing countries have certain distinct [...] 

**Contents**

Chapter 1: Context and overview of environment and development economics. - Chapter 2: Models and frameworks. - Chapter 3: Traditional and modern pollution. - Chapter 4: Livelihoods and the Commons. - Chapter 5: Complex Ecology. - Chapter 6: Global public goods. - Chapter 7: Sustainable development and institutions. 

**Fields of interest**

Environmental Economics; Development Economics; Ecology; Sustainable Development 

**Target groups**

Research 

**Type of publication**

Brief 

More on www.springer.com/978-81-322-1670-4 

**Softcover**

2014, XI, 84 p. 54 illus. (SpringerBriefs in Economics) $54.99 ISBN 978-81-322-1670-4 usually dispatched within 3 to 5 business days

---

**Exporting**

**The Definitive Guide to Selling Abroad Profitably**

L.J. Delaney

Exporting: The Definitive Guide to Selling Abroad Profitably is for entrepreneurs and small business owners—the makers, movers, and shakers in our world—interested in taking their businesses to the next level of growth through exports. In the old days, creating an international business was left to relatively few—those with the wherewithal to move boatloads of goods into foreign countries. But now, thanks to the Internet, businesses of all sizes have a huge new opportunity to sell both goods and services globally. Yet only 1% of all U.S. businesses export. Why? Typically, exporting begins with unsolicited inquiries from foreign customers on the web via email, website, blog, or posting [...] 

**Features**

Exporting: The Definitive Guide to Selling Abroad Profitably is for entrepreneurs and small business owners—the makers, movers, and shakers in our world—interested in taking their businesses to the next level of growth through exports. In the old days, creating an international business was left to relatively few—those with the wherewithal to move boatloads of goods into foreign countries. But now, thanks to the Internet, businesses of all sizes have a huge new opportunity to sell both goods and services globally. Yet only 1% of all U.S. businesses export. Why? Typically, exporting begins with unsolicited inquiries from foreign customers on the web via email, website, blog, or posting [...] 

**Fields of interest**

Business & Management Science 

**Target groups**

Popular/general 

**Type of publication**

Popular/general 

**Softcover**

2013, 552 p. $34.99 ISBN 978-1-4302-5791-2 usually dispatched within 3 to 5 business days 

---

**Understanding Policy Decisions**

B. Dente, Politecnico di Milano, Milan, Italy

This book proposes a model for understanding how innovative policy decisions are taken in complex political and organizational systems as well as the possible strategies that the promoter of the innovation can employ in order to maximize the probability of successful adoption and implementation. It presents a conceptual framework for the analysis of decisional situations in order to design the most appropriate strategies for overcoming conflict (e.g. of the NIMBY variety) and/or increasing the engagement of potentially interested actors. The book includes a template for decisional case studies, a protocol for the definition of a decisional strategy, and an exercise in decisional analysis. 

**Features**

This book proposes a model for understanding how innovative policy decisions are taken in complex political and organizational systems as well as the possible strategies that the promoter of the innovation can employ in order to maximize the probability of successful adoption and implementation. It presents a conceptual framework for the analysis of decisional situations in order to design the most appropriate [...] 

**Contents**


**Fields of interest**

Operation Research / Decision Theory; Statistics for Social Science, Behavioral Science, Education, Public Policy, and Law; Political Theory 

**Target groups**

Research 

**Type of publication**

Brief 

More on www.springer.com/978-3-319-02519-3 

**Softcover**

2014, VIII, 134 p. 11 illus. (PoliMI SpringerBriefs) $54.99 ISBN 978-3-319-02519-3 usually dispatched within 3 to 5 business days
Globalization of Financial Institutions
A Competitive Approach to Finance and Banking

This peer-reviewed volume from the Society for the Study of Business and Finance, discusses current issues in globalization and financial system from an international political and economic perspective. Contemporary instruments and actors in the global financial system are specially analyzed and the discussion of managerial and financial issues of the global financial strategies offers novelty to readers and researchers in the field.

Features
This peer-reviewed volume from the Society for the Study of Business and Finance, discusses current issues in globalization and financial system from an international political and economic perspective. Contemporary instruments and actors in the global financial system are specially analyzed and the discussion of managerial and financial issues of the global financial strategies offers novelty to readers [...]
Formal and Informal Strategic Planning

The Interdependency between Organization, Performance and Strategic Planning

Previous research focused either on the relationship between strategic planning and performance or coordination mechanisms and performance. Therefore, a conceptually and empirically validated understanding of the interaction between these three factors is limited. This study addresses this gap in the literature by delivering three contributions to theory and empirical research: firstly, by clarifying and proposing the influences of strategic planning and strategic organization on the performance; secondly, by developing a model and associated hypotheses on both direct and interaction effects of strategic planning and coordination mechanisms; and thirdly, by testing the hypotheses.[...]

Features

Previous research focused either on the relationship between strategic planning and performance or coordination mechanisms and performance. Therefore, a conceptually and empirically validated understanding of the interaction between these three factors is limited. This study addresses this gap in the literature by delivering three contributions to theory and empirical research: firstly, by clarifying and proposing the influences of strategic planning and strategic organization on the performance; secondly, by developing a model and associated hypotheses on both direct and interaction effects of strategic planning and coordination mechanisms; and thirdly, by testing the hypotheses.[...]

Contents

Corporate strategy.- Formal and informal strategic planning.- Organizational culture and organizational structure.- Coordination mechanisms.

Fields of interest

Management/Business for Professionals

Target groups

Research

Type of publication

Monograph


Softcover

2014. XVII, 110 p. 6 illus. (BestMasters)

$89.99


usually dispatched within 3 to 5 business days

Welfare State at Risk

Rising Inequality in Europe

This book investigates the causes of inequalities that have developed in the European Union, analyzes their social and economic consequences, and assesses the political measures taken to address these issues – also on the basis of public survey results. The detailed analyses presented focus on structures of inequality to be found in the areas education, culture, labor market, Internet access, families and children, gender, and the regions of the EU. The book also critically examines both the legal framework conditions and financial / taxation policy as instruments that can be used to either produce or combat inequality.

Features

This book investigates the causes of inequalities that have developed in the European Union, analyzes their social and economic consequences, and assesses the political measures taken to address these issues – also on the basis of public survey results. The detailed analyses presented focus on structures of inequality to be found in the areas education, culture, labor market, Internet access, families and children, gender, and the regions of the EU. The book also critically examines both the legal framework conditions and financial / taxation policy as instruments that can be used to either produce or combat inequality.

Contents


Fields of interest

Public Finance & Economics; Political Economy

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-319-01480-7

Hardcover

2014. VI, 236 p. 43 illus.

$129.00

ISBN 978-3-319-01480-7

usually dispatched within 3 to 5 business days
Leading Pharmaceutical Operational Excellence

Outstanding Practices and Cases

Achieving operational excellence is a challenge for the pharmaceutical industry, with many companies setting successful examples time and again. This book presents such leading practices for managing operational excellence throughout the pharmaceutical industry. Based on the St.Gallen OPEX Model the authors describe the current status of OPEX and the future challenges that have to be dealt with. The ample theoretical background is complemented hand-in-hand by case studies contributed by authors from leading pharmaceutical companies.

Features

Achieving operational excellence is a challenge for the pharmaceutical industry, with many companies setting successful examples time and again. This book presents such leading practices for managing operational excellence throughout the pharmaceutical industry. Based on the St.Gallen OPEX Model the authors describe the current status of OPEX and the future challenges that have to be dealt with. The ample theoretical background is complemented hand-in-hand by case studies contributed by authors from leading pharmaceutical companies.

Contents

Part A - Introduction.
Part B - Leading Operational Excellence - Outstanding Practices.
Part C - Leading Operational Excellence - Outstanding Leadership.
Part D - Gaining the Future.

Fields of interest

Production / Logistics; Business Strategy; Leadership; Pharmaceutical Sciences / Technology; Operation Research / Decision Theory; Management / Business for Professionals

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-35160-0

Critical Success Factors of Change Management

An Empirical Research in German Small and Medium-Sized Enterprises

Change management is omnipresent in organisations as companies have to transform constantly. This applies not only to large corporations operating in an international context, but also to small and medium-sized enterprises (SMEs). Yet executing a change project is accompanied by great challenges and most change initiatives are not entirely successful. Despite the fact that SMEs are the backbone of the German economy little empirical work has been done concerning change management in these companies. Tim Fitzenzschaft explores the issue how SMEs can deal with resistance to change and which critical success factors of change management are most important in a transformation project.

Features

Change management is omnipresent in organisations as companies have to transform constantly. This applies not only to large corporations operating in an international context, but also to small and medium-sized enterprises (SMEs). Yet executing a change project is accompanied by great challenges and most change initiatives are not entirely successful. Despite the fact that SMEs are the backbone of the German economy little empirical work has been done concerning change management in these companies. Tim Fitzenzschaft explores the issue how SMEs can deal with resistance to change and which critical success factors of change management are most important in a transformation project.

Contents

Resistance to Change.
Critical Success Factors of Change Management.
Success and Failure in Change Projects.

Fields of interest

Business & Management Science; Management / Business for Professionals; Personnel Management

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-658-04548-7

Design and Development of Knowledge Management for Manufacturing

Framework, Solution and Strategy

This book examines the modules/elements required before implementing knowledge management solutions in typical manufacturing and service industry. The objective is to develop a framework, design and model suitable for all requirements and a strategy to properly implement. Related case studies from organizations are included, with the results provided to use as a solution to problems experienced when implementing knowledge management in the industry. Implementing a knowledge management system can be complex and dynamic, no matter how well planned and developed. Inevitably a degree of organizational inertia is focused on the current state rather than the new. Within an enterprise, [...]

Features

This book examines the modules/elements required before implementing knowledge management solutions in typical manufacturing and service industry. The objective is to develop a framework, design and model suitable for all requirements and a strategy to properly implement. Related case studies from organizations are included, with the results provided to use as a solution to problems experienced when implementing knowledge management in the industry. Implementing a knowledge management system can be complex and dynamic, no matter how well planned and developed. Inevitably a degree of organizational inertia is focused on the current state rather than the new. Within an enterprise, [...]

Contents

Introduction.
Literature Review.
Readiness Assessment for Knowledge Management Solution Implementation.
Behavior Assessment for Knowledge Management Solutions Implementation.
Taxonomy and Technology Architecture for Knowledge Management Solution Implementation.
Process Design for Knowledge Management Solution Implementation.
Learning Design for Knowledge Management Solution Implementation.
Balance Scorecard Framework for Knowledge Management Solution Implementation.
Vendor Management Framework for Knowledge Management Solution Implementation.
Conclusions.

Fields of interest

Production / Logistics; Industrial Organization; Industrial and Production Engineering

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02891-0

Hardcover

2014. XIX, 194 p. 93 illus., 8 illus. in color.
$129.00
ISBN 978-3-319-02891-0

usually dispatched within 3 to 5 business days
The 12 Magic Slides
Insider Secrets for Raising Growth Capital

Author Paul Getty has seen thousands of brilliant-founding CEOs present to angel investors, venture capitalists, and institutional investors. And he has seen thousands of them fail in their quest for the money they sincerely believed would lead to entrepreneurial success and riches for all. Again and again, he watched would-be tech titans fail to create a good first impression, deliver poor presentations, tell lengthy stories that put investors to sleep, and fail to address the critical issues sophisticated investors are most eager to hear about. If only they’d read The Twelve Magic Slides: Insider Secrets for Raising Growth Capital. Getty’s slide topics developed while coaching[...]

Features
Author Paul Getty has seen thousands of brilliant-founding CEOs present to angel investors, venture capitalists, and institutional investors. And he has seen thousands of them fail in their quest for the money they sincerely believed would lead to entrepreneurial success and riches for all. Again and again, he watched would-be tech titans fail to create a good first impression, deliver poor presentations, tell[...]

Fields of interest
Business & Management Science

Target groups
Popular/general

Type of publication
Professional book


Softcover
2014. 244 p.
$29.99
usually dispatched within 3 to 5 business days

India’s Agricultural Marketing
Market Reforms and Emergence of New Channels

The proposed book provides an assessment of an important yet controversial policy initiated by the Indian government and governments of several other developing countries. Marketing reforms, it is claimed, can be a crucial answer to solving the problem of rural poverty in agrarian economies where large sections of populace are engaged in low paying agriculture. On a wider front, these reforms could help in providing growth impetus to an economy and even the global economy at large. Yet, the subject of liberalizing agricultural markets is also part of a broad and perhaps a bitter political debate between national and sub-national policy makers and academic discourses in India and[...]

Features
The proposed book provides an assessment of an important yet controversial policy initiated by the Indian government and governments of several other developing countries. Marketing reforms, it is claimed, can be a crucial answer to solving the problem of rural poverty in agrarian economies where large sections of populace are engaged in low paying agriculture. On a wider front, these reforms could help in[...]

Contents

Fields of interest
Agricultural Economics; Agriculture; Marketing

Target groups
Business & Management Science; Entrepreneurship; Accounting / Auditing

Type of publication
Monograph

More on www.springer.com/978-81-322-1571-4

Hardcover
2013. XV, 311 p. 13 illus. (India Studies in Business and Economics)
$179.00
ISBN 978-81-322-1571-4
usually dispatched within 3 to 5 business days

How Financial Slack Affects Corporate Performance
An Examination in an Uncertain and Resource Scarce Environment

Bernadette Gral examines the relationship between financial slack and corporate performance in the European pharmaceutical industry during the financial crisis of 2007 to 2010. Her investigation includes correlational and regression analyses as well as the qualitative content analysis of newspaper articles. The results show that financial slack influences corporate performance measured as ROA based on net income, thus implying that firms use slack resources to enhance performance during crises. The findings support the arguments for a beneficial effect of financial slack on performance according to the resource based view and behavioral theory of the firm.

Features
Bernadette Gral examines the relationship between financial slack and corporate performance in the European pharmaceutical industry during the financial crisis of 2007 to 2010. Her investigation includes correlational and regression analyses as well as the qualitative content analysis of newspaper articles. The results show that financial slack influences corporate performance measured as ROA based on net income[...]

Contents

Fields of interest
Business & Management Science; Entrepreneurship; Accounting / Auditing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04551-7

Softcover
2014. XIX, 116 p. 7 illus. (BestMasters)
$89.99
ISBN 978-3-658-04551-7
usually dispatched within 3 to 5 business days
Entrepreneurship Networks in Italy

The Role of Agriculture and Services

In light of the recent dynamics of the recession sparked by the global economic crisis, a roadmap for the growth and recovery of national economies is urgently needed. As such, this book focuses on the potential offered not only by the manufacturing sector but also by the agricultural and tertiary sectors. In fact, during the crisis these sectors demonstrated remarkable resilience in the Italian economy and there have even been positive trends in specific segments. This book points out how an exit strategy could be applied that involves all economic sectors and which can be replicated in various national economies.

Patient Flow

Reducing Delay in Healthcare Delivery

This book is dedicated to improving healthcare through reducing delays experienced by patients. With an interdisciplinary approach, this new edition, divided into five sections, begins by examining healthcare as an integrated system. Chapter 1 provides a hierarchical model of healthcare, rising from departments, to centers, regions and the “macro system.” A new chapter demonstrates how to use simulation to assess the interaction of system components to achieve performance goals, and Chapter 3 provides hands-on methods for developing process models to identify and remove bottlenecks, and for developing facility plans. Section 2 addresses crowding and the consequences of delay. Two new[...]

Comparative Sport Development

Systems, Participation and Public Policy

The aim of this book is to provide an overview of perspectives and approaches to sports development focusing on sport systems, sport participation and public policy towards sports. It includes twelve European countries covering all regions of Europe and eleven countries from around the globe. The objective is to present an overview of the diversity of approaches taken to sport development, focusing on the different sport systems and how sport is financed, the underlying applications of sport policy and how it is reflected in sport participation. This book takes a comparative approach which is reflected in each chapter following a similar structure. The diversity of sports systems in[...]

Feasibility and potential of new sports systems are analyzed in each country, divided into five sections, beginning with an introduction to sport development, sport policy and how it is reflected in sport participation.

Fields of interest

Entrepreneurship; Industrial Organization; Agricultural Economics; Regional Science; Environmental Economics

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-03427-0

Softcover


$54.99

ISBN 978-3-319-03427-0

usually dispatched within 3 to 5 business days

R. Hall, University of Southern California, Los Angeles, USA (Ed.)

K. Hallmann, K. Petry (Eds.)

Fields of interest

Economics; Management and Policy, Vol. 8)

2013. X, 355 p. 56 illus., 5 illus. in color. (Sports Economics, Management and Policy, Vol. 8)

$179.00

ISBN 978-1-4614-8904-7

usually dispatched within 3 to 5 business days
Microeconomic Theory and Computation

Applying the Maxima Open-Source Computer Algebra System

Economists can use computer algebra systems to manipulate symbolic models, derive numerical computations, and analyze empirical relationships among variables. Maxima is an open-source multi-platform computer algebra system that rivals proprietary software. Maxima’s symbolic and computational capabilities enable economists and financial analysts to develop a deeper understanding of models by allowing them to explore the implications of differences in parameter values, providing numerical solutions to problems that would be otherwise intractable, and by providing graphical representations that can guide analysis. This book provides a step-by-step tutorial for using this program to [...]?

Features
Economists can use computer algebra systems to manipulate symbolic models, derive numerical computations, and analyze empirical relationships among variables. Maxima is an open-source multi-platform computer algebra system that rivals proprietary software. Maxima’s symbolic and computational capabilities enable economists and financial analysts to develop a deeper understanding of models by allowing them to [...]?

Contents

Fields of interest
Microeconomics; Econometrics; Game Theory; Economics; Social and Behav. Sciences; Mathematical Software

Target groups
Graduate

Type of publication
Monograph

More on www.springer.com/978-1-4614-9416-4

Hardcover
2013. XIX, 385 p. 275 illus., 8 illus. in color. $179.00 ISBN 978-1-4614-9416-4 usually dispatched within 3 to 5 business days

Workforce Development
Perspectives and Issues
This book captures the essence of current workforce development perspectives and draws on extensive global research to uncover a range of issues confronting organisations. Taking primarily an Australian outlook after the global financial crisis and tracing the progress of a national industry sector, each chapter delves into a major area of interest for leaders. Overall, the authors make the case that workforce development is an amalgam of activities influenced by context, politics and economic development. As the world becomes increasingly connected and mobile, workforce development is proving to be a major activity for organisations because it impacts their longer-term survival and [...]?

Features
This book captures the essence of current workforce development perspectives and draws on extensive global research to uncover a range of issues confronting organisations. Taking primarily an Australian outlook after the global financial crisis and tracing the progress of a national industry sector, each chapter delves into a major area of interest for leaders. Overall, the authors make the case that [...]?

Contents

Fields of interest
Microeconomics / Monetary Economics; Economic Growth; Economic Policy

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-9645-8

Softcover

Quantitative Easing and Its Impact in the US, Japan, the UK and Europe

This volume empirically analyzes the effects of quantitative easing (QE) on interest rates and the economy in the US, Japan, UK and Europe. Using an event-study methodology, the authors find that the QE measures undertaken by the Federal Reserve and Bank of England, which focus primarily on bond purchases, are much more effective in lowering interest rates than those undertaken by the Bank of Japan and the European Central Bank, which have relied more heavily on lending to private financial institutions. Using large Bayesian vector autoregression (BVAR) models they also analyze the impact of QE on the wider economy. They produce no-QE counterfactual forecasts that are compared with their [...]?

Features
This volume empirically analyzes the effects of quantitative easing (QE) on interest rates and the economy in the US, Japan, UK and Europe. Using an event-study methodology, the authors find that the QE measures undertaken by the Federal Reserve and Bank of England, which focus primarily on bond purchases, are much more effective in lowering interest rates than those undertaken by the Bank of Japan and the [...]?

Contents
1 Introduction.- 2 Transmission Channels for Quantitative Easing and Effects on Interest Rates.- 3 The Central Bank Loss Function and Quantitative Easing as a Stackelberg Game.- 4 The Effect of Quantitative Easing on Interest Rates.- 5 Broader Economic Effects of Quantitative Easing.- 6 Conclusion.

Fields of interest
Macroeconomics / Monetary Economics; Economic Growth; Economic Policy

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-9645-8

Softcover
Selected Papers of the International Annual Conference of the German Operations Research Society (GOR), Leibniz University of Hannover, Germany, September 5-7, 2012

This book contains selected papers presented at the “International Annual Conference of the German Operations Research Society (OR2012)” which was held September 4-7, 2012 at the Leibniz Universität Hannover, Germany. The international conference, which also serves as the annual meeting of the German Operations Research Society (GOR), attracted more than 500 participants from more than 39 countries. Special attention at the conference was given to the three topics “Energy, Markets and Mobility”.

The OR2012 conference has addressed these topics from an OR perspective, treating them not only in isolation, but also with respect to their numerous and exciting interconnections, such as...[

Contents

Fields of interest
Operation Research / Decision Theory; Operations Research, Mathematical Programming; Optimization

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-658-04647-7

Softcover
2014, VIII, 97 p. 22 illus. (BestMasters)
$89.99
ISBN 978-3-658-04647-7
usually dispatched within 3 to 5 business days

Global Purchasing Processes in the Business Sector Automotive Aftermarket
Development of a Reference Model

Due to the purchase of many companies in recent years and a still growing Automotive Aftermarket business sector, it was moreover indicated that a reorganization of the Process Map is unavoidable. Anna-Lena Jäger develops a reference model for all purchasing processes in the Automotive Aftermarket business sector. The analysis of the existing processes is carried out on the basis of manuals, central directives and other relevant process documents. By contrast, the new processes are compiled and developed with the support of process experts and affect employees using individual interviews and group discussions.

Features
Due to the purchase of many companies in recent years and a still growing Automotive Aftermarket business sector, it was moreover indicated that a reorganization of the Process Map is unavoidable. Anna-Lena Jäger develops a reference model for all purchasing processes in the Automotive Aftermarket business sector. The analysis of the existing processes is carried out on the basis of manuals, central directives and other relevant process documents. By contrast, the new processes are compiled and developed with the support of process experts and affect employees using individual interviews and group discussions.

Contents
The Automotive Aftermarket Business Sector.- Approach of the Survey and Modeling of Processes.- Process Modeling with BPMN.

Fields of interest
Production / Logistics; Organization / Planning; Business & Economics (general)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40665-2

Hardcover
2014, XI, 335 p. 30 illus., 26 illus. in color.
$179.00
ISBN 978-3-642-40665-2
usually dispatched within 3 to 5 business days

Fields of interest
China.- Industry Mix and Interregional Disparities Inputs beyond Capital and Labor, the Neoclassical Capital Mobility, and Convergence across China.- Foreign Direct Investment and Regional Productivity Growth in the Chinese Regions.- Foreign Direct Investment and Regional Productivity Growth in the Chinese Regions.- Foreign Direct Investment and Regional Productivity Growth in the Chinese Regions.- Foreign Direct Investment and Regional Productivity Growth in the Chinese Regions.- Foreign Direct Investment and Regional Productivity Growth in the Chinese Regions.- Endogenous Saving, Interregional Capital Mobility, and Convergence across China.- Inputs beyond Capital and Labor, the Neoclassical Growth Framework, and Limits to Growth in China.- Industry Mix and Interregional Disparities in China.- Openness, Structural Factors, and Economic[...]

The Case of China
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.

Features
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.

Contents

Fields of interest
Economic Growth; Political Economy; Regional and Cultural Studies

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40665-2

Hardcover
2014, XI, 335 p. 30 illus., 26 illus. in color.
$179.00
ISBN 978-3-642-40665-2
usually dispatched within 3 to 5 business days

Fields of interest
Process Modeling with BPMN.

Approach of the Survey and Modeling of Processes.- Process Modeling with BPMN.

Contents
Development of a Reference Model

The Case of China
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.

Features
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.

Contents

The Case of China
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.

Features
Substantial disparities across different Chinese regions are one of the most prominent features in China’s development process. This book investigates the mechanisms through which openness affects regional economic growth and interregional disparities in China. Based on the latest data and employing a variety of panel data regression techniques, it provides readers with new findings that shed light on the effects of openness on China’s regional economic growth and the evolution of the country’s interregional disparities.
Creating Conditions for Promising Collaboration

Alliances, Networks, Chains, Strategic Partnerships

This publication focuses on the conditions for promising collaboration. Collaboration is becoming a dominant instrument in today’s economy and society and manifests itself in many shapes and forms. It is a challenging instrument which still isn’t very well understood and poses the business community in front of a number of challenging dilemmas. We position collaboration as a multidisciplinary phenomenon and - based on years of research and as reflective practitioners - offer a comprehensive model for analyzing and designing collaborative processes that is both scientifically rooted and applicable in practice. A better understanding of collaborative processes will enhance the success...[

Features

This publication focuses on the conditions for promising collaboration. Collaboration is becoming a dominant instrument in today’s economy and society and manifests itself in many shapes and forms. It is a challenging instrument which still isn’t very well understood and poses the business community in front of a number of challenging dilemmas. We position collaboration as a multidisciplinary phenomenon and - [...]}

Contents


Fields of interest

Business Strategy / Leadership; Organizational Studies; Economic Sociology; Industrial Organization

Target groups

Professional/practitioner

Type of publication

Brief

More on www.springer.com/978-3-642-41442-8

Softcover

2014, VII, 98 p. 13 illus. (SpringerBriefs in Organisational Studies)

$54.99

ISBN 978-3-642-41442-8

usually dispatched within 3 to 5 business days

When Luxury Meets Art

Forms of Collaboration between Luxury Brands and the Arts

Increasingly, luxury brands join forces with the arts today. Yet, these cross-over collaborations do not constitute a homogeneous strategy, but become manifest in manifold forms and appearances. Regardless of their growing practical relevance for the creation of contemporary luxury brands though, the varied forms of Luxury Brand-Art Collaborations (LBACs) have remained largely unexplored to date. Olga Louisa Kastner aims at systematizing the dominating collaborative patterns between luxury brands and the arts. She empirically derives distinct types of LBACs, based on methodically developed attributes and a large number of real cases. Finally, the author describes the main...[

Features

Increasingly, luxury brands join forces with the arts today. Yet, these cross-over collaborations do not constitute a homogeneous strategy, but become manifest in manifold forms and appearances. Regardless of their growing practical relevance for the creation of contemporary luxury brands though, the varied forms of Luxury Brand-Art Collaborations (LBACs) have remained largely unexplored to date. Olga [...]}

Contents

Explanations of the Luxury Brand, Art and Luxury Brand-Art Collaborations - Attributes and Typology of Luxury Brand-Art Collaborations.

Fields of interest

Marketing; Market Research

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-658-04575-3

Softcover

2014, XI, 127 p. 14 illus., 8 illus. in color. (BestMasters)

$89.99

ISBN 978-3-658-04575-3

usually dispatched within 3 to 5 business days

Economic Growth

The New Perspectives for Theory and Policy

This book shows that the existing theories on economic growth have clear limitations in terms of how much they can effectively contribute to actual economic growth. Therefore, this book presents a more effective theory on economic growth for countries and leaders looking to promote economic growth. It is essentially centered around the theory of economic growth and theory of national development, written for agricultural developing countries pursuing industrialization and late-starting industrialized countries pursuing their own development. Nevertheless, it also makes a significant contribution to the very development of human civilization through the growth of developing countries. [...]}

Features

This book shows that the existing theories on economic growth have clear limitations in terms of how much they can effectively contribute to actual economic growth. Therefore, this book presents a more effective theory on economic growth for countries and leaders looking to promote economic growth. It is essentially centered around the theory of economic growth and theory of national development, written for [...]}

Contents


Fields of interest

Economic Growth; Social Sciences (general); Economic Policy

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-40825-0

Hardcover

2014, XXXI, 323 p. 82 illus., 33 illus. in color.

$129.00

ISBN 978-3-642-40825-0

usually dispatched within 3 to 5 business days
Water Resources Management Sustaining Socio-Economic Welfare

The Implementation of the European Water Framework Directive in Asopos River Basin in Greece

The aim of this book is to offer a river-basin management plan which is directly implementable and consistent with the European Union - Water Framework Directive (EU WFD). The contributors, who are leading world experts in their respective fields, develop an integrated water resources management plan for the Asopos river basin in Greece which is economically efficient, socially equitable and environmentally sustainable. The program offers explicit technical and investment solutions, socioeconomic and legal instruments and recommendations for institutional restructuring. The introductory chapter describes the water situation in Greece and assesses the potential of timely implementation.

Features

The aim of this book is to offer a river-basin management plan which is directly implementable and consistent with the European Union - Water Framework Directive (EU WFD). The contributors, who are leading world experts in their respective fields, develop an integrated water resources management plan for the Asopos river basin in Greece which is economically efficient, socially equitable and environmentally.

Contents


Fields of interest

Environmental Economics; Waste Management / Waste Technology; Social Sciences (general); Earth Sciences (general); Water, general; Statistics (general)

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7635-7

Hardcover

2014, XXII, 181 p. 27 illus., 22 illus. in color. (Global Issues in Water Policy, Vol. 7)

$129.00

ISBN 978-94-007-7635-7

usually dispatched within 3 to 5 business days

Handbook of Risk Management in Energy Production and Trading

This book presents an overview of the risks involved in modern electricity production, delivery and trading, including technical risk in production, transportation and delivery, operational risk for the system operators, market risks for traders, and political and other long term risks in strategic management. Using decision making under uncertainty as a methodological background, the book is divided into four parts, with Part I focusing on energy markets, particularly electricity markets. Topics include a nontechnical overview of energy markets and their main properties, basic price models for energy commodity prices, and modeling approaches for electricity price processes.

Features

This book presents an overview of the risks involved in modern electricity production, delivery and trading, including technical risk in production, transportation and delivery, operational risk for the system operators, market risks for traders, and political and other long term risks in strategic management. Using decision making under uncertainty as a methodological background, the book is divided into four parts, with Part I focusing on energy markets, particularly electricity markets. Topics include a nontechnical overview of energy markets and their main properties, basic price models for energy commodity prices, and modeling approaches for electricity price processes.

Contents


Fields of interest

Operation Research / Decision Theory; Energy Technology; Energy Economics

Target groups

Research

Type of publication

Handbook

More on www.springer.com/978-1-4614-9034-0

Hardcover


$229.00

ISBN 978-1-4614-9034-0

usually dispatched within 3 to 5 business days

Microfinance 3.0

Reconciling Sustainability with Social Outreach and Responsible Delivery

This book focuses on the achievements, current trends and further potential of microfinance to scale-up and serve many more clients with financial services that enable them to improve their living conditions. The book asks what it takes to achieve sustainable impact: to know your clients and to understand their needs, to treat them in a fair and transparent way, and to safeguard the synthesis between the financial and social dimension of sustainable microfinance. The book also sheds light on the future funding landscape and what is necessary to bring more commercial funders on board while ensuring that these new funders will continue the commitment to responsible finance.

Features

This book focuses on the achievements, current trends and further potential of microfinance to scale-up and serve many more clients with financial services that enable them to improve their living conditions. The book asks what it takes to achieve sustainable impact: to know your clients and to understand their needs, to treat them in a fair and transparent way, and to safeguard the synthesis between the.

Contents


Fields of interest

Development Economics; Financial Economics; Finance / Banking; Business Strategy / Leadership; Ethics; Economic Growth

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-41703-0

Hardcover

2013, XI, 199 p. 38 illus.

$59.99

ISBN 978-3-642-41703-0

usually dispatched within 3 to 5 business days
Natural Language in Business Process Models
Theoretical Foundations, Techniques, and Applications

Natural language is one of the most important means of human communication. It enables us to express our will, to exchange thoughts and to document our knowledge in written sources. Owing to its substantial role in many facets of human life, technology for automatically analyzing and processing natural language has recently become increasingly important. In fact, natural language processing tools have paved the way for entirely new business opportunities. The goal of this book is to facilitate the automatic analysis of natural language in process models and to employ this analysis for assisting process model stakeholders. Therefore, a technique is defined that automatically recognizes [...] 

Features
Natural language is one of the most important means of human communication. It enables us to express our will, to exchange thoughts, and to document our knowledge in written sources. Owing to its substantial role in many facets of human life, technology for automatically analyzing and processing natural language has recently become increasingly important. In fact, natural language processing tools have [...] 

Contents

Fields of interest
Business Information Systems; Language Translation and Linguistics; Information Systems Applications (incl. Internet); Computational Linguistics; Computer Appl. in Administrative Data Processing

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-04174-2

Softcover
2013. XXI, 181 p. 35 illus. (Lecture Notes in Business Information Processing, Vol. 168)
$72.00
ISBN 978-3-319-04174-2
usually dispatched within 3 to 5 business days

Health Care Provision and Patient Mobility

Health Integration in the European Union
Patient mobility across Europe is markedly increasing and new generations will actively ask to be treated by the health-care system that best meets their needs. At a political level, the EU issued the EU Directive no. 24/2011/CE of 9th March 2011 concerning the application of patients' rights in cross-border health care and has contributed to improving the level of freedom of choice for the European citizen, but it does not seem to have increased actual patient mobility across Europe. Freedom to choose is necessary to grant the people of Europe the same access to public-sector health-care services. The latter is a key instrument for an efficiently functioning “single market” ensuring [...] 

Features
Patient mobility across Europe is markedly increasing and new generations will actively ask to be treated by the health-care system that best meets their needs. At a political level, the EU issued the EU Directive no. 24/2011/CE of 9th March 2011 concerning the application of patients' rights in cross-border health care and has contributed to improving the level of freedom of choice for the European [...] 

Contents
Patient choice, mobility and competition among health care providers.- Using Discrete Choice Experiments to understand preferences in health care.- Implications of the EU patients' rights directive in cross-border healthcare on the German sickness fund system.- The possible effects of health professional mobility on access to care for patients.- Patient choice and mobility in the UK Health System: Internal and external markets.- What drives patient mobility across Italian regions? Evidence from hospital discharge data.- The impact of federalism on the healthcare system in terms of [...] 

Fields of interest
Health Economics; Migration; Statistics for Social Science, Behavioral Science, Education, Public Policy, and Law; Computational Mathematics and Numerical Analysis; Economic Policy, Public Finance & Economics 

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-88-470-5479-0

Hardcover
2014. X, 244 p. 13 illus. (Developments in Health Economics and Public Policy, Vol. 12)
$129.00
ISBN 978-88-470-5479-0
usually dispatched within 3 to 5 business days

Research on Industrial Security Theory

This book offers a systematic discussion and explanation of what industrial security is, what the influencing factors of industrial security are, how industrial security should be evaluated and how early warnings should work from the viewpoint of developing countries. Studying theories of industrial security is necessary for the development of industrial economics theory, innovations in industrial economy studies, and an important supplement to and improvement on the theories of industrial economics. Also, studying industrial security theories can offer valuable guidance for the practice of industrial economics and national industrial policy making.

Features
This book offers a systematic discussion and explanation of what industrial security is, what the influencing factors of industrial security are, how industrial security should be evaluated and how early warnings should work from the viewpoint of developing countries. Studying theories of industrial security is necessary for the development of industrial economics theory, innovations in industrial economy [...] 

Contents

Fields of interest
Economics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-36951-3

Hardcover
2013. XIII, 443 p. 42 illus., 14 illus. in color.
$179.00
ISBN 978-3-642-36951-3
usually dispatched within 3 to 5 business days
Chinese Economy in Disequilibrium

Known internationally as ‘Mr. Shareholding’ economist, Li Yining has had a transformative impact on China’s economic transition, most notably as an early advocate of ownership reform and in his promotion of shareholding theory. By examining the interrelationship between the government, enterprises and the market, Chinese Economy in Disequilibrium presents an in-depth discussion on the issues of resource allocation, industrial structure, institutional innovation and economic fluctuation in the current Chinese economy under the condition of disequilibrium. Credited with developing the theory of economic disequilibrium, Professor Li distinguishes two types of disequilibrium on the basis of...[...]

Contents


Fields of interest

Economics; Political Economy; Economic Policy

Type of publication

Monograph

More on www.springer.com/978-1-4614-9439-3

Hardcover

2014. XVII, 203 p. (China Academic Library)

$129.00

ISBN 978-3-642-39557-4

usually dispatched within 3 to 5 business days

National Intellectual Capital and the Financial Crisis in Denmark, Finland, Iceland, Norway, and Sweden

In the first decade of the twenty-first century, the biggest event of worldwide proportion was the 2008 global financial crisis, which was caused primarily by ineffective governance, failed surveillance systems, and implementation flaws. While fiscal and monetary policies succeeded in pulling many countries out of a financial freefall, most economies have performed beneath pre-recession levels as governments continued to struggle with their finances. Examining the financial crisis from the viewpoint of intangible assets provides a different perspective from traditional economic approaches. National Intellectual Capital (NIC), comprised mainly of human capital, market capital, process...[...]

Contents


Fields of interest

Economic Growth; Economic Policy; R & D / Technology Policy; Regional Science

Type of publication

Brief


Socio-Economic Considerations in Biotechnology Regulation

Within the context of the Convention on Biological Diversity (CBD), the Cartagena Protocol on Biosafety (CPB) was established as an implementing agreement. The CPB is an international agreement establishing the rights of recipient countries to be notified of and to approve or reject the domestic import and/or production of living modified organisms (LMOs). Decisions regarding import/production are to be on the basis of a biosafety assessment. Article 26.1 of the CPB allows for the (optional) inclusion of socio-economic considerations (SECs) into that biosafety assessment process. This book compiles expert assessments of the issues relevant to SEC assessment of LMOs and fundamental for...[...]

Contents


Fields of interest

Agricultural Economics; Food Science; R & D / Technology Policy

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-9439-3

Hardcover


$129.00


usually dispatched within 3 to 5 business days
Activating the Tools of Social Media for Innovative Collaboration in the Enterprise

The use of social media tools in the enterprise is expanding rapidly and yet, firms are still unclear about the overall value of this activity and how best to facilitate useful outcomes. The focus of this book is, from a managerial standpoint, the control of information, the extent to which such tools can enhance employee satisfaction and how best to use social media tools to attain specific outcomes including innovative collaboration. As companies turn to IT solutions as substitutes for face-to-face engagements, an understanding of the social dynamics – how employees can best communicate, find and use information and generate motivation through computer-mediated activities is [...] 

Features

The use of social media tools in the enterprise is expanding rapidly and yet, firms are still unclear about the overall value of this activity and how best to facilitate useful outcomes. The focus of this book is, from a managerial standpoint, the control of information, the extent to which such tools can enhance employee satisfaction and how best to use social media tools to attain specific outcomes including [...] 

Contents


Fields of interest

Business Information Systems; Technology Management; User Interfaces and Human Computer Interaction; Management of Computing and Information Systems; Operation Research / Decision Theory

Target groups

Research 

Type of publication

Brief 

More on www.springer.com/978-3-319-03229-0 

Softcover

2014. VIII, 26 p. 6 illus. (SpringerBriefs in Digital Spaces)

$54.99

ISBN 978-3-319-03229-0

usually dispatched within 3 to 5 business days

R. Mamayev

Data Modeling of Financial Derivatives

A Conceptual Approach

Written in plain English and based on successful client engagements, Data Modeling of Financial Derivatives: A Conceptual Approach introduces new and veteran data modelers, financial analysts, and IT professionals to the fascinating world of financial derivatives. Covering futures, forwards, options, swaps, and forward rate agreements, finance and modeling expert Robert Mamayev shows you step-by-step how to structure and describe financial data using advanced data modeling techniques. The book introduces IT professionals, in particular, to various financial and data modeling concepts that they may not have seen before, giving them greater proficiency in the financial language of [...] 

Features


Fields of interest

Business & Management Science 

Target groups

Popular/general

Type of publication

Professional book 

More on www.springer.com/978-1-4302-6589-4 

Softcover


$59.99

ISBN 978-1-4302-6589-4

usually dispatched within 3 to 5 business days

F.J. Martínez-López, Universidad de Granada, Granada, Spain (Ed.)

Handbook of Strategic e-Business Management

This research handbook provides a comprehensive, integrative, and authoritative resource on the main strategic management issues for companies within the e-business context. It covers an extensive set of topics, dealing with the major issues which articulate the e-business framework from a business perspective. The handbook is divided into the following e-business related parts: background; evolved strategic framework for the management of companies; key business processes, areas and activities; and, finally, emerging issues, trends and opportunities, with special attention to diverse Social Web-related implications. The articles are varied, timely and present high-quality research [...] 

Features

This research handbook provides a comprehensive, integrative, and authoritative resource on the main strategic management issues for companies within the e-business context. It covers an extensive set of topics, dealing with the major issues which articulate the e-business framework from a business perspective. The handbook is divided into the following e-business related parts: background; evolved strategic [...] 

Contents


Fields of interest

Business & Management Science; Computer Science (general) 

Target groups

Research 

Type of publication

Handbook 

More on www.springer.com/978-3-642-39746-2 

Hardcover

2014. XLI, 1011 p. 53 illus. (Progress in IS)

$279.00

ISBN 978-3-642-39746-2

usually dispatched within 3 to 5 business days
Managing Projects in the Real World

The Tips and Tricks No One Tells You About When You Start

Managing Projects in the Real World provides clear and actionable advice to project managers for recognizing, anticipating, and overcoming challenges associated with the human component of leading others. The mechanics of project management are rational and straightforward to learn. The art of project management is irrational and complex to learn. Project managers need to develop a repertoire of soft skills that are typically hard for them, since they rose through the ranks to that position by virtue of superior reasoning skills. But if a project manager cannot adjudicate the clash of personalities, finesse the friction between assigned and preferred roles, steer clear of hidden [..]

Features
Managing Projects in the Real World provides clear and actionable advice to project managers for recognizing, anticipating, and overcoming challenges associated with the human component of leading others. The mechanics of project management are rational and straightforward to learn. The art of project management is irrational and complex to learn. Project managers need to develop a [..]

Fields of interest
Business & Management Science

Target groups
Popular/general

Type of publication
Professional book


Hidden Champions in CEE and Turkey

Carving Out a Global Niche

This book presents hidden champions in Central and Eastern Europe (CEE) and Turkey that have been studied as a joint project between CEEMAN and IEDC-Bled School of Management, Slovenia. This is an outcome of extensive research undertaken by over 30 researchers and covers 15 countries from Russia to Albania; covering many contexts, political systems, cultures and infrastructures. The reader is provided with a detailed introduction to the concept of hidden champions and describes the cases studied in this project. This book is an invaluable resource providing a culmination of interdisciplinary, cross-study chapters ranging from leadership to performance drivers; from[..]

Features
This book presents hidden champions in Central and Eastern Europe (CEE) and Turkey that have been studied as a joint project between CEEMAN and IEDC-Bled School of Management, Slovenia. This is an outcome of extensive research undertaken by over 30 researchers and covers 15 countries from Russia to Albania; covering many contexts, political systems, cultures and infrastructures. The reader is provided with a [..]

Fields of interest
Technology Management; Emerging Markets / Globalization; Entrepreneurship; Regional Science; Business Strategy / Leadership

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-40503-7

Hardcover
2013. X, 437 p. 93 illus. (Management for Professionals)
$99.00
ISBN 978-3-642-40503-7
Due: February 28, 2014
Technological Change and Skill Development in Arab Gulf Countries

This book discusses skill formation, upskilling of workers, and their interaction with technological change in Gulf countries. Heavy dependence on oil, the ‘Dutch Disease’, and the high incidence of unskilled foreign workers have caused serious structural imbalances in the labour market in the Gulf. The author shows that success of economic development strategies to address such imbalances are all contingent upon the development of adequate and appropriate skills in the region. This book confirms the role and impact of the deficiencies in the educational system alongside the well-established effects of the excessive use of uneducated foreign workers and lack of incentives in the...[...]

Contents

Fields of interest
Labor Economics; Personnel Management; Technology Management; Development Economics; R & D / Technology Policy; Emerging Markets / Globalization

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01915-4

Hardcover
2013. XXVI, 224 p. 23 illus. (Contributions to Economics)
$129.00
ISBN 978-3-319-01915-4
usually dispatched within 3 to 5 business days

Integrating Renewables in Electricity Markets

Operational Problems
This addition to the ISOR series addresses the analytics of the operations of electric energy systems with increasing penetration of stochastic renewable production facilities, such as wind- and solar-based generation units. As stochastic renewable production units become ubiquitous throughout electric energy systems, an increasing level of flexible backup provided by non-stochastic units and other system agents is needed if supply security and quality are to be maintained. Within the context above, this book provides up-to-date analytical tools to address challenging operational problems such as: The modeling and forecasting of stochastic renewable power production...[...]

Features
This addition to the ISOR series addresses the analytics of the operations of electric energy systems with increasing penetration of stochastic renewable production facilities, such as wind- and solar-based generation units. As stochastic renewable production units become ubiquitous throughout electric energy systems, an increasing level of flexible backup provided by non-stochastic units and other...[...]

Contents

Fields of interest
Operation Research / Decision Theory; Power Electronics, Electrical Machines and Networks; Operations Research, Mathematical Programming

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Hardcover
$99.00
usually dispatched within 3 to 5 business days

Confirming Dividend Changes and the Non-Monotonic Investor Revision of Earnings Persistence

The stylized facts that firms pay and investors react to dividends disregard dividend neutrality. Taking on the perspective that informational asymmetries are the central determinant for dividend value relevance, Christian Müller assumes that firm’s dividend decision conveys useful information to investors. He shows that investors use dividend changes to revise their a priori expectations about the persistence of a current earnings change. While his theoretical and empirical analyses generally imply that dividend changes constitute informative, but imperfect information signals, he further identifies situations in which they are substantial to investors. Christian Müller’s research...[...]

Features
The stylized facts that firms pay and investors react to dividends disregard dividend neutrality. Taking on the perspective that informational asymmetries are the central determinant for dividend value relevance, Christian Müller assumes that firm’s dividend decision conveys useful information to investors. He shows that investors use dividend changes to revise their a priori expectations about the...[...]

Contents

Fields of interest
Accounting / Auditing, Business & Management Science; Finance / Banking

Target groups
Research

Type of publication
Monograph


Softcover
2014. XXV, 137 p. 8 illus. (Quantitatives Controlling)
$89.99
usually dispatched within 3 to 5 business days
After the crash is before the crash

Effective tips on how to learn from past crises and avoid new ones

The global economy is entering a new era. Triggered by the crash in EU countries in financial, banking and debt sectors, Europe is turning into a driving force for re-orientation. At the same time, psychology is becoming an increasingly decisive factor in business. In his book, business psychologist and innovation consultant Winfried Neun gives an impressive description of the background to the previous and current global crisis. Based on his experience in consulting, he lists clear examples of why business psychological factors are largely responsible for the development of crises and of what we as entrepreneurs, employers and employees can learn from this. An encouraging and [...]
Process-Oriented Dynamic Capabilities

Framework Development, Empirical Applications and Methodological Support

This book introduces a process-oriented dynamic capability framework to study both, service innovation and Business Process Management (BPM). Results from applications in several case studies and surveys are reported. They reflect, e.g., capability development and maturity models. Based on these findings, a method to support service innovation is introduced. This method can help organizations in developing new service business models in a more effective and efficient way. In today's networked service society, service innovation becomes increasingly important. Reasons for this development can be found in the transformation of economies and in the growing importance of product-service. [...]

Features

This book introduces a process-oriented dynamic capability framework to study both, service innovation and Business Process Management (BPM). Results from applications in several case studies and surveys are reported. They reflect, e.g., capability development and maturity models. Based on these findings, a method to support service innovation is introduced. This method can help organizations in developing [...]

Contents

Exposition.- Research Background.- Research Approach.- Results.- Discussion.- Conclusion.

Fields of interest

Business Information Systems; Management of Computing and Information Systems

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-03250-4

Softcover

2014. XI, 60 p. 12 illus. (SpringerBriefs in Information Systems) $54.99

ISBN 978-3-319-03250-4

usually dispatched within 3 to 5 business days

Sales Negotiations in Professional Service Firms

An Exploratory Study on Agenda Setting and Issue Management

This research study brings theoretical insights on real-life negotiations in sales of professional services in Spain and Germany. From the interview data obtained through an exploratory study based on a grounded theory approach, several factors that affect and determine agenda setting and issue management have emerged. [...] It has been spotted that industry standards rather than negotiation strategy determine agenda setting and that issues about content are usually agreed on before negotiating price and bureaucratic conditions, being the degree of “productization” of Professional Service Firms a variable that needs to be taken into account. Moreover, a pattern has been found in sales.[...]

Features

This research study brings theoretical insights on real-life negotiations in sales of professional services in Spain and Germany. From the interview data obtained through an exploratory study based on a grounded theory approach, several factors that affect and determine agenda setting and issue management have emerged. [...] It has been spotted that industry standards rather than negotiation strategy determine agenda setting and that issues about content are usually agreed on before negotiating price and bureaucratic conditions, being the degree of “productization” of Professional Service Firms a variable that needs to be taken into account. Moreover, a pattern has been found in sales.[...]

Contents


Fields of interest

Management/Business for Professionals; Marketing

Target groups

Research

Type of publication

Monograph


Softcover

2014. XIII, 76 p. 8 illus. (BestMasters) $89.99


usually dispatched within 3 to 5 business days

Retail Marketing and Sales Performance

A Definitive Guide to Optimizing Service Quality and Sales Effectiveness

The purpose of this research project is to contribute to effective retail by determining the impacts of the elements of retail marketing interventions on sales performance in franchises and branches. The approach comprises a series of complementary surveys of franchisees, branch managers, shop visitors and customers. This is enriched with secondary data and sector-specific structural detail to determine the direct and mediating effects of retail marketing on sales performance. Through factor analysis results provide evidence that Retail Marketing has a high and positive, direct-structural impact on sales performance. Christoph Preuss contributes to the development of the dichotomy of [...]

Features

The purpose of this research project is to contribute to effective retail by determining the impacts of the elements of retail marketing interventions on sales performance in franchises and branches. The approach comprises a series of complementary surveys of franchisees, branch managers, shop visitors and customers. This is enriched with secondary data and sector-specific structural detail to determine the [...]

Contents

Introduction.- Retail marketing, concepts and research model.- Methodology and methods.- Results.- Discussion of results.

Fields of interest

Marketing; Management/Business for Professionals; Sales / Distribution / Call Center / Customer Service

Target groups

Research

Type of publication

Ph.D. thesis

More on www.springer.com/978-3-658-04629-3

Softcover

2014. XXIV, 224 p. 24 illus. $79.99

ISBN 978-3-658-04629-3

usually dispatched within 3 to 5 business days

R. Plattfaut, Westfälische Wilhelms-Universität, Münster, Germany

M. Prat, Freie Universität Berlin, Berlin, Germany

C. Preuss, Bradford University, Bradford, United Kingdom
The Speed of Human and Task Integration in Mergers and Acquisitions

Human Integration as Basis for Task Integration

In practice, managers of mergers and acquisitions (M&A) draw their attention more and more to speed of integration within their M&A strategies. In a paradoxical manner, M&A research on speed of integration is still in its infancy and remains underdeveloped. Empirical findings reach from positive to negative to non-significant relationships between speed and M&A success. Carolin Proft develops a research model which encompasses task integration speed and human integration speed as independent variables influencing the dependent variable of M&A performance. She clarifies the question of how the success factor speed can be used as a tool to enhance M&A success. Based on the data...

Features

In practice, managers of mergers and acquisitions (M&A) draw their attention more and more to speed of integration within their M&A strategies. In a paradoxical manner, M&A research on speed of integration is still in its infancy and remains underdeveloped. Empirical findings reach from positive to negative to non-significant relationships between speed and M&A success. Carolin Proft develops a research model which encompasses task integration speed and human integration speed as independent variables influencing the dependent variable of M&A performance. She clarifies the question of how the success factor speed can be used as a tool to enhance M&A success. Based on the data...

Contents

Mergers & Acquisitions – State of the Art: M&A Basic Concepts; Post-Merger Integration; Problem Statement; Research Model and Hypothesis Development; Methodology: Measurement Development; Sample and Data; Results. Discussion: Managerial and Theoretical Implications; Limitations and Future Research.

Fields of interest

Management/Business for Professionals

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-658-04563-0

Softcover

2014. XVI, 107 p. 25 illus. (BestMasters)

$89.99

ISBN 978-3-658-04563-0

usually dispatched within 3 to 5 business days
Legal Regulation of Corporate Social Responsibility

A Meta-Regulation Approach of Law for Raising CSR in a Weak Economy

Even though Corporate Social Responsibility (CSR) has become a widely accepted concept promoted by different stakeholders, business corporations’ internal strategies, known as corporate self-regulation, are not effective in most of the weak economies, respond poorly to this responsibility. Major laws relating to corporate regulation and responsibilities of these economies do not possess adequate ongoing influence to insist on corporate self-regulation to create a socially responsible corporate culture. This book describes how the laws relating to CSR could contribute to the inclusion of CSR principles at the core of the corporate self-regulation of these economies in general, without being intrusive.[...]

Features

Even though Corporate Social Responsibility (CSR) has become a widely accepted concept promoted by different stakeholders, business corporations’ internal strategies, known as corporate self-regulation in most of the weak economies, respond poorly to this responsibility. Major laws relating to corporate regulation and responsibilities of these economies do not possess adequate ongoing influence to insist on.[...]

Contents

Chapter 1: Introducing the book. - Chapter 2: Corporate social Responsibility (CSR). Corporate Governance (CG) and Corporate Regulation. - Chapter 3: The Theoretical Basis for the Implementation of CSR Principles Through Legal Regulation. - Chapter 4: The Legal Regulation Strategies for Incorporating CSR Principles in Corporate Self-Regulation. - Chapter 5: Legal Regulation of CSR in a Weak Economy: The Case of Bangladesh. - Chapter 7: Concluding the Book.

Fields of interest

Non-Profit Enterprises / Corporate Social Responsibility; Private International Law, International & Foreign Law, Comparative Law; Ethics; Organization / Planning; Development Economics; International Economic Law, Trade Law

Type of publication

Monograph

More on www.springer.com/978-3-642-40399-6

Hardcover

2013. XX, 324 p. (CSR, Sustainability, Ethics & Governance)

$129.00

ISBN 978-3-642-40399-6

usually dispatched within 3 to 5 business days

Linear and Multiobjective Programming with Fuzzy Stochastic Extensions

Although several books or monographs on multiobjective optimization under uncertainty have been published, there seems to be no book which starts with an introductory chapter of linear programming and is designed to incorporate both fuzziness and randomness into multiobjective programming in a unified way. In this book, five major topics, linear programming, multiobjective programming, fuzzy programming, stochastic programming, and fuzzy stochastic programming, are presented in a comprehensive manner. Especially, the last four topics together comprise the main characteristics of this book, and special stress is placed on interactive decision making aspects of multiobjective[...]

Features

Although several books or monographs on multiobjective optimization under uncertainty have been published, there seems to be no book which starts with an introductory chapter of linear programming and is designed to incorporate both fuzziness and randomness into multiobjective programming in a unified way. In this book, five major topics, linear programming, multiobjective programming, fuzzy programming, [...]

Contents


Fields of interest

Operation Research / Decision Theory; Operations Research, Mathematical Programming; Probability Theory and Stochastic Processes

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-9398-3

Hardcover


$99.00


usually dispatched within 3 to 5 business days

Symmetry and Economic Invariance

Symmetry and Economic Invariance (second enhanced edition) explores how the symmetry and invariance of economic models can provide insights into their properties. Although the professional economist of today is adept at many of the mathematical techniques used in static and dynamic optimization models, group theory is still not among his or her repertoire of tools. The authors aim to show that group theoretic methods form a natural extension of the techniques commonly used in economics and that they can be easily mastered. Part I provides an introduction that minimizes prerequisites including prior knowledge of group theory. Part II discusses recent developments in the field.

Features

Symmetry and Economic Invariance (second enhanced edition) explores how the symmetry and invariance of economic models can provide insights into their properties. Although the professional economist of today is adept at many of the mathematical techniques used in static and dynamic optimization models, group theory is still not among his or her repertoire of tools. The authors aim to show that group[...]

Contents

Part I Introduction 1 Introduction 1.1 GROUP THEORY AND CLASSIFICATION OF MATHEMATICAL STRUCTURE 1.2 LIE GROUPS AND INVARIANCE 1.3 ECONOMIC APPLICATIONS OF LIE GROUPS 2 Technical Progress and Economies of Scale: Concept of Holotheticity 2.1 A REFORMULATION OF THE PROBLEM 2.2 LIE GROUPS 2.3 HOLOTHETICITY 2.4 CONCLUSION 3 Holotheretic Production Functions and Marginal Rate of Technical Substitution 3.1 TYPES OF TECHNICAL PROGRESS FUNCTIONS AND HOLOTHETICITY 3.2 MARGINAL RATE OF TRANSFORMATION AND EXTENDED TRANSFORMATION 3.3 HOLOTHETICITY AND LIE BRACKET 3.4 CONCLUSION 4 Utility and Demand 4.1[...]

Fields of interest

Economic Theory; Methodology and the History of Economic Thought; Game Theory / Mathematical Methods

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-4-431-54429-6

Hardcover


$129.00

ISBN 978-4-431-54429-6

usually dispatched within 3 to 5 business days
Business Models in the Software Industry

The Impact on Firm and M&A Performance

The relevance of software business models has tremendously increased in recent years. Markus Schießl explores opportunities to improve the management of these models. Based on a conceptual framework of software business model characteristics, he conducts large empirical studies to examine the current state of business models in the software industry. These data then serve as a foundation for statistical analyses of business models’ impact on firm and M&A performance. Finally, the author develops a software business model management tool.

Features
The relevance of software business models has tremendously increased in recent years. Markus Schießl explores opportunities to improve the management of these models. Based on a conceptual framework of software business model characteristics, he conducts large empirical studies to examine the current state of business models in the software industry. These data then serve as a foundation for statistical [...] [88 Economics]

Contents

Fields of interest
Business & Economics (general); Business & Management Science; Management of Computing and Information Systems

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04351-3

usually dispatched within 3 to 5 business days

Advances in Non-linear Economic Modeling

Theory and Applications

In recent years nonlinearities have gained increasing importance in economic and econometric research, particularly after the financial crisis and the economic downturn after 2007. This book contains theoretical, computational and empirical papers that incorporate non-linearities in econometric models and apply them to real economic problems. It intends to serve as an inspiration for researchers to take potential non-linearities in account. Researchers should be aware of applying linear model-types spuriously to problems which include non-linear features. It is indispensable to use the correct model type in order to avoid biased recommendations for economic policy.

Features
In recent years non-linearities have gained increasing importance in economic and econometric research, particularly after the financial crisis and the economic downturn after 2007. This book contains theoretical, computational and empirical papers that incorporate non-linearities in econometric models and apply them to real economic problems. It intends to serve as an inspiration for researchers to take [...] [Theory and Applications]

Contents

Fields of interest
Econometrics; Macroeconomics / Monetary Economics; Economic Theory; Financial Economics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-42038-2

usually dispatched within 3 to 5 business days

Tourist Destination Images and Local Culture

Using the Example of the United Arab Emirates

An authentic, unique and memorable destination image is of crucial importance to be competitive in the long-term. Verena Schwaighofer analyses the currently transferred image of the United Arab Emirates as a tourist destination and to what extent the traditional Arabian culture is integrated into the image strategies of image developers in this country. First of all, a detailed theoretical overview referring to various image types, the current image transfer including critical topics related to the religion of Islam, women’s role in society, behaviour, body language and dress code and the open-mindedness of the United Arab Emirates regarding local traditions related to the religion of [...] [Tourist Destination Images and Local Culture]

Contents
Image and Destination Brands.- The Image of the United Arab Emirates.- The traditional Arabian Culture.

Fields of interest
Marketing; Management/Business for Professionals; Technology Management

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04520-3

usually dispatched within 3 to 5 business days
Regional Economic Integration in West Africa

This book presents a number of key studies pertaining to the most pressing challenges of economic regional integration in West Africa. The issues of monetary coordination, foreign exchange volatility, taxation, savings, and macroeconomic convergence are investigated from a regional perspective. The characteristics of West Africa’s trade policy are reviewed and assessed in comparison to that of the Southern African Development Community (SADC). The extent to which regional integration can tackle the challenge of unemployment is the focus of studies on labour markets. Development of the private sector and coordination of regional cross-border transportation are examined through the[...]

Features
This book presents a number of key studies pertaining to the most pressing challenges of economic regional integration in West Africa. The issues of monetary coordination, foreign exchange volatility, taxation, savings and macroeconomic convergence are investigated from a regional perspective. The characteristics of West Africa’s trade policy are reviewed and assessed in comparison to that of the Southern[...]

Contents

Fields of interest
Development Economics; Regional Science

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-01281-0

Hardcover
2014. XII, 267 p. 33 illus., 26 illus. in color. (Advances in African Economic, Social and Political Development) $129.00 ISBN 978-3-319-01281-0 usually dispatched within 3 to 5 business days

A Critical Impulse to e-Governance in the Asia Pacific

This book presents a comparative study of the vision, ability and dynamism on the part of governments in selected Asian Pacific countries as they engage in the distribution of e-governance. Consequently, it creates a platform for mutual learning and offers a dispassionate evaluation of mega e-projects. It is an interdisciplinary study of information and communication technology within mainstream social science research and attempts to bridge the gap in empirical research between the nature of technology and the manner in which it is governed. The analysis shows that hegemonic and panoptic structures of surveillance and control may derail efforts to establish sustainable e-governance.[...]

Features
This book presents a comparative study of the vision, ability and dynamism on the part of governments in selected Asian Pacific countries as they engage in the distribution of e-governance. Consequently, it creates a platform for mutual learning and offers a dispassionate evaluation of mega e-projects. It is an interdisciplinary study of information and communication technology within mainstream social[...]

Contents

Fields of interest
Social Policy; Public Administration; R & D / Technology Policy; Law and Economics; Technology Management

Target groups
Research

Type of publication
Monograph


Hardcover
2013. XV, 187 p. 9 illus., 63 illus. in color. $179.00 ISBN 978-81-322-1631-5 usually dispatched within 3 to 5 business days

Real Estate Investment Trusts in Europe

Evolution, Regulation, and Opportunities for Growth

Shortly before of the beginning of the global financial crisis of 2008 REITs were introduced in several European countries based on their success in mature markets like the US, Australia and some Asian countries. While the history of REITs in Europe has been relatively brief, REITs are well on the way to become an industry standard as a real estate investment financial vehicle not only in Europe but throughout the developed world. This book provides both academics and decision makers an introduction to the economics of REITs beyond tax transparency, an overview of the mature REITs markets, and a closer reflection of the development of different REIT-structures in Europe including the[...]

Features
Shortly before of the beginning of the global financial crisis of 2008 REITs were introduced in several European countries based on their success in mature markets like the US, Australia and some Asian countries. While the history of REITs in Europe has been relatively brief, REITs are well on the way to become an industry standard as a real estate investment financial vehicle not only in Europe but[...]

Contents

Features
This book presents a comparative study of the vision, ability and dynamism on the part of governments in selected Asian Pacific countries as they engage in the distribution of e-governance. Consequently, it creates a platform for mutual learning and offers a dispassionate evaluation of mega e-projects. It is an interdisciplinary study of information and communication technology within mainstream social[...]

Contents

Fields of interest
Finance / Banking; Business Taxation; Financial Economics

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-36855-4

Hardcover
Originally published by Schiller Publishing House, Bergisch Gladbach, Germany, 2008 2013. XV, 236 p. 80 illus., 63 illus. in color. $129.00 ISBN 978-3-642-36855-4 usually dispatched within 3 to 5 business days
Mixed Method Research Design
An Application in Consumer-Brand Relationships (CBR)

This book is a comprehensive guide to design and conduct the research in management-related field, such as marketing management and human resources management. It provides an overview of the real research conducted by authors throughout their careers and explains the important and growing research design used in management research. Video tutorials are also included for complete qualitative data collection and data analysis. These videos are included to help readers understand the research and apply the techniques using the recommended software programs. Mixed Method Research Design: An Application in Consumer-Brand Relationships (CBR) begins with an [...] Features
This book is a comprehensive guide to design and conduct the research in management-related field, such as marketing management and human resources management. It provides an overview of the real research conducted by authors throughout their careers and explains the important and growing research design used in management research. Video tutorials are also included for [...] Contents
Fields of interest
Market Research; Personnel Management; Marketing
Target groups
Research
Type of publication
Monograph
More on www.springer.com/978-3-319-02686-2
Hardcover
2014. XIII, 174 p. 27 illus. With online files/update. $129.00 ISBN 978-3-319-02686-2
usually dispatched within 3 to 5 business days

Recreational Drug Consumption
An Economic Perspective

Recreational drug policies and regulations are complex issues with many dimensions. This book attempts to answer several questions raised in current drug policy debates. Developing cost-effective drug programs and policies require a sound knowledge of drug users and their characteristics and the relationship across drugs. Who are the drug users? Can demographic factors help towards predicting drug usage? What sub-population groups should be targeted for drug campaigns and educational programs? Can a drug policy aimed at discouraging the use of one drug likely to affect the use of other drugs which are its economic substitutes or complements? What are the implications of drug use? [...] Features
Recreational drug policies and regulations are complex issues with many dimensions. This book attempts to answer several questions raised in current drug policy debates. Developing cost-effective drug programs and policies require a sound knowledge of drug users and their characteristics and the relationship across drugs. Who are the drug users? Can demographic factors help towards predicting drug usage? What [...] Contents
Fields of interest
Health Economics; Social Policy; Health Promotion and Disease Prevention
Target groups
Research
Type of publication
Monograph
More on www.springer.com/978-3-319-02404-2
Hardcover
2013. VII, 176 p. 18 illus. (Developments in Health Economics; Social Policy; Health Promotion and Disease Prevention) $129.00 ISBN 978-3-319-02404-2
usually dispatched within 3 to 5 business days

Design for Six Sigma + Lean Toolset
Mindset for Successful Innovations

The Toolset is a comprehensive collection of the relevant Design for Six Sigma + Lean tools, which are necessary for successfully implementing innovations. All tools are presented in a clear structure, providing a good overview of the methodology. The chronology of the listed tools corresponds to the procedure in a Design for Six Sigma + Lean development project with the stages Define, Measure, Analyze, Design, and Verify. Due to this unique structure by which tools can be found and applied quickly we created a book that facilitates project work in practical use enormously. Migrating from a tool based approach to a question based approach is a decisive success factor in our opinion enabling [...] Features
The Toolset is a comprehensive collection of the relevant Design for Six Sigma + Lean tools, which are necessary for successfully implementing innovations. All tools are presented in a clear structure, providing a good overview of the methodology. The chronology of the listed tools corresponds to the procedure in a Design for Six Sigma + Lean development project with the stages [...] Contents
Define.- Measure.- Analyze.- Design.- Verify.
Fields of interest
Technology Management; Production / Logistics; Quality Control, Reliability, Safety and Risk
Target groups
Professional/practitioner
Type of publication
Professional book
More on www.springer.com/978-3-642-41454-1
Hardcover
2013. XIII, 553 p. 155 illus. (Management for Professionals) $129.00 ISBN 978-3-642-41454-1
Due: January 28, 2014
The Flexible Enterprise

The need for enterprise flexibility in an era of rapidly advancing technology, increasing competition, and globalization, is apparent. Flexibility can be thought of as an ability of the enterprise to quickly and efficiently respond to market changes and to bring new products and services quickly to the market place. Beyond this definition, a truly flexible enterprise should proactively change the market through its ability to create new and innovative products and services. The proposed book is intended to provide a conceptual framework of ‘Flexible Enterprise’ supported by researches/case applications in various types of flexibilities exhibited by a flexible enterprise. The selected[...]

Features
The need for enterprise flexibility in an era of rapidly advancing technology, increasing competition, and globalization, is apparent. Flexibility can be thought of as an ability of the enterprise to quickly and efficiently respond to market changes and to bring new products and services quickly to the market place. Beyond this definition, a truly flexible enterprise should proactively change the market.[...]

Contents

Fields of interest
Organization / Planning; Business Information Systems; Business Strategy / Leadership; Project Management; Technology Management

Target groups
Researchers

Type of publication
Contributed volume

More on www.springer.com/978-3-658-04538-8

Managing Process Innovation through Exploitation and Exploration

A Study on Combining TQM and BPR in the Norwegian Industry

In order to stay efficient, companies need to improve their existing business processes on a continuous basis. To ensure competitive edge, it is essential for companies to adapt radically to new business opportunities and when external demands change. However, experience and research show that companies have difficulties managing both the continuous improvement of the existing system and radical change at the same time. By using TQM and BPR to represent the two approaches to change Tor Tønnessen contributes to the understanding of the challenges of this integration and shows ways to accomplish a successful synergistic combining of the two approaches.

Features
In order to stay efficient, companies need to improve their existing business processes on a continuous basis. To ensure competitive edge, it is essential for companies to adapt radically to new business opportunities and when external demands change. However, experience and research show that companies have difficulties managing both the continuous improvement of the existing system and radical change at [...]
Dynamic Governance of Energy Technology Change

Socio-technical transitions towards sustainability

Formulating effective responses to the global challenges of mitigating climate change and securing a sustainable energy future requires a clear understanding of the interdependent causalities between institutions, local decision making, strategic alliances and eco-innovations, as well as policies. It has been acknowledged that the linear “Manhattan project” model is not an adequate governance model for mastering the dynamic complexity of socio-technical transitions; therefore this book aims at advancing research on systematic transition management models. It offers qualitative and quantitative analyses of socio-technical transitions in road transportation and housing, bringing [...] Features

Formulating effective responses to the global challenges of mitigating climate change and securing a sustainable energy future requires a clear understanding of the interdependent causalities between institutions, local decision making, strategic alliances and eco-innovations, as well as policies. It has been acknowledged that the linear “Manhattan project” model is not an adequate governance model for [...] Contents


Fields of interest

R & D / Technology Policy; Energy Policy, Economics and Management; Sustainable Development; Methodology of the Social Sciences

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-39752-3

Hardcover

2013, XVI, 252 p. 60 illus., 12 illus. in color. (Sustainability and Innovation)

$179.00

ISBN 978-3-642-39752-3

usually dispatched within 3 to 5 business days

Principles of Mathematical Economics

Under the assumption of a basic knowledge of algebra and analysis, micro and macro economics, this self-contained and self-sufficient textbook is targeted towards upper undergraduate audiences in economics and related fields such as business, management and the applied social sciences. The basic economics core ideas and theories are exposed and developed, together with the corresponding mathematical formulations. From the basics, progress is rapidly made to sophisticated nonlinear, economic modelling and real-world problem solving. Extensive exercises are included, and the textbook is particularly well-suited for computer-assisted learning.

Features

Under the assumption of a basic knowledge of algebra and analysis, micro and macro economics, this self-contained and self-sufficient textbook is targeted towards upper undergraduate audiences in economics and related fields such as business, management and the applied social sciences. The basic economics core ideas and theories are exposed and developed, together with the corresponding mathematical [...] Contents


Fields of interest

Business & Economics (general); Mathematics (general)

Target groups

Upper undergraduate

Type of publication

Undergraduate textbook


Hardcover

2014, XXVIII, 491 p. 121 illus., 60 illus. in color. (Mathematics Textbooks for Science and Engineering, Vol. 3)

$99.00


usually dispatched within 3 to 5 business days

Project Management with Dynamic Scheduling

Baseline Scheduling, Risk Analysis and Project Control

The topic of this book is known as dynamic scheduling, and is used to refer to three dimensions of project management and scheduling: the construction of a baseline schedule and the analysis of a project schedule’s risk as preparation of the project control phase during project progress. This dynamic scheduling point of view implicitly assumes that the usability of a project’s baseline schedule is rather limited and only acts as a point of reference in the project life cycle. Consequently, a project schedule should especially be considered as nothing more than a predictive model that can be used for resource efficiency calculations, time and cost risk analyses, project tracking and [...] Features

The topic of this book is known as dynamic scheduling, and is used to refer to three dimensions of project management and scheduling: the construction of a baseline schedule and the analysis of a project schedule’s risk as preparation of the project control phase during project progress. This dynamic scheduling point of view implicitly assumes that the usability of a project’s baseline schedule is rather [...] Contents

Preface.- I Scheduling without resources.- II Scheduling with resources.- III Project control.- IV Scheduling with software.- V Conclusions.- Index.

Fields of interest

Operation Research / Decision Theory; Organization / Planning; Management/Business for Professionals; Operations Research, Mathematical Programming

Target groups

Graduate

Type of publication

Monograph

More on www.springer.com/978-3-642-40437-5

Hardcover

2013, XVIII, 318 p. 123 illus.

$179.00

ISBN 978-3-642-40437-5

usually dispatched within 3 to 5 business days
An Introduction to Socio-Finance

This introductory text is devoted to exposing the underlying nature of price formation in financial markets as a predominantly sociological phenomenon that relates individual decision-making to emergent and co-evolving social and financial structures. Two different levels of this sociological influence are considered: First, we examine how price formation results from the social dynamics of interacting individuals, where interaction occurs either through the price or by direct communication. Then the same processes are revisited and examined at the level of larger groups of individuals. In this book, models of both levels of socio-finance are presented, and it is shown, in particular, [...] 

Contents

Fields of interest
Financial Economics; Socio- and Econophysics; Population and Evolutionary Models; Quantitative Finance

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-41943-0

Hardcover
2013. XIII, 185 p. 44 illus., 9 illus. in color.
$89.99
ISBN 978-3-642-41941-0
usually dispatched within 3 to 5 business days

The Heterogeneity Link of the Welfare State and Redistribution

Ethnic Heterogeneity, Welfare State Policies, Poverty, and Inequality in High Income Countries

This book situates ethnic heterogeneity in the larger discussion of the welfare state and its redistributive outcomes, poverty and inequality. By using comprehensive, longitudinal data covering 1980 to 2010 from 17 high income countries, this analysis helps achieve a major milestone in comparative welfare state research both conceptually and methodologically. Conceptually, it elevates the relevance of growing ethnic heterogeneity in thinking about how politics and economics of the welfare state operate, collectively impacting the magnitudes of poverty and inequality. Methodologically, the analysis conducted in this book provides broader empirical tests for the many propositions and [...] 

Features
Using data covering 1980 to 2005 across 17 high income countries, this book offers a thorough and systematic analysis of the relevance of population heterogeneity in determining variations in welfare state policies as well as inequality and poverty. Comparative analysis provides a new look into the ongoing drive for welfare state retrenchment amidst increasing heterogeneity across many countries and its [...] 

Contents

Fields of interest
Development Economics; Social Structure, Social Inequality; Comparative Politics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02814-9

Hardcover
2013. XIII, 302 p. 18 illus. in color.
$179.00
ISBN 978-3-319-02814-9
usually dispatched within 3 to 5 business days

Two-Person Zero-Sum Games

Two-person zero-sum game theory deals with situations that are perfectly competitive—there are exactly two decision makers for whom there is no possibility of cooperation or compromise. It is the most fundamental part of game theory, and the part most commonly applied. There are diverse applications to military battles, sports, parlors games, economics and politics. The theory was born in World War II, and has by now matured into a significant and tractable body of knowledge about competitive decision making. The advent of modern, powerful computers has enabled the solution of many games that were once beyond computational reach. Two-Person Zero-Sum Games, 4th Ed. offers an up-to-date [...] 

Features
Two-person zero-sum game theory deals with situations that are perfectly competitive—there are exactly two decision makers for whom there is no possibility of cooperation or compromise. It is the most fundamental part of game theory, and the part most commonly applied. There are diverse applications to military battles, sports, parlors games, economics and politics. The theory was born in World War II, and [...] 

Contents

Fields of interest
Operation Research / Decision Theory; Probability Theory and Stochastic Processes; Operations Research, Mathematical Programming

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-9049-4

Hardcover
$129.00
ISBN 978-1-4614-9049-4
usually dispatched within 3 to 5 business days
P.J.J. Welfens

Social Security and Economic Globalization

Economic globalization is a complex phenomenon where the links between social security expenditures and globalization are not well understood so far. This study summarizes new key findings and highlights new theoretical insights in the field of social security systems, labor standards, taxation and economic globalization. Moreover, new thoughts on the links between social security systems and migration as well as between free trade areas and social market economy development are presented. The book analyses the role of a changing age dependency using a Branson model and it derives implications for the stock market price index, the exchange rate and the interest rate. Economic[...]

Features
Economic globalization is a complex phenomenon where the links between social security expenditures and globalization are not well understood so far. This study summarizes new key findings and highlights new theoretical insights in the field of social security systems, labor standards, taxation and economic globalization. Moreover, new thoughts on the links between social security systems and migration as [...] Contents


Fields of interest
Social Policy; International Economics; Social Structure, Social Inequality; Public Finance & Economics; Labor Economics; Economic Growth

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40879-3

Hardcover
2013. XII, 147 p. 28 illus.
$129.00
ISBN 978-3-642-40879-3
usually dispatched within 3 to 5 business days

L. Wolter

Nature-Based Tourism in Mallorca’s Natural Areas

The Benefits of Tourism for Natural Areas
Luisa Wolter examines the travel motivations and interests of natural park visitors to Mallorca with a special focus on sustainable tourism development. The data for the study were collected from tourists in the two natural parks s’ Albufera and Llevant in the North of Mallorca. Based on the results of the analysis, natural area managers can develop new products and marketing strategies that address their very own visitors, contribute to the sustainable development of their region, and influence the visitors’ views and behaviors by raising environmental awareness.

Features
Luisa Wolter examines the travel motivations and interests of natural park visitors to Mallorca with a special focus on sustainable tourism development. The data for the study were collected from tourists in the two natural parks s’Albufera and Llevant in the North of Mallorca. Based on the results of the analysis, natural area managers can develop new products and marketing strategies that address their[...]

Contents
Sustainability.- Nature-Based Tourism.- Tourist Demand.- Impacts.

Fields of interest
Business & Economics (general); Market Research; Marketing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04535-7

Softcover
2014. XXII, 131 p. 6 illus. (BestMasters)
$79.99
ISBN 978-3-658-04535-7
usually dispatched within 3 to 5 business days

V. Zheng, P.-s. Wan, Chinese University of Hong Kong, Hong Kong, Hong Kong

Gambling Dynamism

The Macao Miracle

Four years after the actual implementation of its casino deregulation policy, Macao has surpassed Las Vegas as the world’s top gambling destination in terms of annual turnover. Also, various recent surveys have put Macao at the very top of the list in terms of per capita GDP, as its economy grew shortly after the resumption of Chinese sovereignty. How could a tiny city without any natural resources on the southern coast of China have managed to achieve such a miraculous level of development? This book presents an unparalleled study of Macao’s economic dynamism and its gambling industry not only by merging historical and current developments, but also by presenting solid subjective and [...] Contents


Fields of interest
Economics; Cultural Studies; Regional and Cultural Studies

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40748-2

Hardcover
2014. XII, 202 p. 22 illus., 2 illus. in color.
$129.00
ISBN 978-3-642-40748-2
usually dispatched within 3 to 5 business days
Multicultural Science Education
Preparing Teachers for Equity and Social Justice
This book offers valuable guidance for science teacher educators looking for ways to facilitate pre-service and inservice teachers’ pedagogy relative to teaching students from underrepresented and underserved populations in the science classroom. It also provides solutions that will better equip science teachers of underrepresented student populations with effective strategies that challenge the status quo, and foster classrooms environment that promotes equity and social justice for all of their science students. Multicultural Science Education illuminates historically persistent, yet unresolved issues in science teacher education from the perspectives of a remarkable group of scientists.[...]

Features
This book offers valuable guidance for science teacher educators looking for ways to facilitate pre-service and inservice teachers’ pedagogy relative to teaching students from underrepresented and underserved populations in the science classroom. It also provides solutions that will better equip science teachers of underrepresented student populations with effective strategies that challenge the status quo, [...]
World Class Initiatives and Practices in Early Education
Moving Forward in a Global Age

This book offers current international initiatives, developed for working with children from “Birth to Eight” by a diverse group of noted professional authors. Their readings present an overview of early education as it evolved from the Froebelian kindergarten to today’s practices in various Early Education settings around the globe. The international voices of the authors represent a balanced perspective of happenings in various nations and lend a conversational approach to each chapter. The chapters analyze the Universal Preschool Education movement promoted by countries, states, and agencies; examine model curriculum programs in a variety of teaching/learning settings; and [...]

Features
This book offers current international initiatives, developed for working with children from “Birth to Eight” by a diverse group of noted professional authors. Their readings present an overview of early education as it evolved from the Froebelian kindergarten to today’s practices in various Early Education settings around the globe. The international voices of the authors represent a balanced perspective of [...]

Contents

Fields of interest
Childhood Education; International and Comparative Education; Sociology of Education; Educational Philosophy

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-94-007-6554-2

Hardcover
$679.00
usually dispatched within 3 to 5 business days

L. Boyle Swinarski, Salem State University, Salem, USA (Ed.)

International Handbook of Educational Leadership and Social Injustice

The International Handbook on Educational Leadership and Social (In)Justice creates a first-of-its-kind international forum on conceptualizing the meanings of social justice and leadership, research approaches in studying social justice and combating social injustices, school, university and teacher leadership for social justice, advocacy and advocates for social justice, socio-cultural representations of social injustices, global policies, and leadership development as interventions. The Handbook is as much forward-looking as it is a retrospective review of educational research literatures on social justice from a variety of educational subfields including educational leadership.[...]

Features
The International Handbook on Educational Leadership and Social (In)Justice creates a first-of-its-kind international forum on conceptualizing the meanings of social justice and leadership, research approaches in studying social justice and combating social injustices, school, university and teacher leadership for social justice, advocacy and advocates for social justice, socio-cultural representations of [...]
**Probabilistic Thinking**

**Presenting Plural Perspectives**

This volume provides a necessary, current and extensive analysis of probabilistic thinking from a number of mathematicians, mathematics educators, and psychologists. The work of 58 contributing authors, investigating probabilistic thinking across the globe, is encapsulated in 6 prefaces, 29 chapters and 6 commentaries. Ultimately, the four main perspectives presented in this volume (Mathematics and Philosophy, Psychology, Stochastics and Mathematics Education) are designed to represent probabilistic thinking in a greater context.

**Features**

This volume provides a necessary, current and extensive analysis of probabilistic thinking from a number of mathematicians, mathematics educators, and psychologists. The work of 58 contributing authors, investigating probabilistic thinking across the globe, is encapsulated in 6 prefaces, 29 chapters and 6 commentaries. Ultimately, the four main perspectives presented in this volume (Mathematics and Philosophy, Psychology, Stochastics and Mathematics Education) are designed to represent probabilistic thinking in a greater context.

**Fields of interest**

Mathematics Education; Probability Theory and Stochastic Processes; Philosophy of Education

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-94-007-7154-3

**Hardcover**

2014. XXII, 747 p. 164 illus. (Advances in Mathematics Education)

$229.00

ISBN 978-94-007-7154-3

usually dispatched within 3 to 5 business days

---

**Educational Interfaces between Mathematics and Industry**

**Report on an ICMI-ICIAM Study**

This book is the "Study Book" of ICMI-ICIAM Study no. 20, which was run in cooperation with the International Congress on Industry and Applied Mathematics (ICIAM). The editors were the co-chairs of the study (Damiamian, Sträßer) and the organiser of the Study Conference (Rodrigues). The text contains a comprehensive report on the findings of the Study Conference, original plenary presentations of the Study Conference, reports on the Working Groups and selected papers from all over world. This content was selected by the editors as especially pertinent to the study each individual chapter represents a significant contribution to current research.

**Features**

This book is the "Study Book" of ICMI-ICIAM Study no. 20, which was run in cooperation with the International Council for Industry and Applied Mathematics (ICIAM). The editors were the co-chairs of the study (Damiamian, Sträßer) and the organiser of the Study Conference (Rodrigues). The text contains a comprehensive report on the findings of the Study Conference, original plenary presentations of the Study Conference, reports on the Working Groups and selected papers from all over world. This content was selected by the editors as especially pertinent to the study each individual chapter represents a significant contribution to current research.

**Fields of interest**

Mathematics Education

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-319-02269-7

**Hardcover**

2013. XV, 466 p. 62 illus., 50 illus. in color. (New ICMI Study Series, Vol. 16)

$129.00

ISBN 978-3-319-02269-7

usually dispatched within 3 to 5 business days
The Structure of Scientific Examination Questions

This book shows how Systemic Functional Linguistics may be used to explore and explain the grammar of scientific examination questions. The author outlines the key elements of this theory and identifies problematical structures that affect the linguistic validity of such examination assessment questions. This book also shows how examination questions may provide insight into the relationship between teaching and language in science. Do candidates give an incorrect answer because they do not understand the topic or because they do not understand the language by which the question is framed? This book shows how the analysis of scientific examination questions can answer this [...]}

Features
This book shows how Systemic Functional Linguistics may be used to explore and explain the grammar of scientific examination questions. The author outlines the key elements of this theory and identifies problematical structures that affect the linguistic validity of such examination assessment questions. This book also shows how examination questions may provide insight into the relationship between teaching [...]}

Contents
Chapter 1 Systemic Functional Analysis and Science Examinations. - Chapter 2 Pictures and Words. - Chapter 3 Sentences. - Chapter 4 Active Readers.

Fields of interest
Science Education; Assessment, Testing and Evaluation; Applied Linguistics; Sociolinguistics

Target groups
Research

Type of publication
Brief
More on www.springer.com/978-94-007-7487-2

Softcover

usually dispatched within 3 to 5 business days

Globalization and the Singapore Curriculum

From Policy to Classroom

This volume provides a multi-faceted and critical analysis of the Singapore curriculum in relation to globalization. First, it details reform initiatives established by the Singapore government to meet the challenges posed by globalization. Next, Globalization and the Singapore Curriculum presents how these reforms have been translated into programs, school subjects and operational frameworks and then examines, in turn, how well these have been implemented in schools and classrooms across the country. Through this examination, the book reveals how the initiatives, together with their curricular translation and classroom enactment, reflect on the one hand global features and tendencies [...]}

Features
This volume provides a multi-faceted and critical analysis of the Singapore curriculum in relation to globalization. First, it details reform initiatives established by the Singapore government to meet the challenges posed by globalization. Next, Globalization and the Singapore Curriculum presents how these reforms have been translated into programs, school subjects and operational frameworks and [...]}

Contents

Fields of interest
Curriculum Studies; International and Comparative Education; Educational Policy and Politics

Target groups
Research

Type of publication
Contributed volume
More on www.springer.com/978-981-4451-56-7

Hardcover

usually dispatched within 3 to 5 business days

Mathematics & Mathematics Education: Searching for Common Ground

This book is the fruit of a symposium in honor of Ted Eisenberg concerning the growing divide between the mathematics community and the mathematics education community, a divide that is clearly unhealthy for both. The work confronts this disturbing gap by considering the nature of the relationship between mathematics education and mathematics, and by examining areas of commonality as well as disagreements. It seeks to provide insight into the mutual benefit both stand to gain by building bridges based on the natural bonds between them.

Features
This book is the fruit of a symposium in honor of Ted Eisenberg concerning the growing divide between the mathematics community and the mathematics education community, a divide that is clearly unhealthy for both. The work confronts this disturbing gap by considering the nature of the relationship between mathematics education and mathematics, and by examining areas of commonality as well as disagreement. It [...]}

Contents

Fields of interest
Mathematics Education; Applications of Mathematics; Educational Policy and Politics

Target groups
Research

Type of publication
Contributed volume
More on www.springer.com/978-94-007-7472-8

Hardcover

usually dispatched within 3 to 5 business days
Current Trends in Eye Tracking Research

Our eye movements in response to visual stimuli reveal much about how we experience the world. Focusing on the latest developments in the multidisciplinary field of eye tracking research, this volume ranges across a wide spectrum of research applications, with four sections covering the plethora of practical uses to which our expanding knowledge can be put. They offer abundant evidence that eye tracking research and its methodologies offer new ways of collecting data, framing research questions, and thinking about how we view our world. As a result, we are discovering more about how the visual system works, as well as how it interacts with attention, cognition, and behaviour. Current [...] Features

Our eye movements in response to visual stimuli reveal much about how we experience the world. Focusing on the latest developments in the multidisciplinary field of eye tracking research, this volume ranges across a wide spectrum of research applications, with four sections covering the plethora of practical uses to which our expanding knowledge can be put. They offer abundant evidence that eye tracking [...] Contents


Fields of interest

Learning and Instruction; Cognitive Psychology; Psycholinguistics; Market Research

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-319-02867-5

Hardcover

2014. XVII, 322 p. 1 illus. in color. (Education Innovation Series) $129.00 ISBN 978-981-4560-16-0

usually dispatched within 3 to 5 business days

Adaptivity as a Transformative Disposition

for Learning in the 21st Century

This volume introduces the concept of 'adaptivity' as occurring when, say, individuals cross boundaries. Through illustrations from both formal and informal learning, the book seeks to provide learning designs and frameworks for adaptivity. This book is unique as it ties together: a) social-individual dialectics; and b) adaptive learning as it relates to creativity and imagination. It highlights case studies from social / new media contexts, school learning milieux, and formal and informal situations. It approaches adaptive learning from the perspectives of students, teachers, school leaders, and participants in social media and other digitally mediated environments. The book is a [...]

Features

This volume introduces the concept of 'adaptivity' as occurring when, say, individuals cross boundaries. Through illustrations from both formal and informal learning, the book seeks to provide learning designs and frameworks for adaptivity. This book is unique as it ties together: a) social-individual dialectics; and b) adaptive learning as it relates to creativity and imagination. It highlights case studies [...]

Contents


Fields of interest

Literacy; Language Education; Learning and Instruction

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-4677-4

Hardcover

2014. XI, 326 p. 60 illus., 30 illus. in color. $129.00 ISBN 978-1-4614-4677-4

usually dispatched within 3 to 5 business days

Early Mathematics Learning

Selected Papers of the POEM 2012 Conference

This book will gather current research in early childhood mathematics education. A special focus will be the tension between instruction and construction of knowledge. The book includes research on the design of learning opportunities, the development of mathematical thinking, the impact of the social setting and the professionalization of nursery teachers.

Features

This book will gather current research in early childhood mathematics education. A special focus will be the tension between instruction and construction of knowledge. The book includes research on the design of learning opportunities, the development of mathematical thinking, the impact of the social setting and the professionalization of nursery teachers.

Contents

Instruction and Construction: Integrating Both Processes to Promote Quality Early Mathematics Education. - A Dance of instruction with construction in mathematics education. - The Roots of Matematising in Young Children. - The first Discernment into the NMT Family. - Developing Critical Thinking Skill in Mathematics Education. - Identifying quantities of representations - Children using structures to compose collections from parts or decompose collections into parts. - What kind of challenges do teacher students encounter with respect to kindergarten mathematics? - A pilot Study of Exam. [...]
Creative Arts in Education and Culture
Perspectives from Greater China

This book offers insights into the exciting dynamics permeating creative arts education in the Greater China region, focusing on the challenges of forging a future that would not reject, but be enriched by its Confucian and colonial past. Today’s ‘Greater China’ – comprising China, Hong Kong, Macau and Taiwan – has grown into a vibrant and rapidly transforming region characterized by rich historical legacies, enormous dynamism and exciting cultural metamorphosis. Concomitant with the economic rise of China and widespread calls for more ‘creative’ and ‘liberal’ education, the educational and cultural sectors in the region have witnessed significant reforms in recent years. Other[...]

Features
This book offers insights into the exciting dynamics permeating creative arts education in the Greater China region, focusing on the challenges of forging a future that would not reject, but be enriched by its Confucian and colonial past. Today’s ‘Greater China’ – comprising China, Hong Kong, Macau and Taiwan – has grown into a vibrant and rapidly transforming region characterized by rich historical legacies, [...]}

Contents

Fields of interest
Arts Education; Music; Curriculum Studies

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7728-6

Hardcover
2013. XII, 251 p. 313 illus. (Landscapes: the Arts, Aesthetics, and Education, Vol. 13)
$129.00
ISBN 978-94-007-7728-6
usually dispatched within 3 to 5 business days

Survival of the Fittest
The Shifting Contours of Higher Education in China and the United States

This book will examine how universities in China and the US are responding to markets and increasing global competition. For both countries, a university education is seen as key to economic development. While China and the US have two very different political systems, they represent the two largest economies in the world and share beliefs that higher education plays an integral role to economic development. The book will bring together scholars with multiple perspectives on the topic to create dialogue around similarities and differences. This book will appeal to students, scholars, and higher educational administrators in both countries and other countries as well who are seeking to[...]

Features
This book will examine how universities in China and the US are responding to markets and increasing global competition. For both countries, a university education is seen as key to economic development. While China and the US have two very different political systems, they represent the two largest economies in the world and share beliefs that higher education plays an integral role to economic development. [...]}

Contents

Fields of interest
Higher Education; Educational Policy and Politics; International and Comparative Education

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-39812-4

Hardcover
$129.00
ISBN 978-3-642-39812-4
usually dispatched within 3 to 5 business days

Mathematics Curriculum in School Education

Mathematics curriculum, which is often a focus in education reforms, has not received extensive research attention until recently. Ongoing mathematics curriculum changes in many education systems call for further research and sharing of effective curriculum policies and practices that can help lead to the improvement of school education. This book provides a unique international perspective on diverse curriculum issues and practices in different education systems, offering a comprehensive picture of various stages along curriculum transformation from the intended to the achieved, and showing how curriculum changes in various stages contribute to mathematics teaching and learning in[...]

Features
Mathematics curriculum, which is often a focus in education reforms, has not received extensive research attention until recently. Ongoing mathematics curriculum changes in many education systems call for further research and sharing of effective curriculum policies and practices that can help lead to the improvement of school education. This book provides a unique international perspective on diverse[...]

Contents
Mathematics Curriculum in School Education Editors: Yeping Li (Texas A&M University, USA) Glenda Lappan (Michigan State University, USA) Part I: Introduction and Perspectives - Chapter 1 Mathematics curriculum in school education: Advancing research and practices from an international perspective: Yeping Li, Glenda LAPPAN.- Chapter 2 Curriculum design and systemic change: Hugh BURKHARDT.- Chapter 3 Mathematics curriculum policies and practices in the U.S.: The Common Core State Standards initiative: Barbara J. REYS.- Chapter 4 Reflections on curricular change: Alan SCHOENFELD.- Part II[...]

Fields of interest
Mathematics Education; Curriculum Studies; International and Comparative Education

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7559-6

Hardcover
2014. XI, 663 p. 83 illus. (Advances in Mathematics Education)
$179.00
ISBN 978-94-007-7559-6
usually dispatched within 3 to 5 business days
This volume makes a distinctive and innovative contribution to the globalisation of higher education literature by highlighting the myriad benefits of academic migration. Sixteen academic migrants across the Asia-Pacific region reflect on their experiences and wisdom gained across geographical, cultural and disciplinary domains. Each one provides an authentic account of ways in which their experiences and insights have benefited their host institutions and enhanced their pedagogical practice. The ground-breaking volume calls for a shift in academic culture – one in which academic migrants are respected for their cultural, social and intellectual resources, their enhanced interpretive[...]

Features
This volume makes a distinctive and innovative contribution to the globalisation of higher education literature by highlighting the myriad benefits of academic migration. Sixteen academic migrants across the Asia-Pacific region reflect on their experiences and wisdom gained across geographical, cultural and disciplinary domains. Each one provides an authentic account of ways in which their experiences and insights have benefited their host institutions and enhanced their pedagogical practice. The ground-breaking volume calls for a shift in academic culture – one in which academic migrants are respected for their cultural, social and intellectual resources, their enhanced interpretive[...]

Contents

Fields of interest
Sociology of Education; Higher Education

Target groups
Research

Type of publication
Contributed volume


Hardcover

2014, XV, 218 p. 12 illus.
$129.00
usually dispatched within 3 to 5 business days
**Transformation - A Fundamental Idea of Mathematics Education**

The diversity of research domains and theories in the field of mathematics education has been a permanent subject of discussions from the origins of the discipline up to the present. On the one hand, the diversity is regarded as a resource for rich scientific development on the other hand it gives rise to the often repeated criticism of the discipline’s lack of focus and identity. As one way of focusing on core issues of the discipline the book seeks to open up a discussion about fundamental ideas in the field of mathematics education that permeate different research domains and perspectives. The book addresses transformation as one fundamental idea in mathematics education and [...] 

**Features**
This book opens up a discussion on fundamental ideas of mathematics education as a means to focus on the overarching core issues and to reflect upon the identity of the scientific discipline. The concept of transformation is introduced as one fundamental idea in the discipline and examined from different perspectives. Transformations are related to knowledge, to signs and representations of mathematics, to [...] 

**Contents**
Introduction to Part I: How 18th Century Mathematics was Transformed into 19th Century School Curricula: A Framework for Examining the Transformation of Mathematics and Mathematics Learning in the Transition from School to University: An Analysis of German Textbooks from Upper Secondary School and the First Semester: Knowledge Transformation between Secondary School and University Mathematics: Student Transition to University Mathematics Education: Transformations of People, Tools and Practices: Overcoming the Gap between University and School Mathematics: The Impact of an [...] 

**Fields of interest**
Mathematics Education; Educational Philosophy 

**Target groups**
Research 

**Type of publication**
Contributed volume

More on www.springer.com/978-1-4614-3488-7 

**Hardcover**
2014. XLI, 409 p. 112 illus., 30 illus. in color.
$129.00
usually dispatched within 3 to 5 business days

---

**Transfer of Learning in Organizations**

In this book, internationally respected scholars from the disciplines of educational science, business administration and psychology thoroughly discuss practice-related questions on learning transfer in organizations. Readers will learn solid concepts for securing and evaluating learning transfer. This volume offers new insights about learning transfer in organizations and their implications for both research and practice. It examines the actual state in practice and provides the foundation for improvements in the design and evaluation of further training measures that are conducive to the transfer of learning. In addition, coverage details theoretical models on learning transfer in[...]

**Features**
In this book, internationally respected scholars from the disciplines of educational science, business administration and psychology thoroughly discuss practice-related questions on learning transfer in organizations. Readers will learn solid concepts for securing and evaluating learning transfer. This volume offers new insights about learning transfer in organizations and their implications for both [...] 

**Contents**

**Fields of interest**
Professional and Vocational Education; Personnel Management; Lifelong Learning / Adult Education 

**Target groups**
Research 

**Type of publication**
Contributed volume

More on www.springer.com/978-3-319-02092-1 

**Hardcover**
2014. XI, 170 p. 10 illus. in color.
$129.00
ISBN 978-3-319-02092-1
usually dispatched within 3 to 5 business days

---

**Politics of Anti-Racism Education: In Search of Strategies for Transformative Learning**

This collection of essays invites readers to think through critical questions concerning anti-racism education, such as: How does anti-racism education centre race as an analytic and simultaneously work with multiple sites of oppression, without reifying hierarchies of difference? How can anti-racism education be engaged to speak to historical questions of power and privilege, within conventional schooling practices? How do we recognize anti-racism education in its many iterations? In this book the authors explore the knowledge that constitutes anti-racism education and the ways in which knowledge constitutes anti-racism education becomes embodied through particular pedagogues. [...] 

**Features**
This collection of essays invites readers to think through critical questions concerning anti-racism education, such as: How does anti-racism education centre race as an analytic and simultaneously work with multiple sites of oppression, without reifying hierarchies of difference? How can anti-racism education be engaged to speak to historical questions of power and privilege, within conventional schooling [...] 

**Contents**

**Fields of interest**
Educational Policy and Politics; Sociology of Education 

**Target groups**
Research 

**Type of publication**
Contributed volume


**Hardcover**
2014. VIII, 239 p. (Explorations of Educational Purpose, Vol. 27)
$129.00
usually dispatched within 3 to 5 business days
Implementing Cross-Culture Pedagogies

Cooperative Learning at Confucian Heritage Cultures

During the last two decades Confucian heritage culture countries have widely promoted teaching and learning reforms to advance their educational systems. To skip the painfully long research stage, Confucian heritage culture educators have borrowed Western philosophies and practices with the assumption that what has been done successfully in the West will produce similar outcomes in the East. The wide importation of cooperative learning practices to Confucian heritage culture classrooms recently is an example. However, cooperative learning has been documented in many studies not to work effectively in Confucian heritage culture classrooms. The reason is that the educators often impose[...]

Features

During the last two decades Confucian heritage culture countries have widely promoted teaching and learning reforms to advance their educational systems. To skip the painfully long research stage, Confucian heritage culture educators have borrowed Western philosophies and practices with the assumption that what has been done successfully in the West will produce similar outcomes in the East. The wide[...]

Contents


Fields of interest

International and Comparative Education; Philosophy of Education; Learning and Instruction; Assessment, Testing and Evaluation

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38302-1

Hardcover

2014. VIII, 113 p. 10 illus.
$129.00
ISBN 978-3-642-38302-1
usually dispatched within 3 to 5 business days

The Road to Privatization of Higher Education in China

A New Cultural Revolution?

This book makes both empirical and conceptual contributions to the debate on privatization of higher education in China. Empirically, it aims to fill a gap in our knowledge of privatization of higher education in North China. To this end, Beijing was chosen as a case for analysis, and nine local higher educational institutions were visited. The case study strategy is also complemented by an extensive review of national policies to reveal problems beyond the specific case of Beijing and of national concern. The effects of the cultural and socioeconomic background and the unique state-party controlling system on higher education management are stressed. Conceptually, most existing[...]

Features

This book makes both empirical and conceptual contributions to the debate on privatization of higher education in China. Empirically, it aims to fill a gap in our knowledge of privatization of higher education in North China. To this end, Beijing was chosen as a case for analysis, and nine local higher educational institutions were visited. The case study strategy is also complemented by an extensive review[...]

Contents


Fields of interest

Higher Education; Educational Policy and Politics; Sociology of Education; Sociology of Education

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38302-1

Hardcover

2014. VIII, 113 p. 10 illus.
$129.00
ISBN 978-3-642-38302-1
usually dispatched within 3 to 5 business days

Renewable Energy for Unleashing Sustainable Development

The book analyzes energy technologies, business models and policies to promote sustainable development. It proposes a set of recommendations for further activities and networking on access to energy and renewable energies and promotes an integrated approach to sustainable resource management. The book discusses access to energy, as a precondition for socio-economic progress. It depicts the global dimension of the challenge in terms of access to electricity and other forms of energy in developing countries. The three main interlinked topics related to energy and sustainable growth are separately discussed: appropriate technologies for modern energy services, business models for the[...]

Features

The book analyzes energy technologies, business models and policies to promote sustainable development. It proposes a set of recommendations for further activities and networking on access to energy and renewable energies and promotes an integrated approach to sustainable resource management. The book discusses access to energy, as a precondition for socio-economic progress. It depicts the global dimension[...]

Contents

Renewable energies to promote local development (by E. Colombo, D. Masera, S. Bologna).- Global dimension of universal access to energy (by E. Colombo, L. Mattarolo, S. Mandelli).- Rule of law and right within access to energy: a philosophical perspective (by T. Scandroglio).- Modern energies services for cooking: from Improved Cook-Stoves to domestic and community-based systems (by F. Mapelli, J. Mungwe).- Distributed generation for access to electricity: from Home Based Systems to Mini Grid (by S. Mandelli, R. Moreu).- Grid connected systems for access to electricity: from micro-grids[...]

Fields of interest

Renewable and Green Energy; Energy Policy, Economics and Management; Sustainable Development

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00283-5

Hardcover

2013. XIX, 302 p. 79 illus.
$129.00
ISBN 978-3-319-00283-5
usually dispatched within 3 to 5 business days
Wood-Based Energy in the Northern Forests

This unique book provides the first comprehensive overview of wood based bioenergy in the northern hardwood forests of the Eastern United States. This includes a holistic look at the topic of wood based bioenergy, as well as focused analyses of key topics. This book is relevant to engineers, project developers, foresters, economists, sociologists, environmental scientists and natural resource managers. Most chapters also provide practical hands-on advice for the practitioner, and provide a valuable resource for anyone who is considering developing a woody bioenergy project.

Features
This unique book provides the first comprehensive overview of wood based bioenergy in the northern hardwood forests of the Eastern United States. This includes a holistic look at the topic of wood based bioenergy, as well as focused analyses of key topics. This book is relevant to engineers, project developers, foresters, economists, sociologists, environmental scientists and natural resource managers. [...]
Nonlinear Dynamics and Complexity

This important collection presents recent advances in nonlinear dynamics including analytical solutions, chaos in Hamiltonian systems, time-delay, uncertainty, and bio-network dynamics. Nonlinear Dynamics and Complexity equips readers to appreciate this increasingly main-stream approach to understanding complex phenomena in nonlinear systems as they are examined in a broad array of disciplines. The book facilitates a better understanding of the mechanisms and phenomena in nonlinear dynamics and develops the corresponding mathematical theory to apply nonlinear design to practical engineering.

Features
This important collection presents recent advances in nonlinear dynamics including analytical solutions, chaos in Hamiltonian systems, time-delay, uncertainty, and bio-network dynamics. Nonlinear Dynamics and Complexity equips readers to appreciate this increasingly main-stream approach to understanding complex phenomena in nonlinear systems as they are examined in a broad array of disciplines. The book [-]

Contents

Fields of interest
Complexity; Nonlinear Dynamics; Complex Systems

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-02352-6

Hardcover
2014. VIII, 292 p. 117 illus., 42 illus. in color. (Nonlinear Systems and Complexity, Vol. B)
$119.00
ISBN 978-3-319-02352-6
usually dispatched within 3 to 5 business days

Enhancing the Internet with the CONVERGENCE System

An Information-centric Network Coupled with a Standard Middleware

Convergence proposes the enhancement of the Internet with a novel, content-centric, publish–subscribe service model based on the versatile digital item (VDI): a common container for all kinds of digital content, including digital representations of real-world resources. VDIs will serve the needs of the future Internet, providing a homogeneous method for handling structured information, incorporating security and privacy mechanisms. CONVERGENCE subsumes the following areas of research: definition of the VDI as a new fundamental unit of distribution and transaction; content-centric networking functionality to complement or replace IP-address-based routing; security and privacy.[...]

Features
Convergence proposes the enhancement of the Internet with a novel, content-centric, publish–subscribe service model based on the versatile digital item (VDI): a common container for all kinds of digital content, including digital representations of real-world resources. VDIs will serve the needs of the future Internet, providing a homogeneous method for handling structured information, incorporating security and privacy.[...]

Contents

Fields of interest
Communications Engineering, Networks; Computer Communication Networks; Information Systems Applications (incl.Internet)

Target groups
Professional/practitioner

More on www.springer.com/978-1-4471-5372-6

Hardcover
2014. XVI, 275 p. 98 illus., 92 illus. in color. (Signals and Communication Technology)
$179.00
usually dispatched within 3 to 5 business days

Finite-Time Stability and Control

Finite-time stability (FTS) is a more practical concept than classical Lyapunov stability, useful for checking whether the state trajectories of a system remain within pre-specified bounds over a finite time interval. In a linear systems framework, FTS problems can be cast as convex optimization problems and solved by the use of effective off-the-shelf computational tools such as LMI solvers. Finite-time Stability and Control exploits this benefit to present the practical applications of FTS and finite-time control-theoretical results to various engineering fields. The text is divided into two parts: linear systems and hybrid systems. The building of practical[-]

Features
Finite-time stability (FTS) is a more practical concept than classical Lyapunov stability, useful for checking whether the state trajectories of a system remain within pre-specified bounds over a finite time interval. In a linear systems framework, FTS problems can be cast as convex optimization problems and solved by the use of effective off-the-shelf computational tools such as LMI solvers. Finite-time Stability and Control exploits this benefit to present the practical applications of FTS and finite-time control-theoretical results to various engineering fields. The text is divided into two parts: linear systems and hybrid systems. The building of practical[-]

Contents

Fields of interest
Control; Systems Theory, Control; Industrial Chemistry / Chemical Engineering; Automotive Engineering; Aerospace Technology and Astronautics

Target groups
Research

Type of publication
Monograph


Softcover
2014. XII, 146 p. 37 illus., 14 illus. in color. (Lecture Notes in Control and Information Sciences, Vol. 453)
$109.00
usually dispatched within 3 to 5 business days
Methods and Experimental Techniques in Computer Engineering

Computing and science reveal a synergic relationship. On the one hand, it is widely evident that computing plays an important role in the scientific endeavor. On the other hand, the role of scientific method in computing is getting increasingly important, especially in providing ways to experimentally evaluate the properties of complex computing systems. This book critically presents these issues from a unitary conceptual and methodological perspective by addressing specific case studies at the intersection between computing and science. The book originates from, and collects the experience of, a course for PhD students in Information Engineering held at the Politecnico di Milano.[…]

Features
Computing and science reveal a synergic relationship. On the one hand, it is widely evident that computing plays an important role in the scientific endeavor. On the other hand, the role of scientific method in computing is getting increasingly important, especially in providing ways to experimentally evaluate the properties of complex computing systems. This book critically presents these issues from a […]

Contents

Fields of interest
Computational Intelligence; Computer Applications; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-00271-2

Softcover
2014. XI, 87 p. 25 illus. (PolMI SpringerBriefs)
$54.99
ISBN 978-3-319-00271-2
usually dispatched within 3 to 5 business days

The Art of Wireless Sensor Networks

Volume 1: Fundamentals

During the last one and a half decades, wireless sensor networks have witnessed significant growth and tremendous development in both academia and industry. "The Art of Wireless Sensor Networks: Volume 1: Fundamentals" focuses on the fundamentals concepts in the design, analysis, and implementation of wireless sensor networks. It covers the various layers of the lifecycle of this type of network from the physical layer up to the application layer. Its rationale is that the first volume covers contemporary design issues, tools, and protocols for radio-based two-dimensional terrestrial sensor networks. All the book chapters in this volume include up-to-date research work spanning[…]

Features
During the last one and a half decades, wireless sensor networks have witnessed significant growth and tremendous development in both academia and industry. "The Art of Wireless Sensor Networks: Volume 1: Fundamentals" focuses on the fundamentals concepts in the design, analysis, and implementation of wireless sensor networks. It covers the various layers of the lifecycle of this type of network[…]

Contents

Fields of interest
Communications Engineering, Networks; Circuits and Systems; Signal, Image and Speech Processing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40008-7

Hardcover
2014. XVI, 830 p. 279 illus., 146 illus. in color. (Signals and Communication Technology)
$229.00
ISBN 978-3-642-40008-7
usually dispatched within 3 to 5 business days

Intelligent Routines II

Solving Linear Algebra and Differential Geometry with Sage

"Intelligent Routines II: Solving Linear Algebra and Differential Geometry with Sage" contains numerous examples and problems as well as many unsolved problems. This book extensively applies the successful software Sage, which can be found free online [http://www.sagemath.org/]. Sage is a recent and popular software for mathematical computation, available freely and simple to use. This book is useful to all applied scientists in mathematics, statistics and engineering, as well for late undergraduate and graduate students of above subjects. It is the first such book in solving symbolically with Sage problems in Linear Algebra and Differential Geometry. Plenty of SAGE applications are[…]
Fundamentals of Robotic Mechanical Systems

Theory, Methods, and Algorithms

J. Angeles, McGill University, Montreal, Canada

G. Antonelli, Università di Cassino, Cassino, Italy

Underwater Robots

This book, now at the third edition, addresses the main control aspects in underwater manipulation tasks. The mathematical model with significant impact on the control strategy is discussed. The problem of controlling a 6-degrees-of-freedom autonomous underwater vehicle is deeply investigated and a survey of fault detection/tolerant strategies for unmanned underwater vehicles is provided. Inverse kinematics, dynamic and interaction control for underwater vehicle-manipulator systems are then discussed. The code used to generate most of the numerical simulations is made available and briefly discussed.

Features
This book, now at the third edition, addresses the main control aspects in underwater manipulation tasks. The mathematical model with significant impact on the control strategy is discussed. The problem of controlling a 6-degrees-of-freedom autonomous underwater vehicle is deeply investigated and a survey of fault detection/tolerant strategies for unmanned underwater vehicles is provided. Inverse...

Contents
Modelling of Underwater Robots.- Dynamic Control of 6-DOF AUVs.- Fault Detection/Tolerance Strategies for AUVs and ROVs.- Experiments of Dynamic Control of 6-DOF AUV.- Kinematic Control of UVMs.- Dynamic Control of UVMs.- Interaction Control of UVMs.- Kinematic Control of UVMs.- Interaction Control of UVMs.

Fields of interest
Robotics and Automation; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-03412-6

Hardcover
2014. XVIII, 737 p. 375 illus. (Advances in Intelligent Systems and Robotics, Vol. 1)
$279.00
ISBN 978-3-319-03412-6
usually dispatched within 3 to 5 business days

ROBOT2013: First Iberian Robotics Conference

Advances in Robotics, Vol. 1

This book contains the proceedings of the ROBOT 2013: FIRST IBERIAN ROBOTICS CONFERENCE and it can be said that included both state of the art and more practical presentations dealing with implementation problems, support technologies and future applications. A growing interest in Assistive Robotics, Agricultural Robotics, Field Robotics, Grasping and Dexterous Manipulation, Humanoid Robots, Intelligent Systems and Robotics, Marine Robotics, has been demonstrated by the very relevant number of contributions. Moreover, ROBOT2013 incorporates a special session on Legal and Ethical Aspects in Robotics that is becoming a topic of key relevance. This Conference was held in Madrid (28-29[...]

Features
This book contains the proceedings of the ROBOT 2013: FIRST IBERIAN ROBOTICS CONFERENCE and it can be said that included both state of the art and more practical presentations dealing with implementation problems, support technologies and future applications. A growing interest in Assistive Robotics, Agricultural Robotics, Field Robotics, Grasping and Dexterous Manipulation, Humanoid Robots, [...]}

Contents

Fields of interest
Robotics and Automation; Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-03412-6

Hardcover
2014. XVIII, 737 p. 375 illus. (Advances in Intelligent Systems and Computing, Vol. 252)
$279.00
ISBN 978-3-319-03412-6
usually dispatched within 3 to 5 business days
Analysis, Control and Optimal Operations in Hybrid Power Systems

Advanced Techniques and Applications for Linear and Nonlinear Systems

The book's text focuses on explaining and analyzing the dynamic performance of linear and nonlinear systems, in particular for Power Systems (PS) including Hybrid Power Sources (HPS). The system stability is important for both PS operation and planning. Placing emphasis on understanding the underlying stability principles, the book opens with an exploration of basic concepts using mathematical models and case studies from linear and nonlinear system, and continues with complex models and algorithms from field of PS. The book’s features include: (1) progressive approach from simplicity to complexity, (2) deeper look into advanced aspects of stability theory, (3) detailed description of [...] Features

Analysis, Control and Optimal Operations in Hybrid Power Systems' explains and analyzes the dynamic performance of linear and nonlinear systems for Power Systems (PS) and Hybrid Power Sources (HPS). System stability is important for both PS operation and planning, and therefore this book places emphasis on understanding the principles that underlie HPS stability. It opens with an exploration of basic [...] Contents

Revisiting and generalizing the Barkhausen's equality. - State space energy conservation principle as a tool for design and simulation of linear and nonlinear systems. - Power systems stability analysis based on advanced techniques and optimization operations. - Optimal Tuning of UPFC Based Damping Controller Using PSO and QPSO. - Application of PSO and GA for Transmission Network Expansion Planning. - Nonlinear Control of the Hybrid Power Sources. Fields of interest

Control, Power Electronics, Electrical Machines and Networks, Renewable and Green Energy Target groups

Research Type of publication

Contributed volume

More on www.springer.com/978-1-4471-5537-9 Hardcover

2013. XV, 294 p. 153 illus. (Green Energy and Technology) $129.00 ISBN 978-1-4471-5537-9 usually dispatched within 3 to 5 business days

Security and Privacy for Implantable Medical Devices

This book presents a systematic approach to analyzing the challenging engineering problems posed by the need for security and privacy in implantable medical devices (IMD). It describes in detail new issues termed as lightweight security, due to the associated constraints on metrics such as available power, energy, computing ability, area, execution time, and memory requirements. Coverage includes vulnerabilities and defense across multiple levels, with basic abstractions of cryptographic services and primitives such as public key cryptography, block ciphers and digital signatures. Experts from Computer Security and Cryptography present new research which shows vulnerabilities in [...] Features

This book presents a systematic approach to analyzing the challenging engineering problems posed by the need for security and privacy in implantable medical devices (IMD). It describes in detail new issues termed as lightweight security, due to the associated constraints on metrics such as available power, energy, computing ability, area, execution time, and memory requirements. Coverage includes [...] Contents


Circuits and Systems; Data Encryption; Biomedical Engineering Target groups

Professional/practitioner Type of publication

Monograph

More on www.springer.com/978-1-4614-1673-9 Hardcover

2014. V, 205 p. 103 illus., 81 illus. in color. $129.00 ISBN 978-1-4614-1673-9 usually dispatched within 3 to 5 business days

Fuzzy Information & Engineering Research & Management

Fuzzy Information & Engineering and Operations Research & Management is the monograph from submissions by the 6th International Conference on Fuzzy Information and Engineering (ICFIE2012, Iran) and by the 6th academic conference from Fuzzy Information Engineering Branch of Operation Research Society of China (FIEBORSC2012, Shenzhen,China). It is published by Advances in Intelligent and Soft Computing (AISC). We have received more than 300 submissions. Each paper of it has undergone a rigorous review process. Only high-quality papers are included in it containing papers as follows: 1 Programming and Optimization; 2 Lattice and Measures; 3 Algorithms and Equation; 4 Forecasting; [...] Features

Fuzzy Information & Engineering and Operations Research & Management is the monograph from submissions by the 6th International Conference on Fuzzy Information and Engineering (ICFIE2012, Iran) and by the 6th academic conference from Fuzzy Information Engineering Branch of Operation Research Society of China (FIEBORSC2012, Shenzhen,China). It is published by Advances in Intelligent and Soft [...] Contents

Part I Programming and Optimization - Part II Lattice and Measures - Part III Algorithms and Equation - Part IV Forecasting, Clustering and Recognition - Part V Systems and Algorithm - Part VI Graph and Network - Part VII Others. Fields of interest

Computational Intelligence; Operation Research / Decision Theory Target groups

Research Type of publication

Monograph

More on www.springer.com/978-3-642-38666-4 Softcover

2014. XV, 570 p. 112 illus. (Advances in Intelligent Systems and Computing, Vol. 211) $229.00 ISBN 978-3-642-38666-4 usually dispatched within 3 to 5 business days
Integrated Seismic Design of Structure and Control Systems

The structural optimization procedure presented in this book makes it possible to achieve seismic protection through integrated structural/control system design. In particular, it is explained how slender structural systems with a high seismic performance can be achieved through inclusion of viscous and viscoelastic dampers as an integral part of the system. Readers are provided with essential introductory information on passive structural control and passive energy dissipation systems. Dynamic analyses of both single and multiple degree of freedom systems are performed in order to verify the achievement of pre-assigned performance targets, and it is explained how the optimal [...] Features

The structural optimization procedure presented in this book makes it possible to achieve seismic protection through integrated structural/control system design. In particular, it is explained how slender structural systems with a high seismic performance can be achieved through inclusion of viscous and viscoelastic dampers as an integral part of the system. Readers are provided with essential introductory [...] Contents


Fields of interest

Vibration, Dynamical Systems, Control; Control; Building Construction, HVAC, Refrigeration; Geotechnical Engineering & Applied Earth Sciences

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02614-5

Hardcover
2014, XI, 220 p. 236 illus. (Springer Tracts in Mechanical Engineering)
$129.00
ISBN 978-3-319-02614-5
usually dispatched within 3 to 5 business days

Registration and Recognition in Images and Videos

Computer vision is the science and technology of making machines that see. It is concerned with the theory, design and implementation of algorithms that can automatically process visual data to recognize objects, track and recover their shape and spatial layout. The International Computer Vision Summer School - ICVSS was established in 2007 to provide both an objective and clear overview and an in-depth analysis of the state-of-the-art research in Computer Vision. The courses are delivered by world renowned experts in the field, from both academia and industry and cover both theoretical and practical aspects of real Computer Vision problems. The school is organized every year by [...] Features

Computer vision is the science and technology of making machines that see. It is concerned with the theory, design and implementation of algorithms that can automatically process visual data to recognize objects, track and recover their shape and spatial layout. The International Computer Vision Summer School - ICVSS was established in 2007 to provide both an objective and clear overview and an [...] Contents

The Visual Field: Simultaneous Order in Immediate Visual Awareness.- A Primer for Colour Computer Vision Descriptor learning for omnidirectional image matching.- Visual Correspondence, the Lambert-Ambient Shape Space and the Systematic Design of Feature Descriptors.- Classmates: a Compact Image Descriptor for Efficient Novel-Class Recognition and Search.- The Enhanced Flock of Trackers Registration and Segmentation in Medical Imaging.- Clustering Games About 3D Faces Socially-driven Computer Vision for Group Behavior Analysis.- Mobile Computational Photography with FCam.

Fields of interest

Computational Intelligence; Image Processing and Computer Vision; Pattern Recognition; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-44906-2

Hardcover
2013, IX, 78 p. 28 illus. (Springer Tracts in Computational Intelligence, Vol. 532)
$179.00
ISBN 978-3-642-44906-2
currently out of stock, reprint ready for shipping 6 weeks.

Systems Engineering Agile Design Methodologies

This book examines the paradigm of the engineering design process. The author discusses agile systems and engineering design. The book captures the entire design process (function bases), context, and requirements to affect real reuse. It provides a methodology for an engineering design process foundation for modern and future systems design. Captures design patterns with context for actual Systems Engineering Design Reuse and contains a new paradigm in Design Knowledge Management.

Features

This book examines the paradigm of the engineering design process. The authors discuss agile systems and engineering design. The book captures the entire design process (function bases), context, and requirements to affect real reuse. It provides a methodology for an engineering design process foundation for modern and future systems design. This book captures design patterns with context for actual Systems [...] Contents


Fields of interest

Engineering Design; Control; Technology Management

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-1-4614-6662-8

Hardcover
2013, IX, 78 p. 28 illus. (Springer Tracts in Computational Intelligence, Vol. 532)
$129.00
ISBN 978-1-4614-6662-8
Currently out of stock, reprint ready for shipping 6 weeks.
Optimum Cooling of Data Centers
Application of Risk Assessment and Mitigation Techniques
This book describes the use of free air cooling to improve the efficiency of, and cooling of, equipment for use in telecom infrastructures. Discussed at length is the cooling of communication installation rooms such as data centers or base stations, and this is intended as a valuable tool for the people designing and manufacturing key parts of communication networks. This book provides an introduction to current cooling methods used for energy reduction, and also compares present cooling methods in use in the field. The qualification methods and standard reliability assessments are reviewed, and their inability to assess the risks of free air cooling is discussed. The method of [...] Features
This book provides data center designers and operators with methods by which to assess and mitigate the risks associated with utilization of optimum cooling solutions. The goal is to provide readers with sufficient knowledge to implement measures such as free air cooling or direct liquid immersion cooling properly, or combination of existing and emerging cooling technologies in data centers, base stations, [...] Contents
Overview of Telecom Industry and Data Centers.- Cooling Methods to Improve Energy Efficiency in Telecom Industry and Data Centers.- Free Air Cooling.- Standards for Telecom Equipment and Data Centers.- Risks of Free Air Cooling.- Steps to Assess Parts for use under Free Air Cooling Condition.- Guidelines for Part Reliability Assessment.- Introduction to PHM.- Development of Sub-system and System for Free Air Cooling.- Future Trends.
Fields of interest
Building Construction, HVAC, Refrigeration; Communications Engineering, Networks; Performance and Reliability
Target groups
Research
Type of publication
Monograph
More on www.springer.com/978-3-319-03418-8
Hardcover
2014. XIV, 279 p. 75 illus., 4 illus. in color. (Studies in Computational Intelligence, Vol. 534)
$129.00
ISBN 978-3-319-03418-8
usually dispatched within 3 to 5 business days

Beyond the Second Law
Entropy Production and Non-equilibrium Systems
The Second Law, a cornerstone of thermodynamics, governs the average direction of dissipative, non-equilibrium processes. But it says nothing about their actual rates or the probability of fluctuations about the average. This interdisciplinary book, written and peer-reviewed by international experts, presents recent advances in the search for new non-equilibrium principles beyond the Second Law, and their applications to a wide range of systems across physics, chemistry and biology. Beyond The Second Law brings together traditionally isolated areas of non-equilibrium research and highlights potentially fruitful connections between them, with entropy production playing the unifying [...] Features
The Second Law, a cornerstone of thermodynamics, governs the average direction of dissipative, non-equilibrium processes. But it says nothing about their actual rates or the probability of fluctuations about the average. This interdisciplinary book, written and peer-reviewed by international experts, presents recent advances in the search for new non-equilibrium principles beyond the Second Law, and their [...] Contents
Introduction.- Theoretical perspectives on entropy production.- Applications to non-equilibrium systems.
Fields of interest
Complexity; Nonlinear Dynamics
Target groups
Research
Type of publication
Monograph
More on www.springer.com/978-3-642-40153-4
Hardcover
2014. XIV, 434 p. 99 illus., 19 illus. in color. (Understanding Complex Systems)
$179.00
ISBN 978-3-642-40153-4
usually dispatched within 3 to 5 business days

Analyzing Discourse and Text Complexity for Learning and Collaborating
A Cognitive Approach Based on Natural Language Processing
With the advent and increasing popularity of Computer Supported Collaborative Learning (CSCL) and e-learning technologies, the need of automatic assessment and of teacher/tutor support for the two tightly intertwined activities of comprehension of reading materials and of collaboration among peers has grown significantly. In this context, a polyphonic model of discourse derived from Bakhtin’s work as a paradigm is used for analyzing both general texts and CSCS conversations in a unique framework focused on different facets of textual cohesion. As specificity of our analysis, the individual learning perspective is focused on the identification of reading strategies and on providing a [...] Features
With the advent and increasing popularity of Computer Supported Collaborative Learning (CSCL) and e-learning technologies, the need of automatic assessment and of teacher/tutor support for the two tightly intertwined activities of comprehension of reading materials and of collaboration among peers has grown significantly. In this context, a polyphonic model of discourse [...] Contents
Fields of interest
Computational Intelligence; Language Translation and Linguistics; Learning and Instruction; Complexity; Philosophy of Language
Target groups
Research
Type of publication
Monograph
More on www.springer.com/978-3-319-03418-8
Hardcover
2014. XIV, 279 p. 75 illus., 4 illus. in color. (Studies in Computational Intelligence, Vol. 534)
$129.00
ISBN 978-3-319-03418-8
usually dispatched within 3 to 5 business days

M. Dascălu
R.C. Dewar, Australian National University, Canberra, Australia; C.H. Lineweaver, R.K. Niven, University of New South Wales at ADFA, Canberra, Australia; K. Regenauer-Lieb, University of Western Australia, Crawley, Australia (Eds.)
Neural Networks and Statistical Learning

Providing a broad but in-depth introduction to neural network and machine learning in a statistical framework, this book provides a single, comprehensive resource for study and further research. All the major popular neural network models and statistical learning approaches are covered with examples and exercises in every chapter to develop a practical working understanding of the content. Each of the twenty-five chapters includes state-of-the-art descriptions and important research results on the respective topics. The broad coverage includes the multilayer perceptron, the Hopfield network, associative memory models, clustering models and algorithms, the radial basis function network [...]

Contents


Fields of interest

Computational Intelligence; Mathematical Models of Cognitive Processes and Neural Networks; Data Mining and Knowledge Discovery; Pattern Recognition

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4471-5570-6

Hardcover

2014. XXVII, 824 p. 166 illus., 68 illus. in color. $129.00
ISBN 978-1-4471-5570-6 usually dispatched within 3 to 5 business days
Performance Measurement with Fuzzy Data Envelopment Analysis

The intensity of global competition and ever-increasing economic uncertainties has led organizations to search for more efficient and effective ways to manage their business operations. Data envelopment analysis (DEA) has been widely used as a conceptually simple yet powerful tool for evaluating organizational productivity and performance. Fuzzy DEA (FDEA) is a promising extension of the conventional DEA proposed for dealing with imprecise and ambiguous data in performance measurement problems. This book is the first volume in the literature to present the state-of-the-art developments and applications of FDEA. It is designed for students, educators, researchers, consultants and [...]}

Contents

Fields of interest
Computational Intelligence; Operation Research / Decision Theory

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-02731-9

Application of Wavelets in Speech Processing

This book provides a survey on wide-spread of employing wavelets analysis in different applications of speech processing. The author examines development and research in different applications of speech processing. The book also summarizes the state of the art research on wavelet in speech processing.

Features
This book provides a survey on wide-spread of employing wavelets analysis in different applications of speech processing. The book also summarizes the state of the art research on wavelet in speech processing.

Contents

Fields of interest
Signal, Image and Speech Processing; Communications Engineering, Networks; Abstract Harmonic Analysis

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02731-9

Softcover
2014, VIII, 52 p. 7 illus., 1 illus. in color. (SpringerBriefs in Speech Technology)

$54.99
ISBN 978-3-319-02731-9
usually dispatched within 3 to 5 business days

Innovations in Intelligent Machines-4

Recent Advances in Knowledge Engineering

This research volume is a continuation of our previous volumes on intelligent machine. It is divided into three parts. Part I deals with big data and ontologies. It includes examples related to the text mining, rule mining and ontology. Part II is on knowledge-based systems. It includes context-centered systems, knowledge discovery, interoperability, consistency and systems of systems. The final part is on applications. The applications involve prediction, decision optimization and assessment. This book is directed to the researchers who wish to explore the field of knowledge engineering further.

Features
This research volume is a continuation of our previous volumes on intelligent machine. It is divided into three parts. Part I deals with big data and ontologies. It includes examples related to the text mining, rule mining and ontology. Part II is on knowledge-based systems. It includes context-centered systems, knowledge discovery, interoperability, consistency and systems of systems. The final part is on applications. The applications involve prediction, decision optimization and assessment. This book is directed to the researchers who wish to explore the field of knowledge engineering further.

Contents

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01865-2

Hardcover
2014, XX, 412 p. 148 illus. (Studies in Computational Intelligence, Vol. 514)

$179.00
ISBN 978-3-319-01865-2
usually dispatched within 3 to 5 business days
 Lean Six Sigma Case Studies in the Healthcare Enterprise

This book provides a detailed description of how to apply Lean Six Sigma in the health care industry, with a special emphasis on process improvement and operations management in hospitals. The book begins with a description of the Enterprise Performance Excellence (EPE) improvement methodology developed by the author that links several methodologies including systems thinking, theory of constraints, Lean and Six Sigma to provide an enterprise-wide prioritization and value-chain view of health care. The EPE methodology helps to improve flow at the macro or value-chain level, and then identifies Lean Six Sigma detailed improvements that can further improve processes within the[...]

Features
This book provides a detailed description of how to apply Lean Six Sigma in the health care industry, with a special emphasis on process improvement and operations management in hospitals. The book begins with a description of the Enterprise Performance Excellence (EPE) improvement methodology developed by the author that links several methodologies including systems thinking, theory of constraints, Lean [...]
The 15th International Conference on Biomedical Engineering
ICMBE 2013, 4th to 7th December 2013, Singapore

This volume presents the proceedings of the 15th ICMBE held from 4th to 7th December 2013, Singapore. Biomedical engineering is applied in most aspects of our healthcare ecosystem. From electronic health records to diagnostic tools to therapeutic, rehabilitative and regenerative treatments, the work of biomedical engineers is evident. Biomedical engineers work at the intersection of engineering, life sciences and healthcare. The engineers would use principles from applied science including mechanical, electrical, chemical and computer engineering together with physical sciences including physics, chemistry and mathematics to apply them to biology and medicine. Applying such concepts to...[...]

Features
This volume presents the proceedings of the 15th ICMBE held from 4th to 7th December 2013, Singapore. Biomedical engineering is applied in most aspects of our healthcare ecosystem. From electronic health records to diagnostic tools to therapeutic, rehabilitative and regenerative treatments, the work of biomedical engineers is evident. Biomedical engineers work at the intersection of engineering, life sciences...[...]

Contents
Bioimaging and Biosignals - Biomaterials and Tissue Engineering - Biomechanics and Computational Bioengineering - Biomedical Devices and Biomedical Instrumentation - Biomedical Robotics and Surgical Technology - Neuroengineering and Rehabilitation Engineering - Special Topics.

Fields of interest
Biomedical Engineering; Biomaterials; Biophysics and Biological Physics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-02912-2

$399.00
ISBN 978-3-319-02912-2

usually dispatched within 3 to 5 business days

Bioengineering Case Studies
Sustainable Stream Bank and Slope Stabilization

‘Bio-Stabilization Case Studies: Treatment and Performance Evaluation’ describes and evaluates 30 projects from across the United States where bio-stabilization was employed to address a detrimental naturally occurring process or byproduct of the built environment. Bio-stabilization (or soil bioengineering) refers to the use of plant materials, primarily live cuttings, arranged in the ground in different arrays to reinforce soils and protect upland slopes and/or stream banks against surficial erosion and shallow slope failures. Examples included in the collection represent different regions of the country and their specific conditions and challenges. Each project is illustrated with a...[...]

Features
This unique volume describes and evaluates 30 projects from across the United States where bio-stabilization was employed to address a detrimental naturally occurring process or byproduct of the built environment. Bio-stabilization (or soil bioengineering) refers to the use of plant materials, primarily live cuttings, arranged in the ground in different arrays to reinforce soils and protect upland slopes...[...]

Contents

Fields of interest
Geotechnical Engineering, Foundations, Hydraulics; Geotechnical Engineering & Applied Earth Sciences; Applied Ecology, Soil Science & Conservation; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Environmental Engineering / Biotechnology

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-7995-6

$119.00
ISBN 978-1-4614-7995-6

usually dispatched within 3 to 5 business days

Digital Speech Processing Using Matlab

Digital Speech Processing Using Matlab deals with digital speech pattern recognition, speech production model, speech feature extraction, and speech compression. The book is written in a manner that is suitable for beginners pursuing basic research in digital speech processing. Matlab illustrations are provided for most topics to enable better understanding of concepts. This book also deals with the basic pattern recognition techniques (illustrated with speech signals using Matlab) such as PCA, LDA, ICA, SVM, HMM, GM, BPN, and DSOM.

Features
Digital Speech Processing Using Matlab deals with digital speech pattern recognition, speech production model, speech feature extraction, and speech compression. The book is written in a manner that is suitable for beginners pursuing basic research in digital speech processing. Matlab illustrations are provided for most topics to enable better understanding of concepts. This book also deals with the...[...]

Contents

Fields of interest
Signal, Image and Speech Processing; Pattern Recognition; Biomedical Engineering

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-81-322-1676-6

Hardcover
2014, XVI, 182 p. 103 illus. (Signals and Communication Technology)
$129.00
ISBN 978-81-322-1676-6

usually dispatched within 3 to 5 business days

Digital Speech Processing Using Matlab

Digital Speech Processing Using Matlab deals with digital speech pattern recognition, speech production model, speech feature extraction, and speech compression. The book is written in a manner that is suitable for beginners pursuing basic research in digital speech processing. Matlab illustrations are provided for most topics to enable better understanding of concepts. This book also deals with the basic pattern recognition techniques (illustrated with speech signals using Matlab) such as PCA, LDA, ICA, SVM, HMM, GM, BPN, and DSOM.

Features
Digital Speech Processing Using Matlab deals with digital speech pattern recognition, speech production model, speech feature extraction, and speech compression. The book is written in a manner that is suitable for beginners pursuing basic research in digital speech processing. Matlab illustrations are provided for most topics to enable better understanding of concepts. This book also deals with the...[...]

Contents

Fields of interest
Signal, Image and Speech Processing; Pattern Recognition; Biomedical Engineering

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-81-322-1676-6

Hardcover
2014, XVI, 182 p. 103 illus. (Signals and Communication Technology)
$129.00
ISBN 978-81-322-1676-6

usually dispatched within 3 to 5 business days

Sustainable Stream Bank and Slope Stabilization

‘Bio-Stabilization Case Studies: Treatment and Performance Evaluation’ describes and evaluates 30 projects from across the United States where bio-stabilization was employed to address a detrimental naturally occurring process or byproduct of the built environment. Bio-stabilization (or soil bioengineering) refers to the use of plant materials, primarily live cuttings, arranged in the ground in different arrays to reinforce soils and protect upland slopes and/or stream banks against surficial erosion and shallow slope failures. Examples included in the collection represent different regions of the country and their specific conditions and challenges. Each project is illustrated with a...[...]

Features
This unique volume describes and evaluates 30 projects from across the United States where bio-stabilization was employed to address a detrimental naturally occurring process or byproduct of the built environment. Bio-stabilization (or soil bioengineering) refers to the use of plant materials, primarily live cuttings, arranged in the ground in different arrays to reinforce soils and protect upland slopes...[...]

Contents

Fields of interest
Geotechnical Engineering, Foundations, Hydraulics; Geotechnical Engineering & Applied Earth Sciences; Applied Ecology, Soil Science & Conservation; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Environmental Engineering / Biotechnology

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-7995-6

$119.00
ISBN 978-1-4614-7995-6

usually dispatched within 3 to 5 business days
Bias Temperature Instability for Devices and Circuits

This book provides a single-source reference to one of the more challenging reliability issues plaguing modern semiconductor technologies, negative bias temperature instability. Readers will benefit from state-of-the-art coverage of research in topics such as time dependent defect spectroscopy, anomalous defect behavior, stochastic modeling with additional metastable states, multiphonon theory, compact modeling with RC ladders and implications on device reliability and lifetime.

Contents

Fields of interest
Circuits and Systems; Semiconductors; Electronics and Microelectronics; Instrumentation; Quality Control, Reliability, Safety and Risk

Features
The book provides a single-source reference to one of the more challenging reliability issues plaguing modern semiconductor technologies, negative bias temperature instability. Readers will benefit from state-of-the-art coverage of research in topics such as time dependent defect spectroscopy, anomalous defect behavior, stochastic modeling with additional metastable states, multiphonon theory, compact modeling with RC ladders and implications on device reliability and lifetime.

Advances in Hydroinformatics
SIMHYDRO 2012 – New Frontiers of Simulation

The book is a collection of extended papers which have been selected for presentation during the SIMHYDRO 2012 conference held in Sophia Antipolis in September 2012. The papers present the state of the art numerical simulation in domains such as (1) New trends in modelling for marine, river & urban hydraulics; (2) Stakeholders & practitioners of simulation; (3) 3D CFD & applications. All papers have been peer reviewed and by scientific committee members with report about quality, content and originality. The target audience for this book includes scientists, engineers and practitioners involved in the field of numerical modelling in the water sector: flood management, natural[...]

Contents
Data & uncertainties in hydraulic modelling for engineering, specific applications of modelling.- New numerical methods and approaches for modelling systems.- 3D CFD and applications.

Fields of interest
Geotechnology, Foundations, Hydraulics; Hydrology / Water Resources; Engineering Fluid Dynamics

Target areas
Research

Type of publication
Monograph

More on www.springer.com/978-981-4451-41-3

Hardcover
2014. XI, 560 p. 324 illus., 273 illus. in color. (Springer Hydrogeology)
$179.00
usually dispatched within 3 to 5 business days

Encyclopedia of Thermal Stresses

The Encyclopedia of Thermal Stresses is an important interdisciplinary reference work. In addition to topics on thermal stresses, it contains entries on related topics, such as the theory of elasticity, heat conduction, thermodynamics, appropriate topics on applied mathematics, and topics on numerical methods. The Encyclopedia is aimed at undergraduate and graduate students, researchers and engineers. It brings together well established knowledge and recently received results. All entries were prepared by leading experts from all over the world, and are presented in an easily accessible format. The work is lavishly illustrated, examples and applications are given where appropriate[...]

Contents
Thermal Stress Development In The Solid Due To Laser Pulse Irradiation: Analytical Approaches For Temperature And Stress FieldsAtomic-level hybrid modeling of thermomechanical stress wave in metal thin films induced by ultrashort laser pulsesLaser Shock Peening

Fields of interest
Continuum Mechanics and Mechanics of Materials; Mechanics; Characterization and Evaluation of Materials; Engineering Thermodynamics, Heat and Mass Transfer; Structural Materials; Aerospace Technology and Astronautics

Target areas
Research

Type of publication
Encyclopedia

More on www.springer.com/978-94-007-2738-0

Hardcover
2014. LXXII, 664 p. 3269 illus., 1141 illus. in color. In 11 volumes, not available separately.
$5,000.00
ISBN 978-94-007-2738-0
usually dispatched within 3 to 5 business days
Mechanisms in Ancient Chinese Books with Illustrations

This book presents a unique approach for studying mechanisms and machines with drawings that were depicted unclearly in ancient Chinese books. The historical, cultural and technical backgrounds of the mechanisms are explained, and various mechanisms described and illustrated in ancient books are introduced. By utilizing the idea for the conceptual design of modern mechanisms, all feasible designs of ancient mechanisms with uncertain members and joints that meet the technical standards of the subjects’ time periods are synthesized systematically. Ancient Chinese crossbows (the original crossbow and repeating crossbows), textile mechanisms (silk-reeling mechanism, spinning mechanisms, ...) are described.

Features
This book presents a unique approach for studying mechanisms and machines with drawings that were depicted unclearly in ancient Chinese books. The historical, cultural and technical backgrounds of the mechanisms are explained, and various mechanisms described and illustrated in ancient books are introduced. By utilizing the idea for the conceptual design of modern mechanisms, all feasible designs of [...] Features

Contents
Preface.- Books.- 2.1 Nong Shu by Wang Zhen (AD 1313).- 2.1.1 Contents.- 2.1.2 Contents.- 1 Introduction.- 2 Mechanisms with Illustrations in Ancient Historical Background.- 2.2 Wu Bei Zhi by Mao Yuan-yi (AD 1621).- 2.2.2 Contents.- 2.2.2 Historical Background.- 2.3 Tian Gong Kai Wu by Song Ying-xing (AD 1637).- 2.3.1 Contents.- 2.3.2 Historical Background.- 2.4 Nong Zheng Quan Shu by Xu Guang-qi (AD 1639).- 2.4.1 Contents.- 2.4.2 Historical Background.- 2.5 Qin Ding Shou Shi Tong Kao by Ortai, et al (AD 1742).- 2.5.1 Contents.- 2.5.2 [...] Fields of interest
Machinery and Machine Elements; Theoretical and Applied Mechanics; History of Science

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02008-2

Engineering 117

Modeling Dependence in Econometrics

In economics, many quantities are related to each other. Such economic relations are often much more complex than relations in science and engineering, where some quantities are independence and the relation between others can be well approximated by lineafunctions. As a result of this complexity, when we apply traditional statistical techniques – developed for science and engineering – to process economic data, the inadequate treatment of dependence leads to misleading models and erroneous predictions. Some economists even blamed such inadequate treatment of dependence for the 2008 financial crisis. To make economic models more adequate, we need more accurate techniques for [...] Features

Contents

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics); Econometrics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03394-5

Softcover
2014. XX, 575 p. 45 illus., 45 illus. in color. (Advances in Intelligent Systems and Computing, Vol. 251)
$349.00
ISBN 978-3-319-03394-5
usually dispatched within 3 to 5 business days

E-Learning Paradigms and Applications

Agent-based Approach
Teaching and learning paradigms have attracted increased attention especially in the last decade. Immense developments of different ICT technologies and services have paved the way for alternative but effective approaches in educational processes. Many concepts of the agent technology, such as intelligence, autonomy and cooperation, have had a direct positive impact on many of the requests imposed on modern e-learning systems and educational processes. This book presents the state-of-the-art of e-learning and tutoring systems and discusses their capabilities and benefits that stem from integrating software agents. We hope that the presented work will be of a great use to our colleagues [...] Features

Contents
Agent-based Approach

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-41964-5

Hardcover
2014. XVII, 273 p. 97 illus. (Studies in Computational Intelligence, Vol. 528)
$129.00
ISBN 978-3-642-41964-5
usually dispatched within 3 to 5 business days
Small Satellites and Their Regulation

Since the launch of UoSat-1 of the University of Surrey (United Kingdom) in 1981, small satellites proved regularly to be useful, beneficial, and cost-effective tools. Typical tasks cover education and workforce development, technology demonstration, verification and validation, scientific and engineering research as well as commercial applications. Today the launch masses range over almost three orders of magnitude starting at less than a kilogram up to a few hundred kilograms, with budgets of less than US $100.00 and up to millions within very short time-frames of sometimes less than two years. Therefore each category of small satellites provides specific challenges in design,[…]

Features
Since the launch of UoSat-1 of the University of Surrey (United Kingdom) in 1981, small satellites proved regularly to be useful, beneficial, and cost-effective tools. Typical tasks cover education and workforce development, technology demonstration, verification and validation, scientific and engineering research as well as commercial applications. Today the launch masses range over almost three orders of […]

Contents

Fields of interest
Aerospace Technology and Astronautics; Extraterrestrial Physics, Space Sciences

Target groups
Graduate

Type of publication
Brief


Softcover
2014, XIV, 77 p. 22 illus., 19 illus. in color. (SpringerBriefs in Space Development) $49.95 ISBN 978-1-4614-9422-5 usually dispatched within 3 to 5 business days

Advance Trends in Soft Computing

Proceedings of WCSC 2013, December 16-18, San Antonio, Texas, USA

This book is the proceedings of the 3rd World Conference on Soft Computing (WCSC), which was held in San Antonio, TX, USA, on December 16-18, 2013. It presents start-of-the-art theory and applications of soft computing together with an in-depth discussion of current and future challenges in the field, providing readers with a 360 degree view on soft computing. Topics range from fuzzy sets, to fuzzy logic, fuzzy mathematics, neuro-fuzzy systems, fuzzy control, decision making in fuzzy environments, image processing and many more. The book is dedicated to Lotfi A. Zadeh, a renowned specialist in signal analysis and control systems research who proposed the idea of fuzzy sets, in which[…]

Features
This book is the proceedings of the 3rd World Conference on Soft Computing (WCSC), which was held in San Antonio, TX, USA, on December 16-18, 2013. It presents start-of-the-art theory and applications of soft computing together with an in-depth discussion of current and future challenges in the field, providing readers with a 360 degree view on soft computing. Topics range from fuzzy sets, to fuzzy logic, […]

Contents

Fields of interest
Computational Intelligence; Data Mining and Knowledge Discovery; Computer Imaging, Vision, Pattern Recognition and Graphics; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03673-1

Hardcover
2014, XI, 468 p. 163 illus., 40 illus. in color. (Studies in Fuzziness and Soft Computing, Vol. 312) $259.00 ISBN 978-3-319-03673-1 usually dispatched within 3 to 5 business days

Pipelined Multiprocessor System-on-Chip for Multimedia

This book describes analytical models and estimation methods to enhance performance estimation of pipelined multiprocessor systems-on-chip (MPSoCs). A framework is introduced for both design-time and run-time optimizations. For design space exploration, several algorithms are presented to minimize the area footprint of a pipelined MPSoC under a latency or a throughput constraint. A novel adaptive pipelined MPSoC architecture is described, where idle processors are transitioned into low-power states at run-time to reduce energy consumption. Multi-mode pipelined MPSoCs are introduced, where multiple pipelined MPSoCs optimized separately are merged into a single pipelined MPSoC, enabling[…] Features
This book describes analytical models and estimation methods to enhance performance estimation of pipelined multiprocessor systems-on-chip (MPSoCs). A framework is introduced for both design-time and run-time optimizations. For design space exploration, several algorithms are presented to minimize the area footprint of a pipelined MPSoC under a latency or a throughput constraint. A novel adaptive […]

Contents

Fields of interest
Circuits and Systems; Processor Architectures; Electronics and Microelectronics, Instrumentation

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01112-7

Hardcover
2014, VIII, 169 p. 40 illus., 32 illus. in color. $129.00 ISBN 978-3-319-01112-7 usually dispatched within 3 to 5 business days
Vehicle Dynamics

Theory and Application

This textbook is appropriate for senior undergraduate and first year graduate students in mechanical and automotive engineering. The contents in this book are presented at a theoretical-practical level. It explains vehicle dynamics concepts in detail, concentrating on their practical use. Related theorems and formal proofs are provided, as are real-life applications. Students, researchers and practicing engineers alike will appreciate the user-friendly presentation of a wealth of topics, most notably steering, handling, ride, and related components. This book also illustrates all key concepts with examples—includes exercises for each chapter—covers front, rear, and four wheel steering. [...]

Contents
- Tire and Rim Fundamentals
- Part I Vehicle Motion: Forward Vehicle Dynamics
- Tire Dynamics
- Driveline Dynamics
- Part II Vehicle Kinematics
- Applied Kinematics
- Applied Mechanisms
- Steering Dynamics
- Suspension Mechanisms
- Part III Vehicle Dynamics
- Applied Dynamics
- Vehicle Planar Dynamics
- Vehicle Roll Dynamics
- Part IV Vehicle Vibration
- Applied Vibrations
- Vehicle Vibrations
- Suspension Optimization
- Quarter Car Model
- Appendix A: Frequency Response Curves
- Appendix B: Trigonometric Formulas
- Appendix C: Unit Conversions

Fields of interest
- Automotive Engineering
- Vibration, Dynamical Systems
- Control
- Mechanical Engineering

Target groups
- Graduate

Type of publication
- Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-8543-8

Hardcover
2014. XXI, 1066 p. 654 illus., 222 illus. in color.
$134.00
usually dispatched within 3 to 5 business days

Ubiquitous Information Technologies and Applications

CUTE 2013

The theme of CUTE is focused on the various aspects of ubiquitous computing for advances in ubiquitous computing and provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of ubiquitous computing. Therefore, this book will include the various theories and practical applications in ubiquitous computing.

Features
- The theme of CUTE is focused on the various aspects of ubiquitous computing for advances in ubiquitous computing and provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of ubiquitous computing. Therefore, this book will include the various theories and practical applications in ubiquitous computing.

Contents
- Ubiquitous Communication and Networking
- Ubiquitous Software Technology
- Ubiquitous Systems and Applications
- Ubiquitous Security, Privacy and Trust

Fields of interest
- Communications Engineering, Networks
- Computer Communication Networks
- Multimedia Information Systems

Target groups
- Research

Type of publication
- Proceedings

More on www.springer.com/978-3-642-41670-5

Hardcover
$399.00
ISBN 978-3-642-41670-5
usually dispatched within 3 to 5 business days

Novel Three-state Quantum Dot Gate Field Effect Transistor

Fabrication, Modeling and Applications

The book presents the fabrication and circuit modeling of quantum dot gate field effect transistor (QDGFET) and quantum dot gate NMOS inverter (QDNMOS inverter). It also introduces the development of a circuit model of QDGFET based on Berkeley Short Channel IGFET model (BSIM). Different ternary logic circuits based on QDGFET are also investigated in this book. Advanced circuit such as three-bit and six-bit analog-to-digital converter (ADC) and digital-to-analog converter (DAC) were also simulated.

Features
- The book presents the fabrication and circuit modeling of quantum dot gate field effect transistor (QDGFET) and quantum dot gate NMOS inverter (QDNMOS inverter). It also introduces the development of a circuit model of QDGFET based on Berkeley Short Channel IGFET model (BSIM). Different ternary logic circuits based on QDGFET are also investigated in this book. Advanced circuit such as three-bit and six-bit analog-to-digital converter (ADC) and digital-to-analog converter (DAC) were also simulated.

Contents
- Introduction: Multi State Devices and Logic
- Quantum Dot Gate Field Effect Transistor Device Structures
- Quantum Dot Gate Field Effect Transistors Theory and Device Modeling
- Quantum Dot Gate NMOS Inverter
- Quantum Dot Gate Field Effect Transistor (QDGFET): Circuit Model and Ternary Logic Inverter
- Analog-to-Digital Converter (ADC) and Digital-to-Analog Converter (DAC) Using Quantum DOT Gate Field Effect Transistor (QDGFET)

Fields of interest
- Nanotechnology and Microengineering
- Circuits and Systems
- Electronic Circuits and Devices

Target groups
- Research

Type of publication
- Monograph

More on www.springer.com/978-81-322-1634-6

Hardcover
2014. XIV, 134 p. 121 illus., 49 illus. in color.
$129.00
ISBN 978-81-322-1634-6
usually dispatched within 3 to 5 business days
Embedded and Real Time System Development: A Software Engineering Perspective

Concepts, Methods and Principles

Nowadays embedded and real-time systems contain complex software. The complexity of embedded systems is increasing, and the amount and variety of software in the embedded products are growing. This creates a big challenge for embedded and real-time software development processes and there is a need to develop separate metrics and benchmarks. "Embedded and Real Time System Development: A Software Engineering Perspective: Concepts, Methods and Principles" presents practical as well as conceptual knowledge of the latest tools, techniques and methodologies of embedded software engineering and real-time systems. Each chapter includes an in-depth investigation regarding the actual off[...]

Features

Nowadays embedded and real-time systems contain complex software. The complexity of embedded systems is increasing, and the amount and variety of software in the embedded products are growing. This creates a big challenge for embedded and real-time software development processes and there is a need to develop separate metrics and benchmarks. "Embedded and Real Time System Development: A Software [...]"

Contents


Fields of interest

Computational Intelligence; Software Engineering

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-40887-8

Hardcover

2014, X, 330 p. 192 illus., 13 illus. in color. (Studies in Computational Intelligence, Vol. 520)

$179.00

ISBN 978-3-642-40887-8

usually dispatched within 3 to 5 business days

Introduction to Semiconductor Lasers for Optical Communications

An Applied Approach

This textbook provides a thorough and accessible treatment of semiconductor lasers from a design and engineering perspective. It includes both the physics of devices as well as the engineering, designing and testing of practical lasers. The material is presented clearly with many examples provided. Readers of the book will come to understand the finer aspects of the theory, design, fabrication and test of these devices and have an excellent background for further study of optoelectronics. This book also provides a multi-faceted approach to explaining the theories behind semiconductor lasers, utilizing mathematical examples, illustrations and written theoretical presentations. Offers [...]

Features

This textbook provides a thorough and accessible treatment of semiconductor lasers from a design and engineering perspective. It includes both the physics of devices as well as the engineering, designing, and testing of practical lasers. The material is presented clearly with many examples provided. Readers of the book will come to understand the finer aspects of the theory, design, fabrication, and test of [...]"

Contents


Fields of interest

Microwaves, RF and Optical Engineering; Optical and Electronic Materials; Applied Optics, Optoelectronics; Optical Devices; Laser Technology and Physics, Photonics; Communications Engineering, Networks

Target groups

Research

Type of publication

Graduate/advanced undergraduate textbook


Hardcover

2014, XV, 285 p. 159 illus., 27 illus. in color.

$89.99


usually dispatched within 3 to 5 business days

Learning Motor Skills

From Algorithms to Robot Experiments

This book presents the state of the art in reinforcement learning applied to robotics both in terms of novel algorithms and applications. It discusses recent approaches that allow robots to learn motor skills and presents tasks that need to take into account the dynamic behavior of the robot and its environment, where a kinematic movement plan is not sufficient. The book illustrates a method that learns to generalize parameterized motor plans which is obtained by imitation or reinforcement learning, by adapting a small set of global parameters and appropriate kernel-based reinforcement learning algorithms. The presented applications explore highly dynamic tasks and exhibit a very [...]"

Features

This book presents the state of the art in reinforcement learning applied to robotics both in terms of novel algorithms and applications. It discusses recent approaches that allow robots to learn motor skills and presents tasks that need to take into account the dynamic behavior of the robot and its environment, where a kinematic movement plan is not sufficient. The book illustrates a method that [...]"

Contents


Fields of interest

Robotics and Automation; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-03193-4

Hardcover

2014, XVI, 191 p. 56 illus., 54 illus. in color. (Springer Tracts in Advanced Robotics, Vol. 97)

$109.00

ISBN 978-3-319-03193-4

usually dispatched within 3 to 5 business days
A Brief Introduction to Continuous Evolutionary Optimization

Practical optimization problems are often hard to solve, in particular when they are black boxes and no further information about the problem is available except via function evaluations. This work introduces a collection of heuristics and algorithms for black box optimization with evolutionary algorithms in continuous solution spaces. The book gives an introduction to evolution strategies and parameter control. Heuristic extensions are presented that allow optimization in constrained, multimodal and multi-objective solution spaces. An adaptive penalty function is introduced for constrained optimization. Meta-models reduce the number of fitness and constraint function calls in [...] Features

Practical optimization problems are often hard to solve, in particular when they are black boxes and no further information about the problem is available except via function evaluations. This work introduces a collection of heuristics and algorithms for black box optimization with evolutionary algorithms in continuous solution spaces. The book gives an introduction to evolution strategies and parameter control. Heuristic extensions are presented that allow optimization in constrained, multimodal and multi-objective solution spaces. An adaptive penalty function is introduced for constrained optimization. Meta-models reduce the number of fitness and constraint function calls in [...] Features

Evolutionary Optimization

O. Kramer, Carl von Ossietzky, Oldenburg, Germany

Computational Intelligence, Cyber Security and Computational Models

Proceedings of ICC3, 2013

This book contains cutting-edge research material presented by researchers, engineers, developers, and practitioners from academia and industry at the International Conference on Computational Intelligence, Cyber Security and Computational Models (ICC3) organized by PSG College of Technology, Coimbatore, India during December 19–21, 2013. The materials in the book include theory and applications to provide design, analysis, and modeling of the key areas. The book will be useful material for students, researchers, professionals, as well as academicians in understanding current research trends and findings and future scope of research in computational intelligence, cyber security, and [...] Features

This book contains cutting-edge research material presented by researchers, engineers, developers, and practitioners from academia and industry at the International Conference on Computational Intelligence, Cyber Security and Computational Models (ICC3) organized by PSG College of Technology, Coimbatore, India during December 19–21, 2013. The materials in the book include theory and applications to provide design, analysis, and modeling of the key areas. The book will be useful material for students, researchers, professionals, as well as academicians in understanding current research trends and findings and future scope of research in computational intelligence, cyber security, and [...] Features

Design and Control of Hybrid Active Power Filters

Design and Control of Hybrid Active Power Filters presents an overview of the current quality problems and their compensators. To get a balance between the system cost and performance, hybrid active power filters (HAPFs) are valuable. The book presents the coverage of resonance phenomena pre- vention capability, filtering performance and system robustness analysis of HAPF, nonlinear inverter current slope characteristics and their linear operation region requirement analysis of the hysteresis PWM for the HAPF, minimum inverter capacity design procedure of HAPF, adaptive dc-link voltage controller for the HAPF and the real design example of a 220V 10kVA HAPF, in which the system [...] Features

Design and Control of Hybrid Active Power Filters presents an overview of the current quality problems and their compensators. To get a balance between the system cost and performance, hybrid active power filters (HAPFs) are valuable. The book presents the coverage of resonance phenomena pre- vention capability, filtering performance and system robustness analysis of HAPF, nonlinear inverter current [...] Features


Fields of interest

Power Electronics, Electrical Machines and Networks; Circuits and Systems; Control; Energy Systems

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-41322-3
Mental Health Informatics

This book introduces approaches that have the potential to transform the daily practice of psychiatrists and psychologists. This includes the asynchronous communication between mental health care providers and clients as well as the automation of assessment and therapy. Speech and language are particularly interesting from the viewpoint of psychological assessment. For instance, depression may change the characteristics of voice in individuals and these changes can be detected by a special form of speech analysis. Computational screening methods that utilize speech and language can detect subtle changes and alert clinicians as well as individuals and caregivers. The use of online [...]
Decision and Game Theory in Management With Intuitionistic Fuzzy Sets

The focus of this book is on establishing theories and methods of both decision and game analysis in management using intuitionistic fuzzy sets. It proposes a series of innovative theories, models and methods such as the representation theorem and extension principle of intuitionistic fuzzy sets, ranking methods of intuitionistic fuzzy numbers, non-linear and linear programming methods for intuitionistic fuzzy multi-attribute decision making and (interval-valued) intuitionistic fuzzy matrix games. These theories and methods form the theory system of intuitionistic fuzzy decision making and games, which is not only remarkably different from those of the traditional, Bayes and/or fuzzy [...] [...]

Features
The focus of this book is on establishing theories and methods of both decision and game analysis in management using intuitionistic fuzzy sets. It proposes a series of innovative theories, models and methods such as the representation theorem and extension principle of intuitionistic fuzzy sets, ranking methods of intuitionistic fuzzy numbers, non-linear and linear programming methods for intuitionistic fuzzy [...] [...]

Contents

Fields of interest
Computational Intelligence; Control; Algorithms; Game Theory / Mathematical Methods; Operation Research / Decision Theory; Game Theory, Economics, Social and Behav. Sciences

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40711-6

Constitutive Relations under Impact Loadings

The book describes behavior of materials (ductile, brittle and composites) under impact loadings and high strain rates. The three aspects: experimental, theoretical and numerical are in the focus of interest. Hopkinson bars are mainly used as experimental devices to describe dynamic behavior of materials. The precise description of experimental techniques and interpretation of wave interaction are carefully discussed. Theoretical background refers to rate dependent thermo viscoplastic formulation. This includes the discussion of well posedness of initial boundary value problems and the solution of the system of governing equations using numerical methods. Explicit time integration [...] [...]

Features
The book describes behavior of materials (ductile, brittle and composites) under impact loadings and high strain rates. The three aspects: experimental, theoretical and numerical are in the focus of interest. Hopkinson bars are mainly used as experimental devices to describe dynamic behavior of materials. The precise description of experimental techniques and interpretation of wave interaction are carefully [...] [...]

Contents
Experiments, Theoretical and Numerical Aspects

Temperature testing with bars from dynamic to quasi-static.- Dynamic testing of materials.- Material behavior under dynamic loading, modeling and experiments.- Analysis of some high-speed impact problems in the aircraft industry.- Computer estimation of plastic strain localization and failure for large strain rates using viscoplasticity.- Inelastic flow and failure of metallic solids accounting for asymmetry of elastic range and micro-shear banding.

Fields of interest
Continuum Mechanics and Mechanics of Materials; Characterization and Evaluation of Materials; Structural Mechanics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-7091-1767-5

Hardcover
$169.00
ISBN 978-3-7091-1767-5
Due: January 28, 2014
Advances in Business ICT

Futurists and scientists alike profess the coming of a new era in the history – the knowledge era. The notion of knowledge is as old as humans’ self-consciousness, but new challenges appear. The meaning of the word “knowledge” is changing from cognitive notion to a technical term denoting a structured economic resource to be actively managed. This contributed volume is a result of vivid and extremely valuable discussions held at 3rd International Workshop on Advances in Business ICT (ABICT) in Wroclaw, Poland, September 9-12, 2012. The workshop focused on Advances in Business ICT approached from a multidisciplinary perspective. It provided an international forum for scientists/experts [...]

Contents
Simulation driven development of the German toll system – simulation performance at the kernel and application level - Geoportal as Interface for Data Warehouse and Business Intelligence Information System - Prospects of Using Temporal Logics for Knowledge Management - On Problems of Automatic Legal Texts Processing and Information Acquiring from Normative Acts - Artificial Intelligence for Knowledge Management with BPMN and Rules - Square Complexity Metrics for Business Process Models - Spatial Component in Business Intelligence System for Advanced Threat and Risk Analysis - Model [...] Fields of interest Computational Intelligence; Artificial Intelligence (incl. Robotics); Business Information Systems

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02617-6

Softcover
2014. VII, 133 p. 46 illus. (Advances in Intelligent Systems and Computing, Vol. 257) $129.00 ISBN 978-3-319-02676-2 usually dispatched within 3 to 5 business days

Human Resource Management and Technological Challenges

This book focuses on the challenges and changes that new technologies bring to human resources (HR) of modern organizations. It examines the technological implications of the last changes taking place and how they affect the management and motivation of human resources belonging to these organizations. It looks for ways to understand and perceive how organizational HR, individually and as a team, conceptualize, invent, adapt, define and use organizational technology, as well as how they are constrained by features of it. The book provides discussion and the exchange of information on principles, strategies, models, techniques, methodologies and applications of human resources [...] Features
Futurists and scientists alike profess the coming of a new era in the history – the knowledge era. The notion of knowledge is as old as humans’ self-consciousness, but new challenges appear. The meaning of the word “knowledge” is changing from cognitive notion to a technical term denoting a structured economic resource to be actively managed. This contributed volume is a result of vivid and extremely valuable [...] Fields of interest Engineering Economics, Organization, Logistics, Marketing, Technology Management, Personnel Management

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02617-6

Hardcover
2014. VII, 170 p. 16 illus. (Management and Industrial Engineering) $129.00 ISBN 978-3-319-02617-6 usually dispatched within 3 to 5 business days

Systems Design for Remote Healthcare

This book provides a multidisciplinary overview of the design and implementation of systems for remote patient monitoring and healthcare. Readers are guided step-by-step through the components of such a system and shown how they could be integrated in a coherent framework for deployment in practice. The authors explain planning from subsystem design to complete integration and deployment, given particular application constraints. Readers will benefit from descriptions of the clinical requirements underpinning the entire application scenario, physiological parameter sensing techniques, information processing approaches and overall, application dependent system integration. Each [...] Features
Futurists and scientists alike profess the coming of a new era in the history – the knowledge era. The notion of knowledge is as old as humans’ self-consciousness, but new challenges appear. The meaning of the word “knowledge” is changing from cognitive notion to a technical term denoting a structured economic resource to be actively managed. This contributed volume is a result of vivid and extremely valuable [...] Fields of interest Circuits and Systems; Biomedical Engineering; Health Informatics; Health Informatics

Target groups
Professional/practitioner

Type of publication
Professional book


Hardcover
2014, XVII, 332 p. 100 illus., 83 illus. in color. $139.00 ISBN 978-1-4614-8841-5 usually dispatched within 3 to 5 business days
Sensing Technology: Current Status and Future Trends I

This book is written for academic and industry professionals working in the field of sensing, instrumentation and related fields, and is positioned to give a snapshot of the current state of the art in sensing technology, particularly from the applied perspective. The book is intended to give a broad overview of the latest developments, in addition to discussing the process through which researchers go through in order to develop sensors, or related systems, which will become more widespread in the future.

Features
This book is written for academic and industry professionals working in the field of sensing, instrumentation and related fields, and is positioned to give a snapshot of the current state of the art in sensing technology, particularly from the applied perspective. The book is intended to give a broad overview of the latest developments, in addition to discussing the process through which researchers go through in order to develop sensors, or related systems, which will become more widespread in the future.

Contents

Fields of interest
Electronics and Microelectronics, Instrumentation; Communications Engineering, Networks; Analytical Chemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02317-5

Hardcover
2014, X, 327 p. 221 illus. (Smart Sensors, Measurement and Instrumentation, Vol. 7)
$129.00
ISBN 978-3-319-02317-5
usually dispatched within 3 to 5 business days

Sensing Technology: Current Status and Future Trends II

This book is written for academic and industry professionals working in the field of sensing, instrumentation and related fields, and is positioned to give a snapshot of the current state of the art in sensing technology, particularly from the applied perspective. The book is intended to give a broad overview of the latest developments, in addition to discussing the process through which researchers go through in order to develop sensors, or related systems, which will become more widespread in the future.

Features
This book is written for academic and industry professionals working in the field of sensing, instrumentation and related fields, and is positioned to give a snapshot of the current state of the art in sensing technology, particularly from the applied perspective. The book is intended to give a broad overview of the latest developments, in addition to discussing the process through which researchers go through in order to develop sensors, or related systems, which will become more widespread in the future.

Contents

Fields of interest
Electronics and Microelectronics, Instrumentation; Communications Engineering, Networks; Analytical Chemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02314-4

Hardcover
2014, VIII, 265 p. 131 illus., 5 illus. in color. (Smart Sensors, Measurement and Instrumentation, Vol. 8)
$129.00
ISBN 978-3-319-02314-4
usually dispatched within 3 to 5 business days

Social Networks in the History of Innovation and Invention

This book integrates history of science and technology with modern social network theory. Using examples from the history of machines, as well as case studies from wireless, radio and chaos theory, the author challenges the genius model of invention. Network analysis concepts are presented to demonstrate the societal nature of invention in areas such as steam power, internal combustion engines, early aviation, air conditioning and more. Using modern measures of network theory, the author demonstrates that the social networks of invention from the 19th and early 20th centuries have similar characteristics to modern 21st C networks such as the World Wide Web. The book provides evidence[...]

Features
This book integrates history of science and technology with modern social network theory. Using examples from the history of machines, as well as case studies from wireless, radio and chaos theory, the author challenges the genius model of invention. Network analysis concepts are presented to demonstrate the societal nature of invention in areas such as steam power, internal combustion engines, early aviation, air conditioning and more. Using modern measures of network theory, the author demonstrates that the social networks of invention from the 19th and early 20th centuries have similar characteristics to modern 21st C networks such as the World Wide Web. The book provides evidence[...]

Contents
Preface and Acknowledgements.- Chapter 1 Introduction: James Watt's Social Network.- Chapter 2 Networks in the Machine Age: From Leonardo to Clocks to Realeaux.- Chapter 3 Social Networks of the Internal Combustion Engine and Automobile.- Chapter 4 Social Networks in Early Aviation History.- Chapter 5 Wireless and Radio Electronics Social Networks.- Chapter 6 Social Networks in Nonlinear Dynamics, Chaos and Fractals.- Chapter 7.- Subject Index.- Author Index.

Fields of interest
Machinery and Machine Elements; History of Science; Complexity; Methodology of the Social Sciences

Target groups
Research

Type of publication
Monograph


Hardcover
$109.00
usually dispatched within 3 to 5 business days
Scheduling Real-Time Streaming Applications onto an Embedded Multiprocessor

This book provides a comprehensive overview of the state-of-the-art, data flow-based techniques for the analysis, modeling and mapping technologies of concurrent applications on multi-processors. The authors present a flow for designing embedded hard/firm real-time multiprocessor streaming applications, based on data flow formalisms, with a particular focus on wireless modem applications. Architectures are described for the design tools and run-time scheduling and resource management of such a platform.

Contents

Fields of interest
Circuits and Systems; Processor Architectures; Signal, Image and Speech Processing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01245-2

Hardcover
$129.00
ISBN 978-3-319-01245-2
usually dispatched within 3 to 5 business days

Systems Engineering, Systems Thinking, and Learning
A Case Study in Space Industry

This book focuses on systems engineering, systems thinking, and how that thinking can be learned in practice. It describes a novel analytical framework based on activity theory for understanding how systems thinking evolves and how it can be improved to support multidisciplinary teamwork in the context of system development and systems engineering. This method, developed using data collected over four years from three different small space systems engineering organizations, can be applied in a wide variety of work activities in the context of engineering design and beyond in order to monitor and analyze multidisciplinary interactions in working teams over time. In addition, the book [...]
Hardware for Soft Computing and Soft Computing for Hardware

Single and Multi-Objective Evolutionary Computation (MOEA), Genetic Algorithms (GAs), Artificial Neural Networks (ANNs), Fuzzy Controllers (FCs), Particle Swarm Optimization (PSO) and Ant colony Optimization (ACO) are becoming omnipresent in almost every intelligent system design. Unfortunately, the application of the majority of these techniques is complex and so requires a huge computational effort to yield useful and practical results. Therefore, dedicated hardware for evolutionary, neural and fuzzy computation is a key issue for designers. With the spread of reconfigurable hardware such as FPGAs, digital as well as analog hardware implementations of such computation become [...] 

Features
Single and Multi-Objective Evolutionary Computation (MOEA), Genetic Algorithms (GAs), Artificial Neural Networks (ANNs), Fuzzy Controllers (FCs), Particle Swarm Optimization (PSO) and Ant colony Optimization (ACO) are becoming omnipresent in almost every intelligent system design. Unfortunately, the application of the majority of these techniques is complex and so requires a huge computational effort to [...] 

Contents

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics); Computer Graphics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-03109-5

Hardcover
2014. XII, 198 p. 124 illus. (Studies in Computational Intelligence, Vol. 529)
$129.00
ISBN 978-3-319-03109-5
usually dispatched within 3 to 5 business days

Design-for-Test and Test Optimization Techniques for TSV-based 3D Stacked ICs

This book describes innovative techniques to address the testing needs of 3D stacked integrated circuits (ICs) that utilize through-silicon-vias (TSVs) as vertical interconnects. The authors identify the key challenges facing 3D IC testing and present results that have emerged from cutting-edge research in this domain. Coverage includes topics ranging from die-level wrappers, self-test circuits, and TSV probing to test-architecture design, test scheduling, and optimization. Readers will benefit from an in-depth look at test-technology solutions that are needed to make 3D ICs a reality and commercially viable.

Features
This book describes innovative techniques to address the testing needs of 3D stacked integrated circuits (ICs) that utilize through-silicon-vias (TSVs) as vertical interconnects. The authors identify the key challenges facing 3D IC testing and present results that have emerged from cutting-edge research in this domain. Coverage includes topics ranging from die-level wrappers, self-test circuits, and TSV [...] 

Contents
Introduction.- Wafer Stacking and 3D Memory Test.- Built-in Self-Test for TSVs.- Pre-Bond TSV Test Through TSV Probing.- Pre-Bond TSV Test Through TSV Probing.- Overcoming the Timing Overhead of Test Architectures on Inter-Die Critical Paths.- Post-Bond Test Wrappers and Emerging Test Standards.- Test-Architecture Optimization and Test Scheduling.- Conclusions.

Fields of interest
Circuits and Systems; Processor Architectures; Semiconductors

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-02377-9

Hardcover
2014. XVIII, 245 p. 133 illus., 115 illus. in color.
$119.00
ISBN 978-3-319-02377-9
usually dispatched within 3 to 5 business days

Hydraulically Actuated Hexapod Robots

Legged robots are a promising locomotion system, capable of performing tasks that conventional vehicles cannot. Even more exciting is the fact that this is a rapidly developing field of study for researchers from a variety of disciplines. However, only a few books have been published on the subject of multi-legged robots. The main objective of this book is to describe some of the major control issues concerning walking robots that the authors have faced over the past 10 years. A second objective is to focus especially on very large hydraulically driven hexapod robot locomotion weighing more than 2,000 kg, making this the first specialized book on this topic. The 10 chapters of the [...] 

Features
Legged robots are a promising locomotion system, capable of performing tasks that conventional vehicles cannot. Even more exciting is the fact that this is a rapidly developing field of study for researchers from a variety of disciplines. However, only a few books have been published on the subject of multi-legged robots. The main objective of this book is to describe some of the major control issues [...] 

Contents

Fields of interest
Mechanical Engineering; Robotics and Automation; Computer System Implementation; Artificial Intelligence (incl. Robotics); Mathematical Software

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-4-431-54348-0

Hardcover
$179.00
ISBN 978-4-431-54348-0
usually dispatched within 3 to 5 business days
Desiccant-Assisted Cooling

Fundamentals and Applications

The increasing concern with indoor air quality has led to air-quality standards with increased ventilation rates. Although increasing the volume flow rate of outside air is advisable from the perspective of energy consumption, since the outside air has to be brought to the comfort condition before it is insufflated to the conditioned ambient. Moreover, the humidity load carried within outside air has challenging HVAC engineers to design cooling units which are able to satisfactorily handle both sensible and latent contributions to the thermal load. This constitutes a favorable scenario for the use of solid desiccants to assist the cooling units. In [...] Features

The increasing concern with indoor air quality has led to air-quality standards with increased ventilation rates. Although increasing the volume flow rate of outside air is advisable from the perspective of air-quality, it is detrimental to energy consumption, since the outside air has to be brought to the comfort condition before it is insufflated to the conditioned ambient. Moreover, the humidity load [...] Contents


Fields of interest

Building Physics, HVAC; Atmospheric Protection / Air Quality Control / Air Pollution; Industrial Chemistry / Chemical Engineering

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-3-642-41673-6

Hardcover

2014. X, 281 p. 178 illus., 42 illus. in color.

$179.99

ISBN 978-3-642-41674-3

usually dispatched within 3 to 5 business days

Advanced in Computer Science and its Applications

CSA 2013

The theme of CSA is focused on the various aspects of computer science and its applications for advances in computer science and its applications and provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of computer science and its applications. Therefore this book will be including the various theories and practical applications in computer science and its applications.

Features

The theme of CSA is focused on the various aspects of computer science and its applications for advances in computer science and its applications and provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of computer science and its applications. Therefore this book will be including the various theories and practical applications in computer science[...]

Contents

Mobile and ubiquitous computing.- Dependable, reliable and autonomic computing.- Security and trust management.- Multimedia systems and services.- Networking and communications.- Database and data mining.- Game and software engineering.- Grid and scalable computing.- Embedded system and software.- Artificial intelligence.- Distributed and parallel algorithms.- Web and internet computing.- IT policy and business management.

Fields of interest

Appl. Mathematics / Computational Methods of Engineering; Computer Science (general); Software Engineering / Programming and Operating Systems

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-41673-6

Hardcover

2014. XLIV, 1456 p. 671 illus. In 2 volumes, not available separately. (Lecture Notes in Electrical Engineering, Vol. 279)

$469.00

ISBN 978-3-642-41673-6

usually dispatched within 3 to 5 business days

Simulation and Modeling Methodologies, Technologies and Applications

International Conference, SIMULTECH 2012 Rome, Italy, July 28-31, 2012 Revised Selected Papers

This book includes extended and revised versions of a set of selected papers from the 2012 International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2012) which was sponsored by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC) and held in Rome, Italy. SIMULTECH 2012 was technically co-sponsored by the Society for Modeling & Simulation International (SCS), GDR 13, Lionphant Simulation, Simulation Team and IFIP and held in cooperation with AIS Special Interest Group of Modeling and Simulation (AIS SIGMAS) and the Movimento Italiano Modellazione e Simulazione (MIMOS). Features

This book includes extended and revised versions of a set of selected papers from the 2012 International Conference on Simulation and Modeling Methodologies, Technologies and Applications (SIMULTECH 2012) which was sponsored by the Institute for Systems and Technologies of Information, Control and Communication (INSTICC) and held in Rome, Italy. SIMULTECH 2012 was technically co-sponsored by the Society for [...] Contents

Kinetic Analysis of the Coke Calcination Processes in Rotary Kilns.- Behavior of Elasticomorphic Seismic Isolators Varying Rubber Material and Pad Thickness: A Numerical Insights.- Numerical Simulation of Coastal Flows in Open Multiply-connected Irregular Domains.- System Dynamics and Agent-based Simulation for Prospective Health Technology Assessments.- Simple and Efficient Algorithms to get a Finer Resolution in a Stochastic Discrete Time Agent-based Simulation.- Numerical Study of Turbulent Boundary-layer Flow Induced by a Sphere above a Flat Plate.- Airflow and Particle Deposition in a[...]

Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-03580-2

Softcover


$179.00

ISBN 978-3-319-03580-2

usually dispatched within 3 to 5 business days
Solid-State Electronic Devices
An Introduction

A modern and concise treatment of the solid state electronic devices that are fundamental to electronic systems and information technology is provided in this book. The main devices that comprise semiconductor integrated circuits are covered in a clear manner accessible to the wide range of scientific and engineering disciplines that are impacted by this technology. Catering to a wider audience is becoming increasingly important as the field of electronic materials and devices becomes more interdisciplinary, with applications in biology, chemistry and electro-mechanical devices (to name a few) becoming more prevalent. Updated and state-of-the-art advancements are included along with [...] Features

A modern and concise treatment of the solid state electronic devices that are fundamental to electronic systems and information technology is provided in this book. The main devices that comprise semiconductor integrated circuits are covered in a clear manner accessible to the wide range of scientific and engineering disciplines that are impacted by this technology. Catering to a wider audience is becoming [...] Contents


Fields of interest
Electronics and Microelectronics, Instrumentation; Semiconductors; Computer Engineering; Nanotechnology and Microengineering

Target groups
Upper undergraduate

Type of publication
Undergraduate textbook

More on www.springer.com/978-1-4614-8835-4

Softcover
2014. XIII, 277 p. 151 illus., 45 illus. in color. (Undergraduate Lecture Notes in Physics) $49.99 ISBN 978-1-4614-8835-4 usually dispatched within 3 to 5 business days

Fuzzy Cognitive Maps for Applied Sciences and Engineering
From Fundamentals to Extensions and Learning Algorithms

Fuzzy Cognitive Maps (FCM) constitute cognitive models in the form of fuzzy directed graphs consisting of two basic elements: the nodes, which basically correspond to “concepts” bearing different states of activation depending on the knowledge they represent, and the “edges” denoting the causal effects that each source node exercises on the receiving concept expressed through weights. Weights take values in the interval [−1, 1], which denotes the positive, negative or neutral causal relationship between two concepts. An FCM can be typically obtained through linguistic terms, inherent to fuzzy systems, but with a structure similar to the neural networks, which facilitates data [...] Features

Fuzzy Cognitive Maps (FCM) constitute cognitive models in the form of fuzzy directed graphs consisting of two basic elements: the nodes, which basically correspond to “concepts” bearing different states of activation depending on the knowledge they represent, and the “edges” denoting the causal effects that each source node exercises on the receiving concept expressed through weights. Weights [...] Contents


This volume provides the audience with an updated, in-depth and highly coherent material on the conceptually appealing and practically sound information technology of Computational Intelligence applied to the analysis, synthesis and evaluation of social networks. The volume involves studies devoted to key issues of social networks including community structure detection in networks, online social networks, knowledge growth and evaluation, and diversity of collaboration mechanisms. The book engages a wealth of methods of Computational Intelligence along with well-known techniques of linear programming, Formal Concept Analysis, machine learning, and agent modeling. Human-centricty [...] Features

This volume provides the audience with an updated, in-depth and highly coherent material on the conceptually appealing and practically sound information technology of Computational Intelligence applied to the analysis, synthesis and evaluation of social networks. The volume involves studies devoted to key issues of social networks including community structure detection in networks, online social networks, knowledge growth and evaluation, and diversity of collaboration mechanisms. The book engages a wealth of methods of Computational Intelligence along with well-known techniques of linear programming, Formal Concept Analysis, machine learning, and agent modeling. Human-centricty [...] Features

This volume provides the audience with an updated, in-depth and highly coherent material on the conceptually appealing and practically sound information technology of Computational Intelligence applied to the analysis, synthesis and evaluation of social networks. The volume involves studies devoted to key issues of social networks including community structure detection in networks, online social networks, knowledge growth and evaluation, and diversity of collaboration mechanisms. The book engages a wealth of methods of Computational Intelligence along with well-known techniques of linear programming, Formal Concept Analysis, machine learning, and agent modeling. Human-centricty [...] Features

This volume provides the audience with an updated, in-depth and highly coherent material on the conceptually appealing and practically sound information technology of Computational Intelligence applied to the analysis, synthesis and evaluation of social networks. The volume involves studies devoted to key issues of social networks including community structure detection in networks, online social networks, knowledge growth and evaluation, and diversity of collaboration mechanisms. The book engages a wealth of methods of Computational Intelligence along with well-known techniques of linear programming, Formal Concept Analysis, machine learning, and agent modeling. Human-centricty [...]
Annals of Industrial Engineering 2012
Industrial Engineering: overcoming the crisis

Proceedings of the 6th International Conference on Industrial Engineering and Industrial Management and the XVI Congreso de Ingeniería de Organización (CIO 2012). The aim of CIO is to establish a forum for the open and free exchange of ideas, opinions and academic experiences about research, technology transfer or successful business experiences in the field of Industrial Engineering. The CIO 2012 is an annual meeting promoted by “Asociación para el Desarrollo de la Ingeniería de Organización” (Industrial Engineers Association, ADINGOR) with a Scientific Committee composed of 61 international referees and more than 200 professionals from 7 countries. A selection of the lectures and features The aim of CIO is to establish a forum for the open and free exchange of ideas, opinions and academic experiences about research, technology transfer or successful business experiences in the field of Industrial Engineering. The CIO 2012 is an annual meeting promoted by “Asociación para el Desarrollo de la Ingeniería de Organización” (Industrial Engineers Association, ADINGOR) with a Scientific Committee composed of 61 international referees and more than 200 professionals from 7 countries. A selection of the lectures and features

Features
The aim of CIO is to establish a forum for the open and free exchange of ideas, opinions and academic experiences about research, technology transfer or successful business experiences in the field of Industrial Engineering. The CIO 2012 is an annual meeting promoted by “Asociación para el Desarrollo de la Ingeniería de Organización” (Industrial Engineers Association, ADINGOR) with a Scientific Committee composed of 61 international referees and more than 200 professionals from 7 countries. A selection of the lectures and features

Contents

Fields of interest
Industrial and Production Engineering

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4471-5348-1

Hardcover
$259.00
ISBN 978-1-4471-5348-1
usually dispatched within 3 to 5 business days

J.C. Prado-Prado, Universidad de Vigo, Vigo, Spain; J. García-Arca, Universidad de Vigo, Vigo, Spain (Eds.)

Alkali Activated Materials
State-of-the-Art Report, RILEM TC 224-AAM

This is a State of the Art Report resulting from the work of RILEM Technical Committee 224-AAM in the period 2007–2013. The Report summarises research to date in the area of alkali-activated binders and concretes, with a particular focus on the following areas: binder design and characterisation, durability testing, commercialisation, standardisation, and providing a historical context for this rapidly-growing research field.

Features
This is a State of the Art Report resulting from the work of RILEM Technical Committee 224-AAM in the period 2007–2013. The Report summarises research to date in the area of alkali-activated binders and concretes, with a particular focus on the following areas: binder design and characterisation, durability testing, commercialisation, standardisation, and providing a historical context for this rapidly-growing research field.

Contents

Fields of interest
Building Materials; Structural Materials; Continuum Mechanics and Mechanics of Materials

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-9289-4

Hardcover
2014. XVII, 171 p. 105 illus., 20 illus. in color.
$129.00
ISBN 978-1-4614-9289-4
usually dispatched within 3 to 5 business days

This unique book provides a bridge between digital control theory and vehicle guidance and control practice. It presents practical techniques of digital redesign and direct discrete-time design suitable for a real-time implementation of controllers and guidance laws at multiple rates and with and computational techniques. The theory of digital control is given as theorems, lemmas, and propositions. The design of the digital guidance and control systems is illustrated by means of step-by-step procedures, algorithms, and case studies. The systems proposed are applied to realistic models of unmanned systems and missiles, and digital implementation.

Features
This book presents practical techniques of discrete-time control system design. In general, the design techniques lead to low-order dynamic compensators that ensure satisfactory closed-loop performance for a wide range of sampling rates. The theory is given in the form of theorems, lemmas, and propositions. The design of the control systems is presented as step-by-step procedures and algorithms. The […]

Contents
Aerospace Technology and Astronautics; Control; Robotics and Automation

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-9289-4

Hardcover
2014. XVII, 171 p. 105 illus., 20 illus. in color.
$129.00
ISBN 978-1-4614-9289-4
usually dispatched within 3 to 5 business days

C.A. Rabbath, N. Léchevin

Discrete-Time Control System Design with Applications
Recent Advances in the Theory and Application of Fitness Landscapes

This book is concerned with recent advances in fitness landscapes. The concept of fitness landscapes originates from theoretical biology and refers to a framework for analysing and visualizing the relationships between genotypes, phenotypes and fitness. These relationships lay at the centre of attempts to mathematically describe evolutionary processes and evolutionary dynamics. The book addresses recent advances in the understanding of fitness landscapes in evolutionary biology and evolutionary computation. In the volume, experts in the field of fitness landscapes present these findings in an integrated way to make it accessible to a number of audiences: senior undergraduate and...[...]

Features

This book is concerned with recent advances in fitness landscapes. The concept of fitness landscapes originates from theoretical biology and refers to a framework for analysing and visualizing the relationships between genotypes, phenotypes and fitness. These relationships lay at the centre of attempts to mathematically describe evolutionary processes and evolutionary dynamics. The [...]

Contents

Part I Principles and Perspectives.
Part II Topology, Measures and Problem Hardness.
Part III Coevolution and Dynamics.
Part IV Visualization and Characterization.
Part V Outlook and Afterthoughts.

Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics); Mathematical and Computational Biology; Systems Biology

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02832-3

Hardcover

2014. XXXVIII, 553 p. 201 illus., 75 illus. in color. (Emergence, Complexity and Computation, Vol. 6)
$229.00
ISBN 978-3-319-02832-3
usually dispatched within 3 to 5 business days

Measuring Signal Generators

Theory & Design

The book brings together the following issues: Theory of deterministic, random and discrete signals reproducible in oscillatory systems of generators; Generation of periodic signals with a specified spectrum, harmonic distortion factor and random signals with specified probability density function and spectral density. Synthesis of oscillatory system structures; Analysis of oscillatory systems with non-linear elements and oscillation amplitude stabilization systems. It considers the conditions and criteria of steady-state modes in signal generators on active four-pole elements with unidirectional and bidirectional transmission of signals and on two-pole elements; analogues of Barkhausen[...]

Features

The book brings together the following issues: Theory of deterministic, random and discrete signals reproducible in oscillatory systems of generators; Generation of periodic signals with a specified spectrum, harmonic distortion factor and random signals with specified probability density function and spectral density. Synthesis of oscillatory system structures, Analysis[...]

Contents

Theory and Praxis of Measuring Signal Sources: Present and Future.
Selected Issues of the Theory of Sinusoidal Generators.
Synthesis of Block Diagrams of Measuring Signal Generators.
Optimization of Oscillatory Systems of Generators.
Analog Signal Generators.
Digital Signal Generators.
Practical Design of Measuring Signal Generators.

Fields of interest

Signal, Image and Speech Processing; Measurement Science, Instrumentation; Circuits and Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02832-3

Hardcover

2014. XIX, 488 p. 332 illus., 30 illus. in color. (Signals and Communication Technology)
$179.00
ISBN 978-3-319-02832-3
usually dispatched within 3 to 5 business days

Gearing Up and Accelerating Cross# fertilization between Academic and Industrial Robotics Research in Europe:

Technology Transfer Experiments from the ECHORD Project

This monograph by Florian Röhrbein, Germano Veiga and Ciro Natale is an edited collection of 15 authoritative contributions in the area of robot technology transfer between academia and industry. It comprises three parts on Future Industrial Robotics, Robotic Grasping as well as Human-Centered Robots. The book chapters cover almost all the topics nowadays considered ‘hot’ within the robotics community, from reliable object recognition to dexterous grasping, from speech recognition to intuitive robot programming, from mobile robot navigation to aerial robotics, from safe physical human-robot interaction to body extenders. All contributions stem from the results of ECHORD – the European[...]

Features

This monograph by Florian Röhrbein, Germano Veiga and Ciro Natale is an edited collection of 15 authoritative contributions in the area of robot technology transfer between academia and industry. It comprises three parts on Future Industrial Robotics, Robotic Grasping as well as Human-Centered Robots. The book chapters cover almost all the topics nowadays considered ‘hot’ within the[...]

Contents

Future Industrial Robotics.
Robotic Grasping.
Human-Centered Robots.

Fields of interest

Robotics and Automation; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-03837-7

Hardcover

2014. XVI, 346 p. 187 illus., 149 illus. in color. (Springer Tracts in Advanced Robotics, Vol. 94)
$129.00
ISBN 978-3-319-03837-7
usually dispatched within 3 to 5 business days
Smart Mobile In-Vehicle Systems

Next Generation Advancements

This is an edited collection by world-class experts, from diverse fields, focusing on integrating smart in-vehicle systems with human factors to enhance safety in automobiles. The book presents developments on road safety, in-vehicle technologies and state-of-the-art systems. Includes coverage of DSP technologies in adaptive automobiles, algorithms and evaluation of in-car communication systems, driver-status monitoring and stress detection, in-vehicle dialogue systems and human-machine interfaces, challenges in video and audio processing for in-vehicle products, multi-sensor fusion for driver identification and vehicle to infrastructure wireless technologies.

Features

This is an edited collection by world-class experts, from diverse fields, focusing on integrating smart in-vehicle systems with human factors to enhance safety in automobiles. The book presents developments on road safety, in-vehicle technologies and state-of-the-art systems. Includes coverage of DSP technologies in adaptive automobiles, algorithms and evaluation of in-car communication systems, [...]
Nanofins

Science and Applications

Nanofins Science and Technology describes the heat transfer effectiveness of polymer coolants and their fundamental interactions with carbon nanotube coatings that act as nanofins. Heat transfer at micro/nano-scales has attracted significant attention in contemporary literature. This has been primarily driven by industrial requirements where significant decrease in the size of electronic devices/chips with concomitant enhancement in the heat flux have caused challenging needs for cooling of these platforms. With quantum effects kicking in, traditional cooling techniques need to be replaced with more effective technologies. A promising technique is to enhance heat transfer by surface…

Features

Nanofins Science and Technology describes the heat transfer effectiveness of polymer coolants and their fundamental interactions with carbon nanotube coatings that act as nanofins. Heat transfer at micro/nano-scales has attracted significant attention in contemporary literature. This has been primarily driven by industrial requirements where significant decrease in the size of electronic devices/chips with…

Contents


Fields of interest

Engineering Thermodynamics, Heat and Mass Transfer, Nanotechnology and Microengineering; Energy Efficiency (incl. Buildings); Energy Systems; Energy Harvesting

Target groups

Research

Type of publication

Brief


Softcover

2014, XII, 70 p. 18 illus., 15 illus. in color. (SpringerBriefs in Thermal Engineering and Applied Science)

$54.99


usually dispatched within 3 to 5 business days

Soft Computing in Industrial Applications

Proceedings of the 17th Online World Conference on Soft Computing in Industrial Applications

This volume of Advances in Intelligent Systems and Computing contains accepted papers presented at WSCI7, the 17th Online World Conference on Soft Computing in Industrial Applications, held from December 2012 to January 2013 on the Internet. WSCI7 continues a successful series of scientific events started over a decade ago by the World Federation of Soft Computing. It brought together researchers from over the world interested in the ever advancing state of the art in the field. Continuous technological improvements make this online forum a viable gathering format for a world class conference. The aim of WSCI7 was to disseminate excellent research results and contribute to building…

Features

This volume of Advances in Intelligent Systems and Computing contains accepted papers presented at WSCI7, the 17th Online World Conference on Soft Computing in Industrial Applications, held from December 2012 to January 2013 on the Internet. WSCI7 continues a successful series of scientific events started over a decade ago by the World Federation of Soft Computing. It brought together researchers from over…

Contents


Fields of interest

Circuits and Systems; Communications Engineering, Networks; Processor Architectures

Target groups

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-319-02870-5

Hardcover

2014, XIV, 292 p. 158 illus., 89 illus. in color.

$99.00

ISBN 978-3-319-02870-5

usually dispatched within 3 to 5 business days

Wireless Communication Electronics by Example

This book is intended for senior undergraduate and graduate students as well as practicing engineers who are involved in design and analysis of radio frequency (RF) circuits. Fully-solved, tutorial-like examples are used to put into practice all major topics required to understand the principles underlying the main sub-circuits required to design an RF transceiver and the whole communication system. Starting with review of principles in electromagnetic (EM) transmission and signal propagation, through detailed practical analysis of RF amplifier, mixer, modulator, demodulator, and oscillator circuit topologies, all the way to the system communication theory behind the RF transceiver…

Features

This book is intended for senior undergraduate and graduate students as well as practicing engineers who are involved in design and analysis of radio frequency (RF) circuits. Fully-solved, tutorial-like examples are used to put into practice all major topics required to understand the principles underlying the main sub-circuits required to design an RF transceiver and the whole communication system. …

Contents


Fields of interest

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-319-02870-5

usually dispatched within 3 to 5 business days
The History of Theoretical, Material and Computational Mechanics - Mathematics Meets Mechanics and Engineering

This collection of 23 articles is the output of lectures in special sessions on “The History of Theoretical, Material and Computational Mechanics” within the yearly conferences of the GAMM in the years 2010 in Karlsruhe, Germany, 2011 in Graz, Austria, and in 2012 in Darmstadt, Germany; GAMM is the “Association for Applied Mathematics and Mechanics”, founded in 1922 by Ludwig Prandtl and Richard von Mises. The contributions in this volume discuss different aspects of mechanics. They are related to solid and fluid mechanics in general and to specific problems in these areas including the development of numerical solution techniques. In the first part the origins and developments of [...] Features

This collection of 23 articles is the output of lectures in special sessions on “The History of Theoretical, Material and Computational Mechanics” within the yearly conferences of the GAMM in the years 2010 in Karlsruhe, Germany, 2011 in Graz, Austria, and in 2012 in Darmstadt, Germany; GAMM is the “Association for Applied Mathematics and Mechanics”, founded in 1922 by Ludwig Prandtl and Richard von Mises. [...] Contents


Continuum Mechanics and Mechanics of Materials; Applied Mathematics / Computational Methods of Engineering; History of Mathematics; Applications of Mathematics Target groups

Research Type of publication

Monograph More on www.springer.com/978-3-642-39904-6 Softcover

2014, XIX, 490 p. 311 illus., 80 illus. in color. (Lecture Notes in Applied Mathematics and Mechanics, Vol. 1) $179.00 ISBN 978-3-642-39904-6 usually dispatched within 3 to 5 business days

Foundations and Applications of Intelligent Systems

Proceedings of the Seventh International Conference on Intelligent Systems and Knowledge Engineering, Beijing, China, Dec 2012 (ISKE 2012) These proceedings present technical papers selected from the 2012 International Conference on Intelligent Systems and Knowledge Engineering (ISKE 2012), held on December 15-17 in Beijing. The aim of this conference is to bring together experts from different fields of expertise to discuss the state-of-the-art in Intelligent Systems and Knowledge Engineering, and to present new findings and perspectives on future developments. The proceedings introduce current scientific and technical advances in the fields of artificial intelligence, machine learning, pattern recognition, data mining, knowledge engineering, information retrieval, information theory, knowledge-based systems, knowledge [...] Features

These proceedings present technical papers selected from the 2012 International Conference on Intelligent Systems and Knowledge Engineering (ISKE 2012), held on December 15-17 in Beijing. The aim of this conference is to bring together experts from different fields of expertise to discuss the state-of-the-art in Intelligent Systems and Knowledge Engineering, and to present new findings and perspectives on [...] Contents

Foundations and Applications of Intelligent Systems. - Knowledge Engineering and Management. Fields of interest

Computational Intelligence; Data Mining and Knowledge Discovery; Artificial Intelligence (incl. Robotics); Signal, Image and Speech Processing; Information Systems Applications (incl. Internet); Information Storage and Retrieval Target groups

Research Type of publication

Proceedings More on www.springer.com/978-3-642-37828-7 Softcover

2014, XIX, 802 p. 323 illus. (Advances in Intelligent Systems and Computing, Vol. 213) $399.00 ISBN 978-3-642-37828-7 usually dispatched within 3 to 5 business days

Computational Intelligence in Biomedical Imaging

Computational Intelligence in Biomedical Imaging is a comprehensive overview of the state-of-the-art computational intelligence research and technologies in biomedical images with emphasis on biomedical decision making. Biomedical imaging offers useful information on patients’ medical conditions and clues to causes of their symptoms and diseases. Biomedical images, however, provide a large number of images which physicians must interpret. Therefore, computer aids are demanded and become indispensable in physicians’ decision making. This book discusses major technical advancements and research findings in the field of computational intelligence in biomedical imaging, for example […] Features

This book provides a comprehensive overview of the state-of-the-art computational intelligence research and technologies in biomedical images with emphasis on biomedical decision making. Biomedical imaging offers useful information on patients’ medical conditions and clues to causes of their symptoms and diseases. Biomedical images, however, provide a large number of images which physicians must interpret. […] Contents


Computational Intelligence; Biomedical Engineering; Computer Imaging, Vision, Pattern Recognition and Graphics; Signal, Image and Speech Processing; Imaging / Radiology Target groups

Research Type of publication


2014, XV, 406 p. 209 illus., 114 illus. in color. $179.00 ISBN 978-1-4614-7244-5 usually dispatched within 3 to 5 business days


This book provides a comprehensive overview of the state-of-the-art computational intelligence research and technologies in biomedical images with emphasis on biomedical decision making. Biomedical imaging offers useful information on patients’ medical conditions and clues to causes of their symptoms and diseases. Biomedical images, however, provide a large number of images which physicians must interpret. Therefore, computer aids are demanded and become indispensable in physicians’ decision making. This book discusses major technical advancements and research findings in the field of computational intelligence in biomedical imaging, for example […] Contents


Computational Intelligence; Biomedical Engineering; Computer Imaging, Vision, Pattern Recognition and Graphics; Signal, Image and Speech Processing; Imaging / Radiology Target groups

Research Type of publication


2014, XV, 406 p. 209 illus., 114 illus. in color. $179.00 ISBN 978-1-4614-7244-5 usually dispatched within 3 to 5 business days


This book provides a comprehensive overview of the state-of-the-art computational intelligence research and technologies in biomedical images with emphasis on biomedical decision making. Biomedical imaging offers useful information on patients’ medical conditions and clues to causes of their symptoms and diseases. Biomedical images, however, provide a large number of images which physicians must interpret. Therefore, computer aids are demanded and become indispensable in physicians’ decision making. This book discusses major technical advancements and research findings in the field of computational intelligence in biomedical imaging, for example […] Contents


Computational Intelligence; Biomedical Engineering; Computer Imaging, Vision, Pattern Recognition and Graphics; Signal, Image and Speech Processing; Imaging / Radiology Target groups

Research Type of publication


2014, XV, 406 p. 209 illus., 114 illus. in color. $179.00 ISBN 978-1-4614-7244-5 usually dispatched within 3 to 5 business days
Bio-Imaging and Visualization for Patient-Customized Simulations

This book contains the full papers presented at the MICCAI 2013 workshop Bio-Imaging and Visualization for Patient-Customized Simulations (MWBIVPCS 2013). MWBIVPCS 2013 brought together researchers representing several fields, such as Biomechanics, Engineering, Medicine, Mathematics, Physics and Statistic. The contributions included in this book present and discuss new trends in those fields, using several methods and techniques, including the finite element method, similarity metrics, optimization processes, graphs, hidden Markov models, sensor calibration, fuzzy logic, data mining, cellular automation, active shape models, template matching and level sets. These serve as tools to [...] Features

This book contains the full papers presented at the MICCAI 2013 workshop Bio-Imaging and Visualization for Patient-Customized Simulations (MWBIVPCS 2013). MWBIVPCS 2013 brought together researchers representing several fields, such as Biomechanics, Engineering, Medicine, Mathematics, Physics and Statistic. The contributions included in this book present and discuss new trends in those fields, using [...] Contents

From the Contents: Optical properties and optical spectroscopy of rare-earth ions in solids.- Electronic-phonon coupling in solids.- Physical and optical properties of laser glass.- Mechanical and thermal properties of glass.- Fiber fabrication and high-quality glasses for gain fibers.- Spectroscopic properties of and gain fibers.- Propagation of light and spatial modes in optical fibers.- Fiber laser physics fundamentals.- Main laser fiber operational regimes.- Main optical components for fiber lasers and fiber amplifiers design.- High power fiber lasers.- Fiber lasers' industrial applications.

Memristors and Memristive Systems

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid CMOS/memristor circuits. Methods for the simulation of memristors are demonstrated and an introduction to neuromorphic modeling is provided.

Features

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid [...] Contents


Fields of interest

Circuits and Systems; Electronics and Microelectronics, Instrumentation; Electronic Circuits and Devices

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-9067-8

Hardcover

$129.00
ISBN 978-3-319-02337-3
usually dispatched within 3 to 5 business days

Memristors and Memristive Systems

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid CMOS/memristor circuits. Methods for the simulation of memristors are demonstrated and an introduction to neuromorphic modeling is provided.

Features

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid [...] Contents


Fields of interest

Circuits and Systems; Electronics and Microelectronics, Instrumentation; Electronic Circuits and Devices

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-9067-8

Hardcover

$129.00
ISBN 978-3-319-02337-3
usually dispatched within 3 to 5 business days

Memristors and Memristive Systems

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid CMOS/memristor circuits. Methods for the simulation of memristors are demonstrated and an introduction to neuromorphic modeling is provided.

Features

This book provides a comprehensive overview of current research on memristors, memcapacitors and, meminductors. In addition to an historical overview of the research in this area, coverage includes the theory behind memristive circuits, as well as memcapacitance, and meminductance. Details are shown for recent applications of memristors for resistive random access memories, neuromorphic systems and hybrid [...] Contents


Fields of interest

Circuits and Systems; Electronics and Microelectronics, Instrumentation; Electronic Circuits and Devices

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-9067-8

Hardcover

$129.00
ISBN 978-3-319-02337-3
usually dispatched within 3 to 5 business days
Circular Cylinders and Pressure Vessels
Stress Analysis and Design

This book provides comprehensive coverage of stress and strain analysis of circular cylinders and pressure vessels, one of the classic topics of machine design theory and methodology. Whereas other books offer only a partial treatment of the subject and frequently consider stress analysis solely in the elastic field, Circular Cylinders and Pressure Vessels broadens the design horizons, analyzing theoretically what happens at pressures that stress the material beyond its yield point and at thermal loads that give rise to creep. The consideration of both traditional and advanced topics ensures that the book will be of value for a broad spectrum of readers, including students in [...]
**Ambient Assisted Living**

6. AAL-Kongress 2013 Berlin, Germany, January 22.- 23., 2013

In this book, leading authors in the field discuss development of Ambient Assisted Living. The contributions have been chosen and invited at the 6th AAL congress, Berlin. It presents new technological developments which support the autonomy and independence of individuals with special needs. As the technological innovation raises also social issues, the book addresses micro and macro economical aspects of assistive systems and puts an additional emphasis on the ethical and legal discussion. The presentation is supported by real world examples and applications.

**Features**

- Sensor Technology.
- Assistance and Robotic Systems.
- Activity Recognition.
- Platforms.
- Interaction.
- Training Systems.
- Community Conclusions.

**Contents**

- Biomedical Engineering.
- R & D / Technology Policy.
- Aging / Geriatrics / Gerontology

**Target groups**

Research.

**Type of publication**

Proceedings

More on www.springer.com/978-3-642-37987-1

**Hardcover**

2014. XIV, 356 p. 163 illus. (Advanced Technologies and Societal Change)

$259.00

ISBN 978-3-642-37987-1

usually dispatched within 3 to 5 business days

**CMOS IC Design for Wireless Medical and Health Care**

This book provides readers with detailed explanation of the design principles of CMOS integrated circuits for wireless medical and health care, from the perspective of two successfully-commercialized applications. Design techniques for both the circuit block level and the system level are discussed, based on real design examples. CMOS IC design techniques for the entire signal chain of wireless medical and health care systems are covered, including biomedical signal acquisition, wireless transceivers, power management and SoC integration, with emphasis on ultra-low-power IC design techniques.

**Features**

This book provides readers with detailed explanation of the design principles of CMOS integrated circuits for wireless medical and health care, from the perspective of two successfully-commercialized applications. Design techniques for both the circuit block level and the system level are discussed, based on real design examples. CMOS IC design techniques for the entire signal chain of wireless medical and health care systems are covered, including biomedical signal acquisition, wireless transceivers, power management and SoC integration, with emphasis on ultra-low-power IC design techniques.

**Contents**

- Introduction.
- System Architecture and Design Considerations.
- Biomedical Signal Acquisition Circuits.
- WBAN Transceiver Design.
- Other Important Circuits.
- SoC Design and Application Systems.
- Summary.

**Fields of interest**

- Circuits and Systems.
- Biomedical Engineering.
- Electronics and Microelectronics.
- Instrumentation.

**Target groups**

Professional/practitioner

More on www.springer.com/978-1-4614-9502-4

**Hardcover**

2014. X, 186 p. 171 illus., 95 illus. in color.

$119.00

ISBN 978-1-4614-9502-4

usually dispatched within 3 to 5 business days

**Mechatronics and Automatic Control Systems**


**Features**


**Contents**

- Part I: Advanced Mechanics and Mechatronics.
- Part II: Intelligent Systems and Algorithms.
- Part IV: Control Theory and Application.
- Part V: Data Mining and Application.
- Part VI: Sensing Control Theory.

**Fields of interest**

Control, Robotics, Mechatronics; Signal, Image and Speech Processing; Mechanical Engineering

**Target groups**

Research

**Type of publication**

Proceedings

More on www.springer.com/978-3-319-01272-8

**Hardcover**

2014. XIX, 1079 p. 617 illus., 178 illus. in color. In 2 volumes, not available separately. (Lecture Notes in Engineering, Vol. 137)

$399.00

ISBN 978-3-319-01272-8

usually dispatched within 3 to 5 business days

Z. Wang, H. Jiang, H. Chen
Fault Diagnosis and Fault-Tolerant Control Strategies for Non-Linear Systems

M. Witczak

Analytical and Soft Computing Approaches

This book presents selected fault diagnosis and fault-tolerant control strategies for non-linear systems in a unified framework. In particular, starting from advanced state estimation strategies up to modern soft computing, the discrete-time description of the system is employed. Part I of the book presents original research results regarding state estimation and neural networks for robust fault diagnosis. Part II is devoted to the presentation of integrated fault diagnosis and fault-tolerant systems. It starts with a general fault-tolerant control framework, which is then extended by introducing robustness with respect to various uncertainties. Finally, it is shown how to implement [...]
The International Conference on Health Informatics

ICHI 2013, Vilamoura, Portugal on 7-9 November, 2013

This volume presents the proceedings of the International Conference on Health Informatics (ICHI). The conference was a new special topic conference initiative by the International Federation of Medical and Biological Engineering (IFMBE), held in Vilamoura, Portugal on 7-9 November, 2013. The main theme of the ICHI2013 was “Integrating Information and Communication Technologies with Biomedicine for Global Health”. The proceedings offer a unique forum to examine enabling technologies of sensors, devices and systems that optimize the acquisition, transmission, processing, storage, retrieval of biomedical and health information as well as to report novel clinical applications of health care management and communication technologies.

Features
This volume presents the proceedings of the International Conference on Health Informatics (ICHI). The conference was a new special topic conference initiative by the International Federation of Medical and Biological Engineering (IFMBE), held in Vilamoura, Portugal on 7-9 November, 2013. The main theme of the ICHI2013 was “Integrating Information and Communication Technologies with Biomedicine for Global Health”.

Contents

Fields of interest
Biomedical Engineering; Health Informatics; Communications Engineering, Networks

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03004-3

Optimal Design of Distributed Control and Embedded Systems

Optimal Design of Distributed Control and Embedded Systems focuses on the design of special control and scheduling algorithms based on system structural properties as well as on analysis of the influence of induced time-delay on systems performances. It treats the optimal design of distributed and embedded control systems (DCESs) with respect to communication and calculation-resource constraints, quantization aspects, and potential time-delays induced by the associated communication and calculation model. Particular emphasis is put on optimal control signal scheduling based on the system state. In order to render this complex optimization problem feasible in real time, a time-saving approach is applied. This results in a suboptimal control strategy.

Features
Optimal Design of Distributed Control and Embedded Systems focuses on the design of special control and scheduling algorithms based on system structural properties as well as on analysis of the influence of induced time-delay on systems performances. It treats the optimal design of distributed and embedded control systems (DCESs) with respect to communication and calculation-resource constraints.

Contents

Fields of interest
Control; Control Structures and Microprogramming; Circuits and Systems; Communications Engineering, Networks

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02728-9

Hardcover
2014. XCVI, 288 p. 94 illus., 60 illus. in color. (Communications and Control Engineering)
$129.00
ISBN 978-3-319-02728-9
usually dispatched within 3 to 5 business days

Environment


Factor X
Policy, Strategies and Instruments for a Sustainable Resource Use

The editors of Factor X explore and analyze this trajectory, predicting scarcities of non-renewable materials such as metals, limited availability of ecological capacities and shortages arising from geographic concentrations of materials. They argue that what is needed is a radical change in the ways we use nature’s resources to produce goods and services and generate well-being. The goal of saving our ecosystem demands a prompt and decisive reduction of man-induced material flows. Before 2050, they assert, we must achieve a significant decrease in consumption of resources, in the line with the idea of a factor 10 reduction target. EU-wide and country-specific targets must be set, and...

Features
As currently projected, global population growth will place increasing pressures on the environment and on Earth’s resources. Growth will be concentrated in developing countries, leading to leaps in demand for goods and services, and a paradox: although there are initiatives to decouple resource use and economic growth in mature economies, their effects could be more than offset by rapid economic growth.

Contents

Fields of interest
Sustainable Development; Environment (general); Economic Policy; Environmental Economics; Economic Growth; Business & Economics (general)

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-94-007-5705-9

Hardcover
2014. XVIII, 311 p. 61 illus., 53 illus. in color. (Eco-Efficiency in Industry and Science, Vol. 29)
$139.00
ISBN 978-94-007-5705-9
usually dispatched within 3 to 5 business days
Eutrophication: Causes, Consequences and Control

Volume 2

Eutrophication continues to be a major global challenge, and the problem of eutrophication and availability of freshwater for human consumption is an essential ecological issue. The global demand for water resources due to increasing population, economic developments, and emerging energy development schemes has created new environmental challenges for global sustainability. Accordingly, the area of research on eutrophication has expanded considerably in recent years. Eutrophication, acidification and contamination by toxic substances are likely to pose increasing threats to freshwater resources and ecosystems. The consequences of anthropogenic-induced eutrophication of freshwaters are...

Features

Eutrophication continues to be a major global challenge, and the problem of eutrophication and availability of freshwater for human consumption is an essential ecological issue. The global demand for water resources due to increasing population, economic developments, and emerging energy development schemes has created new environmental challenges for global sustainability. Accordingly, the area of research on...

Contents


Fields of interest

Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Water Quality / Water Pollution; Freshwater & Marine Ecology; Plant Ecology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7813-9

Hardcover

2014. XI, 262 p. 90 illus., 29 illus. in color.
$129.00
ISBN 978-94-007-7813-9
usually dispatched within 3 to 5 business days

Governments’ Responses to Climate Change: Selected Examples From Asia Pacific

This multidisciplinary volume articulates the current and potential public policy discourse between energy security and climate change in the Asia-Pacific region, and the efforts taken to address global warming. This volume is unique as it analyses two important issues - climate change and energy security through the lens of geopolitics at the intersection of energy security. It elaborates on the potential steps taken by state and non-state actors, as well as the policy innovations and diplomatic efforts (bilateral and multilateral, including regional) that states are pursuing. This Brief stems from the assumption that its audience is aware of the consequences of climate change...

Features

This multidisciplinary volume articulates the current and potential public policy discourse between energy security and climate change in the Asia-Pacific region, and the efforts taken to address global warming. This volume is unique as it analyses two important issues - climate change and energy security through the lens of geopolitics at the intersection of energy security.

Contents


Fields of interest

Climate Change; Climate Change Management and Policy; Energy Policy; Economics and Management; Sustainable Development; Environmental Science and Engineering

Target groups

Professional/practitioner

Type of publication

Brief

More on www.springer.com/978-981-4451-11-6

Softcover

2014. XI, 131 p. 10 illus. in color. (ASEAN Studies, Vol. 10)
$54.99
usually dispatched within 3 to 5 business days

On Political Culture, Cultural Policy, Art and Politics

Klaus von Beyme is a distinguished German political scientist and recipient of the Mattei Dogan Award of Political Science (2012). In honour of his 80th birthday this book addresses political culture, cultural policy, art and politics. The first part on transformation theory analyses: "Historical Memories in Political Theories", "Historical Memory in Nation-Building and the Building of Ethnic Subsystems", "The Concept of Totalitarianism – A Reassessment after the Breakdown of Soviet Rule", "Political Culture – A Concept from Ideological Refutation to Acceptance in the Soviet Social Sciences", "Institutions and Political Culture in Post-Soviet Russia" and "Political and Economic...

Features

Klaus von Beyme is a distinguished German political scientist and recipient of the Mattei Dogan Award of Political Science (2012). In honour of his 80th birthday this book addresses political culture, cultural policy, art and politics. The first part on transformation theory analyses: "Historical Memories in Political Theories", "Historical Memory in Nation-Building and the Building of Ethnic Subsystems", "The...

Contents

Part I Transformation Theory - Historical Memories in Political Theories - Historical Memory in Nation-Building and the Building of Ethnic Subsystems - The Concept of Totalitarianism – A Reassessment after the Breakdown of Soviet Rule - Political Culture – A Concept from Ideological Refutation to Acceptance in the Soviet Social Sciences - Institutions and Political Culture in Post-Soviet Russia - Political and Economic Consolidation in Eastern Europe - Evidences from Empirical Data - Part II Cultural Policies - Why is there no Political Science of the Arts? - Historical Memory and the...

Fields of interest

Environmental Law / Policy / Ecojustice; Political Science, general; Methodology of the Social Sciences; Architectural History and Theory; Regional and Cultural Studies; History of Science

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-01558-3

Softcover

$54.99
ISBN 978-3-319-01558-3
usually dispatched within 3 to 5 business days
Mathematical Models and Methods for Planet Earth

In 2013 several scientific activities have been devoted to mathematical researches for the study of planet Earth. The current volume presents a selection of the highly topical issues presented at the workshop “Mathematical Models and Methods for Planet Earth”, held in Roma (Italy), in May 2013. The fields of interest span from impacts of dangerous asteroids to the safeguard from space debris, from climatic changes to monitoring geological events, from the study of tumor growth to sociological problems. In all these fields the mathematical studies play a relevant role as a tool for the analysis of specific topics and as an ingredient of multidisciplinary problems. To investigate these [...] Features

In 2013 several scientific activities have been devoted to mathematical researches for the study of planet Earth. The current volume presents a selection of the highly topical issues presented at the workshop “Mathematical Models and Methods for Planet Earth”, held in Roma (Italy), in May 2013. The fields of interest span from impacts of dangerous asteroids to the safeguard from space debris, from climatic [...] Contents

Math. Appl. in Environmental Science; Earth Sciences (general); Climate Change Impacts; Climate (general); Mathematical Methods in Physics

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-02656-5

Hardcover
2014, X, 174 p. (Springer INdAM Series, Vol. 6)
$129.00
ISBN 978-3-319-02656-5

Due: December 31, 2013

Temporary Shelters and Surrounding Communities

Livelihood Opportunities, the Labour Market, Social Welfare and Social Security

This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). This volume reviews the livelihood opportunities for displaced persons in temporary shelters and in the surrounding communities. It explores labor-market conditions and provides recommendations for improving opportunities. The editors discuss the current policies of the Royal Thai Government towards displaced persons on restrictions for settlement that impede access to welfare, justice, education and health care. Service provision for displaced persons are identified here, as well [...] Features

This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). This volume reviews the livelihood opportunities for displaced persons in temporary shelters and in the surrounding communities. It explores labor-market conditions and provides recommendations for improving [...] Contents


Fields of interest
Environmental Law / Policy / Ecojustice; Migration; International Relations

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02788-3

Softcover
2014, XVIII, 229 p. 24 illus., 23 illus. in color. (Migration Studies, Vol. 15)
$54.99
ISBN 978-3-319-02788-3
usually dispatched within 3 to 5 business days

Salinity and Drainage in San Joaquin Valley, California

Science, Technology, and Policy

This book documents the history of irrigated agriculture and drainage in the San Joaquin Valley, and describes the hydrology and biogeochemical processes of salts and selenium, remediation technologies for salts and trace elements and policy and management options. The contents are comprised of fourteen chapter-length independent treatises, each depicting with fresh perspective a distinctive salinity drainage topic. The opening chapters detail the evolution of irrigated agriculture, and depict the geochemical and hydrological processes that define the San Joaquin Valley, including the physics, chemistry, and biology attributes that impact water management policies and strategies. [...] Features

This book documents the history of irrigated agriculture and drainage in the San Joaquin Valley, and describes the hydrology and biogeochemical processes of salts and selenium, remediation technologies for salts and trace elements and policy and management options. The contents are comprised of fourteen chapter-length independent treatises, each depicting with fresh perspective a distinctive salinity drainage [...] Contents

Soil Science & Conservation; Environmental Economics; Hydrogeology; Ecotoxicology; Sustainable Development; Environmental Science and Engineering

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6850-5

Hardcover
2014, XXIII, 409 p. 61 illus., 1 illus. in color. (Global Issues in Water Policy, Vol. 5)
$229.00
usually dispatched within 3 to 5 business days

A.C. Chang, D. Braver Silva (Eds.)
Resettlement of Displaced Persons on the Thai-Myanmar Border

This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). The camps on the Thai-Myanmar border are the result of the world’s largest resettlement program. However, despite large-scale financial and human resource engagement, little research exists on how successful this resettlement has been. This book provides the first insight on how realistic the policy recommendations are for a durable solution for refugees at the borders. Practitioners and policy makers from governments, international organizations and NGOs will benefit from its findings.[...]

Features
This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). The camps on the Thai-Myanmar border are the result of the world’s largest resettlement program. However, despite large-scale financial and human resource engagement, little research exists on how successful this [...]
Transport and Reactivity of Solutions in Confined Hydrosystems

The present work reflects a multi-disciplinary effort to address the topic of confined hydrosystems developed with a cross-fertilization panel of physics, chemists, biologists, soil and earth scientists. Confined hydrosystems include all situations in natural settings wherein the extent of the liquid phase is limited so that the solid-liquid and/or liquid-air interfaces may be critical to the properties of the whole system. Primarily, this so-called "residual" solution is occluded in pores/channels in such a way that decreases its tendency to evaporation, and makes it last long-lasting in arid (Earth deserts) and hyper-arid (Mars soils) areas. The associated physics is available from[...]

Features
The present work reflects a multi-disciplinary effort to address the topic of confined hydrosystems developed with a cross-fertilization panel of physics, chemists, biologists, soil and earth scientists. Confined hydrosystems include all situations in natural settings wherein the extent of the liquid phase is limited so that the solid-liquid and/or liquid-air interfaces may be critical to the properties of [...]
Expanding Peace Ecology: Peace, Security, Sustainability, Equity and Gender
Perspectives of IPRA's Ecology and Peace Commission

This book has peer-reviewed chapters by scholars from Australia, Canada, Germany, Japan, Mexico, and the USA that were presented to the Ecology and Peace Commission (EPC) of the International Peace Research Association (IPRA) in November 2012 in Japan. The chapters address these themes: Expanding Peace Ecology – Peace, Security, Sustainability, Equity, and Gender; Two Discourses on Global Climate Change Impacts: From Climate Change and Security to Sustainability Transition; Peace Research and Greening in the Red Zone: Community-based Ecological Restoration to Enhance Resilience and Transitions Toward Peace; Social and Environmental Vulnerability in a River Basin of Mexico; Mobile...[...]

Fields of interest
Environmental Law / Policy / Ecojustice; Sustainable Development; Social Work

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-00728-1

Climate Change Loss and Damage
Economic and Legal Foundations

This text works to establish essential foundations and guidelines in the current process of providing strategies, mechanisms and resources for mitigating loss and damage from the adverse impacts of climate change and climate variability. This builds on the groundwork done by the UNFCCC and other entities to facilitate the processes at the international level, pursuing a pragmatic approach and the objective specification of relevant frameworks for further actions. The primary goal is the development of integrated approaches to the assessment and reduction of loss and damage due to climate change (including climate variability), encompassing both economic and legal dimensions. The [...]

Features
This text works to establish essential foundations and guidelines in the current process of providing strategies, mechanisms and resources for mitigating loss and damage from the adverse impacts of climate change and climate variability. This builds on the groundwork done by the UNFCCC and other entities to facilitate the processes at the international level, pursuing a pragmatic approach and the objective specification of relevant frameworks for further actions. The primary goal is the development of integrated approaches to the assessment and reduction of loss and damage due to climate change (including climate variability), encompassing both economic and legal dimensions. The [...]

Contents

Fields of interest
Climate Change; Environmental Economics; International Environmental Law

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-642-39563-5

Softcover
ISBN 978-3-642-39563-5
usually dispatched within 3 to 5 business days

The Impact of Displaced People’s Temporary Shelters on their Surrounding Environment

This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). This volume discusses the environmental impact of temporary shelters for displaced people along the Thai–Myanmar border. Of nine shelters, three were selected for detailed study: Ban Tham Hin (Ratchaburi province), Ban Mai Nai Soi (Mae Hong Son province), and Ban Mae La (Tak province). For each shelter, various research methods were used to assess the environmental conditions, analyse the ways of living and use of resources by displaced persons, and disclose their perceptions of the [...]

Features
This book is one of four volumes on a major empirical migration study by leading Thai migration specialists from Chulalongkorn University (Bangkok) for the United Nations Development Programme (UNDP). This volume discusses the environmental impact of temporary shelters for displaced people along the Thai–Myanmar border. Of nine shelters, three were selected for detailed study: Ban Tham Hin (Ratchaburi province), Ban Mai Nai Soi (Mae Hong Son province), and Ban Mae La (Tak province). For each shelter, various research methods were used to assess the environmental conditions, analyse the ways of living and use of resources by displaced persons, and disclose their perceptions of the [...]

Contents

Fields of interest
Environmental Law / Policy / Ecojustice; Migration; International Relations

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02841-5

Softcover
ISBN 978-3-319-02841-5
usually dispatched within 3 to 5 business days
Coastal Saline Soil Rehabilitation and Utilization Based on Forestry Approaches in China

The most recent advances in research on coastal saline soil rehabilitation and utilization based on forestry approach are discussed. The forestry approach is emphasized rather than physical or engineering measures to ameliorate saline soils, which is significant for coastal environmental improvement and land resources expansion. The monograph is a useful reference for researchers using techniques of ecology, forestry and agronomy. Prof. Jianfeng Zhang works at the Institute of Subtropical Forestry, Chinese Academy of Forestry. He has been working on afforestation in saline soils for over 20 years.

Features
The most recent advances in research on coastal saline soil rehabilitation and utilization based on forestry approach are discussed. The forestry approach is emphasized rather than physical or engineering measures to ameliorate saline soils, which is significant for coastal environmental improvement and land resources expansion. The monograph is a useful reference for researchers using techniques of ecology, [...]
General Science

S. Albeverio, Universität Bonn, Bonn, Germany; P. Blanchard (Eds.)

**Direction of Time**

This edited book presents the problems of time and direction from an interdisciplinary point of view, concentrating in particular on the following relations: Time and physics; Time, philosophy and psychology; Time, mathematics and information theory. It is a unique contribution by philosophers and scientists who are active in mathematics, physics, biology, engineering, information theory and psychology. Questions such as the existence of a Big Bang, the neurobiological basis regarding the coexistence of free will and determinism, inter-cultural aspects of time, mathematical models of time, psychopathological features of time, and microscopic reversibility versus macroscopic irreversibility,...

**Features**

This edited book presents the problems of time and direction from an interdisciplinary point of view, concentrating in particular on the following relations: Time and physics; Time, philosophy and psychology; Time, mathematics and information theory. It is a unique contribution by philosophers and scientists who are active in mathematics, physics, biology, engineering, information theory and psychology.

**Contents**

Models of time: On Abuse of Time-metaphors; The Direction of Time, The Role of Reversibility/Irreversibility in the Study of Nature; The Arrow of Time and Information Theory; ASYMMETRIES, IRREVERSIBILITY, AND DYNAMICS OF TIME; IS TIME REAL? - Is time directed?; On the different aspects of time in the fundamental theories of physics; Quantum Events and Irreversibility; Time in modern philosophy of physics; a survey; THE DIRECTION OF TIME IN DYNAMICAL SYSTEMS; Physics and Our Intuitive Outlook on Time; The philosophical significance of the relativistic conception of time,

**Fields of interest**

History of Science; Theoretical, Mathematical and Computational Physics; History and Philosophical Foundations of Physics; Philosophy of Science

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-319-02797-5

Hardcover

2014, XXXII, 294 p. 24 illus. 
$179.00
ISBN 978-3-319-02797-5
usually dispatched within 3 to 5 business days

---

**Scientific Sources and Teaching Contexts Throughout History: Problems and Perspectives**

A. Bernard, C. Proust (Eds.)

This book examines the textual, social, cultural, practical and institutional environments to which the expression "teaching and learning contexts" refers. It reflects on the extent to which studying such environments helps us to better understand ancient or modern sources, and how notions of "teaching" and "learning" are to be understood. Tackling two problems: the first, is that of certain sources of scientific knowledge being studied without taking into account the various "contexts" of transmission that gave this knowledge a long-lasting meaning. The second is that other sources are related to teaching and learning activities, but without being too precise and demonstrative about [...]!

**Features**

This book examines the textual, social, cultural, practical and institutional environments to which the expression "teaching and learning contexts" refers. It reflects on the extent to which studying such environments helps us to better understand ancient or modern sources, and how notions of "teaching" and "learning" are to be understood. Tackling two problems: the first, is that of certain sources of [...]!

**Contents**

Contributors; General Introduction; Alain Bernard and Christine Proust. Part I: Holistic Approach. The teaching context and reading from the 16th to the 19th centuries: The role of the memorization of texts in learning; Anne-Marie Chartier. Teaching and learning medicine and esotericism at Uruk during the Hellenistic period; Philippe Clancier. Part II: Critical Approach. Does a master always write for his students? Some evidence from Old Babylonian scribal schools; Christine Proust. In what sense did Theon's commentary on the Almagest have a didactic purpose? Alain Bernard. Part [...]!

**Fields of interest**

History of Science; Epistemology; Philosophy of Education; Philosophy of Science

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-94-007-5121-7

Hardcover

$129.00
ISBN 978-94-007-5121-7
usually dispatched within 3 to 5 business days
The Discourse of Sensibility

The Knowing Body in the Enlightenment

This volume reconstructs the body of sensibility and the discourse which constructed it. The discourse of sensibility was deployed very widely throughout the mid- to late-eighteenth century, particularly in France and Britain. To inquire into the body of sensibility is then necessarily to enter into an interdisciplinary space and so to invite the plurality of methodological approaches which this collection exemplifies. The chapters collected here draw together the histories of literature and aesthetics, metaphysics and epistemology, moral theory, medicine, and cultural history. Together, they contribute to four major themes: First, the collection reconstructs various modes by which [...] Features

This volume reconstructs the body of sensibility and the discourse which constructed it. The discourse of sensibility was deployed very widely throughout the mid- to late-eighteenth century, particularly in France and Britain. To inquire into the body of sensibility is then necessarily to enter into an interdisciplinary space and so to invite the plurality of methodological approaches which this collection [...] Contents


Fields of interest

History of Science; History of Philosophy; History of Medicine

History of Artificial Cold, Scientific, Technological and Cultural Issues

The history of artificial cold has been a rather intriguing interdisciplinary subject (physics, chemistry, technology, sociology, economics, anthropology, consumer studies) which despite some excellent monographs and research papers, has not been systematically exploited. It is a subject with all kinds of scientific, technological as well as cultural dimensions. For example, the common home refrigerator has brought about unimaginably deep changes to our everyday lives changing drastically eating habits and shopping mentalities. From the end of the 19th century to the beginning of the 21st, issues related to the production and exploitation of artificial cold have never stopped to[...]

Features

The history of artificial cold has been a rather intriguing interdisciplinary subject (physics, chemistry, technology, sociology, economics, anthropology, consumer studies) which despite some excellent monographs and research papers, has not been systematically exploited. It is a subject with all kinds of scientific, technological as well as cultural dimensions. For example, the common home refrigerator has[...]

Contents

Foreword. - About the Authors. - Table Of Contents. - The History of Artificial Cold - Historiographical issues; Kostas Gavroglu. - Investigating the Very Cold. - Early modern history of cold: Robert Boyle and the emergence of a new experimental field in 17th century experimental philosophy; Christiana Christopoulou. - James Dewar and the Road to the Liquefaction of Hydrogen; Sir John S. Rowlinson. - The cryogenic laboratory of Heike Kamerlingh Onnes: an early case of Big Science; Dirk van Delft. - Superconductivity—a challenge to modern physics; Christiana Joas and Georges Waysand.[...]

Fields of interest

History of Science; History and Philosophical Foundations of Physics

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7198-7

Hardcover

2014. XIV, 215 p. (Studies in History and Philosophy of Science, Vol. 35)

$129.00

ISBN 978-3-319-02701-2

usually dispatched within 3 to 5 business days

Labor in a Globalizing City

Economic Restructuring in São Paulo, Brazil

The extraordinary stories of low-income women living in São Paulo, industrial case studies and the details of three squatter settlements, and communities in the periphery researched in Simone Buechler’s book, Labor in a Globalizing City, allow us to better understand the period of economic transformation in São Paulo from 1996 to 2003. Buechler’s in-depth ethnographic research over a period of 17 years includes interviews with a variety of social actors ranging from favela inhabitants to Wall Street bankers. Buechler examines the paradox of a globalizing city with highly developed financial, service, and industrial sectors, but at the same time a growing sector of microenterprises[...]

Features

The extraordinary stories of low-income women living in São Paulo, industrial case studies and the details of three squatter settlements, and communities in the periphery researched in Simone Buechler’s book, Labor in a Globalizing City, allow us to better understand the period of economic transformation in São Paulo from 1996 to 2003. Buechler’s in-depth ethnographic research over a period of 17[...]

Contents


Fields of interest

Economic Geography; Emerging Markets / Globalization; Labor Economics; Microeconomics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-01660-3

Hardcover

2014. XIV, 340 p. 32 illus. in color. (Urban and Landscape Perspectives, Vol. 16)

$129.00

ISBN 978-3-319-01660-3

usually dispatched within 3 to 5 business days

Geography

K. Gavroglu, University of Athens, Athens, Greece (Ed.)

Geography

S.J. Buechler, University of Illinois at Chicago, Chicago, USA

K. Gavroglu, University of Athens, Athens, Greece (Ed.)

The Discourse of Sensibility

The Knowing Body in the Enlightenment

This volume reconstructs the body of sensibility and the discourse which constructed it. The discourse of sensibility was deployed very widely throughout the mid- to late-eighteenth century, particularly in France and Britain. To inquire into the body of sensibility is then necessarily to enter into an interdisciplinary space and so to invite the plurality of methodological approaches which this collection exemplifies. The chapters collected here draw together the histories of literature and aesthetics, metaphysics and epistemology, moral theory, medicine, and cultural history. Together, they contribute to four major themes: First, the collection reconstructs various modes by which [...] Features

This volume reconstructs the body of sensibility and the discourse which constructed it. The discourse of sensibility was deployed very widely throughout the mid- to late-eighteenth century, particularly in France and Britain. To inquire into the body of sensibility is then necessarily to enter into an interdisciplinary space and so to invite the plurality of methodological approaches which this collection [...] Contents


Fields of interest

History of Science; History of Philosophy; History of Medicine

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-319-02701-2

Hardcover

2013. XII, 215 p. (Studies in History and Philosophy of Science, Vol. 35)

$129.00

ISBN 978-3-319-02701-2

usually dispatched within 3 to 5 business days
Creative Industry Districts
J. He

An Analysis of Dynamics, Networks and Implications on Creative Clusters in Shanghai

Since the late 1990s, there have been broad discussions concerning the rapid rise of the creative economy. Creative or cultural industry is seen as the new engine of the regional growth for both developed economies and emerging nations. At the point of transition in economy and society, China is recently striving to transform its economy from "made in China" towards "created in China". This book provides an insight into creative industries and spaces in Shanghai, which is the fastest growing megacity in China and the center of modern economic development on a global scale. Underpinned by new approaches from economic geography and urban studies, it deals with the new relations between...[...]

Features
This book provides insight into creative industries and spaces in Shanghai, which is the fastest growing megacity in China and center of modern economic development on a global scale. Underpinned by new approaches from economic geography and urban studies, it deals with the new relations between the creative economy and urban environment in Shanghai. At the point of transition in economy and society, China...[...]

Contents
Introduction - From the New Economy to Creative City - Characterizing Shanghai’s Creative Industries and Districts - Dynamics in Clustering of Creative Industries in Shanghai - Network Analysis of Creative Clusters in Shanghai - Impacts of Creative Industry Districts in Shanghai - Discussion and Conclusions.

Fields of interest
Economic Geography; Regional Science; Landscape, Regional and Urban Planning

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01975-8

Houses in Transformation
T.H. Khan, Universiti Teknologi Malaysia, Skudai, Malaysia

Search for the Implicit Reasons

This book analyzes the reasons of spontaneous transformation in self-built houses in the context of developing countries. Recognizing Housing Transformation as a natural phenomenon, the book focuses on self-built houses in the city of Dhaka. Firstly, it explains the explicit reasons behind spontaneous housing transformations. Then the book carefully unveils the implicit values that are hidden behind those explicit reasons. The entire book is an ethnographic journey, which expresses unique stories behind houses in transformation.

Features
This book analyzes the reasons of spontaneous transformation in self-built houses in the context of developing countries. Recognizing Housing Transformation as a natural phenomenon, the book focuses on self-built houses in the city of Dhaka. Firstly, it explains the explicit reasons behind spontaneous housing transformations. Then the book carefully unveils the implicit values that are hidden behind those...[...]

Contents
Explicit reasons behind housing transformation - Beyond the explicit world - Major Implicit themes behind housing transformation - Minor and Meta Implicit themes behind housing transformation - Conclusion.

Fields of interest
Landscape, Regional and Urban Planning; Personal- and Social Psychology

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02671-8

Softcover
2014. Xlll, 58 p. 35 illus., 13 illus. in color. (SpringerBriefs in Geography)
$54.99
ISBN 978-3-319-02671-8

usually dispatched within 3 to 5 business days

Modeling of Land-Use and Ecological Dynamics
D. Malkinson, University of Haifa, Haifa, Israel; D. Czamanski, I. Benenson (Eds.)

As cities are rapidly expanding and encroaching into agricultural and natural areas, a question of primary concern is how this expansion affects surrounding agriculture and natural landscapes. This book presents a wide spectrum of both theoretical and empirical approaches to simulation and assessment of landscape dynamics. The first part presents state-of-the-art modelling approaches pertaining to land-use changes entailed by the urban sprawl, at different spatial resolutions and temporal time scales. The second part is dedicated to case studies of the effects and consequences of the emerging urban-agriculture open space patterns.

Features
As cities are rapidly expanding and encroaching into agricultural and natural areas, a question of primary concern is how this expansion affects surrounding agriculture and natural landscapes. This book presents a wide spectrum of both theoretical and empirical approaches to simulation and assessment of landscape dynamics. The first part presents state-of-the-art modelling approaches pertaining to land-use...[...]

Contents

Fields of interest
Landscape, Regional and Urban Planning; Regional Science; Nature Conservation; Simulation and Modelling; Ecosystems

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-40198-5

Hardcover
2013. VII, 193 p. 66 illus., 14 illus. in color. (Cities and Environment)
$129.00
ISBN 978-3-642-40198-5

usually dispatched within 3 to 5 business days
K. Matsui

**Geography of Religion in Japan**

*Religious Space, Landscape, and Behavior*

This book discusses modern aspects of Japanese religion in terms of cultural geography. To understand the function of religion, it is essential to examine it in the context of local societies. One of the distinguishing characteristics of Japanese religion is its diversity; indeed, it is often remarked that "Japan is a museum of religions." In this work, the author clarifies some geographical aspects of the complex situation of Japanese religion. Chapter 1 discusses the trend of geographical studies of religion in Japan, of which four types can be identified. Chapter 2 focuses on certain characteristics of Japanese religious traditions by discussing tree worship and the landscape of...[

**Features**

This book discusses modern aspects of Japanese religion in terms of cultural geography. To understand the function of religion, it is essential to examine it in the context of local societies. One of the distinguishing characteristics of Japanese religion is its diversity; indeed, it is often remarked that "Japan is a museum of religions." In this work, the author clarifies some geographical aspects of the...[

**Contents**


**Fields of interest**

Geography (general); Culture - Religion; Regional and Cultural Studies

**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com/978-4-431-54549-1](http://www.springer.com/978-4-431-54549-1)

**Hardcover**

2014, XI, 199 p. 95 illus., 36 illus. in color. (International Perspectives in Geography, Vol. 2)

199 p. 95 illus., 36 illus. in color. (International Perspectives in Geography, Vol. 2)

ISBN 978-4-431-54549-1

usually dispatched within 3 to 5 business days

M. Nowobilska, Q.M. Zaman

**Potsdamer Platz**

*The Re-shaping of Berlin*

The redesign of Potsdamer Platz depicts the struggle to revive Berlin, Germany. This central and highly visible square has undergone a series of strategic revisions to restore its vitality and so to meet place-enhancing objectives. Specifically, the book critically addresses the challenging task of restoring Potsdamer Platz from a state of disintegration to a condition worthy of a world-class city, although the questions remain unanswered as to how far the objectives have been achieved. The book enables readers to become familiar with the various stages of transformation, aided by the authors’ hand-drawn illustration - a series of sketches accompanied by narrations focusing on how to...[

**Features**

The redesign of Potsdamer Platz is a chief example of the struggle to revive Berlin, Germany. This central and highly visible square has undergone a series of strategic revisions to restore its vitality and so meet place-enhancing objectives. Specifically, the book critically addresses the challenging task of restoring Potsdamer Platz from a state of disintegration to a condition worthy of a world-class city, ...[

**Contents**


**Fields of interest**

Landscape, Regional and Urban Planning; Urbanism; Architectural History and Theory

**Target groups**

Research

**Type of publication**

Brief

More on [www.springer.com/978-3-319-02927-6](http://www.springer.com/978-3-319-02927-6)

**Softcover**

2014, XV, 47 p. 33 illus. (SpringerBriefs in Geography)

ISBN 978-3-319-02927-6

usually dispatched within 3 to 5 business days

V. Popovich, SPIRAS 39, St. Petersburg, Russian Federation; C. Clarament, Naval Academy Research Institute, Brest naval, France; M. Schrenk, CFI ALANOVA-gemeinnützige GmbH, Schwerin, Austria; K. Kononenko, NAVSEA, Chief Scientist/NUWC Code 1543, Newport, USA (Eds.)

**Information Fusion and Geographic Information Systems (IF&GIS 2013)**

*Environmental and Urban Challenges*

The Workshop Proceedings reflect problems of advanced geo-information science with a special emphasis on environmental and urban challenges. The Proceedings incorporate papers presented by leading scientists doing research on environmental issues from modeling to analysis, information processing and visualization. As well as practitioners engaged in GIS and GIS applications development. The Proceedings pay close attention to the problems of scientific and technological innovations as well application opportunities such as getting environmental and global warming problems under control, as well as the monitoring, planning and simulation of urban systems with respect to economic trends...[

**Features**

The Workshop Proceedings reflect problems of advanced geo-information science with a special emphasis on environmental and urban challenges. The Proceedings incorporate papers presented by leading scientists doing research on environmental issues from modeling to analysis, information processing and visualization. As well as practitioners engaged in GIS and GIS applications development. The Proceedings pay...[

**Fields of interest**

Geographical Information Systems / Cartography; Information Systems and Communication Service; Landscape, Regional and Urban Planning

**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com/978-3-642-31832-0](http://www.springer.com/978-3-642-31832-0)

**Hardcover**

2014, IX, 324 p. 152 illus., 33 illus. in color. (Lecture Notes in Geoinformation and Cartography)

ISBN 978-3-642-31832-0

usually dispatched within 3 to 5 business days
Impossibility in Modern Private Law
A Comparative Study of German, Swiss and Turkish Laws and the Unification Instruments of Private Law

This book provides an analysis of the treatment of impossibility in modern private law. The author explains the regulation of impossibility in German, Swiss and Turkish laws with a comparative analysis of the subject under (i) the United Nations Convention on International Sale of Goods (CISG), (ii) UNIDROIT Principles of International Commercial Contracts (PICC), (iii) Principles of European Contract Law (PECL also known as the Lando-Principles), (iv) Draft Common Frame of Reference (DCFR) and (iv) Common European Sales Law (CESL).

Contents
- Treatment of Impossibility in Modern Laws and Unification Instruments. - Comparative Assessment of the Laws. - Final Conclusions

Fields of interest
- Private International Law, International & Foreign Law, Comparative Law; Civil Law; Theories of Law, Philosophy of Law, Legal History

Target groups
- Research

Type of publication
- Monograph

More on www.springer.com/978-3-319-01703-7

Hardcover
- $129.00
- ISBN 978-3-319-01703-7
- usually dispatched within 3 to 5 business days

The German Prosecution Service

Acclaimed as the 'the most objective prosecutors in the world', the German prosecution service has long attracted the attention in the past of comparative law scholars. At first glance, the institutional position and statutory mandate of German prosecutors indicate that that reputation is well-deserved. Unfortunately, the introduction of charge-bargaining has opened the door to criticism that German prosecutors have abandoned their role of objective decision-makers. Using interview data collected from interviews with German prosecutors themselves as well as quantitative data, the book uses the actual voices of German prosecutors to show how real-world constraints, rather than changes [...]
EU Bilateral Trade Agreements and Intellectual Property: For Better or Worse?

This book focuses on a new generation of bilateral and regional agreements negotiated by the EU with developing countries and which include intellectual property (IP) provisions setting standards exceeding those of the TRIPS Agreement. The contributions critically analyse the IP standards found in these agreements; their potential for reforming the international IP system; the implications for the multilateral IP system and other areas of international law such as human rights; and the often neglected topic of implementing the IP obligations in these agreements.

Features
This book focuses on a new generation of bilateral and regional agreements negotiated by the EU with developing countries and which include intellectual property (IP) provisions setting standards exceeding those of the TRIPS Agreement. The contributions critically analyse the IP standards found in these agreements; their potential for reforming the international IP system; the implications for the multilateral IP system and other areas of international law such as human rights; and the often neglected topic of implementing the IP obligations in these agreements.

Contents

Fields of interest
International Environmental Law; Environmental Policy; Ecojustice; International Relations; Sustainable Development; Sources and Subjects of International Law; International Organizations

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-44945-1

Hardcover
$129.00
ISBN 978-3-642-44945-1
Due: January 28, 2014
Same-Sex Couples before National, Supranational and International Jurisdictions

The present volume focuses on the jurisprudence of national, supranational and international jurisdictions (and quasi-jurisdictions) as regards the legal status of same-sex couples. Its aim is to explore the content, rationale, functioning and potential of the different jurisdictions’ reasonings and their contribution to the strengthening of LGBTI rights (and duties). As a consequence, the book tries to convey the complexities and controversies that derive from the judicial recognition of same-sex couples across the world, taking always into account the relationship of the judiciary with the executive and the legislature and the related problems of legitimacy and democracy. The volume [...] 

Features

The present volume focuses on the jurisprudence of national, supranational and international jurisdictions (and quasi-jurisdictions) as regards the legal status of same-sex couples. Its aim is to explore the content, rationale, functioning and potential of the different jurisdictions’ reasonings and their contribution to the strengthening of LGBTI rights (and duties). As a consequence, the book tries [...] 

Contents

Same-Sex Couples, Legislators and Judges. An Introduction to the Book. - The Recognition of Same-Sex Couples’ rights in the US between Counter-Majoritarian Principle and Ideological Approaches: A State Level Perspective. - From Gay Rights to Same-Sex Marriage: A Brief Story through US Federal Courts Jurisprudence. - Different Approaches, Similar Outcomes: Same-Sex Marriage in Canada and South Africa. - Same-sex Couples before Courts in Mexico, Central and South America. - Following the Legislatival Leaders: Judicial Recognition of Same Sex Couples in Australia and New Zealand. - The Nordic [...] 

Fields of interest

Private International Law, International & Foreign Law, Comparative Law; Public International Law; Gender Studies; Human Rights; European Law; Constitutional Law 

Target groups

Research 

Type of publication

Contributed volume 

More on www.springer.com/978-3-642-35433-5 

Hardcover


$179.00

ISBN 978-3-642-35433-5 

usually dispatched within 3 to 5 business days 

Human Rights and Civil Liberties in the 21st Century

This volume contributes to the on-going legal discussion on pressing procedural and substantial law issues in the ambit of international human rights and civil liberties. While the 20th century has seen the true awakening of human rights, the 21st century poses new challenges to this ever-unfolding area of law. Not only do international tribunals and quasi-tribunals worldwide and domestic US and European continental courts have to deal with increasing numbers of complaints and petitions from individuals and groups on a vast array of societal problems, the legal issues put to them are sometimes extremely difficult to resolve as they relate to very sensitive issues. This book examines [...] 

Features

This volume contributes to the on-going legal discussion on pressing procedural and substantial law issues in the ambit of international human rights and civil liberties. While the 20th century has seen the true awakening of human rights, the 21st century poses new challenges to this ever-unfolding area of law. Not only do international tribunals and quasi-tribunals worldwide and domestic US and European [...] 

Contents


Fields of interest

Private International Law, International & Foreign Law, Comparative Law; European Law; Public Law; Constitutional Law 

Target groups

Research 

Type of publication

Contributed volume 

More on www.springer.com/978-94-007-7598-5 

Hardcover


$129.00


usually dispatched within 3 to 5 business days 

Federalism and Legal Unification

A Comparative Empirical Investigation of Twenty Systems

How and to what degree do federations produce uniform law within their system? This comparative empirical study addresses these questions comprehensively for the first time. Originally produced under the auspices of the International Academy of Comparative Law, this volume examines legal unification in twenty federalizations around the world. Each of the successive chapters presents the forces of unification through the lens of a particular federal system. A comparative overview chapter provides a detailed analysis of the overall results with compelling visual illustrations of legal unification along different dimensions (e.g. by area of law; by federation; by civil vs common law [...] 

Features

How and to what degree do federations produce uniform law within their system? This comparative empirical study addresses these questions comprehensively for the first time. Originally produced under the auspices of the International Academy of Comparative Law, this volume examines legal unification in twenty federalizations around the world. Each of the successive chapters presents the forces of [...] 

Contents

Contents - Preface. - Part One. - Federalism and Legal Unification: Comparing Methods, Results, and Explanations Across Twenty Systems; Daniel Halberstam and Mathias Reimann. - Part Two National Reports. - The Argentine Federal Constitution; Alfredo Vitolo. - The Australian Federation: A Story Of The Centralization Of Power; Cheryl Saunders and Michelle Foster. - Federalism and Legal Unification in Austria; Bernhard KOCH and Anna Gamber. - Belgium: A Broken Marriage?; Alain-Laurent Verbeke. - Federalism and Legal Unification in Brazil; Jacob Dolinger and Luis Roberto Barroso. - Unification [...] 

Fields of interest

Private International Law, International & Foreign Law, Comparative Law; Political Science, general; Constitutional Law 

Target groups

Research 

Type of publication

Contributed volume 

More on www.springer.com/978-94-007-7397-4 

Hardcover

2014. X, 559 p. 10 illus., 3 illus. in color. (Ius Gentium: Comparative Perspectives on Law and Justice, Vol. 28) 

$179.00

ISBN 978-94-007-7397-4 

usually dispatched within 3 to 5 business days
Dealing with Wars and Dictatorships

Legal Concepts and Categories in Action

Democratic ‘transitions’ in Latin America, Eastern Europe, and South Africa, often studied under the conceptual rubric of ‘transitional justice’, have involved the formation of public policies toward the past that are multifaceted and often ambitious. Recent scholarship rarely questions the concepts and categories transposed from one country to another. This is true both in the language of political life and in the social sciences examining past-oriented public policy, especially policy toward ‘ethnic cleansing’ and the line between the language of political practice, legal analysis, and scholarly discourse has been quite porous. This book examines how these phenomena have been [...] Features

The 20th century saw an unprecedented number of major wars, conflicts, and massive human rights violations. From each emerged the desire to make sense of the recent past (and present) by imagining new ways of dealing with such events. In order to prevent new forms of violence, or to punish the persons responsible of past horrors, various solutions have been imagined, deployed, implemented, and [...] Contents


International Humanitarian Law, Law of Armed Conflict; Human Rights; Political Science, general; Sociology, general; History Target groups

Research Type of publication

Contributed volume More on www.springer.com/978-90-6704-929-0

Hardcover

2014, XI, 269 p. 3 illus. $129.00 ISBN 978-90-6704-929-0 usually dispatched within 3 to 5 business days

Privacy and Data Protection Issues of Biometric Applications

A Comparative Legal Analysis

This book discusses all critical privacy and data protection aspects of biometric systems from a legal perspective. It contains a systematic and complete analysis of the many issues raised by these systems based on examples worldwide and provides several recommendations for a transnational regulatory framework. An appropriate legal framework is in most countries not yet in place. Biometric systems use facial images, fingerprints, iris and/or voice in an automated way to identify or to verify (identity) claims of persons. The treatise which has an interdisciplinary approach starts with explaining the functioning of biometric systems in general terms for non-specialists. It continues[...] Features

This book discusses all critical privacy and data protection aspects of biometric systems from a legal perspective. It contains a systematic and complete analysis of the many issues raised by these systems based on examples worldwide and provides several recommendations for a transnational regulatory framework. An appropriate legal framework is in most countries not yet in place. Biometric systems [...] Contents

Preface; Peter Hustinx.- Acknowledgements.- Acronyms.- Table of Contents.- Introduction.- Part I: The Concept Of Biometric Data.- Chapter 1. An Introduction into The Use Of Biometric Technology.- Section I. A Long History of Use of Biometric Characteristics.- Section II. The Functioning Of A Biometric System.- Chapter 2. Biometric Data, Data Protection and the Right To Privacy.- Section I. Biometric Data and the Concept of Personal Data.- Section II. Biological Material and Other Information Relating To Individuals.- Section III. Biometric Data, Data Protection and Privacy.- Chapter 6.[...] Fields of interest

Human Rights; Cultural Heritage; Anthropology; Private International Law, International & Foreign Law, Comparative Law Target groups

Research Type of publication


Hardcover

2014, X, 241 p. $129.00 ISBN 978-3-319-01654-2 usually dispatched within 3 to 5 business days

Indigenous Peoples’ Cultural Property Claims

Repatriation and Beyond

This book analyses the legal aspects of international claims by indigenous peoples for the repatriation of their cultural property, and explores what legal norms and normative orders would be appropriate for resolving these claims. To establish context, the book first provides insights into the exceptional legislative responses to the cultural property claims of Native American tribes in the United States and looks at the possible relevance of this national law on the international level. It then shifts to the multina- tional setting by using the method of legal pluralism and takes into consideration international human rights law, international cultural heritage law, the applicable[...] Features

This book analyses the legal aspects of international claims by indigenous peoples for the repatriation of their cultural property, and explores what legal norms and normative orders would be appropriate for resolving these claims. To establish context, the book first provides insights into the exceptional legislative responses to the cultural property claims of Native American tribes in the United States and [...] Contents

Introduction.- Facts, Method and Basic Concepts.- National Cultural Property Repatriation Claims of the Native Americans.- International Cultural Property Repatriation Claims of Indigenous Peoples.- Requirements and Objectives for Appropriate Solutions.- Summarising Conclusion. Fields of interest

Human Rights; Cultural Heritage; Anthropology; Private International Law, International & Foreign Law, Comparative Law Target groups

Research Type of publication

Monograph More on www.springer.com/978-3-319-01654-2

Hardcover

2014, X, 241 p. $129.00 ISBN 978-3-319-01654-2 usually dispatched within 3 to 5 business days

Repatriation and Beyond

This book analyses the legal aspects of international claims by indigenous peoples for the repatriation of their cultural property, and explores what legal norms and normative orders would be appropriate for resolving these claims. To establish context, the book first provides insights into the exceptional legislative responses to the cultural property claims of Native American tribes in the United States and looks at the possible relevance of this national law on the international level. It then shifts to the multina- tional setting by using the method of legal pluralism and takes into consideration international human rights law, international cultural heritage law, the applicable[...] Features

This book analyses the legal aspects of international claims by indigenous peoples for the repatriation of their cultural property, and explores what legal norms and normative orders would be appropriate for resolving these claims. To establish context, the book first provides insights into the exceptional legislative responses to the cultural property claims of Native American tribes in the United States and [...] Contents

Introduction.- Facts, Method and Basic Concepts.- National Cultural Property Repatriation Claims of the Native Americans.- International Cultural Property Repatriation Claims of Indigenous Peoples.- Requirements and Objectives for Appropriate Solutions.- Summarising Conclusion. Fields of interest

Human Rights; Cultural Heritage; Anthropology; Private International Law, International & Foreign Law, Comparative Law Target groups

Research Type of publication

Monograph More on www.springer.com/978-3-319-01654-2

Hardcover

2014, X, 241 p. $129.00 ISBN 978-3-319-01654-2 usually dispatched within 3 to 5 business days
## Piracy at Sea

Over more than three decades starting in the 1990s, thousands of robberies, acts of piracy, and other violent attacks against merchant vessels have been reported in many of the world’s waters. The grave danger of piracy poses a direct threat not only to the security and efficiency of marine transportation, but more seriously, to the lives of the men and woman carrying out this important function. This book collates ideas brought up by seafarers, shipowners, industry practitioners, government officials, academics, and researchers exchanged views and insights on the complex web of underlying factors behind the phenomenon of piracy. Piracy at Sea brings together a wide spectrum of [...]  

### Contents

- The Malmö Declaration: Calling for a Multi-sectoral Response to Piracy
- International Conference on Piracy at Sea: Keynote Address
- Piracy: Armed Robbery, Kidnapping, Torture and Murder at Sea
- Human Rights in Counter-piracy Operations: No Legal Vacuum but Legal Uncertainty
- The Use of ‘Ship-riders’ to Assert Jurisdiction over Piracy and Armed Robbery off Somalia: Is the Gulf of Aden the New ‘High Seas’? The Law Enforcement Approach to Sea Piracy: Overcoming Challenges to Effective Investigation and Prosecution of Somali Pirates

### Fields of interest

- Law of the Sea, Air and Outer Space
- Private International Law
- International & Foreign Law
- Comparative Law
- Private International Law
- Criminal Law
- Criminal Justice

### Target groups

- Research

### Type of publication

- Contributed volume

### Hardcover

- 2013, X, 310 p. 32 illus., 30 illus. in color, (WWU Studies in Maritime Affairs, Vol. 2)
- $129.00
- ISBN 978-3-642-39619-9
- usually dispatched within 3 to 5 business days

## Advance Care Decision Making in Germany and Italy

### Advance Care Decision Making in Germany and Italy

- A Comparative, European and International Law Perspective

What is the situation of people who are unable to make decisions due to a physical or mental change? This book gives impulses and answers to many ethical, economical and mainly legal questions which arise and are associated with the end of life. A universal human rights approach and the analysis of the relevant European law are put in front of the presentation of the national legal situations in Italy and Germany. The most topical and controversial issues concerning advance care planning are presented as well as a transnational economic analysis on the effects of advance care planning.

### Features

- What is the situation of people who are unable to make decisions due to a physical or mental change?
- This book gives impulses and answers to many ethical, economical and mainly legal questions which arise and are associated with the end of life. A universal human rights approach and the analysis of the relevant European law are put in front of the presentation of the national legal situations in Italy and [...]

### Contents

- Foreword
- Universal Human Rights and End-of-Life Care
- Advance Health Care Directives under European Law and European Biolaw
- Advance Directives Regulation in Italy: Between Consent and Legal Rules
- Patient’s autonomy according to German Law: ‘Killing me softly’: new questions about therapeutic self-determination in the Italian society and old answers from the Criminal Code
- The German Law on Euthanasia: the legal basics and the actual debate
- Access to Palliative Care in the Italian Legal System
- Legal Rules on Palliative Care under German Law
- End of Life Care and the [...]

### Fields of interest

- Medical Law
- Private International Law
- International & Foreign Law
- Comparative Law
- Public Health
- European Law

### Target groups

- Research

### Type of publication

- Contributed volume

### Hardcover

- 2013, X, 279 p. 6 illus. (Veröffentlichungen des Instituts für Deutsches, Europäisches und Internationales Recht, Gesundheitsrecht und Bioethik der Universität Heidelberg und Mannheim, Vol. 41)
- $129.00
- ISBN 978-3-642-40554-9
- usually dispatched within 3 to 5 business days

## African Legal Theory and Contemporary Problems

### African Legal Theory and Contemporary Problems

- Critical Essays

The book is a collection of essays, which aim to situate African legal theory in the context of the myriad of contemporary global challenges; from the prevalence of war to the misery of poverty and disease to the crises of the environment. Apart from being problems that have an indelible African mark on them, a common theme that runs throughout the essays in this book is that African legal theory has been excluded, under-explored or under-theorised in the search for solutions to such contemporary problems. The essays make a modest attempt to reverse this trend. The contributors investigate and introduce readers to the key issues, questions, concepts, impulses and problems that [...]

### Features

- The book is a collection of essays, which aim to situate African legal theory in the context of the myriad of contemporary global challenges; from the prevalence of war to the misery of poverty and disease to the crises of the environment. Apart from being problems that have an indelible African mark on them, a common theme that runs throughout the essays in this book is that African legal theory has been [...]  

### Contents

- Acknowledgments
- List of Contributors
- Introduction
- Oche Onazi: Part I: Law

### Fields of interest

- Theories of Law, Philosophy of Law, Legal History; Philosophy of Law; Criminology & Criminal Justice; Regional and Cultural Studies; Development Economics; International and Comparative Education

### Target groups

- Research

### Type of publication

- Contributed volume

### Hardcover

- 2013, X, 293 p. (Ius Gentium: Comparative Perspectives on Law and Justice, Vol. 29)
- $129.00
- ISBN 978-94-007-7536-7
- usually dispatched within 3 to 5 business days
Civil Litigation in China and Europe
Essays on the Role of the Judge and the Parties

This volume addresses the role of the judge and the parties in civil litigation in mainland China, Hong Kong and various European jurisdictions. It provides an overview and an analysis of how these respective roles have been changed in order to cope with growing caseloads and quality demands. It also shows the different approaches chosen in the jurisdictions covered. Mainland China is introducing far-reaching reforms in its system of civil litigation. From an inquisitorial procedure, in which the parties play a relatively minor role, the country is changing to a more adversarial system with increased powers for the parties. At the same time, case management and the role of the judge as[...]

Features
This volume addresses the role of the judge and the parties in civil litigation in mainland China, Hong Kong and various European jurisdictions. It provides an overview and an analysis of how these respective roles have been changed in order to cope with growing caseloads and quality demands. It also shows the different approaches chosen in the jurisdictions covered. Mainland China is introducing[...]

Contents
Acknowledgements - List of Abbreviations - About the Authors - Table of Contents - Introduction; C.H. (Remco) van Rhee and Fu Yulin. - Part 1 China: Mainland - China: Mainland. Efficiency at the Expense of Quality?; Wang Yaxim and Fu Yulin. - Case Management in China’s Civil Justice System; Cai Yanmin. - From ‘Trial Management’ to ‘Case Management’ in China; Wang Fuhua. - Part 2 China: Hong Kong - China: Hong Kong Selective Adoption of the English Woolf Reforms; Peter Chan, David Chan and Chen Lei. - Impact of Civil Justice Reform on Alternative Dispute Resolution: A Hong Kong Perspective[...]

Fields of interest
Civil Procedure Law; Private International Law; International & Foreign Law, Comparative Law; Civil Law

Target groups
Research

Type of publication
Contributed volume

More on [www.springer.com/978-94-007-7665-4](http://www.springer.com/978-94-007-7665-4)

Hardcover
2014, X. 362 p. 2 illus. in color. (Ius Gentium: Comparative Perspectives on Law and Justice, Vol. 31)
$129.00
ISBN 978-94-007-7665-4
usually dispatched within 3 to 5 business days

S. Ruggeri, University of Messina, Messina, Italy (Ed.)

Transnational Evidence and Multicultural Inquiries in Europe
Developments in EU Legislation and New Challenges for Human Rights-Oriented Criminal Investigations in Cross-border Cases

This book deals with the gathering of evidence in cross-border investigations in Europe. The issue of obtaining evidence in and from European countries has been among the most debated issues of EU cross-border cooperation in criminal matters over the last two decades, going through periods of intensive discussions and showing an extraordinary adaptability to the evolution of EU legislation for criminal matters. On the other hand, the prosecution and investigations of cross-border cases pose unprecedented challenges in the European scenario, characterized by the increasing flow and activity of citizens over the territory of more than one country and therefore by the need to lay the[...]

Features
This book deals with the gathering of evidence in cross-border investigations in Europe. The issue of obtaining evidence in and from European countries has been among the most debated issues of EU cross-border cooperation in criminal matters over the last two decades, going through periods of intensive discussions and showing an extraordinary adaptability to the evolution of EU legislation for criminal[...]

Contents

Fields of interest
European Law; International Criminal Law

Target groups
Research

Type of publication
Contributed volume

More on [www.springer.com/978-3-319-02569-8](http://www.springer.com/978-3-319-02569-8)

Hardcover
$129.00
ISBN 978-3-319-02569-8
usually dispatched within 3 to 5 business days

T. Aftab, Leibniz Institute of Plant Genetics and, Gatersleben, Germany; J.F.S. Ferreira, United States Department of Agriculture, Riverside, USA; M.M.A. Khan, Aligarh Muslim University, Aligarh, India; M. Naeem, Aligarh Muslim University, Aligarh, India (Eds.)

Artemisia annua - Pharmacology and Biotechnology

Artemisinin, a sesquiterpene lactone originally extracted from the medicinal plant Artemisia annua L., is an effective antimalarial agent, particularly for multi-drug resistant and cerebral malaria. However, the concentration of artemisinin in the plant is very low. Because the chemical synthesis of artemisinin is complicated and not economically feasible in view of the poor yield of the drug, the intact plant remains the only viable source of artemisinin production. Therefore, it is necessary to increase the concentration of artemisinin in A. annua to reduce the cost of artemisinin based antimalarial drugs. Plant scientists have focused their efforts on A. annua for a higher[...]

Features
This book summarizes global research on the medicinal plant Artemisia annua and its component artemisinin, an antimalarial agent. It explores further artemisinin applications and future research possibilities. Artemisinin is an effective antimalarial agent, particularly for multi-drug-resistant and cerebral malaria. As the chemical synthesis of artemisinin is complicated and not economically[...]

Contents

Fields of interest
Plant Breeding / Biotechnology; Pharmacology / Toxicology; Plant Biochemistry

Target groups
Research

Type of publication
Contributed volume

More on [www.springer.com/978-3-642-41026-0](http://www.springer.com/978-3-642-41026-0)

Hardcover
2014, VI, 292 p. 50 illus., 21 illus. in color.
$189.00
ISBN 978-3-642-41026-0
usually dispatched within 3 to 5 business days

S. Ruggeri, University of Messina, Messina, Italy (Ed.)

Transnational Evidence and Multicultural Inquiries in Europe
Developments in EU Legislation and New Challenges for Human Rights-Oriented Criminal Investigations in Cross-border Cases

This book deals with the gathering of evidence in cross-border investigations in Europe. The issue of obtaining evidence in and from European countries has been among the most debated issues of EU cross-border cooperation in criminal matters over the last two decades, going through periods of intensive discussions and showing an extraordinary adaptability to the evolution of EU legislation for criminal matters. On the other hand, the prosecution and investigations of cross-border cases pose unprecedented challenges in the European scenario, characterized by the increasing flow and activity of citizens over the territory of more than one country and therefore by the need to lay the[...]

Features
This book deals with the gathering of evidence in cross-border investigations in Europe. The issue of obtaining evidence in and from European countries has been among the most debated issues of EU cross-border cooperation in criminal matters over the last two decades, going through periods of intensive discussions and showing an extraordinary adaptability to the evolution of EU legislation for criminal[...]

Contents

Fields of interest
European Law; International Criminal Law

Target groups
Research

Type of publication
Contributed volume

More on [www.springer.com/978-3-319-02569-8](http://www.springer.com/978-3-319-02569-8)

Hardcover
$129.00
ISBN 978-3-319-02569-8
usually dispatched within 3 to 5 business days

T. Aftab, Leibniz Institute of Plant Genetics and, Gatersleben, Germany; J.F.S. Ferreira, United States Department of Agriculture, Riverside, USA; M.M.A. Khan, Aligarh Muslim University, Aligarh, India; M. Naeem, Aligarh Muslim University, Aligarh, India (Eds.)

Artemisia annua - Pharmacology and Biotechnology

Artemisinin, a sesquiterpene lactone originally extracted from the medicinal plant Artemisia annua L., is an effective antimalarial agent, particularly for multi-drug resistant and cerebral malaria. However, the concentration of artemisinin in the plant is very low. Because the chemical synthesis of artemisinin is complicated and not economically feasible in view of the poor yield of the drug, the intact plant remains the only viable source of artemisinin production. Therefore, it is necessary to increase the concentration of artemisinin in A. annua to reduce the cost of artemisinin based antimalarial drugs. Plant scientists have focused their efforts on A. annua for a higher[...]

Features
This book summarizes global research on the medicinal plant Artemisia annua and its component artemisinin, an antimalarial agent. It explores further artemisinin applications and future research possibilities. Artemisinin is an effective antimalarial agent, particularly for multi-drug-resistant and cerebral malaria. As the chemical synthesis of artemisinin is complicated and not economically[...]

Contents

Fields of interest
Plant Breeding / Biotechnology; Pharmacology / Toxicology; Plant Biochemistry

Target groups
Research

Type of publication
Contributed volume

More on [www.springer.com/978-3-642-41026-0](http://www.springer.com/978-3-642-41026-0)

Hardcover
2014, VI, 292 p. 50 illus., 21 illus. in color.
$189.00
ISBN 978-3-642-41026-0
usually dispatched within 3 to 5 business days

S. Ruggeri, University of Messina, Messina, Italy (Ed.)

Transnational Evidence and Multicultural Inquiries in Europe
Developments in EU Legislation and New Challenges for Human Rights-Oriented Criminal Investigations in Cross-border Cases

This book deals with the gathering of evidence in cross-border investigations in Europe. The issue of obtaining evidence in and from European countries has been among the most debated issues of EU cross-border cooperation in criminal matters over the last two decades, going through periods of intensive discussions and showing an extraordinary adaptability to the evolution of EU legislation for criminal matters. On the other hand, the prosecution and investigations of cross-border cases pose unprecedented challenges in the European scenario, characterized by the increasing flow and activity of citizens over the territory of more than one country and therefore by the need to lay the[...]
Physiological Mechanisms and Adaptation Strategies in Plants Under Changing Environment

Volume 2

Abiotic stress has a detrimental impact on the living organisms in a specific environment and constitutes a major constraint to global agricultural production. The adverse environmental conditions that plants encounter during their life cycle not only disturb their metabolic reactions, but also hamper their growth and development on cellular and whole plant levels. These conditions are of great concern, particularly for those countries whose economies primarily rely on agriculture. Under abiotic stresses, plants amalgamate multiple external stress cues to bring about a coordinated response and establish mechanisms to mitigate such stresses by triggering a cascade of events leading [...] 

Contents
Biochemical and Molecular Approaches for Drought Tolerance in Plants.- Heavy-Metal Attack on Freshwater Side: Physiological Defense Strategies of Macrophytes and Ecotoxicological Ops.- Secondary Metabolites and Environmental Stress in Plants: Biosynthesis, Regulation and Function.- Major Phytohormones under Abiotic Stress.- Nitric Oxide: Role in Plants under Abiotic Stress.- Brassinosteroids: Improving Crop Productivity and Abiotic Stress Tolerance.- Ethylene: Role in Plants under Environmental Stress.- Scenario of Climate Changes in the Context of Agriculture.- Importance of Protective [...] 

Fields of interest
Plant Sciences; Plant Physiology; Plant Breeding / Biotechnology; Plant Biochemistry; Cell Biology

Target groups
Research

Type of publication
Contributed volume


Hardcover
2014, XVI, 394 p. 28 illus., 13 illus. in color. $239.00 ISBN 978-1-4614-8599-5 usually dispatched within 3 to 5 business days

Fire Behavior and Fire Protection in Timber Buildings

This volume describes fire behavior and fire protection of timbers in outdoors and indoors application mainly in construction industry. The Authors’ novel approach considers the relationship between various species and age of timbers and its fire behavior at different thermal and fire loads. Quantitative data of ignition speed and flame propagation as well as generation of heat, smoke and toxic products are discussed. Analysis of fire resistance of various types of building materials based on timber of different species as well as the novel data on the effect of natural and accelerated aging of timbers on its fire behavior are discussed. The main practical methods of fire protection [...] 

Features
This volume describes the modern data on fire behavior and fire protection of timber in outdoors and indoors application mainly in construction industry. The book discusses the most important topics of that area of science and engineering such as: Specificity of structure and properties of different timber species; Pyrolysis and oxidative decomposition of timber; The ignition of timber; Heat [...] 

Contents
Introduction.- Part 1 Behavior of timber at high temperature heating and fire.- Chapter 1: Specificity of structure and properties of different timber species.- 1.1 Macro- and microstructure of deciduous and coniferous timber species.- 1.2 Biological and genetic aspects of timber species diversity.- 1.3 Density and moisture of timber species.- 1.4 Thermal and physical properties of timber species.- 1.5 Effect of heating on mechanical properties of timber.- Chapter 2: Pyrolysis and oxidative decomposition of timber.- 2.1 Mechanism and macrokinetics of pyrolysis of timber.- 2.2 [...] 

Fields of interest
Wood Science & Technology; Security Science and Technology; Materials Science (general); Building Materials

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40287-6

Hardcover
2014, XIX, 205 p. 80 illus., 8 illus. in color. $189.00 ISBN 978-3-642-40287-6 usually dispatched within 3 to 5 business days

The Physiology of Characean Cells

This book describes the unique characean experimental system, which provides a simplified model for many aspects of the physiology, transport and electrophysiology of higher plants. The first chapter offers a thorough grounding in the morphology, taxonomy and ecology of Characeae plants. Research on characean detached cells in steady state is summarised in Chapter 2, and Chapter 3 covers characean detached cells subjected to calibrated and mostly abiotic types of stress: touch, wounding, voltage clamp to depolarised and hyperpolarised potential difference levels, osmotic and saline stress. Chapter 4 highlights cytoplasmatic streaming, cell-to-cell transport, gravitropism, cell walls and [...] 

Features
This book describes the unique characean experimental system, which provides a simplified model for many aspects of the physiology, transport and electrophysiology of higher plants. The first chapter offers a thorough grounding in the morphology, taxonomy and ecology of Characeae plants. Research on characean detached cells in steady state is summarised in Chapter 2, and Chapter 3 covers characean detached [...] 

Contents

Fields of interest
Plant Physiology; Cell Biology; Biological Techniques; Biophysics and Biological Physics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40287-6

Hardcover
2014, XIX, 290 p. 85 illus. (Springer Series in Wood Science) $209.00 ISBN 978-3-642-40287-6 usually dispatched within 3 to 5 business days
Role of Proteases in Cellular Dysfunction

It is now well known that proteases are found everywhere, in viruses and bacteria as well as in all human, animal and plant cells, and play a role in a variety of biological functions ranging from digestion, fertilization, development to senescence and death. Under physiological conditions the ability of proteases is regulated by endogenous inhibitors. However, when the activity of proteases is not regulated appropriately, disease processes can result, as seen in Alzheimer’s disease, cancer metastasis and tumor progression, inflammation and atherosclerosis. Thus it is evident that there is an absolute need for a tighter control of proteolytic activities in different cells and...[

Features

It is now well known that proteases are found everywhere, in viruses and bacteria as well as in all human, animal and plant cells, and play a role in a variety of biological functions ranging from digestion, fertilization, development to senescence and death. Under physiological conditions the ability of proteases is regulated by endogenous inhibitors. However, when the activity of proteases is not...[

Contents


Fields of interest

Proteomics; Cell Physiology; Receptors; Cancer Research; Neurosciences; Biomedicine (general)

Target groups

Research

Type of publication

Contributed volume


Hardcover

2014. XI, 462 p. 58 illus., 46 illus. in color. (Advances in Biochemistry in Health and Disease, Vol. 8)

$239.00


usually dispatched within 3 to 5 business days

Proteases in Health and Disease

In view of rapidly growing research in the deregulation of proteases and their impact in human health and diseases, this book will highlight existing and emerging research in this exciting area. In-depth critical state-of-the-art reviews will be written by established investigators on proteases dysfunctions associated with pathogenesis of different diseases that are known to occur due to deregulation of proteolytic systems. Multidisciplinary approaches demonstrating biochemical and signal transduction mechanisms associated with deregulation of proteases leading to manifestation of the diseases will be discussed. The book highlights the roles of both intracellular and extracellular...[

Features

Proteases form one of the largest and most diverse families of enzymes known. Once considered primarily as “enzymes of digestion,” it is now clear that proteases are involved in every aspect of cellular function. Members of the diverse families of proteases act to promote cellular proteolysis found in nature, and their deregulation may result in different pathophysiological conditions, such as tumor...[

Contents


This book highlights the importance of phytochemicals and mitochondria in cancer prevention and therapy. Recent scientific discoveries have identified that naturally occurring biologically active compounds (i.e. phytochemicals) target multiple steps of tumorigenesis leading to the inhibition or delay in cancer progression. Mitochondria, organelles within a cell, are a critical target for phytochemicals in regulating the initiation, promotion, and progression of cancer. The book is divided into three parts to better communicate the important findings related to phytochemicals and mitochondria in cancer research. The first part describes updates on environmental and genetic factors...[

Features

Mitochondria as Targets for Phytochemicals in Cancer Prevention and Therapy

This book highlights the importance of phytochemicals and mitochondria in cancer prevention and therapy. Recent scientific discoveries have identified that naturally occurring biologically active compounds (i.e. phytochemicals) target multiple steps of tumorigenesis leading to the inhibition or delay in cancer progression. Mitochondria, organelles within a cell, are a critical target for phytochemicals in regulating the initiation, promotion, and progression of cancer. The book is divided into three parts to better communicate the important findings related to phytochemicals and mitochondria in cancer research. The first part describes updates on environmental and genetic factors...[

Contents

Mitochondria as Targets for Phytochemicals in Cancer Prevention and Therapy

This book highlights the importance of phytochemicals and mitochondria in cancer prevention and therapy. Recent scientific discoveries have identified that naturally occurring biologically active compounds (i.e. phytochemicals) target multiple steps of tumorigenesis leading to the inhibition or delay in cancer progression. Mitochondria, organelles within a cell, are a critical target for phytochemicals in regulating the initiation, promotion, and progression of cancer. The book is divided into three parts to better communicate the important findings related to phytochemicals and mitochondria in cancer research. The first part describes updates on environmental and genetic factors...[

Fields of interest

Biochemistry; Cell Biology; Cell Physiology; Proteomics

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-9325-9

Hardcover

2013. XI, 260 p. 24 illus., 15 illus. in color.

$189.00


usually dispatched within 3 to 5 business days
Maize: Nutrition Dynamics and Novel Uses

Maize is a globally important crop mainly utilized as feed, food and raw material for diverse industrial applications. Among cereals, it occupies third place after rice and wheat and is a staple food for a large segment of population worldwide, particularly in the Asian as well as African countries. This monograph discusses various aspects of nutritional quality of maize such as quality protein maize which has been considered as most significant discovery in enhancing nutritional quality of cereals in terms of increasing the concentration of essential amino acids. The biochemistry of starch which is an important industrial product of maize has been discussed in detail. Further, the role[...]

Features

Maize is a globally important crop mainly utilized as feed, food and raw material for diverse industrial applications. Among cereals, it occupies third place after rice and wheat and is a staple food for a large segment of population worldwide, particularly in the Asian as well as African countries. This monograph discusses various aspects of nutritional quality of maize such as quality protein maize which has[...]

Contents

Section A: Introductory chapter. - 1. Nutritive value of maize: Improvements, applications and constraints. - Section B: Protein quality of maize. - 2 Breeding challenges and perspectives in developing and promoting quality protein maize germplasm. - 3 Maize protein quality and its improvement: development of quality protein maize (QPM) in India. - 4 Molecular interventions for enhancing the protein quality of maize. - Section C: Nutritional quality of maize. - 5 Maize: Grain structure, composition, milling and starch characteristics. - 6 Oil improvement in maize: potential[...]

Fields of interest

Agriculture; Plant Biochemistry; Protein Science; Climate Change; Food Science

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-81-322-1622-3

Hardcover

2014, X, 161 p. 27 illus., 17 illus. in color. $189.00
usually dispatched within 3 to 5 business days

Microbial Phenazines

Biosynthesis, Agriculture and Health

Microbial Phenazines: Biosynthesis, Agriculture and Health focuses on phenazines, a group of upwards of a hundred nitrogen-containing redox-active heterocyclic compounds of bacterial origin that have long attracted scientific interest because of their colorful pigmentation. Our understanding of these fascinating natural products and their role in human health and the environment has advanced rapidly in recent years, but we are only now beginning to be able to exploit the potential of these compounds in such fields as agriculture and medicine. This volume includes information on the biochemistry and genetics of phenazine synthesis, the physiological effects of phenazines, and methods[...]

Features

Microbial Phenazines: Biosynthesis, Agriculture and Health focuses on phenazines, a group of upwards of a hundred nitrogen-containing redox-active heterocyclic compounds of bacterial origin that have long attracted scientific interest because of their colorful pigmentation. Our understanding of these fascinating natural products and their role in human health and the environment has advanced rapidly[...]

Contents

The Biosynthesis of Phenazines. - Regulation of Phenazine Biosynthesis. - The Yin and Yang of Phenazine Physiology. - Phenazines and Bacterial Biofilms. - Fermentative production of bacterial phenazines. - Methods for Purification and Characterization of Microbial Phenazines. - Roles and Regulation of Phenazines in the Biological Control of Strain Pseudomonas chlororaphis 30-84. - Role of Phenazine-1-carboxamide Produced by Pseudomonas chlororaphis PCL1391 in the Control of Tomato Foot and Root Rot. - Genomic Features and Regulation of Phenazine Biosynthesis in the Rhizosphere Strain Pseudomonas[...]

Fields of interest

Microbiology; Biochemistry; Plant Pathology; Pharmacology / Toxicology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-40572-3

Hardcover

2013, VIII, 248 p. 129 illus., 20 illus. in color. $189.00
ISBN 978-3-642-40572-3
usually dispatched within 3 to 5 business days

Agroforestry Systems in India: Livelihood Security & Ecosystem Services

Agroforestry, the word coined in early seventies, has made its place in all the developed and the developing countries of the world and is now recognized as an important approach to ensuring food security and rebuilder resilient rural environments. India has been an all-time leader in agroforestry. The South and Southeast Asia region comprising India is often described as the cradle of agroforestry. Almost all forms of agroforestry systems exist across India in ecozones ranging from humid tropical lowlands to high-altitude and temperate biomes, and perhumid rainforest zones to parched drylands. The country ranks foremost among the community of nations not only in terms of this[...]

Features

Agroforestry, the word coined in early seventies, has made its place in all the developed and the developing countries of the world and is now recognized as an important approach to ensuring food security and rebuilder resilient rural environments. India has been an all-time leader in agroforestry. The South and Southeast Asia region comprising India is often described as the cradle of agroforestry. Almost[...]

Contents

1. Introduction. - 2. Soil conservation and ecosystems stability: Natural resource management through agroforestry in the northwestern Himalayan region. - 3. From shifting cultivation to integrating farming and rebuilding rural environments: Experience of agroforestry development in the northeastern Himalayan region. - 4. Agroforestry inroads into the traditional two-crop system heartlands of the Indo-Gangetic plains. - 5. Agroforestry systems for building resilient rural environments. India has been an all-time leader in agroforestry. The South and Southeast Asia region comprising India is often described as the cradle of agroforestry. Almost[...]

Fields of interest

Life Sciences (general); Environment (general); Social Sciences (general); Geography (general); Earth Sciences (general)

Target groups

Research

Type of publication

Contributed volume


Hardcover

2014, X, 400 p. 66 illus., 55 illus. in color. (Advances in Agroforestry, Vol. 10) $209.00
usually dispatched within 3 to 5 business days
Plant Metabolic Flux Analysis

Methods and Protocols

In Plant Metabolic Flux Analysis, expert researchers in the field provide detailed experimental procedures for each step of the flux quantification workflow. Steady state and dynamic modeling are considered, as well as recent developments for the reconstruction of metabolic networks and for a predictive modeling. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls. Authoritative and practical Plant Metabolic Flux Analysis, seeks to aid [...] Features

In Plant Metabolic Flux Analysis, expert researchers in the field provide detailed experimental procedures for each step of the flux quantification workflow. Steady state and dynamic modeling are considered, as well as recent developments for the reconstruction of metabolic networks and for a predictive modeling. Written in the highly successful Methods in Molecular Biology series format, [...] Contents

Application of Metabolic Flux Analysis to Plants.- Metabolic Network Reconstruction and Their Topological Analysis.- 14C pulse Labeling to Estimate External Fluxes and Turnovers in Primary Metabolism.- Optimization of Steady-state 13C-labeling Experiments for Metabolic Flux Analysis.- Quantification of 13C Enrichments and Isotopomer Abundances for Metabolic Flux analysis using 1D NMR Spectroscopy.- Analysis of Proteinogenic Amino Acid and Starch Labeling by 2D NMR.- Analysis of Kinetic Labeling of Amino Acids and Organic Acids by GC-MS.- Quantifying 13C-labeling in Free Sugars and [...] Fields of interest

Plant Sciences; Plant Biochemistry; Metabolomics

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-62703-687-0

Hardcover

2014, XI, 365 p. 75 illus., 31 illus. in color. (Methods in Molecular Biology, Vol. 1090)

$139.00

ISBN 978-1-62703-687-0

usually dispatched within 3 to 5 business days

Challenges and Opportunities for the World’s Forests in the 21st Century

This book addresses the challenges and opportunities faced by the world’s forests posed by climate change, conservation objectives, and sustainable development needs including bioenergy, outlining the research and other efforts that are needed to understand these issues, along with the options and difficulties for dealing with them. It contains sections on sustainable forestry & conservation; forest resources worldwide; forests, forestry and climate change; the economics of forestry; tree breeding & commercial forestry; biotechnological approaches; genomic studies with forest trees; bio-energy, lignin & wood; and forest science, including ecological studies. The chapters are [...] Features

This book addresses the urgent and complex threats and challenges to the world’s forests posed by the four great problems of the age: climate change, conservation objectives and sustainable development needs, and the growing demand for affordable energy. The intention is to outline the research and other efforts that are needed to understand how these issues will affect the world’s forests along with the [...] Contents


Forestry; Climate Change; Conservation Biology / Ecology; Plant Ecology; Nature Conservation; Applied Ecology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7749-1

Hardcover

2013, XXII, 656 p. 80 illus., 42 illus. in color. (Invading Nature - Springer Series in Invasion Ecology, Vol. 7)

$229.00

ISBN 978-94-007-7749-1

usually dispatched within 3 to 5 business days

Plant Invasions in Protected Areas

Patterns, Problems and Challenges

This book is the first comprehensive global review of all aspects of alien plant invasions in protected areas. It provides insights into advances in invasion ecology emanating from work in protected areas, and the link to locally relevant management support for protected areas. The book provides in-depth case studies, illuminating interesting and insightful knowledge that can be shared across the global protected area network. The book includes the collective understanding of 80 ecologists and managers to extract as much information as possible that will support the long-term management of protected areas, and the biodiversity and associated ecosystem services they maintain. “This [...] Features

This book is the first comprehensive global review of all aspects of alien plant invasions in protected areas. It provides insights into advances in invasion ecology emanating from work in protected areas, and the link to locally relevant management support for protected areas. The book provides in-depth case studies, illuminating interesting and insightful knowledge that can be shared across the global [...] Contents

Part I Setting the Scene: Impacts, Processes and Opportunities.- Part II Regional Patterns: Mapping the Threats from Plant Invasions in Protected Areas.- Part III Managing Invasions in Protected Areas: from Prevention to Restoration.- Part IV Conclusion.

Fields of interest

Biodiversity; Conservation Biology / Ecology; Plant Ecology; Nature Conservation; Applied Ecology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7749-1

Hardcover

2013, XXII, 656 p. 80 illus., 42 illus. in color. (Invading Nature - Springer Series in Invasion Ecology, Vol. 7)

$229.00

ISBN 978-94-007-7749-1

usually dispatched within 3 to 5 business days
50 Years of Phytochemistry Research
Volume 43

This 43rd volume of RAP includes a total of seven articles based on talks presented at the 50th Anniversary meeting of the PSNA, which was held at the Fairmont Orchid, in Waikoloa, Hawai‘i, USA. These seven Perspectives give a very good picture of the breadth of plant (bio)chemistry research in North America, and these Perspectives give a very good picture of the breadth of plant (bio)chemistry research in North America, and each of these articles describes the integration of several different approaches to ask and then answer interesting questions regarding the function of interesting plant metabolites, either in the plant itself or in interactions with the environment (natural setting or human health application). Two Perspectives[

Features

The Phytochemical Society of North America (PSNA) is a nonprofit scientific organization with membership open to those interested in plant biochemistry, phytochemistry, and the role of plant substances in related disciplines. The PSNA exists to encourage and stimulate research in the chemistry and biochemistry of plant constituents, their effects upon plant and animal physiology and pathology, and their [...] Features

Plant stresses are serious threats to the sustainability of crop yields accounting for more crop productivity losses than any other factor in rainfed agriculture. Post-harvest losses mean surplus crops do not reach market, affecting the livelihoods of farming families, and too often these families are left with no other option than to eat contaminated stored food. These constraints impact the food security of these farming families as well as the communities and countries in which they live. This book is the demonstration of a clear synergistic effect of stresses, an effect that was unexpectedly as important as either stress applied alone. This book will add to our current knowledge [...] Features

Plant stresses are serious threats to the sustainability of crop yields accounting for more crop productivity losses than any other factor in rainfed agriculture. Post-harvest losses mean surplus crops do not reach market, affecting the livelihoods of farming families, and too often these families are left with no other option than to eat contaminated stored food. These constraints impact the food security of [...] Contents


Fields of interest

Plant Sciences; Agriculture; Popular Science; Science (general); Biotechnology; Biodiversity Target groups

Research Type of publication

Contributed volume More on www.springer.com/978-3-319-00580-5

Hardcover

2013. XIII, 159 p. 47 illus., 17 illus. in color. (Recent Advances in Phytochemistry, Vol. 43) $189.00 ISBN 978-3-319-00580-5 usually dispatched within 3 to 5 business days

Approaches to Plant Stress and their Management

Plant stresses are serious threats to the sustainability of crop yields accounting for more crop productivity losses than any other factor in rainfed agriculture. Post-harvest losses mean surplus crops do not reach market, affecting the livelihoods of farming families, and too often these families are left with no other option than to eat contaminated stored food. These constraints impact the food security of these farming families as well as the communities and countries in which they live. This book is the demonstration of a clear synergistic effect of stresses, an effect that was unexpectedly as important as either stress applied alone. This book will add to our current knowledge [...] Contents


Fields of interest

Plant Sciences; Agriculture; Popular Science; Science (general); Biotechnology; Biodiversity Target groups

Research Type of publication

Contributed volume More on www.springer.com/978-3-319-00580-5

Hardcover

2013. XIII, 159 p. 47 illus., 17 illus. in color. (Recent Advances in Phytochemistry, Vol. 43) $189.00 ISBN 978-3-319-00580-5 usually dispatched within 3 to 5 business days

High Altitude Primates

The basic goal of the volume is to compile the most up to date research on how high altitude affects the behavior, ecology, evolution and conservation status of primates, especially in comparison to lowland populations. Historically, the majority of primate studies have focused on lowland populations. However, as the lowlands have been disappearing, more and more primatologists have begun studying populations located in higher altitudes. High altitude populations are important not only because of their uniqueness, but also because they highlight the range of primate adaptability and the complex variables that are involved in primate evolution. These populations are good examples [...] Features

Primates are remarkably adaptable animals that have gone through multiple radiations across a wide range of habitats. Habitats found at high altitudes provide particular challenges for resident primate populations. Landscapes at high altitudes tend to be less productive than neighboring areas at lower elevations, and also present changes in the structure of flora and fauna, species diversity, and [...] Contents


Fields of interest

Conservation Biology / Ecology; Evolutionary Biology; Animal Ecology; Zoology Target groups

Graduate Type of publication

Contributed volume More on www.springer.com/978-1-4614-8174-4

Hardcover

2014. XXI, 360 p. 61 illus. (Developments in Primatology: Progress and Prospects, Vol. 44) $179.00 ISBN 978-1-4614-8174-4 usually dispatched within 3 to 5 business days
The Hard Ticks of the World

(Acari: Ixodida: Ixodidae)

This book has been designed to summarize current, essential information for every one of the world’s 700+ hard tick species. Under each species name, we will cite the original description, followed by information on type depositories, known stages, distribution (by zoogeographic region and ecoregion), hosts, and human infestation (if any). Each species account will also include a list of salient references and, where necessary, remarks on systematic status. We envision eight chapters: six devoted to the major ixodid tick genera (Amblyomma, Dermacentor, Haemaphysalis, Hyalomma, Ixodes, Rhipicephalus), one covering eight minor genera (including two that are fossil), and a concluding[...]

Features
Hard ticks (family Ixodidae) are obligately blood-feeding ectoparasites of all classes of vertebrates except fishes. They occur worldwide and are preeminent among hematophagous arthropods for the variety of infectious agents that they transmit to humans and other animals. Because hard ticks have long been a focus of medical and veterinary research, the literature on this group is both voluminous and[...]

Contents

Fields of interest
Entomology; Invertebrates; Animal Systematics / Taxonomy / Biogeography; Parasitology; Animal Ecology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-7496-4

Hardcover
2014. XIII, 738 p. 2 illus. in color. $279.00
ISBN 978-94-007-7496-4 usually dispatched within 3 to 5 business days

Legumes in the Omic Era

Legumes in the Omic Era provides a timely review of recent advances in legume genomics research and application. In this post-genomic era enormous amounts of biological information is available that could be of huge potential use for crop improvement applications. This aspect of genomics assisted plant breeding is focused throughout the book for all the important grain legume crops. Role of functional genomics and importance of bioinformatics tools in present day genomics and molecular breeding research is also discussed in detail. Use of molecular tools for nutritional fortification of grain legume is briefly presented. A chapter also been contributed on fungal disease resistance to[...]

Features
Legumes in the Omic Era provides a timely review of recent advances in legume genomics research and application. In this post-genomic era, enormous amounts of biological information is available that could be of huge potential use for crop improvement applications. This aspect of genomics assisted plant breeding is focused throughout the book for all the important grain legume crops. [...]
**Tumor Dormancy, Quiescence, and Senescence, Volume 2**

Aging, Cancer, and Noncancer Pathologies

In this second volume in the series exploring Tumor Dormancy, Quiescence, and Cellular Senescence, discussion is focused on the role of tumor dormancy in diseases such as breast cancer, melanoma, prostate cancer, liver cancer and lung cancer. M. A. Hayat, the series editor, writes in the preface that little is known of factors regulating the transition of residual cancer into a dormant state or the subsequent reinitiation of growth. A majority of us, he says, have in situ tumors that may remain dormant or may progress into a lethal form of cancer; the former are prevented from recruiting their own blood supply. Section I covers Molecular Mechanisms, with chapters on the role of NAE[...]

**Contents**

Preface. I Molecular Mechanisms.- Asymmetric Dimethylarginine Accelerates Cellular Senescence.- Membrane-Derived Extracellular Vesicles from Endothelial Progenitor Cells Activate Angiogenesis.- Induction of P21-Dependent Senescence: Role of NAE Inhibitor MLN4924.- Regulation of the Novel Senescence Pathway by SKP2 E3 Ligase.- Oncogene-Induced Senescence: Role of Mitochondrial Dysfunction.- Interleukin-6 induces Premature Senescence Involving Signal Transducer and Activator of Transcription 3 and Insulin-Like Growth Factor-Binding Protein 5.- A Role for the Nuclear Lamina Shape in Cell[...]

**Fields of interest**

Life Sciences (general); Biomedicine (general); Medicine (general)

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

More on [www.springer.com/978-94-007-7725-5](http://www.springer.com/978-94-007-7725-5)

**Hardcover**

2014. XXVII, 320 p. 49 illus., 33 illus. in color. (Tumor Dormancy and Cellular Quiescence and Senescence, Vol. 2)

$209.00


usually dispatched within 3 to 5 business days

---

**Plant Chemical Genomics**

Methods and Protocols

Plant Chemical Genomics: Methods and Protocols, expert researchers in the field detail many of the techniques used for identification of bioactive compounds from a large selection of fields in plant biology including plant pathogenesis, immune responses, small RNA processing, endomembrane trafficking, lipids, plant hormone signaling and cell wall. The presentation of these and other examples as well as synthetic chemistry, computation and target identification provides a comprehensive overview of the practical aspects of chemical biology that are possible in plant systems. Small molecules and natural products that produce a phenotype in plants have been known for decades. The[...]

**Contents**


**Fields of interest**

Plant Sciences; Plant Genetics and Genomics

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume


**Hardcover**

2014. VIII, 227 p. 2 illus. in color.

$189.00

ISBN 978-1-4614-9061-6

usually dispatched within 3 to 5 business days

---

**Regenerative Medicine Ethics**

Governing Research and Knowledge Practices

This book puts the ethics, policy and politics of stem cells into context in a way that helps readers understand why past and current issues have developed the way they have and what the implications are for their work going forward. It also addresses emerging issues as the field progresses towards clinical and industrial uses. While there is a superabundance of material on the ethics of embryo use and questions of embryonic “personhood,” there is little that covers what practicing scientists and managers need to know in order to plan and execute responsible research. Furthermore, researchers funded by the NIH are required to have ethics training as a condition of the grant. As such[...]

**Contents**

Part I: Foresight, hindsight and peripheral vision: Navigating contemporary legal, ethical and Policy issues in Regenerative Medicine.- Contemporary dilemmas facing regenerative medicine researchers: an overview.- Characterizing International Stem Cell Research Niches.- Policies and practices to enhance multi-sectorial collaborations and commercialization of regenerative medicine.- The Patenting Landscape for Human Embryonic Stem Cells.- Repositories for Sharing Human Data in Stem Cell Research.- PART II: Research Integrity: Updates for Regenerative Medicine Researchers.- Beyond the[...]

**Fields of interest**

Regenerative Medicine/Tissue Engineering; Theory of Medicine / Bioethics; Stem Cells

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume


**Hardcover**

2014. VIII, 227 p. 2 illus. in color.

$189.00

ISBN 978-1-4614-9061-6

usually dispatched within 3 to 5 business days
Comparative Medicine

Anatomy and Physiology

This new volume provides a concise overview of the most basic and exciting chapters of comparative medicine with regards to physiology and function in healthy individuals. The book includes core concepts in anatomy and physiology of human and animal models, which are key to understanding comparative medicine and to making contributions to research in this area. While writing this book, the authors were in constant interdisciplinary dialogue. They aim to contribute to improvements in quality of life for human and animal patients.

Features

This new volume provides a concise overview of the most basic and exciting chapters of comparative medicine with regards to physiology and function in healthy individuals. The book includes core concepts in anatomy and physiology of human and animal models, which are key to understanding comparative medicine and to making contributions to research in this area. While writing this book, the authors were in constant interdisciplinary dialogue. They aim to contribute to improvements in quality of life for human and animal patients.

Contents

Introduction.- Cell development.- Skeleton and bones/human.- Skeleton and bones, veterinary aspects.- Anatomy and physiology of muscles.- Physiology of heart and circulation.- Human gastrointestinal tract.- GI tract, veterinary aspects.- Human lung function and respiration.- Lung and respiration, veterinary aspects.- Human kidney function and volume regulation.- Kidney function and volume regulation, veterinary aspects.- The human endocrine system.- Endocrine system, veterinary aspects.- Human nervous system and brain, veterinary aspects.- Human skin and [...]
Long Island Sound

Prospects for the Urban Sea

The U.S. Ocean Commission Report identified the need for regional ecosystem assessments to support coastal and ocean management. These assessments must provide greater understanding of physical and biological dynamics than assessments at global and national scales can provide but transcend state and local interests. This need and timeliness is apparent for Long Island Sound, where a multi-state regional restoration program is underway for America’s most urbanized estuary. Synthesis of the Long Island Sound ecosystem is needed to integrate knowledge across disciplines and provide insight into understanding and managing pressing issues, such as non-point sources of pollution, coastal[...]

Features
Long Island Sound: Prospects for the Urban Sea is the first synthesis of the science of Long Island Sound in more than thirty-five years. Described by Daniel Webster as the American Mediterranean, Sound in more than thirty-five years. Described by Daniel Webster as the American Mediterranean,four centuries of human habitation, use, and abuse have created a trajectory of change being duplicated in estuaries throughout the country. Now subject to coordinated restoration efforts, the fate of Long Island[...]

Contents

Fields of interest
Freshwater & Marine Ecology; Hydrology / Water Resources; Marine & Freshwater Sciences; Ecosystems; Environmental Management; Conservation Biology / Ecology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-6125-8

Hardcover
2014. XXV, 558 p. 182 illus., 112 illus. in color. With 14-page color insert. (Springer Series on Environmental Management)
$279.00
ISBN 978-1-4614-6125-8
usually dispatched within 3 to 5 business days

Edible Medicinal And Non-Medicinal Plants

Volume 7, Flowers

This book continues as volume 7 of a multi-compendium on Edible Medicinal and Non-Medicinal Plants. It covers plant species with edible flowers from families Acanthaceae to Facaceae in a tabular form and seventy five selected species from Amarylidaeae, Apocynaceae, Asclepiadaceae, Asparagaceae, Asteraceae, Balsaminaceae, Begoniaceae, Bignoniaceae, Brassicaceae, Cactaceae, Caryophyllaceae, Combretaceae, Convolvulaceae, Costaceae, Doryanthaceae and Fabaceae in detail. This work will be of significant interest to scientists, medical practitioners, pharmacologists, ethnobotanists, horticulturists, food nutritionists, botanists, agriculturists, [...]
Endosymbiosis

The origin of energy-conserving organelles, the mitochondria of all aerobic eukaryotes and the plastids of plants and algae, is commonly thought to be the result of endosymbiosis, where a primitive eukaryote engulfed a respiring α-proteobacterium or a phototrophic cyanobacterium, respectively. While present-day heterotrophic protists can serve as a model for the host in plastid endosymbiosis, the situation is more difficult with regard to (the preceding) mitochondrial origin: Two chapters describe these processes and theories and inherent controversies. However, the emphasis is placed on the evolution of phototrophic eukaryotes: Here, intermediate stages can be studied and the[...]

Contents

The heterotrophic eukaryotes. - Autotrophy as the driving force for endosymbiosis: Primary endosymbiosis. - Recent “primary” endosymbioses. - Autotrophy as the driving force for endosymbiosis: Secondary and tertiary endosymbioses.

Fields of interest

Evolutionary Biology; Plant Sciences; Plant Biochemistry

Target groups

Graduate

Type of publication

Contributed volume

More on www.springer.com/978-3-7091-1302-8

Hardcover

2014, XI, 330 p. 43 illus., 32 illus. in color.
$209.00
ISBN 978-3-7091-1302-8
usually dispatched within 3 to 5 business days

The Grape Entomology

Intensive and extensive cultivation of grapes (Vitis vinifera L.) leads to serious pest problem in vineyards in major grape growing areas of the world. Climatic conditions in India are favorable for high production of table and wine grapes, and thus also for incidence of variety of pests. These include the sucking insect pests namely thrips, hoppers, mealy-bugs etc., and beetle pests like stem borer, stem girdler, flea beetles, chaffer beetles, shot hole borer and several lepidopteron, mites, nematodes and vertebrate pests. Pests of grapes in other countries relevant to Indian conditions are also dealt herewith since they may get introduced in India in future. Up to date information on[...]

Features

The origin of energy-conserving organelles, the mitochondria of all aerobic eukaryotes and the plastids of plants and algae, is commonly thought to be the result of endosymbiosis, where a primitive eukaryote engulfed a respiring α-proteobacterium or a phototrophic cyanobacterium, respectively. While present-day heterotrophic protists can serve as a model for the host in plastid[...]

Contents


Fields of interest

Agriculture; Entomology; Plant Ecology

Target groups

Research

Type of publication

Monograph


Hardcover

2014, XXII, 202 p. 115 illus., 113 illus. in color.
$189.00
Due: January 28, 2014

Plants and BioEnergy

A country’s vision for developing renewable and sustainable energy resources is typically propelled by three important drivers – security, cost, and environmental impact. The U.S. currently accounts for a quarter of the world’s total oil consumption, with domestic demands necessitating – at an ever growing cost – a net import of more than 50% of the oil used in this country. At the same time, Brazil, because of its forward thinking on energy strategy, is today energy independent. As emerging economies around the world increase their petroleum use by large margins and as large fractions of that new consumption are necessarily supplied from unstable parts of the world, the inevitable[...]

Features

A country’s vision for developing renewable and sustainable energy resources is typically propelled by three important drivers – security, cost, and environmental impact. The U.S. currently accounts for a quarter of the world’s total oil consumption, with domestic demands necessitating – at an ever growing cost – a net import of more than 50% of the oil used in this country. At the same time, Brazil, because[...]

Contents


Fields of interest

Plant Sciences; Plant Biochemistry; Plant Genetics and Genomics

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-9328-0

Hardcover

2014, X, 289 p. 57 illus., 45 illus. in color. (Advances in Plant Biology, Vol. 4)
$209.00
ISBN 978-1-4614-9328-0
usually dispatched within 3 to 5 business days
Peptide Nucleic Acids

Methods and Protocols

Exemplifying and illustrating recent exciting advances in PNA chemistry, the second edition of Peptide Nucleic Acids: Methods and Protocols serves as a vital complement to the first edition of the book. Since the discovery of peptide nucleic acids, many interesting new derivatives and analogues in terms of nucleic acid recognition specificity and affinity have emerged. Also, as this detailed volume presents, great ingenuity in exploiting the unique properties of PNAs for a wide variety of applications within drug discovery, medical diagnostics, chemical biology and nanotechnology has unfolded. Written in the highly successful Methods in Molecular Biology series format, chapters [...] features

Contents

- MiniPEG-gPNA
- Cyclopentane Peptide Nucleic Acids
- Chiral PNAs with Constrained Open-chain Backbones
- Synthesis, Characterization and Evaluation of Radiometal-Containing Peptide Nucleic Acids
- Preparation of Metal-Containing Peptide Nucleic Acid Bioconjugates on the Solid Phase
- Formation and Characterization of PNA-Containing Heteroquadruplexes
- Sequence Selective Recognition of Double Stranded RNA using Triple Helix-forming Peptide Nucleic Acids
- Assembly of PNA-tagged Small Molecules, Peptides and Carbohydrates onto DNA Templates: Programming the Combinatorial Pairing and [...] features

Fields of interest

Biochemistry; Nucleic Acid Chemistry

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-62703-552-1

Hardcover

2014, X, 239 p. 60 illus., 21 illus. in color. (Methods in Molecular Biology, Vol. 1050)

$119.00

ISBN 978-1-62703-552-1

usually dispatched within 3 to 5 business days

Forest Soils

Properties and Management

Forest soil characteristics are not only unique but their interpretation also differs from cropland soils. Just as there are diverse forest types, there are many soil variants that need different management. Today, forest plantations are being intensively managed for profitable timber, pulpwod and energy production. Site selection, species selection, site productivity evaluation, silvicultural treatments, and soil amendments need crucial soil information. This book provides a comprehensive overview of the physical, chemical and biological properties of forest soils and their implications on forest vegetation. Topics discussed include: major forest types of the world and their [...] features

Contents

- Rocks, Minerals and Soils
- Physical Properties of Forest Soils
- Chemical Properties of Forest Soils
- Organic Matter of Forest Soils
- Nutrient Dynamics in Forest Soil
- Forest Types and Their Associated Soils
- Forest Disturbances and Soil Degradation
- Forest Soil and Climate Change
- Objectives of Forest Soil Management
- Index

Fields of interest

Forestry; Soil Science & Conservation; Earth Sciences (general); Forestry Management; Environmental Management

Target groups

Lower undergraduate

Type of publication

Monograph

More on www.springer.com/978-3-319-02540-7

Hardcover

2013, XI, 217 p. 86 illus., 66 illus. in color.

$189.00

ISBN 978-3-319-02540-7

usually dispatched within 3 to 5 business days

Plant Life of the Dolomites

Vegetation Structure and Ecology

The landscape and vegetation of the Dolomites have characteristics that are very particular. Some 2300 species live here, about a fifth of the flora in Europe as a whole. This book depicts what the plant cover of the Dolomites is composed of, how it was formed, and what future evolution may bring. The data presented is based on the authors’ combined botanical research, which consists of thousands of surveys throughout the entire region of the Dolomites. To explain the vegetation, 106 plant communities are described in detailed datasheets. Biological, geological, climatic and physical-chemical parameters are given for each plant community, including a description of the habitat, the [...] features

Contents

- The Human Habitat
- Natural Forests and Meadows on the Valley Floor and in the Montane Habitat
- The Subalpine Habitat
- The Coniferous Forest Belt
- Alpine Vegetation on Granite, Porphyry, and Volcanic Rock
- The Ascent toward the Cliffs
- The Screes
- Alpine Vegetation on Dolomite and Limestone
- Synthesis, Data Interpretation and Statistical Calculations
- Conclusions

Fields of interest

Plant Ecology; Plant Systematics / Taxonomy / Biogeography; Plant Physiology; Terrestrial Ecology; Biogeosciences

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-31042-3

Hardcover

2014, XI, 276 p. 503 illus., 487 illus. in color.

$209.00

ISBN 978-3-642-31042-3

Due: January 20, 2014
Terricolous Lichens in India

Volume 2: Morphotaxonomic Studies

Terricolous lichens, a habitat specialist group of lichens play a vital role in maintenance and ecological stability of soil crusts with reference to their physical stability, hydrology and growth of soil microflora. Terricolous Lichens in India, Volume 2: Morphotaxonomic Studies is the first lichenological study of this functional group. Based upon extensive field collections and the investigation of approximately 4,500 specimens preserved in various national and international herbariums, Terricolous Lichens in India: Volume 2: Morphotaxonomic Studies focuses on the morphotaxonomy of terricolous lichens in India. Divided into two chapters, the first chapter describes the basics of [...]
Bioenergy from Wood
Sustainable Production in the Tropics
Th. Seifert (Ed.)

This book is written for scientists and practitioners interested in deepening their knowledge of the sustainable production of bioenergy from wood in tropical and sub-tropical countries. Utilising the value chain concept, this book outlines the necessary aspects for managing sustainable bioenergy production. A wide range of topics is covered including biomass localization, modelling and upscaling, production management in woodlands and plantations, and transport and logistics. Biomass quality and conversion pathways are examined in order to match the conversion technology with the available biomass. A section is dedicated to issues surrounding sustainability. The issues, covered in a [...] Features

This book is written for scientists and practitioners interested in deepening their knowledge of the sustainable production of bioenergy from wood in tropical and sub-tropical countries. Utilising the value chain concept, this book outlines the necessary aspects for managing sustainable bioenergy production. A wide range of topics is covered including biomass localization, modelling and upscaling. [...] Contents


Biochemistry; Renewable and Green Energy; Energy Technology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7447-6

Hardcover

2013. XIV, 424 p. 107 illus., 59 illus. in color. (Managing Forest Ecosystems, Vol. 26)

$189.00
ISBN 978-94-007-7447-6
usually dispatched within 3 to 5 business days
# Cell Death

**Mechanism and Disease**

Beginning from centuries of anecdotal descriptions of cell death, such as those on the development of the midwife toad in 1842 by Carl Vogt, to modern-day investigations of cell death as a biological discipline, it has become accepted that cell death in multicellular organisms is a normal part of life. This book provides a comprehensive view of cell death, from its mechanisms of initiation and execution to its implications in human disease and therapy. Physiological cell death plays critical roles in almost all aspects of biology, and the book details its roles in lymphocyte homeostasis, neuronal function, metabolism, and the DNA damage response. When physiological cell death goes [...] 

### Features

Beginning from centuries of anecdotal descriptions of cell death, such as those on the development of the midwife toad in 1842 by Carl Vogt, to modern-day investigations of cell death as a biological discipline, it has become accepted that cell death in multicellular organisms is a normal part of life. This book provides a comprehensive view of cell death, from its mechanisms of initiation and execution, to [...] 

### Contents

1. Historical Perspective – the Seven Ages of Cell Death Research.
2. The Intrinsic Apoptotic Pathway.
4. Bcl-2 family and their therapeutic potential.
5. IAP proteins and their therapeutic potential.
7. The DNA damage response mediates apoptosis and tumor suppression.
9. The Complex Interaction Between Metabolism and Apoptosis.
11. Structural [...] 

### Fields of interest

- Cell Biology
- Cell Physiology
- Receptors
- Apoptosis
- Biomedicine (general)

### Target groups

Research

### Type of publication

Contributed volume


### Hardcover

2014, XII, 272 p. 46 illus., 42 illus. in color.

$209.00


usually dispatched within 3 to 5 business days

---

# Primates and Cetaceans

**Field Research and Conservation of Complex Mammalian Societies**

In this book, the editors present a view of the sociology of primates and cetaceans in a comparative perspective to elucidate the social evolution of highly intelligent mammals in terrestrial and aquatic environments. Despite obvious differences in morphology and eco-physiology, there are many cases of comparable, sometimes strikingly similar patterns of socio-behavioral complexity. A number of long-term field studies have accumulated a substantial amount of data on the life history of various taxa, foraging ecology, social and sexual relationships, demography, and various patterns of behavior: from dynamic fusion-fusion to long-term stable societies; from male-bonded to [...] 

### Features

In this book, the editors present a view of the sociology of primates and cetaceans in a comparative perspective to elucidate the social evolution of highly intelligent mammals in terrestrial and aquatic environments. Despite obvious differences in morphology and eco-physiology, there are many cases of comparable, sometimes strikingly similar patterns of socio-behavioral complexity. A number of long-term [...] 

### Contents

1. How ecological conditions affect the abundance and social organization of carnivorous monkeys.
2. Dusky dolphins: Flexibility in foraging and social strategies.
5. Japanese macaques: Habitat-driven divergence in social dynamics.
7. Female [...] 

### Fields of interest

- Zoology
- Behavioural Sciences
- Animal Ecology
- Evolutionary Biology

### Target groups

Research

### Type of publication

Monograph

More on [www.springer.com/978-4-431-54522-4](http://www.springer.com/978-4-431-54522-4)

### Hardcover

2014, XIV, 439 p. 78 illus., 47 illus. in color.

$189.00

ISBN 978-4-431-54522-4

usually dispatched within 3 to 5 business days

---

# Wild Salmonids in the Urbanizing Pacific Northwest

**Wild salmon, trout, char, grayling, and whitefish (collectively salmonids) have been a significant local food and cultural resource for Pacific Northwest peoples for millennia. The location, size, and distribution of urban areas along streams, rivers, estuaries, and coasts have directly and indirectly altered and degraded wild salmonid populations and their habitats. Although urban and exurban areas typically cover a smaller fraction of the landscape than other land uses combined, they have profound consequences for local ecosystems, aquatic and terrestrial populations, and water quality and quantity.**

### Features

Wild salmon, trout, char, grayling, and whitefish (collectively salmonids) have been a significant local food and cultural resource for Pacific Northwest peoples for millennia. The location, size, and distribution of urban areas along streams, rivers, estuaries, and coasts have directly and indirectly altered and degraded wild salmonid populations and their habitats. Although urban and exurban areas [...] 

### Contents

Chapter 1. Introduction to Wild Salmonids in the Urbanizing Pacific Northwest (Yeakley).
Chapter 2. Global and Regional Context of Salmonids and Urban Areas (Yeakley, Hughes).
Chapter 3. Regulatory and Planning Approaches to Protecting Salmonids in Urbanizing Environments (Molina).
Chapter 4. Socio-Ecological Context of Salmonids in the City (Shandas).
Chapter 5. Urban Hydrology in the Pacific Northwest (Yeakley).
Chapter 6. Urbanization Impacts on Pacific Northwest Aquatic and Riparian Habitats (Maas-Hebner, Danham).
Chapter 7. Fish Passage through Urban and Rural-Residential [...] 

### Fields of interest

- Fish & Wildlife Biology & Management
- Freshwater & Marine Ecology
- Conservation Biology / Ecology
- Urban Ecology

### Target groups

Research

### Type of publication

Contributed volume

More on [www.springer.com/978-1-4614-8817-0](http://www.springer.com/978-1-4614-8817-0)

### Hardcover

2014, VIII, 271 p. 55 illus., 45 illus. in color.

$189.00

ISBN 978-1-4614-8817-0

usually dispatched within 3 to 5 business days
Automation: The Future of Weed Control in Cropping Systems

Technology is rapidly advancing in all areas of society, including agriculture. In both conventional and organic systems, there is a need to apply technology beyond our current approach to improve the efficiency and economics of management. Weeds, in particular, have been part of cropping systems for centuries often being ranked as the number one production cost. Now, public demand for a sustainably grown product has created economic incentives for producers to improve their practices, yet the development of advanced weed control tools beyond biotech has lagged behind. An opportunity has been created for engineers and weed scientists to pool their knowledge and work together to fill[...]

Features
This book shifts the paradigm that weeds can only be controlled using broadcast applications of chemical and mechanical techniques in distinct spatiotemporal scales, also referred to as integrated weed management. In fact, true integrated weed management is more than just diversification of techniques and for the first time could be achieved using advanced technologies. Automated weed control is not the[...]

Contents

Fields of interest
Agriculture; Robotics and Automation; Control , Robotics, Mechatronics; Agricultural Economics

Target groups
Lower undergraduate

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7511-4

Hardcover
2014. XII, 265 p. 86 illus., 47 illus. in color.
$189.00
ISBN 978-94-007-7511-4
usually dispatched within 3 to 5 business days

Languages for Specific Purposes in the Digital Era

Explores the direct relation of modern CALL (Computer-Assisted Language Learning) to aspects of natural language processing for theoretical and practical applications, and worldwide demand for formal language education and training that focuses on restricted or specialized professional domains. Unique in its broad-based, state-of-the-art, coverage of current knowledge and research in the interrelated fields of computer-based learning and teaching and processing of specialized linguistic domains. The articles in this book offer insights on or analyses of the current state and future directions of many recent key concepts regarding the application of computers to natural languages, such[...]

Features
Explores the direct relation of modern CALL (Computer-Assisted Language Learning) to aspects of natural language processing for theoretical and practical applications, and worldwide demand for formal language education and training that focuses on restricted or specialized professional domains. Unique in its broad-based, state-of-the-art, coverage of current knowledge and research in the interrelated fields[...]

Contents
Preface.- Section 1: General issues about learning languages with computers. Information Technol- ogy and Languages for Specific Purposes in the EHEA: Options and Challenges for the knowledge society. Fostering Learner Autonomy in Technol- ogy-Enhanced ESP Courses. A blended learning proposal for professional English integrating Moodle with classroom work for the practice of oral skills. Student Assessment in the Online Language Learn- ing Materials developed and delivered through the ingenio system.- Section 2: Computer-assisted experiences for the development of language competences and[...]

Fields of interest
Applied Linguistics; Language Education; Computational Linguistics

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-02221-5

Hardcover
2014. XVII, 348 p. 100 illus., 86 illus. in color. (Educational Linguistics, Vol. 19)
$129.00
ISBN 978-3-319-02221-5
usually dispatched within 3 to 5 business days

Frames and Concept Types

Applications in Language and Philosophy

This volume showcases the potential richness of frame representations. The presentation includes introductory articles on the application of frames to linguistics and philosophy of science, offering readers the tools to conduct the interdisciplinary investigation of concepts that frames allow. * Intro- ductory articles on the application of frames to lin- guistics and philosophy of science * Frame analysis of changes in scientific concepts * Event frames and lexical decomposition * Properties, frame attributes and adjectives * Frames in concept composition * Nominal concept types and determination * This vol- ume deals with frame representations and their rela- tions to concept types[...]

Features
The articles in this volume showcase the potential richness of frame representations. The presentation includes introductory articles on the application of frames to linguistics and philosophy of science, offering readers the tools to conduct the interdisciplinary investigation of concepts that frames allow. * Intro- ductory articles on the application of frames to lin- guistics and philosophy of[...]

Contents

Fields of interest
Semantics; Philosophy of Language

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-319-01540-8

Hardcover
2014. X, 362 p. 95 illus., 5 illus. in color. (Studies in Linguistics and Philosophy, Vol. 94)
$129.00
ISBN 978-3-319-01540-8
usually dispatched within 3 to 5 business days

Linguistics

E. Bárcena, Universidad Nacional de Educación a Dist, Madrid, Spain; T. Read, J. Anis (Eds.)

Frames and Concept Types

Applications in Language and Philosophy

This volume showcases the potential richness of frame representations. The presentation includes introductory articles on the application of frames to linguistics and philosophy of science, offering readers the tools to conduct the interdisciplinary investigation of concepts that frames allow. * Intro- ductory articles on the application of frames to lin- guistics and philosophy of science * Frame analysis of changes in scientific concepts * Event frames and lexical decomposition * Properties, frame attributes and adjectives * Frames in concept composition * Nominal concept types and determination * This vol- ume deals with frame representations and their rela- tions to concept types[...]

Features
The articles in this volume showcase the potential richness of frame representations. The presentation includes introductory articles on the application of frames to linguistics and philosophy of science, offering readers the tools to conduct the interdisciplinary investigation of concepts that frames allow. * Intro- ductory articles on the application of frames to lin- guistics and philosophy of[...]
### Materials Science

**Synthesis of Zinc Oxide by Sol–Gel Method for Photoelectrochemical Cells**

This book focuses on the study of synthesized ZnO powder using Zn(CH₃COO)₂·2H₂O precursor, methanol (as solvent), and sodium hydroxide (NaOH) to vary the pH. The successfully synthesized ZnO powder from the sol-gel centrifugation and sol-gel storage methods were characterized and investigated by X-ray diffraction, field emission scanning electron microscopy, transmission electron microscopy, Fourier-transform infrared spectroscopy, UV-visible spectroscopy, and photoluminescence test to compare the properties of the nanoparticles. The best characteristic of the ZnO powder from both methods was observed when the powders were coated on an ITO glass to fabricate a PEC. The current [...]  

**Features**  
This book focuses on the study of synthesized ZnO powder using Zn(CH₃COO)₂·2H₂O precursor, methanol (as solvent), and sodium hydroxide (NaOH) to vary the pH. The successfully synthesized ZnO powder from the sol-gel centrifugation and sol-gel storage methods were characterized and investigated by X-ray diffraction, field emission scanning electron microscopy, transmission electron microscopy, Fourier-transform infrared spectroscopy, UV-visible spectroscopy, and photoluminescence test to compare the properties of the nanoparticles. The best characteristic of the ZnO powder from both methods was observed when the powders were coated on an ITO glass to fabricate a PEC. The current [...]  

**Contents**  

**Fields of interest**  
Optical and Electronic Materials; Nanoscale Science and Technology; Semiconductors  

**Target groups**  
Research  

**Type of publication**  
Brief  

**Softcover**  
2014. X, 52 p. 31 illus., 16 illus. in color. (SpringerBriefs in Materials)  
$54.99  
ISBN 978-94650-76-4  
usually dispatched within 3 to 5 business days

---

**Metal Matrix Composites**

This work focuses on the fundamentals of MMCs for engineers and designers. The new edition addresses new issues and developments in the areas of automotive, aerospace, electronics and consumer applications. These include continuous fiber reinforced MMCs for cables in power transmission, high temperature superconducting wires, particulate MMCs in civilian aircraft and automotive applications, and high volume fraction, high thermal conductivity substrates for electronic packaging. The coverage is thorough and cohesive, and emphasizes the synergistic relationships among processing, structure and properties of metal matrix composites.

**Features**  
Metal Matrix Composites (MMCs) have progressed from “niche” materials to high performance applications in aerospace, electronic packaging, automotive, and recreational products. This book focuses on the synergistic relationships among processing, microstructure, and properties of metal matrix composites. The authors include chapters on reinforcements, common matrix materials, processing of MMCs, interface [...]  

**Contents**  

**Fields of interest**  
Metallic Materials; Ceramics, Glass, Composites; Natural Materials; Theoretical and Applied Mechanics; Engineering Design  

**Target groups**  
Research  

**Type of publication**  
Monograph  
**Hardcover**  
2013. XVI, 370 p. 277 illus., 55 illus. in color.  
$179.00  
usually dispatched within 3 to 5 business days

### Electrocaloric Materials

**New Generation of Coolers**  
Since the 1997 Kyoto protocol of reduction of greenhouse gas emissions, the development of novel refrigerators has been a priority within the scientific community. Although magnetocaloric materials are promising candidates, they still need a large magnetic field to induce a giant ΔT as well as powerful and costly magnets. However, in electrocaloric materials (ECMs) a temperature change may be achieved by applying or removing an electric field. Since a giant electrocaloric effect on ferroelectric thin films was reported in Science in 2006, researchers have been inspired to explore such effect in different ferroelectric thin films. This book reviews electrocaloric effects observed in [...]  

**Features**  
Since the 1997 Kyoto protocol of reduction of greenhouse gas emissions, the development of novel refrigerators has been a priority within the scientific community. Although magnetocaloric materials are promising candidates, they still need a large magnetic field to induce a giant ΔT as well as powerful and costly magnets. However, in electrocaloric materials (ECMs) a temperature change may be achieved by [...]  

**Contents**  

**Fields of interest**  
Surfaces and Interfaces, Thin Films; Characterization and Evaluation of Materials; Circuits and Systems  

**Target groups**  
Research  

**Type of publication**  
Monograph  
More on [www.springer.com/978-3-642-40263-0](http://www.springer.com/978-3-642-40263-0)  
**Hardcover**  
2014. VIII, 253 p. 141 illus., 36 illus. in color.  
$129.00  
ISBN 978-3-642-40263-0  
usually dispatched within 3 to 5 business days
Kinetics of Heterogeneous Solid State Processes

Kinetic studies have traditionally being extremely useful in characterizing several physical and chemical phenomena in organic, inorganic and metallic systems. It provides valuable qualitative, quantitative and kinetic information on phase transformations, solid state precipitation, crystallization, oxidation and decomposition. Unfortunately, no single reference comprehensively presents non-isothermal kinetic analysis method for the study of complex processes, determining the actual mechanism and kinetic parameters. This book provides a new method for nonisothermal kinetics and its application in heterogeneous solid state processes. In the backdrop of limitations in existing methods,[...]

Features
Kinetic studies have traditionally being extremely useful in characterizing several physical and chemical phenomena in organic, inorganic and metallic systems. It provides valuable qualitative, quantitative and kinetic information on phase transformations, solid state precipitation, crystallization, oxidation and decomposition. Unfortunately, no single reference comprehensively presents nonisothermal [...]
Local Electrode Atom Probe Tomography

A User's Guide

This book is the first, single-source guide to successful experiments using the local electrode atom probe (LEAP®) microscope. Coverage is both comprehensive and user-friendly, including the fundamentals of preparing specimens for the microscope from a variety of materials, the details of the instrumentation used in data collection, the parameters under which optimal data are collected, the current methods of data reconstruction, and selected methods of data analysis. Tricks of the trade are described that are often learned only through trial and error, allowing users to succeed much more quickly in the challenging areas of specimen preparation and data collection. A closing chapter [...] [..]

Features
This book is the first, single-source guide to successful experiments using the local electrode atom probe (LEAP®) microscope. Coverage is both comprehensive and user-friendly, including the fundamentals of preparing specimens for the microscope from a variety of materials, the details of the instrumentation used in data collection, the parameters under which optimal data are collected, the [...] [..]

Contents

Fields of interest
Characterization and Evaluation of Materials; Nanoscience and Technology; Nanochemistry; Spectroscopy and Microscopy; Nanotechnology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40321-7

Hardcover
2013. VIII, 269 p. 143 illus., 11 illus. in color. (Engineering Materials) $129.00 ISBN 978-3-642-40321-7 usually dispatched within 3 to 5 business days

Structural Nanocomposites
Perspectives for Future Applications

Advancements in the nanotechnology industry promise to offer improvements in capabilities across a spectrum of applications. This is of immense strategic importance to the high performance sector which has historically leveraged technological advances. The use of polymer nanocomposites in structures have several predictable impacts on structural design and applications, primarily by providing a safer, faster, and eventually cheaper transportation in the future. This book comprises reviews on the state-of-the-art, new research results, perspectives of future developments, and innovative applications relevant to structural materials, engineering structures, nanocomposites, modelling [...] [..]

Features
Advancements in the nanotechnology industry promise to offer improvements in capabilities across a spectrum of applications. This is of immense strategic importance to the high performance sector which has historically leveraged technological advances. The use of polymer nanocomposites in structures have several predictable impacts on structural design and applications, primarily by providing a safer, faster, [...] [..]

Contents
From the Contents: Dispersion methods of carbon nanotubes for the development of polymeric nanocomposites: characterization and application. Thermoplastic nanocomposites with carbon nanotubes - Graphite Based Nanocomposites to Enhance Mechanical Properties.

Fields of interest
Structural Materials; Nanotechnology; Continuum Mechanics and Mechanics of Materials

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40321-7

Hardcover
2013. VIII, 269 p. 143 illus., 11 illus. in color. (Engineering Materials) $129.00 ISBN 978-3-642-40321-7 usually dispatched within 3 to 5 business days

Subsecond Annealing of Advanced Materials

Annealing by Lasers, Flash Lamps and Swift Heavy Ions

The thermal processing of materials ranges from few femtoseconds to seconds by Swift Heavy Ion Implantation to about one second using advanced Rapid Thermal Annealing. This book offers after an historical excursion selected contributions on fundamental and applied aspects of thermal processing of classical elemental semiconductors and other advanced materials including nanostructures with novel optoelectronic, magnetic, and superconducting properties. Special emphasis is given on the diffusion and segregation of impurity atoms during thermal treatment. A broad range of examples describes the solid phase and/or liquid phase processing of elemental and compound semiconductors, dielectric [...] [..]

Features
The thermal processing of materials ranges from few femtoseconds by Swift Heavy Ion Implantation to about one second using advanced Rapid Thermal Annealing. This book offers after an historical excursion selected contributions on fundamental and applied aspects of thermal processing of classical elemental semiconductors and other advanced materials including nanostructures with novel optoelectronic, magnetic, [...] [..]

Contents
From the Contents: The very early time - Nanonet formation by constitutional supercooling of pulsed laser annealed, Mn-implanted germanium. Metastable activation of dopants by solid phase epitaxial recrystallization. Superconducting Ga-implanted Germanium. Structural changes in SiGe/Si layers induced by fast crystalization.

Fields of interest
Optical and Electronic Materials; Laser Technology and Physics; Photonics; Semiconductors; Microwaves, RF and Optical Engineering; Surface and Interface Science, Thin Films

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-03130-9

Hardcover
2014. XVII, 321 p. 205 illus., 59 illus. in color. (Springer Series in Materials Science, Vol. 192) $109.00 ISBN 978-3-319-03130-9 usually dispatched within 3 to 5 business days
MoS2
Materials, Physics, and Devices
This book reviews the structure and electronic, magnetic, and other properties of various MoS2 (Molybdenum Disulfide) nanostructures, with coverage of synthesis, Valley polarization, spin physics, and other topics. MoS2 is a graphene-like layered nano-material that substantially extends the range of possible nanostructures and devices for nanofabrication. These materials have been widely researched in recent years, and have become an attractive topic for applications such as catalytic materials and devices based on field-effect transistors (FETs) and semiconductors.Chapters from leading scientists worldwide create a bridge between MoS2 nanomaterials and fundamental physics.[...]

Contents

Fields of interest
Optical and Electronic Materials; Nanoscience and Technology; Nanotechnology and Microengineering; Nanotechnology; Nanomaterials; Nanotechnology; Renewable and Green Energy

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02849-1

Hardcover
2014, XI, 291 p. 171 illus., 152 illus. in color. (Lecture Notes in Nanoscale Science and Technology, Vol. 21)
$129.00
ISBN 978-3-319-02849-1
usually dispatched within 3 to 5 business days

MoS2
Materials, Physics, and Devices
This book reviews the structure and electronic, magnetic, and other properties of various MoS2 (Molybdenum Disulfide) nanostructures, with coverage of synthesis, Valley polarization, spin physics, and other topics. MoS2 is a graphene-like layered nano-material that substantially extends the range of possible nanostructures and devices for nanofabrication. These materials have been widely researched in recent years, and have become an attractive topic for applications such as catalytic materials and devices based on field-effect transistors (FETs) and semiconductors.Chapters from leading scientists worldwide create a bridge between MoS2 nanomaterials and fundamental physics.[...]

Contents

Fields of interest
Optical and Electronic Materials; Nanoscience and Technology; Nanotechnology and Microengineering; Nanotechnology; Nanomaterials; Nanotechnology; Renewable and Green Energy

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02849-1

Hardcover
2014, XI, 291 p. 171 illus., 152 illus. in color. (Lecture Notes in Nanoscale Science and Technology, Vol. 21)
$129.00
ISBN 978-3-319-02849-1
usually dispatched within 3 to 5 business days

Lévy Processes and Their Applications in Reliability and Storage

This book covers Lévy processes and their applications in the contexts of reliability and storage. Special attention is paid to life distributions and the maintenance of devices subject to degradation; estimating the parameters of the degradation process is also discussed, as is the maintenance of dams subject to Lévy input.

Features
This book covers Lévy processes and their applications in the contexts of reliability and storage. Special attention is paid to life distributions and the maintenance of devices subject to degradation; estimating the parameters of the degradation process is also discussed, as is the maintenance of dams subject to Lévy input.

Contents

Fields of interest
Probability Theory and Stochastic Processes; Industrial and Production Engineering; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-642-40074-2

Softcover
$54.99
ISBN 978-3-642-40074-2
usually dispatched within 3 to 5 business days

Basic Modern Algebra with Applications

The book is primarily intended as a textbook on modern algebra for undergraduate mathematics students. It is also useful for those who are interested in supplementary reading at a higher level. The text is designed in such a way that it encourages independent thinking and motivates students towards further study. The book covers all major topics in group, ring, vector space and module theory that are usually contained in a standard modern algebra text. In addition, it studies semigroup, group action, Hopf’s group, topological groups and Lie groups with their actions, applications of ring theory to algebraic geometry, and defines Zariski topology, as well as applications of module.[...]

Contents

Fields of interest
Algebra; Commutative Rings and Algebras; Group Theory and Generalizations; Number Theory; Category Theory; Homological Algebra; Applications of Mathematics

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-81-322-1598-1

Hardcover
2014, XIX, 637 p. 48 illus.
$79.99
ISBN 978-81-322-1598-1
usually dispatched within 3 to 5 business days
Concentration Analysis and Applications to PDE

ICTS Workshop, Bangalore, January 2012

Concentration analysis provides, in settings without a priori available compactness, a manageable structural description for the functional sequences intended to approximate solutions of partial differential equations. Since the introduction of concentration compactness in the 1980s, concentration analysis today is formalized on the functional-analytic level as well as in terms of wavelets, extends to a wide range of spaces, involves much larger class of invariances than the original Euclidean rescalings and has a broad scope of applications to PDE. This book represents current research in concentration and blow-up phenomena from various perspectives, with a variety of applications to [...]  

Features
Concentration analysis provides, in settings without a priori available compactness, a manageable structural description for the functional sequences intended to approximate solutions of partial differential equations. Since the introduction of concentration compactness in the 1980s, concentration analysis today is formalized on the functional-analytic level as well as in terms of wavelets, extends to a wide range of spaces, involves much larger class of invariances than the original Euclidean rescalings and has a broad scope of applications to PDE. This book represents current research in concentration and blow-up phenomena from various perspectives, with a variety of applications to [...] 

Contents

Fields of interest
Partial Differential Equations; Global Analysis and Analysis on Manifolds; Functional Analysis

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-0348-0372-4

Hardcover
2013, X, 156 p. 119 illus., 1 illus. in color. (Trends in Mathematics)
$99.00 ISBN 978-3-0348-0372-4
usually dispatched within 3 to 5 business days

S. Ahmad, University of Texas San Antonio, San Antonio, USA; A. Ambrosetti

A textbook on Ordinary Differential Equations

The book is a primer of the theory of Ordinary Differential Equations. Each chapter is completed by a broad set of exercises; the reader will also find a set of solutions of selected exercises. The book contains many interesting examples as well (like the equations for the electric circuits, the pendulum equation, the logistic equation, the Lotka-Volterra system, and many other) which introduce the reader to some interesting aspects of the theory and its applications. The work is mainly addressed to students of Mathematics, Physics, Engineering, Statistics, Computer Sciences, with knowledge of Calculus and Linear Algebra, and contains more advanced topics for further developments[...]

Features
The book is a primer of the theory of Ordinary Differential Equations. Each chapter is completed by a broad set of exercises; the reader will also find a set of solutions of selected exercises. The book contains many interesting examples as well (like the equations for the electric circuits, the pendulum equation, the logistic equation, the Lotka-Volterra system, and many other) which introduce the reader to [...] 

Contents

Fields of interest
Ordinary Differential Equations; Analysis; Numerical Analysis; Applications of Mathematics

Target groups
Lower undergraduate

Type of publication
Undergraduate textbook

More on www.springer.com/978-3-319-02128-7

Softcover
2014, XIV, 324 p. (La Matematica per il 3+2, Vol. 73) $59.99 ISBN 978-3-319-02128-7
Due: January 28, 2014

H. Ammari, École Normale Supérieure, Paris, France; J. Garnier, University Paris VII, Paris, France; W. Jing, École Normale Supérieure, Paris, France; H. Kang, Inha University, Incheon, Korea, Republic of (South Korea); M. Lim, Korean Advanced Institute of Science, Daejeon, Korea, Republic of (South Korea); K. Solna, University of California, Irvine, Irvine, USA; H. Wang, École Normale Supérieure, Paris, France

Mathematical and Statistical Methods for Multistatic Imaging

This book covers recent mathematical, numerical, and statistical approaches for multistatic imaging of targets with waves at single or multiple frequencies. The waves can be acoustic, elastic or electromagnetic. They are generated by point sources on a transmitter array and measured on a receiver array. An important problem in multistatic imaging is to quantify and understand the trade-offs between data size, computational complexity, signal-to-noise ratio, and resolution. Another fundamental problem is to have a shape representation well suited to solving target imaging problems from multistatic data. In this book the trade-off between resolution and stability when the data are noisy[...]

Features
This book covers recent mathematical, numerical, and statistical approaches for multistatic imaging of targets with waves at single or multiple frequencies. The waves can be acoustic, elastic or electromagnetic. They are generated by point sources on a transmitter array and measured on a receiver array. An important problem in multistatic imaging is to quantify and understand the trade-offs between data size, computational complexity, signal-to-noise ratio, and resolution. Another fundamental problem is to have a shape representation well suited to solving target imaging problems from multistatic data. In this book the trade-off between resolution and stability when the data are noisy[...]

Contents

Fields of interest
Mathematical Applications in the Physical Sciences

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02584-1

Softcover
2013, XVIII, 361 p. 61 illus., 47 illus. in color. (Lecture Notes in Mathematics, Vol. 2098) $89.99 ISBN 978-3-319-02584-1
usually dispatched within 3 to 5 business days

ICTS Workshop, Bangalore, January 2012

Concentration analysis provides, in settings without a priori available compactness, a manageable structural description for the functional sequences intended to approximate solutions of partial differential equations. Since the introduction of concentration compactness in the 1980s, concentration analysis today is formalized on the functional-analytic level as well as in terms of wavelets, extends to a wide range of spaces, involves much larger class of invariances than the original Euclidean rescalings and has a broad scope of applications to PDE. This book represents current research in concentration and blow-up phenomena from various perspectives, with a variety of applications to [...] 

Features
Concentration analysis provides, in settings without a priori available compactness, a manageable structural description for the functional sequences intended to approximate solutions of partial differential equations. Since the introduction of concentration compactness in the 1980s, concentration analysis today is formalized on the functional-analytic level as well as in terms of wavelets, extends to a wide range of spaces, involves much larger class of invariances than the original Euclidean rescalings and has a broad scope of applications to PDE. This book represents current research in concentration and blow-up phenomena from various perspectives, with a variety of applications to [...]
Cohomological Aspects in Complex Non-Kähler Geometry

In these notes, we provide a summary of recent results on the cohomological properties of compact complex manifolds not endowed with a Kähler structure. On the one hand, the large number of developed analytic techniques makes it possible to prove strong cohomological properties for compact Kähler manifolds. On the other, in order to further investigate any of these properties, it is natural to look for manifolds that do not have any Kähler structure. We focus in particular on studying Bott-Chern and Aeppli cohomologies of compact complex manifolds. Several results concerning the computations of Dolbeault and Bott-Chern cohomologies on nilmanifolds are summarized, allowing readers to [...]}

Features
In these notes, we provide a summary of recent results on the cohomological properties of compact complex manifolds not endowed with a Kähler structure. On the one hand, the large number of developed analytic techniques makes it possible to prove strong cohomological properties for compact Kähler manifolds. On the other, in order to further investigate any of these properties, it is natural to look for [...]}

Contents
Preliminaries on (almost-) complex manifolds.- Cohomology of complex manifolds.- Cohomology of nilmanifolds.- Cohomology of almost-complex manifolds.- References.

Fields of interest
Differential Geometry; Several Complex Variables and Analytic Spaces

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02440-0

Softcover
2014, XXV, 262 p. 7 illus. (Lecture Notes in Mathematics, Vol. 2095)
$49.99
ISBN 978-3-319-02440-0
usually dispatched within 3 to 5 business days

V.I. Arnold, Russian Academy of Sciences, Moscow, Russian Federation; A.B. Givental, University of California, Berkeley, Berkeley, USA; B. Kleinschmidt, University of Toronto, Toronto, Canada; A.N. Varchenko, University of North Carolina, Chapel Hill, USA; V.A. Vassiliev, Russian Academy of Sciences, Moscow, Russian Federation; O. Viro, Stony Brook University, Stony Brook, USA (Eds.)

Morse Theory and Floer Homology

This book is an introduction to modern methods of symplectic topology. It is devoted to explaining the solution of an important problem originating from classical mechanics: the ‘Arnold conjecture’, which asserts that the number of 1-periodic trajectories of a non-degenerate Hamiltonian system is bounded below by the dimension of the homology of the underlying manifold. The first part is a thorough introduction to Morse theory, a fundamental tool of differential topology. It defines the Morse complex and the Morse homology, and develops some of their applications. Morse homology also serves a simple model for Floer homology, which is covered in the second part. Floer homology is an [...]}

Features
This book is an introduction to modern methods of symplectic topology. It is devoted to explaining the solution of an important problem originating from classical mechanics: the ‘Arnold conjecture’, which asserts that the number of 1-periodic trajectories of a non-degenerate Hamiltonian system is bounded below by the dimension of the homology of the underlying manifold. The first part is a thorough introduction to Morse theory, a fundamental tool of differential topology. It defines the Morse complex and the Morse homology, and develops some of their applications. Morse homology also serves a simple model for Floer homology, which is covered in the second part. Floer homology is an [...]}

Contents

Fields of interest
Geometry; Differential Geometry; Algebraic Topology; Manifolds and Cell Complexes (incl. Diff. Topology)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Distribution rights for France: EDP Sciences, Les Ulis Cedex A, France

Softcover
Original French edition published by EDP Sciences, Les Ulis Cedex A, France, 2010
2014, XIV, 596 p. 114 illus. (Universitext)
$89.99
usually dispatched within 3 to 5 business days
Spectral and High Order Methods for Partial Differential Equations - ICOSAHOM 2012

Selected papers from the ICOSAHOM conference, June 25-29, 2012, Gammarth, Tunisia

The book contains a selection of high quality papers, chosen among the best presentations during the International Conference on Spectral and High-Order Methods (2012), and provides an overview of the depth and breadth of the activities within this important research area. The carefully reviewed selection of the papers will provide the reader with a snapshot of state-of-the-art and help initiate new research directions through the extensive bibliography.

Features
The book contains a selection of high quality papers, chosen among the best presentations during the International Conference on Spectral and High-Order Methods (2012), and provides an overview of the depth and breadth of the activities within this important research area. The carefully reviewed selection of the papers will provide the reader with a snapshot of state-of-the-art and help initiate new research.

Contents
A quasi-optimal sparse grids procedure for groundwater flows.- The geometric basis of numerical methods.- Spectral element methods on simplicial meshes.- Exponential convergence of hp-DGFEM for elliptic problems in polyhedral domains.- A contribution to the outflow boundary conditions for Navier-Stokes time-splitting methods.- High order space-time discretization for elastic wave propagation problems.- Laguerre Simulation of Boundary Layer Flows: Conditions at Large Distance from the Wall.- Implementation of an Explicit Algebraic Reynolds Stress Model in an implicit very high-order [...] Fields of interest
Partial Differential Equations; Numerical Analysis; Applications of Mathematics; Computational Mathematics and Numerical Analysis; Computational Science and Engineering; Mathematics of Computing

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-01600-9

Hardcover
2014, IX, 425 p. 145 illus., 71 illus. in color. (Lecture Notes in Computational Science and Engineering, Vol. 95)
$169.00
ISBN 978-3-319-01600-9
usually dispatched within 3 to 5 business days

Incompressible Bipolar and Non-Newtonian Viscous Fluid Flow

The theory of incompressible multipolar viscous fluids is a non-Newtonian model of fluid flow, which incorporates nonlinear viscosity, as well as higher order velocity gradients, and is based on scientific first principles. The Navier-Stokes model of fluid flow is based on the Stokes hypothesis, which a priori simplifies and restricts the relationship between the stress tensor and the velocity. By relaxing the constraints of the Stokes hypothesis, the mathematical theory of multipolar viscous fluids generalizes the standard Navier-Stokes model. The rigorous theory of multipolar viscous fluids is compatible with all known thermodynamical processes and the principle of material frame...]

Features
The theory of incompressible multipolar viscous fluids is a non-Newtonian model of fluid flow, which incorporates nonlinear viscosity, as well as higher order velocity gradients, and is based on scientific first principles. The Navier-Stokes model of fluid flow is based on the Stokes hypothesis, which a priori simplifies and restricts the relationship between the stress tensor and the velocity. By relaxing [...] Fields of interest
Mathematical Physics; Partial Differential Equations; Fluid- and Aerodynamics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00890-5

Hardcover
2014, XX, 569 p. 16 illus. (Advances in Mathematical Fluid Mechanics)
$149.00
ISBN 978-3-319-00890-5
usually dispatched within 3 to 5 business days
Coarse Geometry and Randomness
École d’Été de Probabilités de Saint-Flour XLI – 2011

These lecture notes study the interplay between randomness and geometry of graphs. The first part of the notes reviews several basic geometric concepts, before moving on to examine the manifestation of the underlying geometry in the behavior of random processes, mostly percolation and random walk. The study of the geometry of infinite vertex transitive graphs, and of Cayley graphs in particular, is fairly well developed. One goal of these notes is to point to some random metric spaces modeled by graphs that turn out to be somewhat exotic, that is, they admit a combination of properties not encountered in the vertex transitive world. These include percolation clusters on vertices.[…]

Features
These lecture notes study the interplay between randomness and geometry of graphs. The first part of the notes reviews several basic geometric concepts, before moving on to examine the manifestation of the underlying geometry in the behavior of random processes, mostly percolation and random walk. The study of the geometry of infinite vertex transitive graphs, and of Cayley graphs in particular, is […]

Contents

Fields of interest
Geometry; Graph Theory; Mathematical Methods in Physics; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Continuum Mechanics and Mechanics of Materials

Target groups
Research

Type of publication
Monograph
More on www.springer.com/978-3-319-02575-9

Softcover
2013. VII, 129 p. 6 illus., 3 illus. in color. (École d’Été de Probabilités de Saint-Flour, Vol. 2100)
$49.99
ISBN 978-3-319-02575-9
usually dispatched within 3 to 5 business days

Mathematical Models and Numerical Simulation in Electromagnetism

The book represents a basic support for a master course in electromagnetism oriented to numerical simulation. The main goal of the book is that the reader knows the boundary-value problems of partial differential equations that should be solved in order to perform computer simulation of electromagnetic processes. Moreover it includes a part devoted to electric circuit theory based on ordinary differential equations. The book is mainly oriented to electric engineering applications, going from the general to the specific, namely, from the full Maxwell’s equations to the particular cases of electrostatics, direct current, magnetostatics and eddy currents models. Apart from standard[…]

Features
The book represents a basic support for a master course in electromagnetism oriented to numerical simulation. The main goal of the book is that the reader knows the boundary-value problems of partial differential equations that should be solved in order to perform computer simulation of electromagnetic processes. Moreover it includes a part devoted to electric circuit theory based on ordinary differential equations.[…]

Contents

Fields of interest
Computational Mathematics and Numerical Analysis; Electrical Engineering; Magnetism, Magnetic Materials; Mathematical Applications in the Physical Sciences

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook
More on www.springer.com/978-3-319-02948-1

Softcover
2014. XVIII, 432 p. (La Matematica per il 3+2, Vol. 74)
$79.99
ISBN 978-3-319-02948-1
Due: December 31, 2013

Cetraro, Italy 2011. Editors: Luca Di Fi, Nicola Guglielmi

This volume addresses some of the research areas in the general field of stability studies for differential equations, with emphasis on issues of concern for numerical studies. Topics considered include: (i) the long time integration of Hamiltonian Ordinary DEs and highly oscillatory systems, (ii) connection between stochastic DEs and geometric integration using the Markov chain Monte Carlo method, (iii) computation of dynamic patterns in evolutionary partial DEs, (iv) decomposition of matrices depending on parameters and localization of singularities, and (v) uniform stability analysis for time dependent linear initial value problems of ODEs. The problems considered in this volume[…]

Features
This volume addresses some of the research areas in the general field of stability studies for differential equations, with emphasis on issues of concern for numerical studies. Topics considered include: (i) the long time integration of Hamiltonian Ordinary DEs and highly oscillatory systems, (ii) connection between stochastic DEs and geometric integration using the Markov chain Monte Carlo method[…]

Contents

Fields of interest
Computational Mathematics and Numerical Analysis; Applications of Mathematics; Ordinary Differential Equations; Partial Differential Equations; Algorithms; Linear and Multilinear Algebras, Matrix Theory

Target groups
Research

Type of publication
Contributed volume
More on www.springer.com/978-3-319-01299-5

Softcover
2014. IX, 313 p. 121 illus., 105 illus. in color. (C.I.M.E. Foundation Subseries, Vol. 2082)
$59.99
ISBN 978-3-319-01299-5
usually dispatched within 3 to 5 business days
An Invitation to Hypoelliptic Operators and Hörmander’s Vector Fields

Hörmander’s operators are an important class of linear elliptic-parabolic degenerate partial differential operators with smooth coefficients, which have been intensively studied since the late 1960s and are still an active field of research. This text provides the reader with a general overview of the field, with its motivations and problems, some of its fundamental results, and some recent lines of development.

Features
Hörmander’s operators are an important class of linear elliptic-parabolic degenerate partial differential operators with smooth coefficients, which have been intensively studied since the late 1960s and are still an active field of research. This text provides the reader with a general overview of the field, with its motivations and problems, some of its fundamental results, and some recent lines of development.

Contents
1 Hörmander’s operators: what they are. - 2 Hörmander’s operators: why they are studied. - 3 A priori estimates in Sobolev spaces. - 4 Geometry of Hörmander’s vector fields. - 5 Beyond Hörmander’s operators.

Fields of interest
Partial Differential Equations; Analysis; Operator Theory

Target groups
Graduate

Type of publication
Brief

More on www.springer.com/978-3-319-02086-0

Softcover
2014. XI, 150 p. 3 illus. (SpringerBriefs in Mathematics)
$54.99
ISBN 978-3-319-02086-0
usually dispatched within 3 to 5 business days

Green’s Functions in the Theory of Ordinary Differential Equations

This book provides a complete and exhaustive study of the Green’s functions. Professor Cabada first proves the basic properties of Green’s functions and discusses the study of nonlinear boundary value problems. Classic methods of lower and upper solutions are explored, with a particular focus on monotone iterative techniques that flow from them. In addition, Cabada proves the existence of positive solutions by constructing operators defined in cones. The book will be of interest to graduate students and researchers interested in the theoretical underpinnings of boundary value problem solutions.

Features
This book provides a complete and exhaustive study of the Green’s functions. Professor Cabada first proves the basic properties of Green’s functions and discusses the study of nonlinear boundary value problems. Classic methods of lower and upper solutions are explored, with a particular focus on monotone iterative techniques that flow from them. In addition, Cabada proves the existence of positive solutions by [...]
Partial Differential Equations: Theory, Control and Approximation

In Honor of the Scientific Heritage of Jacques-Louis Lions

This book collects papers mainly presented at the "International Conference on Partial Differential Equations: Theory, Control and Approximation" (May 28 to June 1, 2012 in Shanghai) in honor of the scientific legacy of the exceptional mathematician Jacques-Louis Lions. The contributors are leading experts from all over the world, including members of the Academies of Sciences in France, the USA and China etc., and their papers cover key fields of research, e.g. partial differential equations, control theory and numerical analysis, that Jacques-Louis Lions created or contributed so much to establishing.

Features
This book collects papers mainly presented at the "International Conference on Partial Differential Equations: Theory, Control and Approximation" (May 28 to June 1, 2012 in Shanghai) in honor of the scientific legacy of the exceptional mathematician Jacques-Louis Lions. The contributors are leading experts from all over the world, including members of the Academies of Sciences in France, the USA and China etc., and their papers cover key fields of research, e.g. partial differential equations, control theory and numerical analysis, that Jacques-Louis Lions created or contributed so much to establishing.

Innovative Technologies in Urban Mapping

Built Space and Mental Space
The book presents a comprehensive vision of the impact of ICT on the contemporary city, heritage, public spaces and meta-cities on both urban and metropolitan scales, not only in producing innovative perspectives but also related to newly discovered scientific methods, which can be used to stimulate the emerging reciprocal relations between cities and information technologies. Using the principles established by multi-disciplinary interventions as examples and then expanding on them, this book demonstrates how by using ICT and new devices, metropolises can be organized for a future that preserves the historic nucleus of the city and the environment while preparing the necessary [...] 

Features
The book presents a comprehensive vision of the impact of ICT on the contemporary city, heritage, public spaces and meta-cities on both urban and metropolitan scales, not only in producing innovative perspectives but also related to newly discovered scientific methods, which can be used to stimulate the emerging reciprocal relations between cities and information technologies. Using the principles established [...] 

Contents

Fields of interest
Mathematical Software; Computer Systems Organization and Communication Networks; Multimedia Information Systems; User Interfaces and Human Computer Interaction; Cities, Countries, Regions

Target groups
Research

Type of publication
Contributed volume
More on www.springer.com/978-3-319-03797-4

Hardcover
2014. VIII, 429 p. 73 illus., 43 illus. in color.
$129.00
ISBN 978-3-642-41400-8
usually dispatched within 3 to 5 business days
Set Theory
With an Introduction to Real Point Sets

What is a number? What is infinity? What is continuity? What is order? Answers to these fundamental questions obtained by late nineteenth-century mathematicians such as Dedekind and Cantor gave birth to set theory. This textbook presents classical set theory in an intuitive but concrete manner. To allow flexibility of topic selection in courses, the book is organized into four relatively independent parts with distinct mathematical flavors. Part I begins with the Dedekind–Peano axioms and ends with the construction of the real numbers. The core Cantor–Dedekind theory of cardinals, orders, and ordinals appears in Part II. Part III focuses on the real continuum. Finally, foundational [...] features the discussion is based on a number of new methods, in particular multiple scale analysis, nonlinear Markov processes and their entrance laws, atomic measure-valued evolutions and new forms of duality (for state-dependent mutation and multitype selection) which are used to probe ergodic theorems in this context and are applicable for many other questions and renormalization [...] features this book constructs a rigorous framework for analysing selected phenomena in evolutionary theory of populations arising due to the combined effects of migration, selection and mutation in a spatial stochastic population model, namely the evolution towards fitter and fitter types through punctuated equilibria. The discussion is based on a number of new methods, in particular multiple scale analysis, nonlinear [..]

Contents

Fields of interest
Mathematical Logic and Foundations; Analysis; Algebra; Topology; Discrete Mathematics; Logic

Target groups
Upper undergraduate

Type of publication
Undergraduate textbook

More on www.springer.com/978-1-4614-8853-8

Hardcover
2014. XV, 444 p. 17 illus. $59.99 ISBN 978-1-4614-8853-8 usually dispatched within 3 to 5 business days

Spatial Fleming-Viot Models with Selection and Mutation

This book constructs a rigorous framework for analysing selected phenomena in evolutionary theory of populations arising due to the combined effects of migration, selection and mutation in a spatial stochastic population model, namely the evolution towards fitter and fitter types through punctuated equilibria. The discussion is based on a number of new methods, in particular multiple scale analysis, nonlinear Markov processes and their entrance laws, atomic measure-valued evolutions and new forms of duality (for state-dependent mutation and multitype selection) which are used to probe ergodic theorems in this context and are applicable for many other questions and renormalization [...] features this book constructs a rigorous framework for analysing selected phenomena in evolutionary theory of populations arising due to the combined effects of migration, selection and mutation in a spatial stochastic population model, namely the evolution towards fitter and fitter types through punctuated equilibria. The discussion is based on a number of new methods, in particular multiple scale analysis, nonlinear [..]

Contents
Introduction. - Emergence and fixation in the F-W model with two types. - Formulation of the multitype and multiscale model. - Formulation of the main results in the general case. - A Basic Tool: Dual Representations. - Long-time behaviour: ergodicity and non-ergodicity. - Mean-field emergence and fixation of rare mutants (Phase 1,2). - Methods and proofs for the F-W model with two types. - Emergence, fixation with $M \geq 2$ lower order types. - Emergence, fixation: The general (M, M)-type mean-field model. - Neutral evolution on $E_1$ after fixation (Phase 3). - Re-equilibration on higher level $E_1$ - ...

Fields of interest
Probability Theory and Stochastic Processes; Evolutionary Biology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02152-2

Softcover

Risk Theory and Reinsurance

Reinsurance is an important production factor of non-life insurance. The efficiency and the capacity of the reinsurance market directly regulate those of insurance markets. The purpose of this book is to provide a concise introduction to risk theory, as well as to its main application procedures to reinsurance. The first part of the book covers risk theory. It presents the most prevalent model of ruin theory, as well as a discussion on insurance premium calculation principles and the mathematical tools that enable portfolios to be ordered according to their risk levels. The second part describes the institutional context of reinsurance. It first strives to clarify the legal nature of [...] features reinsurance is an important production factor of non-life insurance. The efficiency and the capacity of the reinsurance market directly regulate those of insurance markets. The purpose of this book is to provide a concise introduction to risk theory, as well as to its main application procedures to reinsurance. The first part of the book covers risk theory. It presents the most prevalent model of ruin [...] features...

Contents

Fields of interest
Actuarial Sciences

Target groups
Graduate

Type of publication
Monograph

More on www.springer.com/978-1-4471-5567-6

Softcover

D. Dawson, A. Geven, Friedrich-Alexander-Universitaet, Erlangen, Germany

G. Deelstra, G. Plantin
General Parabolic Mixed Order Systems in $L^p$ and Applications

In this text, a theory for general linear parabolic partial differential equations is established which covers equations with inhomogeneous symbol structure as well as mixed-order systems. Typical applications include several variants of the Stokes system and free boundary value problems. We show well-posedness in $L^p$-$L^q$-Sobolev spaces in time and space for the linear problems (i.e., maximal regularity) which is the key step for the treatment of nonlinear problems. The theory is based on the concept of the Newton polygon and can cover equations which are not accessible by standard methods as, e.g., semigroup theory. Results are obtained in different types of non-integer $L^p$-Sobolev spaces.

Contents

Fields of interest
Partial Differential Equations; Mathematical Physics; Operator Theory

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01999-4

Hardcover
2013. XII, 686 p. 64 illus., 6 illus. in color. (Springer Proceedings in Mathematics & Statistics, Vol. 65)
$189.00
ISBN 978-3-344-61094-9
usually dispatched within 3 to 5 business days

Monte Carlo and Quasi-Monte Carlo Methods 2012

This book represents the refereed proceedings of the Tenth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing that was held at the University of New South Wales (Australia) in February 2012. These biennial conferences are major events for Monte Carlo and the premiere event for quasi-Monte Carlo research. The proceedings include articles based on invited lectures as well as carefully selected contributed papers on all theoretical aspects and applications of Monte Carlo and quasi-Monte Carlo methods. The reader will be provided with information on latest developments in these very active areas. The book is an excellent reference for [...]...

Contents
Part I: Invited Articles.- Part II: Tutorial.- Part III: Contributed Articles.- Conference Participants.- Index.

Fields of interest
Computational Mathematics and Numerical Analysis; Statistical Theory and Methods; Computer Graphics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-41094-9

Hardcover
2013. XX, 608 p. 64 illus., 6 illus. in color. (Progress in Mathematical Physics, Vol. 66)
$109.00
ISBN 978-3-642-41094-9
usually dispatched within 3 to 5 business days

Chaos

Poincaré Seminar 2010

This twelfth volume in the Poincaré Seminar Series presents a complete and interdisciplinary perspective on the concept of Chaos, both in classical mechanics and in its deterministic version, and in quantum mechanics. This book expounds some of the most wide ranging questions in science, from uncovering the fingerprints of classical chaotic dynamics in quantum systems, to predicting the fate of our own planetary system. Its seven articles are also highly pedagogical, as befits their origin in lectures to a broad scientific audience. Highlights include a complete description by the mathematician É. Ghys of the paradigmatic Lorenz attractor, and of the famed Lorenz butterfly effect as it is[...]

Contents

Fields of interest
Dynamical Systems and Ergodic Theory; Number Theory; Quantum Field Theories, String Theory; Statistical Physics, Dynamical Systems and Complexity

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-0348-0696-1

Hardcover
2013. XIII, 270 p. 100 illus., 61 illus. in color. (Proceedings in Mathematics, Vol. 183)
$109.00
ISBN 978-3-0348-0696-1
usually dispatched within 3 to 5 business days
An Introduction to Traffic Flow Theory

This text provides a comprehensive and concise treatment of the topic of traffic flow theory and includes several topics relevant to today's highway transportation system. It provides the fundamental principles of traffic flow theory as well as applications of those principles for evaluating specific types of facilities (freeways, intersections, etc.). Newer concepts of Intelligent transportation systems (ITS) and their potential impact on traffic flow are discussed.

State-of-the-art in traffic flow research and microscopic traffic analysis and traffic simulation have significantly advanced and are also discussed in this text. Real world examples and useful problem sets complement [...]

Features
This text provides a comprehensive and concise treatment of the topic of traffic flow theory and applications of those principles for evaluating specific types of facilities (freeways, intersections, etc.). Newer concepts of Intelligent transportation systems [...]

Contents

Fields of interest
Optimization; Civil Engineering

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Progress in Mathematical Relativity, Gravitation and Cosmology


This book contains contributions from the Spanish Relativity Meeting, ERE 2012, held in Guimarães, Portugal, September 2012. It features more than 70 papers on a range of topics in general relativity and gravitation, from mathematical cosmology, numerical relativity and black holes to string theory and quantum gravity. Under the title “Progress in Mathematical Relativity, Gravitation and Cosmology,” ERE 2012 was attended by an exceptional international list of over a hundred participants from the five continents and over forty countries. ERE is organized every year by one of the Spanish or Portuguese groups working in this area and is supported by the Spanish Society of Gravitation [...]

Features
This book contains contributions from the Spanish Relativity Meeting, ERE 2012, held in Guimarães, Portugal, September 2012. It features more than 70 papers on a range of topics in general relativity and gravitation, from mathematical cosmology, numerical relativity and black holes to string theory and quantum gravity. Under the title “Progress in Mathematical Relativity, Gravitation and [...]”

Contents
Part I Plenary sessions.- Part II Parallel sessions.- Part III Poster presentations.

Fields of interest
Global Analysis and Analysis on Manifolds; Mathematical Methods in Physics; Differential Geometry; Theoretical, Mathematical and Computational Physics; Classical and Quantum Gravitation, Relativity Theory, Cosmology

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-40156-5

Kripke’s Worlds

An Introduction to Modal Logics via Tableaux

Possible worlds models were introduced by Saul Kripke in the early 1960s. Basically, a possible world’s model is nothing but a graph with labelled nodes and labelled edges. Such graphs provide semantics for various modal logics (alethic, temporal, epistemic and doxastic, dynamic, deontic, description logics) and also turned out useful for other nonclassical logics (intuitionistic, conditional, several paraconsistent and relevant logics). All these logics have been studied intensively in philosophical and mathematical logic and in computer science, and have been applied increasingly in domains such as program semantics, artificial intelligence, and more recently in the semantic web [...]

Features
Possible worlds models were introduced by Saul Kripke in the early 1960s. Basically, a possible worlds model is nothing but a graph with labelled nodes and labelled edges. Such graphs provide semantics for various modal logics (alethic, temporal, epistemic and doxastic, dynamic, deontic, description logics) and also turned out useful for other nonclassical logics (intuitionistic, conditional, several [...]”

Contents
Preface.- 1 Modelling things with graphs.- 2 Talking about graphs.- 3 The basics of the model construction method.- 4 Logics with simple constraints on models.- 5 Logics with transitive accessibility relations.- 6 Model Checking.- 7 Modal logics with transitive closure.- Bibliography.- Index.

Fields of interest
Mathematical Logic and Foundations; Mathematics (general)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-7643-8503-3

Softcover
2014, XVI, 198 p. 73 illus. (Studies in Universal Logic) $109.00 ISBN 978-3-7643-8503-3

usually dispatched within 3 to 5 business days
Traces and Emergence of Nonlinear Programming

The book contains reproductions of the most important papers that gave birth to the first developments in nonlinear programming. Of particular interest is W. Karush’s often quoted Master Thesis, which is published for the first time. The anthology includes an extensive preliminary chapter, where the editors trace out the history of mathematical programming, with special reference to linear and nonlinear programming.

Features
The book contains reproductions of the most important papers that gave birth to the first developments in nonlinear programming. Of particular interest is W. Karush’s often quoted Master Thesis, which is published for the first time. The anthology includes an extensive preliminary chapter, where the editors trace out the history of mathematical programming, with special reference to linear and nonlinear... []

Contents
Preface and Acknowledgements - Introductory Chapter: A Historical View of Nonlinear Programming: Traces and Emergence - 18 historical articles.

Field of interest
Computational Science and Engineering; History of Mathematics

Target groups
Research

Type of publication
Collected works

More on www.springer.com/978-3-0348-0438-7

Advances in Lie Superalgebras

The volume is the outcome of the conference "Lie superalgebras," which was held at the Istituto Nazionale di Alta Matematica, in 2012. The conference gathered many specialists in the subject, and the talks held provided comprehensive insights into the newest trends in research on Lie superalgebras (and related topics like vertex algebras, representation theory and supergeometry). The book contains contributions of many leading experts in the field and provides a complete account of the newest trends in research on Lie Superalgebras.

Features
The volume is the outcome of the conference "Lie superalgebras," which was held at the Istituto Nazionale di Alta Matematica, in 2012. The conference gathered many specialists in the subject, and the talks held provided comprehensive insights into the newest trends in research on Lie superalgebras (and related topics like vertex algebras, representation theory and supergeometry). The book contains... []

Contents
Targeted Cancer Treatment in Silico

Small Molecule Inhibitors and Oncolytic Viruses

Countless medical researchers over the past century have been occupied by the search for a cure of cancer. So far, they have developed and implemented a wide range of treatment techniques, including surgery, chemo- and radiotherapy, antiangiogenic drugs, small molecule inhibitors, and oncolytic viruses. However, patterns of these treatments' effectiveness remain largely unclear, and a better understanding of how cancer therapies work has become a key research goal. Cancer Treatment in Silico provides the first in-depth study of approaching this understanding by modeling cancer treatments, both mathematically and through computer simulations. The main goal of this book is to help expose[...]

Features
This monograph provides the first in-depth study of how mathematical and computational approaches can be used to advance our understanding of cancer therapies and to improve treatment design and outcome. Over the past century, the search for a cancer cure has been a primary occupation of medical researchers. So far, it has led to a wide range of treatment techniques, including surgery, chemo- and[...]

Contents

Fields of interest
Physiological, Cellular and Medical Topics; Cancer Research; Mathematical and Computational Biology; Oncology; Genetics and Population Dynamics; Applications of Mathematics

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-8300-7

Hardcover
2014, XV, 227 p. 71 illus., 26 illus. in color. (Modeling and Simulation in Science, Engineering and Technology)
$69.99
ISBN 978-1-4614-8300-7
usually dispatched within 3 to 5 business days

Linear Integral Equations

This book combines theory, applications, and numerical methods, and covers each of these fields with the same weight. In order to make the book accessible to mathematicians, physicists, and engi- neers alike, the author has made it as self-contained as possible, requiring only a solid foundation in dif- ferential and integral calculus. The functional analy- sis which is necessary for an adequate treatment of the theory and the numerical solution of integral equations is developed within the book itself. Prob- lems are included at the end of each chapter. For this third edition in order to make the introduction to the basic functional analytic tools more complete the Hahn–Banach extension[...]

Features
This book combines theory, applications, and numerical methods, and covers each of these fields with the same weight. In order to make the book accessible to mathematicians, physicists, and engi- neers alike, the author has made it as self-contained as possible, requiring only a solid foundation in dif- ferential and integral calculus. The functional analy- sis which is necessary for an adequate treatment of the[...]

Contents

Fields of interest
Analysis, Numerical Analysis; Measure and Integra- tion; Signal, Image and Speech Processing

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Hardcover
2014, XVI, 412 p. 1 illus. (Applied Mathematical Sciences, Vol. 82)
$79.99
usually dispatched within 3 to 5 business days

Advances in Dynamic Games

Theory, Applications, and Numerical Methods

This contributed volume focuses on aspects of dynamic game theory including differential games, evolutionary games, and stochastic games. It covers theoretical developments, algorithmic methods, and applications to fields as varied as mathematical biology, environmental management, economics, engi- neering, guidance and control, and social interaction. It will be of interest to an interdisciplinary audience of researchers, practitioners, and advanced gradu- ate students. Advances in Dynamic Games presents state-of-the-art research that serves as a testament to the vitality and growth of the field of dynamic games and their applications. Its contributions, written by experts in their[...]
Multiple Wiener-Itô Integrals
With Applications to Limit Theorems

The goal of this Lecture Note is to prove a new type of limit theorems for normalized sums of strongly dependent random variables that play an important role in probability theory or in statistical physics. Here non-linear functionals of stationary Gaussian fields are considered, and it is shown that the theory of Wiener-Itô integrals provides a valuable tool in their study. More precisely, a version of these random integrals is introduced that enables us to combine the technique of random integrals and Fourier analysis. The most important results of this theory are presented together with some non-trivial limit theorems proved with their help. This work is a new, revised version of a[...]

Features
The goal of this Lecture Note is to prove a new type of limit theorems for normalized sums of strongly dependent random variables that play an important role in probability theory or in statistical physics. Here non-linear functionals of stationary Gaussian fields are considered, and it is shown that the theory of Wiener-Itô integrals provides a valuable tool in their study. More precisely, a version of [...]}

Fields of interest
Probability Theory and Stochastic Processes

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02641-1

Softcover
2014, XIII, 126 p. 4 illus. (Lecture Notes in Mathematics, Vol. 2049)
$49.99
ISBN 978-3-319-02641-1
usually dispatched within 3 to 5 business days

Quantum Variational Calculus

This Brief puts together two subjects, quantum and variational calculus by considering variational problems involving Hahn quantum operators. The main advantage of its results is that they are able to deal with nondifferentiable (even discontinuous) functions, which are important in applications. Possible applications in economics are discussed. Economists model time as continuous or discrete. Although individual economic decisions are generally made at perfectly synchronized in ways discrete models postulate. On the other hand, the usual assumption that economic activity takes place continuously, is nothing else than a convenient[...]

Features
This Brief puts together two subjects, quantum and variational calculus by considering variational problems involving Hahn quantum operators. The main advantage of its results is that they are able to deal with nondifferentiable (even discontinuous) functions, which are important in applications. Possible applications in economics are discussed. Economists model time as continuous or discrete. Although [...]}

Fields of interest
Calculus of Variations and Optimal Control; Optimization; Control; Game Theory / Mathematical Methods; Quantum Physics

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-02746-3

Softcover
2014, XVIII, 84 p. 3 illus. (SpringerBriefs in Control, Automation and Robotics)
$54.99
ISBN 978-3-319-02746-3
usually dispatched within 3 to 5 business days

Mathematical Models for Poroelastic Flows

The book is devoted to rigorous derivation of macroscopic mathematical models as a homogenization of exact mathematical models at the microscopic level. The idea is quite natural: one first must describe the joint motion of the elastic skeleton and the fluid in pores at the microscopic level by means of classical continuum mechanics, and then use homogenization to find appropriate approximation models (homogenized equations). The Navier-Stokes equations still hold at this scale of the pore size in the order of 5 – 15 microns. Thus, as we have mentioned above, the macroscopic mathematical models obtained are still within the limits of physical applicability. These mathematical models[...]

Features
The book is devoted to rigorous derivation of macroscopic mathematical models as a homogenization of exact mathematical models at the microscopic level. The idea is quite natural: one first must describe the joint motion of the elastic skeleton and the fluid in pores at the microscopic level by means of classical continuum mechanics, and then use homogenization to find appropriate approximation models [...]}

Contents

Fields of interest
Partial Differential Equations; Mathematical Methods in Physics; Mechanics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-6239-014-0

Hardcover
2014, XXXVIII, 449 p. 25 illus., 3 illus. in color. (Atlantis Studies in Differential Equations, Vol. 1)
$129.00
ISBN 978-94-6239-014-0
usually dispatched within 3 to 5 business days
Topological and Variational Methods with Applications to Nonlinear Boundary Value Problems

This book focuses on nonlinear boundary value problems and the aspects of nonlinear analysis which are necessary to their study. The authors first give a comprehensive introduction to the many different classical methods from nonlinear analysis, variational principles, and Morse theory. They then provide a rigorous and detailed treatment of the relevant areas of nonlinear analysis with new applications to nonlinear boundary value problems for both ordinary and partial differential equations. Recent results on the existence and multiplicity of critical points for both smooth and nonsmooth functional developments on the degree theory of monotone type operators, nonlinear maximum and [...]
Hyperbolic Systems with Analytic Coefficients

Well-posedness of the Cauchy Problem

This monograph focuses on the well-posedness of the Cauchy problem for linear hyperbolic systems with matrix coefficients. Mainly two questions are discussed: (A) Under which conditions on lower order terms is the Cauchy problem well posed? (B) When is the Cauchy problem well posed for any lower order term? For first order two by two systems with two independent variables with real analytic coefficients, we present complete answers for both (A) and (B). For first order systems with real analytic coefficients we prove general necessary conditions for question (B) in terms of minors of the principal symbols. With regard to sufficient conditions for (B), we introduce hyperbolic systems with [...]
Realtime Data Mining
Self-Learning Techniques for Recommendation Engines

Describing novel mathematical concepts for recommendation engines, Realtime Data Mining: Self-Learning Techniques for Recommendation Engines features a sound mathematical framework unifying approaches based on control and learning theories, tensor factorization, and hierarchical methods. Furthermore, it presents promising results of numerous experiments on real-world data. The area of realtime data mining is currently developing at an exceptionally dynamic pace, and realtime data mining systems are the counterpart of today’s “classic” data mining systems. Whereas the latter learn from historical data and then use it to deduce necessary actions, realtime analytics systems learn [...] 

Features
Describing novel mathematical concepts for recommendation engines, Realtime Data Mining: Self-Learning Techniques for Recommendation Engines features a sound mathematical framework unifying approaches based on control and learning theories, tensor factorization, and hierarchical methods. Furthermore, it presents promising results of numerous experiments on real-world data. The area of realtime [...]

Contents
1 Brave New Realtime World – Introduction
- 2 Strange Recommendations! – On The Weaknesses Of Current Recommendation Engines
- 3 Changing Not Just Analyzing – Control Theory And Reinforcement Learning
- 4 Recommendations As A Game – Reinforcement Learning For Recommendation Engines
- 5 How Engines Learn To Generate Recommendations – Adaptive Learning Algorithms
- 6 Up The Down Staircase – Hierarchical Reinforcement Learning
- 7 Breaking Dimensions – Adaptive Scoring With Sparse Grids
- 8 Decomposition In Transition – Adaptive Matrix Factorization
- 9 Decomposition In Transition II

Fields of interest
Computational Science and Engineering; Mathematical Applications in Computer Science; Mathematical Software

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04475-6

A. Potschka

A Direct Method for Parabolic PDE Constrained Optimization Problems

Andreas Potschka discusses a direct multiple shooting method for dynamic optimization problems constrained by nonlinear, possibly time-periodic, parabolic partial differential equations. In contrast to indirect methods, this approach automatically computes adjoint derivatives without requiring the user to formulate adjoint equations, which can be time-consuming and error-prone. The author describes and analyzes in detail a globalized inexact Sequential Quadratic Programming method that exploits the mathematical structures of this approach and problem class for fast numerical performance. The book features applications, including results for a real-world chemical engineering separation.[...]

Features
Andreas Potschka discusses a direct multiple shooting method for dynamic optimization problems constrained by nonlinear, possibly time-periodic, parabolic partial differential equations. In contrast to indirect methods, this approach automatically computes adjoint derivatives without requiring the user to formulate adjoint equations, which can be time-consuming and error-prone. The author describes and [...]

Contents
Parabolic PDE Constrained Optimization Problems
- Two-Grid Newton-Picard Inexact SQP
- Structure Exploiting Solution of QPs
- Applications and Numerical Results

Fields of interest
Optimization; Mathematics (general); Biochemical Engineering; Partial Differential Equations

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04475-6

Softcover
2014. XIV, 216 p. 30 illus. (Advances in Numerical Mathematics)
$99.00
ISBN 978-3-658-04475-6
usually dispatched within 3 to 5 business days

Ramsey Theory for Discrete Structures

This monograph covers some of the most important developments in Ramsey theory from its beginnings in the early 20th century via its many breakthroughs to recent important developments in the early 21st century. The book first presents a detailed discussion of the roots of Ramsey theory before offering a thorough discussion of the role of parameter sets. It presents several examples of structures that can be interpreted in terms of parameter sets and features the most fundamental Ramsey-type results for parameter sets: Hales-Jewett’s theorem and Graham-Rothschild’s Ramsey theorem as well as their canonical versions and several applications. Next, the book steps back to the most basic[...]

Features
This monograph covers some of the most important developments in Ramsey theory from its beginnings in the early 20th century via its many breakthroughs to recent important developments in the early 21st century. The book first presents a detailed discussion of the roots of Ramsey theory before offering a thorough discussion of the role of parameter sets. It presents several examples of [...]
Numerical Models for Differential Problems

In this text, we introduce the basic concepts for the numerical modelling of partial differential equations. We consider the classical elliptic, parabolic and hyperbolic linear equations, but also the diffusion, transport, and Navier-Stokes equations, as well as equations representing conservation laws, saddle-point problems and optimal control problems. Furthermore, we provide numerous physical examples which underline such equations. We then analyze numerical solution methods based on finite elements, finite differences, finite volumes, spectral methods and domain decomposition methods, and reduced basis methods. In particular, we discuss the algorithmic and computer implementation. [...] 

Contents


Fields of interest

Mathematics (general); Analysis; Numerical Analysis; Mathematical Modeling and Industrial Mathematics; Applications of Mathematics; Computational Mathematics and Numerical Analysis 

Target groups

Lower undergraduate 

Type of publication

Undergraduate textbook 

More on springer.com/978-88-470-5521-6

Hardcover

2014, XVIII, 656 p. (MS&A, Vol. 8) 
$69.99 
Due: January 28, 2014

Reduced Order Methods for Modeling and Computational Reduction

This monograph addresses the state of the art of reduced order methods for modeling and computational reduction of complex parametrized systems, governed by ordinary and/or partial differential equations, with a special emphasis on real time computing techniques and applications in computational mechanics, bioengineering and computer graphics. Several topics are covered, including: design, optimization, and control theory in real-time with applications in engineering; data assimilation, geometry registration, and parameter estimation with special attention to real-time computing in biomedical engineering and computational physics; real-time visualization of physics-based simulations. [...] 

Features

This monograph addresses the state of the art of reduced order methods for modeling and computational reduction of complex parametrized systems, governed by ordinary and/or partial differential equations, with a special emphasis on real-time computing techniques and applications in computational mechanics, bioengineering and computer graphics. Several topics are covered, including: design, optimization, and [...] 

Contents


Fields of interest


Target groups

Professional/practitioner 

Type of publication

Monograph 

More on www.springer.com/978-1-4614-9532-1 

Hardcover

2014, XIII, 520 p. (Developments in Mathematics, Vol. 34) 
$149.00 
ISBN 978-1-4614-9532-1 
usually dispatched within 3 to 5 business days

Genericity in Nonlinear Analysis

This book presents an extensive collection of state-of-the-art results and references in nonlinear functional analysis demonstrating how the generic approach proves to be very useful in solving many interesting and important problems. Nonlinear analysis plays an ever-increasing role in theoretical and applied mathematics, as well as in many other areas of science such as engineering, statistics, computer science, economics, finance, and medicine. The text may be used as supplementary material for graduate courses in nonlinear functional analysis, optimization theory and approximation theory, and is a treasure trove for instructors, researchers, and practitioners in mathematics and [...]

Features

This book presents an extensive collection of state-of-the-art results and references in nonlinear functional analysis demonstrating how the generic approach proves to be very useful in solving many interesting and important problems. Nonlinear analysis plays an ever-increasing role in theoretical and applied mathematics, as well as in many other areas of science such as engineering, statistics, computer [...] 

Contents


Fields of interest

Functional Analysis; Operator Theory; Calculus of Variations and Optimal Control; Optimization 

Target groups

Research 

Type of publication

Monograph 

More on www.springer.com/978-1-4614-9532-1 

Hardcover

2014, XIII, 520 p. (Developments in Mathematics, Vol. 34) 
$149.00 
ISBN 978-1-4614-9532-1
A Probability Path

Many probability books are written by mathematicians and have the built-in bias that the reader is assumed to be a mathematician coming to the material for its beauty. This textbook is geared towards beginning graduate students from a variety of disciplines whose primary focus is not necessarily mathematics for its own sake. Instead, A Probability Path is designed for those requiring a deep understanding of advanced probability for their research in statistics, applied probability, biology, operations research, mathematical finance and engineering. A one-semester course is laid out in an efficient and readable manner covering the core material. The first three chapters provide a[...]

Features
Many probability books are written by mathematicians and have the built-in bias that the reader is assumed to be a mathematician coming to the material for its beauty. This textbook is geared towards beginning graduate students from a variety of disciplines whose primary focus is not necessarily mathematics for its own sake. Instead, A Probability Path is designed for those requiring a deep[...]

Contents

Fields of interest
Probability Theory and Stochastic Processes; Applications of Mathematics; Operations Research; Mathematical Programming; Statistical Theory and Methods

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook


Softcover
2014, XIV, 453 p. 11 illus. (Modern Birkhäuser Classics)
$79.99
usually dispatched within 3 to 5 business days

Modal Interval Analysis

New Tools for Numerical Information

This book presents an innovative new approach to interval analysis. Modal Interval Analysis (MIA) is an attempt to go beyond the limitations of classic intervals in terms of their structural, algebraic and logical features. The starting point of MIA is quite simple: It consists in defining a modal interval that attaches a quantifier to a classical interval and in introducing the basic relation of inclusion between modal intervals through the inclusion of the sets of predicates they accept. This modal approach introduces interval extensions of the real continuous functions, identifies equivalences between logical formulas and interval inclusions, and provides the semantic theorems that[...]

Features
This book presents an innovative new approach to interval analysis. Modal Interval Analysis (MIA) is an attempt to go beyond the limitations of classic intervals in terms of their structural, algebraic and logical features. The starting point of MIA is quite simple: It consists in defining a modal interval that attaches a quantifier to a classical interval and in introducing the basic relation of inclusion[...]

Contents

Fields of interest
Analysis; Control; Numeric Computing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01720-4

Softcover
2014, XVI, 316 p. 37 illus., 3 illus. in color. (Lecture Notes in Mathematics, Vol. 2011)
$59.99
ISBN 978-3-319-01720-4
usually dispatched within 3 to 5 business days

Discrete Dynamical Models

This book provides an introduction to the analysis of discrete dynamical systems. The content is presented by an unitary approach that blends the perspective of mathematical modeling together with the ones of several discipline as Mathematical Analysis, Linear Algebra, Numerical Analysis, Systems Theory and Probability. After a preliminary discussion of several models, the main tools for the study of linear and non-linear scalar dynamical systems are presented, paying particular attention to the stability analysis. Linear difference equations are studied in detail and an elementary introduction of Z and Discrete Fourier Transform is presented. A whole chapter is devoted to the study[...]

Features
This book provides an introduction to the analysis of discrete dynamical systems. The content is presented by an unitary approach that blends the perspective of mathematical modeling together with the ones of several discipline as Mathematical Analysis, Linear Algebra, Numerical Analysis, Systems Theory and Probability. After a preliminary discussion of several models, the main tools for the study of linear[...]

Contents
1 Recursive phenomena and difference equations.- 2 Linear difference equations.- 3 Discrete dynamical systems: one-step scalar equations.- 4 Complex behavior of nonlinear dynamical systems: bifurcations and chaos.- 5 Discrete dynamical systems: vector equations.- 6 Markov chains.- 7 Matrix.- 8 Solutions.

Fields of interest
Dynamical Systems and Ergodic Theory; Difference and Functional Equations; Linear and Multilinear Algebras, Matrix Theory; Applications of Mathematics; Discrete Mathematics

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-319-02290-1

Softcover
2014, XVI, 388 p. (La Matematica per il 3+2, Vol. 76)
$79.99
ISBN 978-3-319-02290-1
Due: December 31, 2013
The Logic of Logistics

Theory, Algorithms, and Applications for Logistics Management

Fierce competition in today's global market provides a powerful motivation for developing ever more sophisticated logistics systems. This book, written for the logistics manager and researcher, presents a survey of the modern theory and application of logistics. The goal of the book is to present the state of the art in the science of logistics management. This third edition includes new chapters on the subjects of game theory, the power of process flexibility, supply chain competition and collaboration. Among the other materials new to the edition are sections on discrete convex analysis and its applications to stochastic inventory models, as well as extended discussions of integrated[...]

Features

Fierce competition in today's global market provides a powerful motivation for developing ever more sophisticated logistics systems. This book, written for the logistics manager and researcher, presents a survey of the modern theory and application of logistics. The goal of the book is to present the state of the art in the science of logistics management. This third edition includes new chapters on[...]

Contents


Fields of interest

Operations Research, Mathematical Programming; Production / Logistics; Industrial and Production Engineering; Game Theory / Mathematical Methods

Target groups

Professional/practitioner

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-9148-4

Hardcover

2014. XX, 447 p. 43 illus., 18 illus. in color. (Springer Series in Operations Research and Financial Engineering)

$79.99

ISBN 978-1-4614-9148-4

usually dispatched within 3 to 5 business days

Geometric Control Theory and Sub-Riemannian Geometry

Honoring Andrei Agrachev's 60th birthday, this volume presents recent advances in the interaction between Geometric Control Theory and sub-Riemannian geometry. On the one hand, Geometric Control Theory used the differential geometric and Lie algebraic language for studying controllability, motion planning, stabilizability and optimality for control systems. The geometric approach turned out to be fruitful in applications to robotics, vision modeling, mathematical physics etc. On the other hand, Riemannian geometry and its generalizations, such as sub-Riemannian, Finslerian geometry etc., have been actively adopting methods developed in the scope of geometric control. Application of [...]

Features

This volume presents recent advances in the interaction between Geometric Control Theory and sub-Riemannian geometry. On the one hand, Geometric Control Theory used the differential geometric and Lie algebraic language for studying controllability, motion planning, stabilizability and optimality for control systems. The geometric approach turned out to be fruitful in applications to robotics, vision modeling. [...]

Contents


Fields of interest

Applications of Mathematics; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Mathematical Applications in Computer Science; Simulation and Modeling

Target groups

Upper undergraduate

Type of publication

Monograph

More on www.springer.com/978-3-319-03085-2

Hardcover


$109.00

ISBN 978-3-319-03085-2

Due: December 31, 2013

Mathematical Modeling and Signal Processing in Speech and Hearing Sciences

The aim of the book is to give an accessible introduction of mathematical models and signal processing methods in speech and hearing sciences for senior undergraduate and beginning graduate students with basic knowledge of linear algebra, differential equations, numerical analysis, and probability. Speech and hearing sciences are fundamental to numerous technological advances of the digital world in the past decade, from music compression in MP3 to digital hearing aids, from network based voice enabled services to speech interaction with mobile phones. Mathematics and computation are intimately related to these leaps and bounds. On the other hand, speech and hearing are strongly[...]

Features

The aim of the book is to give an accessible introduction of mathematical models and signal processing methods in speech and hearing sciences for senior undergraduate and beginning graduate students with basic knowledge of linear algebra, differential equations, numerical analysis, and probability. Speech and hearing sciences are fundamental to numerous technological advances of the digital world in the past[...]

Contents


Fields of interest

Applications of Mathematics; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Mathematical Applications in Computer Science; Simulation and Modeling

Target groups

Upper undergraduate

Type of publication

Monograph

More on www.springer.com/978-3-319-03085-2

Hardcover


$109.00

ISBN 978-3-319-03085-2

Due: December 31, 2013

Mathematics 193
Clinical Applications of SPECT-CT

SPECT/CT cameras have considerably improved diagnostic accuracy in recent years based in large part on the better localization and definition of scintigraphic findings. This book covers the full spectrum of clinical applications of SPECT/CT in diagnosis and therapy planning of benign and malignant diseases. Opening chapters discuss the technology and physics of SPECT/CT and its use for dosimetry. The role of SPECT/CT in the imaging of a range of pathologic conditions is then addressed in detail. Applications covered include, among others, imaging of the thyroid, bone, and lungs, imaging of neuroendocrine tumors, cardiac scintigraphy, and sentinel node scintigraphy.

Features
SPECT/CT cameras have considerably improved diagnostic accuracy in recent years. Such cameras allow direct correlation of anatomic and functional information, resulting in better localization and definition of scintigraphic findings. In addition to this anatomic referencing, CT coregistration provides superior quantification of radiotracer uptake based on the attenuation correction capabilities of SPECT/CT.

Contents
Technology and Physics of SPECT/CT: Use of SPECT/CT for dosimetry, SPECT/CT for parathyroid and thyroid imaging, SPECT/CT for thyroid cancer imaging, 123Iod-MIBG SPECT/CT for tumor imaging, SPECT/CT for neuroendocrine tumors, Bone SPECT/CT in oncology, Bone SPECT/CT in orthopaedics, SPECT/CT for cardiac scintigraphy, SPECT/CT in sentinel node scintigraphy, Lung SPECT/CT: Therapy planning in selective internal radiation therapy of liver tumors with SPECT/CT, Bremsstrahlung SPECT/CT, Miscellaneous (Brain SPECT/CT, inflammation, radiation planning, GI-Tract).

Fields of interest
Nuclear Medicine; Imaging / Radiology; Oncology

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-642-35282-9

Hardcover
2014, VIII, 304 p. 112 illus., 92 illus. in color.
$229.00
ISBN 978-3-642-35282-9
Due: January 28, 2014

Handbook of Epidemiology

This 5-volume reference covers the entire field of epidemiology, from statistical methods and study design, to specialized areas such as molecular epidemiology, and applications in clinical medicine and health services research. This updated edition of the Handbook of Epidemiology adds 20 new chapters on: History of Epidemiological Methods and Concepts, Cluster Randomized Trials, Internet-Based Epidemiology, Misclassification, Sensitivity Analysis and Bias Analysis, Emergency and Disaster Health Surveillance, Statistical Inference, Data Management in Epidemiology, Bayesian Methods in Epidemiology, Generalized Estimating Equations, Directed Acyclic Graphs, Life Course Epidemiology.

Features
This 5-volume reference covers the entire field of epidemiology, from statistical methods and study design, to specialized areas such as molecular epidemiology, and applications in clinical medicine and health services research. This updated edition of the Handbook of Epidemiology adds 20 new chapters on: History of Epidemiological Methods and Concepts, Cluster Randomized Trials, Internet-Based Epidemiology.

Contents
Foreword. - Preface. - Part I: Concepts and Designs in Epidemiology. - An Introduction to Epidemiology, History of Epidemiological Methods and Concepts (NEW), Basic Concepts, Rates, Risks, Measures of Association and Impact, Descriptive Studies, Cohort Studies, Case-Control Studies, Modern Epidemiological Study Designs, Intervention Trials, Cluster Randomized Trials (NEW), Community-Based Health Promotion, Internet Based Epidemiology (NEW). Part II: Methodological Approaches in Epidemiology: Design and Planning of Epidemiological Studies, Quality Control and Good Epidemiological Practice.

Fields of interest
Epidemiology, Statistics for Life Sciences, Medicine, Health Sciences, Medicine (general)

Target groups
Research

Type of publication
Handbook


Hardcover
2014, XXX, 2498 p. 280 illus., 24 illus. in color. In 5 volumes, not available separately.
$1,100.00
usually dispatched within 3 to 5 business days

Imaging of Prosthetic Joints

A Combined Radiological and Clinical Perspective

An increasing percentage of the population has at least one prosthetic joint. Imaging is required for both initial assessment and routine follow-up of the implant, and this book is intended as an informative and up-to-date guide to the subject. After an introductory section covering a range of background topics, the level of information offered by different imaging techniques in presurgical planning and postimplantation assessment is analyzed. The application of imaging to different joints is then carefully explored in chapters devoted to the foot and ankle, hip, knee, shoulder, and elbow, wrist and hand. In addition, two innovative chapters focus on periprosthetic DXA as the gold standard.

Features
An increasing percentage of the population has at least one prosthesis joint. Imaging is required for both initial assessment and routine follow-up of the implant, and this book is intended as an informative and up-to-date guide to the subject. After an introductory section covering a range of background topics, the level of information offered by different imaging techniques in presurgical planning.

Contents
SECTION I Cellular elements, bone matrix, bone remodeling, osseointegration, implant material. - I Bone cells. - 2 Bone matrix proteins and mineralization process. - 3 Bone remodeling. - 4 Biomechanics and prosthetic osseointegration. - 5 Implant material. - SECTION II Images techniques, conventional RX, TC, RM, bone scintigraphy, periprosthetic DXA. - 6 Role of conventional RX, CT and MRI in the evaluation of prosthetic joints. - 7 Role of Nuclear Medicine in prosthesis surveillance. - 8 Periprosthetic DXA. - SECTION III Prosthetic joints of foot and ankle, hip, knee, shoulder, elbow, wrist.

Fields of interest
Imaging / Radiology; Orthopedics

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-88-470-5482-0

Hardcover
2014, XII, 189 p. 82 illus., 48 illus. in color.
$179.00
ISBN 978-88-470-5482-0
Due: January 28, 2014
Fundamentals of Cancer Prevention

This authoritative work is an essential reference guide and tool for oncologists, primary care physicians, the research community, and students with an interest in reducing the burden of cancer. Written as a collaborative work by nationally recognized leaders in the field of cancer prevention and control, the third edition provides readers with new information related to recent developments in the field. The scope of this edition has been expanded to include topics related to global health and to provide readers with novel insights into the expanding disciplines within cancer prevention and control.

Features
This authoritative work is an essential reference guide and tool for oncologists, primary care physicians, the research community, and students with an interest in reducing the burden of cancer. Written as a collaborative work by nationally recognized leaders in the field of cancer prevention and control, the third edition provides readers with new information related to recent developments in the field. [...]
PET/MRI

Methodology and Clinical Applications

In compiling this textbook on the exciting novel imaging modality of PET/MRI, the editors have brought together a truly international group of experts in the field. The book is divided into two parts. The first part covers methodology and equipment and includes chapters on basic molecular medicine, contrast agents, MR attenuation and validation, and quantitative MRI and PET motion correction. The second part of the book focuses on clinical applications in oncology, cardiology, and neurology. Imaging of major neoplasms is covered in a series of individual chapters. Further chapters address functional and metabolic cardiovascular examinations and major central nervous system.[...]

Features

PET/MRI is an exciting novel diagnostic imaging modality that combines the precise anatomic and physiologic information provided by magnetic resonance imaging (MRI) with the molecular data obtained with positron emission tomography (PET). PET/MRI offers the promise of a simplified workflow, reduced radiation, whole-body imaging with superior soft tissue contrast, and time of flight physiologic information.[...]

Contents


Fields of interest

Imaging / Radiology; Nuclear Medicine

Target groups

Professional/practitioner

Type of publication

Professional book

More on www.springer.com/978-3-642-40691-1

Hardcover

2014, 146 p. 60 illus., 48 illus. in color. $179.00
ISBN 978-3-642-40691-1
usually dispatched within 3 to 5 business days

Charles-Edouard Brown-Séquard

The Biography of a Tormented Genius

Genius and dilettantism often go hand in hand. Nowhere is this truer than in the life of Charles-Edouard Brown-Séquard, the bilingual physician and neurologist who succeeded Claude Bernard as the Chair of Experimental Medicine at the College de France in Paris after having practiced in Paris, London and in the USA, especially in Harvard. For most men, making one discovery of global importance would have sufficed to satisfy their curiosity and self-image. Not so Brown-Séquard. His explanation of the neurological disparity following the hemisection of the spinal cord was a unique achievement that added his name to the syndrome and made him immortal. Yet, the demons of his mind tormented.[...]

Features

Genius and dilettantism often go hand in hand. Nowhere is this truer than in the life of Charles-Edouard Brown-Séquard, the bilingual physician and neurologist who succeeded Claude Bernard as the Chair of Experimental Medicine at the College de France in Paris after having practiced in Paris, London and in the USA, especially in Harvard. For most men, making one discovery of global importance would [...]
Benign Breast Diseases

Radiology - Pathology - Risk Assessment

The second edition of this book has been extensively revised and updated. There has been a lot of scientific advances in the radiology, pathology and risk assessment of benign breast lesions since the publication of the first edition. The first edition concentrated on screen-detected lesions, which has been rectified. New symptomatic and screen-detected lesions are discussed in the second edition and include: mastitis and breast abscess, idiopathic granulomatous mastitis, diabetic mastopathy, phyllodes tumour, gynecomastia and pseudosarcomatous stromal hyperplasia. The chapters on columnar cell lesions and mucocle-like lesions have been extensively updated. Where applicable, genetic[...]

Features

The second edition of this book has been extensively revised and updated. There have been numerous scientific advances in the radiology, pathology and risk assessment of benign breast lesions since the publication of the first edition. The first edition concentrated on screen-detected lesions, which has since been rectified; new symptomatic and screen-detected lesions are discussed in the second edition [...]

Contents


Field of interest

Imaging / Radiology; Diagnostic Radiology; Gynecology; Oncology; Pathology

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-3-642-41064-2

Handbook of Treatment-resistant Schizophrenia

Handbook of Treatment-resistant Schizophrenia is a concise review of treatment-resistant schizophrenia's definition, measurement tools, adherence issues, substance abuse, optimal dosing, clinician-patient relationships, and current management approaches. The book was originally commissioned with the intention of creating a comprehensive text focusing on treatment-resistant schizophrenia and its management. The book explores many aspects of the background and practice- and research-based evidence for treating this complex subset of schizophrenia, including psychopharmacological, somatic, and nonpharmacological treatment approaches. While exploring the various therapies for[...]

Features

Handbook of Treatment-resistant Schizophrenia is a concise review of treatment-resistant schizophrenia's definition, measurement tools, adherence issues, substance abuse, optimal dosing, clinician-patient relationships, and current management approaches. The book was originally commissioned with the intention of creating a comprehensive text focusing on treatment-resistant schizophrenia and its management. The [...]
Treatment of Postoperative Complications After Digestive Surgery

Any surgical intervention, elective or acute, may lead to postoperative complications. Moreover, the pertaining approach - laparoscopic or open - will probably not differ in the morbidity rate after surgery. Complications that occur after a surgical intervention can be classified as major or minor. Major complications to the digestive tract after surgery imply in most cases a leakage of an anastomosis, bleeding in the abdominal cavity or in the tract, the appearance of intraabdominal abscesses, or surgical site infections and wound dehiscence. These complications, depending on the organ affected, upper GI, HPB tract or colorectal, are associated with high morbidity and mortality.

Features

Any surgical intervention, elective or acute, may lead to postoperative complications. Moreover, the pertaining approach - laparoscopic or open - will probably not differ in the morbidity rate after surgery. Complications that occur after a surgical intervention can be classified as major or minor. Major complications to the digestive tract after surgery imply in most cases a leakage of an anastomosis.

Contents

1. The Surgical Stress Response following Colorectal Surgery
2. Are Major Complications after Digestive Surgery Preventable?
3. The Clavien-Dindo Classification of Surgical Complications
4. Diagnosis and Treatment of Major Abdominal Complications is a Multidisciplinary Work
5. General Principles of Recognition of Major Complication Following Surgery of the Digestive Tract
6. Is There Less Morbidity After Laparoscopic Surgery?
7. Is There Less Morbidity After Fast Track Surgery?
8. Prevention and Treatment of Major Complications after Esophageal Surgery
9. How to Prevent

Fields of interest
Gastroenterology; Endocrinology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4471-4353-6

Case Studies of Postoperative Complications after Digestive Surgery

The proposal for this book is to offer a systematic description of the most frequent complications occurring in the three parts of the digestive tract: HPB, Upper GI and colorectal tracts. Every complication, from esophageal to the rectum, is described systematically through two or three practical cases as has been treated by actual surgical practices of authors serving as surgeon practitioners. Description of the case, presentation of indication for surgery, type of primary surgical intervention and complication is described textually but also and by means of clinical signs, laboratory tests, radiological studies (CT scans and schematic drawings) and other methods used for diagnosis.

Features

Case Studies of Postoperative Complications after Digestive Surgery offers a systematic description of the most frequent complications occurring in the GI, HPB and Colorectal tracts of the digestive system. Every complication, from esophageal to the rectum, is described systematically by means of practical cases. Case Studies of Postoperative Complications after Digestive Surgery.

Contents

1. Suspicion of an Anastomotic Problem after Esophageal Resection for Cancer
2. Cervical Leakage of an Oesophago-Gastric Conduit Anastomosis
3. Thoracic Duct Injury
4. Postoperative Hiatal Herniation after Esophageal Resection
5. Benign Stenosis of the Intrathoracic and Cervical Esophago-gastric Anastomosis after Esophagectomy
6. Renal Neurovascular Lesion (Double) As a Consequence of Esophageal Resection for Cancer
7. Trachea-Gastric Conduit Fistula after Esophageal Resection
8. Herniation of the Stomach into the Thorax after Laparoscopic Repair of a Type 3 Para-esophageal Hernia

Fields of interest
Gastroenterology; Surgery; Abdominal Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-319-01612-2

Hardcover
2014. XVI, 332 p. 98 illus., 56 illus. in color.
$189.00
ISBN 978-1-4471-4353-6
usually dispatched within 3 to 5 business days

Postoperative Critical Care for Cardiac Surgical Patients

Cardiac surgical procedures are among the most common and most complicated forms of surgery worldwide and the postoperative period is characterized by complex challenges. Among the factors determining ultimate clinical outcome, postoperative critical care is of major importance. This book adopts a clinical approach in explaining and analyzing the course of clinical care in patients undergoing cardiac surgery. Since the postoperative clinical situation is directly influenced by preoperative and intraoperative factors, the early chapters briefly examine preoperative issues and the intraoperative course of cardiac surgery, with particular attention to anesthesiology and the process of...
Atrial Fibrillation Therapy

The paradigm for atrial fibrillation (AF) management has changed significantly in recent years. A new era has begun for the prevention of one of the most tremendous complications of AF, stroke. Prevention of ischemic stroke in AF patients with oral anticoagulants represents a huge challenge because of the narrow therapeutic window of these drugs, interindividual and intra-individual variability, and the unsatisfactory time in therapeutically range (TTR) with this type of medication. New guidelines have emerged as a result of new mechanisms for initiation and perpetuation for pharmacotherapy to cure AF and trials with new classes of antithrombotic drugs are ongoing. The treatment of AF is [...] 

Features
This book presents the current evidence and practice in the pharmacological treatment of atrial fibrillation (AF). AF management has changed significantly in recent years as a new era has begun for the prevention of stroke, one of the most devastating complications of AF. Prevention of ischemic stroke in AF patients with oral anticoagulants represents a huge challenge and the enormous amount of research is [...] 

Contents
- Epidemiology, burden and unmet needs in atrial fibrillation
- Inside Molecular Mechanisms and pharmacological Targets of Atrial Fibrillation
- Novel oral anticoagulants for stroke prevention in patients with non-valvular atrial fibrillation
- Upstream therapy in the treatment of atrial fibrillation
- Drug therapy for rhythm and rate control in Atrial Fibrillation
- Changing the paradigm to understand and manage Atrial Fibrillation
- Guidelines and current recommendations in Atrial Fibrillation

Fields of interest
Cardiology; Pharmacotherapy

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4471-5474-7

Starting to Read ECGs

The Basics
This book is book aims to provide the beginner with a concise, practical and systematic guide to interpreting ECGs. It will serve not only as a starter text but also as an immediate bedside reference manual. Starting to Read ECGs: The Basics begins with fundamentals such as how to perform, record and interpret a normal ECG before progressing onto more complex topics, including what effects anatomical abnormalities of the heart, cardiac and non-cardiac conditions can have on the ECG. Each chapter has been supplemented with a multitude of images and diagrams to illustrate points and ease understanding, and concludes with both a summary of key points to reinforce knowledge and a quiz for [...] 

Features
This book aims to provide the beginner with a concise, practical and systematic guide to interpreting ECGs. It will serve not only as a starter text but also as an immediate bedside reference manual. Starting to Read ECGs: The Basics begins with fundamentals such as how to perform, record and interpret a normal ECG before progressing onto more complex topics, including what effects anatomical [...] 

Contents
Chapter 1: How to record a 12-lead ECG
- Physiology
- How to position the patient
- Electrode placement
- Attaching the cables
- The machine
- What to write on the ECG
- Summary of key points
- Quiz
Chapter 2: ECG basics
- How does the 12-lead ECG work?
- Details found on a standard 12-lead ECG
- Leads
- The PQRST waveform
- Deflection
- Summary of key points
- Quiz
Chapter 3: Quality issues pertaining to ECG recording
- Background
- Leads
- Calibration markers
- ECG documentation
- Summary of key points
- Quiz
Chapter 4: Principles of ECG[...]

Fields of interest
Cardiology; Medicine (general); Intensive / Critical Care Medicine

Target groups
Professional/practitioner

Type of publication
Professional book


Softcover
2014. XIV, 188 p. 26 illus., 15 illus. in color.
Due: January 28, 2014

Difficult Psychiatric Consultations

An Integrated Approach

The fields of psychiatry and child psychiatry are encumbered by numerous and complex relational, medicolegal, and ethical dilemmas. This practical and clinically relevant book attempts to bring clarity to complex clinical presentations through the integration of psychodynamic, family systems, medicolegal, and ethical perspectives. It recognizes that the intimate and often difficult work with such complex cases requires consultation with multidimensional experts to address psychodynamic, family, ethical, and therapeutic issues. In the process, the author aims to foster the comfort and skill in dealing with these cases that is essential to the personal and professional growth of the[...]

Features
This innovative and important book describes a practical and clinically-relevant approach to the “difficult” psychiatric consultation. The authors systematically examine psychodynamic theories, family systems theories, and legal and ethical aspects of these consultations. Difficult Psychiatric Consultations: An Integrated Approach is unique compared to most psychiatric texts, in that it weaves[...]

Contents
Introduction
- Integrating theoretical paradigms
- The patient: Cognitive Functioning
- Temperament
- The Family
- Family System Theory
- Family System Concepts
- Genograms and Family Mapping
- The Family in child and adolescent psychiatry
- The treatment team: Evolution of the team
- Anatomy of the team
- Countertransference in the psychiatric consultant and the treatment team
- Ethics and Medico legal issues
- The culture
- A working definition of culture
- Culture Shock
- Mental Health across cultures
- Working with interpreters
- Culture in DSM IV and DSM V
- The clinical[...]

Fields of interest
Psychiatry; Psychology (general); Medicine (general); Psychotherapy

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-642-39551-2

Softcover
2014. XV, 151 p. 3 illus., 3 illus. in color.
ISBN 978-3-642-39551-2
Due: November 13, 2014

A. Davies, A. Scott

S.V. Delgado, Cincinnati Children’s Hospital Medical C, Cincinnati, USA
J.R. Strawn, University of Cincinnati, Cincinnati, USA
Towards a Psychosomatic Conception of Hypochondria

The Impeded Thought

A rigorous and groundbreaking study. Marine Derzelle is the first researcher to approach hypochondria as a relational pathology. Marine Derzelle confronts all specialists (psychotherapists, psychiatrists, doctors, psychosomaticians) with the paradox of this pathology and the theoretical void on which the approach to those patients who express a suffering of various kinds has stood for more than a century. In the first part, the author highlights the lack of theoretical elaboration on hypochondria in the...[

Features

A rigorous and groundbreaking study. Marine Derzelle is the first researcher to approach hypochondria as a relational pathology. Marine Derzelle is the first researcher to approach hypochondria as a relational pathology. The author tackles a subject that has puzzled care professionals for decades: hypochondria. Marine Derzelle confronts all specialists (psychotherapists, psychiatric patients, doctors, psychosomaticians) with the paradox of this pathology and the theoretical void on which the approach to those patients who express a suffering of various kinds has stood for more than a century. In the first part, the author highlights the lack of theoretical elaboration on hypochondria in the...[

Contents

Questions - Problems - Problem Definition - Negative Reports or “a Certain Discourse Used in a Certain Way” - From Biological Body to Metaphorical Body - A New Starting Point - Hypochondria, Projective Parenthood - A Different Relation to Ourselves and to the Other Person - Towards a Psychosomatic Conception of Hypochondria.

Fields of interest

Psychiatry; Psychotherapy; Psychoanalysis; Internal Medicine; Gastroenterology; Pain Medicine

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-3-319-03052-4

Hardcover

2014. XII, 121 p. 4 illus. $89.99

ISBN 978-3-319-03052-4

usually dispatched within 3 to 5 business days

Pediatric Craniovertebral Junction Diseases

Surgical Management of Craniovertebral Junction Diseases in Children

This dedicated volume in the series Advances and Technical Standards in Neurosurgery (ATSN) provides a comprehensive approach to diseases of the craniovertebral junction (CVJ) and their management based on the multidisciplinary cooperation of neurosurgeons, anatomists, neuroradiologists, and neuroanesthesiologists. The contributing authors represent the most renowned clinical and surgical experts from Europe and beyond. The main topics highlighted are embryology, normal and abnormal development of the CVJ, including the related vessels, modern radiological contributions to diagnosis, genetic and metabolic factors which may impact on the surgical strategies, the opportunities offered...[

Features

Management of congenital and acquired diseases of the craniovertebral junction (CVJ), comprising the occipital bone surrounding the foramen magnum, the atlas, and the axis vertebrae, constitutes one of the more complex areas of neurosurgery. This is particularly true in the pediatric population, in which the neurosurgeon is faced with a wide variety of congenital developmental anomalies and acquired...[

Contents


Fields of interest

Neurosurgery; Pediatric Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-319-01064-9

Hardcover

2014. VIII, 376 p. 163 illus., 70 illus. in color. (Advances and Technical Standards in Neurosurgery, Vol. 40) $209.00

ISBN 978-3-319-01064-9

usually dispatched within 3 to 5 business days

Monitoring Technologies in Acute Care Environments

A Comprehensive Guide to Patient Monitoring Technology

This is an introduction to the patient monitoring technologies that are used in today’s acute care environments, including the operating room, recovery room, emergency department, intensive care unit, and telemetry floor. To a significant extent, day-to-day medical decision-making relies on the information provided by these technologies, yet how they actually work is not always addressed during education and training. The editors and contributors are world-renowned experts who specialize in developing, refining, and testing the technology that makes modern-day clinical monitoring possible. Their aim in creating the book is to bridge the gap between clinical training...[

Features

This is an introduction to the patient monitoring technologies that are used in today’s acute care environments, including the operating room, recovery room, emergency department, intensive care unit, and telemetry floor. To a significant extent, day-to-day medical decision-making relies on the information provided by these technologies, yet how they actually work is not always addressed during...[

Contents


Fields of interest

Anesthesiology; Intensive / Critical Care Medicine; Emergency Medicine; Health Informatics

Target groups

Professional/practitioner

Type of publication

Professional book

More on www.springer.com/978-1-4614-8556-8

Softcover

2014. XIV, 431 p. 174 illus., 130 illus. in color. $79.99

ISBN 978-1-4614-8556-8

usually dispatched within 3 to 5 business days
Abdomen and Thoracic Imaging
An Engineering & Clinical Perspective

The book covers novel strategies of state of the art in engineering and clinical analysis and approaches for analyzing abdominal imaging, including lung, mediastinum, pleura, liver, kidney and gallbladder. In the last years the imaging techniques have experienced a tremendous improvement in the diagnosis and characterization of the pathologies that affect abdominal organs. In particular, the introduction of extremely fast CT scanners and high Magnetic field MR Systems allow imaging with an exquisite level of detail the anatomy and pathology of liver, kidney, pancreas, gallbladder as well as lung and mediastinum. Moreover, thanks to the development of powerful computer hardware and [...] Features

Ayman El-Baz, Ph.D., Associate Professor in the Department of Bioengineering at the University of Louisville, KY. Dr. El-Baz has fourteen years of hands-on experience in the fields of bioimaging modeling and computer-assisted diagnostic systems. His work has been reported at several prestigious international conferences (e.g., CVPR, ICCV, MICCAI, ISBI, etc.) and in journals (e.g., IEEE TMI, IEEE TIP, [...] Contents


Imaging / Radiology; Diagnostic Radiology; Biomedicine (general)

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-8497-4

Hardcover

2014. X, 773 p. 396 illus., 235 illus. in color.

$339.00

ISBN 978-1-4614-8497-4

usually dispatched within 3 to 5 business days

Congenital Malformations of the Head and Neck

Congenital Malformations of the Head and Neck offers a unique conceptual and visual approach to children with congenital malformations of the head and neck. Developed by renowned leaders in the field, this title is richly illustrated with a wealth of patient photos, radiology and endoscopic images of malformations. Starting with the genetics of common congenital syndromes, Congenital Malformations of the Head and Neck goes on to comprehensively cover malformations of the ear, nose, nasopharynx, oral cavity, oropharynx, cleft lip and palate, larynx, trachea, and neck. Easy-to-read and an indispensable reference and teaching resource, this title will serve as an invaluable reference[...]

Features

Congenital Malformations of the Head and Neck offers a unique conceptual and visual approach to children with congenital malformations of the head and neck. Developed by renowned leaders in the field, this title is richly illustrated with a wealth of patient photos, radiology and endoscopic images of malformations. Starting with the genetics of common congenital syndromes, Congenital Malformations [...] Fields of interest

Otorhinolaryngology; Head and Neck Surgery; Pediatrics

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4419-1713-3

Hardcover

2014. X, 193 p. 135 illus., 102 illus. in color.

$139.00


usually dispatched within 3 to 5 business days

Behçet’s Syndrome

From Pathogenesis to Treatment

Behçet’s syndrome can reasonably be considered a unique entity among diseases of the immune system for several reasons: It has specific features and, uniquely among the immune system pathologies, represents a link between autoimmune diseases, systemic vasculitis, and autoinflammatory diseases. In addition, it is of interest to a variety of specialists, including immunologists, rheumatologists, dermatologists, and ophthalmologists, and requires a complex multidisciplinary approach. Many aspects need to be considered in a syndrome that presents a wide spectrum of symptoms and for which the therapeutic armamentarium is expanding significantly, with the development of new treatments, not[...]

Features

Behçet’s syndrome can reasonably be considered a unique entity among diseases of the immune system for several reasons: It has specific features and, uniquely among the immune system pathologies, represents a link between autoimmune diseases, systemic vasculitis, and autoinflammatory diseases. In addition, it is of interest to a variety of specialists, including immunologists, rheumatologists, dermatologists, [...] Contents


Fields of interest

Rheumatology; Dermatology; Internal Medicine; Immunology; Pharmaceutical Sciences / Technology; Medical Education

Target groups

Professional/practitioner

Type of publication

Contributed volume


Hardcover

2014. X, 229 p. 39 illus., 24 illus. in color. (Rare Diseases of the Immune System)

$139.00


usually dispatched within 3 to 5 business days
Noninvasive Ventilation in High-Risk Infections and Mass Casualty Events

The past few decades have seen major impacts of different pandemics and mass casualty events on healthcare resource use in terms of rising healthcare costs and increased mortality. In this context, the development of acute respiratory failure in patients requires the use of mechanical ventilation, either invasive or noninvasive. Recently, noninvasive ventilation (NIV) has proved to be a valuable strategy to reduce mortality rates in patients. This is the first book to describe the clinical indications of NIV in patients who have been hospitalized with high-risk infections as well as in the prehospital management of mass casualty incidents, including chemical or biological disasters and.[...]

Features
The past few decades have seen major impacts of different pandemics and mass casualty events on healthcare resource use in terms of rising healthcare costs and increased mortality. In this context, the development of acute respiratory failure in patients requires the use of mechanical ventilation, either invasive or noninvasive. Recently, noninvasive ventilation (NIV) has proved to be a valuable strategy to reduce[...]

Contents
Part I. NIV and high-risk airborne infections.- Section 1. History and epidemiology.- Section 2.- Physiopathology.- Section 3.- Ventilatory strategies during ARF in high-risk infections.- Section 4.- Noninvasive mechanical clinical experience.- Part II. NIV in mass casualty incidents.- Section 5.- Rationale of ARF treatments in mass casualties.- Section 6.- Mass casualties, biological etiology.- Section 7.- Biological mass casualties, biological etiology.- Section 8.- Hospital organizations guidelines. Clinical and health organizations perspectives.- Section 9.- Model health systems[...]

Fields of interest
Emergency Services; Intensive / Critical Care Medicine; Emergency Medicine; Anesthesiology; Pneumology/Respiratory System; Pediatrics

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-8270-3

Hardcover
2014. XV, 370 p. 30 illus., 20 illus. in color.
$189.00
ISBN 978-3-7091-1495-7
usually dispatched within 3 to 5 business days

Advances in Diagnosis and Management of Ovarian Cancer

Ovarian Cancer: Advances in Diagnosis and Management presents unique international perspectives on this devastating disease. While ovarian cancer has mainly been considered a disease of the Western hemisphere, this book moves beyond our conventional understanding and embraces knowledge from around the world. The focus is on recent advances in diagnosis, including genetic screening, and improvements and expanded choices in management, such as the optimization of chemotherapeutic agents, gene therapy, and the latest laparoscopic and robotic surgical techniques. Further chapters address psychosocial and quality-of-life issues. This book is an excellent resource on the international[...]

Features
This volume is an up-to-date resource on the international state-of-the-art in the diagnosis and management of ovarian cancer. While this devastating disease has been considered mainly a disease of the Western hemisphere, the book moves beyond our conventional understanding and embraces knowledge from around the world. It focuses on recent advances in diagnosis, including genetic screening; improvements[...]

Contents

Fields of interest
Oncology; Gynecology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8270-3

Hardcover
2014. XV, 270 p. 59 illus., 50 illus. in color.
$189.00
ISBN 978-1-4614-8270-3
usually dispatched within 3 to 5 business days

eHealth, Care and Quality of Life

The debate over eHealth is alive as never before. Supporters suggest that it will result in dramatic innovations in healthcare, including a giant leap towards patient-centered care, new opportunities to improve effectiveness, and enhanced wellness and quality of life. In addition, the growing market value of investments in health IT suggests that eHealth can offer at least a partial cure for the current economic stagnation. Detractors counter these arguments by claiming that eHealth has already failed: the UK Department of Health has shut down the NHS National Program for IT, Google has discontinued its Health flagship, and doubts have arisen over privacy safeguards for both patients[...]

Features
The debate over eHealth is alive as never before. Supporters suggest that it will result in dramatic innovations in healthcare, including a giant leap towards patient-centered care, new opportunities to improve effectiveness, and enhanced wellness and quality of life. In addition, the growing market value of investments in health IT suggests that eHealth can offer at least a partial cure for the current[...]

Contents
1 Introduction: The debate over eHealth.- 2 Definitions of eHealth.- 3 An introduction to the technological basis of eHealth.- 4 eHealth and me: The implications of the Net for health care relationships.- 5 Legally eHealth.- 6 EU support to eHealth and cost-benefits.- 7 No (e)Health without (e)Research.- 8 eHealth policy.- 9 The high-tech face of eHealth.- 10 The data-driven revolution of healthcare.- 11 eEducation and eHealth: a call for action.- 12 Conclusions.

Fields of interest
Medicine (general); Health Informatics; Communications Engineering, Networks; Information Systems Applications (incl.Internet); European Integration; Interaction Design

Target groups
Professional/practitioner

Type of publication
Professional book


Hardcover
2014. XVI, 220 p. 28 illus., 12 illus. in color.
$99.00
usually dispatched within 3 to 5 business days
Robotic Cardiac Surgery

Robotic Cardiac Surgery is a comprehensive guide to robotic/totally endoscopic cardiac surgery. The book is intended to provide in-depth information regarding the history of robotic surgical systems, their components and principles. It emphasizes patient selection, perioperative management, anesthesia considerations and management, operative techniques and management, postoperative care and results. Extensive, detailed photographs and illustrations of different kinds of robotic surgery are also included. It provides cardiac surgeons, cardiac anesthesiologists, and perfusionists with a comprehensive review of current robotic cardiac surgeries and related knowledge. Changqing Gao, MD, is [...] Features

Robotic Cardiac Surgery is a comprehensive guide to robotic/totally endoscopic cardiac surgery. The book is intended to provide in-depth information regarding the history of robotic surgical systems, their components and principles. It emphasizes patient selection, perioperative management, anesthesia considerations and management, operative techniques and management, postoperative care and results. [...] Contents


Fields of interest

Cardiac Surgery; Minimally Invasive Surgery; Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7659-3

Hardcover

2014. XV, 152 p. 285 illus., 256 illus. in color.

$189.00

ISBN 978-94-007-7659-3

Due: January 14, 2014

The Slit Lamp

Applications for Biomicroscopy and Videography

In this book the author describes in detail the history, construction, and examination potential of the slit lamp. In particular, however, he presents a new approach – videography – that allows the ophthalmologist to document all eye diseases with the slit lamp and a video camera in a practicable, rapid, and affordable manner. The necessary methods, techniques, and equipment, including converging, diverging, and contact lenses, are clearly explained in the text and four didactic videos. The 20 most important videographic settings are described, and “recipes” for their use are presented, along with diagnostic tips. The accompanying collection of clinical images represents the world’s [...] Features

In this book the author describes in detail the history, construction, and examination potential of the slit lamp. In particular, however, he presents a new approach – videography – that allows the ophthalmologist to document all (!) eye diseases with the slit lamp and a video camera in a practicable, rapid, and affordable manner. The necessary methods, techniques, and equipment, including converging, [...] Contents


Fields of interest

Ophthalmology

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-3-642-39792-9

Hardcover

2014. XVII, 218 p. 252 illus., 229 illus. in color. With DVD.

$189.00

ISBN 978-3-642-39792-9

Due: January 28, 2014

Liver Immunology

Principles and Practice

Liver Immunology: Principles and Practice, Second Edition begins with important information about the epidemiology and mortality of liver disease worldwide. This information is followed by chapters related to basic immunology, application of liver immunology for diagnosis, and several excellent chapters that provide a solid foundation for understanding immune-mediated liver disease, including those associated with the biliary tree. A chapter on non-hepatic manifestations of immune-mediated liver disease helps provide context for how these diseases affect the patient overall. In addition, chapters discuss various discrete immunologically-mediated infectious liver disorders including [...] Features

Liver Immunology: Principles and Practice, Second Edition begins with important information about the epidemiology and mortality of liver disease worldwide. This information is followed by chapters related to basic immunology, application of liver immunology for diagnosis, and several excellent chapters that provide a solid foundation for understanding immune-mediated liver disease, including those [...] Fields of interest

Hepatology; Gastroenterology; Internal Medicine; Immunology

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-39792-9

Hardcover

2014. XVI, 480 p. 117 illus., 92 illus. in color.

$189.00

ISBN 978-3-642-39792-9

usually dispatched within 3 to 5 business days
**Diseases of the Vitreo-Macular Interface**

This clinically oriented book is the first to be devoted wholly to the diagnosis and treatment of vitreo-macular interface disease, characterized by a combination of vitreo-macular adhesion (VMA) and vitreo-macular traction (VMT) that is implicated in a variety of disorders. World-renowned experts in the field discuss epidemiologic, anatomic, and physiologic aspects, document the findings obtained with newer imaging techniques, such as spectral domain optical coherence tomography, describe the treatment options, and report on the results of preclinical and clinical trials, including some previously unpublished findings. This book will prove invaluable for ophthalmologists as well.[...]

**Features**

Disease of the vitreo-macular interface is characterized by vitreo-macular adhesion (VMA), which can lead to abnormal forces on the retina termed vitreo-macular traction (VMT). This combination of VMA and VMT can itself cause impairment of vision and is implicated in a variety of disorders, including wet age-related macular degeneration, diabetic retinopathy, macular edema, and macular hole. Vitreo-macular [...]

**Contents**


**Fields of interest**

Ophthalmology

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

More on www.springer.com/978-3-642-4033-9

**Hardcover**

2014. IX, 122 p. 40 illus., 20 illus. in color. (Essentials in Ophthalmology)

$139.00

ISBN 978-3-642-40033-9

Due: January 28, 2014

**Psycho-Oncology**

Psycho-oncology is a thriving discipline in cancer care, and numerous research activities have been undertaken in the endeavor to improve treatment outcomes and to gain a better understanding of the psychosocial consequences of cancer. This book presents and discusses the latest findings from science and practice for a broad range of psychological and social issues related to cancer and its treatments. Not only are general psychosocial impacts of cancer described, but the very common fear of progression is elucidated. The relevance of psycho-oncology at different stages of disease (during oncological treatment, in rehabilitation, and during palliative care) is explained, and various[...]

**Features**

Psycho-oncology is a thriving discipline in cancer care, and numerous research activities have been undertaken in the endeavor to improve treatment outcomes and to gain a better understanding of the psychosocial consequences of cancer. This book presents and discusses the latest findings from science and practice for a broad range of psychological and social issues related to cancer and its [...]

**Contents**

Psychosocial Impacts of Cancer.- Fear of Progression.- Gender Opportunities in Psychosocial Oncology.- Patient’s View on Psycho-oncology.- The Oncological Patient in the Palliative Situation.- Psychological Burden of Children of Family Caregivers of Cancer Patients.- Rehabilitation.- Quality of Life.- Cancer Survivorship.- Psycho-oncological Interventions.

**Fields of interest**

Oncology; Psychiatry; Psychology (general)

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

More on www.springer.com/978-3-642-40186-2

**Hardcover**

2014. V, 152 p. 3 illus., 2 illus. in color. (Recent Results in Cancer Research, Vol. 197)

$139.00

ISBN 978-3-642-40186-2

usually dispatched within 3 to 5 business days

**Resuscitation**

Translational Research, Clinical Evidence, Education, Guidelines

Resuscitation is a two-stage process comprising the achievement/maintenance of spontaneous circulation and post-resuscitation management. The approach is complex and multifaceted and entails the integration of new physiological insights, pharmacological options, and technological advances. The purpose of this volume, written by top experts in the field, is to promote, share, and disseminate new advances in resuscitation and post-resuscitation care. The issues addressed are wide ranging and of great topical interest or controversy. They include priorities of intervention, quality of resuscitation, use of mechanical supports, new defibrillation strategies, prevention of organ damage,[...]

**Features**

Resuscitation is a two-stage process comprising the achievement/maintenance of spontaneous circulation and post-resuscitation management. The approach is complex and multifaceted and entails the integration of new physiological insights, pharmacological options, and technological advances. The purpose of this volume, written by top experts in the field, is to promote, share, and disseminate new advances in [...]

**Contents**


**Fields of interest**

Intensive / Critical Care Medicine; Emergency Medicine; Emergency Services; Cardiology; Anesthesiology

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

More on www.springer.com/978-88-470-5506-3

**Hardcover**

2014. XI, 254 p. 29 illus., 12 illus. in color.

$139.00


usually dispatched within 3 to 5 business days
Anaesthesia, Pharmacology, Intensive Care and Emergency A.P.I.C.E.

Proceedings of the 25th Annual Meeting - International Symposium on Critical Care Medicine

Innovation, training and research are the pillars that support a process deriving from basic science and multi-professional/multidisciplinary interventions. The APICE 2012 yearbook deals with several innovations for optimising prevention and management measures for the critically ill, by integrating diagnostic procedures with pharmaco-logical and technological options. Peri- and postoperative managements as well as treatment of surgical infections and of pain, new and old artificial ventilation strategies are some of the most relevant topics the volume deal with in this new edition. The volume focuses also on the improvement standards and quality of care; on the expanding concept of [...] Features

The APICE 2012 yearbook examines recent advances in various aspects of critical care medicine and highlights the importance of effective communication among researchers, scientists, and clinicians. Among the many topics addressed are trauma care organization, the management of patients with cardiovascular, kidney, and lung disorders, issues relating to severe infections and sepsis, and the humanization of [...] Contents


Medicine (general) Target groups

Professional/practitioner Type of publication


Pediatric and Adolescent Sports Traumatology

This book focuses on the evaluation and treatment of a wide range of sports injuries in relation to the Tanner stage of sexual development in young athletes. A series of detailed chapters address the injuries likely to be encountered in different parts of the body, including the spine, shoulder, elbow, wrist and hand, hip, knee, ankle, and feet. Among the topics that receive particular attention are epiphyseal, physeal injuries, capsular ligament tears and the impact of their treatment on joint and bone development, and stress syndromes of the muscular skeletal system. Helpful algorithms covering the diagnosis and treatment of ligament tears are included, and advice is provided on when [...] Features

This handy volume focuses on the evaluation and treatment of a wide range of sports injuries, in relation to the Tanner stage of sexual development in young athletes. Recognized leaders in each subspecialty illustrate their own treatment preferences, and a series of detailed chapters address the injuries likely to be encountered in different parts of the body, including the spine, shoulder, elbow, wrist and hand. [...] Contents

1 Basic science and injury in growing athletes: Cartilage, Menisci and Bone. 2 Muscle, Tendon and Ligament. 3 Evaluation of the pediatric and adolescent athlete. 4 Overuse injuries. 5 Physeal and epiphyseal cartilage injury. 6 The Spine: Sports-related pathology. 7 The Shoulder: skeletal injuries and ligamentous instability. 8 The Elbow: Ligamentous and skeletal injuries. 9 Wrist and Hand: Ligamentous and skeletal injuries. 10 The Hip: Femoroacetabular Impingement. 11 The Knee: Ligamentous tears. 12 Meniscal Lesions. 13 Osteochondritis Dissecans of the Knee. Features

Fields of interest

Sports Medicine; Primary Care Medicine Target groups

Professional/practitioner Type of publication

Monograph More on www.springer.com/978-88-470-5411-0

Hardcover


The Young Adult Hip in Sport

This book focuses on the problems seen in the adult hip in sport including pre arthritic inflammatory, non inflammatory, and degenerative causes of hip pain. It particularly focuses on our rapidly evolving understanding and treatment of joint preserving surgery. In this book experts in the field discuss the anatomy, diagnosis, investigation and pathophysiology of young adult hip disease with a particular focus on the sporting population. Sports Medicine is now a specialty in its own right. Worldwide, hip and groin pain in elite sport is an unresolved issue. This is an area that has expanded dramatically in the last 5 years and hip arthroscopy as a procedure has arrived in a big way [...] Features

The Young Adult Hip in Sport covers the full breadth of hip problems and injuries that challenge us, reflecting the recent revolution in understanding of the pathophysiology of hip disease and of hip injuries in sport. This increase in interest has delivered many new investigational and intervensional modalities to demystify the discipline. This has encompassed an increased understanding of how the [...] Contents


Orthopedics; Sports Medicine; Surgical Orthopedics; Physiotherapy; Primary Care Medicine Target groups

Professional/practitioner Type of publication


Hardcover

2014. XIII, 318 p. 183 illus., 70 illus. in color. $189.00 ISBN 978-1-4471-5411-2 usually dispatched within 3 to 5 business days
Handbook of Dermatologic Surgery

The Handbook of Dermatologic Surgery incorporates the most cutting edge technology applicable to dermatologists and dermatologic surgeons today. Designed as a reference guide for dermatologic surgery and aesthetic procedures, it disseminates key scientific information in an easy-to-use pocket book. This handbook is designed to be readily transportable for dermatologists and dermatologic surgeons, as well as those in training, dermatology residents and fellows, and medical students rotating through dermatology.

Features
The Handbook of Dermatologic Surgery incorporates the most cutting edge technology applicable to dermatologists and dermatologic surgeons today. Designed as a reference guide for dermatologic surgery and aesthetic procedures, it disseminates key scientific information in an easy-to-use pocket book. This handbook is designed to be readily transportable for dermatologists and dermatologic surgeons today.

Contents
1. Surgical Anatomy
2. Excisional and Non-excisional Surgery
3. Advanced Repairs
4. Cosmetic Dermatology: neurotoxins, fillers and chemical peels
5. Lasers and other technology
6. Leg Veins
Index

Fields of interest
Dermatology; Surgery

Target groups
Professional/practitioner

Type of publication
Professional book


Softcover
2014, XIII, 126 p. 38 illus., 11 illus. in color.
$89.99
usually dispatched within 3 to 5 business days

Mosaicism in Human Skin

Understanding Nevi, Neviod Skin Disorders, and Cutaneous Neoplasia

Mosaicism is a powerful biologic concept, originally developed from studying plants and animals. All cutaneous neoplasms, both benign and malignant, reflect mosaicism, which is the necessary basis to explain numerous human skin disorders. For example, various mosaic patterns visualize the embryonic development of human skin and X-linked skin disorders explain why women live longer than men, and so on. This book presents, for the first time, a comprehensive overview on the strikingly manifold patterns and peculiarities of mosaic skin disorders. This reader-friendly structured and straightforward publication will help the dermatologist to understand the underlying molecular mechanisms.

Features
Mosaicism is a powerful biologic concept, originally developed from the study of plants and animals, and is the necessary basis for the explanation of numerous human skin disorders. This lavishly illustrated book presents, for the first time, a comprehensive overview on the strikingly manifold patterns and peculiarities of mosaic skin disorders. It is structured in a straightforward.

Contents
PATTERNS AND MECHANISMS: Mosaicism as a Biological Concept
1. History
2. Mosaicism in Plants, Animals, Humans
3. Mosaicism Versus Chimerism
4. The Mechanisms of Mosaicism
5. Genomic Mosaicism of Autosomes
6. Epigenetic Mosaicism of Autosomes
7. Genomic Mosaicism of X Chromosomes
8. Epigenetic Mosaicism of X Chromosomes
9. The patterns of Mosaicism
10. Lines of Blaschko
11. Checkerboard Pattern
12. Phylloid Pattern
13. Patchy Pattern Without Midline Separation
14. Genetic Mosaicism of the Skin
15. Other Patterns, so far Unclassifiable
16. Mosaic SKIN DISORDERS: Nevi
17. Melanocytic Nevi
18. Other Forms of Pigmentary

Fields of interest
Dermatology; Pediatrics; Human Genetics; Neurology; Ophthalmology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-38764-7

Hardcover
2014, XIII, 229 p. 232 illus., 208 illus. in color.
$189.00
ISBN 978-3-642-38764-7
Due: January 28, 2014

Congenital Hip Disease in Adults

Congenital hip disease (CHD) is the main cause of secondary osteoarthritis (OA) of the hip in young adults, which accounts for almost 40% of all cases of hip OA. Total hip replacement (THR) performed using optimal techniques can achieve a radical improvement in the quality of life of adult patients. This book offers in-depth coverage of all aspects of CHD in adults and its treatment. Relevant information is first provided on the basic anatomy of the hip and OA of the hip and on the classification, epidemiology, and natural history of CHD. The now limited role of femoral and pelvic osteotomies is carefully evaluated, and the use of THR is then considered in detail. Indications and...
Clinical Trials in Latin America: Where Ethics and Business Clash

The outsourcing of clinical trials to Latin America by the transnational innovative pharmaceutical industry began about twenty years ago. Using archival information and field work in Argentina, Brazil, Costa Rica, Mexico and Peru, the authors discuss the regulatory contexts and the ethical dimensions of human experimentation in the region. More than 80% of all clinical trials in the region take place in these countries, and the European Medicines Agency has defined them as priority countries in Latin America. The authors raise questions about the quality of data obtained from the trials and the violation of human rights during their implementation. Their findings are presented in this.[...]

Features

- The outsourcing of clinical trials to Latin America by the transnational innovative pharmaceutical industry began about twenty years ago.
- Using archival information and field work in Argentina, Brazil, Costa Rica, Mexico and Peru, the authors discuss the regulatory contexts and the ethical dimensions of human experimentation in the region.

Contents

- Introduction; Núria Homedes and Antonio Ugalde.
- A Review and Critique of International Ethical Principles; Núria Homedes and Antonio Ugalde.
- Globalization and Clinical Research in Latin America; Núria Homedes and Antonio Ugalde.
- The Regulatory Framework and Case Studies from Argentina; Antonio Ugalde and Núria Homedes.
- Politics and Clinical Trials in the Province of Corodoba; Antonio Ugalde and Núria Homedes.
- Brazil: The System for the Protection of Voluntary Participants in Research; Corina Bontempo De Freitas, William Saad Hossne and Susie Dutra.
- Progress and Challenges of...[

Functional Bladder Reconstruction Following Spinal Cord Injury via Neural Approaches

One of the most common problems for spinal cord injury patients is urinary system dysfunction. The book Functional Bladder Reconstruction Following Spinal Cord Injury via Neural Approaches introduces how to solve this problem using multidisciplinary approaches. From animal model studies to surgical techniques as well as successful case reports, six kinds of surgery are presented in separate chapters. This up-to-date monograph will be a valuable resource for surgeons, urologists and neurologists caring for spinal cord injury patients. The contributors are a group of surgeons working in the fields of orthopedics and microsurgery. Editor Chunlin Hou is Professor in Changhai Hospital,[...]

Features

- One of the most common problems for spinal cord injury patients is urinary system dysfunction.
- The book Functional Bladder Reconstruction Following Spinal Cord Injury via Neural Approaches introduces how to solve this problem using multidisciplinary approaches.

Contents

- An overview of traumatic spinal cord injury.
- Clinical anatomy of cauda equina and lumbosacral nerve root.
- Classification of and Treatment Principles for Bladder Dysfunction Caused by Spinal Cord Injury.
- Pathological changes in the detrusor muscle after repair of atomic bladder caused by injury to the medullary cone in rats.
- Selective sacral rhizotomy: introducing a simple intraoperative manometric method.
- Reconstruction of bladder innervation below the level of spinal cord injury for inducing urination by Achilles...[

Fields of interest

- Neurosurgery; Urology / Andrology; Animal Models

Target groups

- Professional/practitioner

Type of publication

- Contributed volume

More on www.springer.com/978-94-007-7765-1

Hardcover

- 2014. VIII. 22 p. 48 illus., 28 illus. in color.
- $139.00
- ISBN 978-94-007-7765-1

usually dispatched within 3 to 5 business days
Gamete and Embryo-fetal Origins of Adult Diseases

The book Gamete and Embryo-fetal Origins of Adult Diseases introduces various diseases resulting from the abnormal gametogenesis and embryo development, which manifests as growth retardation, birth defects, or increased susceptibility to chronic metabolic diseases such as diabetes, cardiovascular disease and cancer in childhood and adult life, even fertility disorders and the risk of transgenerational transmission. Six common kinds of these diseases are discussed in separate chapters. The authors explore the connections between these diseases and epigenetic reprogramming, rapid cell differentiation and organ formation and environmental influences, including assisted reproductive.[...]

Features
The book Gamete and Embryo-fetal Origins of Adult Diseases introduces various diseases resulting from the abnormal gametogenesis and embryo development, which manifests as growth retardation, birth defects, or increased susceptibility to chronic metabolic diseases such as diabetes, cardiovascular disease and cancer in childhood and adult life, even fertility disorders and the risk of transgenerational [...]

Contents
Physiology of gametogenesis.- Physiology of embryo development.- Diabetes originated from embryo-fetal development.- Cardiovascular disease originated from embryo-fetal development.- Tumor originated from embryo-fetal development.- Tumor originated from embryo-fetal development.- Infertility originated from embryo-fetal development.- Mental health originated from embryo-fetal development.- Assisted reproductive technology (ART) and embryo-fetal origin of diseases.- Adverse intrauterine environment and embryo-fetal origin of diseases.

Fields of interest
Reproductive Medicine; Pediatrics; Human Genetics

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7771-2

Health Care Utilization in Germany

Theory, Methodology, and Results
It is a societal given, borne out by the facts: the higher one’s social status, the better health, and the longer life expectancy. As the situation persists, an important question demands attention, namely whether health care systems contribute to the inequity. Drawing accurate conclusions requires workable theory, reliable data collection instruments, and valid analytical methods. Using one representative country to typify the industrial world, Health Care Utilization in Germany studies its subject in terms of social determinants. This singular volume offers systematic guidelines for research into health care access based on an acclaimed behavioral model of care utilization.[...]

Features
It is a societal given, borne out by the facts: the higher one’s social status, the better health, and the longer life expectancy. As the situation persists, an important question demands attention, namely whether health care systems contribute to the inequity. Drawing accurate conclusions requires workable theory, reliable data collection instruments, and valid analytical methods. Using one [...]

Contents
Part I Introduction.- Theorizing, empiricizing and analyzing health care utilization in Germany: An introduction.- Part II Theory.- Re-revisiting the Behavioral Model of Health Care Utilization by Andersen: A review on theoretical advances and perspectives.- Health care utilization within the system of statutory sickness funds in Germany.- Part III Methodology.- The problem of repeated surveys: How comparable are their results regarding utilization of medical services?- Health care utilization research using secondary data.- Health care utilization: Insights from qualitative research.[...]

Fields of interest
Health Promotion and Disease Prevention; Sociology, general; Health Economics; Health Psychology; Public Health

Target groups
Research

Type of publication
Contributed volume


Remediation in Medical Education

A Mid-Course Correction
Remediation in medical education is the act of facilitating a correction for trainees who started out on the journey toward becoming excellent physicians but have moved off course. This book offers an evidence-based and practical approach to the identification and remediation of medical trainees who are unable to perform to standards. As assessment of clinical competence and professionalism has become more sophisticated and ubiquitous, medical educators increasingly face the challenge of implementing effective and respectful means to work with trainees who do not yet meet expectations of the profession and society. Remediation in Medical Education: A Mid-Course Correction describes[...]

Features
Remediation in medical education is the act of facilitating a correction for trainees who started out on the journey toward becoming excellent physicians but have moved off course. This book offers an evidence-based and practical approach to the identification and remediation of medical trainees who are unable to perform to standards. As assessment of clinical competence and professionalism has become more[...]

Contents

Fields of interest
Medicine (general); Medical Education; Theory of Medicine / Bioethics

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-9024-1

A. Kalet, New York University, New York, USA; C.L. Chou (Eds.)
Bone-Implant Interface in Orthopedic Surgery

Basic Science to Clinical Applications

Total joint arthroplasty is an effective surgical procedure for end-stage osteoarthritides of major joints with satisfactory long term clinical outcome. A large and growing number of arthroplasties are performed annually worldwide and a great number of orthopedic surgeons are practicing arthroplasty surgery as their main surgical activity. The biological behavior of the bone-implant interface is crucial for the long term survival of the artificial joint. All factors which have a positive or negative effect on the interface are of great interest for those practicing arthroplasty surgery. Basic scientists and the industry are continuously searching for new implant fixation mechanisms and [...]?

Features

What is the optimal design and fixation of the implants we use for orthopedic reconstructions? What is the gold standard for the management of patients requiring implants? Is there scope for improvement still further? Huge efforts have been made both by research scientists in orthopedics and the implant industry to furthering the options available for arthroplasty without [...]?

Contents

Current evidence in designs and fixation surfaces in total hip arthroplasty (a brief overview). Early and late mechanical stability of the cementless bone implant interface in total joint arthroplasty. Cementless bone interface in total joint arthroplasty. The implant cement interface in total hip arthroplasty. Cobalt-Chrome porous coated implant-bone interface in total joint arthroplasty. Titanium porous coated implant-bone interface in total joint arthroplasty. HA coated [...]?

Fields of interest

Surgical Orthopedics; Molecular Medicine

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-8738-8

Principles of Neurophysiological Assessment, Mapping, and Monitoring

This book provides foundational knowledge of intraoperative monitoring (IOM) and is written for the range of clinicians who monitor the function of the nervous system during surgery, from new technologists to neurophysiologists and neurosurgeons. Early chapters describe the building blocks of IOM in accessible terms and are followed by practical chapters on monitoring and mapping that show basic and clinical science “in action”. Anesthesiologists and trainees with an interest in diagnosing and managing pain will appreciate the inclusion of chapters on the electrophysiological assessment of spinal cord pathology and on the treatment of pain. Principles of Neurophysiological Assessment [...]

Features

This book provides foundational knowledge of intraoperative monitoring (IOM) and is written for the range of clinicians who monitor the function of the nervous system during surgery, from new technologists to neurophysiologists and neurosurgeons. Early chapters describe the building blocks of IOM in accessible terms and are followed by practical chapters on monitoring and mapping that show basic and [...]?

Contents


Fields of interest

Anesthesiology; Neurosurgery; Neurology; Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume


Robotics in General Surgery

Robotics in General Surgery provides a comprehensive review of the current applications of the robotic platform in all the general surgery subspecialties. Additionally, for each subspecialty it serves as a procedure-oriented instruction manual in terms of technical details of procedures, including fundamentals of robot positioning and trocar placement, step-by-step description of procedures, comprehensive discussions of advantages, limitations, indications, and relative contraindications of using the robotic approach. The text also discusses the challenges and steps to overcoming these challenges in transitioning from a minimally invasive to a robotic practice/surgeon. Lastly, this [...]?

Features

Robotics in General Surgery provides a comprehensive review of the current applications of the robotic platform in all the general surgery subspecialties. Additionally, for each subspecialty it serves as a procedure-oriented instruction manual in terms of technical details of procedures, including fundamentals of robot positioning and trocar placement, step-by-step description of procedures, [...]?

Contents


Fields of interest

General Surgery; Colorectal Surgery; Minimally Invasive Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-8738-8

Hardcover

2014. XVII, 511 p. 411 illus., 403 illus. in color. $209.00

ISBN 978-1-4614-8738-8

Online orders shipping within 2-3 days.
Ventricular Assist Devices in Advanced-Stage Heart Failure

This book focuses on how ventricular assist devices (VADs) can help provide destination therapy for patients with terminal heart failure, one of the most serious diseases in the world today because of the tremendous number of patients, the high mortality rate, and the cost of care. One means of providing cardiological support for patients suffering from heart failure is with VADs, and more than 10,000 patients worldwide have now been implanted with these devices. Half of them already have lived more than one year, and 2,000 patients more than two years, after surgery. This improved survival means that we have reached a point where VADs can be used for destination therapy, not just for [...]

Features
This book focuses on how ventricular assist devices (VADs) can help provide destination therapy for patients with terminal heart failure, one of the most serious diseases in the world today because of the tremendous number of patients, the high mortality rate, and the cost of care. One means of providing cardiological support for patients suffering from heart failure is with VADs, and more than 10,000 [...]

Contents

Fields of interest
Cardiology; Cardiac Surgery; Thoracic Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-4-431-54465-4

Handbook of Oral Anticoagulation

This book covers a wide range of disorders such as atrial fibrillation, artificial heart valves, deep vein thrombosis, pulmonary embolism and stroke. Handbook of Oral Anticoagulation aims to provide an accessible overview of the exciting new developments in this field. Incorporating numerous quick-reference tables and figures and fully referenced throughout to key papers and the latest reviews, it will be a useful resource for all healthcare professionals involved in thromboprophylaxis.

Features
This book covers a wide range of disorders such as atrial fibrillation, artificial heart valves, deep vein thrombosis, pulmonary embolism and stroke. Handbook of Oral Anticoagulation aims to provide an accessible overview of the exciting new developments in this field. Incorporating numerous quick-reference tables and figures and fully referenced throughout to key papers and the latest reviews, it will be a [...]

Contents

Fields of interest
Cardiology; Hematology; General Practice / Family Medicine; Primary Care Medicine; Pharmacotherapy

Target groups
Professional/practitioner

Type of publication
Handbook


Softcover
2013. IX, 88 p. 6 illus. in color. $59.99 ISBN 978-1-908517-58-6 usually dispatched within 3 to 5 business days

Reducing Mortality in the Perioperative Period

This book describes the techniques, strategies, and drugs that have been demonstrated by well-documented randomized trials to influence survival in the perioperative setting. It takes into consideration all types of adult surgery and will be relevant to the evaluation of any patient undergoing an operative procedure. Each chapter focuses on a specific procedure, device, or drug. The scope is accordingly wide, with coverage of topics as diverse as chlorhexidine oral rinse, clonidine therapy, insulin infusion, intra-aortic balloon pump support, leukodepletion, neuraxial anesthesia, and noninvasive respiratory support, to name but a few. In addition, the risks and benefits of using [...]

Features
This book describes the techniques, strategies, and drugs that have been demonstrated by well-documented randomized trials to influence survival in the perioperative setting. It takes into consideration all types of adult surgery and will be relevant to the evaluation of any patient undergoing an operative procedure. Each chapter focuses on a specific procedure, device, or drug. The scope is accordingly wide, with coverage of topics as diverse as chlorhexidine oral rinse, clonidine therapy, insulin infusion, intra-aortic balloon pump support, leukodepletion, neuraxial anesthesia, and noninvasive respiratory support, to name but a few. In addition, the risks and benefits of using [...]

Contents
Foreword.- Preface.- 1 The risks and benefits of the consensus process.- 2 The process of consensus building.- 3 Noninvasive Ventilation to reduce perioperative mortality.- 4 Role of inhalational anesthetic agents in reducing perioperative mortality.- 5 Can Neuraxial Anesthesia Reduce Perioperative Mortality?.- 6 Role of perioperative hemodynamic optimization in reducing perioperative mortality.- 7 Levosimendan to reduce perioperative mortality.- 8 Could Clonidine Contribute to a Reduction in Perioperative Mortality?- 9 Perioperative β-blocker therapy to improve survival.- 10 [..]

Fields of interest
Surgery; Intensive / Critical Care Medicine; Anesthesiology; Cardiology; Pharmacology / Toxicology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-3-319-02185-0

Hardcover
2014. XI, 139 p. 9 illus., 8 illus. in color. $139.00 ISBN 978-3-319-02185-0 usually dispatched within 3 to 5 business days
Managing Sciatica and Radicular Pain in Primary Care Practice

Low back pain is described as a very common condition that tends to affect about 70% of the population at some point in time with varying degrees of symptom severity. Although definitions vary, sciatic pain is generally defined as back-related pain radiating to the leg (normally below the knee and into the foot and toes) and is one of the most common variations of low back pain. Patients with sciatica typically experience a more persistent and severe type of pain, a less favorable outcome, consume more healthcare resources and have more prolonged disability and absence from work than those with low back pain alone. Managing Sciatica and Radiculopathies in Primary Care Practice provides [...]?

Features
Low back pain is described as a very common condition that tends to affect about 70% of the population at some point in time with varying degrees of symptom severity. Although definitions vary, sciatic pain is generally defined as back-related pain radiating to the leg (normally below the knee and into the foot and toes) and is one of the most common variations of low back pain. Patients with sciatica typically [...]?

Contents
What is sciatica and radicular pain? - What are the causes of sciatica and radicular pain? - How are sciatica and spinal radicular pain classified? - How are the radiculopathies diagnosed? - What guidelines are available for sciatica and radicular pain? - Physical and psychological treatments - What are the options for the surgical treatment of radiculopathy? - Pharmacological treatment options available for radicular pain.

Fields of interest
Orthopedics; Pain Medicine; Pharmacotherapy; Surgical Orthopedics

Target groups
Professional/practitioner

Type of publication
Handbook

More on www.springer.com/978-94-007-7255-7

Radiological Safety and Quality
Paradigms in Leadership and Innovation

This book is the product of a unique collaboration by experts from leading international, regional and national agencies and professional organizations discussing on the current ‘hot’ issue on the judicious use and safety of radiation in radiology. There have been several cases involving radiation overexposure that have received international attention. Strategies and solutions to guide readers how to maximize the benefits and minimize the risks when using radiation in medicine are covered.

Features
Radiological Safety and Quality - Paradigms in Leadership and Innovation is a multi-disciplinary and inter-sectorial collaboration by international experts and leaders from academic institutions, radiology practices, professional organizations, regulatory authorities, UN and international agencies. Established principles and new concepts, challenges and opportunities, and examples of leadership and [...]?

Contents
Radiological Safety and Quality - Procedure Justification, Protection Optimization, and Error Reduction - Infrastructure Improvements - Global, Regional and National Challenges, Actions and Opportunities.

Fields of interest
Imaging / Radiology; Medical and Radiation Physics; Effects of Radiation / Radiation Protection; Human Physiology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7255-7

usually dispatched within 3 to 5 business days

Single Incision Laparoscopic and Transanal Colorectal Surgery

Single Incision Laparoscopic and Transanal Colorectal Surgery provide a comprehensive and state-of-the-art review of single incision laparoscopic and transanal colorectal surgery. The text concentrates on surgical techniques and tricks in single incision laparoscopic and transanal surgery with detailed descriptions of the techniques, as well as indications and limitations of the procedures. The newly available evidence on these procedures is emphasized and all procedures are richly illustrated with diagrams and photos. Written by experts in their fields, Single Incision Laparoscopic and Transanal Colorectal Surgery is valuable resource for general surgeons, colon and rectal surgeons, [...]?

Features
Single Incision Laparoscopic and Transanal Colorectal Surgery provide a comprehensive and state-of-the-art review of single incision laparoscopic and transanal colorectal surgery. The text concentrates on surgical techniques and tricks in single incision laparoscopic and transanal surgery with detailed descriptions of the techniques, as well as indications and limitations of the procedures. The newly [...]?

Contents
Platforms and Instruments (principles of single incision laparoscopic colorectal surgery, available platforms and instruments) - Single Incision Laparoscopic Left Colectomy - SILS Total Colectomy and Proctocolectomy with Ileal Pouch-Anal Anastomosis (IPAA) - Low Anterior Resection and Total Mesorectal Excision - Tricks and Routes to Success - Robotic Single Port Colorectal Surgery - Current Evidence for Single Incision Laparoscopic Colectomy - Local Excision for Low Rectal Cancer: From Mucocelectomy to Endolumen Loco-Regional Resection - Tips [...]?

Fields of interest
General Surgery; Colorectal Surgery; Minimally Invasive Surgery; Gastroenterology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8901-6

usually dispatched within 3 to 5 business days
A DXA Primer for the Practicing Clinician

A Case-Based Manual for Understanding and Interpreting Bone Densitometry

Despite public perception, osteoporosis remains a widespread, devastating disease, and a very serious and costly public health threat. Early detection and treatment must be a priority for primary health care providers. Dual-energy X-ray absorptiometry (DXA) is the principal x-ray technology used to diagnose osteoporosis in its early, asymptomatic stages, to assess treatment efficacy, and to guide treatment decisions. It remains the gold standard today. A DXA Primer for the Practicing Clinician: A Case-Based Manual for Understanding and Interpreting Bone Densitometry is developed around real cases of patients’ DXA measurements. The content is derived from presentations given by [...] Features

Dual-energy X-ray absorptiometry (DXA) is the principal x-ray technology used to diagnose osteoporosis in its early, asymptomatic stages, to assess treatment efficacy, and to guide treatment decisions. It remains the gold standard today. A DXA Primer for the Practicing Clinician: A Case-Based Manual for Understanding and Interpreting Bone Densitometry is based on actual clinical encounters and [...] Fields of interest

Endocrinology; Rheumatology

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-1-4419-1374-6

Softcover

2014. XX, 167 p. 120 illus., 20 illus. in color.

$59.95

ISBN 978-1-4419-1374-6

usually dispatched within 3 to 5 business days

ENT Board Prep

High Yield Review for the Otolaryngology In-service and Board Exams

ENT Board Prep is a high-yield review that is an ideal study guide for the ENT in-service and board exams. While other review guides are low yield or more of a textbook, this is quick, concise, and easy-to-use, providing everything you need to know in a easy to digest format. ENT Board Prep offers review on sections such as cancer, ear, sinus, plastics, sleep, and laryngology, as well as case studies useful for studying for the oral board exams. Written and edited by leaders in the field, this book aims to serve future residents and fellows in those crucial weeks leading up to the ENT board exam.

Features

ENT Board Prep is a high-yield review that is an ideal study guide for the ENT in-service and board exams. While other review guides are low yield or more of a textbook, this is quick, concise, and easy-to-use, providing everything you need to know in a easy to digest format. ENT Board Prep offers review on sections such as cancer, ear, sinus, plastics, sleep, and laryngology, as well [...] Contents


Otorhinolaryngology

Target groups

Professional/practitioner

Type of publication

Professional book


Softcover

2014. XIX, 387 p. 83 illus., 73 illus. in color.

$69.99


usually dispatched within 3 to 5 business days
Endocrine Emergencies
Recognition and Treatment

Endocrine Emergencies: Recognition and Treatment offers a state-of-the-art update on the management of endocrine, diabetic, and metabolic emergencies. Developed by renowned experts, this comprehensive and easy to read title brings the field fully up to date, setting a high standard for diagnosis and treatment in each category. All chapters begin with a summary that presents, in concentrated form, what the physician needs to know to begin the evaluation and emergency treatment of the known endocrine emergencies. This is followed by an extended discussion of the pathophysiology that can be read after initial treatment has begun. Covering such areas as hypoglycemia, acute adrenal [...] Features
Endocrine Emergencies: Recognition and Treatment offers a state-of-the-art update on the management of endocrine, diabetic, and metabolic emergencies. Developed by renowned experts, this comprehensive and easy to read title brings the field fully up to date, setting a high standard for diagnosis and treatment in each category. All chapters begin with a summary that presents, in concentrated form, what the physician needs to know to begin the evaluation and emergency treatment of the known endocrine emergencies. This is followed by an extended discussion of the pathophysiology that can be read after initial treatment has begun. Covering such areas as hypoglycemia, acute adrenal [...] Functional Imaging in Oncology
Biophysical Basis and Technical Approaches - Volume 1

In the new era of functional and molecular imaging, both currently available imaging biomarkers and biomarkers under development are expected to lead to major changes in the management of oncological patients. This well-illustrated two-volume book is a practical manual on the various imaging techniques capable of delivering functional information on cancer, including preclinical and clinical imaging techniques, based on US, CT, MRI, PET and hybrid modalities. This first volume explains the biophysical basis for these functional imaging techniques and describes the techniques themselves. Detailed information is provided on the imaging of cancer hallmarks, including angiogenesis, tumor [...] Features
In the new era of functional and molecular imaging, both currently available imaging biomarkers and biomarkers under development are expected to lead to major changes in the management of oncological patients. This well-illustrated two-volume book is a practical manual on the various imaging techniques capable of delivering functional information on cancer, including preclinical and clinical imaging [...] Contents
Imaging / Radiology; Oncology; Diagnostic Radiology

Public Health Informatics and Information Systems

This revised edition covers all aspects of public health informatics and discusses the creation and management of an information technology infrastructure that is essential in linking state and local organizations in their efforts to gather data for the surveillance and prevention. Public health officials will have to understand basic principles of information resource management in order to make the appropriate technology choices that will guide the future of their organizations. Public health continues to be at the forefront of modern medicine, given the importance of implementing a population-based health approach and to addressing chronic health conditions. This book provides [...] Features
This totally revised edition of a classic textbook covers the context and background of public health informatics, explores the technology and science underlying the field, discusses new challenges and emerging solutions, reviews many key public health information systems, and includes practical, case-based studies to guide the reader through the topic. The editors have expanded the text into new [...] Contents
The editors have expanded the text into new [...] Fields of interest
Health Informatics; Public Health

214 Medicine

Endocrine Emergencies
L. Loriaux (Ed.)

Functional Imaging in Oncology
Biophysical Basis and Technical Approaches - Volume 1
A. Luna, J.C. Vilanova, Clínica Girona, Girona, Spain; L.C. Hygino Da Cruz Jr., S.E. Rossi, Centro de Diagnóstico, Buenos Aires, Argentina (Eds.)

Public Health Informatics and Information Systems
J.A. Magnuson, Oregon Health & Science University, Portland, USA; P.C. Fu, Jr., Harbor-UCLA Medical Center, Torrance, USA (Eds.)
Neurosonological Evaluation of Cerebral Venous Outflow

An Ultrasound Atlas

Although, within neurosonology, study of both the extracranial and the intracranial circulation began at least 15 years ago, it is only in recent years that ultrasound evaluation of cerebral veins and cerebral venous hemodynamics has attracted wider attention. Nevertheless, the huge variability in venous outflow pathways in normal subjects means that the potential usefulness of this examination is still often neglected. This atlas provides concise descriptions of the main normal and pathological ultrasound features of the cerebral venous circulation for neurosonologists and clinicians. It is designed as a practical tool that will be of assistance in everyday practice in the ultrasound.[...]

Features

Although, within neurosonology, study of both the extracranial and the intracranial circulation began at least 15 years ago, it is only in recent years that ultrasound evaluation of cerebral veins and cerebral venous hemodynamics has attracted wider attention. Nevertheless, the huge variability in venous outflow pathways in normal subjects means that the potential usefulness of this examination is still often [...]

Contents

Part I Extracranial veins.- 1 Ultrasound machine: the significance of venous preset.- 2 Ultrasound anatomy and how to do the examination.- 3 Postural changes and activation tests.- 4 Main pathological pictures with ultrasound.- Part II Intracranial veins.- 5 Ultrasound machine: the significance of venous preset.- 6 Ultrasound anatomy and how to do the examination.- 7 Main pathological pictures with ultrasound.- 8 Global hemodynamic evaluation and outflow variability.- 9 Imaging-fusion technology for studying intracranial veins.

Fields of interest

Neurology; Ultrasound; Diagnostic Radiology; Angiography

Target groups

Professional/practitioner

Type of publication

Atlas

More on www.springer.com/978-88-470-5464-6

Hardcover

2014, IX, 139 p. 162 illus., 156 illus. in color.
$162.00
Due: January 28, 2014

Immunology of Aging

The rapidity of scientific progress over the last few years guarantees the utility of this new collection of state-of-the-art reviews on the immunology of aging, which is the result of extensive collaboration of more than sixty of the greatest thinkers and scholars in the field, in cooperation with a number of junior colleagues. The book summarizes current knowledge on the cellular and molecular aspects of the aging immune system and their clinical relevance, providing insights into the effects of the aging process on susceptibilities to those diseases most common among elders. The retrieval strategies used to slow down the decline in the immune system in the elderly are another [...]

Features

The rapidity of scientific progress over the last few years guarantees the utility of a new collection of state-of-the-art reviews on the immunology of aging. The aim of this authoritative book is to summarize current knowledge on the cellular and molecular aspects of the aging immune system and their clinical relevance. The book is a result of extensive collaboration of more than sixty of the greatest [...]

Contents

An Introduction on the old age and aging of the immune system.- The immune system, a marker and modulator of the rate of aging.- Age-associated alterations of plasmatic stem cell and the therapeutic implication of stem cell therapy in aging.- A role for epigenetic modulation of the innate immune system during aging.- Basophil, eosinophil and neutrophil functions in the elderly.- Dendritic cells and dysregulated immunity in the elderly.- Natural killer cell immunosenescence and cancer in the elderly.- Pattern recognition receptors and aging.- Impact of aging on T cell repertoire and [...]

Fields of interest

Infectious Diseases; Geriatrics / Gerontology; Immunology

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-39494-2

Hardcover

2014, XIX, 406 p. 31 illus., 29 illus. in color.
$209.00
ISBN 978-3-642-39494-2
Due: January 28, 2014

Spinal Injuries and Conditions in Young Athletes

Spinal Injuries and Conditions in Young Athletes provides a comprehensive, in-depth review of the mechanisms and management of back injuries and problems occurring in this ever-growing and active population. Led by Dr. Lyle Micheli and his co-editors, an award-winning group of orthopedists discusses and explores common adolescent spine injuries and procedures, in addition to breakthroughs in gene therapy, tissue engineering, and complex operations. As spine surgery is among the most complex and challenging procedures performed in orthopedics, special considerations and procedures are required in pediatric populations. Since many corrective surgeries run the risk of arthritis later in [...]

Features

Spinal Injuries and Conditions in Young Athletes provides a comprehensive, in-depth review of the mechanisms and management of back injuries and problems occurring in this ever-growing and active population. Led by Dr. Lyle Micheli and his co-editors, an award-winning group of orthopedists discusses and explores common adolescent spine injuries and procedures, in addition to breakthroughs in gene [...]

Contents


Fields of interest

Sports Medicine; Pediatrics; Orthopedics

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-4752-8

Hardcover

2014, XI, 239 p. 184 illus., 39 illus. in color. (Contemporary Pediatric and Adolescent Sports Medicine)
$139.00
ISBN 978-1-4614-4752-8
usually dispatched within 3 to 5 business days
Microperimetry and Multimodal Retinal Imaging

Microperimetry allows precise functional examination of the retina and optic nerve and is especially valuable for evaluation of the macular area. This fully up-to-date textbook on microperimetry, written by leading experts in the field, will also serve as an atlas and diagnostic reference. It is designed for use by both ophthalmologists and optometrists in daily clinical practice and clinical research, and the contents thus range from basic technical information to the most advanced clinical applications. Past and current microperimetry techniques are reviewed, and the role of microperimetry in the context of multimodal imaging scenario is explained. The full range of clinical [...] 

Features
Microperimetry allows precise functional examination of the retina and optic nerve and is included in the current multimodal (or integrated) imaging approach to the retina, primarily for the evaluation of the macular area. Macular disorders are among the major blinding conditions, and diagnosis, follow-up, and treatment are based on functional and morphological retinal evaluation. This fully [...] 

Contents

Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-642-40299-9 

Phlebology, Vein Surgery and Ultrasonography

Atlas of Heart Anatomy and Development

This heart anatomy book describes the cardiac development and anatomy of the heart, which is richly illustrated by full color images and examples obtained through the dissection and photography of over 200 hearts. Each embryonic, fetal and adult heart image is supplemented by concise explanations of the key concepts involved. The Atlas of Heart Anatomy and Development presents clearly the stages of [...] 

Contents

Fields of interest
Cardiology; Cardiac Surgery

Target groups
Professional/practitioner

Type of publication
Atlas

More on www.springer.com/978-1-4471-5381-8 

Hardcover
2014, X, 247 p., 578 illus., 571 illus. in color. $189.00 ISBN 978-1-4471-5381-8 Due: January 28, 2014

Phlebology, Vein Surgery and Ultrasonography

Diagnosis and Management of Venous Disease

This comprehensive, up-to-date textbook offers detailed coverage of venous anatomy, pathophysiology, imaging, and management of venous pathology, leading the practitioner through all aspects of care of the venous patient. The various techniques that have revolutionized the diagnosis and treatment of venous disease during the past decade are all discussed, with clear guidance on their indications and performance. The book is exceptional in being based entirely on the curriculum designed for board certification by the American College of Phlebology. A further unique aspect of the text is the integration of ultrasound, which now plays a fundamental role in diagnosis and management. The[...]

Features
The management of venous pathology has been revolutionized by technological advancements. Venous disease is now managed with a wide variety of techniques that collectively allow physicians to diagnose and treat venous problems in ways that few surgeons would have anticipated even a decade ago. Techniques include laser ablation, radiofrequency ablation, chemical ablation (sclerotherapy), high ligation with[...]

Contents

Fields of interest
Surgery; Vascular Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-319-01811-9 

Hardcover
2014, XIII, 394 p., 188 illus., 133 illus. in color. $189.00 ISBN 978-3-319-01811-9 Due: January 16, 2014
**Interventional Neuroradiology**

Interventional radiology has seen a dramatic increase in the number of minimally invasive therapies performed. Interventional radiology treatments now play a major role in many disease processes and continue to grow with new procedures added to the armamentarium of the interventional radiologist, almost on a yearly basis. There are many textbooks which are disease specific, which incorporate interventional radiology techniques. These books are important to understand the natural history, epidemiology, pathophysiology and diagnosis of disease processes. However, a detailed handbook that describes the technique of performing the various interventional radiology procedures is a [...]  

**Features**

The objective of the Techniques in Interventional Radiology series is to provide easily accessible technique specific information on interventional radiology procedures, suitable for reference in the IR room or as a carry-around guide. Each volume has an EU and US editor so that the perspectives presented are balanced across these two major centres of interventional radiology. Each volume [...]  

**Contents**

Section I. Basic Skills. - Section II. Aneurysm Treatment. - Section III. Intracranial Embolization. - Section IV. Spinal Embolization. - Section V. Intra-Arterial Therapy in Acute Ischaemic Stroke. - Section VI. Angioplasty and Stenting of Arterial Stenosis. - Section VII. Venous Procedures. - Section VIII. Interventional Neuro-Oncology. - Section IX. Spine Intervention.  

**Fields of interest**

Interventional Radiology; Neuroradiology; Imaging / Radiology; Neurosurgery; Radiotherapy  

**Target groups**

Professional/practitioner  

**Type of publication**

Professional book  

More on www.springer.com/978-1-4471-4581-3  

**Softcover**

2014. XXI, 579 p. 112 illus., 20 illus. in color. (Techniques in Interventional Radiology)  

$69.99  


Due: January 28, 2014  

**Clinical Embryology**

A Practical Guide  

This concise, truncated version of Nagy, Varghese and Agarwal’s Practical Manual of In Vitro Fertilization is comprised of select clinical chapters for a portable, affordable and up-to-date resource. Clinical Embryology covers a variety of topics, including:  

- Sperm processing methods - Embryo culture methods - Insemination procedures - Embryo evaluation - Issues in cryopreservation - Embryo transfer - Genetic testing of embryos - Embryos and immigration - Embryo donation - Ethical considerations - Practical for both clinicians and researchers alike, Clinical [...]  

**Features**

This concise, truncated version of Nagy, Varghese and Agarwal’s Practical Manual of In Vitro Fertilization is comprised of select clinical chapters for a portable, affordable and up-to-date resource. Clinical Embryology covers a variety of topics, including:  

- Sperm processing methods - Embryo culture methods - Insemination procedures - Embryo evaluation - [...]  

**Contents**


**Fields of interest**

Reproductive Medicine; Obstetrics / Perinatology; Gynecology; Urology / Andrology  

**Target groups**

Professional/practitioner  

**Type of publication**

Professional book  


**Softcover**

Contains selected chapters from Practical Manual of In Vitro Fertilization 2013. XVI, 583 p. 77 illus., 55 illus. in color.  

$79.99  


usually dispatched within 3 to 5 business days  

**Non Invasive Artificial Ventilation**

How, When and Why  

Over the last two decades, the increasing use of non-invasive ventilation (NIV) has reduced the need for endotracheal ventilation, thus decreasing the rate of ventilation-induced complications. Thus, NIV has decreased both intubation rates and mortality rates in specific subsets of patients with acute respiratory failure (for example, patients with hypercapnia, cardiogenic pulmonary edema, immune deficiencies, or post-transplantation acute respiratory failure). Despite the increased use of NIV in clinical practice, there is still a need for more educational tools to improve clinicians’ knowledge of the indications and contraindications for NIV, the factors that predict failure of[...]  

**Features**

Over the last two decades, the increasing use of non-invasive ventilation (NIV) has reduced the need for endotracheal ventilation, thus decreasing the rate of ventilation-induced complications. Thus, NIV has decreased both intubation rates and mortality rates in specific subsets of patients with acute respiratory failure (for example, patients with hypercapnia, cardiogenic pulmonary edema, immune [...]  

**Contents**


**Fields of interest**

Pneumology/Respiratory System; Intensive / Critical Care Medicine; Emergency Medicine; Rehabilitation Medicine; Neurology  

**Target groups**

Professional/practitioner  

**Type of publication**

Professional book  

More on www.springer.com/978-88-470-5525-4  

**Softcover**

Original Italian edition published by Springer-Verlag Italia, Milan, 2010  


$89.99  

ISBN 978-88-470-5525-4  

usually dispatched within 3 to 5 business days
Obesity During Pregnancy in Clinical Practice

This book summarizes the effects of overweight/obesity in the childbearing years that can be effectively communicated to patients by their providers in a busy practice setting, and provides concise and understandable summaries of the evidence-based, theory-driven lifestyle interventions that have been shown to be effective for weight loss and modifying the risk of developing diabetes and obesity.

Features
Obesity During Pregnancy in Clinical Practice highlights the medical evidence on obesity in the postpartum and interconception period, arming clinicians with the knowledge necessary to communicate with their patients on the effect of these changes on diabetes, cardiovascular disease and certain cancers. Obesity During Pregnancy in Clinical Practice provides concise and [...] Contents

Medicine (general); Obstetrics / Perinatology; Maternal and Child Health; Internal Medicine

Target groups
Professional/practitioner

Type of publication
Hardcover

More on www.springer.com/978-1-4471-2830-4

Softcover
2014. XV, 356 p. 18 illus., 6 illus. in color. $49.99
ISBN 978-1-4471-2830-4
usually dispatched within 3 to 5 business days

The Concise Manual of Apheresis Therapy

This pocket-sized manual serves as a concise and ideal reference work for therapeutic approaches using apheresis. Covering both basic theory and clinical details to facilitate improved treatment and patient outcomes, the text considers a variety of diseases, including myasthenia gravis, multiple sclerosis, Guillain-Barre syndrome, chronic inflammatory demyelinating polyneuropathy, nephrotic syndrome, TTP/TMA, dilated cardiomyopathy, and many other conditions. The book also reviews the growing trend towards adopting this unique therapy for a wide range of health management issues such as morbid obesity and/or type 2 diabetes, and for lowering LDL-cholesterol (cholesterol apheresis). [...] Features

This pocket-sized manual serves as a concise and ideal reference work for therapeutic approaches using apheresis. Covering both basic theory and clinical details to facilitate improved treatment and patient outcomes, the text considers a variety of diseases, including myasthenia gravis, multiple sclerosis, Guillain-Barre syndrome, chronic inflammatory demyelinating polyneuropathy, nephrotic syndrome, [...] Contents

Nephrology; Internal Medicine; Biomedical Engineering

Target groups
Professional/practitioner

Type of publication
Hardcover

More on www.springer.com/978-4-311-54411-1

Softcover
2014. XXVII, 418 p. 46 illus., 39 illus. in color. $69.99
ISBN 978-4-311-54411-1
usually dispatched within 3 to 5 business days

Strategic Urban Health Communication

Strategic Urban Health Communication Charles C. Okigbo, editor People are bombarded with messages continuously and sorting through them constantly. In this milieu, critical ideas about health promotion and illness prevention are forced to compete with distracting, conflicting, even contradictory information. To get vital messages through, communication must be effective, targeted, artful—in a word, strategic. Strategic Urban Health Communication provides a road map for understanding strategy, enhancing strategic planning skills, and implementing strategic communication campaigns. Deftly written, chapters link the art and science of strategic planning to world health goals such as reducing[...]

Features
Strategic Urban Health Communication Charles C. Okigbo, editor People are bombarded with messages continuously and sorting through them constantly. In this milieu, critical ideas about health promotion and illness prevention are forced to compete with distracting, conflicting, even contradictory information. To get vital messages through, communication must be effective, [...]

Contents

Fields of interest
Health Promotion and Disease Prevention; Marketing; Health Psychology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9334-1

Hardcover
2014. XXII, 225 p. 11 illus. $189.00
ISBN 978-1-4614-9334-1
usually dispatched within 3 to 5 business days
Cognitive Informatics in Health and Biomedicine

Case Studies on Critical Care, Complexity and Errors

Enormous advances in information technology have permeated essentially all facets of life in the past two decades. Formidable challenges remain in fostering tools that enhance productivity but are sensitive to work practices. Cognitive Informatics (CI) is the multidisciplinary study of cognition, information and computational sciences that investigates all facets of human computing including design and computer-mediated intelligent action, thus is strongly grounded in methods and theories from cognitive science. As an applied discipline, it has a close affiliation with human factors and human-computer interaction, and provides a framework for the analysis and modeling of complex human […]

Features

This book is the first to address cognitive informatics (CI), a burgeoning discipline that cuts across several academic and professional disciplines. It contains examples drawn from the application of methods and theories from CI to challenges pertaining to the practice of critical care medicine and the management of life-threatening conditions. Cognitive Informatics in Health and Biomedicine […]

Clinical Ophthalmic Oncology

Orbital Tumors

Written by internationally renowned experts, Clinical Ophthalmic Oncology provides practical guidance and advice on the diagnosis and management of the complete range of ocular cancers. The book supplies all of the state-of-the-art knowledge required in order to identify these cancers early and to treat them as effectively as possible. Using the information provided, readers will be able to provide effective patient care using the latest knowledge on all aspects of ophthalmic oncology, to verify diagnostic conclusions based on comparison with numerous full-color clinical photographs, and to locate required information quickly owing to the clinically focused and user-friendly format […]

Features

Written by internationally renowned experts, Clinical Ophthalmic Oncology provides practical guidance and advice on the diagnosis and management of the complete range of ocular cancers. The book supplies all of the state-of-the-art knowledge required in order to identify these cancers early and to treat them as effectively as possible. Using the information provided, readers will be able […]

Contents

Examination Techniques, Classification of Orbital Tumors, Differential Diagnosis in Children, Differential Diagnosis in Adults, Imaging Techniques, Non-Specific Orbital Inflammation, Orbital Vascular Tumors, Benign Orbital Tumors, Optic Nerve Tumors, Lacrimal Gland Tumors, Lacrimal Sac Tumors, Orbital and Adnexal Lymphoma, Malignant Orbital Tumors, Orbital Rhabdomyosarcoma, Enucleation for Ocular Tumors, Orbital Exenteration, Principles of Orbital Surgery, Orbital Implants, Ocular Prosthesis.

Fields of interest

Ophthalmology, Oncology

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-40491-7

Hardcover


2014, X, 314 p. 4 illus. in color. (Current Clinical Psychiatry)

$189.00

ISBN 978-1-4614-8917-7

usually dispatched within 3 to 5 business days
Manual of Pediatric Nephrology

This manual will meet the everyday needs of the wide range of medical professionals who play a role in the treatment of children referred to hospital because of renal disease. It is an easy-to-use, portable guide that will assist pediatricians, residents, and trainees in making prompt first-level management decisions. It will also prove invaluable for the adult nephrologists who care for children in many developing countries, and will serve as a teaching guide for experts when training non-subspecialists. Individual sections are devoted to the evaluation of renal disease; fluid, electrolyte, and acid-base disorders; glomerular diseases; tubular disorders; congenital, inherited, and..."
Decentralizing Health Services
A Global Perspective

Decentralizing Health Services - A Global Perspective

K. Regmi (Ed.)

ISBN 978-1-4614-9070-8

Hardcover

More on www.springer.com/978-1-4614-9070-8

Contributed volume

Fields of interest
Public Health; Health Administration; Social Policy

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9070-8

Sine Syndromes in Rheumatology

Sine syndromes (SSs) represent atypical forms of inflammatory rheumatic diseases, the courses of which are often severe. While the diagnosis of rheumatic diseases can be determined according to an established set of diagnostic criteria based on clinical characteristics and laboratory parameters, Sine Syndromes do not fulfill the standard criteria used to assist in the classification of patients with rheumatological disorders. This concise book gives an overview of atypical courses in common inflammatory rheumatic diseases such as Wegener’s granulomatosis, systemic sclerosis, Sjögren’s syndrome, or systemic lupus erythematosus. Each chapter reviews similar cases reported in the

Features
Sine syndromes (SSs) represent atypical forms of inflammatory rheumatic diseases, the courses of which are often severe. While the diagnosis of rheumatic diseases can be determined according to an established set of diagnostic criteria based on clinical characteristics and laboratory parameters, Sine Syndromes do not fulfill the standard criteria used to assist in the classification of patients with

Contents
Sine Syndromes in the Clinical Presentation of Dermatomyositis.- Atypical Forms of Wegener’s Granulomatosis.- Sine Syndromes in Systemic Sclerosis.- Atypical Course of Rheumatoid Arthritis.- Sine Syndrome in Systemic Lupus Erythematosus (Clinical and Laboratory).- Seronegative Antiphospholipid Syndrome.- Absence of Arthritis as a Sign of Sine Syndrome in Adult Still’s Disease.- From Sine Syndrome to Sjögren’s Syndrome.- Clinical Presentation of Sine Syndrome in Psoriatic Arthritis.- Sine Syndromes in Systemic Sclerosis.- Sine Syndromes in Dermatomyositis, Polymyositis.- Sine...

Fields of interest
Rheumatology; Internal Medicine; Pediatrics; Orthopedics; Laboratory Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9070-8

Hardcover
2014. XX, 214 p. 24 illus.
$189.00
ISBN 978-1-4614-9070-8
usually dispatched within 3 to 5 business days

ALERT • Adverse Late Effects of Cancer Treatment

Volume 2: Normal Tissue Specific Sites and Systems

The literature on the late effects of cancer treatment is widely scattered in different journals since all major organ systems are affected and management is based on a variety of medical and surgical treatments. The aim of “ALERT – Adverse Late Effects of Cancer Treatment” is to offer a coherent multidisciplinary approach to the care of cancer survivors. Volume 2 of this two-volume work comprehensively documents potential late effects in all the normal tissue anatomic sites in the human body. The detection, diagnosis, management and prevention of effects are all considered in detail, and prognostic outcomes are discussed. Radiation risk factors and interactions with chemotherapy

Features
The literature on the late effects of cancer treatment is widely scattered in different journals since all major organ systems are affected and management is based on a variety of medical and surgical treatments. The aim of ALERT – Adverse Late Effects of Cancer Treatment is to offer a coherent multidisciplinary approach to the care of cancer survivors. The central paradigm is that cytotoxic

Contents

Fields of interest
Imaging / Radiology; Diagnostic Radiology; Radiotherapy; Oncology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-3-540-75862-4

Hardcover
2014. XX, 700 p. 196 illus. (Radiation Oncology)
$379.00
ISBN 978-3-540-75862-4
Due: January 28, 2014

Usually dispatched within 3 to 5 business days
The aim of “ALERT – Adverse Late Effects of Cancer Treatment” is to offer a coherent multidisciplinary approach to the care of cancer survivors. Volume 1 of this two-volume work focuses on the general concepts and principles relevant to late effects and on the dynamic interplay of molecular, cytologic, and histopathologic events that lead to altered physiological and metabolic functions and their clinical manifestations. Chapters are also included on legal issues, economic aspects, nursing, psychological issues, and quality of life. Volume 2 comprehensively documents potential late effects in all the normal tissue sites in the human body. The detection, diagnosis, management and [...] Features

The literature on the late effects of cancer treatment is widely scattered in different journals since all major organ systems are affected and management is based on a variety of medical and surgical treatments. The aim of ALERT – Adverse Late Effects of Cancer Treatment is to offer a coherent multidisciplinary approach to the care of cancer survivors. The central paradigm is that [...] Contents


Imaging / Radiology; Diagnostic Radiology; Radiotherapy; Oncology

Target groups

Professional/practitioner

Type of publication

Monograph


Softcover

2013. X, 92 p. 16 illus. in color.

$49.99


usually dispatched within 3 to 5 business days

Adherence to Antipsychotics in Schizophrenia

Poor adherence to therapy is one of the main obstacles to treatment effectiveness in schizophrenia. It is the main determinant of relapse, hospitalization, symptom persistence, and poor psychosocial functioning and outcome. Adherence to treatment is affected by various factors related to the disease characteristics, to the patient him- or herself, to the treatment, and to the therapeutic relationship. Some of these factors are modifiable, and both pharmacological and non-pharmacological strategies have been developed for this purpose. This book addresses the different aspects of adherence to treatment in schizophrenia and related disorders in a systematic but easy-to-use manual [...] Features

Poor adherence to therapy is one of the main obstacles to treatment effectiveness in schizophrenia. It is the main determinant of relapse, hospitalization, symptom persistence, and poor psychosocial functioning and outcome. Adherence to treatment is affected by various factors related to the disease characteristics, to the patient him- or herself, to the treatment, and to the therapeutic relationship. Some of [...] Contents

1 Poor adherence to antipsychotic medication in people with schizophrenia: diffusion, consequences, and contributing factors. - Premise. - Role of antipsychotics in the treatment of schizophrenia. - Compliance versus adherence. - Assessment of medication adherence. - Frequency of poor adherence to antipsychotics. - Consequences of poor adherence to antipsychotics. - Determinants and moderators of adherence to antipsychotics. - Present and medium-term perspectives. - Closing Remarks. - 2 Pharmacological strategies to enhance adherence in schizophrenia. - Introduction. - Pharmacological factors [...] Fields of interest

Psychiatry; Psychopharmacology; Psychotherapy; Neurosciences; Pharmacology / Toxicology

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-88-470-2678-0

Hardcover

2014. XII, 159 p. 10 illus., 1 illus. in color.

$89.99

ISBN 978-88-470-2678-0

usually dispatched within 3 to 5 business days
A Clinician’s Guide to ADHD

The Clinician’s Guide to ADHD combines the useful diagnostic and treatment approaches advocated in different guidelines with insights from other sources, including recent literature reviews and web resources. The aim is to provide clinicians with clear, concise, and reliable advice on how to approach this complex disorder. The guidelines referred to in compounding the book derive from authoritative sources in different regions of the world, including the United States, Canada, Australia, and Europe. After introductory discussion of epidemiology and etiology, guidance is provided on diagnosis in different age groups, differential diagnosis, assessment for potential comorbidities, and the [...] 

Features
The Clinician’s Guide to ADHD combines the useful diagnostic and treatment approaches advocated in different guidelines with insights from other sources, including recent literature reviews and web resources. The aim is to provide clinicians with clear, concise, and reliable advice on how to approach this complex disorder. The guidelines referred to in compounding the book derive from authoritative [...] 

Contents

Fields of interest
Psychiatry; Psychopharmacology; Clinical Psychology

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-02358-8

Softcover
2014. XV, 118 p. 7 illus., 2 illus. in color. $49.99 ISBN 978-3-319-02358-8 usually dispatched within 3 to 5 business days

The Glaucomas

Volume II: Open Angle Glaucoma and Angle Closure Glaucoma

This second volume in a short series on the glaucomas is devoted to the two main types of the disease, open angle glaucoma and angle closure glaucoma. The contents are based on observations and experience gained during the management of more than 40,000 hospital and 7,000 private patients, with follow-up of 10 to 50 years. The book is comprehensive in scope. All aspects of diagnosis are carefully examined, surgical indications and techniques are explained, and the role of medical treatment is evaluated. Importantly, chapters are included on topics that are frequently overlooked in other books but are important to early diagnosis, such as diurnal pressure curve, HRT, and [...] 

Features
This second volume in a short series on the glaucomas is devoted to the two main types of the disease, open angle glaucoma and angle closure glaucoma. The contents are based on observations and experience gained during the management of more than 40,000 hospital and 7,000 private patients, with follow-up of 10 to 50 years. The book is comprehensive in scope. All aspects of diagnosis are carefully examined. [...] 

Contents

Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-3-642-35499-1

Hardcover
2014. XX, 223 p. 359 illus., 281 illus. in color. With DVD. $279.00 ISBN 978-3-642-35499-1 Due: January 28, 2014

Clinical Glaucoma Care

The Essentials

Glaucoma Clinical Care: The Essentials is a pragmatic, slimmer companion volume to the more academically focused text “The Glaucoma Book” by the same editors. This new book is a thoroughly updated manual for the day-to-day diagnosis and management of glaucoma patients by comprehensive ophthalmologists and optometric physicians. Its 33 chapters are authored by world renowned experts in clinical care and basic research, providing evidenced-based research, office examination skills, clinical pearls, and up-to-date reviews of the scientific literature on glaucoma, as well as extensive graphics and tables to accompany the text. Glaucoma Clinical Care: The Essentials is the one book to [...] 

Features
Glaucoma Clinical Care: The Essentials is a pragmatic, slimmer companion volume to the more academically focused text “The Glaucoma Book” by the same editors. This new book is a thoroughly updated manual for the day-to-day diagnosis and management of glaucoma patients by comprehensive ophthalmologists and optometric physicians. Its 33 chapters are authored by world renowned experts in [...] 

Contents

Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-4171-7

Softcover
2014. XX, 667 p. 359 illus., 281 illus. in color. $99.00 ISBN 978-1-4614-4171-7 usually dispatched within 3 to 5 business days
Supine Percutaneous Nephrolithotomy and ECIRS

The New Way of Interpreting PNL

PNL is the gold standard for the management of large and/or otherwise complex renal stones. Since its introduction in the seventies PNL has undergone considerable evolution, mainly driven by the improvement in access techniques, endoscopic instrument technology, lithotripsy devices and drainage management. The conventional prone position for PNL has been challenged in the last two decades by a variety of modifications, including the supine and Galdakao-modified supine Valdivia positions, which make simultaneous retrograde working access to the collecting system possible and have proven anaesthesiological advantages. The Galdakao-modified supine Valdivia position allowed the development[...]

Features
PNL is the gold standard for the management of large and/or otherwise complex renal stones. Since its introduction in the seventies PNL has undergone considerable evolution, mainly driven by the improvement in access techniques, endoscopic instrument technology, lithotripsy devices and drainage management. The conventional prone position for PNL has been challenged in the last two decades by a variety of[...]

Contents

Fields of interest
Urology / Andrology; Nephrology / Imaging / Radiology; Anesthesiology; Nursing

Target groups
Research

Type of publication
Monograph


Hardcover
2014, VI, 178 p. 20 illus., 95 illus. in color. $189.99
usually dispatched within 3 to 5 business days
Parenting Across Cultures

Childrearing, Motherhood and Fatherhood in Non-Western Cultures

There is a strong connection between culture and parenting. What is acceptable in one culture is frowned upon in another. This applies to behavior after birth, encouragement in early childhood, and regulation and freedom during adolescence. There are differences in affection and distance, harshness and repression, and acceptance and criticism. Some parents insist on obedience; others are concerned with individual development. This clearly differs from parent to parent, but there is just as clearly a connection to culture. This book includes chapters on China, Colombia, Jordan, Kenya, the Philippines, Thailand, Korea, Vietnam, Brazil, Native Americans and Australians, Argentina,[...]

Features
There is a strong connection between culture and parenting. What is acceptable in one culture is frowned upon in another. This applies to behavior after birth, encouragement in early childhood, and regulation and freedom during adolescence. There are differences in affection and distance, harshness and repression, and acceptance and criticism. Some parents insist on obedience; others are concerned with [...]

Contents

Fields of interest
Maternal and Child Health; Regional and Cultural Studies; Family

Target groups
Research

Type of publication
Contributed volume


Hardcover
2014, XXI, 516 p. 77 illus. (Science Across Cultures: The History of Non-Western Science, Vol. 7)
$209.00
usually dispatched within 3 to 5 business days

Neuroendoscopy

Current Status and Future Trends

As a result of technological improvements, neuroendoscopy is now used in the treatment of many more patients, enabling the performance of previously unavailable operations with low complication rates and rapid patient recovery. This book presents the distilled experience of world experts in this evolving field. Current applications in a wide variety of settings are explained in detail and likely future developments are identified. In addition, the available neuroendoscopic instruments are reviewed and the results of international trials and collaborative studies, presented. This book will fully acquaint the reader with the breadth and depth of available neuroendoscopy techniques and[...]

Features
During the past decade, neuroendoscopy has undergone a variety of technological improvements, and both indications and techniques have been significantly refined. As a result, neuroendoscopy is now used in the treatment of many more patients, enabling the performance of previously unavailable operations with low complication rates and rapid patient recovery. This book presents the distilled experience[...]

Contents

Fields of interest
Neurosurgery; Surgical Orthopedics; Otorhinolaryngology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-642-39084-5

Hardcover
2014, VIII, 233 p. 141 illus., 106 illus. in color. $189.00
ISBN 978-3-642-39084-5
Due: January 28, 2014

Biomedical Informatics

Computer Applications in Health Care and Biomedicine

The practice of modern medicine and biomedical research requires sophisticated information technologies with which to manage patient information, plan diagnostic procedures, interpret laboratory results, and carry out investigations. Biomedical Informatics provides both a conceptual framework and a practical inspiration for this swiftly emerging scientific discipline at the intersection of computer science, decision science, information science, cognitive science, and biomedicine. Now revised and in its third edition, this text meets the growing demand by practitioners, researchers, and students for a comprehensive introduction to key topics in the field. Authored by leaders[...]

Contents
Biomedical Informatics: The Science and the Pragmatics.- Biomedical Data: Their Acquisition, Storage, and Use.- Biomedical Decision Making: Probabilistic Clinical Reasoning.- Cognitive Science and Biomedical Informatics.- Computer Architectures for Health Care and Biomedicine.- Software Engineering for Health Care and Biomedicine.- Standards in Biomedical Informatics.- Natural Language Processing in Health Care and Biomedicine.- Biomedical Imaging Informatics.- Ethics and Biomedical and Health Informatics: Users, Standards, and Outcomes.- Evaluation of Biomedical and Health Information[...]

Fields of interest
Health Informatics; Biomedicine (general)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4471-4473-1

Hardcover
2014, XXVI, 965 p. 253 illus., 135 illus. in color. $99.00
ISBN 978-1-4471-4473-1
Due: January 28, 2014
**Clinical Ophthalmic Oncology**

**Basic Principles and Diagnostic Techniques**

Written by internationally renowned experts, *Clinical Ophthalmic Oncology* provides practical guidance and advice on the diagnosis and management of the complete range of ocular cancers. The book supplies all of the state-of-the-art knowledge required in order to identify these cancers early and to treat them as effectively as possible. Using the information provided, readers will be able to provide effective patient care using the latest knowledge on all aspects of ophthalmic oncology, to verify diagnostic conclusions based on comparison with numerous full-color clinical photographs, and to locate required information quickly owing to the clinically focused and user-friendly format. [...]  

**Features**

Written by internationally renowned experts, *Clinical Ophthalmic Oncology* provides practical guidance and advice on the diagnosis and management of the complete range of ocular cancers. The book supplies all of the state-of-the-art knowledge required in order to identify these cancers early and to treat them as effectively as possible. Using the information provided, readers will be able to provide effective patient care using the latest knowledge on all aspects of ophthalmic oncology, to verify diagnostic conclusions based on comparison with numerous full-color clinical photographs, and to locate required information quickly owing to the clinically focused and user-friendly format. [...]  

**Contents**


**Fields of interest**

Ophthalmology; Oncology  

**Target groups**

Professional/practitioner  

**Type of publication**

Professional book  

More on [www.springer.com/978-3-642-40488-7](http://www.springer.com/978-3-642-40488-7)  

**Hardcover**


2014, X, 235 p. 121 illus., 107 illus. in color.  

$139.00  

ISBN 978-3-642-40488-7  

Due: January 28, 2014

---

**Cardiac Drugs in Pregnancy**

The spectrum of cardiovascular disease affecting women in pregnancy and postpartum is changing and differs between countries. In the western world, the risk of cardiovascular disease in pregnancy has increased due to the increasing age at the first pregnancy and the worldwide obesity epidemic leading also to early diabetes and hypertension. In addition, the treatment of congenital heart disease has improved leading to an increased number of women with residual heart disease reaching childbearing age. In the western world maternal heart disease is now the major cause of maternal death during pregnancy. In the developing world rheumatic heart disease and the cardiomyopathies dominate. [...]  

**Features**

In the western world, the risk of cardiovascular disease in pregnancy has grown due to the increasing age at the first pregnancy and the worldwide obesity epidemic leading to early diabetes and hypertension. As a result, more women are requiring drug therapy during pregnancy and some data has shown an altered pharmacodynamic profile in pregnant women when compared to the non-pregnant population. [...]  

**Contents**


**Fields of interest**

Cardiology; Obstetrics / Perinatology; Maternal and Child Health; Pharmacotherapy  

**Target groups**

Professional/practitioner  

**Type of publication**

Professional book  


**Softcover**

2014, XI, 131 p. 3 illus., 2 illus. in color. (Current Cardiovascular Therapy)  

$49.99  

ISBN 978-1-4471-5471-6  

usually dispatched within 3 to 5 business days

---

**Hematopoietic Cell Transplantation in Children with Cancer**

This book is a comprehensive and up-to-date compendium on all aspects of blood and marrow transplantation in children. After an introductory chapter describing the history of pediatric blood and marrow transplantation, subsequent chapters discuss pediatric-specific aspects of transplantation, including stem cell sources suitable for transplantation, preparative regimens, graft-versus-host disease, complications related to transplantation, and late effects. The role of blood and marrow transplantation in various specific pediatric diseases is then examined, and the closing chapter considers future directions. The authors are all internationally recognized experts and offer a largely [...]  

**Features**

This book is a comprehensive and up-to-date compendium on all aspects of blood and marrow transplantation in children. After an introductory chapter describing the history of pediatric blood and marrow transplantation, subsequent chapters discuss pediatric-specific aspects of transplantation, including stem cell sources suitable for transplantation, preparative regimens, graft-versus-host disease, complications related to transplantation, and late effects. The role of blood and marrow transplantation in various specific pediatric diseases is then examined, and the closing chapter considers future directions. The authors are all internationally recognized experts and offer a largely [...]  

**Contents**

History of Pediatric BMT - Stem Cell Sources and Donor Selection - Preparative Regimens - Graft-versus-Host Disease - Complications Following BMT and Supportive Care - Late Effects - Acute Lymphoblastic Leukemia - Acute Myeloid Leukemia - Lymphomas - Myelodysplastic and Myeloproliferative Disorders - Solid Tumors - Non-Malignant Diseases - Future Directions.  

**Fields of interest**

Oncology; Pediatrics; Hematology  

**Target groups**

Professional/practitioner  

**Type of publication**

Contributed volume  

More on [www.springer.com/978-3-642-39919-0](http://www.springer.com/978-3-642-39919-0)  

**Hardcover**

2014, X, 358 p. 38 illus., 20 illus. in color. (Pediatric Oncology)  

$189.00  

ISBN 978-3-642-39919-0  

Due: January 28, 2014
Management of Musculoskeletal Injuries in the Trauma Patient

Management of Musculoskeletal Injuries in the Trauma Patient summarizes the most current concepts and clinical practices for the management of the patient with musculoskeletal traumatic injuries. The text covers optimal time frames for stabilization of orthopedic injuries and strategies to mitigate systemic injury while minimizing damage due to pelvic, spine and long bone trauma. The volume covers the gamut of traumatic axial and extremity injuries, including cervico-lumbar-thoracic spine injuries, spinal cord injuries, long bone fractures with special emphasis on the femoral shaft, pelvic and acetabular injuries, open fractures, mangled extremities, upper extremity injuries, [...] Features

Management of Musculoskeletal Injuries in the Trauma Patient summarizes the most current concepts and clinical practices for the management of the patient with musculoskeletal traumatic injuries. The text covers optimal time frames for stabilization of orthopedic injuries and strategies to mitigate systemic injury while minimizing damage due to pelvic, spine and long bone trauma. The volume covers [...] Contents


Fields of interest
Surgical Orthopedics; General Surgery; Traumatic Surgery; Vascular Surgery; Intensive / Critical Care Medicine; Transplant Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8550-6

Hardcover
2014, XIV, 340 p. 150 illus., 64 illus. in color.
$209.00
ISBN 978-1-4614-8550-6
usually dispatched within 3 to 5 business days

Pathological Myopia

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to treatments, such as laser photocoagulation, photodynamic therapy, pharmaco-therapeutic injections in the vitreous, and surgery.- Complete with high-quality color images, this book is written and edited by leaders in the field and is geared towards ophthalmologists, including residents and fellows.[...]

Features

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to [...] Contents


Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2014, XVII, 151 p. 139 illus., 138 illus. in color. (Musculoskeletal Medicine)
$139.00
ISBN 978-1-4614-8935-1

Online orders shipping within 2-3 days.

Pathological Myopia

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to treatments, such as laser photocoagulation, photodynamic therapy, pharmaco-therapeutic injections in the vitreous, and surgery.- Complete with high-quality color images, this book is written and edited by leaders in the field and is geared towards ophthalmologists, including residents and fellows.[...]

Features

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to [...] Contents


Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2014, XVII, 151 p. 139 illus., 138 illus. in color. (Musculoskeletal Medicine)
$139.00
ISBN 978-1-4614-8935-1

Online orders shipping within 2-3 days.

Pathological Myopia

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to treatments, such as laser photocoagulation, photodynamic therapy, pharmaco-therapeutic injections in the vitreous, and surgery.- Complete with high-quality color images, this book is written and edited by leaders in the field and is geared towards ophthalmologists, including residents and fellows.[...]

Features

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to [...] Contents


Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2014, XVII, 151 p. 139 illus., 138 illus. in color. (Musculoskeletal Medicine)
$139.00
ISBN 978-1-4614-8935-1

Online orders shipping within 2-3 days.

Pathological Myopia

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to treatments, such as laser photocoagulation, photodynamic therapy, pharmaco-therapeutic injections in the vitreous, and surgery.- Complete with high-quality color images, this book is written and edited by leaders in the field and is geared towards ophthalmologists, including residents and fellows.[...]

Features

Pathological Myopia is a major cause of severe vision loss worldwide. The mechanisms for vision loss include cataract, glaucoma, retinal detachment, and above all, degeneration of the macula within the posterior staphyloma. Pathological Myopia is one of the only current books to specifically address this disease and discusses recent developments in imaging technologies and various approaches to [...] Contents


Fields of interest
Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2014, XVII, 151 p. 139 illus., 138 illus. in color. (Musculoskeletal Medicine)
$139.00
ISBN 978-1-4614-8935-1

Online orders shipping within 2-3 days.
Living Donor Advocacy
An Evolving Role Within Transplantation

The inadequate supply of organs in the United States and other countries continues to drive the reliance on living donor transplantation. In 2000, representatives of the transplant community convened for a meeting on living donation in an effort to provide guidelines to promote the welfare of living donors. The consensus statement that resulted from this meeting recommended that transplant centers retain an Independent Living Donor Advocate (ILDA) to focus on the best interest of the donor. A decade later, nearly every transplant center in the United States, performing living donor surgeries, has incorporated an ILDA into their living donor screening and/or evaluation process Living...[

Contents

Fields of interest
Transplant Surgery; Medicine (general); Nephrology; Hepatology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Advances in Laparoscopy of the Abdominal Wall Hernia

Advances in Laparoscopy of the Abdominal Wall Hernia is fully illustrated, comprehensive guide which describes in detail the most up-to-date techniques used in the laparoscopic repair of inguinal hernias. Written by world renowned authors, this manual reviews laparoscopic techniques used in the repair of inguinal hernias and ventral incisional hernias. Among the topics explored within this updated, engaging and informative text are: • Techniques such as Extraperitoneal (TEP) and transabdominal (TAPP) hernia repair • Fundamentals of ventral hernia repair • A detailed overview of mesh fixation in laparoscopic surgery • Methods to deal with rarer hernias and those of atypical location Advances in...[

Contents
High Altitude

Human Adaptation to Hypoxia

Over the last decade the science and medicine of high altitude and hypoxia adaptation has seen great advances. High Altitude: Human Adaptation to Hypoxia addresses the challenges in dealing with the changes in human physiology and the particular medical conditions that arise from exposure to high altitude. In-depth and comprehensive chapters cover both the basic science and the clinical consequences of exposure to high altitude. Genetic, cellular, organ and whole body system responses to high altitudes are covered and chapters discuss these effects on a wide range of diseases. Expert authors provide insight into the care of patients with pre-existing medical conditions that fail in [...] [...]

Contents

Features
Over the last decade the science and medicine of high altitude and hypoxia adaptation has seen great advances. High Altitude: Human Adaptation to Hypoxia addresses the challenges in dealing with the changes in human physiology and the particular medical conditions that arise from exposure to high altitude. In-depth and comprehensive chapters cover both the basic science and the clinical consequences [...] [...]

Managing Cancer Breakthrough Pain

Managing Cancer Breakthrough Pain is a comprehensive review of cancer breakthrough pain (cBTP) and rapid-onset opioids (ROO), the only treatment approved for cBTP episodes. The book was originally commissioned due to the current rapid growth of the ROO market and the epidemic of ROO abuse. This book will review the historical background and definitions of cBTP and ROOs, assessment methods to determine types of cBTP, US- and EU-approved ROOs, case studies (which will provide practical applications of ROO treatment options), ROO abuse and screening methods, and the FDA-mandated TIRF REMS Access Program (Transmucosal Immediate Release Fentanyl Risk Evaluation and Mitigation Strategies). [...] [...]

Contents

Features
Managing Cancer Breakthrough Pain is a comprehensive review of cancer breakthrough pain (cBTP) and rapid-onset opioids (ROO), the only treatment approved for cBTP episodes. The book was originally commissioned due to the current rapid growth of the ROO market and the epidemic of ROO abuse. This book will review the historical background and definitions of cBTP and ROOs, assessment methods to determine types of [...] [...]

Contents
Medical (general); Oncology; Pain Medicine [...]

Target groups Professional/practitioner Type of publication Handbook More on www.springer.com/978-1-908517-76-0 Softcover 2013, XII, 98 p. 18 illus. in color. $59.99 ISBN 978-1-908517-76-0 usually dispatched within 3 to 5 business days
Pressure Ulcers in the Aging Population
A Guide for Clinicians

Medical practitioners receive little, if any, formal training in the prevention, assessment and management of pressure ulcers and other chronic wounds. Pressure Ulcers in the Aging Population: A Guide for Clinicians is a resource primarily aimed at physicians interested in the fundamentals of wound care. This book is written for geriatricians, internists, general practitioners, residents and fellows who treat older patients and unlike other texts on the market addresses the specific issues of wound prevention and management in older individuals. Pressure Ulcers in the Aging Population: A Guide for Clinicians emphasizes prevention, proper documentation and the team care process.[...]

Features
Pressure Ulcers in the Aging Population: A Guide for Clinicians is a resource primarily aimed at physicians interested in the fundamentals of wound care. This book is written for geriatricians, internists, general practitioners, residents and fellows who treat older patients. Unlike other wound texts on the market, the book addresses the specific issues of wound prevention and management in older [...]

Contents

Fields of interest
Geriatrics / Gerontology; Internal Medicine; General Practice / Family Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-62703-699-3

Hardcover
2014. XI, 233 p. 32 illus. (Aging Medicine, Vol. 1) $59.99
usually dispatched within 3 to 5 business days

Severe Skin Diseases in Children
Beyond Topical Therapy

A textbook to guide practitioners on treating severe skin diseases in children, when they have failed topical therapy – will discuss the appropriate candidates, considerations and approaches in drug therapy, possible problems that may arise. Photographs will help to illustrate the cases/conditions.

Features
Children are no less spared from severe skin diseases. This textbook is designed as a practical clinical reference that will guide practitioners in treating difficult dermatoses in children in whom topical therapy has been unsuccessful. Individual sections are devoted to inflammatory diseases, immune-mediated/autoimmune diseases, tumors and proliferative disorders, and genodermatoses. Each chapter addresses [...]...
IgG4-Related Disease

IgG4-related disease is a new systemic disease that has only recently been identified and characterized. However, most clinical practitioners are not yet familiar with it and thus are likely to misdiagnose it. The purpose of this book is to raise awareness of this disease and its diagnostic pitfalls. A wealth of radiological and histopathological images helps clinicians to understand its characteristics in various organs as well as their clinical and basic medical backgrounds. All of the authors are experts who have published numerous important papers in the field. This book will be useful to physicians in various disciplines such as gastroenterology, rheumatology, ophthalmology,...

Contents

Part I. General remarks.

Chapter 1. An overview.

Chapter 2. Some recollections of the history of research on IgG4-RD.

Chapter 3. History: Pancreas.

Chapter 4. History: Lacrimal and salivary glands.

Chapter 5. Salivary gland lesions in Mikulicz’s disease and Küttner’s tumor.

Chapter 6. Comprehensive diagnostic criteria for IgG4-RD.

Chapter 7. Autoimmune Pancreatitis with Normal Serum IgG4 Concentrations: What is the correct classification for such patients?.

Chapter 8. Pharmacotherapy of IgG4-related disease.

Chapter 9. B Cell Depletion in IgG4-Related Disease.

Chapter 10. Autoimmune IgG4-related disease.

Features

IgG4-related disease is a new systemic disease that has only recently been identified and characterized. However, most clinical practitioners are not yet familiar with it and thus are likely to misdiagnose it. The purpose of this book is to raise awareness of this disease and its diagnostic pitfalls. A wealth of radiological and histopathological images helps clinicians to understand its characteristics in...
Shifting Paradigms in Public Health
From Holism to Individualisation
This transdisciplinary volume outlines the development of public health paradigms across the ages in a global context and argues that public health has seemingly lost its raison d’être, that is, a population perspective. The older, philosophical approach in public health involved a holistic, population-based understanding that emphasized historicity and interrelatedness to study health and disease in their larger socio-economic and political moorings. A newer tradition, which developed in the late 19th century following the acceptance of the germ theory in medicine, created positivist transitions in epidemiology. In the form of risk factors, a reductionist model of health and disease [...] 

Features
This transdisciplinary volume outlines the development of public health paradigms across the ages in a global context and argues that public health has seemingly lost its raison d’être, that is, a population perspective. The older, philosophical approach in public health involved a holistic, population-based understanding that emphasized historicity and interrelatedness to study health and disease in their [...] 

Contents

Fields of interest
Public Health; Biomedicine (general); Philosophy of Medicine; Popular Science in Medicine and Health

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-81-322-1643-8

Hardcover
2013. XVII, 203 p. $189.00 ISBN 978-81-322-1643-8 usually dispatched within 3 to 5 business days

Zoom Gastroscopy
Magnifying Endoscopy in the Stomach
Since magnifying endoscopy of the stomach, or zoom gastroscopy, was first performed at the beginning of the 21st century, there have been numerous findings in the field worldwide. The author of this volume has developed a standardized magnifying endoscopy technique that enables endoscopists to constantly visualize the microanatomy (subepithelial capillaries and the epithelial structure) within the stomach. With this technology, it has become easy to obtain magnified endoscopic findings. Techniques differ, however, depending upon the endoscopist. Endoscopists around the world do not have a standardized magnifying endoscopy technique, which is mandatory for the scientific analysis of [...] 

Features
Since magnifying endoscopy of the stomach, or zoom gastroscopy, was first performed at the beginning of the 21st century, there have been numerous findings in the field worldwide. The author of this volume has developed a standardized magnifying endoscopy technique that enables endoscopists to constantly visualize the microanatomy (subepithelial capillaries and the epithelial structure) within the stomach. [...] 

Contents
- Chapter 1 Basic principles for the interpretation of magnified endoscopic (ME) findings: vessels (V) plus surface (S) classification system.- Chapter 2 Magnifying endoscopy (ME) of the stomach targeting the microvascular architecture.- Chapter 3 Magnifying ratio and resolution in electronic endoscopy systems.- Chapter 4 Magnified endoscopic (ME) findings of the normal gastric mucosa.- Chapter 5 Chronic gastritis–gastric body mucosal patterns identified using magnifying endoscopy (ME).- Chapter 6 Microvascular architecture characteristic of early gastric cancer as visualized by [...] 

Fields of interest
Gastroenterology; Internal Medicine; Oncology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-4-431-54206-3

Hardcover

Interventional Nephrology
Principles and Practice
Interventional Nephrology: Principles and Practice describes a very direct approach to clinical problems encountered by the community of care providers who treat chronic kidney disease and dialysis patients. Practical scenarios faced on a day-to-day basis are presented by experts in the field utilizing the latest scientific information. In addition to internal medicine residents, nephrology fellows and practitioners, this comprehensive and useful resource is a must-have for the allied health professionals taking care of patients with hemodialysis and peritoneal dialysis access problems.

Features
Historically, dialysis access care has been delegated to a variety of specialists, resulting in fragmentation of care delivery. Interventional Nephrology (IN) is an emerging subspecialty of Nephrology that focuses on providing continuity of clinical and procedural care to chronic kidney disease and dialysis patients. The procedures of IN include renal ultrasonography, placement and removal of hemodialysis [...] 

Contents

Fields of interest
Nephrology; Internal Medicine; Urology / Andrology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8802-6

Hardcover
2014. X, 330 p. 144 illus., 51 illus. in color. $189.00 ISBN 978-1-4614-8802-6 usually dispatched within 3 to 5 business days
Caring for Children Born Small for Gestational Age

Care for Children Born Small for Gestational Age is a comprehensive handbook that serves to synthesize the extensive recent literature in the area to provide a practical resource aimed at a wide range of healthcare professionals, including obstetricians, midwives, neonatologists, and primary care physicians. This comprehensive handbook includes an in-depth survey of the prevention, diagnosis, treatment and long-term monitoring of children born small for gestational age, as well as related conditions such as intrauterine growth restriction, metabolic syndrome and type 2 diabetes. Additionally, the short and long-term psychiatric and social consequences of this condition are addressed.

Contents

Fields of interest
Pediatrics; Obstetrics / Perinatology; Maternal and Child Health; Health Promotion and Disease Prevention; Metabolic Diseases; Endocrinology

Target groups
Professional/practitioner

Type of publication
Handbook


Softcover
2013, XIX, 299 p. 45 illus. in color.
$139.00
usually dispatched within 3 to 5 business days

Ethics in Medicine

This book both presents a succinct history of medical ethics and discusses a wide range of important ethical dilemmas in the provision of modern health care. A synopsis is provided of ethics through the ages and the role of ethics in the evolution of medicine. Principles and sources of medical ethics, as well as different ethical and secular perspectives, are explained. Ethical concerns in relation to a variety of specific issues are then examined. These issues include, for example, human experimentation, stem cell research, assisted reproductive technologies, termination of pregnancy, rationing of health care, euthanasia, and quality of life issues. The author’s many years of...

Contents

Fields of interest
Medicine (general); Ethics; Theory of Medicine / Bioethics; History of Medicine

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-319-01043-4

Softcover
$69.99
ISBN 978-3-319-01043-4
usually dispatched within 3 to 5 business days

Frozen Section Library: Endocrine Organs

The Frozen Section Library series provides concise, user-friendly, site specific handbooks that are well illustrated and highlight the pitfalls, artifacts and differential diagnosis issues that arise in the hurried frozen section scenario. Written by expert surgical pathologists, Frozen Section Library: Endocrine Organs presents common and practical problems including follicular adenoma versus follicular carcinoma, papillary thyroid carcinoma versus reactive change and freezing artifact, follicular variant of papillary thyroid carcinoma, and medullary thyroid carcinoma. Anaplastic carcinoma, thyroid lymphoma, resection margin of a pancreatic endocrine tumor, pheochromocytoma within...
Perspectives on Linguistic Pragmatics

This volume provides insight into linguistic pragmatics from the perspective of linguists who have been influenced by philosophy. Theory of Mind and perspectives on point of view are presented along with other topics including: semantics vs. semiotics, clinical pragmatics, explicatures, cancellability of explicatures, interactive language use, reference, common ground, presupposition, definiteness, logophoricity and point of view in connection with pragmatic inference, pragmemes and language games, pragmatics and artificial languages, the mechanism of the form/content correlation from a pragmatic point of view, amongst other issues relating to language use. Relevance Theory is [...] Features

This volume provides insight into linguistic pragmatics from the perspective of linguists who have been influenced by philosophy. Theory of Mind and perspectives on point of view are presented along with other topics including: semantics vs. semiotics, clinical pragmatics, explicatures, cancellability of explicatures, interactive language use, reference, common ground, presupposition, definiteness, [...] Contents


Philosophy of Language; Theoretical Linguistics; Linguistics (general)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-01013-7

Perspectives on Pragmatics and Philosophy

This book is about the pragmatics of language and it illustrates how pragmatics transcends the boundaries of linguistics. This volume covers Gricean pragmatics as well as topics including: conversation and collective belief, the norm of assertion, speech acts, what a context is, the distinction between semantics and pragmatics and implicature and explication, pragmatics and epistemology, the pragmatics of belief, quotation, negation, implicature and argumentation theory. Habermas’ Universal Pragmatics, Dascal’s theory of the dialectical self, theories and theoretical discussions on the nature of pragmatics from a philosophical point of view. Conversational implicatures are generally [...] Features

This book is about the pragmatics of language and it illustrates how pragmatics transcends the boundaries of linguistics. This volume covers Gricean pragmatics as well as topics including: conversation and collective belief, the norm of assertion, speech acts, what a context is, the distinction between semantics and pragmatics and implicature and explication, pragmatics and epistemology, the pragmatics of [...] Contents


Philosophy (general); Pragmatism; Linguistics (general)

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-319-01010-6
Philosophy of the Economy

An Aristotelian Approach

This book develops a philosophical analysis of economic reality and economic science from an Aristotelian point of view. It is the result of many years of thinking and philosophical study about these topics. It differs from other philosophy of economics books as it also deals with economic reality (not only the science) and approaches its subject from an Aristotelian perspective. It differs from other Aristotelian studies about economics as it covers the whole of philosophy of the economy. This book argues why Aristotle’s thinking guarantees an appropriate interdisciplinary synthesis.

Features
This book develops a philosophical analysis of economic reality and economic science from an Aristotelian point of view. It is the result of many years of thinking and philosophical study about these topics. It differs from other philosophy of economics books as it also deals with economic reality (not only the science) and approaches its subject from an Aristotelian perspective. It differs from other [...]
Phenomenology in French Philosophy: Early Encounters

This work investigates the early encounters of French philosophers and religious thinkers with the phenomenological philosophy of Edmund Husserl. Following an introductory chapter addressing context and methodology, Chapter 2 argues that Henri Bergson’s insights into lived duration and intuition and Maurice Blondel’s genetic description of action functioned as essential precursors to the French reception of phenomenology. Chapter 3 details the presentations of Husserl and his followers by three successive pairs of French academic philosophers: Léon Noël and Victor Delbos, Lev Shestov and Jean Hering, and Bernard Groethuysen and Georges Gурvitch. Chapter 4 then explores the...}

Features

This work investigates the early encounters of French philosophers and religious thinkers with the phenomenological philosophy of Edmund Husserl. Following an introductory chapter addressing context and methodology, Chapter 2 argues that Henri Bergson’s insights into lived duration and intuition and Maurice Blondel’s genetic description of action functioned as essential precursors to the French reception of...}

Contents


Fields of interest

Phenomenology; History of Philosophy; Modern Philosophy; Philosophy of Religion; Epistemology

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-4640-4

Hardcover


$129.00

ISBN 978-94-007-4640-4

usually dispatched within 3 to 5 business days

Ethics or Moral Philosophy

This volume examines a variety of philosophical approaches that seek to formulate practical guidelines or norms for human actions and behavior in different areas of society, including politics, cultural traditions, the environment, business management, architecture, and medicine. Written by a team of international authors, this volume features thirteen surveys. It begins with an exploration of ethics in politics and cultural traditions. From genocide to the unequal distribution of wealth, it examines many of the harms that currently affect societies throughout the world and considers a way that those in politics can follow to provide better care for all their populations. Next, the...}

Features

This volume examines a variety of philosophical approaches that seek to formulate practical guidelines or norms for human actions and behavior in different areas of society, including politics, cultural traditions, the environment, business management, architecture, and medicine. Written by a team of international authors, this volume features thirteen surveys. It begins with an exploration of...]

Contents

Preface.- Introduction; Guttorm Fløistad.- Éthique et mutualité. Le Care, l’indifférence et la relation fiduciaire ; Jean-Godefroy Bidima.- The Immanent and the Transcendent in Indian Ethics; Bhuvan Chandel.- Naturalism in Indian Ethics: Sāmkhya, Jānism And Buddhism; D. P. Chattopadhyaya.- Traditional Values in the Time of Globalization; Marietta Stepanyszyn.- What Ought I not to Do?; Abdusalam A. Guseynov.- Communicative Source of Moral Normativity; A Universal Ethics; Jovan Nučič. [...] Fields of interest

Ethics; Political Theory

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-6894-9

Hardcover


approx. $129.00

ISBN 978-94-007-6894-9

usually dispatched within 3 to 5 business days

Pluralism in Mathematics: A New Position in Philosophy of Mathematics

This book is about philosophy, mathematics and logic, giving a philosophical account of Pluralism which is a family of positions in the philosophy of mathematics. There are four parts to this book, beginning with a look at motivations for Pluralism by way of Realism, Maddy’s Naturalism, Shapiro’s Structuralism and Formalism. In the second part of this book the author covers: the philosophical presentation of Pluralism; using a formal theory of logic metaphorically; rigour and proof for the Pluralist; and mathematical fixatures. In the third part the author goes on to focus on the transcendental presentation of Pluralism, and in part four looks at applications of Pluralism, such as a...]

Features

This book is about philosophy, mathematics and logic, giving a philosophical account of Pluralism which is a family of positions in the philosophy of mathematics. There are four parts to this book, beginning with a look at motivations for Pluralism by way of Realism, Maddy’s Naturalism, Shapiro’s Structuralism and Formalism. In the second part of this book the author covers: the philosophical presentation of Pluralism; using a formal theory of logic metaphorically; rigour and proof for the Pluralist; and mathematical fixatures. In the third part the author goes on to focus on the transcendental presentation of Pluralism, and in part four looks at applications of Pluralism, such as a...]

Contents


Fields of interest

Philosophy of Science; Mathematical Logic and Foundations; Logic

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-7057-7

Hardcover

2014. XVII, 291 p. 16 illus. (Logic, Epistemology, and the Unity of Science, Vol. 32)

$129.00

ISBN 978-94-007-7057-7

usually dispatched within 3 to 5 business days
Explanation in the Special Sciences

The Case of Biology and History

Biology and history are often viewed as closely related disciplines, with biology informed by history, especially in its task of charting our evolutionary past. Maximizing the opportunities for cross-fertilization in these two fields requires an accurate reckoning of their commonalities and differences—precisely what this volume sets out to achieve. Special commissioned essays by a team of recognized international researchers cover the full panoply of topics in these fields and include notable contributions on the correlativity of evolutionary and historical explanations, applying to history the latest causal-mechanical approach in the philosophy of biology, and the question of [...]
Rationality, Virtue, and Liberation
A Post-Dialectical Theory of Value

This book explores the overlooked but vital theoretical relationships between R. M. Hare, Alan Gewirth, and Jürgen Habermas. The author claims their accounts of value, while failing to address classic virtue-theoretical critiques, bear the seeds of a resolution to the ultimate question “What is most valuable?” These dialectical approaches, as claimed, justify a reinterpretation of value and value judgment according to the Carnapian conception of an empirical-linguistic framework or grammar. Through a further synthesis with the work of Philippa Foot and Thomas Magnelli, the author shows that “value” would be literally meaningless without four fundamental phenomena which constitute such...[...]

Features
This book explores the overlooked but vital theoretical relationships between R. M. Hare, Alan Gewirth, and Jürgen Habermas. The author claims their accounts of value, while failing to address classic virtue-theoretical critiques, bear the seeds of a resolution to the ultimate question “What is most valuable?” These dialectical approaches, as claimed, justify a reinterpretation of value and value judgment [...] [...]

Contents
Introduction. - Chapter I: Rethinking Rationality: 1.1 The Reconciliation of Ethical Rationalism, Ethical Naturalism, Virtue Ethics, and the Biological and Social Sciences; 1.2 The Failure of Axiological Anti-Foundationlism; 1.3 The Concept of Rationality: Toward a Universal Model. - Chapter II: Rationality and Dialectical Necessity: 2.1: Prescription, Preference, and Dialectical Contingence; 2.2. Developing a Method of Justification; 2.3: A Sound Positive Account, Part I: An Analysis of Gewirth’s Ethical Rationalism; 2.4: A Sound Positive Account, Part II: An Analysis of Habermas’s [...] [...]

Fields of interest
Ethics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02284-0

usually dispatched within 3 to 5 business days

R. M. Hare, Alan Gewirth, Jürgen Habermas

Perspectives on Theory of Controversies and the Ethics of Communication
Explorations of Marcelo Dascal’s Contributions to Philosophy

Assembling an unprecedented range of considered responses to the noted contributions to philosophy made by Marcelo Dascal, this collection comprises the work of his many friends, colleagues and former students. Beginning with a series of articles on Dascal’s influential insights on philosophical controversy, this volume continues with explorations of Dascal’s celebrated scholarship on Liebnitz, before moving on to papers dealing with his philosophy of language, including interpretations by Dressner and Herring on the phenomenon of emotions. Taken as a whole, they provide a compelling commentary on Dascal’s prolific and voluminous publications and include fresh perspectives on the[...]

Features
Assembling an unprecedented range of considered responses to the noted contributions to philosophy made by Marcelo Dascal, this collection comprises the work of his many friends, colleagues and former students. Beginning with a series of articles on Dascal’s influential insights on philosophical controversy, this volume continues with explorations of Dascal’s celebrated scholarship on Liebnitz, before [...]

Contents
Introductory Essay - “Sob o mesmo céu”. Listening and Dialogue as Ethics of Communication; Giovanni Scarabò. - Chapter 1: The Exclusion Argument; Yaron Senderowitz. - Chapter 2: Rationality and Controversy. Reading Darwin through Dascalian eyes; Anna Carolina Regner. - Chapter 3. Extrinsic or Intrinsic Necessity? Hobbes and Bramhall on Free Will; Daniel Mishori. - Chapter 4. Locke and Leibniz on the Balance of Reasons; Markku Roinila. - Chapter 5. Harmonizing the Poles: A Note on Leibniz’s Notion of Justice; Noa Naaman-Zauderer. - Chapter 6. On the ‘Sum of all Differences’ and the[...]

Fields of interest
Philosophy of Language; Political Philosophy; Theoretical Linguistics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02284-0

usually dispatched within 3 to 5 business days

Marcelo Dascal

The Common Good: Chinese and American Perspectives

This book addresses the Confucian philosophy of common good and deals with the comparative philosophy on eastern and western understandings of common good. The common good is an essentially contested concept in contemporary moral and political discussions. Although the notion of the common good has a slightly antique air, especially in the North Atlantic discussion, it has figured prominently in both the sophisticated theoretical accounts of moral and political theory in recent years and also in the popular arguments brought for particular policies and for more general orientations toward policy. It has been at home both in the political arsenals of the left and the right[...]

Features
This book addresses the Confucian philosophy of common good and deals with the comparative philosophy on eastern and western understandings of common good. The common good is an essentially contested concept in contemporary moral and political discussions. Although the notion of the common good has a slightly antique air, especially in the North Atlantic discussion, it has figured prominently in both the [...] [...]

Fields of interest
Non-Western Philosophy; Political Theory; Political Philosophy

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-7271-7

Hardcover

usually dispatched within 3 to 5 business days

Ping-cheung Lo and David Solomon (Eds.)
Adaptive Logics for Defeasible Reasoning

Applications in Argumentation, Normative Reasoning and Default Reasoning

This book presents adaptive logics as an intuitive and powerful framework for modeling defeasible reasoning. It examines various contexts in which defeasible reasoning is useful and offers a compact introduction into adaptive logics. The author first familiarizes readers with defeasible reasoning, the adaptive logics framework, combinations of adaptive logics, and a range of useful meta-theoretic properties. He then offers a systematic study of adaptive logics based on various applications. The book presents formal models for defeasible reasoning stemming from different contexts, such as default reasoning, argumentation, and normative reasoning. It highlights various meta-theoretic aspects.

Features
This book presents adaptive logics as an intuitive and powerful framework for modeling defeasible reasoning. It examines various contexts in which defeasible reasoning is useful and offers a compact introduction into adaptive logics. The author first familiarizes readers with defeasible reasoning, the adaptive logics framework, combinations of adaptive logics, and a range of useful meta-theoretic properties.

Contents

Fields of interest
Logic; Artificial Intelligence (incl. Robotics); Philosophy of Science

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00791-5

Hardcover
2014. XVIII, 438 p. 34 illus. (Trends in Logic, Vol. 38)
$179.00
ISBN 978-3-319-00791-5

usually dispatched within 3 to 5 business days

G. Tahm
Heuristic Strategies in the Speeches of Cicero

This book introduces a new form of argumentative analysis: rhetorical heuremes. The method applies the concepts of heuristic thinking, probability, and contingency in order to develop a better understanding of complex arguments in classical oratory. A new theory is required because Greek and Roman rhetoric cannot provide detailed answers to problems of strategic argumentation in the analysis of speeches. Building on scholarship in Ciceronian oratory, this book moves beyond the extant terminology and employs a concept of heuristic reasoning derived from the psychology of decision making and mathematical problem solving. The author analyses selected passages from Cicero’s forensic[...]

Features
This book introduces a new form of argumentative analysis: rhetorical heuremes. The method applies the concepts of heuristic thinking, probability, and contingency in order to develop a better understanding of complex arguments in classical oratory. A new theory is required because Greek and Roman rhetoric cannot provide detailed answers to problems of strategic argumentation in the analysis of speeches.

Contents

Fields of interest
Logic; Classical Studies; Historical Linguistics; Classical Philosophy

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01798-3

Hardcover
$129.00
ISBN 978-3-319-01798-3

usually dispatched within 3 to 5 business days

S. Abdullaev
Magnetic Stochasticity in Magnetically Confined Fusion Plasmas

Chaos of Field Lines and Charged Particle Dynamics

This is the first book to systematically consider the modern aspects of chaotic dynamics of magnetic field lines and charged particles in magnetically confined fusion plasmas. The analytical models describing the generic features of equilibrium magnetic fields and magnetic perturbations in modern fusion devices are presented. It describes mathematical and physical aspects of onset of chaos, generic properties of the structure of stochastic magnetic fields, transport of charged particles in tokamaks induced by magnetic perturbations, new aspects of particle turbulent transport, etc. The presentation is based on the classical and new unique mathematical tools of Hamiltonian dynamics.[...]

Features
This is the first book to systematically consider the modern aspects of chaotic dynamics of magnetic field lines and charged particles in magnetically confined fusion plasmas. The analytical models describing the generic features of equilibrium magnetic fields and magnetic perturbations in modern fusion devices are presented. It describes mathematical and physical aspects of onset of chaos, generic[...]

Contents

Fields of interest

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01889-8

Hardcover
2014. XXIV, 412 p. 175 illus., 27 illus. in color. (Springer Series on Atomic, Optical, and Plasma Physics, Vol. 78)
$179.00
ISBN 978-3-319-01889-8

usually dispatched within 3 to 5 business days
Thirty Years of Astronomical Discovery with UKIRT

The Scientific Achievement of the United Kingdom InfraRed Telescope

These are the proceedings of an international meeting hosted by the Royal Observatory, Edinburgh, to commemorate the 30th anniversary of the dedication of the UKIRT, the United Kingdom InfraRed Telescope. The volume comprises 31 professional level papers. The first part of the book has 10 thorough reviews of the conception, design and build of the telescope, as well as accounts of some of its key instruments such as IRCAM (the common-user infrared camera), CGS4 (the fourth Cooled Grating Spectrometer) and the Wide Field Camera. The second part of the book comprises 14 reviews of scientific achievements during its twenty years of visitor mode operations. The final part of the book is a series of jet suppression measurements are presented, which provide quantitative constraints on theoretical models of jet quenching. These results follow a detailed introduction to heavy ion physics with emphasis on the phenomenon of jet quenching and a comprehensive description of the ATLAS detector and its capabilities with regard to performing these measurements.

Features
These are the proceedings of an international meeting hosted by the Royal Observatory, Edinburgh, to commemorate the 30th anniversary of the dedication of the UKIRT, the United Kingdom InfraRed Telescope. The volume comprises 31 professional level papers. The first part of the book has 10 thorough reviews of the conception, design and build of the telescope, as well as accounts of some of its key instruments such as IRCAM (the common-user infrared camera), CGS4 (the fourth Cooled Grating Spectrometer) and the Wide Field Camera. The second part of the book comprises 14 reviews of scientific achievements during its twenty years of visitor mode operations. The final part of the book is a series of jet suppression measurements are presented, which provide quantitative constraints on theoretical models of jet quenching. These results follow a detailed introduction to heavy ion physics with emphasis on the phenomenon of jet quenching and a comprehensive description of the ATLAS detector and its capabilities with regard to performing these measurements.

Contents
The UKIRT Success Story.- UKIRT - the Project and the Early Years.- The IRCAM Revolution.- Continuum Submillimetre Astronomy from UKIRT.- CGS4: A Breakthrough Instrument.- The UKIRT Upgrades Programme.- Operational Innovations.- The UKIRT Wide Field Camera.- Polarimetry at UKIRT.- UKIRT in the mid-Infrared.- Thirty Years of Star Formation at UKIRT.- Comets and Asteroids from UKIRT.- Spectroscopic Tomography of a Wind-collision Region.- Highlights of Infrared Spectroscopy of the Interstellar Medium at UKIRT.- UKIRT and the Brown Dwarfs: from Speculation to Classification.- White Dwarfs[...]

Fields of interest
Astronomy, Observations and Techniques; Astrophysics and Astroparticles; Cosmology

靶标组
Research

类型
Proceedings

More on www.springer.com/978-3-319-01218-6

Hardcover
2014, XV, 169 p. 133 illus., 117 illus. in color. (Springer Theses)
$129.00
ISBN 978-3-319-01218-6
usually dispatched within 3 to 5 business days
On the Device-Independent Approach to Quantum Physics

Advances in Quantum Nonlocality and Multipartite Entanglement Detection

Quantum physics started in the 1920’s with wave mechanics and the wave–particle duality. However, the last 20 years have seen a second quantum revolution, centered around non-locality and quantum correlations between measurement outcomes. The associated key property, entanglement, is recognized today as the signature of quantumness. This second revolution opened the possibility of studying quantum correlations without any assumption on the internal functioning of the measurement apparatus, the so-called Device-Independent Approach to Quantum Physics. This thesis explores this new approach using the powerful geometrical tool of polytopes. Emphasis is placed on the study of non-locality.[...]

Features
Quantum physics started in the 1920’s with wave mechanics and the wave–particle duality. However, the last 20 years have seen a second quantum revolution, centered around non-locality and quantum correlations between measurement outcomes. The associated key property, entanglement, is recognized today as the signature of quantumness. This second revolution opened the possibility of studying quantum correlations.[...]

Contents
Advances in quantum nonlocality and multipartite entanglement detection. - Nonlocality with three and more parties. - Device-independent entanglement detection. - Quantum information put into practice. - Finite-speed hidden influences.

Fields of interest
Quantum Physics; Quantum Information Technology; Spintronics; Classical and Quantum Gravitation, Relativity Theory; Quantum Computing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01182-0

Hardcover
2014. XIII, 119 p. 34 illus., 17 illus. in color. (Springer Theses) $79.99
ISBN 978-3-319-01182-0
usually dispatched within 3 to 5 business days

Pathways Through Applied and Computational Physics

This book is intended for undergraduates and young researchers who wish to understand the role that different branches of physics and mathematics play in the execution of actual experiments. The unique feature of the book is that all the subjects addressed are strictly interconnected within the context of the execution of a single experiment with very high accuracy, namely the redetermination of the Avogadro constant NA, one of the fundamental physical constants. The authors illustrate how the basic laws of physics are applied to describe the behavior of the quantities involved in the measurement of NA and explain the mathematical reasoning and computational tools that have been[...]

Features
This book is intended for undergraduates and young researchers who wish to understand the role that different branches of physics and mathematics play in the execution of actual experiments. The unique feature of the book is that all the subjects addressed are strictly interconnected within the context of the execution of a single experiment with very high accuracy, namely the redetermination of the Avogadro constant NA.[...]

Contents

Fields of interest
Numerical and Computational Physics; Applied and Computational Physics; Mathematical Software

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook


Softcover
usually dispatched within 3 to 5 business days

Magnetism and Synchrotron Radiation: Towards the Fourth Generation Light Sources

Proceedings of the 6th International School “Synchrotron Radiation and Magnetism”, Mittelwihr (France), 2012

Advances in the synthesis of new materials with often complex, nano-scaled structures require increasingly sophisticated experimental techniques that can probe the electronic states, the atomic magnetic moments and the magnetic microstructures responsible for the properties of these materials. At the same time, progress in synchrotron radiation techniques has ensured that these light sources remain a key tool of investigation, e.g. synchrotron radiation sources of the third generation are able to support magnetic imaging on a sub-micrometer scale. With the Sixth Mittelwihr School on Magnetism and Synchrotron Radiation the tradition of teaching the state-of-the-art on modern research[...]

Features
Advances in the synthesis of new materials with often complex, nano-scaled structures require increasingly sophisticated experimental techniques that can probe the electronic states, the atomic magnetic moments and the magnetic microstructures responsible for the properties of these materials. At the same time, progress in synchrotron radiation techniques has ensured that these light sources remain a key tool of investigation, e.g. synchrotron radiation sources of the third generation are able to support magnetic imaging on a sub-micrometer scale. With the Sixth Mittelwihr School on Magnetism and Synchrotron Radiation the tradition of teaching the state-of-the-art on modern research[...]

Contents

Fields of interest
Magnetism; Magnetic Materials; Measurement Science, Instrumentation; Nanoscale Science and Technology; Spectroscopy and Microscopy; Strongly Correlated Systems, Superconductivity

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03031-9

Hardcover
2013. XVIII, 344 p. 125 illus., 81 illus. in color. (Springer Proceedings in Physics, Vol. 151) $259.00
ISBN 978-3-319-03031-9
usually dispatched within 3 to 5 business days
Quantum Black Holes

Written by foremost experts, this short book gives a clear description of the physics of quantum black holes. The reader will learn about quantum black holes in four and higher dimensions, primordial black holes, the production of black holes in high energy particle collisions, Hawking radiation, black holes in models of low scale quantum gravity and quantum gravitational aspects of black holes.

Features

Written by foremost experts, this short book gives a clear description of the physics of quantum black holes. The reader will learn about quantum black holes in four and higher dimensions, primordial black holes, the production of black holes in high energy particle collisions, Hawking radiation, black holes in models of low scale quantum gravity and quantum gravitational aspects of black holes.

Contents


Fields of interest

Classical and Quantum Gravitation, Relativity Theory; Particle and Nuclear Physics; Cosmology

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-38938-2

Softcover


ISBN 978-3-642-38938-2

usually dispatched within 3 to 5 business days

R. Carrero-González, San Diego State University, San Diego, USA; J. Cuevas-Maraver, Universidad de Sevilla, Sevilla, Spain; D. Frantsuzov, University of Athens, Athens, Greece; N. Karachalios, B. Kevrekidis, University of Massachusetts, Amherst, USA; F. Palmero-Acebedo (Eds.)

Localized Excitations in Nonlinear Complex Systems

Current State of the Art and Future Perspectives

The study of nonlinear localized excitations is a long-standing challenge for research in basic and applied science, as well as engineering, due to their importance in understanding and predicting phenomena arising in nonlinear and complex systems, but also due to their potential for the development and design of novel applications. This volume is a collection of chapters representing the current state-of-the-art on the field of localized excitations and their role in the dynamics of complex physical systems.

Features

The study of nonlinear localized excitations is a long-standing challenge for research in basic and applied science, as well as engineering, due to their importance in understanding and predicting phenomena arising in nonlinear and complex systems, but also due to their potential for the development and design of novel applications. This volume is a collection of chapters representing the current state-of-the-art on the field of localized excitations and their role in the dynamics of complex physical systems.

Contents


Fields of interest

Complex Systems; Mathematical Methods in Physics; Applied Mathematics / Computational Methods of Engineering

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02056-3

Hardcover

2014, XX, 432 p. 175 illus., 117 illus. in color. (Nonlinear Systems and Complexity, Vol. 7) $179.00

ISBN 978-3-319-02056-3

usually dispatched within 3 to 5 business days

D. Cline, UCLA Physics & Astronomy Dept., Los Angeles, USA (Ed.)

Sources and Detection of Dark Matter and Dark Energy in the Universe


These proceedings provide the latest results on dark matter and dark energy research. The UCLA Department of Physics and Astronomy hosted its tenth Dark Matter and Dark Energy conference in Marina del Rey and brought together all the leaders in the field. The symposium provided a scientific forum for the latest discussions in the field. Topics covered at the symposium: Status of measurements of the equation of state of dark energy and new experiments. The search for missing energy events at the LHC and implications for dark matter search. Theoretical calculations on all forms of dark matter (SUSY, axions, sterile neutrinos, etc.) Status of the indirect search for dark matter. Status of...
The Phantoms of Medical and Health Physics
Devices for Research and Development

The purpose and subject of this book is to provide a comprehensive overview of all types of phantoms used in medical imaging, therapy, nuclear medicine and health physics. For ionizing radiation, dosimetry with respect to issues of material composition, shape, and motion/position effects are all highlighted. For medical imaging, each type of technology will need specific materials and designs, and the physics and indications will be explored for each type. Health physics phantoms are concerned with some of the same issues such as material heterogeneity, but also unique issues such as organ-specific radiation dose from sources distributed in other organs. Readers will be able to use...[

Features
A comprehensive overview of all types of phantoms used in medical imaging, therapy, nuclear medicine and health physics is provided in this title. For ionizing radiation, dosimetry with respect to issues of material composition, shape, and motion/position effects are all highlighted. For medical imaging, each type of technology will need specific materials and designs, and the physics and indications will be...[

Contents

Fields of interest
Medical and Radiation Physics; Imaging / Radiology; Biomedical Engineering; Nuclear Medicine; Ultrasound; Biophysics and Biological Physics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-8303-8

Hardcover
2014, XII, 286 p. 114 illus., 62 illus. in color. (Biological and Medical Physics, Biomedical Engineering)
$129.00
ISBN 978-1-4614-8303-8
usually dispatched within 3 to 5 business days

C. Djéga-Mariadassou, Université de Paris XI Orsay, Thiais, France; E. Buzzo, Babes-Bolyai University, Cluj-Napoca, Romania (Ed.)

Biomedical Engineering (generally); Nuclear Physics and Health Physics

Advanced Materials and Technologies

The new profile of modern hard magnetic materials is supported by the recent conjunction of the nanocrystalline state responsible for the extrinsic magnetic properties with on the one hand the existence of the two families of intermetallic compounds possessing the three intrinsic magnetic characteristics required for high performance magnets (strong uniaxial magneto-crystalline anisotropy, elevated Curie temperature, and important magnetic moment) and on the other hand the opportunities of adapting the global magnetic characteristics to the profile of specific demands. The new generation of those remarkable alloys covers rare-earths (R = Nd, Pr, Sm) and 3d transition metals (T = Fe,...)

Features
The new profile of modern hard magnetic materials is supported by the recent conjunction of the nanocrystalline state responsible for the extrinsic magnetic properties with on the one hand the existence of the two families of intermetallic compounds possessing the three intrinsic magnetic characteristics required for high performance magnets (strong uniaxial magneto-crystalline anisotropy, elevated Curie...[

Contents
Hard magnetic R-Co nanomaterials.- (RR’)(Fe,M)14X materials.- Crystal structure.- Nanostructure.- Lattice parameters.- Magnetic properties.- Electric properties.- Electronic properties.- Magnetic properties.- Nuclear magnetic resonance data.- Nuclear gamma resonance data.- Positron annihilation data.- Tables.- Figures.- References. [...]

Fields of interest
Physics (general); Nanoscale Science and Technology; Nanochemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-32398-0

Hardcover
2014, XIII, 601 p. 358 illus., 126 illus. in color. (NanoScience and Technology)
$179.00
ISBN 978-3-642-39659-5
usually dispatched within 3 to 5 business days

V.G. Dubrovskii, St. Petersburg Academic University, St. Petersburg, Russian Federation

Nucleation Theory and Growth of Nanostructures

Semiconductor nanocrystals such as nanowires are promising building blocks of future nanoelectronic, nanophotonic and nanosensing devices. Their physical properties are primarily determined by the epitaxy process which is rather different from the conventional thin film growth. This book shows how the advanced nucleation theory can be used in modeling of growth properties, morphology and crystal phase of such nanostructures. The book represents a systematic account of modern nucleation theory in open systems, nanostructure nucleation and growth mechanisms, and possibilities for tuning the nanostructure properties to the desired values.

Features
Semiconductor nanocrystals such as nanowires are promising building blocks of future nanoelectronic, nanophotonic and nanosensing devices. Their physical properties are primarily determined by the epitaxy process which is rather different from the conventional thin film growth. This book shows how the advanced nucleation theory can be used in modeling of growth properties, morphology and crystal phase of...[

Contents

Fields of interest
Nanoscale Science and Technology; Semiconductors; Optical and Electronic Materials; Crystallography; Surface and Interface Science, Thin Films; Nanotechnology and Microengineering

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-32398-0

Hardcover
2014, XII, 601 p. 358 illus., 126 illus. in color. (NanoScience and Technology)
$179.00
ISBN 978-3-642-39659-5
usually dispatched within 3 to 5 business days
GaP Heteroepitaxy on Si(100)

Benchmarking Surface Signals when Growing GaP on Si in CVD Ambients

Epitaxial integration of III-V semiconductors on silicon substrates has been desired over decades for high application potential in microelectronics, photovoltaics, and beyond. The performance of optoelectronic devices is still severely impaired by critical defect mechanisms driven by the crucial polar-on-nonpolar heterointerface. This thesis reports almost lattice-matched growth of thin gallium phosphate films as a viable model system for III-V/Si(100) interface investigations. The impact of antiphase disorder on the heteroepitaxial growth surface provides quantitative optical in situ access to one of the most notorious defect mechanisms, even in the vapor phase ambient common for...[

Features
Epitaxial integration of III-V semiconductors on silicon substrates has been desired over decades for high application potential in microelectronics, photovoltaics, and beyond. The performance of optoelectronic devices is still severely impaired by critical defect mechanisms driven by the crucial polar-on-nonpolar heterointerface. This thesis reports almost lattice-matched growth of thin gallium phosphate films as a viable model system for III-V/Si(100) interface investigations. The impact of antiphase disorder on the heteroepitaxial growth surface provides quantitative optical in situ access to one of the most notorious defect mechanisms, even in the vapor phase ambient common for...[

Contents
Introduction.- Experimental.- Si(100) surfaces in chemical vapor environments.- GaP(100) and InP(100) surfaces.- GaP growth on Si(100) and antiphase disorder.- Conclusion.

Fields of interest
Semiconductors; Applied Optics, Optoelectronics, Optical Devices; Optical and Electronic Materials

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02879-8

Hardcover
2013. XIV, 143 p. 80 illus., 33 illus. in color. (Springer Theses)
$129.00
ISBN 978-3-319-02879-8
usually dispatched within 3 to 5 business days

Asymptotic Safety and Black Holes

One of the open challenges in fundamental physics is to combine Einstein’s theory of general relativity with the principles of quantum mechanics. In this thesis, the question is raised whether metric quantum gravity could be fundamental in the spirit of Steven Weinberg’s seminal asymptotic safety conjecture, and if so, what are the consequences for the physics of small, possibly Planck-size black holes? To address the first question, new techniques are provided which allow, for the first time, a self-consistent study of high-order polynomial actions including up to 34 powers in the Ricci scalar. These novel insights are then exploited to explain quantum gravity effects in black holes.[...]

Features
One of the open challenges in fundamental physics is to combine Einstein’s theory of general relativity with the principles of quantum mechanics. In this thesis, the question is raised whether metric quantum gravity could be fundamental in the spirit of Steven Weinberg’s seminal asymptotic safety conjecture, and if so, what are the consequences for the physics of small, possibly Planck-size black holes.[...]

Contents
Introduction.- The Renormalisation group.- The flow of F(R) gravity.- Black hole space-times.- Thermodynamics of space-time.- Black hole thermodynamics under the microscope.- Conclusion.

Fields of interest
Classical and Quantum Gravitation, Relativity Theory; Cosmology; Thermodynamics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-01293-3

Hardcover
2013. XVI, 185 p. 47 illus., 18 illus. in color. (Springer Theses)
$129.00
ISBN 978-3-319-01293-3
usually dispatched within 3 to 5 business days

Toward Quantum FinFET

Features
This book reviews a range of quantum phenomena in novel nanoscale transistors called FinFETs, including quantized conductance of 1D transport, single electron effect, tunneling transport, etc. The goal is to create a fundamental bridge between quantum FinFET and nanotechnology to stimulate readers’ interest in developing new types of semiconductor technology. Although the rapid development of micro-nano[...]

Fields of interest
Nanoscale Science and Technology; Nanotechnology and Microengineering; Optical and Electronic Materials; Semiconductors; Nanotechnology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02020-4

Hardcover
$179.00
ISBN 978-3-319-02020-4
usually dispatched within 3 to 5 business days
J. L. Hopkins

**Using Commercial Amateur Astronomical Spectrographs**

Amateur astronomers interested in learning more about astronomical spectroscopy now have the guide they need. It provides detailed information about how to get started inexpensively with low-resolution spectroscopy, and then how to move on to more advanced high-resolution spectroscopy. Uniquely, the instructions concentrate very much on the practical aspects of using commercially-available spectroscopes, rather than simply explaining how spectroscopes work. The book includes a clear explanation of the laboratory theory behind astronomical spectrographs, and goes on to extensively cover the practical application of astronomical spectroscopy in detail. Four popular and reasonably-priced...[...]

**Features**

Amateur astronomers interested in learning more about astronomical spectroscopy now have the guide they need. It provides detailed information about how to get started inexpensively with low-resolution spectroscopy, and then how to move on to more advanced high-resolution spectroscopy. Uniquely, the instructions concentrate very much on the practical aspects of using commercially-available spectroscopes, [...] (Excel). - RSpec.- Vspec.

**Contents**


**Fields of interest**

Astronomy, Observations and Techniques; Popular Science in Astronomy; Spectroscopy and Microscopy

**Target groups**

Popular/general

**Type of publication**

Popular science

More on www.springer.com/978-3-319-01441-8

**Softcover**

2014, XXX, 286 p. 269 illus., 62 illus. in color. (The Patrick Moore Practical Astronomy Series) $29.99 ISBN 978-3-319-01441-8 usually dispatched within 3 to 5 business days

M.C.E. Huber, A. Pauluhn, Paul Scherrer Institut, Villigen PSI, Switzerland; J.L. Culhane, University College London, Dorking, United Kingdom; J.G. Timothy, K. Wilhelm, MPI für Sonnensystemforschung, Kattenburg Lindsau, Germany; A. Zehender, Paul Scherrer Institut, Villigen PSI, Switzerland (Eds.)

**Observing Photons in Space**

**A Guide to Experimental Space Astronomy**

An ideal resource for lecturers, this book provides a comprehensive review of experimental space astronomy. The number of astronomers whose knowledge and interest is concentrated on interpreting observations has grown substantially in the past decades; yet, the number of scientists who are familiar with and capable of dealing with instrumentation has dwindled. All of the authors of this work are leading and experienced experts and practitioners who have designed, built, tested, calibrated, launched and operated advanced observing equipment for space astronomy. This book also contains concise information on the history of the field, supported by appropriate references. Moreover,...[...]

**Features**

An ideal resource for lecturers, this book provides a comprehensive review of experimental space astronomy. The number of astronomers whose knowledge and interest is concentrated on interpreting observations has grown substantially in the past decades; yet, the number of scientists who are familiar with and capable of dealing with instrumentation has dwindled. All of the authors of this work are leading and experienced experts and practitioners who have designed, built, tested, calibrated, launched and operated advanced observing equipment for space astronomy. This book also contains concise information on the history of the field, supported by appropriate references. Moreover,...[...]

**Contents**


**Fields of interest**

Spectroscopy and Microscopy; Atomic, Molecular, Optical and Plasma Physics; Astronomy, Astrophysics and Cosmology

**Target groups**

Research

More on www.springer.com/978-1-4614-7803-4

**Hardcover**

2013, XVI, 731 p. 313 illus., 152 illus. in color. (ISSI Scientific Report Series, Vol. 9) $279.00 ISBN 978-1-4614-7803-4 usually dispatched within 3 to 5 business days

A Guide to Experimental Space Astronomy

An ideal resource for lecturers, this book provides a comprehensive review of experimental space astronomy. The number of astronomers whose knowledge and interest is concentrated on interpreting observations has grown substantially in the past decades; yet, the number of scientists who are familiar with and capable of dealing with instrumentation has dwindled. All of the authors of this work are leading and experienced experts and practitioners who have designed, built, tested, calibrated, launched and operated advanced observing equipment for space astronomy. This book also contains concise information on the history of the field, supported by appropriate references. Moreover,...[...]

**Features**

An ideal resource for lecturers, this book provides a comprehensive review of experimental space astronomy. The number of astronomers whose knowledge and interest is concentrated on interpreting observations has grown substantially in the past decades; yet, the number of scientists who are familiar with and capable of dealing with instrumentation has dwindled. All of the authors of this work are leading and experienced experts and practitioners who have designed, built, tested, calibrated, launched and operated advanced observing equipment for space astronomy. This book also contains concise information on the history of the field, supported by appropriate references. Moreover,...[...]

**Contents**


**Fields of interest**

Spectroscopy and Microscopy; Atomic, Molecular, Optical and Plasma Physics; Astronomy, Astrophysics and Cosmology

**Target groups**

Research

More on www.springer.com/978-1-4614-7803-4

**Hardcover**

2013, XVI, 731 p. 313 illus., 152 illus. in color. (ISSI Scientific Report Series, Vol. 9) $279.00 ISBN 978-1-4614-7803-4 usually dispatched within 3 to 5 business days

50 Years of Brown Dwarfs

From Prediction to Discovery to Forefront of Research

The years 2012/2013 mark the 50th anniversary of the theoretical prediction that Brown Dwarfs, i.e. degenerate objects which are just not massive enough to sustain stable hydrogen fusion, exist. Some 20 years after their discovery, how Brown Dwarfs form is still one of the main open questions in the theory of star formation. In this volume, the pioneers of Brown Dwarf research review the history of the theoretical prediction and the subsequent discovery of Brown Dwarfs. After an introduction, written by Viki Joergens, reviewing Shiv Kumar’s theoretical prediction of the existence of brown dwarfs, Takenori Nakano reviews his and Hayashi’s calculation of the Hydrogen Burning Minimum[...]

**Features**

The years 2012/2013 mark the 50th anniversary of the theoretical prediction that Brown Dwarfs, i.e. degenerate objects which are just not massive enough to sustain stable hydrogen fusion, exist. Some 20 years after their discovery, how Brown Dwarfs form is still one of the main open questions in the theory of star formation. In this volume, the pioneers of Brown Dwarf research review the history of[...]

**Contents**


**Fields of interest**

Astronomy, Astrophysics and Cosmology; History of Science

**Target groups**

Research

More on www.springer.com/978-3-319-01161-5

**Hardcover**

2014, XI, 168 p. 69 illus., 32 illus. in color. (Astrophysics and Space Science Library, Vol. 401) $129.00 ISBN 978-3-319-01161-5 usually dispatched within 3 to 5 business days
Perfect/Complete Scattering Experiments

Probing Quantum Mechanics on Atomic and Molecular Collisions and Coincidences

The main goal of this book is to elucidate what kind of experiment must be performed in order to determine the full set of independent parameters which can be extracted and calculated from theory, where electrons, photons, atoms, ions, molecules, or molecular ions may serve as the interacting constituents of matter. The feasibility of such perfect and/or complete experiments, providing the complete quantum mechanical knowledge of the process, is associated with the enormous potential of modern research techniques, both, in experiment and theory. It is even difficult to overestimate the role of theory in setting of the complete experiment, starting with the fact that an experiment [...] 

Features

The main goal of this book is to elucidate what kind of experiment must be performed in order to determine the full set of independent parameters which can be extracted and calculated from theory, where electrons, photons, atoms, ions, molecules, or molecular ions may serve as the interacting constituents of matter. The feasibility of such perfect and/or complete experiments, providing the complete [...] 

Contents


Fields of interest

Atomic, Molecular, Optical and Plasma Physics; Theoretical, Mathematical and Computational Physics; Measurement Science, Instrumentation; Engineering (general)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-40513-6

Hardcover

2013. XIII, 340 p. 177 illus., 6 illus. in color. (Springer Series on Atomic, Optical, and Plasma Physics, Vol. 75)

$179.00

ISBN 978-3-642-40513-6

usually dispatched within 3 to 5 business days

Astronomical Measurement

A Concise Guide

This book on astronomical measurement takes a fresh approach to teaching the subject. After discussing some general principles, it follows the chain of measurement through atmosphere, imaging, detection, spectroscopy, timing, and hypothesis testing. The various wavelength regimes are covered in each section, emphasising what is the same, and what is different. The author concentrates on the physics of detection and the principles of measurement, aiming to make this logically coherent. The book is based on a short self contained lecture course for advanced undergraduate students developed and taught by the author over several years.

Features

This book on astronomical measurement takes a fresh approach to teaching the subject. After discussing some general principles, it follows the chain of measurement through atmosphere, imaging, detection, spectroscopy, timing, and hypothesis testing. The various wavelength regimes are covered in each section, emphasising what is the same, and what is different. The author concentrates on the physics of [...] 

Contents


Fields of interest

Astronomy, Observations and Techniques; Classical Electrodynamics, Wave Phenomena; Measurement Science, Instrumentation; Spectroscopy and Microscopy

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-39834-6

Hardcover

2014. XVIII, 192 p. 69 illus., 15 illus. in color. (Astronomy and Planetary Sciences)

$89.99

ISBN 978-3-642-39834-6

usually dispatched within 3 to 5 business days

Quantum Potential: Physics, Geometry and Algebra

Recently the interest in Bohm realist interpretation of quantum mechanics has grown. The important advantage of this approach lies in the possibility to introduce non-locality ab initio, and not as an “unexpected host”. In this book the authors give a detailed analysis of quantum potential, the non-locality term and its role in quantum cosmology and information. The different approaches to the quantum potential are analysed, starting from the original attempt to introduce a realism of particles trajectories (influenced by de Broglie’s pilot wave) to the recent dynamic interpretation provided by Goldstein, Dürr, Tumulka and Zanghì, and the geometrodynamical picture, with suggestion about [...] 

Features

Recently the interest in Bohm realist interpretation of quantum mechanics has grown. The important advantage of this approach lies in the possibility to introduce non-locality ab initio, and not as an “unexpected host”. In this book the authors give a detailed analysis of quantum potential, the non-locality term and its role in quantum cosmology and information. The different approaches to the quantum [...] 

Contents


Fields of interest

History and Philosophical Foundations of Physics; Quantum Physics; Quantum Information Technology, Spintronics; Mathematical Physics

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-00332-0

Softcover

2014. XIV, 106 p. (SpringerBriefs in Physics)

$54.99

ISBN 978-3-319-00332-0

usually dispatched within 3 to 5 business days
**Mercury**

The purpose of this Gazetteer and Atlas of Astronomy (GAA) is to list, define and illustrate, for the first time, every named (as opposed to merely catalogued) object in the sky within a single reference work for use by the general reader, writers and editors dealing with astronomical themes, and those astronomers concerned with any aspect of astronomical nomenclature. Each part of the GAA will contain: • An introduction to the nomenclature of the body or group of bodies in question • A glossary of terminology used • A gazetteer listing in strict alphanumerical sequence essential information defining the body or feature concerned • An alphanumerically arranged classified index of all[...]

**Contents**
- List of Maps
- Foreword
- Preface to the Series
- Preface to Volume I, Part I
- Acknowledgements
- How to Use this Gazetteer
- Pronunciation Guide
- Abbreviations Used in the Gazetteer: Mercury
- An Overview
- Glossary of Terms Used in the Gazetteer: Mercury
- Classified Index of Surface Features on Mercury
- Atlas of Mercury
- Appendix 1: IAU Mercury Nomenclature
- Appendix 2: Key to Transcriptions of Non-roman Alphabets
- Appendix 3: Mercury Data
- Appendix 4: Mercury Transits
- Appendix 5: Mercury Timeline
- Bibliography

**Fields of interest**
- Astronomy, Observations and Techniques
- Astrophysics and Astroparticles
- Astronomy, Astrophysics and Cosmology
- Extraterrestrial Physics
- Space Sciences
- Classical and Quantum Gravitation
- Relativity Theory

**Target groups**
- Research

**Type of publication**
- Dictionary

More on [www.springer.com/978-1-4614-7207-0](http://www.springer.com/978-1-4614-7207-0)

**Hardcover**
- 2014
- XXXV, 328 p.
- 144 illus., 108 illus. in color.
- $179.00
- ISBN 978-1-4614-7207-0

*usually dispatched within 3 to 5 business days*

---

**Electricity and Magnetism**

The author introduces the concept that superconductivity can establish a perfect formalism of electricity and magnetism. The correspondence of electric materials that exhibit perfect electrostatic shielding (E=0) in the static condition and superconductors that show perfect diamagnetism (B=0) is given to help readers understand the relationship between electricity and magnetism. Another helpful aspect with the introduction of the superconductivity feature perfect diamagnetism is that the correspondence in the development of the expression of magnetic energy and electric energy is clearly shown. Additionally, the basic mathematical operation and proofs are shown in an appendix, and[...]

**Contents**
- Part I Static Electric Phenomena
- Electrostatic Field
- Conductors
- Conductor System in Vacuum
- Dielectric Materials
- Steady Current
- Part II Static Magnetic Phenomena
- Current and Magnetic Flux Density
- Superconductors
- Current Systems
- Magnetic Materials
- Part III Time-Dependent Electro- and Electromagnetic Phenomena
- Electromagnetic Induction
- Displacement Current and Maxwell’s Equations
- Electromagnetic Wave

**Fields of interest**
- Classical Electrodynamics
- Wave Phenomena
- Strongly Correlated Systems
- Superconductivity
- Mathematical Methods in Physics
- Electrical Engineering

**Target groups**
- Upper undergraduate

**Type of publication**
- Undergraduate textbook

More on [www.springer.com/978-4-431-54525-5](http://www.springer.com/978-4-431-54525-5)

**Softcover**
- 2014
- XIII, 384 p.
- 286 illus., 1 illus. in color

*usually dispatched within 3 to 5 business days*
Particulate Products
Tailoring Properties for Optimal Performance

Particulate products make up around 80% of chemical products, from all industry sectors. Examples given in this book include the construction materials, fine ceramics and concrete, chocolate and ice cream, pharmaceutical powders, medical inhalers and sun screen; liquid and powder paints. Size distribution and the shape of the particles provide for different functionalities in these products. Some functions are general, others specific. General functions are powder flow and require – at the typical particulate concentrations of these products – that the particles cause adequate rheological behavior during processing and/or for product performance. Therefore, this book [...]”

Accelerated Cosmic Expansion
Proceedings of the Fourth International Meeting on Gravitation and Cosmology

Proceedings from the 2012 Fourth International Meeting on Gravitation and Cosmology, focusing on accelerated cosmic expansion. This volume provides both an update and a review of the state of alternative theories of gravity in connection with the accelerated expansion of the universe. Different theoretical proposals exist to explain the acceleration in the cosmic expansion, generating the dark energy issue and opening the possibility to theories of gravity alternative to general relativity. Related issues such as the dark matter problem are also surveyed to give the readers profound insight on the subject from different points of view. Comprised of short talks and plenary [...]”

Nanophotonic Information Physics
Nanointelligence and Nanophotonic Computing

This book provides a new direction in the field of nano-optics and nanophotonics from information and computing-related sciences and technology. Entitled by “Information Physics and Computing in Nanoscale Photonics and Materials”, IPCN in short, the book aims to bring together recent progresses in the intersection of nano-scale photonics, information, and enabling technologies. The topic will include (1) an overview of information physics in nanophotonics, (2) DNA self-assembled nanophotonic systems, (3) Functional molecular sensing, (4) Smart food computing, an architecture for nanophotonics, (5) semiconductor nanowire and its photonic applications, (6) single photoelectron [...]”
Hidden Order and Exotic Superconductivity in the Heavy-Fermion Compound URu2Si2

In this thesis, the author investigates hidden-order phase transition at $T_0 = 17.5$ K in the heavy-fermion URu2Si2. The four-fold rotational symmetry breaking in the hidden order phase, which imposes a strong constraint on the theoretical model, is observed through the magnetic torque measurement. The translationally invariant phase with broken rotational symmetry is interpreted as meaning that the hidden-order phase is an electronic "nematic" phase. The observation of such nematicity in URu2Si2 indicates a ubiquitous nature among the strongly correlated electron systems. The author also studies the superconducting state of URu2Si2 below $T_c = 1.4$ K, which coexists with the hidden-order phase. [...]

Features
In this thesis, the author investigates hidden-order phase transition at $T_0 = 17.5$ K in the heavy-fermion URu2Si2. The four-fold rotational symmetry breaking in the hidden order phase, which imposes a strong constraint on the theoretical model, is observed through the magnetic torque measurement. The translationally invariant phase with broken rotational symmetry is [...]

Mathematical Biophysics

This book presents concise descriptions and analysis of the classical and modern models used in mathematical biophysics. The authors ask the question "what new information can be provided by the models that cannot be obtained directly from experimental data?" Actively developing fields such as regulatory mechanisms in cells and subcellular systems and electron transport and energy transport in membranes are addressed together with more classical topics such as metabolic processes, nerve conduction and heart activity, chemical kinetics, population dynamics, and photosynthesis. The main approach is to describe biological processes using different mathematical approaches necessary to [...]

Features
This book presents concise descriptions and analysis of the classical and modern models used in mathematical biophysics. The authors ask the question "what new information can be provided by the models that cannot be obtained directly from experimental data?" Actively developing fields such as regulatory mechanisms in cells and subcellular systems and electron transport and energy transport in membranes are [...]

Contents
Preface. - Part I Basic models in mathematical biophysics. - Chapter 1 Growth and catalysis models. - Chapter 2 Oscillations, rhythms and chaos in biological systems. - Chapter 3 Spatiotemporal self-organization of biological systems. - Chapter 4 Model of the impact of a weak electric field on the nonlinear system of trans-membrane ion transport. - Part II Models of complex systems. - Chapter 5 Oscillations and periodic space structures of pH and electric potential along the cell membrane of algae Chara coralina. - Chapter 6 Models of Morphogenesis. - Chapter 7 Autowave processes, nerve pulse [...]

Frontiers in Optical Methods

Nano-Characterization and Coherent Control

This collection of reviews by leading Japanese researchers covers topics like ultrafast optical responses, terahertz and phonon studies, super-sensitive surface and high-pressure spectroscopy, combination of visible and x-ray photonics. Several related areas at the cutting edge of measurement technology and materials science are included. This book is partly based on well-cited review articles in the Japanese language in special volumes of the Journal of the Vacuum Society of Japan. [...]

Contents

Fields of interest
Laser Technology and Physics, Photonics, Atomic, Molecular, Optical and Plasma Physics; Applied Optics, Optoelectronics, Optical Devices; Spectroscopy and Microscopy; Microwaves, RF and Optical Engineering, Nanotechnology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-40593-8

usually dispatched within 3 to 5 business days
Symmetries in Fundamental Physics

Over the course of the last century it has become clear that both elementary particle physics and relativity theories are based on the notion of symmetries. These symmetries become manifest in that the ‘laws of nature’ are invariant under spacetime transformations and/or gauge transformations. The consequences of these symmetries were analyzed as early as in 1918 by Emmy Noether on the level of action functionals. Her work did not receive due recognition for nearly half a century, but can today be understood as a recurring theme in classical mechanics, electrodynamics and special relativity, Yang-Mills type quantum field theories, and in general relativity. As a matter of fact, ast(...)

Features

Over the course of the last century it has become clear that both elementary particle physics and relativity theories are based on the notion of symmetries. These symmetries become manifest in that the ‘laws of nature’ are invariant under spacetime transformations and/or gauge transformations. The consequences of these symmetries were analyzed as early as in 1918 by Emmy Noether on the level of action functionals. Her work did not receive due recognition for nearly half a century, but can today be understood as a recurring theme in classical mechanics, electrodynamics and special relativity, Yang-Mills type quantum field theories, and in general relativity. As a matter of fact, ast(...)

Contents


Fields of interest

Theoretical, Mathematical and Computational Physics; Elementary Particles, Quantum Field Theory; Phase Transitions and Multiphase Systems; Classical and Quantum Gravitation, Relativity Theory; Mathematical Physics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-7641-8

Hardcover

2014. XXVIII, 763 p. 29 illus. (Fundamental Theories of Physics, Vol. 176)
$189.00
ISBN 978-94-007-7641-8
usually dispatched within 3 to 5 business days

Anatomy and Physiology of the Circulatory and Ventilatory Systems

Together, the volumes in this series present all of the data needed at various length scales for a multidisciplinary approach to modeling and simulation of flows in the cardiovascular and ventilatory systems, especially multiscale modeling and coupled simulations. The cardiovascular and respiratory systems are tightly coupled, as their primary function is to supply oxygen to, and remove carbon dioxide from, the body’s cells. Because physiological conduits have deformable and reactive walls, macroscopic flow behavior and prediction must be coupled to nanoscale and microscopic events in a corrector scheme of regulated mechanism. Therefore, investigation of flows of blood and air in[...]
A Measure Theoretical Approach to Quantum Stochastic Processes

This monograph takes as starting point that abstract quantum stochastic processes can be understood as a quantum field theory in one space and in one time coordinate. As a result it is appropriate to represent operators as power series of creation and annihilation operators in normal-ordered form, which can be achieved using classical measure theory. Considering in detail four basic examples (e.g., a two-level atom coupled to a heat bath of oscillators), in each case the Hamiltonian of the associated one-parameter strongly continuous group is determined and the spectral decomposition is explicitly calculated in the form of generalized eigen-vectors. Advanced topics include the theory of [...] 

Features
This monograph takes as starting point that abstract quantum stochastic processes can be understood as a quantum field theory in one space and in one time coordinate. As a result it is appropriate to represent operators as power series of creation and annihilation operators in normal-ordered form, which can be achieved using classical measure theory. Considering in detail four basic examples (e.g., a [...] 

Contents

Fields of interest
Quantum Physics, Mathematical Physics; Mathematical Methods in Physics 

Target groups
Research 

Type of publication
Monograph

More on www.springer.com/978-3-642-45081-5

Softcover

Tools of Radio Astronomy

This 6th edition of "Tools of Radio Astronomy", the most used introductory text in radio astronomy, has been revised to reflect the current state of this important branch of astronomy. This includes the use of satellites, low radio frequencies, the millimeter/sub-mm universe, the Cosmic Microwave Background and the increased importance of mm/sub-mm dust emission. Several derivations and presentations of technical aspects of radio astronomy and receivers, such as receiver noise, the Hertz dipole and beam forming have been updated, expanded, re-worked or complemented by alternative derivations. These reflect advances in technology. The wider bandwidths of the Jansky-VLA and long wave [...] 

Features
This 6th edition of "Tools of Radio Astronomy", the most used introductory text in radio astronomy, has been revised to reflect the current state of this important branch of astronomy. This includes the use of satellites, low radio frequencies, the millimeter/sub-mm universe, the Cosmic Microwave Background and the increased importance of mm/sub-mm dust emission. Several derivations and presentations [...] 

Contents

Fields of interest
Astronomy, Observations and Techniques; Microwaves, RF and Optical Engineering; Astrophysics andAstroparticles; Signal, Image and Speech Processing 

Target groups
Graduate 

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-39949-7

Hardcover
2013. XV, 609 p. 155 illus., 2 illus. in color. (Astronomy and Astrophysics Library) $119.00 ISBN 978-3-642-39949-7 usually dispatched within 3 to 5 business days 

Five Decades of Tackling Models for Stiff Fluid Dynamics Problems

A Scientific Autobiography

Rationality - as opposed to 'ad-hoc' - and asymptotics - to emphasize the fact that perturbative methods are at the core of the theory - are the two main concepts associated with the Rational Asymptotic Modeling (RAM) approach in fluid dynamics when the goal is to specifically provide useful models accessible to numerical simulation via high-speed computing. This approach has contributed to a fresh understanding of Newtonian fluid flow phenomena and has opened up new avenues for tackling real fluid flow phenomena, which are known to lead to very difficult mathematical and numerical problems irrespective of turbulence. With the present scientific autobiography the author guides the [...] 

Features
Rationality - as opposed to 'ad-hoc' - and asymptotics - to emphasize the fact that perturbative methods are at the core of the theory - are the two main concepts associated with the Rational Asymptotic Modeling (RAM) approach in fluid dynamics when the goal is to specifically provide useful models accessible to numerical simulation via high-speed computing. This approach has contributed to a fresh [...] 

Contents

Fields of interest
Fluid- and Aerodynamics; Engineering Fluid Dynamics; Geophysics / Geodesy; History and Philosophical Foundations of Physics; Numerical and Computational Physics 

Target groups
Research 

Type of publication
Monograph

More on www.springer.com/978-3-642-39540-6

Hardcover
2014. XV, 153 p. 22 illus., 1 illus. in color. $129.00 ISBN 978-3-642-39540-6 usually dispatched within 3 to 5 business days
**GRAIL: Mapping the Moon’s Interior**

In September 2011, the GRAIL mission launched two unmanned spacecraft to the Moon, which entered into lunar orbit on December 31, 2011 and January 1, 2012. They orbited the Moon until December 17, 2012, when they impacted the surface near the Moon’s north pole. This book contains three review articles co-authored by the GRAIL Science Team and Guest Scientists that describe the reasons for the GRAIL mission, the development of the necessary technology, and the design of the mission to acquire the most precise measurements of the lunar gravity field possible today. The book provides a detailed description of the GRAIL mission’s scientific objectives, the instrumentation and its requirements.

**Features**

In September 2011, the GRAIL mission launched two unmanned spacecraft to the Moon, which entered into lunar orbit on December 31, 2011 and January 1, 2012. They orbited the Moon until December 17, 2012, when they impacted the surface near the Moon’s north pole. This book contains three review articles co-authored by the GRAIL Science Team and Guest Scientists that describe the reasons for the GRAIL mission.

**Contents**


**Fields of interest**

Extraterrestrial Physics, Space Sciences; Planetology

**Target groups**

Research

**Type of publication**

Monograph


**Hardcover**

Spin-off from Space Science Reviews journal, Vol. 178/1, 2013


$129.00


Due: December 9, 2013

---

**Popular Science**

R. Clancy, University of Newcastle, Newcastle, Australia; J. Manning, H. Brolsma, Australian Antarctic Division, Kingston, Australia

**Mapping Antarctica**

A Five Hundred Year Record of Discovery

Everyone likes maps and maps are always used to illustrate the many books on the Antarctic. Here the focus is reversed with contemporary maps telling the story – one that should be attractive to the widest audience as it is a unique approach complimenting what has gone before and providing something different for all interested in Antarctica.

**Features**

Everyone likes maps and maps are always used to illustrate the many books on the Antarctic. Here the focus is reversed with contemporary maps telling the story – one that should be attractive to the widest audience as it is a unique approach complimenting what has gone before and providing something different for all interested in Antarctica.

**Contents**


**Fields of interest**

Popular Science in Nature and Environment; Geographical Information Systems / Cartography; Climate Change; Historical Geology

**Target groups**

Research

**Type of publication**

Popular science


**Hardcover**

2014. XXI, 328 p. 163 illus., 130 illus. in color. (Springer Praxis Books)

$49.95


Due: December 31, 2013

---

**Challenging Popular Myths of Sex, Gender and Biology**

This edited volume challenges popular notions of sex, gender and biology and features international, trans-disciplinary research. The book begins with an exploration of supposedly ‘natural’ sexual differences, then looks at research in evolutionary biology and examines topics such as gender stereotypes in humans. The first chapters explore important questions: What are the fundamental sex differences? How do genes and hormones influence an individual’s sex? Subsequent chapters concern topics including: sex stereotypes in the field of sexual conflict, how the focus on genes in evolutionary biology disregards other means of inheritance, and the development of Darwin’s theory of sex.

**Features**

This edited volume challenges popular notions of sex, gender and biology and features international, trans-disciplinary research. The book begins with an exploration of supposedly ‘natural’ sexual differences, then looks at research in evolutionary biology and examines topics such as gender stereotypes in humans. The first chapters explore important questions: What are the fundamental sex differences?...

**Contents**


**Fields of interest**

Gender Studies; Interdisciplinary Studies; History of Science; Evolutionary Biology

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-319-01978-9

**Hardcover**

2013, VIII, 104 p. 1 illus. (Crossroads of Knowledge)

$129.00

ISBN 978-3-319-01978-9

usually dispatched within 3 to 5 business days
Evaluating Factors Controlling Damage and Productivity in Tight Gas Reservoirs

Tight gas reservoirs have very low permeability and porosity, which cannot be produced at economical flow rates unless the well is efficiently stimulated and completed using advanced and optimized technologies. Economical production on the basis of tight gas reservoirs is challenging in general, not only due to their very low permeability but also to several different forms of formation damage that can occur during drilling, completion, stimulation, and production operations. This study demonstrates in detail the effects of different well and reservoir static and dynamic parameters that influence damage mechanisms and well productivity in tight gas reservoirs.

Features
Tight gas reservoirs have very low permeability and porosity, which cannot be produced at economical flow rates unless the well is efficiently stimulated and completed using advanced and optimized technologies. Economical production on the basis of tight gas reservoirs is challenging in general, not only due to their very low permeability but also to several different forms of formation damage that can occur during drilling, completion, stimulation, and production operations. This study demonstrates in detail the effects of different well and reservoir static and dynamic parameters that influence damage mechanisms and well productivity in tight gas reservoirs.

Contents
Introduction to tight gas reservoirs.- Tight gas reservoir simulation.- Tight gas field example: effect of damage mechanisms on well productivity.- Conclusions.

Fields of interest
Fossil Fuels (incl. Carbon Capture); Mineral Resources; Industrial and Production Engineering

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02480-6

Hardcover
2013. XVI, 53 p. 37 illus., 14 illus. in color. (Springer Theses)
$99.00
ISBN 978-3-319-02480-6
Due: January 16, 2014

The Catalyzing Mind

Beyond Models of Causality

How do we understand and explain phenomena in psychology? What does the concept of “causality” mean when we discuss higher psychological functions and behavior? Is it possible to generate “laws” in a psychological and behavioral science—laws that go beyond statistical regularities, frequencies, and probabilities? An international group of authors compare and contrast the use of a causal model in psychology with a newer model—the catalytic model. The Catalyzing Mind: Beyond Models of Causality proposes an approach to the qualitative nature of psychological phenomena that focuses on the psychological significance and meaning of conditions, contexts, and situations as well as their...

Features
How do we understand and explain phenomena in psychology? What does the concept of “causality” mean when we discuss higher psychological functions and behavior? Is it possible to generate “laws” in a psychological and behavioral science—laws that go beyond statistical regularities, frequencies, and probabilities? An international group of authors compare and contrast the use of a causal model in psychology with a newer model...

Contents

Fields of interest
Personality and Social Psychology; Cognitive Psychology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8820-0

Hardcover
2014. XIX, 303 p. 6 illus., 3 illus. in color. (Annals of Theoretical Psychology, Vol. 11)
$129.00
ISBN 978-1-4614-8820-0
usually dispatched within 3 to 5 business days

Sustainability Assessment Tools in Higher Education Institutions

Mapping Trends and Good Practices Around the World

This book contributes to debates on current sustainability practices, with a focus on assessment tools as applied in higher education institutions. These institutions are challenged to carry out management, research, and teaching, and to create settings that allow developing new competencies to address the complex global environmental, social, cultural, and economic pressures with which current and future generations are confronted. The first chapters discuss issues of sustainability in higher education, namely the role of universities in promoting sustainability and the emergent fields of sustainability science and education for sustainable development and how to integrate and...

Features
This book contributes to debates on current sustainability practices, with a focus on assessment tools as applied in higher education institutions. These institutions are challenged to carry out management, research, and teaching, and to create settings that allow developing new competencies to address the complex global environmental, social, cultural, and economic pressures with which current and future...

Contents

Fields of interest
Energy Efficiency (incl. Buildings); Sustainable Development; Higher Education; Renewable and Green Energy

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02374-8

Hardcover
2013. IX, 432 p. 58 illus., 4 Illus. in color.
$179.00
ISBN 978-3-319-02374-8
usually dispatched within 3 to 5 business days
The Neuropsychology of Attention

It has been 15 years since the original publication of Neuropsychology of Attention. At the time of its publication, attention was a construct that had long been of theoretical interest in the field of psychology and was receiving increased research by cognitive scientists. Yet, attention was typically viewed as a nuisance variable, a factor that needed to be accounted for when assessing brain function, but of limited importance in its own right. There is a need for a new edition of this book within Neuropsychology to present an updated and integrated review of what is known about attention, the disorders that affect it, and approaches to its clinical assessment and treatment. Such a[...]

Features
Once viewed as a somewhat vague metaphysical construct, not suitable for behavioral inquiry, attention is now recognized as a core cognitive function, essential to the brain’s processing of outside stimuli. Not surprisingly in an era of advanced information technologies—and rising rates of ADD—attention has also emerged as a significant area of study within neuropsychology. The Second [...]}

Contents

Fields of interest
Neuropsychology; Neurology; Psychiatry; Child and School Psychology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-0-387-72638-0

Handcover
2014, XXVII, 978 p. 94 illus. in color.
$279.00
ISBN 978-0-387-72638-0
usually dispatched within 3 to 5 business days

Handcover
2014, XXIX, 567 p. 43 illus.
$349.00
ISBN 978-1-4614-8105-8
usually dispatched within 3 to 5 business days

Handbook of Executive Functioning

Planning. Attention. Memory. Self-regulation. These and other core cognitive and behavioral operations of daily life comprise what we know as executive functioning (EF). But despite all we know, the concept has engendered multiple, often conflicting definitions and its components are sometimes loosely defined and poorly understood. The Handbook of Executive Functioning cuts through the confusion, analyzing both the whole and its parts in comprehensive, practical detail for scholar and clinician alike. Background chapters examine influential models of EF, tour the brain geography of the executive system and pose salient developmental questions. A section on practical implications[...]

Features
Planning. Attention. Memory. Self-regulation. These and other core cognitive and behavioral operations of daily life comprise what we know as executive functioning (EF). But despite all we know, the concept has engendered multiple, often conflicting definitions, and its components are sometimes loosely defined and poorly understood. The Handbook of Executive Functioning cuts through the [...]}

Contents

Fields of interest
Developmental Psychology; Assessment, Testing and Evaluation; Psychiatry; Neurobiology; Rehabilitation Medicine; Social Work

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-1-4614-8105-8

Hardcover
2014, XIX, 567 p. 43 illus.
$349.00
ISBN 978-1-4614-8105-8
usually dispatched within 3 to 5 business days

Handbook
$179.00
ISBN 978-1-4614-9401-0
usually dispatched within 3 to 5 business days

Internationalizing the Curriculum in Organizational Psychology

This book assembles state-of-the-art thinking on the internationalization of the curriculum of training centers in I/O and Work Psychology. The experts contributing chapters share their thoughts on the knowledge and skills that students must master in the 21st century, as well as their research on how we can develop students to be globally perceptive, culturally competent working professionals. Chapters cover a full range of topics such as: the scope of subject matter and content, learning objectives and outcomes, global competencies, co-curricular activities, experiential learning and the tacit curriculum, while curriculum development must stem from the philosophy of each[...]

Features
Since the days of silk roads and spice routes, international commerce has been essential to business. Today, from air travel to the Internet, advances in technology have served to make the business world smaller. Yet, despite the real world’s march towards globalization, organizational psychology as an academic discipline has yet to incorporate these developments into its degree programs. [...]}

Contents

Fields of interest
Industrial and organisational psychology; Cross Cultural Psychology; Educational Psychology

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-9401-0

Hardcover
$179.00
ISBN 978-1-4614-9401-0
usually dispatched within 3 to 5 business days
Foundations of Bilingual Memory

Foundations of Bilingual Memory provides a valuable update to the field of bilingual memory and offers a new psychological perspective on how the bilingual mind encodes, stores, and retrieves information. This volume emphasizes theoretical issues, such as classic memory approaches, Compound-Coordinate Bilingualism, Bilingual Dual Coding Theory, and Working Memory, about which relatively little has been written in the bilingual domain. Also covered are: The neuropsychology of bilingual memory, Applied issues (such as false memories and bilingualism, emotion and memory), Empirical findings in support of the uniqueness of the different memory systems of the bilingual individual.

Features:
- Foundations of Bilingual Memory provides a valuable update to the field of bilingual memory.
- Offers a new psychological perspective on how the bilingual mind encodes, stores, and retrieves information.
- This volume emphasizes theoretical issues, such as classic memory approaches, Compound-Coordinate Bilingualism, Bilingual Dual Coding Theory, and Working Memory.
- About which relatively little has been written.

Contents:
- Section I. Bilingual Models.
- Section II. Episodic, Semantic, and Working Memory.
- Section III. The Neuroscience of Bilingual Memory.
- Section IV. Hemispheric Differences in Memory Storage.

Fields of interest:
- Cognitive Psychology
- Linguistics (general)

Target groups:
- Research

Type of publication:
- Contributed volume

More on: www.springer.com/978-1-4614-9217-7

Electricity Economics: Production Functions with Electricity

Electricity Economics: Production Functions with Electricity studies the production output from analyzing patterns of electricity consumption. Since electricity data can be used to measure scenarios of economic performance due to its accuracy and reliability, it could therefore also be used to help scholars explore new research frontiers that directly and indirectly benefit human society. Our research initially explores a similar pattern to substitute the Cobb-Douglas function with the production function with electricity to track and forecast economic activities. The book systematically introduces the theoretical frameworks and mathematical models of economics from the perspective.

Features:
- Electricity Economics: Production Functions with Electricity studies the production output from analyzing patterns of electricity consumption.
- Since electricity data can be used to measure scenarios of economic performance due to its accuracy and reliability, it could therefore also be used to help scholars explore new research frontiers that directly and indirectly benefit human society.

Cost Optimal and Nearly Zero-Energy Buildings (nZEB)

Cost optimal and nearly zero energy performance levels are principles initiated by the European Union’s (EU) Energy Performance of Buildings Directive which was recast in 2010. These will be major drivers in the construction sector in the next few years, because all new buildings in the EU from 2021 onwards are expected to be nearly zero energy buildings (nZEB). This book introduces the technical definitions, system boundaries, energy calculation methodology and input data needed to set primary energy based minimum/cost optimal and nZEB requirements in national energy frames. Worked examples are provided to illustrate the calculation of delivered, exported and primary energy, and...
Encyclopedia of Psychology and Religion

Encyclopedia of Psychology and Religion, 2nd edition, is a greatly expanded and updated reference work that builds on the foundation of the highly successful previous edition. The first to integrate psychology and religion in the context of modern social and behavioral sciences, Encyclopedia of Psychology and Religion continues to offer a rich contribution to the development of human self-understanding. A significant number of new entries and of updated original entries provide even more comprehensive coverage. This reference work provides a definitive and intellectually rigorous collection of psychological interpretations of the stories, rituals, motifs, symbols, doctrines, [...]

Features
Encyclopedia of Psychology and Religion, 2nd edition, is a greatly expanded and updated reference work that builds on the foundation of the highly successful previous edition. The first to integrate psychology and religion in the context of modern social and behavioral sciences, Encyclopedia of Psychology and Religion continues to offer a rich contribution to the development of human self-understanding. A [...]
Urban Environment
Proceedings of the 11th Urban Environment Symposium (UES), held in Karlsruhe, Germany, 16-19 September 2012

Over half of the global population now lives in cities. This ongoing urbanisation is making it increasingly important to adequately manage urban systems and preserve urban environments. This book is the outcome of the 11th Urban Environment Symposium (UES) held on 16-19 September 2012 in Karlsruhe, Germany. The UES aims at providing a forum on the sciences and practices needed to promote a sustainable future in urban environments. Papers by leading experts are presented in sections on Urban Management and Spatial Planning, Green Cities and Urban Ecosystems, Urban Planning and Development, Air Quality and Noise, Urban Climate Change and Adaptation, and Contamination of Urban Waters and [...]

Features
Over half of the global population now lives in cities. This ongoing urbanisation is making it increasingly important to adequately manage urban systems and preserve urban environments. This book is the outcome of the 11th Urban Environment Symposium (UES) held on 16-19 September 2012 in Karlsruhe, Germany. The UES aims at providing a forum on the sciences and practices needed to promote a sustainable future in urban environments. Papers by leading experts are presented in sections on Urban Management and Spatial Planning, Green Cities and Urban Ecosystems, Urban Planning and Development, Air Quality and Noise, Urban Climate Change and Adaptation, and Contamination of Urban Waters and [...]

Contents

Fields of interest
Transportation; Sustainable Development; Landscape; Regional and Urban Planning

Target groups
Research

Type of publication
Proceedings


Hardcover
2013. XII, 526 p. 164 illus., 90 illus. in color.
$349.00
usually dispatched within 3 to 5 business days

Film, Television and the Psychology of the Social Dream

This book demonstrates how social distress or anxiety is reflected, modified, and evolves through the medium of the motion picture. Tracing cinema from its earliest forms, the authors show how film is a perfect medium for generating and projecting dreams, fantasies, and nightmares, on the individual as well as the societal level. Arising at the same time as Freud’s influential ideas, cinema has been intertwined with the wishes and fears of the greater culture and has served as a means of experiencing those feelings in a communal and taming environment. From Munsterberg’s original pronouncements in the early 20th century about the psychology of cinema, through the pioneering films of [...]
Multidisciplinary Coordinated Caregiving
Research • Practice • Policy

Effective, meaningful caregiving requires a well-coordinated and informed effort guided by various highly skilled specialists across several interrelated professions, including psychologists, social workers, and occupational therapists. Multidisciplinary Coordinated Caregiving addresses the information needs of these interrelated professionals, contributing to the direct care of individuals and serving as an essential resource for those who ultimately create collaborative approaches to contemporary caregiving plans. In addition, the volume provides a wealth of evidence-based research findings to facilitate ongoing dialogue about multidisciplinary and interdisciplinary perspectives on[...] Features
Effective, meaningful caregiving requires a well-coordinated and informed effort guided by various highly skilled specialists across several interrelated professions, including psychologists, social workers, and occupational therapists. Multidisciplinary Coordinated Caregiving addresses the information needs of these interrelated professionals, contributing to the direct care of individuals and [...] Contents
Clinical Psychology; Social Work; Public Health; Geriatrics / Gerontology; Social Policy; Educational Policy and Politics Target groups
Research Type of publication
Contributed volume More on www.springer.com/978-1-4614-8972-6 Hardcover
2014. XXIV, 266 p. 8 illus. (Caregiving: Research • Practice • Policy) $129.00 ISBN 978-1-4614-8972-6 usually dispatched within 3 to 5 business days Evidence-Based Approaches for the Treatment of Maltreated Children
Considering core components and treatment effectiveness
This volume provides an overview of the research describing the effects of child maltreatment on mental health, cognitive and social-emotional development. It offers descriptions of selected empirically based treatments (EBTs) written by scholars associated with its development, training, or research on its effectiveness. Each contributor presents the theoretical foundation of the EBT and evidence of its efficacy, describes the treatment process and illustrates this process with a case study of its use with a maltreated child, and discusses possible limitations. Following the chapters describing the interventions, the editors address key issues of the dissemination and implementation[...] Features
This volume provides an overview of the research describing the effects of child maltreatment on mental health, cognitive and social-emotional development. It offers descriptions of selected empirically based treatments (EBTs) written by scholars associated with its development, training, or research on its effectiveness. Each contributor presents the theoretical foundation of the EBT and evidence of its [...] Contents
PART I. INTRODUCTION.- Chapter 1: A Brief History of Identifying Child Maltreatment; Nicole Holli- lls.- Chapter 2: A Brief History of Evidence-Based Practices; Lindsay A. Forte, Susan G. Timmer and Anthony J. Urquiza.- Chapter 3: Why we think we can make things better with Evidence Based Practices: Theoretical and Developmental Context; Susan G. Timmer.- PART II. INTERVENTIONS FOR INFANTS AND TODDLERS.- Chapter 4: Attachment and Biobehavioral Catch-up: An Intervention for Parents at Risk of Maltreating Their Infants and Toddlers; Mary Dozier, E. B. Meade and Kristen Bernard.- Chapter 5[...] Fields of interest
Psychotherapy and Counseling; Quality of Life Research; Maternal and Child Health; Psychotherapy; Child and School Psychology; Clinical Psychology Target groups
Research Type of publication
Contributed volume More on www.springer.com/978-94-007-7403-2 Hardcover
2014. XI, 362 p. 8 illus. (Child Maltreatment, Vol. 3) $129.00 ISBN 978-94-007-7403-2 usually dispatched within 3 to 5 business days Preparing for Peak Oil in South Africa
An Integrated Case Study
Oil is the lifeblood of modern industrial economies. Petroleum powers virtually all motorized transport, which in turn enables most economic activities and provides mobility for citizens. But oil is a finite resource that is steadily depleting. In the past decade, the phenomenon of global peak oil – the fact that annual world oil production must at some point reach a maximum and then decline – has emerged as one of the twenty-first century’s greatest challenges. South Africa imports over two-thirds of its petroleum fuels, and history has shown that oil price shocks generally translate into a weakening currency, rising consumer prices, increasing joblessness and a slow-down in economic[...] Features
Oil is the lifeblood of modern industrial economies. Petroleum powers virtually all motorized transport, which in turn enables most economic activities and provides mobility for citizens. But oil is a finite resource that is steadily depleting. In the past decade, the phenomenon of global peak oil – the fact that annual world oil production must at some point reach a maximum and then decline – has emerged [...] Contents
Energy Policy, Economics and Management; Energy Economics; Sustainable Development; Environmental Economics; Fossil Fuels (incl. Carbon Capture); Renewable and Green Energy Target groups
Research Type of publication
Brief More on www.springer.com/978-1-4614-9517-8 Softcover
2013. XVII, 123 p. 30 illus. in color. (Energy Analysis) $54.99 ISBN 978-1-4614-9517-8 usually dispatched within 3 to 5 business days
Nanoscale Thermoelectrics

For the efficient utilization of energy resources and the minimization of environmental damage, thermoelectric materials can play an important role by converting waste heat into electricity directly. Nanostructured thermoelectric materials have received much attention recently due to the potential for enhanced properties associated with size effects and quantum confinement. Nanoscale Thermoelectrics describes the theory underlying these phenomena, as well as various thermoelectric materials and nanostructures such as carbon nanotubes, SiGe nanowires, and graphene nanoribbons. Chapters written by leading scientists throughout the world are intended to create a fundamental bridge.

Contents

Fields of interest

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-02011-2

Hardcover
2014, XI, 519 p. 279 illus., 223 illus. in color. (Lecture Notes in Nanoscale Science and Technology, Vol. 16)
$229.00
ISBN 978-3-319-02011-2
usually dispatched within 3 to 5 business days

Cultural Psychology of Coping with Disasters

The Case of an Earthquake in Java, Indonesia

This book offers a broad theoretical foundation by relating and contrasting relevant international literature with the outcomes of a particular research project. It provides a critical reappraisal of the complex phenomena of coping with disasters on a general level by applying this integrative theory of disaster coping to a specific context. A cultural psychological model is developed in order to suggest ways of understanding and assessing local and cultural specificity. This interaction of the general and locally specific is central to our understanding of cultural psychology of coping with disaster. The book provides a basic overview, by presenting various approaches to coping with...

Features
As the interdependence between human activities and natural forces on earth grows in instability, disaster research is maturing as a discipline, employing concepts and methods from fields as disparate as psychology, history, and engineering. But psychological studies have mainly focused on post-disaster pathology or standard themes of coping, rarely taking cultural factors into...

Contents

Fields of interest
Cross Cultural Psychology, Community & Environmental Psychology, Psychotherapy and Counseling

Target groups
Research

Type of publication
Monograph


Hardcover
$129.00
usually dispatched within 3 to 5 business days
Theory is History

This book focuses on a central concept that “Theory is History”, as the theory of capitalism can only be formulated on the basis of an analysis of its history. In contrast, bourgeois thinking replaces the analysis of historical capitalism with an abstract theory without any links to reality. “Economics”, which is the theory of an imaginary system, then becomes an apologia intended to give legitimacy to the behaviour of the owners of capital. The author pays special attention to the globalization of the law of value. The individual chapters illustrate the author’s thesis by focusing on the links between capital and land ownership, between modernity and religious interpretation, and so on.[…]

Features
This book focuses on a central concept that “Theory is History”, as the theory of capitalism can only be formulated on the basis of an analysis of its history. In contrast, bourgeois thinking replaces the analysis of historical capitalism with an abstract theory without any links to reality. “Economics”, which is the theory of an imaginary system, then becomes an apologia intended to give legitimacy to the […]

Contents
The globalised law of value. - Capitalism and ground rent. - Modernity and interpretations of religions. - Re-reading the post war period. - Historical capitalism; accumulation by dispossession. - The two paths of historical development; the contrast between Europe and China. - Russia in the world system; geography or history? - China, the emerging nation.

Fields of interest
Political Theory; Political Economy

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-03815-5

Softcover
2014. XI, 143 p. 11 illus., 10 illus. in color. (Texts and Protocols, Vol. 17)
$54.99
ISBN 978-3-319-03815-5
usually dispatched within 3 to 5 business days

Germany’s New Security Demographics
Military Recruitment in the Era of Population Aging

Military recruitment will become more difficult in times of demographic aging. The question arises whether demographic change will constrain the capacity of aging states like Germany to conduct foreign policy and pursue their national security interests. Since contemporary military operations still display a strong human element, particular scrutiny is given to the empirical analysis of the determinants of military propensity and military service among youth. An additional human capital projection until 2030 illustrates how the decline in the youth population will interact with trends in educational attainment and adolescent health to further complicate military recruitment in the […]

Features
Military recruitment will become more difficult in times of demographic aging. The question arises whether demographic change will constrain the capacity of aging states like Germany to conduct foreign policy and pursue their national security interests. Since contemporary military operations still display a strong human element, particular scrutiny is given to the empirical analysis of the determinants of […]

Contents

Fields of interest
Demography; Aging

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6963-2

Hardcover
2014. XVIII, 217 p. 64 illus. (Demographic Research Monographs)
$129.00
usually dispatched within 3 to 5 business days

Street Children and Homeless Youth
A Cross-Cultural Perspective

This book deals with street children who live in the developing world, and homeless youth who are from the developed world. They are referred to as children in street situations (CSS) to show that the problem is both in the children and in the situation they face. The book examines several aspects of the children and their street situations, including the families of origin and the homes they leave, the children’s social life, and mental health. Other aspects are the problems of published demographics, the construction of public opinion about these children and the, often violent, reactions from authorities. The book then discusses current research on children in street situations, as […]

Features
This book deals with street children who live in the developing world, and homeless youth who are from the developed world. They are referred to as children in street situations (CSS) to show that the problem is both in the children and in the situation they face. The book examines several aspects of the children and their street situations, including the families of origin and the homes they leave, the […]

Contents
Chapter 1: Introduction: A New Vision of Street Children and Homeless Runaway Youth. - Chapter 2: Children in Street Situations: Street Children and Homeless Youth. - Chapter 3: Group Dynamics of Children in Street Situations. - Chapter 4: Research with Children in Street Situations. - Chapter 5: Programs: Typical and Exemplary. - Chapter 6: Summary, Conclusions and Recommendations.

Fields of interest
Quality of Life Research; Child and School Psychology; Social Work; Psychotherapy and Counseling

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-7355-4

Hardcover
2014. VII, 240 p. 29 illus., 22 illus. in color.
$129.00
ISBN 978-94-007-7355-4
usually dispatched within 3 to 5 business days
Volunteer Police in the United States

Programs, Challenges, and Legal Aspects

This work examines in-depth the phenomenon of volunteer policing in the United States. Due to a combination of municipal budget cuts, decreased manpower, and a renewed interest in community partnership, everyday citizens are increasingly joining the police rank and file. This trend provides low-cost solutions for a number of policing problems, but also brings its own special challenges and considerations. This work provides a historical overview of volunteer police in the United States and abroad; an practical overview of volunteer programs throughout the United States including training programs, requirements and qualifications; a close examination of two central types of laws.[...]

Features

This work examines in-depth the phenomenon of volunteer policing in the United States. Due to a combination of municipal budget cuts, decreased manpower, and a renewed interest in community partnership, everyday citizens are increasingly joining the police rank and file. This trend provides low-cost solutions for a number of policing problems, but also brings its own special challenges and considerations.[...]

Contents

History. - Overview of Volunteer Programs. - Laws Governing Volunteer Police. - Dangers Facing Volunteer Police Units. - International Comparison.

Fields of interest

Criminology & Criminal Justice; Social Policy

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-02364-9

Softcover

2014, VIII, 44 p. (SpringerBriefs in Policing)

$54.99

ISBN 978-3-319-02364-9

usually dispatched within 3 to 5 business days

Learning Organizations

Extending the Field

This book is designed to extend the field of organizational learning in several ways. The contributors from three continents bring different perspectives on processes and outcomes of knowledge creation and sharing in and between organizations in diverse contexts. They use approaches and concepts from numerous disciplines including the arts, economics, geography, organizational studies, psychology, and sociology. The contributions enrich the spatial turn in organization studies by offering fresh insights for researchers who seek to attend to the contextual dimensions of the phenomena they are studying. They provide examples of organizational places and spaces that have not yet received.[...]

Features

This book is designed to extend the field of organizational learning in several ways. The contributors from three continents bring different perspectives on processes and outcomes of knowledge creation and sharing in and between organizations in diverse contexts. They use approaches and concepts from numerous disciplines including the arts, economics, geography, organizational studies, psychology, and[...]

Contents


Fields of interest

Organizational Studies, Economic Sociology; Industrial and organisational psychology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-7219-9

Hardcover

2014, X, 250 p. 23 illus., 8 illus. in color. (Knowledge and Space, Vol. 6)

$129.00


usually dispatched within 3 to 5 business days

Contemporary Issues in Child Welfare Practice

Child welfare is the oldest specialization within social work practice and the only specialty area in which social work is the host profession. This edited volume provides a unique and comprehensive overview of practice issues relevant to contemporary child welfare professionals entering the field as well as those already working in direct service and management positions. This book’s emphasis on systemic, integrated, and evidence-informed practices at the individual, family, and organizational level is in keeping with child welfare’s core mission of child protection, family support, and permanency for youth. This volume also explores the challenges and opportunities present in a[...]

Features

Throughout the country, child welfare systems are at a crossroads. Demands for evidence-driven practice coupled with budget cuts, funding limits, and the call for client-driven services are contributing to a transformation in the field. Not surprisingly, with this reform comes the need for a higher level of professional education on the part of its practitioners. A seminar between covers,[...]

Contents


Fields of interest

Social Work; Child and School Psychology

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-8626-8

Hardcover

2013, XIV, 319 p. 10 illus. (Contemporary Social Work Practice)

$79.99

ISBN 978-1-4614-8626-8

usually dispatched within 3 to 5 business days
Online Dating as A Strategic Game
Why and How Men in Hong Kong Use QQ to Chase Women in Mainland China

Based on a study using online ethnography as the major research method, this book explains why and how men in Hong Kong use QQ—an online instant messenger—to "chase" women in mainland China, especially in the neighboring city of Shenzhen. Chasing women through QQ is a reciprocal exchange process during which the resources to be exchanged in the interaction are not negotiated. Rather, the men provide resources to the women, hoping for rewards in return that are not guaranteed. This characteristic of the exchange makes men who chase women through QQ very strategic in their action. They try to maximize the rewards and minimize the costs by adopting myriad strategies, such as constructing [...] 

Features
Based on a study using online ethnography as the major research method, this book explains why and how men in Hong Kong use QQ—an online instant messenger—to "chase" women in mainland China, especially in the neighboring city of Shenzhen. Chasing women through QQ is a reciprocal exchange process during which the resources to be exchanged in the interaction are not negotiated. Rather, the men provide [...] 

Contents

Fields of interest
Media Research

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-39984-8

Hardcover
2013. XIII, 168 p. 29 illus., 14 illus. in color.
$129.00
ISBN 978-3-642-39984-8
usually dispatched within 3 to 5 business days

The Circulation of Agency in E-Justice
Interoperability and Infrastructures for European Transborder Judicial Proceedings
This book contributes to an understanding of the dynamic complexities involved in the design of e-justice applications that enable online trans-border judicial proceedings in Europe. It provides answers to critical questions with practical relevance: How should online trans-border judicial proceedings be designed in order to deliver effective and timely justice to European citizens, businesses and public agencies? How can the circulation of judicial agency across Europe be facilitated? Based on extensive research, the book explores and assesses the complex entanglements between law and technology, and between national and European jurisdictions that emerge when developing an [...] 

Features
This book contributes to an understanding of the dynamic complexities involved in the design of e-justice applications that enable online trans-border judicial proceedings in Europe. It provides answers to critical questions with practical relevance: How should online trans-border judicial proceedings be designed in order to deliver effective and timely justice to European citizens, businesses and public [...] 

Contents

Fields of interest
Political Science, general; European Law; Computer Appl. in Social and Behavioral Sciences; Civil Procedure Law; Computer Systems Organization and Communication Networks; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-39984-8

Hardcover
2013. XIII, 168 p. 29 illus., 14 illus. in color.
$129.00
ISBN 978-3-642-39984-8
usually dispatched within 3 to 5 business days
Global Perspectives on Well-Being in Immigrant Families

Global Perspectives on Well-Being in Immigrant Families addresses how immigrant families and their children cope with the demands of a new country in relation to psychological well-being, adjustment, and cultural maintenance. The book identifies cultural and contextual factors that contribute to well-being during a family’s migratory transition to ensure successful outcomes for children and youth. In addition, the findings presented in this book outline issues and increased cultural sensitivity among practitioners, school staff, and researchers.

Features
Global Perspectives on Well-Being in Immigrant Families stands apart from current edited books by focusing mainly on immigrants coming to countries other than the United States, and on the experiences of children, adolescents, and young adults. Its international panel of experts addresses the complexities of acculturation in individual and family contexts, and explores how key factors such as [...] Contents
Family; Cross Cultural Psychology; Social Policy

Gender, Lifespan and Quality of Life

An International Perspective

This publication addresses the gender dimensions of people’s lived experience and emphasizes how gender relationships differentially impact on women’s and girls’ as well as men’s and boys’ subjective well-being across the lifespan. It therefore fills a significant gap in the literature on quality of life and subjective well-being. The book brings together research which compares female’s and male’s subjective experiences of well-being at various life stages from a variety of countries and regions, particularly focusing on women’s subjective well-being. Sex-disaggregation of data on objective conditions of quality of life is now routinely undertaken in many countries of the world.[...]

Features
This publication addresses the gender dimensions of people’s lived experience and emphasizes how gender relationships differentially impact on women’s and girls’ as well as men’s and boys’ subjective well-being across the lifespan. It therefore fills a significant gap in the literature on quality of life and subjective well-being. The book brings together research which compares female’s and male’s [...] Contents
Chapter 1: Introduction: Why Is It Important to Sex Disaggregate and Gender Analyse Quality of Life Data? Liz Eckermann. - Chapter 2: Well-Being and Communication of 12 to 16 Year-Old Girls and Their Mothers: Gender and Intergenerational Issues in Spain; Mónica González, Cristina Figuer, Sara Malo and Ferran Casas. - Chapter 3: Gender Dimensions of Quality of Life for Adults in Australia; Robert Cummins, David Mellor and Mark Stokes. - Chapter 4: Chasing the Good Life: Gender Differences in Work Aspirations of American Men and Women; Anke C. Plagnol. - Chapter 5: Gender Dimensions of [...] Fields of interest
Quality of Life Research; Health and Quality of Life; Gender Studies; Interdisciplinary Studies

An Archaeology of the Margins

Colonialism, Anxiosity and Heritage Management in the Canary Islands

This book analyses the problematic of archaeolog-ical heritage management in the Canary Islands, which are echoed in other parts of the world where the indigenous heritage is under-represented. The present-day management of Canarian archaEOological heritage has a very specific and unusual context given that the archipelago is located on the fringes of Europe, belonging to Spain and therefore to the European Unión, but geographically and in terms of early history being part of Africa. From a theoretical perspective, then, the proposed book analyzes issues such as the effects of colonialism and eurocentrism on the management of the archaeological heritage. It also examines the[...]

Fields of interest
Archaeology; Cultural Heritage

Target groups
Research

Type of publication
Brief

Softcover
2014. X, 119 p. 37 illus., 26 illus. in color. (SpringerBriefs in Archaeological Heritage Management)
$54.99
usually dispatched within 3 to 5 business days
Match-Fixing in International Sports

Existing Processes, Law Enforcement, and Prevention Strategies

Match-fixing has become a widespread international problem in recent years. It includes everything from bribery of players, to putting undue influences on the owners of the soccer clubs, managers, coaches and others who have the ability to affect the final scores. In addition, match-fixing spills over into the arena of illegal betting (in person and online), which creates a host of additional organized crime opportunities, including human trafficking, prostitution, drugs, extortion and even terrorism. This timely volume brings together international contributions with an aim is to increase awareness of the problems associated with match-fixing and the degree to which key agents in[...]

Features
Match-fixing includes everything from bribery of players, to putting undue influences on the owners of the soccer clubs, managers, coaches and others who have the ability to affect the final scores. In addition, match-fixing spills over into the arena of illegal betting (in person and online), which creates a host of additional organized crime opportunities, including human trafficking, prostitution, drugs, [...]
Rural Health Care Delivery
Modern China from the Perspective of Disease Politics

Diseases are everyday, ordinary occurrences intimately related to people’s daily lives. However, as the metaphor of the “Sick Man of East Asia” emerged against the backdrop of a weak modern China, health care and the curing of diseases were turned into grand state politics with far-reaching implications. This book, starting with the argument for diseases being metaphors, describes and interprets such incidents in China’s history as the Abolishment of Traditional Chinese Medicine, the Patriotic Hygiene Campaign and the Cooperative Medical Services. In an effort to reveal the internal logic of disease politics in the transformation of the state–people relationship, the book analyzes key [...] Features
Diseases are everyday, ordinary occurrences intimately related to people’s daily lives. However, as the metaphor of the “Sick Man of East Asia” emerged against the backdrop of a weak modern China, health care and the curing of diseases were turned into grand state politics with far-reaching implications. This book, starting with the argument for diseases being metaphors, describes and interprets such […]

Contents
Part I: Introduction.- The Double Meaning of the “Sick Man of East Asia” and China’s Politics.- Presentation, Discourse, and Absence.- Rural Health Care Delivery and State Building.- The Structure and the Content of this Book.- Part II: The Emerging Concept of Hygiene and Medicine from the State Perspective.- National Defense and Hygiene.- Abolishment of Traditional Chinese Medicine.- Rural Medical Care Delivery: The Experiment and Follow-up in Ding County.- Part III: The People’s Medical Care: A Brand New State and the Guideline for Health Care.- State of “the People”.- Guidelines[...]

Fields of interest
Social Sciences (general)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-39981-7

Hardcover
$129.00
ISBN 978-3-642-39981-7
usually dispatched within 3 to 5 business days

The Influence of the Type of Dominant Party on Democracy
A Comparison Between South Africa and Malaysia

Dominant parties and democracies – are they really strange bedfellows? Malte Kaßner sheds light on the relation between one-party dominance and democracy from a comparative perspective. The study examines the key question how different types of dominant parties influence democracy in multicultural societies with the help of two case studies: South Africa and Malaysia. Both countries are characterized by an ethnically, linguistically and religiously plural society. The author analyses the two dominant parties African National Congress (ANC) and United Malays National Organization (UMNO) and their implications on democracy in the two countries. The outcome suggests that one-party[...]

Features
Dominant parties and democracies – are they really strange bedfellows? Malte Kaßner sheds light on the relation between one-party dominance and democracy from a comparative perspective. The study examines the key question how different types of dominant parties influence democracy in multicultural societies with the help of two case studies: South Africa and Malaysia. Both countries are characterized by an [...] Features
Dominant parties and democracies – are they really strange bedfellows? Malte Kaßner sheds light on the relation between one-party dominance and democracy from a comparative perspective. The study examines the key question how different types of dominant parties influence democracy in multicultural societies with the help of two case studies: South Africa and Malaysia. Both countries are characterized by an [...] Contents
Different types of dominant parties.- Organization of dominant parties.- Character and impacts of ideological concepts.- Behavioural norms of dominant parties.- Effects on the type of democracy.

Fields of interest
Political Science, general; Comparative Politics; International Relations

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-04437-4

Softcover
2014. XXII, 362 p. 2 illus. (Politik in Afrika, Asien und Lateinamerika)
$79.99
ISBN 978-3-658-04437-4
usually dispatched within 3 to 5 business days

Handbook of Child Maltreatment

This Handbook examines core questions still remaining in the field of child maltreatment. It addresses major challenges in child maltreatment work, starting with the question of what child abuse and neglect is exactly. It then goes on to examine why maltreatment occurs and what its consequences are. Next, it turns to prevention, treatment and intervention, as well as legal perspectives. The book studies the issue from the perspective of the broader international and cross-cultural human experience. Its aim is to review what is known, but even more importantly, to examine what remains to be known to make progress in helping abused children, their families, and their communities.

Features
This Handbook examines core questions still remaining in the field of child maltreatment. It addresses major challenges in child maltreatment work, starting with the question of what child abuse and neglect is exactly. It then goes on to examine why maltreatment occurs and what its consequences are. Next, it turns to prevention, treatment and intervention, as well as legal perspectives. The book studies[...]

Contents

Fields of interest
Quality of Life Research; Child and School Psychology

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-94-007-7207-6

Hardcover
2014. XXVII, 588 p. 17 illus., 11 illus. in color. (Child Maltreatment, Vol. 2)
$349.00
ISBN 978-94-007-7207-6
usually dispatched within 3 to 5 business days
The Bologna Process in Central and Eastern Europe

The Bologna Process opened a new chapter in the history of the European higher education. The idea of a common European Higher Education Area was developed in Western Europe and accelerated increasingly there in the second half of the 20th century, as a phenomenon of globalization. For the post-communist states in Eastern Europe the complete change of the political system made it possible to join the European Union and the Bologna Process. These changes had an impact not only on the educational policies but also on the educational system and the educational culture as well. This book shows the changes in the higher education of ten countries in Central and Eastern Europe. The country […]

Features
The Bologna Process opened a new chapter in the history of the European higher education. The idea of a common European Higher Education Area was developed in Western Europe and accelerated increasingly there in the second half of the 20th century, as a phenomenon of globalization. For the post-communist states in Eastern Europe the complete change of the political system made it possible to join […]

Contents
Bologna Process. - Comparative Education. - Central and Eastern Europe. - Higher Education.

Fields of interest
Political Science, general; Education (general)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-02332-4

Softcover

$89.99
ISBN 978-3-658-02332-4
usually dispatched within 3 to 5 business days

Enabling the Iranian Gas Export Options
The Destiny of Iranian Energy Relations in a Tripolar Struggle over Energy Security and Geopolitics

Maximilian Kuhn investigates one of the most pressing, yet neglected subjects in the field of global energy politics: the integration of the Iranian gas market. Possessing the world’s second-largest proven natural gas reserves, Iran is a hypothetical energy giant-in-waiting. Yet over three decades of internal divisions, coupled with crippling international sanctions, have left Iran unable to capitalize on its vast energy potential. Increasing global demand for natural gas and a government in constant need of finding new sources of revenue to meet the needs of a fast-growing population should lead Iran to eventually become a large-scale gas exporter. How this could take place and what […]

Features
Maximilian Kuhn investigates one of the most pressing, yet neglected subjects in the field of global energy politics: the integration of the Iranian gas market. Possessing the world’s second-largest proven natural gas reserves, Iran is a hypothetical energy giant-in-waiting. Yet over three decades of internal divisions, coupled with crippling international sanctions, have left Iran unable to capitalize on […]

Contents
Evolution of the global natural gas market. - Iran’s political system, institutions, and power structure. - Iran’s energy policy and energy decision making. - Iran’s contractual and legal framework for foreign investments. - International relations.

Fields of interest
Political Science, general

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-00092-9

Softcover
2014, XX, 379 p. 40 illus.

$79.99
ISBN 978-3-658-00092-9
Due: December 31, 2013

Military Deployment and its Consequences for Families

War-related separations challenge families in many ways. The worry and uncertainty associated with combat deployments provokes anxiety in family members left at home. Lengthy separations may challenge the personal, social, and economic coping resources of families at home. In this war, thanks to medical advances, many service members who previously would have died of their injuries are returning home to live long, although altered lives. As a result, families are facing the additional challenge of assisting service members who have experienced amputation, traumatic brain injury, and psychological wounds. These challenges are faced not only by service members in the active component of […]

Features
We are only beginning to comprehend the extent of the challenges faced by men and women serving in the military—a vast web of difficulties that include those left behind for families when service members leave for combat, and the ones that loom over families when they return. The contributors to Military Deployment and its Consequences for Families understand in depth the complexities of […]

Contents
Research and Training about Military Families: Where Are We?- Evolution of a Research Agenda.- I. Relational Functioning.- Bridging the Distance: Illustrations of Real-Time Communication of Support between Partners and Deployed Members of the National Guard.- Relational Turbulence within Military Couples During Reintegration Following Deployment.- Feasibility of Telephone Support Groups for Spouses of Returning Iraq and Afghanistan Service Members.- II. Parenting and Child Outcomes.- General and Specialist Health Care Utilization in Military Children of Army Service Members Who Are […]

Fields of interest
Family; Psychology Research; Social Policy

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-8711-1

Hardcover
2014, XVII, 336 p. 14 illus. (Risk and Resilience in Military and Veteran Families)

$179.00
ISBN 978-1-4614-8711-1
usually dispatched within 3 to 5 business days

S. MacDermid Wadsworth, Purdue University, West Lafayette, USA; D.S. Riggs (Eds.)
Contesting Ethnoarchaeologies

Traditions, Theories, Prospects

Contesting Ethnoarchaeologies provide a systematic overview of major non-American traditions of ethnoarchaeology, with a particular focus on Europe and Asia. It explores all stages of their research agenda. These ethnoarchaeologies were embedded in theoretical traditions of local archaeologies. Moreover, ethnoarchaeological studies carried out in these different settings targeted a wide range of different issues and addressed numerous questions of covering all sorts of different issues. Consequently, achieved results and data have been largely idiosyncratic and hardly compatible. Hence, this volume aims not only to conceptualize characteristics of these diverse ethnoarchaeologies but [...] Features

Contesting Ethnoarchaeologies provide a systematic overview of major non-American traditions of ethnoarchaeology, with a particular focus on Europe and Asia. It explores all stages of their research agenda. These ethnoarchaeologies were embedded in theoretical traditions of local archaeologies. Moreover, ethnoarchaeological studies carried out in these different settings targeted a wide range of different [...] Contents


Archaeology; Anthropology; Cultural Heritage

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-9116-3

Hardcover

2013. VIII, 256 p. 48 illus., 12 illus. in color. (One World Archaeology, Vol. 7)

$129.00


usually dispatched within 3 to 5 business days

Moving Toward a Just Peace

The Mediation Continuum

Mediation, the facilitated discussion of disputes and conflicts, is a flexible approach that can be used at all levels of intervention to move us toward a global peace that is both inclusive and fair. This volume, edited by Jan Marie Fritz, brings together mediators, scholar-practitioners, and a veteran diplomat to discuss the life and times of mediation in very different settings. The 14 chapters include three essays about culture, creativity, and models/theories/approaches. And there are ten chapters about practice: community mediation, mediation by police, special education mediation, interventions on behalf of widows in Nigeria; capacity-building work in Burundi; mediation in [...] Features

Mediation, the facilitated discussion of disputes and conflicts, is a flexible approach that can be used at all levels of intervention to move us toward a global peace that is both inclusive and fair. This volume, edited by Jan Marie Fritz, brings together mediators, scholar-practitioners, and a veteran diplomat to discuss the life and times of mediation in very different settings. The 14 chapters [...] Contents

1 Introduction by Jan Marie Fritz. - 2 Creative Considerations by Jan Marie Fritz. - 3 Creativity by Jan Marie Fritz. - 4 Mediation Models, Theories, and Approaches by Jan Marie Fritz. - 5 Community Mediation in the United States. - 6 Police and Mediation: Natural, Unimaginable or Both. - Maria R. Volpe. - 7 Intervening in Special Education Cases. - 8 Problem Solving Mediation in Israel. - Ariella Vraneski. - 9 The Art of Facilitation. - 10 Conflict Intervention on Behalf of Widows: Notes from Enugu State in Nigeria. - Eleanor Ann Nwadinobi. [...] Fields of interest

Sociology; general; Demography

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-2884-4

Hardcover

2014. XII, 360 p. 12 illus. (Clinical Sociology: Research and Practice)

$129.00

ISBN 978-94-007-2884-4

usually dispatched within 3 to 5 business days

Trends and Factors in Japan’s Long-Term Care Insurance System

Japan’s 10-year experience

Ageing population poses a set of complex policy and dilemmas for social security systems, intensifying the concerns about rising expenditures in health care and long-term care for elderly. In this context, ageing societies has many valuable lessons to learn by studying Japan’s experience dealing with its hyper-aged society and particularly from its strategies to ensure the financial sustainability of the Long-Term Care Insurance (LTCl) system. Based on an exhaustive literature review, and the results from six original researches on long-term care expenditures in Japan (LTCI) conducted during a doctoral program, the book provides a comprehensive view in analyzing trends and factors [...] Features

Ageing population poses a set of complex policy and dilemmas for social security systems, intensifying the concerns about rising expenditures in health care and long-term care for elderly. In this context, ageing societies has many valuable lessons to learn by studying Japan’s experience dealing with its hyper-aged society and particularly from its strategies to ensure the financial sustainability of the [...] Contents


Aging; Geriatrics / Gerontology; Population Economics

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-94-007-7874-0

Softcover

2014. IX, 138 p. 15 illus. (SpringerBriefs in Aging)

$54.99

ISBN 978-94-007-7874-0

usually dispatched within 3 to 5 business days
Handbook of LGBT Communities, Crime, and Justice

Contemporary scholars have begun to explore non-normative sexual orientation, gender identity, and gender expression in a growing victimization literature, but very little research is focused on LGBTQ communities’ patterns of offending (beyond sex work) and their experiences with police, the courts, and correctional institutions. This Handbook, the first of its kind in Criminology and Criminal Justice, will break new ground by presenting a thorough treatment of all of these under-explored issues in one interdisciplinary volume that features current empirical work.

Features

Contemporary scholars have begun to explore non-normative sexual orientation, gender identity, and gender expression in a growing victimization literature, but very little research is focused on LGBTQ communities’ patterns of offending (beyond sex work) and their experiences with police, the courts, and correctional institutions. This Handbook, the first of its kind in Criminology and Criminal Justice, will [...]
Communication and Popularization of Science and Technology in China

This book aims to be a reference for researchers studying the promotion of scientific literacy in China, as well as a guide for those interested in promoting scientific awareness. It covers advances in science and technology, communication and popularization practice, and research (STCP) both in China and abroad. Theoretical issues are discussed, and important problems in promoting scientific and technological awareness are identified (e.g.: basic principles, structures, channels of communication and current needs). This book provides a summary of the advances in STCP in China in recent years (especially after the issuing of the “National Scientific Literacy Outline”) including STCP.

Features
This book aims to be a reference for researchers studying the promotion of scientific literacy in China, as well as a guide for those interested in promoting scientific awareness. It covers advances in science and technology, communication and popularization practice, and research (STCP) both in China and abroad. Theoretical issues are discussed, and important problems in promoting scientific and [...]
Global Diasporas and Development

Socioeconomic, Cultural, and Policy Perspectives

This volume discusses how diasporas have evolved and engaged in economic, social and cultural domains of their host and home countries across the globe. The volume is divided into six parts: Issues, Challenges and Development Experiences; Diaspora Finance and Economic Development; Knowledge Transfer and Diasporas; The Politics of Inclusion and Exclusion; Gender and Diasporas; and Representation in Film, Theatre and Literature. It is truly a global representation of diasporic engagement. Its contributions come from experts in various disciplines across the globe, and the chapters cover socioeconomic, policy-related and cultural elements in countries as far apart as New Zealand and [...]
Against the Hypothesis of the End of Privacy

An Agent-Based Modelling Approach to Social Media

Several prominent public voices have advanced the hypothesis that networked communications erode the value of privacy in favor of a transparent connected existence. Especially younger generations are often described as prone to live ‘open digital lives’. This hypothesis has raised considerable controversy, polarizing the reaction of its critics as well as of its partisans. But how likely is the ‘end of privacy’? Under which conditions might this scenario come to be? What are the business and policy implications? How to ethically assess risks and opportunities? To shed light on the co-evolution and mutual dependencies of networked structures and individual and collective strategies [...] 

Features

Several prominent public voices have advanced the hypothesis that networked communications erode the value of privacy in favor of a transparent connected existence. Especially younger generations are often described as prone to live ‘open digital lives’. This hypothesis has raised considerable controversy, polarizing the reaction of its critics as well as of its partisans. But how likely is the ‘end of privacy’? 

Contents

Part I: Why Privacy is not over yet: Conflicting Attitudes of Users, companies and States. - Part II: Modelling Privacy: Online Social Structures and Data Architectures. - Part III: Discussion and Conclusions.

Fields of interest

Media Research; Simulation and Modeling; Media Management; Communication Studies; Computer Communication Networks; Organizational Studies, Economic Sociology

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-02455-4

Social Sciences 271

Economic Stress, Human Capital, and Families in Asia

Research and Policy Challenges

This book presents recent findings about the consequences and policy implications of economic stress for human capital development and family well-being in Asia. The scope of the chapters goes beyond the impact of current financial crisis to include the effect of economic deprivation families in Asia experience as a result of job loss, low-wage employment, and catastrophic natural calamities. The studies show how macro-level economic stress can filter down through households to affect individuals’ economic and socio-psychological well-being. The chapters reveal a wide spectrum of economic stresses experienced by families in Asia that is linked to poor human capital development, [...] 

Features

This book presents recent findings about the consequences and policy implications of economic stress for human capital development and family well-being in Asia. The scope of the chapters goes beyond the impact of current financial crisis to include the effect of economic deprivation families in Asia experience as a result of job loss, low-wage employment, and catastrophic natural calamities. The studies [...] 

Contents


Fields of interest

Quality of Life Research; Social Policy; Public Health

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-7385-1

Economic Stress, Human Capital, and Families in Asia

Research and Policy Challenges

This book presents recent findings about the consequences and policy implications of economic stress for human capital development and family well-being in Asia. The scope of the chapters goes beyond the impact of current financial crisis to include the effect of economic deprivation families in Asia experience as a result of job loss, low-wage employment, and catastrophic natural calamities. The studies show how macro-level economic stress can filter down through households to affect individuals’ economic and socio-psychological well-being. The chapters reveal a wide spectrum of economic stresses experienced by families in Asia that is linked to poor human capital development, [...] 

Features

This book presents recent findings about the consequences and policy implications of economic stress for human capital development and family well-being in Asia. The scope of the chapters goes beyond the impact of current financial crisis to include the effect of economic deprivation families in Asia experience as a result of job loss, low-wage employment, and catastrophic natural calamities. The studies [...] 

Contents


Fields of interest

Quality of Life Research; Social Policy; Public Health

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-7385-1
**Penalty, Shrinkage and Pretest Strategies**

**Variable Selection and Estimation**

The objective of this book is to compare the statistical properties of penalty and non-penalty estimation strategies for some popular models. Specifically, it considers the full model, submodel, penalty, pretest and shrinkage estimation techniques for three regression models before presenting the asymptotic properties of the non-penalty estimators and their asymptotic distributional efficiency comparisons. Further, the risk properties of the non-penalty estimators and penalty estimators are explored in a Monte Carlo simulation study. Showcasing examples based on real datasets, the book will be useful for students and applied researchers in a host of applied fields.

**Features**

The objective of this book is to compare the statistical properties of penalty and non-penalty estimation strategies for some popular models. Specifically, it considers the full model, submodel, penalty, pretest and shrinkage estimation techniques for three regression models before presenting the asymptotic properties of the non-penalty estimators and their asymptotic distributional efficiency.

**Contents**

- Estimation Strategies
  - Improved Estimation Strategies in Normal and Poisson Models
  - Pooling Data: Making Sense or Folly
- Estimation Strategies in Multiple Regression Models
- Estimation Strategies in Partially Linear Models
- Estimation Strategies in Poisson Regression Models

**Fields of interest**

- Statistical Theory and Methods
- Statistics and Computing

**Target groups**

- Graduate

**Type of publication**

Brief

**Softcover**

2014, IX, 115 p. 6 illus. (SpringerBriefs in Statistics)

$54.99

ISBN 978-3-319-03148-4

usually dispatched within 3 to 5 business days

---

**Statistical Modeling and Computation**

This textbook on statistical modeling and statistical inference will assist advanced undergraduate and graduate students. Statistical Modeling and Computation provides a unique introduction to modern Statistics from both classical and Bayesian perspectives. It also offers an integrated treatment of Mathematical Statistics and modern statistical computation, emphasizing statistical modeling, computational techniques, and applications. Each of the three parts will cover topics essential to university courses. Part I covers the fundamentals of probability theory. In Part II, the authors introduce a wide variety of classical models that include, among others, linear regression and ANOVA.

**Features**

This textbook on statistical modeling and statistical inference will assist advanced undergraduate and graduate students. Statistical Modeling and Computation provides a unique introduction to modern Statistics from both classical and Bayesian perspectives. It also offers an integrated treatment of Mathematical Statistics and modern statistical computation, emphasizing statistical modeling.

**Contents**

- Probability Models
  - Random Variables and Probability Distributions
  - Joint Distributions
  - Common Statistical Models
  - Statistical Inference
  - Likelihood
  - Monte Carlo Sampling
  - Bayesian Inference
  - Generalized Linear Models
  - Dependent Data Models
  - State Space Models
  - MATLAB Primer
  - Mathematical Supplement
  - Index

**Fields of interest**

- Statistics and Computing
  - Statistics Programs
- Statistical Modeling
  - Statistical Theory and Methods
- Computation
  - Statistical Inference
  - Likelihood
- Probability Models
  - Common Statistical Models
  - Statistical Inference
  - Likelihood
  - Monte Carlo Sampling
  - Bayesian Inference
  - Generalized Linear Models
  - Dependent Data Models
  - State Space Models
  - MATLAB Primer
  - Mathematical Supplement

**Target groups**

- Upper undergraduate

**Type of publication**

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-8774-6

**Hardcover**

2014. XX, 400 p. 114 illus., 8 illus. in color

$79.99


usually dispatched within 3 to 5 business days

---

**Contemporary Developments in Statistical Theory**

A Festschrift for Hira Lal Koul

This volume highlights Prof. Hira Koul’s achievements in many areas of Statistics, including Asymptotic theory of statistical inference, Robustness, Weighted empirical processes and their applications, Survival Analysis, Nonlinear time series and Econometrics, among others. Chapters are all original papers that explore the frontiers of these areas and will assist researchers and graduate students working in Statistics, Econometrics and related areas.

**Features**

This volume highlights Prof. Hira Koul’s achievements in many areas of Statistics, including Asymptotic theory of statistical inference, Robustness, Weighted empirical processes and their applications, Survival Analysis, Nonlinear time series and Econometrics, among others. Chapters are all original papers that explore the frontiers of these areas and will assist researchers and graduate students working in Statistics, Econometrics and related areas.

**Contents**

Preface
- Martingale estimating functions for stochastic processes
- On Hodges and Lehmann’s 6
- Preface
- Martingale estimating functions for stochastic processes
- On Hodges and Lehmann’s 6
- Acknowledgments
- List of Referees

**Fields of interest**

- Statistical Theory and Methods
  - Applications of Mathematics
  - Statistics (general)

**Target groups**

- Research

**Type of publication**

Proceedings

More on www.springer.com/978-3-319-02650-3

**Hardcover**

2014. XI, 396 p. 160 illus., 60 illus. in color

$169.00

ISBN 978-3-319-02650-3

usually dispatched within 3 to 5 business days
The Contribution of Young Researchers to Bayesian Statistics
Proceedings of BAYSM2013

Features
The first Bayesian Young Statisticians Meeting, BAYSM 2013, has provided a unique opportunity for young researchers, M.S. students, Ph.D. students, and post-docs dealing with Bayesian statistics to connect with the Bayesian community at large, exchange ideas, and network with scholars working in their field. The Workshop, which took place June 5th and 6th 2013 at CNR-IMATI, Milan, has promoted further [...]
Proceedings of the International Conference on Health Care Systems Engineering

The International Conference on Health Care Systems Engineering (HCSE) provided a timely opportunity to discuss statistical analysis and operations management issues in health care delivery systems. The conference took place in Milan between May 22nd and 24th, 2013. Scientists and practitioners discussed new ideas, methods and technologies for improving the operation of health care organizations. The event and the resulting volume emphasize research in the field of health care systems engineering developed in close collaboration with clinicians. Topics applicable to researchers and practitioners include: hospital drug logistics, operating theatres, modelling and simulation in...]

Features
The International Conference on Health Care Systems Engineering (HCSE) provided a timely opportunity to discuss statistical analysis and operations management issues in health care delivery systems. The conference took place in Milan between May 22nd and 24th, 2013. Scientists and practitioners discussed new ideas, methods and technologies for improving the operation of health care...]

Contents

Fields of interest
Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Operations Research, Mathematical Programming; Optimization

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-03241-2

Th. J. Quirk
Excel 2010 for Engineering Statistics

A Guide to Solving Practical Problems

This is the first book to show the capabilities of Microsoft Excel to teach engineering statistics effectively. It is a step-by-step exercise-driven guide for students and practitioners who need to master Excel to solve practical engineering problems. If understanding statistics isn’t your strongest suit, you are not especially mathematically-inclined, or if you are wary of computers, this is the right book for you. Excel, a widely available computer program for students and managers, is also an effective teaching and learning tool for quantitative analyses in engineering courses. Its powerful computational ability and graphical functions make learning statistics much easier than in...]

Features
The International Conference on Health Care Systems Engineering (HCSE) provided a timely opportunity to discuss statistical analysis and operations management issues in health care delivery systems. The conference took place in Milan between May 22nd and 24th, 2013. Scientists and practitioners discussed new ideas, methods and technologies for improving the operation of health care...]

Contents

Fields of interest
Statistics for Business, Economics, Mathematical Finance, Insurance; Statistics for Social Science, Behavioral Science, Education, Public Policy, and Law; Education (general); Humanities, Architecture (general)

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-03241-2

Softcover
2013. XII, 70 p. 6 illus. (PolIMI SpringerBriefs)
$54.99
ISBN 978-3-319-03241-2
usually dispatched within 3 to 5 business days
Topics from the 8th Annual UNCG Regional Mathematics and Statistics Conference

The Annual University of North Carolina Greensboro Regional Mathematics and Statistics Conference (UNCG RMSC) has provided a venue for student researchers to share their work since 2005. The 8th Conference took place on November 3, 2012. The UNCG-RMSC conference established a tradition of attracting active researchers and their faculty mentors from NC and surrounding states. The conference is specifically tailored for students to present the results of their research and to allow participants to interact with and learn from each other. This type of engagement is truly unique. The broad scope of UNCG-RMSC includes topics in applied mathematics, number theory, biology, statistics, and more.

Contents
Preface... The Annual University of North Carolina Greensboro Regional Mathematics and Statistics Conference (UNCG RMSC) has provided a venue for student researchers to share their work since 2005. The 8th Conference took place on November 3, 2012. The UNCG-RMSC conference established a tradition of attracting active researchers and their faculty mentors from NC and surrounding states. The conference is specifically tailored for students to present the results of their research and to allow participants to interact with and learn from each other. This type of engagement is truly unique. The broad scope of UNCG-RMSC includes topics in applied mathematics, number theory, biology, statistics, and more.

Fields of interest
Statistical Theory and Methods; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Statistics (general)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4614-9331-0

Hardcover
2013. VIII, 170 p. 47 illus. (Springer Proceedings in Mathematics & Statistics, Vol. 64)
$199.00
ISBN 978-1-4614-9331-0
usually dispatched within 3 to 5 business days

Data Analysis, Machine Learning and Knowledge Discovery

Data analysis, machine learning and knowledge discovery are research areas at the intersection of computer science, artificial intelligence, mathematics and statistics. They cover general methods and techniques that can be applied to a wide set of applications such as web and text mining, marketing, medicine, bioinformatics and business intelligence. This volume contains the revised versions of selected papers in the field of data analysis, machine learning and knowledge discovery presented during the 36th annual conference of the German Classification Society (GfKl). The conference was held at the University of Hildesheim (Germany) in August 2012.

Features
Data analysis, machine learning and knowledge discovery are research areas at the intersection of computer science, artificial intelligence, mathematics and statistics. They cover general methods and techniques that can be applied to a wide set of applications such as web and text mining, marketing, medicine, bioinformatics and business intelligence. This volume contains the revised versions of selected papers...

Contents

Fields of interest
Statistics and Computing / Statistics Programs; Data Mining and Knowledge Discovery; Marketing; Finance / Banking; Biostatistics; General Psychology

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-01594-1

Softercover
2014. XXI, 470 p. 120 illus., 32 illus. in color. (Studies in Classification, Data Analysis, and Knowledge Organization)
$129.00
ISBN 978-3-319-01594-1
usually dispatched within 3 to 5 business days

Design, Analysis, and Interpretation of Genome-Wide Association Scans

This book presents the statistical aspects of designing, analyzing and interpreting the results of genome-wide association scans (GWAS studies) for genetic causes of disease using unrelated subjects. Particular detail is given to the practical aspects of employing the bioinformatics and data handling methods necessary to prepare data for statistical analysis. The goal in writing this book is to give statisticians, epidemiologists, and students in these fields the tools to design a powerful genome-wide study based on current technology. The other part of this is showing readers how to conduct analysis of the created study. Design and Analysis of Genome-Wide Association Studies provides...

Features
This book presents the statistical aspects of designing, analyzing and interpreting the results of genome-wide association scans (GWAS studies) for genetic causes of disease using unrelated subjects. Particular detail is given to the practical aspects of employing the bioinformatics and data handling methods necessary to prepare data for statistical analysis. The goal in writing this book is to give...
Yes, please send me:

<table>
<thead>
<tr>
<th>Copies</th>
<th>ISBN</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Methods of Payment

- Check/Money Order enclosed
- AmEx
- MasterCard
- VISA

Please order from your bookseller:

Name
Address
Street Address
(Sorry, we cannot deliver to P.O. boxes)
City / State / ZIP-Code
Country
Telephone / Email

Date ✗ Signature ✗

Subtotal:
Sales Tax:
Shipping:
TOTAL:

CA, MA, NJ, NY, and PA residents, please add sales tax. Canadian residents, please add 5% GST.
Please add $5.00 for shipping one book and $1.00 for each additional book. Outside the US and Canada add $10.00 for first book, $5.00 for each additional book. All orders are processed upon receipt. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent. Remember, your 30-day return privilege is always guaranteed.
Pre-publication pricing. Unless otherwise stated, pre-pub prices are valid through the end of the third month following publication, and therefore are subject to change.