Just Released New Books July 2012
All Titles, All Languages

“Sorted by author and title within the main subject”
Advances in Yersinia Research

This book is a collection of articles written by prominent scientists who gathered in the city of Recife, Brazil, 23-27 October 2010, celebrating the 10th International Symposium on Yersinia. The event is held every four years since the last symposium held in Lexington, USA in 2006 were divided into eight chapters: Epidemiology, Clinical, Diagnostic and Therapeutic aspects; Ecology and Modeling; Genomic/Transcriptomics and Large Scale Population; Immune Response and Vaccine; Pathogenesis and Pathogenicity Factors; Cellular Yersiniology; Bacterial Structure and Metabolism; Roles in Pathogenesis and Bacterial Life Style. The purpose of the book is to extend cutting edge knowledge on Yersinia discussed during the 10th International Symposium.

Contents


Evolutionary dynamics of the Yersinia enterocolitica. - Gains and losses in Yersinia enterocolitica subsp. palearctica genomes. - Consequences of Missense Mutations in Yersinia pestis: Efficient flow of Metabolic Carbon versus Virulence. - Diversity and adaptive evolution of major porin gene (ompF) in Yersinia pseudotuberculosis. - Biological and Genetic Peculiarities and the Phylogenetic Relationship of the Non-main Subspecies in the General Scheme of the Plague Agent Evolution. - The molecular phylogeny of pgyF gene: a molecular marker for systematic of Yersinia. - Preliminary survey. [...] Fields of interest

Medical Microbiology; Biomedicine (general); Gene Function

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days.


189,95 €

ISBN 978-1-4614-3560-0

Computational Systems Neurobiology

Computational neurosciences and systems biology are among the main domains of life science research where mathematical modeling made a difference. This book introduces the many different types of computational studies one can develop to study neuronal systems. It is aimed at undergraduate students starting their research in computational neurobiology or more senior researchers who would like, or need, to move towards computational approaches. Based on their specific project, the readers would then move to one of the more specialized excellent textbooks available in the field. The first part of the book deals with molecular systems biology. Functional genomics is introduced through examples of transcriptomics and proteomics studies of neurobiological interest. Quantitative modelling of biochemical systems is presented in homogeneous compartments and using spatial approaches. A second part deals with the various approaches to model single neuron physiology, and naturally moves to neuronal networks. [...] Features

Computational neurosciences and systems biology are among the main domains of life science research where mathematical modeling made a difference. This book introduces the many different types of computational studies one can develop to study neuronal systems. It is aimed at undergraduate students starting their research in computational neurobiology or more senior researchers who would like, or need, to move towards computational approaches. Based on their specific project, the readers would then move to one of the more specialized excellent textbooks available in the field. The first part of the book deals with molecular systems biology. Functional genomics is introduced through examples of transcriptomics and proteomics studies of neurobiological interest. Quantitative modelling of biochemical systems is presented in homogeneous compartments and using spatial approaches. A second part deals with the various approaches to model single neuron physiology, and naturally moves to neuronal networks. [...] Contents


Neurosciences; Bioinformatics

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.

2012. VIII, 570 p. 171 illus., 80 in color. Hardcover

139,95 €

ISBN 978-94-007-3857-7

Encyclopedia of Signaling Molecules

Biological processes are driven by complex systems of functionally interacting signaling molecules. Thus, understanding signaling molecules is essential to explain normal or pathological biological phenomena. A large body of clinical and experimental data has been accumulated over these years, albeit in fragmented state. Hence, systems biological approaches concomitant with the understanding of each molecule are ideal to delineate signaling networks/pathways involved in the biologically important processes. The control of these signaling pathways will enrich our healthier life. Currently, there are more than 30,000 genes in human genome. However, not all the proteins encoded by these genes work equally in order to maintain homeostasis. Understanding the important signaling molecules as completely as possible will significantly improve our research-based teaching and scientific capabilities. During past years, there were multiple databases to gather this information briefly and very partially. Amidst [...] Features

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Gene Function; Molecular Medicine; Cytokines and Growth Factors; Cell Biology; Protein-Ligand Interactions; Bioinformatics

Target groups

Research

Type of publication

Encyclopedia

Usually dispatched within 3 to 5 business days.

2013. XLVIII, 2030 p. 300 illus., 100 in color. Hardcover

799,00 €

Gasotransmitters: Physiology and Pathophysiology

Since the epochal discovery of the radical and highly toxic gas nitric oxide (NO) as a signaling molecule, two other no less toxic gases – carbon monoxide (CO) and hydrogen sulfide (H2S) – have been found to also be involved in a plethora of physiological and pathophysiological functions. The gases termed gasotransmitters play an increasingly important role in understanding how signalling into and between cells is modulated and fine-tuned. The advent of gasotransmitters has profoundly changed our way of thinking about biosynthesis, liberation, storage and action mechanisms in cellular signaling. In recent years an impressive amount of new data, distributed throughout the existing literature, has been generated. For this book the editors have recruited distinguished colleagues in the field to summarize and review important biological, pharmacological and medical functions and their implications, as well as methods for the detection of gasotransmitters.

Features
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Contents

Fields of interest
Human Physiology; Neurosciences; Cell Physiology; Animal Biochemistry; Membrane Biology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012. IX, 204 p. 33 illus., 10 in color. Hardcover

139,95 €
ISBN 978-3-642-30337-1

Infection, Immune Homeostasis and Immune Privilege

Organs and tissues that can tolerate little or no inflammation have developed multiple overlapping mechanisms of immune protection in the absence of inflammation. These areas have been designated “immune-privileged sites” by Peter Medawar and include the central nervous system, eye, reproductive tract, testis and possibly the liver. Mechanisms of immune homeostasis found in less immune-regulated organs are often evident in the immune privileged sites and vice versa. It is important that the non-inflammatory mechanisms that contribute to immune privilege allow host defense against infectious organisms. This volume highlights the mechanisms leading to immune privilege in tissues and organs, the deviation of immune responses and the modification of the behavior of the immune cells that manage to cross the blood barriers of tissues, in the context of infection.

Features
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Innovation in Vaccinology
from design, through to delivery and testing
Prevention of infectious diseases by vaccination is one of the most significant achievements of modern medicine. During the 20th century, the average human life span in the developed world was about 70 years and it is expected to increase, with a significant portion of this increase directly attributed to vaccination. Since the first empirical vaccination trials, knowledge and technology have enormously evolved and new vaccination strategies are emerging on the market. Indeed, in spite of the great success, conventional vaccination strategies sometimes may result ineffective and, above all, may raise safety concerns. The aim of this book is to provide an overview of some of the technology platforms that have been realized or are currently under development to try to address unsolved and new issues in the field of vaccine development. Common denominator of all thematic areas described herein is the multidisciplinary teamwork. Most of the enabling technologies have been established by putting in the...

Contents
Preface. - Section I Vaccine design. - 1. Design of new vaccines in the genomic and post-genomic era, Laura Serino, Kate L. Seib and Mariagrazia Pizzà. - 2. Comparing in silico results to in vivo and ex vivo of influenza-specific immune responses after vaccination or infection in humans, Filippo Castiglione, Benjamin Ribba and Olivier Brass. - Section II Vaccine delivery. - 3. Vaccine glycoprotein tagged with the human Fc domain as second generation vaccine candidates, Silvia Loureiro, Benjamin Ribba and Olivier Brass. - 4. Engineer the...

Features
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LC-MS in Drug Analysis
Methods and Protocols
Liquid Chromatography-Mass-Spectrometry procedures have been shown to be successful when applied to drug development and analysis. LC-MS in Drug Analysis: Methods and Protocols provides detailed LC-MS/MS procedures for the analysis of several compounds of clinical significance. The first chapters provide the reader with an overview of mass spectrometry, its place in clinical practice, its application to TDM and toxicology, and the merits of LC-MS/MS and new sample preparation techniques. The following chapters discuss different approaches to screening for drugs of abuse and for general unknowns, as well as targeted measurement of specific analytes or classes of analytes including abused drugs, toxic compounds, and therapeutic agents. Written in the successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and...

Contents

Features
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Molecular Aspects of Hematologic Malignancies
Diagnostic Tools and Clinical Applications
This book provides a state-of-the-art approach to the molecular basis of hematologic diseases and its translation into improved diagnostics and novel therapeutic strategies. Several representative hematopoietic malignancies are analyzed in detail: acute lymphoblastic leukemia, acute myeloid leukemia, B-cell Non-Hodgkin lymphomas, multiple myeloma, chronic lymphocytic leukemia, chronic myeloid leukemia, myelodysplastic syndromes, and myeloproliferative neoplasms. Experts in the field describe the molecular methods applied for modern diagnostics and therapies, such as hematopoietic stem cell transplantation, donor recipient matching, banking of biological material, analyses of post-transplant chimerism, and minimal residual disease monitoring. The volume concludes with an extensive section comprising thorough step-by-step protocols of molecular techniques in hematology, all of them validated in the authors’ own laboratories.

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Fields of interest
Molecular Medicine; Laboratory Medicine; Cancer Research; Hematology; Human Genetics

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012. X, 476 p. 45 illus., 23 in color. (Principles and Practice) Hardcover

149,95 €
ISBN 978-3-642-29466-2

2012. XI, 288 p. 33 illus., 3 in color. Hardcover

149,95 €
ISBN 978-94-007-4542-1
Nanoparticles in Biology and Medicine

Methods and Protocols

The modern fascination with micro- and nano-sized materials can actually be traced back further to the 1960s and ’70s when the first few reported attempts were made to use nanoparticles for controlled drug delivery. In Nanoparticles in Biology and Medicine: Methods and Protocols, experts in the field present a wide range of methods for synthesis, surface modification, characterization, and application of nano-sized materials (nanoparticles) in life science and medical fields, mostly for drug delivery. The methods presented cover all stages of nanoparticle manufacturing, modification, analysis, and applications. Written in the highly successful Methods in Molecular Biology™ series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Comprehensive and cutting-edge, Nanoparticles in Biology and Medicine: Methods and Protocols[...]

Features

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Contents


Fields of interest

Pharmacology / Toxicology

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.


124,95 €

Biomedicine

Neuromedia

Art and Neuroscience Research

Neuromedia is an innovative examination of shared territories in neurobiological anatomy, physiology and media art. It reveals how scientists investigate perception and behaviour at the molecular, cellular and systems level. It demonstrates how interpretative forms of media art can help to demystify these complexities for diverse audiences. Under the reflective headings of inspiration, construction, challenges and reactions, it offers deep insights into the processes of art and science production. Assisted by essays from a museum director and an art historian, Neuromedia provides the background for readers about an exhibition of the same name at KULTURAMA in Zurich (2012), and suggests an alternative approach to scientific communication. Authors: Robert Atkins, Oliver Bielhaimer, Michel Paul Levesque, Stephan Neuhauss, Rolf Pfeifer, Claudia Rütsche, Jill Scott and Esther Stoekli

Features

Neuromedia is an innovative examination of shared territories in neurobiological anatomy, physiology and media art. It reveals how scientists investigate perception and behaviour at the molecular, cellular and systems level. It demonstrates how interpretative forms of media art can help to demystify these complexities for diverse audiences. Under the reflective headings of inspiration, construction, [...]

Contents

- Foreword: Scott, Stoekli. - Introduction: Science Communication in the Museum (Prof. Dr. Claudia Rütsche). - Chapter 2: Your vertebrate visual system: function and behaviour, Prof. Dr. Stephan Neuhauss, Dr. Oliver Bielhaimer: The Electric Retina, 2010 an artistic interpretation of visual system research, Prof. Dr. Jill Scott. - Chapter 3: The formation of neural circuits: functional units in the nervous system, Prof. Dr. Esther Stoekli: Somabook 2010-11 An artistic interpretation of neural tube development, Prof. Dr. Jill Scott. - Chapter 4: Building from the bottom up to understand[...]

Fields of interest

Neurosciences; Arts; Science Education

Target groups

Graduate

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XXIV, 351 p. 89 illus., 35 in color. Hardcover

149,95 €
ISBN 978-3-642-30321-0

Phytochemicals, Signal Transduction, and Neurological Disorders

Phytochemicals Signal Transduction and Neurological Disorders Phytochemicals are heterogeneous group of bioactive compounds produced by plants, which are extensively researched by scientists for their health-promoting potentials in human diseases. Unlike vitamins and minerals, phytochemicals are not required for sustaining cell viability, but they play an important role in protecting tissues and cells from the harmful effects of oxidative stress and inflammation. Examples of phytochemicals include catechins, resveratrol, ginkgo biloba, curcumin, and sulfur compounds found in garlic. Although, the precise molecular mechanisms associated with beneficial effects of phytochemicals still remain the subject of intense investigations, but it is becoming increasingly evident that phytochemicals mediate their effects by counteracting, reducing, and repairing the damage caused by oxidative stress and neuroinflammation. In addition, phytochemicals also stimulate the synthesis of adaptive enzymes and proteins[...]

Features

x.

Contents


Fields of interest

Neurosciences; Neurology; Neurochemistry

Target groups

Graduate

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XXIV, 351 p. 89 illus., 35 in color. Hardcover

149,95 €
ISBN 978-3-642-30321-0
**Protein Dimerization and Oligomerization in Biology**

This volume has a strong focus on homo-oligomerization, which is surprisingly common. However, protein function is so often linked to both homo- and hetero-oligomerization and many heterologous interactions likely evolved from homologous interaction, so this volume also covers many aspects of hetero-oligomerization.

**Features**

**Contents**

- Dimers, Oligomers, Everywhere - The Detection and Quantitation of Protein Oligomerization.
- Computational and Structural Characterization of Protein Associations.
- Death by Caspase Dimerization.
- The Relationship between Oligomeric State and Protein Function.
- Oligonucleotide Binding Proteins: The Occurrence of Dimer and Multimer Formation.
- Homo- and Heterooligomerization in Transcriptional Regulation.
- Oligomerization at the Membrane: Potassium Channel Structure and Function.
- Implications of 3D Domain Swapping for Protein Folding, Misfolding and Function.
- From artificial antibodies to...

**Fields of interest**

Biomedicine (general); Molecular Medicine

**Type of publication**

Contributed volume

**Online orders shipping within 2-3 days.**

2012. XIV, 166 p. 43 illus. (Advances in Experimental Medicine and Biology, Vol. 747) Hardcover

139,95 €


**Respiratory Regulation - Clinical Advances**

This book, written for pulmonary and family doctors, general practitioners, allergologists, and neuropsychologists, presents cutting-edge clinical research and therapy-oriented knowledge in the field of respiratory medicine. Clinical knowledge is undergoing dramatic improvement. Respiration is one such prominent field. A better understanding of the pathogenesis of respiratory ailments and the regulation of lung ventilation is essential for advances in pharmacotherapy and the patient’s quality of life. The book discusses a wide scope of topics, notably, innovations in detection and management of chronic inflammatory conditions such as COPD or asthma, acute infections of the respiratory tract, airway allergies and hyper-responsiveness, lung cancer, interstitial lung diseases, pulmonary function in health, disease and aging. Sleep disordered breathing, interaction between the respiratory system and other bodily functions, and psychosomatic aspects of disease. After all, respiration is generated and.

**Features**

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**Contents**

- Preface.
- 1. Assessment of Airway Hyperresponsiveness: Comparison of Spirometry and Body Plethysmography.
- 2. Hospital Management of Patients with Exacerbation of Severe Chronic Obstructive Pulmonary Disease.
- 3. Pulmonary Rehabilitation in Patients Referred for Lung Transplantation.
- 4. Effects of Nasal Insuffilation on Arterial Gas Exchange and Breathing Pattern in Patients with Chronic Obstructive Pulmonary Disease and Hypercapnic Respiratory Failure.
- 5. Exposure to Traffic-Related Air Pollutants as a Risk of Airway Obstruction.
- 6. Occupational Immediate-Type Allergic Asthma due.

**Fields of interest**

Biomedicine (general); Pneumology/Respiratory System; Internal Medicine

**Type of publication**

Contributed volume

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


149,95 €


**Analytical Tools for Assessing the Chemical Safety of Meat and Poultry**

The goal of the Brief is to summarize the state of the art on the chemical safety issues currently concerning meat and poultry, and to discuss the current international legislation on the tools available for their control. The Brief will review the analytical controls and instrumentation available for the control of residues of growth promoters, antibiotics, and any other environmental substances in raw meat and poultry. In addition, there will be a discussion of both the substances that may be generated as a consequence of processing, and the tools that are available for their control. These substances may be quite varied in nature; they may include, for example, the heterocyclic amines generated by heating, the nitrosamines sometimes present in cured meats with nitrite if not properly processed, the polycyclic aromatic hydrocarbons that can be generated depending on the type of smoking used, or the biogenic amines that can be generated during fermentation. Finally, the controls for the detection...

**Features**

N/A

**Contents**

- 1. Introduction.
- 2. Control tools to assure chemical safety of meat and poultry and its derived products.
- 2.1 Control of raw meats and poultry.
- 2.2 Controls during processing.
- 2.3 Controls of the final products.
- 3. Veterinary drugs.
- 3.1 Causes of concern for the presence of veterinary drugs residues in meat and poultry.
- 3.2 Growth promoters.
- 3.3 Antimicrobial and antibiotic drugs.
- 3.4 Other veterinary drugs.
- 3.5 Control of residues of growth promoters and antibiotics in meat and poultry.
- 3.6 Analytical methodologies for detection of veterinary drugs.
- 3.6.1 Sample preparation.

**Fields of interest**

Food Science; Analytical Chemistry; Biochemical Engineering

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

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

2012. VIII, 71 p. 4 illus. (SpringerBriefs in Food, Health, and Nutrition, Vol. 9) Softcover

49,95 €

Design, Construction and Research Application of a Differential Electrochemical Mass Spectrometer (DEMS)

Sean Ashton’s doctoral thesis, which he finished at the Technical University in Munich, describes the challenge of constructing a Differential Electrochemical Mass Spectrometer instrument (DEMS). DEMS combines an electrochemical cell with mass spectrometry via a membrane interface, allowing gaseous and volatile electrochemical reaction species to be monitored online. The thesis carefully introduces the fuel cell electrocatalyst development concerns before reviewing the pertinent literature on DEMS. This is followed by the presentation and discussion of the new extended design, including a thorough characterization of the instrument. The capabilities of the new setup are demonstrated in two research studies: the methanol oxidation reaction on Pt and PtRu catalysts, and the electrochemical corrosion of fuel cell catalyst supports. Despite both topics having long since been studied, new insights can be obtained through careful investigations with the new DEMS instrument that are of great, general interest.

Contents
Differential Electrochemical Mass Spectrometry.
- Design and Construction of the DEMS Instrument.
- Practical Aspects of the DEMS Instrument.
- Methanol Oxidation on HSAC Supported Pt and PtRu Catalysts.
- The Electrochemical Oxidation of HSAC Catalyst Supports.

Fields of interest
Electrochemistry; Mass Spectrometry; Catalysis

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, XIX, 222 p. 112 Illus., 57 in color. (Springer Theses, Vol.) Hardcover

139.95 €
ISBN 978-3-642-30549-8

Gravity, Special Relativity, and the Strong Force

A Bohr-Einstein-de Broglie Model for the Formation of Hadrons

This book shows that the strong interaction forces, which keep hadrons and nuclei together, are relativistic gravitational forces exerted between very small particles in the mass range of neutrinos. First, this book considers the problematic motion of two charged particles under the influence of electrostatic and gravitational forces only, which shows that bound states are formed by following the same semi-classical methodology used by Bohr to describe the H atom. This approach is also coupled with Newton’s gravitational law and with Einstein’s special relativity. The results agree with experiments on the masses and magnetic moments of hadrons and the binding energies of small nuclei. The analysis of these experiments provide the means to rationalize all the main experimental features of the strong force. Some of the implications for the unification of forces and the nature of our microcosmos and macrocosmos are also discussed. The creation of mass itself, in other words, of hadrons from free particles is also introduced.

Features
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Enough Examples: First Example: The Formation of a Bound State

Fields of interest
Relativity Theory

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, XVIII, 144 p. 42 Illus., 1 in color. Hardcover

99.95 €
ISBN 978-1-4614-3935-6

LC-MS in Drug Bioanalysis

Clinical pharmacology plays an important role in today’s medicine. Due to the high sensitivity, selectivity, and affordability of a mass spectrometer (MS), the high performance liquid chromatography – mass spectrometry (LC-MS) analytical technique is widely used in the determination of drugs in human biological matrices for clinical pharmacology. Specifically, LC-MS is used to analyze: anticancer drugs antidiabetes drugs antipresens drugs antineoplastic drugs antiviral drugs and biological drugs cardiac drugs drugs for addiction immunosuppressant drugs mood stabilizer drugs. This book will primarily cover the various methods of validation for LC-MS techniques and applications used in modern clinical pharmacology.

Features
High performance liquid chromatography – mass spectrometry (LC-MS) combines the separation power of liquid chromatography with the high sensitivity and selectivity of mass spectrometry. Therefore, LC-MS becomes the method of choice for drug bioanalysis in therapeutic drug monitoring, toxicology, and drug discovery and development.

Contents
Internal standards for quantitative LC-MS bioanalysis.
- Method development, validation and sample analysis for regulated quantitative bioanalysis using LC-MS/MS.
- Impact of sampling paper/cards on analytical quantitation via dried blood spots by liquid chromatography - mass spectrometry.
- Highly sensitive pharmaceutical and clinical analysis using selective solid-phase extraction coupled to microflow liquid chromatography and isotope-dilution mass spectrometry.
- Pitfalls of LC-MS/MS in the clinical laboratory.
- Therapeutic drug monitoring to support clinical pharmacogenomics.
- Liquid.

Fields of interest
Pharmacology / Toxicology; Chromatography

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.


129.95 €
ISBN 978-1-4614-3827-4
Metalation of Azoles and Related Five-Membered Ring Heterocycles


Contents
Metalation of Pyrrole.- Furans and Benzofurans.- Lithiation-Based and Magnesiation-Based Strategies for the Functionalization of Imidazole: 2001–2010.- Metalation of Oxazoles and Benzoxazoles.- Metalation of Pyrazoles and Indazoles.- Metalation Reactions of Isoxazoles and Benzisoxazoles.- Thiazoles and Benzothiazoles.- Isothiazoles and Benzisothiazoles.- Recent Advances in the Synthesis of Thiophenes and Benzothiophenes.- Mesionic.- Azoles with 3-4 Heteroatoms.

Fields of interest
Organic Chemistry; Organometallic Chemistry

Target groups
Research

Type of publication
Reviews

Usually dispatched within 3 to 5 business days.

2012, XIII, 445 p. 18 illus., 4 in color. (Topics in Heterocyclic Chemistry, Vol. 29) Hardcover
249,00 €
ISBN 978-3-642-31790-3

Nucleic Acid Drugs


Features

Contents

Fields of interest
Polymer Sciences; Medicinal Chemistry; Pharmacy; Biochemistry; Electrochemistry

Target groups
Research

Type of publication
Reviews

Usually dispatched within 3 to 5 business days.

189,95 €
ISBN 978-3-642-30462-0

Practical Aspects of Computational Chemistry II

An Overview of the Last Two Decades and Current Trends

Practical Aspects of Computational Chemistry II: An Overview of the Last Two Decades and Current Trends gathers the discussion of advances made within the last 20 years by well-known experts in the area of theoretical and computational chemistry and physics. The title reflects the celebration of the twentieth anniversary of the "Conference on Current Trends in Computational Chemistry (CCTCC)" to success of which all authors contributed. Starting with the recent development of modeling of solvation effect using the Polarizable Continuum Model (PCM) at the Coupled-Cluster level and the effects of extreme pressure on the molecular properties within the PCM framework, this volume focuses on the association/dissociation of ion pairs in binary solvent mixtures, application of graph theory to determine the all possible structures and temperature-dependent distribution of water cluster, generalized-ensemble algorithms for the complex molecular simulation, QM/MD based investigation of formation of different...[...]

Features
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Self-Assembly of Flat Organic Molecules on Metal Surfaces

A Theoretical Characterisation

Manuela Mura’s thesis is devoted to ab initio studies of self-assembled organic molecules on a gold surface. This area of research is particularly vibrant because of the various applications such studies have in nanoscience and surface chemistry and physics. In this thesis Manuela Mura uses theory to suggest atomistic models for the observed assemblies and she proposes an assembly mechanism. The methods and results developed as part of this work will be of wide interest to physicists and chemists working on the assemblies of organic molecules on crystal surfaces.

Features

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Theoretical Methods.
- Hydrogen-Bonding Templates in the Gas Phase.
- Molecules on the Au(111) Surface.
- Influence of Dynamics of Melamine with Au Ad-Atom on the Au(111) Surface.
- Self-Assembled Structures: Bright Spots.
- Modelling of DNA Derivatives and Comparison with Experimental Results.

Fields of interest

Theoretical and Computational Chemistry; Surface and Interface Science, Thin Films

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


99,95 €
ISBN 978-3-642-30324-1

Tetramer Stability and Functional Regulation of Tumor Suppressor Protein p53

This thesis presents the first report of the comprehensive and quantitative analysis of the effects of tumor-derived mutations on the tetrameric structure of tumor suppressor protein p53, which plays a central role in maintaining genomic integrity. Inactivation of p53 via mutation of its gene is a key step in tumorigenesis. Biophysical analyses revealed that the stability of the mutant peptides varied widely. Formation of a tetrameric structure is to be critical for protein–protein interactions, DNA binding, and the post-translational modification of p53. A small destabilization of the tetrameric structure therefore could result in dysfunction of tumor suppressor activity. This work suggests that the threshold for loss of tumor suppressor activity, in terms of the disruption of p53’s tetrameric structure, could be extremely low. Furthermore, functional control of p53 via tetramer formation was demonstrated, based on the structure–function analysis of mutant p53. The results disclosed that relatively...

Features

This thesis presents the first report of the comprehensive and quantitative analysis of the effects of tumor-derived mutations on the tetrameric structure of tumor suppressor protein p53, which plays a central role in maintaining genomic integrity. Inactivation of p53 via mutation of its gene is a key step in tumorigenesis. Biophysical analyses revealed that the stability of the mutant peptides varied widely. [...]
**3D Computer Vision**

Efficient Methods and Applications

This indispensable text introduces the foundations of three-dimensional computer vision and describes recent contributions to the field. Fully revised and updated, this much-anticipated new edition reviews a range of triangulation-based methods, including linear and bundle adjustment based approaches to scene reconstruction and camera calibration, stereo vision, point cloud segmentation, and pose estimation of rigid, articulated, and flexible objects. Also covered are intensity-based techniques that evaluate the pixel grey values in the image to infer three-dimensional scene structure, and point spread function based approaches that exploit the effect of the optical system. The text shows how methods which integrate these concepts are able to increase reconstruction accuracy and robustness, describing applications in industrial quality inspection and metrology, human-robot interaction, and remote sensing.

**Features**

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**Contents**


**Fields of interest**

Computer Imaging, Vision, Pattern Recognition and Graphics; Computer Graphics; Image Processing and Computer Vision; Pattern Recognition; Media Design; Artificial Intelligence (incl. Robotics)

**Target groups**

Professional/practitioner

**Type of publication**

Professional book

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

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**Advances in Autonomous Robotics**


This book constitutes the refereed proceedings of the 13th Conference on Towards Autonomous Robotic Systems, TAROS 2012 and the 15th Robot World Congress, FIRA 2012, held as joint conference in Bristol, UK, in August 2012. The 36 revised full papers presented together with 25 extended abstracts were carefully reviewed and selected from 89 submissions. The papers cover various topics in the field of autonomous robotics.

**Features**

This book constitutes the refereed proceedings of the 13th Conference on Towards Autonomous Robotic Systems, TAROS 2012 and the 15th Robot World Congress, FIRA 2012, held as joint conference in Bristol, UK, in August 2012. The 36 revised full papers presented together with 25 extended abstracts were carefully reviewed and selected from 89 submissions. The papers cover various topics in the field of autonomous robotics.

**Contents**

Various topics in the field of autonomous robotics.

**Fields of interest**

Artificial Intelligence (incl. Robotics); Image Processing and Computer Vision; User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery

**Target groups**

Research

**Type of publication**

Proceedings

**Usually dispatched within 3 to 5 business days.**
Agents for Educational Games and Simulations

International Workshop, AEGS 2011, Taipei, Taiwan, May 2, 2011, Revised Papers

This book consists mainly of revised papers that were presented at the Agents for Educational Games and Simulation (AEGS) workshop held on May 2, 2011, as part of the Autonomous Agents and MultiAgent Systems (AAMAS) conference in Taipei, Taiwan. The 12 full papers presented were carefully reviewed and selected from a variety of submissions. The papers are organized topical sections on middleware applications, dialogues and learning, adaptation and convergence, and agent applications.

Contents
Middleware applications; dialogues and learning; adaptation and convergence; agent applications.

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

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


46,00 €
ISBN 978-3-642-32325-6

Approximation, Randomization, and Combinatorial Optimization. Algorithms and Techniques


This book constitutes the joint refereed proceedings of the 15th International Workshop on Approximation Algorithms for Combinatorial Optimization Problems, APPROX 2012, and the 16th International Workshop on Randomization and Computation, RANDOM 2012, held in Cambridge, Massachusetts, USA, in August 2011. The volume contains 28 contributed papers, selected by the APPROX Program Committee out of 70 submissions, and 28 contributed papers, selected by the RANDOM Program Committee out of 67 submissions. APPROX focuses on algorithmic and complexity issues surrounding the development of efficient approximate solutions to computationally difficult problems. RANDOM is concerned with applications of randomness to computational and combinatorial problems.

Contents
A New Point of NP-Hardness for 2-to-1 Label Cover; Inapproximability of Treewidth, One-Shot Pebbling, and Related Layout Problems; Additive Approximation for Near-Perfect Phylogeny Construction; Improved Spectral-Norm Bounds for Clustering; Primal-Dual Approximation Algorithms for Node-Weighted Network Design in Planar Graphs; What’s the Frequency, Kenneth?; Sublinear Fourier Sampling Off the Grid; Improved Hardness Results for Profit Maximization Pricing Problems with Unlimited Supply; Online Flow Time Scheduling in the Presence of Preemption Overhead; Prize-Collecting Survivable[...]

Fields of interest
Algorithm Analysis and Problem Complexity; Discrete Mathematics in Computer Science; Computation by Abstract Devices; Numeric Computing; Probability and Statistics in Computer Science; Computer Imaging, Vision, Pattern Recognition and Graphics

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


79,00 €
ISBN 978-3-642-32511-3
Business System Management and Engineering

From Open Issues to Applications

The next generation of Business Process Management (BPM) methods and tools will support the development of a new generation of service-enabled applications that change and evolve over time. The trend is moving from relatively stable, organization-specific applications to dynamic ones supporting business processes. This book is an outcome of the International Workshop on Business System Management and Engineering (BSME 2010), held in Malaga, Spain, in June/July 2010, in conjunction with the TOOLS 2010 federated conferences and under the aegis of the EU Network of Excellence on Service Software and Systems (S-Cube). The goal of the workshop was to bring together experts in the fields of business process management, service-oriented architectures, and service security to discuss the current state of research and identity new issues, challenges, and research directions. The results of these discussions are reflected in this book.

Features
The next generation of Business Process Management (BPM) methods and tools will support the development of a new generation of service-enabled applications that change and evolve over time. The trend is moving from relatively stable, organization-specific applications to dynamic ones supporting business processes. This book is an outcome of the International Workshop on Business System Management and [...]
Convergence and Hybrid Information Technology


This book constitutes the refereed proceedings of the 6th International Conference on Convergence and Hybrid Information Technology, ICHIT 2012, held in Daejeon, Korea, in August 2012. The 94 revised full papers presented were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on communications and networking; HCI and virtual reality; image processing and pattern recognition; hardware design and applications; computational biology and medical information; data mining and information retrieval; security and safety system; software engineering; workshop on advanced smart convergence (IWASC).

Features
This book constitutes the refereed proceedings of the 6th International Conference on Convergence and Hybrid Information Technology, ICHIT 2012, held in Daejeon, Korea, in August 2012. The 94 revised full papers presented were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on communications and networking; HCI and virtual reality; image processing and pattern recognition (IWASC).

Fields of interest
Computer Communication Networks; Systems and Data Security; Data Mining and Knowledge Discovery; Computer Imaging, Vision, Pattern Recognition and Graphics; Software Engineering; User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


87,00 €
ISBN 978-3-642-32644-8

Cooperative Design, Visualization, and Engineering

9th International Conference, CDVE 2012, Osaka, Japan, September 2-5, 2012. Proceedings

This book constitutes the refereed proceedings of the 9th International Conference on Cooperative Design, Visualization, and Engineering, CDVE 2012, held in Osaka, Japan, in September 2012. The 36 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers cover the topics of cooperative engineering, basic theories, methods and technologies that support CDVE, cooperative design, visualization and applications.

Features
This book constitutes the refereed proceedings of the 9th International Conference on Cooperative Design, Visualization, and Engineering, CDVE 2012, held in Osaka, Japan, in September 2012. The 36 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers cover the topics of cooperative engineering, basic theories, methods and technologies that support CDVE, cooperative design, visualization and applications.

Fields of interest
User Interfaces and Human Computer Interaction; Information Systems Applications (incl.Internet); Computer-Aided Engineering (CAD, CAE) and Design; Pattern Recognition; Information Storage and Retrieval; Computers and Society

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


54,00 €
ISBN 978-3-642-32608-0
Data Matching

Concepts and Techniques for Record Linkage, Entity Resolution, and Duplicate Detection

Data matching (also known as record or data linkage, entity resolution, object identification, or field matching) is the task of identifying, matching and merging records that correspond to the same entities from several databases or even within one database. Based on research in various domains including applied statistics, health informatics, data mining, machine learning, artificial intelligence, database management, and digital libraries, significant advances have been achieved over the last decade in all aspects of the data matching process, especially on how to improve the accuracy of data matching, and its scalability to large databases. Peter Christen’s book is divided into three parts: Part I, “Overview”, introduces the subject by presenting several sample applications and their special challenges, as well as a general overview of a generic data matching process. Part II, “Steps of the Data Matching Process”, then details its main steps like pre-processing, indexing, field, and record. [...]

Features

Data matching (also known as record or data linkage, entity resolution, object identification, or field matching) is the task of identifying, matching and merging records that correspond to the same entities from several databases or even within one database. Based on research in various domains including applied statistics, health informatics, data mining, machine learning, artificial intelligence, [...]

Contents


Fields of interest

Database Management; Data Mining and Knowledge Discovery; System Performance and Evaluation; Information Systems Applications (incl. Internet); User Interfaces and Human Computer Interaction

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XIX, 270 p. 66 illus. (Data-Centric Systems and Applications) Hardcover

49,95 €
ISBN 978-3-642-31163-5
This two volume set LNCS 7446 and LNCS 7447 constitutes the refereed proceedings of the 23rd International Conference on Database and Expert Systems Applications, DEXA 2012, held in Vienna, Austria, September 3-6, 2012. The 49 revised full papers presented together with 37 short papers and 2 keynote talks were carefully reviewed and selected from 179 submissions. These papers discuss a range of topics including: database query processing, in particular XML queries; labelling of XML documents; computational efficiency; data extraction; personalization, preferences, and ranking; security and privacy; database schema evaluation and evolution; semantic Web; privacy and provenance; data mining; data streaming; distributed systems; searching and query answering; structuring, compression and optimization; failure, fault analysis, and uncertainty; predication, extraction, and annotation; ranking and personalisation; database partitioning and performance measurement; recommendation and prediction systems; [...]
Digital Forensics and Watermarking

10th International Workshop, IWDW 2011, Atlantic City, NJ, USA, October 23-26, 2011, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 10th International Workshop on Digital-forensics and Watermarking (IWDW 2011) held in Atlantic City, NJ, USA, during October 23-26, 2011. The 37 revised full papers presented were carefully selected from 59 submissions. Conference papers are organized in 6 technical sessions, covering the topics of steganography and steganalysis, watermarking, visual cryptography, forensic, anti-forensics, fingerprinting, privacy and security.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the 10th International Workshop on Digital-forensics and Watermarking (IWDW 2011) held in Atlantic City, NJ, USA, during October 23-26, 2011. The 37 revised full papers presented were carefully selected from 59 submissions. Conference papers are organized in 6 technical sessions, covering the topics of steganography and steganalysis, [...]
Formal Methods for Industrial Critical Systems

This book constitutes the proceedings of the 17th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2012, held in Paris, France, in August 2012. The 14 papers presented were carefully reviewed and selected from 37 submissions. The aim of the FMICS workshop series is to provide a forum for researchers who are interested in the development and application of formal methods in industry. It also strives to promote research and development for the improvement of formal methods and tools for industrial applications.

Features
This book constitutes the proceedings of the 17th International Workshop on Formal Methods for Industrial Critical Systems, FMICS 2012, held in Paris, France, in August 2012. The 14 papers presented were carefully reviewed and selected from 37 submissions. The aim of the FMICS workshop series is to provide a forum for researchers who are interested in the development and application of formal methods in [...]
Guide to Cisco Routers

**Configuration**

**Becoming a Router Geek**

This work provides a guide to the configuration of Cisco routers, from tasks for beginners to advanced operations. A collection of detailed “how-to” instructions are presented, which will be of use to all professionals and students who engage with Cisco routers in the field or in the lab. The guide starts with the simple step-by-step task of connecting the router and performing basic configuration, before building up to complex and sensitive operations such as router IOS upgrade and Site-to-Site VPNs.

**Features**

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**Contents**

- Starting Up
- Routing Protocols
- WAN Technologies
- Upgrades and Backups
- Security
- Miscellaneous Hints and Tips

**Fields of interest**

Computer Communication Networks

**Target groups**

Research

**Type of publication**

Brief

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

2012. X, 80 p. 5 illus. (SpringerBriefs in Computer Science) Softcover

39,95 €

ISBN 978-1-4471-4245-4

Guide to OCR for Arabic Scripts

**This Guide to OCR for Arabic Scripts is the first book of its kind, specifically devoted to this emerging field. Topics and features: contains contributions from the leading researchers in the field; with a Foreword by Professor Bente Maegaard of the University of Copenhagen; presents a detailed overview of Arabic character recognition technology, covering a range of different aspects of pre-processing and feature extraction; reviews a broad selection of varying approaches, including HMM-based methods and a recognition system based on multidimensional recurrent neural networks; examines the evaluation of Arabic script recognition systems, discussing data collection and annotation, benchmarking strategies, and handwriting recognition competitions; describes numerous applications of Arabic script recognition technology, from historical Arabic manuscripts to online Arabic recognition.**

**Features**

- Optical Character Recognition (OCR) is a key technology enabling access to digital text data. This technique is especially valuable for Arabic scripts, for which there has been very little digital access. Arabic script is widely used today. It is estimated that approximately 200 million people use Arabic as a first language, and the Arabic script is shared by an additional 13 languages, making it the [...]  

**Contents**

- Part I: Pre-Processing
  - An Assessment of Arabic Handwriting Recognition Technology
  - Layout Analysis of Arabic Script Documents
  - A Multi-Stage Approach to Arabic Document Analysis
  - Pre-Processing Issues in Arabic OCR
  - Segmentation of Ancient Arabic Documents
  - Features for HMM-Based Arabic Handwritten Word Recognition Systems
  - Part II: Recognition
    - Printed Arabic Text Recognition
    - Handwritten Arabic Word Recognition Using the IFN/ENIT-Database
    - RWTH OCR: A Large Vocabulary Optical Character Recognition System for Arabic Scripts
    - Arabic Handwriting Recognition using Bernoulli

**Fields of interest**

Image Processing and Computer Vision; Document Preparation and Text Processing; Pattern Recognition

**Target groups**

Research

**Type of publication**

Contributed volume

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

2012. XX, 590 p. 327 illus., 143 in color. Hardcover

109,95 €


Handbook of Natural Computing

**Natural Computing is the field of research that investigates both human-designed computing inspired by nature and computing taking place in nature, i.e., it investigates models and computational techniques inspired by nature and also it investigates phenomena taking place in nature in terms of information processing. Examples of the first strand of research covered by the handbook include neural computation inspired by the functioning of the brain; evolutionary computation inspired by Darwinian evolution of species; cellular automata inspired by intercellular communication; swarm intelligence inspired by the behavior of groups of organisms; artificial immune systems inspired by the natural immune system; artificial life systems inspired by the properties of natural life in general; membrane computing inspired by the compartmentalized ways in which cells process information; and amorphous computing inspired by morphogenesis. Other examples of natural-computing paradigms are molecular computing and [...]**

**Features**

Natural Computing is the field of research that investigates both human-designed computing inspired by nature and computing taking place in nature, i.e., it investigates models and computational techniques inspired by nature and also it investigates phenomena taking place in nature in terms of information processing. Examples of the first strand of research covered by the handbook include neural [...]

**Contents**

- Neural Computing
- Evolutionary Computing
- Molecular Computing
- Quantum Computing
- Cellular Automata
- Broader Perspective

**Fields of interest**

Theory of Computation; Computational Intelligence; Artificial Intelligence (incl. Robotics); Quantum Information Technology; Spintronics; Systems Biology; Nanotechnology

**Target groups**

Research

**Type of publication**

Handbook

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

2013. LII, 2052 p. Hardcover

599,00 €

ISBN 978-3-540-92909-3
Haptic and Audio Interaction Design


This book constitutes the refereed proceedings of the 7th International Conference on Haptic and Audio Interaction Design, HAID 2012, held in Lund, Sweden, in August 2012. The 15 full papers presented were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on haptics and audio in navigation, supporting experiences and activities, object and interface, test and evaluation.

Contents
haptics and audio in navigation.- supporting experiences and activities.- object and interface.- test and evaluation.

Fields of interest
User Interfaces and Human Computer Interaction; Media Design; Multimedia Information Systems; Computers and Society; Models and Principles; Computers and Education

Characteristics
Research

Usually dispatched within 3 to 5 business days.

IT Revolutions

Third International ICST Conference, Cordoba, Spain, March 23-25, 2011, Revised Selected Papers

This book constitutes the refereed proceedings of the 3rd International ICST Conference on IT Revolutions, held in Cordoba, Spain in March 2011. The 20 revised full papers presented were carefully reviewed and selected from numerous submissions. They are grouped in topical sections on eGreen energy, smart buildings, health and ambient assisted living, smart environments and user experience, grid and cloud computing, eLearning.

Contents
electronics.- eHealth.- ambient-assisted living.- energy sustainability.- smart environments.- smart grids.- eLearning applications and practices.- grid and cloud computing.

Fields of interest
Computers and Education; User Interfaces and Human Computer Interaction; Information Systems Applications (incl.Internet); Computer Communication Networks; Computers and Society; Artificial Intelligence (incl. Robotics)

Characteristics
Research

Usually dispatched within 3 to 5 business days.

ITIL® 2011 At a Glance

"ITIL® 2011 At a Glance" is an important update to the internationally-recognized ITIL® best practices for IT Service Management. "ITIL® 2011 At a Glance" provides graphical and textual memory joggers for the primary concepts of those best practices. IT organizations worldwide are implementing ITIL® as a vehicle for improving IT service quality and improve return on investment for IT services. This book is an update based on the ITIL 2011 Update. The desk reference’s unique graphical approach will take otherwise complex textual descriptions and make the information accessible in a series of consistent, simple diagrams. "ITIL® 2011 At a Glance" will be of interest to organizations looking to train their staffs in a consistent and cost-effective way. Further, this book is ideal for anyone involved in planning consulting, implementing, or testing an ITIL® implementation.

Contents

Fields of interest
Models and Principles; Management of Computing and Information Systems; Technology Management; Management/Business for Professionals

Characteristics
Professional/practitioner

Usually dispatched within 3 to 5 business days.
Internet of Things, Smart Spaces, and Next Generation Networking

12th International Conference, NEW2AN 2012, and 5th Conference, ruSMART 2012, St. Petersburg, Russia, August 27-29, 2012, Proceedings

This book constitutes the joint refereed proceedings of the 12 International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networking, NEW2AN, and the 5th Conference on Internet of Things and Smart Spaces, ruSMART 2012, held in St. Petersburg, Russia, in August 2012. The total of 42 papers was carefully reviewed and selected for inclusion in this book. The 14 papers selected from ruSMART are organized in topical sections named: defining an internet-of-things ecosystem; future services; and smart space governing through service mashups. The 28 papers from NEW2AN deal with the following topics: wireless cellular networks; ad-hoc, mesh, and delay-tolerant networks; scalability, cognition, and self-organization; traffic and internet applications; and wireless sensor networks. They also contain 4 selected papers from the NEW2AN 2012 winter session.

Features
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Contents
Journeys to Data Mining
Experiences from 15 Renowned Researchers

Data mining, an interdisciplinary field combining methods from artificial intelligence, machine learning, statistics and database systems, has grown tremendously over the last 20 years and produced core results for applications like business intelligence, spatio-temporal data analysis, bioinformatics, and stream data processing. The fifteen contributors to this volume are successful and well-known data mining scientists and professionals. Although by no means an exhaustive list, all of them have helped the field gain the reputation and importance it enjoys today, through the many valuable contributions they have made. Mohamed Medhat Gaber has asked them (and many others) to write down their journeys through the data mining field. What are your motives for conducting research in the data mining field? Describe the milestones of your research in this field. What are your notable successes? How did you learn from your failures? Have you...?

Features
Data mining, an interdisciplinary field combining methods from artificial intelligence, machine learning, statistics and database systems, has grown tremendously over the last 20 years and produced core results for applications like business intelligence, spatio-temporal data analysis, bioinformatics, and stream data processing. The fifteen contributors to this volume are successful and well-known...

Contents

Fields of interest
Information Storage and Retrieval; Artificial Intelligence (incl. Robotics); Document Preparation and Text Processing; Probability and Statistics in Computer Science; The Computing Profession

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012, VIII, 241 p. 33 illus. Hardcover

79,95 €
ISBN 978-3-642-28046-7
Modern Compiler Design

'Modern Compiler Design' makes the topic of compiler design more accessible by focusing on principles and techniques of wide application. By carefully distinguishing between the essential (material that has a high chance of being useful) and the incidental (material that will be of benefit only in exceptional cases) much useful information was packed in this comprehensive volume. The student who has finished this book can expect to understand the workings of and add to a language processor for each of the modern paradigms, and be able to read the literature on how to proceed. The first provides a firm basis, the second potential for growth.

Features

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Contents


Fields of interest

Programming Languages, Compilers, Interpreters; Processor Architectures; Programming Techniques

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.

2012. Xxi, 822 p. 511 illus. Hardcover

79,95 €


PRICAI 2012: Trends in Artificial Intelligence

12th Pacific Rim International Conference on Artificial Intelligence, PRICAI 2012, held in Kuching, Malaysia, in September 2012. The 60 revised full papers presented together with 2 invited papers, 22 short papers, and 11 poster papers in this volume were carefully reviewed and selected from 240 submissions. The topics roughly include AI foundations, applications of AI, cognition and intelligent interactions, computer-aided education, constraint and search, creativity support, decision theory, evolutionary computation, game playing, information retrieval and extraction, knowledge mining and acquisition, knowledge representation and logic, linked open data and semantic web, machine learning and data mining, multimedia and AI, natural language processing, robotics, social intelligence, vision and perception, web and text mining, web and knowledge-based system.

Features

This volume constitutes the refereed proceedings of the 12th Pacific Rim Conference on Artificial Intelligence, PRICAI 2012, held in Kuching, Malaysia, in September 2012. The 60 revised full papers presented together with 2 invited papers, 22 short papers, and 11 poster papers in this volume were carefully reviewed and selected from 240 submissions. The topics roughly include AI foundations, applications of AI, cognition and intelligent interactions, computer-aided education, constraint and search, creativity support, decision theory, evolutionary computation, game playing, information retrieval and extraction, knowledge mining and acquisition, knowledge representation and logic, linked open data and semantic web, machine learning and data mining, multimedia and AI, natural language processing, robotics, social intelligence, vision and perception, web and text mining, web and knowledge-based system.

Fields of interest

Artificial Intelligence (incl. Robotics); Information Storage and Retrieval; Data Mining and Knowledge Discovery; Mathematical Logic and Formal Languages; Information Systems Applications (incl.Internet)

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days.

2012. XXV, 905 p. 332 illus. (Lecture Notes in Artificial Intelligence, Vol. 7458) Softcover

approx. 95,00 €

ISBN 978-3-642-32694-3
Performance Metrics for Haptic Interfaces

Haptics technology is being used more and more in different applications, such as in computer games for increased immersion, in surgical simulators to create a realistic environment for training of surgeons, in surgical robotics due to safety issues and in mobile phones to provide feedback from user action. The existence of these applications highlights a clear need to understand performance metrics for haptic interfaces and their implications on device design, use and application. Performance Metrics for Haptic Interfaces aims at meeting this need by establishing standard practices for the evaluation of haptic interfaces and by identifying significant performance metrics. Towards this end, a combined physical and psychophysical experimental methodology is presented. Firstly, existing physical performance measures and device characterization techniques are investigated and described in an illustrative way. Secondly, a wide range of human psychophysical experiments are reviewed and the appropriate [...]
RoboCup 2011: Robot Soccer World Cup XV

This book includes the thoroughly refereed post-conference proceedings of the 15th Annual RoboCup International Symposium, held in Istanbul, Turkey, in July 2011. The 12 revised papers and 32 poster presentation presented were carefully reviewed and selected from 97 submissions. The papers are organized on topical sections on robot hardware and software, perception and action, robotic cognition and learning, multi-robot systems, human-robot interaction, education and entertainment and applications.

Features
This book includes the thoroughly refereed post-conference proceedings of the 15th Annual RoboCup International Symposium, held in Istanbul, Turkey, in July 2011. The 12 revised papers and 32 poster presentation presented were carefully reviewed and selected from 97 submissions. The papers are organized on topical sections on robot hardware and software, perception and action, robotic cognition and [...]
Security and Privacy in Communication Networks

7th International ICST Conference, SecureComm 2011, London, September 7-9, 2011, Revised Selected Papers

This volume presents the refereed proceedings of the 7th International ICST Conference on Security and Privacy in Communication Networks, SecureComm 2011, held in London, UK, in September 2011. The 35 revised papers included in the volume were carefully reviewed and selected from numerous submissions. Topics covered include network intrusion detection; anonymity and privacy; wireless security; system security; DNS and routing security; and key management.

Features
This volume presents the refereed proceedings of the 7th International ICST Conference on Security and Privacy in Communication Networks, SecureComm 2011, held in London, UK, in September 2011. The 35 revised papers included in the volume were carefully reviewed and selected from numerous submissions. Topics covered include network intrusion detection; anonymity and privacy; wireless security; system security; DNS and routing security; and key management.

Contents
Network intrusion detection; anonymity and privacy; wireless security; system security; DNS and routing security; key management.

Fields of interest
Systems and Data Security; Management of Computing and Information Systems; Computer Communication Networks; Data Encryption; Information Systems Applications (incl.Internet); Operating Systems

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


70,00 €
ISBN 978-3-642-31908-2

Self-* and P2P for Network Management
Design Principles and Case Studies

The network management community has been pushed towards the design of alternative management approaches able to support heterogeneity, scalability, reliability, and minor human intervention. The employment of self-* properties and Peer-To-Peer (P2P) are seen as promising alternatives, able to provide the sophisticated solutions required. Despite being developed in parallel, and with minor direct connections perceived between them, self-* properties and P2P can be used concurrently. In Self-* and P2P for Network Management: Design Principles and Case Studies, the authors explore the issues behind the joint use of self-* properties and P2P, and present: a survey relating autonomic computing and self-* properties, P2P, and network and service management; the design of solutions that explore parallel and cooperative behavior of management peers; the change in angle of network management solution development from APIs, protocols, architectures, and frameworks to the design of management algorithms.

Features
The network management community has been pushed towards the design of alternative management approaches able to support heterogeneity, scalability, reliability, and minor human intervention. The employment of self-* properties and Peer-To-Peer (P2P) are seen as promising alternatives, able to provide the sophisticated solutions required. Despite being developed in parallel, and with minor direct connections between them, self-* properties and P2P can be used concurrently. In Self-* and P2P for Network Management: Design Principles and Case Studies, the authors explore the issues behind the joint use of self-* properties and P2P, and present: a survey relating autonomic computing and self-* properties, P2P, and network and service management; the design of solutions that explore parallel and cooperative behavior of management peers; the change in angle of network management solution development from APIs, protocols, architectures, and frameworks to the design of management algorithms.

Contents
Foreword; Preface; Introduction; State of the Art; Principles of the Self-* P2P Design; Case Study I: Reliability of Monitoring Platforms; Case Study II: Resource Management of Network Virtualization; Results Discussion; Conclusions.

Fields of interest
Computer Communication Networks

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2012. XIII, 105 p. (SpringerBriefs in Computer Science) Softcover

39,95 €

The Bulgarian Language in the Digital Age

This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact of [...]
The Catalan Language in the Digital Age

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Contents

Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
Professional/practitioner

Type of publication
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2012, VI, 75 p. 24 illus. in color. (White Paper Series) Softcover

49.95 €
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The Czech Language in the Digital Age

This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact[...]

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The Danish Language in the Digital Age

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Executive Summary.- Languages at Risk: a Challenge for Language Technology.- The Danish Language in the Information Society.- Language Technology Support for Danish.- About META-NET.

Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
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2012, VI, 73 p. 24 illus. in color. (White Paper Series) Softcover

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The Dutch Language in the Digital Age

This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact [...] Features

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Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
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The English Language in the Digital Age

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Language Translation and Linguistics; Computational Linguistics

Target groups
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The Estonian Language in the Digital Age

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Language Translation and Linguistics; Computational Linguistics

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The Finnish Language in the Digital Age

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Features

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Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
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The Irish Language in the Digital Age

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Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
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The Italian Language in the Digital Age

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Fields of interest
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Target groups
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The Lithuanian Language in the Digital Age

This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact.

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Language Translation and Linguistics; Computational Linguistics

Target groups
Professional/practitioner

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The Norwegian Language in the Digital Age

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This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact.

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Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
Professional/practitioner

Type of publication
Contributed volume

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2012. VI, 81 p. 24 illus. in color. (White Paper Series) Softcover

49,95 €
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The Norwegian Language in the Digital Age

Nynorskversjon
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Target groups
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The Romanian Language in the Digital Age

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Target groups
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The Slovene Language in the Digital Age

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Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
Professional/practitioner

Type of publication
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The Swedish Language in the Digital Age

This white paper is part of a series that promotes knowledge about language technology and its potential. It addresses educators, journalists, politicians, language communities and others. The availability and use of language technology in Europe varies between languages. Consequently, the actions that are required to further support research and development of language technologies also differ for each language. The required actions depend on many factors, such as the complexity of a given language and the size of its community. META-NET, a Network of Excellence funded by the European Commission, has conducted an analysis of current language resources and technologies. This analysis focused on the 23 official European languages as well as other important national and regional languages in Europe. The results of this analysis suggest that there are many significant research gaps for each language. A more detailed expert analysis and assessment of the current situation will help maximise the impact [...]

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Contents

Fields of interest
Language Translation and Linguistics; Computational Linguistics

Target groups
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Transactions on Computational Science XVI

The LNCS journal Transactions on Computational Science reflects recent developments in the field of Computational Science, conceiving the field not as a mere ancillary science but rather as an innovative approach supporting many other scientific disciplines. The journal focuses on original high-quality research in the realm of computational science in parallel and distributed environments, encompassing the facilitating theoretical foundations and the applications of large-scale computations and massive data processing. It addresses researchers and practitioners in areas ranging from aerospace to biochemistry, from electronics to geosciences, from mathematics to software architecture, presenting verifiable computational methods, findings, and solutions and enabling industrial users to apply techniques of leading-edge, large-scale, high-performance computational methods. The 16th issue of the Transactions on Computational Science journal contains 11 extended versions of selected papers from [...] Features

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User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Computer Communication Networks; Computers and Society; Information Storage and Retrieval

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days.


63,00 €

ISBN 978-3-642-32662-2

Trust, Privacy and Security in Digital Business

9th International Conference, TrustBus 2012, Vienna, Austria, September 3-7, 2012, Proceedings

This book constitutes the refereed proceedings of the 9th International Conference on Trust and Privacy in Digital Business, TrustBus 2012, held in Vienna, Austria, in September 2012 in conjunction with DEXA 2012. The 18 revised full papers presented together with 12 presentations of EU projects were carefully reviewed and selected from 42 submissions. The papers are organized in the following topical sections: Web security; secure management processes and procedures; access control; intrusion detection - trust; applied cryptography; secure services, databases, and data warehouses; and presentations of EU projects.

Features

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Systems and Data Security; Management of Computing and Information Systems; Data Encryption; Computer Communication Networks; Information Systems Applications (incl.Internet); Computer Appl. in Administrative Data Processing

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days.


approx. 46,00 €

ISBN 978-3-642-32286-0

A. Tsolkas, Riedstadt; F. Wimmer, Bad Feilnbach

Wirtschaftsspyonage und Intelligence Gathering

Neue Trends der wirtschaftlichen Vorteilsbeschaffung


Features

SWIFT-Bankdatendurchforstung, Flugpassagierdaten und vieles mehr. Riesige Datenmengen müssen aus Europa in andere Staaten, allen voran die USA, übermittelt werden. Wie dieses Buch zeigt, können daraus detaillierte Erkenntnisse zur wirtschaftlichen Tätigkeit von Unternehmen extrahiert werden. Erkenntnisse, die vor allem für technologisch hoch entwickelte Staaten und deren Unternehmen von Interesse sind und [...] Contents

Begriffe - Bedrohungslage, Wirtschaftsspyonage und Fallbeispiele - Akteure des Intelligence Gathering und deren Ziele - Im Wirtschaftskreislauf entstehende Datensammlungen - Möglichkeiten der Ausspähung von Unternehmen - Bedeutung und Auswirkung auf Unternehmen - Fazit und Ausblick

Fields of interest

Data Encryption; Information Systems Applications (incl.Internet)

Target groups

Professional/practitioner

Type of publication

Professional book

Online orders shipping within 2-3 days.

2013, XII, 178 S. 20 Abb. Softcover

46,68 €

ISBN 978-3-8348-1539-2
Earth Sciences

W. Gellert, Helmholtz Centre for Environmental Research - UFZ, Magdeburg, Germany; M. Schulze, Helmholtz Centre for Environmental Research - UFZ, Magdeburg, Germany; R. Kleemann, Pittsburgh, PA, USA; C. Wolkersdorfer, Cape Breton University, Sydney, NS, Canada (Eds.)

Acidic Pit Lakes
The Legacy of Coal and Metal Surface Mines

This monograph provides an international perspective on pit lakes in post-mining landscapes, including the problem of geogenic acidification. Much has been learned during the last decade through research and practical experience on how to mitigate or remediate the environmental problems of acidic pit lakes. In the first part of the book, general scientific issues are presented in 21 contributions from the fields of geo-environmental science, water chemistry, lake physics, lake modeling, and on the peculiar biological features that occur in the extreme habitats of acidic pit lakes. Another chapter provides an overview of methods currently used to remediate acidic pit lakes and treat outflowing acidic water. The second part of the book is a collection of regional surveys of pit lake problems from three European countries and Australia, and case studies of various individual representative lakes. A final case study provides an innovative approach to assessing the economic value of new pit lakes and [...]"}

Characteristics of Chinese Petroleum Geology
Geological Features and Exploration Cases of Stratigraphic, Foreland and Deep Formation Traps

"Characteristics of Chinese Petroleum Geology: Geological Features and Exploration Cases of Stratigraphic, Foreland and Deep Formation Traps" systematically presents the progress made in petroleum geology in China and highlights the latest advances and achievements in oil/gas exploration and research, especially in stratigraphic, foreland and deep formation traps. The book is intended for researchers, practitioners and students working in petroleum geology, and is also an authoritative reference work for foreign petroleum exploration experts who want to learn more about this field in China. As President of the Chinese Petroleum Society, former Vice-President of PetroChina Company Limited, and Academician of the Chinese Academy of Sciences, Dr. Chengzao Jia has been engaged in geological research for 30 years and in oil/gas exploration for more than 20 years.

Features
"Characteristics of Chinese Petroleum Geology: Geological Features and Exploration Cases of Stratigraphic, Foreland and Deep Formation Traps" systematically presents the progress made in petroleum geology in China and highlights the latest advances and achievements in oil/gas exploration and research, especially in stratigraphic, foreland and deep formation traps. The book is intended for researchers, [...]"

Contents

Fields of interest
Structural Geology; Geophysics / Geodesy

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2013. XVI, 600 p. 161 Illus., 119 in color. (Advanced Topics in Science and Technology in China) Hardcover

129,95 €
ISBN 978-3-642-23871-0

Glaciations in North and South America from the Miocene to the Last Glacial Maximum
Comparisons, Linkages and Uncertainties

Improved dating methods have increased our ability to more precisely determine the timing and durations of glaciations. Utilizing glacial and loess deposits, we have compared glaciations that occurred in North and South America in order to determine if events are synchronous or not, to explore forcing mechanisms, and to compare glaciations with cold periods of the Marine Oxygen Isotope stages and the loess/paleosol records of China. Stratigraphic sections containing a variety of glacial deposits, some with interbedded volcanics, as well as loess deposits, were used in reconstructing the glacial history. The Late Pleistocene (Brunhes Chron) Last Glacial Maximum is recognized in mountain and continental areas of North America but only in the mountains of South America. Commonly our comparisons indicate roughly synchronous glaciations on the two continents, whereas other glaciations are more elusively difficult to compare. Although our comparisons are at low resolutions, the results suggest that [...]"

Features
Improved dating methods have increased our ability to more precisely determine the timing and durations of glaciations. Utilizing glacial and loess deposits, we have compared glaciations that occurred in North and South America in order to determine if events are synchronous or not, to explore forcing mechanisms, and to compare glaciations with cold periods of the Marine Oxygen Isotope stages and the [...]"

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Geology; Paleontology; Climate Change

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.


49,95 €
ISBN 978-94-007-4398-4
Integrated Risk Governance

Science Plan and Case Studies of Large-scale Disasters

"Integrated Risk Governance: Science Plan and Case Studies of Large-scale Disasters" is the first book in the IHDP-Integrated Risk Governance Project Series. It consists of two parts: Part I: Integrated Risk Governance Project Science Plan, which outlines the challenge, research programme, outcomes, and implementation strategy of the IRG Project; and Part II: Case Studies of Large-scale Disasters, which includes case analyses of experience, lessons learned and recommendations on various large-scale disasters around the world, such as the Tangshan and Wenchuan earthquakes and the great ice storm in China, European heat waves, and Hurricane Katrina in the USA. The community model of integrated natural disaster risk governance and paradigm of catastrophe risk governance in China are also presented.

Features

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Economies

C. Hunert, Fachhochschule für angewandtes Management, Erding; M. Landes, Universität München; E. Steiner, Universität München

Akquisition von Dienstleistungen

Angewandte Psychologie für die berufliche Praxis


Features

Welche „Gottsegabe“ mag es sein, die einen Verkäufer zum „erfolgreichen Verkäufer“ werden lässt? Diese Frage wird umso spannender, wenn dieser „Held“ kein konkretes (an-)fassbares Produkt, sondern eine Dienstleistung und damit ein ziemlich abstraktes Leistungsversprechen in Form eines Projekts oder Beratungsauftrags verkauft. Der Kunde kauft trotz vieler schöner Worte letztendlich doch die „Katze im Sack“! [..]

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Target groups Popular/general

Type of publication Contributed volume

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13,97 €
ISBN 978-3-8274-1789-3

Asymmetric Economic Integration

Size Characteristics of Economies, Trade Costs and Welfare

This book investigates whether the effects of economic integration differ according to the size of countries. The analysis incorporates a classification of the size of countries, reflecting the key economic characteristics of economies in order to provide an appropriate benchmark for each size group in the empirical analysis of the effects of asymmetric economic integration. The formation or extension of Preferential Trade Areas (PTAs) leads to a reduction in trade costs. This poses a critical secondary question as to the extent to which trade costs differ according to the size of countries. The extent to which membership of PTAs has an asymmetric impact on trade flow according to the size of member countries is analyzed by employing econometric tools and general equilibrium analysis, estimating both the ex-post and ex-ante effects of economic integration on the size of countries, using a data set of 218 countries, 45 of which are European.

Features

This book investigates whether the effects of economic integration differ according to the size of countries. The analysis incorporates a classification of the size of countries, reflecting the key economic characteristics of economies in order to provide an appropriate benchmark for each size group in the empirical analysis of the effects of asymmetric economic integration. The formation or extension of [..]

Contents


Target groups Research

Type of publication Monograph

Usually dispatched within 3 to 5 business days.

2012. XX, 202 p. 2 illus. (Contributions to Economics) Hardcover

99,95 €
ISBN 978-3-7908-2860-3

Betriebswirtschaftslehre in Wissenschaft und Geschichte

Eine Skizze


Features


Target groups Upper undergraduate

Type of publication German textbook

Usually dispatched within 3 to 5 business days.

2012. XI, 261 S. 57 Abb. Softcover

42,01 €
ISBN 978-3-8349-4185-5

34 Economics

K. Brockhoff, WHU - Otto Beisheim School of Management

Betriebswirtschaftslehre in Wissenschaft und Geschichte

Eine Skizze


Features


Target groups Upper undergraduate

Type of publication German textbook

Usually dispatched within 3 to 5 business days.

2012. XI, 261 S. 57 Abb. Softcover

42,01 €
ISBN 978-3-8349-4185-5
Complementarity Modeling in Energy Markets

This addition to the ISOR series introduces complementarity models in a straightforward and approachable manner and uses them to carry out an in-depth analysis of energy markets, including formulation issues and solution techniques. In a nutshell, complementarity models generalize:

a. optimization problems via their Karush-Kuhn-Tucker conditions
b. non-cooperative games in which each player may be solving a separate but related optimization problem with potentially overall system constraints (e.g., market-clearing conditions)
c. economic and engineering problems that aren’t specifically derived from optimization problems (e.g., spatial price equilibria) in which both primal and dual variables (prices) appear in the original formulation (e.g., The National Energy Modeling System (NEMS) or its precursor, PIES).

d. problems in which both primal and dual variables (prices) appear in the original formulation (e.g., The National Energy Modeling System (NEMS) or its precursor, PIES).

As such, complementarity models are a very general and flexible modeling format. A natural question is why concentrate on energy markets for this complementarity approach? This turns...[

Contents

Fields of interest
Operation Research / Decision Theory; Financial Economics; Operations Research, Mathematical Programming

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.


89.95 €

ISBN 978-1-4419-6122-8

Corporate Governance

K. Paetzmann, Universität Hamburg

Corporate Governance
Strategische Marktrisiken, Controlling, Überwachung


Features
Vor dem Hintergrund spektakulärer Unternehmenskrisen werden seit den 1990er Jahren weltweit Standards einer Corporate Governance zur Verbesserung von Unternehmensführung und -überwachung diskutiert und in Empfehlungen oder Rechtsnormen umgesetzt. Es wird dabei angestrebt, die Rationalität der Unternehmensführung zu erhöhen und insbesondere die Erkennung und Handhabung von Risiken, die auf Unternehmen [..]

Contents

Fields of interest
Management/ Business for Professionals; Organization / Planning; Entrepreneurship

Target groups
Professional/practitioner

Type of publication
German textbook

Usually dispatched within 3 to 5 business days.

2012. XXXIV, 336 S. 90 Abb. Softcover

32.66 €

ISBN 978-3-642-28064-1
Corporate Volunteering

Unternehmen im Spannungsfeld von Effizienz und Ethik


Features

Contents

Fields of interest
Organization / Planning; Business Strategy / Leadership

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

2012. 313 S. 43 Abb. (uniscope. Publikationen der SGO Stiftung) Hardcover

42,01 €
ISBN 978-3-8349-1813-0

Der Weg zu Weltinnovationen
Unternehmen erfolgreich und zukunftsorientiert erneuern. Eine praxisorientierte Anleitung


Features

Contents

Fields of interest
Business Strategy/Leadership; Organization / Planning

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

2012. XII, 159 S. 52 Abb. Softcover
46,68 €
ISBN 978-3-8349-3080-4

Die Geschichte des ökonomischen Denkens


Features

Contents

Fields of interest
Methodology and the History of Economic Thought

Target groups
Upper undergraduate

Type of publication
German textbook

Usually dispatched within 3 to 5 business days.

2012. XV, 308 S. 30 Abb. (Springer-Lehrbuch) Softcover
27,99 €
ISBN 978-3-642-28177-8
Driving Innovation in Service Organisations

A Study in the German Airport Industry

With an ever increasing globalization of the economy, rapid technological progress, and intensifying competition, service firms such as airports constantly have to fuel the engine of renewal to keep on prospering. Nevertheless, research is still left with the critical question how service firms can manage their ability to innovate. By applying a resource perspective, Jessica Scheler explores drivers and barriers affecting the ability to innovate in the airport industry. Findings reveal significant categories and deliver valuable findings for academia and managerial practice particularly with regard to leadership issues, organizational structure, and roles of individuals.

Features

With an ever increasing globalization of the economy, rapid technological progress, and intensifying competition, service firms such as airports constantly have to fuel the engine of renewal to keep on prospering. Nevertheless, research is still left with the critical question how service firms can manage their ability to innovate. By applying a resource perspective, Jessica Scheler explores drivers and barriers affecting the ability to innovate in the airport industry. Findings reveal significant categories and deliver valuable findings for academia and managerial practice particularly with regard to leadership issues, organizational structure, and roles of individuals.

Contents

Systematic Review of the Service Dominant Logic-Literature.- Opportunities and challenges for the German Airport Industry.- Drivers and barriers influencing the ability to innovate in service organizations.- Typology of innovation opponents

Fields of interest

Market Research

Target groups

Ph.D. thesis

Type of publication

Usually dispatched within 3 to 5 business days.

2013. XIX, 196 p. 16 illus. (Markt- und Unternehmensentwicklung / Markets and Organisations) Softcover
46,68 €
ISBN 978-3-8349-3406-2

E-Commerce Strategy

Text and Cases

E-Commerce Strategy: Text and Cases provides the fundamental literature required for graduate students and practitioners to understand electronic commerce. Each chapter provides clearly designed learning objectives and review questions to highlight the major topics and goals. This book covers many of the new innovations and technologies that have been established for e-commerce site development. Unlike similar books, topics such as e-channel adoption, factors affecting e-commerce adoption, and strategy design are reviewed in greater depth. Additionally, the book examines areas not normally covered like open source, online research, and peer-to-peer systems. E-Commerce Strategy: Text and Cases is divided into two parts. Part 1 examines the evolution of e-commerce, analyzes different sectors such as B2B and m-Commerce, and explores the challenges they face. Case studies of well known companies reinforce the concepts learned to demonstrate both successes and failures in the field. Part 2 deals with.[...]

Features

This book illustrates approaches for designing and implementing e-commerce strategy with social perspectives. While it gives details of different technological concepts related to designing and hosting web portals, it also provides real-life examples from different corporations to show how better results can be achieved through effective channel design with social commerce oriented strategy. The book also [...]
Erfolgsfaktoren bei der Investitionsmitteleinwerbung von Venture-Capital-Gesellschaften

Eine Mixed-Method-Analyse


Features


Contents


Fields of interest

Business Information Systems

Target groups

Research

Type of publication

Monograph

Online orders shipping within 2-3 days.

2013. XXVI, 287 S. 32 Abb. (Entrepreneurship) Softcover

56,03 €

ISBN 978-3-8349-4319-4

Information Systems for Engineering and Infrastructure Asset Management

Engineering and infrastructure assets maintain the lifeline of economies. It is, therefore, critical to manage these assets in such a way that they provide a consistent level of service throughout their lifecycle. Management of asset lifecycle, however, is information intensive and utilises a plethora of information systems. The role of these systems in asset management is much more profound. It extends beyond the organizational boundaries and addresses business relationships with external stakeholders to deliver enhanced level of business outcomes. In doing so information systems are not only required to translate business strategic considerations into action, but are also expected to produce learnings and feedback that informs business strategy and aids in strategic reorientation.

Features

Engineering and infrastructure asset management is information intensive and utilises a variety of information systems. In theory, these systems translate asset lifecycle management plans into action and develop learnings and feedback that inform asset management strategy. This book serves as a comprehensive resource for asset managers to align information systems with strategic asset management information [...]

Contents


Fields of interest

Business Information Systems

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2013. XIX, 298 p. 51 illus. Softcover

65,37 €

ISBN 978-3-8349-4233-3

Integrierte Kampagnenplanung in logistischen Netzwerken der chemischen Industrie


Features


Contents


Fields of interest

Production / Logistics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XIX, 252 S. 62 Abb. (Produktion und Logistik) Softcover

46,68 €

ISBN 978-3-8349-4374-3
Internationale Koordinierung nationaler Enforcement-Aktivitäten

Eine kritische Analyse unter besonderer Berücksichtigung der Deutschen Prüfstelle für Rechnungslegung

Diverse praktische Beobachtungen aus dem Blickwinkel der Deutschen Prüfstelle für Rechnungslegung (DPR), die als nationaler privatrechtlicher Enforcer innerhalb einer zweistufigen Private Public Partnership zusammen mit der Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) für das Enforcement in Deutschland verantwortlich ist, münden in der Erkenntnis, dass die internationale Koordinierung nationaler Enforcement-Aktivitäten im jetzigen Zustand aktive Regulierungsarbitrage zulässt, regulatorische Kooperation zwischen nationalen Enforcern erschwert und die Entwicklung lokaler IFRS nicht verhindert. Vor diesem Hintergrund entwickelt Roland Bockmann idealtypische Konzeptionsmodelle, die ebendiese Unzulänglichkeiten adressieren und im besten Fall beseitigen können.

Features
Praktische und systemtheoretische Beobachtungen aus Sicht der Deutschen Prüfstelle für Rechnungslegung (DPR) zeigen, dass die internationale Koordinierung nationaler Enforcement-Aktivitäten im jetzigen Zustand aktive Regulierungsarbitrage zulässt, regulatorische Kooperation zwischen nationalen Enforcern erschwert und die Entwicklung lokaler IFRS nicht verhindert. Roland Bockmann entwickelt idealtypische [...].

Contents

Fields of interest
Accounting / Auditing

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. XXX, 408 S. 10 Abb. (Schriften zu Wirtschaftsprüfung, Steuerlehre und Controlling) Softcover

65,37 €
ISBN 978-3-8349-4227-2

Konfiguration und Koordination von Wertschöpfungsaktivitäten in internationalen Unternehmen

Eine empirische Untersuchung in der Automobilindustrie


Features
Die Wettbewerbsfähigkeit eines international agierenden Unternehmens hängt nicht allein von traditionellen Faktoren wie zum Beispiel der Produktivität ab, sondern auch von der Organisation der grenzüberschreitenden Wertschöpfungskette. Bei der optimalen Gestaltung internationaler Wertschöpfungsketten stehen die geographisch vorteilhafte Verteilung der Aktivitäten (Konfiguration) und deren bestmögliche [...].

Contents

Fields of interest
Production / Logistics

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.


56,03 €
ISBN 978-3-8349-4048-3

Kritische Erfolgsfaktoren im Innovationsmanagement

Aktuelle Handlungspraxis und Werkzeuge zur Identifikation von Handlungsbedarfen


Features
Welchen Stellenwert haben Open Innovation, Diversität und Enterprise 2.0 in der aktuellen Handlungspraxis im Innovationsmanagement und wie können mögliche Handlungsbedarfe im Innovationsprozess transparent gemacht werden? Diese Fragen untersucht Alexander Hochmeier anhand von sieben Fallbeispielen in Österreich ansässiger Unternehmen unter Anwendung der Dokumentarischen Methode. Auf Basis dieser Analysen [...].

Contents

Fields of interest
Management / Business for Professionals

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. XIII, 181 S. 10 Abb. Softcover

46,68 €
ISBN 978-3-8349-4335-4
Leitfaden kommunale Rechnungsprüfung in Niedersachsen

Planung, Durchführung und Dokumentation nach NKR


Features


Contents

- Prüfung der Eröffnungsbilanz
- Prüfung des Jahresabschlusses
- Prüfung des konsolidierten Gesamtabschlusses
- Prüfungsdurchführung
- Prüfungsdokumentation
- Prüfungskatalog

Fields of interest

- Business & Economics (general)
- Accounting / Auditing
- Business Taxation

Target groups

- Professional/practitioner

Type of publication

- Professional book

Usually dispatched within 3 to 5 business days.

2012, XIV, 172 S. 14 Abb. Softcover

74,72 €
ISBN 978-3-8349-4268-5

Management in a Dynamic Environment

Concepts, Methods and Tools

This book provides basic management knowledge in a clearly structured way. Fundamental aspects of management are described, on the basis of which a model of the enterprise is outlined. This allows readers to find their way around easily, to reflect, then to set new approaches in context and examine them in a critical light. The practical examples, the interpretation questions, and the short case studies at the end of the chapters facilitate the transition from theory to practice.

Features

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Contents

- Basic Models of the Enterprise
- System-Based Approach and Cybernetics
- Management Techniques
- Strategy - Thinking and Acting
- Organization – Structure follows Strategy
- Corporate Culture – A Competitive Advantage
- Corporate Development through Innovation

Fields of interest

- Business Strategy
- Leadership
- Management/Business for Professionals

Target groups

- Upper undergraduate

Type of publication

- German textbook

Usually dispatched within 3 to 5 business days.

2012, IV, 387 p. 140 illus. Softcover

42,01 €
ISBN 978-3-8349-3193-1

Managing Market Complexity

The Approach of Artificial Economics

The field of artificial economics (AE) embraces a broad range of methodologies relying on computer simulations in order to model and study the complexity of economic and social phenomena. The overarching principle of AE is the analysis of aggregate properties of artificial economies populated by adaptive agents that are equipped with behavioural rules and specific individual targets. These aggregate properties are neither foreseen nor intended by the artificial agents; conversely they are emerging characteristics of such artificially simulated systems. The book presents a peer-reviewed collection of papers addressing a variety of issues related to macroeconomics, industrial organization, networks, management and finance, as well as purely methodological issues.

Features

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Contents

- Preface
- Part I: Networks
- Part II: Macro-economics
- Part III: Finance
- Part IV: Industrial Organization
- Part V: Management
- Part VI: Methodological Issues

Fields of interest

- Economic Theory
- Computer Imaging, Vision, Pattern Recognition and Graphics
- Complex Networks
- Game Theory
- Economics, Social and Behavioral Sciences
- Finance / Banking
- Industrial Organization
- Research

Type of publication

- Contributed volume

Usually dispatched within 3 to 5 business days.

2013, XX, 247 p. 73 illus. (Lecture Notes in Economics and Mathematical Systems, Vol. 662) Softcover

79,95 €
ISBN 978-3-642-31300-4
Marken im Social Web

Th. Heun, Berlin

Zur Bedeutung von Marken in Online-Diskursen


Features


Contents

Vergemeinschaftung in Zeiten gesellschaftlicher Individualisierung. - Vergemeinschaftung und Konsum. - Das Konzept der Marke. - Verständnisse von Kultur. - Diskursanalytische Untersuchung der Markenkultur.

Fields of interest

Marketing

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012, XII, 284 S. 91 Abb. Softcover
46,68 €

ISBN 978-3-8349-4301-9

Mathematical Models for Evacuation Planning in Urban Areas

S. Bretschneider, Sohingen, Germany

Disasters like floods, hurricanes, chemical or nuclear accidents may cause the necessity to evacuate the affected area. The evacuation of the urban area needs to be planned carefully. One issue is the reorganization of the traffic routing. Congested urban areas have usually complex street networks that are composed of many intersections with streets connecting them. The population density of a congested urban area is usually high and the street network is already used to capacity during rush hour traffic. The considered problem of this work is the reorganization of the traffic routing of an urban area for the case of an emergency mass evacuation. Especially aspects of the evacuation like safety, avoidance of delays and the total system travel time are taken into account. Combinatorial and graph theoretical aspects are adapted for the evacuation problem and highlight issues concerning especially conflicts within intersections. This work gives an extensive summary of literature of evacuation of urban [...] can be found.

Features

Disasters like floods, hurricanes, chemical or nuclear accidents may cause the necessity to evacuate the affected area. The evacuation of the urban area needs to be planned carefully. One issue is the reorganization of the traffic routing. Congested urban areas have usually complex street networks that are composed of many intersections with streets connecting them. The population density of a congested urban area is usually high and the street network is already used to capacity during rush hour traffic. The considered problem of this work is the reorganization of the traffic routing of an urban area for the case of an emergency mass evacuation. Especially aspects of the evacuation like safety, avoidance of delays and the total system travel time are taken into account. Combinatorial and graph theoretical aspects are adapted for the evacuation problem and highlight issues concerning especially conflicts within intersections. This work gives an extensive summary of literature of evacuation of urban [...] can be found.

Contents


Fields of interest

Operation Research / Decision Theory; Optimization; Discrete Optimization; Algorithms; Regional Science; Graph Theory

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2013, XVI, 193 p. 79 illus. (Lecture Notes in Economics and Mathematical Systems, Vol. 659) Softcover
69,95 €

ISBN 978-3-642-28758-9

Methoden der Unternehmensentwicklung

D. Hohmann, München

Corporate Governance von Veränderungsprozessen am Beispiel von Akquisitionen


Features

Unternehmensentwicklung ist ein zentrales Themengebiet der Managementliteratur, welches so lange existiert, wie es Unternehmen gibt, die entwickelt und verändert werden. Daniel Hohmann systematisiert und beschreibt die Vielzahl der verschiedenen Methoden und entwickelt ein einfaches Toolset. In der Literatur ist weitgehend unbekannt, wie die Corporate Governance der Unternehmensentwicklung - Zusammenarbeit [...] kann.

Contents


Fields of interest

Management / Business for Professionals

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012, XXII, 257 S. 70 Abb. Softcover
46,68 €

ISBN 978-3-8349-4082-7

Economics 41
Mit List und Tücke argumentieren

Technik der boshaften Rhetorik


Features

Contents

Fields of interest
Personnel Management

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

Multifractal Financial Markets
An Alternative Approach to Asset and Risk Management

Multifractal Financial Markets explores appropriate models for estimating risk and profiting from market swings, allowing readers to develop enhanced portfolio management skills and strategies. Fractals in finance allow us to understand market instability and persistence. When applied to financial markets, these models produce the requisite amount of data necessary for gauging market risk in order to mitigate loss. This brief delves deep into the multifractal market approach to portfolio management through real-world examples and case studies, providing readers with the tools they need to forecast profound shifts in market activity.

Features
- Contents
  - Fields of interest
    - Finance / Banking; Financial Economics; Quantitative Finance

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2013. XVIII, 128 p. 25 illus., 23 in color. (SpringerBriefs in Finance) Softcover
49,95 €

Multisensuale Gestaltung der Ladenatmosphäre zur Profilierung von Store Brands

Ein theoriegeleitetes, experimentelles Design zum Shopverhalten


Features
Durch die zunehmende Verdrängung des stationären Einzelhandels durch das Internet stellt sich die Frage, wie sich physische Geschäfte dagegen zur Wehr setzen können? Ein Ansatzpunkt ist die Schaffung eines Einkaufserlebnisses, das alle Sinne anspricht und zudem noch mit der Marke des Shops im Einklang steht. Gerade eine markenadäquate Umsetzung der Lagengestaltung bei der Schaffung von Einkaufserlebnissen [...]}

Contents

Fields of interest
Marketing

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. XX, 368 S. 28 Abb. (Innovatives Markenmanagement, Vol. 39) Softcover
56,03 €
ISBN 978-3-8349-3645-5
New Perspectives on Industrial Organization
With Contributions from Behavioral Economics and Game Theory

This book covers the main topics that students need to learn in a course on Industrial Organization. It reviews the classic models and important empirical evidence related to the field. However, it will differ from prior textbooks in two ways. First, this book incorporates contributions from behavioral economics and neuroeconomics, providing the reader with a richer understanding of consumer preferences and the motivation for many of the business practices we see today. The book discusses how firms exploit consumers who are prone to making mistakes and who suffer from cognitive dissonance, attention lapses, and bounded rationality, for example and will help explain why firms invest in persuasive advertising, offer 30-day free trials, offer money-back guarantees, and engage in other observed phenomena that cannot be explained by the traditional approaches to industrial organization. A second difference is that this book achieves a balance between textbooks that emphasize formal modeling and [...]

Features
This book covers the main topics that students need to learn in a course on Industrial Organization. It reviews the classic models and important empirical evidence related to the field. However, it will differ from prior textbooks in two ways. First, this book incorporates contributions from behavioral economics and neuroeconomics, providing the reader with a richer understanding of consumer preferences and the [...]

Contents
Chapter 1 Introduction. - Chapter 2 Demand, Technology, and the Theory of the Firm. - Chapter 3 Introductory Game Theory and Economic Information. - Chapter 4 Behavioral Economics. - Chapter 5 Perfect Competition and Market Imperfections. - Chapter 6 Monopoly and Monopolistic Competition. - Chapter 7 Product Differentiation. - Chapter 8 Market Structure, Industry Concentration, and Barriers to Entry. - Chapter 9 Cartels. - Chapter 10 Quantity and Price Competition in Static Oligopoly Models. - Chapter 11 Dynamic Monopoly and Oligopoly Models. - Chapter 12 Market Power. [...]

Fields of interest
Industrial Organization; Business & Economics (general); Economic Policy

Target groups
Professional/practitioner

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.

Organizational Burnout
Das versteckte Phänomen ausgebrannter Organisationen


Features
Blieben bei einer gut aufgestellten Organisation die bisherigen Erfolge aus, dann ist oft ein gefährlicher Organizational Burnout (OBO) die Ursache dafür. Erstmalig beschreibt Gustav Greve das weit verbreitete Phänomen des OBO, erklärt die Erfolgseffekte der betroffenen Unternehmen und zeigt einen Weg aus der Krise. Gustav Greve schildert aus seiner Erfahrung die typischen Gründe, Symptome und Folgen des OBO. [...]

Contents
1 Organizational Burnout - 2 Voraussetzungen und Ursachen für das Organizational Burnout - 3 Erste Symptome des Organizational Burnout - 4 Typische Phasen des Organizational Burnout - Spirale? - 5 Nicht alle Folgen des Organizational Burnout sind messbar, aber manche schon - 6 Diagnose nach Selbsterkenntnis - 7 Typische Versuche der Eigentherapie - 8 Therapie des Organizational Burnout - 9 Rehabilitation nach einem Organizational Burnout - 10 Prävention gegen das Organizational Burnout.

Fields of interest
Business Strategy/Leadership

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

2012. XV, 253 S. Hardcover
34,53 €
ISBN 978-3-8349-4106-0

Praxishandbuch Corporate Magazines
Print - Online - Mobile


Features
Corporate Magazines sind Botschafter: Je besser Inhalte und Umsetzung, desto besser nachweislich auch die Marketingwirkung. Der Anspruch der Herausgeber war es, ein Standardwerk zu schaffen, das alle Aspekte des Corporate Publishing im Magazinbereich beleuchtet ob Print, online oder mobil. Im Werk kommen Spezialisten, Wissenschaftler und Fachautoren aus Verlagen und Agenturen ebenso zu Wort, wie Experten aus [...]
Prozessmanagement individuell umgesetzt

Erfolgsbeispiele aus 15 privatwirtschaftlichen und öffentlichen Organisationen

Nicht nur für Unternehmen der Privatwirtschaft, sondern auch für öffentliche Institutionen ist Prozessmanagement nach wie vor ein aktuelles Thema. Das theoretische Handwerkszeug dafür ist weitgehend vorhanden, die eigentliche Herausforderung besteht nun darin, die Theorie in die Praxis zu übertragen. Es gilt maßgeschneiderte Lösungen zu entwickeln, die den Anforderungen des jeweiligen spezifischen Organisationskontextes auch gerecht werden. Nur so kann Prozessmanagement einen echten Mehrwert bringen. Wie vielfältig die individuellen Lösungsansätze sein können, und wie der Bezugsrahmen Prozessmanagement mit Leben gefüllt werden kann, wird in aktuellen Fallstudien belegt. Präsentiert werden nicht nur klassische Industrieunternehmen, sondern auch Dienstleister, öffentliche Institutionen und ein Verband. Neben der konkreten Ausgestaltung des spezifischen Prozessmanagementansatzes in Bezug auf seine Bausteine, Methoden und Instrumente gehen die Beiträge detailliert auf die gewählte Vorgehensweise bei der […]

Features

Nicht nur für Unternehmen der Privatwirtschaft, sondern auch für öffentliche Institutionen ist Prozessmanagement nach wie vor ein aktuelles Thema. Das theoretische Handwerkszeug dafür ist weitgehend vorhanden, die eigentliche Herausforderung besteht nun darin, die Theorie in die Praxis zu übertragen. Es gilt maßgeschneiderte Lösungen zu entwickeln, die den Anforderungen des jeweiligen spezifischen […]

Contents


Fields of interest

Organisation / Planning; Project Management; Non-Profit Enterprises/Corporate Social Responsibility

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.

2012. VIII, 283 S. 98 Abb. Hardcover

46,68 €
ISBN 978-3-642-29780-9

Quantitative Marketing and Marketing Management

Marketing Models and Methods in Theory and Practice

Quantitative marketing has been gaining importance during the last decade. This is indicated by the growing number of model- and method-oriented studies published in leading journals as well as by the many successful applications of quantitative approaches in pricing, advertising, new product planning, and market segmentation decisions. In addition, market research has clearly benefited from applying advanced quantitative models and methods in practice. Some 60 researchers – among them worldwide leading scholars – offer a broad overview of quantitative approaches in marketing. They not only highlight diverse mathematical and methodological perspectives, but also demonstrate the relevance and practical consequences of applying quantitative approaches to marketing problems.

Features

Quantitative marketing has been gaining importance during the last decade. This is indicated by the growing number of model- and method-oriented studies published in leading journals as well as by the many successful applications of quantitative approaches in pricing, advertising, new product planning, and market segmentation decisions. In addition, market research has clearly benefited from applying […]

Contents


Fields of interest

Finance / Banking; Entrepreneurship; Quantitative Finance

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.

2012. XIV, 298 p. 70 illus. (Springer Texts in Business and Economics) Hardcover

79,95 €
ISBN 978-3-642-23526-9
R. A. Schwartz, J. A. Byrne, G. Schneer (Eds.)

Rethinking Regulatory Structure

Three dominant forces worldwide are driving change today in our financial markets: competition, technology and regulation. But their collective impact in reshaping the markets, though they may be viewed individually as desirable or well-intentioned, is producing challenging results that are difficult to predict, hard to control and not easy to understand. Extreme market turbulence has underlined the key issues as much attention turns to the appropriate regulatory response. That is the backdrop for this thought-provoking book, emerging from a Baruch College Conference on equity market structure in the aftermath of the global financial crisis, and featuring contributions from an acclaimed panel of international scholars, policymakers, regulators, and industry leaders. The result presents emerging perspective and ideas that illuminate the dynamics of financial regulation today and into the future. The Zicklin School of Business Financial Markets Series presents the insights emerging from a[...]

Features

Three dominant forces worldwide are driving change today in our financial markets: competition, technology and regulation. But their collective impact in reshaping the markets, though they may be viewed individually as desirable or well-intentioned, is producing challenging results. They are difficult to predict, hard to control and not easy to understand. Extreme market turbulence has underlined the key issues as much attention turns to the appropriate regulatory response. That is the backdrop for this thought-provoking book, emerging from a Baruch College Conference on equity market structure in the aftermath of the global financial crisis, and featuring contributions from an acclaimed panel of international scholars, policymakers, regulators, and industry leaders. The result presents emerging perspective and ideas that illuminate the dynamics of financial regulation today and into the future. The Zicklin School of Business Financial Markets Series presents the insights emerging from a[...]

Contents


Fields of interest

Business & Management Science; Business Information Systems; Finance / Banking

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

B. Anda, Hannover; S. Endris, München; J. Kalka, München; S. Lobo, Berlin (Eds.)

SignsBook - Zeichen setzen in der Kommunikation


Features

Von der Facebook-Revolution bis zur Infomünsetzung: Können wir uns in Zukunft überhaupt noch miteinander verständigen in einer zunehmend zersplitterten, alles überflutenden Kommunikationswelt? Welche Chancen und Potenziale ergeben sich aus diesem Umbruch? Im SignsBook diskutieren prominente Marketing- und Kommunikationsexperten, wie die Zukunft der Kommunikation angesichts zunehmender Veränderungen[...]

Contents

Das Ende der etablierten Zentralorgane: Wie klassische Medien auf ihren Autoritätsverlust reagieren.- Die Mobilisierung der Massen, die sich notwendigerweise an Werten wie Nachhaltigkeit, Authentizität und Gläubigartigkeit orientiert und dabei[...]

Fields of interest

Media Management; Marketing; Public Relations

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012, L, 275 S. 10 Abb. Hardcover

G. Calcagnini, Universität di Urbino “Carlo Bo”, Italy; I. Favaretto, Universität di Urbino “Carlo Bo”, Italy (Eds.)

Small Businesses in the Aftermath of the Crisis

International Analyses and Policies

This book seeks to analyze how small and medium businesses react to the economic and financial crisis. Its focus is on the activities and strategies of SMEs in the areas of innovation, R&D investment, labor markets and finance. The book takes an international perspective and includes both comparative and national analyses and policies, with authors representing academia and international institutions such as the ECB, OECD, Kauffman Foundation, Federal Reserve, and US Small Business Administration.

Features

This book seeks to analyze how small and medium businesses react to the economic and financial crisis. Its focus is on the activities and strategies of SMEs in the areas of innovation, R&D investment, labor markets and finance. The book takes an international perspective and includes both comparative and national analyses and policies, with authors representing academia and international institutions such[...]

Contents


Fields of interest

Entrepreneurship; Industrial Organization; R & D / Technology Policy; Regional Science; Finance / Banking

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.

2012, XXII, 251 p. 72 illus. (Contributions to Economics) Hardcover

99,95 €

ISBN 978-3-7908-2851-1


**Spirituelle Führung**

Anleitung zum Selbstcoaching Mit einem Methoden ABC


**Features**

**Contents**
- Spiritualität ist eine Balance im Fragen, nicht im Wissen. - Mentoring als spirituelle Führung. - Führung durch achtsames Sprechen. - Die Dementoren des Spirituellen. - Führung durch achtsames Sprechen.

**Fields of interest**
- Personnelführung; Management/Business for Professionals; Business Strategy/Leadership

**Type of publication**
Professional book

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

2012. XI, 138 S. 5 Abb. Softcover

32,66 € ISBN 978-3-8349-3977-7

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**Steuerung durch Regeln**

Managementforschung 22


**Features**

**Contents**

**Fields of interest**
- Personnelführung; Management/Business for Professionals; Business Strategy/Leadership

**Type of publication**
Professional book

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

2012. XI, 248 S. 26 Abb. (Managementforschung) Softcover

65,37 € ISBN 978-3-8349-4348-4

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**Syndizierung von Venture-Capital-Investitionen**

Eine Analyse der Zusammenhänge mit dem Beteiligungserfolg


**Features**
Investitionen in Start-ups sind mit teils erheblichen Markt-, Technologie- und Unternehmensrisiken verbunden. Um diesen Risiken zu begegnen, haben die auf Finanzierung von Wachstumsunternehmen spezialisierten Venture-Capital-Gesellschaften diverse Maßnahmen entwickelt, darunter auch die Syndizierung. Inwieweit solche gemeinsamen Investments in Deutschland ansässig Wagniskapitalgeber auch mit einem […]

**Contents**
- Venture Capital - Syndizierung - Beteiligungserfolg - Investition - Start-up Deutschland

**Fields of interest**
- Business Information Systems

**Target groups**
- Research

**Type of publication**
Monograph

**Online orders shipping within 2-3 days.**

2012. XXIII, 378 S. 42 Abb. (Schriften zum europäischen Management) Softcover

56,03 € ISBN 978-3-8349-4346-0
Wertschöpfungsorientierte Organisation

Architekturen – Prozesse – Strukturen


Features

Contents
Wertschöpfung als zentrales Ziel von Unternehmensführung.
- Grundlagen wertschöpfungsorientierter Organisationsgestaltung.
- Wertschöpfungsarchitekturen.
- Wertschöpfungsprozesse.

Fields of interest
Organization / Planning; Management/Business for Professionals

Target groups
Upper undergraduate

Type of publication
German textbook

Online orders shipping within 2-3 days.

2012. XVII, 395 S. 163 Abb. Softcover
32,66 €
ISBN 978-3-8349-4352-1

Zur strategischen Integration der Personalabteilung
Eine erweiterte strukturationstheoretische Betrachtung


Features

Contents
Theoretische Grundlagen und praktische Umsetzung der strategischen Integration.
- Strukturationstheoretische Analyse der Besonderheiten der Personalarbeit und deren Einflussfaktoren auf die Position von Personalabteilungen.
- Implikationen für die Gestaltung des Positionierungsprozesses.

Fields of interest
Business & Management Science

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. XV, 230 S. 32 Abb. (Schriften zur Unternehmensentwicklung) Softcover
46,68 €
ISBN 978-3-8349-4352-1
Informelles Lernen im Spiegel des Weiterbildungsmonitorings


Features
Trotz der zunehmenden - vor allem bildungspolitisch geprägten - Bedeutungszuschreibung des informellen Lernens als relevante Form der Bildungsbeteiligung Erwachsener, liegen in und für Deutschland aktuell keine Längsschnitt- oder Trendanalysen zur tatsächlichen Beteiligung vor. Auf der Grundlage der Scientific-Use-Files der Querschnitterhebungen 1994-2007 des Berichtssystems Weiterbildung (BSW) wurden für [...]
A Tribute to Prof. Dr. Da Ruan

This volume is a tribute to Professor Dr Da Ruan, who passed away suddenly on July 31, 2011, aged 50. The flood of emails that spread throughout the fuzzy logic research community with the tragic news was testimony to the respect and liking felt for this remarkable man. Da was a hardworking, highly productive scientist who, during his short life, published 35 books and more than 250 research papers in highly ranked journals and conference proceedings. He established two successful conferences, FLINS and ISKE, as well as the international journal, JCBS. This book is a collection of contributions from 88 of Da’s academic friends from 47 institutes, presented in 60 chapters and over 70 pictures. A Foreword by Lotfi Zadeh begins Da’s story. Section 1 provides an overview of Da’s funeral on August 6, 2011. Part II outlines Da’s scientific life, his education, scientific career, publications and keynote talks. Part III presents testimonials by Da’s colleagues of academic activities, including guest[...]

Features
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Contents
Part I: The Ceremony for Da.- Part II: Da’s Scientific Life.- Part III: Da’s Academic Activities.- Part IV: Thoughts by Da Ruan’s Colleagues and Friends.

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

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013, XXVIII, 264 p. 99 illus. Hardcover

99,95 €
ISBN 978-3-642-30306-7

Advanced Color Image Processing and Analysis

This volume does much more than survey modern advanced color processing. Starting with a historical perspective on ways we have classified color, it sets out the latest numerical techniques for analyzing and processing colors, the leading edge in our search to accurately record and print what we see. The human eye perceives only a fraction of available light wavelengths, yet we live in a multicolor world of myriad shining hues. Colors rich in metaphorical associations make us “purple with rage” or “green with envy” and cause us to “see red.” Defining colors has been the work of centuries, culminating in today’s complex mathematical coding that nonetheless remains a work in progress: only recently have we possessed the computing capacity to process the algebraic matrices that reproduce color more accurately. With chapters on dihedral color and image spectrometers, this book provides technicians and researchers with the knowledge they need to grasp the intricacies of today’s color imaging.

Features
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Contents

Fields of interest
Signal, Image and Speech Processing; Computer Imaging, Vision, Pattern Recognition and Graphics; Visualization

Target groups
Professional/practitioner

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013, VIII, 515 p. 222 illus., 162 in color. Hardcover

129,95 €
ISBN 978-1-4419-6189-1

Advanced Control of Wheeled Inverted Pendulum Systems

Advanced Control of Wheeled Inverted Pendulum Systems is an orderly presentation of recent ideas for overcoming the complications inherent in the control of wheeled inverted pendulum (WIP) systems, in the presence of uncertain dynamics, nonholonomic kinematic constraints as well as underactuated configurations. The text leads the reader in a theoretical exploration of problems in kinematics, dynamics modeling, advanced control design techniques and trajectory generation for WIPs. An important concern is how to deal with various uncertainties associated with the nominal model, WIPs being characterized by unstable balance and unmodelled dynamics and being subject to time-varying external disturbances for which accurate models are hard to come by. The book is self-contained, supplying the reader with everything from mathematical preliminaries and the basic Lagrange-Euler-based derivation of dynamics equations to various advanced motion control and force control approaches as well as trajectory[...]

Features
Advanced Control of Wheeled Inverted Pendulum Systems is an orderly presentation of recent ideas for overcoming the complications inherent in the control of wheeled inverted pendulum (WIP) systems, in the presence of uncertain dynamics, nonholonomic kinematic constraints as well as underactuated configurations. The text leads the reader in a theoretical exploration of problems in[...]

Contents

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

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013, XIV, 218 p. 97 illus., 26 in color. Hardcover

99,95 €
Advanced Energy Saving and its Applications in Industry

The conventional approach for energy saving in a process system is to maximize heat recovery without changing any process conditions by using pinch technology. “Self-heat recuperation technology” was developed to achieve further energy saving in the process system by eliminating the necessity for any external heat input, such as firing or imported steam. Advanced Energy Saving and its Applications in Industry introduces the concept of self-heat recuperation and the application of such technology to a wide range of processes from heavy chemical complexes to other processes such as drying and gas separation processes, which require heating and cooling during operation. Conventional energy saving items in a utility system are applied and implemented based on a single site approach, however, when looking at heavy chemical complexes, it was apparent that the low-grade heat discharged as waste from a refinery could also be used in an adjacent petrochemical plant. There could therefore be a large energy saving.

Features

The conventional approach for energy saving in a process system is to maximize heat recovery without changing any process conditions by using pinch technology. “Self-heat recuperation technology” was developed to achieve further energy saving in the process system by eliminating the necessity for any external heat input, such as firing or imported steam. Advanced Energy Saving and its Applications in Industry introduces the concept of self-heat recuperation and the application of such technology to a wide range of processes from heavy chemical complexes to other processes such as drying and gas separation processes, which require heating and cooling during operation. Conventional energy saving items in a utility system are applied and implemented based on a single site approach, however, when looking at heavy chemical complexes, it was apparent that the low-grade heat discharged as waste from a refinery could also be used in an adjacent petrochemical plant. There could therefore be a large energy saving.

Contents


Fields of interest

Renewable and Green Energy; Energy Systems; Industrial and Production Engineering

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

Advanced Finite Element Methods and Applications

This volume on some recent aspects of finite element methods and their applications is dedicated to Ulrich Langer and Arnd Meyer on the occasion of their 60th birthdays in 2012. Their work combines the numerical analysis of finite element algorithms, their efficient implementation on state of the art hardware architectures, and the collaboration with engineers and practitioners. In this spirit, this volume contains contributions of former students and collaborators indicating the broad range of their interests in the theory and application of finite element methods. Topics cover the analysis of domain decomposition and multilevel methods, including hp finite elements, hybrid discontinuous Galerkin methods, and the coupling of finite and boundary element methods; the efficient solution of eigenvalue problems related to partial differential equations with applications in electrical engineering and optics; and the solution of direct and inverse field problems in solid mechanics.

Features

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Contents

Advances in Computing and Information Technology


The international conference on Advances in Computing and Information Technology (ACITY 2012) provides an excellent international forum for both academics and professionals for sharing knowledge and results in theory, methodology and applications of Computer Science and Information Technology. The Second International Conference on Advances in Computing and Information technology (ACITY 2012), held in Chennai, India, during July 13-15, 2012, covered a number of topics in all major fields of Computer Science and Information Technology including: networking and communications, network security and applications, web and internet computing, ubiquitous computing, algorithms, bioinformatics, digital image processing and pattern recognition, artificial intelligence, soft computing and applications. Upon a strength review process, a number of high-quality, presenting not only innovative ideas but also a founded evaluation and a strong argumentation of the same, were selected and collected in the present(...)

Features
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Contents
Network Security and Applications.- Networks and Communications.- Wireless and Mobile Networks.- Peer-to-Peer Networks and Trust Management.- Networks and Communications.

Fields of interest
Computational Intelligence; Electrical Engineering; Computer Applications; Image Processing and Computer Vision

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


299,00 €
ISBN 978-3-642-31512-1

Advances in Intelligent Modelling and Simulation

Artificial Intelligence-Based Models and Techniques in Scalable Computing

One of the most challenging issues in today’s large-scale computational modeling and design is to effectively manage the complex distributed environments, such as computational clouds, grids, ad hoc, and P2P networks operating under various types of users with evolving relationships fraught with uncertainties. In this context, the IT resources and services usually belong to different owners (institutions, enterprises, or individuals) and are managed by different administrators. Moreover, uncertainties are presented to the system at hand in various forms of information that are incomplete, imprecise, fragmentary, or overloading, which hinders in the full and precise resolve of the evaluation criteria, subsequencing and selection, and the assignment scores. Intelligent scalable systems enable the flexible routing and charging, advanced user interactions and the aggregation and sharing of geographically-distributed resources in modern large-scale systems. This book presents new ideas, theories, [...] Features
One of the most challenging issues in today’s large-scale computational modeling and design is to effectively manage the complex distributed environments, such as computational clouds, grids, ad hoc, and P2P networks operating under various types of users with evolving relationships fraught with uncertainties. In this context, the IT resources and services usually belong to different owners [...] Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. XXIV, 384 p. 148 illus. (Studies in Computational Intelligence, Vol. 422) Hardcover

129,95 €
ISBN 978-3-642-30153-7

Applications of Chaos and Nonlinear Dynamics in Science and Engineering - Vol. 2

Chaos and nonlinear dynamics initially developed as a new emergent field with its foundation in physics and applied mathematics. The highly generic, interdisciplinary 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 the quantitative modeling and analysis of complex, nonlinear phenomena are required, chaos theory and its methods can play a key role. This second 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, topics such as the spread of epidemics; electronic circuits; chaos control in mechanical devices; secure communication; and digital watermarking. Featuring contributions from active and leading research groups, this collection is ideal both as a reference work and as a ‘recipe book’ full of tried and tested(...) Features
Chaos and nonlinear dynamics initially developed as a new emergent field with its foundation in physics and applied mathematics. The highly generic, interdisciplinary 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 the quantitative modeling and analysis of complex, nonlinear phenomena are [...] Contents

Fields of interest
Vibration, Dynamical Systems, Control; Nonlinear Dynamics; Appl. Mathematics / Computational Methods of Engineering; Communications Engineering, Networks

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. X, 270 p. 188 illus. (Understanding Complex Systems) Hardcover

129,95 €
ISBN 978-3-642-29328-3
Bauwerksabdichtung in der Altbausanierung

Verfahren und juristische Betrachtungsweise


Contents

Entwicklung der Bauwerksabdichtung.- Denkmalpflegerische Aspekte.- Bauphysikalische Grundlagen.- Geotechnische Grundlagen.- Baudiagnose und Geräte.- Sanierungskonzept und Bauteiltrocknung.- Injektionen, […]

Fields of interest

Civil Engineering; Building Repair and Maintenance

Target groups

Professional/practitioner

Type of publication

Professional book

Online orders shipping within 2-3 days.

2012. XVI, 714 S. 326 Abb. Hardcover

60,70 €

ISBN 978-3-8348-0876-9

Complex Systems and Dependability

Typical contemporary complex system is a multifaceted amalgamation of technical, information, organization, software and human (users, administrators and management) resources. Complexity of such a system comes not only from its involved technical and organizational structure but mainly from complexity of information processes that must be implemented in the operational environment (data processing, monitoring, management, etc.). In such case traditional methods of reliability analysis focused mainly on technical level are usually insufficient in performance evaluation and more innovative methods of dependability analysis must be applied which are based on multidisciplinary approach to theory, technology and maintenance of systems operating in real (and very often unfriendly) environments. This monograph presents selected new developments in such areas of dependability research as system modelling, tools and methodologies for system analysis, data security, secure system design and specific…[…]

Features

Typical contemporary complex system is a multifaceted amalgamation of technical, information, organization, software and human (users, administrators and management) resources. Complexity of such a system comes not only from its involved technical and organizational structure but mainly from complexity of information processes that must be implemented in the operational environment (data processing, […]

Contents


Fields of interest

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

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


139,95 €

ISBN 978-3-642-30661-7

Computing with Words

Principal Concepts and Ideas

In essence, Computing with Words (CWW) is a system of computation in which the objects of computation are predominantly words, phrases and propositions drawn from a natural language. CWW is based on fuzzy logic. In science there is a deep-seated tradition of according much more respect to numbers than to words. In a fundamental way, CWW is a challenge to this tradition. What is not widely recognized is that, today, words are used in place of numbers in a wide variety of applications ranging from digital cameras and household appliances to fraud detection systems, biomedical instrumentation and subway trains. CWW offers a unique capability—the capability to precisiate natural language. Unprecisiated (raw) natural language cannot be computed with. A key concept which underlies precisiation of meaning is that of the meaning postulate: A proposition, p, is a restriction on the values which a variable, X—a variable which is implicit in p—is allowed to take. CWW has an important ramification for […]

Features

In essence, Computing with Words (CWW) is a system of computation in which the objects of computation are predominantly words, phrases and propositions drawn from a natural language. CWW is based on fuzzy logic. In science there is a deep-seated tradition of according much more respect to numbers than to words. In a fundamental way, CWW is a challenge to this tradition. What is not widely recognized is […]

Contents

From the content: What Is Computing With Words.- Essence Of CWW.- Basic Structure Of CWW.- Phases Of CWW.- Levels Of Complexity In CWW.- Imprecisiation Of Natural Languages And Fuzzy Logic.— Principal Rationales For Computing With Words.

Fields of interest

Computational Intelligence; Mathematical Logic and Formal Languages

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


99,95 €

ISBN 978-3-642-27472-5
Dynamic Reconfiguration in Real-Time Systems

Energy, Performance, and Thermal Perspectives

Given the widespread use of real-time multitasking systems, there are tremendous optimization opportunities if reconfigurable computing can be effectively incorporated while maintaining performance and other design constraints of typical applications. The focus of this book is to describe the dynamic reconfiguration techniques that can be safely used in real-time systems. This book provides comprehensive approaches by considering synergistic effects of computation, communication as well as storage together to significantly improve overall performance, power, energy and temperature.

Features

Given the widespread use of real-time multitasking systems, there are tremendous optimization opportunities if reconfigurable computing can be effectively incorporated while maintaining performance and other design constraints of typical applications. The focus of this book is to describe the dynamic reconfiguration techniques that can be safely used in real-time systems. This book provides comprehensive [...]
Evolutionary Hierarchical Multi-Criteria Metaheuristics for Scheduling in Large-Scale Grid Systems

One of the most challenging issues in modelling today's large-scale computational systems is to effectively manage highly parametrised distributed environments such as computational grids, clouds, ad hoc networks and P2P networks. Next-generation computational grids must provide a wide range of services and high performance computing infrastructures. Various types of information and data processed in the large-scale dynamic grid environment may be incomplete, imprecise, and fragmented, which complicates the specification of proper evaluation criteria and which affects both the availability of resources and the final collective decisions of users. The complexity of architectures and grid management may also contribute towards higher energy consumption. All of these issues necessitate the development of intelligent resource management techniques, which are capable of capturing all of this complexity and optimising meaningful metrics for a wide range of grid applications. This book covers both [...] Features

One of the most challenging issues in modelling today's large-scale computational systems is to effectively manage highly parametrised distributed environments such as computational grids, clouds, ad hoc networks and P2P networks. Next-generation computational grids must provide a wide range of services and high performance computing infrastructures. Various types of information and data processed in [...] Contents

Scheduling Problems in Grid Computing.- Multi-Level Genetic-Based Hierarchical Grid Schedulers.- Security-Driven Scheduling Model for Computational Grid using Multi-level Genetic Metaheuristics.- Genetic Solutions to Green Scheduling in Computational Grids.

Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XXVIII, 192 p. 44 illus. (Studies in Computational Intelligence, Vol. 419) Hardcover

99,95 €
ISBN 978-3-642-28970-5

Finite-Elemente-Methode

Rechnergestützte Einführung


Dieses moderne Lehrbuch ermöglicht aufgrund der ausführlichen Darstellung, der rechnergestützten Form und vieler Beispiele einen einfachen Einstieg in die Finite-Elemente-Methode (FEM). Nach einer Einführung in die mathematischen Grundlagen behandelt der Autor das Verfahren von Ritz und Probleme der Elastostatik. Im Bereich der Dynamik formuliert er das Schwingungsverhalten verschiedener Elemente ebenso wie [...] Contents


Fields of interest

Theoretical and Applied Mechanics; Computational Mathematics and Numerical Analysis

Target groups

Upper undergraduate

Type of publication

German textbook

Usually dispatched within 3 to 5 business days.

2012. XVI, 443 S. 204 Abb. Mit online files/update. Softcover

37,34 €
ISBN 978-3-642-29505-8

Frequency Domain Criteria for Absolute Stability

A Delay-integral-quadratic Constraints Approach

Frequency Domain Criteria for Absolute Stability focuses on recently developed methods of delay-integral-quadratic constraints to provide criteria for absolute stability of nonlinear control systems. The known or assumed properties of the system are the basis from which stability criteria are developed. Through these methods, many classical results are naturally extended, particularly to time-periodic but also to nonstationary systems. Mathematical prerequisites including Lebesgue-Stieltjes measures and integration are first explained in an informal style with technically more difficult proofs presented in separate sections that can be omitted without loss of continuity. The results are presented in the frequency domain – the form in which they naturally tend to arise. In some cases, the frequency-domain criteria can be converted into computationally tractable linear matrix inequalities but in others, especially those with a certain geometric interpretation, inferences concerning stability can be [...] Features

Frequency Domain Criteria for Absolute Stability focuses on recently developed methods of delay-integral-quadratic constraints to provide criteria for absolute stability of nonlinear control systems. The known or assumed properties of the system are the basis from which stability criteria are developed. Through these methods, many classical results are naturally extended, particularly to time-periodic but also [...] Contents


Fields of interest

Control; Systems Theory, Control

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2013. X, 142 p. 13 illus. (Lecture Notes in Control and Information Sciences, Vol. 432) Softcover

79,95 €
ISBN 978-1-4471-4233-1
**Future Control and Automation**

Proceedings of the 2nd International Conference on Future Control and Automation (ICFCA 2012) - Volume 2

This volume Future Control and Automation - Volume 2 includes best papers from 2012 2nd International Conference on Future Control and Automation (ICFCA 2012) held on July 1-2, 2012, Changsha, China. Future control and automation is the use of control systems and information technologies to reduce the need for human work in the production of goods and services. This volume can be divided into six sessions on the basis of the classification of manuscripts considered, which is listed as follows: Mathematical Modeling, Analysis and Computation, Control Engineering, Reliable Networks Design, Vehicular Communications and Networking, Automation and Mechatronics.

**Features**

This volume Future Control and Automation - Volume 2 includes best papers from 2012 2nd International Conference on Future Control and Automation (ICFCA 2012) held on July 1-2, 2012, Changsha, China. Future control and automation is the use of control systems and information technologies to reduce the need for human work in the production of goods and services. This volume can be divided into six sessions on the basis of the classification of manuscripts considered, which is listed as follows: Mathematical Modeling, Analysis and Computation, Control Engineering, Reliable Networks Design, Vehicular Communications and Networking, Automation and Mechatronics.

**Fields of interest**

Robotics and Automation; Control; Electrical Engineering

**Target groups**

Research

**Type of publication**

Proceedings

*Usually dispatched within 3 to 5 business days.*

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**Fuzzy Engineering and Operations Research**

"Fuzzy Engineering and Operations Research" is the edited outcome of the 5th International Conference on Fuzzy Information and Engineering (ICFIE2011) held during Oct. 15-17, 2011 in Chengdu, China and by the 1st academic conference in establishment of Guangdong Province Operations Research Society (GDORSC) held on Oct. 20, 2011 in Guangzhou, China. The 5th ICFIE2011, built on the success of previous conferences, and the GDORSC, first held, are major Symposiums, respectively, for scientists, engineers practitioners and Operation Research (OR) researchers presenting their updated results, developments and applications in all areas of fuzzy information and engineering and OR. It aims to strengthen relations between industry research laboratories and universities, and to create a primary symposium for world scientists in Fuzzyology and OR fields. The book contains 62 papers and is divided into five main parts: "Fuzzy Optimization, Logic and Information", "The mathematical Theory of Fuzzy Systems", [..]

**Features**

"Fuzzy Engineering and Operations Research" is the edited outcome of the 5th International Conference on Fuzzy Information and Engineering (ICFIE2011) held during Oct. 15-17, 2011 in Chengdu, China and by the 1st academic conference in establishment of Guangdong Province Operations Research Society (GDORSC) held on Oct. 20, 2011 in Guangzhou, China. The 5th ICFIE2011, built on the success of previous [..]

**Contents**

Mathematical Modeling, Analysis and Computation; Control Engineering; Reliable Networks Design; Vehicular Communications and Networking; Automation and Mechatronics.

**Fields of interest**

Robotics and Automation; Control; Electrical Engineering

**Target groups**

Research

**Type of publication**

Proceedings

*Usually dispatched within 3 to 5 business days.*

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**Grid Integration and Dynamic Impact of Wind Energy**

Grid Integration and Dynamic Impact of Wind Energy details the integration of wind energy resources to the electric grid worldwide. Authors Vijay Vittal and Raja Ayyanar include detailed coverage of the power converters and control used in interfacing electric machines and power converters used in wind generators, and extensive descriptions of power systems operation and control to accommodate large penetration of wind energy resources. Key concepts will be illustrated through extensive power electronics and power systems simulations using software like MATLAB, Simulink and PLECS. The book addresses real world problems and solutions in the area of grid integration of wind resources, and will be a valuable resource for engineers and researchers working in renewable energy and power.

**Features**

Grid Integration and Dynamic Impact of Wind Energy details the integration of wind energy resources to the electric grid worldwide. Authors Vijay Vittal and Raja Ayyanar include detailed coverage of the power converters and control used in interfacing electric machines and power converters used in wind generators, and extensive descriptions of power systems operation and control to accommodate large [..]

**Contents**

Introduction; Power Electronics Concepts; Power Converter Topologies for Grid Interface of Wind Energy; Control of Wind Generators; Dynamic Models for Wind Generators; Impact of Increased Penetration of DFIG Wind Generators on System Dynamic Performance.

**Fields of interest**

Energy Technology; Renewable and Green Energy; Power Electronics, Electrical Machines and Networks; Energy (general)

**Target groups**

Research

**Type of publication**

Monograph

*Usually dispatched within 3 to 5 business days.*

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Group Cell Architecture for Cooperative Communications

Driven by the increasing demand for capacity and Quality of Service in wireless cellular networks and motivated by the distributed antenna system, the authors proposed a cooperative communication architecture—Group Cell architecture, which was initially brought forward in 2001. Years later, Coordinated Multiple-Point Transmission and Reception (CoMP) for LTE-Advanced was put forward in April 2008, as a tool to improve the coverage of cells having high data rates, the cell-edge throughput and/or to increase system throughput. This book mainly focuses on the Group Cell architecture with multi-cell generalized coordination, Contrast Analysis between Group Cell architecture and CoMP, Capacity Analysis, Slide Handover Strategy, Power Allocation schemes of Group Cell architecture to mitigate the inter-cell interference and maximize system capacity and the trial network implementation and performance evaluations of Group Cell architecture.

Features

Contents

Fields of interest
Communications Engineering, Networks; Computer Communication Networks; Electrical Engineering; Renewable and Green Energy; Coding and Information Theory

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2012. XV, 92 p. 58 illus. (SpringerBriefs in Computer Science) Softcover
49,95 € ISBN 978-1-4614-4318-6

Guidelines for Applying Cohesive Models to the Damage Behaviour of Engineering Materials and Structures

This brief provides guidance for the application of cohesive models to determine damage and fracture in materials and structural components. This can be done for configurations with or without a pre-existing crack. Although the brief addresses structural behaviour, the methods described herein may also be applied to any deformation induced material damage and failure, e.g. those occurring during manufacturing processes. The methods described are applicable to the behaviour of ductile metallic materials and structural components made thereof. Hints are also given for applying the cohesive model to other materials.

Features
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Image-Based Geometric Modeling and Mesh Generation

As a new interdisciplinary research area, “image-based geometric modeling and mesh generation” integrates image processing, geometric modeling and mesh generation with finite element method (FEM) to solve problems in computational biomechanics, materials sciences and engineering. It is well-known that FEM is currently well-developed and efficient, but mesh generation for complex geometries (e.g., the human body) still takes about 80% of the total calculation time and is the major obstacle to reduce the total calculation time. It is mainly because none of the traditional approaches is sufficient to effectively construct finite element meshes for arbitrarily complicated domains, and generally a great deal of manual interaction is involved in mesh generation. This contributed volume, the first for such an interdisciplinary topic, collects the latest research by experts in this area. These papers cover a broad range of topics, including medical imaging, image alignment and segmentation, image-to-mesh...[1]

Features
As a new interdisciplinary research area, “image-based geometric modeling and mesh generation” integrates image processing, geometric modeling and mesh generation with finite element method (FEM) to solve problems in computational biomechanics, materials sciences and engineering. It is well-known that FEM is currently well-developed and efficient, but mesh generation for complex geometries (e.g., the human [...] contents

Contents

Implementing Software Defined Radio
Software Defined Radio makes wireless communications easier, more efficient, and more reliable. This book bridges the gap between academic research and practical implementation. When beginning a project, practicing engineers, technical managers, and graduate students can save countless hours by considering the concepts presented in these pages. The author covers the myriad options and trade-offs available when selecting an appropriate hardware architecture. As demonstrated here, the choice between hardware- and software-centric architecture can mean the difference between meeting an aggressive schedule and bogging down in endless design iterations. Because of the author’s experience overseeing dozens of failed and successful developments, he is able to present many real-life examples. Some of the key concepts covered are: Choosing the right architecture for the market – laboratory, military, or commercial hardware platforms – FPGAs, GPPs, specialized and hybrid devices. Standardization efforts to ensure [...] contents

Features
Software Defined Radio makes wireless communications easier, more efficient, and more reliable. This book bridges the gap between academic research and practical implementation. When beginning a project, practicing engineers, technical managers, and graduate students can save countless hours by considering the concepts presented in these pages. The author covers the myriad options and trade-offs available ...

Fields of interest
Mechanical Engineering; Computational Science and Engineering; Biomedical Engineering target groups
Research
Type of publication
Monograph
Usually dispatched within 3 to 5 business days.

2013, XVIII, 267 p. 155 illus. Hardcover
99,95 €
ISBN 978-1-4419-9331-1
Insulation Measurement and Supervision in Live AC and DC Unearthed Systems

Low voltage unearthed (IT) AC and DC systems are commonly applied for supply of power and control circuits in industry, transportation, medical objects etc. The main reasons for their use are high reliability and numerous advantages offered by isolating them against ground. Insulation level is a decisive factor for networks operational reliability and safety. Insufficient insulation-to-ground resistance can cause various disturbances. Though ground faults in IT systems do not make networks operation impossible, they may cause severe problems with their safe functioning. In this book the most important issues concerning normal operation and ground fault phenomena are described in concise form. Numerous methods of insulation resistance and capacitance measurement in live circuits are presented. Important other procedures of these parameters determination based on measurement and calculation are explained and reviews of selected insulation resistance measurement devices as well as earth fault locating are given. [..]

Features
Low voltage unearthed (IT) AC and DC systems are commonly applied for supply of power and control circuits in industry, transportation, medical objects etc. The main reasons for their use are high reliability and numerous advantages offered by isolating them against ground. Insulation level is a decisive factor for networks operational reliability and safety. Insufficient insulation-to-ground resistance can .....

Integral Biomathics

Perhaps the most distinct question in science throughout the ages has been the one of perceivable reality, treated both in physics and philosophy. Reality is acting upon us, and we, and life in general, are acting upon reality. Potentiality, found both in quantum reality and in the activity of life, plays a key role. In quantum reality observation turns potentiality into reality. Again, life computes possibilities in various ways based on past actions, and acts on the basis of these computations. This book is about a new approach to biology (and physics, of course!). Its subtitle suggests a perpetual movement and interplay between two elusive aspects of modern science — reality/matter and potentiality/mind, between physics and biology — both captured and triggered by mathematics — to understand and explain emergence, development and life all the way up to consciousness. But what is the real/potential difference between living and non-living matter? How does time in potentiality differ from time in.....

Features
Perhaps the most distinct question in science throughout the ages has been the one of perceivable reality, treated both in physics and philosophy. Reality is acting upon us, and we, and life in general, are acting upon reality. Potentiality, found both in quantum reality and in the activity of life, plays a key role. In quantum reality observation turns potentiality into reality. Again, life is acting upon.....

Contents

Fields of interest
Electronics and Microelectronics, Instrumentation; Electrical Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. XXIV, 432 p. 44 illus. Hardcover
129,95 €
ISBN 978-3-642-28110-5

Interference Cancellation Using Space-Time Processing and Precoding Design

Interference Cancellation Using Space-Time Processing and Precoding Design introduces original design methods to achieve interference cancellation, low-complexity decoding and full diversity for a series of multi-user systems. In multi-user environments, co-channel interference will diminish the performance of wireless communications systems. In this book, we investigate how to design robust space-time codes and pre-coders to suppress the co-channel interference when multiple antennas are available. This book offers a valuable reference work for graduate students, academic researchers and engineers who are interested in interference cancellation in wireless communications. Rigorous performance analysis and various simulation illustrations are included for each design method. Dr. Feng Li is a scientific researcher at Cornell University.

Features
Interference Cancellation Using Space-Time Processing and Precoding Design introduces original design methods to achieve interference cancellation, low-complexity decoding and full diversity for a series of multi-user systems. In multi-user environments, co-channel interference will diminish the performance of wireless communications systems. In this book, we investigate how to design robust space-time code...

Contents

Fields of interest
Communications Engineering, Networks; Coding and Information Theory; Input/Output and Data Communications; Signal, Image and Speech Processing; Information Systems and Communication Service

Target groups
Research

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

2013. XII, 96 p. 27 illus. (Signals and Communication Technology, 206) Hardcover
89,95 €
ISBN 978-3-642-30711-9
Interworking of Wireless LANs and Cellular Networks

The next-generation of wireless communications are envisioned to be supported by heterogeneous networks by using various wireless access technologies. The popular cellular networks and wireless local area networks (WLANs) present perfectly complementary characteristics in terms of service capacity, mobility support, and quality-of-service (QoS) provisioning. The cellular/WLAN interworking is an effective way to promote the evolution of wireless networks. Interworking of Wireless LANs and Cellular Networks focuses on three aspects, namely access selection, call admission control and load sharing to investigate heterogeneous interworking for cellular/WLAN integrated networks. It not only reveals important observations but also offers useful tools for performance evaluation. The unique traffic and network characteristics are exploited to enhance interworking effectiveness. Theoretical analysis and simulation validation demonstrate benefits of cellular/WLAN interworking in real networks. Last but not [...]
Maritime Governance and Policy-Making

A close analysis of the framework of existing governance and the existing jurisdictional arrangements for shipping and ports reveals that while policy-making is characterized by national considerations through flags, institutional representation at all jurisdictions and the inviolability of the state, the commercial, financial, legal and operational environment of the sector is almost wholly global. This governance mismatch means that the practice of the maritime industry cannot avoid policies which it dislikes by trading nations off against one another, while enjoying the freedoms and benefits of a globalized economy. A Post-modern interpretation of this globalized society prompts suggestions for change in maritime policy-making so that the governance of the sector better matches more closely the environment in which shipping and ports operate. Maritime Governance and Policy-Making is a controversial commentary on the record of policy-making in the maritime sector and assesses whether the reason for...[

Features
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Contents

Fields of interest
Engineering Economics, Organization, Logistics, Marketing; International Economics; Transportation; Quality Control, Reliability, Safety and Risk; Private International Law, International & Foreign Law, Comparative Law

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013. XV, 442 p. 21 illus., 4 in color. Hardcover

169.95 €

Mechanics of Wood Machining

Wood is one of the most valuable materials for mankind, and since our earliest days wood materials have been widely used. Today we have modern woodworking machine and tools; however, the raw wood materials available are continuously declining. Therefore we are forced to use this precious material more economically, reducing waste wherever possible. This new textbook on the “Mechanics of Wood Machining” combines the quantitative, mathematical analysis of the mechanisms of wood processing with practical recommendations and solutions. Bringing together materials from many sources, the book contains new theoretical and experimental approaches and offers a clear and systematic overview of the theory of wood cutting, thermal loading in wood-cutting tools, dynamic behaviour of tool and work piece, optimum choice of operational parameters and energy consumption, the wear process of the tools, and the general regularities of wood surface roughness. Diagrams are provided for the quick estimation of various...[

Features
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Contents
Mechanics of the cutting process, - Thermal loading in cutting tools, - Operating parameters of wood cutting tools, - The energy requirement of cutting, - Vibration of the tools and workpieces, - The stability of wood working tools, - Tool wear, - Surface roughness.

Fields of interest
Operating Procedures, Materials Treatment; Wood Science & Technology; Machinery and Machine Elements

Target groups
Professional/practitioner

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013. X, 199 p. 194 illus. Hardcover

99.95 €
ISBN 978-3-642-29954-4

Nanoalloys

Synthesis, Structure and Properties

Bimetallic nanoparticles, also called nanoalloys, are at the heart of nanoscience because of their ability to tune together composition and size for specific purposes. By approaching both their physical and chemical properties, Nanoalloys: Synthesis, Structure & Properties provides a comprehensive reference to this research field in nanoscience by addressing the subject from both experimental and theoretical points of view, providing chapters across three main topics: Growth and structural properties, Thermodynamics and electronic structure of nanoalloys, Magnetic, optic and catalytic properties.

The growth and elaboration processes which are the necessary and crucial part of any experimental approach are detailed in the first chapter. Three chapters are focused on the widely used characterization techniques sensitive to both the structural arrangements and chemistry of nanoalloys. The electronic structure of nanoalloys is described as a guide of useful concepts and theoretical tools. Chapters covering...[

Features
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Contents

Fields of interest
Nanotechnology and Microengineering; Nanotechnology, Nanoscale Science and Technology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.


129.95 €
Network-Embedded Management and Applications

Understanding Programmable Networking Infrastructure

Despite the explosion of networking services and applications in the past decades, the basic technological underpinnings of the Internet have remained largely unchanged. At its heart are special-purpose appliances that connect us to the digital world, commonly known as switches and routers. Now, however, the traditional framework is being increasingly challenged by new methods that are jostling for a position in the “next-generation” Internet. The concept of a network that is becoming more programmable is one of the aspects that are taking center stage. This opens new possibilities to embed software applications inside the network itself and to manage networks and communications services with unprecedented ease and efficiency. In this edited volume, distinguished experts take the reader on a tour of different facets of programmable network infrastructure and applications that exploit it. Presenting the state of the art in network embedded management and applications and programmable network[...]

Features

Despite the explosion of networking services and applications in the past decades, the basic technological underpinnings of the Internet have remained largely unchanged. At its heart are special-purpose appliances that connect us to the digital world, commonly known as switches and routers. Now, however, the traditional framework is being increasingly challenged by new methods that are jostling for a position in the “next-generation” Internet.

Contents


Fields of interest

Communications Engineering, Networks; Computer Systems Organization and Communication Networks

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2013, X, 352 p. 129 illus. Hardcover

129.95 €
ISBN 978-1-4419-6768-8

On Statistical Pattern Recognition in Independent Component Analysis Mixture Modelling

A natural evolution of statistical signal processing, in connection with the progressive increase in computational power, has been exploiting higher-order information. Thus, high-order spectral analysis and nonlinear adaptive filtering have received the attention of many researchers. One of the most successful techniques for non-linear processing of data with complex non-Gaussian distributions is the independent component analysis mixture modelling (ICAMM). This thesis defines a novel formalism for pattern recognition and classification based on ICAMM, which unifies a certain number of pattern recognition tasks allowing generalization. The versatile and powerful framework developed in this work can deal with data obtained from quite different areas, such as image processing, impact-echo testing, cultural heritage, hypnograms analysis, web-mining and might therefore be employed to solve many different real-world problems.

Features

A natural evolution of statistical signal processing, in connection with the progressive increase in computational power, has been exploiting higher-order information. Thus, high-order spectral analysis and nonlinear adaptive filtering have received the attention of many researchers. One of the most successful techniques for non-linear processing of data with complex non-Gaussian distributions is the ICAMM.

Contents


Fields of interest

Complexity; Computer Imaging, Vision, Pattern Recognition and Graphics; Signal, Image and Speech Processing

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2013. XXII, 185 p. 73 illus. (Springer Theses, Vol. 4) Hardcover

99.95 €
ISBN 978-3-642-30751-5
PBX Security and Forensics

A Practical Approach

PBX Security and Forensics presents readers with theoretical and practical background for Private Branch Exchanges (PBXs). PBX is privately owned equipment that serve the communication needs of a private or public entity making connections among internal telephones and linking them to other users in the Public Switched Telephone Network (PSTN). Targeted damages and attacks in PBXs can cause significant instability and problems. The author provides examples of these threats and how to prevent against such attacks in the future. Readers will also be shown where to find forensics data and how to conduct relevant analysis.

Features

PBX Security and Forensics beings with an introduction to PBXs (Private Branch Exchanges) and the scene, statistics and involved actors. This book discusses confidentiality, integrity and availability threats in PBXs. The author examines the threats and the technical background as well as security and Forensics involving PBXs. The purpose of this book is to raise user awareness in regards to security and [...] [..]

Contents


Fields of interest

Communications Engineering, Networks, Systems and Data Security; Security Science and Technology; Forensic Science

Target groups

Research

Type of publication

Brief

Usually dispatched within 3 to 5 business days.

2013, XX, 115 p. 85 illus. (SpringerBriefs in Electrical and Computer Engineering) Softcover

49,95 €


D. Koch, University of Oslo, Norway

Partial Reconfiguration on FPGAs

Architectures, Tools and Applications

This is the first book to focus on designing run-time reconfigurable systems on FPGAs, in order to gain resource and power efficiency, as well as to improve speed. Case studies in partial reconfiguration guide readers through the FPGA jungle, straight toward a working system. The discussion of partial reconfiguration is comprehensive and practical, with models introduced together with methods to implement efficiently the corresponding systems.

Features

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Contents


Fields of interest

Circuits and Systems; Electronics and Microelectronics; Instrumentation; Processor Architectures

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


129,95 €


M. Kudlička, Technical University of Ostrava, Ostrava-Poruba, Czech Republic; J. Pokorný, Charles University, Praha, Czech Republic; V. Snášel, Technical University of Ostrava, Ostrava-Poruba, Czech Republic; A. Abraham, Machine Intelligence Research Labs, Auburn, WA, USA (Eds.)


The Third International Conference on Intelligent Human Computer Interaction 2011 (IHCI 2011) was held at Charles University, Prague, Czech Republic from August 29 - August 31, 2011. This conference was third in the series, following IHCI 2009 and IHCI 2010 held in January at IIIT Allahabad, India. Human computer interaction is a fast growing research area and an attractive subject of interest for both academia and industry. There are many interesting and challenging topics that need to be researched and discussed. This book aims to provide excellent opportunities for the dissemination of interesting new research and discussion about presented topics. It can be useful for researchers working on various aspects of human computer interaction. Topics covered in this book include user interface and interaction, theoretical background and applications of HCI and also data mining and knowledge discovery as a support of HCI applications.

Features

The Third International Conference on Intelligent Human Computer Interaction 2011 (IHCI 2011) was held at Charles University, Prague, Czech Republic from August 29 - August 31, 2011. This conference was third in the series, following IHCI 2009 and IHCI 2010 held in January at IIIT Allahabad, India. Human computer interaction is a fast growing research area and an attractive subject of interest for both [...] [..]

Contents

Part I User interface & interaction.- Part II Knowledge discovery I.- Part III Applications.- Part IV Technological & theoretical background.- Part V Knowledge discovery II.

Fields of interest

Computational Intelligence; User Interfaces and Human Computer Interaction

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


129,95 €

ISBN 978-3-642-31602-9
G.J. Dolecek, National Institute for Astrophysics, Optics and Electronics, (INAOE), Puebla, Mexico

**Random Signals and Processes**

**Primer with MATLAB**

This book provides anyone needing a primer on random signals and processes with a highly accessible introduction to these topics. It assumes a minimal amount of mathematical background and focuses on concepts, related terms and interesting applications to a variety of fields. All of this is motivated by numerous examples implemented with MATLAB, as well as a variety of exercises at the end of each chapter.

**Features**

This book provides anyone needing a primer on random signals and processes with a highly accessible introduction to these topics. It assumes a minimal amount of mathematical background and focuses on concepts, related terms and interesting applications to a variety of fields. All of this is motivated by numerous examples implemented with MATLAB. Provides a highly accessible [...]

**Contents**


**Fields of interest**

Signal, Image and Speech Processing; Circuits and Systems

**Target groups**

Research

**Type of publication**

Graduate/advanced undergraduate textbook

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

2013. XVIII, 528 p. Hardcover

94,95 €

ISBN 978-1-4614-2385-0

O.K. Hussain, Curtin University, Perth, WA, Australia; T.S. Dillon, Curtin University, Perth, WA, Australia; F.K. Hussain, University of Technology, Sydney, Broadway, New South Wales, Australia; E.J. Chang, Curtin University, Perth, WA, Australia

**Risk Assessment and Management in the Networked Economy**

Risk and reward are always foremost in the determination of investment decisions and business transactions. Advances in the area of Information Communication Technologies (ICT) have enabled the development of new business paradigms. Such paradigms involve transactions taking place between loosely connected parties, often totally or partially unknown to one another. One important concept required to ensure such transactions are successful is transactional risk. The importance of doing this has been demonstrated in recent financial crisis. This book is unique in simultaneously taking into account the likelihood of an event occurring and its financial impact and provides an integrated discussion of the process of transactional risk identification, assessment, evaluation, management and recording in these emerging domains. It provides a detailed and clear exposition of the importance of transactional risk before detailing for its assessment and evaluation. The scope of the book is theoretical and [...]

**Features**

Risk and reward are always foremost in the determination of investment decisions and business transactions. Advances in the area of Information Communication Technologies (ICT) have enabled the development of new business paradigms. Such paradigms involve transactions taking place between loosely connected parties, often totally or partially unknown to one another. One important concept required to ensure [...]

**Contents**


**Fields of interest**

Appl. Mathematics / Computational Methods of Engineering; Operation Research / Decision Theory; e-commerce / e-business; Business Information Systems; Artificial Intelligence (incl. Robotics)

**Target groups**

Research

**Type of publication**

Monograph

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

2013. XXVI, 290 p. 143 illus. (Studies in Computational Intelligence, Vol. 412) Hardcover

99,95 €
Rohrleitungs- und Apparatebau
Planungshandbuch für Industrie- und Fernwärmeversorgung


Features

Contents
Strömungstechnische Berechnung von Rohrleitungsanlagen.- Grundlagen und Festigkeitsberechnung für den Rohrleitungs- und Apparatebau.- Bauarten und wärmetechnische Berechnungen von Wärmeübertragungsapparaten, Wärmspeicher und Druckbehältern.-

Fields of interest
Building Physics, HVAC; Transportation; Engineering Thermodynamics, Heat and Mass Transfer

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.
Smart Materials in Structural Health Monitoring, Control and Biomechanics

"Smart Materials in Structural Health Monitoring, Control and Biomechanics" presents the latest developments in structural health monitoring, vibration control and biomechanics using smart materials. The book mainly focuses on piezoelectric, fibre optic and ionic polymer metal composite materials. It introduces concepts from the very basics and leads to advanced modelling (analytical/numerical), practical aspects (including software/hardware issues) and case studies spanning civil, mechanical and aerospace structures, including bridges, rocks and underground structures. This book is intended for practicing engineers, researchers from academic and R&D institutions and postgraduate students in the fields of smart materials and structures, structural health monitoring, vibration control and biomedical engineering. Professor Cher Kiong Soh and Associate Professor Yaowen Yang both work at the School of Civil and Environmental Engineering, Nanyang Technological University, Singapore. Dr. Suresh Bhalla is [...]
Software Engineering and Knowledge Engineering: Theory and Practice

Selected papers from 2012 International Conference on Software Engineering, Knowledge Engineering and Information Engineering (SKEIE 2012)

2012 International Conference on Software Engineering, Knowledge Engineering and Information Engineering (SKEIE 2012) will be held in Macau, April 1-2, 2012. This conference will bring researchers and experts from the three areas of Software Engineering, Knowledge Engineering and Information Engineering together to share their latest research results and ideas. This volume book covered significant recent developments in the Software Engineering, Knowledge Engineering and Information Engineering field, both theoretical and applied. We are glad this conference attracts your attentions, and thank your support to our conference. We will absorb remarkable suggestion, and make our conference more successful and perfect.

Features

2012 International Conference on Software Engineering, Knowledge Engineering and Information Engineering (SKEIE 2012) will be held in Macau, April 1-2, 2012. This conference will bring researchers and experts from the three areas of Software Engineering, Knowledge Engineering and Information Engineering together to share their latest research results and ideas. This volume book covered [...]
Theories, Methods and Numerical Technology of Sheet Metal Cold and Hot Forming

Analysis, Simulation and Engineering Applications

Over the last 15 years, the application of innovative steel concepts in the automotive industry has increased steadily. Numerical simulation technology of hot forming of high-strength steel allows engineers to modify the formability of hot forming steel metals and to optimize die design schemes. Theories, Methods and Numerical Technology of Sheet Metal Cold and Hot Forming focuses on hot and cold forming theories, numerical methods, relative simulation and experiment techniques for high-strength steel forming and die design in the automobile industry. Theories, Methods and Numerical Technology of Sheet Metal Cold and Hot Forming introduces the general theories of cold forming, then expands upon advanced hot forming theories and simulation methods, including the forming process, constitutive equations, hot boundary constraint treatment, and hot forming equipment and experiments. Various calculation methods of cold and hot forming, based on the authors’ experience in commercial CAE software for sheet metal.[…]

Features
Over the last 15 years, the application of innovative steel concepts in the automotive industry has increased steadily. Numerical simulation technology of hot forming of high-strength steel allows engineers to modify the formability of hot forming steel metals and to optimize die design schemes. Theories, Methods and Numerical Technology of Sheet Metal Cold and Hot Forming focuses on hot and cold […]

Contents

Fields of interest
Automotive Engineering; Metallic Materials; Computer-Aided Engineering (CAD, CAE) and Design; Operating Procedures, Materials Treatment

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.
Sustainable Manufacturing

The annual series Global Conferences on Sustainable Manufacturing (GCSM) sponsored by the International Academy for Production Engineering (CIRP) is committed to excellence in the creation of sustainable products and processes that conserve energy and natural resources, have minimal negative impacts upon the natural environment and society, and adhere to the core principle of sustainability by considering the needs of the present without compromising the ability of future generations to meet their own needs. To promote this noble goal, there is a great need for increased awareness in education and training, including the dissemination of new findings on principles and practices of sustainability applied to manufacturing. The series Global Conferences on Sustainable Manufacturing offers international colleagues the opportunity to network, expand their knowledge, and improve practice globally.

Features
The annual series Global Conferences on Sustainable Manufacturing (GCSM) sponsored by the International Academy for Production Engineering (CIRP) is committed to excellence in the creation of sustainable products and processes that conserve energy and natural resources, have minimal negative impacts upon the natural environment and society, and adhere to the core principle of sustainability by considering the needs of the present without compromising the ability of future generations to meet their own needs. To promote this noble goal, there is a great need for increased awareness in education and training, including the dissemination of new findings on principles and practices of sustainability applied to manufacturing. The series Global Conferences on Sustainable Manufacturing offers international colleagues the opportunity to network, expand their knowledge, and improve practice globally.

Fields of interest
Environmental Engineering / Biotechnology;
Sustainable Development; Engineering Economics,
Organization, Logistics, Marketing

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, XIII, 400 p. 231 illus., 148 in color. Hardcover

129.95 €
ISBN 978-3-642-27289-9

Geography

Progress in Geospatial Analysis

This book examines current trends and developments in the methods and applications of geospatial analysis and highlights future development prospects. It provides a comprehensive discussion of remote sensing- and geographical information system (GIS)-based data processing techniques, current practices, theories, models, and applications of geospatial analysis. Data acquisition and processing techniques such as remote sensing image selections, classifications, accuracy assessments, models of GIS data, and spatial modeling processes are the focus of the first part of the book. In the second part, theories and methods related to fuzzy sets, spatial weights and prominence, geographically weighted regression, weight of evidence, Markov-cellular automata, artificial neural network, agent-based simulation, multi-criteria evaluation, analytic hierarchy process, and a GIS network model are included. Part three presents selected best practices in geospatial analysis. The chapters, all by expert authors, are [...]

Features
This book examines current trends and developments in the methods and applications of geospatial analysis and highlights future development prospects. It provides a comprehensive discussion of remote sensing- and geographical information system (GIS)-based data processing techniques, current practices, theories, models, and applications of geospatial analysis. Data acquisition and processing techniques such as [...]

Contents
From the Contents: Part I Geospatial Data Acquisition and Processing.- Multispectral Classification of Remote Sensing Data for Geospatial Analysis.- Part II Geospatial Theories and Methods.- Fuzzy Set Theory in Geospatial Analysis.- Spatial Prominence and Spatial Weights Matrix in Geospatial Analysis.- Geographically Weighted Regression in Geospatial Analysis.- Weight of Evidence in Geospatial Analysis.- Markov-Cellular Automata in Geospatial Analysis.- Multilayer Perceptron Neural Networks in Geospatial Analysis.- Part III Applications in Geospatial Analysis.- Urban Growth Modeling[...]

Fields of interest
Geographical Information Systems / Cartography;
Earth Sciences (general); Information Systems Applications (incl.Internet); Remote Sensing / Photogrammetry

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, XII, 291 p. 90 illus., 64 in color. Hardcover

99.95 €
International Law of Victims

After having ignored victims, only recently both domestic and international law have begun to pay attention to them. As a consequence, different international norms related to victims have progressively been introduced. These are norms generally characterized by a certain concept from the perspective of victims, as well as by the enumeration of a list of rights to which they are entitled to; rights upon which the international statute of victims is built. In reverse, these catalogues of rights are the states’ obligations. Most of these rights are already existent in the international law of human rights. Consequently, they are not new but consolidated rights. Others are strictly linked to victims, concerning the following categories: victims of crime, victims of abuse of power, victims of gross violations of international human rights law, victims of serious violations of international humanitarian law, victims of enforced disappearance, victims of violations of international criminal law and [...] Features

After having ignored victims, only recently both domestic and international law have begun to pay attention to them. As a consequence, different international norms related to victims have progressively been introduced. These are norms generally characterized by a certain concept from the perspective of victims, as well as by the enumeration of a list of rights to which they are entitled to; rights upon which [...] Contents


Fields of interest

Human Rights; International Criminal Law; International Humanitarian Law, Law of Armed Conflict; Criminal Law; Criminology & Criminal Justice

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. IX, 274 p. Hardcover

99,95 €
ISBN 978-3-642-28139-6

Medienstrafrecht


Features

Das Medienstrafrecht ist ein noch recht junges, modernes Rechtsgebiet, das sich im Lehr- und Prüfungsprogramm der juristischen Fakultäten aber bereits im Schwerpunktbereich etabliert hat. Information, Kommunikation und Medien sind Schlüsselbegriffe zur Beschreibung des gesellschaftlichen Zustands in Gegenwart und Zukunft. Wo mit Medien gearbeitet wird, gibt es aber auch zwangsläufig Potential für Konflikte, [...] Contents


Fields of interest

Criminal Law; Media Law

Target groups

Upper undergraduate

Type of publication

German textbook

Usually dispatched within 3 to 5 business days.

2012. XXV, 328 S. 1 Abb. (Springer-Lehrbuch) Softcover

27,99 €
ISBN 978-3-642-17262-5
Patenting Nanomedicines

Legal Aspects, Intellectual Property and Grant Opportunities

"Patenting Nanomedicines: Legal Aspects, Intellectual Property and Grant Opportunities" focuses on the fundamental aspects of Patenting Nanomedicines applied in different "Drug Delivery and Targeting Systems". The promoters of new findings in this field of research are numerous and spread worldwide; therefore, managing intellectual property portfolios, and the acquisition and exploitation of new knowledge face several contingency factors. Today, the scientific community is discussing issues of economic outcomes in the field of Nanomedicines. Major concerns include questions as to whether the research groups, academics, industry and other stakeholders should work in unison or independently, if innovation or adaptation of new technology should be prioritized, public versus private research funding, and safeguarding versus sharing knowledge. However, despite its increasing importance for humankind, it is a matter of concern as to whether technological development can really be stimulated by patent[...]"}

Advanced Technologies for Managing Insect Pests

Among the highlights of this book is the use of novel insecticides acting on a specific site in an insect group and are compatible with natural enemies and the environment. One of such approaches is based on disrupting the activity of biochemical sites acting on transcription factors such as the Helix-Loop-Helix (bHLH) family, anti juvenile hormone (AHH) agents that target JH biosynthetic enzymes, G-protein coupled receptors (GPCR) and bursicon as a target for insect control. Another one is the biotechnology or the genetic approach such as gene silencing (RNA interference) and Bt-crops. Other sections of the book are devoted to the plant’s natural products, optical manipulation and the use of nanotechnology for improving insect control methods.

Features

Among the highlights of this book is the use of novel insecticides acting on a specific site in an insect group and are compatible with natural enemies and the environment. One of such approaches is based on disrupting the activity of biochemical sites acting on transcription factors such as the basic Helix-Loop-Helix (bHLH) family, anti juvenile hormone (AHH) agents that target JH biosynthetic enzymes, [...]
Behavioral Lateralization in Vertebrates
Two Sides of the Same Coin

Functional lateralization in the human brain was first identified in the classic observations by Broca in the 19th century. Only one hundred years later, however, research on this topic began anew, discovering that humans share brain lateralization not only with other mammals, but with other vertebrates and even invertebrates. Studies on lateralization have also received considerable attention in recent years due to their important evolutionary implications, becoming an important and flourishing field of investigation worldwide among ethologists and psychologists. The chapters of this book concern the emergence and adaptive function of lateralization in several aspects of behavior for a wide range of vertebrate taxa. These studies span from how lateralization affects some aspects of fitness in fishes, or how it affects the predatory and the exploratory behavior of lizards, to navigation in the homing flights of pigeons, social learning in chicks, the influence of lateralization on the ontogeny[...]

Features
Functional lateralization in the human brain was first identified in the classic observations by Broca in the 19th century. Only one hundred years later, however, research on this topic began anew, discovering that humans share brain lateralization not only with other mammals, but with other vertebrates and even invertebrates. Studies on lateralization have also received considerable attention in[...]

Contents

Fields of interest
Behavioral Sciences; Neurosciences

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012. XII, 127 S. 33 Abb. in Farbe. (BVL-Reporte) Softcover
23,36 €
ISBN 978-3-0348-0422-6

F. Lottspeich, Max-Planck-Institut für Biochemie, Martinsried, DE; J. Englert, Universität Frankfurt/Main, DE

Bild-DVD, Bioanalytik
Die Abbildungen des Buches


Features

Contents

Fields of interest
Biochemistry; Analytical Chemistry; Biological Techniques; Life Sciences (general); Chemistry (general); Cell Biology

Target groups
Upper undergraduate

Type of publication
German textbook

Online orders shipping within 2-3 days.

2012. Etwa 5 S. DVD. Jewel case
approx. 21,01 €
ISBN 978-3-8274-2991-9
Bioinformatics and Drug Discovery

Recent advances in drug discovery have been rapid. The second edition of Bioinformatics and Drug Discovery has been completely updated to include topics that range from new technologies in target identification, genomic analysis, cheminformatics, protein analysis, and network or pathway analysis. Each chapter provides an extended introduction that describes the theory and application of the technology. In the second part of each chapter, detailed procedures related to the use of these technologies and software have been incorporated. Written in the highly successful Methods in Molecular Biology® series format, the chapters include the kind of detailed description and implementation advice that is crucial for getting optimal results in the laboratory. Thorough and intuitive, Bioinformatics and Drug Discovery, Second Edition seeks to aid scientists in the further study of the rapidly expanding field of drug discovery.

Features
Recent advances in drug discovery have been rapid. The second edition of Bioinformatics and Drug Discovery has been completely updated to include topics that range from new technologies in target identification, genomic analysis, cheminformatics, protein analysis, and network or pathway analysis. Each chapter provides an extended introduction that describes the theory and application of the [...]
Ecology of Cyanobacteria II
Their Diversity in Space and Time
Cyanobacteria have existed for 3.5 billion years, yet they are still the most important photosynthetic organisms on the planet for cycling carbon and nitrogen. The ecosystems where they have key roles range from the warmer oceans to many Antarctic sites. They also include dense nuisance growths in nutrient-rich lakes and nitrogen-fixers which aid the fertility of rice-fields and many soils, especially the biological soil crusts of arid regions. Molecular biology has in recent years provided major advances in our understanding of cyanobacterial ecology. Perhaps for more than any other group of organisms, it is possible to see how the ecology, physiology, biochemistry, ultrastructure and molecular biology interact. This all helps to deal with practical problems such as the control of nuisance blooms and the use of cyanobacterial inocula to manage semi-desert soils. Large-scale culture of several organisms, especially “Spirulina” (Arthrospira), for health food and specialist products is [...] Features Cyanobacteria have existed for 3.5 billion years, yet they are still the most important photosynthetic organisms on the planet for cycling carbon and nitrogen. The ecosystems where they have key roles range from the warmer oceans to many Antarctic sites. They also include dense nuisance growths in nutrient-rich lakes and nitrogen-fixers which aid the fertility of rice-fields and many soils, especially the [...] Contents Environments. - Physiological Ecology. - Molecular Ecology. - The Organisms. - Applied Aspects. Fields of interest Freshwater & Marine Ecology; Microbial Ecology; Terrestrial Ecology; Entomology Target groups Research Type of publication Contributed volume Usually dispatched within 3 to 5 business days.

Ecotones Between Forest and Grassland
Ecotones are dynamic over-lapping boundary areas where major terrestrial biomes meet. As past studies have shown, and as the chapters in this book will illustrate, their structure, size, and scope have changed considerably over the millennia, expanding and shrinking as climate and/or other driving conditions also changed. Today, however, many of them are changing at a rate not seen for a long time, perhaps largely due to climate change and other human-induced factors. Indeed ecotones are more sensitive to climate change than the biomes on either side, and thus may serve as critical early indicators of future climate change. As ecotones change, they also redefine the limits of the biomes on either side by altering their distributions of species because, in addition to their own endemic species, any ecotone will also have species from both adjoining biomes. Consequently, they may also be places of high levels of species interaction, serving as active evolutionary laboratories, which generate new [...] Features Ecotones are dynamic over-lapping boundary areas where major terrestrial biomes meet. As past studies have shown, and as the chapters in this book will illustrate, their structure, size, and scope have changed considerably over the millennia, expanding and shrinking as climate and/or other driving conditions have also changed. Today, however, many of them are changing at a rate [...] Contents 1. Introduction. - Section I: Temperate forest-grassland ecotones: prairies, steppes, and pampas. - 2. Woodland-grassland ecotonal shifts in environmental mosaics: lessons learnt from the environmental history of the Carpathian Basin (Central Europe) during the Holocene and the last ice age based on investigation of paleobotanical and mollusk remains. - 3. Ecotones as complex arenas of disturbance, climate and human impacts: the trans-Andean forest-steppe ecotone of northern Patagonia. - 4. Woody-Herbaceous-Livestock Species Interaction. - 5. Woody plant invasions in Pampa grasslands [...] Fields of interest Terrestrial Ecology; Ecosystems; Biodiversity; Applied Ecology; Climate Change Target groups Graduate Type of publication Contributed volume Usually dispatched within 3 to 5 business days.

Evolutionary Systems Biology
The book aims to introduce the reader to the emerging field of Evolutionary Systems Biology, which approaches classical systems biology questions within an evolutionary framework. An evolutionary approach might allow understanding the significance of observed diversity, uncover “evolutionary design principles” and extend predictions made in model organisms to others. In addition, evolutionary systems biology can generate new insights into the adaptive landscape by combining molecular systems biology models and evolutionary simulations. This insight can enable the development of more detailed mechanistic evolutionary hypotheses. Features Preface. - Evolutionary Systems Biology: Historical and Philosophical Perspectives on an Emerging Synthesis. - Metabolic Networks and their Evolution. - Organization Principles and their Evolution. - Organization principles in genetic interaction networks. - Evolution of regulatory networks: Nematode vulva induction as an example of developmental systems drift. - Life’s attractors understanding developmental systems through reverse engineering and in silico evolution. - Evolutionary characteristics of bacterial two-component Systems. - Comparative interaction networks - bridging genotype to [...] Fields of interest Systems Biology; Evolutionary Biology; Biomedicine (general) Target groups Research Type of publication Contributed volume Usually dispatched within 3 to 5 business days.


Farming for Food and Water Security

Sustainable agriculture is a rapidly growing field aiming at producing food and energy in a sustainable way for our children. This discipline addresses current issues such as climate change, increasing food and fuel prices, starvation, obesity, water pollution, soil erosion, fertility loss, pest control and biodiversity depletion. Novel solutions are proposed based on integrated knowledge from agronomy, soil science, molecular biology, chemistry, toxicology, ecology, economy, philosophy and social sciences. As actual society issues are now intertwined, sustainable agriculture will bring solutions to build a safer world. This book series analyzes current agricultural issues and proposes alternative solutions, consequently helping all scientists, decision-makers, professors, farmers and politicians wishing to build safe agriculture, energy and food systems for future generations.

Features
Sustainable agriculture is a rapidly growing field aiming at producing food and energy in a sustainable way for humans and their children. Sustainable agriculture is a discipline that addresses current issues such as climate change, increasing food and fuel prices, poor-nation starvation, rich-nation obesity, water pollution, soil erosion, fertility loss, pest control, and biodiversity depletion. Novel, [...] Contents

Fields of interest
Agriculture

Target groups
Graduate

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

Global Change and the Function and Distribution of Wetlands

The Global Change Ecology and Wetlands book series will highlight the latest research from the world leaders in the field of climate change in wetlands. Global Change and the Function and Distribution of Wetlands highlights information of importance to wetland ecologists. The chapters include syntheses of international studies on the effects of drought on function and regeneration in wetlands, sea level rise and the distribution of mangrove swamps, former distributions of swamp species and future lessons from paleoecology, and shifts in atmospheric emissions across geographical regions in wetlands. Overall, the book will contribute to a better understanding of the potential effects of climate change on world wetland distribution and function.

Features
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Section 1. Paleoeology and Climate Change: 1. Insights from Paleohistory Illuminate Future Climate Change Effects on Wetlands; Ben A. LePage et al. - Section 2: Sea Level Rise and Coastal Wetlands. 2. Response of salt marsh and mangrove wetlands to changes in atmospheric CO2, climate, and sea level; Karen McKee et al. - Section 3: Atmospheric Emissions and Wetlands. 3. CH4 Dynamics in Wetlands and Possible responses to Global Climate Change; Hojeong Kang et al. - Section 4: Drought and Climate Change. 4. The effects of climate-change-induced drought and freshwater wetlands; Beth A. [...] Fields of interest
Freshwater & Marine Ecology; Climate Change; Earth Sciences (general); Geography (general); Science

Target groups
Upper undergraduate

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

Intrinsically Disordered Protein Analysis

Over the past decade, there has been an explosive development of research of intrinsically disordered proteins (IDPs), which are also known as unfolded proteins. Structural biologists now recognize that the functional diversity provided by disordered regions complements the functional repertoire of ordered protein regions. In Intrinsically Disordered Protein Analysis (Methods and Experimental Tools, expert researchers explore the high abundance of IDPs in various organisms, their unique structural features, numerous functions, and crucial associations with different diseases. Volume 1 includes sections on assessing IDPs in the living cell NMR based techniques, vibrational spectroscopy, and other spectroscopic techniques. Written in the highly successful Methods in Molecular Biology series format, the chapters include the kind of detailed description and implementation advice that is crucial for getting optimal results in the laboratory. Thorough and intuitive, Intrinsically Disordered Protein [...] Contents
Protein Science; Protein Structure

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.
Intrinsically Disordered Protein Analysis
Volume 2, Methods and Experimental Tools

Over the past decade, there has been an explosive development of research on intrinsically disordered proteins (IDPs), which are also known as unfolded proteins. Structural biologists now recognize that the functional diversity provided by disordered regions complements the functional repertoire of ordered protein regions. In Intrinsically Disordered Protein Analysis: Methods and Experimental Tools, expert researchers explore the high abundance of IDPs in various organisms, their unique structural features, numerous functions, and crucial associations with different diseases. Volume 2 includes sections on single molecule techniques, methods to assess protein size and shape, analyzing conformational behavior, mass-spectrometry, expression and purification of IDPs. Written in the highly successful Methods in Molecular Biology series format, the chapters include the kind of detailed description and implementation advice that is crucial for getting optimal results in the laboratory. Thorough and[...]

Features
Over the past decade, there has been an explosive development of research on intrinsically disordered proteins (IDPs), which are also known as unfolded proteins. Structural biologists now recognize that the functional diversity provided by disordered regions complements the functional repertoire of ordered protein regions. In Intrinsically Disordered Protein Analysis: Methods and Experimental[...]

Contents

Fields of interest
Protein Science; Protein Structure

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.


109,95 €
ISBN 978-1-4614-3703-1

The Centrosome
Cell and Molecular Mechanisms of Functions and Dysfunctions in Disease

The Centrosome: Cell and Molecular Mechanisms of Functions and Dysfunctions in Disease includes chapters on classic and modern aspects of centrosome research focused on primary cilia and their dysfunctions that are implicated in numerous diseases. Each chapter will be written by experts in their fields who will contribute their unique expertise in specific research fields and include cell and molecular details that are important for the specific subtopics. The book will be comprehensive, concise and will include reviews of key topics in the field. Cutting edge new information will be balanced with background information that will be readily understandable for the newcomer and the experienced centrosome researcher alike.

Features
This book features a diversity of aspects on centrosome biology focused on the role of centrosomes in reproduction, cell and molecular biology of centrosomes, centrosome abnormalities in cancer, and centrosomes in various cell systems. Each section contains a variety of different subtopics written by experts in their respective fields who have contributed significant new knowledge to decipher structure and[...]

Contents

Fields of interest
Cell Biology; Cell Cycle Analysis; Cell Physiology

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012. XIV, 396 p. 92 illus., 54 in color. Hardcover

154,95 €

Linguistics

Dialogical Genres
Empractical and Conversational Listening and Speaking

This work gives a thorough revision of history through a psychological approach to verbal interaction between listeners and speakers. This book offers a large amount of information on the psychology of language and on psycholinguistics, and focuses on a new direction for a psychology of verbal communication. Empirical research includes media interviews, public speeches, and dramatic performances.

Features
Dialogical Genres; Empirical and Conversational Listening and Speaking

Daniel C. O’Connell, Georgetown University, Washington, D.C., USA; Sabine Kowal, Technische Universität Berlin, Germany

Dialogical Genres
Kowal, Sabine; Daniel C. O’Connell

Listening and Speaking

D.C. O’Connell, Georgetown University, Washington, D.C., USA; S. Kowal, Technische Universität Berlin, Germany

Linguistics

Dialogical Genres

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Dialogical Genres

Kowal, Sabine; Daniel C. O’Connell

Listening and Speaking

D.C. O’Connell, Georgetown University, Washington, D.C., USA; S. Kowal, Technische Universität Berlin, Germany

Fields of interest
Psycholinguistics; Cognitive Psychology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.


99,95 €
ISBN 978-1-4614-3528-0
Materials Science

G. Gerlach, Technische Universität Dresden, Germany; K.-J. Walter, Technische Universität Dresden, Germany (Eds.)

Bio and Nano Packaging Techniques for Electron Devices

Advances in Electronic Device Packaging

This book discusses future trends and developments in electron device packaging and the opportunities of nano and bio techniques as future solutions. It describes the effect of nano-sized particles and cell-based approaches for packaging solutions with their diverse requirements. It offers a comprehensive overview of nano particles and nano composites and their application as packaging functions in electron devices. The importance and challenges of three-dimensional design and computer modeling in nano packaging is discussed; also ways for implementation are described. Solutions for unconventional packaging solutions for metatalizations and functionalized surfaces as well as new packaging techniques with high potential for industrial applications are discussed. The book brings together a comprehensive overview of nano scale components and systems comprising electronic, mechanical and optical structures and serves as important reference for industrial and academic researchers.

Features
The book offers a comprehensive discussion of future trends and developments in electron device packaging and the opportunities of nano and bio techniques as future solutions. It describes effects of nano-sized particles and cell-based approaches for packaging solutions with their diverse requirements. It offers a comprehensive overview of nano particles and nano composites and their opportunities for...

Contents

Fields of interest
Semantics; Pragmatism; Linguistics (general)

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.


99,95 €

Biodegradable Metals

From Concept to Applications

This book in the emerging research field of biomaterials covers biodegradable metals for biomedical applications. The book contains two main parts where each of them consists of three chapters. The first part introduces the readers to the field of metallic biomaterials, exposes the state of the art of biodegradable metals, and reveals its application for cardiovascular implants. Some fundamental aspects to give basic understanding on metals for further review on the degradable ones is covered in chapter one. The second chapter introduces the concept of biodegradable metals, it’s state of the art and discusses a shifted paradigm from inert to bioactive, from corrosion resistant to corrodbile metals. The third chapter focuses on the challenges and opportunities of using biodegradable metals for cardiovascular applications. The second part exposes an example of biodegradable metals from its concept to applications where a complete study on metallic biodegradable stent is detailed from materials design,...

Features
This book in the emerging research field of biomaterials covers biodegradable metals for biomedical applications. The book contains two main parts where each of them consists of three chapters. The first part introduces the readers to the field of metallic biomaterials, exposes the state of the art of biodegradable metals, and reveals its application for cardiovascular implants. Some fundamental aspects to...

Contents
Currently Used Inert Metallic Biomaterials - The Concept of Degradable Metallic Biomaterials - Degradable Metallic Biomaterials for Bone Applications - Degradable Metallic Biomaterials for Cardiovascular Applications - A Complete Study on Degradable Coronary Stent.

Fields of interest
Biomaterials; Biomedical Engineering; Medical Biochemistry; Metallic Materials

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2012. VIII, 69 p. 21 illus. (SpringerBriefs in Materials) Softcover

49,95 €
ISBN 978-3-642-31169-7
Computational Plasticity

With Emphasis on the Application of the Unified Strength Theory

“Computational Plasticity with Emphasis on the Application of the Unified Strength Theory” explores a new and important branch of computational mechanics and is the third book in a plasticity series published by Springer. The other two are: Generalized Plasticity, Springer: Berlin, 2006; and Structural Plasticity, Springer and Zhejiang University Press: Hangzhou, 2009. This monograph describes the unified strength theory and associated flow rule, the implementation of these basic theories in computational programs, and shows how a series of results can be obtained by using them. The unified strength theory has been implemented in several special nonlinear finite-element programs and commercial Finite Element Codes by individual users and corporations. Many new and interesting findings for beams, plates, underground caves, excavations, strip foundations, circular foundations, slop, underground structures of hydraulic power stations, pumped-storage power stations, underground mining, high-velocity...

Features

“Computational Plasticity with Emphasis on the Application of the Unified Strength Theory” explores a new and important branch of computational mechanics and is the third book in a plasticity series published by Springer. The other two are: Generalized Plasticity, Springer: Berlin, 2006; and Structural Plasticity, Springer and Zhejiang University Press: Hangzhou, 2009. This monograph describes the unified strength theory and associated flow rule, the implementation of these basic theories in computational programs, and shows how a series of results can be obtained by using them. The unified strength theory has been implemented in several special nonlinear finite-element programs and commercial Finite Element Codes by individual users and corporations. Many new and interesting findings for beams, plates, underground caves, excavations, strip foundations, circular foundations, slop, underground structures of hydraulic power stations, pumped-storage power stations, underground mining, high-velocity...

Contents

Mathematics

Morphology Genetic Materials Templated from Nature Species

Morphology Genetic Materials Templated from Nature Species provides a comprehensive and up-to-date coverage of research on bio-inspired functional materials including materials science and engineering aspects of the fabrication, properties, and applications. The book discusses bio-inspired strategies integrating biotemplate, biomimeralization, and biomimess in nature, which are adopted to fabricate functional materials with hierarchical bio-architectures and interrelated outstanding performances, as well as valuable applications in photoelectricity, photonics, photocatalysis, chemical detection, bio-imaging, and photoelectron transfer components/devices. The book is intended for researchers and graduate students in the fields of materials science, chemistry, nanotechnology, semiconductor, biotechnology, environmental engineering, etc. Prof. Dr. Di Zhang is currently a professor at the School of Materials Science and Engineering, Shanghai Jiao Tong University, and the director of the State Key[...]

A1-Algebraic Topology over a Field

This text deals with A1-homotopy theory over a base field, i.e., with the natural homotopy theory associated to the category of smooth varieties over a field in which the affine line is imposed to be contractible. It is a natural sequel to the foundational paper on A1-homotopy theory written together with V. Voevodsky. Inspired by classical results in algebraic topology, we present new techniques, new results and applications related to the properties and computations of A1-homotopy sheaves, A1-homology sheaves, and sheaves with generalized transfers, as well as to algebraic vector bundles over affine smooth varieties.

Features

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Contents

1 Introduction
2 Unramified sheaves and strongly A1-invariant sheaves
3 Unramified Milnor-Witt K-theories
4 Geometric versus canonical transfers
5 The Rost-Schmid complex of a strongly A1-invariant sheaf
6 A1-homotopy sheaves and A1-homology sheaves
7 A1-coverings
8 A1-homotopy and algebraic vector bundles
9 The affine B.G. property for the linear groups and the Grassmannian

Fields of interest

Algebraic Geometry; K-Theory; Algebraic Topology

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.

A1-Algebraic Topology over a Field

This text deals with A1-homotopy theory over a base field, i.e., with the natural homotopy theory associated to the category of smooth varieties over a field in which the affine line is imposed to be contractible. It is a natural sequel to the foundational paper on A1-homotopy theory written together with V. Voevodsky. Inspired by classical results in algebraic topology, we present new techniques, new results and applications related to the properties and computations of A1-homotopy sheaves, A1-homology sheaves, and sheaves with generalized transfers, as well as to algebraic vector bundles over affine smooth varieties.

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Contents

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9 The affine B.G. property for the linear groups and the Grassmannian

Fields of interest

Algebraic Geometry; K-Theory; Algebraic Topology

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.
Aeroelasticity

The Continuum Theory

The author’s approach is one of continuum models of the aerodynamic flow interacting with a flexible structure whose behavior is governed by partial differential equations. Both linear and nonlinear models are considered although much of the book is concerned with the former while keeping the latter clearly in view. A complete chapter is also devoted to nonlinear theory. The author has provided new insights into the classical inviscid aerodynamics and raises novel and interesting questions on fundamental issues that have too often been neglected or forgotten in the development of the early history of the subject. The author contrasts his approach with discrete models for the unsteady aerodynamic flow and the finite element model for the structure. Much of the aeroelasticity has been developed with applications formerly in mind because of its enormous consequences for the safety of aircraft. Aeroelastic instabilities such as divergence and flutter and aerelastic responses to gusts can pose a[...]

Features

The author’s approach is one of continuum models of the aerodynamic flow interacting with a flexible structure whose behavior is governed by partial differential equations. Both linear and nonlinear models are considered although much of the book is concerned with the former while keeping the latter clearly in view. A complete chapter is also devoted to nonlinear theory. The author has provided new insights[...]

Contents


Fields of interest

Functional Analysis; Engineering Design; Continuum Mechanics and Mechanics of Materials; Fluid- and Aerodynamics; Partial Differential Equations

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012, XII, 399 p. 12 illus. Hardcover

49,95 €

Analysis 1 + 2

Ein Wegweiser zum Studienbeginn

Dieses Buch ist entstanden aus Vorlesungen an der Technischen Universität München und behandelt im Wesentlichen die Themen, die üblicherweise Gegenstand der Vorlesungen "Analysis" der ersten beiden Semester im Bachelor-Studium der Mathematik und Physik sind. Dazu zählen neben den grundlegenden Bausteinen der eindimensionalen Analysis, wie Konvergenz, Stetigkeit, Differentiation, Integration, auch eine Einführung in die Differenzierbarkeit im Mehrdimensionalen, der Begriff der Konvexheit in metrischen Räumen sowie elementare Lösungsmethoden von gewöhnlichen Differentialgleichungen. Das Buch zeichnet sich aus durch zahlreiche motivierende Beispiele, ohne dass dabei die nötige mathematische Präzision zu kurz kommt. Es eignet sich hervorragend sowohl als Nachschlagewerk als auch als Begleitlektüre zur Vorlesung.

Features

Dieses Buch ist entstanden aus Vorlesungen an der Technischen Universität München und behandelte im Wesentlichen die Themen, die üblicherweise Gegenstand der Vorlesungen "Analysis" der ersten beiden Semester im Bachelor-Studium der Mathematik und Physik sind. Dazu zählen neben den grundlegenden Bausteinen der eindimensionalen Analysis, wie Konvergenz, Stetigkeit, Differentiation, Integration, auch eine […]

Contents


Fields of interest

Analysis

Target groups

Lower undergraduate

Type of publication

German textbook

Usually dispatched within 3 to 5 business days.

2012, IX, 256 S. 36 Abb. (Springer-Lehrbuch) Softcover

23,32 €
ISBN 978-3-642-28643-8

Analyzing Markov Chains using Kronecker Products

Theory and Applications

Kronecker products are used to define the underlying Markov chain (MC) in various modeling formalisms, including compositional Markovian models, hierarchical Markovian models, and stochastic process algebras. The motivation behind using a Kronecker structured representation rather than a flat one is to alleviate the storage requirements associated with the MC. With this approach, systems that are an order of magnitude larger can be analyzed on the same platform. The developments in the solution of such MCs are reviewed from an algebraic point of view and possible areas for further research are indicated with an emphasis on preprocessing using reordering, grouping, and lumping and numerical analysis using block iterative, preconditioned projection, multilevel, decompositional, and matrix analytic methods. Case studies from closed queuing networks and stochastic chemical kinetics are provided to motivate decompositional and matrix analytic methods, respectively.

Features

Kronecker products are used to define the underlying Markov chain (MC) in various modeling formalisms, including compositional Markovian models, hierarchical Markovian models, and stochastic process algebras. The motivation behind using a Kronecker structured representation rather than a flat one is to alleviate the storage requirements associated with the MC. With this approach, systems that are an order of [...]
Approximation Methods for Polynomial Optimization
Models, Algorithms, and Applications

Polynomial optimization have been a hot research topic for the past few years and its applications range from Operations Research, biomedical engineering, investment science, to quantum mechanics, linear algebra, and signal processing, among many others.

In this brief the authors discuss some important subclasses of polynomial optimization models arising from various applications, with a focus on approximations algorithms with guaranteed worst case performance analysis. The brief presents a clear view of the basic ideas underlying the design of such algorithms and the benefits are highlighted by illustrative examples showing the possible applications. This timely treatise will appeal to researchers and graduate students in the fields of optimization, computational mathematics, Operations Research, industrial engineering, and computer science.

Contents
1. Introduction
2. Polynomial over the Euclidean Ball
3. Extensions of the Constraint Sets
4. Applications
5. Concluding Remarks

Fields of interest
Convex and Discrete Geometry; Number Theory; Order, Lattices, Ordered Algebraic Structures; Algebraic Topology

Target groups
Graduate

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2012. VIII, 124 p. (SpringerBriefs in Optimization) Softcover

49,95 €
ISBN 978-1-4614-3983-7

Associahedra, Tamari Lattices and Related Structures
Tamari Memorial Festschrift

Tamari lattices originated from weakenings or reinterpretations of the familiar associativity law. This has been the subject of Dov Tamari’s thesis at the Sorbonne in Paris in 1951 and the central theme of his subsequent mathematical work. Tamari lattices can be realized in terms of polytopes called associahedra, which in fact also appeared first in Tamari’s thesis. By now these beautiful structures have made their appearance in many different areas of pure and applied mathematics, such as algebra, combinatorics, computer science, category theory, geometry, topology, and also in physics.

Their interdisciplinary nature provides much fascination and value. On the occasion of Dov Tamari’s centennial birthday, this book provides an introduction to topical research related to Tamari’s work and ideas. Most of the articles collected in it are written in a way accessible to a wide audience of students and researchers in mathematics and mathematical physics and are accompanied by high quality illustrations.

Contents
Preface
1. Normed Vector Spaces
2. Differentiation
3. Mean value theorems
4. Higher derivatives and differentials
5. Taylor theorems and applications
6. Hilbert spaces
7. Convex functions
8. The inverse and implicit mapping theorems
9. Vector fields
10. The Bow of a vector field
11. The calculus of variations: an introduction
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Fields of interest
Functional Analysis; Optimization

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.


94,95 €
ISBN 978-3-0348-0404-2

Calculus on Normed Vector Spaces

This book serves as an introduction to calculus on normed vector spaces at a higher undergraduate or beginning graduate level. The prerequisites include basic calculus and linear algebra, as well as a certain mathematical maturity. All the important topology and functional analysis topics are introduced where necessary. In its attempt to show how calculus on normed vector spaces extends the basic calculus of functions of several variables, this book is one of the few textbooks to bridge the gap between the available elementary texts and high level texts. The inclusion of many non-trivial applications of the theory and interesting exercises provides motivation for the reader.

Contents
Preface
1. Normed Vector Spaces
2. Differentiation
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11. The calculus of variations: an introduction
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Fields of interest
Functional Analysis; Optimization

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.

2012. XI, 249 p. (Universitext) Softcover

49,95 €

R. Coleman, Laboratoire Jean Kuntzmann, Grenoble, France

Mathematics 81
**Classical Mechanics**

**Applied Mechanics and Mechatronics**

This is the last book of three devoted to Mechanics, and uses the theoretical background presented in Classical Mechanics: Kinematics and Statics and Classical Mechanics: Dynamics. It focuses on exhibiting a unique approach, rooted in the classical mechanics, to study mechanical and electromagnetic processes occurring in Mechatronics. Contrary to the majority of the books devoted to Applied Mechanics, this volume places a particular emphasis on theory, modeling, analysis, and control of gyroscopic devices, including the military applications. This volume provides practicing mechanical/mechatronic engineers and designers, researchers, graduate and postgraduate students with a knowledge of mechanics focused directly on advanced applications.

**Features**

This is the final volume of a trial of works by Jan Awrejcewicz (this third book with Zbigniew Koruba) devoted to classical mechanics. Classical Mechanics: Mechanics and Mechatronics presents a unique approach to studying mechanical and electromagnetic processes occurring in applied mechanics and mechatronics with emphasis on theory, modeling, and analysis and control of gyroscopic devices, […]

**Contents**


**Fields of interest**

Mathematical Physics; Mechatronics; Mechanics

**Target groups**

Graduate

**Type of publication**

Monograph

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

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**Classical Mechanics**

**Dynamics**

This is the second volume of three books devoted to Mechanics. In this book, dynamical and advanced mechanics problems are stated, illustrated, and discussed, including a few novel concepts in comparison to standard text books and monographs. Apart from being addressed to a wide spectrum of graduate students, postgraduate students, researchers, and teachers from the fields of mechanical and civil engineering, this volume is also intended to be used as a self-contained material for applied mathematicians and physical scientists and researchers.

**Features**

This is the second volume of three books, by the same author, devoted to classical mechanics. In this book, Classical Mechanics: Dynamics, dynamical and advanced mechanics problems are stated, illustrated, and discussed, including a few novel concepts by comparison to standard text books and monographs. Aside from being addressed to a wide spectrum of graduate students, postgraduate students, […]

**Contents**


**Fields of interest**

Mathematical Physics; Mechanics

**Target groups**

Graduate

**Type of publication**

Monograph

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

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**Coulomb Frames in the Normal Bundle of Surfaces in Euclidean Spaces**

**Topics from Differential Geometry and Geometric Analysis of Surfaces**

This book is intended for advanced students and young researchers interested in the analysis of partial differential equations and differential geometry. It discusses elementary concepts of surface geometry in higher-dimensional Euclidean spaces, in particular the differential equations of Gauss-Weingarten together with various integrability conditions and corresponding surface curvatures. It includes a chapter on curvature estimates for such surfaces, and, using results from potential theory and harmonic analysis, it addresses geometric and analytic methods to establish the existence and regularity of Coulomb frames in their normal bundles, which arise as critical points for a functional of total torsion.

**Features**

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**Contents**

Surface Geometry.- Elliptic Systems.- Normal Coulomb Frames in R4.- Normal Coulomb Frames in Rn+2

**Fields of interest**

Differential Geometry; Partial Differential Equations; Functions of a Complex Variable

**Target groups**

Graduate

**Type of publication**

Monograph

**Usually dispatched within 3 to 5 business days.**
Felix Hausdorff - Gesammelte Werke Band IX
Korrespondenz


Features
Interpolation, Schur Functions and Moment Problems II

The origins of Schur analysis lie in a 1917 article by Issai Schur in which he constructed a numerical sequence to correspond to a holomorphic contractive function on the unit disk. These sequences are now known as Schur parameter sequences. Schur analysis has grown significantly since its beginnings in the early twentieth century and now encompasses a wide variety of problems related to several classes of holomorphic functions and their matricial generalizations. These problems include interpolation and moment problems as well as Schur parametrization of particular classes of contractive or nonnegative Hermitian block matrices. This book is primarily devoted to topics related to matrix versions of classical interpolation and moment problems. The major themes include Schur analysis of nonnegative Hermitian block Hankel matrices and the construction of Schur-type algorithms. This book also covers a number of recent developments in orthogonal rational matrix functions, matrix-valued Carathéodory [...]

Features

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Fields of interest

Operator Theory; Integral Transforms, Operational Calculus; Functions of a Complex Variable

Target groups

Research

Type of publication

Collection of essays

Usually dispatched within 3 to 5 business days.


94.95 €
ISBN 978-3-0348-0427-1

Levy Processes, Integral Equations, Statistical Physics: Connections and Interactions

In a number of famous works, M. Kac showed that various methods of probability theory can be fruitfully applied to important problems of analysis. The interconnection between probability and analysis also plays a central role in the present book. However, our approach is mainly based on the application of analysis methods (the method of operator identities, integral equations theory, dual systems, integrable equations) to probability theory (Levy processes, M. Kac’s problems, the principle of imperceptibility of the boundary, signal theory). The essential part of the book is dedicated to problems of statistical physics (classical and quantum cases). We consider the corresponding statistical problems (Gibbs-type formulas, non-extensive statistical mechanics, Boltzmann equation) from the game point of view (the game between energy and entropy). One chapter is dedicated to the construction of special examples instead of existence theorems (D. Larson’s theorem, Ringrose’s hypothesis, the Kadison-Singer [...]

Features

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Contents


Fields of interest

Integral Equations; Combinatorics; Functional Analysis

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.


84.95 €
ISBN 978-3-0348-0355-7

Mathematical Methods in Systems, Optimization, and Control

Festschrift in Honor of J. William Helton

This volume is dedicated to Bill Helton on the occasion of his sixty fifth birthday. It contains biographical material, a list of Bill’s publications, a detailed survey of Bill’s contributions to operator theory, optimization and control and 19 technical articles. Most of the technical articles are expository and should serve as useful introductions to many of the areas which Bill’s highly original contributions have helped to shape over the last forty odd years. These include interpolation, Stégó limit theorems, Nehari problems, trace formulas, systems and control theory, convexity, matrix completion problems, linear matrix inequalities and optimization. The book should be useful to graduate students in mathematics and engineering, as well as to faculty and individuals seeking entry level introductions and references to the indicated topics. It can also serve as a supplementary text to numerous courses in pure and applied mathematics and engineering, as well as a source book for seminars.

Features

This volume is dedicated to Bill Helton on the occasion of his sixty-fifth birthday. It contains biographical material, a list of Bill’s publications, a detailed survey of Bill’s contributions to operator theory, optimization and control, and 19 technical articles. Most of the technical articles are expository and should serve as useful introductions to many of the areas which Bill’s highly original [...]

Contents


Fields of interest

General Algebraic Systems; Control; Functions of a Complex Variable; Operator Theory; Operations Research, Mathematical Programming

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.


94.95 €
ISBN 978-3-0348-0410-3
Mathematical Optimization of Water Networks

Water supply- and drainage systems and mixed water channel systems are networks whose high dynamic is determined and/or affected by consumer habits on drinking water on the one hand and by climate conditions, in particular rainfall, on the other hand. According to their size, water networks consist of hundreds or thousands of system elements. Moreover, different types of decisions (continuous and discrete) have to be taken in the water management. The networks have to be optimized in terms of topology and operation by targeting a variety of criteria. Criteria may for example be economic, social or ecological ones and may compete with each other. The development of complex model systems and their use for deriving optimal decisions in water management is taking place at a rapid pace. Simulation and optimization methods originating in Operations Research have been used for several decades; usually with very limited direct cooperation with applied mathematics. The research presented here aims at ...

Features

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Contents


Fields of interest

Optimization; Computational Mathematics and Numerical Analysis; Calculus of Variations and Optimal Control; Optimization; Mathematics (general)

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.
Multiple Dirichlet Series, L-functions and Automorphic Forms

Multiple Dirichlet Series, L-functions and Automorphic Forms gives the latest advances in the rapidly developing subject of Multiple Dirichlet Series, an area with origins in the theory of automorphic forms that exhibits surprising and deep connections to crystal graphs and mathematical physics. As such, it represents a new way in which areas including number theory, combinatorics, statistical mechanics, and quantum groups are seen to fit together. The volume also includes papers on automorphic forms and L-functions and related number-theoretic topics. This volume will be a valuable resource for graduate students and researchers in number theory, combinatorics, representation theory, mathematical physics, and special functions. Contributors: J. Beineke, B. Brubaker, D. Bump, G. Chinta, G. Cornulier, C.A. Diacou, S. Frechette, S. Friedberg, P. Garrett, D. Goldfeld, P.E. Gunnells, B. Heim, J. Hundley, D. Ivanov, Y. Komori, A.V. Kontorovich, O. Lorscheid, K. Matsumoto, P.J. McNamara, S.J. [...] Features

Multiple Dirichlet Series, L-functions and Automorphic Forms gives the latest advances in the rapidly developing subject of Multiple Dirichlet Series, an area with origins in the theory of automorphic forms that exhibits surprising and deep connections to crystal graphs and mathematical physics. As such, it represents a new way in which areas including number theory, combinatorics, statistical mechanics. [...] Contents

Spectral Analysis of Quantum Hamiltonians

Spectral Days 2010

This volume contains surveys as well as research articles broadly centered on spectral analysis. Topics range from spectral continuity for magnetic and pseudodifferential operators to localization in random media, from the stability of matter to properties of Aharonov-Bohm and Quantum Hall Hamiltonians, from waveguides and resonances to supersymmetric models and dissipative fermion systems. This is the first of a series of volumes reporting every two years on recent progress in spectral theory.

Contents

Fields of interest
Partial Differential Equations; Operator Theory

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


119,95 €
ISBN 978-3-0348-0413-4

The Classical Theory of Integral Equations
A Concise Treatment

The Classical Theory of Integral Equations is a thorough, concise, and rigorous treatment of the essential aspects of the theory of integral equations. The book provides the background and insight necessary to facilitate a complete understanding of the fundamental results in the field. With a firm foundation for the theory in their grasp, students will be well prepared and motivated for further study. Included in the presentation are: A section entitled Tools of the Trade at the beginning of each chapter, providing necessary background information for comprehension of the results presented in that chapter; Thorough discussions of the analytical methods used to solve many types of integral equations; An introduction to the numerical methods that are commonly used to produce approximate solutions to integral equations; Over 80 illustrative examples that are explained in meticulous detail; Nearly 300 exercises specifically constructed to enhance the understanding of both routine and challenging[...]

Features
The Classical Theory of Integral Equations is a thorough, concise, and rigorous treatment of the essential aspects of the theory of integral equations. The book provides the background and insight necessary to facilitate a complete understanding of the fundamental results in the field. With a firm foundation for the theory in their grasp, students will be well prepared and motivated for further[...]

Contents

Fields of interest
Ordinary Differential Equations; Applied Mathematics; Computational Methods of Engineering; Mathematical Physics; Applications of Mathematics

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days.

2012. XIII, 344 p. Hardcover

59,95 €
ISBN 978-0-8176-8348-1

Topics in Numerical Methods for Finance

Mark Cummins is a Lecturer in Finance at the Dublin City University Business School. He holds a PhD in Quantitative Finance, with specialization in the application of integral transforms and the fast Fourier transform (FFT) for derivatives valuation and risk management. Mark has previous industry experience working as a Quantitative Analyst within the Global Risk function for BP Oil International Ltd., London. Mark has a keen interest in a broad range of energy modelling, derivatives, risk management and trading topics. He also has a growing interest in the area of sustainable energy finance, with particular focus on the carbon markets. Linked to Mark’s industry experience, he holds a further interest in the area of model risk and model validation. Finbarr Murphy is a Lecturer in Quantitative Finance at the University of Limerick, Ireland. Finbarr’s key teaching and research interests lie in the field of credit risk and derivatives and more recently, in carbon finance. His research is focused on the[...]

Features
Presenting state-of-the-art methods in the area, the book begins with a presentation of weak discrete time approximations of jump-diffusion stochastic differential equations for derivatives pricing and risk measurement. Using a moving least squares reconstruction, a numerical approach is then developed that allows for the construction of arbitrage-free surfaces. Free boundary problems are considered next,[...]

Contents

Fields of interest
Quantitative Finance; Finance / Banking; Computational Mathematics and Numerical Analysis

Target groups
Research

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days.


99,95 €
Unbounded Self-adjoint Operators on Hilbert Space

The book is a graduate text on unbounded self-adjoint operators on Hilbert space and their spectral theory with the emphasis on applications in mathematical physics (especially, Schrödinger operators) and analysis (Dirichlet and Neumann Laplacians, Sturm-Liouville operators, Hamburger moment problem). Among others, a number of advanced special topics are treated on a text book level accompanied by numerous illustrating examples and exercises. The main themes of the book are the following: - Spectral integrals and spectral decompositions of self-adjoint and normal operators - Perturbations of self-adjointness and of spectra of self-adjoint operators - Forms and operators - Self-adjoint extension theory boundary triplets, Krein-Birman-Vishik theory of positive self-adjoint extension

Features

The book is a graduate text on unbounded self-adjoint operators on Hilbert space and their spectral theory with the emphasis on applications in mathematical physics (especially, Schrödinger operators) and analysis (Dirichlet and Neumann Laplacians, Sturm-Liouville operators, Hamburger moment problem). Among others, a number of advanced special topics are treated on a text book level accompanied by [...]
50th Anniversary of the German Society for Anaesthesia and Intensive Care Medicine

This book presents to all those who are interested in the history of Anaesthesiology historical details and information on the development of anaesthesiology in Germany and the remarkable growth of our Society. At the founding session of the German Society of Anaesthesia in Munich on 10 April 1953 42 persons had signed the founding documents. Today about 12,000 anaesthetists are members of the German Society of Anaesthesiology and Intensive Care Medicine, making the DGAII the biggest national society within ESA. Well known are the pioneering contributions of German scientists and surgeons to the development of general, regional and local anaesthesia during the 19th and the beginning of the 20th centuries. But less known outside Germany are the reasons for the delayed evolution of anaesthesiology as a specialty of its own in German medicine, far later than in the UK, Scandinavia or the USA. In this book you will find answers to this question and detailed information on the successful evolution of.[...]

**Features**
- This book presents to all those who are interested in the history of Anaesthesiology historical details and information on the development of anaesthesiology in Germany and the remarkable growth of our Society. At the founding session of the German Society of Anaesthesia in Munich on 10 April 1953 42 persons had signed the founding documents. Today about 12,000 anaesthetists are members of the German [...]
Handbook of Children with Special Health Care Needs

Children with chronic conditions, developmental disorders, and birth defects represent a sizeable minority of American children—as many as one in five. Often their families have financial or other issues limiting their access to appropriate care, thus limiting their adult prospects as well. Compounding the problem, many valuable resources concerning this population are difficult to access although they may be critical to the researchers, practitioners, and policymakers creating standards for quality care and services. In response, the Handbook of Children with Special Health Care Needs assembles research, applied, and policy perspectives reflecting the range of children’s problems requiring special services. Widely studied conditions (e.g., communication disorders, substance abuse) and those receiving lesser attention (e.g., tuberculosis) are covered, as are emerging ideas such as the “medical home” concept of continuity of care. Its interdisciplinary outlook makes the Handbook of Children with Special Health Care Needs a valuable resource for health advocates, researchers, and policymakers.

Contents
1. Policy: Its History, Intentions and Consequences for Children with Special Health Care Needs
2. Severe Communication Disorders
3. Attention Deficit Hyperactivity Disorder
4. Developmental Disabilities
5. Children and Adolescents with Mobility Limitations
6. Rethinking Deaf Learners
7. Visual Disabilities
8. Quality Of Life
9. Mobility Limitations
10. Performance

Features
- Monograph
- Research
- Narrative

Edition: January 2012

2012. XXV, 406 p. 55 illus. Hardcover

$249.00
Krankenhausmanagement

Die 10 wichtigsten Schritte für eine erfolgreiche Klinik

Kanerva’s Occupational Dermatology

Occupational skin diseases are a field of increasing interest in today’s dermatology. Due to rapid developments in modern industry, new dermatological problems constantly occur amongst workers. The 1st edition of this Handbook of Occupational Dermatology was published in 2000 and has served as the main reference book of occupational skin diseases for general and occupational dermatologists and occupational physicians. The new edition is completely revised, updated and extended with respect to new developments. The layout allows for both quick access to practical information and in-depth reading. Included are concise tables, algorithms and figures on how to optimize the diagnostic procedure for daily patient management and expert opinion. The new edition will continue the success as major source of reference for clinical and experimental work in the field of occupational skin diseases, both for students and experts.

Contents

Epidemiology of Occupational Skin Diseases.- Occupational Skin Diseases: Clinical.- Causative Factors.- Diagnosis.- Therapy.- Prognosis.- Prevention.- Job Descriptions.- Chemistry and Concentrations of Patch Test Allergens.

Fields of interest

Dermatology; Allergology; Occupational Medicine / Industrial Medicine; Immunology; General Practice / Family Medicine

Target groups

Professional/practitioner

Type of publication

Handbook

Usually dispatched within 3 to 5 business days.

2012. XXVIII, 2020 p. 780 illus., 288 in color. Hardcover

99,95 €
ISBN 978-3-642-02034-6
Lupus Erythematosus
Clinical Evaluation and Treatment

Often considered the prototypic autoimmune disease, Lupus is characterized by protein manifestations and affects a wide range of organ systems. Despite widespread availability of anti-nuclear antibody testing and other technological diagnostic advances, the diagnosis of lupus can be elusive, difficult, and inexact. Treatment of the disease can also be challenging. Advances in immunology and biotechnology have led to a burgeoning world of new therapies in development that offer patients the real possibility of new therapies and physicians and scientists novel insights into the pathogenesis of this complicated immunological disease. Lupus Erythematosus: Clinical Evaluation and Treatment summarizes the clinical aspects of lupus facing the general clinician in the 21st century. In this invaluable, practical book, the reader will find introductory chapters regarding general diagnostic and treatment principles, followed by chapters addressing the lupus-specific organ manifestations. Special topics [...]
Managing the Kidney when the Heart is Failing

The presence of Chronic Kidney Disease (CKD) increases the risk of death from cardiovascular causes and makes the management of heart failure difficult. The coexistence of CKD and heart failure is increasing in prevalence worldwide and requires a unique and subtle approach to patient management. Managing the Kidney in Heart Failure focuses on the therapeutic management of cardiovascular mortality and preserves kidney function. Co-authored by a Nephrologist and Cardiologist, each chapter of this concise and practical handbook offers a unified perspective to these chronic conditions.

Features
The presence of Chronic Kidney Disease (CKD) increases the risk of death from cardiovascular causes and makes the management of heart failure difficult. The coexistence of CKD and heart failure is increasing in prevalence worldwide and requires a unique and subtle approach to patient management. Managing the Kidney in Heart Failure focuses on the therapeutic management of cardio renal [...] 

Contents
Epidemiology of Chronic Kidney Disease in Heart Failure.- Changes in Kidney Function Following Heart Failure Treatment: Focus on RAS Blockade.- Management of Heart Failure with Renal Artery Ichaemia.- Combination Therapy in Hypertension Treatment.- Edema Mechanisms in the Heart Failure Patient and Treatment Options.- Ultrafiltration and Heart Failure.

Fields of interest
Nephrology, Cardiology

Target groups
Professional/practitioner

Type of publication
Handbook

Usually dispatched within 3 to 5 business days.

2012, XI, 118 p. 16 illus., 13 in color. Softcover
39,95 €
ISBN 978-1-4614-3690-4

Molecular and Translational Vascular Medicine

Molecular and Translational Vascular Medicine will serve as a state-of-the-art resource for physicians and translational medical researchers alike who are interested in the rapidly evolving field of vascular medicine. The text provides new insight into the basic mechanisms of classic vascular pathophysiologic processes like angiogenesis, atherosclerosis, thrombosis, and vasculitis.

Features
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Contents
The Molecular Biology and Genetics of Aneurysms.- The Molecular Biology and Treatment of Systemic Vasculitis in Children.- Recent Insights into the Molecular and Cellular Contributions to Venous Thrombosis.- The Ubiquitin Proteasome System in Endothelial Cell Dysfunction and Vascular Disease.- Molecular Imaging of Vascular Inflammation, Atherosclerosis, and Thrombosis.- Molecular Regulation of Vasculogenesis and Angiogenesis: Recent Advances and Future Directions.- Therapeutic Angiogenesis for Critical Limb Ischemia: Complex Mechanisms and Future Challenges.- Modulating the [...] 

Fields of interest
Pathology; Cardiology; Molecular Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012, XIV, 335 p. 42 illus., 36 in color. (Molecular and Translational Medicine) Hardcover
149,95 €
ISBN 978-1-61779-905-1

Movement Disorders: A Video Atlas

Movement Disorders: A Video Atlas is a practical and concise title offering an introduction to the field of movement disorders, which is expanding rapidly with the involvement of various disciplines and specialties. The unique feature of the book is the accompanying online video content, comprising common cases in each category of movement disorders.

Features
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Contents

Fields of interest
Neurology; Neurosurgery; Internal Medicine; Medicine (general)

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days.

2012, XV, 249 p. 117 illus., 111 in color. With online files/update. (Current Clinical Neurology) Hardcover
74,95 €
Multidisciplinary Management of Rectal Cancer

Questions and Answers

This book seeks to promote an integrated approach among the various specialists involved in the management of rectal cancer with a view to ensuring that treatment is tailored appropriately to the individual patient. For ease of use, a question and answer format is employed. The focus is on those issues typically confronted during daily clinical practice in relation to risk factors, imaging, surgery, radiotherapy, and chemotherapy. The services of an outstanding panel of authors representative of the major European oncological societies have been acquired in order to formulate the questions and provide the answers. All who need assistance in addressing concerns that arise from the need for multidisciplinary management of rectal cancer will find the book to be an ideal source of helpful information.

Features

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Oncofertility Medical Practice

Clinical Issues and Implementation

Oncofertility is a specialty that bridges the disciplines of reproductive endocrinology and infertility and oncology, with the goal of expanding the reproductive options of cancer patients. Given fertility risks associated with specific cancer treatments, as well as the improved long-term survival made possible by these therapies, there has been growing interest in expanding reproductive options for cancer patients. Indeed, both cancer survivors and the medical community have acknowledged the importance of patient counseling and the pursuit of fertility preservation options prior to starting cancer treatment. Oncofertility Medical Practice: Clinical Issues and Implementation is the third in a series of timely and indispensable books on fertility preservation for cancer patients—the first one focused on advances in basic science research and the second one offered ethical, legal, and social perspectives on the theme. This book elucidates the latest practices and emerging treatments in oncofertility.

Features

Oncofertility is a specialty that bridges the disciplines of reproductive endocrinology and infertility and oncology, with the goal of expanding the reproductive options of cancer patients. Given fertility risks associated with specific cancer treatments, as well as the improved long-term survival made possible by these therapies, there has been growing interest in expanding reproductive options for cancer patients.

Contents

Introduction - What do we consider cancer of the rectum? - What is considered the art of rectal cancer by ESTRO, ESMO and ESSO? - Q&As on Risk Factor Identification - Q&As on Imaging - Q&As on Radiotherapy - Q&As on Chemotherapy - Q&As on Surgery - Q&As on Pathology - Q&As on Multidisciplinary Team Management

Fields of interest

Oncology; Surgical Oncology; Radiotherapy; Diagnostic Radiology; Pathology

Target groups

Professional/practitioner

Type of publication

Professional book

Online orders shipping within 2-3 days.

2012. XII, 367 p. 98 illus., 70 in color. Softcover

49,95 €
ISBN 978-3-642-25004-0

R. Kipping, Gräfelfing, Deutschland

Operation Hüfte

Fragen an den Spezialisten


Features

Patienten mit Hüftgelenkbeschwerden wissen oft nicht, wie sie zu einer angemessenen Bewertung ihres Leidens kommen, welche Behandlungsmöglichkeiten es gibt und wie eine Hüftgelenkversorgung abläuft. Welche häuslichen Vorbereitungen sind im Fall einer Operation nötig und wann kann ich welche Arbeiten wieder aufnehmen? In dieser Broschüre beantwortet Dr. Robert Kipping – erfahrener Orthopäde – auf [..]

Contents


Fields of interest

Surgical Orthopedics

Target groups

Popular/general

Type of publication

Popular science

Online orders shipping within 2-3 days.

2012. 88 S. 30 Abb. in Farbe. Softcover

15,84 €
ISBN 978-3-89935-272-6

C. Gracia, University of Pennsylvania, Philadelphia, PA, USA; T.K. Woodruff, Northwestern University, Chicago, IL, USA (Eds.)

Oncofertility Medical Practice

Clinical Issues and Implementation

Oncofertility is a specialty that bridges the disciplines of reproductive endocrinology and infertility and oncology, with the goal of expanding the reproductive options of cancer patients. Given fertility risks associated with specific cancer treatments, as well as the improved long-term survival made possible by these therapies, there has been growing interest in expanding reproductive options for cancer patients. Indeed, both cancer survivors and the medical community have acknowledged the importance of patient counseling and the pursuit of fertility preservation options prior to starting cancer treatment. Oncofertility Medical Practice: Clinical Issues and Implementation is the third in a series of timely and indispensable books on fertility preservation for cancer patients—the first one focused on advances in basic science research and the second one offered ethical, legal, and social perspectives on the theme. This book elucidates the latest practices and emerging treatments in oncology.

Features

Oncofertility is a specialty that bridges the disciplines of reproductive endocrinology and infertility and oncology, with the goal of expanding the reproductive options of cancer patients. Given fertility risks associated with specific cancer treatments, as well as the improved long-term survival made possible by these therapies, there has been growing interest in expanding reproductive options for cancer patients.

Contents

-Gonadotoxicity of Cancer Therapies in Pediatric and Reproductive-Age Females - Gonadotoxicity of Cancer Therapies in Pediatric and Reproductive-Age Males - Fertility Preservation in Males - Embryo and Oocyte Banking - Ovarian Tissue Cryopreservation and Transplantation - The Role of In Vitro Maturation in Fertility Preservation - Mitigating the Risk: The Role of Ovarian Transposition and Medical Suppression - The Birds and the Bees and the Bank: Talking With Families About Future Fertility Amidst a Cancer Diagnosis - Addressing the Three Most Frequently Asked Questions of a Bioethicist -..
Perioperative Management of Patients with Rheumatic Disease

Perioperative care of the patient with a multisystem inflammatory (rheumatic) disease has become increasingly complex and perioperative medicine has evolved into its own subspecialty. Physicians who have expertise in managing patients with rheumatic disease infrequently spend significant time also managing patients undergoing surgical procedures, and the reverse is equally true. Despite the burgeoning literature on the medical management of the surgical patient, scant data have been generated regarding patients with complex rheumatic disease. Perioperative Management of Patients with Rheumatic Disease fills a conspicuous gap in the literature and aims at providing a paved path for rheumatologists—who infrequently manage surgical problems—and medical consultants—who only seldom encounter patients with rheumatic diseases—to tread as they care for patients in the perioperative period. The book addresses discrete management issues from the perspective of the medical subspecialist and also offers.[…]

Features
Perioperative care of the patient with a multisystem inflammatory (rheumatic) disease has become increasingly complex and perioperative medicine has evolved into its own subspecialty. Physicians who have expertise in managing patients with rheumatic disease infrequently spend significant time also managing patients undergoing surgical procedures, and the reverse is equally true. Despite the burgeoning […]

Contents
- Anesthetic Issues for Orthopedic Surgery in Patients with Rheumatoid Diseases.
- Perioperative Pain Management and Orthopedic Surgery.
- Autologous Blood Transfusion.
- Venous Thromboembolism.
- Prophylaxis in the Patient with Rheumatic Diseases.
- Perioperative Cardiac Risk Assessment.
- Management of Medications in Patients with Rheumatic Diseases During the Perioperative Period.
- Prophylactic Antibiotic Use in Patients with Rheumatic Diseases.
- Perioperative Management of Antiphospholipid Antibody Positive Patients During Non-Cardiac Surgeries. […]

Fields of interest
Rheumatology; Surgical Orthopedics; General Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2013, XIV, 413 p. 53 illus., 21 in color. Hardcover
149,95 €
ISBN 978-1-4614-2202-0

Practical Handbook of Endoscopic Ultrasonography

Endoscopic ultrasonography (EUS) has evolved from an obscure method of investigation in the 1980s to a distinct endoscopy subspecialty with interventional and therapeutic capabilities. The art of interpreting EUS images is a skill every endoscopist needs to master. This book helps to meet that need as it is concise, simple to read, and amply illustrated, and describes the technique in a step-by-step manner. Many high-resolution EUS images of diseases are included, and literature reviews are kept short and concise while separate discussions and illustrations are devoted to radial and linear techniques. The book can be used as a reference handbook in the endoscopy room, yet contains all of the relevant information required to perform EUS, interpret images, and reach a diagnosis. Important pathological conditions are thoroughly discussed using representative EUS images, pointing out salient differentiating features, and relevant literature reviews are included. The section on interventional EUS deals.[…]

Features
Endoscopic ultrasonography (EUS) has evolved from an obscure method of investigation in the 1980s to a distinct endoscopy subspecialty with interventional and therapeutic capabilities. The art of interpreting EUS images is a skill every endoscopist needs to master. This book helps to meet that need as it is concise, simple to read, and amply illustrated, and describes the technique in a step-by-step manner. […]

Contents
- Instrumentation.
- Ultrasound Catheter Probe.
- Radial Endoscopic Ultrasonography.
- Linear Endoscopic Ultrasonography-Guided Fine Needle Aspiration.
- Interventional Endosonography.

Fields of interest
Gastroenterology; Ultrasound; Imaging / Radiology

Target groups
Professional/practitioner

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, X, 304 p. 189 illus., 91 in color. Softcover
149,95 €
ISBN 978-4-431-54013-7

Primary Liver Cancer

Challenges and Perspectives

"Primary Liver Cancer: Challenges and Perspectives" presents the recent progress in basic and clinical research in Primary Liver Cancer (PLC) in China and around the world. PLC patients in China make up more than 50% of the total patients worldwide. By contributing to the book, the leading experts in the field of liver cancer in China as well as in the US share with readers their new concepts, practices, and experiences from bench to bed, from population study to individual survey, from molecular search to clinical practice, and from early diagnosis to treatment. The book is intended for researchers in the fields of epidemiology, molecular genetics, cell biology, immunology of HCC and other cancers, and clinical oncology in primary liver cancer. Jianren Gu is a Professor of molecular oncology at the Shanghai Cancer Institute, Shanghai Jiao Tong University School of Medicine and Academician of Chinese Academy of Engineering.

Features
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Contents
Introduction: Concept, Challenges and Perspectives.
- Systems Biological Survey for Cancer Research.
- Systemic Regulation in the Development of Hepatocellular Carcinoma.
- Genomics, Epigenomics of Hepatocellular Carcinoma.
- Biomarkers of Hepatocellular Carcinoma.
- Metabonomics of Hepatocellular Carcinoma.
- Signal Transduction in Hepatic Cancer.
- Cancer Stem Cells of Hepatocellular Carcinoma.
- Immunology of Liver.
- Immunology and Hepatic Cancer.
- Immune Therapy of Hepatic Cancer.
- Epidermology of Primary Liver Cancer.
- Molecular Carcinogenesis of Hepatic Cancer.
- Chemo-intervention of the […]

Fields of interest
Oncology; Epidemiology; Immunology; Cancer Research

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2013. Approx. 300 p. 50 illus., 20 in color. Hardcover
159,00 €
ISBN 978-3-642-28701-5

149,95 €
ISBN 978-1-4614-2202-0
R. Puchner, Wels, Österreich

**Rheumatologie aus der Praxis**

Ein Kurzlehrbuch der entzündlichen Gelenkerkrankungen mit Fallbeispielen


**Features**


**Contents**


**Fields of interest**

Rheumatology

**Type of publication**

Professional/practitioner

**Online orders shipping within 2-3 days.**

2012. XVI, 282 S. 22 Abb. Hardcover

36,32 €
ISBN 978-3-7091-1043-0
Sleep Disordered Breathing in Children

A Comprehensive Clinical Guide to Evaluation and Treatment

Sleep Disordered Breathing in Children: A Comprehensive Clinical Guide to Evaluation and Treatment is a comprehensive, timely and up-to-date review of pediatric sleep disordered breathing (SDB) and offers a thorough focus on several key areas: namely, the normal development and maturation of the airway and breathing during sleep, the techniques that are in place for assessment of SDB in children, the clinical manifestations and characteristics of several pediatric populations at risk for SDB, the implications of SDB in various end-organ systems, and, finally, a critical review of the evidence on current therapeutic approaches. This unique and complete text is of welcome interest to all practicing physicians and healthcare professionals who evaluate children with sleep problems – namely pulmonologists, pediatricians, sleep physicians, pediatric neurologists, pediatric otolaryngologists, and family practitioners, as well as clinical researchers, pediatric nurse practitioners and respiratory[,]..

Features

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Contents


Fields of interest

Pneumology/Respiratory System; Pediatrics; General Practice / Family Medicine; Neurology; Otorhinolaryngology; Internal Medicine

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days.

2013. XV, 593 p. 105 illus., 55 in color. (Respiratory Medicine) Hardcover

199,95 €

Online orders shipping within 2-3 days.

2012. X, 197 p. 147 illus., 123 in color. Hardcover

139,95 €
Therapeutic Hypothermia After Cardiac Arrest

Therapeutic hypothermia has emerged as a very important treatment option for patients with cardiac arrest as it provides significant protection from developing neurologic injury once the patient has been successfully resuscitated. Studies have demonstrated over 15% absolute risk reduction in death and neurologic injury using this therapy. Although hospitals and medical centers have become familiar with this important intervention it still remains greatly under utilized due to a lack of experience and lack of resources to safely and effectively deploy such a program. The objective of this book is to educate and familiarize both providers and institutions as to how to develop and deploy and provide therapeutic hypothermia to their patients. The current knowledge for this is provided by speakers and national experts and also by literature review. There are several courses being provided on this as well throughout the US. These are good venues for people to come and see and get hands on experience, but[...]

Features
Therapeutic hypothermia (TH) has emerged as an important treatment option for patients resuscitated from cardiac arrest as it provides significant protection from developing neurologic injury. Although hospitals and medical centres have become familiar with this intervention, it still remains greatly under-utilized due to a lack of experience and resources to deploy such a program safely and effectively. [...] 

Contents

Fields of interest
Cardiology; Emergency Medicine; Intensive / Critical Care Medicine; Cardiac Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

2012. XVI, 122 p. 27 illus., 18 in color. Hardcover
99,95 €

Translational Cardiology

Molecular Basis of Cardiac Metabolism, Cardiac Remodeling, Translational Therapies and Imaging Techniques

Translational Cardiology: Molecular Basis of Cardiac Metabolism, Cardiac Remodeling, Translational Therapies and Imaging Techniques provides an up-to-date introduction to the role circadian rhythms, cardiac plasticity, and mechanotransduction play in the heart, while at the same time introducing new developments in cellular, viral, and non-biologic therapies that are in the process of being developed. Importantly, the focus of this book is on topics that, due to their novelty, are largely not covered in the other major textbooks. A special emphasis is placed on the molecular basis of cardiac metabolism, new concepts in cardiac remodeling, and translational therapies and imaging techniques currently under development for clinical use. The chapters are written by experts from diverse clinical and biomedical research backgrounds. Translational Cardiology: Molecular Basis of Cardiac Metabolism, Cardiac Remodeling, Translational Therapies and Imaging Techniques simplifies the complexity of the molecular[...]

Features
Translational Cardiology: Molecular Basis of Cardiac Metabolism, Cardiac Remodeling, Translational Therapies and Imaging Techniques provides an up-to-date introduction to the role circadian rhythms, cardiac plasticity, and mechanotransduction play in the heart, while at the same time introducing new developments in cellular, viral, and non-biologic therapies that are in the process of being[...]

Contents

Fields of interest
Otorhinolaryngology; Neurosciences; Neurology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.

109,95 €

2012. XV, 543 p. 67 illus., 52 in color. (Molecular and Translational Medicine) Hardcover
169,95 €
ISBN 978-1-61779-890-0
Ice Ages and Interglacials

Measurements, Interpretation, and Models

The second edition of this book has been completely updated. It studies the history and gives an analysis of extreme climate change on Earth. In order to provide a long-term perspective, the first chapter briefly reviews some of the wild gyrations that occurred in the Earth’s climate hundreds of millions of years ago: snowball Earth and hothouse Earth. Coming closer to modern times, the effects of continental drift, particularly the closing of the Isthmus of Panama are believed to have contributed to the advent of ice ages in the past three million years. This first chapter sets the stage for a discussion of ices ages in the geological recent past (i.e. within the last three million years, with an emphasis on the last few hundred thousand years).

Features

Existing books on ice ages are mostly short, popular, and non-technical. Many deal with the effects of the last ice age on flora and fauna. The small book by the Imbries is mostly historical and reflects their undying belief in the astronomical theory. The only book that attempts to deal with the broad issues of what we know about past ice ages and why they occur is the book by Müller and MacDonald [..]

Contents


Fields of interest
Meteorology / Climatology; Astronomy, Astrophysics and Cosmology; Climate Change; Oceanography

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. XX, 410 p. 18 illus., 29 in color. (Environmental Sciences) Hardcover

approx. 129,95 €
ISBN 978-3-642-30028-8

Philosophy

A.T. Tymieniecka, The World Institute for Advanced Phenomenological Research and Learning, Hanover, NH, USA (Ed.)

Art, Literature, and Passions of the Skies

Flashes of lightning, resounding thunder, gloomy fog, brilliant sunshine…these are the life manifestations of the skies. The concrete visceral experiences that living under those skies stir within us are the ground for individual impulses, emotions, sentiments that in their interaction generate their own ever-changing clouds. While our intellect concentrates on the discovery of our cosmic position, on the architecture of the universe, our imagination is informed by the gloomy vapors, the glimmers of fleeting light, and the glory of the skies. Reconnoitering from the soil of human life and striving towards the infinite, the clan of imagination gets caught up in the clouds of the skies. There in that dimness, sensory receptivity, dispositions, emotions, passionate strivings, yearnings, elevations gather and propagate. From the ”Passions of the Skies” spring innermost intuitions that nourish literature and the arts.

Features

Flashes of lightning, resounding thunder, gloomy fog, brilliant sunshine…these are the life manifestations of the skies. The concrete visceral experiences that living under those skies stir within us are the ground for individual impulses, emotions, sentiments that in their interaction generate their own ever-changing clouds. While our intellect concentrates on the discovery of our cosmic position, on [...]
History as a Science
The Philosophy of R.G. Collingwood

Since its appearance in 1981 History as a Science has been welcomed as a coherent and comprehensive review and analysis of the many aspects of Collingwood’s philosophy of history, the development of his views, and their reception.

The book was the first to pay extensive attention to Collingwood’s unpublished manuscripts, and to his work as an archaeologist and historian.

With the publication of this volume Jan van der Dussen, opened up a new angle in Collingwood studies. The republication of this volume meets an increasing demand to make the book available for future Collingwood scholars, and people interested in Collingwood’s philosophy. Apart from verbal changes to improve readability and a new pagination, the manuscript is the same as the original.

Features
Since its appearance in 1981 History as a Science has been welcomed as a coherent and comprehensive review and analysis of the many aspects of Collingwood’s philosophy of history, the development of his views, and their reception.

The book was the first to pay extensive attention to Collingwood’s unpublished manuscripts, and to his work as an archaeologist and historian. With the publication of this [...]
The Philosophy of Computer Games

Computer games have become a major cultural and economic force, and a subject of extensive academic interest. Up until now, however, computer games have received relatively little attention from philosophy. Seeking to remedy this, the present collection of newly written papers by philosophers and media researchers addresses a range of philosophical questions related to three issues of crucial importance for understanding the phenomenon of computer games: the nature of gameplay and player experience, the moral evaluation of player and avatar actions, and the reality status of the gaming environment. By doing so, the book aims to establish the philosophy of computer games as an important strand of computer games research, and as a separate field of philosophical inquiry. The book is required reading for anyone with an academic or professional interest in computer games, and will also be of value to readers curious about the philosophical issues raised by contemporary digital culture.

Fields of interest
Philosophy of Technology; Computer Imaging, Vision, Pattern Recognition and Graphics

Features
Computer games have become a major cultural and economic force, and the last decade has seen the emergence of extensive academic study of such games. Up until now there has been little attention from philosophy to investigate the philosophical problems that arise from the phenomenon of computer games. This book fills this lacuna by bringing philosophers and media researchers together in discussions [...]
Artificial Satellites and How to Observe Them

Every amateur astronomer - and many non-astronomers - will be familiar with seeing a "star" that shows that characteristic steady slide across the starry background of the sky. Artificial satellites can be seen any night, and some as bright as the planets. But how many of us can identify which satellites or spent launch vehicle casing we are seeing? Artificial Satellites and How to Observe Them describes all the different satellites that can be observed without optical aid, including of course the International Space Station and the many spy satellites operated by different nations. Richard Schmude looks at them in detail and describes how they can be observed by amateurs, how to recognize them, and even how to predict their orbits. Artificial satellites have changed since the beginning of the millennium. Several additional countries have launched them. And amateur astronomers have utilized digital cameras in order to image satellites to a resolution of about three feet. This book describes how to [...]
Coarse-Grained Modelling of DNA and DNA Self-Assembly

This thesis presents a novel coarse-grained model of DNA, in which bases are represented as rigid nucleotides. The model is shown to quantitatively reproduce many phenomena, including elastic properties of the double-stranded state, hairpin formation in single strands and hybridization of pairs of strands to form duplexes, the first time such a wide range of properties has been captured by a coarse-grained model. The scope and potential of the model is demonstrated by simulating DNA tweezers, an iconic nanodevice, and a two-footed DNA walker—the first time that coarse-grained modelling has been applied to dynamic DNA nanotechnology.

Features

This thesis presents a novel coarse-grained model of DNA, in which bases are represented as rigid nucleotides. The model is shown to quantitatively reproduce many phenomena, including elastic properties of the double-stranded state, hairpin formation in single strands and hybridization of pairs of strands to form duplexes, the first time such a wide range of properties has been captured by a coarse-grained model.

Contents


Fields of interest

Biophysics and Biological Physics; Nanotechnology; Polymer Sciences; Statistical Physics, Dynamical Systems and Complexity; Soft and Granular Matter; Complex Fluids and Microfluidics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

Computer Simulation Study of Collective Phenomena in Dense Suspensions of Red Blood Cells under Shear

The rheology of dense red blood cell suspensions is investigated via computer simulations based on the lattice Boltzmann, the immersed boundary and the finite element methods. The red blood cells are treated as extended and deformable particles immersed in the ambient fluid. In the first part of the work, the numerical model and strategies for stress evaluation are discussed. In the second part, the behavior of the suspensions in simple shear flow is studied for different volume fractions, particle deformabilities, and shear rates. Shear thinning behavior is recovered. The existence of a shear-induced transition from a tumbling to a tank-treading motion is demonstrated. The transition can be parameterized by a single quantity, namely the effective capillary number. It is the ratio of the suspension stress and the characteristic particle membrane stress. At the transition point, a strong increase in the orientational order of the red blood cells and a significant decrease of the particle diffusivity is observed.

Features

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Contents

Complex fluids and their rheology.—Physical considerations and ingredients for the numerical model.—Fluid solver: the lattice Boltzmann method.—Fluid—structure interaction: the immersed boundary method.—Membrane model and energetics.—Stress evaluation in combined immersed boundary lattice Boltzmann simulations.—Rheology and microscopic behavior of red blood cell suspensions.

Fields of interest

Biophysics and Biological Physics; Nanotechnology; Polymer Sciences; Statistical Physics, Dynamical Systems and Complexity; Soft and Granular Matter; Complex Fluids and Microfluidics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

Cosmic Ray Diffusion in the Galaxy and Diffuse Gamma Emission

The original work presented in this thesis constitutes an important contribution to modern Cosmic Ray (CR) physics, and comes during one of the most exciting periods of this field. The first part introduces a new numerical code (DRAGON) to model the CR propagation in our Galaxy. The code is then used to perform a combined analysis of CR data, making it possible to determine their propagation properties with unprecedented accuracy. The second part is dedicated to a theoretical interpretation of the recent crucial experimental results on cosmic electron and positron spectra (PAMELA, Fermi-LAT experiments). Using the tools developed in the first part of the thesis, the author convincingly argues for the existence of a new spectral component, which could arise either from local astrophysical sources, such as pulsars, or from Dark Matter annihilation or decay. This thesis is a highly advanced work; the methods, analysis and results are clearly and carefully presented. This work is set to become an important contribution to modern Cosmic Ray (CR) physics, and comes during one of the most exciting periods of this field. The first part introduces a new numerical code (DRAGON) to model the CR propagation in our Galaxy. The code is then used to perform a combined analysis of CR data, making it possible to determine their propagation properties.

Contents

Introduction.—Cosmic Ray diffusion in the Galaxy.—Numerical codes that solve the CR diffusion equations.—Propagation of CR nuclei: our results.—The leptonic field.—Diffuse gamma ray emission from the Galaxy.—Conclusions and future plans. A new numerical code (DRAGON) to model the CR propagation in our Galaxy. The code is then used to perform a combined analysis of CR data, making it possible to determine their propagation properties.

Fields of interest

Astrophysics and Astroparticles; Numerical and Computational Physics; Plasma Physics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.
Detection of Non-Amplified Genomic DNA

This book offers an overview of state-of-the-art in non-amplified DNA detection methods and provides chemists, biochemists, biotechnologists and material scientists with an introduction to these methods. In fact all these fields have dedicated resources to the problem of nucleic acid detection, each contributing with their own specific methods and concepts. This book will explain the basic principles of the different non-amplified DNA detection methods available, highlighting their respective advantages and limitations. Non-amplified DNA detection can be achieved by adopting different techniques. Such techniques have allowed the commercialization of innovative platforms for DNA detection that are expected to break into the DNA diagnostics market. The enhanced sensitivity required for the detection of non amplified genomic DNA has prompted new strategies that can achieve ultrasensitivity by combining specific materials with specific detection tools. Advanced materials play multiple roles in[..]

Features
This book offers a state-of-the-art overview on non amplified DNA detection methods and provides chemists, biochemists, biotechnologists and material scientists with an introduction to these methods. In fact all these fields have dedicated resources to the problem of nucleic acid detection, each contributing with their own specific methods and concepts. This book will explain the basic principles of the []

Contents
Preface.- List of contributors.- Part I DNA analysis: current issues.- 1 Genetic analyses in health laboratories: current status and expectations.- Part II Advanced materials for ultrasensitive analysis.- 3 Engineered nanostructures for ultrasensitive DNA detection.- 4 Advanced molecular probes for sequence-specific DNA recognition.- 5 Charged conjugated polymers.- 6 Optical detection of non-amplified genomic DNA.- 7 Electrochemical detection of DNA using nanomaterials-based sensors.- 8 Piezoelectric sensing for[..]

Fields of interest
Biophysics and Biomedical Physics; Analytical Chemistry; Biomedical Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012, XIV, 315 p. 90 illus., 68 in color. (Soft and Biological Matter) Hardcover

129,95 €
ISBN 978-94-007-1225-6

Handbook of Theoretical Atomic Physics

Data for Photon Absorption, Electron Scattering, and Vacancies Decay

The aim of this book is to present highly accurate and extensive theoretical Atomic data and to give a survey of selected calculational methods for atomic physics, used to obtain these data. The book presents the results of calculations of cross sections and probabilities of a broad variety of atomic processes with participation of photons and electrons, namely on photoabsorption, electron scattering and accompanying effects. Included are data for photoabsorption and electron scattering cross-sections and probabilities of vacancy decay formed for a large number of atoms and ions. Attention is also given to photoionization and vacancy decay in endohedrals and to positron-atom scattering. The book is richly illustrated. The methods used are one-electron Hartree-Fock and the technique of Feynman diagrams that permits to include many-electron correlations. This is done in the frames of the Random Phase approximation with exchange and the many-body perturbation theory. Newly obtained and previously[..]

Features
The aim of this book is to present highly accurate and extensive theoretical Atomic data and to give a survey of selected calculational methods for atomic physics, used to obtain these data. The book presents the results of calculations of cross sections and probabilities of a broad variety of atomic processes with participation of photons and electrons, namely on photoabsorption, electron scattering and[..]

Contents

Fields of interest
Atomic, Molecular, Optical and Plasma Physics; Applied Optics, Optoelectronics, Optical Devices; Physical Chemistry; Optical and Electronic Materials; Astronomy, Astrophysics and Cosmology; Nanoscale Science and Technology

Target groups
Research

Type of publication
Handbook

Usually dispatched within 3 to 5 business days.

2012, XII, 799 p. 1031 illus., 836 in color. With online files/update. Hardcover

249,00 €
High-Temperature Superconductors

This book presents the current knowledge about superconductivity in high Tc cuprate superconductors. There is a large scientific interest and great potential for technological applications. The book discusses all the aspects related to all families of cuprate superconductors discovered so far. Beginning with the phenomenon of superconductivity, the book covers: the structure of cuprate HTSCs, critical currents, flux pinning, synthesis of HTSCs, proximity effect and SQUIDs, possible applications of high Tc superconductors and theories of superconductivity. Though a high Tc theory is still awaited, this book describes the present scenario and BCS and RVB theories. The second edition was significantly extended by including film-substrate lattice matching and buffer layer considerations in thin film HTSCs, brick-wall microstructure in the epitaxial films, electronic structure of the CuO2 layer in cuprates, s-wave and d-wave coupling in HTSCs and possible scenarios of theories of high Tc superconductivity.

Features

This book presents the current knowledge about superconductivity in high Tc cuprate superconductors. There is a large scientific interest and great potential for technological applications. The book discusses all the aspects related to all families of cuprate superconductors discovered so far. Beginning with the phenomenon of superconductivity, the book covers: the structure of cuprate HTSCs, critical [...]

Contents


Fields of interest

Low Temperature Physics; Solid State Physics; Optical and Electronic Materials

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

A.K. Saxena, APS University, Rewa, India

How to Observe the Sun Safely

"How to Observe the Sun Safely, 2nd Edition" gives all the basic information and advice the amateur astronomer needs to get started in observing our own ever-fascinating star. Unlike many other astronomical objects, you do not need a large telescope or expensive equipment to observe the Sun. And it is possible to take excellent pictures of the Sun with today's low-cost digital cameras! This title concentrates on providing practical, on-the-spot advice to the amateur astronomer who is interested in observing the Sun, using commercially available equipment. This book surveys what is visible on the Sun, before describing how to record solar features and measure solar activity levels. There is also an account of how to use H-alpha and Calcium-K filters to observe and record prominences and other features of the solar chromosphere, the Sun's inner atmosphere. Because we are just entering a period of high activity on the Sun, following a long-quiet period, many more amateur astronomers will become [...] Features

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Fields of interest

Astronomy, Observations and Techniques; Popular Science in Astronomy; Astrophysics and Artroparticles

Target groups

Popular/general

Type of publication

Popular science

Mathematischer Einführungskurs für die Physik

Studierende, die ein Physikstudium aufnehmen, brauchen zu Beginn vor allem eines: mathematische Grundkenntnisse. Da es sich hierbei zunächst um einen relativ beschränkten und charakteristischen Ausschnitt aus der Mathematik handelt, werden die benötigten Kompetenzen vor allem im Rahmen von Tutorien oder Arbeitsgruppen vermittelt. Dieser Einführungskurs soll Studierenden im ersten Semester helfen, die Inhalte dieser Veranstaltungen zu vertiefen und möglichst rechtzeitig die Fähigkeiten zu erwerben, die ein erfolgreiches Physikstudium garantieren.

Features

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Contents


Fields of interest

Mathematical Methods in Physics; Applications of Mathematics

Target groups

Upper undergraduate

Type of publication

German textbook

Online orders shipping within 2-3 days.

27,94 € ISBN 978-3-8351-0254-5

How to Observe the Sun Safely

"How to Observe the Sun Safely, 2nd Edition" gives all the basic information and advice the amateur astronomer needs to get started in observing our own ever-fascinating star. Unlike many other astronomical objects, you do not need a large telescope or expensive equipment to observe the Sun. And it is possible to take excellent pictures of the Sun with today's low-cost digital cameras! This [...] Contents


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Astronomy, Observations and Techniques; Popular Science in Astronomy; Astrophysics and Artroparticles

Target groups

Popular/general

Type of publication

Popular science

Mathematischer Einführungskurs für die Physik

Studierende, die ein Physikstudium aufnehmen, brauchen zu Beginn vor allem eines: mathematische Grundkenntnisse. Da es sich hierbei zunächst um einen relativ beschränkten und charakteristischen Ausschnitt aus der Mathematik handelt, werden die benötigten Kompetenzen vor allem im Rahmen von Tutorien oder Arbeitsgruppen vermittelt. Dieser Einführungskurs soll Studierenden im ersten Semester helfen, die Inhalte dieser Veranstaltungen zu vertiefen und möglichst rechtzeitig die Fähigkeiten zu erwerben, die ein erfolgreiches Physikstudium garantieren.

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Fields of interest

Mathematical Methods in Physics; Applications of Mathematics

Target groups

Upper undergraduate

Type of publication

German textbook

Online orders shipping within 2-3 days.

27,94 € ISBN 978-3-8351-0254-5
Nonlinear Optics in the Filamentation Regime

This thesis provides deep insights into currently controversial questions in laser filamentation, a highly complex phenomenon involving nonlinear optical effects and plasma physics. First, based on the concrete picture of a femtosecond laser beam which self-pinsches its radial intensity distribution, the thesis delivers a novel explanation for the remarkable and previously unexplained phenomenon of pulse self-compression in filaments. Moreover, the work addresses the impact of a non-adiabatic change of both nonlinearity and dispersion on such an intense femtosecond pulse transiting from a gaseous dielectric material to a solid one. Finally, and probably most importantly, the author presents a simple and highly practical theoretical approach for quantitatively estimating the influence of higher-order nonlinear optical effects in optics. These results shed new light on recent experimental observations, which are still hotly debated and may completely change our understanding of filamentation, causing a [...] 

Features
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Contents
Theoretical Foundations of Femtosecond Filamentation.- Pulse Self-Compression in Femtosecond Filaments.- Saturation and Inversion of the All-Optical Kerr Effect. 

Fields of interest
Laser Technology and Physics, Photonics; Plasma Physics; Classical Electrodynamics, Wave Phenomena 

Target groups
Research 

Type of publication
Monograph 

Usually dispatched within 3 to 5 business days.

2012, XVI, 125 p. 35 illus., 21 in color. (Springer Theses) Hardcover

99,95 €
ISBN 978-3-642-30929-8

Quantum Mechanics
A Modern and Concise Introductory Course

Starting from basic principles, the book covers a wide variety of topics, ranging from Heisenberg, Schrödinger, second quantization, density matrix and path integral formulations of quantum mechanics, to applications that are (or will be) corner stones of present and future technologies. The emphasis is on spin waves, quantum information, recent tests of quantum physics and decoherence. The book provides a large amount of information without unbalancing the flow of the main ideas by laborious detail. 

Features
Starting from basic principles, the book covers a wide variety of topics, ranging from Heisenberg, Schrödinger, second quantization, density matrix and path integral formulations of quantum mechanics, to applications that are (or will be) corner stones of present and future technologies. The emphasis is on spin waves, quantum information, recent tests of quantum physics and decoherence. The book provides a [...] 

Contents

Fields of interest
Quantum Physics; Quantum Field Theories, String Theory 

Target groups
Graduate 

Type of publication
Graduate/advanced undergraduate textbook 

Usually dispatched within 3 to 5 business days.

2012, XII, 297 p. 64 illus., 3 in color. (Graduate Texts in Physics) Hardcover

59,95 €
ISBN 978-3-642-20555-2
**The Mie Theory**

**Basics and Applications**

This book presents in a concise way the Mie theory and its current applications. It begins with an overview of current theories, computational methods, experimental techniques, and applications of optics of small particles. There is also some biographic information on Gustav Mie, who published his famous paper on the colour of Gold colloids in 1908. The Mie solution for the light scattering of small spherical particles set the basis for more advanced scattering theories and today there are many methods to calculate light scattering and absorption for practically any shape and composition of materials. The optics of small particles is of interest in industrial, atmospheric, astronomic and other research. The book covers the latest developments in diverse fields in scattering theory such as plasmon resonance, multiple scattering and optical force.

**Features**

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**Contents**

Gustav Mie and Mie theory.- Nobel nano-particles on plane surfaces and plasmon resonances.- Mie theory and Gaussian laser beam scattering.- The extension of Mie theory to multiple spheres.- Mie theory, a review.- From theories by Lorenz and Mie to ontological under-determination of theories by experiments.- Predicting the appearance of materials using Lorenz-Mie theory.- Rainbows, coronas and glories.- Optical force and torque on single and aggregated spheres: The trapping issue.- Dipole radiation effects in surface enhanced Raman scattering.- Mie theory extensions.

**Fields of interest**

Atomic, Molecular, Optical and Plasma Physics; Microwaves, RF and Optical Engineering; Meteorology / Climatology; Nanoscale Science and Technology; Nanotechnology; Measurement Science, Instrumentation

**Target groups**

Research

**Type of publication**

Monograph

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

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**Thermodynamics for Chemists, Physicists and Engineers**

**Thermodynamics**

Thermodynamics is an essential part of chemical physics and is of fundamental importance in physics, chemistry and engineering courses. This textbook takes an interdisciplinary approach to the subject and is therefore suitable for undergraduates in all those courses. The book is an introduction to phenomenological thermodynamics and its applications to phase transitions and chemical reactions, with some references to statistical mechanics. It strikes the balance between the rigour of the Callen text and phenomenological approach of the Atkins text. The book is divided in three parts. The first introduces the postulates and laws of thermodynamics and complements these initial explanations with practical examples. The second part is devoted to applications of thermodynamics to phase transitions in pure substances and mixtures. The third part covers thermodynamic systems in which chemical reactions take place. There are sections on more advanced topics such as thermodynamic potentials, [...]

**Features**

Thermodynamics is an essential part of chemical physics and is of fundamental importance in physics, chemistry and engineering courses. This textbook takes an interdisciplinary approach to the subject and is therefore suitable for undergraduates in all those courses. The book is an introduction to phenomenological thermodynamics and its applications to phase transitions and chemical reactions, with some [...]

**Contents**


**Fields of interest**

Thermodynamics; Physical Chemistry; Engineering Thermodynamics, Heat and Mass Transfer; Energy (general)

**Target groups**

Lower undergraduate

**Type of publication**

Undergraduate textbook

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

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**Z Boson Transverse Momentum Distribution, and ZZ and WZ Production**

**Measurements Using 7.3 – 8.6 fb–1 of p¯p Collisions at 1.96 TeV**

This work develops novel data analysis techniques enabling aspects of the Standard Model of particle physics to be tested with unprecedented precision using data from the DZero experiment at the high energy “Tevatron” proton-antiproton collider at Fermilab, Chicago. Vesterinen’s measurements of the transverse momentum of Z bosons using the novel variable \( q^*_\perp \) have exposed deficiencies in the current state-of-the-art theoretical predictions for vector boson production at hadron colliders. These techniques are now being used in the experiments at CERN’s Large Hadron Collider (LHC) and have stimulated considerable interest in the theoretical particle physics community. Furthermore, Vesterinen’s measurements of the cross sections for the production of pairs of vector bosons (ZZ and ZZ) are to date the most precise ever made.

**Features**

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**Contents**


**Fields of interest**

Elementary Particles, Quantum Field Theory; Mathematical Methods in Physics; Mathematical Physics

**Target groups**

Research

**Type of publication**

Monograph

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

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2012, XII, 218 p. 185 illus., 38 in color. (Springer Theses) Hardcover

**99.95 €**

ISBN 978-3-642-30787-4

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2012, XIV, 259 p. 78 illus., 56 in color. (Springer Series in Optical Sciences, Vol. 169) Hardcover

**129.95 €**

ISBN 978-3-642-28737-4

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2012, XVI, 343 p. 71 illus. Hardcover

**69.95 €**

ISBN 978-94-007-2998-8
Einzel- und Familientherapie mit Kindern

Kinderpsychodrama Band 3


Features


Contents


Fields of interest

Psychology (general); Child and School Psychology; Psychotherapy and Counseling

Target groups

Professional/practitioner

Type of publication

Professional book

Usually dispatched within 3 to 5 business days.

2013. 288 S. 32 Abb. Softcover

27,99 €

ISBN 978-3-531-17466-2

Psychology

M. Glüer, Bielefeld

Beziehungsqualität und kindliche Kooperations- und Bildungsbereitschaft

Eine Studie in Kindergarten und Grundschule


Features

Beziehungsqualität und Kooperation in Kindergarten und Schule stellen eine wesentliche Komponente für einen erfolgreichen Bildungsverlauf dar. Michael Glüer untersucht empirisch den geschlechtspezifischen Einfluss der Beziehungsqualität zu sekundären Bezugsfiguren auf die kindliche Kooperations- und Bildungsbereitschaft. Der Autor bietet einen Einblick in den aktuellen Forschungsstand zur Erfassung und [...]
Lesen und Rechtschreiben lernen nach dem IntraActPlus-Konzept


Features
Berufswahl und Bewährung
Fallrekonstruktionen zu den Motivlagen von Studierenden der Sozialen Arbeit


Features

Contents

Fields of interest
Social Work; Organizational Studies, Economic Sociology; Sociology, general

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. 261 S. Softcover
37,34 €
ISBN 978-3-531-18379-4
Defining Street Gangs in the 21st Century
Fluid, Mobile, and Transnational Networks

In contrast to the pattern of long-standing occidental street gangs modelled in the North American paradigm, new-age gangs have appeared as loosely organized, with a high degree of interchangeability of their membership. Associated with this structural fluidity is an equally significant geographic mobility, which paradoxically does not appear to diminish the intensity of personal bonds formed within and between ‘new-age’ gangs. The dimensions of fluidity of gang membership and geographic mobility across police jurisdictions is increasingly seen as the organizational pattern of emerging gangs, in large part shaped by worldwide patterns of human migration and globalization. While the structure of new-age gangs appears as loose-knit, what must be emphasized is that this characteristic is reflective of a criminal network of economic commodity-based ‘turf’ as opposed to a close-knit geographically anchored ‘turf’ that has characterized the prevailing North American (occidental) gang model. This volume[

Features

Contents

Introduction. - The Gangs as a Network. - From Fixed to Mobile, Members to Players. - Criminal Enterprise. - Managing the Problem.

Fields of interest
Criminology & Criminal Justice

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2013. XII, 54 p. 6 illus. (SpringerBriefs in Criminology) Softcover
49,95 €

Die politischen Systeme Skandinaviens

Die skandinavischen Länder werden seit langem als politische und gesellschaftliche Modelle wahrgenommen. Viele Beobachter in Kontinentaleuropa bewundern die konsensuellen Demokratien des Nordens, die starken sozialdemokratischen Parteien und Gewerkschaften, die umfassenden und solidarischen Wohlfahrtsstaaten, die PISA-gepriesene Bildungspolitik sowie eine Außenpolitik, die auf Frieden und Entwicklung ausgerichtet ist. In diesem Buch werden die dänischen, finnischen, isländischen, norwegischen und schwedischen Demokratien, ihre kulturellen, gesellschaftlichen, ökonomischen sowie politischen Eigenheiten aus einer international vergleichenden Perspektive vorgestellt und systematisch analysiert. Neben einem historischen und kulturellen Überblick über den Norden enthält das Buch Darstellungen über die demokratischen Institutionen und Funktionsweisen sowie die zentralen politischen Akteure. Die Sozial- und Bildungspolitik bilden ebenso einen Schwerpunkt der Analyse von Politikergebnissen wie die[

Features

Contents

Introduction. - The Gangs as a Network. - From Fixed to Mobile, Members to Players. - Criminal Enterprise. - Managing the Problem.

Fields of interest
Criminology & Criminal Justice

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2013. XII, 54 p. 6 illus. (SpringerBriefs in Criminology) Softcover
49,95 €

Die verstimte Demokratie

Moderne Volksherrschaft zwischen Aufbruch und Frustration


Features

Contents

Introduction. - The Gangs as a Network. - From Fixed to Mobile, Members to Players. - Criminal Enterprise. - Managing the Problem.

Fields of interest
Criminology & Criminal Justice

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2013. XII, 54 p. 6 illus. (SpringerBriefs in Criminology) Softcover
49,95 €

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Introduction. - The Gangs as a Network. - From Fixed to Mobile, Members to Players. - Criminal Enterprise. - Managing the Problem.

Fields of interest
Criminology & Criminal Justice

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2013. XII, 54 p. 6 illus. (SpringerBriefs in Criminology) Softcover
49,95 €
**Erfolgsfaktor Mitarbeiter**

**Wirksames Personalmanagement für Kulturbetriebe**


**Contents**


**Fields of interest**

Sociology, general; Social Sciences (general); Cultural Management

**Target groups**

Professional/practitioner

**Type of publication**

Professional book

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

2012, 235 S. 11 Abb. Softcover

27,99 €

ISBN 978-3-531-18353-4

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A. Moreno Minguez, University of Valladolid, Spain (Ed.)

**Family Well-Being**

**European Perspectives**

In the international literature there is a broad scope for comparative research on the welfare regime, family change and gender relations, but we have no book that comprehensively collects the main research that has been conducted from the perspective of family well-being. Thus, this volume focuses on the comparative analyse of family and well-being in a European perspective, a dimension which literature has not covered till the present. This book collects the researches done in Europe on family well-being and compares family change and well-being in different institutional and cultural contexts. It takes a deeper look at early evidence of family well-being and presents a compilation of findings from the main researchers on this topic. A broad range of topics is covered from the theorizing of children’s well-being to the development of specific measures of family well-being. The book also outlines pivotal methodological and conceptual issues. A distinguished, international group of researchers provides.[...]

**Features**

This ground-breaking work plugs a yawning gap in the methods developed by social scientists to measure ‘well-being’, which to date have not featured a targeted measure of this variable for family groups. As Southern European societies crack under the strain of austerity programs imposed as a response to the current financial crisis, measuring the well-being of families is becoming an ever more urgent task.[...]

**Contents**

1 Introduction - Almudena Moreno Minguez.- Part I Approaches to the study of family well-being.- 2 Conceptualizing family well-being - Shirley Zimmerman.- 3 Social quality, the quality of life and families in Europe - Claire Wallace and Paloma Abbott.- Part II Family, child poverty and well-being.- 4 Child poverty and well-being in Italy in a comparative framework - Daniela Del Boca and Anna Laura Mancini.- 5 Child well-being and single parent family structure in the OECD - Simon Chapley.- Part III Work family balance and gender.- 6 Parental leave policies, gender equality and family[...]

**Fields of interest**

Quality of Life Research

**Target groups**

Research

**Type of publication**

Contributed volume

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


99,95 €

ISBN 978-94-007-4353-3

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Faszination Wolfsburg 1938-2012


**Features**

Anhand von vier Studien, die einen Zeitraum von nahezu 50 Jahren umfassen, werden Geschichte und Probleme der Volkswagenstadt Wolfsburg anschaulich dargestellt. Auf der Basis einmaliger empirischen Materials wird ein Überblick über die städtebaulichen und sozialen Probleme einer Stadtneugründung gegeben. Von besonderem Interesse ist hierbei die monstrukturelle Prüfung der Lebensbedingungen und der [...]
**Handbook of Neurosociology**

Until recently, a handbook on neurosociology would have been viewed with skepticism by sociologists, who have long been protective of their disciplinary domain against perceived encroachment by biology. But a number of developments in the last decade or so have made sociologists more receptive to biological factors in sociology and social psychology. Much of this has been encouraged by the editors of this volume, David Franks and Jonathan Turner. This new interest has been increased by the explosion of research in neuroscience on brain functioning and brain-environment interaction (via new MRI technologies), with implications for social and psychological functioning. This handbook emphasizes the integration of perspectives within sociology as well as between fields in social neuroscience. For example, Franks represents a social constructionist position following from G.H. Mead’s voluntaristic theory of the act while Turner is more social structural and positivistic. Furthermore, this handbook not-[

**Contents**

Forward Douglas Massey. - Chapter 1. Introduction: Summaries and Comments, David D. Franks and Jonathan H. Turner. - PART I. LARGE ISSUES. - Chapter 2. Neural Social Science; George Lakoff. - Chapter 3. Why We Need Neurosociology as Well as Social Neuroscience; David D. Franks. - Chapter 4. Social Cognitions and the Problems of Minds; John Shook. - Chapter 5. Social Neuroscience of Human Aggression: Genetic, Hormonal and Neural Underpinnings; Pranjal Metha, Stefan Geotz and Justin Carre. - Chapter 6. Social Neuroscience and the Modern Synthesis of Social and Biological Levels of Analysis. -

**Fields of interest**

Sociology; general; Neurosociology

**Target groups**

Research

**Type of publication**

Handbook

**Usually dispatched within 3 to 5 business days.**
Harmonisierung demographischer und sozio-ökonomischer Variablen

Instrumente für die international vergleichende Surveymethodik


Features
Methodologie und Praxis der Wissenssoziologischen Diskursanalyse

Band 1: Interdisziplinäre Perspektiven


Features
Die Wissenssoziologische Diskursanalyse (WDA) verbindet theoretische Grundlegungen der wissenssoziologischen Tradition von Peter Berger und Thomas Luckmann mit Diskursperspektiven von Michel Foucault. Sie zielt auf die Diskursanalyse gesellschaftlicher Wissensverhältnisse sowie Wissenspolitiken und deren Folgen. Die WDA kommt in unterschiedlichen sozialwissenschaftlichen Disziplinen - bspw. Soziologie, [...] Content
Mit Beiträgen von Reiner Keller · Christian Schmidt-Wellenborn · Ina Schmid-Knittel · Christine Zimmermann · Mari Bern · Gabriele Christmann · Gerhard Mahnken · Gilles Renout · Claudia Brunner · Daniel Zepter · Oliver Kiefl · Lisa Pfahl · Rixta Wundrak · Inka Bormann · Boris Traue · Inga Truschkat.

Fields of interest
Sociology, general

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2013. 499 S. 22 Abb. (Theorie und Praxis der Diskursforschung). Softcover

37,34 €
ISBN 978-3-531-17874-5
The Quality of Life in Asia
A Comparison of Quality of Life in Asia

This book studies and compares quality of life in 29 countries/societies in Asia: Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Kazakhstan, Kyrgyzstan, Korea(South), Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Taiwan, Tajikistan, Thailand, Turkmenistan, Uzbekistan, and Vietnam. We utilize the AsiaBarometer Surveys conducted annually from 2003 through 2008. We focus on the notion of subjective quality of life and conceptualize it as two levels, global and domain. After we explain about the AsiaBarometer Survey Project, we explore current country profile, demographics, lifestyles, value priorities, specific life domain assessment and overall quality of life. We then estimate the independent effects of demographics, lifestyles, value priorities, life domain assessment on the overall quality of life within each society. As well as comparing the results between nations, we look for key generalized[..]

Features
This book comprehensively and systematically explores demographic profile, demographics, lifestyles, value priorities, and subjective and objective quality of life of the ordinary citizens in most societies in Asia, utilizing the AsiaBarometer Surveys conducted annually from 2003 through 2008. The surveyed area encompasses 29 societies in East, Southeast, South and Central Asia. The book examines life quality in each [...] contents


Fields of interest
Quality of Life Research; Social Policy; Political Science, general; Regional Science; Social Sciences (general)

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.


Statistics

Theorie praktischer Probleme
Marginalien zum „Gemeinspruch: Das mag in der Theorie richtig sein, tut aber nicht für die Praxis“

Der Problembegriff findet mit ebenso großer Selbstverständlichkeit wie Häufigkeit sowohl in der Alltagssprache als auch in der Wissenschaftssprache Verwendung. Es handelt sich um einen Allerweltsbegriff für vielfältige Arten theoretischer und praktischer Schwierigkeiten. Das Buch diskutiert Ansätze, worin der Problembegriff eine zentrale Rolle spielt. Es wird deutlich: Kant hat Recht, wenn er trotz aller Unterschiede und Gegensätze zwischen Theorie und Praxis auf der Unhaltbarkeit des „Gemeinspruchs“ besteht: „Das mag in der Theorie richtig sein, tut aber nicht für die Praxis.

Features
Der Problembegriff findet mit ebenso großer Selbstverständlichkeit wie Häufigkeit sowohl in der Alltagssprache als auch in der Wissenschaftssprache Verwendung. Es handelt sich um einen Allerweltsbegriff für vielfältige Arten theoretischer und praktischer Schwierigkeiten. Problemtheoretische Überlegungen zu all diesen Themen finden sich in den Werken zahlreicher Philosophen und [...] contents


Fields of interest

Target groups
Philosophy

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2012. 126 S, Softcover 18,64 € ISBN 978-3-531-18733-4

Handbook of Computational Statistics
Concepts and Methods

The Handbook of Computational Statistics - Concepts and Methods (second edition) is a revision of the first edition published in 2004, and contains additional comments and updated information on the existing chapters, as well as three new chapters addressing recent work in the field of computational statistics. This new edition is divided into 4 parts in the same way as the first edition. It begins with "How Computational Statistics became the backbone of modern data science" (Ch.1): an overview of the field of Computational Statistics, how it emerged as a separate discipline, and how its own development mirrored that of hardware and software, including a discussion of current active research. The second part (Chs. 2 - 15) presents several topics in the supporting field of statistical computing. Emphasis is placed on the need for fast and accurate numerical algorithms, and some of the basic methodologies for transformation, database handling, high-dimensional data and graphics treatment are[..]

Features
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Fields of interest
Statistics and Computing / Statistics Programs; Statistics (general); Statistical Theory and Methods

Target groups
Research

Type of publication
Handbook

Usually dispatched within 3 to 5 business days.

Markov Bases in Algebraic Statistics

Algebraic statistics is a rapidly developing field, where ideas from statistics and algebra meet and stimulate new research directions. One of the origins of algebraic statistics is the work by Diaconis and Sturmfels in 1998 on the use of Gröbner bases for constructing a connected Markov chain for performing conditional tests of a discrete exponential family. In this book we take up this topic and present a detailed summary of developments following the seminal work of Diaconis and Sturmfels. This book is intended for statisticians with minimal backgrounds in algebra. As we ourselves learned algebraic notions through working on statistical problems and collaborating with notable algebraists, we hope that this book with many practical statistical problems is useful for statisticians to start working on the field.

Features
Algebraic statistics is a rapidly developing field, where ideas from statistics and algebra meet and stimulate new research directions. One of the origins of algebraic statistics is the work by Diaconis and Sturmfels in 1998 on the use of Gröbner bases for constructing a connected Markov chain for performing conditional tests of a discrete exponential family. In this book we take up this topic and present a [...]
Six Sigma with R

Statistical Engineering for Process Improvement

Six Sigma has arisen in the last two decades as a breakthrough Quality Management Methodology. With Six Sigma, we are solving problems and improving processes using as a basis one of the most powerful tools of human development: the scientific method. For the analysis of data, Six Sigma requires the use of statistical software, being R an Open Source option that fulfills this requirement. R is a software system that includes a programming language widely used in academic and research departments. Nowadays, it is becoming a real alternative within corporate environments. The aim of this book is to show how R can be used as the software tool in the development of Six Sigma projects. The book includes a gentle introduction to Six Sigma and a variety of examples showing how to use R within real situations. It has been conceived as a self contained piece. Therefore, it is addressed not only to Six Sigma practitioners, but also to professionals trying to initiate themselves in this management methodology. [..]

Features

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Contents


Features

Six Sigma has arisen in the last two decades as a breakthrough Quality Management Methodology. With Six Sigma, we are solving problems and improving processes using as a basis one of the most powerful tools of human development: the scientific method. For the analysis of data, Six Sigma requires the use of statistical software, being R an Open Source option that fulfills this requirement. R is a software system that includes a programming language widely used in academic and research departments. Nowadays, it is becoming a real alternative within corporate environments. The aim of this book is to show how R can be used as the software tool in the development of Six Sigma projects. The book includes a gentle introduction to Six Sigma and a variety of examples showing how to use R within real situations. It has been conceived as a self contained piece. Therefore, it is addressed not only to Six Sigma practitioners, but also to professionals trying to initiate themselves in this management methodology. [..]

Fields of interest

Statistics (general); Statistics for Life Sciences, Medicine, Health Sciences; Statistics and Computing / Statistics Programs; Statistics for Engineering, Physics, Computer Science, Chemistry and Earth Sciences; Statistics for Business, Economics, Mathematical Finance, Insurance

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 3 to 5 business days.

2012. XXX, 284 p. 104 illus., 26 in color. (Use R!, Vol. 36) Softcover

54,95 €

T.K. Chandra, Indian Statistical Institute, New Delhi, India

The Borel-Cantelli Lemma

This monograph provides an extensive treatment of the theory and applications of the celebrated Borel-Cantelli Lemma. Starting from some of the basic facts of the axiomatic probability theory, it embodies the classical versions of these lemma, together with the well known as well as the most recent extensions of them due to Barndorff-Nielsen, Balakrishnan and Stepanov, Erdos and Renyi, Kochen and Stone, Petrov and the present author. The versions of the second Borel-Cantelli Lemma for pair wise negative quadrant dependent sequences, weakly *-mixing sequences, mixing sequences (due to Renyi) and for many other dependent sequences are all included. The special feature of the book is a detailed discussion of a strengthened form of the second Borel-Cantelli Lemma and the conditional form of the Borel-Cantelli Lemmas due to Levy, Chen and Serfling. All these results are well illustrated by means of many interesting examples. All the proofs are rigorous, complete and lucid. An extensive list of research[..]

Features

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Contents


Fields of interest

Statistical Theory and Methods; Probability Theory and Stochastic Processes

Target groups

Upper undergraduate

Type of publication

Brief

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2012. XII, 106 p. (SpringerBriefs in Statistics) Softcover

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