Just Released New Books

English Titles

Sorted by author and title within the main subject
Arts

A. Runehov, Copenhagen University, Københavns K, Denmark; L. Oviedo, Theology Faculty, Rome, Italy (Eds.)

Encyclopedia of Sciences and Religions

The Encyclopedia of Sciences and Religions will map the (self-)identities of current and prospective participants in a scholarly area 'Science and Religion' - i.e., all academic disciplines, religious traditions, across all cultures - by implicitly drawing out from each how it sees itself in relation to the conceptual domains of 'Science' and 'Religion', how each, within its own disciplinary/tradition bounds, treats a set of key issues/themes/concepts that have thus far emerged as central to the area 'Science and Religion', and also additional issues/themes/concepts that are seen to be of relevance to 'Science and Religion' engagement as seen from the perspective of each potential...[

Features

The Encyclopedia of Sciences and Religions will map the (self-)identities of current and prospective participants in a scholarly area 'Science and Religion' - i.e., all academic disciplines, religious traditions, across all cultures - by implicitly drawing out from each how it sees itself in relation to the conceptual domains of 'Science' and 'Religion', how each, within its own [...] Fields of interest

Religious Studies; Science; Philosophy of Religion; Philosophy of Science; Regional and Cultural Studies

Target groups

Research

Type of publication

Encyclopedia

More on www.springer.com/978-1-4020-8264-1

2013. LVII, 2372 p. 81 illus., 50 illus. in color. Print + eReference.

1.200,00 €
ISBN 978-1-4020-8265-8

Online orders shipping within 2-3 days.

Hardcover

2013. LVII, 2372 p. 81 illus., 50 illus. in color. Print + eReference.

1.500,00 €

Online orders shipping within 2-3 days.

Biomedicine

J.R. Burger

Brain Theory From A Circuits And Systems Perspective

How Electrical Science Explains Neuro-circuits, Neuro-systems, and Qubits

This book models an idealized neuron as being driven by basic electrical elements, the goal being to systematically characterize the logical properties of neural pulses. In order to constitute a system, neurons as pulsating devices may be represented using novel circuit elements as delineated in this book. A plausible brain system is implied by the delineated elements and logically follows from known and likely properties of a neuron. New to electrical science are novel pulse-related circuit elements involving recursive neurons. A recursive neuron, when properly excited, produces a self-sustaining pulse train that when sampled, provides a true output with a specified...[

Features

Brain Theory From A Circuits And Systems Perspective offers a theory of human consciousness as a natural result of pulsating neurons and synapses within a complex circuit. The book summarizes the electrical, as opposed to the chemical, nature of a brain, and so moves away from customary molecular biology- and biochemistry-focused explanations for consciousness. The book goes [...] Contents


Fields of interest

Neurosciences; Circuits and Systems; Cognitive Psychology

Target groups

Research

Type of publication

Monograph


2013. XVI, 227 p. 125 illus., 39 illus. in color. (Springer Series in Cognitive and Neural Systems, Vol. 6)

139,99 €

Usually dispatched within 3 to 5 business days.

N. Kosaka, National Cancer Center Research Institute, Tokyo, Japan (Ed.)

Circulating MicroRNAs

Methods and Protocols

MicroRNAs (miRNAs) are small non-coding RNAs that regulate various biological phenomena, such as development and homeostasis. The dysregulation of miRNA leads to disease progression, particularly of cancer. In Circulating MicroRNAs: Methods and Protocols, expert researchers in the field detail recent advances in the isolation, purification and analysis of circulating miRNAs from a variety of sources for research. The book is divided into three main topics. The first section involves the study of secretory miRNAs in cell-cell communication, and the second, the study of circulating miRNAs in body fluids. The last describes the novel techniques used to study circulating miRNAs. Written...[

Features

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Contents


Fields of interest

Human Genetics

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-62703-452-4

2013. XI, 270 p. 44 illus., 22 illus. in color. (Methods in Molecular Biology, Vol. 1024)

94,99 €
ISBN 978-1-62703-452-4

Usually dispatched within 3 to 5 business days.
**Corneal Regenerative Medicine**

**Methods and Protocols**

Continuous regeneration of the cornea is necessary to maintain this tissue in the transparent state that is essential for vision. Therapy for repair of the damaged anterior cornea is currently addressed through the transplantation of donor corneas or the delivery of limbal epithelial stem cells (LESC) to the ocular surface using amniotic membrane (AM) as a supporting scaffold. Research on the bioengineering of corneal equivalents as replacement tissue is underway to develop viable corneal prosthetics. Corneal Regenerative Medicine: Methods and Protocols provides a concise overview of essential techniques in the field of corneal regenerative medicine, highlighting novel strategies to...[

**Features**

Continuous regeneration of the cornea is necessary to maintain this tissue in the transparent state that is essential for vision. Therapy for repair of the damaged anterior cornea is currently addressed through the transplantation of donor corneas or the delivery of limbal epithelial stem cells (LESC) to the ocular surface using amniotic membrane (AM) as a supporting scaffold. Research on the bioengineering of corneal equivalents as replacement tissue is underway to develop viable corneal prosthetics. Corneal Regenerative Medicine: Methods and Protocols provides a concise overview of essential techniques in the field of corneal regenerative medicine, highlighting novel strategies to...[

**Contents**

Limbal Epithelial Cell Therapy: Past, Present and Future - The Artificial Cornea - Clonal Analysis of Limbal Epithelial Stem Cell Populations - The Use of Bromodeoxyuridine Incorporation Assays to Assess Corneal Stem Cell Proliferation - Enrichment of Human Corneal Epithelial Stem/Progenitor Cells by Magnetic Bead Sorting Using SSEA4 as a Negative Marker - Limbal Epithelial Stem Cell Identification using Immunoblotting Analysis - The Culture of Limbal Epithelial Cells - The Culture of Limbal Stromal Cells and Corneal Endothelial Cells - The Formation of a Novel Tissue-Engineered Cornea...[

**Fields of interest**

Molecular Medicine; Ophthalmology

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume


**Hardcover**

2013. XII, 230 p. 56 illus., 33 illus. in color. (Methods in Molecular Biology, Vol. 1014)

94,99 €


Usually dispatched within 3 to 5 business days.

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**Epigenetics and Cancer**

Overall, this book illustrates the complexities of the regulation and deregulation of genes mediated through epigenetics in the development and progression of human malignancies. All the articles have been carefully chosen to represent several cancer systems with state of our knowledge on the role of epigenetic deregulation of microRNAs (miRNAs) and their target mRNAs along with epigenetic regulation of miRNAs. This book also illustrates the role of several dietary agents, collectively called nutraceuticals or natural agents in modulating the epigenetic reprogramming of miRNAs and mRNAs for the prevention and/or treatment of human malignancies. It is well known that genetic...[

**Features**

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**Contents**

Preface - Systems and Network Biology to Investigate Epigenetic De-regulatory Mechanisms of microRNAs in Pancreatic Cancer - Role of microRNAs in Cancer Epigenetics - Epigenetic regulation of EZH2 and its targeted microRNAs - Epigenetics and microRNAs in Renal Cancer - Epigenetic Regulation of MicroRNA in Colon Cancer - Epigenetic Regulation of miRNAs in Breast Cancer Formation and Progression - Epigenetic Variations of Stem Cell Markers in Cancer - Recent Updates on Epigenetic Biomarkers for Prostate Cancer - Epigenetics and Racial Disparities in Prostate Cancer - Epigenetic Signatures...[

**Fields of interest**

Biomedicine (general); Science; Life Sciences (general); Medicine (general)

**Target groups**

Research

**Type of publication**

Contributed volume

More on [www.springer.com/978-94-007-6611-2](http://www.springer.com/978-94-007-6611-2)

**Hardcover**

2013. X, 287 p. 36 illus., 28 illus. in color.

149,99 €


Usually dispatched within 3 to 5 business days.

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**Function and Control of the Spx-Family of Proteins Within the Bacterial Stress Response**

This SpringerBrief on Spx reviews the investigations that led to the discovery of Spx and its orthologs and ties together the results of various studies that have explored the function and control of spx in Gram-positive organisms. Spx of Bacillus subtilis has been extensively studied, but very little has been published about it. This book incorporates a number of studies that have been conducted in other Gram positive bacteria, which examined the role of Spx orthologs in stress response, bacterial development and virulence. The book contains an overview that will introduce the protein and its orthologous forms, its association with RNA polymerase, the species of Gram-positive...[

**Features**

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**Contents**


**Fields of interest**

Medical Microbiology; Virology; Infectious Diseases

**Target groups**

Research

**Type of publication**

Brief


**Softcover**

2013. V, 49 p. 6 illus. in color. (SpringerBriefs in Microbiology)

49,99 €


Usually dispatched within 3 to 5 business days.
Head & Neck Cancer: Current Perspectives, Advances, and Challenges

This is a nearly complete collection of Chapters that provide an up to date overview of all aspects of Head and Neck cancer. It is written by professionals and is not only intended for other professionals, but students, patients, policy makers, etc. There are so many aspects to this group of diseases that even the most seasoned professional will learn something from having read this book.

Features
This book is a collection of Chapters that provide an up to date overview of all aspects of Head and Neck cancer. It is written by professionals, and is not only intended for other professionals, but students, patients, policy makers, etc. There are so many aspects to this group of diseases that even the most seasoned professional will learn something from having read this book. This volume covers Head and Neck cancer. It is written by professionals, and is not only intended for other professionals, but students, patients, policy makers, etc. There are so many aspects to this group of diseases that even the most seasoned professional will learn something from having read this book. This volume covers Head and Neck cancer. It is written by professionals, and is not only intended for other professionals, but students, patients, policy makers, etc. There are so many aspects to this group of diseases that even the most seasoned professional will learn something from having read this book. 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It is written by professionals, and is not only intended for other professionals, but students, patients, policy makers, etc. There are so many aspects to this group of diseases that even the most seasoned professional will learn something from having read this book.
Intrinsic Immunity

Recent research has focused attention on the importance of intrinsic antiviral immunity, i.e. immunity mediated by factors that are constitutively expressed in many cells. In this volume, leading experts provide a comprehensive overview of this relatively new and rapidly evolving field. They cover intrinsic proteinaceous antiviral immune effectors, such as the APOBEC3 and TRIM protein families as well as Tetherin and SAMHD1, which were initially discovered by researchers studying HIV. Furthermore, the role of RNA interference in antiviral defense in plants and invertebrates, as well as the interplay between microRNAs and viruses in mammalian cells, are analysed. One chapter [...] Features

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Fields of interest

Immunology; Virology; Microbial Genetics and Genomics; Molecular Medicine; Plant Pathology; Invertebrates

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-37764-8

Hardcover

2013. VII, 262 p. 23 illus., 22 illus. in color. (Current Topics in Microbiology and Immunology, Vol. 371)

139,99 €
ISBN 978-3-642-37764-8

Usually dispatched within 3 to 5 business days.

Light Pollution as a New Risk Factor for Human Breast and Prostate Cancers

Humans are diurnal organisms whose biological clock and temporal organization depend on natural light/dark cycles. Changes in the photoperiod are a signal for seasonal acclimatization of physiological and immune systems as well as behavioral patterns. The invention of electrical light bulbs created more opportunities for work and leisure. However, exposure to artificial light at night (LAN) affects our biological clock, and suppresses pineal melatonin (MLT) production. Among its other properties, MLT is an antigonadogenic agent, and therefore its suppression increases the risks of developing breast and prostate cancers (BC&PC). To the best of our knowledge, this book is the first to [...] Features

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Preface.- Introduction.- PART I: ARTIFICIAL LIGHT AND HUMAN TEMPORAL ORGANIZATION.- Artificial light and its physicochemical properties (by Fabio Falchi).- Light and dark cycles as a basis of temporal organization.- The biological clock and its entrainment by photoperiod.- LAN exposure and its potential effects on daily rhythms and seasonal disruptions.- Melatonin (MLT) – “hormone of darkness” and a “jack of all traits”.- PART II: LIGHT POLLUTION, IT’S KNOWN HEALTH EFFECTS AND IMPACT ON ENERGY CONSERVATION.- Introduction and spread of artificial illumination – a human history[...]

Fields of interest

Cancer Research; Environmental Health; Biomedicine (general)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6219-0

Hardcover

2013. VII, 168 p. 26 illus., 16 illus. in color.

99,99 €
ISBN 978-94-007-6219-0

Usually dispatched within 3 to 5 business days.

Machine Learning in Medicine

Part Two

Machine learning is concerned with the analysis of large data and multiple variables. However, it is also often more sensitive than traditional statistical methods to analyze small data. The first volume reviewed subjects like optimal scaling, neural networks, factor analysis, partial least squares, discriminant analysis, canonical analysis, and fuzzy modeling. This second volume includes various clustering models, support vector machines, Bayesian networks, discrete wavelet analysis, genetic programming, association rule learning, anomaly detection, correspondence analysis, and other subjects. Both the theoretical bases and the step by step analyses are described for the benefit of [...] Features

Machine learning is concerned with the analysis of large data and multiple variables. However, it is also often more sensitive than traditional statistical methods to analyze small data. The first volume reviewed subjects like optimal scaling, neural networks, factor analysis, partial least squares, discriminant analysis, canonical analysis, and fuzzy modeling. This second volume includes various clustering [...] Contents


Fields of interest

Biomedicine (general); Entomology; Medicine (general); Statistics (general); Computer Imaging, Vision, Pattern Recognition and Graphics; Literacy

Target groups

Popular/general

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-94-007-6885-7

Hardcover

2013. XIV, 231 p. 47 illus.

69,99 €
ISBN 978-94-007-6885-7

Usually dispatched within 3 to 5 business days.
Molecular and Cellular Mechanisms of Antibody Activity

This book focuses on the function of antibodies in vivo. Recent years have seen an exponential growth in knowledge about the molecular and cellular mechanisms of antibody activity. These new results dramatically changed our view of how antibodies function in vivo. The importance of this class of molecules is demonstrated by the heightened susceptibility to infections of humans and mice with an altered capacity [..]

Features

Humans are biologically programmed to seek out pleasurable experiences. These experiences are processed in the mesolimbic system, also referred to as the “reward center” of the brain, where a number of chemical messengers work in concert to provide a net release of dopamine in the Nucleus Accumbens. In some genetically predisposed individuals, addiction occurs when the mechanisms of the mesolimbic system are disrupted by the use of various drugs of abuse. Since Alcoholics Anonymous was founded in 1935, it’s 12 step program of spiritual and character development has helped countless alcoholics and drug addicts curb their self-destructive behaviors. However, the program was developed[..]

Contents

Preamble. - Introduction. - Molecular neurobiology of recovery with the twelve steps. - Conclusions. - Acknowledgements.

Fields of interest

Neurosciences; Neurobiology; Medicine (general)

Target groups

Research

Type of publication

Monograph


Softcover

2013. XII, 89 p. 11 illus. in color. (SpringerBriefs in Neurosciences)

49,99 €


Usually dispatched within 3 to 5 business days.

Molecular Neurobiology of Addiction Recovery

The 12 Steps Program and Fellowship

Humans are biologically programmed to seek out pleasurable experiences. These experiences are processed in the mesolimbic system, also referred to as the “reward center” of the brain, where a number of chemical messengers work in concert to provide a net release of dopamine in the Nucleus Accumbens. In some genetically predisposed individuals, addiction occurs when the mechanisms of the mesolimbic system are disrupted by the use of various drugs of abuse. Since Alcoholics Anonymous was founded in 1935, it’s 12 step program of spiritual and character development has helped countless alcoholics and drug addicts curb their self-destructive behaviors. However, the program was developed[..]

Features

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Contents

Preamble. - Introduction. - Molecular neurobiology of recovery with the twelve steps. - Conclusions. - Acknowledgements.

Fields of interest

Neurosciences; Neurobiology; Medicine (general)

Target groups

Research

Type of publication

Monograph


Softcover

2013. XII, 89 p. 11 illus. in color. (SpringerBriefs in Neurosciences)

49,99 €


Usually dispatched within 3 to 5 business days.

Neural Development

Methods and Protocols

Understanding the molecular and cellular mechanisms underlying the development of specific neural circuits is not just an intellectual curiosity but also central to our ability to develop therapeutic approaches to repair damaged pathways in the future. In Neural Development: Methods and Protocols, experts in the field contribute commonly used protocols to facilitate future research in developmental neuroscience. Split into four convenient sections, this detailed volume covers techniques of culturing neurons and glia as well as their growth and differentiation, methods of gene delivery and downregulation, protocols for analyzing axon growth and guidance plus synapse formation, and[..]

Features

Understanding the molecular and cellular mechanisms underlying the development of specific neural circuits is not just an intellectual curiosity but also central to our ability to develop therapeutic approaches to repair damaged pathways in the future. In Neural Development: Methods and Protocols, experts in the field contribute commonly used protocols to facilitate future research in developmental[..]

Contents

Isolation and Maintenance of Cortical Neural Progenitor Cells In Vitro. - Neural Induction with a Dopaminergic Phenotype from Human Pluripotent Stem Cells Through a Feeder-Free Floating Aggregation Culture. - Nucleoside Analog Labeling of Neural Stem Cells and Their Progeny. - Culture of Dissociated Hippocampal Neurons. - Culturing Mouse Cerebellar Granule Neurons. - Preparation of Primary Cultured Dopaminergic Neurons from Mouse Brain. - Culturing Astrocytes from Postnatal Rats. - Culturing Oligodendrocyte Lineage Cells from Neonatal Rats. - Isolation and Culture of Schwann Cells. - DNA[..]

Fields of interest

Neurosciences; Neurobiology; Cell Culture

Target groups

Professional/practitioner

Type of publication

Contributed volume


Hardcover

2013. XIII, 347 p. 59 illus., 48 illus. in color. (Methods in Molecular Biology, Vol. 1018)

109,99 €


Usually dispatched within 3 to 5 business days.
New Advances in Gastrointestinal Motility Research

Research into gastrointestinal motility has received renewed interest in part due to recent advances in the techniques for measuring the structure and function of gastrointestinal cells, tissue and organs. The integration of this wealth of data into biophysically based computation models can aid in interpretation of experimental and clinical measurements and the refinement of measurement techniques. The contents of this book span multiple scales - from cell, tissue, organ, to whole body and is divided into four broad sections covering: (i) gastrointestinal cellular activity and tissue structure; (ii) techniques for measuring, analyzing and visualizing high-resolution extra-cellular[...]

Features
Research into gastrointestinal motility has received renewed interest in part due to recent advances in the techniques for measuring the structure and function of gastrointestinal cells, tissue and organs. The integration of this wealth of data into biophysically based computation models can aid in interpretation of experimental and clinical measurements and the refinement of measurement[...]

Contents

Fields of interest
Human Physiology; Biomedical Engineering; Gastroenterology; Engineering Design

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6560-3

Hardcover
2013. VIII, 266 p. 74 illus., 35 illus. in color. (Lecture Notes in Computational Vision and Biomechanics, Vol. 10)
99,99 €
ISBN 978-94-007-6560-3
Usually dispatched within 3 to 5 business days.

L.J.C. Wong, Baylor College of Medicine, Houston, USA (Ed.)

Next Generation Sequencing
Translation to Clinical Diagnostics

In recent years, owing to the fast development of a variety of sequencing technologies in the post human genome project era, sequencing analysis of a group of target genes, entire protein coding regions of the human genome, and the whole human genome has become a reality. Next Generation Sequencing (NGS) or Massively Parallel Sequencing (MPS) technologies offers a way to screen for mutations in many different genes in a cost and time efficient manner by deep coverage of the target sequences. This novel technology has now been applied to clinical diagnosis of Mendelian disorders of well characterized or undefined diseases, discovery of new disease genes, noninvasive prenatal[...]

Features
In recent years, owing to the fast development of a variety of sequencing technologies in the post human genome project era, sequencing analysis of a group of target genes, entire protein coding regions of the human genome, and the whole human genome has become a reality. Next Generation Sequencing (NGS) or Massively Parallel Sequencing (MPS) technologies offers a way to screen for mutations in many different[...]

Contents

Fields of interest
Human Genetics; Bioinformatics; Biomedicine (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-7000-7

Hardcover
2013. XI, 302 p. 33 illus., 27 illus. in color.
149,99 €
ISBN 978-1-4614-7000-7
Usually dispatched within 3 to 5 business days.

A.J. Dannenberg, Weill Cornell Medical College, New York, USA; N.A. Berger, Case Western Reserve University, Cleveland, USA (Eds.)

Obesity, Inflammation and Cancer

In addition to its metabolic and endocrinologic effects, obesity and adipose tissue have now been shown to be associated with low grade inflammation resulting in cellular and humoral inflammatory factors of which the latter may act by endocrine, paracrine and autocrine mechanisms. These inflammatory mediators have increasingly been suggested as contributing to the obesity link to carcinogenesis and cancer promotion. This volume of Energy Balance and Cancer will focus on recent developments and cutting edge research pointing to inflammation and inflammatory factors as key mediators of this linkage. The volume first provides information on inflammation as an important link between[...]

Features
In addition to their metabolic and endocrinologic effects, obesity and adipose tissue have now been shown to be associated with chronic low grade inflammation resulting in cellular and humoral factors of which the latter may act by endocrine, paracrine and autocrine mechanisms. These inflammatory mediators have increasingly been suggested as contributing to the obesity link to carcinogenesis and cancer[...]

Contents
Preface.- Obesity, Inflammation and Insulin Resistance.- Inflammamotopes and Obesity.- Uncoupling Obesity from Cancer: Bromodomain Co-regulators that Control Inflammatory Networks.- Adipose Tissue Macrophages in Obesity, Inflammation and Cancer.- Dietary Fats as Mediators of Obesity, Inflammation and Colon Cancer.- Inflammation, Obesity, Barrett’s Esophagus and Esophageal Adenocarcinoma.- Obesity, Inflammation and Breast Cancer.- Obesity, Inflammation, Nonalcoholic Fatty Liver Disease and Hepatocellular Carcinoma.- Obesity, Inflammation and Prostate Cancer.- Pharmacologic Interventions[...]

Fields of interest
Cancer Research; Human Physiology; Biomedicine (general)

Target groups
Research

Type of publication
Contributed volume


Hardcover
2013. XII, 433 p. 37 illus., 28 illus. in color. (Energy Balance and Cancer, Vol. 7)
149,99 €
Usually dispatched within 3 to 5 business days.
Pediatric Cancer, Volume 4
Diagnosis, Therapy, and Prognosis

This entry in the series Pediatric Cancer offers comprehensive information on a variety of cancers, concentrating on brain tumors, the most common solid tumors and the leading cause of cancer-related mortality in children. The contents are organized in seven sections: Neuroblastoma, Medulloblastoma, Leukemia, Lymphoma, Rhabdoid, Sarcoma and Miscellaneous Tumors. Coverage includes pediatric medulloblastoma, and treatments including craniospinal radiation followed by adjuvant chemotherapy. The contributors explain diagnosis and chemotherapy of children with acute lymphoblastic leukemia, and diagnosis of bone marrow involvement in pediatric lymphoma patients. Ewing’s sarcoma, a highly...

Features
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Contents
Preface.
I. Neuroblastoma.
II. Medulloblastoma.
III. Leukemia.
IV. Lymphoma.
V. Rhabdoid.
VI. Sarcoma.
VII. Miscellaneous Tumors.

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

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6590-0

Hardcover
2013. XXXVI, 346 p. 55 illus., 32 illus. in color. (Pediatric Cancer. Vol. 4)
169,99 €
ISBN 978-94-007-6590-0
Usually dispatched within 3 to 5 business days.

Programmed Cells from Basic Neuroscience to Therapy

The recent advances in Programmed Somatic Cell (PSC) including induced Pluripotent Stem Cells (iPS) and Induced Neuronal phenotypes (iN), has changed our experimental landscape and opened new possibilities. The advances in PSC have provided an important tool for the study of human neuronal function as well as neurodegenerative and neurodevelopmental diseases in live human neurons. In a controlled environment. For example, reprogramming cells from patients with neurologic diseases allows the study of molecular pathways particular to specific subtypes of neurons such as dopaminergic neurons in Parkinson’s Disease, Motor neurons for Amyotrophic Lateral Sclerosis or myelin for Multiple...

Features
The recent advances in Programmed Somatic Cell (PSC) including induced Pluripotent Stem Cells (iPS) and Induced Neuronal phenotypes (iN), has changed the experimental landscape and opened new possibilities. The advances in PSC have provided an important tool for the study of human neuronal function as well as neurodegenerative and neurodevelopmental diseases in live human neurons in a...

Contents
Nuclear reprogramming by eggs and oocytes and eventual prospects of cell replacement therapy. - iPS technology and disease research: issues to be resolved. - ES and iPS cells as tools for modeling human aging. - Characterizing neural circuitry with programmed human neurons. - Direct conversion of fibroblasts to neuronal cells. - Human pluripotent stem cells as tools for modeling neurodegeneration. - From Rett syndrome to classical autism: modeling autism spectrum disorders using human neurons. - Testing evolutionary principles in a dish using embryonic stem cells: the example of the...

Fields of interest
Neurosciences; Stem Cells; Neurology

Target groups
Graduate

Type of publication
Contributed volume

More on www.springer.com/978-3-642-36647-5

Hardcover
2013. XII, 130 p. 14 illus., 13 illus. in color. (Research and Perspectives in Neurosciences, Vol. 20)
99,99 €
ISBN 978-3-642-36647-5
Online orders shipping within 2-3 days.

Spotlight on Familial and Hereditary Gastric Cancer

In this book we have taken a comprehensive look at the subject of familial and hereditary gastric tumors. In particular, the aim of this novel editorial work is to propose the correct management of hereditary diffuse gastric cancer patients, focusing in particular on E-cadherin germline mutations, clinical criteria definition, genetic screening and molecular mechanisms, pathology and microscopic features, surgical treatment and clinical approach for asymptomatic mutation carriers. We also describe other inherited predispositions involving gastric carcinoma.

Features
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Contents

Fields of interest
Cancer Research; Biomedicine (general); Gastroenterology; Human Genetics

Target groups
Graduate

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6599-6

Hardcover
2013. XVIII, 211 p. 64 illus., 58 illus. in color.
139,99 €
ISBN 978-94-007-6599-6
Usually dispatched within 3 to 5 business days.
Structure and Physics of Viruses

An Integrated Textbook

This book contemplates the structure, dynamics and physics of virus particles. From the moment they come into existence by self-assembly from viral components produced in the infected cell, through their extracellular stage, until they recognise and attach a new host cell — they cease to exist by losing their physical integrity to start a new infectious cycle. (Bio)physical techniques used to study the structure of virus particles and components, and some applications of structure-based studies of viruses are also contemplated. This book is aimed first at M.Sc, students, Ph.D. students and postdoctoral researchers with a university degree in biology, chemistry, physics or related [...] Features

Structural Virology is today an all-important scientific discipline that permeates most other virological disciplines. The application of physical and physicochemical techniques has led to the determination of the high-resolution molecular structures of many viruses. The interplay of this approach with biochemical and biological approaches has allowed the elucidation of the structural basis of viral [...] Contents


Biomedicine (general); Protein Structure; Virology; Mechanics Target groups

Research Type of publication

Contributed volume More on www.springer.com/978-94-007-6551-1

Hardcover

2013. XIX, 728 p. 177 illus., 122 illus. in color. (Subcellular Biochemistry, Vol. 68) 189,99 € ISBN 978-94-007-6551-1 Usually dispatched within 3 to 5 business days.

Tandem Repeats in Genes, Proteins, and Disease

Methods and Protocols

The genomes of humans, as well as many other species, are interspersed with hundreds of thousands of tandem repeats of DNA sequences. Those tandem repeats located as codons within open reading frames encode amino acid runs, such as polyglutamine and polyalanine. Tandem repeats have not only been implicated in biological evolution, development and function but also in a large collection of human disorders. In Tandem Repeats in Genes, Proteins, and Disease: Methods and Protocols, expert researchers in the field detail many methods covering the analysis of tandem repeats in DNA, RNA and protein, in healthy and diseased states. This will include molecular genetics, molecular biology, [...] Features

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Human Genetics; Gene Function Target groups

Researchers/Practitioners Type of publication

Contributed volume More on www.springer.com/978-1-62703-437-1

Hardcover


Transcriptional and Translational Regulation of Stem Cells

This volume describes the latest findings on transcriptional and translational regulation of stem cells. Both transcriptional activators and repressors have been shown to be crucial for the maintenance of the stem cell state. A key element of stem cell maintenance is repression of differentiation factors or developmental genes – achieved transcriptionally, epigenetically by the Polycomb complex, and post-transcriptionally by RNA-binding proteins and microRNAs. This volume takes two approaches to this topic – (1) illustrating the general principles outlined above through a series of different stem cell examples – embryonic, iPS and adult stem cells, and (2) describing several molecular [...] Features

Stem cells are central to the development and homeostasis of metazoan tissues and play roles at multiple times within a diversity of organs during the lifetime of an animal. A key goal of regenerative medicine is the in vivo repair of organs damaged by disease or injury. In order to facilitate this goal we need to understand how stem cells are generated, what factors maintain them in their [...] Contents


Biomedicine (general); Stem Cells; Cell Biology; Developmental Biology Target groups

Researchers Type of publication

Contributed volume More on www.springer.com/978-94-007-6620-4

Hardcover

**Trinucleotide Repeat Protocols**

Two decades have passed since trinucleotide repeat expansion was first discovered in genes responsible for certain neurological diseases. Since then, new technologies have developed and innovative concepts have emerged, which may prove useful in devising therapeutic approaches to neurological diseases. Divided into six convenient sections, Trinucleotide Repeat Protocols, Second Edition covers a wide range of topics such as an overview of trinucleotide repeat diseases, synaptic plasticity, embryonic stem (ES) cell-related protocols with a focus on HD, RNA-related protocols, and analysis of epigenetic modification in fragile X syndrome. This edition focuses not only on direct analysis...[—]

**Features**
Two decades have passed since trinucleotide repeat expansion was first discovered in genes responsible for certain neurological diseases. Since then, new technologies have developed and innovative concepts have emerged, which may prove useful in devising therapeutic approaches to neurological diseases. Divided into six convenient sections, Trinucleotide Repeat Protocols, Second Edition covers a wide...[—]

**Contents**
A Brief History of Triplet Repeat Disease · Huntington’s Disease and Cell Therapies: Past, Present and Future · Transcranial Two-Photon Imaging of Synaptic Structures in the Cortex of Awake Head-Restrained Mice · In vivo Imaging of Synapse Plasticity in the Mouse Motor Cortex · Pluripotent Hybrid Stem Cells from Transgenic Huntington’s Disease Monkey · Mesenchymal Stem Cells for Trinucleotide Repeat Disorders · Lentiviral-Mediated Gene Transfer of siRNAs for the Treatment of Huntington’s Disease · Purification of dFMR1-Containing Complexes Using Tandem Affinity Purification · Combined...[—]

**Fields of interest**
Molecular Medicine; Gene Expression

**Target groups**
Professional/practitioner

**Type of publication**
Contributed volume


**Hardcover**
2013. XIII, 296 p. 64 illus., 24 illus. in color. (Methods in Molecular Biology, Vol. 1010)
94,99 €
ISBN 978-1-62703-410-4

Usually dispatched within 3 to 5 business days.
Frustrated Lewis Pairs II
Expanding the Scope

Frustrated Lewis Pairs: From Dihydrogen Activation to Asymmetric Catalysis, by Dianjun Chen, Jürgen Klankermayer.
Coexistence of Lewis Acid and Base Functions: A Generalized View of the Frustrated Lewis Pair Concept with Novel Implications for Reactivity, by Heinz Berke, Yanfeng Jiang, Xianghua Yang, Chunfang Jiang, Subrata Chakraborty, Anne Landwehr.
Paracyclophane Derivatives in Frustrated Lewis Pair Chemistry, by Lutz Greb, Jan Paradies.
Novel Al-Based FLP Systems, by Werner Uhl.

Contents
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Paracyclophane Derivatives in Frustrated Lewis Pair Chemistry, by Lutz Greb, Jan Paradies.
Novel Al-Based FLP Systems, by Werner Uhl.

Fields of interest
Organic Chemistry; Catalysis; Theoretical and Computational Chemistry

Target groups
Research

Type of publication
Reviews

More on www.springer.com/978-3-642-37758-7

Hardcover
2013. VIII, 319 p. 138 illus., 57 illus. in color. (Topics in Current Chemistry, Vol. 334)
249,00 €
ISBN 978-3-642-37758-7

Usually dispatched within 3 to 5 business days.

K. Hirooka, University of Yamanashi, Kofu, Japan (Ed.)

Fundamentals of Mass Spectrometry

Most research and all publications in mass spectrometry address either applications or practical questions of procedure. This book, in contrast, discusses the fundamentals of mass spectrometry. Since these basics (physics, chemistry, kinetics, and thermodynamics) were worked out in the 20th century, they are rarely addressed nowadays and young scientists have no opportunity to learn them. This book reviews a number of useful methods in mass spectrometry and explains not only the details of the methods but the theoretical underpinning.

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Contents
Basic Explanation for Collisions in Mass Spectrometry.
- Super-excited States of Molecules.
- Fundamental Aspects of Photoionization of Molecules.
- Chemical Reaction by Core Electron Excitation.
- Ion Mobility Spectrometry.
- Gas Phase Ion Molecule Reactions.
- Fundamentals of Electrospray.
- Secondary Ion Mass Spectrometry.
- Isotope Ratio Mass Spectrometry.
- Theory of I on Fragmentation.

Fields of interest
Analytical Chemistry; Mass Spectrometry; Spectroscopy / Spectrometry

Target groups
Research

Type of publication
Monograph


Hardcover
2013. VII, 239 p. 138 illus., 57 illus. in color.
169,99 €

Usually dispatched within 3 to 5 business days.

Y. Yanan, University of Chicago, Chicago, USA

How Free Cationic Polymer Chains Promote Gene Transfection

In this PhD thesis, Yue Yanan addresses a long-overlooked and critical question in the development of non-viral vectors for gene delivery. The author determines that these uncomplexed and cationic polymer chains free in the solution mixture of polymer and DNA facilitate and promote gene transfection. Furthermore, by using a combination of synthetic chemistry, polymer physics and molecular biology, Yue confirms that it is those cationic polymer chains free in the solution mixture, rather than those bound to DNA chains, that play a decisive role in intracellular trafficking. Instead of the previously proposed and widely accepted “proton sponge” model, the author’s group propose a new[...]

Features
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Contents
Introduction and background.
- Revisiting complexation between DNA and polyethyleneimine: the effect of uncomplexed chains free in the solution mixture on gene transfection.
- Revisiting complexation between DNA and polyethyleneimine: the effect of length of free poly(cationic) chains on gene transfection.
- Quantitative comparison of endocytosis and intracellular trafficking of DNA/polymer complexes in the absence/presence of free poly(cationic) chains.

Fields of interest
Polymer Sciences; Organic Chemistry; Nucleic Acid Chemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00335-1

Hardcover
2013. XVIII, 94 p. 45 illus., 38 illus. in color. (Springer Theses)
99,99 €
ISBN 978-3-319-00335-1

Usually dispatched within 3 to 5 business days.
Modern NMR Methodology


Features

Contents

Fields of interest
Spectroscopy / Spectrometry, Protein Structure, Spectroscopy and Microscopy

Target groups
Research

Type of publication
Reviews

More on www.springer.com/978-3-642-37990-1

Hardcover
2023, VII, 204 p. 50 illus., 43 illus. in color. (Topics in Current Chemistry, Vol. 335)
189,99 € ISBN 978-3-642-37990-1

Usually dispatched within 3 to 5 business days.

Modified Cyclodextrins for Chiral Separation

Modified Cyclodextrins for Chiral Separation offers a review of the latest advances in developing modified cyclodextrins as chiral selectors for various chromatographic and electromigration techniques. Over the years, many descriptions of chiral separation have appeared in academic journals and books, but most of them have been devoted to either the development of analytical methods and protocols or the summary of different chiral selectors, including cyclodextrins for chiral separation applications. This is in marked contrast to this volume which focuses on the research endeavors concerning the development of cyclodextrin derivatives specifically as either chiral mobile phases for the chiral mobile phases for...[...]

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Contents

Fields of interest
Chromatography, Electrophoresis, Organic Chemistry, Pharmaceutical Sciences / Technology

Target groups
Research

More on www.springer.com/978-3-642-37647-4

Multidimensional HPLC of Polymers

This book presents the principle ideas of combining different analytical techniques in multi-dimensional analysis schemes. It reviews the basic principles and instrumentation of multi-dimensional chromatography and the hyphenation of liquid chromatography with selective spectroscopic detectors and presents experimental protocols for the analysis of complex polymers. It is the consequent continuation of "HPLC of Polymers" from 1999 by the same authors. Like its ‘predecessor’, this book discusses the theoretical background, equipment, experimental procedures and applications for each separation technique, but in contrast treats multi-dimensional and coupled techniques. "Multidimensional...[

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Contents

Fields of interest
Polymer Sciences; Analytical Chemistry; Biotechnology

Target groups
Professional/practitioner

More on www.springer.com/978-3-642-36079-4

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Fields of interest
Polymer Sciences; Analytical Chemistry; Biotechnology

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Professional/practitioner

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Contents

Fields of interest
Polymer Sciences; Analytical Chemistry; Biotechnology

Target groups
Professional/practitioner

More on www.springer.com/978-3-642-36079-4
NanoBiotechnology Protocols

NanoBiotechnology holds the promise of providing revolutionary insight into aspects of biology ranging from fundamental questions such as elucidating molecular mechanisms of brain disorders to extraordinary applications such as the detection of a single cancer cell in a population of a million cells. The second edition of NanoBiotechnology Protocols expands upon the previous editions with current, detailed protocols for nanobiotechnology; imaging and detection. With new chapters that explore nano-bio constructs and toxicology of nanomaterials. Written in the highly successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of [...] 

Features
NanoBiotechnology holds the promise of providing revolutionary insight into aspects of biology ranging from fundamental questions such as elucidating molecular mechanisms of brain disorders to extraordinary applications such as the detection of a single cancer cell in a population of a million cells. The second edition of NanoBiotechnology Protocols expands upon the previous editions with current, [...] 

Contents

Fields of interest
Biotechnology; Nanotechnology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-62703-467-8

Hardcover
2013. X, 196 p. 58 illus., 38 illus. in color. (Methods in Molecular Biology, Vol. 1026)
94,99 €
ISBN 978-1-62703-467-8

Usually dispatched within 3 to 5 business days.

Natural Products

Phytochemistry, Botany and Metabolism of Alkaloids, Phenolics and Terpenes

The proposed volumes are intended to provide all the information regarding medicinal plants and phytochemicals at one place to researchers and teachers. Phytochemicals, by the strictest definition, are chemicals that are produced by plants. During the last two decades, many groups are actively involved in exploring the plants for useful metabolites that leads to identification of several useful curative agents and many promising molecules to fight/ prevent diseases, including carcinogenesis and stroke. When we talk about phytochemicals, there are also medicinal plants where not a single molecule is responsible for the observed properties. The volumes will contain contributions on[...]

Features
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Contents

Fields of interest
Medicinal Chemistry; Pharmacology / Toxicology; Plant Biochemistry; Plant Sciences; Biotechnology

Target groups
Research

Type of publication
Handbook

More on www.springer.com/978-3-642-22143-9

Hardcover
2013. XLI, 424 p. 1569 illus., 239 illus. in color. In 5 volumes, not available separately.
2.200,00 €
ISBN 978-3-642-22143-9

Usually dispatched within 3 to 5 business days.

Hardcover
2013. XLI, 424 p. 1569 illus., 239 illus. in color. eReference. In 5 volumes, not available separately.
2.200,00 €
ISBN 978-3-642-22144-6

Online orders shipping within 2-3 days.

Hardcover
2013. XLI, 424 p. 1569 illus., 239 illus. in color. Print + eReference. In 5 volumes, not available separately.
2.750,00 €
ISBN 978-3-642-22145-3
New Frontiers in Photochromism

Photochromism is the reversible phototransformation of a chemical species between two forms having different absorption spectra. During the phototransformation not only the absorption spectra but also various physicochemical properties change, such as the refractive index, dielectric constant, oxidation/reduction potential, and geometrical structure. The property changes can be applied to photonic equipment such as erasable memory media, photonic optical switch components, and display devices. This book compiles the accomplishments of the research project titled "New Frontiers in Photochromism" supported by the Ministry of Education, Culture, Sports, Science and Technology of Japan. The[...]

Features
Photochromism is the reversible phototransformation of a chemical species between two forms having different absorption spectra. During the phototransformation not only the absorption spectra but also various physicochemical properties change, such as the refractive index, dielectric constant, oxidation/reduction potential, and geometrical structure. The property changes can be applied to photonic equipment[...]

Contents

Fields of interest
Physical Chemistry; Optical and Electronic Materials; Polymer Sciences; Spectroscopy / Spectrometry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-4-431-54290-2

Hardcover
2013, VIII, 298 p. 225 illus., 54 illus. in color. 129.99 € ISBN 978-4-431-54290-2 Usually dispatched within 3 to 5 business days.

Oxidative Stress and Nanotechnology

Methods and Protocols
The emergence of nanotechnology has had a profound effect on almost every aspect of the 21st century’s daily life. It has had a revolutionary impact from stain-resistant clothing and cosmetics to environmental issues, including energy and medicine and even aerospace engineering. In Oxidative Stress and Nanotechnology: Methods and Protocols, expert researchers in the field detail various aspects of nanotechnology from the oxidative stress point of view. Focusing on synthesis of different antioxidant nanoparticles and antioxidant-loaded nanoparticles, as well as their in vitro / in vivo mechanisms of action along with their clinical relevance. Written in the highly successful Methods[...]

Features
The emergence of nanotechnology has had a profound effect on almost every aspect of the 21st century’s daily life. It has had a revolutionary impact from stain-resistant clothing and cosmetics to environmental issues, including energy and medicine and even aerospace engineering. In Oxidative Stress and Nanotechnology: Methods and Protocols, expert researchers in the field detail[...]

Contents

Fields of interest
Biotechnology; Nanotechnology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-62703-474-6

Hardcover

Polysaccharide Based Graft Copolymers

Renowned experts give all essential aspects of the techniques and applications of graft copolymers based on polysaccharides. Polysaccharides are the most abundant natural organic materials and polysaccharide based graft copolymers are of great importance and widely used in various fields. Natural polysaccharides have recently received more attention due to their advantages over synthetic polymers by being non-toxic, biodegradable and available at low cost. Modification of polysaccharides through graft copolymerization improves the properties of polysaccharides. Grafting is known to improve the characteristic properties of the backbone. Such properties include water repellency,[...]

Features
Renowned experts give all essential aspects of the techniques and applications of graft copolymers based on polysaccharides. Polysaccharides are the most abundant natural organic materials and polysaccharide based graft copolymers are of great importance and widely used in various fields. Natural polysaccharides have recently received more attention due to their advantages over synthetic polymers by being[...]

Contents

Fields of interest
Polymer Sciences; Biomaterials; Pharmaceutical Sciences / Technology; Carbohydrate Chemistry

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-36565-2

Hardcover
2013. X, 353 p. 159 illus., 40 illus. in color. 129.99 € ISBN 978-3-642-36565-2 Usually dispatched within 3 to 5 business days.
The Non-Ergodic Nature of Internal Conversion
An Experimental and Theoretical Approach

This thesis investigates the transitions from one electronically excited state to another. Such processes - the fastest of events in chemistry - can be studied with femtosecond resolution, and Thomas S. Kuhlman approaches the question both with experimental and theoretical methods. His approach contributes to explain processes of high importance to all scientific fields concerned with the interaction between light and matter: the deactivation of the electronically excited states after excitation. Thomas S. Kuhlman concludes in this thesis that the electronic transition proceeds before the entire set of available degrees of freedom are active - ‘It is as simple as that!’

Features
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Abstraction in Artificial Intelligence and Complex Systems

Abstraction is a fundamental mechanism underlying both human and artificial perception, representation of knowledge, reasoning and learning. This mechanism plays a crucial role in many disciplines, notably Computer Programming, Natural and Artificial Vision, Complex Systems, Artificial Intelligence and Machine Learning, Art, and Cognitive Sciences. This book first provides the reader with an overview of the notions of abstraction proposed in various disciplines by comparing both commonalities and differences. After discussing the characterizing properties of abstraction, a formal model, the KRA model, is presented to capture them. This model makes the notion of abstraction easily...[...]

Features
Abstraction is a fundamental mechanism underlying both human and artificial perception, representation of knowledge, reasoning and learning. This mechanism plays a crucial role in many disciplines, notably Computer Programming, Natural and Artificial Vision, Complex Systems, Artificial Intelligence and Machine Learning, Art, and Cognitive Sciences. This book first provides the reader with an overview of the [...]
Android Malware

Mobile devices, such as smart phones, have achieved computing and networking capabilities comparable to traditional personal computers. Their successful consumerization has also become a source of pain for adopting users and organizations. In particular, the widespread presence of information-stealing applications and other types of mobile malware raises substantial security and privacy concerns. Android Malware presents a systematic view on state-of-the-art mobile malware that targets the popular Android mobile platform. Covering key topics like the Android malware history, malware behavior and classification, as well as, possible defense techniques.

Features

Mobile devices, such as smart phones, have achieved computing and networking capabilities comparable to traditional personal computers. Their successful consumerization has also become a source of pain for adopting users and organizations. In particular, the widespread presence of information-stealing applications and other types of mobile malware raises substantial security and privacy concerns.

Contents


Fields of interest

Systems and Data Security; Computer Communication Networks; Data Encryption; Data Structures, Cryptology and Information Theory; Information Systems and Communication Service

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-1-4614-7393-0

Softcover

2013, XI, 44 p. 9 illus. (SpringerBriefs in Computer Science)

39,99 €

ISBN 978-1-4614-7393-0

Usually dispatched within 3 to 5 business days.

Application and Theory of Petri Nets and Concurrency

34th International Conference, PETRI NETS 2013, Milan, Italy, June 24-28, 2013, Proceedings

This book constitutes the refereed proceedings of the 34th International Conference on Applications and Theory of Petri Nets and Concurrency, PETRI NETS 2013, held in Milan, Italy, in June 2013. The 18 regular papers and 2 tool papers presented were carefully reviewed and selected from 56 submissions. The book also contains 2 invited talks. All current issues on research and development in the area of Petri nets and related models of concurrent systems are addressed.

Features

This book constitutes the refereed proceedings of the 34th International Conference on Applications and Theory of Petri Nets and Concurrency, PETRI NETS 2013, held in Milan, Italy, in June 2013. The 18 regular papers and 2 tool papers presented were carefully reviewed and selected from 56 submissions. The book also contains 2 invited talks. All current issues on research and development in the area of Petri nets and related models of concurrent systems are addressed.

Contents


Fields of interest

Systems and Data Security; Computer Communication Networks; Data Encryption; Data Structures, Cryptology and Information Theory; Information Systems and Communication Service

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38979-5

Softcover

2013, XIV, 572 p. 115 illus. (Security and Cryptology, Vol. 7954)

70,00 €

ISBN 978-3-642-38979-5

Usually dispatched within 3 to 5 business days.

Applied Cryptography and Network Security

11th International Conference, ACNS 2013, Banff, AB, Canada, June 25-28, 2013, Proceedings

This book constitutes the refereed proceedings of the 11th International Conference on Applied Cryptography and Network Security, ACNS 2013, held in Banff, Canada, in June 2013. The 33 revised full papers included in this volume were carefully reviewed and selected from 192 submissions. They are organized in topical sections on Cloud Cryptography; Secure Computation; Hash Function and Block Cipher; Signature; System Attack; Secure Implementation - Hardware; Secure Implementation - Software; Group-oriented Systems; Key Exchange and Leakage Resilience; Cryptographic Proof; Cryptosystems.

Features

This book constitutes the refereed proceedings of the 11th International Conference on Applied Cryptography and Network Security, ACNS 2013, held in Banff, Canada, in June 2013. The 33 revised full papers included in this volume were carefully reviewed and selected from 192 submissions. They are organized in topical sections on Cloud Cryptography; Secure Computation; Hash Function and Block Cipher; Signature; [...]

Fields of interest

Systems and Data Security; Data Encryption; Management of Computing and Information Systems; Computer Communication Networks; Coding and Information Theory; Data Structures

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38979-5

Softcover

2013, XIV, 572 p. 115 illus. (Security and Cryptology, Vol. 7954)

70,00 €

ISBN 978-3-642-38979-5

Usually dispatched within 3 to 5 business days.
### Arduino and LEGO Projects

We all know how awesome LEGO is, and more and more people are discovering how many amazing things you can do with Arduino. In Arduino and LEGO Projects, Jon Lazar shows you how to combine two of the coolest things on the planet to make fun gadgets like a Magic Lantern RF reader, a sensor-enabled LEGO music box, and even an Arduino-controlled LEGO train set. Learn that SNOT is actually cool (it means Studs Not on Top) See detailed explanations and images of how everything fits together. Learn how Arduino fits into each project, including code and explanations. Whether you want to impress your friends, annoy the cat, or just kick back and bask in the awesomeness of your [...] 

**Features**

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**Fields of interest**

Computer Science (general) 

***Target groups***

Popular/general 

***Type of publication***

Professional book 

More on [www.springer.com/978-1-4302-4929-0](http://www.springer.com/978-1-4302-4929-0) 

**Softcover**

2013. 212 p. 

26,95 € 

ISBN 978-1-4302-4929-0 

*Usually dispatched within 3 to 5 business days.*

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### Benchmarking Peer-to-Peer Systems

We all know how awesome LEGO is, and more and more people are discovering how many amazing things you can do with Arduino. In Arduino and LEGO Projects, Jon Lazar shows you how to combine two of the coolest things on the planet to make fun gadgets like a Magic Lantern RF reader, a sensor-enabled LEGO music box, and even an Arduino-controlled LEGO train set. Learn that SNOT is actually cool (it means Studs Not on Top) See detailed explanations and images of how everything fits together. Learn how Arduino fits into each project, including code and explanations. Whether you want to impress your friends, annoy the cat, or just kick back and bask in the awesomeness of your [...] 

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**Fields of interest**

Computer Science (general) 

***Target groups***

Popular/general 

***Type of publication***

Professional book 

More on [www.springer.com/978-1-4302-4929-0](http://www.springer.com/978-1-4302-4929-0) 

**Softcover**

2013. 212 p. 

26,95 € 

ISBN 978-1-4302-4929-0 

*Usually dispatched within 3 to 5 business days.*

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### Big Data Analytics Using Splunk

Big Data Analytics Using Splunk is a hands-on book showing how to process and derive business value from big data in real time. Examples in the book draw from social media sources such as Twitter (tweets) and Foursquare (check-ins). You also learn to draw from machine data, enabling you to analyze, say, web server log files and patterns of user access in real time, as the access is occurring. Gone are the days when you need be caught out by shifting public opinion or sudden changes in customer behavior. Splunk’s easy-to-use engine helps you recognize and react in real time, as events are occurring. Splunk is a powerful, yet simple analytical tool fast gaining traction in the fields of [...] 

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**Fields of interest**

Computer Science (general) 

***Target groups***

Popular/general 

***Type of publication***

Professional book 


**Softcover**

2013. 376 p. 

29,95 € 


*Usually dispatched within 3 to 5 business days.*
Business Process Models

C. Gerth, University of Paderborn, Paderborn, Germany

Change Management

Driven by the need for a closer alignment of business and IT requirements, the role of business process models in the development of enterprise software systems has increased continuously. Similar to other software artifacts, process models are developed and refined in team environments by several stakeholders, resulting in different versions. These versions need to be merged in order to obtain an integrated process model. Existing solutions to this basic problem in the field of software configuration management are mainly limited to textual documents, e.g., source code. This monograph presents a generally applicable framework for process model change management, which provides...

Features

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Contents


Fields of interest

Information Systems Applications (incl. Internet); Software Engineering; Computers and Society; User Interfaces and Human Computer Interaction; Information Storage and Retrieval; Management of Computing and Information Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38603-9

Softcover


46,00 €

ISBN 978-3-642-38603-9

Usually dispatched within 3 to 5 business days.

Case-Based Reasoning Research and Development

21st International Conference, ICCBR 2013, Saratoga Springs, NY, USA, July 8-11, 2013, Proceedings

This book constitutes the refereed proceedings of the 21st International Conference on Case-Based Reasoning Research and Development (ICCBR 2013) held in Saratoga Springs, NY, USA, in July 2013. The 17 revised full papers presented together with 9 posters were carefully reviewed and selected from 39 submissions. The presentations and posters covered a wide range of CBR topics of interest both to researchers and practitioners including case retrieval and adaptation, similarity assessment, case base maintenance, knowledge management, recommender systems, multiagent systems, textual CBR, and applications to healthcare and computer games.

Features

This book constitutes the refereed proceedings of the 21st International Conference on Case-Based Reasoning Research and Development (ICCBR 2013) held in Saratoga Springs, NY, USA, in July 2013. The 17 revised full papers presented together with 9 posters were carefully reviewed and selected from 39 submissions. The presentations and posters covered a wide range of CBR topics of interest both to researchers and practitioners including case retrieval and adaptation, similarity assessment, case base maintenance, knowledge management, recommender systems, multiagent systems, textual CBR, and applications to healthcare and computer games.

Contents

Preference-Based CBR. A Search-Based Problem Solving Framework. - Applying MapReduce to Learning User Preferences in Near Real-Time. - Case-Based Goal Selection Inspired by IBM’s Watson. - Opinionated Product Recommendation. - Mining Features and Sentiment from Review Experiences. - Multi-Agent, Multi-Case-Based Reasoning. - Case-Based Learning of Applicability Conditions for Stochastic Explanations. - Case-Based Reasoning on E-Community Knowledge. - On the Plan-Library Maintenance Problem in a Case-Based Planner. - Learning Feature Weights from Positive Cases. - User Perceptions of Relevance and...

Fields of interest

Artificial Intelligence (incl. Robotics); Information Storage and Retrieval; Data Mining and Knowledge Discovery; Information Systems Applications (incl. Internet); User Interfaces and Human Computer Interaction; Computer Appl. in Administrative Data Processing

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-39055-5

Softcover

2013. XII, 374 p. 124 illus. (Lecture Notes in Artificial Intelligence, Vol. 7969)

54,00 €

ISBN 978-3-642-39055-5

Usually dispatched within 3 to 5 business days.

Cloud Computing

Methods and Practical Approaches

Z. Mahmood, University of Derby, Derby, United Kingdom (Ed.)

This book presents both state-of-the-art research developments and practical guidance on approaches, technologies and frameworks for the emerging cloud paradigm. Topics and features: presents the state of the art in cloud technologies, infrastructures, and service delivery and deployment models; discusses relevant theoretical frameworks, practical approaches and suggested methodologies; offers guidance and best practices for the development of cloud-based services and infrastructures, and examines management aspects of cloud computing; reviews consumer perspectives on mobile cloud computing and cloud-based enterprise resource planning; explores software performance testing;...

Features

The benefits associated with cloud computing are enormous: yet the dynamic, virtualized, distributed and multi-tenant nature of the cloud environment presents many challenges. To help tackle these challenges, Cloud Computing: Methods and Practical Approaches provides illuminating viewpoints and helpful case studies, supplied by an international selection of pre-eminent authorities from both...

Contents


Fields of interest

Computer Communication Networks; Software Engineering; Business Information Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4471-5106-7

Hardcover

2013. XVII, 347 p. 97 illus. (Computer Communications and Networks)

94,99 €

ISBN 978-1-4471-5106-7

Usually dispatched within 3 to 5 business days.

Softcover

2013. XII, 374 p. 124 illus. (Lecture Notes in Artificial Intelligence, Vol. 7969)

54,00 €

ISBN 978-3-642-39055-5

Usually dispatched within 3 to 5 business days.
Cognition Beyond the Brain
Computation, Interactivity and Human Artifice

Cognition Beyond the Brain challenges neurocentrism by advocating a systemic view of cognition based on investigating how action shapes the experience of thinking. The systemic view steers between extended functionalism and enactivism by stressing how living beings connect bodies, technologies, language and culture. Since human thinking depends on a cultural ecology, people connect biologically-based powers with extended systems and, by so doing, they constitute cognitive systems that reach across the skin. Biological interpretation exploits extended functional systems. Illustrating distributed cognition, one set of chapters focus on computer mediated trust, work at a construction...[...]

Contents

Fields of interest
User Interfaces and Human Computer Interaction; Cognitive Psychology; Linguistics (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4471-5124-1

Hardcover
2013. VIII, 292 p. 52 illus.
94,99 €
ISBN 978-1-4471-5124-1
Usually dispatched within 3 to 5 business days.


Combinatorial Pattern Matching

Combinatorial Pattern Matching: 24th Annual Symposium, CPM 2013, Bad Herrenalb, Germany, June 17-19, 2013, Proceedings

This book constitutes the refereed proceedings of the 24th Annual Symposium on Combinatorial Pattern Matching, CPM 2013, held in Bad Herrenalb (near Karlsruhe), Germany, in June 2013. The 21 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 51 submissions. The papers address issues of searching and matching strings and more complicated patterns such as trees, regular expressions, graphs, point sets, and arrays. The goal is to derive non-trivial combinatorial properties of such structures and to exploit these properties in order to either achieve superior performance for the corresponding computational problem or pinpoint conditions.[...]

Features
This book constitutes the refereed proceedings of the 24th Annual Symposium on Combinatorial Pattern Matching, CPM 2013, held in Bad Herrenalb (near Karlsruhe), Germany, in June 2013. The 21 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 51 submissions. The papers address issues of searching and matching strings and more complicated patterns such as trees, regular expressions, graphs, point sets, and arrays. The goal is to derive non-trivial combinatorial properties of such structures and to exploit these properties in order to either achieve superior performance for the corresponding computational problem or pinpoint conditions.[...]

Contents
Searching and matching strings and more complicated patterns. - Trees, regular expressions, graphs, point sets, and arrays. - Non-trivial combinatorial properties of such structures. - Problems in computational biology. - Data compression and data mining. - Coding. - Information retrieval. - Natural language processing. - Pattern recognition.

Fields of interest
Pattern Recognition; Algorithm Analysis and Problem Complexity; Numeric Computing; Discrete Mathematics in Computer Science; Data Structures; Computational Biology / Bioinformatics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38904-7

Softcover
46,00 €
ISBN 978-3-642-38904-7
Usually dispatched within 3 to 5 business days.


Compressed Sensing with Side Information on the Feasible Region

This book discusses compressive sensing in the presence of side information. Compressive sensing is an emerging technique for efficiently acquiring and reconstructing a signal. Interesting instances of Compressive Sensing (CS) can occur when, apart from sparsity, side information is available about the source signals. The side information can be about the source structure, distribution, etc. Such cases can be viewed as extensions of the classical CS. In these cases we are interested in incorporating the side information to either improve the quality of the source reconstruction or decrease the number of samples required for accurate reconstruction. In this book we assume availability[...]

Features
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Contents

Fields of interest
Computer Imaging, Vision, Pattern Recognition and Graphics; Signal, Image and Speech Processing; Statistical Physics, Dynamical Systems and Complexity; Computational Science and Engineering

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-00365-8

Softcover
ISBN 978-3-319-00365-8
Usually dispatched within 3 to 5 business days.
Computer Networks
20th International Conference, CN 2013, Łowęk Śląski, Poland, June 17-21, 2013. Proceedings

This book constitutes the refereed proceedings of the 20th International Conference on Computer Networks, CN 2013, held in Łowęk Śląski, Poland, in June 2013. The 58 revised full papers presented were carefully reviewed and selected for inclusion in the book. The papers in these proceedings cover the following topics: computer networks, network architectural issues, Internet and wireless solutions, teleinformatics and communications, new technologies, queuing theory and queueing networks, innovative applications, networking in e-business, security aspects of hardware and software, industrial systems, quantum and bio-informatics, cloud networking and services.

Features
This book constitutes the refereed proceedings of the 20th International Conference on Computer Networks, CN 2013, held in Łowęk Śląski, Poland, in June 2013. The 58 revised full papers presented were carefully reviewed and selected for inclusion in the book. The papers in these proceedings cover the following topics: computer networks, network architectural issues, Internet and wireless solutions, [..]

Fields of interest
Computer Communication Networks; System Performance and Evaluation; Special Purpose and Application-Based Systems; Probability and Statistics in Computer Science; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38864-4

Softcover
2013. XVIII, 594 p. 242 illus. (Communications in Computer and Information Science, Vol. 370)
89,00 €
ISBN 978-3-642-38864-4

Usually dispatched within 3 to 5 business days.

Database of Piano Chords
An Engineering View of Harmony

Database of Piano Chords: An Engineering View of Harmony includes a unique database of piano chords developed exclusively for music research purposes, and outlines the key advantages to using this dataset to further one’s research. The book also describes the physical bases of the occidental music chords and the influence used in the detection and transcription of the music, enabling researchers to intimately understand the construction of each occidental chord. The online database contains more than 275,000 chords with different degrees of polyphony and with different playing styles. Together, the database and the book are an invaluable tool for researchers in this field.

Features
Database of Piano Chords: An Engineering View of Harmony includes a unique database of piano chords developed exclusively for music research purposes, and outlines the key advantages to using this dataset to further one’s research. The book also describes the physical bases of the occidental music chords and the influence used in the detection and transcription of the music, enabling researchers to [..]

Contents

Fields of interest
Multimedia Information Systems; Signal, Image and Speech Processing

Target groups
Research

Type of publication
Brief


Softcover
2013. XIV, 50 p. 31 illus., 6 illus. in color. With online files/update. (SpringerBriefs in Electrical and Computer Engineering) 39,99 €

Usually dispatched within 3 to 5 business days.

Distributed Graph Algorithms for Computer Networks

This book presents a comprehensive review of key distributed graph algorithms for computer network applications, with a particular emphasis on practical implementation. Topics and features: introduces a range of fundamental graph algorithms, covering spanning trees, graph traversal algorithms, routing algorithms, and self-stabilization; reviews graph-theoretical distributed approximation algorithms with applications in ad hoc wireless networks; describes in detail the implementation of each algorithm, with extensive use of supporting examples, and discusses their concrete network applications; examines key graph-theoretical algorithm concepts, such as dominating sets, and parameters[..]

Features
Graph theory is an invaluable tool for the designer of algorithms for distributed systems. This hands-on textbook/reference presents a comprehensive review of key distributed graph algorithms for computer network applications, with a particular emphasis on practical implementation. Each chapter opens with a concise introduction to a specific problem, supporting the theory with numerous examples, [..]

Contents

Fields of interest
Algorithm Analysis and Problem Complexity; Computer Communication Networks; Mathematical Applications in Computer Science

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Hardcover
2013. XVIII, 324 p. 167 illus. (Computer Communications and Networks) 59,99 €

Usually dispatched within 3 to 5 business days.
22 Computer Science

G. Castagna (Ed.)

ECOOP 2013 -- Object-Oriented Programming
27th European Conference, Montpellier, France, July 1-5, 2013, Proceedings

This book constitutes the proceedings of the 27th European Conference on Object-Oriented Programming, ECOOP 2013, held in Montpellier, France, in July 2013. The 29 papers presented in this volume were carefully reviewed and selected from 116 submissions. They are organized in topical sections on aspects, components, and modularity; types; language design; concurrency, parallelism, and distribution; analysis and verification; modelling and refactoring; testing, profiling, and empirical studies; and implementation.

Contents

Features
This book constitutes the proceedings of the 27th European Conference on Object-Oriented Programming, ECOOP 2013, held in Montpellier, France, in July 2013. The 29 papers presented in this volume were carefully reviewed and selected from 116 submissions. They are organized in topical sections on aspects, components, and modularity; types; language design; concurrency, parallelism, and distribution; analysis [...]

Fields of interest
Programming Techniques; Software Engineering; Programming Languages, Compilers, Interpreters; Logics and Meanings of Programs; Mathematical Logic and Formal Languages; Computer Communication Networks

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-39037-1

Embedded Systems: Design, Analysis and Verification

This book constitutes the refereed proceedings of the 4th IFIP TC 10 International Embedded Systems Symposium, IESS 2013, held in Paderborn, Germany, in June 2013. The 22 full revised papers presented together with 8 short papers were carefully reviewed and selected from 42 submissions. The papers have been organized in the following topical sections: design methodologies; non-functional aspects of embedded systems; verification; performance analysis; real-time systems; embedded system applications; and real-time aspects in distributed systems. The book also includes a special chapter dedicated to the BMBF funded ARAMIS project on Automotive, Railway and Avionics Multiscore Sys- tems.

Features
This book constitutes the refereed proceedings of the 4th IFIP TC 10 International Embedded Systems Symposium, IESS 2013, held in Paderborn, Germany, in June 2013. The 22 full revised papers presented together with 8 short papers were carefully reviewed and selected from 42 submissions. The papers have been organized in the following topical sections: design methodologies; non-functional aspects of embedded [...]..

Contents

Fields of interest
Special Purpose and Application-Based Systems; System Performance and Evaluation; Software Engineering; Computer-Aided Engineering (CAD, CAE) and Design

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38852-1

Emerging Management Mechanisms for the Future Internet

This book constitutes the refereed proceedings of the 7th IFIP WG 6.6 International Conference on Autonomous Infrastructure, Management, and Security, AIMS 2013, held in Barcelona, Spain, in June 2013. The 11 full papers presented were carefully reviewed and selected from 32 submissions. The volume also includes 7 papers presented at the AIMS Ph.D. workshop. They were reviewed and selected from 34 submissions. The papers are organized in topical sections on traffic engineering and quality-of-service; monitoring and modeling; security management; content distribution and multimedia; autonomous management; and monitoring mechanisms.

Features
This book constitutes the refereed proceedings of the 7th IFIP WG 6.6 International Conference on Autonomous Infrastructure, Management, and Security, AIMS 2013, held in Barcelona, Spain, in June 2013. The 11 full papers presented were carefully reviewed and selected from 32 submissions. The volume also includes 7 papers presented at the AIMS Ph.D. workshop. They were reviewed and selected from 34 submissions. [...]..

Contents

Fields of interest
Software Engineering; Management of Computing and Information Systems; Information Systems Applications (incl.Internet); Computer Communication Networks; Algorithm Analysis and Problem Complexity; Data Encryption

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38997-9

Softcover
Finding Source Code on the Web for Remix and Reuse

In recent years, searching for source code on the web has become increasingly common among professional software developers and is emerging as an area of academic research. This volume surveys past research and presents the state of the art in the area of “code retrieval on the web.” This work is concerned with the algorithms, systems, and tools to allow programmers to search for source code on the web and the empirical studies of these inventions and practices. It is a label that we apply to a set of related research from software engineering, information retrieval, human-computer interaction, management, as well as commercial products. The division of code retrieval on the web [...] 

Features

In recent years, searching for source code on the web has become increasingly common among professional software developers and is emerging as an area of academic research. This volume surveys past research and presents the state of the art in the area of “code retrieval on the web.” This work is concerned with the algorithms, systems, and tools to allow programmers to search for source code on the web and [...] 

Contents


Fields of interest

Software Engineering / Programming and Operating Systems; User Interfaces and Human Computer Interaction; Information Storage and Retrieval; Database Management

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-38873-6

Softcover

2013, XII, 330 p. 54 illus.
94,99 €
ISBN 978-3-642-6595-9

Usually dispatched within 3 to 5 business days.

Frontiers in Algorithms and Algorithmic Aspects in Information and Management

Third Joint International Conference, FAW-AAIM 2013, Dalian, China, June 26-28, 2013, Proceedings

This book constitutes the refereed proceedings of the 7th International Frontiers of Algorithmics Workshop, FAW 2013, and the 9th International Conference on Algorithmic Aspects in Information and Management, AAIM 2013, jointly held in Dalian, China, in June 2013. The 33 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 60 submissions. The Joint Conference provide a focused forum on current trends of research on algorithms, discrete structures, operation research, combinatorial optimization and their applications, and will bring together international experts at the research frontiers in these areas to exchange ideas and to present [...] 

Features

This book constitutes the refereed proceedings of the 7th International Frontiers of Algorithmics Workshop, FAW 2013, and the 9th International Conference on Algorithmic Aspects in Information and Management, AAIM 2013, jointly held in Dalian, China, in June 2013. The 33 revised full papers presented together with 2 invited talks were carefully reviewed and selected from 60 submissions. The Joint [...] 

Contents


Fields of interest

Algorithm Analysis and Problem Complexity; Discrete Mathematics in Computer Science; Mathematics of Computing; Theory of Computation; Management of Computing and Information Systems; Data Structures

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38755-5

Softcover

2013, XII, 364 p. 97 illus. (Theoretical Computer Science and General Issues, Vol. 7924)
54,00 €
ISBN 978-3-642-38755-5

Usually dispatched within 3 to 5 business days.
Functional Imaging and Modeling of the Heart


This book constitutes the refereed proceedings of the 7th International Conference on Functional Imaging and Modeling of the Heart, held in London, UK, in June 2013. The 58 revised full papers were carefully reviewed and selected from numerous initial submissions. The focus of the papers is on following topics: image driven modeling, biophysical modeling, image analysis, biophysical modeling, cardiac imaging, parameter estimation, modeling methods, and biomedical engineering.

Features
This book constitutes the refereed proceedings of the 7th International Conference on Functional Imaging and Modeling of the Heart, held in London, UK, in June 2013. The 58 revised full papers were carefully reviewed and selected from numerous initial submissions. The focus of the papers is on following topics: image driven modeling, biophysical modeling, image analysis, biophysical modeling, cardiac […]

Contents
Image Driven Modeling.- Fusion of Local Activation Time Maps and Image Data to Personalize Anatomical Atrial Models.- Initial Experience with a Dynamic Imaging-Derived Immersed Boundary Model of Human Left Ventricle.- 2D Intracardiac Flow Estimation by Combining Speckle Tracking with Navier-Stokes Based Regularization: A Study with Dynamic Kernels.- Biophysical Modeling.- A Computational Bi-layer Surface Model of Human Atria.- The Effect of Active Cross-Fiber Stress on Shear-Induced Myofiber Reorientation.- Effect of Fibre Orientation Optimization in an Electromechanical Model of Left[…]

Fields of interest
Image Processing and Computer Vision; Simulation and Modeling; Computational Biology / Bioinformatics; Computer Graphics; Cardiology; Imaging / Radiology

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38973-3

Softcover
70,00 €
ISBN 978-3-642-38898-9
Usually dispatched within 3 to 5 business days.

Genetic Programming Theory and Practice X

These contributions, written by the foremost international researchers and practitioners of Genetic Programming (GP), explore the synergy between theoretical and empirical results on real-world problems, producing a comprehensive view of the state of the art in GP. Topics in this volume include: evolutionary constraints, relaxation of selection mechanisms, diversity preservation strategies, flexing fitness evaluation, evolution in dynamic environments, multi-objective and multi-modal selection, foundations of evolvability, evolvable and adaptive evolutionary operators, foundation of injecting expert knowledge in evolutionary search, analysis of problem difficulty and required GP[…]

Features
These contributions, written by the foremost international researchers and practitioners of Genetic Programming (GP), explore the synergy between theoretical and empirical results on real-world problems, producing a comprehensive view of the state of the art in GP. Topics in this volume include: evolutionary constraints, relaxation of selection mechanisms, diversity preservation strategies, flexing […]

Contents

Fields of interest
Artificial Intelligence (incl. Robotics); Theory of Computation; Algorithm Analysis and Problem Complexity; Programming Techniques

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2013. XXVI, 242 p. 71 illus., 26 illus. in color. (Genetic and Evolutionary Computation)
84,99 €
Usually dispatched within 3 to 5 business days.
Graph-Based Clustering and Data Visualization Algorithms

This work presents a data visualization technique that combines graph-based topology representation and dimensionality reduction methods to visualize the intrinsic data structure in a low-dimensional vector space. The application of graphs in clustering and visualization has several advantages. A graph of important edges (where edges characterize relations and weights represent similarities or distances) provides a compact representation of the entire complex data set. This text describes clustering and visualization methods that are able to utilize information hidden in these graphs, based on the synergistic combination of clustering, graph-theory, neural networks, data mining and knowledge discovery.

Contents
Vector Quantisation and Topology-Based Graph Representation. - Graph-Based Clustering Algorithms. - Graph-Based Visualisation of High-Dimensional Data.

Features
This book constitutes the refereed proceedings of the IFIP WG 8.6 International Conference on Transfer and Diffusion of IT, TDIT 2013, held in Bangalore, India, in June 2013. The 35 revised full papers presented together with an invited paper, 12 short papers and 3 poster papers were carefully reviewed and selected from 65 submissions. The full papers are organized in the following topical sections: IS success and failure; studies of IT adoption; software development; IT in the public sector; and theory and methods.

Fields of interest
Data Mining and Knowledge Discovery; Visualization

Type of publication
Research

Target groups
Research

Type of publication
Brief


Softcover
High Performance Computing for Computational Science - VECPAR 2012

10th International Conference, Kope, Japan, July 17-20, 2012, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 10th International Conference on High Performance Computing for Computational Science, VECPAR 2012, held in Kope, Japan, in July 2012. The 28 papers presented together with 7 invited talks were carefully selected during two rounds of reviewing and revision. The papers are organized in topical sections on CPU computing, applications, finite element method from various viewpoints, cloud and visualization performance, method and tools for advanced scientific computing, algorithms and data analysis, parallel iterative solvers on multicore architectures.

Contents

Target groups Professional/practitioner
Type of publication Proceedings
More on www.springer.com/978-3-642-38717-3

Human Factors in Computing and Informatics

First International Conference, SouthCHI 2013, Maribor, Slovenia, July 1-3, 2013, Proceedings

This book constitutes the refereed proceedings of the First International Conference on Human Factors in Computing and Informatics, SouthCHI 2013, held in Maribor, Slovenia, in July 2013. SouthCHI is the successor of the USAB Conference series and promotes all aspects of human-computer interaction. The 38 revised full papers presented together with 12 short papers, 4 posters and 3 doctoral thesis papers were carefully reviewed and selected from 169 submissions. The papers are organized in the following topical sections: measurement and usability evaluation; usability evaluation - medical environments; accessibility methodologies; game-based methodologies; Web-based systems and; [...] Features This book constitutes the refereed proceedings of the First International Conference on Human Factors in Computing and Informatics, SouthCHI 2013, held in Maribor, Slovenia, in July 2013. SouthCHI is the successor of the USAB Conference series and promotes all aspects of human-computer interaction. The 38 revised full papers presented together with 12 short papers, 4 posters and 3 doctoral thesis papers were [...] Contents Measurement and usability evaluation. - Usability evaluation - medical environments. - Accessibility methodologies. - Game-based methodologies. - Web-based systems and attribution research. - Virtual environments. - Design culture for ageing well: designing for "situated elderliness". - Input devices. - Adaptive systems and intelligent agents. - Assessing the state of HCI research and practice in South-Eastern Europe. Fields of interest Information Systems Applications (incl.Internet); Artificial Intelligence (incl. Robotics); Information Storage and Retrieval; User Interfaces and Human Computer Interaction; Computer Communication Networks; Health Informatics

Target groups Research
Type of publication Proceedings
More on www.springer.com/978-3-642-39061-6

Human-Computer Interaction and Knowledge Discovery in Complex, Unstructured, Big Data

Third International Workshop, HCI-KDD 2013, Held at SouthCHI 2013, Maribor, Slovenia, July 1-3, 2013, Proceedings

This book constitutes the refereed proceedings of the Third Workshop on Human-Computer Interaction and Knowledge Discovery, HCI-KDD 2013, held in Maribor, Slovenia, in July 2013, at SouthCHI 2013. The 20 revised papers presented were carefully reviewed and selected from 68 submissions. The papers are organized in topical sections on human-computer interaction and knowledge discovery, knowledge discovery and smart homes, smart learning environments, and visualization data analytics.

Features This book constitutes the refereed proceedings of the Third Workshop on Human-Computer Interaction and Knowledge Discovery, HCI-KDD 2013, held in Maribor, Slovenia, in July 2013, at SouthCHI 2013. The 20 revised papers presented were carefully reviewed and selected from 68 submissions. The papers are organized in topical sections on human-computer interaction and knowledge discovery, knowledge discovery and [...] Contents Human-computer interaction and knowledge discovery. - Knowledge discovery and smart homes. - Smart learning environments. - Visualization data analytics.

Fields of interest User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery; Information Storage and Retrieval; Artificial Intelligence (incl. Robotics); Database Management; Computers and Education

Target groups Research
Type of publication Proceedings
More on www.springer.com/978-3-642-39145-3

Softcover

Hyperspectral Image Fusion

Hyperspectral Image Fusion is the first text dedicated to the fusion techniques for such a huge volume of data consisting of a very large number of images. This monograph brings out recent advances in the research in the area of visualization of hyperspectral data. It provides a set of pixel-based fusion techniques, each of which is based on a different framework and has its own advantages and disadvantages. The techniques are presented with complete details so that practitioners can easily implement them. It is also demonstrated how one can select only a few specific bands to speed up the process of fusion by exploiting spatial correlation within successive bands of the [...]
Inductive Logic Programming

22nd International Conference, ILP 2012, Dubrovnik, Croatia, September 16-18, 2012, Revised Selected Papers

This book constitutes the thoroughly refereed post-proceedings of the 22nd International Conference on Inductive Logic Programming, ILP 2012, held in Dubrovnik, Croatia, in September 2012. The 18 revised full papers were carefully reviewed and selected from 41 submissions. The papers cover the following topics: propositionalization, logical foundations, implementations, probabilistic ILP, applications in robotics and biology, grammatical inference, spatial learning and graph-based learning.

Features

This book constitutes the thoroughly refereed post-proceedings of the 22nd International Conference on Inductive Logic Programming, ILP 2012, held in Dubrovnik, Croatia, in September 2012. The 18 revised full papers were carefully reviewed and selected from 41 submissions. The papers cover the following topics: propositionalization, logical foundations, implementations, probabilistic ILP, [...]}

Contents


Fields of interest

Mathematical Logic and Formal Languages; Artificial Intelligence (incl. Robotics); Programming Techniques; Logics and Meanings of Programs; Computation by Abstract Devices; Computer Science (general)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38811-8

Information Processing in Computer-Assisted Interventions

4th International Conference, IPCAI 2013, Heidelberg, Germany, June 26, 2013. Proceedings

This book constitutes the proceedings of the 4th International Conference on Information Processing in Computer-Assisted Interventions IPCAI 2013, held in Heidelberg, Germany, on June 26, 2013. The 11 papers presented were carefully reviewed and selected from 20 submissions. The papers are organized in topical sections on simulation, neurosurgical interventions, ultrasonographic guided interventions, and image guided interventions.

Features

This book constitutes the proceedings of the 4th International Conference on Information Processing in Computer-Assisted Interventions IPCAI 2013, held in Heidelberg, Germany, on June 26, 2013. The 11 papers presented were carefully reviewed and selected from 20 submissions. The papers are organized in topical sections on simulation, neurosurgical interventions, ultrasonographic guided interventions, and image [...]}

Contents


Fields of interest

Health Informatics; Image Processing and Computer Vision; Pattern Recognition; Simulation and Modeling; Computer Applications

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38567-4

Softcover


Information Processing in Medical Imaging


This book constitutes the proceedings of the 23rd International Conference on Information Processing in Medical Imaging, IPMI 2013, held in Asilomar in June/July 2013. The 26 full papers and 38 poster papers presented in this volume were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections on connectivity, groupwise registration, neuro segmentation, statistical analysis, dynamic imaging, cortical surface registration, diffusion MRI, functional imaging, torso image analysis, and tract analysis.

Features

This book constitutes the proceedings of the 23rd International Conference on Information Processing in Medical Imaging, IPMI 2013, held in Asilomar in June/July 2013. The 26 full papers and 38 poster papers presented in this volume were carefully reviewed and selected from 199 submissions. The papers are organized in topical sections on connectivity, groupwise registration, neuro segmentation, statistical [...]}

Contents


Fields of interest

Image Processing and Computer Vision; Pattern Recognition; Health Informatics; Imaging / Radiology; Artificial Intelligence (incl. Robotics); Probability and Statistics in Computer Science

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38867-5

Softcover

2013. XX, 782 p. 312 illus. (Image Processing, Computer Vision, Pattern Recognition, and Graphics, Vol. 7917) 95,00 € ISBN 978-3-642-38867-5 Usually dispatched within 3 to 5 business days.
Information Security and Privacy
18th Australasian Conference, ACISP 2013, Brisbane, Australia, July 1-3, 2013, Proceedings

This book constitutes the refereed conference proceedings of the 18th Australasian Conference on Information Security and Privacy, ACISP 2013, held in Brisbane, Australia, in July 2013. The 28 revised full papers presented were carefully selected from 78 submissions. Conference papers are organized in technical sessions, covering topics of Cryptanalysis, RSA, Lattices and Security Proofs, Public Key Cryptography, Hashing, Signatures, Passwords, Mobile Security, and Secret Sharing.

Contents
Analysing the IOBC authenticated encryption mode.- A Chosen IV Related Key Attack on Grain.- Cryptanalysis of Helix and Phelix Revisited.- Toward Separating the Strong Adaptive Pseudo-Freeness from the Strong RSA Assumption.- Minkowski sum based lattice construction for multivariate simultaneous.- Coppersmith's technique and applications to RSA.- Lattices and security proofs.- Adaptive Precision Floating Point LL.- Better Lattice Constructions for Solving Multivariate Linear Equations over Modulo Unknown Divisors.- Key Dependent Message Chosen-Ciphertext Security of the Cramer-Shoup [...] [More...] [Fields of interest] Systems and Data Security; Data Encryption; Management of Computing and Information Systems; Coding and Information Theory; Computer Appl. in Administrative Data Processing; e-commerce / e-business

Target groups
Professional/practitioner

Type of publication
Proceedings

More on www.springer.com/978-3-642-38369-4

Softcover
2013. XII, 437 p. 70 illus. (Security and Cryptology, Vol. 137)

43,99 €
ISBN 978-3-642-4425-7

Usually dispatched within 3 to 5 business days.

Java EE 7 Recipes
A Problem-Solution Approach

Java EE 7 Recipes takes an example-based approach in showing how to program Enterprise Java applications in many different scenarios. Be it a small-business web application, or an enterprise database application, Java EE 7 Recipes provides effective and proven solutions to accomplish just about any task that you may encounter. You can feel confident using the reliable solutions that are demonstrated in this book in your personal or corporate environment. The solutions in Java EE 7 Recipes are built using the most current Java Enterprise specifications, including EJB 3.2, JSF 2.2, Expression Language 3.0, Servlet 3.1, and JMS 2.0. While older technologies and frameworks exist, it is [...] [More...] [Fields of interest] Computer Science (general)

Target groups
Popular/general

Type of publication
Professional book

More on www.springer.com/978-1-4302-4435-7

Softcover
2013. XII, 699 p.

43,99 €
ISBN 978-1-4302-4425-7

Usually dispatched within 3 to 5 business days.
JavaScript Programmer’s Reference

JavaScript Programmer’s Reference is an invaluable resource that won’t stray far from your desktop (or your tablet!). It contains detailed information on every JavaScript object and command, and combines that reference with practical examples showcasing how you can use those commands in the real world. Whether you’re just checking the syntax of a method or you’re starting out on the road to JavaScript mastery, the JavaScript Programmer’s Reference will be an essential aid. With a detailed and informative tutorial section giving you the ins and outs of programming with JavaScript and the DOM followed by a command-by-command reference, your next project will pop with interactivity and [...] [30]

Learn Cocoa on the Mac

The Cocoa frameworks are some of the most powerful for creating native OS X apps available today. However, for a first-time Mac developer, just firing up Xcode 4 and starting to browse the documentation can be a daunting and frustrating task. The Objective-C class reference documentation alone would fill thousands of printed pages, not to mention all the other tutorials and guides included with Xcode. Where do you start? Which classes are you going to need to use? How do you use Xcode and the rest of the tools? Learn Cocoa for the Mac, Second Edition, completely revised for OS X Mountain Lion and Xcode 4, answers these questions and more, helping you find your way through the jungle [...] [30]

Learning C# by Programming Games

C# is the language of choice for learning how to program. It is a very well structured object-oriented language and avoids some of the problems of Java. An excellent free programming environment is available for C#, as well as a game programming framework. And (if necessary) moving from C# to C++ is easy. Developing computer games is a perfect way to learn how to program in modern programming languages. This book teaches how to program in C# through the creation of computer games – and without requiring any previous programming experience. Contrary to most programming books, Egges, Fokker and Overmars do not organize the presentation according to programming language constructs, but [...] [30]

Fields of interest

Target groups

Type of publication

More on www.springer.com/978-1-4302-4629-9

Softcover

2013. XX, 296 p.
39.59 €
Usually dispatched within 3 to 5 business days.

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The Cocoa frameworks are some of the most powerful for creating native OS X apps available today. However, for a first-time Mac developer, just firing up Xcode 4 and starting to browse the documentation can be a daunting and frustrating task. The Objective-C class reference documentation alone would fill thousands of printed pages, not to mention all the other tutorials and guides included with Xcode. Where do you start? Which classes are you going to need to use? How do you use Xcode and the rest of the tools? Learn Cocoa for the Mac, Second Edition, completely revised for OS X Mountain Lion and Xcode 4, answers these questions and more, helping you find your way through the jungle [...] [30]

Features

JavaScript Programmer’s Reference is an invaluable resource that won’t stray far from your desktop (or your tablet!). It contains detailed information on every JavaScript object and command, and combines that reference with practical examples showcasing how you can use those commands in the real world. Whether you’re just checking the syntax of a method or you’re starting out on the road to [...] [30]

Fields of interest

Target groups

Type of publication

More on www.springer.com/978-1-4302-4542-1

Softcover

2013. XXIII, 398 p.
29.95 €
ISBN 978-1-4302-4542-1
Usually dispatched within 3 to 5 business days.

Learning C# by Programming Games

C# is the language of choice for learning how to program. It is a very well structured object-oriented language and avoids some of the problems of Java. An excellent free programming environment is available for C#, as well as a game programming framework. And (if necessary) moving from C# to C++ is easy. Developing computer games is a perfect way to learn how to program in modern programming languages. This book teaches how to program in C# through the creation of computer games – and without requiring any previous programming experience. Contrary to most programming books, Egges, Fokker and Overmars do not organize the presentation according to programming language constructs, but [...] [30]

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Fields of interest

Target groups

Type of publication

More on www.springer.com/978-3-642-36579-9

Hardcover

2013. XXII, 443 p. 97 illus., 30 illus. in color.
44.99 €
ISBN 978-3-642-36579-9
Usually dispatched within 3 to 5 business days.
Linguistic Identity Matching

Regulation, risk awareness and technological advances are increasingly drawing identity search functionality into business, security and data management processes, as well as fraud investigations and counter-terrorism measures. Over the years, a number of techniques have been developed for searching identity data, traditionally focusing on logical algorithms. These techniques often failed to take into account the complexities of language and culture that provide the rich variations seen in names used around the world. A new paradigm has now emerged for understanding the way that identity data should be searched. This new approach focuses on understanding the influences that languages,[…]

Contents

Fields of interest
Language Translation and Linguistics; Information Systems Applications (incl.Internet)

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-8348-1370-1

Managing Requirements Knowledge

Requirements engineering is one of the most complex and at the same time most crucial aspects of software engineering. It typically involves different stakeholders with different backgrounds. Constant changes in both the problem and the solution domain make the work of the stakeholders extremely dynamic. New problems are discovered, additional information is needed, alternative solutions are proposed, several options are evaluated, and new hands-on experience is gained on a daily basis. The knowledge needed to define and implement requirements is immense, often interdisciplinary and constantly expanding. It typically includes engineering, management and collaboration information, as[…]

Features
Requirements engineering is one of the most complex and at the same time most crucial aspects of software engineering. It typically involves different stakeholders with different backgrounds. Constant changes in both the problem and the solution domain make the work of the stakeholders extremely dynamic. New problems are discovered, additional information is needed, alternative solutions are proposed,[…]

Contents

Fields of interest
Software Engineering; Management of Computing and Information Systems; Artificial Intelligence (incl.Robotics); Information Systems Applications (incl.Internet); Technology Management

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-34418-3

Model-based Health Monitoring of Hybrid Systems

This book systematically presents a comprehensive framework and effective techniques for in-depth analysis, clear design procedure, and efficient implementation of diagnosis and prognosis algorithms for hybrid systems. It offers an overview of the fundamentals of diagnosis/prognosis and hybrid bond graph modeling. This book also describes hybrid bond graph-based quantitative fault detection, isolation and estimation. Moreover, it also presents strategies to track the system mode and predict the remaining useful life under multiple fault condition. A real world complex hybrid system—a vehicle steering control system—is studied using the developed fault diagnosis methods to show[…]

Features
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Contents

Fields of interest
System Performance and Evaluation; Control; Complexity; Robotics and Automation

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-7368-8

Hardcover
2013. XII, 297 p. 246 illus.
94,99 €
ISBN 978-1-4614-7368-8
Usually dispatched within 3 to 5 business days.
Modelling Foundations and Applications

9th European Conference, ECMFA 2013, Montpellier, France, July 1-5, 2013, Proceedings

This book constitutes the proceedings of the 9th European Conference on Modelling Foundations and applications, ECMFA 2013, held in Montpellier, France, in July 2013. The 15 papers presented in this volume were carefully reviewed and selected from 51 submissions. They are on all aspects of MDE, including topics such as model querying, consistency checking, model transformation; and model-based systems engineering and domain-specific modeling.

Features
This book constitutes the proceedings of the 9th European Conference on Modelling Foundations and applications, ECMFA 2013, held in Montpellier, France, in July 2013. The 15 papers presented in this volume were carefully reviewed and selected from 51 submissions. They are on all aspects of MDE, including topics such as model querying, consistency checking, model transformation; and model-based systems [...]
Network Science and Cybersecurity

Network Science and Cybersecurity introduces new research and development efforts for cybersecurity solutions and applications taking place within various U.S. Government Departments of Defense, industry and academic laboratories. This book examines new algorithms and tools, technology platforms and reconfigurable technologies for cybersecurity systems. Anomaly-based intrusion detection systems (IDS) are explored as a key component of any general network intrusion detection service, complementing signature-based IDS components by attempting to identify novel attacks. These attacks may not yet be known or have well-developed signatures. Methods are also suggested to simplify the [...] Features

Network Science and Cybersecurity introduces new research and development efforts for cybersecurity solutions and applications taking place within various U.S. Government Departments of Defense, industry and academic laboratories. This book examines new algorithms and tools, technology platforms and reconfigurable technologies for cybersecurity systems. Anomaly-based intrusion detection [...] Contents


Systems and Data Security; Computer Communication Networks; Data Encryption; Data Structures, Cryptology and Information Theory; Communications Engineering, Networks Target groups

Professional/practitioner Type of publication

Contributed volume More on www.springer.com/978-1-4614-7596-5 Hardcover


Next-Generation Wireless Technologies

4G and Beyond

This comprehensive text/reference examines the various challenges to secure, efficient and cost-effective next-generation wireless networking. Topics and features: presents the latest advances, standards and technical challenges in a broad range of emerging wireless technologies; discusses cooperative and mesh networks, delay tolerant networks, and other next-generation networks such as LTE; examines real-world applications of vehicular communications, broadband wireless technologies, RFID technology, and energy-efficient wireless communications; introduces developments towards the ‘Internet of Things’ from both a communications and a service perspective; discusses the [...] Features

Fourth-generation (4G) or long-term evolution (LTE) technology offers the promise of even smarter computing and multimedia applications which will be available anywhere, at any time. This comprehensive text/reference presents a detailed review of the pioneering research underpinning this emerging technological revolution. The book also examines the various challenges to secure, efficient and [...] Contents


Fields of interest

Computer Communication Networks Target groups

Research Type of publication

Contributed volume More on www.springer.com/978-1-4471-5163-0 Hardcover

Open Source Software: Quality Verification
9th IFIP WG 2.13 International Conference, OSS 2013, Koper-Capodistria, Slovenia, June 25-28, 2013, Proceedings

This book constitutes the refereed proceedings of the 9th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2013, held in Koper-Capodistria, Slovenia, in June 2013. The 18 revised full papers and 3 short papers presented were carefully reviewed and selected. The papers are organized in topical sections on innovation and sustainability; practices and methods; FOSS technologies; security and open standards; and business models and licensing.

Features
This book constitutes the refereed proceedings of the 9th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2013, held in Koper-Capodistria, Slovenia, in June 2013. The 18 revised full papers and 3 short papers presented were carefully reviewed and selected. The papers are organized in topical sections on innovation and sustainability; practices and methods; FOSS technologies; security and open standards; and business models and licensing.

Contents

Fields of interest
Legal Aspects of Computing; Software Engineering; Management of Computing and Information Systems; Computers and Society; Computers and Education

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38927-6

Parallel Programming


This book constitutes the thoroughly refereed post-conference proceedings of the 4th International Workshop on Optical SuperComputing, OSC 2012, held in Bertinoro, Italy, in July 2012. The 11 papers presented together with 11 invited papers were carefully reviewed and selected for inclusion in this book. Being an annual forum for research presentations on all facets of optical computing for solving hard computation tasks, OCS addresses the following topics of interest: design of optical computing devices, electro-optic devices for interacting with optical computing devices, practical implementations, analysis of existing devices and case studies, optical and laser switching.[...]

Features
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Contents

Fields of interest
Computing Methodologies; Quantum Information Technology; Spintronics; Quantum Physics; Quantum Optics; Quantum Electronics; Nonlinear Optics; Laser Technology and Physics; Photonics; Theory of Computation

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38249-9

Hardcover
2013. XIX, 277 p. 67 illus. (IFIP Advances in Information and Communication Technology, Vol. 404) 92.00 €
ISBN 978-3-642-38927-6

Usually dispatched within 3 to 5 business days.

Softcover
2013. X, 137 p. 84 illus. (Theoretical Computer Science and General Issues, Vol. 7715) 46.00 €
ISBN 978-3-642-38249-9

Usually dispatched within 3 to 5 business days.
**Pattern Recognition in Bioinformatics**

8th IAPR International Conference, PRIB 2013, Nice, France, June 17-20, 2013. Proceedings

This book constitutes the refereed proceedings of the 8th IAPR International Conference on Pattern Recognition in Bioinformatics, PRIB 2013, held in Nice, France, in June 2013. The 25 revised full papers and two keynotes presented were carefully reviewed and selected from 81 submissions and are organized in topical sections on bio-molecular networks and pathway analysis; learning, classification, and clustering; data mining and knowledge discovery; protein: structure, function, and interaction; motifs, sites, and sequence analysis.

**Features**
- This book constitutes the refereed proceedings of the 8th IAPR International Conference on Pattern Recognition in Bioinformatics, PRIB 2013, held in Nice, France, in June 2013. The 25 revised full papers and two keynotes presented were carefully reviewed and selected from 81 submissions and are organized in topical sections on bio-molecular networks and pathway analysis; learning, classification, and clustering; data mining and knowledge discovery; protein: structure, function, and interaction; motifs, sites, and sequence analysis.

**Fields of interest**
- Computational Biology / Bioinformatics; Health Informatics; Pattern Recognition; Algorithm Analysis and Problem Complexity; Artificial Intelligence (incl. Robotics)

**Target groups**
- Research

**Type of publication**
- Proceedings

More on www.springer.com/978-3-642-39158-3

**Softcover**
- 2013. XIX, 290 p. 71 illus. (Lecture Notes in Bioinformatics, Vol. 7986)
- 54,00 €
- ISBN 978-3-642-39158-3
- Usually dispatched within 3 to 5 business days.

**Perspectives on the Future of Software Engineering**

Essays in Honor of Dieter Rombach

The dependence on quality software in all areas of life is what makes software engineering a key discipline for today’s society. Thus, over the last few decades it has been increasingly recognized that it is particularly important to demonstrate the value of software engineering methods in real-world environments, a task which is the focus of empirical software engineering. One of the leading protagonists of this discipline worldwide is Prof. Dr. Dr. h.c. Dieter Rombach, who dedicated his entire career to empirical software engineering. For his many important contributions to the field he has received numerous awards and recognitions, including the U.S. National Science Foundation’s[...]

**Contents**

**Fields of interest**
- Software Engineering; Management of Computing and Information Systems

**Target groups**
- Research

**Type of publication**
- Monograph

More on www.springer.com/978-3-642-37394-7

**Hardcover**
- 2013. XVI, 366 p. 34 illus., 1 illus. in color.
- 94,99 €
- ISBN 978-3-642-37394-7
- Usually dispatched within 3 to 5 business days.
Pro Arduino

So, you’ve created a few projects with Arduino, and now it’s time to kick it up a notch. Where do you go next? With Pro Arduino, you’ll learn about new tools, techniques, and frameworks to make even more ground-breaking, eye-popping projects. You’ll discover how to make Arduino-based gadgets and robots interact with your mobile phone. You’ll learn all about the changes in Arduino 1.0, you’ll create amazing output with openFrameworks, and you’ll learn how to make games with the GameDuino. You’ll also learn advanced topics, such as modifying the Arduino to work with non-standard Atmel chips and Microchip’s PIC32.

R. Anderson, an experienced Arduino developer and instructor, and Dan[...]

Features

So, you’ve created a few projects with Arduino, and now it’s time to kick it up a notch. Where do you go next? With Pro Arduino, you’ll learn about new tools, techniques, and frameworks to make even more ground-breaking, eye-popping projects. You’ll discover how to make Arduino-based gadgets and robots interact with your mobile phone. You’ll learn all about the changes in Arduino 1.0, you’ll[...]

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book

More on www.springer.com/978-1-4302-3939-0

Softcover

2013. 316 p.
35.19 €
ISBN 978-1-4302-3939-0
Usually dispatched within 3 to 5 business days.

Pro SharePoint 2013 Administration

Pro SharePoint 2013 Administration is a practical guide to SharePoint 2013 for intermediate to advanced SharePoint administrators and power users, covering the out-of-the-box feature set and capabilities of Microsoft’s collaboration and business productivity platform. SharePoint 2013 is an incredibly complex product, with many moving parts, new features, best practices, and ‘gotchas.’

Author Rob Garrett distills SharePoint’s portfolio of features, capabilities, and utilities into an in-depth professional guide with no fluff and copious advice that is designed from scratch to be the manual Microsoft never wrote. Starting with a detailed deployment and initial configuration[...]

Features

Pro SharePoint 2013 Administration is a practical guide to SharePoint 2013 for intermediate to advanced SharePoint administrators and power users, covering the out-of-the-box feature set and capabilities of Microsoft’s collaboration and business productivity platform. SharePoint 2013 is an incredibly complex product, with many moving parts, new features, best practices, and ‘gotchas.’

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book


Softcover

37.95 €
Usually dispatched within 3 to 5 business days.

Pro SharePoint 2013 Branding and Responsive Web Development

Pro SharePoint 2013 Branding and Responsive Web Development is the definitive reference on the technologies, tools, and techniques needed for building responsive websites and applications with SharePoint 2013. The book focuses on solutions that provide the best browser experience for the myriad of devices, browsers, and screen orientations and resolutions. Web technology has changed considerably in the past few years. Microsoft has embraced the new generation of open standards represented by HTML5 and JavaScript, and these changes are represented in a fundamental shift in how SharePoint 2013 supports web content management and publishing.

Authors Eric Overfield, Oscar Medina, Kanwal[...]

Features

Pro SharePoint 2013 Branding and Responsive Web Development is the definitive reference on the technologies, tools, and techniques needed for building responsive websites and applications with SharePoint 2013. The book focuses on solutions that provide the best browser experience for the myriad of devices, browsers, and screen orientations and resolutions. Web technology has changed[...]

Fields of interest

Computer Science (general)

Target groups

Popular/general

Type of publication

Professional book


Softcover

37.95 €
Usually dispatched within 3 to 5 business days.
Pro Team Foundation Service

Pro Team Foundation Service gives you a jump-start into Microsoft®’s cloud-based Application Lifecycle Management platform, taking you through the different stages of software development. Every project needs to plan, develop, test and release software and with agile practices often at a higher pace than ever before. Microsoft’s Team Foundation Service is a cloud-based platform that gives you tools for agile planning and work tracking. It has a code repository that can be used not only from Visual Studio but from Java platforms and Mac OS X. The testing tools allow testers to start testing at the same time as developers start developing. The book also covers how to set up automated[...]

Features

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Real World Windows 8 Development

Real World Windows 8 Development is a developer's handbook - an essential guide to building complete, end-user ready Windows 8 applications on the XAML and C# programming stack from start to finish. Starting with Windows 8 basics and walking through practical aspects of building your Windows 8 application, you'll find step-by-step instructions and practical advice that will leave you with a modern, elegant app written to the highest of standards. Author Samidip Basu, an early adopter of Windows 8 app development techniques, breaks down the design, development, and polish of a real-world business application, adding handy tips and tricks around controls, user interface design,[...]

Features
Real World Windows 8 Development is a developer's handbook - an essential guide to building complete, end-user ready Windows 8 applications on the XAML and C# programming stack from start to finish. Starting with Windows 8 basics and walking through practical aspects of building your Windows 8 application, you'll find step-by-step instructions and practical advice that will leave you with a [...]

Fields of interest
Computer Science (general)

Target groups
Computer Science (general)

Type of publication
Research

Softcover
2013. 492 p.
37.95 €
ISBN 978-1-4302-5025-8

Usually dispatched within 3 to 5 business days.

Reversible Computation

5th International Conference, RC 2013, Victoria, BC, Canada, July 4-5, 2013. Proceedings

This book constitutes the refereed proceedings of the 5th International Conference on Reversible Computation, RC 2013, held in Victoria, BC, Canada, in July 2013. The 19 contributions presented together with one invited paper were carefully reviewed and selected from 37 submissions. The papers are organized in topical sections on physical implementation; arithmetic; programming and data structures; modelling; synthesis and optimization; and alternative technologies.

Features
This book constitutes the refereed proceedings of the 5th International Conference on Reversible Computation, RC 2013, held in Victoria, BC, Canada, in July 2013. The 19 contributions presented together with one invited paper were carefully reviewed and selected from 37 submissions. The papers are organized in topical sections on physical implementation; arithmetic; programming and data structures; modelling; [...]
F. Khendek, Concordia University, Montréal, Canada; M. Toeroe, Ericsson, Mont-Royal, Canada; A. Gherbi, École de Technologie Supérieure, Montréal, Canada; R. Reed, Telecommunications Software, Windermere, United Kingdom (Eds.)

SDL 2013: Model Driven Dependability Engineering

16th International SDL Forum, Montreal, Canada, June 26-28, 2013, Proceedings

This book constitutes the refereed proceedings of the 16th System Design Languages Forum, SDL 2013, held in Montreal, QC, Canada, in June 2013. The 16 revised, high-quality, full papers presented were carefully reviewed and selected from 30 submissions. The papers are organized in topical sections on verification and testing; domain specific languages; model transformation; specification and description language and evolution.

Features

This book constitutes the refereed proceedings of the 16th System Design Languages Forum, SDL 2013, held in Montreal, QC, Canada, in June 2013. The 16 revised, high-quality, full papers presented were carefully reviewed and selected from 30 submissions. The papers are organized in topical sections on verification and testing; domain specific languages; model transformation; specification and description language and evolution.

Contents

Verification and testing; Domain specific languages; Model transformation; Specification and description language; Evolution.

Fields of interest

Computer Systems Organization and Communication Networks; Software Engineering; Logics and Meanings of Programs; Programming Languages, Compilers, Interpreters; Computer Communication Networks; Management of Computing and Information Systems

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38910-8

Softcover
54,00 €
ISBN 978-3-642-38910-8
Usually dispatched within 3 to 5 business days.

Safe and Secure Software Reuse

13th International Conference on Software Reuse, ICSR 2013, Pisa, Italy, June 18-20, 2013, Proceedings

This book constitutes the refereed proceedings of the 13th International Conference on Software Reuse, ICSR 2013, held in Pisa, Italy, in June 2013. The 27 papers (18 full and 9 short papers) presented were carefully reviewed and selected from various submissions. The papers are organized in topical sections on feature modeling and variability analysis; reuse and testing; architecture and reuse; analysis for reuse; reuse and patterns; short papers, emerging ideas and trends.

Features

This book constitutes the refereed proceedings of the 13th International Conference on Safe and Secure Software Reuse, ICSR 2013, held in Pisa, Italy, in June 2013. The 27 papers (18 full and 9 short papers) presented were carefully reviewed and selected from various submissions. The papers are organized in topical sections on feature modeling and variability analysis; reuse and testing; architecture and reuse; analysis for reuse; reuse and patterns; short papers, emerging ideas and trends.

Contents

Feature modeling and variability analysis; Reuse and testing; Architecture and reuse; Analysis for reuse; Reuse and patterns; short papers; Emerging ideas and trends.

Fields of interest

Software Engineering; Programming Techniques; Programming Languages, Compilers, Interpreters; Software Engineering / Programming and Operating Systems; Models and Principles

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-642-38976-4

Softcover
54,00 €
ISBN 978-3-642-38976-4
Usually dispatched within 3 to 5 business days.

Semantic Web and Web Science

The book will focus on exploiting state of the art research in semantic web and web science. The rapidly evolving world-wide-web has led to revolutionary changes in the whole of society. The research and development of the semantic web covers a number of global standards of the web and cutting edge technologies, such as: linked data, social semantic web, semantic web search, smart data integration, semantic web mining and web scale computing. These proceedings are from the 6th Chinese Semantic Web Symposium.

Features

Semantic Web and Web Science focuses on exploring state of the art research in semantic web and web science. The rapidly evolving World Wide Web has led to revolutionary changes in the whole of society. The research and development of the semantic web covers a number of global standards of the web and cutting edge technologies, such as: linked data, social semantic web, semantic web search, smart data integration, semantic web mining and web scale computing.

Contents

Preface; Enhancing Software Search with Semantic Information from Wikipedia; Using Semantic Technology to Improve Recommender Systems Based on Slope One; Finding, Extracting and Building Academic Linked Data; Proactive Recommendation Based on EL Concept Learning; Impact of Multimedia in Sina Weibo: Popularity and Life Span; Ontology-based Model and Procedure Creation for Topic Analysis; On the Temporal Dynamics of Influence on the Social Semantic Web; A Detailed Analysis of the Quality of Stream-Based Schema Construction on Linked Open Data; Building Large Scale Knowledge Bases; [...]
Seminal Contributions to Information Systems Engineering

25 Years of CAiSE

In 2013, the International Conference on Advance Information Systems Engineering (CAiSE) turns 25. Initially launched in 1989, for all these years the conference has provided a broad forum for researchers working in the area of Information Systems Engineering. To reflect on the work done so far and to examine prospects for future work, the CAiSE Steering Committee decided to present a selection of seminal papers published for the conference during these years and to ask their authors, all prominent researchers in the field, to comment on their work and how it has developed over the years. The scope of the papers selected covers a broad range of topics related to modeling and designing.[…]

Features
In 2013, the International Conference on Advance Information Systems Engineering (CAiSE) turns 25. Initially launched in 1989, for all these years the conference has provided a broad forum for researchers working in the area of Information Systems Engineering. To reflect on the work done so far and to examine prospects for future work, the CAiSE Steering Committee decided to present a selection of seminal […]

Contents
SmartShadow: Models and Methods for Pervasive Computing

SmartShadow: Models and Methods for Pervasive Computing offers a new perspective on pervasive computing with SmartShadow, which is designed to model a user as a personality “shadow” and to model pervasive computing environments as user-centric dynamic virtual personal spaces. Just like human beings’ shadows in the physical world, it follows people wherever they go, providing them with pervasive services. The model, methods, and software infrastructure for SmartShadow are presented and an application for smart cars is also introduced. The book can serve as a valuable reference work for researchers and graduate students in the field of pervasive/ubiquitous computing. Zhaohui Wu is a...[—]

Features
SmartShadow: Models and Methods for Pervasive Computing offers a new perspective on pervasive computing with SmartShadow, which is designed to model a user as a personality “shadow” and to model pervasive computing environments as user-centric dynamic virtual personal spaces. Just like human beings’ shadows in the physical world, it follows people wherever they go, providing them with pervasive...[—]

Contents
SmartShadow Model.- Task Migration in SmartShadow.- Context-Awareness in SmartShadow.- File Modeling in SmartShadow.- ScudWare: Software Infrastructure for SmartShadow.- Smart Car Space: An Application.

Fields of interest
Software Engineering; Computer Communication Networks; Information Systems and Communication Service; User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-36381-8

Distribution rights in China: Zhejiang University Press, Hangzhou
Hardcover
Jointly published with Zhejiang University Press, Hangzhou
2013 IX, 130 p. 59 illus. (Advanced Topics in Science and Technology in China)
84,99 €
ISBN 978-3-642-36381-8
Usually dispatched within 3 to 5 business days.
Systems and Software Variability Management

Concepts, Tools and Experiences

The success of product line engineering techniques in the last 15 years has popularized the use of software variability as a key modeling approach for describing the commonality and variability of systems at all stages of the software lifecycle. Software product lines enable a family of products to share a common core platform, while allowing for product specific functionality being built on top of the platform. Many companies have exploited the concept of software product lines to increase the resources that focus on highly differentiating functionality and thus improve their competitiveness with higher quality and reusable products and decreasing the time-to-market condition. Many (…)

Features

The success of product line engineering techniques in the last 15 years has popularized the use of software variability as a key modeling approach for describing the commonality and variability of systems at all stages of the software lifecycle. Software product lines enable a family of products to share a common core platform, while allowing for product specific functionality being built on top of the […]

Contents


Fields of interest

Software Engineering; Management of Computing and Information Systems

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-36582-9

Hardcover

2013. XIV, 317 p. 93 illus., 1 illus. in color.

ISBN 978-3-642-36582-9

Usually dispatched within 3 to 5 business days.
Theory and Practice of Computation

2nd Workshop on Computation: Theory and Practice, Manila, The Philippines, September 2012, Proceedings

This book comprises the refereed proceedings of the Workshop on Computation: Theory and Practice (WCTP) – 2012, held in Manila, The Philippines, in September 2012. The workshop was organized by the Tokyo Institute of Technology, the Institute of Scientific and Industrial Research–Osaka University, the University of the Philippines Diliman, and De La Salle University–Manila and was devoted to theoretical and practical approaches to computation. The 22 revised full papers presented in this volume were carefully reviewed. They deal with biologically inspired computational modeling, programming language theory, advanced studies in networking, and empathic computing.

Features
This book comprises the refereed proceedings of the Workshop on Computation: Theory and Practice (WCTP) – 2012, held in Manila, The Philippines, in September 2012. The workshop was organized by the Tokyo Institute of Technology, the Institute of Scientific and Industrial Research–Osaka University, the University of the Philippines Diliman, and De La Salle University–Manila and was devoted to theoretical and practical approaches to computation.

Contents
Logics and Meanings of Programs; Computational Biology / Bioinformatics; Theory of Computation; Artificial Intelligence (incl. Robotics); User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery.

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38495-0

Softcover
2013. XI, 207 p. 70 illus. (Transactions on Computational Collective Intelligence, Vol. 7848)

ISBN 978-3-642-38495-0

Usually dispatched within 3 to 5 business days.

Transactions on Computational Collective Intelligence X

These transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the Semantic Web, social networks, and multi-agent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many individuals (artificial and/or natural). The application of multiple computational intelligence technologies, such as fuzzy systems, evolutionary computation, neural systems, consensus theory, etc., aims to support human and other collective intelligence and to create new forms of CCI. [...] Fields of interest
Artificial Intelligence (incl. Robotics); Computational Intelligence; Simulation and Modeling; Computation by Abstract Devices; Information Storage and Retrieval

Target groups
Professional/practitioner

Type of publication
Proceedings

More on www.springer.com/978-3-642-38495-0

Softcover
2013. XII, 207 p. 70 illus. (Transactions on Computational Collective Intelligence, Vol. 7848)

ISBN 978-3-642-38495-0

Usually dispatched within 3 to 5 business days.

Transactions on Computational Science XVIII

Special Issue on Cyberworlds

The 18th issue of the Transactions on Computational Science journal, edited by Arjan Kuijper, is devoted to the topic of cyberworlds. The 14 papers in the volume constitute revised and extended versions of a selection of contributions presented at CW 2012, the International Conference on Cyberworlds, held in Darmstadt, Germany in September 2012. The selected papers span the areas of human path prediction, gesture-based interaction, rendering, valence levels recognition, virtual collaborative spaces, virtual environment, emotional attention, virtual palpation, sketch-book design, animation, and avatar-face recognition.

Features
The 18th issue of the Transactions on Computational Science journal, edited by Arjan Kuijper, is devoted to the topic of cyberworlds. The 14 papers in the volume constitute revised and extended versions of a selection of contributions presented at CW 2012, the International Conference on Cyberworlds, held in Darmstadt, Germany in September 2012. The selected papers span the areas of human path prediction, [...] Contents
User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics); Computers and Education; Computer Imaging, Vision, Pattern Recognition and Graphics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38802-6

Softcover
2013. XVI, 265 p. 130 illus. (Transactions on Computational Science, Vol. 7848)

ISBN 978-3-642-38802-6

Usually dispatched within 3 to 5 business days.
Transactions on Pattern Languages of Programming III

The Transactions on Pattern Languages of Programming subline aims to publish papers on patterns and pattern languages as applied to software design, development, and use, throughout all phases of the software life cycle, from requirements and design to implementation, maintenance and evolution. The primary focus of this LNCS Transactions subline is on patterns, pattern collections, and pattern languages themselves. The journal also includes reviews, survey articles, criticisms of patterns and pattern languages, as well as other research on patterns and pattern languages. This book, the third volume in the Transactions on Pattern Languages of Programming series, presents five papers.[...]

Features
The Transactions on Pattern Languages of Programming subline aims to publish papers on patterns and pattern languages as applied to software design, development, and use, throughout all phases of the software life cycle, from requirements and design to implementation, maintenance and evolution. The primary focus of this LNCS Transactions subline is on patterns, pattern collections, and pattern languages.[...]

Contents
Transform! Patterns for Data Migration.- A Pattern Language for Teaching Design Patterns.- Pattern Language for the Internal Structure of Metadata-Based Frameworks.- User Interface Patterns for Multimodal Interaction.- Using Pattern-Based Architecture Reviews to Detect Quality Attribute Issues – An Exploratory Study.

Fields of interest
Software Engineering; Programming Languages, Compilers, Interpreters; Programming Techniques; Management of Computing and Information Systems

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38675-6

Softcover
2013 X, 195 p. 42 illus. (Transactions on Pattern Languages of Programming, Vol. 7840)
46,00 €
ISBN 978-3-642-38675-6
Usually dispatched within 3 to 5 business days. August 31, 2013

Trust Management VII

7th IFIP WG 11.11 International Conference, IFIPTM 2013, Malaga, Spain, June 3-7, 2013, Proceedings

This book constitutes the refereed proceedings of the 7th IFIP WG 11.11 International Conference on Trust Management, IFIPTM 2013, held in Malaga, Spain, in June 2013. The 14 revised full papers and 9 short papers presented were carefully reviewed and selected from 62 submissions. The papers cover a wide range of topics focusing on multi-disciplinary areas such as: trust models, social foundations of trust, trust in networks, mobile systems and cloud computation, privacy, reputation systems, and identity management.

Features
This book constitutes the refereed proceedings of the 7th IFIP WG 11.11 International Conference on Trust Management, IFIPTM 2013, held in Malaga, Spain, in June 2013. The 14 revised full papers and 9 short papers presented were carefully reviewed and selected from 62 submissions. The papers cover a wide range of topics focusing on multi-disciplinary areas such as: trust models, social foundations of trust, [...]...
Typed Lambda Calculi and Applications


This book constitutes the refereed proceedings of the 11th International Conference on Typed Lambda Calculi and Applications, TLCA 2013, held in Eindhoven, The Netherlands, in June 2013 as part of RDP 2013, the 7th Federated Conference on Rewriting, Deduction, and Programming, together with the 24th International Conference on Rewriting Techniques and Applications, RTA 2013, and several related events. The 15 revised full papers presented were carefully reviewed and selected from 41 submissions. The papers provide prevailing research results on all current aspects of typed lambda calculi, ranging from theoretical and methodological issues to applications in various contexts addressing [...]

Unconventional Computation and Natural Computation

12th International Conference, UCNC 2013, Milan, Italy, July 1-5, 2013, Proceedings

This book constitutes the refereed proceedings of the 12th International Conference on Unconventional Computation and Natural Computation, UCNC 2013, held in Milan, Italy, in July 2013. The 30 papers (28 full papers, 8 poster papers, and 2 invited papers) were carefully reviewed and selected from 46 submissions. The topics of the volume include: quantum, cellular, molecular, neural, DNA, membrane, and evolutionary computing; cellular automata; computation based on chaos and dynamical systems; massive parallel computation; collective intelligence; computation based on physical principles such as relativistic, optical, spatial, collision-based computing; amorphous computing; physiological [...]

Features

This book constitutes the refereed proceedings of the 11th International Conference on Typed Lambda Calculi and Applications, TLCA 2013, held in Eindhoven, The Netherlands, in June 2013 as part of RDP 2013, the 7th Federated Conference on Rewriting, Deduction, and Programming, together with the 24th International Conference on Rewriting Techniques and Applications, RTA 2013, and several related events. The [...]
Earth Sciences

A Systems Description of Flow Through Porous Media

This text forms part of material taught during a course in advanced reservoir simulation at Delft University of Technology over the past 10 years. The contents have also been presented at various short courses for industrial and academic researchers interested in background knowledge needed to perform research in the area of closed-loop reservoir management, also known as smart fields, related to e.g. model-based production optimization, data assimilation (or history matching), model reduction, or upscaling techniques. Each of these topics has connections to system-theoretical concepts. The introductory part of the course, i.e. the systems description of flow through porous media, [...] is the basis of our course.

Features
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Contents

Fields of interest
Geotechnical Engineering & Applied Earth Sciences; Appl. Mathematics / Computational Methods of Engineering; Engineering Fluid Dynamics; Energy Technology

Target groups
Graduate

Type of publication
Brief

More on www.springer.com/978-3-319-00259-0

Softcover
2013. XV, 119 p. 26 illus. (SpringerBriefs in Earth Sciences)
49,99 €
ISBN 978-3-319-00259-0
Usually dispatched within 3 to 5 business days.

Application of Nature Based Algorithm in Natural Resource Management

This book highlights the application of nature-based algorithms in natural resource management. The book includes the methodologies to apply what natural flora or fauna do to optimize their survival. The same technique was used to optimize renewable energy generation from water resources, maximization of profit from crop harvesting, forest resource management and decision-making studies. These studies can be used as an example for finding solutions of the other maximization or minimization problems which are common in natural resource management.

Features
The book describes the utility and efficiency of nature based algorithms in optimization, classification and simulation of natural resource management problems. The book deals with climate change, hydrology, renewable energy and natural ecosystems and tries to find solution to its common uncertainties so that proper mitigation steps can be undertaken to reduce both quantity and probability of such anomalies. [...] The book includes the methodologies to apply what natural flora or fauna do to optimize their survival. The same technique was used to optimize renewable energy generation from water resources, maximization of profit from crop harvesting, forest resource management and decision-making studies. These studies can be used as an example for finding solutions of the other maximization or minimization problems which are common in natural resource management.

Contents

Fields of interest
Earth System Sciences; Climate Change Management and Policy; Math. Appl. in Environmental Science; Renewable and Green Energy; Natural Conservation

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-5151-4

Hardcover
2013. XV, 341 p. 40 illus., 26 illus. in color.
99,95 €
ISBN 978-94-007-5151-4
Usually dispatched within 3 to 5 business days.

Atmospheric Effects in Space Geodesy

Various effects of the atmosphere have to be considered in space geodesy and all of them are described and treated consistently in this textbook. Two chapters are concerned with ionospheric and tropospheric path delays of microwave and optical signals used by space geodetic techniques, such as the Global Navigation Satellite Systems (GNSS), Very Long Baseline Interferometry (VLBI), or Satellite Laser Ranging (SLR). It is explained how these effects are best reduced and modelled to improve the accuracy of space geodetic measurements. Other chapters are on the deformation of the Earth’s crust due to atmospheric loading, on atmospheric excitation of Earth rotation, and on atmospheric [...]

Contents
Foreword - Preface - Acknowledgements - Geodetic and atmospheric background - Ionospheric effects on microwave signals - Path delays in the neutral atmosphere - Atmospheric pressure loading - Atmospheric effects on gravity space missions - Atmospheric effects on Earth rotation

Fields of interest
Geophysics / Geodesy; Atmospheric Sciences; Remote Sensing / Photogrammetry; Measurement Science, Instrumentation; Geophysics and Environmental Physics

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-36931-5

Hardcover
2013. XVII, 234 p. 76 illus., 53 illus. in color. (Springer Atmospheric Sciences)
69,99 €
ISBN 978-3-642-36931-5
Usually dispatched within 3 to 5 business days.
Climate Change Adaptation Actions in Bangladesh

The book outlines the climate change adaptation (CCA) actions in Bangladesh drawing examples and lessons from different projects and programs in the country. The content is based on a selection of available documents, a consultative workshop with the academicians from different universities undertaking higher education on disaster risk reduction and climate change adaptation, and the editors’ own knowledge and experience in the field. The book has four parts. Part I gives the details of climate change impacts, providing the scenarios, negotiations, and specific impacts on sea-level rise and the health sectors. Part II focuses on climate change strategy and action plans. Part III focuses on climate change strategy and action plans. Part III focuses on climate change strategy and action plans. Part IV focuses on climate change strategy and action plans. The book will be useful to individual researchers as well as graduate students for a reference in the field of data assimilation.

Features
The book outlines the climate change adaptation (CCA) actions in Bangladesh drawing examples and lessons from different projects and programs in the country. The content is based on a selection of available documents, a consultative workshop with the academicians from different universities undertaking higher education on disaster risk reduction and climate change adaptation, and the editors’ own knowledge and experience in the field.

Contents
Climate Change: Global Perspective.- Climate Change Impacts, Scenario and Vulnerability of Bangladesh.- Sea Level Rise and its Impacts in Coastal Areas of Bangladesh.- Urban Poverty, Climate Change and Health Risks for Slum Dwellers in Bangladesh.- Integration of Climate Change Adaptation, Disaster Risk Reduction and Social Protection in Bangladesh: Contemporary Views and Experiences.- National Adaptation Programme of Action.- Bangladesh Climate Change Strategy and Action Plans.- Multi Hazard Vulnerabilities of the Coastal Land of Bangladesh.- Equity and Justice Issues for Climate Change.

Fields of interest
Earth System Sciences; Climate Change Management and Policy; Sustainable Development; Human Geography

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-4-431-54248-3

Hardcover 2013, IX, 420 p. 64 illus., 54 illus. in color. (Disaster Risk Reduction)
99,99 €
ISBN 978-4-431-54248-3
Usually dispatched within 3 to 5 business days.

Data Assimilation for Atmospheric, Oceanic and Hydrologic Applications (Vol. II)

This book contains the most recent progress in data assimilation in meteorology, oceanography and hydrology including land surface. It spans both theoretical and applicative aspects with various methodologies such as variational, Kalman filter, ensemble, Monte Carlo and artificial intelligence methods. Besides data assimilation, other important topics are also covered including targeting observation, sensitivity analysis, and parameter estimation. The book will be useful to individual researchers as well as graduate students for a reference in the field of data assimilation.

Features
This book contains the most recent progress in data assimilation in meteorology, oceanography and hydrology including land surface. It spans both theoretical and applicative aspects with various methodologies such as variational, Kalman filter, ensemble, Monte Carlo and artificial intelligence methods.

Contents

Fields of interest
Atmospheric Sciences; Artificial Intelligence (incl. Robotics); K-Theory

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-35087-0

Hardcover 2013, XX, 730 p. 269 illus., 170 illus. in color. 129,99 €
ISBN 978-3-642-35087-0
Usually dispatched within 3 to 5 business days.

Disaster Risk Reduction Approaches in Bangladesh

This book outlines disaster risk reduction (DRR) approaches in Bangladesh, drawing examples and lessons from the national and community-level programs, projects, and relevant experiences of the country. The content is based on a selection of available documents, a consultative workshop with academicians from different universities undertaking DRR higher education programs, and the editors’ own knowledge and experience in the field. Special emphasis is given to analyzing field experiences from academic perspectives, and to highlighting key issues and the policy relevance of disaster risk reduction. The book has three parts: Part I provides the outline and basics of DRR, while...

Features
This book outlines disaster risk reduction (DRR) approaches in Bangladesh, drawing examples and lessons from the national and community-level programs, projects, and relevant experiences of the country. The content is based on a selection of available documents, a consultative workshop with academicians from different universities undertaking DRR higher education programs, and the editors’ own knowledge and experience in the field.

Contents
Disaster, Risk and Evolution of the Concept.- Understanding Vulnerability and Risks.- National Perspectives of Disaster Risk Reduction in Bangladesh.- Flood Risks and Reduction Approaches in Bangladesh.- Cyclone and Tornado Risk and Reduction Approaches in Bangladesh.- Earthquake Risk and Reduction Approaches in Bangladesh.- Drought Risk and Reduction Approaches in Bangladesh.- Landslide and Flash Flood in Bangladesh.- Arsenic Contamination in Bangladesh: Contemporary Alarm and Future Strategy.- Sea Level Rise along the Coast of Bangladesh.- Urban Risk Reduction Approaches in...

Fields of interest
Natural Hazards; Sustainable Development; Human Geography

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-4-431-54251-3

Hardcover 2013, XIX, 366 p. 82 illus., 62 illus. in color. (Disaster Risk Reduction)
99,99 €
ISBN 978-4-431-54251-3
Usually dispatched within 3 to 5 business days.
**Earth System Modelling - Volume 6**

**ESM Data Archives in the Times of the Grid**

Collected articles in this series are dedicated to the development and use of software for earth system modelling and aims at bridging the gap between IT solutions and climate science. The particular topic covered in this volume addresses the Grid software which has become an important enabling technology for several national climate community Grids that led to a new dimension of distributed data access and pre- and post-processing capabilities worldwide.

**Features**

Collected articles in this series are dedicated to the development and use of software for earth system modelling and aims at bridging the gap between IT solutions and climate science. The particular topic covered in this volume addresses the Grid software which has become an important enabling technology for several national climate community Grids that led to a new dimension of distributed data access and [...]  

**Contents**


**Fields of interest**

Earth Sciences (general); Data Mining and Knowledge Discovery

**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com](http://www.springer.com/978-3-642-37243-8)

**Softcover**

2013. XIX, 88 p. 126 illus., 153 illus. in color. (SpringerBriefs in Earth System Sciences)

49,99 €  
ISBN 978-3-642-37243-8

**Usually dispatched within 3 to 5 business days.**

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**Environmental Geoinformatics**

**Monitoring and Management**

There is no doubt that today, perhaps more than ever before, humanity faces a myriad of complex and demanding challenges. These include natural resource depletion and environmental degradation, food and water insecurity, energy shortages, diminishing biodiversity, increasing losses from natural disasters, and climate change with its associated potentially devastating consequences, such as rising sea levels. These human-induced and natural impacts on the environment need to be well understood in order to develop informed policies, decisions, and remedial measures to mitigate current and future negative impacts. To achieve this, continuous monitoring and management of the environment [...]  

**Features**

There is no doubt that today, perhaps more than ever before, humanity faces a myriad of complex and demanding challenges. These include natural resource depletion and environmental degradation, food and water insecurity, energy shortages, diminishing biodiversity, increasing losses from natural disasters, and climate change with its associated potentially devastating consequences, such as rising sea [...]  

**Contents**


**Fields of interest**

Geology; Natural Hazards; Climate Change Impacts; Atmospheric Sciences

**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com](http://www.springer.com/978-3-642-3084-0)

**Hardcover**

2013. XX, 541 p. 214 illus., 202 illus. in color. (Environmental Science)

129,99 €  
ISBN 978-3-642-3084-0

**Usually dispatched within 3 to 5 business days.**
Limnology of the Red Lake, Romania

An Interdisciplinary Study

The Red Lake is a natural barrier lake at the foot of the Hasmas Mare Mountains in the Eastern Carpathian Range in Romania. It was formed when the Bicaz River was blocked by a natural dam resulting from two landslides during an extreme heavy storm in 1837. This book presents an interdisciplinary and comprehensive study on the physical, chemical, geographical and ecological aspects of Red Lake (Lacu Rosu). The first three chapters cover the formation and geological setting and its relationship with the Bicaz Gorges-Haghiomas national park. Subsequent chapters present the sedimentological, morphological and hydrological evolution of this unique natural laboratory and climatological.[...]

Contents

Features
The Red Lake is a natural barrier lake at the foot of the Hasmas Mare Mountains in the Eastern Carpathian Range in Romania. It was formed when the Bicaz River was blocked by a natural dam resulting from two landslides during an extreme heavy storm in 1837. This book presents an interdisciplinary and comprehensive study on the physical, chemical, geographical and ecological aspects of Red Lake (Lacu Rosu).[...]

Orbits
2nd Order Singularity-free Solutions

The development of the orbits theory lags behind the development of satellite technology. This book provides, for the first time in the history of human satellite development, the complete third order solution of the orbits under all possible disturbances. It describes the theory of satellite orbits, derives the complete solutions of the orbital disturbances, describes the algorithms of orbits determination based on the theory, describes the applications of the theory to the phenomenon of the satellite formation physically. The subjects include: Orbits Motion Equations, Disturbance theory, Solutions of the differential Equations, Algorithms of Orbits determinations, Applications of[...]

Features
The development of the orbits theory lags behind the development of satellite technology. This book provides, for the first time in the history of human satellite development, the complete third order solution of the orbits under all possible disturbances. It describes the theory of satellite orbits, derives the complete solutions of the orbital disturbances, describes the algorithms of orbits determination[...]

Contents

Fields of interest
Geophysics / Geodesy; Extraterrestrial Physics, Space Sciences; Applications of Mathematics; Aerospace Technology and Astronautics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-32792-6

Hardcover
2013. XXIII, 426 p. 41 illus.
99,95 €
ISBN 978-3-642-32792-6
Usually dispatched within 3 to 5 business days.

Organizations’ Environmental Performance Indicators

Measuring, Monitoring, and Management

The book provides a collection of individual chapters from the participants in the OEPI project, which represent a mix of academic and practical chapters and contributions. The first part of the book is dedicated to a theoretical introduction to Organisations’ Environmental Performance Indicators and to a state-of-the-art overview in literature and practice. The second part of the book contains several chapters describing information systems and their components supporting the management of Environmental Performance Indicators, especially in inter-organizational contexts. The third part is dedicated to three case studies from practice, and the book concludes with part four, in which[...]

Features
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Contents

Fields of interest
Environmental Science and Engineering; Sustainable Development

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-32719-3

Hardcover
2013. XX, 225 p. 51 illus., 16 illus. in color. (Environmental Engineering)
99,99 €
ISBN 978-3-642-32719-3
Usually dispatched within 3 to 5 business days.
Palaeobiology of Middle Paleozioc
Marine Brachiopods

A Case Study of Extinct Organisms in Classical Paleontology

Fossil species appear to persist morphologically unchanged for long intervals of geologic time, punctuated by short bursts of rapid change as explained by the Ecological Evolutionary Units (EEUs). Here, morphological variation in Paleozoic atrypide morphology at the subfamily level (Atrypinae and Vari- atrypinae) from the Silurian and Devonian time intervals in the third Paleozoic EEU (~444–359 my) were investigated using relatively new techniques of quantitative modeling. The study explains how a group of closely related taxa in atrypide subfamilies exhibit morphological conservation through time in P3 EEU within the Eastern North America region.

Features
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Advances in Advertising Research (Vol. IV)

The Changing Roles of Advertising

Advances in Advertising Research are published by the European Advertising Academy (EAA). This volume is a compilation of research presented at the 11th International Conference in Advertising (ICORIA) which was held in Stockholm (Sweden) in June 2012. The conference gathered 150 leading researchers from 22 countries under the conference theme “The changing roles of advertising”. The book provides international state-of-the-art research with 30 articles by renowned scholars from the worldwide ICORIA network.

Features

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Contents


Fields of interest

Marketing

Target groups

Research

Type of publication

Monograph


Hardcover

2013. XII, 407 p. 42 illus. (European Advertising Academy)

79.99 €


Usually dispatched within 3 to 5 business days.
Business Information Systems

16th International Conference, BIS 2013, Poznań, Poland, June 19-21, 2013, Proceedings

This book contains the refereed proceedings of the 16th International Conference on Business Information Systems, BIS 2013, held in Poznań, Poland, in June 2013. The theme of this year’s conference was "Business Applications on the Move," reflecting the growing usage of mobile devices in business applications and its repercussions on business processes and information management. The 18 revised full papers were carefully reviewed and selected from 52 submissions. They are grouped into six sections on modern enterprises and mobile ERP, business models and BPM, linked data and ontologies, recommendations and content analysis, knowledge discovery, and IT frameworks and systems architecture.

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Contents

Fields of interest
Business Information Systems; Information Systems Applications (incl.Internet); Information Storage and Retrieval

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-38365-6

Softcover
2013, XIV, 223 p. 71 illus. (Lecture Notes in Business Information Processing, Vol. 157)
46,00 €
ISBN 978-3-642-38365-6

Usually dispatched within 3 to 5 business days.

Casinonomics
The Socioeconomic Impacts of the Casino Industry

Casinonomics provides a comprehensive analysis of the economic and social impacts of the casino industry. Examining the latest cutting-edge research, with a mix of theory and empirical evidence, Casinonomics informs the reader on the most important facets at the forefront of the public policy debate over this controversial industry. While the casino industry has continued to expand across the United States, and around the world, critics argue that casinos bring negative social impacts that offset any economic benefits. Casinonomics examines the evidence on the frequently claimed benefits and costs stemming from expansions in the casino industry, including the impact on economic[...]

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Contents
Introduction.- PART I: Economic benefits from commercial casinos.- Casinos and economic growth.- Gambling, consumer behavior, and welfare.- Misconceptions about casinos and economic growth.- Analysis of the relationship between casinos and economic growth.- Recent evidence on casinos and economic growth.- The impact of casinos on state tax revenues.- Overview of Part I.- PART II: Disorder gambling and related behaviors.- Casinos and drunk driving fatalities.- Gambling, crime, binge drinking, drug use, and hiring prostitutes.- Gambling and attention deficit hyperactivity disorder.-[...]

Fields of interest
Economics; Economic Policy; Management/Business for Professionals

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4614-7122-6

Hardcover
2013, XV, 297 p. 25 illus., 2 illus. in color. (Management for Professionals)
59,99 €

Usually dispatched within 3 to 5 business days.

Climate-Smart Technologies
Integrating Renewable Energy and Energy Efficiency in Mitigation and Adaptation Responses

The book addresses the perceived need for a publication with looks at both, climate smart technologies and the integration of renewable energy and energy efficiency in mitigation and adaptation responses. Based on a set of papers submitted as part of the fifth on-line climate conference (CLIMATE 2012) and a major conference on renewable energy on island States held in Mauritius in 2012, the book provides a wealth of information on climate change strategies and the role of smart technologies. The book has been produced in the context of the project ‘Small Developing Island Renewable Energy Knowledge and Technology Transfer Network’ (DIREKT), funded by the ACP Science and Technology[...]

Features
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Contents

Fields of interest
Environmental Economics; Climate Change Management and Policy; Energy Policy; Economics and Management; Renewable and Green Energy; Climate Change

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-642-37752-5

Hardcover
2013, XII, 628 p. 250 illus. (Management for Professionals)
169,99 €
ISBN 978-3-642-37752-5

Usually dispatched within 3 to 5 business days.
K. Tanner

**Common Sense**

Get It, Use It, and Teach It in the Workplace

*He may have an MBA, but he’s got no common sense.* Assessments like that by a boss can stop a career dead in its tracks. Unfortunately, many believe that common sense is a trait you are either born with or you are not. This book dispels that myth. Through the pages of Common Sense: Get It, Use It, and Teach It in the Workplace readers will learn not only what common sense is, but how to acquire it and use it to enhance their careers, increase their confidence, and take better advantage of business opportunities. Common Sense explores the use and non-use of common sense in the workplace and the world around us. It shows how you can become a person of great wisdom and good judgment [...] 

**Features**

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**Fields of interest**

Business & Management Science

**Target groups**

Popular/general

**Type of publication**

Professional book


**Softcover**

2013. 180 p. 17.59 €


**Usually dispatched within 3 to 5 business days.**

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J. Korak-Bereźnicka, Faculty of Management, Sopot, Poland

**Corporate Performance**

A Ratio-Based Approach to Country and Industry Analyses

This book presents the comparative evaluation of international and industrial factors affecting the financial condition of enterprises. In the theoretical part, the results of previous research on the occurrence of the country and industry effect in the financial health of companies are reviewed. The aim of the empirical study is to determine such factors – national or industrial ones – that have a greater impact on the corporate performance in the selected European Union countries. Corporate performance is measured and described with the use of a large set of fundamental ratios. Corporate performance is therefore treated as a more complex matter influenced by such aspects as [...] 

**Features**

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**Fields of interest**

Business & Management Science

**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com/978-3-319-00344-3](http://www.springer.com/978-3-319-00344-3)

**Hardcover**

2013. XX, 194 p. 32 illus. (Contributions to Management Science) 99.99 €

ISBN 978-3-319-00344-3

**Usually dispatched within 3 to 5 business days.**

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P. Taticchi, University of East London, London, United Kingdom; P. Carbone, University of Perugia, Perugia, Italy; V. Albino, Politecnico University of Bari, Bari, Italy (Eds.)

**Corporate Sustainability**

Sustainability is one of the key issues in today’s society, as confirmed by the increasing attention of governments, media, academia and the industry. In the context of sustainable development, businesses that are often referred to as part of the problem can become part of the solution. This book presents the state of the art of sustainability in corporations from a number of perspectives, which include: economy, finance, measurement and reporting, organizing for sustainability, green products, green buildings and IT. The individual chapters provide valuable insights for pursuing future research and define a proper research agenda for the years to come. Further, the relevance of the [...] 

**Features**

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**Contents**


**Fields of interest**

Non-Profit Enterprises, Corporate Social Responsibility, Organization / Planning, Production / Logistics, Business Information Systems, Sustainable Development, Environmental Economics

**Target groups**

Research

**Type of publication**

Contributed volume

More on [www.springer.com/978-3-642-37017-5](http://www.springer.com/978-3-642-37017-5)

**Hardcover**

2014. XVII, 280 p. 89 illus. (CSR, Sustainability, Ethics & Governance) 129.99 €

ISBN 978-3-642-37017-5

**Usually dispatched within 3 to 5 business days.**
Design of Incentive Systems
Experimental Approach to Incentive and Sorting Effects

Monetary incentives, as a driving force for human behavior, are the main theme of this book. The primary goals underlying the application of monetary incentive systems in companies are motivating employees to strive for superior productivity in line with the interests of employers, and hiring adequately skilled employees. The first goal refers to incentive effects, the latter to sorting effects. This book introduces important theories and concepts concerning behavior under influence of monetary incentives; it reviews existing economic frameworks and identifies specific contingency variables. Based on an integrative framework of elements influencing incentive and sorting effects, [...]
Environmental Finance and Investments

The current economic and environmental situation poses fundamental questions that this book aims to answer: Under which conditions could a market-based approach contribute to a decrease in emissions? What are abatement and investment strategies generated or promoted under permit regimes like the European Union Emission Trading Scheme (EU ETS)? In the context of the EU ETS, what is the trade-off between production and pollution? This book is intended to provide students and practitioners the knowledge and theoretical tools they need in order to answer these and other more general questions in the context of so-called environmental finance theory, a new field of research.

Features

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Contents


Fields of interest

Finance / Banking; Climate Change Management and Policy; Environmental Economics

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-36622-2

Hardcover

2013. XIV, 186 p. 68 illus., 18 illus. in color. (Springer Texts in Business and Economics) 69.99 € ISBN 978-3-642-36622-2 Usually dispatched within 3 to 5 business days.

Exhibit Marketing and Trade Show Intelligence

Successful Boothmanship and Booth Design

This book serves as a helpful resource for practitioners and students of event marketing. It focuses on successful boothmanship (software) and design (hardware) for trade shows. Companies are starting to realize the importance of trade shows not only as a place to convey or distribute, but also to gather and analyze information. Constantly emerging technologies are making this task easier and more modern.

Features

Integrated marketing communications. - Booth staff behavior. - Booth design and marketing materials. - Pre-show planning. - Post-show follow-up. - Trade show intelligence.

Fields of interest

Marketing; Media Management; Market Research

Target groups

Professional/practitioner

Type of publication

Professional book

More on www.springer.com/978-3-642-36792-2

Hardcover

2013. XLI, 150 p. 31 illus. (Management for Professionals) 59.99 € ISBN 978-3-642-36792-2 Usually dispatched within 3 to 5 business days.

Finance – Fundamental Problems and Solutions

As indicated by the title, this book focuses on fundamental problems in finance: a logical dilemma in valuation, stock valuation methods/models, risk valuation, and optimal capital structure. It presents an innovative approach to logic and quantitative reasoning (without advanced mathematics) that delivers valuable results - convincing solutions to these problems. Readers in finance will definitely be interested in these solutions as well as the methods. In fact, these fundamental problems are essential in the field of finance, and they have remained unsolved (or partly unsolved) for decades. The solutions offered in this book are all sound in theory and feasible in practice, and...

Features

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Contents


Fields of interest

Finance / Banking

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-30511-5

Softcover

From Machinery to Mobility
Government and Democracy in a Participative Age

The Westminster-stylized model of Parliamentary democratic governance is out of step with today’s digitally and socially networked world. The resulting contest for public sector governance brings both promise and peril – with profound consequences for public servants, elected officials, and citizens alike. This book presents a timely and thorough examination of the main sources of tension between the political and administrative foundations of the traditional state apparatus, commonly referred to as ‘machinery’, and newly emerging alternative governance mindsets and mechanisms driven by the advent of ‘mobility’. Consistent with the emergence of Government 2.0, some of the critical [...] Contents

Fields of interest
Public Administration; Technology Management; Comparative Politics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4614-7220-9

Hardcover
99,99 €

Usually dispatched within 3 to 5 business days.

German Business Management
A Japanese Perspective on Regional Development Factors

How are German capitalism and German business management to be understood from the perspective of Japan? Both Germany and Japan as defeated nations in World War II received significant American leadership and support after the war. Both countries developed their enterprises, industries, and economy by deploying and adapting technology and management methods from the United States while establishing systems of industrial concentration in their own ways. By these means, both nations became major trading countries. However, current economic and business conditions differ greatly between Germany and Japan. In trade, American influence on Japanese business is still strong. Japan could not [...] Contents
Business Strategy/Leadership

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-4-431-54302-2

Hardcover
2013. XVII, 247 p. 1 illus.
99,99 €
ISBN 978-4-431-54302-2

Usually dispatched within 3 to 5 business days.

Goals, Control and Conflicts in Family Offices
A Conceptual and In-depth Qualitative Study

Family offices manage and coordinate a family’s combined wealth whilst preserving the family legacy and protecting family interests. The families behind these family offices control a significant percentage of the GDP of developed economies, with consequences for financial markets. At the same time, family offices act at the intersection of family and commerce, which makes this particular form of organization appealing to the field of strategic management. Despite its practical and academic relevance, the literature has hardly explored the concept of family offices. As a result, the primary objective of this book is to introduce the domain of family offices. By exploring goals [...] Contents
Typology of family offices - Financial and non-financial goals of families - Formal and informal control mechanisms - Interdependencies between family business and family office - Antecedents of conflict in family offices - Consequences of conflict in family offices.

Fields of interest
Business Strategy/Leadership

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-658-02490-1

Softcover
2013. XVII, 158 p. 4 illus. (Familienunternehmen und KMU)
56,07 €
ISBN 978-3-658-02490-1

Usually dispatched within 3 to 5 business days.
Hurdle Race Marketing

The Enlightenment - The Disillusionment - The Breakthrough

In an amusing way Klaus Backhaus endeavours to explain how much of what is sold in practice under the guise of a pronounced market orientation is nothing more than the telling of a fairy tale. And so the story takes its course. Despite a perceived market orientation the German engineering company “Deutsche Maschinenbau AG” is losing its market share. But instead of joining forces to systematically hunt down and identify the causes of these losses, all those involved become entangled in a mutual blame game. Not until the Marketing Manager has his say, does the tide seem to turn. Nevertheless, when it comes to putting things into practice, it soon becomes clear that the devil is in the details.

Features

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Contents

The Enlightenment.- The Disillusionment.- The Breakthrough.

Fields of interest

Marketing; Business & Economics (general); Project Management

Target groups

Popular/general

Type of publication

Monograph

More on www.springer.com/978-3-658-02443-7

Hardcover

2013. 82 p. 4 illus., 3 illus. in color.
18,68 €
ISBN 978-3-658-02443-7

Online orders shipping within 2-3 days.

Infrastructure Public-Private Partnerships

Decision, Management and Development

Economic development and social welfare depend on the existence of effective and efficient infrastructure systems, particularly in health, energy, transportation and water, many of which are developed and managed through Public-Private Partnerships (PPPs). However, empirical evidence suggests some pitfalls in the use of these PPP arrangements. This book addresses these issues, focusing on mostly three key questions: How to improve the robustness of the decision-making process leading to the option of PPP? How to improve contract management as the longest phase of the process? How can contracts be improved to accommodate uncertainty and avoid harmful renegotiations? The authors explore: [...]

Features

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Contents


Fields of interest

Public Administration; Civil Engineering; Public Finance & Economics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-36909-4

Hardcover

2013. XX, 171 p. 38 illus., 11 illus. in color.
99,99 €
ISBN 978-3-642-36909-4

Usually dispatched within 3 to 5 business days.

Knowledge Flows, Technological Change and Regional Growth in the European Union

The book provides conceptual and empirical insights into the complex relationship between knowledge flows and regional growth in the EU. The author critically scrutinizes and enhances the RIS (Regional Innovation System) approach, discussing innovation as a technological, institutional and evolutionary process. Moreover, she advances the ongoing discourse on the role of space and technological proximity in the process of innovation and technological externalities. The book closes with an investigation of the role of technological change and knowledge spillovers in the dynamic growth and “catching-up” of EU regions.

Features

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Contents

Knowledge as a Driver of Technological Change and Regional Growth. - Innovative, Technological, and Growth Capacities of the EU Regions. - Determinants of RISs’ Efficiency of the EU Regions. - The Role of Intra-, Inter- and Extra-Regional Sources of Knowledge Spillovers in the EU Regions. Evidence from High-Tech Industries. - Localized Knowledge Spillovers, Agglomeration Externalities, and the Technological Dynamic in High-Tech Industries. Evidence Based on the EU Regions. - Knowledge Spillovers, Technological Change, and Regional Growth. The Empirical Evidence of the EU Regions. - Final[...]

Fields of interest

Economic Growth; Regional Science; R & D / Technology Policy; European Integration; Economic Theory; Economic Geography

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00341-2

Hardcover

2014. XXV, 231 p. 26 illus. (Contributions to Economics)
99,99 €
ISBN 978-3-319-00341-2

Usually dispatched within 3 to 5 business days.
Knowledge Production in Organizations

A Processual Autopoietic View

The systemic view provides a basic approach through which people may advance their understanding of knowledge production in organizations. One of the most important contributions to this systemic view is the theory of social autopoiesis which emphasizes that knowledge production of organizations can only be understood through the view of a social autopoietic system. Recent developments in the field of organization research have started to view organization as a process rather than as entity. The author combines in this book these two approaches – autopoietic systemic view and process thinking - in a way that organizations are seen as processual autopoietic systems.

Features
The systemic view provides a basic approach through which people may advance their understanding of knowledge production in organizations. One of the most important contributions to this systemic view is the theory of social autopoiesis which emphasizes that knowledge production of organizations can only be understood through the view of a social autopoietic system. Recent developments in the field of [...]
On Good Management

The Corporate Lifecycle: An essay and interviews with Franz Fehrenbach, Jürgen Hambrecht, Wolfgang Reitzle and Alexander Rittweger

Change or die! With this stark claim begins the journey through the corporate lifecycle. Why do so many companies fail? Why do managers struggle to recognize change early or hesitate to take vigorous action? Why – and how – must the traditional lifecycle concept be modernized if it is still to provide valid orientation? In this essay, Roland Berger CEO Burkhard Schwenker analyzes the challenges facing managers today and explores their implications for good management. Corporate management, he argues, must once again become more direct, more personal, more entrepreneurial. His experienced and thoughtful analysis is complemented by insightful, candid interviews with renowned [...] 

Contents
Preface.- Dedication to an entrepreneur.- Chapter 1: The challenges of good management.- Chapter 2: The art of guiding a company through its lifecycle.- Chapter 3: “How do you manage?”.- Interviews with renowned entrepreneurs and business leaders.- Chapter 4: The mark of good management.

Fields of interest
Business Strategy/Leadership; Business & Economics (general); Business & Management Science

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-658-02877-0

Hardcover
2013. Approx. 130 p. 2 illus. (Roland Berger School of Strategy and Economics)
28,03 €
ISBN 978-3-658-02877-0
Online orders shipping within 2-3 days.

M. Alam, Institute of Economic Growth, Delhi, India

Paying Out-of-Pocket for Drugs, Diagnostics and Medical Services
A Study of Households in Three Indian States

In India there is a high incidence of morbidity and malnutrition coupled with low standards of public health and expensive medical care. Despite several policy initiatives and many attempts to promote a healthy society, health remains an issue of concern. Policy-makers recognize that the country suffers unacceptably high levels of disease and premature death. A 2005 report from the National Commission on Macroeconomics and Health (NCHM) claims that private out-of-pocket (OOP) health expenditure often has a catastrophic effect on the consumption of basic goods and services for low-income households, forcing many below the poverty line and often blocking private intergenerational [...] 

Contents

Fields of interest
Health Economics; Public Health; Social Structure, Social Inequality; Development Economics; Quality of Life Research

Target groups
Research

Type of publication
Monograph


Hardcover
2013. L, 152 p. 38 illus. (India Studies in Business and Economics)
99,99 €
Usually dispatched within 3 to 5 business days.

R. Salomone, University of Messina, Messina, Italy; M.T. Clasadonte, University of Catania, Catania, Italy; M. Proto, University of Salerno, Fisciano, Italy; A. Raggi, The G. d’Annunzio University, Pescara, Italy (Eds.)

Product-Oriented Environmental Management Systems (POEMS)

Improving Sustainability and Competitiveness in the Agri-Food Chain with Innovative Environmental Management Tools

Representing the coordinated work of a research group from four different Italian University departments which conducted the Eco-Management for Food (EMAF) Project, this book offers a systematic approach for managing and improving the environmental aspects of agri-food processes and products using Product-Oriented Environmental Management Systems (POEMS).

Features
Representing the coordinated work of a research group from four different Italian University departments which conducted the Eco-Management for Food (EMAF) Project, this book offers a systematic approach for managing and improving the environmental aspects of agri-food processes and products using Product-Oriented Environmental Management Systems (POEMS). The European Commission’s EIPRO [...] 

Contents

PART III - Simplified Life Cycle Assessment (s-LCA).- 5. Life Cycle Assessment (LCA) For Agri-Food SMEs.- 7. The Implementation of s-LCA For Agri-Food SMEs.

Fields of interest
Business & Economics (general); Environment (general); Environmental Management; Sustainable Development; Environmental Economics; Management/Business for Professionals

Target groups
Research

Type of publication
Contributed volume


Hardcover
2013. XVII, 332 p. 34 illus.
99,99 €
Usually dispatched within 3 to 5 business days.
Queues
A Course in Queueing Theory

Queueing theory (the mathematical theory of waiting lines in all its configurations) continues to be a standard major area of operations research on the stochastic side. Therefore, universities with an active program in operations research sometimes will have an entire course devoted mainly or entirely to queueing theory, and the course is also taught in computer science, electrical engineering, mathematics, and industrial engineering programs. The basic course in queueing theory is often taught at first-year graduate level, though can be taught at senior level undergraduate as well. This text evolved from the author’s preferred syllabus for teaching the course, presenting the [...] Features
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The Exponential Distribution and the Poisson Process.- Introduction to Renewal Theory.- Introduction to Markov Chains.- From Single Server Queues to M/G/1.- Priorities and Scheduling in M/G/1.- M/G/1 Using Markov Chains and LSTs.- The G/M/1 Queueing System.- Continuous-time Markov Chains and Memoryless Queues.- Open Networks of Exponential Queues.- Closed Networks of Exponential Queues.- Insensitivity and Product-form Queueing Models.- Two-dimensional Markov Processes and their Applications to Memoryless Queues.

Fields of interest
Operations Research / Decision Theory; Operations Research, Mathematical Programming; Mathematical Modeling and Industrial Mathematics

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook


Hardcover
69,99 €
Usually dispatched within 3 to 5 business days.

Reasonably Simple Economics
The goal of Reasonably Simple Economics is, not surprisingly, simple: to help us think like economists. When we do, so much of the world that seemed mysterious or baffling becomes more clear and understandable—improving our lives and providing new tools to succeed in business and career. In a chatty style, economist Evan Osborne explains the economic foundations behind the things we read about or see in the news everyday: Why prices for goods and services are what they are; How government spending, regulation, and taxation can both hinder and help the economy; Why and how some people get fabulously rich; How entrepreneurs reorganize society beneficially; Why [...]

Features
The goal of Reasonably Simple Economics is, not surprisingly, simple: to help us think like economists. When we do, so much of the world that seemed mysterious or baffling becomes more clear and understandable—improving our lives and providing new tools to succeed in business and career. In a chatty style, economist Evan Osborne explains the economic foundations behind the things we [...]

Fields of interest
Business & Management Science

Target groups
Popular/general

Type of publication
Professional book

More on www.springer.com/978-1-4302-5941-1

Softcover
2013. 332 p.
22,95 €
ISBN 978-1-4302-5941-1

Usually dispatched within 3 to 5 business days.

Retail Internationalization in Emerging Countries
The increasing internationalization of retail companies can emerge in the international retail brand management, a research gap. In the course of development that retailers will realize as a brand that always emergent research needs. This study shows how internationally operating trading company deal with these challenges, special services at the international level. These advantages are inter alia from differences in culturally influenced patterns of perception. A consideration of these differences implies a customized branding, which promises to enhance the efficiency of brand effects.

Features
Retail firms have internationalized aggressively, first into developed countries and then into developing countries. Doing business in emerging countries offers growth opportunities, but also holds some uncertainties due to the lack of knowledge on whether international retailers can succeed with a global brand in business that was originally local. To expand on this issue, Karin Pennemann discusses [...]

Contents
Reciprocity between Retailer’s Corporate Image and Store Image.- The Effect of Perceived Brand Globalness on Retailer Brand Equity.- The Globalness Route: How Consumer and Brand Level Factors Change the Route to Success.

Fields of interest
Marketing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-8349-4491-7

Softcover
2013. XIX, 179 p. 18 illus. (Handel und Internationales Marketing/Retailing and International Marketing)
56,03 €
ISBN 978-3-8349-4491-7

Usually dispatched within 3 to 5 business days.
Science, Technology and Innovation Policy for the Future

Potentials and Limits of Foresight Studies

The book gives practical guidance for policy makers, analysts and researchers on how to make the most of the potential of Foresight studies. Based on the concept of evidence-based policy-making, Foresight studies are common practice in many countries and are commonly understood as a supportive tool in designing future-oriented strategies. The book outlines approaches and experiences of integrating such Foresight studies in the making and implementation of science, technology and innovation (STI) policies at different national levels. It delivers insights into practical approaches of developing STI policy measures oriented towards future societal and technological challenges based on [...]”

Features

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Contents


Fields of interest

R & D / Technology Policy; Technology Management; Comparative Politics; Entrepreneurship

Target groups

Research

Type of publication

Professional/practitioner

More on www.springer.com/978-3-642-31826-9

Hardcover

2013. XVII, 292 p. 48 illus., 6 illus. in color.
99,99 €
ISBN 978-3-642-31826-9

Usually dispatched within 3 to 5 business days.
Sustainability in Tourism

A Multidisciplinary Approach

Sustainability and green topics have become a crucial element in modern economy. All sectors of the economy are concerned, also the tourism industry. This book takes an overview on developments of sustainability in tourism from a multidisciplinary view point: economy, marketing, social science, media studies, political studies. In order to understand the long term changes in the field it is important to include different scientific approaches.

Features

Today travel and tourism have evolved beyond an annual trip to the seaside. Long-haul flights around the globe are fully booked with both business and leisure travelers; health tourism is expanding exponentially and religious travel continues to support a significant portion of tourism in some countries. The age of mass tourism, whilst making travel affordable for all societal groups, has also created [...]

Contents

Environmental Responsibility & Climate Change - Cultural Vitality and Social Equity - Economics and Finance of Sustainable Tourism - Marketing, Media and Education - Barriers and Solutions

Fields of interest

Non-Profit Enterprises/Corporate Social Responsibility

Target groups

Research

Type of publication

Professional book

More on www.springer.com/978-3-8349-2806-1

Hardcover

2013. I, 219 p. 37 illus. 56.07 €

ISBN 978-3-8349-2806-1

Usually dispatched within 3 to 5 business days.

The 19th International Conference on Industrial Engineering and Engineering Management

The International Conference on Industrial Engineering and Engineering Management is sponsored by the Chinese Industrial Engineering Institution, CMES, which is the only national-level academic society for Industrial Engineering. The conference is held annually as the major event in this area. Being the largest and the most authoritative international academic conference held in China, it provides an academic platform for experts and entrepreneurs in the areas of international industrial engineering and management to exchange their research findings. Many experts in various fields from China and around the world gather together at the conference to review, exchange, summarize and [...]
The Experimental Nature of New Venture Creation

Capitalizing on Open Innovation 2.0

This book presents readers with the opportunity to fundamentally re-evaluate the processes of innovation and entrepreneurship, and to rethink how they might best be stimulated and fostered within our organizations and communities. The fundamental thesis of the book is that the entrepreneurial process is not a linear progression from novel idea to successful innovation, but is an iterative series of experiments, where progress depends on the persistence and resilience of the individuals involved, and their ability to and learn from failure as well as success. From this premise, the authors argue that the ideal environment for new venture creation is a form of “experimental” [...]?

Features

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Contents


Fields of interest

Technology Management; R & D / Technology Policy; Business Strategy/Leadership

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-8349-3200-6

Hardcover

2013, XXVI, 314 p. 136 illus. (Informationsmanagement und Computer Aided Team)

65,41 €

ISBN 978-3-8349-3200-6

Usually dispatched within 3 to 5 business days.

Web Based Project Coaching

Requirements, Design, Implementation and Evaluation of Online Coaching Services

The traditional project coaching takes place mostly in a number of face-to-face coaching sessions. However, under conditions of time pressure in IT projects, a physical presence of coaches could form a bottleneck. These facts led to the idea of using Internet technologies to support project coaching. The benefits of web based project coaching reside in the ubiquitous availability of coaches. To enable the web coaching, a flexible support platform is required. The elaboration of requirements, design, implementation and evaluation of such a platform is the goal of this dissertation. The elaborated concept was applied and evaluated in real IT projects. The numerous findings and[...]

Features

Traditional project coaching mostly takes place in a number of face-to-face coaching sessions. However, under conditions of time pressure in IT projects, a physical presence of coaches could form a bottleneck. These facts led to the idea of using Internet technologies to support project coaching. The benefits of web based project coaching reside in the ubiquitous availability of coaches. To enable web coaching, a [...]?

Contents


Fields of interest

Management/Business for Professionals; Technology Management; R & D / Technology Policy

Target groups

Professional/practitioner

Type of publication

Professional book

More on www.springer.com/978-3-319-00280-4

Hardcover

2013, XIV, 112 p. 73 illus., 33 illus. in color. (Management for Professionals)

49,99 €

ISBN 978-3-319-00280-4

Usually dispatched within 3 to 5 business days.
Brunel English
A New Variety in a Multilingual Society

This detailed survey of Brunel English reflects the burgeoning academic interest in the many new varieties of English which are fast evolving around the world. Wholly up to date, the study is based on careful analysis of a substantial dataset that provides real-life examples of usage to illustrate the narrative throughout. As well as a thorough account of the pronunciation, grammar, vocabulary usage, and discourse patterns of Brunel English, the volume explores its historical and educational background and current developmental trends, providing an in-depth review of the patterns of English usage within this multilingual, oil-rich society on the north-western coast of Borneo. Written...]

Features
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Contents

Fields of interest
Language Education; Applied Linguistics; Educational Policy and Politics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6346-3

Hardcover
2013, XII, 170 p. 16 illus. (Multilingual Education, Vol. 4) 99,99 €
ISBN 978-94-007-6346-3

Usually dispatched within 3 to 5 business days.

Early Childhood and Neuroscience - Links to Development and Learning

Information from neuroscience is growing and being properly used, and misused which makes it imperative that educators receive accurate and practical information. This book provides the accurate and practical information educators (pre-service and in-service) and caregivers serving children birth through age 8 need to know. This volume takes a practical and cautionary stance. It reminds educators to consider the ethical implications of neuroscience when it is applied to education, reviews current findings from neuroscience and reveals the dangers of oversimplification and inappropriate extensions of neuroscience into curricula. It brings together a group of authors with varied...]

Features
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Contents

Fields of interest
Childhood Education; Child and School Psychology; Neurosciences; Learning and Instruction; Developmental Psychology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6346-3

Hardcover
2013, XII, 170 p. 16 illus. (Multilingual Education, Vol. 4) 99,99 €
ISBN 978-94-007-6346-3

Usually dispatched within 3 to 5 business days.

Jerome Bruner
Developing a Sense of the Possible

Jerome S. Bruner (1915 - ) is one of the best known and most influential psychologists of the twentieth century. He has made significant contributions to cognitive psychology and educational theory. This book presents a brief introduction to Jerome Bruner’s educational ideas and details their influences on our educational discourse and practice. It examines Bruner’s ideas in the context of some key educational issues in the United States since the early twentieth century. Jerome Bruner: Developing a Sense of the Possible will be an inspiration, and vital call to action, to readers looking to better understand today’s instructional and curriculum theories. It will help readers gain...]

Contents
Introduction - Ch.1 Becoming Bruner - Ch.2 Psychology as a Human Science - Ch.3 Learning by Discovery - Ch.4 From Early Bruner to Later Bruner - Ch.5 Improving Our Schools - Conclusion: Developing a Sense of the Possible

Fields of interest
Educational Philosophy; Educational Psychology; Cognitive Psychology; Philosophy of Education; Pedagogic Psychology

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6346-3

Hardcover
2013, XII, 170 p. 16 illus. (Multilingual Education, Vol. 4) 99,99 €
ISBN 978-94-007-6346-3

Usually dispatched within 3 to 5 business days.
Pacific Rim Objective Measurement Symposium (PROMS) 2012 Conference Proceeding

Entrenched by the Board of Management of the Pacific Rim Objective Measurement Symposium (PROMS), PROMS2012 is held in Jiaxing, China from August 6-9, 2012. Over the past years, PROMS has been hosted in many parts of the Pacific Rim, in Singapore, Malaysia, Hong Kong, Taiwan and Tokyo, which has greatly promoted the research of and contributed to the development of Rasch Model in one way or another. As early as in 1980s, the ideas and concepts regarding IRT was first introduced into China by Prof. Gui Shichun, my Ph.D supervisor, and it is Prof. Gui who first conducted with great success the ten-year-long (1990-1999) Equating Project for Matriculation English Test (MET) in China. MET[...]

Features
The Pacific Rim Objective Measurement Symposium (PROMS) is held in Jiaxing, China August 6-9, 2012. Over the past years, PROMS has been promoting the research of and contributing to the development of Rasch Model in one way or another. As early as in 1980s, the ideas and concepts regarding IRT was first introduced into China by Prof. Shichun Gui, and it is Prof. Gui who first conducted with great success the [...]
Engineering

2nd International Workshop on Evidence-based Technology Enhanced Learning

Research on Technology Enhanced Learning (TEL) investigates how information and communication technologies can be designed in order to support pedagogical activities. The Evidence Based Design (EBD) of a system bases its decisions on empirical evidence and effectiveness. The evidence-based TEL workshop (eTEL) brings together TEL and EBD.

The first edition of eTEL collected contributions in the area of TEL from computer science, artificial intelligence, evidence-based medicine, educational psychology and pedagogy. Like the previous edition, this second edition, eTEL'13, wants to be a forum in which TEL researchers and practitioners alike can discuss innovative evidence-based ideas.[...]

Features
Research on Technology Enhanced Learning (TEL) investigates how information and communication technologies can be designed in order to support pedagogical activities. The Evidence Based Design (EBD) of a system bases its decisions on empirical evidence and effectiveness. The evidence-based TEL workshop (eTEL) brings together TEL and EBD.

The first edition of eTEL collected contributions in [...] Contents
From the Contents: The 1st Release of the TERENCE Learner GUI: the User-based Usability Evaluation.- Promoting Digital Skills and Critical Awareness through Online Search and Personal Knowledge Management: A Case Study.- The TERENCE smart games revision guidelines and software tool.- The manual revision of the TERENCE Italian smart games.

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics); Computational Biology / Bioinformatics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-00553-9

Advanced Microsystems for Automotive Applications 2013

Smart Systems for Safe and Green Vehicles

The road vehicle of the future will embrace innovations from three major automotive technology fields: driver assistance systems, vehicle networking and alternative propulsion. Smart systems such as adaptive ICT components and MEMS devices, novel network architectures, integrated sensor systems, intelligent interfaces and functional materials form the basis of these features and permit their successful and synergetic integration. They increasingly appear to be the key enabling technologies for safe and green road mobility. For more than fifteen years the International Forum on Advanced Microsystems for Automotive Applications (AMAA) has been successful in detecting novel trends and in [...] Features
The road vehicle of the future will embrace innovations from three major automotive technology fields: driver assistance systems, vehicle networking and alternative propulsion. Smart systems such as adaptive ICT components and MEMS devices, novel network architectures, integrated sensor systems, intelligent interfaces and functional materials form the basis of these features and permit their successful and [...] Contents

Fields of interest
Automatic Engineering; Mechatronics; Transportation; Circuits and Systems; Nanotechnology and Microengineering

Target groups
Professional/practitioner

Type of publication
Proceedings

More on www.springer.com/978-3-319-00475-4

Hardcover
2013. XXIV, 401 p. 223 illus., 201 illus. in color. (Lecture Notes in Mobility)
189,99 €
ISBN 978-3-319-00475-4
Usually dispatched within 3 to 5 business days.

Softcover
2013. XII, 153 p. 46 illus. (Advances in Intelligent Systems and Computing, Vol. 222)
139,99 €
ISBN 978-3-319-00553-9
Usually dispatched within 3 to 5 business days.
Advances in Computational Science, Engineering and Information Technology

Proceedings of the Third International Conference on Computational Science, Engineering and Information Technology (CCSEIT-2013) that was held in Konya, Turkey, on June 7-9, 2013, Konya, Turkey - Volume 1

This book is the proceedings of Third International Conference on Computational Science, Engineering and Information Technology (CCSEIT-2013) that was held in Konya, Turkey, on June 7-9. CCSEIT-2013 provided an excellent international forum for sharing knowledge and results in theory, methodology and applications of computational science, engineering and information technology. This book contains research results, projects, survey work and industrial experiences representing significant advances in the field. The different contributions collected in this book cover five main areas: algorithms, data structures and applications; wireless and mobile networks; computer networks and security.

Features
This book is the proceedings of Third International Conference on Computational Science, Engineering and Information Technology (CCSEIT-2013) that was held in Konya, Turkey, on June 7-9. CCSEIT-2013 provided an excellent international forum for sharing knowledge and results in theory, methodology and applications of computational science, engineering and information technology. This book contains...[...]

Contents

Fields of interest
Computational Intelligence; Data Structures, Cryptology and Information Theory; Complexity; Computer Applications

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-00565-2

Soon available

Advances in the Theory and Applications of Non-Integer Order Systems

5th Conference on Non-Integer Order Calculus and Its Applications, Cracow, Poland

This volume presents various aspects of non-integer order systems, also known as fractional systems, which have recently attracted an increasing attention in the scientific community of systems science, applied mathematics, control theory. Non-integer systems have become relevant for many fields of science and technology exemplified by the modeling of signal transmission, electric noise, dielectric polarization, heat transfer, electrochemical reactions, thermal processes, acoustics, etc. The content is divided into six parts, every of which considers one of the currently relevant problems. In the first part the Realization problem is discussed, with a special focus on positive [...]

Features
This volume presents various aspects of non-integer order systems, also known as fractional systems, which have recently attracted an increasing attention in the scientific community of systems science, applied mathematics, control theory. Non-integer systems have become relevant for many fields of science and technology exemplified by the modeling of signal transmission, electric noise, dielectric [...]

Contents

Fields of interest
Control; Complexity; Signal, Image and Speech Processing

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00932-2

Hardcover

Ambient Intelligence - Software and Applications

4th International Symposium on Ambient Intelligence (ISAmI 2013)

Ambient Intelligence (AmI) is a recent paradigm emerging from Artificial Intelligence (AI), where computers are used as proactive tools assisting people with their day-to-day activities, making everyone’s life more comfortable. Another main concern of AmI originates from the human-computer interaction domain and focuses on offering ways to interact with systems in a more natural way by means user-friendly interfaces. This field is evolving quickly as can be witnessed by the emerging natural language and gesture-based types of interaction. The inclusion of computational power and communication technologies in everyday objects is growing and their embedding into our environments should be...

Features
Ambient Intelligence (AmI) is a recent paradigm emerging from Artificial Intelligence (AI), where computers are used as proactive tools assisting people with their day-to-day activities, making everyone’s life more comfortable. Another main concern of AmI originates from the human-computer interaction domain and focuses on offering ways to interact with systems in a more natural way by means user [...]

Contents
From the Contents: Content-based Design and Implementation of Ambient Intelligence Applications. - Tracking People and Equipment Simulation inside Healthcare Unit. - Requirements Systematization through Pattern Application in Ubiquitous Systems. - Indoor tracking persons using bluetooth: a real experiment with different fingerprinting-based algorithms.

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-00565-2

Softcover
2013. XII, 244 p. 76 illus. (Advances in Intelligent Systems and Computing, Vol. 219) 139,99 € ISBN 978-3-319-00565-2 Usually dispatched within 3 to 5 business days.
An Intelligent Customer Complaint Management System with Application to the Transport and Logistics Industry

This thesis addresses the issue of customer complaints in the context of Customer Relationship Management (CRM). After a comprehensive survey of the current literature on CRM, the thesis describes the development of a new intelligent CRM (I-CRM) framework, which integrates text analytics, type mapping, SPSS, structural equation modeling, and linear and fuzzy approaches. This new methodology, in contrast to previous ones, is able to handle customer complaints with respect to different variables, thus allowing organizations to find their key customers and key complaints, and to address and provide solution to the major complaints of the key customers, hence promoting business.[...]

Features
This thesis addresses the issue of customer complaints in the context of Customer Relationship Management (CRM). Following a comprehensive survey of the current literature on CRM, it describes the development of a new intelligent CRM (I-CRM) framework, which integrates in a single approach different innovative analytical methods. Unlike conventional approaches, this new methodology can handle customer [...]

Contents
Introduction.- Literature Review.

Fields of interest
Computational Intelligence; Engineering Economics, Organization, Logistics, Marketing; Business Information Systems

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00323-8

Hardcover
2013. XII, 349 p. 98 illus., 11 illus. in color. (Springer Theses)
139,99 €
ISBN 978-3-319-00323-8
Usually dispatched within 3 to 5 business days.

M. Mauer, Technische Universität Braunschweig, Braunschweig, Germany; H. Winner, Technische Universität Darmstadt, Darmstadt, Germany (Eds.)

Automotive Systems Engineering

This book reflects the shift in design paradigm in automobile industry. It presents future innovations, often referred as “automotive systems engineering”. These cause fundamental innovations in the field of driver assistance systems and electro-mobility as well as fundamental changes in the architecture of the vehicles. New driving functionalities can only be realized if the software programs of multiple electronic control units work together correctly. This volume presents the new and innovative methods which are mandatory to master the complexity of the vehicle of the future.

Features
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Boiling Heat Transfer in Dilute Emulsions

Boiling Heat Transfer in Dilute Emulsions synthesizes recent advances and established understanding on the subject of boiling in dilute emulsions. Experimental results from various sources are collected and analyzed, including contemporary experiments that correlate visualization with heat transfer data. Published models of boiling heat transfer in dilute emulsions, and their implementation, are described and assessed against experimental data.

Features
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Contents

Fields of interest
Engineering Fluid Dynamics; Industrial Chemistry / Chemical Engineering; Engineering Thermodynamics, Heat and Mass Transfer

Target groups
Professional/practitioner

Type of publication
Brief

More on www.springer.com/978-1-4614-4620-0

Softcover
2013. XII, 121 p. 53 illus. (SpringerBriefs in Thermal Engineering and Applied Science, Vol. 8) 49,95 €
ISBN 978-1-4614-4620-0

Usually dispatched within 3 to 5 business days.

S. Solomone

China’s Strategy in Space

This book addresses why China is going into space and provides up-to-date information on all aspects of the Chinese Space Program in terms of launch vehicles, launch sites and infrastructure, crew vehicles for space exploration, satellite applications and scientific exploration capabilities. Beyond mere capabilities, it is important to understand how Chinese aerospace leaders think, how they make decisions, and what their ultimate goal is during their space endeavors. What are Chinese intentions in space? To what extent does culture and ethics influence Chinese strategic decision-making within the highest levels of the aerospace industrial complex? This book examines these questions.[...]

Features
This book addresses why China is going into space and provides up-to-date information on all aspects of the Chinese Space Program in terms of launch vehicles, launch sites and infrastructure, crew vehicles for space exploration, satellite applications and scientific exploration capabilities. Beyond mere capabilities, it is important to understand how Chinese aerospace leaders think, how they make decisions.[...]

Contents

Fields of interest
Aerospace Technology and Astronautics; Law of the Sea, Air and Outer Space; Comparative Politics; Planetology

Target groups
Research


Softcover
2013. XII, 119 p. 24 illus. (SpringerBriefs in Space Development) 49,95 €

Usually dispatched within 3 to 5 business days.

E. Mitleton-Kelly, The London School of Economics and, London, United Kingdom (Ed.)

Co-evolution of Intelligent Socio-technical Systems

Modelling and Applications in Large Scale Emergency and Transport Domains

As the interconnectivity between humans through technical devices is becoming ubiquitous, the next step is already in the making: ambient intelligence, i.e. smart (technical) environments, which will eventually play the same active role in communication as the human players, leading to a co-evolution in all domains where real-time communication is essential. This topical volume, based on the findings of the Socionical European research project, gives equal attention to two highly relevant domains of applications: transport, specifically traffic, dynamics from the viewpoint of a socio-technical interaction and evacuation scenarios for large-scale emergency situations. Care was taken to[...]

Features
As the interconnectivity between humans through technical devices is becoming ubiquitous, the next step is already in the making: ambient intelligence, i.e. smart (technical) environments, which will eventually play the same active role in communication as the human players, leading to a co-evolution in all domains where real-time communication is essential. This topical volume, based on the findings of[...]

Contents

Fields of interest
Complexity; Computer Appl. in Social and Behavioral Sciences; Methodology of the Social Sciences; Socio- and Econophysics; Population and Evolutionary Models; Automotive Engineering

Target groups
Research

More on www.springer.com/978-3-642-36613-0

Type of publication
Monograph

Softcover
2013. VI, 293 p. 88 illus., 77 illus. in color. (Understanding Complex Systems) 129,99 €
ISBN 978-3-642-36613-0

Usually dispatched within 3 to 5 business days.
Compound Control Methodology for Flight Vehicles

“Compound Control Methodology for Flight Vehicles” focuses on new control methods for flight vehicles. In this monograph, the concept of compound control is introduced. It is demonstrated that both Sliding Mode Control (SMC) and Active Disturbance Rejection Control (ADRC) have their own advantages and limitations, i.e., chattering of SMC and the observability of extended state observer (ESO), respectively. It is shown that compound control combines their advantages and improves the performance of the closed-loop systems. The book is self-contained, providing sufficient mathematical foundations for understanding the contents of each chapter. It will be of significant interest to [...] 

Features
“Compound Control Methodology for Flight Vehicles” focuses on new control methods for flight vehicles. In this monograph the concept of compound control is introduced. It is demonstrated that both Sliding Mode Control (SMC) and Active Disturbance Rejection Control (ADRC) have their own advantages and limitations, i.e., chattering of SMC and the observability of extended state observer (ESO), respectively. [...] 

Contents

Fields of interest
Control; Aerospace Technology and Astronautics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-36840-0 

Softcover
2013. XVII, 260 p. 125 illus. (Lecture Notes in Control and Information Sciences, Vol. 438) 
79,99 €
ISBN 978-3-642-36840-0 
Usually dispatched within 3 to 5 business days.

Computational Methods in Earthquake Engineering

Volume 2

This book provides an overview of advanced methods and concepts for the design and analysis of structures against earthquake loading. This second volume is a collection of 28 chapters written by leading experts in the field of structural analysis and earthquake engineering. Emphasis is given on current state-of-the-art methods and concepts in computing methods and their application in engineering practice. The book content is suitable for both practicing engineers and academics, covering a wide variety of topics in an effort to assist the timely dissemination of research findings for the mitigation of seismic risk. Due to the devastating socioeconomic consequences of seismic events, [...] 

Features
This book provides an overview of advanced methods and concepts for the design and analysis of structures against earthquake loading. This second volume is a collection of 28 chapters written by leading experts in the field of structural analysis and earthquake engineering. Emphasis is given on current state-of-the-art methods and concepts in computing methods and their application in engineering practice. [...] 

Contents

Fields of interest
Structural Mechanics; Computational Science and Engineering; Geotechnical Engineering & Applied Earth Sciences; Energy (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6572-6 

Hardcover
129,99 €
ISBN 978-94-007-6572-6 
Usually dispatched within 3 to 5 business days.

Computational Neuroscience

A First Course

Computational Neuroscience - A First Course provides an overview introduction to computational neuroscience and equips readers with a fundamental understanding of modeling the nervous system at the membrane, cellular, and network level. The book, which grew out of a lecture series held regularly for more than ten years to graduate students in neuroscience with backgrounds in biology, psychology and medicine, takes its readers on a journey through three fundamental domains of computational neuroscience: membrane biophysics, systems theory and artificial neural networks. The required mathematical concepts are kept as intuitive and simple as possible throughout the book, making it [...] 

Features
Computational Neuroscience - A First Course provides an overview introduction to computational neuroscience and equips readers with a fundamental understanding of modeling the nervous system at the membrane, cellular, and network level. The book, which grew out of a lecture series held regularly for more than ten years to graduate students in neuroscience with backgrounds in biology, psychology and [...] 

Contents
Excitable Membranes and Neural Conduction. - Receptive Fields and the Specificity of Neuronal Firing. - Coding and Representation. - Fourier Analysis for Neuroscientists. - Artificial Neural Networks.

Fields of interest
Computational Intelligence; Neurosciences; Complexity

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-319-00860-8 

Hardcover
2013. XII, 135 p. 62 illus. (Springer Series in Bio-/Neuroinformatics, Vol. 2) 
49,99 €
ISBN 978-3-319-00860-8 
Usually dispatched within 3 to 5 business days.
**Computer and Information Science**

This edited book presents scientific results of the 12th IEEE/ACIS International Conference on Computer and Information Science (ICCS 2013) which was held on June 16-20, 2013 in Toki Messe, Niigata, Japan. The aim of this conference was to bring together scientists, engineers, computer users, and students to share their experiences and exchange new ideas, research results about all aspects (theory, applications and tools) of computer and information science, and to discuss the practical challenges encountered along the way and the solutions adopted to solve them. The conference organizers selected the best 20 papers from those papers accepted for presentation at the conference. The [...] 

**Contents**


**Fields of interest**

Computational Intelligence; Artificial Intelligence (incl. Robotics) 

**Target groups**

Research 

**Type of publication**

Proceedings 

More on [www.springer.com/978-3-319-00803-5](http://www.springer.com/978-3-319-00803-5) 

**Hardcover**

2013. XIV, 280 p. 128 illus. (Studies in Computational Intelligence, Vol. 493) 

139.99 € 

ISBN 978-3-319-00803-5 

Usually dispatched within 3 to 5 business days. 

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**Control of Noise and Structural Vibration**

A MATLAB®-Based Approach 

Control of Noise and Structural Vibration presents a MATLAB®-based approach to solving the problems of undesirable noise generation and transmission by structures and of undesirable vibration within structures in response to environmental or operational forces. The fundamentals of acoustics, vibration and coupling between vibrating structures and the sound fields they generate are introduced including a discussion of the finite element method for vibration analysis. Following this, the treatment of sound and vibration control begins, illustrated by example systems such as beams, plates and double walls. Sensor and actuator placement is explained as is the idea of modal[...]

**Contents**


**Fields of interest**

Vibration, Dynamical Systems, Control; Control; Acoustics; Structural Mechanics

**Target groups**

Research 

**Type of publication**

Monograph 


**Hardcover**

2013. XII, 369 p. 332 illus., 107 illus. in color. 

129.99 € 


Usually dispatched within 3 to 5 business days. 

---

**Data Intensive Computing for Biodiversity**

This book is focused on the development of a data integration framework for retrieval of biodiversity information from heterogeneous and distributed data sources. The data integration system proposed in this book links remote databases in a networked environment, supports heterogeneous databases and data formats, links databases hosted on multiple platforms, and provides data security for database owners by allowing them to keep and maintain their own data and to choose information to be shared and linked. The book is a useful guide for researchers, practitioners, and graduate-level students interested in learning state-of-the-art development for data integration in biodiversity.

**Contents**

Introduction.- Preliminary Study.- Literature Review.- Methodology.- Biodiversity Databases.- Proposed Solution. 

**Fields of interest**

Computational Intelligence; Artificial Intelligence (incl. Robotics) 

**Target groups**

Research 

**Type of publication**

Monograph 

More on [www.springer.com/978-3-642-38046-4](http://www.springer.com/978-3-642-38046-4) 

**Hardcover**


99.99 € 

ISBN 978-3-642-38046-4 

Usually dispatched within 3 to 5 business days. 

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R. Lee, Central Michigan University, Mt. Pleasant, USA (Ed.)
Dental Biotribology

Dental Biotribology summarizes the latest achievements in dental wear and is designed to help the reader better understand the relationship between structures and tribological properties of human teeth. This book provides guidance on the biomimetic design of anti-wear engineering systems based on human teeth and also explains mechanisms of occlusal wear and erosion as well as fretting wear related to dental implants and orthodontics. Additionally, this book provides valuable insights into the development of improved dental materials and oral treatments.

Features
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Contents

Fields of interest
Biomedical Engineering; Tribology, Corrosion and Coatings; Dentistry

Target groups
Research

Type of publication
Monograph

More on springer.com/978-3-642-38651-0

Hardcover
2013. XII, 132 p. 48 illus., 45 illus. in color. (Intelligent Systems Reference Library, Vol. 51)
99,99 €
ISBN 978-3-642-38651-0
Usually dispatched within 3 to 5 business days.

Dimensionality Reduction with Unsupervised Nearest Neighbors

This book is devoted to a novel approach for dimensionality reduction based on the famous nearest neighbor method that is a powerful classification and regression approach. It starts with an introduction to machine learning concepts and a real-world application from the energy domain. Then, unsupervised nearest neighbors (UNN) is introduced as efficient iterative method for dimensionality reduction. Various UNN models are developed step by step, reaching from a simple iterative strategy for discrete latent spaces to a stochastic kernel-based algorithm for learning submanifolds with independent parameterizations. Extensions that allow the embedding of incomplete and noisy patterns are [...]}

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Contents

Fields of interest
Applied Mathematics / Computational Methods of Engineering; Artificial Intelligence (incl. Robotics); Operation Research / Decision Theory

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-38651-0

Hardcover
2013. XII, 132 p. 48 illus., 45 illus. in color. (Intelligent Systems Reference Library, Vol. 51)
99,99 €
ISBN 978-3-642-38651-0
Usually dispatched within 3 to 5 business days.

Evolve - A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computation IV

International Conference Held at Leiden University, July 10-13, 2013

Numerical and computational methods are nowadays used in a wide range of contexts in complex systems research, biology, physics, and engineering. Over the last decades different methodological schools have emerged with emphasis on different aspects of computation, such as nature-inspired algorithms, set oriented numerics, probabilistic systems and Monte Carlo methods. Due to the use of different terminologies and emphasis on different aspects of algorithmic performance, there is a strong need for a more integrated view and opportunities for cross-fertilization across particular disciplines.

These proceedings feature 20 original publications from distinguished authors in the [...]}

Features
Numerical and computational methods are nowadays used in a wide range of contexts in complex systems research, biology, physics, and engineering. Over the last decades different methodological schools have emerged with emphasis on different aspects of computation, such as nature-inspired algorithms, set oriented numerics, probabilistic systems and Monte Carlo methods. Due to the use of different [...]}

Contents

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-01127-1

Softcover
2013. XIV, 324 p. 140 illus. (Advances in Intelligent Systems and Computing, Vol. 227)
189,99 €
ISBN 978-3-319-01127-1
Usually dispatched within 3 to 5 business days.
Emerging Technologies for Information Systems, Computing, and Management

This book aims to examine innovation in the fields of information technology, software engineering, industrial engineering, management engineering. Topics covered in this publication include: Information System Security, Privacy, Quality Assurance, High-Performance Computing and Information System Management and Integration. The book presents papers from The Second International Conference for Emerging Technologies Information Systems, Computing, and Management (ICEM2012) which was held on December 1 to 2, 2012 in Hangzhou, China.

Contents

Fields of interest
Communications Engineering, Networks; Computing Methodologies; Information Systems and Communication Service

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4614-7009-0

Energy-Efficient Communication Processors

This book describes a new design approach for energy-efficient, Domain-Specific Instruction set Processor (DSP) architectures for the wireless baseband domain. The innovative techniques presented enable co-design of algorithms, architectures and technology, for efficient implementation of the most advanced technologies. To demonstrate the feasibility of the author’s design approach, case studies are included for crucial functionality of advanced wireless systems with increased computational performance, flexibility and reusability. Designers using this approach will benefit from reduced development/product costs and greater scalability to future process technology nodes.

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/978-1-4614-4991-1

Hardcover
2013, XXI, 429 p. 88 illus. 129,99 €
ISBN 978-1-4614-4991-1

Usually dispatched within 3 to 5 business days.
Ethics for Biomedical Engineers

Over the last few decades, there are increasing public awareness of adverse events involving engineering failures that not only led to monetary losses but also more importantly, human injuries and deaths. Whilst it is vital for an engineering professional or student to acquire the necessary technical knowledge and skills in their respective field, they must also understand the ethical essences that are relevant to their profession. Engineering professionals like biomedical engineers, need to appreciate the fundamentals of best practices and recognise how any derivation from such practices can have undesirable impacts on human lives. Through this book, it is hoped that readers would [...] Features

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Preface - Ethical practices and engineering - Ethics & biomedical engineering practice & research: origins of principles & consent - Ethical considerations in clinical engineering - Ethics of biomaterials for implants - Ethics and data mining in biomedical engineering - Whistle blowing: an option or an obligation? - Index.

Fields of interest

Biomedical Engineering - Ethics

Target groups

Upper undergraduate

Type of publication

Monograph

More on www.springer.com/978-1-4614-6912-4

Hardcover

2013. VII, 121 p. 18 illus., 15 illus. in color. 99.99 €

ISBN 978-1-4614-6912-4

Usually dispatched within 3 to 5 business days.

Fracture Mechanics and Statistical Mechanics of Reinforced Elastomeric Blends

Elastomers are found in many applications ranging from technology to daily life applications for example in tires, drive systems, sealings and print rollers. Dynamical operation conditions put extremely high demands on the performance and stability of these materials and their elastic and flow properties can be easily adjusted by simple manipulations on their elastic and viscous properties. However, the required service life suffers often from material damage as a result of wear processes such as abrasion and wear fatigue, mostly caused by crack formation and propagation. This book covers interdisciplinary research between physics, physical chemistry, material sciences and engineering [...] Features

Elastomers are found in many applications ranging from technology to daily life applications for example in tires, drive systems, sealings and print rollers. Dynamical operation conditions put extremely high demands on the performance and stability of these materials and their elastic and flow properties can be easily adjusted by simple manipulations on their elastic and viscous properties. However, [...] Contents


Continuum Mechanics and Mechanics of Materials; Mechanics; Theoretical and Applied Mechanics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-37909-3

Hardcover


ISBN 978-3-642-37909-3

Usually dispatched within 3 to 5 business days.

Future Information Communication Technology and Applications - ICFICE 2013

These proceedings are based on the 2013 International Conference on Future Information & Communication Engineering (ICFICE 2013), which will be held at Shenyang in China from June 24-26, 2013. The conference is open to all over the world, and participation from Asia-Pacific region is particularly encouraged. The focus of this conference is on all technical aspects of electronics, information, and communications. ICFICE - 13 will provide an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of FICE. In addition, the conference will publish high quality papers which are closely related to the various theories and practical applications [...] Features

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Fields of interest

Communications Engineering, Networks; Computer Communication Networks; Information Systems and Communication Service

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6515-3

Hardcover

2013. XX, 1068 p. 588 illus. In 2 volumes, not available separately. (Lecture Notes in Electrical Engineering, Vol. 235) 199.99 €

ISBN 978-94-007-6515-3

Usually dispatched within 3 to 5 business days.
IEEE 802.15.4 and ZigBee as Enabling Technologies for Low-Power Wireless Systems with Quality-of-Service Constraints

This book outlines the most important characteristics of IEEE 802.15.4 and ZigBee and how they can be used to engineer Wireless Sensor Network (WSN) systems and applications, with a particular focus on Quality of Service (QoS) aspects. It starts by providing a snapshot of the most relevant features of these two protocols, identifying some gaps in the standard specifications. Then it describes several state-of-the-art open source implementations, models and tools that have been designed by the authors and have been widely used by the international community.

The book also outlines the fundamental performance limits of IEEE 802.15.4/ZigBee networks, based on well-sustained analytical. [...] Features

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Part I IEEE 802.15.4 and ZigBee protocols and implementations.- 1 Snap shot of the IEEE802.15.4 and ZigBee protocols.- 2 Protocol implementations.- 3 Models and tools.- 4 Performance analysis and network dimensioning.- Part II Quality of Service amendments.- 5 Amendments to the IEEE802.15.4 protocol.- 6 Amendments to the ZigBee protocol.- Part III System architectures and applications.- 7 Structural health monitoring.- 8 Environmental monitoring.- 9 Energy-efficiency in Data Centers.- 10 Conclusions.

Fields of interest

Communications Engineering, Networks; Information Systems Applications (incl.Internet); Signal, Image and Speech Processing

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-37367-1

Softcover

2013, X, 169 p. 97 illus. (SpringerBriefs in Cooperating Objects)

49,99 €

ISBN 978-3-642-37367-1

Usually dispatched within 3 to 5 business days.

Managing the Continuum: Certainty, Uncertainty, Unpredictability in Large Engineering Projects

The brief will describe how to develop a risk analysis applied to a project, through a sequence of steps: risk management planning, risk identification, risk classification, risk assessment, risk quantification, risk response planning, risk monitoring and control, process close out and lessons learning. The project risk analysis and management process will be applied to large engineering projects, in particular related to the oil and gas industry. The brief will address the overall range of possible events affecting the project moving from certainty (project issues) through (project risks) to unpredictability (unforeseeable events), considering both negative and positive [...] Features

The brief will describe how to develop a risk analysis applied to a project, through a sequence of steps: risk management planning, risk identification, risk classification, risk assessment, risk quantification, risk response planning, risk monitoring and control, process close out and lessons learning. The project risk analysis and management process will be applied to large engineering projects, in [...] Contents


Fields of interest

Quality Control, Reliability, Safety and Risk; Project Management; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-88-470-5243-7

Softcover

2013. VIII, 88 p. 13 illus. (PolIMI SpringerBriefs)

49,99 €

ISBN 978-88-470-5243-7

Usually dispatched within 3 to 5 business days.
Mass Customization and Sustainability

An assessment framework and industrial implementation

To adapt to global competitive pressures, manufacturers must develop methods and enabling technologies towards a personalized, customer oriented and sustainable manufacturing. Mass Customization and Sustainability defines the two concepts of mass customization and sustainability and introduces a framework to establish a link between the two concepts to answer the questions: Are these two aspects empowering one another? Or are they hindering one another? These questions investigate mass customization as one of the main driving forces to achieve effective sustainability. A methodology to assess the contribution of mass customization to sustainability is developed, providing an [...] 

Features

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Contents


Fields of interest

Industrial and Production Engineering; Engineering Economics, Organization, Logistics, Marketing; Technology Management; Sustainable Development

Target groups

Research

Type of publication

Monograph


Hardcover


Modeling Approaches and Algorithms for Advanced Computer Applications

“During the last decades Computational Intelligence has emerged and showed its contributions in various broad research communities (computer science, engineering, finance, economic, decision making, etc.). This was done by proposing approaches and algorithms based either on turnkey techniques belonging to the large panoply of solutions offered by computational intelligence such as data mining, genetic algorithms, bio-inspired methods, Bayesian networks, machine learning, fuzzy logic, artificial neural networks, etc. or inspired by computational intelligence techniques to develop new ad-hoc algorithms for the problem under consideration. This volume is a comprehensive collection [...] 

Features

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Contents


Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00559-1

Hardcover

2013. XII, 428 p. 204 illus. (Studies in Computational Intelligence, Vol. 488) 129,99 € ISBN 978-3-319-00559-1 Usually dispatched within 3 to 5 business days.

Motion Coordination for VTOL Unmanned Aerial Vehicles

Attitude Synchronization and Formation Control

Motion Coordination for VTOL Unmanned Aerial Vehicles develops new control design techniques for the distributed coordination of a team of autonomous unmanned aerial vehicles. In particular, it provides new control design approaches for the attitude synchronization of a formation of rigid body systems. In addition, by integrating new control design techniques with some concepts from nonlinear control theory and multi-agent systems, it presents a new theoretical framework for the formation control of a class of under-actuated aerial vehicles capable of vertical take-off and landing. Several practical problems related to the systems’ inputs, states measurements, and restrictions on the [...] 

Features

Motion Coordination for VTOL Unmanned Aerial Vehicles develops new control design techniques for the distributed coordination of a team of autonomous unmanned aerial vehicles. In particular, it provides new control design approaches for the attitude synchronization of a formation of rigid body systems. In addition, by integrating new control design techniques with some concepts from nonlinear control [...] 

Contents

Background and Preliminaries.- Mathematical Models of Flying Vehicles.- Attitude Synchronization.- Attitude Synchronization with Communication Delays.- Global Trajectory Tracking of VTOL UAVs.- Formation Control of VTOL UAVs.- Formation Control with Communication Delays.

Fields of interest

Control; Aerospace Technology and Astronautics; Computer Communication Networks; Communications Engineering, Networks

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4471-5093-0

Hardcover

Multi-Scale Modeling and Characterization of Infrastructure Materials

Proceedings of the International RILEM Symposium Stockholm, June 2013

The micro- and nano-modification of infrastructure materials and the associated multi-scale characterization and simulation has the potential to open up whole new uses and classes of materials, with wide-ranging implications for society. The use of multi-scale characterization and simulation brings the ability to target changes at the very smallest scale that predictably affect the bulk behavior of the material and thus allowing for the optimization of material behavior and performance. The International RILEM Symposium on Multi-Scale Modeling and Characterization of Infrastructure Materials (Stockholm, June 10-12, 2013) brought together key researchers from around the world to present [...]
New Results in Dependability and Computer Systems

Proceedings of the 8th International Conference on Dependability and Complex Systems DepCoS-RELCOMEX, September 9-13, 2013, Brunow, Poland

DepCoS – RELCOMEX is an annual series of conferences organized by the Institute of Computer Engineering, Control and Robotics (CECR), Wroclaw University of Technology, since 2006. Its idea came from the heritage of the other two cycles of events: RELCOMEX Conferences (1977 – 89) and Microcomputer Schools (1985 – 95) which were then organized by the Institute of Engineering Cybernetics, the previous name of CECR. In contrast to those preceding meetings focused on the conventional reliability analysis, the DepCoS mission is to develop a more comprehensive approach to computer system performability, which is now commonly called dependability. Contemporary technical systems are [...] Features

DepCoS – RELCOMEX is an annual series of conferences organized by the Institute of Computer Engineering, Control and Robotics (CECR), Wroclaw University of Technology, since 2006. Its idea came from the heritage of the other two cycles of events: RELCOMEX Conferences (1977 – 89) and Microcomputer Schools (1985 – 95) which were then organized by the Institute of Engineering Cybernetics, the previous name of [...] Contents


Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics); Complexity

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-00944-5

Softcover

2013. XVI, 554 p. 236 illus. 4 illus. in color. (Advances in Intelligent Systems and Computing, Vol. 224) 189,99 €

Usually dispatched within 3 to 5 business days.

Nontraditional Machining Processes

Research Advances

Nontraditional machining employs processes that remove material by various methods involving thermal, electrical, chemical and mechanical energy or even combinations of these. Nontraditional Machining Processes covers recent research and development in techniques and processes which focus on achieving high accuracies and good surface finishes, parts machined without burrs or residual stresses especially with materials that cannot be machined by conventional methods. With applications to the automotive, aircraft and mould and die industries, Non- traditional Machining Processes explores different aspects and processes through dedicated chapters. The seven chapters explore recent research [...] Features

Nontraditional machining employs processes that remove material by various methods involving thermal, electrical, chemical and mechanical energy or even combinations of these. Nontraditional Machining Processes covers recent research and development in techniques and processes which focus on achieving high accuracies and good surface finishes, parts machined without burrs or residual stresses [...] Contents


Fields of interest

Machinery and Machine Elements; Manufacturing, Machines, Tools; Tribology, Corrosion and Coatings

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4471-5178-4

Hardcover

2013. X, 232 p. 156 illus. 105,00 €

ISBN 978-1-4471-5178-4

Usually dispatched within 3 to 5 business days.

Nostradamus 2013: Prediction, Modeling and Analysis of Complex Systems

Prediction of behavior of the dynamical systems, analysis and modeling of its structure is vitally important problem in engineering, economy and science today. Examples of such systems can be seen around the world and of course in almost every scientific discipline including such “exotic” domains like the earth’s atmosphere, turbulent fluids, economies (exchange rate and stock markets), population growth, physics (control of plasma), information flow in social networks and its dynamics, chemistry and complex networks. To understand such dynamics and to use it in research or intrudustrial applications, it is important to create its models. For this purpose there is rich spectra of [...] Features

Prediction of behavior of the dynamical systems, analysis and modeling of its structure is vitally important problem in engineering, economy and science today. Examples of such systems can be seen around the world and of course in almost every scientific discipline including such “exotic” domains like the earth’s atmosphere, turbulent fluids, economies (exchange rate and stock markets), population growth [...] Contents


Fields of interest

Computational Intelligence; Complexity; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-3-319-00541-6

Softcover

2013. XII, 350 p. 247 illus. (Advances in Intelligent Systems and Computing, Vol. 210) 249,00 €

ISBN 978-3-319-00051-6

Usually dispatched within 3 to 5 business days.
Optimal Analysis of Structures by Concepts of Symmetry and Regularity

Optimal analysis is defined as an analysis that creates and uses sparse, well-structured and well-conditioned matrices. The focus is on efficient methods for eigen- and singular value decompositions of matrices involved in static, dynamic stability analyses of symmetric and regular structures, or those general structures containing such components. Powerful tools are also developed for configuration processing, which is an important issue in the analysis and design of space structures and finite element models. Different mathematical concepts are combined to make the optimal analysis of structures feasible. Canonical forms from matrix algebra, product graphs from graph theory and symmetry groups from group theory are used...

Features
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Contents
Introduction to symmetry and regularity.- Introduction to graph theory and algebraic graph theory.- Graph products and configuration processing.- Canonical forms, basic definitions and properties.- Canonical forms for combinatorial optimization; nodal ordering and graph partitioning.- Graph products for ordering and graph partitioning.- Canonical forms applied to structural mechanics.- Graph products applied to the analysis of regular structures.- Graph products applied to locally modified regular structures by direct methods.- Graph products applied to regular and locally modified structures.-

Fields of interest
Structural Mechanics; Building Construction, HVAC, Refrigeration; Optimization

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-7091-1564-0

Hardcover
2013. XVI, 463 p. 296 illus., 32 illus. in color.
129,99 €
ISBN 978-3-7091-1564-0
Usually dispatched within 3 to 5 business days.

Plasticity
Modeling & Computation

There have been many excellent books written on the subject of inelastic deformation in solids, but rarely can one find a textbook on this subject. “Plasticity Modeling & Computation” is a textbook written specifically for students who want to learn the theoretical, mathematical, and computational aspects of inelastic deformation in solids. It adopts a simple narrative style that is not mathematically overbearing, and has been written to emulate a professor giving a lecture on this subject inside a classroom. Each section is written to provide a balance between the relevant equations and the explanations behind them. Where relevant, sections end with one or more exercises designed to...

Features
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Contents

Fields of interest
Geoengineering, Foundations, Hydraulics; Continuum Plasticity.- Bifurcation.

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-38546-9

Hardcover
2013. X, 255 p. 88 illus., 13 illus. in color.
99,99 €
ISBN 978-3-642-38546-9
Usually dispatched within 3 to 5 business days.

Proceedings of the 8th International Conference on Computer Recognition Systems CORES 2013

The computer recognition systems are nowadays one of the most promising directions in artificial intelligence. This book is the most comprehensive study of this field. It contains a collection of 86 carefully selected articles contributed by experts of pattern recognition. It reports on current research with respect to both methodology and applications. In particular, it includes the following sections: Biometrics, Data Stream Classification and Big Data Analytics, Features, learning, and classifiers, Image processing and computer vision, Medical applications, Miscellaneous applications, Pattern recognition and image processing in robotics, Speech and word recognition. This book is a great...

Features
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Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics); Pattern Recognition

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-3-319-00968-1

Softcover
299,00 €
ISBN 978-3-319-00968-1
Usually dispatched within 3 to 5 business days.
Recent Advances in Robotics and Automation

There isn’t a facet of human life that has not been touched and influenced by robots and automation. What makes robots and machines versatile is their computational intelligence. While modern intelligent sensors and powerful hardware capabilities have given a huge fillip to the growth of intelligent machines, the progress in the development of algorithms for smart interaction, collaboration and pro-activeness will result in the next quantum jump. This book deals with the recent advancements in design methodologies, algorithms and implementation techniques to incorporate intelligence in robots and automation systems. Several articles deal with navigation, localization and mapping of [...]}

Features
There isn’t a facet of human life that has not been touched and influenced by robots and automation. What makes robots and machines versatile is their computational intelligence. While modern intelligent sensors and powerful hardware capabilities have given a huge fillip to the growth of intelligent machines, the progress in the development of algorithms for smart interaction, collaboration and [...]}

Contents


Fields of interest
Computational Intelligence; Robotics and Automation; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-37386-2

Hardcover
2013. XV, 344 p. 214 illus. (Studies in Computational Intelligence, Vol. 480)
99,99 €
ISBN 978-3-642-37386-2

Usually dispatched within 3 to 5 business days.

Reliability Physics and Engineering

Time-To-Failure Modeling

‘Reliability Physics and Engineering’ provides critically important information for designing and building reliable cost-effective products. The textbook contains numerous example problems with solutions. Included at the end of each chapter are exercise problems and answers. ‘Reliability Physics and Engineering’ is a useful resource for students, engineers, and materials scientists.

Features
Reliability Physics and Engineering provides critically important information that is needed for designing and building reliable cost-effective products. Key features include: - Materials/Device Degradation - Degradation Kinetics - Time-To-Failure Modeling - Statistical Tools - Failure Rate Modeling - Accelerated [...]}

Contents


Fields of interest
Electronics and Microelectronics, Instrumentation; Quality Control, Reliability, Safety and Risk; Statistical Theory and Methods; Energy (general)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-319-00121-0

Hardcover
2013. XVI, 399 p. 171 illus., 124 illus. in color. 74,99 €
ISBN 978-3-319-00121-0

Usually dispatched within 3 to 5 business days.

Segmentation of Hand Bone for Bone Age Assessment

The objective of this Brief is to provide a solution to the unsolved technical problem in segmentation for the automated bone age assessment system. The task is accomplished by first applying the modified histogram equalized module, then applying the proposed automated anisotropic diffusion technique. It is followed by a novel fuzzy quadruple division scheme to optimize the central segmentation algorithm, and then an additional quality assurance scheme. The designed segmentation framework works without demanding scarce resources such as training sets and skillful operators. The results have shown that the designed framework is capable of separating the soft-tissue and background from[...]

Features
The objective of this Brief is to provide a solution to the unsolved technical problem in segmentation for the automated bone age assessment system. The task is accomplished by first applying the modified histogram equalized module, then applying the proposed automated anisotropic diffusion technique. It is followed by a novel fuzzy quadruple division scheme to optimize the central segmentation algorithm, and [...]}

Contents

Introduction.- The conventional segmentation methods.- The advanced segmentation method.- The possible solution.- Result analysis and discussion.- Conclusions and recommendations.

Fields of interest
Biomedical Engineering; Signal, Image and Speech Processing; Imaging / Radiology; Medical and Radiation Physics

Target groups
Research

Type of publication
Brief


Softcover
2013. XVI, 132 p. 51 illus., 27 illus. in color. (Springer-Briefs in Applied Sciences and Technology) 49,99 €

Usually dispatched within 3 to 5 business days.
Semantic Modeling and Interoperability in Product and Process Engineering
A Technology for Engineering Informatics

In the past decade, feature-based design and manufacturing has gained some momentum in various engineering domains to represent and reuse semantic patterns with effective applicability. However, the actual scope of feature application is still very limited. Semantic Modeling and Interoperability in Product and Process Engineering provides a systematic solution for the challenging engineering informatics field aiming at the enhancement of sustainable knowledge representation, implementation and reuse in an open and yet practically manageable scale. This semantic modeling technology supports uniform, multi-facet and multi-level collaborative system engineering with heterogeneous...[

Features
In the past decade, feature-based design and manufacturing has gained some momentum in various engineering domains to represent and reuse semantic patterns with effective applicability. However, the actual scope of feature application is still very limited. Semantic Modeling and Interoperability in Product and Process Engineering provides a systematic solution for the challenging engineering...[

Contents

Fields of interest
Engineering Economics, Organization, Logistics, Marketing; Engineering Design; Simulation and Modeling; Technology Management

Target groups
Professional/practitioner

Type of publication
Monograph


Sliding Mode Control and Observation
The sliding mode control methodology has proven effective in dealing with complex dynamical systems affected by disturbances, uncertainties and unmodeled dynamics. Robust control technology based on this methodology has been applied to many real-world problems, especially in the areas of aerospace control, electric power systems, electromechanical systems, and robotics. Sliding Mode Control and Observation represents the first textbook that starts with classical sliding mode control techniques and progresses toward newly developed higher-order sliding mode control and observation algorithms and their applications. The present volume addresses a range of sliding mode control issues...[

Features
The sliding mode control methodology has proven effective in dealing with complex dynamical systems affected by disturbances, uncertainties and unmodeled dynamics. Robust control technology based on this methodology has been applied to many real-world problems, especially in the areas of aerospace control, electric power systems, electromechanical systems, and robotics. Sliding Mode Control and...[

Contents

Fields of interest
Control, Robotics, Mechatronics; Vibration, Dynamical Systems, Control; Systems Theory, Control; Appl. Mathematics / Computational Methods of Engineering; Engineering Design

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-38052-5

Softcover

Online orders shipping within 2-3 days.
**Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing**

This edited book presents scientific results of the 14th ACIS/IEEE International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2013), held in Honolulu, Hawaii, USA on July 1-3, 2013. The aim of this conference was to bring together scientists, engineers, computer users, and students to share their experiences and exchange new ideas, research results about all aspects (theory, applications and tools) of computer and information science, and to discuss the practical challenges encountered along the way and the solutions adopted to solve them. The conference organizers selected the 17 outstanding papers from those papers.

**Features**

This edited book presents scientific results of the 14th ACIS/IEEE International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD 2013), held in Honolulu, Hawaii, USA on July 1-3, 2013. The aim of this conference was to bring together scientists, engineers, computer users, and students to share their experiences and exchange new ideas, research [...]  

**Contents**


**Fields of interest**

Computational Intelligence; Artificial Intelligence (incl. Robotics); Software Engineering

**Target groups**

Research

**Type of publication**

Proceedings

More on [www.springer.com/978-3-319-00737-3](http://www.springer.com/978-3-319-00737-3)

**Hardcover**

2013. XV, 242 p. 141 illus. (Studies in Computational Intelligence, Vol. 492)  
99,99 €  
ISBN 978-3-319-00737-3  
Usually dispatched within 3 to 5 business days.

**Sound - Perception - Performance**

Musical Performance covers many aspects like Musical Acoustics, Music Psychology, or motor and prosodic actions. It deals with basic concepts of the origin or music and its evolution, ranges over neurocognitive foundations, and covers computational, technological, or simulation solutions. This volume gives an overview about current research in the foundation of musical performance studies on all these levels. Recent concepts of synchronized systems, evolutionary concepts, basic understanding of performance as Gestalt patterns, theories of chill as performance goals or historical aspects are covered. The neurocognitive basis of motor action in terms of music, musical syntax, as well as [...]  

**Features**

Musical Performance covers many aspects like Musical Acoustics, Music Psychology, or motor and prosodic actions. It deals with basic concepts of the origin or music and its evolution, ranges over neurocognitive foundations, and covers computational, technological, or simulation solutions. This volume gives an overview about current research in the foundation of musical performance studies on all these levels. [...]  

**Contents**

**Fields of interest**

Engineering Acoustics; Acoustics; Music; Computational Intelligence  
**Target groups**

Research

**Type of publication**

Monograph

More on [www.springer.com/978-3-319-00106-7](http://www.springer.com/978-3-319-00106-7)

**Hardcover**

2013. XV, 389 p. 137 illus., 80 illus. in color. (Current Research in Systematic Musicology, Vol. 1)  
129,99 €  
ISBN 978-3-319-00106-7  
Usually dispatched within 3 to 5 business days.

**SpaceX**

Making Commercial Spaceflight a Reality

This first account of commercial spaceflight’s most successful venture describes the extraordinary feats of engineering and human achievement that have placed SpaceX at the forefront of the launch industry and made it the most likely candidate for transporting humans to Mars. Since its inception in 2002, SpaceX has sought to change the space launch paradigm by developing a family of launch vehicles that will ultimately reduce the cost and increase the reliability of space access tenfold. Coupled with the newly emerging market for governmental, private, and commercial space transport, this new model will re-ignite humanity’s efforts to explore and develop space. Formed in 2002 by Elon [...]  

**Features**

2012 - the year when the first ever privately-developed spacecraft visited the International Space Station. This is the story of how one company is transforming commercial space flight. It describes the extraordinary feats of engineering and human achievement that have resulted in the world’s first fully reusable launch vehicles and the prospect of human travel to Mars. SpaceX - The [...]  

**Contents**

Elon Musk.- Space Exers.- The Engines – Merlin.- The Rockets: from the Falcon 1 to the Falcon 9.- The Rockets: from the Falcon 9 to the Falcon Heavy.- The Spacecraft – Dragon.- Contracts and Flight Operations.- I’ll Put a Man on Mars in 10 Years.- Red Dragon.

**Fields of interest**

Aerospace Technology and Astronautics; Popular Science in Mathematics / Natural Science / Technology; Entrepreneurship; Extraterrestrial Physics, Space Sciences; Emerging Markets/Globalization

**Target groups**

Popular/general

**Type of publication**

Popular science


**Softcover**

2013. XVI, 206 p. 86 illus., 42 illus. in color. (Space Exploration)  
34,99 €  
ISBN 978-1-4614-5513-4  
Usually dispatched within 3 to 5 business days.
Structured Controllers for Uncertain Systems
A Stochastic Optimization Approach

Structured Controllers for Uncertain Systems focuses on the development of easy-to-use design strategies for robust low-order or fixed-structure controllers (particularly the industrially ubiquitous PID controller). These strategies are based on a recently-developed stochastic optimization method termed the ‘Heuristic Kalman Algorithm’ (HKA) the use of which results in a simplified methodology that enables the solution of the structured control problem without a profusion of user-defined parameters. An overview of the main stochastic methods employable in the context of continuous non-convex optimization problems is also provided and various optimization criteria for the design of a [...]"}

Features
Structured Controllers for Uncertain Systems focuses on the development of easy-to-use design strategies for robust low-order or fixed-structure controllers (particularly the industrially ubiquitous PID controller). These strategies are based on a recently-developed stochastic optimization method termed the ‘Heuristic Kalman Algorithm’ (HKA) the use of which results in a simplified methodology that enables [...]"}

Contents

Fields of interest
Control; Systems Theory; Control; Calculus of Variations and Optimal Control; Optimization

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-1-4471-5187-6

Hardcover

Usually dispatched within 3 to 5 business days.

The Anticipation of Converging Industries
A Concept Applied to Nutraceuticals and Functional Foods

The blurring of boundaries between hitherto distinct scientific disciplines, technologies or markets is a common and powerful phenomenon. Subjects of this convergence often change consumer behaviours, favouring products and platforms with multiple functions. The Anticipation of Converging Industries provides a detailed focus on the triggers, drivers and consequences of convergence to create a more concise definition of convergence. This detailed analysis includes a specifically developed toolbox for ‘convergence foresight’, creating a forecasting method for convergence trends. With the focus on the chemical, biotechnological and pharmaceutical industries, several indicators of [...]"}

Features
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Contents

Fields of interest
Engineering Economics, Organization, Logistics, Marketing; R & D / Technology Policy; Technology Management; Pharmaceutical Sciences / Technology; Life Sciences (general); Behavioural Sciences

Target groups
Research

Type of publication
Monograph


Hardcover

Usually dispatched within 3 to 5 business days.

The Future of Thermal Comfort in an Energy-Constrained World

The dissertation investigates the scientific and business factors that have resulted in air-conditioning being a major contributor to climate-change. With his architectural background, the author demonstrates how a design methodology, not commonly adopted in scientific studies, may actually be a suitable way of dealing with a complex problem: the ‘business as usual’ scenario involving building science, sociological values and consumer behavior. Using his innovations as case studies, the author shows how good ideas cannot be evaluated on scientific merit alone and demonstrates why commercialization may have a pivotal role in deployment of research-based technology. He advances the [...]"

Features
The dissertation investigates the scientific and business factors that have resulted in air-conditioning being a major contributor to climate-change. With his architectural background, the author demonstrates how a design methodology, not commonly adopted in scientific studies, may actually be a suitable way of dealing with a complex problem: the ‘business as usual’ scenario involving building science, [...]"

Contents

Fields of interest
Building Construction, HVAC, Refrigeration; Climate Change Management and Policy; Energy Efficiency (incl. Buildings); Market Research

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00148-7

Hardcover
2013. XXII, 329 p. 219 illus., 28 illus. in color. (Springer Theses) 139.99 € ISBN 978-3-319-00148-7

Usually dispatched within 3 to 5 business days.
A number of metrics for assessing human thermal response to climatic conditions have been proposed in scientific literature over the last decades. They aim at describing human thermal perception of the thermal environment to which an individual or a group of people is exposed. More recently, a new type of “discomfort index” has been proposed for describing, in a synthetic way, long-term phenomena. Starting from a systematic review of a number of long-term global discomfort indices, they are then contrasted and compared on a reference case study in order to identify their similarities and differences and strengths and weaknesses. Based on this analysis, a new short-term local [...]
Topics in Model Validation and Uncertainty Quantification, Volume 5
Topics in Model Validation and Uncertainty Quantification, Volume 5: Proceedings of the 31st IMAC, A Conference on Structural Dynamics, 2013, the fifth volume of seven from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Structural Dynamics, including papers on: Uncertainty Quantification & Propagation in Structural Dynamics; Robustness to Lack of Knowledge in Design; Model Validation.

Contents

Fields of interest
Quality Control, Reliability, Safety and Risk; Aerospace Technology and Astronautics; Structural Mechanics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4614-6563-8

Hardcover

Usually dispatched within 3 to 5 business days.

Topics in Nonlinear Dynamics, Volume 1
Topics in Nonlinear Dynamics, Volume 1: Proceedings of the 31st IMAC, A Conference and Exposition on Structural Dynamics, 2013, the first volume of seven from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on fundamental and applied aspects of Structural Dynamics, including papers on: Nonlinear Oscillations; Nonlinearities ... In Practice; Nonlinear System Identification; Methodologies; Nonlinear System Identification: Friction & Contact; Nonlinear Modal Analysis; Nonlinear Modeling & Simulation; Nonlinear Vibration Absorbers; Constructive Utilization of Nonlinearity.

Features
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Contents

Fields of interest
Aerospace Technology and Astronautics; Nonlinear Dynamics; Mathematical Modeling and Industrial Mathematics

Target groups
Research

Type of publication
Proceedings

More on www.springer.com/978-1-4614-6569-0

Hardcover

Usually dispatched within 3 to 5 business days.

Trace-Based Post-Silicon Validation for VLSI Circuits
This book first provides a comprehensive coverage of state-of-the-art validation solutions based on real-time signal tracing to guarantee the correctness of VLSI circuits. The authors discuss several key challenges in post-silicon validation and provide automated solutions that are systematic and cost-effective. A series of automatic tracing solutions and innovative design for debug (DID) techniques are described, including techniques for trace signal selection for enhancing visibility of functional errors, a multiplexed signal tracing strategy for improving functional error detection, a tracing solution for debugging electrical errors, an interconnection fabric for increasing data[...]

Features
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Contents

Fields of interest
Circuits and Systems; Processor Architectures; Semiconductors

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00532-4

Hardcover

Usually dispatched within 3 to 5 business days.
Trends in Practical Applications of Agents and Multiagent Systems

11th International Conference on Practical Applications of Agents and Multi Agent Systems

Research on Agents and Multi-agent Systems has matured during the last decade and many effective applications of this technology are now deployed. PAAMS provides an international forum to present and discuss the latest scientific developments and their effective applications, to assess the impact of the approach, and to facilitate technology transfer. PAAMS started as a local initiative, but since grown to the international yearly platform to present, to discuss, and to disseminate the latest developments and the most important outcomes related to real-world applications. It provides a unique opportunity to bring multi-disciplinary experts, academics and practitioners together.[...]

Features
Research on Agents and Multi-agent Systems has matured during the last decade and many effective applications of this technology are now deployed. PAAMS provides an international forum to present and discuss the latest scientific developments and their effective applications, to assess the impact of the approach, and to facilitate technology transfer. PAAMS started as a local initiative, but since grown to [...]
**Wireless Vehicular Networks for Car Collision Avoidance**

Wireless Vehicular Networks for Car Collision Avoidance focuses on the development of the ITS (Intelligent Transportation Systems) in order to minimize vehicular accidents. The book presents and analyses a range of concrete accident scenarios while examining the causes of vehicular collision and proposing countermeasures based on wireless vehicular networks. The book also describes the vehicular network standards and quality of service mechanisms focusing on improving critical dissemination of safety information. With recommendations on techniques and protocols to consider when improving road safety policies in order to minimize crashes and collision risks.

**Features**
- Wireless Vehicular Networks for Car Collision Avoidance focuses on the development of the ITS (Intelligent Transportation Systems) in order to minimize vehicular accidents.
- The book presents and analyses a range of concrete accident scenarios while examining the causes of vehicular collision and proposing countermeasures based on wireless vehicular networks.
- The book also describes the vehicular network standards and quality of service mechanisms focusing on improving critical dissemination of safety information.

**Contents**
- A Survey of Communications for Intelligent Transportation Systems.
- Quality of Service Provisioning in Wireless Vehicular Networks: Challenges and Mechanisms.
- Message dissemination in VANET: protocols and performances.
- Rear End Collision: Causes and Avoidance Techniques.
- Chain Collision Accident: Causes and Avoidance Techniques.
- Lane Change and Overtaking Collisions: Causes and Avoidance Techniques.
- Intersection Collision: Causes and Avoidance Techniques.
- Cars and Pedestrians Collision: Causes and Avoidance Techniques.

**Fields of interest**
- Marine & Freshwater Sciences
- Environmental Science

**Target groups**
- Research

**Type of publication**
- Monograph

An Ecosystem Approach to Sustainable Agriculture

Energy Use Efficiency in the American South

Modern industrial agriculture is not sustainable because of its heavy reliance on petroleum, a non-renewable source of the energy used in farming, and because of pollution caused by petroleum products such as fertilizers and pesticides. A systems analysis of farming suggests that agriculture will be more sustainable when services of nature, such as nutrient recycling by soil micro-organisms and natural controls of insects, replace the services now provided by energy from petroleum. Examples are drawn from the Southeastern USA, but lessons learned can be applied worldwide.

Features
For economic reasons, farmers generally strive to maximize short-term agricultural yield (energy output) through energy subsidies in the form of fertilizers and pesticides. When these subsidies are used inefficiently they result in water and air pollution, soil erosion, extinction of beneficial insects, spread of disease, and disappearance of ground water reservoirs. The key to agricultural [...] 

Contents

Fields of interest
Sustainable Development; Agriculture; Environmental Management; Ecosystems; Applied Ecology; Conservation Biology / Ecology

Target groups
Graduate

Type of publication
Monograph

More on www.springer.com/978-94-007-6789-8

Hardcover

Anthropological Perspectives on Intangible Cultural Heritage

A decade after the approval of the UNESCO 2003 Convention for the Safeguarding of Intangible Cultural Heritage (ICH), the concept has gained wide acceptance at the local, national and international levels. Communities are recognizing and celebrating their Intangible Heritage; governments are devoting important efforts to the construction of national inventories; and anthropologists and professionals from different disciplines are forming a new field of study. The ten chapters of this book include the peer-reviewed papers of the First Planning Meeting of the International Social Science Council’s Commission on Research on ICH, which was held at the Centro Regional de Investigaciones, [...] 

Features
A decade after the approval of the UNESCO 2003 Convention for the Safeguarding of Intangible Cultural Heritage (ICH), the concept has gained wide acceptance at the local, national and international levels. Communities are recognizing and celebrating their Intangible Heritage; governments are devoting important efforts to the construction of national inventories; and anthropologists and professionals from [...] 

Contents

Fields of interest
Environmental Law / Policy / Ecojustice; Cultural Heritage; Anthropology

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-00854-7

Softcover

Benefit Sharing

From Biodiversity to Human Genetics

Biomedical research is increasingly carried out in low- and middle-income countries. International consensus has largely been achieved around the importance of valid consent and protecting research participants from harm. But what are the responsibilities of researchers and funders to share the benefits of their research with research participants and their communities? After setting out the legal, ethical and conceptual frameworks for benefit sharing, this collection analyzes seven historical cases to identify the ethical and policy challenges that arise in relation to benefit sharing. A series of recommendations address possible ways forward to achieve justice for research[...]

Features
Biomedical research is increasingly carried out in low- and middle-income countries. International consensus has largely been achieved around the importance of valid consent and protecting research participants from harm. But what are the responsibilities of researchers and funders to share the benefits of their research with research participants and their communities? After setting out the legal, ethical [...] 

Contents

Fields of interest
Environmental Law / Policy / Ecojustice; Medicine (general); International Environmental Law; Ethics; Gender Studies; Science

Target groups
Graduate

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6204-6

Hardcover
2013. XXVII, 234 p. 4 illus. in color. 99,99 € ISBN 978-94-007-6204-6 Usually dispatched within 3 to 5 business days.
Disentangling Migration and Climate Change

Methodologies, Political Discourses and Human Rights

This book addresses environmental and climate change induced migration from the vantage point of migration studies, offering a broad spectrum of approaches for considering the environment/climate/migration nexus. Research on the subject is still frequently narrowed down to climate change vulnerability and the environmental push factor. The book establishes the interconnections between societal and environmental vulnerability, and migration and capability, allowing appreciation of migration in the frame of climate as a case of spatial and social mobility, that is, as a strategy of persons and groups to deal with a grossly unequal distribution of life chances across the world. In their[...]

Features

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Johan Galtung
Pioneer of Peace Research

This is the first ever anthology of key articles by Johan Galtung, widely regarded as the founder of the academic discipline of peace studies. It covers such concepts as direct, structural and cultural violence; theories of conflict, development, civilization and peace; peaceful conflict transformation; peace education; mediation; reconciliation; a life-sustaining economy; macro-history; deep culture and deep structure; and social science methodology. Galtung has contributed original research, concepts and theories to more than 20 social science disciplines, including sociology, international relations and future studies, and has also applied his new insights in practice. The book is [...] Features

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Environmental Law / Policy / Ecojustice; History of Science

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-32480-2

Softcover

2013. XII, 190 p. 18 illus., 12 illus. in color. (SpringerBriefs on Pioneers in Science and Practice, Vol. 5)
49,99 €
ISBN 978-3-642-32480-2

Usually dispatched within 3 to 5 business days.

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Environmental Law / Policy / Ecojustice; History of Science

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-642-32480-2

Softcover

2013. XII, 190 p. 18 illus., 12 illus. in color. (SpringerBriefs on Pioneers in Science and Practice, Vol. 5)
49,99 €
ISBN 978-3-642-32480-2

Usually dispatched within 3 to 5 business days.

V. Mega

Quintessential Cities, Accountable to the Future
Sustainability, Innovation and Citizenship

This book can be seen as the third part of an unofficial trilogy on Sustainable Cities of the Future with the author’s previous books ‘Sustainable Development, Energy and the City’ and ‘Sustainable Cities for the third millennium: The Odyssey of urban excellence’, both prefaced by Prof. Sir Peter Hall. All three books follow the evolving forefront of innovations towards Sustainable Cities. They collectively try to respond to the questions: What future cities wish to build (with their scarcities and capacities) on a finite planet? What do-they do to achieve this? How do they contribute to redesign the world? The third book adopts, first and foremost, a strategic foresight approach [...] Features

This book can be seen as the third part of an unofficial trilogy on Sustainable Cities of the Future with the author’s previous books ‘Sustainable Development, Energy and the City’ and ‘Sustainable Cities for the third millennium: The Odyssey of urban excellence’, both prefaced by Prof. Sir Peter Hall. All three books follow the evolving forefront of innovations towards Sustainable Cities. They collectively [...] Contents


Fields of interest

Sustainable Development; Landscape, Regional and Urban Planning; Economic Geography

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-7347-3

Hardcover

2013. XXV, 279 p. 17 illus. in color.
99,99 €

Usually dispatched within 3 to 5 business days.

V.I. Korogodina, Joint Institute for Nuclear Research, Moscow, Russia; B. Finko, Joint Institute for Nuclear Research, Moscow, Russia; L.P. Ospieva, Institute of Cytology and Genetics SIB RAS, Novosibirsk, Russia

Radiation-Induced Processes of Adaptation
Research by statistical modelling

In recent decades radiobiologists’ efforts have been directed at identifying the mechanisms of radiation effects; the general mechanisms have since been studied extensively. This book describes and analyzes radiation-induced adaptation as processes produced in cells, tissues, and populations. This viewpoint helps to understand the nature and factors of induced processes, to determine the characteristics of observed radiation effects and their limitations. The investigations presented here were founded on proper lab experiments, ecological studies of plant population growth near an operating nuclear power plant and a thorough epidemiological examination of human populations living in [...]

Features

In recent decades radiobiologists’ efforts have been directed at identifying the mechanisms of radiation effects; the general mechanisms have since been studied extensively. This book describes and analyzes radiation-induced adaptation as processes produced in cells, tissues, and populations. This viewpoint helps to understand the nature and factors of induced processes, to determine the [...] Contents


Fields of interest

Effects of Radiation / Radiation Protection; Environmental Health; Math. Appl. in Environmental Science; Epidemiology; Statistics for Life Sciences, Medicine, Health Sciences

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6629-7

Hardcover

2013. XVII, 183 p. 60 illus., 25 illus. in color.
99,99 €
ISBN 978-94-007-6629-7

Usually dispatched within 3 to 5 business days.
Sustainable Transport Studies in Asia

This book aims to provide a good understanding of and perspective on sustainable transport in Asia by focusing on economic, environmental, and social sustainability. It is widely acknowledged that the current situation and trends in transport are not always sustainable in Asia, due in part to the fast-growing economy and the astounding speed of urbanization as well as least-mature governance. As essential research material, the book provides strong support for policy makers and planners by comprehensively covering three groups of strategies, characterized by the words “avoid” (e.g., urban form design and control of car ownership), “shift” (e.g., establishing comprehensive...)

Features

This book aims to provide a good understanding of and perspective on sustainable transport in Asia by focusing on economic, environmental, and social sustainability. It is widely acknowledged that the current situation and trends in transport are not always sustainable in Asia, due in part to the fast-growing economy and the astounding speed of urbanization as well as least-mature governance. As essential [...]
Mitigating Climate Change

The Emerging Face of Modern Cities

With ever increasing trends in urban consumption and production practices, a call for action to mitigate Climate Change is often seen as a way to foster sustainable development. Considerable attention is now being paid to determine what urban sustainability would include. Today there is a pressing need to broaden our knowledge and apply new concepts and frameworks to development of modern cities. Building on the foregoing, this book attempts to bring together and discuss concepts, tools, frameworks and best practices to cope with the emerging challenges faced by cities today. The book will be of use to policy makers, city planners, practitioners and academics who are starting to [...]
Detection of Melt Ponds on Arctic Sea Ice with Optical Satellite Data

The Arctic sea ice is characterized by profound changes caused by surface melting processes and the formation of melt ponds in summer. Melt ponds contribute to the ice-albedo feedback as they reduce the surface albedo of sea ice, and hence accelerate the decay of Arctic sea ice. To quantify the melting of the entire Arctic sea ice, satellite based observations are necessary. Due to different spectral properties of snow, ice, and water, theoretically, multi-spectral optical sensors are necessary for the analysis of these distinct surface types. This study demonstrates the potential of optical sensors to detect melt ponds on Arctic sea ice. For the first time, an Arctic-wide, [...] Features

The Arctic sea ice is characterized by profound changes caused by surface melting processes and the formation of melt ponds in summer. Melt ponds contribute to the ice-albedo feedback as they reduce the surface albedo of sea ice, and hence accelerate the decay of Arctic sea ice. To quantify the melting of the entire Arctic sea ice, satellite based observations are necessary. Due to different spectral [...] Contents


Fields of interest

Law of the Sea, Air and Outer Space; Earth System Sciences; Climate Change; Geophysics and Environmental Physics; Oceanography; Remote Sensing / Photogrammetry

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-37032-8

Softcover

2013. XVI, 106 p. 45 illus., 35 illus. in color. (Hamburg Studies on Maritime Affairs, Vol. 25)

99,99 €

ISBN 978-3-642-37032-8

Usually dispatched within 3 to 5 business days.

European Ship Recycling Regulation

Entry-Into-Force Implications of the Hong Kong Convention

This study provides an in-depth analysis of the Hong Kong Ship Recycling Convention as adopted in May 2009 and a thorough analysis of the overall status quo of ship recycling regulations. It investigates the lack of sufficient ratifications of the Convention from both a legal and an economic perspective. The first part of the study focuses on the history of the Convention’s entry-into-force provision and the rationale behind it. Due to the fact that this provision provides a considerable additional obstacle to the Convention’s becoming legally binding, in the second part the focus of the work shifts to unilateral action in this field. An overview of the legal environment of Europe is [...] Features

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Fields of interest

Law of the Sea, Air and Outer Space; European Law; Environmental Economics; International Environmental Law; International Economic Law, Trade Law; Industrial Organization

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-35596-7

Softcover


129,99 €

ISBN 978-3-642-35596-7

Usually dispatched within 3 to 5 business days.

Farthing on International Shipping

The book provides an introduction to shipping in all its aspects. It is a valuable source of information for students of traditional maritime law as well as for those who seek to understand maritime and shipping services on a global scale. The text includes information and analytical content on national and international practices in shipping, including the age-old dichotomy between freedom in international shipping and the persistent demands of states to control specific maritime areas, as well as the tension between, on the one hand, the desire on the part of sovereign states to regulate and protect their shipping interests and, on the other, the abiding concern and unquestioned [...] Features

The book provides an introduction to shipping in all its aspects. It is a valuable source of information for students of traditional maritime law as well as for those who seek to understand maritime and shipping services on a global scale. The text includes information and analytical content on national and international practices in shipping, including the age-old dichotomy between freedom in international [...] Contents


Law of the Sea, Air and Outer Space; International Economic Law; Trade Law; Environmental Law; Policy / Ecopolitics; Production / Logistics; International Environmental Law

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-34597-5

Hardcover

2013. XXII, 411 p. 6 illus., 2 illus. in color. (WMU Studies in Maritime Affairs, Vol. 1)

69,99 €

ISBN 978-3-642-34597-5

Usually dispatched within 3 to 5 business days.
Gender and Sexuality in Latin America - Cases and Decisions

Translated and updated from the seminal Spanish text on legal decisions affecting gender and sexuality in Latin America, this English edition is the only law text to focus specifically on the rights of lesbians, gays, bisexuals and the transgender population in addition to women’s rights more broadly. The volume provides close analysis of some of the most important decisions made by Latin American national courts, as well as those made by international legal bodies, that affect the rights and interests of these groups. Specially selected for their depth of argument and value as exemplars, the studies of good legal practice chart the path of the region’s normative values of justice [...]
The Ways of Federalism in Western Countries and the Horizons of Territorial Autonomy in Spain

Volume 2

Territorial autonomy in Spain has reached a crossroads. After over thirty years of development, the consensus regarding its appropriateness has started to crumble. The transformation project embodied by the reform of Statute of Catalonia (2006) has failed to achieve its most significant demands. Although the concept of Spain as a Federation is disputed - more within the country than beyond-, the evolution of the Spanish system needs to follow a markedly federalist path. In this perspective, reference models assume critical importance. This edition gathers the works of a broad group of European, American and Spanish experts who analyse the present-day challenges of their respective[...]

Contents

Fields of interest
Parliamentary Politics; Comparative Politics; Regional and Cultural Studies; European Law; Comparative Law; Constitutional Law; Regional and Cultural Studies; European Law; Comparative Politics

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-27716-0

Hardcover
2013. XII, 331 p. 10 illus. 129,99 € ISBN 978-3-642-33798-7

Usually dispatched within 3 to 5 business days.
Cereal Genomics II

"Cereal Genomics" published in 2004 served the purpose of collecting all information on cereal genomics at one place and was well received by the cereal workers through-out the world. The last eight years have witnessed significant advancement in the field of cereal genomics. For instance, high-density genetic maps, physical maps, QTL maps and even draft genome sequence have become available for several cereal species. Furthermore, the next generation sequencing (NGS) technologies have revolutionized genomics research, so that it is possible now to sequence genomes of hundreds or thousands of accessions of an individual cereal crop. Significant amounts of data generated using these [...] Features

During the last decades, major advances have been made in the field of cereal genomics. For instance, high-density genetic maps, physical maps, QTL maps and even draft genome sequence have become available for several cereal species. This has been facilitated by the development of next generation sequencing (NGS) technologies, so that, it is now possible to sequence genomes of hundreds or thousands of [...] Contents


Fields of interest

Plant Pathology; Microbiology; Plant Breeding / Biotechnology; Agriculture; Plant Ecology; Life Sciences (general)

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6376-0

Hardcover

2013. XXI, 346 p. 30 illus. (Progress in Biological Control, Vol. 16)

129,99 €

ISBN 978-94-007-6376-0

Usually dispatched within 3 to 5 business days.
Crop Improvement

New Approaches and Modern Techniques

The improvement of crop species has been a basic pursuit since cultivation began thousands of years ago. To feed an ever increasing world population will require a great increase in food production. Wheat, corn, rice, potato and few others are expected to lead as the most important crops in the world. Enormous efforts are made all over the world to document as well as use these resources. Everybody knows that the introgression of genes in wheat provided the foundation for the “Green Revolution”. Later also demonstrated the great impact that genetic resources have on production. Several factors are contributing to high plant performance under different environmental conditions.

Features

The improvement of crop species has been a basic pursuit since cultivation began thousands of years ago. To feed an ever increasing world population will require a great increase in food production. Wheat, corn, rice, potato and few others are expected to lead as the most important crops in the world. Enormous efforts are made all over the world to document as well as use these resources. Everybody knows [...]
Embyronic Stem Cell Immunobiology
Methods and Protocols

Bone marrow stem cells are the most transplanted cells worldwide. These cells are used as a replacement therapy for patients suffering from a diverse number of hematopoietic diseases and immunodeficiencies. However, the use of bone marrow cells in regenerative medicine has so far remained without much success. In the new era of pluripotent stem cells, great opportunities for establishing new therapies have opened up. The discovery of human embryonic stem cells and that of induced pluripotent (iPS) stem cells has made it possible to derive any desired tissues for regenerative medicine as iPS cell derived cells are only limited by the lack of established protocols that can be applied. [...] Features
Bone marrow stem cells are the most transplanted cells worldwide. These cells are used as a replacement therapy for patients suffering from a diverse number of hematopoietic diseases and immunodeficiencies. However, the use of bone marrow cells in regenerative medicine has so far remained without much success. In the new era of pluripotent stem cells, great opportunities for establishing new therapies have [...] Contents
Immune Privilege of Stem Cells.- Immunogenicity of In vitro Maintained and Matured Populations: Potential Barriers to Engraftment of Human Pluripotent Stem Cell Derivatives.- Hematopoietic and Natural Killer Cell Development from Human Pluripotent Stem Cells.- Evaluation of Immunogenicity of Rat ES-Cell Derived Endothelial Cells.- Interaction of ES Cell Derived Neural Progenitor Cells with Natural Killer Cells and Cytotoxic T Cells.- Strategies to Generate Induced Pluripotent Stem Cells.- The Differentiation and Lineage Commitment of Murine Embryonic Stem Cells into Insulin Producing [...] Fields of interest
Cell Biology; Stem Cells

Emerging Trends in Cell and Gene Therapy

Examples from various organs and diseases illustrate the potential benefit obtained when both therapeutic approaches are combined with delivery strategies. Representing the combined effort of several leading international research and clinical experts, this book, Emerging Trends in Cell and Gene Therapy, provides a complete account on and brings into sharp focus current trends and state-of-the-art in important areas at the interface of cell- and gene-based therapies. This book addresses the current fragmented understanding regarding these two research areas and fills the vast unmet educational need and interest of both students and researchers in academia and industry. Main features [...] Features
Examples from various organs and diseases illustrate the potential benefit obtained when both therapeutic approaches are combined with delivery strategies. Representing the combined effort of several leading international research and clinical experts, this book, Emerging Trends in Cell and Gene Therapy, provides a complete account on and brings into sharp focus current trends and [...] Contents
Cell Biology; Gene Therapy; Biotechnology; Pharmaceutical Sciences / Technology

Encyclopedia of Systems Biology

Systems biology refers to the quantitative analysis of the dynamic interactions among several components of a biological system and aims to understand the behavior of the system as a whole. Systems biology involves the development and application of systems theory concepts for the study of complex biological systems through iteration over mathematical modeling, computational simulation and biological experimentation. Systems biology could be viewed as a tool to increase our understanding of biological systems, to develop more directed experiments, and to allow accurate predictions. The Encyclopedia of Systems Biology is conceived as a comprehensive reference work covering all aspects [...] Features
Systems biology refers to the quantitative analysis of the dynamic interactions among several components of a biological system and aims to understand the behavior of the system as a whole. Systems biology involves the development and application of systems theory concepts for the study of complex biological systems through iteration over mathematical modeling, computational simulation and biological [...] Contents
Systems Biology; Bioinformatics; Biochemistry; Computer Applications in Life Sciences

Encyclopedia of Systems Biology
**Essentials of Mesenchymal Stem Cell Biology and Its Clinical Translation**

Mesenchymal stem cells (MSCs), a type of adult stem cells, have attracted the attention of scientists and physicians alike due to their unique biological properties and potential for disease treatment. As stem cell research is complex and progressing rapidly, it is important that the experts in this field share their views and perspectives. This book, co-edited by leading global researchers, is divided into three major sections and covers a broad range of topics concerning MSCs during their transition from benchside to bedside. The book is intended for researchers and clinicians in the field of stem cells. Dr. Robert Chun-hua Zhao, MD. Ph.D is Cheung Kong Professor of Stem Cell.[...]

**Contents**
- Basic research/mechanisms.- Clinical application.- International regulations and guidelines governing stem cell-based products.

**Fields of interest**
- Cell Biology; Stem Cells; Internal Medicine; Pathology

**Target groups**
- Research

**Type of publication**
- Contributed volume

More on [www.springer.com/978-94-007-6715-7](http://www.springer.com/978-94-007-6715-7)

**Hardcover**
- 2013. VIII, 313 p. 21 illus., 18 illus. in color.
- 149,99 €
- ISBN 978-94-007-6715-7
- Usually dispatched within 3 to 5 business days.

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**Forest Tree Breeding in Europe**

**Current State-of-the-Art and Perspectives**

Forest tree breeding has been ongoing for more than 70 years across Europe. It has successfully generated improved varieties for the major economical forest tree species. They are part of the present European forestry landscape and largely contribute to intensive wood production and other forest activities. In this book, we describe the state-of-art of breeding for the main forest tree species. We provide a comprehensive, unique and up-to-date overview of the major scientific results and breeding achievements gathered from the many programmes scattered across Europe. The book is divided into 10 chapters, each as a monograph corresponding to a species or group of species Abies[...]

**Features**
- Forest tree breeding has been ongoing for more than 70 years across Europe. It has successfully generated improved varieties for the major economical forest tree species. They are part of the present European forestry landscape and largely contribute to intensive wood production and other forest activities. In this book, we describe the state-of-art of breeding for the main forest tree species. We provide a [...]  

**Contents**

**Fields of interest**
- Plant Breeding / Biotechnology; Forestry; Tree Biology; Plant Genetics and Genomics

**Target groups**
- Research

**Type of publication**
- Contributed volume

More on [www.springer.com/978-94-007-6145-2](http://www.springer.com/978-94-007-6145-2)

**Hardcover**
- 2013. VI, 527 p. 178 illus., 149 illus. in color. (Managing Forest Ecosystems, Vol. 25)
- 149,99 €
- Usually dispatched within 3 to 5 business days.

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**Genetics of Bacteria**

Described as the earliest, simplest life forms, with unlimited metabolic versatility, bacteria are ideally suited to answer some very fundamental questions on life and its processes. They have been employed in almost all fields of biological studies, including Genetics. The whole edifice of science of Genetics centers around three processes: the generation, expression, and transmission of biological variation, and bacteria offer immediate advantages in studying all the three aspects of heredity. Being haploid and structurally simple, it becomes easy to isolate mutations of various kinds and relate them to a function. The availability of such mutants and their detailed genetic and[...]

**Features**
- Described as the earliest, simplest life forms, with unlimited metabolic versatility, bacteria are ideally suited to answer some very fundamental questions on life and its processes. They have been employed in almost all fields of biological studies, including Genetics. The whole edifice of science of Genetics centers around three processes: the generation, expression, and transmission of biological [...]  

**Contents**

**Fields of interest**
- Bacteriology; Microbial Genetics and Genomics; Microbiology

**Target groups**
- Research

**Type of publication**
- Monograph

More on [www.springer.com/978-81-322-1089-4](http://www.springer.com/978-81-322-1089-4)

**Hardcover**
- 2013. XV, 200 p. 98 illus.
- 139,99 €
- ISBN 978-81-322-1089-4
- Usually dispatched within 3 to 5 business days.
**Guanylate Cyclase and Cyclic GMP**

**Methods and Protocols**

Recently, many ground-breaking steps have been made towards better understanding NO/cGMP/PKG pathways, its components, substrates, and their localization within a given cell. These advances were only possible due to the development of sophisticated new techniques in the field. In Guanylate Cyclase and Cyclic GMP: Methods and Protocols expert researchers in the field seek to provide an overview of novel techniques to identify various elements of the NO/cGMP/PKG pathway and further characterize their function, signaling, localization, and importance on a cellular level and in whole animal models providing a higher patho-physiological integration and relevance. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, [..]

**Contents**

- NO-cGMP: The Past, the Present and the Future.
- cGMP Dependent Protein Kinases (cGK).
- Enzyme Assays for cGMP Hydrolyzing Phosphodiesterases.
- Radioimmunoassay for the Quantification of cGMP Levels in Cells and Tissues.
- Hyperspectral Imaging of FRET-based cGMP Probes.
- Visualization of cGMP with cGi Biosensors.
- Advances and techniques to measure cGMP in intact cardiomyocytes.
- Real-time Monitoring the Spatio-temporal Dynamics of Intracellular cGMP in Vascular Smooth Muscle Cells.
- Methods for Identification of cGKI Substrates.
- Approaches for Monitoring PKG1a Oxidative Activation.

**Features**

Systems biology can now be considered an established and fundamental field in life sciences. It has moved from the identification of molecular ‘parts lists’ for living organisms towards synthesising information from different ‘omics’-based approaches to generate and test new hypotheses about how biological systems work. In Silico Systems Biology: Methods and Protocols expert researchers in the field detail a practical set of chapters based often on actual materials used and develop for face-to-face training with examples and case studies. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, [..]

**Contents**

- Defining Systems Biology: A Brief Overview of the Term and Field.
- Approaches to Modelling Gene Regulatory Networks.
- A Gentle Introduction.
- Integration of Genomic Information with Biological Networks using Cytopase.
- Visualization and Analysis of Biological Networks.
- Modeling Signaling Networks with Different Formalisms: A Preview.
- From a Biological Hypothesis to the Construction of a Mathematical Model.
- Practical use of BiNoM, a Biological Network Manager Software.
- Using Chemical Kinetics to Model Biochemical Pathways.
- Simulation of Stochastic Kinetic Models.

**Fields of interest**

- Bioinformatics
- Molecular Biology
- Systems Biology

**Target groups**

- Professional/practitioner

**Type of publication**

- Contributed volume


**Hardcover**

2013, X, 313 p. 88 illus., 70 illus. in color. (Methods in Molecular Biology, Vol. 1021)

94,99 €

ISBN 978-1-62703-449-4

Usually dispatched within 3 to 5 business days.
Invasion of Woody Legumes

Includes our current knowledge of the invasion or encroachment and cause of population growth and spread of some dry land, arid zone woody legumes. Community structure, population growth, and competition of these woody legumes will also be examined. These species and ecosystems are both extensive and dynamic. They occur worldwide, but mainly in the arid zones of the tropics and sub-tropics. The cause of the growth and spread of these species and communities has long been claimed to be caused by distal factors rather than proximal ones. However, these species appear to be influenced and perhaps controlled by anthropogenic factors, specifically grazing and fire or lack of fire. Their[…]

Features
Includes our current knowledge of the invasion or encroachment and cause of population growth and spread of some dry land, arid zone woody legumes. Community structure, population growth, and competition of these woody legumes will also be examined. These species and ecosystems are both extensive and dynamic. They occur worldwide, but mainly in the arid zones of the tropics and sub-tropics. The cause of the […]

Contents
1 Abstract-Summary or synopsis of the book.- 2 Introduction-overview of the species and previous work done. Why the topic is important? What is the current distribution of the various species of woody legumes in North America and the rest of the world? Has the distribution changed through the Holocene, the last 20,000 years, or since the end of the last ice age? Have additional changes occurred in North America since the Europeans arrived?.- 3 Species Systematics-Update of species names including review of old and new names.- 4 Community structure-Examination and comparison of the[…]!

Fields of interest
Plant Ecology; Ecology; Landscape Ecology

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-1-4614-7198-1

Softcover

Usually dispatched within 3 to 5 business days.

Iron Acquisition by the Genus Mycobacterium

Iron Acquisition by the Genus Mycobacterium summarizes the early evidence for the necessity of iron in mycobacteria and the discovery of the mycobacterial siderophores mycobactin, carboxymycobactin, and exochelin. The structural characterization of the mycobacterial siderophores is described. The genes so far identified as essential for iron acquisition and maintenance of an infection by pathogenic mycobacteria are discussed. The potential role of siderocalin in iron gathering by M. tuberculosis is featured. Because new drugs for M. tuberculosis are needed, this brief also emphasizes the design of antibiotics that interfere with siderophore biosynthesis and the use of siderophore[…]

Features
Iron Acquisition by the Genus Mycobacterium summarizes the early evidence for the necessity of iron in mycobacteria and the discovery of the mycobacterial siderophores mycobactin, carboxymycobactin, and exochelin. The structural characterization of the mycobacterial siderophores is described. The genes so far identified as essential for iron acquisition and maintenance of an infection by pathogenic […]

Contents

Fields of interest
Microbiology; Protein-Ligand Interactions; Inorganic Chemistry; Bioorganic Chemistry; Infectious Diseases

Target groups
Research

Type of publication
Brief

More on www.springer.com/978-3-319-00302-3

Softcover
2013. V, 92 p. 39 illus., 9 illus. in color. (SpringerBriefs in Biometals) 49,99 €
ISBN 978-3-319-00302-3

Usually dispatched within 3 to 5 business days.

Lignocellulose Conversion

Enzymatic and Microbial Tools for Bioethanol Production

Bioethanol has been recognized as a potential alternative to petroleum-derived transportation fuels. Even if cellulosic biomass is less expensive than corn and sugarcane, the higher costs for its conversion make the near-term price of cellulosic ethanol higher than that of corn ethanol and even more than that of sugarcane ethanol. Conventional process for bioethanol production from lignocellulose includes a chemical/physical pre-treatment of lignocellulose for lignin removal, mostly based on auto hydrolysis and acid hydrolysis, followed by saccharification of the free accessible cellulose portions of the biomass. The highest yields of fermentable sugars from cellulose portion are[…]

Features
Lignocellulose conversion stands out as a key process for the sustainable production of renewable fuels and chemicals. The use of lignocellulosic materials for second generation ethanol production makes it possible to minimize the conflict between land use for food (and feed) and energy production. The lignocellulosic raw materials are less expensive and they present a more even geographical distribution […]

Contents

Fields of interest
Enzymology; Microbiology; Plant Biochemistry; Biotechnology; Renewable and Green Energy

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-3-642-37860-7

Hardcover
2013. X, 199 p. 8 illus., 4 illus. in color. 139,99 €
ISBN 978-3-642-37860-7

Usually dispatched within 3 to 5 business days.
Long-Distance Systemic Signaling and Communication in Plants

Our view of plants is changing dramatically. Rather than being only slowly responding organisms, their signaling is often very fast and signals, both of endogenous and exogenous origin, spread throughout plant bodies rapidly. Higher plants coordinate and integrate their tissues and organs via sophisticated sensory systems, which sensitively screen both internal and external factors, feeding them information through both chemical and electrical systemic long-distance communication channels. This revolution in our understanding of higher plants started some twenty years ago with the discovery of systemic Long-Distance Signaling. This revolution in our understanding of higher plants started some twenty years ago with the discovery of systemic Long-Distance Signaling. This revolution through both chemical and electrical systemic Long-Distance Signaling has brought about a new way of thinking about plants as living, sensing organisms. The ability of plants to communicate with each other through systemic Long-Distance Signaling has led to the development of new technologies and approaches to understand the complex communication networks in plants. The aim of this volume is to provide an overview of the current state of research in this field, highlighting the advances made in our understanding of plant communication and signaling over the past two decades. The book is divided into several sections, each focusing on a particular aspect of plant communication and signaling. These sections cover a wide range of topics, from the molecular mechanisms underlying plant communication to the functional implications of these mechanisms in plant development and physiology. The book is intended for researchers, students, and practitioners who are interested in the field of plant communication and signaling. It serves as a valuable resource for anyone looking to deepen their understanding of this important area of research.
Protein-Ligand Interactions

Methods and Applications

Proteins are the cell’s workers, their messengers and overseers. In these roles, proteins specifically bind small molecules, nucleic acid and other protein partners. Cellular systems are closely regulated and biologically significant changes in populations of particular protein complexes correspond to very small variations of their thermodynamics or kinetics of reaction. Interfering with the interactions of proteins is the dominant strategy in the development of new pharmaceuticals. Protein Ligand Interactions: Methods and Applications, Second Edition provides a complete introduction to common and emerging procedures for characterizing the interactions of individual proteins. From the...

Features
Proteins are the cell’s workers, their messengers and overseers. In these roles, proteins specifically bind small molecules, nucleic acid and other protein partners. Cellular systems are closely regulated and biologically significant changes in populations of particular protein complexes correspond to very small variations of their thermodynamics or kinetics of reaction. Interfering with the interactions of...

Contents

Fields of interest
Protein Science; Protein-Ligand Interactions

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-1-62703-397-8

Hardcover
2013. XI, 530 p. 146 illus., 45 illus. in color. (Methods in Molecular Biology, Vol. 1008)
124,99 €
ISBN 978-1-62703-397-8
Usually dispatched within 3 to 5 business days.

Vegetation Dynamics on the Mountains and Plateaus of the American Southwest

The book provides information essential for anyone interested in the ecology of the American Southwest, including land managers, environmental planners, conservationists, ecologists and students. It is unique in its coverage of the hows and whys of dynamics (changes) in the major types of vegetation occurring on southwestern mountains and plateaus. It explains the drivers and processes of change, describes historical changes and provides conceptual models that diagrammatically illustrate past, present, and potential future changes. All major types of vegetation are covered: spruce-fir, mixed conifer, and ponderosa pine forests, pinyon-juniper vegetation, subalpine-montane grassland,...

Features
This book provides information essential for anyone interested in the ecology of the American Southwest, including land and resource managers, environmental planners, conservationists, environmentalists, ecologists, land stewards, and students. The book is unique in its coverage of the hows and whys of dynamics (changes) in the major types of vegetation occurring on southwestern mountains and plateaus. [...]
Materials Science

X. Hou, Wyss Institute for Biologically Inspired, Cambridge, USA

Bio-inspired Asymmetric Design and Building of Biomimetic Smart Single Nanochannels

In this thesis, the author introduces various bio-inspired smart nanochannel systems. A strategy for design and preparation of novel artificial responsive symmetric/asymmetric single nanochannel systems under various symmetric/asymmetric stimuli is presented for the first time. The author’s research work utilizes ion track etching polymer nanochannels with different shapes as examples to demonstrate the feasibility of the design strategy for building novel artificial functional nanochannels using various symmetric/asymmetric physicochemical modifications. The development of these nanochannels and their potential applications is a burgeoning new area of research, and a number of [...]
Encyclopedia of Colloid and Interface Science

An authoritative and comprehensive reference relevant to all scientists and engineers in the field. This encyclopedia not only helps chemistry, materials science and physics researchers to understand the principles, but also provides practicing engineers with the necessary information for implementing practical applications, such as Food and agrochemicals Polymers and ceramics Cosmetics and detergents Paints and coatings Pharmaceuticals and drug delivery. In addition, the encyclopedia is an important reference for industrial chemists and chemical engineers faced with a multitude of industrial systems of a colloidal nature. As wide as the range of applications that colloid and interface [...] Features

An authoritative and comprehensive reference relevant to all scientists and engineers in the field. This encyclopedia not only helps chemistry, materials science and physics researchers to understand the principles, but also provides practicing engineers with the necessary information for implementing practical applications, such as Food and agrochemicals Polymers and ceramics Cosmetics and detergents Paints and coatings Pharmaceuticals and drug delivery. In addition, the encyclopedia is an important reference for industrial chemists and chemical engineers faced with a multitude of industrial systems of a colloidal nature. As wide as the range of applications that colloid and interface [...] Fields of interest

Surfaces and Interfaces, Thin Films; Industrial Chemistry / Chemical Engineering; Nanotechnology and Microengineering; Surface and Interface Science, Thin Films; Biomaterials; Tribology, Corrosion and Coatings

Target groups

Research

Type of publication

Encyclopedia

More on www.springer.com/978-3-642-20664-1

Hardcover

2013. XI, 1436 p. 1095 illus., 271 illus. in color. In 2 volumes, not available separately.

499,00 €

ISBN 978-3-642-20664-1

Usually dispatched within 3 to 5 business days.

Mathematics

S. Kusakba, University of Tokyo, Tokyo, Japan; T. Maruyama, Keio University, Tokyo, Japan (Eds.)

Advances in Mathematical Economics Volume 17

A lot of economic problems can be formulated as constrained optimizations and equilibration of their solutions. Various mathematical theories have been supplying economists with indispensable machiner- ies for these problems arising in economic theory. Conversely, mathematicians have been stimulated by various mathematical difficulties raised by economic theories. The series is designed to bring together those mathematicians who are seriously interested in getting new challenging stimuli from economic theories with those economists who are seeking effective mathematical tools for their research. Features

A lot of economic problems can be formulated as constrained optimizations and equilibration of their solutions. Various mathematical theories have been supplying economists with indispensable machiner- ies for these problems arising in economic theory. Conversely, mathematicians have been stimulated by various mathematical difficulties raised by economic theories. The series is designed to bring together those mathematicians who are seriously interested in getting new challenging stimuli from economic theories with those economists who are seeking effective mathematical tools for their research. Fields of interest

Game Theory, Economics, Social and Behav. Sciences; Probability Theory and Stochastic Processes; Applications of Mathematics

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-4-431-54323-7

Hardcover

2013. V, 165 p. 12 illus., 3 illus. in color. (Advances in Mathematical Economics, Vol. 17)

84,99 €

ISBN 978-4-431-54323-7

Usually dispatched within 3 to 5 business days.

Algebraic Combinatorics

S. Stanley, Massachusetts Institute of Technology, Cambridge, USA

Walks, Trees, Tableaux, and More

Written by one of the foremost experts in the field, Algebraic Combinatorics is a unique undergraduate textbook that will prepare the next generation of pure and applied mathematicians. The combination of the author’s extensive knowledge of combinatorics and classical and practical tools from algebra will inspire motivated students to delve deeply into the fascinating interplay between algebra and combinatorics. Readers will be able to apply their newfound knowledge to mathematical, engineering, and business models. The text is primarily intended for use in a one-semester advanced undergraduate course in algebraic combinatorics, enumerative combinatorics, or graph theory.[...]

Fields of interest

Combinatorics; Graph Theory

Target groups

Upper undergraduate

Type of publication

Undergraduate textbook

More on www.springer.com/978-1-4614-6997-1

Hardcover

2013. XII, 223 p. 53 illus. (Undergraduate Texts in Mathematics)

39,99 €

ISBN 978-1-4614-6997-1

Usually dispatched within 3 to 5 business days.

Algebraic Combinatorics

S. Kusuoka, University of Tokyo, Tokyo, Japan; T. Maruyama, Keio University, Tokyo, Japan (Eds.)

Advances in Mathematical Economics Volume 17

A lot of economic problems can be formulated as constrained optimizations and equilibration of their solutions. Various mathematical theories have been supplying economists with indispensable machiner- ies for these problems arising in economic theory. Conversely, mathematicians have been stimulated by various mathematical difficulties raised by economic theories. The series is designed to bring together those mathematicians who are seriously interested in getting new challenging stimuli from economic theories with those economists who are seeking effective mathematical tools for their research. Features

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Game Theory, Economics, Social and Behav. Sciences; Probability Theory and Stochastic Processes; Applications of Mathematics

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-4-431-54323-7

Hardcover

2013. V, 165 p. 12 illus., 3 illus. in color. (Advances in Mathematical Economics, Vol. 17)

84,99 €

ISBN 978-4-431-54323-7

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S. Kusuoka, University of Tokyo, Tokyo, Japan; T. Maruyama, Keio University, Tokyo, Japan (Eds.)

Advances in Mathematical Economics Volume 17

A lot of economic problems can be formulated as constrained optimizations and equilibration of their solutions. Various mathematical theories have been supplying economists with indispensable machiner- ies for these problems arising in economic theory. Conversely, mathematicians have been stimulated by various mathematical difficulties raised by economic theories. The series is designed to bring together those mathematicians who are seriously interested in getting new challenging stimuli from economic theories with those economists who are seeking effective mathematical tools for their research. Features

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Game Theory, Economics, Social and Behav. Sciences; Probability Theory and Stochastic Processes; Applications of Mathematics

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-4-431-54323-7

Hardcover

2013. V, 165 p. 12 illus., 3 illus. in color. (Advances in Mathematical Economics, Vol. 17)

84,99 €

ISBN 978-4-431-54323-7

Usually dispatched within 3 to 5 business days.

Algebraic Combinatorics

S. Kusuoka, University of Tokyo, Tokyo, Japan; T. Maruyama, Keio University, Tokyo, Japan (Eds.)

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Hardcover

2013. V, 165 p. 12 illus., 3 illus. in color. (Advances in Mathematical Economics, Vol. 17)

84,99 €

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Usually dispatched within 3 to 5 business days.
An Introduction to Heavy-Tailed and Subexponential Distributions

Heavy-tailed probability distributions are an important component in the modeling of many stochastic systems. They are frequently used to accurately model inputs and outputs of computer and data networks and service facilities such as call centers. They are an essential for describing risk processes in finance and also for insurance premia pricing, and such distributions occur naturally in models of epidemiological spread. The class includes distributions with power law tails such as the Pareto, as well as the lognormal and certain Weibull distributions. One of the highlights of this new edition is that it includes problems at the end of each chapter. Chapter 5 is also updated to[...]

Features
Heavy-tailed probability distributions are an important component in the modeling of many stochastic systems. They are frequently used to accurately model inputs and outputs of computer and data networks and service facilities such as call centers. They are an essential for describing risk processes in finance and also for insurance premia pricing, and such distributions occur naturally in models of[...]

Contents

Fields of interest
Probability Theory and Stochastic Processes; Statistics for Business, Economics, Mathematical Finance, Insurance; Statistical Physics, Dynamical Systems and Complexity

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-7100-4

Hardcover
49,99 €
ISBN 978-1-4614-7100-4

Usually dispatched within 3 to 5 business days.

Mathematics 107

Backward Stochastic Differential Equations with Jumps and Their Actuarial and Financial Applications

BSDEs with Jumps

Backward stochastic differential equations with jumps can be used to solve problems in both finance and insurance. Part I of this book presents the theory of BSDEs with Lipschitz generators driven by a Brownian motion and a compensated random measure, with an emphasis on those generated by step processes and Lévy processes. It discusses key results and techniques (including numerical algorithms) for BSDEs with jumps and studies filtration-consistent nonlinear expectations and g-expectations. Part I also focuses on the mathematical tools and proofs which are crucial for understanding the theory. Part II investigates actuarial and financial applications of BSDEs with jumps. It considers[...]

Features
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Contents

Fields of interest
Quantitative Finance; Actuarial Sciences; Continuous Optimization; Probability Theory and Stochastic Processes

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4471-5330-6

Softcover
2013. XI, 288 p. (EAA Series)
49,99 €
ISBN 978-1-4471-5330-6

Usually dispatched within 3 to 5 business days.
Birational Geometry, Rational Curves, and Arithmetic

This book features recent developments in a rapidly growing area at the interface of higher-dimensional birational geometry and arithmetic geometry. It focuses on the geometry of spaces of rational curves, with an emphasis on applications to arithmetic questions. Classically, arithmetic is the study of rational or integral solutions of diophantine equations and geometry is the study of lines and conics. From the modern standpoint, arithmetic is the study of rational or integral points on algebraic varieties over non-closed fields. A major insight of the 20th century was that arithmetic properties of an algebraic variety are tightly linked to the geometry of rational curves on [...]

Features
This book features recent developments in a rapidly growing area at the interface of higher-dimensional birational geometry and arithmetic geometry. It focuses on the geometry of spaces of rational curves, with an emphasis on applications to arithmetic questions. Classically, arithmetic is the study of rational or integral solutions of diophantine equations and geometry is the study of lines and [...]
Computational Flexible Multibody Dynamics
A Differential-Algebraic Approach

This monograph, written from a numerical analysis perspective, aims to provide a comprehensive treat- ment of both the mathematical framework and the numerical methods for flexible multibody dynam- ics. Not only is this field permanently and rapidly growing, with various applications in aerospace engi- neering, biomechanics, robotics, and vehicle analy- sis, its foundations can also be built on reasonably established mathematical models. Regarding actual computations, great strides have been made over the last two decades, as sophisticated software packages are now capable of simulating highly complex struc- tures with rigid and deformable components. The approach used in this book should [...] 

Features
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Contents

Fields of interest
Numerical Analysis; Mechanics; Ordinary Differen- tial Equations; Partial Differential Equations 

Target groups
Research 

Type of publication
Monograph 

More on www.springer.com/978-3-642-35157-0 

Softcover
2013, XII, 249 p. 64 illus., 9 illus. in color. (Differen- tial-Algebraic Equations Forum) 

84,99 € 

ISBN 978-3-642-35157-0 

Usually dispatched within 3 to 5 business days. 

Control and Optimization with PDE Constraints

Many mathematical models of physical, biological and social systems involve partial differential equa- tions (PDEs). The desire to understand and influ- ence these systems naturally leads to considering problems of control and optimization. This book presents important topics in the areas of control of PDEs and of PDE-constrained optimization, cover- ing the full spectrum from analysis to numerical real- ization and applications. Leading scientists address current topics such as non-smooth optimization, Hamilton–Jacobi–Bellmann equations, issues in optimization and control of stochastic partial differ- ential equations, reduced-order models and domain decomposition, discretization error [...] 

Features
Many mathematical models of physical, biological and social systems involve partial differential equa- tions (PDEs). The desire to understand and influence these systems naturally leads to considering problems of control and optimization. This book presents important topics in the areas of control of PDEs and of PDE-constrained optimization, covering the full spectrum from analysis to numerical realization [...] 

Contents

Fields of interest
Numerical Analysis; Mechanics; Ordinary Differen- tial Equations; Partial Differential Equations 

Target groups
Research 

Type of publication
Monograph 

More on www.springer.com/978-3-0348-0630-5 

Softcover

84,99 € 

ISBN 978-3-0348-0630-5 

Usually dispatched within 3 to 5 business days.
Differential Equations
A Primer for Scientists and Engineers

Differential Equations for Scientists and Engineers is a book designed with students in mind. It attempts to take a concise, simple, and no-frills approach to differential equations. The approach used in this text is to give students extensive experience in main solution techniques with a lighter emphasis on the physical interpretation of the results. With a more manageable page count than comparable titles, and over 400 exercises that can be solved without a calculating device, this book emphasizes the understanding and practice of essential topics in a succinct fashion. At the end of each worked example, the author provides the Mathematica commands that can be used to check the [...] 

Features
Differential Equations: A Primer for Scientists and Engineers is a textbook designed with the needs of today’s student in mind. It is the ideal textbook for a first course in elementary differential equations for future engineers and scientists, including mathematicians. This book is accessible to anyone who has a basic knowledge of precalculus algebra and differential and integral calculus. Its [...] 

Contents

Fields of interest
Differential and Functional Equations 

Target groups
Upper undergraduate 

Type of publication
Undergraduate textbook 

More on www.springer.com/978-1-4614-7296-4 

Hardcover 
2013. XV, 263 p. 30 illus. (Springer Undergraduate Texts in Mathematics and Technology) 39,99 € 
ISBN 978-1-4614-7296-4 
Usually dispatched within 3 to 5 business days. 

Elliptic Curves and Arithmetic Invariants

This book contains a detailed account of the result of the author’s recent Annals paper and JAMS paper on arithmetic invariant, including p-invariant, L-invariant, and similar topics. This book can be regarded as an introductory text to the author’s previous book p-Adic Automorphic Forms on Shimura Varieties. Written as a down-to-earth introduction to Shimura varieties, this text includes many examples and applications of the theory that provide motivation for the reader. Since it is limited to modular curves and the corresponding Shimura varieties, this book is not only a great resource for experts in the field, but it is also accessible to advanced graduate students studying [...] 

Features
This self-contained book systematically explores the statistical dynamics on and of complex networks with a special focus on time-varying networks. In the constantly changing modern world, there is an urgent need to understand problems related to systems that dynamically evolve in either structure or function, or both. This work is an attempt to address such problems in the framework of complex networks. Dynamics on and of Complex Networks, Volume 2: Applications to Time-Varying Dynamical Systems is a collection of surveys and cutting-edge research contributions exploring key issues, challenges, and characteristics of dynamical networks that emerge in various complex systems. Toward [...] 

Contents
Part I: Social and Biological Dynamics. - Part II: Information Dynamics. - Part III: Theoretical Advancements. 

Fields of interest
Complex Systems; Complex Networks; Communications Engineering, Networks; Computer Systems Organization and Communication Networks; Mathematical Modeling and Industrial Mathematics 

Target groups
Research 

Type of publication
Contributed volume 

More on www.springer.com/978-1-4614-6728-1 

Hardcover 
2013. XLI, 343 p. 92 illus., 66 illus. in color. (Modeling and Simulation in Science, Engineering and Technology) 94,99 € 
ISBN 978-1-4614-6728-1 
Usually dispatched within 3 to 5 business days.
Financial Modeling

A Backward Stochastic Differential Equations Perspective

Backward stochastic differential equations (BSDEs) provide a general mathematical framework for solving pricing and risk management questions of financial derivatives. They are of growing importance for nonlinear pricing problems such as CVA computations that have been developed since the crisis. Although BSDEs are well known to academics, they are less familiar to practitioners in the financial industry. In order to fill this gap, this book revisits financial modeling and computational finance from a BSDE perspective, presenting a unified view of the pricing and hedging theory across all asset classes. It also contains a review of quantitative finance tools, including Fourier [...]
Hamilton-Jacobi Equations: Approximations, Numerical Analysis and Applications

Cetraro, Italy 2011, Editors: Paola Loreti, Nicoletta Anna Tchou

These Lecture Notes contain the material relative to the courses given at the CIME summer school held in Cetraro, Italy from August 29 to September 3, 2011. The topic was 'Hamilton-Jacobi Equations: Approximations, Numerical Analysis and Applications'. The courses dealt mostly with the following subjects: first order and second order Hamilton-Jacobi-Bellman equations, properties of viscosity solutions, asymptotic behaviors, mean field games, approximation and numerical methods, idempotent analysis. The content of the courses ranged from an introduction to viscosity solutions to quite advanced topics, at the cutting edge of research in the field. We believe that they opened [...] Features

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Finite Difference Methods For Mean Field Games.- An Introduction to the Theory of Viscosity Solutions for First-Order Hamilton-Jacobi Equations and Applications.- A Short Introduction to Viscosity Solutions and the Large Time Behavior of Solutions of Hamilton-Jacobi Equations.- Idempotent/Tropical Analysis, the Hamilton-Jacobi and Bellman Equations.

Fields of interest

Calculus of Variations and Optimal Control; Optimization; Partial Differential Equations; Computational Mathematics and Numerical Analysis; Game Theory; Economics, Social and Behavioral Sciences; Dynamical Systems and Ergodic Theory; Difference and Functional Equations

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-3-642-36432-7

Softcover

2013, XV, 301 p. 11 illus., 2 illus. in color. (C.I.M.E. Foundation Subseries, Vol. 2074) 44,99 € ISBN 978-3-642-36432-7 Usually dispatched within 3 to 5 business days.

Hypoelliptic Laplacian and Bott-Cheeger Cohomology

A Theorem of Riemann–Roch–Grothendieck in Complex Geometry

The book provides the proof of a complex geometric version of a well-known result in algebraic geometry: the theorem of Riemann–Roch–Grothendieck for proper submersions. It gives an equality of cohomology classes in Bott–Chern cohomology, which is a refinement for complex manifolds of de Rham cohomology. When the manifolds are Kähler, our main result is known. A proof can be given using the elliptic Hodge theory of the fibres, its deformation via Quillen’s superconnections, and a version in families of the Fantastic cancellations of McKean–Singer in local index theory. In the general case, this approach breaks down because the cancellations do not occur any more. One tool used in [...] Features

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Introduction.- 1 The Riemannian adiabatic limit.- 2 The holomorphic adiabatic limit.- 3 The elliptic superconnections.- 4 The elliptic superconnection forms.- 5 The elliptic superconnection forms.- 6 The hypoelliptic superconnections.- 7 The hypoelliptic superconnection forms.- 8 The hypoelliptic superconnection forms of vector bundles.- 9 The hypoelliptic superconnection forms.- 10 The exotic superconnection forms of a vector bundle.- 11 Exotic superconnections and Riemann–Roch–Grothendieck.- Bibliography.- Subject Index.- Index of Notation.

Fields of interest

Analysis; Sequences, Series, Summability; Special Functions

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-6761-8

Hardcover


Usually dispatched within 3 to 5 business days.
Local Variance Estimation for Uncensored and Censored Observations

Paola Gloria Ferrario develops and investigates several methods of nonparametric local variance estimation. The first two methods use regression estimations (plug-in), achieving least squares estimates as well as local averaging estimates (partitioning or kernel type). Furthermore, the author uses a partitioning method for the estimation of the local variance based on first and second nearest neighbors (instead of regression estimation). Approaching specific problems of application fields, all the results are extended and generalised to the case where only censored observations are available. Further, simulations have been executed comparing the performance of two different estimators [...]
Ramanujan's Lost Notebook

Part IV

In the spring of 1976, George Andrews of Pennsylvania State University visited the library at Trinity College, Cambridge, to examine the papers of the late G.N. Watson. Among these papers, Andrews discovered a sheaf of 138 pages in the handwriting of Srinivasa Ramanujan. This manuscript was soon designated, "Ramanujan's lost notebook." Its discovery has frequently been deemed the mathematical equivalent of finding Beethoven's tenth symphony. This volume contains the fourth book of that discovery, in contrast to the first three books on Ramanujan's Lost Notebook. Its discovery has frequently been deemed the mathematical equivalent of finding Beethoven's tenth symphony.

Contents

Features


Fields of interest

Number Theory; Analysis; Fourier Analysis; Special Functions

Target groups

Graduate/advanced undergraduate textbook

Type of publication

Monograph

More on www.springer.com/978-1-4614-4080-2

Hardcover

2013. XVII, 439 p. 1 illus.
94,95 €

Usually dispatched within 3 to 5 business days.

Real Analysis: Measures, Integrals and Applications

Real Analysis: Measures, Integrals and Applications is devoted to the basics of integration theory and its related topics. The main emphasis is made on the properties of the Lebesgue integral and various applications both classical and those rarely covered in literature. This book provides a detailed introduction to Lebesgue measure and integration as well as the classical results concerning integrals of multivariable functions. It examines the concept of the Hausdorff measure, the properties of the area on smooth and Lipschitz surfaces, the divergence formula, and Laplace's method for finding the asymptotic behavior of integrals. The general theory is then applied to harmonic[...]

Contents


Fields of interest

Measure and Integration; Fourier Analysis; Real Functions; Geometry

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4471-5121-0

Softcover

2013. XIX, 772 p. 23 illus. (Universitext)
69,99 €
ISBN 978-1-4471-5121-0

Usually dispatched within 3 to 5 business days.

Spectral and Dynamical Stability of Nonlinear Waves

This book unifies the dynamical systems and functional analysis approaches to the linear and nonlinear stability of waves. It synthesizes fundamental ideas of the past 20+ years of research, carefully balancing theory and application. The book isolates and methodically develops key ideas by working through illustrative examples that are subsequently synthesized into general principles. Many of the seminal examples of stability theory, including orbital stability of the KdV solitary wave, and asymptotic stability of viscous shocks for scalar conservation laws, are treated in a textbook fashion for the first time. It presents spectral theory from a dynamical systems and functional[...]

Contents


Fields of interest

Partial Differential Equations; Nonlinear Dynamics; Dynamical Systems and Ergodic Theory

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-6994-0

Hardcover

2013. XIII, 361 p. 50 illus. (Applied Mathematical Sciences, Vol. 185)
59,99 €
ISBN 978-1-4614-6994-0

Usually dispatched within 3 to 5 business days.
Stochastic Differential Inclusions and Applications

This book aims to further develop the theory of stochastic functional inclusions and their applications for describing the solutions of the initial and boundary value problems for partial differential inclusions. The self-contained volume is designed to introduce the reader in a systematic fashion, to new methods of the stochastic optimal control theory from the very beginning. The exposition contains detailed proofs and uses new and original methods to characterize the properties of stochastic functional inclusions that, up to the present time, have only been published recently by the author. The work is divided into seven chapters, with the first two acting as an introduction.[...]

Contents


Fields of interest

Calculus of Variations and Optimal Control; Optimization; Ordinary Differential Equations; Numerical Analysis; Partial Differential Equations

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-6755-7

Hardcover

2013. XVI, 282 p. 6 illus. (Springer Optimization and Its Applications, Vol. 80)

94,99 €

ISBN 978-1-4614-6755-7

Usually dispatched within 3 to 5 business days.

Stochastic Networked Control Systems

Stabilization and Optimization under Information Constraints

Networked control systems are increasingly ubiquitous today, with applications ranging from vehicle communication and adaptive power grids to space exploration and economics. The optimal design of such systems presents major challenges, requiring tools from various disciplines within applied mathematics such as decentralized control, stochastic control, information theory, and quantization. A thorough, self-contained book, Stochastic Networked Control Systems: Stabilization and Optimization under Information Constraints aims to connect these diverse disciplines with precision and rigor, while conveying design guidelines to controller architects. Unique in the literature, it lays a [...]

Features

Stochastic Differential Inclusions and Applications further develops the theory of stochastic functional inclusions and their applications. This self-contained volume is designed to systematically introduce the reader from the very beginning to new methods of the stochastic optimal control theory. The exposition contains detailed proofs and uses new and original methods to characterize the properties [...]

Contents


Fields of interest

Information and Communication, Circuits; Computer Systems Organization and Communication Networks; Systems Theory, Control; Communications Engineering, Networks; Information Systems and Communication Service; Optimization

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-7084-7

Hardcover

2013. XVIII, 482 p. 40 illus. (Systems & Control: FOUNDATIONS & APPLICATIONS)

94,99 €


Usually dispatched within 3 to 5 business days.

Structural Additive Theory

Nestled between number theory, combinatorics, algebra and analysis lies a rapidly developing subject in mathematics variously known as additive combinatorics, additive number theory, additive group theory, and combinatorial number theory. Its main objects of study are not abelian groups themselves, but rather the additive structure of subsets and subsequences of an abelian group, i.e., sumsets and subsequence sums. This text is a hybrid of a research monograph and an introductory graduate textbook. With few exceptions, all results presented are self-contained, written in great detail, and only reliant upon material covered in an advanced undergraduate curriculum supplemented with[...]

Features

Nestled between number theory, combinatorics, algebra, and analysis lies a rapidly developing subject in mathematics variously known as additive combinatorics, additive number theory, additive group theory, and combinatorial number theory. Its main objects of study are not abelian groups themselves, but rather the additive structure of subsets and subsequences of an abelian group, i.e. sumsets and [...]

Contents


Fields of interest

Number Theory; Sequences, Series, Summability; Order, Lattices, Ordered Algebraic Structures

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00415-0

Hardcover

2015. XII, 426 p. (Developments in Mathematics, Vol. 30)

94,99 €

ISBN 978-3-319-00415-0

Usually dispatched within 3 to 5 business days.
Surrogate-Based Modeling and Optimization

Applications in Engineering

Contemporary engineering design is heavily based on computer simulations. Accurate, high-fidelity simulations are used not only for design verification but, even more importantly, to adjust parameters of the system to have it meet given performance requirements. Unfortunately, accurate simulations are often computationally very expensive with evaluation times as long as hours or even days per design, making design automation using conventional methods impractical. These and other problems can be alleviated by the development and employment of so-called surrogates that reliably represent the expensive, simulation-based model of the system or device of interest but they are much more [...] [...]

Features
Contemporary engineering design is heavily based on computer simulations. Accurate, high-fidelity simulations are used not only for design verification but, even more importantly, to adjust parameters of the system to have it meet given performance requirements. Unfortunately, accurate simulations are often computationally very expensive with evaluation times as long as hours or even days per design, making [...] [...]

Contents

Fields of interest
Mathematical Modeling and Industrial Mathematics; Aerospace Technology and Astronautics; Control; Calculus of Variations and Optimal Control; Optimization; Operations Research, Mathematical Programming; Computational Mathematics and Numerical Analysis

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-1-4614-7550-7

Hardcover
2013. VIII, 412 p. 245 illus., 142 illus. in color.
94,99 €

Usually dispatched within 3 to 5 business days.

Atlas of Medical Renal Pathology

The kidney is an organ with complex organogenesis susceptible to numerous misadventures in development and is exposed to a diverse array of insults of hematogenous and lower urinary tract origin. This Atlas of Medical Renal Pathology provides an overview of the development, macroscopic and microscopic features of the normal kidney. This is followed by a comprehensive survey of developmental and cystic kidney diseases, vascular diseases and tubulointerstitial diseases. An emphasis is placed on gross diagnostic findings with detailed histological correlates. In addition, the histological, immunofluorescent, immunohistochemical and ultrastructural features of the major glomerular [...] [...]

Features
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Contents

Fields of interest
Pathology
Target groups
Professional/practitioner

Type of publication
Monograph


Hardcover
2013. XVI, 266 p. 746 illus., 677 illus. in color. (Atlas of Anatomic Pathology)
139,99 €

Online orders shipping within 2-3 days.
Atlas of PET/MR Imaging in Oncology

This new project on PET-MR imaging in oncology includes digital interactive software matching the cases in the book. The interactive version of the atlas is based on the latest web standard, HTML5, ensuring compatibility with any computer operating system as well as a dedicated version for Apple iPad and iPhone. The book opens with an introduction to the principles of hybrid imaging that pays particular attention to PET/MR imaging and standard PET/MR acquisition protocols. A wide range of illustrated clinical case reports are then presented. Each case study includes a short clinical history, findings, and teaching points, followed by illustrations, legends, and comments. The multimedia [...] Features

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Fields of interest

Imaging / Radiology; Nuclear Medicine; Oncology

Target groups

Professional/practitioner

Type of publication

Atlas

More on www.springer.com/978-3-642-31291-5

Hardcover

2013. VIII, 232 p. 351 illus., 250 illus. in color.
129.99 €
ISBN 978-3-642-31291-5

Online orders shipping within 2-3 days.

Best Evidence Structural Interventions for HIV Prevention

Providing detailed information on structural HIV prevention interventions, this book is intended for health care practitioners and researchers to plan, implement, and evaluate such interventions in their own communities. As defined by the CDC, structural interventions focus on the physical, social, cultural, political, economic, legal, and/or policy aspects of the environment. Designed to reach a large number of individuals, structural interventions usually occur across entire communities, cities, or countries. As a result, the resources required to initiate structural interventions can far exceed those required for smaller-scale behavioral programs. However, changes from [...] Features

Best Evidence Structural Interventions for HIV Prevention


Public Health; Health Psychology; Demography; Social Policy

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4614-7012-0

Hardcover

149.99 €

Usually dispatched within 3 to 5 business days.
Breast Ultrasound

This book is an ideal manual on the use of modern ultrasound in the diagnosis of breast pathology. It provides a comprehensive overview of current ultrasound techniques and explains the advantages and pitfalls of various ultrasound imaging modalities. Detailed attention is devoted to breast carcinoma, with guidance on differential diagnosis and presentation of pre- and postoperative ultrasound appearances. The most important benign breast diseases are also described and illustrated. Age-related features, including those seen in children and adolescents, are carefully analyzed, and an individual chapter is devoted to breast abnormalities in men. All aspects of lymph node appearances[...]

Features
This book is an ideal manual on the use of modern ultrasound in the diagnosis of breast pathology. It provides a comprehensive overview of current ultrasound techniques and explains the advantages and pitfalls of various ultrasound imaging modalities. Detailed attention is devoted to breast carcinoma, with guidance on differential diagnosis and presentation of pre- and postoperative ultrasound appearances. The [...]

Contents
Diagnosis of Breast Cancer.- Technique of Breast Ultrasound.- Ultrasound of the Normal Breast.- Ultrasound Diagnosis of Breast Diseases.- Breast Ultrasound in Children and Adolescents.- Breast Pathology in Men.- Ultrasound Examination of Regional Lymph Nodes.- Ultrasound Examination after Breast Surgery.- Recurrent Breast Cancer.- Ultrasound Imaging in Patients with Breast Implants.- Ultrasound-Guided Breast Intervention.- Conclusion.

Fields of interest
Imaging / Radiology; Gynecology; Oncology; Surgery

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-3-642-36501-0

Hardcover

Online orders shipping within 2-3 days.
Chemotherapy in Psychiatry

Pharmacologic Basis of Treatments for Major Mental Illness

Use of psychotropic drugs has come to dominate clinical practice in psychiatry worldwide—perhaps owing largely to perceived simplicity, ease of use, and apparent efficiency, as well as apparent cost-effectiveness of such treatments. Nevertheless, medicinal treatments for patients with psychiatric disorders are but one component of comprehensive clinical care of complex human problems. Extensively updated since its second edition in 1985, Chemotherapy in Psychiatry, Third Edition, again addresses basic aspects of modern psychopharmacology and clinical applications of drugs used in the treatment of major psychiatric disorders, with major emphasis on psychototic, bipolar, and depressive disorders. The presentation covers descriptions of the main classes of psychotropic drugs, [...] 

Features
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Contents

Fields of interest
Neurology; Psychiatry; Internal Medicine; Neurosciences

Target groups
Professional/practitioner

Type of publication
Monograph


Softcover
2013. XI, 269 p. 36 illus.
69,99 €
ISBN 978-1-4614-7926-0

Usually dispatched within 3 to 5 business days.

Clinical Reproductive Medicine and Surgery

A Practical Guide

Clinical Reproductive Medicine and Surgery offers a succinct overview of both the medical and surgical management of reproductive disorders, as well as coverage of associated imaging modalities. The book includes chapters on major reproductive endocrinology and infertility issues such as polycystic ovary syndrome and amenorrhea, management of endometriosis and fibroids (including interventional radiology), imaging modalities such as ultrasonography and sonohysterography, preservation of fertility, and recurrent pregnancy loss. Residents, fellows, and practitioners interested in reproductive endocrinology and infertility will find this focused and practical text invaluable. 

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Contents

Fields of interest
Reproductive Medicine; Gynecology; Urology / Andrology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2013. XII, 340 p. 103 illus., 42 illus. in color.
149,99 €

Usually dispatched within 3 to 5 business days.

Contrast-Enhanced Ultrasound of the Urinary Tract

This book examines in detail the diagnostic impact of contrast-enhanced ultrasound in the evaluation of urinary tract pathology, paying particular attention to the diagnostic gain that may be expected in relation to other imaging techniques such as CT and MRI. The role of contrast-enhanced ultrasound is evaluated in a range of pathologies, including ischemia, trauma, inflammation, cystic lesions, and solid tumors, as well as in the imaging of anatomic variants. New applications, for example monitoring of kidney transplantation, assessment of urinary bladder lesions, and diagnosis of vesico-ureteric reflux, are also covered. The presented cases, drawn from the authors’ personal [...] 

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Contents
1 Introduction: 1.1 Research method - 1.2 Semeiotics - 2 The Kidney - 2.1 Ischemic pathology - 2.2 Traumatic pathology - 2.3 Transplantation - 2.4 Inflammation pathology - 2.5 Solid lesions - 2.6 Cystic lesions - 2.7 Pseudomasses - 3 Urinary Tract and Bladder - 4 MC in pediatric ultrasound and in the study of vesicoureteral reflux: “cystosonography” - 4.1 Cystosonography: instructions for use - 4.2 Study of focal hepatic or renal lesions - 5 Conclusions. 

Fields of interest
Imaging / Radiology; Diagnostic Radiology; Ultrasound; Urology / Andrology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-88-470-5430-1

Softcover
Title of the original Italian Edition: Eccocontrastografia dell'apparato urinario
2013. VII, 71 p. 42 illus. in color.
59,99 €
ISBN 978-88-470-5430-1

Online orders shipping within 2-3 days.
Dental Pathology

A Practical Introduction

This new, updated edition of Dental Pathology will assist in the recognition and diagnosis of gross dental abnormalities. Topics covered include disturbances in tooth formation, acquired dental diseases, including caries and its sequelae, periodontal disease, and odontogenic tumours. Practically applicable knowledge is provided on the histology and histopathology of the changes that are seen in diseases of the dental and periodontal tissues, and attention is also paid to the histological alterations induced by dental treatment. Compared with the first edition, ca. 50% more illustrations are included and more information is provided on diagnostically difficult cases. This work will be [...] 

Features

This new, updated edition of Dental Pathology will assist in the recognition and diagnosis of gross and microscopic dental abnormalities. Topics covered include disturbances in tooth formation, acquired dental diseases, including caries and its sequelae, periodontal disease, and odontogenic cysts and tumours. Practically applicable knowledge is provided on the histology of the changes that are seen in [...] 

Contents


Fields of interest

Pathology; Dentistry; Oral and Maxillofacial Surgery

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-3-642-36713-7

Hardcover

2013. XIII, 170 p. 137 illus., 114 illus. in color. 99,99 €
ISBN 978-3-642-36713-7

Online orders shipping within 2-3 days.

L.W. Roeder, Jr., A. Simard, Defence RDG Canada, Ottawa, Canada

Diplomacy and Negotiation for Humanitarian NGOs

Diplomacy and Funding for Humanitarian Non-Profits is a practical guide to best practices in diplomacy and negotiation for non-profits (NGOs) who work to convince governments and international institutions to effectively protect humans through disaster assistance, sustainable development and the protection of cultures. The volume proposes a holistic approach to humanitarian assistance by integrating non-traditional and traditional humanitarian partners. Users of the book will be prepared to speak to diplomats and government officials in any setting, including war zones. The book mainly focuses on approaching local and national governments, the United Nations system, the [...] 

Features

The history of diplomacy is littered with false starts, misread intentions, and cultural faux pas; yet refugees can't be helped, nor international rules created or implemented without diplomacy. In addition, governments can't do it all. In the 21st century, non-governmental organizations (NGOs) are at the forefront of global efforts for peace, social justice, and environmental reform. Success [...] 

Contents


Fields of interest

Public Health; Non-Profit Enterprises/Corporate Social Responsibility; Sociology, general; International Humanitarian Law, Law of Armed Conflict

Target groups

Professional/practitioner

Type of publication

Monograph

More on www.springer.com/978-1-4614-7112-7

Hardcover

ISBN 978-1-4614-7112-7

Usually dispatched within 3 to 5 business days.

G. Bain, M.R. Safran, Stanford University, Redwood City, USA; L.A. Pedzerini, Nuovo Ospedale di Sassuolo, Sassuolo, Italy (Eds.)

Elbow Arthroscopy

This book, which derives from an initiative of the Education Committee of The International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS), addresses all aspects of elbow arthroscopy. Anatomy is thoroughly introduced, referencing safe portals and describing techniques to minimize risk of complications. Subsequent chapters focus on the use of arthroscopy in a range of conditions, including osteochondritis dissecans, stiff elbow, epicondylitis, elbow instability, and elbow fractures. Guidance is provided on diagnosis and indications for arthroscopy, and arthroscopic technique is clearly detailed. A key chapter describes complications and how to avoid them. [...] 

Features

This book stems from the decision by the Education Committee of The International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS) to charge the editors, Luigi Pedzerini, Marc Safran, and Greg Bain, with the task of describing the basic techniques and the more advanced aspects of elbow arthroscopy with a view to encouraging surgeons to follow safe guidelines and to better [...] 

Contents


Fields of interest

Surgical Orthopedics; Sports Medicine

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-36210-7

Softcover

2013. XI, 127 p. 69 illus., 61 illus. in color. 99,99 €
ISBN 978-3-642-36210-7

Usually dispatched within 3 to 5 business days.

P. Slootweg, University Medical Center St. Radboud, Nijmegen, Netherlands

Elbow Arthroscopy

G. Bain, M.R. Safran, Stanford University, Redwood City, USA; L.A. Pedzerini, Nuovo Ospedale di Sassuolo, Sassuolo, Italy (Eds.)

120 Medicine

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Surgical Orthopedics; Sports Medicine

Target groups

Professional/practitioner

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ISBN 978-3-642-36210-7

Usually dispatched within 3 to 5 business days.

P. Slootweg, University Medical Center St. Radboud, Nijmegen, Netherlands

Elbow Arthroscopy

G. Bain, M.R. Safran, Stanford University, Redwood City, USA; L.A. Pedzerini, Nuovo Ospedale di Sassuolo, Sassuolo, Italy (Eds.)
Electrical Diseases of the Heart

Volume 2: Diagnosis and Treatment

Electrical Disease of the Heart, 2nd Edition, volume 2, covers the diagnostic and treatment options available in the management of electrical diseases and with its companion volume provides the latest developments in the field of experimental and clinical cardiac electrophysiology, genetics, pharmacology and interventional therapies of various clinical arrhythmogenic entities. This book is highly relevant to a broad audience, ranging from medical and graduate students, to clinicians and scientists.

Features
The past two decades have witnessed an explosion of knowledge and radical changes in our understanding of the molecular, ionic, genetic, and pharmacologic basis of electrical diseases of the heart. Electrical diseases of the heart are heritable arrhythmogenic clinical entities that may share common clinical and genetic features, yet may be distinctly different in their genesis, prognosis, and management. [...]  

Contents
Secondary Hereditary and Acquired Cardiac Channelopathies and Sudden Cardiac Death.- Cardiac Remodeling.- Arrhythmias and Arrhythmia Management in Hypertrophic Cardiomyopathy.- Sudden Cardiac Death in Dilated Cardiomyopathy and Skeletal Muscular Dystrophy.- Arrhythmogenic Right Ventricular Cardiomyopathy / Dysplasia.- Wolff-Parkinson-White Syndrome and the Risk of Sudden Death.- Acquired (Drug-Induced) Long and Short QT Syndromes.- Acquired Form of Brugada Syndrome.- Clinical Rhythmology: Diagnostic Methods and Tools.- Abnormal Electrical Functions of the Heart and Their Diagnoses in[...]

Fields of interest
Cardiology; Epidemiology; Neurology; Internal Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-4471-4977-4

Hardcover
Originally published as in one volume
2013. XXII, 682 p. 161 illus., 52 illus. in color.
169,99 €
ISBN 978-1-4471-4977-4
Usually dispatched within 3 to 5 business days.

G.C. Denniston, University of Washington, Bothell, USA; F.M. Hodges, M.F. Milos, National Organization of Circumcision In, San Anselmo, USA (Eds.)

Genital Cutting: Protecting Children from Medical, Cultural, and Religious Infringements

This volume contains the proceedings of the 10th International Symposium on Circumcision, Genital Integrity, and Human Rights. Authors are international experts in their fields, and the book contains the most up-to-date information on the issue of genital cutting of infants and children from medical, legal, bioethical, and human rights perspectives.

Features
Every year, across the globe, an estimated 13.3 million boys and 2 million girls are involuntarily subjected to genital cutting. Both male and female genital cutting persist, generating a multi-billion-dollar-a-year industry that is defended by its proponents with dubious studies, manipulated statistics, and an appeal to “custom.” Physicians and parents alike have been misled into believing that these practices are necessary. [...]  

Contents

Fields of interest
Pediatrics; Ethics; Anthropology; Pediatric Surgery; Sociology, general; Psychology (general)

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6406-4

Hardcover
2013. XII, 337 p. 32 illus., 25 illus. in color.
139,99 €
ISBN 978-94-007-6406-4
Usually dispatched within 3 to 5 business days.

C. Rosendorff, Department of Medicine, Bronx, USA (Ed.)

Essential Cardiology

Principles and Practice

Essential Cardiology: Principles and Practice, 3rd Edition, blends molecular, cellular, and physiologic concepts with current clinical practice and provides up-to-date information on all major aspects of cardiovascular disease. Fully revised by an international panel of leading authorities in the field, it is an authoritative resource for cardiologists, internists, residents, and students. The book presents the clinical examination of the patient, including diagnostic testing and cutting-edge radiologic imaging; pathogenesis and treatment of various types of cardiac abnormalities; the needs of special populations, including pregnant, elderly, and renal-compromised patients;[...]

Contents

Fields of interest
Cardiology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2013. XVIII, 823 p. 306 illus., 119 illus. in color.
199,99 €
Usually dispatched within 3 to 5 business days.
Hilar Cholangiocarcinoma

This is a multi-author book on hilar cholangiocarcinoma, written by an international team of world-renowned experts covering topics in their respective areas of expertise. There are altogether 71 authors from 14 countries/regions, mainly Argentina, Australia, China, Germany, Italy, Japan, Korea, Malaysia, Thailand, the Netherlands, the United Kingdom and the United States of America. This book aims to provide an up-to-date, fully referenced text that is as succinct as possible, but as comprehensive as necessary, addressing all topics in hilar cholangiocarcinoma. It provides the latest findings in the rapidly advancing field of hilar cholangiocarcinoma. Controversial aspects are [...] Features

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Surgical Oncology; Hepatology; Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-94-007-6472-9

Distribution rights in China mainland: People’s Medical Publishing House

Hardcover

Jointly published with People’s Medical Publishing House

2013. XVI, 325 p. 183 illus., 94 illus. in color.

169,99 €

ISBN 978-94-007-6472-9

Usually dispatched within 3 to 5 business days.

Human Gametes and Preimplantation Embryos

Assessment and Diagnosis

In recent years, the advancing science and increasing availability of assisted reproduction have given new hope to infertile couples. However, the use of IVF and ART has also led to marked increases in the number of multiple-infant live births. This poses a public health concern, as these neonates have a higher rate of pre-term delivery, compromising their survival chances and increasing their risk of lifelong disability. By optimizing the selection of gametes and embryos with high probabilities of implantation, it is possible to reduce the number of embryos transferred and, by extension, the number of high-risk multiple gestations, while maintaining or increasing pregnancy rates. [...] Features

In recent years, the advancing science and increasing availability of assisted reproduction have given new hope to infertile couples. However, the use of IVF and ART has also led to marked increases in the number of multiple-infant live births. This poses a public health concern, as these neonates have a higher rate of pre-term delivery, compromising their survival chances and increasing their risk of [...] Contents


Reproductive Medicine; Obstetrics / Perinatology; Gynecology

Target groups

Professional/practitioner

Type of publication

Contributed volume


Hardcover

2013. XV, 306 p. 64 illus., 48 illus. in color.

149,99 €


Usually dispatched within 3 to 5 business days.

Inflammatory Diseases of the Brain

This second, updated edition of Inflammatory Diseases of the Brain provides a comprehensive overview of the field from a neuroradiological point of view. In order to ensure a standardized approach throughout, each disease-oriented chapter is again subdivided into three principal sections: epidemiology, clinical presentation, and therapy; imaging; and differential diagnosis. A separate chapter addresses technical and methodological issues and imaging protocols. An important focus of the book is the current role of advanced MR imaging techniques, such as diffusion and perfusion MRI and MR spectroscopy, in the differentiation of inflammatory and other brain diseases. All of the authors [...] Features

Inflammatory diseases of the CNS are playing an increasingly important role in the clinical practice of neuroradiology. Neuroimaging contributes greatly to the differentiation of infectious (e.g., viral encephalitis and pyogenic brain abscess) and noninfectious (e.g., multiple sclerosis) inflammatory brain diseases and to the distinction between brain inflammation and other brain diseases, e.g., neoplastic [...] Contents


Fields of interest

Imaging / Radiology; Neuroradiology; Neurosurgery; Neurology; Pediatrics

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-30519-1

Hardcover

2013. XII, 182 p. 310 illus., 10 illus. in color. (Diagnostic Imaging)

99,99 €

ISBN 978-3-642-30519-1

Online orders shipping within 2-3 days.
In recent years, the impact of the inflammatory response in cardiovascular surgery has been a focus of much attention within the field of cardiology. Despite that, scientific research on the topic is still lacking in the health science literature. To develop the body of information available to all involved in the field, the Editors of this book have assembled a group of leading experts to investigate the most current and exciting topics related to inflammation and cardiovascular surgery. As such, Inflammatory Response in Cardiovascular Surgery is vital reading for all involved in the management of cardiovascular surgical patients, such as cardiovascular and transplant surgeons.

Features
Much attention has been drawn to the impact of the inflammatory response in cardiovascular surgery. Minimizing deleterious effects of cardiovascular surgery consists of understanding the pathogenesis of the inflammatory response and how to modulate it using medical strategies and especially specific operative approaches. Despite the attention on this response, the concept has been underestimated and [...]

Contents

Fields of interest
Cardiac Surgery; Cardiology

Target groups
Professional/practitioner

Type of publication
 Contributed volume

More on www.springer.com/978-1-4471-4428-1

Hardcover
2013, XXI, 451 p., 139 illus., 95 illus. in color.
149,99 €
ISBN 978-1-4471-4428-1
Usually dispatched within 3 to 5 business days.
Meniscal Transplantation

Meniscal transplantation has become an attractive option in selected patients with incapsicating knee pain. This book discusses all aspects of meniscal transplantation, covering the use of both allografts and meniscal substitutes, including collagen and polyurethane implants. Acknowledged experts in the field review the basic science, explain indications, and describe surgical techniques and the results achieved to date. All the material is up to date, with information on new implants, new techniques, and new surgical approaches. Future trends in the treatment of meniscal lesions are also discussed as we move towards the application of regenerative strategies to restore meniscus function.

Methods of Clinical Epidemiology

"Methods of Clinical Epidemiology" serves as a text on methods useful to clinical researchers. It provides a clear introduction to the common research methodology specific to clinical research for both students and researchers. This book sets out to fill the gap left by texts that concentrate on public health epidemiology and focuses on what is not covered well in such texts. The four sections cover methods that have not previously been brought together in one text and serves as a second level textbook of clinical epidemiology methodology. This book will be of use to postgraduate students in clinical epidemiology as well as clinical researchers at the start of their careers.

Near Misses in Pediatric Anesthesia

Authored by "a superb clinician and award-winning teacher," *Near Misses in Pediatric Anesthesiology, Second Edition* is a thorough updating and significant expansion of this popular case book in the newest anesthesiology subspecialty to be approved by the American Board of Medical Specialties. The book comprises 87 true-story clinical "near misses," including 40 cases that are brand new. Recommendations, references, and discussion accompany each case. The cases provide an ideal basis for problem-centered learning and also model how to learn from experience and to maintain professionalism during the lifelong development of clinical expertise. Dr. Brock-Utne’s latest case book [...]
Nutrition and Diet in Menopause

Nutrition and Diet in Menopause is a single comprehensive source that will provide readers with an understanding of menopause. Holistic in its approach, this volume is divided into five sections covering psychological, endocrine and lifestyle factors, metabolism and physiology, bone and nutrition, cancer and nutrition, cardiovascular factors and dietary supplements in menopause. In-depth chapters review the potential long term consequences of menopause on the overall health of women, not only at the physical level including hot flushes (flashes), alterations to the genitourinary system, skin changes, decreased cardiovascular functions, hypertension, headache, back pain, and.[...]

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Contents

Fields of interest
Clinical Nutrition; Nutrition; Obstetrics / Perinatology; Internal Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume


Hardcover
2013. XVIII, 469 p. 133 illus., 37 illus. in color. (Nutrition and Health).
169,99 €

Usually dispatched within 3 to 5 business days.

Ophthalmology and the Ageing Society

The ageing of the world’s population is one of the major achievements of modern society. By 2050, an estimated 2 billion people will be aged 60 years or over. However, ageing poses major challenges and this is especially true for the field of ophthalmology, given that the major eye diseases – age-related macular degeneration, glaucoma, and cataract – predominantly affect the elderly. The challenges facing ophthalmology in an ageing society have not previously been addressed in a comprehensive way, although there are common denominators of the various eye diseases that affect the elderly. This book provides such a comprehensive overview encompassing epidemiology, risk factors, current[...]

Features
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Orthopantomography

Although orthopantomography (OPT) is a very frequently employed radiological examination, even the expert radiologist can encounter difficulty in reporting the findings owing to the specific terminology, the nature of the diagnostic queries, and the need to describe precisely the clinical implications for the dentist. Additionally, artifacts are a frequent occurrence, and many radiologists and dentists are unfamiliar with their causes and solutions. Methodological inaccuracies during the execution of OPTs also have important clinical implications. For all of these reasons, this richly illustrated monograph on OPT sets out to describe in detail diverse technical and methodological...[

Features
Although orthopantomography (OPT) is a very frequently employed radiological examination, even the expert radiologist can encounter difficulty in reporting the findings owing to the specific terminology, the nature of the diagnostic queries, and the need to describe precisely the clinical implications for the dentist. Additionally, artifacts are a frequent occurrence, and many radiologists and dentists are...[

Contents
Part I Technique and normal anatomy. 1 Hints of technique and methodology. 2 Normal anatomy. - Part II Elementary radiographic semiotics and pathological terminology. 3 Alterations of number, orientation, seat, morphology, width and structure of the dental element. - 4 Caries. - 5 Periodical lesions. - 6 The periodontal disease. - 7 Cystic lesions and maxillary tumors. - 8 OPT in post-treatment evaluation.

Fields of interest
Imaging / Radiology; Dentistry; Oral and Maxillofacial Surgery

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-88-470-5288-8

Osteoporosis and Bone Densitometry Measurements

Osteoporosis is a serious problem worldwide, and its significance is continuing to increase as the world population grows and ages. Osteoporosis and Bone Densitometry Measurements provides a comprehensive review of the latest research on this potentially devastating condition. The book encompasses prevention, diagnosis, and therapy, providing state of the art information on each aspect. A wide range of topics are discussed, including differentiation between acute and chronic, benign and malignant vertebral fractures; the value of the WHO FRAX tool in patient evaluation; the roles of dual-energy X-ray absorptiometry, quantitative computed tomography, quantitative ultrasound, and...[

Features
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Contents

Fields of interest
Imaging / Radiology; Geriatrics / Gerontology; Diagnostic Radiology; Interventional Radiology; Endocrinology; Metabolic Diseases

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-3-642-27883-9

Pathology of the Pancreas

A Practical Approach

Pathology of the Pancreas: A Practical Approach covers all the diagnostic entities in adult pancreatic pathology, providing extensive illustrations and tables to assist the pathologist at the time of diagnostic reporting of histological and cytological specimens. Potential pitfalls and mimics in pancreatic pathology are highlighted and illustrated, and guidance is provided regarding how to recognize and avoid them. Pathology of the Pancreas: A Practical Approach enables the pathologist to recognize the various pathological entities and provide the key information in their pathology reports, which is necessary for the individual patient’s further management. It is based on the most...[

Features
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Contents

Fields of interest
Pathology; Imaging / Radiology

Target groups
Professional/practitioner

Type of publication
Professional book

More on www.springer.com/978-1-4471-2448-1
**Primary Care Interviewing**

Learning Through Role Play

Primary care is complex, unpredictable, and requires a biopsychosocial orientation. An indispensable teaching resource, Primary Care Interviewing: Learning Through Role Play thoroughly details how to use role play to teach the basics and more complex aspects of medical interviewing skills to trainee clinicians. Role playing is ideally suited to teach clinicians how to interview and relate to patients, and this unique and concise title includes not only sample role plays and dialog but also a wealth of accompanying online video role plays to enhance the learning process. Part one presents how to teach basic interviewing skills needed for effective communication, such as joining.[...]

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**Fields of interest**

Primary Care Medicine; Internal Medicine

**Target groups**

Professional/practitioner

**Type of publication**

Monograph


**Format**

Softcover

2013. XX, 268 p. With online files/update.

39,99 €


Usually dispatched within 3 to 5 business days.

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**Robotic Urology**

In this second, revised edition of Robotic Urology, leading robotic surgeons from around the world pool their knowledge to provide an updated manual that covers all the oncologic and reconstructive procedures in urologic surgery that are performed with robotic assistance. Each operation is described in detail, with careful explanation of the different surgical steps and numerous high-quality anatomic illustrations and color surgical photos. An additional feature is the inclusion of extensive references to the scientific literature. As well as offering excellent guidance on the application of robotic surgery in urology, the book will serve as an ideal reference work for all urologists.[...]

**Fields of interest**

Urology / Andrology; Surgery; Gynecology

**Target groups**

Professional/practitioner

**Type of publication**

Professional book

More on [www.springer.com/978-3-642-33214-2](http://www.springer.com/978-3-642-33214-2)

**Format**

Hardcover

2013. XI, 423 p. 254 illus., 244 illus. in color.

139,95 €

ISBN 978-3-642-33214-2

Online orders shipping within 2-3 days.

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**Sexually Transmitted Diseases**

A Practical Guide for Primary Care

Sexually Transmitted Diseases: A Guide for Primary Care, second edition, covers the diagnosis and treatment of STDs and other information critical to patient care and reflects the last five years of significant changes in information about STDs. Updated to reflect the 2010 Centers for Disease Control Guidelines on the Treatment of STDs, this book also contains new information about: the epidemiology of herpes virus infections—expedited partner therapy—changes in recommendations for HPV vaccination for men—changes in resistance patterns for antimicrobial therapy for gonorrhea and chlamydia—treatment recommendations for bacterial vaginosis—treatment recommendations for genital warts.[...]

**Features**

Sexually Transmitted Diseases: A Practical Guide for Primary Care, Second Edition, covers the diagnosis and treatment of STDs and other information critical to patient care and reflects the last five years of significant changes in information about STDs. Updated to reflect the 2010 Centers for Disease Control Guidelines on the Treatment of STDs, this book also contains new information [...]

**Fields of interest**

Primary Care Medicine; Infectious Diseases; Gynecology; Obstetrics / Perinatology

**Target groups**

Professional/practitioner

**Type of publication**

Professional book


**Format**

Softcover

2013. XIV, 185 p. 1 illus. (Current Clinical Practice)

39,99 €


Usually dispatched within 3 to 5 business days.
Surgery of Shoulder Instability

This booklet is intended as an insightful update on the surgery of Shoulder Instability closely based on the content of closed consensus meetings of the International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS) Upper Extremity Committee (UEC).

Features

This book represents a treatise on current options for the management of shoulder instability. Shoulder instability is ubiquitous and international, as is this book. This book addresses shoulder instability—all comers because the extreme variability of patients and pathology must be matched with a variety of techniques. This represents a first for ISAKOS and Springer’s let’s hope the partnership...

Contents


Fields of interest

Surgical Orthopedics; Sports Medicine

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-3-642-38099-0

Softcover

2013 VII; 140 p. 56 illus., 42 illus. in color.

99,99 €

ISBN 978-3-642-38099-0

Usually dispatched within 3 to 5 business days.

Social Neurosciences and Public Health

Foundations for the Science of Chronic Disease Prevention

The field of public health is primarily concerned with understanding and improving physical health from a large group perspective (i.e., communities and whole populations). The field of social neuroscience, on the other hand, is primarily concerned with examining brain-behavior relationships that unfold in a social context. Both of these are rapidly developing fields of inquiry, and their boundaries have only recently begun to overlap. This book discusses collaborative research findings at the intersection of social neuroscience and public health that promise to fundamentally change the way scientists, public health practitioners, and the general public view physical health within the...
Surgical Anatomy of the Internal Carotid Artery

An Atlas for Skull Base Surgeons

This atlas provides all the basic and advanced information required by surgeons in order to understand fully the skull base anatomy. It is organized according to anatomical-surgical pathways to the hidden areas of the skull base. These pathways are described in step-by-step fashion with the aid of a wealth of color images and illustrations. The emphasis is on endoscopic anatomy, but in order to provide a holistic perspective, informative three-dimensional reconstructions are presented alongside the endoscopic images and radiologic images are included when appropriate. In effect, windows are opened on the anatomy so that the reader is guided on a journey throughout the skull base region.[...]

Features

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Contents


Fields of interest

Oto-rhino-laryngology; Head and Neck Surgery

Target groups

Professional/practitioner

Type of publication

Atlas

More on www.springer.com/978-3-642-29663-5

Hardcover

2013. XV, 162 p. 174 illus. in color. 99,95 €

ISBN 978-3-642-29663-5

Online orders shipping within 2-3 days.

Surgical Management of Urolithiasis

Percutaneous, Shockwave and Ureteroscopy

Written entirely by surgical urologists, Surgical Management of Urolithiasis: Percutaneous, Shockwave and Ureteroscopy presents a comprehensive overview of the past, present, and future of surgical techniques, with a focus on educating urologists on the full spectrum of stone procedures. In addition to the technical issues, detailed complications are described. Basic as well as advanced techniques are presented in both a didactic and visual mode with representative endoscopic images and radiographs. Recent advancements which are not routinely a core component of surgical training programs are also covered in detail. Compact and extensively illustrated, Surgical Management of[...]

Features

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Contents


Fields of interest

Urology / Andrology; General Surgery

Target groups

Professional/practitioner

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-6936-0

Hardcover

2013. XI, 199 p. 93 illus., 45 illus. in color. 139,99 €

ISBN 978-1-4614-6936-0

Usually dispatched within 3 to 5 business days.

Surgical Treatment for Advanced Heart Failure

The treatment of end-stage heart failure with advanced surgical therapies has evolved significantly over the last several years and is a dynamic subspecialty within cardiac surgery. Surgical Treatment for Advanced Heart Failure describes the surgical management of advanced heart failure, including coronary artery revascularization, mitral valve repair, aortic valve replacement, ventricular remodeling, cardiac resynchronization, mechanical circulatory support with short-term devices for acute stabilization, long-term mechanical support as a bridge to transplant and for destination therapy, left ventricular assist devices, complete cardiac replacement with the total artificial heart.[...]

Features

The treatment of end-stage heart failure with advanced surgical therapies has evolved significantly over the last several years and is a dynamic subspecialty within cardiac surgery. Surgical Treatment for Advanced Heart Failure describes the surgical management of advanced heart failure, including coronary artery revascularization, mitral valve repair, aortic valve replacement, ventricular remodeling, cardiac resynchronization, mechanical circulatory support with short-term devices for acute stabilization, long-term mechanical support as a bridge to transplant and for destination therapy, left ventricular assist devices, complete cardiac replacement with the total artificial heart.[...]

Contents

Principles of Heart Failure. - Algorithm for Treatment of Advanced Heart Failure. - Surgical Coronary Artery Revascularization in Patients with Advanced Ischemic Cardiomyopathy. - Mitral Valve Repair for Ischemic Mitral Regurgitation with Advanced Cardiomyopathy. - Aortic Valve Replacement for Severe Aortic Stenosis or Aortic Insufficiency with Advanced Left Ventricular Dysfunction. - Ventricular Remodeling for Ischemic Cardiomyopathy and Ventricular Asynenergy Post Myocardial Infarction. - Cardiac Resynchronization in Advanced Heart Failure: Bi-ventricular Pacing. - Triage VADs: Tandem-Heart. [...]
The Complete Resource on Pediatric Office Emergency Preparedness

This book describes key knowledge concepts, skills and up-to-date algorithms pertaining to common emergencies that can take place in a pediatric office, including: seizures, anaphylaxis and shock, and diabetic ketoacidosis. The authors supported by peer review from top specialists in Pediatric Emergency Medicine at the Baylor College of Medicine offer the first comprehensive educational resource on pediatric office emergency preparedness devoted exclusively to the practicing primary care health care provider and his/her team. During emergencies, providers and their staff are called on to work efficiently as a “code-team” which is a source of considerable apprehension for many[...]

Features
Pediatric practice can be hectic under optimal everyday conditions. Imagine what can happen when a child has an asthma attack, is choking, or goes into cardiac arrest. The efficient pediatric provider not only needs to have current knowledge of tools and skills, but must also be prepared to use them in the most relevant and up-to-date manner in a crisis. The Complete Resource on Pediatric Office [...]
**Total Hip Arthroplasty**

**Tribological Considerations and Clinical Consequences**

In recent years the ‘Tribology Day’ has become a recognized highlight of the EFORT Congress, and at the 2012 Congress in Berlin an entire day was once again devoted to tribology in total hip arthroplasty. EFORT decided that, given the wide interest in tribology, publication of the presentations would be warmly welcomed by fellow professionals who were unable to attend. The resulting book includes all presentations delivered on the day and covers a range of interesting topics. Up-to-date information is provided on the various articulating materials, and all the articulations recently used in total hip arthroplasty are discussed, with provision of clinical data. The book will be of [...]
Urological Emergencies in Clinical Practice

Urological Emergencies in Clinical Practice, Second Edition, is a well-researched pocket book that provides a comprehensive summary of urological emergencies and their management, in a form that is concise, relevant to the target audience and readily available. While the description of each emergency condition is comprehensive, the emphasis is on the practical approach to the conditions which are likely to be encountered. Since the first edition, there have been new guidelines published by the European Association of Urology which are incorporated in the new edition of this book. Furthermore this edition contains a chapter on pediatric urological emergencies. For the doctor or nurse,[...]

Contents

Fields of interest
Urology / Andrology

Target groups
Professional/practitioner

Type of publication
Contributed volume


Softcover
2013. VI, 288 p. 75 illus., 14 illus. in color.
39,95 €

Usually dispatched within 3 to 5 business days.

H. Wessells, University of Washington, Seattle, USA (Ed.)

Urological Emergencies

A Practical Approach

Urological Emergencies: A Practical Approach, Second Edition provides a concise, evidence based review of common urgent and emergent urological conditions in children and adults. Descriptions of the appropriate diagnostic and therapeutic considerations on topics of traumatic, infectious, obstructive, hemorrhagic, iatrogenic, vascular and congenital urological emergencies in adults and children are provided. The text is organized by pathophysiology rather than organ system, allowing the reader to develop approaches to the care of patients with acute urological conditions based on mechanism of disease. Relevant pathophysiological background and epidemiology are reviewed, necessary[...]

Features
Urological Emergencies: A Practical Approach, Second Edition provides a concise, evidence based review of common urgent and emergent urological conditions in children and adults. Descriptions of the appropriate diagnostic and therapeutic considerations on topics of traumatic, infectious, obstructive, hemorrhagic, iatrogenic, vascular and congenital urological emergencies in adults and children are [...]

Contents

Fields of interest
Urology / Andrology

Target groups
Professional/practitioner

Type of publication
Contributed volume

More on www.springer.com/978-1-62703-422-7

Hardcover
2013. XIII, 341 p. 114 illus., 44 illus. in color. (Current Clinical Urology)
149,99 €
ISBN 978-1-62703-422-7

Usually dispatched within 3 to 5 business days.

N. Bowie, Carlson School of Management, Minneapolis, USA

Business Ethics in the 21st Century

This work provides a critical look at business practice in the early 21st century and suggests changes that are both practical and normatively superior. Several chapters present a reflection on business ethics from a societal or macro-organizational point of view. It makes a case for the economic and moral superiority of the sustainability capitalism of the European Union over the finance-based model of the United States. Most major themes in business ethics are covered and some new ones are introduced, including the topic of the right way to teach business ethics. The general approach adopted in this volume is Kantian. Alternative approaches are critically evaluated.

Features
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Contents

Fields of interest
Ethics; Business & Economics (general); Political Science, general

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6222-0

Hardcover
2013. XIX, 235 p. 2 illus. (Eminent Voices in Business Ethics, 39)
99,99 €
ISBN 978-94-007-6222-0

Usually dispatched within 3 to 5 business days.

H. Hashim, Southmead Hospital, Bristol, United Kingdom; J. Re- mard, Churchill Hospital, Oxford, United Kingdom; N.C. Cowan, Churchill Hospital, Oxford, United Kingdom; D. Wood, University College Hospital, London, United Kingdom; N. Armenakas, Lenox Hill Hospital, New York, USA (Eds.)
Contemporary Perspectives on Early Modern Philosophy

Nature and Norms in Thought

Normativity has long been conceived as more properly pertaining to the domain of thought than to the domain of nature. This conception goes back to Kant and still figures prominently in contemporary epistemology, philosophy of mind and ethics. By offering a collection of new essays by leading scholars in early modern philosophy and specialists in contemporary philosophy, this volume goes beyond the point where nature and normativity came apart, and challenges the well-established opposition between these all too neatly separated realms. It examines how the mind’s embeddedness in nature can be conceived as a starting point for uncovering the links between naturally and conventionally [...]
Models of God and Alternative Ultimate Realities

The envisioned volume is a collection of recent essays about the philosophical exploration, critique and comparison of (a) the major philosophical models of God, gods and other ultimate realities implicit in the world’s philosophical schools and religions, and of (b) the ideas of such models and doing such modeling per se. The aim is to identify exactly what a model of ultimate reality is; create a comprehensive and accessible collection of extant models; and determine how best, philosophically, to model ultimate reality, if possible and desirable.

Features

Dedicated to exploring the enormous variety of ultimate realities at the center of the world’s great religions and philosophical traditions, this volume is a richly varied collection of essays on how we conceive this central notion, whether expressed as God, or as an ultimate reality of another kind. Years in the making, the collection examines the guiding principles of 15 major philosophical traditions [...]

Contents


Fields of interest

Philosophy of Religion; Religious Studies; Humanities

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-5218-4

Hardcover

2013. XXI, 1041 p. 8 illus. 199.95 €

ISBN 978-94-007-5218-4

Usually dispatched within 3 to 5 business days.

New Challenges to Philosophy of Science

This volume is a serious attempt to open up the subject of European philosophy of science to real thought, and provide the structural basis for the interdisciplinary development of its specialist fields, but also to provoke reflection on the idea of ‘European philosophy of science’. This efforts should foster a contemporaneous reflection on what might be meant by philosophy of science in Europe and European philosophy of science, and how in fact awareness of it could assist philosophers interpret and motivate their research through a stronger collective identity. The overarching aim is to set the background for a collaborative project organising, systematising, and ultimately forging[...]

Features

This volume is a serious attempt to open up the subject of European philosophy of science to real thought, and provide the structural basis for the interdisciplinary development of its specialist fields, but also to provoke reflection on the idea of ‘European philosophy of science’. This efforts should foster a contemporaneous reflection on what might be meant by philosophy of science in Europe and European[...]

Contents


Fields of interest

Philosophy of Science

Target groups

Research

Type of publication

Contributed volume


Hardcover

2013. VI, 512 p. 30 illus. (The Philosophy of Science in a European Perspective, Vol. 4) 169.99 €


Usually dispatched within 3 to 5 business days.

The Philosophical Background and Scientific Legacy of E. B. Titchener’s Psychology

Understanding Introspectionism

This volume offers a new understanding of Titchener’s influential system of psychology popularly known as introspectionism, structuralism and as classical introspective psychology. Adopting a new perspective on introspectionism and seeking to assess the reasons behind its famous implosion, this book reopens and rewrites the chapter in the history of early scientific psychology pertaining to the nature of E. B. Titchener’s psychological system. Arguing against the view that Titchener’s system was undone by an overreliance on introspection, the author explains how this idea was first introduced by the early behaviorists in order to advance their own theoretical agenda. Instead, the[...]
### Values of Our Times

**Contemporary Axiological Research in China**

Philosophers have gradually accepted axiology as one branch of philosophy. As a basic category belonging to axiology and philosophy, ‘value’ is the general abstraction of concrete value formation in various fields including utility, ethics and appreciation of the beauty. The problem of value is essentially a problem of historical activities of practice in human society. The axiology based on the scientific practice view insists on the principle of unification between theory and practice, truth and value. In research of axiology, the relation between subjectivity and objectivity of values is a problem that must be solved in the first place. The modern conversation of value philosophy [...] .

**Features**

Philosophers have gradually accepted axiology as one branch of philosophy. As a basic category belonging to axiology and philosophy, ‘value’ is the general abstraction of concrete value formation in various fields including utility, ethics and appreciation of the beauty. The problem of value is essentially a problem of historical activities of practice in human society. The axiology based on the scientific [...] .

**Contents**


**Fields of interest**

Philosophy (general)

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-3-642-38258-1

**Hardcover**

2013. VI, 274 p. 129,99 €

ISBN 978-3-642-38258-1

Usually dispatched within 3 to 5 business days.

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### Vitalism and the Scientific Image in Post-Enlightenment Life Science, 1800-2010

**S. Normandin, Michigan State University, East Lansing, USA; C.T. Wolfe, Ghent University, Ghent, Belgium (Eds.)**

Vitalism is understood as impacting the history of the life sciences, medicine and philosophy, representing an epistemological challenge to the dominance of mechanism over the last 200 years, and partly revived with organicism in early theoretical biology. The contributions in this volume portray the history of vitalism from the end of the Enlightenment to the modern day, suggesting some reassessment of what it means both historically and conceptually. As such it includes a wide range of material, employing both historical and philosophical methodologies, and it is divided fairly evenly between the 19th and 20th century historical treatments and more contemporary analysis. This volume [...] .

**Features**

Vitalism is understood as impacting the history of the life sciences, medicine and philosophy, representing an epistemological challenge to the dominance of mechanism over the last 200 years, and partly revived with organicism in early theoretical biology. The contributions in this volume portray the history of vitalism from the end of the Enlightenment to the modern day, suggesting some reassessment of [...] .

**Contents**


**Fields of interest**

Philosophy of Biology; Systems Biology; Medicine (general); History of Science

**Target groups**

Research

**Type of publication**

Contributed volume

More on www.springer.com/978-94-007-2444-0

**Hardcover**

2013. VI, 377 p. 5 illus. (History, Philosophy and Theory of the Life Sciences, Vol. 2) 129,99 €

ISBN 978-94-007-2444-0

Usually dispatched within 3 to 5 business days.
Applications of Chaos and Nonlinear Dynamics in Science and Engineering - Vol. 3

Chaos and nonlinear dynamics initially developed as a new emergent field with its foundation in physics and applied mathematics. The highly generic, inter-disciplinary quality of the insights gained in the last few decades has spawned myriad applications in almost all branches of science and technology—and even well beyond. Wherever quantitative modeling and analysis of complex, nonlinear phenomena is required, chaos theory and its methods can play a key role. This third volume concentrates on reviewing further relevant contemporary applications of chaotic nonlinear systems as they apply to the various cutting-edge branches of engineering. This encompasses, but is not limited to, [...] Features

Chaos and nonlinear dynamics initially developed as a new emergent field with its foundation in physics and applied mathematics. The highly generic, inter-disciplinary quality of the insights gained in the last few decades has spawned myriad applications in almost all branches of science and technology—and even well beyond. Wherever quantitative modeling and analysis of complex, nonlinear phenomena is [...] Contents


Fields of interest

Nonlinear Dynamics; Complexity; Complex Systems; Complex Networks

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-34016-1

Hardcover

2013. X, 296 p. 215 illus., 6 illus. in color. (Understanding Complex Systems) 94,95 € ISBN 978-3-642-34016-1 Usually dispatched within 3 to 5 business days.

Astrobiology, History, and Society

Life Beyond Earth and the Impact of Discovery

This book addresses important current and historical topics in astrobiology and the search for life beyond Earth, including the search for extraterrestrial intelligence (SETI). The first section covers the plurality of worlds debate from antiquity through the nineteenth century, while section two covers the extraterrestrial life debate from the twentieth century to the present. The final section examines the societal impact of discovering life beyond Earth, including both cultural and religious dimensions. Throughout the book, authors draw links between their own chapters and those of other contributors, emphasizing the interconnections between the various strands of the history [...] Features

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Astrobiology; Life Sciences (general); History of Science; Cross Cultural Psychology; Religious Studies; Sociology, general

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-35982-8

Hardcover

2013. XXVIII, 375 p. 19 illus., 2 illus. in color. (Advances in Astrobiology and Biogeophysics) 129,99 € ISBN 978-3-642-35982-8 Usually dispatched within 3 to 5 business days.

Einstein in Matrix Form

Exact Derivation of the Theory of Special and General Relativity without Tensors

This book is an introduction to the theories of Special and General Relativity. The target audience are physicists, engineers and applied scientists who are looking for an understandable introduction to the topic—without too much new mathematics. The fundamental equations of Einstein’s theory of Special and General Relativity are derived using matrix calculus, without the help of tensors. This feature makes the book special and a valuable tool for scientists and engineers with no experience in the field of tensor calculus. In part I the foundations of Special Relativity are developed, part II describes the structure and principle of General Relativity. Part III explains the [...] Features

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Fields of interest

Classical and Quantum Gravitation, Relativity Theory; Theoretical and Applied Mechanics; Theoretical and Computational Chemistry; Mechanics; Mathematical Physics

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

More on www.springer.com/978-3-642-35797-8

Hardcover

2013. XIV, 194 p. 11 illus. (Graduate Texts in Physics) 69,99 € ISBN 978-3-642-35797-8 Usually dispatched within 3 to 5 business days.
Essential Astrophysics

Essential Astrophysics is a book to learn or teach from, as well as a fundamental reference volume for anyone interested in astronomy and astrophysics. It presents astrophysics from basic principles without requiring any previous study of astronomy or astrophysics. It serves as a comprehensive introductory text, which takes the student through the field of astrophysics in lecture-sized chapters of basic physical principles applied to the cosmos. This one-semester overview will be enjoyed by undergraduate students with an interest in the physical sciences, such as astronomy, chemistry, engineering or physics, as well as by any curious student interested in learning about our celestial [...]

Features

Essential Astrophysics is a book to learn or teach from, as well as a fundamental reference volume for anyone interested in astronomy and astrophysics. It presents astrophysics from basic principles without requiring any previous study of astronomy or astrophysics. It serves as a comprehensive introductory text, which takes the student through the field of astrophysics in lecture-sized chapters of [...]

Contents


Fields of interest

Astrophysics and Astroparticles; Extraterrestrial Physics, Space Sciences; Astrobiology

Target groups

Lower undergraduate

Type of publication

Undergraduate textbook

More on www.springer.com/978-3-642-35962-0

Softcover

2013, XX, 635 p. 148 illus., 26 illus. in color. (Undergraduate Lecture Notes in Physics) 69.99 €

ISBN 978-3-642-35962-0

Usually dispatched within 3 to 5 business days.

HPHT-Treated Diamonds

Diamonds Forever

High-temperature and high-pressure treatment of diamond is becoming an important technology to eliminate diamonds. This is the first book providing a comprehensive review of the properties of HPHT-treated diamonds, based on the analysis of published data and the work of the authors. The book gives a detailed analysis of the physics of transformation of internal structures of diamonds subjected to HPHT treatment and discusses how these transformations can be detected using methods of optical microscopy and spectroscopy. It also gives practical recommendations for the recognition of HPHT-treated diamonds. The book is written in a language and terms which can be understood by a broad [...]?

Features

High-temperature and high-pressure treatment of diamond is becoming an important technology to eliminate diamonds. This is the first book providing a comprehensive review of the properties of HPHT-treated diamonds, based on the analysis of published data and the work of the authors. The book gives a detailed analysis of the physics of transformation of internal structures of diamondssubj ected to HPHT [...]

Contents

Natural Diamonds Used for HPHT Treatment.- Process of HPHT Treatment.- Features of HPHT Treated Diamonds.- Recognition of HPHT Treated Diamonds.- Concluding Remarks: Diamond Treatment is a Never-Ending Story.

Fields of interest

Crystallography; Optical and Electronic Materials; Physical Chemistry; Characterization and Evaluation of Materials; Spectroscopy and Microscopy

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-37489-0

Hardcover

2013, XX, 257 p. 166 illus., 103 illus. in color. (Springer Series in Materials Science, Vol. 181) 129.99 €

ISBN 978-3-642-37489-0

Usually dispatched within 3 to 5 business days.

Inorganic Nanoarchitectures by Organic Self-Assembly

Macromolecular self-assembly - driven by weak, non-covalent, intermolecular forces - is a common principle of structure formation in natural and synthetic organic materials. The variability in material arrangement on the nanometre length scale makes this an ideal way of matching the structure-function demands of photonic and optoelectronic devices. However, suitable soft matter systems typically lack the appropriate photoactivity, conductivity or chemically stability. This thesis explores the implementation of soft matter design principles for inorganic thin film nanoarchitectures. Sacrificial block copolymers and colloids are employed as structure-directing agents for the [...]?

Features

Macromolecular self-assembly - driven by weak, non-covalent, intermolecular forces - is a common principle of structure formation in natural and synthetic organic materials. The variability in material arrangement on the nanometre length scale makes this an ideal way of matching the structure-function demands of photonic and optoelectronic devices. However, suitable soft matter systems typically lack the [...]

Contents

From the Contents: Self-Assembly of Soft Matter.- Optical aspects of thin films and interfaces.- Structure-function interplay in dye-sensitised solar cells.- Experimental and analytical techniques.- Block copolymer-induced structure control for inorganic nanomaterials.- Crystal growth in block copolymer-derived mesoporous TiO$_2$. [...]

Fields of interest

Applied Optics, Optoelectronics, Optical Devices; Soft and Granular Matter, Complex Fluids and Microfluidics; Optical and Electronic Materials; Surface and Interface Science, Thin Films; Nanoscale Science and Technology

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00311-5

Hardcover

2013, XVII, 165 p. 66 illus., 50 illus. in color. (Springer Theses) 99.99 €

ISBN 978-3-319-00311-5

Usually dispatched within 3 to 5 business days.
Introduction to the Theory of Quantum Information Processing

Introduction to the Theory of Quantum Information Processing provides the material for a one-semester graduate level course on quantum information theory and quantum computing for students who have had a one-year graduate course in quantum mechanics. Many standard subjects are treated, such as density matrices, entanglement, quantum maps, quantum cryptography, and quantum codes. Also included are discussions of quantum machines and quantum walks. In addition, the book provides detailed treatments of several underlying fundamental principles of quantum theory, such as quantum measurements, the no-cloning and no-signaling theorems, and their consequences. Problems of various levels of difficulty are presented.

Contents

Fields of interest
Quantum Information Technology, Spintronics; Coding and Information Theory; Quantum Physics

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

More on www.springer.com/978-1-4614-7091-5

Hardcover

Low-Dimensional Functional Materials
Maintaining and improving energy security is one of the biggest challenges worldwide. The NATO ARW conference in Tashkent, October 2012, was devoted to discussing visions and concepts that are currently discussed in different research fields. Leading scientists have written concise contributions to introduce the reader to this exciting topic. The present volume summarizes the discussions at the conference.

Features
Maintaining and improving energy security is one of the biggest challenges worldwide. The NATO ARW conference in Tashkent, October 2012, was devoted to discussing visions and concepts that are currently discussed in different research fields. Leading scientists have written concise contributions to introduce the reader to this exciting topic. The present volume summarizes the discussions at the conference.

Contents

Fields of interest
Condensed Matter Physics; Nanotechnology; Renewable and Green Energy

Target groups
Graduate

Type of publication
Proceedings

More on www.springer.com/978-94-007-6617-4

Hardcover

Mining Social Networks and Security Informatics
Crime, terrorism and security are in the forefront of current societal concerns. This edited volume presents research based on social network techniques showing how data from crime and terror networks can be analyzed and how information can be extracted. The topics covered include crime data mining and visualization; organized crime detection; crime network visualization; computational criminology; aspects of terror network analyses and threat prediction including cyberterrorism and the related area of dark web; privacy issues in social networks; security informatics; graph algorithms for social networks; general aspects of social networks such as pattern and anomaly detection; [...]?

Features
Crime, terrorism and security are in the forefront of current societal concerns. This edited volume presents research based on social network techniques showing how data from crime and terror networks can be analyzed and how information can be extracted. The topics covered include crime data mining and visualization; organized crime detection; crime network visualization; computational criminology; aspects of [...]?

Contents

Fields of interest
Security Science and Technology; Data Mining and Knowledge Discovery; Criminology & Criminal Justice; Game Theory / Mathematical Methods; Complexity

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-94-007-6358-6

Hardcover
2013. VI, 283 p. 92 illus. (Lecture Notes in Social Networks) 99,99 € ISBN 978-94-007-6358-6 Usually dispatched within 3 to 5 business days.
Optical Absorption Spectra Calculated Using Linear-Scaling Density-Functional Theory

The development of linear-scaling density functional theory (LS-DFT) has made ab initio calculations on systems containing thousands of atoms possible. These systems range from nanomaterials to biomolecules. These methods rely on the use of localized basis sets, which are optimized for the representation of unoccupied states. This is problematic if one wishes to combine the power of LS-DFT with that of theoretical spectroscopy, which provides a direct link between simulation and experiment. In this work a new method is presented for optimizing localized functions to accurately represent the unoccupied states.

Features

The development of linear-scaling density functional theory (LS-DFT) has made ab initio calculations on systems containing thousands of atoms possible. These systems range from nanomaterials to biomolecules. These methods rely on the use of localized basis sets, which are optimized for the representation of unoccupied Kohn-Sham states but do not guarantee an accurate representation of the unoccupied states.

Physical Properties of Nanorods

Inorganic nanoparticles are among the most investigated objects nowadays, both in fundamental science and in various technical applications. In this book the physical properties of nanowires formed by nanoparticles with elongated shape, i.e. rod-like or wire-like, are described. The transition in the physical properties is analyzed for nanorods and nanowires consisting of spherical and rod-like nanoparticles. The physical properties of nanowires and elongated inorganic nanoparticles are reviewed too. The optical, electrical, magnetic, mechanical and catalytic properties of nanowires consisting of semiconducters, noble and various other metals, metal oxides properties and metal alloys are examined.

Features

Inorganic nanoparticles are among the most investigated objects nowadays, both in fundamental science and in various technical applications. In this book the physical properties of nanowires formed by nanoparticles with elongated shape, i.e. rod-like or wire-like, are described. The transition in the physical properties is analyzed for nanorods and nanowires consisting of spherical and rod-like nanoparticles.

Contents

Density Functional Theory.- Linear-Scaling Methods.- Theoretical Spectroscopy.- Basis Sets and Band Structures.- Conduction States: Methods and Applications.- Results and Discussion.

Fields of interest
Atomic/Molecular Structure and Spectra; Solid State Physics; Applied Optics; Optoelectronics; Optical Devices

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-319-00338-2

Hardcover
2013. XI, 116 p. 37 illus., 24 illus. in color. (Springer Theses)
99,99 €
ISBN 978-3-319-00338-2
Usually dispatched within 3 to 5 business days.

Predicting the Future: Completing Models of Observed Complex Systems

Through the development of an exact path integral for use in transferring information from observations to a model of the observed system, the author provides a general framework for the discussion of model building and evaluation across disciplines. Through many illustrative examples drawn from models in neuroscience, geosciences, and nonlinear electrical circuits, the concepts are exemplified in detail. Practical numerical methods for approximate evaluations of the path integral are explored, and their use in designing experiments and determining a model’s consistency with observations is explored.

Features

Predicting the Future: Completing Models of Observed Complex Systems provides a general framework for the discussion of model building and validation across a broad spectrum of disciplines. This is accomplished through the development of an exact path integral for use in transferring information from observations to a model of the observed system. Through many illustrative examples drawn from models.

Contents


Fields of interest
Statistical Physics, Dynamical Systems and Complexity; Complex Systems; Numerical and Computational Physics; Simulation and Modeling: Neurosciences

Target groups
Research

Type of publication
Monograph


Hardcover
2013. XVI, 238 p. 97 illus., 91 illus. in color. (Understanding Complex Systems)
84,99 €
Usually dispatched within 3 to 5 business days.
Quantifying the Martian Geochemical Reservoirs

Over the last fifteen years, space-based exploration of the solar system has increased dramatically, with more and more sophisticated orbiters andlanders being sent to Mars. This intense period, rich in unprecedented scientific results, has led to immense progress in our perception of Mars and of its evolution over geological time. In parallel, advances in numerical simulations and laboratory experiments also shed new light on the geochemical evolution of the planet Mars. The ISSI-Europlanet Workshop entitled ‘Quantifying the Martian Geochemical Reservoirs’ was held in Bern in April 2011 with the objective to create a diverse interdisciplinary forum composed of scientists directly[...]

Features

Over the last fifteen years, space-based exploration of the solar system has increased dramatically, with more and more sophisticated orbiters and landers being sent to Mars. This intense period, rich in unprecedented scientific results, has led to immense progress in our perception of Mars and of its evolution over geological time. In parallel, advances in numerical simulations and laboratory experiments also [...]

Contents

The Formation of Mars: Building Blocks and Accretion Time Scale.- Core Formation and Mantle Differentiation on Mars.- Long-Term Evolution of the Martian Crust-Mantle System.- Outgassing History and Escape of the Martian Atmosphere and Water Inventory.- Quantifying the Martian Hydrosphere: Current Evidence, Time Evolution and Implications for the Habitability of the Planet.- Volatile Trapping in Martian Clathrates.- Geochemical Reservoirs and Timing of Sulphur Cycling on Mars.- Geochemistry of Carbonates on Mars.- Implications for the Habitability of the Planet.- Challenges for the Habitability of Mars.- Implications for the Habitability of Other Terrestrial Worlds.- Implications for the Habitability of Exoplanets.- Implications for the Habitable Zone.- Implications for the Habitability of Exoplanets.- Implications for the Habitable Zone.- Implications for the Habitable Zone.- Implications for the Habitable Zone.- Implications for the Habitability of Exoplanets.- Implications for the Habitable Zone.- Implications for the Habitable Zone.- Implications for the Habitability of Exoplanets.- Implications for the Habitable Zone.

Fields of interest

Extraterrestrial Physics, Space Sciences; Geochemistry; Mineralogy; Planetology

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-24069-0

Hardcover


Usually dispatched within 3 to 5 business days.

Quantum Entanglement in Electron Optics

N. Chandra, Indian Institute of Technology, Kharagpur, India; R. Ghosh, B.N. Pand, Pokharpur, India

Radiative Processes in High Energy Astrophysics

G. Ghisellini, INAF, Merate, Italy

This book grew out of the author’s notes from his course on Radiative Processes in High Energy Astrophysics. The course provides fundamental definitions of radiative processes and serves as a brief introduction to Bremsstrahlung and black body emission, relativistic beaming, synchrotron emission and absorption, Compton scattering, synchrotron self-compton emission, pair creation and emission. The final chapter discusses the observed features of Active Galactic Nuclei and their interpretation based on the radiative processes presented in the book. Written in an informal style, this book will guide students through their first encounter with high-energy astrophysics.

Features

This book grew out of the author’s notes from his course on Radiative Processes in High Energy Astrophysics. The course provides fundamental definitions of radiative processes and serves as a brief introduction to Bremsstrahlung and black body emission, relativistic beaming, synchrotron emission and absorption, Compton scattering, synchrotron self-compton emission, pair creation and emission. The final [...]

Contents


Fields of interest

Astrophysics and Astroparticles; Plasma Physics; Particle Acceleration and Detection, Beam Physics; Classical Electrodynamics, Wave Phenomena

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00611-6

Softcover

2013. X, 147 p. 65 illus., 43 illus. in color. (Lecture Notes in Physics, Vol. 873) 34,99 € ISBN 978-3-319-00611-6

Usually dispatched within 3 to 5 business days.
Resonance Effects of Excitons and Electrons

I. Geru, Academy of Sciences of Moldova, Chisinau, Moldova; D. Suter, Universität Dortmund, Dortmund, Germany

Scattering Theory

H. Friedrich, TU München, Garching, Germany

Spontaneous Symmetry Breaking, Self-Trapping, and Josephson Oscillations

B.A. Malomed, Tel Aviv University, Ramat Aviv, Israel (Ed.)

This book presents a concise and modern coverage of scattering theory. It is motivated by the fact that experimental advances have shifted and broadened the scope of applications where concepts from scattering theory are used, e.g., to the field of ultracold atoms and molecules, which has been experiencing enormous growth in recent years, largely triggered by the successful realization of Bose-Einstein condensates of dilute atomic gases in 1995. In the present treatment, special attention is given to the role played by the long-range behaviour of the projectile-target interaction, and a theory is developed, which is well suited to describe near-threshold bound and continuum states in...[

Features

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Contents


Fields of interest

Theoretical, Mathematical and Computational Physics; Low Temperature Physics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-38281-9

Softcover

2013. XI, 287 p. 68 illus., 47 illus. in color. (Lecture Notes in Physics, Vol. 872)

44,99 €

ISBN 978-3-642-38281-9

Usually dispatched within 3 to 5 business days.

This volume collects a number of contributions on spontaneous symmetry breaking. Current studies in this general field are going ahead at a full speed. The book presents review chapters which give an overview on the major breakthroughs of recent years. It covers a number of different physical settings which are introduced when a nonlinearity is added to the underlying symmetric problems and its strength exceeds a certain critical value. The corresponding loss of symmetry, called spontaneous symmetry breaking, alias self-trapping into asymmetric states is extensively discussed in this bookExperiments. The book presents both active theoretical studies of spontaneous symmetry breaking as well as the quasienergy spectrum of excitation.

Features

This book presents a concise and modern coverage of scattering theory. It is motivated by the fact that experimental advances have shifted and broadened the scope of applications where concepts from scattering theory are used, e.g., to the field of ultracold atoms and molecules, which has been experiencing enormous growth in recent years, largely triggered by the successful realization of Bose-Einstein condensates of dilute atomic gases in 1995. In the present treatment, special attention is given to the role played by the long-range behaviour of the projectile-target interaction, and a theory is developed, which is well suited to describe near-threshold bound and continuum states in...[

Fields of interest

Quantum Optics, Quantum Electronics, Nonlinear Optics; Microwaves, RF and Optical Engineering; Applied Optics, Optoelectronics, Optical Devices; Solid State Physics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-21206-2

Hardcover

2013. XVII, 707 p. 340 illus., 1 illus. in color. (Progress in Optical Science and Photonics, Vol. 1)

99,95 €

ISBN 978-3-642-21206-2

Usually dispatched within 3 to 5 business days.
Temporal Networks

The concept of temporal networks is an extension of complex networks as a modeling framework to include information on when interactions between nodes happen. Many studies of the last decade examine how the static network structure affects dynamic systems on the network. In this traditional approach the temporal aspects are pre-encoded in the dynamic system model. Temporal-network methods, on the other hand, lift the temporal information from the level of system dynamics to the mathematical representation of the contact network itself. This framework becomes particularly useful for cases where there is a lot of structure and heterogeneity both in the timings of interaction events and [...] 

Features

The concept of temporal networks is an extension of complex networks as a modeling framework to include information on when interactions between nodes happen. Many studies of the last decade examine how the static network structure affect dynamic systems on the network. In this traditional approach the temporal aspects are pre-encoded in the dynamic system model. Temporal-network methods, on the other [...] 

Contents


Fields of interest

Complex Networks; Complexity; Mathematics in the Humanities and Social Sciences; Methodology of the Social Sciences

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-36460-0

Hardcover

2013. VIII, 352 p. 181 illus., 86 illus. in color. (Understanding Complex Systems) 96,99 €  ISBN 978-3-642-36460-0

Usually dispatched within 3 to 5 business days.

Temporal Patterns of Communication in Social Networks

The main interest of this research has been in understanding and characterizing large networks of human interactions as continuously changing objects. In fact, although many real social networks are dynamic networks whose elements and properties continuously change over time, traditional approaches to social network analysis are essentially static, thus neglecting all temporal aspects. Specifically, we have investigated the role that temporal patterns of human interaction play in three main fields of social network analysis and data mining: characterization of time (or attention) allocation in social networks, prediction of link decay/persistence, and information spreading. In order [...] 

Features

The main interest of this research has been in understanding and characterizing large networks of human interactions as continuously changing objects. In fact, although many real social networks are dynamic networks whose elements and properties continuously change over time, traditional approaches to social network analysis are essentially static, thus neglecting all temporal aspects. Specifically, we have [...] 

Contents

Introduction and Motivation.- Social and Communication Networks.- Social Strategies in Communication Networks.- Predicting Tie Creation and Decay.- Information Spreading on Communication Networks.- Conclusion, contributions and vision for the future.- Data and Materials.

Fields of interest

Complex Networks; Mathematics in the Humanities and Social Sciences; Methodology of the Social Sciences

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-319-00109-8

Hardcover


Usually dispatched within 3 to 5 business days.

The Early Evolution of the Atmospheres of Terrestrial Planets

“The Early Evolution of the Atmospheres of Terrestrial Planets” presents the main processes participating in the atmospheric evolution of terrestrial planets. A group of experts in the different fields provide an update of our current knowledge on this topic. Several papers in this book discuss the key role of nitrogen in the atmospheric evolution of terrestrial planets. The earliest setting and evolution of planetary atmospheres of terrestrial planets is directly associated with accretion, chemical differentiation, outgassing, stochastic impacts, and extremely high energy fluxes from their host stars. This book provides an overview of the present knowledge of the initial atmosphere [...] 

Features

“The Early Evolution of the Atmospheres of Terrestrial Planets” presents the main processes participating in the atmospheric evolution of terrestrial planets. A group of experts in the different fields provide an update of our current knowledge on this topic. Several papers in this book discuss the key role of nitrogen in the atmospheric evolution of terrestrial planets. The earliest setting and [...] 

Contents


Fields of interest

Extraterrestrial Physics, Space Sciences; Planetology; Astrobiology; Atmospheric Sciences

Target groups

Research

Type of publication

Proceedings

More on www.springer.com/978-1-4614-5190-7

Hardcover


Usually dispatched within 3 to 5 business days.
The Janus Fluid

A Theoretical Perspective

The state-of-the-art in the theoretical statistical physics treatment of the Janus fluid is reported with a bridge between new research results published in journal articles and a contextual literature review. Recent Monte Carlo simulations on the Kern and Frenkel model of the Janus fluid have revealed that in the vapor phase, below the critical point, there is the formation of preferred inert clusters made up of a well-defined number of particles: the micelles and the vesicles. This is responsible for a re-entrant gas branch of the gas-liquid binodal. Detailed account of this findings are given in the first chapter where the Janus fluid is introduced as a product of new sophisticated...[

Features

The state-of-the-art in the theoretical statistical physics treatment of the Janus fluid is reported with a bridge between new research results published in journal articles and a contextual literature review. Recent Monte Carlo simulations on the Kern and Frenkel model of the Janus fluid have revealed that in the vapor phase, below the critical point, there is the formation of preferred inert clusters made up of...[

Contents


Fields of interest

Soft and Granular Matter, Complex Fluids and Microhydrodynamics; Statistical Physics, Dynamical Systems and Complexity; Physical Chemistry; Numerical and Computational Physics

Target groups

Research

Type of publication

Brief

More on www.springer.com/978-3-319-00073-2

Softcover

2013. X, 50 p. 14 illus., 4 illus. in color. (SpringerBriefs in Physics)
49,99 €
ISBN 978-3-319-00073-2

Usually dispatched within 3 to 5 business days.

Towards Solid-State Quantum Repeaters

Ultrafast, Coherent Optical Control and Spin-Photon Entanglement in Charged InAs Quantum Dots

Towards Solid-State Quantum Repeaters: Ultrafast, Coherent Optical Control and Spin-Photon Entanglement in Charged InAs Quantum Dots summarizes several state-of-the-art coherent spin manipulation experiments in III-V quantum dots. Both high-fidelity optical manipulation, decoherence due to nuclear spins and the spin coherence extraction are discussed, as is the generation of entanglement between a single spin qubit and a photonic qubit. The experimental results are analyzed and discussed in the context of future quantum technologies, such as quantum repeaters. Single spins in optically active semiconductor host materials have emerged as leading candidates for quantum information.[...

Features

Towards Solid-State Quantum Repeaters: Ultrafast, Coherent Optical Control and Spin-Photon Entanglement in Charged InAs Quantum Dots summarizes several state-of-the-art coherent spin manipulation experiments in III-V quantum dots. Both high-fidelity optical manipulation, decoherence due to nuclear spins and the spin coherence extraction are discussed, as is the generation of entanglement between a [...]
Without Bounds: A Scientific Canvas of Nonlinearity and Complex Dynamics

Bringing together over fifty contributions on all aspects of nonlinear and complex dynamics, this impressive topical collection is both a scientific and personal tribute, on the occasion of his 70th birthday, by many outstanding colleagues in the broad fields of research pursued by Prof. Manuel G Velarde. The topics selected reflect the research areas covered by the famous Instituto Pluridisciplinar at the Universidad Complutense of Madrid, which he co-founded over two decades ago, and include: fluid physics and related nonlinear phenomena at interfaces and in other geometries, wetting and spreading dynamics, geophysical and atmospheric flows, and novel aspects of electronic [...] Features

Bringing together over fifty contributions on all aspects of nonlinear and complex dynamics, this impressive topical collection is both a scientific and personal tribute, on the occasion of his 70th birthday, by many outstanding colleagues in the broad fields of research pursued by Prof. Manuel G Velarde. The topics selected reflect the research areas covered by the famous Instituto Pluridisciplinar at the [...] Contents


Fields of interest

Nonlinear Dynamics; Complexity; Classical Continuum Physics; Soft and Granular Matter; Complex Fluids and Microfluidics; Engineering Fluid Dynamics

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-3-642-34069-7

Hardcover

2013. XIII, 799 p. 369 illus., 195 illus. in color. (Understanding Complex Systems) 139.95 € ISBN 978-3-642-34069-7

Usually dispatched within 3 to 5 business days.

Popular Science

G. Roth, University of Bremen, Bremen, Germany

The Long Evolution of Brains and Minds

The main topic of the book is a reconstruction of the evolution of nervous systems and brains as well as of mental-cognitive abilities, in short "intelligence" from simplest organisms to humans. It investigates to which extent the two are correlated. One central topic is the alleged uniqueness of the human brain and human intelligence and mind. It is discussed which neural features make certain animals and humans intelligent and creative: Is it absolute or relative brain size or the size of "intelligence centers" inside the brains, the number of nerve cells inside the brain in total or in such "intelligence centers" decisive for the degree of intelligence, of mind and eventually [...] Features

On the basis of evolutionary and behavioral biology, neuroscience and anthropology, this book investigates to which extent it is possible to reconstruct the evolution of nervous systems and brains as well as of mental-cognitive abilities, in short "intelligence", and to which extent we can correlate the one with the other. One central question is, whether or not abilities exist that make humans truly [...] Contents

Mind and Intelligence. - What is evolution?. - The mind begins with life. - The language of neurons. - Bacteria, archaea, protozoa: successful life without a nervous system. - The "invertebrates" and their nervous systems. - Invertebrate cognition and intelligence. - The Deuterostomia. - The brains of vertebrates. - Sensory systems – the coupling between brain and environment. - How intelligent are vertebrates?. - Do animals have consciousness?. - Comparing vertebrate brains. - Are humans unique?. - Determinants of the evolution of brains and minds. - Brains and minds.

Fields of interest

Popular Science in Nature and Environment; Evolutionary Biology; Behavioural Sciences; Cognitive Psychology; Artificial Intelligence (incl. Robotics); Interdisciplinary Studies

Target groups

Popular/general

Type of publication

Monograph

More on www.springer.com/978-3-642-6258-9

Hardcover


Usually dispatched within 3 to 5 business days.

Psychology

E. Clanton Harpine, University of South Carolina Aiken, Aiken, USA

After-School Prevention Programs for At-Risk Students

Promoting Engagement and Academic Success

After-School Prevention Programs for At-Risk Students offers professionals a detailed framework for developing and enhancing after-school programs. Emphasizing a prevention focus and a group-centered interactive approach, the book’s year-long model combines education and counseling, incorporating key therapeutic objectives to foster academic and behavior skills and reduce problems in and outside class. Practical step-by-step guidelines for creating and implementing programs include clear rationales, instructive design and case examples, and ready-to-use interventions. The author also provides guidance on developmental, gender, and cultural considerations, the challenges of maintaining [...] Features

After-School Prevention Programs for At-Risk Students offers professionals a detailed framework for developing and enhancing after-school programs. Emphasizing a prevention focus and a group-centered interactive approach, the book’s year-long model combines education and counseling, incorporating key therapeutic objectives to foster academic and behavior skills and reduce problems in and outside [...]

Contents


Fields of interest

Child and School Psychology; Childhood Education; Social Work; Psychotherapy and Counseling; Learning and Instruction

Target groups

Professional/practitioner

Type of publication

Monograph


Hardcover


Usually dispatched within 3 to 5 business days.
Altruism in Cross-Cultural Perspective

Altruism in Cross-Cultural Perspective provides such a scholarly overview, examining the intersection of culture and such topics as evolutionary accounts of altruism and the importance of altruism in ritual and religion. The past decade has seen a proliferation of research on altruism, made possible in part by significant funding from organizations such as the John Templeton Foundation. While significant research has been conducted on biological, social, and individual dimensions of altruism, there has been no attempt to provide an overview of the ways that altruistic behavior and attitudes vary across cultures. The book addresses the methodological challenges of researching[...]

Features
Doing for others—altruism—is arguably one of the most human of our activities. Arguable too are the origins of altruism: biology, psychology, culture, all of the above. Researchers have been exploring all three in intriguing lines of inquiry. But as the world grows smaller, culture grows as a major dimension in how, and why, people help others. The contributors to Altruism in Cross-Cultural[...]

Contents

Contents

Fields of interest
Personality and Social Psychology; Developmental Psychology; Psychology Research

Target groups
Research

Type of publication
Contribution volume


Hardcover
2013. XVI, 180 p. 6 illus. (International and Cultural Psychology)
99,99 €
Usually dispatched within 3 to 5 business days.

Beyond the Systems Paradigm
Emerging Constructs in Family and Personality Psychology

This monograph owes its origins to the decades-old proposal by David Bakan (1968) about the duality of human experience. He proposed that community and agency would be two necessary and sufficient constructs to classify and to encompass most human relationships. This dichotomy has been found to be valid by a variety of contributions over the last half a century (L’Abate, 2009; L’Abate, Buscinato, Maino, Colesso, & Scilletta, 2010). Additionally, the purpose of this book is to argue and assert that two important fields of psychology, family and personality psychologies, if not already dead are conceptually, empirically, and practically moribund. They are being superseded[...]

Features
Mother, father, children together in a household. The number of U.S. families fitting that profile is declining steadily. And yet this arrangement is still the basis of so much of family systems theory and therapy—while the disconnect between theory and therapy is widening. In response, Beyond the Systems Paradigm argues for the critical place of the individual in family psychology, and for[...]

Contents

Fields of interest
Personality and Social Psychology; Developmental Psychology; Psychology Research

Target groups
Research

Type of publication
Contribution volume


Softcover
2013. XIX, 101 p. 18 illus. (SpringerBriefs in Psychology)
49,99 €
Usually dispatched within 3 to 5 business days.

Closed Power Cycles
Thermodynamic Fundamentals and Applications

With the growing attention to the exploitation of renewable energies and heat recovery from industrial processes, the traditional steam and gas cycles are showing themselves often inadequate. The inadequacy is due to the great assortment of the required sizes power and of the large kind of heat sources. Closed Power Cycles: Thermodynamic Fundamentals and Applications offers an organized discussion about the strong interaction between working fluids, the thermodynamic behavior of the cycle using them and the technological design aspects of the machines. A precise treatment of thermal engines operating in accordance with closed cycles is provided to develop ideas and discussions[...]

Features
With the growing attention to the exploitation of renewable energies and heat recovery from industrial processes, the traditional steam and gas cycles are showing themselves often inadequate. The inadequacy is due to the great assortment of the required sizes power and of the large kind of heat sources. Closed Power Cycles: Thermodynamic Fundamentals and Applications offers an organized discussion [...]

Contents

Fields of interest
Energy Systems; Engineering Thermodynamics, Heat and Mass Transfer; Energy Technology; Engineering Fluid Dynamics

Target groups
Research

Type of publication
Monograph


Hardcover
2013. XVI, 264 p. 146 illus. (Lecture Notes in Energy, Vol. 11)
99,99 €
Usually dispatched within 3 to 5 business days.
Decision Making Algorithms for Hydro-Power Plant Location

The present study has attempted to apply the advantage of neuro-genetic algorithms for optimal decision making in maximum utilization of natural resources. Hydro-power is one of the inexpensive, but a reliable source of alternative energy which is foreseen as the possible answer to the present crisis in the energy sector. However, the major problem related to hydro-energy is its dependency on location. An ideal location can produce maximum energy with minimum loss. Besides, such power-plant also requires substantial amount of land which is a precious resource nowadays due to the rapid and uncontrolled urbanization observed in most of the urban centres in the World. The feasibility of [...]
Integrated Behavioral Health in Primary Care

Evaluating the Evidence, Identifying the Essentials

Contributed by experts who’ve developed integrative healthcare initiatives with strengths in the areas of policy and principles, organizational systems, or clinical practice. These contributors will illustrate the concepts and describe the nuts and bolts of their integration initiatives. In the conclusion of each section, the editors will construct a template to systematically evaluate these essential elements. This template will organize the information to help stakeholders compare and contrast the strengths, resources, limitations, and challenges of how each model meets the vision of integrative healthcare. In the concluding section the information in the preceding sections connects[...]

Features
Healthcare reform is a pressing social issue for some, and a political rallying cry for others. But for many in the medical and mental health professions, healthcare reform means weaving together both domains to provide patients with quality care that is holistic and patient-centered. As desirable as this goal is, challenges from cultural differences to resource inequities threaten the dream. Integrated[...]

Contents

Fields of interest
Health Psychology; Public Health; Health Administration

Target groups
Graduate

Type of publication
Contributed volume


Hardcover
2013. XXII, 354 p. 24 illus., 8 illus. in color. 169,99 €
Usually dispatched within 3 to 5 business days.

Integrated Resource Strategic Planning and Power Demand-Side Management

Integrated Resource Strategic Planning and Power Demand-Side Management elaborates two important methods - Integrated Resource Strategic Planning (IRSP) and Demand Side Management (DSM) - in terms of methodology modeling, case studies and lessons learned. This book introduces a prospective and realistic theory of the IRSP method and includes typical best practices of DSM for energy conservation and emission reduction in different countries. It can help energy providers and governmental decision-makers formulate policies and make plans for energy conservation and emission reduction, and can help power consumers reduce costs and participate in DSM projects. Zhaoguang Hu is the vice[...]

Features
Integrated Resource Strategic Planning and Power Demand-Side Management elaborates two important methods - Integrated Resource Strategic Planning (IRSP) and Demand Side Management (DSM) - in terms of methodology modeling, case studies and lessons learned. This book introduces a prospective and realistic theory of the IRSP method and includes typical best practices of DSM for energy conservation and emission reduction and[...]

Contents
Basic Theory of Integrated Resource Strategic Planning (IRSP).- Basic Theory of Demand-side Management (DSM).- The Director of Demand-side Management (DSM) --- Government.- The Implementers of Demand-side Management (DSM) --- Power Grid Enterprises.- The Backbone of DSM Implementation --- Energy Service Companies (ESCOs).- The Important Participants in Demand-side Management (DSM) --- Power Consumers.- The Prospects of Demand-side Management (DSM).- Introduction to a Demand-side Management (DSM) Laboratory.

Fields of interest
Energy Policy, Economics and Management; Energy Economics; Power Electronics, Electrical Machines and Networks

Target groups
Research

Type of publication
Monograph

More on www.springer.com/978-3-642-37083-0

Distribution rights in China: China Electric Power Press
Hardcover
ISBN 978-3-642-37083-0
Usually dispatched within 3 to 5 business days.

Interdisciplinary Applications of the Person-Centered Approach

This book examines the scientific contribution and increasing relevance of the Person-Centered Approach (PCA) in psychotherapy. The direction taken in the book is to provide readers with a multidisciplinary and multi-perspective view as well as practical applications. Beyond the more conventional psychotherapy applications (client-centered, experimental, emotion-focused, child-centered, motivational interviewing, existential, filial, etc.) others have evolved including peace and conflict resolution work, encounter and T-groups, nonviolent communication, parent effectiveness training, person-centered planning for people with disabilities, relationship enhancement methods,[...]

Features
The hallmark of Carl Rogers’ work, the Person-Centered Approach (PCA), has long had a major impact on psychological research and clinical practice. Currently, as more diverse professionals recognize the relevance of humanistic thought to their fields, it is enjoying a wider diversity of applications across disciplines, populations, and settings. Interdisciplinary Applications of the[...]

Contents
Introduction to Interdisciplinary Applications.- An Experiential Example of the Person-Centered Approach: Carl Rogers Work.- Person-Centered and Experiential Psychotherapies: An overview.- Motivational Interviewing and Client-Centered Therapy.- Linking the Person-Centered Approach to the Arts: Person-Centered Expressive Arts Therapy and Empowerment.- Person-centered work in services for people in need of everyday care.- Counseling the Sai Way.- Person-Centered Medicine and Subjectivity.- The Learner-Centered Model: Vision for the Future.- The Person-Centered Approach in Adult[...]

Fields of interest
Clinical Psychology; Psychotherapy and Counseling; Cognitive Psychology

Target groups
Professional/practitioner

Type of publication
Monograph

More on www.springer.com/978-1-4614-7143-1

Hardcover
2013. XV, 265 p. 20 illus. 74,99 €
ISBN 978-1-4614-7143-1
Usually dispatched within 3 to 5 business days.
Interdisciplinary Handbook of the Person-Centered Approach

Research and Theory

This book examines the scientific contribution and increasing relevance of the Person-Centered Approach (PCA) in psychotherapy. The direction taken in the book is to provide readers with a multidisciplinary and multi-perspective view as well as practical applications. Beyond the more conventional psychotherapy applications (client-centered, experimental, emotion-focused, child-centered, motivational interviewing, existential, filial, etc.) others have evolved including peace and conflict resolution work, encounter and T-groups, nonviolent communication, parent effectiveness training, personal centered planning for people with disabilities, relationship enhancement methods, etc.

Features

The legacy of Carl Rogers endures in humanistic approaches to psychology, education, human development, communication, and spirituality. His Person-Centered Approach (PCA) promotes the evolution of the human organism and relationships, which lends itself to rewarding partnerships with a variety of scientific and philosophical theories. The Interdisciplinary Handbook of the Person-Centered Approach provides a bridge between the natural and human sciences that opens an interdisciplinary dialogue on the nature of awareness, the ontological primacy of experience, the perception of the observer, and the mind-brain relationship, which will shape the future of psychological theory, research, and practice.

Contents

- Introduction to Interdisciplinary Research and Theory.
- An Interactive Cognitive-Emotional Model of the Person-Centered Approach.
- Carl Rogers Meets The Neuroscience: Insights from Social Neuroscience for Client-Centered Therapy.
- The Circle of Contact: A Neuroscience View on the Formation of Relationships.
- Mindfulness, Authentic Connection and Making “Right” Decisions: Using...

Fields of interest

Clinical Psychology; Psychotherapy and Counseling

Target groups

Professional/practitioner

Type of publication

Monograph

More on https://www.springer.com/978-1-4614-7238-4

Hardcover

2013. XII, 405 p. 32 illus.
139,99 €
ISBN 978-1-4614-7140-0
Usually dispatched within 3 to 5 business days.

Kenaf: A Multi-Purpose Crop for Several Industrial Applications

New insights from the Biokenaf Project

Natural plant fibers are being increasingly used in manufacturing industrial products because of their renewable and biodegradable natures. Kenaf is an annual bast fiber crop that can provide fibers for several industrial applications (composites, insulation mats, absorbents, bedding material, etc.) as well as raw material for energy exploitation (solid biofuels). Kenaf: A Multi-Purpose Crop for Several Industrial Applications introduces the physiology and field management of kenaf, agronomy, productivity, harvesting as well as its the industrial and energy uses of this promising non-food crop. Including recent research collected by the BIOKENAF project, Kenaf: A Multi-Purpose Crop

Features

Natural plant fibers are being increasingly used in manufacturing industrial products because of their renewable and biodegradable natures. Kenaf is an annual bast fiber crop that can provide fibers for several industrial applications (composites, insulation mats, absorbents, bedding material, etc.) as well as raw material for energy exploitation (solid biofuels). Kenaf: A Multi-Purpose Crop

Contents


Fields of interest

Energy Harvesting: Renewable and Green Energy; Plant Breeding / Biotechnology; Environmental Engineering / Biotechnology; Energy Technology; Structural Materials

Target groups

Research

Type of publication

Monograph


Hardcover

2013. XXXVI, 165 p. 2 illus.
99,99 €
Usually dispatched within 3 to 5 business days.

Neurophenomenology and Its Applications to Psychology

This book explores the meaning and import of neurophenomenology and the philosophy of enactive or embodied cognition for psychology. It introduces the psychologist to an experiential, non-reductive, holistic, theoretical, and practical framework that integrates the approaches of natural and human science to consciousness. In integrating phenomenology with cognitive science, neurophenomenology provides a bridge between the natural and human sciences that opens an interdisciplinary dialogue on the nature of awareness, the ontological primacy of experience, the perception of the observer, and the mind-brain relationship, which will shape the future of psychological theory, research, and practice.

Features

Praise for Neurophenomenology and Its Applications to Psychology: “Forward edge of contemporary efforts to integrate natural and human science approaches to consciousness. All chapters are evenly and clearly written.” Constance T. Fischer, Ph.D., ABPP, Duquesne University, Pittsburgh, PA “A much welcome, if not over-due, translation of neurophenomenological […]

Contents

Enactive Cognition and the Neurophenomenology of Emotion.
- Psychoneurointraclinory: The Embodied Self.

Fields of interest

Cognitive Psychology; Philosophy of Science; General Psychology

Target groups

Research

Type of publication

Monograph


Hardcover

2013. XXXVI, 165 p. 2 illus.
99,99 €
Usually dispatched within 3 to 5 business days.
Objectification and (De)Humanization

60th Nebraska Symposium on Motivation

People often see nonhuman agents as human-like. Through the processes of anthropomorphism and humanization, people attribute human characteristics, including personalities, free will, and agency to pets, cars, gods, nature, and the like. Similarly, there are some people who often see human agents as less than human, or more object-like. In this manner, objectification describes the treatment of a human being as a thing, disregarding the person’s personality and/or sentence. For example, women, medical patients, racial minorities, and people with disabilities, are often seen as animal-like or less than human through dehumanization and objectification. These two opposing forces may [...]

Features

Objectification and (De)humanization brings together a wealth of scholarship from across psychology and the social sciences to illuminate how we understand ‘human-ness’ and to focus on the many ways that those human qualities are minimized—and frequently denied—in others.

all [...] [..]

Contents

Chapter 1: Toward a unified theory of objectification and dehumanization. - Chapter 2: The psychology of humanness. - Chapter 3: Varieties of (de)humanization. - Chapter 4: Immortal objects: The objectification of women as terror management. - Chapter 5: On objects and actions: Situating self-objectification in a system justification context. - Chapter 6: Motivated mind perception: Treating pets as people and people as animals. - Chapter 7: Discrimination, objectification, and dehumanization: Toward a pantheoretical framework.

Fields of interest

Personality and Social Psychology; Cognitive Psychology

Target groups

Research

Type of publication

Contributed volume


Hardcover

2013. IX, 188 p. 6 illus. (Nebraska Symposium on Motivation, Vol. 60)

99,99 €


Usually dispatched within 3 to 5 business days.

Optimal Learning Environments to Promote Student Engagement

Optimal Learning Environments to Promote Student Engagement analyzes the psychological, social, and academic phenomena comprising engagement, framing it as critical to learning and development. Drawing on positive psychology, flow studies, and theories of motivation, the book conceptualizes engagement as a learning experience, explaining how it occurs (or not) and how schools can adapt to maximize it among adolescents. Examples of empirically supported environments promoting engagement are provided, representing alternative high schools, Montessori schools, and extracurricular programs. The book identifies key innovations including community-school partnerships, technology-supported [...] [..]

Features

Optimal Learning Environments to Promote Student Engagement analyzes the psychological, social, and academic phenomena comprising engagement, framing it as critical to learning and development. Drawing on positive psychology, flow studies, and theories of motivation, the book conceptualizes engagement as a learning experience, explaining how it occurs (or not) and how schools can adapt to maximize it [...]

Contents


Fields of interest

Personality and Social Psychology; Cognitive Psychology

Target groups

Research

Type of publication

Monograph


Hardcover

2013. XVII, 368 p. 1 illus. (Advancing Responsible Adolescent Development)

125,99 €


Usually dispatched within 3 to 5 business days.

Positive Psychology

Advances in Understanding Adult Motivation

Positive Psychology and Adult Motivation examines the cognitions, traits, and contexts of behavior that are associated with optimal development and resilience through the entire life course. The book investigates the personal psychological development through the stages of emerging adulthood, full adulthood, middle age, and old age as individuals and how they respond positively to them. It explores which traits are needed and which aspects of the environment help a person to truly flourish, thrive and grow. The volume describes the development of resilience as well as other characteristics that will assist individuals in overcoming challenges throughout adult development.

Features

The study of Positive Psychology brings a much needed fresh emphasis to the study of the cognition, personality traits, and contexts of behavior that are associated with optimal development during the life course. The field highlights the ways in which growth, hope, and resilience aid a person and motivate him or her in dealing with the inevitable challenges of life. Positive Psychology: Advances [...] [..]

Contents


Fields of interest

Positive Psychology; Personality and Social Psychology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-1-4614-7281-0

Hardcover

2013. XXII, 353 p. 3 illus. 99,99 €

ISBN 978-1-4614-7281-0

Usually dispatched within 3 to 5 business days.
Power Electronics for Renewable and Distributed Energy Systems

A Sourcebook of Topologies, Control and Integration

While most books approach power electronics and renewable energy as two separate subjects, Power Electronics for Renewable and Distributed Energy Systems takes an integrative approach, discussing power electronic converters topologies, controls and integration that are specific to the renewable and distributed energy system applications. An overview of power electronic technologies is followed by the introduction of various renewable and distributed energy resources that includes photovoltaics, wind, small hydroelectric, fuel cells, microturbines and variable speed generation. Energy storage systems such as battery and fast response storage systems are discussed along with [...]}

Features

While most books approach power electronics and renewable energy as two separate subjects, Power Electronics for Renewable and Distributed Energy Systems takes an integrative approach, discussing power electronic converters topologies, controls and integration that are specific to the renewable and distributed energy system applications. An overview of power electronic technologies is followed by [...]}

Contents


Fields of interest

Energy Systems; Renewable and Green Energy; Power Electronics, Electrical Machines and Networks; Control

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-1-4471-5103-6

Hardcover


The Experience of Meaning in Life

Classical Perspectives, Emerging Themes, and Controversies

This edited volume takes an in depth exploration into the burgeoning field of meaning in life in the psychological sciences. Each chapter features leading scholars who describe current empirical findings in a thorough and accessible manner, highlighting important issues and controversies facing the scientific study of meaning in life. The book covers an exhaustive range of topics including conceptual and methodological issues, core psychological mechanisms that contribute to a sense of meaning, as well as important antecedents, environmental, cognitive and personality variables that bear on the experience of meaning in life. This volume is a must read for any researcher, student, or [...]}

Features

This edited volume takes an in depth exploration into the burgeoning field of meaning in life in the psychological sciences. Each chapter features leading scholars who describe current empirical findings in a thorough and accessible manner, highlighting important issues and controversies facing the scientific study of meaning in life. The book covers an exhaustive range of topics including conceptual and [...]}

Contents


Fields of interest

Positive Psychology; Quality of Life Research; Personality and Social Psychology

Target groups

Research

Type of publication

Contributed volume

More on www.springer.com/978-94-007-6526-9

Hardcover

Best Practices in Marketing and Their Impact on Quality of Life

This book is based on the premise that marketing is central to understanding and advancing companies, businesses, countries, major economic areas and every-day problems. It opposes the view held by some social scientists that the positive effects of marketing in a society are a product of capitalist enterprises and that marketing involves excessive exploitation and is a tool for creating and maintaining their power structures. To illustrate its point, the book examines successful marketing practices with implications for consumers’ quality of life. Its compilation of cases from all over the world provides a unique and concise review of best practices in marketing and their impact on.[…]

Contents

Fields of interest
Quality of Life Research; Marketing

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-5877-3

Hardcover
2013. XIV, 260 p. 44 illus. (Applying Quality of Life Research.)
99,99 €
ISBN 978-94-007-5877-3
Usually dispatched within 3 to 5 business days.

Climate Politics as Investment
From Reducing Emissions to Building Low-carbon Economies

Simon Wolf describes how the growing awareness for the economic consequences of climate change and the economic opportunities of climate protection has led to changes in the rationality of governing climate change, from reducing emissions to building low-carbon economies. One crucial strategy for governments in orchestrating the transformation to cleaner economies is to enable low-carbon investment. The author therefore takes a critical look at how climate governance is reframed as an economic and investment challenge in recent years, and reveals some of the blind spots of focusing on the economic and investment opportunities related to climate protection.

Features
Simon Wolf describes how the growing awareness for the economic consequences of climate change and the economic opportunities of climate protection has led to changes in the rationality of governing climate change, from reducing emissions to building low-carbon economies. One crucial strategy for governments in orchestrating the transformation to cleaner economies is to enable low-carbon investment. The[…]

Contents
- Climate governance.- Stern Review.- Low-carbon transformation.- REDD.- Climate finance.- Financialisation.

Fields of interest
Political Science, general

Target groups
Research

Type of publication
Monograph


Softcover
2013. XII, 266 p.
39,99 €
Usually dispatched within 3 to 5 business days.

Community Quality-of-Life Indicators: Best Cases VI

This book is the sixth in a series covering best practices in community quality-of-life (QOL) indicators. The cases in this volume describe communities that have launched their own community indicators programs. Elements that are included in the descriptions are the history of the community indicators work within the target region, the planning of community indicators, the actual indicators that were selected, the data collection process, the reporting of the results, and the use of the indicators to guide community development decisions and public policy.

Features
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Contents
Preface.- Chapter 1: The Influence of Quality-of-Life Research on Quality-of-Life: CLIQ Case Studies from KwaZulu-Natal, South Africa; Heidi Atwood.- Chapter 2: Regional Indicators of Well-Being: The Case of France; Florence Jany-Catrice.- Chapter 3: Understanding Glasgow: Developing a New Set of Health and Wellbeing Indicators for Use within a City; Bruce Whyte and Andrew Lyon.- Chapter 4: The Monitoring System on Quality of Life of the City of Porto; Luis Dellin Santos and Isabel Martins.- Chapter 5: State Level Applications: Developing a Policy Support and Public Awareness Indicator[…]

Fields of interest
Quality of Life Research; Landscape, Regional and Urban Planning

Target groups
Research

Type of publication
Contributed volume

More on www.springer.com/978-94-007-6500-9

Hardcover
2013. XXX, 264 p. 88 illus., 41 illus. in color. (Community Quality-of-Life Indicators, Vol. 4)
99,99 €
ISBN 978-94-007-6500-9
Usually dispatched within 3 to 5 business days.
Democratic Culture and Moral Character
A Study in Culture and Personality

J. Braun

This book returns critical theory to its roots in both psychology and the social sciences. It shows some of the relationships between equality in a political and social sense and personal identity that either relates well to such equality, or rebels against it. All this reflects processes of social and cultural influence that involve not only random change but also processes of social and cultural evolution that themselves have effects regarding potentials for self-fulfilment and even public morality. This book provides a framework to help one study the interaction between individual aspirations and social opportunities. Jerome Braun, known for his writings in interdisciplinary social [...] [231x171]

Gender-based Violence and Depression in Women
A Feminist Group Work Response

Social workers, in whatever capacity they work, can expect to come into contact with women who have experienced/are experiencing violence and with women who are experiencing depression. Therefore, a range of social work supports and interventions are required in order to meet the needs of diverse women and assist them in their recovery. One of these methods is group work where women can share their experiences, learn from each other, reflect on their learnings and identify and achieve changes in their circumstances. This book is based on original research by the author that sought to understand depression in women from a feminist and gender-informed perspective, develop [...] [231x171]

Governing India's Northeast
Essays on Insurgency, Development and the Culture of Peace

D. Western, Monash University, Caulfield East, Australia
S.K. Das, University of North Bengal, Darjeeling, India

This book focuses on issues of governance and the nature and complexities of social transformation in India’s Northeast -- a ‘problem’ zone for policymakers -- particularly since the early 1990s. While governance is the thread that runs through the volume, the latter at one level addresses the challenges of governing in global times a region historically marked by acute violence, interethic conflict and insurgency; and at another, traces macro changes in the very forms and technologies of governance. The essays in this volume point to how changing forms and technologies of governing insurgency, development and culture do not remain mere instruments of peace, but define the very [...] [231x171]
Handbook of Family Resilience

Resilience is a topic that is currently receiving increased attention. In general, resilience refers to the capacity of those who, even under the most stressful circumstances, are able to cope, to rebound, and to go on and thrive. Resilient families are able to regain their balance following crises that arise as a function of either nature or nurture, and to continue to encourage and support their members as they deal with the necessary requirements for accommodation, adaptation and, ultimately, healthy survival. Handbook of Family Resilience provides a broad body of knowledge regarding the traits and patterns found to characterize resilient individuals and well-functioning [...] 

Features
In a time of increasing stressors affecting the lives of so many, resilience—the capacity for individuals to adapt, survive, and thrive despite severe crises and long odds—is a hot topic. Now resilience as both a family trait and a family process is being recognized as equally deserving of study, especially as more families find themselves under greater social and economic strain. The [...] 

Contents

Fields of interest
Family; Psychotherapy and Counseling; Psychotherapy; Developmental Psychology 

Target groups
Research 

Type of publication
Handbook 

More on www.springer.com/978-1-4614-3799-4 

Softcover
2013. XVI, 557 p. 6 illus. 69,99 € 
ISBN 978-1-4614-8013-6 

Usually dispatched within 3 to 5 business days. 

Linking Trade and Security

Evolving Institutions and Strategies in Asia, Europe, and the United States

The connections between trade and security are hardly new. Analysts and practitioners have clearly recognized this interrelationship since the mercantilist arguments of the 16th and 17th centuries. Despite wishful economic liberal thinking that might prefer to separate the political from the economic, it is widely recognized that trade and security are fundamentally interconnected in the foreign policy of states. Over time, as new forms of trade policy have come into being and the international security environment has evolved, the nexus of these two spheres has grown more complex and scholars have struggled to understand their interconnection. This edited volume addresses linkages [...] 

Features
The connections between trade and security are hardly new. Analysts and practitioners have clearly recognized this interrelationship since the mercantilist arguments of the 16th and 17th centuries. Despite wishful economic liberal thinking that might prefer to separate the political from the economic, it is widely recognized that trade and security are fundamentally interconnected in the foreign policy of [...] 

Contents

Fields of interest
International Relations; International Economics; Political Economy 

Target groups
Research 

Type of publication
Contributed volume 

More on www.springer.com/978-1-4614-4764-1 

Softcover
2013. XV, 252 p. 1 illus. in color. (The Political Economy of the Asia Pacific) 39,99 € 

Usually dispatched within 3 to 5 business days. 

Methods for Multilevel Analysis and Visualisation of Geographical Networks

This leading-edge study focuses on the latest techniques in analysing and representing the complex, multi-layered data now available to geographers studying urban zones and their populations. The volume tracks the successful results of the SPANGEO Project, which was set up in 2005 to standardize, and share, the syncretic, multinational mapping techniques already developed by geographers and computer scientists. SPANGEO sought new and responsive ways of visualising urban geographical and social data that reflected the fine-grained detail of the inputs. It allowed for visual representation of the large and complex networks and flows which are such an integral feature of the dynamism of [...] 

Features
This leading-edge study focuses on the latest techniques in analysing and representing the complex, multi-layered data now available to geographers studying urban zones and their populations. The volume tracks the successful results of the SPANGEO Project, which was set up in 2005 to standardize, and share, the syncretic, multinational mapping techniques already developed by geographers and computer scientists. [...] 

Contents

Fields of interest
Methodology of the Social Sciences; Human Geography; Quantitative Geography; Computer Imaging, Vision, Pattern Recognition and Graphics 

Target groups
Research 

Type of publication
Contributed volume 

More on www.springer.com/978-94-007-6676-1 

Hardcover
ISBN 978-94-007-6676-1 

Usually dispatched within 3 to 5 business days.
Money Laundering Through Art

A Criminal Justice Perspective

The art world has been discovered by criminals as an effective way for money laundering and other clandestine activities on an international level. Unfortunately, in most countries investigators, prosecutors, judges, and regulatory agencies are not equipped to accurately detect, investigate and prosecute this type of criminal activity. Also, regulation and international laws and treaties involving the art world have many loopholes that can potentially lead to the laundering of large sums of money. This book provides a bird’s eye view of novel ways in which money laundering happens through illegal activities involving art. It can serve as a guide for law enforcement, prosecutors, [...] Features

This volume provides a bird’s eye view of novel ways in which money is laundered through illegal activities involving art. Criminals and those involved in illegal activities have discovered the art world to be an effective and clandestine arena through which they can launder money internationally. Unfortunately, investigators, prosecutors, judges and regulatory agencies in most countries are not equipped to [...] Contents

Introduction Chapter I Civil and Criminal Legislation regarding Money Laundering and the Preservation of Cultural Heritage Chapter II Deterring Criminals from Engaging in Financial Crimes Chapter III Preventing and investigating crimes using Art Chapter IV Cases in Jurisprudence and in the Practice Chapter V Payments through Illegal or Disguised Means, and Misuse of NGOs, Trusts, Associations or Foundations Chapter VI International Legal Cooperation and Repatriation Chapter VII VII.1. Answers to Initial Questions Chapter VIII Proposals to Improve the War against Money Laundering and [...] Fields of interest

Criminology & Criminal Justice

Target groups

Research

Type of publication

Monograph

More on [website]

Hardcover

2013, X, 223 p. 7 illus., in color, 49.99 €

ISBN 978-3-319-00172-2

Usually dispatched within 3 to 5 business days.

Outside Justice

Immigration and the Criminalizing Impact of Changing Policy and Practice

Outside Justice: Undocumented Immigrants and the Criminal Justice System fills a clear gap in the scholarly literature on the increasing conceptual overlap between popular perceptions of immigration and criminality, and its reflection in the increasing practical overlap between criminal justice and immigration control systems. Drawing on data from the United States and other nations, scholars from a range of academic disciplines examine the impact of these trends on the institutions, communities, and individuals that are experiencing them. Individual entries address criminal victimization and labor exploitation of undocumented immigrant communities, the effects of parental detention [...] Features

Outside Justice: Immigration and the Criminalizing Impact of Changing Policy and Practice fills a clear gap in the scholarly literature on the increasing conceptual overlap between popular perceptions of immigration and criminality, and its reflection in the increasing practical overlap between criminal justice and immigration control systems. Drawing on data from the United States [...] Contents


Criminology & Criminal Justice, Social Policy, Human Geography

Target groups

Research

Type of publication

Contributed volume

More on [website]

Hardcover

2013, XXI, 280 p. 16 illus. 99.99 €


Usually dispatched within 3 to 5 business days.
Production and Use of Urban Knowledge

European Experiences

This book provides new insights on cities and the nature of urban development, and the role of knowledge management in urban growth. It considers how knowledge informs policies and supports decision making, and can assist in addressing the drivers of urban change. The way that knowledge is produced and used in urban development is analysed, with examples drawn from a range of European countries. This book illustrates how the development and implementation of policies for urban areas can draw on knowledge management, even as the knowledge economy itself stimulates the evolution of the city as a place of innovation and creativity. Whilst knowledge grows in importance, so too urban...[

Features

This book provides new insights on cities and the nature of urban development, and the role of knowledge management in urban growth. It considers how knowledge informs policies and supports decision making, and can assist in addressing the drivers of urban change. The way that knowledge is produced and used in urban development is analysed, with examples drawn from a range of European countries. This...[

Contents

2: Integrating Urban Knowledge: Peter Moser.-
3: Urban Regeneration and the Use of “Urban Knowledge” in English and Norwegian Cities: Knowledge Producers, Interests and Inclusion/Exclusion of Knowledge: Ragnhild Skogheim & Rob Atkinson.-
4: Urban Prosumers: Network Generated Urban Spaces: Rainer Rosegger.-
5: Participatory Planning Processes – Chances for New Knowledge in Urban Politics?: Peter Moser, Ragnhild Skogheim and Knut Strömberg.-

Fields of interest

Human Geography; Landscape, Regional and Urban Planning; Cities, Countries, Regions; Urbanism; Social Sciences (general)

Target groups

Research

Type of publication

Contributed volume


Hardcover

2014, VI, 183 p. 25 illus.
99,99 €
Usually dispatched within 3 to 5 business days.

Simulation Strategies to Reduce Recidivism

Risk Need Responsivity (RNR) Modeling for the Criminal Justice System

The use of simulation modeling in criminal justice dates back to the 1970s. Early models were developed to capture the realities of the criminal justice system, to identify what changes were needed, and how small changes would affect the overall picture. Significant time and effort were devoted to these projects and although they achieved some success, the complex nature of the criminal justice system and the difficulties associated with improving and maintaining the models prohibited wide spread adoption in the field. Some of the problems with early simulation projects were the lack of data to validate models, the lack of technical skills needed by staff to design and build the...[

Features

Mass incarceration, the recession, and the swinging pendulum of correctional philosophies has put the need for improved simulation models in the spotlight. This book is a comprehensive guide to developing and using simulation models for the criminal justice system. The Risk-Need-Responsivity (RNR) framework has emerged as a useful set of organizing principles for treating offenders. While the literature is supportive of the RNR approach, ...[

Contents


Fields of interest

Criminology & Criminal Justice; Social Policy; Research

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6121-6

Softcover

2013, XI, 315 p. 30 illus. (SpringerBriefs in Well-Being and Quality of Life Research)
49,99 €
ISBN 978-94-007-6121-6
Usually dispatched within 3 to 5 business days.

Studies in the Quality of Life in Victorian Britain and Ireland

This work examines mortality among young children in the period from the seventeenth to the nineteenth century. It does so using several types and sources of information from the census unit England and Wales, and from Ireland. The sources of information used in this study include memoirs, diaries, poems, church records and numerical accounts. They offer descriptions of the quality of life and child mortality over the three centuries under study. Additional sources for the nineteenth century are two census-derived numerical indexes of the quality of life. They are the VICQUAL index for England and Wales, and the QUALEIRE index for Ireland. Statistical procedures have been applied to...[

Features

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Contents


Fields of interest

Quality of Life Research; Health Psychology; Maternal and Child Health

Target groups

Research

Type of publication

Monograph

More on www.springer.com/978-94-007-6121-6

Softcover

2013, XI, 315 p. 30 illus. (SpringerBriefs in Well-Being and Quality of Life Research)
49,99 €
ISBN 978-94-007-6121-6
Usually dispatched within 3 to 5 business days.
The Archaeology of Watercraft Abandonment

The historical importance and archaeological potential of deliberately discarded watercraft has not been a major feature of maritime archaeological enquiry. While research on the topic has appeared since the 1970s as books, chapters, and articles, most examples have been limited in focus and distribution, and in most cases disseminated as unpublished archaeological reports (i.e. the “gray literature”). So, too, has there been a lack of a single source representing the diversity of geographical, historic, thematic, and theoretical contexts that ships’ graveyard sites and deliberately abandoned vessels represent. In contrast with much of the theoretical or case-specific literature on [...] Features

The historical importance and archaeological potential of deliberately discarded watercraft has not been a major feature of maritime archaeological enquiry. While research on the topic has appeared since the 1970s as books, chapters, and articles of limited focus and distribution, most examples take the form of unpublished archaeological reports and graduate theses. Additionally, there is no existing [...] Fields of interest
Archeology; Cultural Heritage; Anthropology

Target groups
Research

Type of publication
Monograph

Published
2014. XVI, 290 p. 19 illus.
46,72 €
ISBN 978-3-658-02212-9
Usually dispatched within 3 to 5 business days.

Their Members’ Voice

Civil Society Organisations in the European Union

The role of civil society organisations in Brussels is debated. Some view them as representatives of their members and thus as legitimising agents for policy-making in the European Union. Others see them as being elitist and out of touch with their membership bases, therefore ill-suited to promote democracy at the EU level. Taking civil society organisations in the EU’s external relations as an example, Meike Rodekamp submits these controversial views to a reality check. Interviews with representatives of civil society organisations in Brussels and their member organisations in the EU show that the Brussels offices have not lost contact with their members. However, member[...]

Features

The role of civil society organisations in Brussels is debated. Some view them as representatives of their members and thus as legitimising agents for policy-making in the European Union. Others see them as being elitist and out of touch with their membership bases, therefore ill-suited to promote democracy at the EU level. Taking civil society organisations in the EU’s external relations as an example, [...] Contents

The Representative Role of Civil Society Organisations in Democracy.- Methods, Case Selection, and the Civil Society Organisation Sample.- The Formal and the Relational Dimension of Civil Society Organisation Representativeness.

Fields of interest
Political Science, general

Target groups
Research

Type of publication
Monograph

Published
2014. XVI, 290 p. 19 illus.
46,72 €
ISBN 978-3-658-02212-9
Usually dispatched within 3 to 5 business days.

Women’s Political Participation in Bangladesh

Institutional Reforms, Actors and Outcomes

This volume offers an understanding of institutional reforms, gender-related policy dynamics, the role of different actors in the policy process, and the impact of a particular policy on the state of women’s political participation in Bangladesh. The discussion is set against the background of the Fourth World Conference on Women, 1995, in Beijing, in which a Platform for Action signed by heads of governments expressed their countries’ commitment to achieve ‘gender equality and empowerment of women’ through ensuring integration of the gender perspective at all levels. In Bangladesh, notable among the initiatives undertaken was the enactment of the Local Government (Union Parishads)[...]

Features

This volume offers an understanding of institutional reforms, gender-related policy dynamics, the role of different actors in the policy process, and the impact of a particular policy on the state of women’s political participation in Bangladesh. The discussion is set against the background of the Fourth World Conference on Women, 1995, in Beijing, in which a Platform for Action signed by heads of [...] Contents


Fields of interest
Gender Studies; Public Administration; Political Science, general; Sociology, general

Target groups
Research

Type of publication
Monograph

Published
2013. XVIII, 204 p. 3 illus.
99,99 €
Usually dispatched within 3 to 5 business days.
Applied Predictive Modeling

This text is intended for a broad audience as both an introduction to predictive models as well as a guide to applying them. Non-mathematical readers will appreciate the intuitive explanations of the techniques while an emphasis on problem-solving with real data across a wide variety of applications will aid practitioners who wish to extend their expertise. Readers should have knowledge of basic statistical ideas, such as correlation and linear regression analysis. While the text is biased against complex equations, a mathematical background is needed for advanced topics.Dr. Kuhn is a Director of Non-Clinical Statistics at Pfizer Global R&D in Groton Connecticut. He has been applying [...]
Seamless R and C++ Integration with Rcpp

Rcpp is the glue that binds the power and versatility of R with the speed and efficiency of C++. With Rcpp, the transfer of data between R and C++ is nearly seamless, and high-performance statistical computing is finally accessible to most R users. Rcpp should be part of every statistician’s toolbox. -- Michael Braun, MIT Sloan School of Management

“Seamless R and C++ integration with Rcpp” is simply a wonderful book. For anyone who uses C/C++ and R, it is an indispensable resource. The writing is outstanding. A huge bonus is the section on applications. This section covers the matrix packages Armadillo and Eigen and the GNU Scientific Library as well as RInside which enables [...] Features

Rcpp is the glue that binds the power and versatility of R with the speed and efficiency of C++. With Rcpp, the transfer of data between R and C++ is nearly seamless, and high-performance statistical computing is finally accessible to most R users. Rcpp should be part of every statistician’s toolbox. -- Michael Braun, MIT Sloan School of Management

Contents


Fields of interest

Statistics and Computing / Statistics Programs; Statistics for Life Sciences, Medicine, Health Sciences; Statistical Theory and Methods; Probability and Statistics in Computer Science

Target groups

Research

Type of publication

Professional/practitioner

Type of publication

Professional book

More on www.springer.com/978-1-4614-6867-7

Softcover

2013. XVIII, 220 p. 7 illus., 4 illus. in color. (Use R!, Vol. 64)

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