Just Released New Books
September 2011

English Titles

“Sorted by author and title within the main subject”
A History of Diabetes in Pregnancy

The impact of maternal diabetes on offspring prenatal development and survival

Type 1 diabetes is a serious and common disease, afflicting one per 200 of the population worldwide. It is widely believed to cause harmful physical maldevelopment—congenital malformations—and other consequences in the unborn children of women with the disease. This book considers the history of the disease in pregnant women and this belief that it causes anomalies since the time of the discovery of insulin in 1921, and presents a profound and critical appraisal of the subject of its supposed prenatal harmfullness.

Features
Type 1 diabetes is a serious and common disease, afflicting one per 200 of the population worldwide. It is widely believed to cause harmful physical maldevelopment—congenital malformations—and other consequences in the unborn children of women with the disease. This book considers the history of the disease in pregnant women and this belief that it causes anomalies since the time of the discovery of insulin in 1921, and presents a profound and critical appraisal of the subject of its supposed prenatal harmfullness.

Fields of interest
Biomedicine (general); Pediatrics; Gynecology; Epidemiology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 272 p. 1 illus. Hardcover
139,95 €
ISBN 978-94-007-1566-1

Transcultural Turbulences
Towards a Multi-Sited Reading of Image Flows

Today, hardly anything moves as fast across the globe as images and media. This fact opens new avenues to explore social and cultural change, but also poses new theoretical challenges of how to grasp and better understand these changes and flows. Moreover, such movements across geophysical and cultural borders have a historical depth that enables us to explore globalisation and localisation in new ways. Transculturality is still a relatively new field of research in the Humanities through which we sharpen our competence and ‘literacy’ to come to terms with the complexity of globalised cultures. This volume ventures into new domains of research on the transculturality of images and addresses the need to develop new or modify established often ethno- and Eurocentric interpretations of what happens when images travel. It does so by bringing together cutting-edge research from fields such as art history, cultural anthropology, colonial history, Islamic studies, religious studies and literary criticism.

Features
Today, hardly anything moves as fast across the globe as images and media. This fact opens new avenues to explore social and cultural change, but also poses new theoretical challenges of how to grasp and better understand these changes and flows. Moreover, such movements across geophysical and cultural borders have a historical depth that enables us to explore globalisation and localisation in new ways. […]

Contents
Introduction.- Visual Cosmopolitanism.- Circulating Images.
Fields of interest
Regional and Cultural Studies; Interdisciplinary Studies; Anthropology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. VIII, 308 p. 90 illus., 54 in color. (Transcultural Research – Heidelberg Studies on Asia and Europe in a Global Context, Vol.) Softcover
129,95 €
ISBN 978-3-642-18392-8

Drunk on Capitalism. An Interdisciplinary Reflection on Market Economy, Art and Science

The book presents an interdisciplinary collection of essays that discuss the impact of market economy on our culture in the post-Berlin Wall era. It contains two parts. The first focuses on the commercialisation of science and education. The second elaborates on the multiple and diverse relation between art and capital.

Features
This interdisciplinary collection of essays probes the impact of the market economy on art and science in the post-Berlin Wall era. Part One: Science for Sale, A Dollar Green Science Scene, focuses on new alliances of contemporary science and education with commercial funding, and the commodification of knowledge. Among the questions addressed here are: Does proximity to economic power eclipse […]

Contents

Fields of interest
Interdisciplinary Studies; Regional and Cultural Studies; Philosophy of the Social Sciences; Modern Philosophy; Political Philosophy

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

99,95 €
ISBN 978-94-007-2081-7

Biomedicine

H. Kaler, Children’s Hospital Research Foundation, Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, USA

A History of Diabetes in Pregnancy

The impact of maternal diabetes on offspring prenatal development and survival

Type 1 diabetes is a serious and common disease, afflicting one per 200 of the population worldwide. It is widely believed to cause harmful physical maldevelopment—congenital malformations—and other consequences in the unborn children of women with the disease. This book considers the history of the disease in pregnant women and this belief that it causes anomalies since the time of the discovery of insulin in 1921, and presents a profound and critical appraisal of the subject of its supposed prenatal harmfullness.

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Fields of interest
Biomedicine (general); Pediatrics; Gynecology; Epidemiology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 272 p. 1 illus. Hardcover
139,95 €
ISBN 978-94-007-1566-1
Animal Models of Movement Disorders

Volume I

Movement is the way that animals interact with their environment and is under the organization and complex control of the brain and spinal cord. Multiple central nervous systems, including cortex, basal ganglia, cerebellum, and brainstem, interact to provide precise motor control and integration. Damage or disease within these systems cause profound motor disturbances in man, which can be effectively modeled in animals to develop a better understanding and treatment of the human condition. Animal Models of Movement Disorders introduces a variety of methods and techniques used to model and assess motor function in experimental animals from lower orders, such as drosophila and c. elegans, through vertebrate species including fish, to mammals, such as rodents and non-human primates. The most advanced contemporary models in each system are presented at multiple levels of analysis from molecular and genetic modeling, lesions, anatomy, neurochemistry, to imaging and behavior. Volume I contains general...[

Features

Movement is the way that animals interact with their environment and is under the organization and complex control of the brain and spinal cord. Multiple central nervous systems, including cortex, basal ganglia, cerebellum, and brainstem, interact to provide precise motor control and integration. Damage or disease within these systems cause profound motor disturbances in man, which can be effectively...[

Contents


Fields of interest

Neurosciences; Neurology; Animal Models

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XV, 447 p. 74 illus., 31 in color. (Neuromethods, Vol. 61) Hardcover

109,95 €

Animal Models of Movement Disorders

Volume II

Movement is the way that animals interact with their environment and is under the organization and complex control of the brain and spinal cord. Multiple central nervous systems, including cortex, basal ganglia, cerebellum, and brainstem, interact to provide precise motor control and integration. Damage or disease within these systems cause profound motor disturbances in man, which can be effectively modeled in animals to develop a better understanding and treatment of the human condition. Animal Models of Movement Disorders introduces a variety of methods and techniques used to model and assess motor function in experimental animals from lower orders, such as drosophila and c. elegans, through vertebrate species including fish, to mammals, such as rodents and non-human primates. The most advanced contemporary models in each system are presented at multiple levels of analysis from molecular and genetic modeling, lesions, anatomy, neurochemistry, to imaging and behavior. Volume II of this detailed...[

Features

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Contents

Behavioral Assessment of Genetic Mouse Models of Huntington’s Disease.- Excitotoxic Lesions of the Rodent Striatum.- Combination Lesion Models of MSA.- The Role of the Dorsal Striatium in Instrumental Conditioning.- 3-Nitropropionic Acid and Other Metabolic Toxin Lesions of the Striatum.- Functional Assessment of Subcortical Ischemia.- Functional Organization of Rat and Mouse Motor Cortex.- Forebrain Circuits Controlling Whisker Movements.- An Approach to Understanding the Neural Circuitry of Saccade Control in the Cerebral Cortex Using Antidromic Identification in the Awake Behaving...[

Fields of interest

Neurosciences; Neurology; Animal Models

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


109,95 €
ISBN 978-1-61779-300-4

Blood in Motion

Blood in Motion is a textbook in Cardiovascular Science. It sets out to introduce, entice and explain the cardiovascular system to the reader using a classical system in teaching anatomy, physiology, general operation and specific systems. It is specifically designed to support the interests of students and experienced physiologists and clinicians. The book is subdivided into three parts, comprising a total of 11 chapters. Part I presents an historical perspective of cardiovascular knowledge and complements it with current insight into the physiology of the cardiovascular system. Part II explores sections of the circulatory loop, starting with an in-depth treatment of the veins, and including the lymphatic, the microcirculation, the arterial system and the heart. Part III incorporates approaches to the cardiovascular system as a whole, both in physiology and in science, such as modeling. This section introduces impedance-defined flow and offers the reader its application in mathematical modeling. At[...]

Features

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Contents


Fields of interest

Biomedicine (general); Cardiology; History of Medicine

Target groups

Upper undergraduate

Type of publication

Undergraduate textbook

Usually dispatched within 3 to 5 business days

2011. XVII, 323 p. 114 illus., 10 in color. Hardcover

59,95 €
Control of Innate and Adaptive Immune Responses during Infectious Diseases

Upon infection the host needs to mount vigorous immune response against pathogen in order to successfully control its replication. However, once the infectious agent is controlled or eliminated, host cells need to signal the immune system to slow or cease its activities. While vast knowledge has been accumulated through the years on the mechanisms involved in the initiation and effector phases of the immune response, the pathways triggered in order to modulate or end innate and acquired immunity are becoming more evident as evidence for its relevance comes to surface. Due to its biological power, evidence has surfaced indicating that eventually pathogens may take advantage of such regulatory pathways in order to escape effector mechanisms and progress to persistence. This book will discuss several cellular pathways involved in controlling immune response in the context of infectious diseases, their biological consequences and potential "hijack" of these pathways for the benefit of pathogen leading.[...]

Features
The interface between host and pathogen cells involves a complex series of molecular mechanisms. On one side host cells recognize pathogen structures and initiate immune responses. On the other side, pathogens continually evolve immune escape strategies aiming at establishing chronic disease and transmission to a new host. The balance between those two forces can determine the fate of infectious diseases.[...]

Contents
Resolution of inflammation during Toxoplasma gondii infection.- Mechanisms of host protection and pathogen evasion of immune response during tuberculosis.- NKT cell activation during (microbial) infection.- Regulation of innate immunity during Trypanosoma cruzi infection.- B cell-mediated regulation of immunity during Leishmania infection.- Control of the Host Response to Histoplasma capsulatum.- Modulation of T-cell mediated immunity by cytomegalovirus.- T cell responses during Human Immunodeficiency Virus (HIV)-1 infection

Fields of interest
Immunology; Microbiology; Infectious Diseases

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012, X, 178 p. 21 illus., 20 in color. Hardcover
99,95 €

Controlled Release in Oral Drug Delivery

Controlled Release in Oral Drug Delivery provides focus on specific topics, complementing other books in the initial CRS series. Each chapter sets the context for the inventions described and describe the latitude that the inventions allow. In order to provide some similar look to each chapter, the coverage includes the historical overview, candidate drugs, factors influencing design and development, formulation and manufacturing and delivery system design. This volume was written along three main sections: the relevant anatomy and physiology, a discussion on candidates for oral drug delivery and the major three groups of controlled release systems: diffusion control (swelling and inert matrices); environmental control (pH sensitive coatings, time control, enzymatic control, pressure control) and finally lipidic systems.

Features
Controlling the rate, extent and time of a drug’s delivery can optimize its performance in many ways, relative to "immediate release" delivery. Such optimized design requires a broad knowledge base of topics such as gastro intestinal tract physiology, polymer science, and the mechanisms by which drugs are released from the formulated units. Technologies to “reduce to practice” also need to be carefully [...]
**DNA Topoisomerases and Cancer**

DNA topoisomerases represent an essential family of DNA processing enzymes and a large number of topoisomerase inhibitors are used clinically for the treatment of various human cancers. Novel drugs are in clinical development both against type I and type II topoisomerases. The book will include basic biochemical and structural reviews for the cancer-relevant topoisomerases. It will describe how topoisomerase dysfunctions can damage the genome and increase the risk of cancers, and the involvement of topoisomerases in programmed cell death. The book will also present the various topoisomerase inhibitors in clinical use and development and their molecular and cellular mechanisms of action.

**Features**

DNA topoisomerases are present in all living organisms and are essential to maintaining the helical structure of DNA. They are highly relevant for cancer because a number of anti-cancer drugs selectively target two of the human enzymes, DNA topoisomerases I and II. Those drugs convert topoisomerases into cellular poisons by trapping the enzymes as they cleave DNA. The book starts out with a detailed outline of [...]  

**Contents**


**Fields of interest**

Cancer Research, Pharmacology / Toxicology  
Target groups
Research  
Type of publication
Monograph  
**Usually dispatched within 3 to 5 business days**

2012, XI, 443 p. 65 illus., 49 in color. (Cancer Drug Research and Development) Hardcover  
149,95 €  

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**Epigenetics Protocols**

The field of epigenetics has played a major role at the forefront not only of molecular biology, but also of medical genetics and clinical medicine. Few disciplines have experienced growth comparable to that which we have witnessed for epigenetics in the past decade. The goal of Epigenetics Protocols, Second Edition is to highlight select techniques that have been mainstays in the field as well as to cover methods that are especially relevant to extant discoveries in epigenetics. This volume focuses on the two broad areas of epigenetics: DNA methylation and chromatin modifications, and also covers the complex topic of computational methods for epigenetic analyses which is essential to a complete understanding of the vast body of information that is being derived with the use of these newly-developed tools. Written in the highly successful Methods in Molecular Biology™ series format, chapters contain introductions to their respective topics, lists of the necessary materials and reagents,...[...]  

**Features**

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**Contents**


**Fields of interest**

Human Genetics; Gene Expression  
Target groups
Research  
Type of publication
Contribution volume  
**Usually dispatched within 3 to 5 business days**

109,95 €  
ISBN 978-1-61779-315-8

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**Gene Expression Profiling**

Understanding gene expression and how it changes under normal and pathological conditions is essential to our understanding of the fundamentals of cell biology through to the targeted treatment of disease. In Gene Expression Profiling: Methods and Protocols, Second Edition, experts in their particular fields compile detailed protocols for a broad range of techniques, currently available and being further developed, for the analysis of gene expression at the DNA, RNA, and protein levels. 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. Practical and easy-to-use, Gene Expression Profiling: Methods and Protocols, Second Edition presents a collection of clearly described and illustrated chapters, certain to be helpful to researchers in academia, in[...]

**Features**

Understanding gene expression and how it changes under normal and pathological conditions is essential to our understanding of the fundamentals of cell biology through to the targeted treatment of disease. In Gene Expression Profiling: Methods and Protocols, Second Edition, experts in their particular fields compile detailed protocols for a broad range of techniques, currently available and being [...].  

**Contents**


**Fields of interest**

Human Genetics; Gene Expression  
Target groups
Professional/practitioner  
Type of publication
Contribution volume  
**Usually dispatched within 3 to 5 business days**

94,95 €  
Gene Regulatory Networks
Methods and Protocols
Gene regulatory networks play a vital role in organismal development and function by controlling gene expression. With the availability of complete genome sequences, several novel experimental and computational approaches have recently been developed which promise to significantly enhance our ability to comprehensively characterize these regulatory networks by enabling the identification of respectively their genomic or regulatory state components, or the interactions between these two in unprecedented detail. Divided into five convenient sections, Gene Regulatory Networks: Methods and Protocols details how each of these approaches contributes to a more thorough understanding of the composition and function of gene regulatory networks, while providing a comprehensive protocol on how to implement them in the laboratory. Written in the highly successful Methods in Molecular Biology series format, chapters contain introductions to their respective topics, lists of the necessary materials and reagents, ... [..]

Features
Gene regulatory networks play a vital role in organismal development and function by controlling gene expression. With the availability of complete genome sequences, several novel experimental and computational approaches have recently been developed which promise to significantly enhance our ability to comprehensively characterize these regulatory networks by enabling the identification of respectively [...]

Contents
Influenza Virus Sialidase - A Drug Discovery Target

Influenza continues to be an ongoing problem despite the existence of vaccines and drugs. Disease outbreaks can occur relatively quickly as witnessed with the recent emergence of the influenza virus A/H1N1 pandemic. The development of new anti-influenza drugs is thus a major challenge. This volume describes all aspects of the virus structure and function relevant to infection. The focus is on drug discovery of inhibitors to the enzyme sialidase, which plays a key role in the infectious lifecycle of the virus. Following an overview of the influenza virus, the haemagglutinin, the interactions with the cell receptors and the enzymology of viral sialidase, recent results in drug design are presented. These include a full coverage of the design, synthesis and evaluation of carbohydrate as well as non-carbohydrate influenza virus sialidase inhibitors. Further reviews of the clinical experience with influenza virus sialidase inhibitors and of the development of resistance to these inhibitor drugs.[...]

Contents
Influenza Virus Virology.
- Investigating the interaction between influenza and sialic acid – making and breaking the link.
- Enzymology of Influenza Virus Sialidase.
- Influenza Virus Sialidase and Structure-Based Drug Design.
- The Development of Carbohydrate-based Influenza Virus Sialidase Inhibitors.
- The Development of Non-carbohydrate-based Influenza Virus Sialidase Inhibitors.
- Clinical Experience with Influenza Virus Sialidase Inhibitors.
- Resistance Development to Influenza Virus Sialidase Inhibitors.

Fields of interest
Pharmacology / Toxicology; Infectious Diseases; Virology; Immunology

Insulin-like Growth Factors and Cancer

From Basic Biology to Therapeutics

The book will detail the history, successes, and failures of targeted therapies for cancer, with a particular focus on IGF systems and cancer.

Features
The insulin-like growth factor system has been shown to play a critical role in cancer development and progression. Insulin-like Growth Factors and Cancer: From Basic Biology to Therapeutics, specifically brings these aspects to the reader. The volume covers the epidemiological aspects of the relationships between circulating insulin and IGF-1 levels and the risk for cancer and[...]

Contents
Preface.
- Epidemiology of IGF-1 and Cancer.
- Aging and Cancer: The IGF-1 Connection.
- Obesity, Type 2 Diabetes and Cancer.
- IGF System and Breast Cancer.
- The Role of Insulin-Like Growth Factor Signaling in Prostate Cancer Development and Progression.
- Mouse Models of IGF-1 Deficiency.
- Insulin-like Growth Factor Signaling in Pediatric Sarcomas.
- Cancer Genes, Tumor Suppressors, and Regulation of IGF-1R Expression in Cancer.
- Mouse Models of IGF-1R and Cancer.
- Targeting the Insulin-Like Growth Factor 1 Receptor in Cancer Therapy.
- Targeting Insulin-like Growth Factor (IGF-1R) and[...]

Fields of interest
Cancer Research; Pharmacology / Toxicology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. X, 284 p. 22 illus., 17 in color. (Cancer Drug Discovery and Development) Hardcover

139.95 €

Intradermal Immunization

This volume of Current Topics in Microbiology and Immunology covers diverse topics related to intradermal immunization. The chapters highlight the effectiveness of intradermal immunization in experimental animal models or in clinical practice, all supporting the view that intradermal immunization is at least as good as other immunization routes. Keeping in mind that current vaccines are not specially designed for intradermal immunization, but show comparable efficiency even at reduced dosages, this underlines the great potential for the skin as a vaccination site. Hopefully, the overview in this volume will encourage vaccine designers to focus on this promising immunization route, and in addition, to inspire them to develop vaccines that are especially optimized for intradermal immunization.

Features
Despite the impressive success of current vaccine programs, there remains a need to improve the effectiveness of current vaccines. A more powerful and longer lasting immune response induced by smaller and fewer doses of vaccine is an exciting challenge. Improvement of effectiveness also enables induction of protective immunity in populations that respond poorly to vaccination, for example elderly or[...]

Contents
Preface.
- Understanding the murine cutaneous dendritic cell network to improve intradermal vaccination strategies.
- Insight into the immunobiology of human skin and cutaneous dendritic cell subsets to perfection intradermal vaccination design.
- Delivery systems for intradermal vaccination.
- Targeting skin dendritic cells to improve intradermal immunization.
- Intradermal Rabies vaccination: the evolution and future of pre- and post-exposure prophylaxis.
- Intradermal vaccination to protect against yellow fever and influenza.
- The dermis as a portal for dendritic cell-targeted immunotherapy[...]

Fields of interest
Vaccine; Immunology; Dermatology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. X, 253 p. 17 illus. (Current Topics in Microbiology and Immunology, Vol. 351) Hardcover

139.95 €
ISBN 978-3-642-23689-1
**Lymphoma and Leukemia of the Nervous System**

This is the second edition of a book called “Lymphoma of the Nervous System,” which was published by Butterworth-Heinemann (B-H) in 2004. Lymphoma and Leukemia of the Nervous System is a comprehensive review of this challenging group of diseases and should be useful for the practicing neurologist, hematologist, oncologist and for any practitioner involved in the management of these patients.

**Contents**


**Fields of interest**

Cancer Research; Pharmacology / Toxicology

**Target groups**

Research

**Type of publication**

Contributed volume

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

2012, XIX, 415 p. 61 illus., 30 in color. With 1 4-page color insert. Hardcover

139,95 €


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**Mood and Anxiety Related Phenotypes in Mice**

Characterization Using Behavioral Tests, Volume II

Preclinical research related to mood and anxiety disorders relies extensively upon mouse behavioral tests and models, the use of which continues to increase as a greater number of underlying susceptibility genes are discovered, new targets for medications are identified, and clinical studies reveal novel neurobiological risk factors. Mood and Anxiety Related Phenotypes in Mice: Characterization Using Behavioral Tests, Volume II serves as a complement to the previous volume in order to offer a comprehensive resource for the behavioral approaches that are valuable for the characterization of mood and anxiety disorder-related behaviors in mice and the techniques that are utilized in the development of effective medications.

As a collection presented in the Neurmethods series, each chapter provides a brief background and review of the test or model as well as a complete and up-to-date protocol narrative. Authoritative and comprehensive, Mood and Anxiety Related Phenotypes in Mice: Characterization Using Behavioral Tests, Volume II serves as a complement to the previous volume in order to offer a comprehensive resource for the behavioral approaches that are valuable for the characterization of mood and anxiety disorder-related behaviors in mice and the techniques that are utilized in the development of effective medications.

**Fields of interest**

Pharmacology / Toxicology; Neurosciences; Endocrinology

**Target groups**

Research

**Type of publication**

Contributed volume

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

2012, XI, 175 p. 24 illus., 15 in color. (Research and Perspectives in Endocrine Interactions) Hardcover

139,95 €

ISBN 978-3-642-22774-5

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**Multi-System Endocrine Disruption**

Endocrine disruption is an expanding field due to the numerous chemicals involved and, as evidenced more recently, the variety of homeostatic systems that they can alter throughout life. The gathering of experts from all over the world should help to identify health disorders that are possibly or likely related to exposure to endocrine disrupters.

The research needs have been discussed as well as recommendations prioritizing target groups and following the precautionary principle.

**Fields of interest**

Pharmacology / Toxicology; Neurosciences; Endocrinology

**Target groups**

Research

**Type of publication**

Contributed volume

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

2011, XIII, 382 p. 91 illus., 4 in color. (Neurmethods, Vol. 63) Hardcover

109,95 €

ISBN 978-1-61779-312-7
Natural Killer T cells
Balancing the Regulation of Tumor Immunity

This book will cover primary roles of NKT cells in immunity to cancer, in both mouse tumor models and cancer patients. There are several chapters describing general aspects of NKT cells.

Features
Natural Killer T (NKT) cells are CD1d-restricted T cells that respond to lipid, not protein, antigens presented by CD1d, which is a non-classical MHC class 1-like molecule. This relatively small but pivotal T cell population bridges the gap between innate and adaptive immunity by rapidly produce large amounts of many kinds of cytokines and by providing the T cell arm of the adaptive immune system a [-]

Contents

Fields of interest
Cancer Research; Pharmacology / Toxicology

Target groups
Research

Type of publication
Professional book

Usually dispatched within 3 to 5 business days

2012. XI, 205 p. 23 illus., 16 in color. (Cancer Drug Discovery and Development) Hardcover
139,95 €

Neurodegeneration
Methods and Protocols

Neurodegenerative disorders, such as Alzheimer’s and Parkinson’s disease are a growing burden on our society. Understanding and treating these common diseases is one of the major current challenges for the biomedical field. In Neurodegeneration: Methods and Protocols, experts in the field tackle this challenge and present cutting-edge analytical and technological approaches to study the mechanisms underlying neurodegenerative processes. Organizes into five sections, chapters detail protocols for isolating and culturing cells from the nervous system, production and use of animal models, characterization of cell death, analytical tools to study disease mechanisms, and therapeutic approaches for neurodegeneration. 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 avoiding known [...]

Features
Neurodegenerative disorders, such as Alzheimer’s and Parkinson’s disease are a growing burden on our society. Understanding and treating these common diseases is one of the major current challenges for the biomedical field. In Neurodegeneration: Methods and Protocols, experts in the field tackle this challenge and present cutting-edge analytical and technological approaches to study the mechanisms [...]

Contents
Introduction to Neurodegenerative Diseases and Related Techniques.- In vivo and In vitro Determination of Cell Death Markers in Neurons.- Degenerating Processes Identified by Electron Microscopic Immunocytochemical Methods.- Isolation and Culture of Neurons and Astrocytes from the Mouse Brain Cortex.- Isolation and Culture of Postnatal Spinal Motoneurons.- Converting Human Pluripotent Stem Cells to Neural Tissue and Neurons to Model Neurodegeneration.- Neural Differentiation of Induced Pluripotent Stem Cells.- Developing Yeast Models of Human Neurodegenerative Disorders.- Modeling [...]
New Frontiers of Molecular Epidemiology of Infectious Diseases

Molecular epidemiology has recently broadened its focuses due to the development of molecular tools but also by incorporating advances of other fields such as mathematical epidemiology, molecular ecology, population genetics and evolution. Facing new risks of emerging and re-emerging infectious diseases that are threats for humans and their livestock, the objectives of molecular epidemiology include: - the development of molecular tools, genotyping and gene expression - the incorporation of concepts and results of population genetics of infectious diseases - the integration of recent advances in theoretical epidemiology and evolutionary ecology of diseases - a better understanding of transmission for the development of risk factors analyses. This book will demonstrate how the latest developments in molecular tools and in epidemiology can be integrated with studies of host-pathogen interactions. Besides a strong theoretical component, there will also be an emphasis on applications in the fields of...

Contents
Preface.
Part 1 – Methods and tools in molecular epidemiology.
Part 2 – Contribution of population genetic.
Part 3 – Modelling the dynamics of host-pathogen interactions.

Pediatric Clinical Pharmacology

The objective of this volume is to give an overview of the present state of the art of pediatric clinical pharmacology including developmental physiology, pediatric-specific pathology, special tools and methods for development of drugs for children (assessment of efficacy, toxicity, long-term safety etc.) as well as regulatory and ethical knowledge and skills. In the future, structural and educational changes have to lead back to a closer cooperation and interaction of pediatrics with (clinical) pharmacology and pharmacy.

Features
The objective of this volume is to give an overview of the present state of the art of pediatric clinical pharmacology including developmental physiology, pediatric-specific pathology, special tools and methods for development of drugs for children (assessment of efficacy, toxicity, long-term safety etc.) as well as regulatory and ethical knowledge and skills. In the future, structural and educational changes have to lead back to a closer cooperation and interaction of pediatrics with (clinical) pharmacology and pharmacy.

Contents
Preface.
Part 1: General Considerations and methodological aspects.
Part 2: Development of pediatric medicines.
Part 3: Specific pediatric pharmacology.

Fields of interest
Pharmacology / Toxicology; Pediatrics; Laboratory Medicine

Target groups
Research

Type of publication
Handbook

Usually dispatched within 3 to 5 business days

2011. XII, 383 p. 34 illus., 8 in color. (Handbook of Experimental Pharmacology, Vol. 205) Hardcover

309,00 €
ISBN 978-3-642-20194-3

Principles of Immunopharmacology

This textbook provides a unique support in gaining essential knowledge on the immune response, its diagnosis and its modification by drugs and chemicals. The first section of the book, covering a basic introduction to immunology and its relevance for human disease, has been updated to accommodate new immunological concepts. The second section on immunodiagnoses has been further expanded to describe widely used molecular techniques and is followed by a systematic coverage of drugs affecting the immune system, revised to cover recent developments. The book concludes with a chapter on immunotoxicology. This third edition continues the unique format dealing with four related topics in a single volume, obviating the need to refer to several different textbooks. New aids to the reader include a two-column format, glossaries of technical terms and appendix reference tables. The emphasis on illustrations is maintained from the first edition.

Features
Principles of Immunopharmacology provides a unique source of essential knowledge on the immune response, its diagnosis and its modification by drugs and chemicals. The third edition of this internationally recognized textbook has been revised to include recent developments, but continues the established format, dealing with four related fields in a single volume, thus obviating the need to refer to...

Contents
Preface.
- B lymphocyte-mediated immunity.
- T cell subsets and T cell-mediated immunity.
- Antibody diversity and B lymphocyte-mediated immunity.
- Dendritic cells.
- Cytokines.
- Innate immunity.
- Phagocytes, natural killer cells and the complement system.
- Inflammatory mediators and intracellular signalling.
- Immune response in human pathology: Hypersensitivity and autoimmunity.
- Cancer.
- Immunotherapy.

Part 2: Immunological effects of chemicals.
Pharmacology including developmental physiology.

Fields of interest
Immunology; Pharmacology / Toxicology; Cell Biology; Infectious Diseases; Allergology; Medical Biochemistry

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2011. XXX, 728 p. 162 illus., 37 in color. Hardcover

89,95 €
ISBN 978-3-0346-0135-1

S. Morand, Institut des Sciences de l’Evolution, Montpellier, France; F. Beaudou, INRA, Nantes, France; J. Cabaret, INRA, Nouilly, France (Eds.)

H.W. Seyberth, Philipps University of Marburg, Germany; A. Rané, Karolinska Institute, Stockholm, Sweden; M. Schwab, Dr. Margarete Fischer-Bosch Institute of Clinical Pharmacology, Stuttgart, Germany (Eds.)

F.P. Nijkamp, Utrecht University, The Netherlands; M.J. Parnham, University Hospital for Infectious Diseases, Zagreb, Croatia (Eds.)

10 Biomedicine
Proceedings of the 21st Annual Meeting of the European Society for Animal Cell Technology (ESACT), Dublin, Ireland, June 7-10, 2009

The 21st ESACT conference was held in the beautiful surroundings of the CityWest Hotel resort in Dublin, Ireland. For the first time in ESACT history the number of participants exceeded 900, a sign of the ever increasing importance of this area. The conference commenced on Sunday June 5th with two sets of parallel workshops on the subjects listed below. An additional workshop was held on Monday lunchtime of the conference. Process Analytical Technology (PAT), Quality by Design (QbD) and other recent regulatory developments.

Innovative media products for the 21st century biopharmaceutical industry.

1. The impact of high titre media feed-streams on monoclonal antibody purification.
2. Advances in genomics and proteomics.

Features

The 21st ESACT meeting, ‘Cellular Solutions for Clinical Challenges’ outlined the novel capabilities of animal cell technology to move towards the clinic. The highly successful meeting was attended by a record number of researchers and engineers interested in all aspects of animal cell technology. The meeting included sessions on Stem Cells, Tissue Engineering, Advances in Bioprocessing, Biotherapeutics, [...]}

Contents

1 Synthetic and Molecular Biology: - 2 Stem Cells: - 3 Tissue Engineering: - 4a Advances in Bioprocessing: - 4b Advances in Bioprocessing: - 5 Biotherapeutics: - 6 Novel Vaccines and Virology: - 7 Workshops: - Index

Fields of interest

Biomedicine (general); Cell Biology; Life Sciences (general); Biotechnology

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days

2012. XLIV, 753 p. 381 illus. (ESACT Proceedings, Vol. 5) Hardcover

249,00 €
ISBN 978-94-007-0883-9

Reviews of Physiology, Biochemistry and Pharmacology 161


Features


Contents

Regulation of renin release by local and systemic factors. - Shaping membranes for endocytosis.

Fields of interest

Human Physiology; Pharmacology / Toxicology

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


134,95 €
ISBN 978-3-540-87628-1

Shedding Light on Indoor Tanning

Since the industrialization and urbanization of the Western workforce, tanned skin has been perceived increasingly as attractive and fashionable for naturally light-skinned individuals. However, in addition to causing tanning, photo-aging, and other health effects, ultraviolet radiation (UV) is a well-known carcinogen. Despite wide-spread awareness of UV risks, tanning has become increasingly popular in several Western countries including the USA. While millions of individuals tan indoors each day, relatively little is known about this phenomenon. This book fills that gap by providing an overview of indoor tanning, reasons for its popularity, its risks including skin cancers, and the public health context surrounding the behavior. We have invited some of the preeminent experts in the field to summarize the existing scientific literature for each of the chapters. Shedding Light on Indoor Tanning is an up-to-date and comprehensive book that provides a unique and essential overview of the most [...]
Neurosciences; Computation by Abstract Devices; Fields of interest

Abstract-Time[]


The Springer Index of Viruses

The continuous growth of knowledge makes it very difficult for scientists to retrieve comprehensive and accurate data on viruses. The desired information is often dispersed in a variety of books, journals and online resources. This encyclopedia presents the latest facts about all known viruses in a standardized form created by hundreds of the world’s leading virologists. Virus taxonomy represents the basic framework that allows an understanding of the complex evolutionary process that continuously takes place among viruses and their hosts. Each of the 300 taxonomically ordered chapters includes detailed information on individual genus members, historical events, the hosts they can affect (animal, man or plant), virion morphology, genome properties, replication strategy, properties of individual transcripts and proteins, sequence accession numbers, biological properties, diseases, recombinant vector constructs, vaccine strains, key references, as well as a high-resolution particle image and a drawing[...]

Features

The continuous growth of knowledge makes it very difficult for scientists to retrieve comprehensive and accurate data on viruses. The desired information is often dispersed in a variety of books, journals and online resources. This encyclopedia presents the latest facts about all known viruses in a standardized form created by hundreds of the world’s leading virologists. Virus taxonomy represents the[...]

Fields of interest

Virology; Medical Microbiology; Microbiology

Target groups

Research

Type of publication

Encyclopaedia

Usually dispatched within 3 to 5 business days

2012. 22 p. 434 illus. In 4 volumes, not available separately. Hardcover

1.200,00 €


Tumors of the Central Nervous System, Volume 5

Astrocytomas, Hemangioblastomas, and Gangliogliomas

The most recent developments in diagnostic and therapeutic aspects of Gliomas (glioblastoma) in the brain are presented. The importance of personalized medicine and clinical validation for targeted therapy are discussed. The identification and validation of brain cancer (glioblastoma) genes are discussed. The role of cancer stem cells in the initiation and persistence of malignant gliomas is explained; response of glioblastoma cancer stem cells to various growth factors, such as epidermal growth factor receptor kinase inhibitor, is explained. The use of surgical resection, chemotherapy (e.g., temozolomide), immunotherapy, and radiation therapy for glioblastoma patients is included. Biological impediments for chemotherapy and radiotherapy for malignant glioblastoma are pointed out. Standard (established) as well as[...]

Features

The most recent developments in diagnostic and therapeutic aspects of Gliomas (glioblastoma) in the brain are presented. The importance of personalized medicine and clinical validation for targeted therapy are discussed. The identification[...]

Contents


Fields of interest

Cancer Research; Neuroradiology; Neurosurgery; Oncology; Surgery; Pathology

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XXV, 290 p. 53 illus., 40 in color. (Tumors of the Central Nervous System, Vol. 5) Hardcover

139,95 €

A Century of Sovereign Ratings

The financial difficulties experienced by Greece since 2009 serve as a reminder that countries (i.e., sovereigns) may default on their debt. Many observers considered the financial turmoil was behind us because major advanced countries had adopted stimulus packages to prevent banks from going bankrupt. However, there are rising doubts about the creditworthiness of several advanced countries that participated in the bailouts. In this uncertain context, it is particularly crucial to be knowledgeable about sovereign ratings. This book provides the necessary broad overview, which will be of interest to both economists and investors alike. Chapter 1 presents the main issues that are addressed in this book. Chapters 2, 3, and 4 provide the key notions to understand sovereign ratings. Chapter 2 presents an overview of sovereign rating activity since the first such ratings were assigned in 1918. Chapter 3 analyzes the meaning of sovereign ratings and the significance of rating scales; it also describes the [...] Features

The financial difficulties experienced by Greece since 2009 serve as a reminder that countries (i.e., sovereigns) may default on their debt. Many observers considered the financial turmoil was behind us because major advanced countries had adopted stimulus packages to prevent banks from going bankrupt. However, there are rising doubts about the creditworthiness of several advanced countries that [...] Contents


Financial Economics; Macroeconomics / Monetary Economics; Finance / Banking; Economic Policy

Type of publication

Monograph

Bio-Economic Models applied to Agricultural Systems

This book has the purpose of providing the “state of the arts” concerning bio-economic modelling dealing with agricultural systems. In most cases, the contributions use a methodology combining the use of biophysical and economic models, in all cases, an engineering production function approach is totally or partially applied. This practice is being developed in the last years as a response to concrete policy matters: agricultural policies are increasingly combined with environmental and natural resources policies, and this reality involves the need of an integrated assessment, that current economic models are not able to provide. Features

The bio-economic modeling approach presented in this book is a result of two distinct developments: by one side, the improvement of bio-physical simulation models applied to agricultural systems and by the other, the evolution of agricultural policies demanding a kind of assessment that conventional economic models are not able to provide. Some economists began to realize that biophysical models could be [...] Contents

Acknowledgments.- Preface.- Part I.- Ch. 1. Modelling the relationship between agriculture and the environment using bio-economic models: some conceptual issues.- Ch. 2. Bio physical models as detailed engineering production functions.- Ch. 3. Dynamic optimisation problems: Different resolution methods regarding agriculture and natural resource economics.- Ch. 4. Biophysical models for cropping system simulation.- Part II.- Ch. 5. Incorporating yield information from a biogeochemical model into an agricultural production model to infer adoption of a new bioenergy crop.- Ch. 6.[...]

Fields of interest

Agricultural Economics; Environmental Economics; Operations Research, Mathematical Programming

Target groups

Graduate

Type of publication

Contributed volume

Climate Change and the Sustainable Use of Water Resources

The book explores the geo-chemical, physical, social and economic impacts of climate change on water supplies. It contains examples and case studies from a wide range of countries, and addresses the need to promote sustainable water use across the world. Features

The book explores the geo-chemical, physical, social and economic impacts of climate change on water supplies. It contains examples and case studies from a wide range of countries, and addresses the need to promote sustainable water use across the world.

Fields of interest

Environmental Economics; Sustainable Development; Climate Change

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012, XII, 823 p. 190 illus. (Climate Change Management) Hardcover

199,95 €
ISBN 978-3-642-22265-8

Sustainable Use of Water Resources

2012. XII, 220 p. 45 illus., 23 in color. Hardcover

139,95 €
ISBN 978-94-007-1901-9
Common Corporate Tax Base in the EU

Impact on the Size of Tax Bases and Effective Tax Burdens

The European Commission envisages putting forward a proposal for a tax reform that would allow improving the efficiency and simplicity of the corporate income tax systems. This report assesses the impact of a Common Corporate Tax Base (CCTB) on the size of the corporate tax bases of EU companies. The results of the report shall help to evaluate the economic consequences of the introduction of a harmonised set of tax accounting rules. The estimates are based on the European Tax Analyzer with data from the year 2006 and apply options specified by the Commission’s Steering Group.

Contents
Introductions.- Methodology.- Future Value of the Tax Base and Effective Company Tax Burden.

Fields of interest
Business Taxation; Public Finance & Economics; European Integration; Accounting / Auditing

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XVI, 175 p. 23 illus. (ZEW Economic Studies, Vol. 43) Softcover
69,95 € ISBN 978-3-7908-2755-2

Community-Based Operations Research

Decision Modeling for Local Impact and Diverse Populations

Community-based operations research (CBOR) is the use of analytical methods with government and organizations in the formal and informal non-profit sector to improve the lives of individuals and communities. The beneficiaries of these methods tend to be localized, as well as members of disadvantaged and underserved groups. Examples of problems amenable to CBOR include: design of public infrastructure such as parks and public art; location of facilities such as homeless shelters or elder care facilities; social interventions such as public health initiatives or anti-violence programs, and improved processes such as grants management or human service provision, among many others. Solutions to these problems may be difficult and/or controversial due to conflicting notions of fairness, social impacts or social norms, or because stigmatized or marginalized populations. CBOR applications address the needs of organizations working for the public good which typically have limited exposure to operations[...]

Features
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Contents

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

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. XXIII, 340 p. 115 illus. (GOR-Publications) Hardcover
99,95 € ISBN 978-3-642-23928-1

Complex Scheduling

Features
Reihentext:GOR The German Society of Operations Research - and its members provide numerous significant contributions to Operations Research/Management Science, with respect to both theory and practice. In order to demonstrate the high standards of these contributions and to make them more easily available, in particular to researchers and practitioners from outside the German-speaking countries, [...]
EU Eastern Neighborhood

Economic Potential and Future Development

The selected papers in this volume were prepared under the research project on "EU Eastern Neighborhood: Economic Potential and Future Development (ENEPO)" funded by the EU Sixth Framework Program. They discuss the broad spectrum of development issues in the EU Eastern Neighborhood and economic relations between the enlarged EU and its Eastern neighbors in the former USSR. Individual chapters address areas of economic and social development, trade, energy, investment, migration, costs and benefits of economic reforms, development assistance and political economy of policy reforms. In particular, they examine interrelations and mutual synergies between trade liberalization, inflow of foreign investment, economic and institutional reforms and a reduction of income and development disparities. The publication thus closes an important knowledge gap in respect to the economic, social and institutional development of the CIS region and its economic relations with the EU.

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Contents

The Development Gap Between the CIS and EU.- East-West Integration: A Geographical Economics Approach.- Deep Integration with the EU: Impact on Selected ENP Countries and Russia.- Energizing EU-FSU Relations: Challenges and Opportunities.- The Motives and Impediments to FDI in the CIS.- Global Aging and the Macroeconomic Consequences of Migration from Neighborhood Countries to Europe.- Income and Distribution Effects of Migration and Remittances.- Institutional Convergence of the CIS Towards European Benchmarks.- Institutional Harmonization in the Context of EU Cooperation with Its[...]

Fields of interest

European Integration; Economic Policy; Economic Systems; Development Economics; International Economics; Migration

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

Econometric Analysis of Carbon Markets

The European Union Emissions Trading Scheme and the Clean Development Mechanism

Through analysis of the European Union Emissions Trading Scheme (EU ETS) and the Clean Development Mechanism (CDM), this book demonstrates how to use a variety of econometric techniques to analyze the evolving and expanding carbon markets sphere, techniques that can be extrapolated to the worldwide marketplace. It features stylized facts about carbon markets from an economics perspective, as well as covering key aspects of pricing strategies, risk and portfolio management.

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Contents


Fields of interest

Business & Economics (general); Environmental Economics; Financial Economics; Statistics (general); Statistics and Computing / Statistics Programs; Environment (general)

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. XXX, 217 p. 74 illus., 29 in color. Hardcover

59.95 €

Enterprise and Organizational Modeling and Simulation

7th International Workshop, EOMAS 2011, held at CAiSE 2011, London, UK, June 20-21, 2011, Selected Papers

This book constitutes the post conference proceedings of the 7th International Workshop on Enterprise and Organizational Modeling and Simulation, EOMAS 2011, held in conjunction with CAiSE 2011 in London, UK, in June 2011. Enterprises are purposefully designed systems used to fulfill certain functions. An extended enterprise and organizational study involves both analysis and design activities, in which modeling and simulation play prominent roles. The related techniques and methods are effective, efficient, economic, and widely used in enterprise engineering, organizational study, and business process management. The 14 contributions in this volume were carefully reviewed and selected from 29 submissions, and they explore these topics, address the underlying challenges, find and improve on solutions, and demonstrate the application of modeling and simulation in the domains of enterprises, their organizations and underlying business processes.

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Fields of interest

Business Information Systems; Computer Appl. in Administrative Data Processing; Information Systems Applications (incl.Internet); Simulation and Modeling

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-24174-1
Export Assistance: The Way Back and Forward

A.R. Faroque, Y. Takahashi

"Born global" (BG) firms have attracted many researchers throughout the last decade. The emergence of this phenomenon initially posed a serious challenge to the validity and applicability of the traditional "stage" theory of internationalization; however, scholars have more recently been able to reconcile traditional and new theories into a single framework for studying the process of internationalization. This volume applies both network theory and knowledge-based theory to analyze export assistance in the context of internationalization of low-tech BG firms in developing countries (with an in-depth study of the apparel industry in Bangladesh). The findings that non-governmental network partners provide more useful advice than government agencies is one that may resonate through other countries, including developed economies. Government's more useful role is confined to the financial support and incentives that are provided to such firms. It is, however, the commitment to exporting that [...]
Information Systems Theory
Explaining and Predicting Our Digital Society, Vol. 1
The overall mission of this book is to provide a comprehensive understanding and coverage of the various theories and models used in IS research. Specifically, it aims to focus on the following key objectives: To describe the various theories and models applicable to studying IS/IT management issues. To outline and describe, for each of the various theories and models, independent and dependent constructs, reference discipline/originating area, originating author(s), seminal articles, level of analysis (i.e. firm, individual, industry) and links with other theories. To provide a critical review/meta-analysis of IS/IT management articles that have used a particular theory/model. To discuss how a theory can be used to better understand how information systems can be effectively deployed in today's digital world. This book contributes to our understanding of a number of theories and models. The theoretical contribution of this book is that it analyzes and synthesizes the relevant literature in order [...]

Features
The overall mission of this book is to provide a comprehensive understanding and coverage of the various theories and models used in IS research. Specifically, it aims to focus on the following key objectives: To describe the various theories and models applicable to studying IS/IT management issues. To outline and describe, for each of the various theories and models, independent and [...]

Contents

Fields of interest
Business Information Systems; Information Systems and Communication Service; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days


139,95 €

Information Systems Theory
Explaining and Predicting Our Digital Society, Vol. 2
The overall mission of this book is to provide a comprehensive understanding and coverage of the various theories and models used in IS research. Specifically, it aims to focus on the following key objectives: To describe the various theories and models applicable to studying IS/IT management issues. To outline and describe, for each of the various theories and models, independent and dependent constructs, reference discipline/originating area, originating author(s), seminal articles, level of analysis (i.e. firm, individual, industry) and links with other theories. To provide a critical review/meta-analysis of IS/IT management articles that have used a particular theory/model. To discuss how a theory can be used to better understand how information systems can be effectively deployed in today's digital world. This book contributes to our understanding of a number of theories and models. The theoretical contribution of this book is that it analyzes and synthesizes the relevant literature in order [...]

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Contents
Perspectives in Business Informatics Research

10th International Conference, BIR 2011, Riga, Latvia, October 6-8, 2011, Proceedings

This book constitutes the refereed proceedings of the 10th International Conference on Perspectives in Business Informatics Research (BIR), held in Riga, Latvia, in October 2011. The 25 full papers accepted for this volume were selected from 68 submissions. In addition, two invited papers presented at the conference are also included. The papers have been organized in topical sessions on business intelligence and performance management, data and processes, ontologies, architectures, stakeholders’ perspectives, Web information systems and services, and systems approach.

Features
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Fields of interest
Business Information Systems; Computer Appl. in Administrative Data Processing; Artificial Intelligence (incl. Robotics); Information Storage and Retrieval; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

Practice-Driven Research on Enterprise Transformation

Third Working Conference, PRET 2011, Luxembourg, September 6, 2011, Proceedings

This volume constitutes the proceedings of the Third Working Conference on Practice-Driven Research on Enterprise Transformation (PRET), held in Luxembourg, on September 6, 2010, as the industrial track of the 13th IEEE Conference on Commerce and Enterprise Computing (CEC 2011). The third edition of PRET marks a close collaboration between academia and practice. With the specific purpose of mutual learning and crossfertilization, top practitioners from industry were invited to submit case studies. To give them enough space for presentation, only four academic papers were accepted. These papers were submitted with a length of 25 pages to enable a more detailed coverage of the related research and to stimulate further discussions during the conference. The topics covered are Enterprise Architecture, Business and IT Alignment, and Business Process Management and Evaluation.

Features
This volume constitutes the proceedings of the Third Working Conference on Practice-Driven Research on Enterprise Transformation (PRET), held in Luxembourg, on September 6, 2011, as the industrial track of the 13th IEEE Conference on Commerce and Enterprise Computing (CEC 2011). The third edition of PRET marks a close collaboration between academia and practice. With the specific purpose of mutual learning and crossfertilization, top practitioners from industry were invited to submit case studies. To give them enough space for presentation, only four academic papers were accepted. These papers were submitted with a length of 25 pages to enable a more detailed coverage of the related research and to stimulate further discussions during the conference. The topics covered are Enterprise Architecture, Business and IT Alignment, and Business Process Management and Evaluation.

Fields of interest
Business Information Systems; Computer Appl. in Administrative Data Processing; Information Systems Applications (incl.Internet); Management of Computing and Information Systems

Target groups
Research

Type of publication
Proceedings

Recent Developments in Vector Optimization

We always come cross several decision-making problems in our daily life. Such problems are always conflicting in which many different view points should be satisfied. In politics, business, industrial systems, management science, networks, etc. one often encounters such kind of problems. The most important and difficult part in such problems is the conflict between various objectives and goals. In these problems, one has to find the minimum(or maximum) for several objective functions. Such problems are called vector optimization problems (VOP),multi-criteria optimization problems or multi-objective optimization problems. This volume deals with several different topics / aspects of vector optimization theory ranging from the very beginning to the most recent one. It contains fourteen chapters written by different experts in the field of vector optimization.

Features
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Fields of interest
Operation Research / Decision Theory; Optimization; Operations Research, Mathematical Programming

Target groups
Research

Type of publication
Contribution volume

Usually dispatched within 3 to 5 business days

2012. XXV, 551 p. (Vector Optimization, Vol. 1) Hardcover

139.95 €
ISBN 978-3-642-21113-3

Recent Developments in Vector Optimization

We always come cross several decision-making problems in our daily life. Such problems are always conflicting in which many different view points should be satisfied. In politics, business, industrial systems, management science, networks, etc. one often encounters such kind of problems. The most important and difficult part in such problems is the conflict between various objectives and goals. In these problems, one has to find the minimum(or maximum) for several objective functions. Such problems are called vector optimization problems (VOP),multi-criteria optimization problems or multi-objective optimization problems. This volume deals with several different topics / aspects of vector optimization theory ranging from the very beginning to the most recent one. It contains fourteen chapters written by different experts in the field of vector optimization.

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

Target groups
Research

Type of publication
Contribution volume

Usually dispatched within 3 to 5 business days

2012. XXV, 551 p. (Vector Optimization, Vol. 1) Hardcover

139.95 €
ISBN 978-3-642-21113-3
Risk Management of Supply and Cash Flows in Supply Chains

Risk management has become an essential issue in supply chain management, from the modeling of the decision maker’s risk preference, and the studies on uncertain elements such as demand, supply, price, lead time, etc., to the consideration of more practical background including cash flow constraints, inventory financing and delayed cash payment. In this new volume, the authors provide a framework to study the interaction of various factors related to risk and their influence on supply chain management. The scope of areas covered includes operations management, decision analysis, and business administration. This book focuses on several key issues of risk management in supply chains. Specifically, an analysis framework is presented for studying the supplier selection problem and identifying the optimal sourcing strategy in a one-retailer two-suppliers supply chain with random yields. The optimal sourcing strategy of a retailer and the pricing strategies of two suppliers under an environment of supply[...]

Features
Risk management has become an essential issue in supply chain management, from the modeling of the decision maker’s risk preference, and the studies on uncertain elements such as demand, supply, price, lead time, etc., to the consideration of more practical background including cash flow constraints, inventory financing and delayed cash payment. In this new volume, the authors provide a framework to study[...]

Contents

Fields of interest
Operation Research / Decision Theory; Production / Logistics; Management/Business for Professionals

Target groups
Professional/practitioner

Type of publication
Monograph

Social Exclusion
Short and Long Term Causes and Consequences

The book provides a panoramic approach to social exclusion, with emphasis on structural causes (education, health, accidents) and on short term causes connected with the crisis which started in 2008. The picture emerging, based on econometric analysis, is that the crisis has widened the risk of social exclusion, from the structural groups, like disabled people and formerly convicted people, to other groups, like the young, unemployed, low skilled workers and immigrants, in terms of income, poverty, health, unemployment, transition between occupational statuses, participation, leading to a widening of socio-economic duality. It has also been stressed the relevance of definitions of socio-economic outcomes for the evaluation of the crisis, and their consequences to define interventions to fight socio-economic effects of the economic downturn. The adequacy of welfare policies to cope with social exclusion, especially during a crisis, has been called into question.

Features
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Sustainability Innovations in the Electricity Sector

The future of modern societies depends on their ability to deal with the challenge of climate change in the coming decades. One essential component is a better understanding of innovation processes in the energy sector. This book focuses on sustainability innovations in renewable energies, combined heat and power, and energy service contracting, and analyses the institutions, actors and functions within the innovation system. Of particular interest is the question of whether the joint effect of EU-driven market liberalization and climate policies will succeed in establishing market forces that will drive actors towards more climate-friendly energy production. A special focus is on the role of local utilities in the electricity sector as opposed to large transmission net operators or regional net operators. The countries covered in the contributions include Germany, Denmark, the UK, Switzerland, and the Netherlands.

Features
The future of modern societies depends on their ability to deal with the challenge of climate change in the coming decades. One essential component is a better understanding of innovation processes in the energy sector. This book focuses on sustainability innovations in renewable energies, combined heat and power, and energy service contracting, and analyses the institutions, actors and functions within the [...] Contents
Preface: 1 Local Utilities in the German Electricity Market and their Role in the Diffusion of Innovations in Energy Efficiency and Climate Change Mitigation. 2 Contracting and Mikro-KWK - the Role of Municipal Utilities in Germany. 3 Governance variety in the energy service contracting market. 4 Cooperation and Shareholding Among Local Utilities - Driving Factors and Effects. 5 Local Utilities Under the EU Emission Trading Scheme: Innovation Impacts on Electricity Generation Portfolios. 6 Exploring the Linkages Between Carbon Markets and Sustainable Innovations in the Energy[...]

Fields of interest
Technology Management; Environmental Economics; Energy Policy; Economics and Management; Sociology, general; Political Science, general

Target groups
Research

Type of publication
Contributes volume

Usually dispatched within 3 to 5 business days

2012. XIII, 193 p. 19 illus. (Sustainability and Innovation) Hardcover

99.95 €
ISBN 978-3-7908-2729-3

The Digital Glocalization of Entertainment

New Paradigms in the 21st Century Global Mediascape

In this volume, Paolo Sigismondi explores the dynamics of global media and entertainment, specifically analyzing the implications of the global rise of non-scripted entertainment (as reality TV programs) and the impact and consequences of the Information and Communication Technology (ICT) revolution on the content, delivery platforms, and overall business models of the media and entertainment landscape. This work aims at bridging the gap between media theories and industry practices in a rapidly evolving global mediascape, building on scholarship in the field and enriched by case studies and insights from business practice. This work demonstrates that the paradigms of the landscape are shifting, introducing the digital “glocalization” of entertainment, through which successful media crossing national and cultural borders incorporate both global and local features.Key questions raised include: Is the ICT revolution an example of disruptive technology for the global media and entertainment industry?[...]

Features
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Fields of interest
Media Management

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XIII, 135 p. 8 illus., 5 in color. (The Economics of Information, Communication, and Entertainment, Vol. 3) Hardcover

89.95 €
ISBN 978-1-4614-0907-6

The Economics of Bank Bankruptcy Law

This book shows that a special bank bankruptcy regime is desirable for the efficient restructuring and/or liquidation of distressed banks. It explores in detail both the principal features of corporate bankruptcy law and the specific characteristics of banks including the importance of public confidence, negative externalities of bank failures, fragmented regulatory framework, bank opaqueness, and the related asset-substitution problem and liquidity provision. These features distinguish banks from other corporations and are largely neglected in corporate bankruptcy law. The authors, an assistant professor for money and finance and a research economist at the Dutch Central Bank, propose changes in both prudential regulation and reorganization policies that should allow regulators and banking authorities to better mitigate disruptions in the financial system and minimize the social costs of bank failures. Their recommendations are complemented by a discussion of bank failures from the 2007–2009[...]

Features
This book shows that a special bank bankruptcy regime is desirable for the efficient restructuring and/or liquidation of distressed banks. It explores in detail both the principal features of corporate bankruptcy law and the specific characteristics of banks including the importance of public confidence, negative externalities of bank failures, fragmented regulatory framework, bank opaqueness, and the related [...] Contents
1 Introduction. 2 General Issues in Bankruptcy Law. 3 Are Banks Special? Implications for Bank Bankruptcy Law. 4 Systemic Crises. 5 General Issues on the structure of Banking Industry. 6 Current Bankruptcy Regimes and Recent Developments. 7 Optimal Design of Bankruptcy Law and the Bank Failures from the 2007–2009 Financial Crisis. 8 Conclusions. 9 Appendix.

Fields of interest
Finance / Banking; Financial Law / Fiscal Law

Target groups
Graduate

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XIII, 158 p. 11 illus., 1 in color. Hardcover

99.95 €
ISBN 978-3-642-21806-4
Violence and Aggression in Sporting Contests

Economics, History and Policy

Sporting contests have provided mass entertainment throughout history, and today generate revenues of approximately $200 billion annually in the US alone. Like in the entertainment industry, the modern sports industry's revenues are based on the entertainment value of output and more entertaining sporting contests imply greater game-day attendance, television revenues and sales of merchandise. Research by economists has attempted to understand and explain behavior as it relates to sporting contests, showing that standard microeconomic theory used to explain consumer and producer behavior can also be applied to the behavior of fans, team owners, league executives and players. One commonality among many ancient and modern sports is the existence of violence and aggression in contests. Compare, for example, a modern NASCAR race with a Roman chariot race: Only the technology has changed. From the perspective of an economist, violence in sporting contests is an outcome of the forces of supply and demand.

Features

Sporting contests have provided mass entertainment throughout history, and today generate revenues of approximately $200 billion annually in the US alone. Like in the entertainment industry, the modern sports industry's revenues are based on the entertainment value of output and more entertaining sporting contests imply greater game-day attendance, television revenues and sales of merchandise. Research by economists has attempted to understand and explain behavior as it relates to sporting contests, showing that standard microeconomic theory used to explain consumer and producer behavior can also be applied to the behavior of fans, team owners, league executives and players. One commonality among many ancient and modern sports is the existence of violence and aggression in contests. Compare, for example, a modern NASCAR race with a Roman chariot race: Only the technology has changed. From the perspective of an economist, violence in sporting contests is an outcome of the forces of supply and demand.

Carbon Bonding and Structures

Advances in Physics and Chemistry

"Carbon Bonding and Structures: Advances in Physics and Chemistry" features detailed reviews which describe the latest advances in the modeling and characterization of fundamental carbon based materials and recently designed carbon composites. Significant advances are reported and reviewed by globally recognized experts in the field. The quantification, indexing, and interpretation of physical and chemical patterns of carbon atoms in molecules, crystals, and nanosystems is presented. "Carbon Bonding and Structures: Advances in Physics and Chemistry" will be primarily of interest to theoretical physical chemists and computational materials scientists based in academia, government laboratories, and industry.

Features

Carbon Bonding and Structures: Advances in Physics and Chemistry handles the quantification, indexing, and interpretation of the physical and chemical behaviour of carbon in molecules, crystals, and nanosystems. This multi-author volume features cutting edge research and focuses on both inorganic and organic areas of carbon combinations and states modelled from quantum, physical, computational, etc.

Contents


Fields of interest

Physical Chemistry; Math. Applications in Chemistry; Organic Chemistry

Chitosan for Biomaterials II


Features


Fields of interest

Polymer Sciences; Medical Microbiology

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XII, 275 p. 16 illus. in color. (Sports Economics, Management and Policy, Vol. 4) Hardcover

99,95 €

Copper Zinc Tin Sulfide Thin Films for Photovoltaics

Synthesis and Characterisation by Electrochemical Methods

Jonathan Scragg documents his work on a very promising material suitable for use in solar cells. Copper Zinc Tin Sulfide (CZTS) is a low cost, earth-abundant material suitable for large scale deployment in photovoltaics. Jonathan pioneered and optimized a low cost route to this material involving electroplating of the three metals concerned, followed by rapid thermal processing (RTP) in sulfur vapour. His beautifully detailed RTP studies – combined with techniques such as XRD, EDX and Raman – reveal the complex relationships between composition, processing and photovoltaic performance. This exceptional thesis contributes to the development of clean, sustainable and alternative sources of energy.

Features
Jonathan Scragg documents his work on a very promising material suitable for use in solar cells. Copper Zinc Tin Sulfide (CZTS) is a low cost, earth-abundant material suitable for large scale deployment in photovoltaics. Jonathan pioneered and optimized a low cost route to this material involving electroplating of the three metals concerned, followed by rapid thermal processing (RTP) in sulfur vapour. His [...]
Microwave-Induced Synthesis of Aromatic Heterocycles

For more than a century, heterocycles have played a crucial role in the biological and industrial development of society, becoming one of the most researched areas within organic chemistry. The first chapter of Microwave-Induced Synthesis of Aromatic Heterocycles is based on microwave theory, the latest developments in instrumentation technology, and the various microwave technologies used for synthesis. The remainder of the chapters are divided into two sections. Section A deals with the five-membered heterocycles (pyrazoles, isoxazoles, triazoles, oxadiazoles, thiazoles, imidazoles, oxazoles, oxazolines etc.) and in Section B, various six-membered heterocycles (triazines, benzoxazoles, benzimidazoles, benzothiazoles) are presented. Both sections contain a detailed, recent literature review of microwave assisted synthesis and its applicability to various aromatic heterocycles.

Features
For more than a century, heterocycles have played a crucial role in the biological and industrial development of society, becoming one of the most researched areas within organic chemistry. The first chapter of Microwave-Induced Synthesis of Aromatic Heterocycles is based on microwave theory, the latest developments in instrumentation technology, and the various microwave technologies used.[…]

Contents

Fields of interest
Chemistry (general); Environmental Chemistry

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2012. VIII, 93 p. 222 illus. (SpringerBriefs in Green Chemistry for Sustainability) Softcover

49,95 €
ISBN 978-94-007-1484-7

V. Sharapov, Cherkasy State Technological University, Ukraine

Piezoceramic Sensors

This book presents the latest and complete information about various types of piezosensors. A sensor is a converter of the measured physical size to an electric signal. Piezoelectric transducers and sensors are based on piezoelectric effects. They have proven to be versatile tools for the measurement of various processes. They are used for quality assurance, process control and for research and development in many different industries. In each area of application specific requirements to the parameters of transducers and sensors are developed. The book presents the fundamentals, technical design and details and practical applications. Methods to design piezosensors are described, allowing to create sensors with unique properties. New methods to measure physical sizes and new constructions of sensors including large area of piezosensors are described in this book. This book is written for specialists in transforming hydroacoustics, non-destructive control, measuring technique, sensors development.[…]

Contents

Fields of interest
Microengineering; Nanotechnology and Microengineering; Ceramics, Glass, Composites, Natural Materials; Signal, Image and Speech Processing; Applied and Technical Physics

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. XI, 498 p. 626 illus., 24 in color. (Microtechnology and MEMS) Hardcover

169,95 €
ISBN 978-3-642-15310-5

J. Tatzelt, University of Munich, Germany (Ed.)

Prion Proteins


Features

Contents
Third World Diseases


Vanadium

Biochemical and Molecular Biological Approaches

Since the early 1980s, the biochemical behavior of vanadium has been investigated extensively such as its potent inhibitory role for Na+/K+-ATPase and its participation in insulin mimicking but also because of the more recent findings on the enzymes and compounds containing vanadium. In addition, knowledge of the medicinal applications of vanadium such as the biochemical roles of its compounds in bone development, cellular mechanisms, signaling pathways and anti-cancer agents has increased enormously. Vanadium: Featuring Biochemical and Molecular Biological Approaches adds to this knowledge by presenting inorganic and redox processes and demonstrating the important use of vanadium in biological systems. Chapters include the following themes: hyper-accumulators of vanadium, enzymatic roles of vanadium, biochemical functions of vanadium and medicinal functions of vanadium. This volume is aimed at pure and applied chemists, biochemists, pharmacological and medical scientists.

Features

The publication of Vanadium: Biochemical and Molecular Biological Approaches is particularly timely as its publication exactly coincides with the centennial anniversary of the discovery of vanadium by Professor Henze, in the blood cells of an ascidian (tunicate) collected in Gulf of Naples in 1911. Vanadium, atomic number 23, covers a wide range of oxidation states (from -2 to +5) and has unpaired electrons.

Contents


Fields of interest

Medicinal Chemistry; Biochemistry; Medical Biochemistry

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XV, 228 p. 74 illus., 23 in color. Hardcover
99,95 €
ISBN 978-94-007-0912-6

A Feature-Centric View of Information Retrieval

Commercial Web search engines such as Google, Yahoo, and Bing are used every day by millions of people across the globe. With their ever-growing refinement and usage, it has become increasingly difficult for academic researchers to keep up with the collection sizes and other critical research issues related to Web search, which has created a divide between the information retrieval research being done within academia and industry. Such large collections pose a new set of challenges for information retrieval researchers. In this work, Metzler describes highly effective information retrieval models for both smaller, classical data sets, and larger Web collections. In a shift away from heuristic, hand-tuned ranking functions and complex probabilistic models, he presents feature-based retrieval models. The Markov random field model he details goes beyond the traditional yet ill-suited bag of words assumption in two ways. First, the model can easily exploit various types of dependencies that exist [...]

Features

Commercial Web search engines such as Google, Yahoo, and Bing are used every day by millions of people across the globe. With their ever-growing refinement and usage, it has become increasingly difficult for academic researchers to keep up with the collection sizes and other critical research issues related to Web search, which has created a divide between the information retrieval research being done [...]

Contents

Introduction.- Classical Retrieval Models.- Feature-Based Ranking.- Feature-Based Query Expansion.- Query-Dependent Feature Weighting.- Model Learning.

Fields of interest

Information Storage and Retrieval; Probability and Statistics in Computer Science; Mathematical Applications in Computer Science

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011. XI, 166 p. 27 illus. (The Information Retrieval Series, Vol. 27) Hardcover
79,95 €
ISBN 978-3-642-22897-1
AI*IA 2011: Artificial Intelligence Around Man and Beyond

XIIth International Conference of the Italian Association for Artificial Intelligence, Palermo, Italy, September 15-17, 2011. Proceedings

This book constitutes the refereed proceedings of the 12th International Conference of the Italian Association for Artificial Intelligence, AI*IA 2011, held in Palermo, Italy, in September 2011. The 31 revised full papers presented together with 3 invited talks and 13 posters were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on machine learning; distributed AI; robotics and MAS; theoretical issues; knowledge representation and reasoning; planning; cognitive modeling; natural language processing; and AI applications.

Features
This book constitutes the refereed proceedings of the 12th International Conference of the Italian Association for Artificial Intelligence, AI*IA 2011, held in Palermo, Italy, in September 2011. The 31 revised full papers presented together with 3 invited talks and 13 posters were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on machine learning; distributed AI; robotics and MAS; theoretical issues; knowledge representation and reasoning; planning; cognitive modeling; natural language processing; and AI applications.

Fields of interest
Artificial Intelligence (incl. Robotics); Data Mining and Knowledge Discovery; Mathematical Logic and Formal Languages; Computation by Abstract Devices; User Interfaces and Human Computer Interaction; Pattern Recognition

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.
Advanced Concepts for Intelligent Vision Systems
13th International Conference, ACVIS 2011, Ghent, Belgium, August 22-25, 2011, Proceedings

This book constitutes the refereed proceedings of the 13th International Conference on Advanced Concepts for Intelligent Vision Systems, ACVIS 2011, held in Ghent, Belgium, in August 2011. The 66 revised full papers presented were carefully reviewed and selected from 124 submissions. The papers are organized in topical sections on classification recognition, and tracking, segmentation, images analysis, image processing, video surveillance and biometrics, algorithms and optimization; and 3D, depth and scene understanding.

Features
This book constitutes the refereed proceedings of the 13th International Conference on Advanced Concepts for Intelligent Vision Systems, ACVIS 2011, held in Ghent, Belgium, in August 2011. The 66 revised full papers presented were carefully reviewed and selected from 124 submissions. The papers are organized in topical sections on classification recognition, and tracking, segmentation, images analysis, image [...]

Fields of interest
Image Processing and Computer Vision; Artificial Intelligence (incl. Robotics); Pattern Recognition; Computer Graphics; Computer Communication Networks; Algorithm Analysis and Problem Complexity

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 € ISBN 978-3-642-24150-5

87,00 € ISBN 978-3-642-23686-0

Advances in Parallel Processing Technologies
9th International Symposium, APPT 2011, Shanghai, China, September 26-27, 2011, Proceedings

This book constitutes the refereed proceedings of the 9th International Symposium on Advanced Parallel Processing Technologies, APPT 2011, held in Shanghai, China, in September 2011. The 13 revised full papers presented were carefully reviewed and selected from 40 submissions. The papers are organized in topical sections on parallel distributed system architectures, architecture, parallel application and software, distributed and cloud computing.

Features
This book constitutes the refereed proceedings of the 9th International Symposium on Advanced Parallel Processing Technologies, APPT 2011, held in Shanghai, China, in September 2011. The 13 revised full papers presented were carefully reviewed and selected from 40 submissions. The papers are organized in topical sections on parallel distributed system architectures, architecture, parallel application [...]

Fields of interest
Database Management; Data Mining and Knowledge Discovery; Information Systems Applications (incl.Internet); Operating Systems; Programming Techniques; Information Storage and Retrieval

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


15th International Conference, ADBIS 2011, Vienna, Austria, September 20-23, 2011, Proceedings

This book constitutes the refereed proceedings of the 15th International Conference on Advances in Databases and Information Systems, ADBIS 2011, held in Vienna, Austria, in September 2011. The 30 revised full papers presented together with 2 full length invited talks were carefully reviewed and selected from 105 submissions. They are organized in topical sections on query processing; data warehousing; DB systems; spatial data; information systems; physical DB design; evolution, integrity, security; and data semantics.

Features
This book constitutes the refereed proceedings of the 15th International Conference on Advances in Databases and Information Systems, ADBIS 2011, held in Vienna, Austria, in September 2011. The 30 revised full papers presented together with 2 full length invited talks were carefully reviewed and selected from 105 submissions. They are organized in topical sections on query processing; data warehousing; DB [...]

Fields of interest
Database Management; Information Systems Applications (incl.Internet); Information Storage and Retrieval; Computer Communication Networks; Data Mining and Knowledge Discovery; Management of Computing and Information Systems

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


62,00 € ISBN 978-3-642-23736-2
Advances in Digital Forensics VII
7th IFIP WG 11.9 International Conference on Digital Forensics, Orlando, FL, USA, January 31 - February 2, 2011, Revised Selected Papers

Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Networked computing, wireless communications and portable electronic devices have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and tools to articulate this evidence. Digital forensics also has myriad intelligence applications. Furthermore, it has a vital role in information assurance – investigations of security breaches yield valuable information that can be used to design more secure systems. Advances in Digital Forensics VII describes original research results and innovative applications in the discipline of digital forensics. In addition, it highlights some of the major technical and legal issues related to digital evidence and electronic crime investigations. The areas of coverage include: Themes and Issues, Forensics, Devices, Networks, Patterns, Computers, Applications, and Legal Aspects of Computing.

Features
Digital forensics deals with the acquisition, preservation, examination, analysis and presentation of electronic evidence. Networked computing, wireless communications and portable electronic devices have expanded the role of digital forensics beyond traditional computer crime investigations. Practically every crime now involves some aspect of digital evidence; digital forensics provides the techniques and [...] Fields of interest
Information Storage and Retrieval; Computer Communication Networks; Algorithm Analysis and Problem Complexity; Data Encryption; Data Mining and Knowledge Discovery; Legal Aspects of Computing

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

92,00 €
ISBN 978-3-642-24211-3

Advances in Digital Image Processing and Information Technology
First International Conference on Digital Image Processing and Pattern Recognition, DPPR 2011, Tirunelveli, Tamil Nadu, India, September 23-25, 2011, Proceedings

This book constitutes the refereed proceedings of the First International Conference on Digital Image Processing and Pattern Recognition, DPPR 2011, held in Tirunelveli, India, in September 2011. The 48 revised full papers were carefully reviewed and selected from about 400 submissions. The conference brought together leading researchers, engineers and scientists in the domain of Digital Image Processing and Pattern Recognition. The papers cover all theoretical and practical aspects of the field and present new advances and current research results in two tracks, namely: digital image processing and pattern recognition, and computer science, engineering and information technology.

Features
This book constitutes the refereed proceedings of the First International Conference on Digital Image Processing and Pattern Recognition, DPPR 2011, held in Tirunelveli, India, in September 2011. The 48 revised full papers were carefully reviewed and selected from about 400 submissions. The conference brought together leading researchers, engineers and scientists in the domain of Digital Image Processing and [...] Fields of interest
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl. Internet); Algorithm Analysis and Problem Complexity; Computer Communication Networks; Pattern Recognition; Image Processing and Computer Vision

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

72,00 €
ISBN 978-3-642-24054-6

Advances in Information Retrieval Theory
Third International Conference, ICTIR 2011, Bertinoro, Italy, September 12-14, 2011, Proceedings

This book constitutes the refereed proceedings of the Third International Conference on the Theory of Information Retrieval, ICTIR 2011, held in Bertinoro, Italy, in September 2011. The 25 revised full papers and 13 short papers presented together with the abstracts of two invited talks were carefully reviewed and selected from 65 submissions. The papers cover topics ranging from query expansion, co-occurrence analysis, user and interactive modelling, system performance prediction and comparison, and probabilistic approaches for ranking and modelling IR to topics related to interdisciplinary approaches or applications. They are organized into the following topical sections: predicting query performance; latent semantic analysis and word co-occurrence analysis; query expansion and re-ranking; comparison of information retrieval systems and approximate search; probability ranking principle and alternatives; interdisciplinary approaches; user and relevance; result diversification and query [...] Features
This book constitutes the refereed proceedings of the Third International Conference on the Theory of Information Retrieval, ICTIR 2011, held in Bertinoro, Italy, in September 2011. The 25 revised full papers and 13 short papers presented together with the abstracts of two invited talks were carefully reviewed and selected from 65 submissions. The papers cover topics ranging from query expansion, co-occurrence [...] Fields of interest
Information Storage and Retrieval; Database Management; Data Mining and Knowledge Discovery; Algorithm Analysis and Problem Complexity; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl. Internet)

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

54,00 €
ISBN 978-3-642-23317-3
Advances in Parallel, Distributed Computing
First International Conference on Parallel, Distributed Computing Technologies and Applications, PDCTA 2011, Tirunelveli, Tamil Nadu, India, September 23-25, 2011, Proceedings

This book constitutes the refereed proceedings of the First International Conference on Advances in Parallel, Distributed Computing Technologies and Applications, PDCTA 2011, held in Tirunelveli, India, in September 2011. The 64 revised full papers were carefully reviewed and selected from over 400 submissions. Providing an excellent international forum for sharing knowledge and results in theory, methodology and applications of parallel, distributed computing the papers address all current issues in this field with special focus on algorithms and applications, computer networks, cyber trust and security, wireless networks, as well as mobile computing and bioinformatics.

Features
This book constitutes the refereed proceedings of the First International Conference on Advances in Parallel, Distributed Computing Technologies and Applications, PDCTA 2011, held in Tirunelveli, India, in September 2011. The 64 revised full papers were carefully reviewed and selected from over 400 submissions. Providing an excellent international forum for sharing knowledge and results in theory, [...]
Affective Computing and Intelligent Interaction

Fourth International Conference, ACII 2011, Memphis, TN, USA, October 9-12, 2011, Proceedings, Part I

The two-volume set LNCS 6974 and LNCS 6975 constitutes the refereed proceedings of the Fourth International Conference on Affective Computing and Intelligent Interaction, ACII 2011, held in Memphis, TN, USA, in October 2011. The 135 papers in this two volume set presented together with 3 invited talks were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on recognition and synthesis of human affect, affect-sensitive applications, methodological issues in affective computing, affective and social robotics, affective and behavioral interfaces, relevant insights from psychology, affective databases, Evaluation and annotation tools.

Features
The two-volume set LNCS 6974 and LNCS 6975 constitutes the refereed proceedings of the Fourth International Conference on Affective Computing and Intelligent Interaction, ACII 2011, held in Memphis, TN, USA, in October 2011. The 135 papers in this two volume set presented together with 3 invited talks were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on [...] fields of interest.

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Computer Imaging, Vision, Pattern Recognition and Graphics; User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

Due: September 23, 2011


79,00 €
ISBN 978-3-642-24599-2

Affective Computing and Intelligent Interaction

Fourth International Conference, ACII 2011, Memphis, TN, USA, October 9-12, 2011, Proceedings, Part II

The two-volume set LNCS 6974 and LNCS 6975 constitutes the refereed proceedings of the Fourth International Conference on Affective Computing and Intelligent Interaction, ACII 2011, held in Memphis, TN, USA, in October 2011. The 135 papers in this two volume set presented together with 3 invited talks were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on recognition and synthesis of human affect, affect-sensitive applications, methodological issues in affective computing, affective and social robotics, affective and behavioral interfaces, relevant insights from psychology, affective databases, Evaluation and annotation tools.

Features
The two-volume set LNCS 6974 and LNCS 6975 constitutes the refereed proceedings of the Fourth International Conference on Affective Computing and Intelligent Interaction, ACII 2011, held in Memphis, TN, USA, in October 2011. The 135 papers in this two volume set presented together with 3 invited talks were carefully reviewed and selected from 196 submissions. The papers are organized in topical sections on [...] fields of interest.

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Computer Imaging, Vision, Pattern Recognition and Graphics; User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

Due: September 23, 2011


79,00 €
ISBN 978-3-642-24570-1

Algorithmic Learning Theory

22nd International Conference, ALT 2011, Espoo, Finland, October 5-7, 2011, Proceedings

This book constitutes the refereed proceedings of the 22nd International Conference on Algorithmic Learning Theory, ALT 2011, held in Espoo, Finland, in October 2011, co-located with the 14th International Conference on Discovery Science, DS 2011. The 28 revised full papers presented together with the abstracts of 5 invited talks were carefully reviewed and selected from numerous submissions. The papers are divided into topical sections of papers on inductive inference, regression, bandit problems, online learning, kernel and margin-based methods, intelligent agents and other learning models.

Features
This book constitutes the refereed proceedings of the 22nd International Conference on Algorithmic Learning Theory, ALT 2011, held in Espoo, Finland, in October 2011, co-located with the 14th International Conference on Discovery Science, DS 2011. The 28 revised full papers presented together with the abstracts of 5 invited talks were carefully reviewed and selected from numerous submissions. The papers [...] fields of interest.

Fields of interest
Artificial Intelligence (incl. Robotics); Mathematical Logic and Formal Languages; Algorithm Analysis and Problem Complexity; Computation by Abstract Devices, Logics and Meanings of Programs; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

Due: September 21, 2011


62,00 €
ISBN 978-3-642-24411-7
## Algorithms -- ESA 2011

19th Annual European Symposium, Saarbrücken, Germany, September 5-9, 2011, Proceedings

This book constitutes the refereed proceedings of the 19th Annual European Symposium on Algorithms, ESA 2011, held in Saarbrücken, Germany, in September 2011 in the context of the combined conference ALGO 2011. The 67 revised full papers presented were carefully reviewed and selected from 255 initial submissions: 55 out of 209 in track design and analysis and 12 out of 46 in track engineering and applications. The papers are organized in topical sections on approximation algorithms, computational geometry, game theory, graph algorithms, stable matchings and auctions, optimization, online algorithms, exponential-time algorithms, parameterized algorithms, scheduling, data structures, graphs and games, distributed computing and networking, strings and sorting, as well as local search and set systems.

### Features

This book constitutes the refereed proceedings of the 19th Annual European Symposium on Algorithms, ESA 2011, held in Saarbrücken, Germany, in September 2011 in the context of the combined conference ALGO 2011. The 67 revised full papers presented were carefully reviewed and selected from 255 initial submissions: 55 out of 209 in track design and analysis and 12 out of 46 in track engineering and applications. [...]

### Fields of interest

Algorithm Analysis and Problem Complexity; Computer Communication Networks; Discrete Mathematics in Computer Science; Computer Graphics; Numeric Computing; Data Structures

### Target groups

Research

### Type of publication

Proceedings

### Online orders shipping

2-3 days.


95,00 €

ISBN 978-3-642-23718-8

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## Ambient Media and Systems

Second International ICST Conference, AMBI-SYS 2011, Porto, Portugal, March 24-25, 2011, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the Second International ICST Conference on Ambient Systems and Media, AMBI-SYS 2011, held in Porto, Portugal in March 2011. The 10 revised full papers presented were carefully reviewed and selected to cover a wide range of topics as innovative solutions in the field of ambient assisted living, providing a new physical basis for ambient intelligence by also leveraging on contributions offered by interaction design methods and approaches.

### Features

This book constitutes the thoroughly refereed post-conference proceedings of the Second International ICST Conference on Ambient Systems and Media, AMBI-SYS 2011, held in Porto, Portugal in March 2011. The 10 revised full papers presented were carefully reviewed and selected to cover a wide range of topics as innovative solutions in the field of ambient assisted living, providing a new physical basis for [...]

### Fields of interest

User Interfaces and Human Computer Interaction; Information Systems Applications (and Internet); Computer Communication Networks; Image Processing and Computer Vision; Language Translation and Linguistics; Health Informatics

### Target groups

Professional/practitioner

### Type of publication

Proceedings

### Online orders shipping

2-3 days.

2011. 120 p. (Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, Vol. 70) Softcover

46,00 €

ISBN 978-3-642-23901-4

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## Apartness and Uniformity

A Constructive Development

The theory presented in this book is developed constructively, is based on a few axioms encapsulating the notion of objects (points and sets) being apart, and encompasses both point-set topology and the theory of uniform spaces. While the classical-logic-based theory of proximity spaces provides some guidance for the theory of apartness, the notion of nearness/proximity does not embody enough algorithmic [...]

### Fields of interest

Theory of Computation; Mathematics of Computing; Topology; Analysis; Mathematical Logic and Foundations

### Target groups

Research

### Type of publication

Monograph

### Usually dispatched within

3 to 5 business days

2011. XIV, 198 p. 3 illus. (Theory and Applications of Computability) Hardcover

79,95 €

ISBN 978-3-642-22414-0
Artificial Intelligence and Computational Intelligence

Second International Conference, AICI 2011, Taiyuan, China, September 24-25, 2011, Proceedings, Part II

This three-volume proceedings contains revised selected papers from the Second International Conference on Artificial Intelligence and Computational Intelligence, AICI 2011, held in Taiyuan, China, in September 2011. The total of 265 high-quality papers presented were carefully reviewed and selected from 1073 submissions. The topics of Part II covered are: heuristic searching methods; immune computation; information security; information theory; intelligent control; intelligent image processing; intelligent information fusion; intelligent information retrieval; intelligent signal processing; knowledge representation; and machine learning.

Features
This three-volume proceedings contains revised selected papers from the Second International Conference on Artificial Intelligence and Computational Intelligence, AICI 2011, held in Taiyuan, China, in September 2011. The total of 265 high-quality papers presented were carefully reviewed and selected from 1073 submissions. The topics of Part II covered are: heuristic searching methods; immune computation; information security; information theory; intelligent control; intelligent image processing; intelligent information fusion; intelligent information retrieval; intelligent signal processing; knowledge representation; and machine learning.

Fields of interest
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Computation by Abstract Devices; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XVIII, 718 p. (Lecture Notes in Artificial Intelligence, Vol. 7003) Softcover
87,00 €
ISBN 978-3-642-23886-4

118,00 €
ISBN 978-3-642-23959-5
Artificial Intelligence and Computational Intelligence


This three-volume proceedings contains revised selected papers from the Second International Conference on Artificial Intelligence and Computational Intelligence, AICI 2011, held in Taiyuan, China, in September 2011. The total of 265 high-quality papers presented were carefully reviewed and selected from 1073 submissions. The topics of Part I covered are: applications of artificial intelligence; applications of computational intelligence; automated problem solving; biomedical informatics and computation; brain models; cognitive science; data mining and knowledge discovery; distributed AI and agents; evolutionary programming; expert and decision support systems; fuzzy computation; fuzzy logic and soft computing; and genetic algorithms.

Features
This three-volume proceedings contains revised selected papers from the Second International Conference on Artificial Intelligence and Computational Intelligence, AICI 2011, held in Taiyuan, China, in September 2011. The total of 265 high-quality papers presented were carefully reviewed and selected from 1073 submissions. The topics of Part I covered are: applications of artificial intelligence; [...] Fields of interest
- Artificial Intelligence (incl. Robotics);
- Information Systems Applications (incl. Internet);
- Algorithm Analysis and Problem Complexity;
- Information Storage and Retrieval;
- Computation by Abstract Devices;
- Software Engineering

Target groups
- Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XXXIII, 686 p. (Lecture Notes in Artificial Intelligence, Vol. 7002) Softcover
87.00 €
ISBN 978-3-642-23880-2

Automated Technology for Verification and Analysis

9th International Symposium, ATVA 2011, Taipei, Taiwan, October 11–14, 2011, Proceedings

This book constitutes the refereed proceedings of the 9th International Symposium on Automated Technology for Verification and Analysis, ATVA 2011, held in Taipei, Taiwan, in October 2011. The 23 revised regular papers presented together with 5 invited papers, 11 short papers, and 2 tool papers, were carefully reviewed and selected from 75 submissions. The papers address all theoretical and practical aspects of automated analysis, verification and synthesis; thus providing a forum for interaction between the regional and the international research communities and industry in the field.

Features
This book constitutes the refereed proceedings of the 9th International Symposium on Automated Technology for Verification and Analysis, ATVA 2011, held in Taipei, Taiwan, in October 2011. The 23 revised regular papers presented together with 5 invited papers, 11 short papers, and 2 tool papers, were carefully reviewed and selected from 75 submissions. The papers address all theoretical and practical [...] Fields of interest
- Software Engineering;
- Programming Techniques;
- Computer Communication Networks;
- Logics and Meanings of Programs;
- Programming Languages, Compilers, Interpreters;
- Software Engineering / Programming and Operating Systems

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

70.00 €
ISBN 978-3-642-24371-4

Cartesian Genetic Programming

Cartesian Genetic Programming (CGP) is a highly effective and increasingly popular form of genetic programming. It represents programs in the form of directed graphs, and a particular characteristic is that it has a highly redundant genotype-phenotype mapping, in that genes can be noncoding. It has spawned a number of new forms, each improving on the efficiency, among them modular, or embedded, CGP, and self-modifying CGP. It has been applied to many problems in both computer science and applied sciences. This book contains chapters written by the leading figures in the development and application of CGP, and it will be essential reading for researchers in genetic programming and for engineers and scientists solving applications using these techniques. It will also be useful for advanced undergraduates and postgraduates seeking to understand and utilize a highly efficient form of genetic programming.

Features
Cartesian Genetic Programming (CGP) is a highly effective and increasingly popular form of genetic programming. It represents programs in the form of directed graphs, and a particular characteristic is that it has a highly redundant genotype-phenotype mapping, in that genes can be noncoding. It has spawned a number of new forms, each improving on the efficiency, among them modular, or embedded, CGP, and [...] Contents
- Introduction:
- Cartesian Genetic Programming;
- Modular Cartesian Genetic Programming;
- Self-modifying Cartesian Genetic Programming;
- Evolution of Electronic Circuits;
- Image Processing;
- Developmental Approaches;
- Artificial Neural Approaches;
- Medical Applications;
- Hardware Acceleration;
- Control Applications;
- Evolutionary Art;
- Future Directions

- App. A: A Bibliography of CGP Papers
- App. B: CGP Software

Fields of interest
- Theory of Computation;
- Electrical Engineering;
- Artificial Intelligence (incl. Robotics);
- Computer-Aided Engineering (CAD, CAE) and Design;
- Computer Appl. in Arts and Humanities

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

99.95 €
ISBN 978-3-642-17309-7
Collaboration and Technology

17th International Conference, CIWG 2011, Paraty, Brazil, October 2-7, 2011, Proceedings

This book constitutes the proceedings of the 17th Collaboration Researchers’ International Working Group Conference on Collaboration and Technology, held in Paraty, Brazil, in October 2011. The 12 revised papers presented together with 6 short papers were carefully reviewed and selected from numerous submissions. They are grouped into four themes that represent current areas of interest in groupware research: theoretical foundation, empirical studies, methods and techniques, and tools for communication and cooperation.

Features

This book constitutes the proceedings of the 17th Collaboration Researchers’ International Working Group Conference on Collaboration and Technology, held in Paraty, Brazil, in October 2011. The 12 revised papers presented together with 6 short papers were carefully reviewed and selected from numerous submissions. They are grouped into four themes that represent current areas of interest in groupware research: theoretical foundation, empirical studies, methods and techniques, and tools for communication and cooperation.

Fields of interest

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

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-23800-0

Comparative Evaluation of Focused Retrieval


This book constitutes the thoroughly refereed post-workshop proceedings of the 9th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2009, held in Vught, The Netherlands, in December 2009. The aim of the INEX 2010 workshop was to bring together researchers in the field of XML IR who participated in the INEX 2010 campaign. During the past year, participating organizations contributed to the building of large-scale XML test collections by creating topics, performing retrieval runs and providing relevance assessments. The workshop concluded the results of this large-scale effort, summarized and addressed issues encountered, and devised a work plan for the future evaluation of XML retrieval systems. The 37 full papers presented were carefully reviewed and selected from 42 submissions; they are organized into sections corresponding to the nine tracks of the workshop, investigating various aspects of XML retrieval, from book search to entity.

Features

This book constitutes the thoroughly refereed post-workshop proceedings of the 9th International Workshop of the Initiative for the Evaluation of XML Retrieval, INEX 2009, held in Vught, The Netherlands, in December 2009. The aim of the INEX 2010 workshop was to bring together researchers in the field of XML IR who participated in the INEX 2010 campaign. During the past year, participating organizations contributed to the building of large-scale XML test collections by creating topics, performing retrieval runs and providing relevance assessments. The workshop concluded the results of this large-scale effort, summarized and addressed issues encountered, and devised a work plan for the future evaluation of XML retrieval systems. The 37 full papers presented were carefully reviewed and selected from 42 submissions; they are organized into sections corresponding to the nine tracks of the workshop, investigating various aspects of XML retrieval, from book search to entity.

Fields of interest

Information Storage and Retrieval; Database Management; Data Structures

Target groups

Professional/practitioner

Type of publication

Proceedings

Online orders shipping within 2-3 days.


62,00 €
ISBN 978-3-642-23576-4

Computational Collective IntelligenceTechnologies and Applications

Third International Conference, ICCCI 2011, Gdynia, Poland, September 21-23, 2011, Proceedings, Part I

The two-volume set LNAI 6922 and LNAI 6923 constitutes the refereed proceedings of the Third International Conference on Computational Collective Intelligence, ICCCI 2011, held in Gdynia, Poland, in September 2011. The 112 papers in this two volume set presented together with 3 keynote speeches were carefully reviewed and selected from 300 submissions. The papers are organized in topical sections on knowledge management, machine learning and applications, autonomous and collective decision-making, collective computations and optimization, Web services and semantic Web, social networks and computational swarm intelligence and applications.

Features

The two-volume set LNAI 6922 and LNAI 6923 constitutes the refereed proceedings of the Third International Conference on Computational Collective Intelligence, ICCCI 2011, held in Gdynia, Poland, in September 2011. The 112 papers in this two volume set presented together with 3 keynote speeches were carefully reviewed and selected from 300 submissions. The papers are organized in topical sections on knowledge management, machine learning and applications, autonomous and collective decision-making, collective computations and optimization, Web services and semantic Web, social networks and computational swarm intelligence and applications.

Fields of interest

Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Computer Communication Networks; Data Mining and Knowledge Discovery; Algorithm Analysis and Problem Complexity; User Interfaces and Human Computer Interaction

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.

2011. XXV, 635 p. 196 illus. (Lecture Notes in Artificial Intelligence, Vol. 6922) Softcover

79,00 €
ISBN 978-3-642-23934-2
Computational Collective Intelligence Technologies and Applications

Third International Conference, ICCCI 2011, Gdynia, Poland, September 21-23, 2011, Proceedings, Part II

The two-volume set LNAI 6922 and LNAI 6923 constitutes the refereed proceedings of the Third International Conference on Computational Collective Intelligence, ICCCI 2011, held in Gdynia, Poland, in September 2011. The 112 papers in this two volume set presented together with 3 keynote speeches were carefully reviewed and selected from 300 submissions. The papers are organized in topical sections on knowledge management, machine learning and applications, autonomous and collective decision-making, collective computations and optimization, Web services and semantic Web, social networks and computational swarm intelligence and applications.

Features
The two-volume set LNAI 6922 and LNAI 6923 constitutes the refereed proceedings of the Third International Conference on Computational Collective Intelligence, ICCCI 2011, held in Gdynia, Poland, in September 2011. The 112 papers in this two volume set presented together with 3 keynote speeches were carefully reviewed and selected from 300 submissions. The papers are organized in topical sections on [

Fields of interest
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl. Internet); Computer Communication Networks; Data Mining and Knowledge Discovery; Algorithm Analysis and Problem Complexity; User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.
### Computer Security – ESORICS 2011


This book constitutes the refereed proceedings of the 16th European Symposium on Computer Security, ESORICS 2011, held in Leuven, Belgium, in September 2011. The 36 papers included in the book were carefully reviewed and selected from 155 papers. The articles are organized in topical sections on wireless security; Web security; forensics, biometrics and software protection; access control; cryptography and protocol analysis; information flow, side channels, and vulnerability analysis; usability, trust, and economics of security and privacy; and privacy.

### Features

This book constitutes the refereed proceedings of the 16th European Symposium on Computer Security, ESORICS 2011, held in Leuven, Belgium, in September 2011. The 36 papers included in the book were carefully reviewed and selected from 155 papers. The articles are organized in topical sections on wireless security; Web security; forensics, biometrics and software protection; access control; cryptography and protocol analysis; information flow, side channels, and vulnerability analysis; usability, trust, and economics of security and privacy; and privacy.

### Fields of interest

Computer Communication Networks; Data Encryption; Management of Computing and Information Systems; Algorithm Analysis and Problem Complexity; Computers and Society; Information Systems Applications (incl.Internet)

### Target groups

Research

### Type of publication

Proceedings

Currently out of stock.

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Softcover

79.00 €

ISBN 978-3-642-23821-5

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### Computer Vision -- ACCV 2010 Workshops

ACCV 2010 International Workshops. Queenstown, New Zealand, November 8-9, 2010. Revised Selected Papers, Part I

The two-volume set LNCS 6468-6469 contains the carefully selected and reviewed papers presented at the eight workshops that were held in conjunction with the 10th Asian Conference on Computer Vision, in Queenstown, New Zealand, in November 2010. From a total of 167 submissions to all workshops, 89 papers were selected for publication. The contributions are grouped together according to the main workshops topics, which were: computational photography and aesthetics; computer vision in vehicle technology: from Earth to Mars; electronic cultural heritage; subspace based methods; video event categorization, tagging and retrieval; visual surveillance; application of computer vision for mixed and augmented reality.

### Features

The two-volume set LNCS 6468-6469 contains the carefully selected and reviewed papers presented at the eight workshops that were held in conjunction with the 10th Asian Conference on Computer Vision, in Queenstown, New Zealand, in November 2010. From a total of 167 submissions to all workshops, 89 papers were selected for publication. The contributions are grouped together according to the main workshops topics, which were: computational photography and aesthetics; computer vision in vehicle technology: from Earth to Mars; electronic cultural heritage; subspace based methods; video event categorization, tagging and retrieval; visual surveillance; application of computer vision for mixed and augmented reality.

### Fields of interest

Computer Imaging, Vision, Pattern Recognition and Graphics; User Interfaces and Human Computer Interaction; Media Design; Geometry

### Target groups

Research

### Type of publication

Proceedings

Online orders shipping within 2-3 days.

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Softcover

62.00 €

ISBN 978-3-642-22821-6

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### Computer Vision -- ACCV 2010 Workshops

ACCV 2010 International Workshops. Queenstown, New Zealand, November 8-9, 2010. Revised Selected Papers, Part II

The two-volume set LNCS 6468-6469 contains the carefully selected and reviewed papers presented at the eight workshops that were held in conjunction with the 10th Asian Conference on Computer Vision, in Queenstown, New Zealand, in November 2010. From a total of 167 submissions to all workshops, 89 papers were selected for publication. The contributions are grouped together according to the main workshops topics, which were: computational photography and aesthetics; computer vision in vehicle technology: from Earth to Mars; electronic cultural heritage; subspace based methods; video event categorization, tagging and retrieval; visual surveillance; application of computer vision for mixed and augmented reality.

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### Fields of interest

Computer Imaging, Vision, Pattern Recognition and Graphics; User Interfaces and Human Computer Interaction; Media Design; Geometry

### Target groups

Research

### Type of publication

Proceedings

Online orders shipping within 2-3 days.

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Softcover

62.00 €

ISBN 978-3-642-22818-6
Computer Vision Systems


This book constitutes the refereed proceedings of the 8th International Conference on Computer Vision Systems, ICVS’11, held in Sophia Antipolis, France, in September 2009. The 22 revised papers presented were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on vision systems, control of perception, performance evaluation, activity recognition, and knowledge directed vision.

Features
This book constitutes the refereed proceedings of the 8th International Conference on Computer Vision Systems, ICVS’11, held in Sophia Antipolis, France, in September 2009. The 22 revised papers presented were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on vision systems, control of perception, performance evaluation, activity recognition, and knowledge directed vision.

Fields of interest
Computer Imaging, Vision, Pattern Recognition and Graphics; Image Processing and Computer Vision; Pattern Recognition; Computer Graphics; User Interfaces and Human Computer Interaction; Artificial Intelligence (incl. Robotics)

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-23967-0

A. Gagalowicz, INRIA Rocquencourt, Le Chesnay, France; W. Philips, Ghent University, Belgium (Eds.)

Computer Vision/Computer Graphics Collaboration Techniques


This book constitutes the refereed proceedings of the 5th International Conference on Computer Vision/Computer Graphics Collaboration Techniques, MIRAGE 2011, held in Rocquencourt, France, in October 2011. The 23 full papers presented were carefully reviewed and selected from numerous submissions. The papers cover a wide range of topics with focus on Computer Vision/Computer Graphics Collaboration Techniques involving image analysis/synthesis approaches especially concerning theoretical, computational, experimental or industrial aspects of model-based image analysis and image-based model synthesis.

Features
This book constitutes the refereed proceedings of the 5th International Conference on Computer Vision/Computer Graphics Collaboration Techniques, MIRAGE 2011, held in Rocquencourt, France, in October 2011. The 23 full papers presented were carefully reviewed and selected from numerous submissions. The papers cover a wide range of topics with focus on Computer Vision/Computer Graphics Collaboration Techniques.

Fields of interest
Computer Graphics; Computer Imaging, Vision, Pattern Recognition and Graphics; Image Processing and Computer Vision; Pattern Recognition; Data Mining and Knowledge Discovery; Algorithm Analysis and Problem Complexity

Target groups
Research

Type of publication
Proceedings

Due: September 26, 2011


46,00 €
ISBN 978-3-642-24135-2

Y. Wu, Huazhong Normal University, Wuhan, Hubei, China (Ed.)

Computing and Intelligent Systems

International Conference, ICCIC 2011, held in Wuhan, China, September 17-18, 2011. Proceedings, Part III

This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Features
This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Fields of interest
Computer Communication Networks; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XII, 537 p. (Communications in Computer and Information Science, Vol. 233) Softcover

80,00 €
ISBN 978-3-642-24009-6

Y. Wu, Huazhong Normal University, Wuhan, Hubei, China (Ed.)
Computing and Intelligent Systems

This six-volume set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Features
This six-volume set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on [...] Fields of interest
Computer Communication Networks; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl. Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XII, 537 p. (Communications in Computer and Information Science, Vol. 234) Softcover
80,00 €
ISBN 978-3-642-24090-4

Context and Semantics for Knowledge Management

Knowledge and information are among the biggest assets of enterprises and organizations. However, efficiently managing, maintaining, accessing, and reusing this intangible treasure is difficult. Information overload makes it difficult to focus on the information that really matters; the fact that much corporate knowledge only resides in employees’ heads seriously hampers reuse. The work described in this book is motivated by the need to increase the productivity of knowledge work. Based on results from the EU-funded ACTIVE project and complemented by recent related results from other researchers, the application of three approaches is presented: the synergy of Web 2.0 and semantic technology; context-based information delivery; and the use of technology to support informal user processes. The contributions are organized in five parts. Part I comprises a general introduction and a description of the opportunities and challenges faced by organizations in exploiting Web 2.0 capabilities. Part II looks. [...] Features
Knowledge and information are among the biggest assets of enterprises and organizations. However, efficiently managing, maintaining, accessing, and reusing this intangible treasure is difficult. Information overload makes it difficult to focus on the information that really matters; the fact that much corporate knowledge only resides in employees’ heads seriously hampers reuse. The work [...]

Contents
Part I – Addressing the challenges of knowledge work. - Introduction. - Web 2.0 and network intelligence. - Part II – ACTIVE technologies and methodologies. - Enterprise knowledge structures. - Using cost-benefit information in ontology engineering projects. - Managing and understanding context. - Machine learning techniques for understanding context and process. - Part III – Applying and validating the ACTIVE technologies. - Increasing productivity in the customer-facing environment. - Machine learning and lightweight semantics to improve enterprise search and knowledge management. - Increasing[...]

Fields of interest
Information Systems Applications (incl. Internet); Artificial Intelligence (incl. Robotics); Business Information Systems; Computer Appl. in Administrative Data Processing

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days.

2011. X, 392 p. 120 illus., 4 in color. Hardcover
99,95 €
ISBN 978-3-642-19509-9

Convergence and Hybrid Information Technology

This book constitutes the refereed proceedings of the 5th International Conference on Convergence and Hybrid Information Technology, ICHIT 2011, held in Daejeon, Korea, in September 22-24, 2011. The 94 revised full papers were carefully selected from 323 initial submissions. The papers are organized in topical sections on communications and networking, intelligent systems and applications, sensor network and cloud systems, information retrieval and scheduling, hardware and software engineering, security systems, robotics and RFID Systems, pattern recognition, image processing and clustering, data mining, as well as human computer interaction.

Features
This book constitutes the refereed proceedings of the 5th International Conference on Convergence and Hybrid Information Technology, ICHIT 2011, held in Daejeon, Korea, in September 2011. The 94 revised full papers were carefully selected from 323 initial submissions. The papers are organized in topical sections on communications and networking, intelligent systems and applications, sensor network and cloud [...]

Fields of interest
Information Systems Applications (incl. Internet); Computer Communication Networks; Data Mining and Knowledge Discovery; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

95,00 €
ISBN 978-3-642-24081-2
Cryptographic Hardware and Embedded Systems — CHES 2011

13th International Workshop, Nara, Japan, September 28 – October 1, 2011, Proceedings

This book constitutes the proceedings of the 13th International Workshop on Cryptographic Hardware and Embedded Systems, CHES 2011, held in Nara, Japan, from September 28 until October 1, 2011. The 32 papers presented together with 1 invited talk were carefully reviewed and selected from 119 submissions. The papers are organized in topical sections named: FPGA implementation; AES; elliptic curve cryptosystems; lattices; side channel attacks; fault attacks; lightweight symmetric algorithms, PUFs; public-key cryptosystems; and hash functions.

Features
This book constitutes the proceedings of the 13th International Workshop on Cryptographic Hardware and Embedded Systems, CHES 2011, held in Nara, Japan, from September 28 until October 1, 2011. The 32 papers presented together with 1 invited talk were carefully reviewed and selected from 119 submissions. The papers are organized in topical sections named: FPGA implementation; AES; elliptic curve cryptosystems; lattices; side channel attacks; fault attacks; lightweight symmetric algorithms, PUFs; public-key cryptosystems; and hash functions.

Fields of interest
Data Encryption; Coding and Information Theory; Data Structures, Cryptology and Information Theory; Systems and Data Security; Algorithm Analysis and Problem Complexity; Discrete Mathematics in Computer Science

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


70,00 €
ISBN 978-3-642-23950-2

DNA Computing and Molecular Programming

17th International Conference, DNA 17, Pasadena, CA, USA, September 19-23, 2011, Proceedings

This book constitutes the refereed proceedings of the 17th International Conference on DNA Computing and Molecular Programming, DNA17, held in Pasadena, CA, USA, in September 2011. The 12 revised full papers presented together with 5 invited talks were carefully selected from numerous submissions. Research in DNA computing and molecular programming draws together mathematics, computer science, physics, chemistry, biology, and nanotechnology to address the analysis, design, and synthesis of information-based molecular systems. This annual meeting is the premier forum where scientists with diverse backgrounds come together with the common purpose of advancing the engineering and science of biology and chemistry from the point of view of computer science, physics, and mathematics.

Features
This book constitutes the refereed proceedings of the 17th International Conference on DNA Computing and Molecular Programming, DNA17, held in Pasadena, CA, USA, in September 2011. The 12 revised full papers presented together with 5 invited talks were carefully selected from numerous submissions. Research in DNA computing and molecular programming draws together mathematics, computer science, physics, chemistry, biology, and nanotechnology to address the analysis, design, and synthesis of information-based molecular systems. This annual meeting is the premier forum where scientists with diverse backgrounds come together with the common purpose of advancing the engineering and science of biology and chemistry from the point of view of computer science, physics, and mathematics.

Fields of interest
Computation by Abstract Devices; Algorithm Analysis and Problem Complexity; Computational Biology / Bioinformatics; Artificial Intelligence (incl. Robotics); Data Structures; Discrete Mathematics in Computer Science

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-23637-2
D. Peleg, Weizmann Institute of Science, Rehovot, Israel (Ed.)

**Distributed Computing**


This book constitutes the refereed proceedings of the 25th International Symposium on Distributed Computing, DISC 2011, held in Rome, Italy, in September 2011. The 31 revised full papers presented together with invited lectures and brief announcements were carefully reviewed and selected from 136 submissions. The papers are organized in topical sections on distributed graph algorithms; shared memory; brief announcements; fault-tolerance and security; paxos plus; wireless; network algorithms; aspects of locality; consensus; concurrency.

**Fields of interest**

Computer Communication Networks; Software Engineering; Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Programming Techniques; Artificial Intelligence (incl. Robotics)

**Target groups**

Research

**Type of publication**

Proceedings

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


70,00 €

ISBN 978-3-642-24099-7

E-Infrastructure and E-Services for Developing Countries


This book constitutes the thoroughly refereed post-conference proceedings of the Second International ICST Conference on e-Infrastructure and e-Services for Developing Countries, AFRICOM 2010, held in Cape Town, South Africa, in November 2010. The 13 revised full papers presented were carefully reviewed and selected and cover a wide range of topics such as wireless network technologies, E-governance, as well as ICT for development and ICT business models and open access.

**Fields of interest**

Computers and Society; Computer Communication Networks; Computers and Education; Management of Computing and Information Systems; Computer Appl. in Administrative Data Processing, Personal Computing

**Target groups**

Professional/practitioner

**Type of publication**

Proceedings

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


46,00 €

ISBN 978-3-642-23827-7
This three-volume set (CCIS 219, CCIS 220, and CCIS 221) constitutes the refereed proceedings of the International Conference on ENTERprise Information Systems, CENTERIS 2011, held in Vilamoura, Portugal, in September 2011. The approx. 120 revised full papers presented in the three volumes were carefully reviewed and selected from 180 submissions. The papers are organized in topical sections on knowledge society, EIS adoption and design, EIS implementation and impact, EIS applications, social aspects and IS in education, IT/IS management, telemedicine and imaging technologies, healthcare information management, medical records and business processes, decision support systems and business intelligence in health and social care contexts, architectures and emerging technologies in healthcare organizations, as well as m-health.

Features
This three-volume set (CCIS 219, CCIS 220, and CCIS 221) constitutes the refereed proceedings of the International Conference on ENTERprise Information Systems, CENTERIS 2011, held in Vilamoura, Portugal, in September 2011. The approx. 120 revised full papers presented in the three volumes were carefully reviewed and selected from 180 submissions. The papers are organized in topical sections on knowledge society, EIS adoption and design, EIS implementation and impact, EIS applications, social aspects and IS in education, IT/IS management, telemedicine and imaging technologies, healthcare information management, medical records and business processes, decision support systems and business intelligence in health and social care contexts, architectures and emerging technologies in healthcare organizations, as well as m-health.

Fields of interest
Information Systems Applications (incl.Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Software Engineering; User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. Approx. 450 p. (Communications in Computer and Information Science, Vol. 221) Softcover
72,00 €
ISBN 978-3-642-24351-6

2011. Approx. 15 p. 422 illus. in color. (Communications in Computer and Information Science, Vol. 220) Softcover
72,00 €
ISBN 978-3-642-24354-7

ENTERprise Information Systems


This three-volume set (CCIS 219, CCIS 220, and CCIS 221) constitutes the refereed proceedings of the International Conference on ENTERprise Information Systems, CENTERIS 2011, held in Vilamoura, Portugal, in September 2011. The approx. 120 revised full papers presented in the three volumes were carefully reviewed and selected from 180 submissions. The papers are organized in topical sections on knowledge society, EIS adoption and design, EIS implementation and impact, EIS applications, social aspects and IS in education, IT/IS management, telemedicine and imaging technologies, healthcare information management, medical records and business processes, decision support systems and business intelligence in health and social care contexts, architectures and emerging technologies in healthcare organizations, as well as m-health.

Features
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Fields of interest
Information Systems Applications (incl.Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Software Engineering; User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

72,00 €
ISBN 978-3-642-24357-8
Electronic Healthcare

This book constitutes the thoroughly refereed post-conference proceedings of the Third International Conference, eHealth 2010, held in Casablanca, Morocco, in December 2010. The 30 revised full papers presented along with 12 papers from 2 collocated workshops were carefully reviewed and selected from 70 submissions in total and cover a wide range of topics including web intelligence, privacy, trust and security, ontologies and knowledge management, e-learning and education, Web 2.0 and online communications of practice, and performance monitoring and evaluation frameworks for healthcare.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the Third International Conference, eHealth 2010, held in Casablanca, Morocco, in December 2010. The 30 revised full papers presented along with 12 papers from 2 collocated workshops were carefully reviewed and selected from 70 submissions in total and cover a wide range of topics including web intelligence, privacy, trust and [...]
Encyclopedia of Parallel Computing

Containing over 300 entries in an A-Z format, the Encyclopedia of Parallel Computing provides easy, intuitive access to relevant information for professionals and researchers seeking access to any aspect within the broad field of parallel computing. Topics for this comprehensive reference were selected, written, and peer-reviewed by an international pool of distinguished researchers in the field. The Encyclopedia is broad in scope, covering machine organization, programming languages, algorithms, and applications. Within each area, concepts, designs, and specific implementations are presented. The highly-structured essays in this work comprise synonyms, a definition and discussion of the topic, bibliographies, and links to related literature. Extensive cross-references to other entries within the Encyclopedia support efficient, user-friendly searches for immediate access to useful information. Key concepts presented in the Encyclopedia of Parallel Computing include; laws and metrics; specific [...] Features

Containing over 300 entries in an A-Z format, the Encyclopedia of Parallel Computing provides easy, intuitive access to relevant information for professionals and researchers seeking access to any aspect within the broad field of parallel computing. Topics for this comprehensive reference were selected, written, and peer-reviewed by an international pool of distinguished researchers in the field. [...] Contents


Fields of interest

Programming Languages, Compilers, Interpreters, Processor Architectures, System Performance and Evaluation, Special Purpose and Application-Based Systems, Software Engineering / Programming and Operating Systems

Target groups

Research

Type of publication

Encyclopedia

Usually dispatched within 3 to 5 business days

2011. XXVIII, 2176 p. In 4 volumes, not available separately. Hardcover

1,200.00 €


Engineering Applications of Neural Networks

12th International Conference, EANN 2011 and 7th IFIP WG 12.5 International Conference, AIAI 2011, Corfu, Greece, September 15-18, 2011, Proceedings, Part I

The two-volume set IFIP AICT 363 and 364 constitutes the refereed proceedings of the 12th International Conference on Engineering Applications of Neural Networks, EANN 2011, and the 7th IFIP WG 12.5 International Conference, AIAI 2011, held jointly in Corfu, Greece, in September 2011. The 52 revised full papers and 28 revised short papers presented together with 31 workshop papers were carefully reviewed and selected from 150 submissions. The first volume includes the papers that were accepted for presentation at the EANN 2011 conference. They are organized in topical sections on computer vision and robotics, self organizing maps, classification/pattern recognition, financial and management applications of AI, fuzzy systems, support vector machines, learning and novel algorithms, reinforcement and radial basis function ANN, machine learning, evolutionary genetic algorithms optimization, Web applications of ANN, spiking ANN, feature extraction minimization, medical applications of AI, environmental [...] Features

The two-volume set IFIP AICT 363 and 364 constitutes the refereed proceedings of the 12th International Conference on Engineering Applications of Neural Networks, EANN 2011, and the 7th IFIP WG 12.5 International Conference, AIAI 2011, held jointly in Corfu, Greece, in September 2011. The 52 revised full papers and 28 revised short papers presented together with 31 workshop papers were carefully reviewed and selected from 150 submissions. The first volume includes the papers that were accepted for presentation at the EANN 2011 conference. They are organized in topical sections on computer vision and robotics, self organizing maps, classification/pattern recognition, financial and management applications of AI, fuzzy systems, support vector machines, learning and novel algorithms, reinforcement and radial basis function ANN, machine learning, evolutionary genetic algorithms optimization, Web applications of ANN, spiking ANN, feature extraction minimization, medical applications of AI, environmental [...] Fields of interest

Computation by Abstract Devices, Pattern Recognition, Artificial Intelligence (incl. Robotics), Simulation and Modeling, Biometrics, User Interfaces and Human Computer Interaction, Cosmology, Quantum Chemistry.

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


118.00 €

ISBN 978-3-642-23956-4

Entertainment Computing - ICEC 2011

10th International Conference, ICEC 2011, Vancouver, BC, Canada, October 5-8, 2011, Proceedings

This book constitutes the refereed proceedings of the 10th International Conference on Entertainment Computing, ICEC 2011, held in Vancouver, Canada, in October 2011, under the auspices of IFIP. The 20 revised long papers, 18 short papers and 24 poster papers and demos presented were carefully reviewed and selected from 94 initial submissions. The papers cover all main domains of entertainment computing, from virtual reality to games, taking a wide range of scientific domains from aesthetic to computer science. The papers are organized in topical sections on story, active games, player experience, camera and 3D, educational entertainment, game development, self and identity, social and mobile entertainment; plus the four categories: demonstrations, posters, workshop, and tutorial.

Features

This book constitutes the refereed proceedings of the 10th International Conference on Entertainment Computing, ICEC 2011, held in Vancouver, Canada, in October 2011, under the auspices of IFIP. The 20 revised long papers, 18 short papers and 24 poster papers and demos presented were carefully reviewed and selected from 94 initial submissions. The papers cover all main domains of entertainment computing, from [...] Fields of interest


Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


62.00 €

ISBN 978-3-642-24499-5
Evolutionary Game Design

The book describes the world's first successful experiment in fully automated board game design. Evolutionary methods were used to derive new rule sets within a custom game description language, and self-play trials used to estimate each derived game's potential to interest human players. The end result is a number of new and interesting games, one of which has proved popular and gone on to be commercially published.

Features
None for briefs

Contents
Introduction.- Games in General.- The Ludi System.- Measuring Games.- Evolving Games.- Viable Games.- Yavalath.- Conclusion.

Fields of interest
Artificial Intelligence (incl. Robotics); Computer Appl. in Arts and Humanities; Simulation and Modeling

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2011. XI, 122 p. 68 illus. (SpringerBriefs in Computer Science, 0) Softcover

39,95 €

Exploring Music Contents

7th International Symposium, CMMR 2010, Málaga, Spain, June 21-24, 2010. Revised Papers

This book constitutes the thoroughly refereed post-proceedings of the 7th International Symposium on Computer Music Modeling and Retrieval, CMMR 2010, held in Málaga, Spain, in June 2010. The 22 revised full papers presented were specially reviewed and revised for inclusion in this proceedings volume. The book is divided in five main chapters which reflect the present challenges within the field of computer music modeling and retrieval. The chapters range from music interaction, composition tools and sound source separation to data mining and music libraries. One chapter is also dedicated to perceptual and cognitive aspects that are currently subject to increased interest in the MIR community.

Features
This book constitutes the thoroughly refereed post-proceedings of the 7th International Symposium on Computer Music Modeling and Retrieval, CMMR 2010, held in Málaga, Spain, in June 2010. The 22 revised full papers presented were specially reviewed and revised for inclusion in this proceedings volume. The book is divided in five main chapters which reflect the present challenges within the field of computer [...]
Forensics in Telecommunications, Information and Multimedia

Third International ICST Conference, e-Forensics 2010, Shanghai, China, November 11-12, 2010, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the Third International ICST Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia, E-Forensics 2010, held in Shanghai, China, in November 2010. The 32 revised full papers presented were carefully reviewed and selected from 42 submissions in total. These, along with 5 papers from a collocated workshop of E-Forensics Law, cover a wide range of topics including digital evidence handling, data carving, records tracing, device forensics, data tamper identification, and mobile device locating.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the Third International ICST Conference on Forensic Applications and Techniques in Telecommunications, Information and Multimedia, E-Forensics 2010, held in Shanghai, China, in November 2010. The 32 revised full papers presented were carefully reviewed and selected from 42 submissions in total. These, along with 5 papers from a [...]
Frontiers of Combining Systems

8th International Symposium, FroCoS 2011, Saarbrücken, Germany, October 5-7, 2011. Proceedings

This book constitutes the refereed proceedings of the 8th International Symposium on Frontiers of Combining Systems, FroCoS 2011, held in Saarbrücken, Germany, in October 2011. The 15 revised full papers presented together with three invited papers were carefully reviewed and selected from 22 submissions. The event builds a common forum for research activities in the general area of combination, modularization and integration of systems, with emphasis on logic-based ones, and of their practical use.

Features
This book constitutes the refereed proceedings of the 8th International Symposium on Frontiers of Combining Systems, FroCoS 2011, held in Saarbrücken, Germany, in October 2011. The 15 revised full papers presented together with three invited papers were carefully reviewed and selected from 22 submissions. The event builds a common forum for research activities in the general area of combination, modularization and integration of systems, with emphasis on logic-based ones, and of their practical use.

Fields of interest
Artificial Intelligence (incl. Robotics); Mathematical Logic and Formal Languages; Logics and Meanings of Programs; Software Engineering; Algorithms Analysis and Problem Complexity; Programming Techniques

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. VIII, 276 p. (Lecture Notes in Artificial Intelligence, Vol. 6989) Softcover

46,00 €
ISBN 978-3-642-24363-9

S. Lee

Glazed Panel Construction with Human-Robot Cooperation

These days, construction companies are beginning to be concerned about a potential labor shortage by demographic changes and an aging construction workforce. Also, an improvement in construction safety could not only reduce accidents but also decrease the cost of the construction, and is therefore one of the imperative goals of the construction industry. These challenges correspond to the potential for Automation and Robotics in Construction as one of solutions. Almost half of construction work is said to be material handling and materials used for construction are heavy and bulky for humans. To date, various types of robots have been developed for glazed panel construction. Through the case studies on construction, to which the robots were applied, however, we identified difficulties to be overcome. In this study, a human-robot cooperative system is deduced as one approach to surmount these difficulties; then, considerations on interactions among the operator, robot and environment are applied to [...]

Features
These days, construction companies are beginning to be concerned about a potential labor shortage by demographic changes and an aging construction workforce. Also, an improvement in construction safety could not only reduce accidents but also decrease the cost of the construction, and is therefore one of the imperative goals of the construction industry. These challenges correspond to the potential for [...]

Contents

Fields of interest
Artificial Intelligence (incl. Robotics); Mechanical Engineering

Target groups
Professional/practitioner

Type of publication
Brief

Usually dispatched within 3 to 5 business days.

2011. X, 70 p. 60 illus. (SpringerBriefs in Computer Science) Softcover

39,95 €

Goverance and Sustainability in Information Systems. Managing the Transfer and Diffusion of IT


This book constitutes the refereed proceedings of the IFIP WG 8.6 International Working Conference on Governance and Sustainability in Information Systems, held in Hamburg, Germany, in September 2011. The 14 revised full papers and 16 research in progress and practice papers presented were carefully reviewed and selected from 47 submissions. The full research papers are organized in the following topical sections: governance, sustainability, design themes, customer and user integration, and future subjects.

Features
This book constitutes the refereed proceedings of the IFIP WG 8.6 International Working Conference on Governance and Sustainability in Information Systems, held in Hamburg, Germany, in September 2011. The 14 revised full papers and 16 research in progress and practice papers presented were carefully reviewed and selected from 47 submissions. The full research papers are organized in the following topical sections: governance, sustainability, design themes, customer and user integration, and future subjects.

Fields of interest
Information Systems Applications (incl.Internet); Artificial Intelligence (incl. Robotics); Computer Communication Networks; Information Storage and Retrieval; Database Management; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


105,00 €
ISBN 978-3-642-24147-5
Grammars for Language and Genes

Theoretical and Empirical Investigations

Grammars are gaining importance in natural language processing and computational biology as a means of encoding theories and structuring algorithms. But one serious obstacle to applications of grammars is that formal language theory traditionally classifies grammars according to their weak generative capacity (what sets of strings they generate) and tends to ignore strong generative capacity (what sets of structural descriptions they generate) even though the latter is more relevant to applications. This book develops and demonstrates a framework for carrying out rigorous comparisons of grammar formalisms in terms of their usefulness for applications, focusing on three areas of application: statistical parsing, natural language translation, and biological sequence analysis. These results should pave the way for theoretical research to pursue results that are more directed towards applications, and for practical research to explore the use of advanced grammar formalisms more easily.

Features

Grammars are gaining importance in natural language processing and computational biology as a means of encoding theories and structuring algorithms. But one serious obstacle to applications of grammars is that formal language theory traditionally classifies grammars according to their weak generative capacity (what sets of strings they generate) and tends to ignore strong generative capacity (what sets of structural descriptions they generate) even though the latter is more relevant to applications.

Guide to ILDJIT

This book is a guide to getting started with ILDJIT, a compilation framework designed to be both easily extensible and easily configurable. Within this framework, it is possible to build a tool-chain by customizing ILDJIT for specific purposes. Customizations can be used within both static and dynamic compilers already included in the framework without adaptations. Moreover, customizations allow modification of both the behaviors and the characteristics of these compilers to better satisfy the particular need. Currently, ILDJIT is able to translate bytecode programs to generate machine code for both Intel x86 and ARM processors. By relying on ILDJIT technology, more input languages or platforms can be supported. After an introduction to ILDJIT, this guide goes into detail on how to exploit it by extending the framework to match specific requirements. Finally, there is an introduction and discussion of the design choices followed during the authors’ years of development efforts towards ILDJIT.

Features

This book is a guide to getting started with ILDJIT, a compilation framework designed to be both easily extensible and easily configurable. Within this framework, it is possible to build a tool-chain by customizing ILDJIT for specific purposes. Customizations can be used within both static and dynamic compilers already included in the framework without adaptations. Moreover, customizations allow modification of both the behaviors and the characteristics of these compilers to better satisfy the particular need.

Handbook of Augmented Reality

Augmented Reality (AR) refers to the merging of a live view of the physical, real world with context-sensitive, computer-generated images to create a mixed reality. Through this augmented vision, a user can digitally interact with and adjust information about their surrounding environment on-the-fly. Handbook of Augmented Reality provides an extensive overview of the current and future trends in Augmented Reality, and chronicles the dramatic growth in this field. The book includes contributions from world expert in the field of AR from academia, research laboratories and private industry. Case studies and examples throughout the handbook help introduce the basic concepts of AR, as well as outline the Computer Vision and Multimedia techniques most commonly used today. The book is intended for a wide variety of readers including academicians, designers, developers, educators, engineers, practitioners, researchers, and graduate students. This book can also be beneficial for business managers, etc.

Features

Augmented Reality (AR) refers to the merging of a live view of the physical, real world with context-sensitive, computer-generated images to create a mixed reality. Through this augmented vision, a user can digitally interact with and adjust information about their surrounding environment on-the-fly. Handbook of Augmented Reality provides an extensive overview of the current and future trends in AR.
Haptic Technologies
Bringing Touch to Multimedia

The term “haptics” refers to the science of sensing and manipulation through touch. Multiple disciplines such as biomechanics, psychophysics, robotics, neuroscience, and software engineering converge to support haptics, and generally, haptic research is done by three communities: the robotics community, the human computer interface community, and the virtual reality community. This book is different from any other book that has looked at haptics. The authors treat haptics as a new medium rather than just a domain within one of the above areas. They describe human haptic perception and interfaces and present fundamentals in haptic rendering and modeling in virtual environments. Diverse software architectures for standalone and networked haptic systems are explained, and the authors demonstrate the vast application spectrum of this emerging technology along with its accompanying trends. The primary objective is to provide a comprehensive overview and a practical understanding of haptic technologies. An[...]

Features
The term “haptics” refers to the science of sensing and manipulation through touch. Multiple disciplines such as biomechanics, psychophysics, robotics, neuroscience, and software engineering converge to support haptics, and generally, haptic research is done by three communities: the robotics community, the human computer interface community, and the virtual reality community. This book is different [..]

Contents

Fields of interest
Multimedia Information Systems; User Interfaces and Human Computer Interaction; Robotics and Automation; Computer Applications

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. XV, 218 p. 87 illus. (Springer Series on Touch and Haptic Systems) Hardcover

79.95 €
ISBN 978-3-642-22657-1

Hard Real-Time Computing Systems
Predictable Scheduling Algorithms and Applications

This updated edition offers an indispensable exposition on real-time computing, with particular emphasis on predictable scheduling algorithms. It introduces the fundamental concepts of real-time computing, demonstrates the most significant results in the field, and provides the essential methodologies for designing predictable computing systems used to support time-critical control applications. Along with an in-depth guide to the available approaches for the implementation and analysis of real-time applications, this revised edition contains a close examination of recent developments in real-time systems, including limited preemptive scheduling, resource reservation techniques, overload handling algorithms, and adaptive scheduling techniques. This volume serves as a fundamental advanced-level textbook. Each chapter provides basic concepts, which are followed by algorithms, illustrated with concrete examples, figures and tables. Exercises and solutions are provided to enhance self-study, making this[..]

Features
This updated edition offers an indispensable exposition on real-time computing, with particular emphasis on predictable scheduling algorithms. It introduces the fundamental concepts of real-time computing, demonstrates the most significant results in the field, and provides the essential methodologies for designing predictable computing systems used to support time-critical control applications. Along with an [..]

Contents

Fields of interest
Special Purpose and Application-Based Systems; Circuits and Systems; System Performance and Evaluation; Computer Communication Networks; Processor Architectures

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days


79.95 €
ISBN 978-1-4614-0675-4

History of Nordic Computing 3
Third IFIP WG 9.7 Conference, HINC3, Stockholm, Sweden, October 18-20, 2010, Revised Selected Papers

This book constitutes the refereed post-proceedings of the Third IFIP WG 9.7 Conference on the History of Nordic Computing, HINC3, held in Stockholm, Sweden, in October 2010. The 50 revised full papers presented together with a keynote address and a panel discussion were carefully reviewed and selected from numerous submissions. The papers focus on the application and use of ICT and ways in which technical progress affected the conditions of the development and use of ICT systems in the Nordic countries covering a period from around 1970 until the beginning of the 1990s. They are organized in the following topical sections: computerizing public sector industries; computerizing management and financial industries; computerizing art, media, and schools; users and systems development; the making of a Nordic computing industry; Nordic networking; Nordic software development; Nordic research in software and systems development; teaching at Nordic universities; and new historiographical approaches and[..]

Features
This book constitutes the refereed post-proceedings of the Third IFIP WG 9.7 Conference on the History of Nordic Computing, HINC3, held in Stockholm, Sweden, in October 2010. The 50 revised full papers presented together with a keynote address and a panel discussion were carefully reviewed and selected from numerous submissions. The papers focus on the application and use of ICT and ways in which technical [..]

Fields of interest
History of Computing; Computers and Society; The Computer Industry; The Computing Profession; Computers and Education; Personal Computing

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


105.00 €
ISBN 978-3-642-23314-2
Human-in-the-Loop Simulations

Methods and Practice

Human-in-the-Loop Simulations is a compilation of articles from experts in the design, development, and use of human-in-the-loop simulations. The first section of the handbook consists of papers on fundamental concepts in human-in-the-loop simulations, such as object-oriented simulation development, interface design and development, and performance measurement. The second section includes papers from researchers who utilized HITL simulations to inform models of cognitive processes to include decision making and metacognition.

The last section describes human-in-the-loop processes for complex simulation models in trade space exploration and epidemiological analyses. Human-in-the-Loop Simulations is a useful tool for multiple audiences, including graduate students and researchers in engineering and computer science.

Contents

1. Interactive Simulations: History, Features, and Trends.
3. Virtual and Constructive Simulations with the GRBIL Modeling Tool.
5. Determining the Number of Simulation Runs: Treating Simulations as Theories by Not Sampling Their Behavior.

Fields of interest

Simulation and Modeling; User Interfaces and Human Computer Interaction; Complexity

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011. VIII, 261 p. 93 illus., 15 in color. Hardcover

129.95 €
Implementation and Application of Functional Languages
20th International Symposium, IFL 2008, Hatfield, UK, September 10-12, 2008. Revised Selected Papers
This book constitutes the thoroughly refereed post-proceedings of the 20th International Workshop on Implementation and Applications of Functional Languages, IFL 2008, held in Hatfield, UK, in September 2008. The 15 revised full papers presented were carefully reviewed and selected from 33 submissions. Topics of interest cover a wide range from novel language designs, theoretical underpinnings, compilation and optimisation techniques for diverse hardware architectures, to applications, programming techniques and novel tools.

Features
This book constitutes the thoroughly refereed post-proceedings of the 20th International Workshop on Implementation and Applications of Functional Languages, IFL 2008, held in Hatfield, UK, in September 2008. The 15 revised full papers presented were carefully reviewed and selected from 31 submissions. Topics of interest cover a wide range from novel language designs, theoretical underpinnings, compilation and [...] features.

Fields of interest
Logics and Meanings of Programs; Software Engineering; Mathematical Logic and Formal Languages; Programming Languages; Compilers Interpreters; Artificial Intelligence (incl. Robotics); Programming Techniques

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

46,00 €
ISBN 978-3-642-24451-3

Implementation and Application of Functional Languages
This book constitutes the thoroughly refereed post-proceedings of the 22nd International Workshop on Implementation and Applications of Functional Languages, IFL 2010, held in Alphen aan den Rijn, The Netherlands in September 2010. The 13 revised full papers presented were carefully reviewed and were selected from 31 submissions. The IFL symposia bring together researchers and practitioners that are actively engaged in the implementation and the use of functional and function based programming languages. Every year IFL provides a venue for the presentation and discussion of new ideas and concepts, of work in progress, and of publication-ripe results.

Features
This book constitutes the thoroughly refereed post-proceedings of the 22nd International Workshop on Implementation and Applications of Functional Languages, IFL 2010, held in Alphen aan den Rijn, The Netherlands in September 2010. The 13 revised full papers presented were carefully reviewed and were selected from 31 submissions. The IFL symposia bring together researchers and practitioners that are actively engaged in the implementation and the use of functional and function based programming languages. Every year IFL provides a venue for the presentation and discussion of new ideas and concepts, of work in progress, and of publication-ripe results.

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

Target groups
Professional/practitioner

Type of publication
Proceedings

Online orders shipping within 2-3 days.

46,00 €
ISBN 978-3-642-24275-5

Information Hiding
12th International Conference, IH 2011, Prague, Czech Republic, May 18-20, 2011. Revised Selected Papers
This book contains the thoroughly refereed post-conference proceedings of the 12th Information Hiding Conference, IH 2011, held in Prague, Czech Republic, in May 2011. Included in this volume are 23 carefully reviewed papers that were selected out of 69 submissions. The contributions are organized in topical sections on: fingerprinting, anonymity and privacy, steganography and steganalysis, watermarking, digital rights management and digital forensics, and digital hiding in unusual context. Also included are the papers that were presented as part of the special session dedicated to the BOSS (Break Our Steganographic System) contest.

Features
This book contains the thoroughly refereed post-conference proceedings of the 12th Information Hiding Conference, IH 2011, held in Prague, Czech Republic, in May 2011. Included in this volume are 23 carefully reviewed papers that were selected out of 69 submissions. The contributions are organized in topical sections on: fingerprinting, anonymity and privacy, steganography and steganalysis, [...] features.

Fields of interest
Data Encryption; Algorithm Analysis and Problem Complexity; Multimedia Information Systems; Discrete Mathematics in Computer Science; Image Processing and Computer Vision; Computer Graphics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

54,00 €
ISBN 978-3-642-24177-2
Information Security and Cryptology - ICISC 2010

13th International Conference, Seoul, Korea, December 1-3, 2010. Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 13th International Conference on Information Security and Cryptology, held in Seoul, Korea, in December 2010. The 28 revised full papers presented were carefully selected from 99 submissions during two rounds of reviewing. The conference provides a forum for the presentation of new results in research, development, and applications in the field of information security and cryptology. The papers are organized in topical sections on cryptanalysis, cryptographic algorithms, implementation, network and mobile security, symmetric key cryptography, cryptographic protocols, and side channel attack.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the 13th International Conference on Information Security and Cryptology, held in Seoul, Korea, in December 2010. The 28 revised full papers presented were carefully selected from 99 submissions during two rounds of reviewing. The conference provides a forum for the presentation of new results in research, development, and [...]?

Fields of interest
Computer Communication Networks; Data Encryption; Management of Computing and Information Systems; Algorithm Analysis and Problem Complexity; Systems and Data Security; Discrete Mathematics in Computer Science

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

Softcover

62,00 €
ISBN 978-3-642-24208-3

Information Systems Development

Business Systems and Services: Modeling and Development

Information Systems Development: Business Systems and Services: Modeling and Development, is the collected proceedings of the 19th International Conference on Information Systems Development held in Prague, Czech Republic, August 25 - 27, 2010. It follows in the tradition of previous conferences in the series in exploring the connections between industry, research and education. These proceedings represent ongoing reflections within the academic community on established information systems topics and emerging concepts, approaches and ideas. It is hoped that the papers herein contribute towards disseminating research and improving practice.

Features
Information Systems Development: Business Systems and Services: Modeling and Development, is the collected proceedings of the 19th International Conference on Information Systems Development held in Prague, Czech Republic, August 25 - 27, 2010. It follows in the tradition of previous conferences in the series in exploring the connections between industry, research and education. These proceedings represent [...]?

Fields of interest
Database Management; Information Storage and Retrieval; Business Information Systems; Computer Science (general); Software Engineering / Programming and Operating Systems

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XXVIII, 814 p. 266 illus., 78 in color. Hardcover

249,00 €

Information and Management Engineering

International Conference, ICCIC 2011, held in Wuhan, China, September 17-18, 2011. Proceedings, Part V

This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Features
This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on [...]?

Fields of interest
Computer Communication Networks; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XIII, 547 p. (Communications in Computer and Information Science, Vol. 235) Softcover

80,00 €
ISBN 978-3-642-24021-8

Information and Management Engineering

International Conference, ICCIC 2011, held in Wuhan, China, September 17-18, 2011. Proceedings, Part V

This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Features
This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on [...]?

Fields of interest
Computer Communication Networks; Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XIII, 547 p. (Communications in Computer and Information Science, Vol. 235) Softcover

80,00 €
ISBN 978-3-642-24021-8

Information and Management Engineering

International Conference, ICCIC 2011, held in Wuhan, China, September 17-18, 2011. Proceedings, Part V

This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on Information and Management Engineering (CCIS 235 and 236).

Features
This six-volume-set (CCIS 231, 232, 233, 234, 235, 236) constitutes the refereed proceedings of the International Conference on Computing, Information and Control, ICCIC 2011, held in Wuhan, China, in September 2011. The papers are organized in two volumes on Innovative Computing and Information (CCIS 231 and 232), two volumes on Computing and Intelligent Systems (CCIS 233 and 234), and in two volumes on [...]?
Intelligent Virtual Agents

10th International Conference, IVA 2011, Reykjavik, Island, September 15-17, 2011. Proceedings

This book constitutes the refereed proceedings of the 10th International Conference on Intelligent Virtual Agents, IVA 2011, held in Reykjavik, Island, in September 2011. The 18 revised full papers and 27 revised short papers presented together with 25 poster papers were carefully reviewed and selected from 91 submissions. The papers are organized in topical sections on social and dramatic interaction; guides and relational agents; nonverbal behavior; adaptation and coordination; listening and feedback; frameworks and tools; cooperation and copresence; emotion; poster abstracts.

Features

This book constitutes the refereed proceedings of the 11th International Conference on Intelligent Virtual Agents, IVA 2011, held in Reykjavik, Island, in September 2011. The 18 revised full papers and 27 revised short papers presented together with 25 poster papers were carefully reviewed and selected from 91 submissions. The papers are organized in topical sections on social and dramatic interaction; guides [...] Fields of interest

Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Data Mining and Knowledge Discovery; User Interfaces and Human Computer Interaction; Simulation and Modeling

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.

2011. 448 p. (Lecture Notes in Artificial Intelligence, Vol. 6895) Softcover

62,00 €

ISBN 978-3-642-23973-1
Knowledge-Based and Intelligent Information and Engineering Systems, Part I

**15th International Conference, KES 2011, Kaiserslautern, Germany, September 12-14, 2011, Proceedings, Part I**

The four-volume set LNAI 6881-LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 1: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 61 papers of Part 1 are organized in topical sections on artificial neural networks, connectionists systems and evolutionary computation, machine learning and classical AI, agent, multi-agentsystems, knowledge based and expert systems, intelligent vision, image processing and signal processing, knowledge management, ontologies, and data mining.

**Features**
The four-volume set LNAI 6881- LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 1: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 61 papers of Part 1 are organized in topical sections on web intelligence, text and multimedia mining and retrieval, intelligent tutoring systems and e-learning environments, other / misc. intelligent systems topics, methods and techniques of artificial and computational intelligence in economics, finance and decision making, workshop on seamless integration of semantic technologies in computer-supported office work (sitwcw), innovations in chance discovery, advanced knowledge-based systems, recent trends in knowledge engineering, smart systems, and their applications.

**Fields of interest**
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Data Mining and Knowledge Discovery

**Target groups**
Research

**Type of publication**
Proceedings

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

2011. XXII, 615 p. (Lecture Notes in Artificial Intelligence, Vol. 6881) Softcover

79,00 €
ISBN 978-3-642-23850-5

Knowledge-Based and Intelligent Information and Engineering Systems, Part II

**15th International Conference, KES 2011, Kaiserslautern, Germany, September 12-14, 2011, Proceedings, Part II**

The four-volume set LNAI 6881-LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 2: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 70 papers of Part 2 are organized in topical sections on web intelligence, text and multimedia mining and retrieval, intelligent tutoring systems and e-learning environments, other / misc. intelligent systems topics, methods and techniques of artificial and computational intelligence in economics, finance and decision making, workshop on seamless integration of semantic technologies in computer-supported office work (sitwcw), innovations in chance discovery, advanced knowledge-based systems, recent trends in knowledge engineering, smart systems, and their applications.

**Features**
The four-volume set LNAI 6881- LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 2: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 70 papers of Part 2 are organized in topical sections on web intelligence, text and multimedia mining and retrieval, intelligent tutoring systems and e-learning environments, other / misc. intelligent systems topics, methods and techniques of artificial and computational intelligence in economics, finance and decision making, workshop on seamless integration of semantic technologies in computer-supported office work (sitwcw), innovations in chance discovery, advanced knowledge-based systems, recent trends in knowledge engineering, smart systems, and their applications.

**Fields of interest**
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Data Mining and Knowledge Discovery

**Target groups**
Research

**Type of publication**
Proceedings

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

2011. XXII, 653 p. (Lecture Notes in Artificial Intelligence, Vol. 6882) Softcover

87,00 €
ISBN 978-3-642-23862-8

Knowledge-Based and Intelligent Information and Engineering Systems, Part III

**15th International Conference, KES 2011, Kaiserslautern, Germany, September 12-14, 2011, Proceedings, Part III**

The four-volume set LNAI 6881-LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 3: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 67 papers of Part 3 are organized in topical sections on skill acquisition and ubiquitous human computer interaction, intelligent network and service, management technologies from the perspective of kansei engineering and emotion, data mining and service science for innovation, knowledge-based systems for e-business, knowledge engineering applications in process systems and plant operations, advanced design techniques for adaptive hardware and systems, human-oriented learning technology and learning support environment, design of social intelligence and creativity environment.

**Features**
The four-volume set LNAI 6881- LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 3: The total of 244 high-quality papers presented were carefully reviewed and selected from numerous submissions. The 67 papers of Part 3 are organized in topical sections on skill acquisition and ubiquitous human computer interaction, intelligent network and service, management technologies from the perspective of kansei engineering and emotion, data mining and service science for innovation, knowledge-based systems for e-business, knowledge engineering applications in process systems and plant operations, advanced design techniques for adaptive hardware and systems, human-oriented learning technology and learning support environment, design of social intelligence and creativity environment.

**Fields of interest**
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl.Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Data Mining and Knowledge Discovery

**Target groups**
Research

**Type of publication**
Proceedings

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

2011. XXIII, 653 p. (Lecture Notes in Artificial Intelligence, Vol. 6883) Softcover

79,00 €
ISBN 978-3-642-23853-6
Knowledge-Based and Intelligent Information and Engineering Systems, Part IV

15th International Conference, KES 2011, Kaiserslautern, Germany, September 12–14, 2011. Proceedings, Part IV

The four-volume set LNAI 6881—LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011. Part 4: The total of 244 high quality papers presented were carefully reviewed and selected from numerous submissions. The 46 papers of Part 4 are organized in topical sections on human activity support in knowledge society, knowledge-based interface systems, model-based computing for innovative engineering, document analysis and knowledge science, immunity-based systems, natural language visualisation advances in theory and application of hybrid intelligent systems.

Features
The four-volume set LNAI 6881—LNAI 6884 constitutes the refereed proceedings of the 15th International Conference on Knowledge-Based Intelligent Information and Engineering Systems, KES 2011, held in Kaiserslautern, Germany, in September 2011.

Fields of interest
Artificial Intelligence (incl. Robotics); Information Systems Applications (incl. Internet); Computer Communication Networks; Information Storage and Retrieval; Database Management; Data Mining and Knowledge Discovery

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-23865-9

Languages, Methodologies, and Development Tools for Multi-Agent Systems

Third International Workshop, LADS 2010, Lyon, France, August 30–September 1, 2010. Revised Selected Papers

This book constitutes the thoroughly refereed post-workshop proceedings of the Third International Workshop on Languages, Methodologies, and Development Tools for Multi-Agent Systems, LADS 2010, held in Lyon, France, in August/September 2010, as part of MALLOW, a federation of workshops on Multi-Agent Logics, Languages, and Organizations. The 8 revised full papers presented were carefully selected during two rounds of reviews from 11 initial submissions. The papers address issues related to theories, methodologies, models and approaches that are needed to facilitate the development of multi-agent systems ensuring their predictability and verification.

Features
This book constitutes the thoroughly refereed post-workshop proceedings of the Third International Workshop on Languages, Methodologies, and Development Tools for Multi-Agent Systems, LADS 2010, held in Lyon, France, in August/September 2010, as part of MALLOW, a federation of workshops on Multi-Agent Logics, Languages, and Organizations. The 8 revised full papers presented were carefully selected during two rounds of reviews from 11 initial submissions. The papers address issues related to theories, methodologies, models and approaches that are needed to facilitate the development of multi-agent systems ensuring their predictability and verification.

Fields of interest
Artificial Intelligence (incl. Robotics); Simulation and Modeling; Models and Principles; Information Systems Applications (incl. Internet); Programming Techniques; Logics and Meanings of Programs

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-22722-6

Logic, Rationality, and Interaction


Edited in collaboration with FoLLI, the Association of Logic, Language and Information, this book constitutes the refereed proceedings of the Third International Workshop on Logic, Rationality, and Interaction, LORI 2011, held in Guangzhou, China, in October 2011. The 25 revised full papers presented together with 12 posters were carefully reviewed and selected from 52 submissions. Among the topics covered are semantic models for knowledge, for belief, and for uncertainty; dynamic logics of knowledge, information flow, and action; logical analysis of the structure of games; belief revision, belief merging; logics and preferences, compact preference representation; logics of intentions, plans, and goals; logics of probability and uncertainty; logical approaches to decision making and planning; argument systems and their role in interaction; norms, normative interaction, and normative multiagent systems; and logical and computational approaches to social choice.

Fields of interest
Mathematical Logic and Formal Languages; Mathematical Logic and Foundations; Discrete Mathematics in Computer Science; Symbolic and Algebraic Manipulation; Logics and Meanings of Programs; Theory of Computation

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


62,00 €
ISBN 978-3-642-24129-1
Machine Learning and Knowledge Discovery in Databases, Part II
European Conference, ECML PKDD 2010, Athens, Greece, September 5-9, 2011, Proceedings, Part II

This three-volume set LNAI 6911, LNAI 6912, and LNAI 6913 constitutes the refereed proceedings of the European conference on Machine Learning and Knowledge Discovery in Databases: ECML PKDD 2011, held in Athens, Greece, in September 2011. The 121 revised full papers presented together with 10 invited talks and 11 demos in the three volumes, were carefully reviewed and selected from about 600 paper submissions. The papers address all areas related to machine learning and knowledge discovery in databases as well as other innovative application domains such as supervised and unsupervised learning with some innovative contributions in fundamental issues; dimensionality reduction, distance and similarity learning, model learning and matrix/tensor analysis; graph mining, graphical models, hidden markov models, kernel methods, active and ensemble learning, semi-supervised and transductive learning, mining sparse representations, model learning, inductive logic programming, and statistical learning. [..]

Features
This three-volume set LNAI 6911, LNAI 6912, and LNAI 6913 constitutes the refereed proceedings of the European conference on Machine Learning and Knowledge Discovery in Databases: ECML PKDD 2011, held in Athens, Greece, in September 2011. The 121 revised full papers presented together with 10 invited talks and 11 demos in the three volumes, were carefully reviewed and selected from about 600 paper submissions. [..]

Fields of interest
Artificial Intelligence (incl. Robotics); Database Management; Information Storage and Retrieval; Mathematical Logic and Formal Languages; Algorithm Analysis and Problem Complexity; Probability and Statistics in Computer Science

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011, XXII, 681 p. (Lecture Notes in Artificial Intelligence, Vol. 6912) Softcover
87,00 €
ISBN 978-3-642-23782-9

Machine Learning and Knowledge Discovery in Databases, Part III
European Conference, ECML PKDD 2010, Athens, Greece, September 5-9, 2011, Proceedings, Part III

This three-volume set LNAI 6911, LNAI 6912, and LNAI 6913 constitutes the refereed proceedings of the European conference on Machine Learning and Knowledge Discovery in Databases: ECML PKDD 2011, held in Athens, Greece, in September 2011. The 121 revised full papers presented together with 10 invited talks and 11 demos in the three volumes, were carefully reviewed and selected from about 600 paper submissions. The papers address all areas related to machine learning and knowledge discovery in databases as well as other innovative application domains such as supervised and unsupervised learning with some innovative contributions in fundamental issues; dimensionality reduction, distance and similarity learning, model learning and matrix/tensor analysis; graph mining, graphical models, hidden markov models, kernel methods, active and ensemble learning, semi-supervised and transductive learning, mining sparse representations, model learning, inductive logic programming, and statistical learning. [..]

Features
This three-volume set LNAI 6911, LNAI 6912, and LNAI 6913 constitutes the refereed proceedings of the European conference on Machine Learning and Knowledge Discovery in Databases: ECML PKDD 2011, held in Athens, Greece, in September 2011. The 121 revised full papers presented together with 10 invited talks and 11 demos in the three volumes, were carefully reviewed and selected from about 600 paper submissions. [..]

Fields of interest
Artificial Intelligence (incl. Robotics); Database Management; Information Storage and Retrieval; Mathematical Logic and Formal Languages; Algorithm Analysis and Problem Complexity; Probability and Statistics in Computer Science

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011, XXII, 663 p. (Lecture Notes in Artificial Intelligence, Vol. 6913) Softcover
79,00 €
ISBN 978-3-642-23807-9
Markov Decision Processes and the Belief-Desire-Intention Model

Bridging the Gap for Autonomous Agents

In this work, we provide a treatment of the relationship between two models that have been widely used in the implementation of autonomous agents: the Belief Desire-Intention (BDI) model and Markov Decision Processes (MDPs). We start with an informal description of the relationship, identifying the common features of the two approaches and the differences between them. Then we hone our understanding of these differences through an empirical analysis of the performance of both models on the TileWorld testbed. This allows us to show that even though the MDP model displays consistently better behavior than the BDI model for small worlds, this is not the case when the world becomes large and the MDP model cannot be solved exactly. Finally we present a theoretical analysis of the relationship between the two approaches, identifying mappings that allow us to extract a set of intentions from an MDP, and to extract a policy from a set of intentions.

Features

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Fields of interest

Image Processing and Computer Vision; Pattern Recognition; Computer Imaging, Vision, Pattern Recognition and Graphics; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2–3 days.


54,00 €
ISBN 978-3-642-24318-9

Markov Models for Handwriting Recognition

Since their first inception, automatic reading systems have evolved substantially, yet the recognition of handwriting remains an open research problem due to its substantial variation in appearance. With the introduction of Markovian models to the field, a promising modeling and recognition paradigm was established for automatic handwriting recognition. However, no standard procedures for building Markov model-based recognizers have yet been established. This text provides a comprehensive overview of the application of Markov models in the field of handwriting recognition, covering both hidden Markov models and Markov-chain or n-gram models. First, the text introduces the typical architecture of a Markov model-based handwriting recognition system, and familiarizes the reader with the essential theoretical concepts behind Markovian models. Then, the text reviews proposed solutions in the literature for open problems in applying Markov model-based approaches to automatic handwriting recognition.

Features

Since their first inception more than half a century ago, automatic reading systems have evolved substantially, thereby showing impressive performance on machine-printed text. The recognition of handwriting can, however, still be considered an open research problem due to its substantial variation in appearance. With the introduction of Markovian models to the field, a promising modeling and recognition paradigm was established for automatic handwriting recognition. However, no standard procedures for building Markov model-based recognizers have yet been established. This text provides a comprehensive overview of the application of Markov models in the field of handwriting recognition, covering both hidden Markov models and Markov-chain or n-gram models. First, the text introduces the typical architecture of a Markov model-based handwriting recognition system, and familiarizes the reader with the essential theoretical concepts behind Markovian models. Then, the text reviews proposed solutions in the literature for open problems in applying Markov model-based approaches to automatic handwriting recognition.

Fields of interest

Pattern Recognition

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2011. VI, 78 p. 5 illus. (SpringerBriefs in Computer Science) Softcover

39,95 €

14th International Conference, Toronto, Canada, September 18-22, 2011, Proceedings, Part I

The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The first volume includes 86 papers organized in topical sections on robotics, localization and tracking and visualization, planning and image guidance, physical modeling and simulation, motion modeling and compensation, and segmentation and tracking in biological images.

Features
The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The first volume includes 86 papers organized in topical sections on robotics, localization and tracking and visualization, planning and image guidance, physical modeling and simulation, motion modeling and compensation, and segmentation and tracking in biological images.

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Computer Graphics; Artificial Intelligence (incl. Robotics); Imaging / Radiology; Health Informatics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


87,00 €
ISBN 978-3-642-23628-0


14th International Conference, Toronto, Canada, September 18-22, 2011, Proceedings, Part II

The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The second volume includes 83 papers organized in topical sections on diffusion weighted imaging, fMRI, statistical analysis and shape modeling, and registration.

Features
The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The second volume includes 83 papers organized in topical sections on diffusion weighted imaging, fMRI, statistical analysis and shape modeling, and registration.

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Computer Graphics; Artificial Intelligence (incl. Robotics); Imaging / Radiology; Health Informatics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


87,00 €
ISBN 978-3-642-23627-3


14th International Conference, Toronto, Canada, September 18-22, 2011, Proceedings, Part III

The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The third volume includes 82 papers organized in topical sections on computer-aided diagnosis and machine learning, and segmentation.

Features
The three-volume set LNCS 6891, 6892 and 6893 constitutes the refereed proceedings of the 14th International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2011, held in Toronto, Canada, in September 2011. Based on rigorous peer reviews, the program committee carefully selected 251 revised papers from 819 submissions for presentation in three volumes. The third volume includes 82 papers organized in topical sections on computer-aided diagnosis and machine learning, and segmentation.

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Computer Graphics; Artificial Intelligence (incl. Robotics); Imaging / Radiology; Health Informatics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


87,00 €
ISBN 978-3-642-23625-9
**Metadata and Semantic Research**

5th International Conference, MTSR 2011, Izmir, Turkey, October 12-14, 2011. Proceedings

This volume constitutes the selected papers of the 5th International Conference on Metadata and Semantic Research, MTSR 2011, held in Izmir, Turkey, in October 2011. The 36 full papers presented together with 16 short papers and project reports were carefully reviewed and selected from 118 submissions. The papers are organized in topical sections on Tracks on Metadata and Semantics for Open Access Repositories and Infrastructures, Metadata and Semantics for Learning Infrastructures, Metadata and Semantics for Cultural Collections and Applications, Metadata and Semantics for Agriculture, Food and Environment.

**Features**

This volume constitutes the selected papers of the 5th International Conference on Metadata and Semantic Research, MTSR 2011, held in Izmir, Turkey, in October 2011. The 36 full papers presented together with 16 short papers and project reports were carefully reviewed and selected from 118 submissions. The papers are organized in topical sections on Tracks on Metadata and Semantics for Open Access.[…]

**Fields of interest**

Information Systems Applications (incl.Internet); Information Storage and Retrieval; Artificial Intelligence (incl. Robotics); Database Management; Data Mining and Knowledge Discovery; Computer Communication Networks

**Target groups**

Research

**Type of publication**

Proceedings

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

2011. XVIII, 536 p. (Communications in Computer and Information Science, Vol. 240) Softcover

80,00 € ISBN 978-3-642-24730-9

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J. Whittle, Lancaster University, UK; T. Clark, Middlesex University, London, UK; Th. Köhne, Victoria University, Wellington, New Zealand (Eds.)

**Model Driven Engineering Languages and Systems**


This book constitutes the refereed proceedings of the 14th International Conference on Model Driven Engineering Languages and Systems, MODELS 2011, held in Wellington, New Zealand, in October 2011. The papers address a wide range of topics in research (foundations track) and practice (applications track). For the first time a new category of research papers, vision papers, are included presenting 'outside the box' thinking. The foundations track received 167 full paper submissions, of which 34 were selected for presentation. Out of these, 3 papers were vision papers. The application track received 27 submissions, of which 13 papers were selected for presentation. The papers are organized in topical sections on model transformation, model complexity, aspect oriented modeling, analysis and comprehension of models, domain specific modeling, models for embedded systems, model synchronization, model based resource management, analysis of class diagrams, verification and validation, refactoring models[…]

**Features**

This book constitutes the refereed proceedings of the 14th International Conference on Model Driven Engineering Languages and Systems, MODELS 2011, held in Wellington, New Zealand, in October 2011. The papers address a wide range of topics in research (foundations track) and practice (applications track). For the first time a new category of research papers, vision papers, are included presenting 'outside the box' thinking. The foundations track received 167 full paper submissions, of which 34 were selected for presentation. Out of these, 3 papers were vision papers. The application track received 27 submissions, of which 13 papers were selected for presentation. The papers are organized in topical sections on model transformation, model complexity, aspect oriented modeling, analysis and comprehension of models, domain specific modeling, models for embedded systems, model synchronization, model based resource management, analysis of class diagrams, verification and validation, refactoring models[…]

**Fields of interest**

Software Engineering; Programming Techniques; Software Engineering / Programming and Operating Systems; Programming Languages, Compilers, Interpreters; Computer System Implementation; Management of Computing and Information Systems

**Target groups**

Research

**Type of publication**

Proceedings

**Due: September 26, 2011**


87,00 € ISBN 978-3-642-24484-1

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L. Bellatreche, LISI-ENSMA, Futuroscope, France; F. Mota Pinto, Instituto Politecnico de Leiria, Portugal (Eds.)

**Model and Data Engineering**


This book constitutes the refereed proceedings of the First International Conference on Model and Data Engineering, MEDI 2011, held in Obidos, Portugal, in September 2011. The 18 revised full papers presented together with 8 short papers and three keynotes were carefully reviewed and selected from 67 submissions. The papers are organized in topical sections on ontology engineering; Web services and security; advanced systems; knowledge management; model specification and verification; and models engineering.

**Features**

This book constitutes the refereed proceedings of the First International Conference on Model and Data Engineering, MEDI 2011, held in Obidos, Portugal, in September 2011. The 18 revised full papers presented together with 8 short papers and three keynotes were carefully reviewed and selected from 67 submissions. The papers are organized in topical sections on ontology engineering; Web services and security; […]

**Fields of interest**

Information Systems Applications (incl.Internet); Software Engineering; Simulation and Modeling; Database Management; Information Storage and Retrieval; Algorithm Analysis and Problem Complexity

**Target groups**

Research

**Type of publication**

Proceedings

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


46,00 € ISBN 978-3-642-24442-1
Modeling and Using Context

7th International and Interdisciplinary Conference, CONTEXT 2011, Karlsruhe, Germany, September 26-29, 2011, Proceedings

This book constitutes the proceedings of the 7th International and Interdisciplinary Conference on Modeling and Using Context, CONTEXT 2011, held in Karlsruhe, Germany in September 2011. The 17 full papers and 7 short papers presented were carefully reviewed and selected from 54 submissions. In addition the book contains two keynote speeches and 8 poster papers. They cover cutting-edge results from the wide range of disciplines concerned with context, including the cognitive sciences (linguistics, psychology, philosophy, computer science, neuroscience), the social sciences and organization sciences, and all application areas.

Fields of interest
Artificial Intelligence (incl. Robotics); Mathematical Logic and Formal Languages; Information Systems Applications (incl.Internet); Computer Appl. in Social and Behavioral Sciences; Computer Appl. in Arts and Humanities; History of Computing

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


54,00 €
ISBN 978-3-642-23707-2

Multilingual and Multimodal Information Access Evaluation


This book constitutes the refereed proceedings of the Second International Conference on Multilingual and Multimodal Information Access Evaluation, in continuation of the popular CLEF campaigns and workshops that have run for the last decade, CLEF 2011, held in Amsterdam, The Netherlands, in September 2011. The 14 revised full papers presented together with 2 keynote talks were carefully reviewed and selected from numerous submissions. The papers accepted for the conference included research on evaluation methods and settings, natural language processing within different domains and languages, multimedia and reflections on CLEF. Two keynote speakers highlighted important developments in the field of evaluation: the role of users in evaluation and a framework for the use of crowdsourcing experiments in the setting of retrieval evaluation.

Features
This book constitutes the refereed proceedings of the Second International Conference on Multilingual and Multimodal Information Access Evaluation, in continuation of the popular CLEF campaigns and workshops that have run for the last decade, CLEF 2011, held in Amsterdam, The Netherlands, in September 2011. The 14 revised full papers presented together with 2 keynote talks were carefully reviewed and selected from numerous submissions. The papers accepted for the conference included research on evaluation methods and settings, natural language processing within different domains and languages, multimedia and reflections on CLEF. Two keynote speakers highlighted important developments in the field of evaluation: the role of users in evaluation and a framework for the use of crowdsourcing experiments in the setting of retrieval evaluation.

Fields of interest
Information Storage and Retrieval; Language Translation and Linguistics; User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery; Information Systems Applications (incl.Internet); Computational Linguistics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-24445-2

Multimodal Brain Image Analysis


This book constitutes the refereed proceedings of the First International Workshop on Multimodal Brain Image Analysis, held in conjunction with MICCAI 2011, in Toronto, Canada, in September 2011. The 15 revised full papers presented together with 4 poster papers were carefully reviewed and selected from 24 submissions. The objective of this workshop is to facilitate advancements in the multimodal brain image analysis field, in terms of analysis methodologies, algorithms, software systems, validation approaches, benchmark datasets, neuroscience, and clinical applications.

Features
This book constitutes the refereed proceedings of the First International Workshop on Multimodal Brain Image Analysis, held in conjunction with MICCAI 2011, in Toronto, Canada, in September 2011. The 15 revised full papers presented together with 4 poster papers were carefully reviewed and selected from 24 submissions. The objective of this workshop is to facilitate advancements in the multimodal brain image analysis field, in terms of analysis methodologies, algorithms, software systems, validation approaches, benchmark datasets, neuroscience, and clinical applications.

Fields of interest
Pattern Recognition; Image Processing and Computer Vision; Computer Graphics; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Imaging / Radiology

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


46,00 €
ISBN 978-3-642-24445-2

T. Liu, The University of Georgia, Athens, GA, USA; D. Shen, University of North Carolina, Chapel Hill, NC, USA; L. IBANEZ, Kitware Inc., Clifton Park, NY, USA; X. Tao, General Electric Global Research Center, Niskayuna, NY, USA (Eds.)
Multiobjective Genetic Algorithms for Clustering

Applications in Data Mining and Bioinformatics

This is the first book primarily dedicated to clustering using multiobjective genetic algorithms with extensive real-life applications in data mining and bioinformatics. The authors first offer detailed introductions to the relevant techniques – genetic algorithms, multiobjective optimization, soft computing, data mining and bioinformatics. They then demonstrate systematic applications of these techniques to real-world problems in the areas of data mining, bioinformatics and geoscience. The authors offer detailed theoretical and statistical notes, guides to future research, and chapter summaries. The book can be used as a textbook and as a reference book by graduate students and academic and industrial researchers in the areas of soft computing, data mining, bioinformatics and geoscience.

Features

This is the first book primarily dedicated to clustering using multiobjective genetic algorithms with extensive real-life applications in data mining and bioinformatics. The authors first offer detailed introductions to the relevant techniques – genetic algorithms, multiobjective optimization, soft computing, data mining and bioinformatics. They then demonstrate systematic applications of these techniques [...]
Network and Parallel Computing
8th IFIP International Conference, NPC 2011, Changsha, China, October 21-23, 2011, Proceedings

This book constitutes the refereed proceedings of the 8th IFIP International Conference on Network and Parallel Computing, NPC 2011, held in Changsha, China, in October 2011. The 28 papers presented were carefully reviewed selected from 54 submissions. The papers are organized in the following topical sections: filesystems and data, network and parallel algorithms, cluster and grid, trust and authentication, and monitor, diagnose, and then optimize.

Features
This book constitutes the refereed proceedings of the 8th IFIP International Conference on Network and Parallel Computing, NPC 2011, held in Changsha, China, in October 2011. The 28 papers presented were carefully reviewed selected from 54 submissions. The papers are organized in the following topical sections: filesystems and data, network and parallel algorithms, cluster and grid, trust and authentication, [...] Features
Ontology-based Application Integration introduces UI-level (User Interface Level) application integration and discusses current problems which can be remedied by using ontologies. It shows a novel approach for applying ontologies in system integration. While ontologies have been used for integration of IT systems on the database and on the business logic layer, integration on the user interface layer is a novel field of research. This book also discusses how end users, not only developers, can benefit from semantic technologies. Ontology-based Application Integration presents the development of a software framework including a detailed ontology about user interfaces and interactions. This includes a running case study of a real world integrated emergency management system. The last section of this book discusses useful features that can be built on top of the framework for improving the user experience with future integrated information systems. Ontology-based Application Integration is designed as [...] Features
Ontology-based Application Integration introduces UI-level (User Interface Level) application integration and discusses current problems which can be remedied by using ontologies. It shows a novel approach for applying ontologies in system integration. While ontologies have been used for integration of IT systems on the database and on the business logic layer, integration on the user interface layer [...] Contents
Research
Type of publication
Proceedings

Online orders shipping within 2-3 days.

54,00 €
ISBN 978-3-642-24402-5

Ontology-based Application Integration

This book constitutes the refereed proceedings of the 7th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2010, held in Salvador, Brazil, in October 2011. The 20 revised full papers presented together with 4 industrial full papers and 8 lightning talks were carefully reviewed and selected from 56 submissions. The papers are organized in the following topical sections: OSS quality and reliability, OSS products, review of technologies of and for OSS, knowledge and research building in OSS, OSS reuse, integration, and compliance, OSS value and economics, OSS adoption in industry, and mining OSS repositories.

Features
This book constitutes the refereed proceedings of the 7th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2011, Salvador, Brazil, October 6-7, 2011, Proceedings
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Software Engineering: Management of Computing and Information Systems; Programming Languages, Compilers, Interpreters; Programming Techniques; Data Mining and Knowledge Discovery; Software Engineering / Programming and Operating Systems

Fields of interest
Software Engineering: Management of Computing and Information Systems; Programming Languages, Compilers, Interpreters; Programming Techniques; Data Mining and Knowledge Discovery; Software Engineering / Programming and Operating Systems

Target groups
Research
Type of publication
Proceedings

Online orders shipping within 2-3 days.

105,00 €
ISBN 978-3-642-24417-9

Open Source Systems: Grounding Research

This book constitutes the refereed proceedings of the 7th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2011, Salvador, Brazil, in October 2011. The 20 revised full papers presented together with 4 industrial full papers and 8 lightning talks were carefully reviewed and selected from 56 submissions. The papers are organized in the following topical sections: OSS quality and reliability, OSS products, review of technologies of and for OSS, knowledge and research building in OSS, OSS reuse, integration, and compliance, OSS value and economics, OSS adoption in industry, and mining OSS repositories.

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This book constitutes the refereed proceedings of the 7th International IFIP WG 2.13 Conference on Open Source Systems, OSS 2011, Salvador, Brazil, October 6-7, 2011, Proceedings
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Research
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Target groups
Research
Type of publication
Proceedings

Online orders shipping within 2-3 days.

105,00 €
ISBN 978-3-642-24417-9
Patterns in Permutations and Words

There has been considerable interest recently in the subject of patterns in permutations and words, a new branch of combinatorics with its roots in the works of Rotem, Rogers, and Knuth in the 1970s. Consideration of the patterns in question has been extremely interesting from the combinatorial point of view, and it has proved to be a useful language in a variety of seemingly unrelated problems, including the theory of Kazhdan—Lusztig polynomials, singularities of Schubert varieties, interval orders, Chebyshev polynomials, models in statistical mechanics, and various sorting algorithms, including sorting stacks and sortable permutations. The author collects the main results in the field in this up-to-date, comprehensive reference volume. He highlights significant achievements in the area, and points to research directions and open problems. The book will be of interest to researchers and graduate students in theoretical computer science and mathematics, in particular those working in algebraic...
Perspectives on Soviet and Russian Computing
First IFIP WG 9.7 Conference, SoRuCom 2006, Petrozavodsk, Russia, July 3-7, 2006, Revised Selected Papers
This book contains a collection of thoroughly refereed papers derived from the First IFIP WG 9.7 Conference on Soviet and Russian Computing, held in Petrozavodsk, Russia, in July 2006. The 32 revised papers were carefully selected from numerous submissions; many of them were translated from Russian. They reflect much of the shining history of computing activities within the former Soviet Union from its origins in the 1950s with the first computers used for military decision-making problems up to the modern period where Russian ICT grew substantially, especially in the field of custom-made programming.

Features
This book contains a collection of thoroughly refereed papers derived from the First IFIP WG 9.7 Conference on Soviet and Russian Computing, held in Petrozavodsk, Russia, in July 2006. The 32 revised papers were carefully selected from numerous submissions; many of them were translated from Russian. They reflect much of the shining history of computing activities within the former Soviet Union from its origins [...] [..]

Fields of interest
History of Computing; Computer Hardware; Software Engineering / Programming and Operating Systems; Theory of Computation; Mathematics of Computing

Target groups
Research

Type of publication
Proceedings

Currently out of stock.

78.00 €
ISBN 978-3-642-22815-5

Pervasive Advertising
This book looks at the future of advertising from the perspective of pervasive computing. Pervasive computing encompasses the integration of computers into everyday devices, like the covering of surfaces with interactive displays and networked mobile phones. Advertising is the communication of sponsored messages to inform, convince, and persuade to buy. We believe that our future cities will be digital, giving us instant access to any information we need everywhere, like at bus stops, on the sidewalk, inside the subway and in shopping malls. We will be able to play with and change the appearance of our cities effortlessly, like making flowers grow along a building wall or changing the colour of the street we are in. Like the internet as we know it, this digitalization will be paid for by adverts, which unobtrusively provide us suggestions for nearby restaurants or cafes. If any content annoys us, we will be able to effortlessly say so and change it with simple gestures, and content providers and [...] [..]

Features
Following decades of exciting developments in laboratories around the world, pervasive computing technologies are starting to reshape our world in real ways. Computers, visible and invisible, are everywhere: traditional signs and billboards are being replaced by digital signage, projections, and interactive surfaces. Communication is digital and ubiquitous—the majority of the world’s population uses mobile [...] [..]

Contents

Fields of interest
User Interfaces and Human Computer Interaction; Multimedia Information Systems; Computer Appl. in Social and Behavioral Sciences

Target groups
Research

Type of publication
Reference work

Usually dispatched within 3 to 5 business days

89.95 €
ISBN 978-0-85729-351-0

Photogrammetric Image Analysis
ISPRS Conference, PIA 2011, Munich, Germany, October 5-7, 2011. Proceedings
This book constitutes the refereed proceedings of the ISPRS Conference on Photogrammetric Image Analysis, held in Munich, Germany, in October 2011. The 25 revised full papers presented were carefully reviewed and selected from 54 submissions. The papers are organized in topical sections on orientation, matching, object detection, 3D reconstruction and DEM, classification, people and tracking, as well as image processing.

Features
This book constitutes the refereed proceedings of the ISPRS Conference on Photogrammetric Image Analysis, held in Munich, Germany, in October 2011. The 25 revised full papers presented were carefully reviewed and selected from 54 submissions. The papers are organized in topical sections on orientation, matching, object detection, 3D reconstruction and DEM, classification, people and tracking, as well as image [...] [..]

Fields of interest
Image Processing and Computer Vision; Pattern Recognition; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Computer Graphics; Information Systems Applications (incl.Internet)

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

54.00 €
ISBN 978-3-642-24392-9
Principles and Practice of Constraint Programming -- CP 2011

This book constitutes the refereed proceedings of the 17th International Conference on Principles and Practice of Constraint Programming, CP 2011, held in Perugia, Italy, September 12-16, 2011. The 51 revised full papers and 7 short papers presented together with three invited talks were carefully reviewed and selected from 159 submissions. The papers are organized in topical sections on algorithms, environments, languages, models and systems, applications such as decision making, resource allocation and agreement technologies.

Features
This book constitutes the refereed proceedings of the 17th International Conference on Principles and Practice of Constraint Programming, CP 2011, held in Perugia, Italy, September 12-16, 2011. The 51 revised full papers and 7 short papers presented together with three invited talks were carefully reviewed and selected from 159 submissions. The papers are organized in topical sections on algorithms, [...]
**Provable Security**

5th International Conference, ProVerSec 2011, Xi’an, China, October 16-18, 2011. Proceedings

This book constitutes the refereed proceedings of the 5th Provable Security Conference held in Xi’an, China, in October 2011. The 22 full papers presented together with 4 short papers and 2 invited talks were carefully reviewed and selected from 75 submissions. The papers are divided in topical sections on cryptographic primitives; encryption; cryptographic protocols; security models and framework; and key agreement.

**Features**

This book constitutes the refereed proceedings of the 5th Provable Security Conference held in Xi’an, China, in October 2011. The 22 full papers presented together with 4 short papers and 2 invited talks were carefully reviewed and selected from 75 submissions. The papers are divided in topical sections on cryptographic primitives; encryption; cryptographic protocols; security models and framework; and key agreement.

**Fields of interest**

Data Encryption; Computer Communication Networks; Management of Computing and Information Systems; Algorithm Analysis and Problem Complexity; Systems and Data Security; Computers and Society

**Target groups**

Research

**Type of publication**

Proceedings

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


62,00 €

ISBN 978-3-642-24315-8

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**Public Key Infrastructures, Services and Applications**

7th European Workshop, EuroPKI 2010, Athens, Greece, September 23-24, 2010. Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 7th European Workshop on Public Key Infrastructures, Services and Applications, EuroPKI 2010, held in Athens, Greece, in September 2010. The 14 revised full papers presented together with an invited article were carefully reviewed and selected from 41 submissions. The papers are organized in topical sections on authentication mechanisms; privacy preserving techniques; PKI & PKC applications; electronic signature schemes; identity management.

**Features**

This book constitutes the thoroughly refereed post-conference proceedings of the 7th European Workshop on Public Key Infrastructures, Services and Applications, EuroPKI 2010, held in Athens, Greece, in September 2010. The 14 revised full papers presented together with an invited article were carefully reviewed and selected from 41 submissions. The papers are organized in topical sections on authentication mechanisms; privacy preserving techniques; PKI & PKC applications; electronic signature schemes; identity management.

**Fields of interest**

Computer Communication Networks; Data Encryption; Management of Computing and Information Systems; Algorithm Analysis and Problem Complexity; Systems and Data Security; Computers and Society

**Target groups**

Research

**Type of publication**

Proceedings

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


46,00 €

ISBN 978-3-642-22632-8

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**Reachability Problems**


This book constitutes the refereed proceedings of the 5th International Workshop on Reachability Problems, RP 2011, held in Genoa, Italy, in September 2011. The 16 papers presented together with 4 invited talks were carefully reviewed and selected from 24 submissions. The workshop deals with reachability problems that appear in algebraic structures, computational models, hybrid systems, logic, and verification. Reachability is a fundamental problem that appears in several different contexts: finite- and infinite-state concurrent systems, computational models like cellular automata and Petri nets, decision procedures for classical, modal and temporal logic, program analysis, discrete and continuous systems, time critical systems, and open systems modelled as games.

**Features**

This book constitutes the refereed proceedings of the 5th International Workshop on Reachability Problems, RP 2011, held in Genoa, Italy, in September 2011. The 16 papers presented together with 4 invited talks were carefully reviewed and selected from 24 submissions. The workshop deals with reachability problems that appear in algebraic structures, computational models, hybrid systems, logic, and verification.

**Fields of interest**

Logics and Meanings of Programs; Software Engineering; Mathematical Logic and Formal Languages; Programming Languages, Compilers, Interpreters; Algorithm Analysis and Problem Complexity; Computation by Abstract Devices

**Target groups**

Research

**Type of publication**

Proceedings

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


46,00 €

ISBN 978-3-642-24287-8
Recent Advances in Intrusion Detection
14th International Symposium, RAID 2011, Menlo Park, CA, USA, September 20-21, 2011, Proceedings

This book constitutes the refereed proceedings of the 14th International Symposium on Recent Advances in Intrusion Detection, RAID 2011, held in Menlo Park, CA, USA in September 2011. The 20 papers presented were carefully reviewed and selected from 87 submissions. The papers are organized in topical sections on application security; malware; anomaly detection; Web security and social networks; and sandboxing and embedded environments.

Features
This book constitutes the proceedings of the 14th International Symposium on Recent Advances in Intrusion Detection, RAID 2011, held in Menlo Park, CA, USA in September 2011. The 20 papers presented were carefully reviewed and selected from 87 submissions. The papers are organized in topical sections on application security; malware; anomaly detection; Web security and social networks; and sandboxing and [...]
Research and Advanced Technology for Digital Libraries

International Conference on Theory and Practice of Digital Libraries, TPDL 2011 - formerly known as ECDL (European Conference on Research and Advanced Technology for Digital Libraries) - held in Berlin, Germany, in September 2011. The 27 full papers, 13 short papers, 9 posters and 9 demos presented in this volume were carefully reviewed and selected from 162 initial submissions. In addition the book contains the abstract of 2 keynote speeches and an appendix stating information on the doctoral consortium, as well as the panel, which were held at the conference. The papers are grouped in topical sections on networked information, semantics and interoperability, systems and architectures, text and multimedia retrieval, collaborative information spaces, DL applications and legal aspects, user interaction and information visualization, user studies, archives and repositories, europeana, and preservation.

Features
This book constitutes the refereed proceedings of the International Conference on Theory and Practice of Digital Libraries, TPDL 2011 - formerly known as ECDL (European Conference on Research and Advanced Technology for Digital Libraries) - held in Berlin, Germany, in September 2011. The 27 full papers, 13 short papers, 9 posters and 9 demos presented in this volume were carefully reviewed and selected from [...] 

Fields of interest
Information Systems Applications (incl.Internet); Database Management; Information Storage and Retrieval; Data Mining and Knowledge Discovery; Multimedia Information Systems; Document Preparation and Text Processing

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

70,00 € ISBN 978-3-642-24468-1

Rough Set and Knowledge Technology

6th International Conference, RSKT 2011, Banff, Canada, October 9-12, 2011, Proceedings

This book constitutes the refereed proceedings of the 6th International Conference on Rough Sets and Knowledge Technology, RSKT 2011, held in Banff, Canada, in September 2011. The 89 revised full papers presented together with 3 keynote lectures and 1 invited tutorial session were carefully reviewed and selected from 229 submissions. The papers are organized in topical sections on attribute reduction and feature selection, generalized rough set models, machine learning with rough and hybrid techniques, knowledge technology and intelligent systems and applications.

Features
This book constitutes the refereed proceedings of the 6th International Conference on Rough Sets and Knowledge Technology, RSKT 2011, held in Banff, Canada, in September 2011. The 89 revised full papers presented together with 3 keynote lectures and 1 invited tutorial session were carefully reviewed and selected from 229 submissions. The papers are organized in topical sections on attribute reduction and [...] 

Fields of interest
Artificial Intelligence (incl. Robotics); Data Mining and Knowledge Discovery; Database Management; Mathematical Logic and Formal Languages; Computation by Abstract Devices; Pattern Recognition

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. XVIII, 771 p. 158 illus., 3 in color. (Lecture Notes in Artificial Intelligence, Vol. 6954) Softcover
87,00 € ISBN 978-3-642-24424-7

S-BPM ONE - Learning by Doing - Doing by Learning


This book constitutes the refereed proceedings of the Third International Conference on Subject-Oriented Business Process Management, S-BPM ONE 2011, held in Ingolstadt, Germany, in September 2011. The papers feature the analysis, modeling, implementation, execution and management of interaction patterns with an explicit stakeholder focus and also embrace themes pertaining to the engineering and management of systems and organizations, particularly with respect to the areas of interaction culture, process-aware information systems, strategic alignment, and governance structures.

Features
This book constitutes the thoroughly refereed post-proceedings of the Second International Conference on Subject-Oriented Business Process Management, S-BPM ONE 2010, held in Karlsruhe, Germany in October 2010. The 10 revised full papers presented together with one invited keynote paper and three panel statements were carefully reviewed and selected from initially 17 submissions. The papers present [...] 

Fields of interest
Computer Communication Networks; Information Systems Applications (incl.Internet); Software Engineering; Artificial Intelligence (incl. Robotics); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval

Target groups
Research

Type of publication
Proceedings

Due: September 15, 2011

2011. XIII, 313 p. (Communications in Computer and Information Science, Vol. 213) Softcover
64,00 € ISBN 978-3-642-23470-5
Scalable Uncertainty Management

5th International Conference, SUM 2011, Dayton, OH, USA, October 10-13, 2011, Proceedings

This book constitutes the refereed proceedings of the 5th International Conference on Scalable Uncertainty Management, SUM 2011, held in Dayton, OH, USA, in October 2011. The 32 revised full papers and 3 revised short papers presented together with the abstracts of 2 invited talks and 6 “discussant” contributions were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on argumentation systems, probabilistic inference, dynamic of beliefs, information retrieval and databases, ontologies, possibility theory and classification, logic programming, and applications.

Features
This book constitutes the refereed proceedings of the 5th International Conference on Scalable Uncertainty Management, SUM 2011, held in Dayton, OH, USA, in October 2011. The 32 revised full papers and 3 revised short papers presented together with the abstracts of 2 invited talks and 6 “discussant” contributions were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections on argumentation systems, probabilistic inference, dynamic of beliefs, information retrieval and databases, ontologies, possibility theory and classification, logic programming, and applications.

Target groups
Research

Type of publication
Proceedings

Due: September 30, 2011

2011, X, 462 p. (Lecture Notes in Artificial Intelligence, Vol. 6929) Softcover
70,00 €
ISBN 978-3-642-23962-5

Security Aspects in Information Technology


This book constitutes the refereed proceedings of the First International Conference on Security Aspects in Information Technology, High-Performance Computing and Networking held in Haldia, India, in October 2011. The 14 full papers presented together with the abstracts of 2 invited lectures were carefully reviewed and selected from 112 submissions. The papers address all current aspects in cryptography, security aspects in high performance computing and in networks as well. The papers are divided in topical sections on embedded security; digital rights management; cryptographic protocols; cryptanalysis; side channel attacks; and cipher primitives.

Features
This book constitutes the refereed proceedings of the First International Conference on Security Aspects in Information Technology, High-Performance Computing and Networking held in Haldia, India, in October 2011. The 14 full papers presented together with the abstracts of 2 invited lectures were carefully reviewed and selected from 112 submissions. The papers address all current aspects in cryptography, security aspects in high performance computing and in networks as well. The papers are divided in topical sections on embedded security; digital rights management; cryptographic protocols; cryptanalysis; side channel attacks; and cipher primitives.

Fields of interest
Computer Communication Networks; Data Encryption; Management of Computing and Information Systems; Algorithm Analysis and Problem Complexity; Systems and Data Security; Computers and Society

Target groups
Research

Type of publication
Proceedings

Due: September 25, 2011

46,00 €
ISBN 978-3-642-24585-0

Security and Trust Management

6th International Workshop, STM 2010, Athens, Greece, September 23-24, 2010, Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 6th International Workshop on Security and Trust Management, STM 2010, held in Athens, Greece, in September 2010. The 17 revised full papers presented were carefully reviewed and selected from 40 submissions. Focusing on high-quality original unpublished research, case studies, and implementation experiences, STM 2010 encouraged submissions discussing the application and deployment of security technologies in practice.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the 6th International Workshop on Security and Trust Management, STM 2010, held in Athens, Greece, in September 2010. The 17 revised full papers presented were carefully reviewed and selected from 40 submissions. Focusing on high-quality original unpublished research, case studies, and implementation experiences, STM 2010 encouraged submissions discussing the application and deployment of security technologies in practice.

Fields of interest
Management of Computing and Information Systems; Data Encryption; Operating Systems; Computer Communication Networks; Computers and Society

Target groups
Research

Type of publication
Proceedings

Due: September 25, 2011

46,00 €
ISBN 978-3-642-22443-0
Security-Enriched Urban Computing and Smart Grid


This book constitutes the proceedings of the Second International Conference on Security-Enriched Urban Computing and Smart Grid, held in Hualien, Taiwan, in September 2011. The 35 revised full papers presented together with two invited papers were carefully reviewed and selected from 97 submissions. Among the topics covered are the Internet of Things, mobile networks, wireless networks, service-oriented computing, data- and cloud-computing, voice over IP, cloud computing, privacy, smart grid systems, distributed systems, agent-based systems, assistive technology, social networks, and wearable computing.

Features
This book constitutes the proceedings of the Second International Conference on Security-Enriched Urban Computing and Smart Grid, held in Hualien, Taiwan, in September 2011. The 35 revised full papers presented together with two invited papers were carefully reviewed and selected from 97 submissions. Among the topics covered are the Internet of Things, mobile networks, wireless networks, service-oriented computing, and cloud computing.

Fields of interest
Computer Communication Networks; Information Systems Applications (incl. Internet); Image Processing and Computer Vision; Computer Application in Administrative Data Processing; Computers and Society; Software Engineering

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.
Sensor Systems and Software

This book constitutes the thoroughly refereed post-conference proceedings of the Second International ICST Conference on Sensor Systems and Software, S-Cube 2010, held in Miami, Florida, USA, in December 2010. The 17 revised full papers presented were carefully reviewed and selected and cover a wide range of topics including sensor application programming paradigms, novel sensor applications, sensor network middleware, trust security and privacy, wireless sensor network management and monitoring, and sensor application development support systems.

Features
This book constitutes the thoroughly refereed post-conference proceedings of the Second International ICST Conference on Sensor Systems and Software, S-Cube 2010, held in Miami, Florida, USA, in December 2010. The 17 revised full papers presented were carefully reviewed and selected and cover a wide range of topics including sensor application programming paradigms, novel sensor applications, sensor network [...]
Social Media Tools and Platforms in Learning Environments

Online social media have transformed the face of human interaction in the 21st century. Wikis, blogs, online groups and forums, podcasts, virtual worlds, and social tagging are but a few of the applications enabling innovative behaviors that support acquisition, access, manipulation, retrieval, and visualization of information. It is, therefore, no surprise that educational practitioners and theorists have begun to explore how social media can be harnessed to describe and implement new paradigms for communication, learning, and education. The editors’ goal in publishing this book was to identify original research on the application of online social media and related technologies in education as well as emerging applications in Web technologies that could provide and shape future educational platforms. The selected contributions deal with questions such as how social media can truly enrich and enhance learning and teaching experiences in ways not otherwise possible; how learning can be integrated into a...[

Features

Online social media have transformed the face of human interaction in the 21st century. Wikis, blogs, online groups and forums, podcasts, virtual worlds, and social tagging are but a few of the applications enabling innovative behaviors that support acquisition, access, manipulation, retrieval, and visualization of information. It is, therefore, no surprise that educational practitioners and theorists have...[

Contents


Fields of interest

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

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011. XVII, 435 p. 70 illus. Hardcover

99,95 €
ISBN 978-3-642-20391-6

Software Architecture

5th European Conference, ECSA 2011, Essen, Germany, September 13-16, 2011. Proceedings

This book constitutes the refereed proceedings of the 5th European Conference on Software Architecture, ECSA 2011, held in Essen, Germany, in September 2011. The 13 revised full papers presented together with 24 emerging research papers, and 7 research challenge poster papers were carefully reviewed and selected from over 100 submissions. The papers are organized in topical sections on requirements and software architectures; software architecture, components, and compositions; quality attributes and software architectures; software architecture runtime aspects; ADEs and metamodels; and services and software architectures.

Features

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Fields of interest

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

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


62,00 €
ISBN 978-3-642-23797-3

Software Architecture

A Comprehensive Framework and Guide for Practitioners

As a software architect you work in a wide-ranging and dynamic environment. You have to understand the needs of your customer, design architectures that satisfy both functional and non-functional requirements, and lead development teams in implementing the architecture. And it is an environment that is constantly changing: trends such as cloud computing, service orientation, and model-driven procedures open up new architectural possibilities. This book will help you to develop a holistic architectural awareness and knowledge base that extends beyond concrete methods, techniques, and technologies. It will also help you to acquire or expand the technical, methodological, and social competences that you need. The authors place the spotlight on you, the architect, and offer you long-term architectural orientation. They give you numerous guidelines, checklists, and best practices to support you in your practical work. "Software Architecture" offers IT students, software developers, and software[...]

Features

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Contents


Fields of interest

Software Engineering; Management of Computing and Information Systems; Business Information Systems

Target groups

Professional/practitioner

Type of publication

Professional book

Usually dispatched within 3 to 5 business days


54,95 €
ISBN 978-3-642-19735-2

Software Architecture

A Comprehensive Framework and Guide for Practitioners

As a software architect you work in a wide-ranging and dynamic environment. You have to understand the needs of your customer, design architectures that satisfy both functional and non-functional requirements, and lead development teams in implementing the architecture. And it is an environment that is constantly changing: trends such as cloud computing, service orientation, and model-driven procedures open up new architectural possibilities. This book will help you to develop a holistic architectural awareness and knowledge base that extends beyond concrete methods, techniques, and technologies. It will also help you to acquire or expand the technical, methodological, and social competences that you need. The authors place the spotlight on you, the architect, and offer you long-term architectural orientation. They give you numerous guidelines, checklists, and best practices to support you in your practical work. "Software Architecture" offers IT students, software developers, and software[...]

Features

As a software architect you work in a wide-ranging and dynamic environment. You have to understand the needs of your customer, design architectures that satisfy both functional and non-functional requirements, and lead development teams in implementing the architecture. And it is an environment that is constantly changing: trends such as cloud computing, service orientation, and model-driven procedures open up new architectural possibilities. This book will help you to develop a holistic architectural awareness and knowledge base that extends beyond concrete methods, techniques, and technologies. It will also help you to acquire or expand the technical, methodological, and social competences that you need. The authors place the spotlight on you, the architect, and offer you long-term architectural orientation. They give you numerous guidelines, checklists, and best practices to support you in your practical work. "Software Architecture" offers IT students, software developers, and software[...]

Contents


Fields of interest

Software Engineering; Management of Computing and Information Systems; Business Information Systems

Target groups

Professional/practitioner

Type of publication

Professional book

Usually dispatched within 3 to 5 business days


54,95 €
ISBN 978-3-642-19735-2
Software Engineering for Resilient Systems


This book constitutes the refereed proceedings of the Third International Workshop on Software Engineering for Resilient Systems, SERENE 2011, held in Geneva, Switzerland, in September 2011. The 13 revised full papers presented together with 2 invited talks were carefully reviewed and selected from numerous submissions. The papers address all aspects of formal modeling and verification, architecting resilient systems, fault tolerance, requirements engineering and product lines, monitoring and self-adaptation, and security and intrusion avoidance.

Features

This book constitutes the refereed proceedings of the Third International Workshop on Software Engineering for Resilient Systems, SERENE 2011, held in Geneva, Switzerland, in September 2011. The 13 revised full papers presented together with 2 invited talks were carefully reviewed and selected from numerous submissions. The papers address all aspects of formal modeling and verification, architecting [...]
The Virtual Future

The newest communication technologies are profoundly changing the world’s politics, economies, and cultures, but the specific implications of online gameworlds remain mysterious. The Virtual Future employs theories and methods from social science to explore nine very different virtual futures: The Matrix Online, Tabula Rasa, Anarchy Online, Entropia Universe, Star Trek Online, EVE Online, Star Wars Galaxies, World of Warcraft: Burning Crusade, and The Chronicles of Riddick. Each presents a different picture of how technology and society could evolve in coming centuries, but one theme runs through all of them, the attempt to escape the Earth and seek new destinies among the stars. Four decades after the last trip to the moon, a new conception of spaceflight is emerging. Rather than rockets shooting humans across vast physical distances to sterile rocks that lack the resources to sustain life, perhaps robot space probes and orbiting telescopes will glean information about the universe, that[...]

Features
The newest communication technologies are profoundly changing the world’s politics, economies, and cultures, but the specific implications of online gameworlds remain mysterious. The Virtual Future employs theories and methods from social science to explore nine very different virtual futures: The Matrix Online, Tabula Rasa, Anarchy Online, Entropia Universe, Star Trek Online, EVE Online, Star Wars Galaxies, World of Warcraft: Burning Crusade, The Chronicles of Riddick, The Skylark and the Shuttle.

Contents

Fields of interest
Computers and Society; Computer Applied in Social and Behavioral Sciences; Computer Applications; Media Design; Computers and Education

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011, VIII, 182 p. 30 illus. (Springer Series in Immersive Environments) Hardcover

79.95 €
ISBN 978-0-85729-903-1

ThinkQuest 2010

Proceedings of the First International Conference on Contours of Computing Technologies

This proceedings is a representation of decades of research, teaching and application in the field. Image Processing, Fusion and Information Technology areas, Digital radio Communication, Wimax, Electrical engg, VLSI approach to processor design, embedded systems design are dealt in detail through models and illustrative techniques.

Features
Based on decades of collective research, teaching and application in the field, the authors present the most comprehensive treatment in Image processing, Fusion & Information Technology areas, Digital radio communication, Medical Electronics, Wimax, and Electrical Engg. VLSI approach to processor design, Embedded Systems design, and Ontology. This is further illustrated by using models, techniques[...]

Fields of interest
Coding and Information Theory; Information Systems Applications (incl.Internet); Control Structures and Microprogramming; Language Translation and Linguistics; Multimedia Information Systems; System Performance and Evaluation

Target groups
Professional/practitioner

Type of publication
Proceedings

Usually dispatched within 3 to 5 business days

2011, IX, 327 p. 120 illus. Hardcover

119.95 €
ISBN 978-81-8489-988-7

Towards Ubiquitous Learning


This book constitutes the refereed proceedings of the 6th European Conference on Technology Enhanced Learning, EC-TEL 2011, held in Palermo, Italy, in September 2010. The 30 revised full papers presented were carefully reviewed and selected from 158 submissions. The book also includes 12 short papers, 8 poster papers, and 2 invited paper. There are many interesting papers on topics such as web 2.0 and social media, recommender systems, learning analytics, collaborative learning, interoperability of tools, etc.

Features
This book constitutes the refereed proceedings of the 6th European Conference on Technology Enhanced Learning, EC-TEL 2011, held in Palermo, Italy, in September 2010. The 30 revised full papers presented were carefully reviewed and selected from 158 submissions. The book also includes 12 short papers, 8 poster papers, and 2 invited paper. There are many interesting papers on topics such as web 2.0 and[...]

Fields of interest
Information Systems Applications (incl.Internet); Artificial Intelligence (incl. Robotics); Information Storage and Retrieval; Computer Communication Networks; User Interfaces and Human Computer Interaction; Data Mining and Knowledge Discovery

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


70.00 €
ISBN 978-3-642-23984-7
Traffic-Sign Recognition Systems

This work presents a full generic approach to the detection and recognition of traffic signs. The approach is based on the latest computer vision methods for object detection, and on powerful methods for multiclass classification. The challenge was to robustly detect a set of different sign classes in real time, and to classify each detected sign into a large, extensible set of classes. To address this challenge, several state-of-the-art methods were developed that can be used for different recognition problems. Following an introduction to the problems of traffic sign detection and categorization, the text focuses on the problem of detection, and presents recent developments in this field. The text then surveys a specific methodology for the problem of traffic sign categorization – Error-Correcting Output Codes – and presents several algorithms, performing experimental validation on a mobile mapping application. The work ends with a discussion on future research and continuing challenges.

Contents

Fields of interest
Image Processing and Computer Vision

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2011, VI, 96 p. 34 illus. (SpringerBriefs in Computer Science) Softcover

39,95 €

Transactions on Computer Vision and Pattern Recognition

This work presents a full generic approach to the detection and recognition of traffic signs. The approach is based on the latest computer vision methods for object detection, and on powerful methods for multiclass classification. The challenge was to robustly detect a set of different sign classes in real time, and to classify each detected sign into a large, extensible set of classes. To address this challenge, several state-of-the-art methods were developed that can be used for different recognition problems. Following an introduction to the problems of traffic sign detection and categorization, the text focuses on the problem of detection, and presents recent developments in this field. The text then surveys a specific methodology for the problem of traffic sign categorization – Error-Correcting Output Codes – and presents several algorithms, performing experimental validation on a mobile mapping application. The work ends with a discussion on future research and continuing challenges.

Contents

Fields of interest
Image Processing and Computer Vision

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2011, VI, 96 p. 34 illus. (SpringerBriefs in Computer Science) Softcover

39,95 €

Transactions on Computational Collective Intelligence V

These Transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the Semantic Web, social networks and multi-agent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many individuals (artificial and/or natural). The application of multiple computational intelligence technologies such as fuzzy systems, evolutionary computation, neural systems, consensus theory, etc., aims to support human and other collective intelligence and to create new forms of CCI in natural and/or artificial systems. This 5th issue contains a collection of 10 carefully selected and thoroughly revised contributions. The articles deal with the following topics: web page language identification; a novel image edge detection approach using ant colony optimization techniques; component-based software.[...]

Features
These Transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the Semantic Web, social networks and multi-agent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many [...]

Contents

Fields of interest
Artificial Intelligence (incl. Robotics); Computer Communication Networks; Information Systems Applications (incl.Internet); Software Engineering; Information Storage and Retrieval; Computation by Abstract Devices

Target groups
Research

Type of publication
Contributed volume

Online orders shipping within 2-3 days.


63,00 €
ISBN 978-3-642-22638-0

Transactions on Edutainment VI

This journal subline serves as a forum for stimulating and disseminating innovative research ideas, theories, emerging technologies, empirical investigations, state-of-the-art methods, and tools in all different genres of edutainment, such as game-based learning and serious games, interactive storytelling, virtual learning environments, VR-based education, and related fields. It covers aspects from educational and game theories, computer-human interaction, computer graphics, artificial intelligence, and systems design. The 6th volume in this series represents a selection of 7 contributions from DMDCM 2011, the 5th International Conference on Digital Media and Digital Content Management, held in Chongqing, China, in December 2011, as well as 9 contributions from CASA 2011, the 24th International Conference on Computer Animation and Social Agents, held in Chengdu, China, in May 2011. The topics covered are: pen-based interface, urban heat island simulation, BR-based on-line expo, physically-based[...]

Features
These Transactions publish research in computer-based methods of computational collective intelligence (CCI) and their applications in a wide range of fields such as the Semantic Web, social networks and multi-agent systems. TCCI strives to cover new methodological, theoretical and practical aspects of CCI understood as the form of intelligence that emerges from the collaboration and competition of many [...]

Contents

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

Target groups
Research

Type of publication
Contributed volume

Online orders shipping within 2-3 days.


63,00 €
ISBN 978-3-642-22638-0
Trends in Computer Science, Engineering and Information Technology

First International Conference, CCSEIT 2011, Tirunelveli, Tamil Nadu, India, September 23-25, 2011, Proceedings

This book constitutes the refereed proceedings of the First International Conference on Computer Science, Engineering and Information Technology, CCSEIT 2011, held in Tirunelveli, India, in September 2011. The 73 revised full papers were carefully reviewed and selected from more than 400 initial submissions. The papers feature significant contributions to all major fields of the Computer Science and Information Technology in theoretical and practical aspects.

Features

This book constitutes the refereed proceedings of the First International Conference on Computer Science, Engineering and Information Technology, CCSEIT 2011, held in Tirunelveli, India, in September 2011. The 73 revised full papers were carefully reviewed and selected from more than 400 initial submissions. The papers feature significant contributions to all major fields of the Computer Science and Information Technology in theoretical and practical aspects.

Fields of interest

Artificial Intelligence (incl. Robotics); Computer Communication Networks; Information Systems Applications (incl.Internet); Algorithm Analysis and Problem Complexity; Information Storage and Retrieval; Database Management

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.

2011. XVIII, 736 p. (Communications in Computer and Information Science, Vol. 204) Softcover

97,00 €
ISBN 978-3-642-24042-3

Trends in Functional Programming

11th International Symposium, TFP 2010, Norman, OK, USA, May 17-19, 2010. Revised Selected Papers

This book constitutes the thoroughly refereed post-conference proceedings of the 11th International Symposium on Trends in Functional Programming, TFP 2010, held in Norman, OK, USA, in May 2010. The 13 revised full papers presented were carefully reviewed and selected from 26 submissions during two rounds of reviewing and improvement. The papers cover new ideas for refactoring, managing source-code complexity, functional language implementation, graphical languages, applications of functional programming in pure mathematics, type theory, multitasking and parallel processing, distributed systems, scientific modeling, domain specific languages, hardware design, education, and testing.

Features

This book constitutes the thoroughly refereed post-conference proceedings of the 11th International Symposium on Trends in Functional Programming, TFP 2010, held in Norman, OK, USA, in May 2010. The 13 revised full papers presented were carefully reviewed and selected from 26 submissions during two rounds of reviewing and improvement. The papers cover new ideas for refactoring, managing source-code complexity, [...]
Web Information System Engineering -- WISE 2011
12th International Conference, Sydney, Australia, October 13-14, 2011, Proceedings

This book constitutes the proceedings of the 12th International Conference on Web Information Systems Engineering, WISE 2011, held in Sydney, Australia, in October 2011. The 17 revised full papers and 11 revised short papers presented together with 7 demo papers were carefully reviewed and selected from 96 submissions. The papers contained in these proceedings address challenging issues in software services, Web application engineering and modelling, Web search, social networks, Web semantics, and information retrieval and extraction.

Fields of interest
- Information Systems Applications (incl. Internet)
- Information Systems and Communication Service
- Information Storage and Retrieval
- User Interfaces and Human Computer Interaction
- Software Engineering
- Data Mining and Knowledge Discovery

Target groups
- Research

Type of publication
- Proceedings

Due: September 22, 2011


54,00 €
ISBN 978-3-642-24433-9

Web Information Systems Engineering - WISE 2010 Workshops
WISE 2010 International Symposium WISS, and International Workshops CISE, MBC, Hong Kong, China, December 12-14, 2010. Revised Selected Papers

This book contains the carefully selected and reviewed papers presented at three satellite events that were held in conjunction with the 11th International Conference on Web Information Systems Engineering, WISE 2010, in Hong Kong, China, in December 2010. The collection comprises a total of 40 contributions that originate from the First International Symposium on Web Intelligent Systems and Services (WISS 2010), from the First International Workshop on Cloud Information Systems Engineering (CISE 2010) and from the Second International Workshop on Mobile Business Collaboration (MBC 2010). The papers address a wide range of hot topics and are organized in topical sections on: decision and e-markets; rules and XML; web service intelligence; semantics and services; analyzing web resources; engineering web systems; intelligent web applications; web communities and personalization; cloud information system engineering; mobile business collaboration.

Fields of interest
- Information Systems Applications (incl. Internet)
- Information Systems and Communication Service
- Computer Communication Networks
- Database Management
- Artificial Intelligence (incl. Robotics)
- Computer Imaging
- Vision
- Pattern Recognition
- Graphics

Target groups
- Research

Type of publication
- Proceedings

Online orders shipping within 2-3 days.


54,00 €
ISBN 978-3-642-24395-0
Web Information Systems and Mining

International Conference, WISM 2011, Taiyuan, China, September 24-25, 2011, Proceedings, Part II

The two-volume set LNCS 6987 and 6988 constitutes the refereed proceedings of the International Conference on Web Information Systems and Mining, WISM 2011, held in Taiyuan, China, in September 2011. The 112 revised full papers presented were carefully reviewed and selected from 472 submissions. The second volume includes 56 papers organized in the following topical sections: management information systems; semantic Web and ontologies; Web content mining; Web information classification; Web information extraction; Web intelligence; Web interfaces and applications; Web services and e-learning; and XML and semi-structured data.

Features

The two-volume set LNCS 6987 and 6988 constitutes the refereed proceedings of the International Conference on Web Information Systems and Mining, WISM 2011, held in Taiyuan, China, in September 2011. The 112 revised full papers presented were carefully reviewed and selected from 472 submissions. The second volume includes 56 papers organized in the following topical sections: management information systems; semantic Web and ontologies; Web content mining; Web information classification; Web information extraction; Web intelligence; Web interfaces and applications; Web services and e-learning; and XML and semi-structured data.

Fields of interest

Information Systems Applications (incl.Internet); Information Storage and Retrieval; Database Management; Software Engineering; Data Mining and Knowledge Discovery; Multimedia Information Systems

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


Earth Sciences

W. Borchardt-Ott, University of Münster, Germany

Crystallography

An Introduction

As a self-study guide, course primer or teaching aid, Borchardt-Ott’s Crystallography is the perfect textbook for students and teachers alike. In fact, it can be used by crystallographers, chemists, mineralogists, geologists and physicists. Based on the author’s more than 25 years of teaching experience, the book has numerous line drawings designed especially for the text and a large number of exercises - with solutions - at the end of each chapter. This 3rd edition is the translation of the seventh German edition with new chapters focused on crystal chemistry and x-ray diffraction methods.

Features

As a self-study guide, course primer or teaching aid, Borchardt-Ott’s Crystallography is the perfect textbook for students and teachers alike. In fact, it can be used by crystallographers, chemists, mineralogists, geologists and physicists. Based on the author’s more than 25 years of teaching experience, the book has numerous line drawings designed especially for the text and a large number of exercises [-]

Contents


Fields of interest

Mineralogy; Inorganic Chemistry; Physical Chemistry

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

Online orders shipping within 2-3 days.


Gossans and Leached Cappings

R. Taylor, James Cook University, Townsville, QLD, Australia

Field Assessment

This text concentrates upon field observations concerning leached cappings and gossans, occurring as oxidised surface expressions of underlying ore zones. Although the advent of modern multielement geochemical sampling and easier mechanical excavation assist considerably in subsurface interpretation, there are still many occasions where the first observation and recognition are made by the lone field geologist. New exposures continue to be found in remote and often difficult terrains, where “on the spot” skills are of prime importance. In general terms the text has been arranged from the broad scale to the specific, and it should be realised that all scales provide valuable input for final interpretation. The topics covered include: Theoretical perspectives Initial recognition General field observations Detailed field observations (secondary minerals, boxworks) Porphyry copper leached cappings

Features

This text concentrates upon field observations concerning leached cappings and gossans, occurring as oxidised surface expressions of underlying ore zones. Although the advent of modern multielement geochemical sampling and easier mechanical excavation assist considerably in subsurface interpretation, there are still many occasions where the first observation and recognition are made by the lone field [-]

Contents


Fields of interest

Mineral Resources; Soil Science & Conservation; Mineralogy

Target groups

Professional/practitioner

Type of publication

Monograph

Due: September 30, 2011

Minerals as Advanced Materials II

This book is a collection of papers that are devoted to various aspects of interactions between mineralogy and material sciences. It will include reviews, perspective papers and original research papers on mineral nanostructures, biomineralization, micro- and nanoporous mineral phases as functional materials, physical and optical properties of minerals, etc. Many important materials that dominate modern technological development were known to mineralogists for hundreds of years, though their properties were not fully recognized. Mineralogy, on the other hand, needs new impacts for the further development in the line of modern scientific achievements such as bio- and nanotechnologies as well as by the understanding of a deep role that information plays in the formation of natural structures and definition of natural processes. It is the idea of this series of books to provide an arena for interdisciplinary discussion on minerals as advanced materials.

Features
This book is a collection of papers that are devoted to various aspects of interactions between mineralogy and material sciences. It will include reviews, perspective papers and original research papers on mineral nanostructures, biomineralization, micro- and nanoporous mineral phases as functional materials, physical and optical properties of minerals, etc. Many important materials that dominate modern [...] Contents
Case Studies of Minerals which became Advanced Materials.- The actinide borates: A new impact on nuclear fuel conversion.- Ferroic walls and potential applications.- Determination of "unsolvable" structures of minerals.- Evaluation of the long-term performance of potential nuclear waste form materials: A mineralogical and experimental approach.- Microporous materials used in energy storage and energy conversion.- Heat capacity, entropy, and magnetic properties of jarosite-group compounds.- New insights into the ultra-fast synthesis of negative-thermal-expansion framework materials.- [...] Fields of interest
Mineralogy; Nanotechnology; Inorganic Chemistry; Geotechnical Engineering & Applied Earth Sciences; Nanochemistry; Ceramics, Glass, Composites, Natural Materials Target groups
Professional/practitioner Type of publication
Contributed volume Usually dispatched within 3 to 5 business days

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Modelling of Hydrological Processes in the Narew Catchment

Since climate and land use strongly affect the runoff pattern and intensity of solute export, it is likely that some observations and conclusions formulated on the basis of investigations carried out in forested catchment may not be fully adequate to describe controls on solute export from agricultural watersheds. The primary objective of the present research is to better understand the flow paths that affect the fluxes of dissolved compounds from a small agricultural catchment during snowmelt. This book focuses on spring snowmelt, because this is the dominant hydrological event in many moderate and high latitude catchments and, thus, is regarded as a prominent factor influencing the quality of surface waters.

Features
Since climate and land use strongly affect the runoff pattern and intensity of solute export, it is likely that some observations and conclusions formulated on the basis of investigations carried out in forested catchment may not be fully adequate to describe controls on solute export from agricultural watersheds. The primary objective of the present research is to better understand the flow paths that affect [...] Contents
Operational Rainfall/Snowmelt-runoff Model for Upper Narew River.- Multi-site Calibration and Validation of the Hydrological Component of SWAT in a large Lowland Catchment.- Automatic Calibration of the Wetspa Distributed Hydrological Model for small Lowland Catchments.- Modelling Hydrological Flow Paths during Snowmelt induced high flow event Fields of interest
Hydrogeology; Soil Science & Conservation; Agriculture Target groups
Research Type of publication
Monograph Usually dispatched within 3 to 5 business days


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Satellite Geology and Photogeomorphology
An Instructional Manual for Data Integration

The twin sets of figures in the manual are presented as examples that demonstrate how the interfacing of stereo airphotos and satellite images in visual qualitative photogeomorphology studies can yield more geospatial information than can be derived from either source independently. The airphoto coverage in each satellite image is indicated by a frame. The photos and images are ordered into eleven sections according to the author’s taxonomic classification of genetic groups as used in his Atlas and Glossary of Geohazard-associated Geounits. The figure sets of each section are preceded by characterisations of their genetic classification context. Some airphotos are taken from those used in the Atlas, the satellite images have been down loaded from USGS Global Visualization Viewer.

Features
The twin sets of figures in the manual are presented as examples that demonstrate how the interfacing of stereo airphotos and satellite images in visual qualitative photogeomorphology studies can yield more geospatial information than can be derived from either source independently. The airphoto coverage in each satellite image is indicated by a frame. The photos and images are ordered into eleven [...] Contents
Part I Introduction.- Purpose.- The data.- Advantages and limitations of airphotos for photogeological analysis, interpretation, and terrain mapping.- Airphotos used in the book.- Advantages and limitations of satellite imagery for photogeological analysis, interpretation, and terrain mapping.- Acquisition of satellite images used in the book.- Resolution of Geounits in downloaded images.- Classification of Photogeological Geounits.- Definition of photogeological Geounits and Variants as delineation Units for terrain mapping.- Classification of Geounits and Variants.- Examples of Data [...] Fields of interest
Earth Sciences (general); Physical Geography; Civil Engineering; Geology / Natural Processes Target groups
Research Type of publication
Monograph Online orders shipping within 2-3 days.


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Usually dispatched within 3 to 5 business days

Submarine Mass Movements and Their Consequences

5th International Symposium

Submarine mass movements represent major offshore geohazards due to their destructive and tsunami-generation potential. This potential poses a threat to human life as well as to coastal, nearshore and offshore engineering structures. Recent examples of catastrophic submarine landslide events that affected human populations (including tsunamis) are numerous; e.g., Nice airport in 1979, Papua-New Guinea in 1998, Stromboli in 2002, Finn Howell in 1996, and the 2006 and 2009 failures in the submarine cable network around Taiwan. The Great East Japan Earthquake in March 2011 also generated submarine landslides that may have amplified effects of the devastating tsunami. Given that 30% of the World’s population live within 60 km of the coast, the hazard posed by submarine landslides is expected to grow as global sea level rises. This elevated awareness of the need for better understanding of submarine landslides is coupled with great advances in submarine mapping, sampling and monitoring technologies. [...] 

Features

Submarine mass movements represent major offshore geohazards due to their destructive and tsunami-generation potential. This potential poses a threat to human life as well as to coastal, nearshore and offshore engineering structures. Recent examples of catastrophic submarine landslide events that affected human populations (including tsunamis) are numerous; e.g., Nice airport in 1979, Papua-New Guinea in [...] 

Contents


Fields of interest

Oceanography; Physical Geography; Geotechnical Engineering & Applied Earth Sciences; Sedimentology

Target groups

Research

Type of publication

Proceedings

Usually dispatched within 3 to 5 business days

2012. XXII, 756 p. 294 illus., 227 in color. (Advances in Natural and Technological Hazards Research, Vol. 31) Hardcover

129,95 €

ISBN 978-94-007-2161-6

The Tectonics of China

Data, Maps and Evolution

"The Tectonics of China: Data, Maps and Evolution" presents the regional geological and petroleum surveys of China, the author’s original tectonic data, and research results of Chinese and international scientists (more than 1500 references) from the last three decades. It examines the main developments of geological evolution, a series of tectonic events in the overall geological history, 13 tectonic maps of the entire continent of Asia in different tectonic epochs, and a general discussion of the main tectonic characteristics of the Chinese continental plate. This book also intensively discusses the Mesozoic-Cenozoic tectonics and intraplate deformations, which control the majority of ore deposits and oil-gas reservoirs and have a tremendous influence on the climates and natural disasters on the continent. Some important tectonic theory problems are discussed, such as the mechanisms of the widespread intraplate deformation, the variation of lithosphere thickness, the existence of mantle plumes, [...] 

Features

"The Tectonics of China: Data, Maps and Evolution" presents the regional geological and petroleum surveys of China, the author’s original tectonic data, and research results of Chinese and international scientists (more than 1500 references) from the last three decades. It examines the main developments of geological evolution, a series of tectonic events in the overall geological history, 13 tectonic maps [...] 

Contents


Fields of interest

Structural Geology; Historical Geology; Geophysics / Geodesy; Mineralogy

Target groups

Research

Type of publication

Monograph

Online orders shipping within 2-3 days.

2012. 506 p. 148 illus., 38 in color. Hardcover

159,95 €

ISBN 978-3-642-11866-1
The Yamuna River Basin

Water Resources and Environment

This book is designed to provide concepts, methodologies, and approaches for river basin studies with respect to water resources and environment. The book is not limited to the Yamuna River basin, but will help in the study of various other river basins for integrated water resources management. The book covers the essential components of integrated water resources management, including analysis of climatic variables, climate change detection, analysis of natural resources, geology, geomorphology, socio-economics, water budgeting, flood estimation, river pollution, etc. Furthermore, the book addresses recent issues pertaining to water quality, water quality indices, environmental flows, water resources management through cropping pattern change, etc. along with methodologies and application to the Yamuna River system. However, the main objective of this book is to address important issues of water resources management of river basins. Audience: The manuscript has been designed so that it can be...

Features

This book is designed to provide concepts, methodologies, and approaches for river basin studies with respect to water resources and environment. The book is not limited to the Yamuna River basin, but will help in the study of various other river basins for integrated water resources management. The book covers the essential components of integrated water resources management, including analysis of climatic variables.

Contents

Preface. - List of figures. - List of tables. - 1 River basins of India and water resources. - 2 Salient features of the Yamuna river basin. - 3 Climate of the basin. - 4 Pattern changes in climatic variables. - 5 Geomorphology and geology. - 6 Soil, landuse and agriculture. - 7 Socio-economic status. - 8 Water resources and water budgeting. - 9 Water pollution. - 10 Wastewater generation and treatment. - 11 Water quality index and status. - 12 Environmental flows. - 13 Cropping plan for water resources management. - Appendices. - Index.

Fields of interest

Hydrogeology; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Meteorology / Climatology; Earth Sciences (general); Climate Change; Geomorphology

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

October 31, 2011

Active Ageing, Active Learning

Issues and Challenges

This book is concerned with the general issues of ageing, learning and education for the elderly and then with the more specific issues of why, how and what elders want to learn. This monograph consists of 10 chapters written by various internationally renowned researchers and scholar-practitioners in the field.

Features

This book is concerned with the general issues of ageing, learning and education for the elderly and then with the more specific issues of why, how and what elders want to learn. This monograph consists of 10 chapters written by various internationally renowned researchers and scholar-practitioners in the field. The world’s population is ageing rapidly. Ageing has an impact on all aspects of human [...]
Advances in Nature of Science Research

Concepts and Methodologies

This book consolidates contemporary thinking and research efforts in teaching and learning about the nature of science in science education. The term ‘Nature of Science’ (NoS) has appeared in the science education literature for many decades. While there is still a controversy among science educators about what constitutes NoS, educators are unanimous in acknowledging the importance of this topic as well as the need to make it explicit in teaching science. The general consensus is that the nature of science is an intricate and multifaceted theme that requires continued scholarship. Recent analysis of research trends in science education indicates that investigation of the nature of science continues to be one of the most prevalent topics in academic publications. Advances in Nature of Science Research explores teaching and assessing the nature of science as a means of addressing and solving problems in conceptual change, developing positive attitudes toward science, promoting thinking habits, [...]

Features

This book consolidates contemporary thinking and research efforts in teaching and learning about the nature of science in science education. The term ‘Nature of Science’ (NoS) has appeared in the science education literature for many decades. While there is still a controversy among science educators about what constitutes NoS, educators are unanimous in acknowledging the importance of this topic as well as [...]

Contents

Foreword, Richard Coll. - PART I: Conceptual Issues in the Nature of Science Research. - Chapter 1 Changing the Focus: From Nature of Science to Features of Science, Michael Matthews. - Chapter 2 Perceptual, Attentional, and Cognitive Heuristics that Interact with the Nature of Science to Complicate Public Understanding of Science, Tina A. Grotzer, Rebecca B. Miller, Rebecca A. Lincoln. - Chapter 3 The Nature of Scientific Thinking: Creativity as the Handmaiden to Logic in the Development of Public and Personal Knowledge, Keith S Taber. - Chapter 4 The Bounded Nature of Science: An effective [...]

Fields of interest

Science Education; Teaching and Teacher Education; Learning and Instruction; Curriculum Studies

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012, X, 268 p. 16 illus. Hardcover

99,95 €
ISBN 978-94-007-2456-3

Education, Culture and Epistemological Diversity

Mapping a Disputed Terrain

In the recent educational research literature, it has been asserted that ethnic or cultural groups have their own distinctive epistemologies, and that these have been given short shrift by the dominant social group. Educational research, then, is pursued within a framework that embodies assumptions about knowledge and knowledge production that reflect the interests and historical traditions of this dominant group. In such arguments, however, some relevant philosophical issues remain unresolved, such as what claims about culturally distinctive epistemologies mean, precisely, and how they relate to traditional epistemological distinctions between beliefs and knowledge. Furthermore, can these ways of establishing knowledge stand up to critical scrutiny? This volume marshals a variety of resources to pursue such open questions in a lively and accessible way: a critical literature review, analyses from philosophers of education who have different positions on the key issues, a roundtable discussion, and [...]

Features

In the recent educational research literature, it has been asserted that ethnic or cultural groups have their own distinctive epistemologies, and that these have been given short shrift by the dominant social group. Educational research, then, is pursued within a framework that embodies assumptions about knowledge and knowledge production that reflect the interests and historical traditions of this dominant [...]

Contents


Fields of interest

Science: An effective [...]

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


99,95 €
ISBN 978-94-007-2065-7

From Text to ‘Lived’ Resources

Mathematics Curriculum Materials and Teacher Development

What kinds of curriculum materials do mathematics teachers select and use, and how? This question is complex, in a period of deep evolutions of teaching resources, with the proficiencies of online resources in particular. How do teachers learn from these materials, and in which ways do they ‘tailor’ them for their use and pupil learning? Teachers collect resources, select, transform, share, implement, and revise them. Drawing from the French term ‘ingénierie documentaire’, we call these processes ‘documentation’. The literal English translation is ‘to work with documents’, but the meaning it carries is richer. Documentation refers to the complex and interactive ways that teachers work with resources; in-class and out-of-class, individually, but also collectively.

Features

Curriculum materials and the interaction with these materials and resources is central in teacher education and professional development. How teachers use and learn from materials fundamentally depends on the interactions between three components: the reader, the material and the context. Teachers’ use and learning from text-based materials depends to a large extent on the characteristics of the materials, [...]

Contents

Foreword: R. Sträßer, Professor of Mathematics Education, Giessen, Germany. - Introduction: G. Gueudet, B. Pepin & L. Trouche. - Section 1: Teacher resources. - Chap. 1 (J. Adler): Knowledge resources in and for school mathematics teaching. - Chap. 2 (G. Gueudet & L. Trouche): Teachers’ work with resources: documentary geneses and professional geneses. - Chap. 3 (G. Senseny): Patterns of didactic intentions, thought collective and documentation work. - Chap. 4 (M. A. Mariotti & M. Maracci): Resources for the teacher from a semiotic mediation perspective. - Reaction to section 1: B. Barton. [...]

Fields of interest

Teaching and Teacher Education; Mathematics in the Humanities and Social Sciences

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012, XX, 363 p. 64 illus. (Mathematics Teacher Education, Vol. 7) Hardcover

139,95 €
ISBN 978-94-007-1965-1

2012, X, 268 p. 16 illus. Hardcover

99,95 €
ISBN 978-94-007-2456-3
International Perspectives on Teaching and Learning with GIS in Secondary Schools

This, the first publication to collate a broad international perspective on the pedagogical value of GIS technology in classrooms, offers an unprecedented range of expert views on the subject. Geographic Information Systems (GISs) are now ubiquitous and relatively inexpensive. They have revolutionized the way people explore and understand the world around them. The capability they confer allows us to capture, manage, analyze, and display geographic data in ways that were unheard of a generation ago. GIS has enabled users to make decisions and solve problems as diverse as designing bus routes, locating new businesses, responding to emergencies, and researching climate change. GIS is also having a major impact in the classroom. Students and teachers around the world are using this significant emerging technology in the secondary school classroom to study social and scientific concepts and processes, to broaden their technical skills, and to engage in problem solving and decision making about local [...] Features

This, the first publication to collate a broad international perspective on the pedagogical value of GIS technology in classrooms, offers an unprecedented range of expert views on the subject. Geographic Information Systems (GISs) are now ubiquitous and relatively inexpensive. They have revolutionized the way people explore and understand the world around them. The capability they confer allows us to [...] Contents


Science Education; Educational Technology; Geographical Information Systems / Cartography; Learning and Instruction

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XII, 303 p. 33 illus. (Studies in Educational Leadership, Vol. 15) Hardcover

99,95 €
ISBN 978-94-007-1726-8

Learning Trajectories, Innovation and Identity for Professional Development

Educators in the professions have always had unique demands placed upon them. These include the need to keep pace with rapidly evolving knowledge bases, developing skills and attitudes appropriate to practice, learning in the workplace and fostering public confidence. For twenty years, these new demands have created additional educational imperatives. Public accountability has become more intensive and extensive. Practitioners practice in climates more subject to scrutiny and less forgiving of error. The contexts in which professionals practice and learn have changed and these changes evolve global issues and problems. Often, professionals are the first responders who are required to take an active stance in defining and solving problems. This book explores the pedagogic implications of these challenges internationally for a wide range of professions which include: accountants, military company commanders, surgeons, nurse practitioners, academic, managers, community physicians and dentists. [...] Features

Educators in the professions have always had unique demands placed upon them. These include the need to keep pace with rapidly evolving knowledge bases, developing skills and attitudes appropriate to practice, learning in the workplace and fostering public confidence. For twenty years, these new demands have created additional educational imperatives. Public accountability has become more [...] Contents

Preface; Marcia Mientkowski. - Introduction; Anne Mc Kee and Michael Eraut. - 1. Developing a Broader Approach to Professional Learning; Michael Eraut.- 2. Knowledge Networks for Treating Complex Diseases in Remote, Rural and Underserved Communities; Sanjeev Arora, Summers Kalinahan, Denise Dion, Karla Thornton, Glen Murata, Connie Flassler, Steven M Jenksusky, Brooke Parish, Miriam Komaromy, Wesley Pak and John Brow. - 3. Using Simulation and Coaching as a Catalyst for Introducing Team Based Medical Error Disclosure; Lynne Robins, Peggy Odedge, Sarah Shannon, Carolyn Proudy, Sara Kim.,[...] Fields of interest

Professional and Vocational Education; Medical Education

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XIX, 283 p. 11 illus. (Innovation and Change in Professional Education, Vol. 7) Hardcover

99,95 €
ISBN 978-94-007-1723-7
Queer Masculinities
A Critical Reader in Education

Queer Masculinities: A Critical Reader in Education is a substantial addition to the discussion of queer masculinities, of the interplay between queer masculinities and education, and to the political gender discourse as a whole. Enriching the discourse of masculinity politics, the cross-section of scholarly interrogations of the complexities and contradictions of queer masculinities in education demonstrates that any serious study of masculinity—hegemonic or otherwise—must consider the theoretical and political contributions that the concept of queer masculinity makes to a more comprehensive and nuanced understanding of masculinity itself. The essays adopt a range of approaches from empirical studies to reflective theorizing, and address themselves to three separate educational realms: the K-12 level, the collegiate level, and the level in popular culture, which could be called 'cultural pedagogy'. The wealth of detailed analysis includes, for example, the notion that normative expectations and [...] Features

Queer Masculinities: A Critical Reader in Education makes a substantial contribution to contemporary scholarship on gender and sexuality studies in education. Collectively the essays in this volume illuminate a broad range of queer practices and representations of masculinity in education, demonstrating that any serious study of masculinity must consider the theoretical and political contributions that the [...] Contents

Part 1: Queer Masculinities at the K-12 Level. 1. Queering Masculinities in Male Teachers’ Lives; Wayne Martin. - 2. Queer Masculinities: Gender Conformity; and the Secondary School; Mark McCormack. - 3. Phallic Girls?: Girls’ Negotiation of Phallocentric Power; Emma Renold and Jessica Ringrose. - 4. The Queer in Masculinity: Schooling; Boys; and Identity Formation; Máirín Mac an Ghaill and Chris Haywood. - 5. Tangling with Masculinity: Butchness; Trans; and Feminism; Cris Mayo. - 6. Queering Classes: Disrupting Hegemonic Masculinity and the Effects of Compulsory Heterosexuality in the[...] Fields of interest

Sociology of Education; Gender Studies

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012, XIX, 315 p. 1 illus. (Explorations of Educational Purpose, Vol. 21) Hardcover

99.95 €


Research on e-Learning and ICT in Education

This book aims to serve as a multidisciplinary forum covering technical, pedagogical, organizational, instructional, as well as policy aspects of ICT in Education and e-Learning. Special emphasis is given to applied research relevant to educational practice guided by the educational realities in schools, colleges, universities and informal learning organizations. In a more generic scope, the volume aims to encompass current trends and issues determining ICT integration in practice, including learning and teaching, curriculum and instructional design, learning media and environments, teacher education and professional development, assessment and evaluation, etc.

Features

An essential text for researchers and academics seeking the most comprehensive and up-to-date coverage of all aspects of ICT in education and e-learning, this book is a multidisciplinary forum covering technical, pedagogical, organizational, instructional, and policy aspects of the topic. Special emphasis is given to applied research relevant to educational practice and guided by the educational realities[...].

Contents


Fields of interest

Educational Technology; Learning and Instruction; User Interfaces and Human Computer Interaction

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XXII, 316 p. 77 illus. Hardcover

119.95 €


Spelling Morphology

The Psycholinguistics of Hebrew Spelling

Modern Hebrew is a highly synthetic Semitic language—its lexicon is rich in morphemes. This volume supplies the first in-depth psycholinguistic analysis of the interaction between morphological knowledge and spelling in Hebrew. It also examines how far this model can be applied to other languages. Anchored to a connectionist, cognitive, cross-linguistic and typological framework, the study accords with today’s perception of spelling as being much more than a mere technical skill. Contemporary psycholinguistic literature views spelling as a window on what people know about words and their structure. The strong correlation between orthographies and morphological units makes linking consistent grammatical and lexical representation and spelling units in speaker–writer’s key research goal. Hebrew’s wealth of morphological structures, reflected in its written form, promotes morphological perception and strategies in those who speak and write it, adding vitality and relevance to this work.

Features

Modern Hebrew is a highly synthetic Semitic language—its lexicon is rich in morphemes. This volume supplies the first in-depth psycholinguistic analysis of the interaction between morphological knowledge and spelling in Hebrew. It also examines how far this model can be applied to other languages. Anchored to a connectionist, cognitive, cross-linguistic and typological framework, the study accords with[...].

Contents


Fields of interest

Language Education; Semitic Languages; Psycholinguistics; Comparative Linguistics; Applied Linguistics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XI, 187 p. 3 illus. (Literacy Studies, Vol. 3) Hardcover

89.95 €

ISBN 978-1-4419-0587-1
Surgical Education
Theorising an Emerging Domain

Surgical Education: Theorising an Emerging Domain delineates surgical (as opposed to medical) education as a new and emerging field of academic enquiry. This reflects profound changes in healthcare training and practice on an international basis. As such, this book introduces, examines and explores the contribution of selected concepts and theories to surgical learning and practice. The first four chapters consider core facets of surgical education, such as simulation, while subsequent chapters take a key idea, often well known in another field, and examine its relevance to surgical education. Of course, performing invasive procedures is no longer the exclusive preserve of ‘traditional’ surgeons. Boundaries between surgery and the interventional specialties (radiology, cardiology, intensive care) are becoming increasingly blurred, especially as technology continues to expand. Changing work patterns and explosive technological development mark this out as a major growth area.

New educational[...]

Features
This book delineates surgical education as a new and emerging field of academic enquiry. Surgical (as opposed to medical) education is emerging as a distinct field with its own identity. Surgeons have started to professionalise their educational role, and draw professional, non-surgeon educators into the field. Surgery is a near unique environment of learning and practice. The defining[...]

Contents

Fields of interest
Medical Education; Surgery

The Practice of Theoretical Curiosity

The Practice of Theoretical Curiosity advocates for a critical, aesthetic engagement in everyday life. Its purpose is to examine the pedagogical grounds and questions that motivate research programs in the sciences, education, technoculture and post-war social movements. Theoretical curiosity continually resists disciplinary limits. It is a core, embodied process uniting human pursuits of knowledge and power. This inquiry into inquiry itself offers an appreciation of the[...]

Features
The desire for knowledge is an abiding facet of human experience and cultural development. This work documents curiosity as a sociohistorical force initiating research across the disciplines. Projects generated by theoretical curiosity are presented as historical and material practices emerging as expressions of embodied knowledge and experience. The shifting cultural, philosophical and practical relations between theory and curiosity are situated within classical, medieval, early modern and contemporary communities of practice. The Practice of Theoretical Curiosity advocates for a critical, aesthetic engagement in everyday life. Its purpose is to examine the pedagogical grounds and questions that motivate research programs in the sciences, education, technoculture and post-war social movements. Theoretical curiosity continually resists disciplinary limits. It is a core, embodied process uniting human pursuits of knowledge and power. This inquiry into inquiry itself offers an appreciation of the[...]

Contents

Fields of interest
Educational Philosophy; Philosophy of Education; Phenomenology; History of Science

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XVIII, 158 p. (Explorations of Educational Purpose, Vol. 20) Hardcover
99,95 €
ISBN 978-94-007-2116-6
Work and Education in America

The Art of Integration

This, the first comprehensive academic volume on vocational education and training (VET) or career and technical education in the United States, features insights into a variety of issues in this field of research. The international reader will find an up-to-date synthesis as well as a critical analysis of the relevant history, philosophy, governance, legislation and organizational structures. The coverage is structured according to the benchmarks applied to, as well as the theoretical discussions around, VET. The topics covered all have a strong contemporary relevance and include education versus qualification, the American community college, the issue of localization versus globalization in governance, vocationalism in higher education, career guidance and career counselling, and apprenticeships in the U.S. This book supports the assertion of the relevance of career and technical education — both for the individual and the labour market. Scholars, policy makers and practitioners interested in [...]}

Contents

Fields of interest
Professional and Vocational Education; Lifelong Learning / Adult Education

Type of publication
Research

Usually dispatched within 3 to 5 business days

Advanced Dynamics and Model-Based Control of Structures and Machines

The book contains 26 scientific contributions by leading experts from Russia, Austria, Italy, Japan and Taiwan. It presents an overview on recent developments in Advanced Dynamics and Model Based Control of Structures and Machines. Main topics are nonlinear control of structures and systems, sensing and actuation, active and passive damping, nano- and micromechanics, vibrations and waves.

Features
The book contains 26 scientific contributions by leading experts from Russia, Austria, Italy, Japan and Taiwan. It presents an overview on recent developments in Advanced Dynamics and Model Based Control of Structures and Machines. Main topics are nonlinear control of structures and systems, sensing and actuation, active and passive damping, nano- and micromechanics, vibrations and waves.

Contents

Fields of interest
Mechatronics; Theoretical and Applied Mechanics; Mechanical Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

Advanced High Voltage Power Device Concepts

The devices described in “Advanced MOS-Gated Thyristor Concepts” are utilized in microelectronics production equipment, in power transmission equipment, and for very high power motor control in electric trains, steel-mills, etc. Advanced concepts that enable improving the performance of power thyristors are discussed here, along with devices with blocking voltage capabilities of 5,000-V, 10,000-V and 15,000-V. Throughout the book, analytical models are generated to allow a simple analysis of the structures and to obtain insight into the underlying physics. The results of two-dimensional simulations are provided to corroborate the analytical models and give greater insight into the device operation.

Features
Advanced High Voltage Power Device Concepts describes devices utilized in power transmission and distribution equipment, and for very high power motor control in electric trains and steel-mills. Since these devices must be capable of supporting more than 5000-volts in the blocking mode, this book covers operation of devices rated at 5,000-V, 10,000-V and 20,000-V. Advanced concepts (the MCT, the [...]}

Contents

Fields of interest
Power Electronics, Electrical Machines and Networks; Circuits and Systems; Electronics and Microelectronics, Instrumentation; Solid State Physics

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012, XVI, 568 p. 21 illus., 17 in color. Hardcover

169,95 €
ISBN 978-1-4614-0268-8
Advances in Cell Mechanics

"Advances in Cell Mechanics" presents the latest developments in cell mechanics and biophysics, mainly focusing on interdisciplinary research in cell biology and the biophysics of cells. Moreover, a unique feature of the book is its emphasis on the molecular and complex continuum modeling and simulations of the cells. It may be the first work that brings rigorous and quantitative scientific analysis and state-of-the-art simulation technology into cell biology research. The book is intended for researchers and graduate students working in the fields of molecular cell biology, bio-engineering and bio-mechanics, soft matter physics, computational mechanics, bio-chemistry and bio-medicine. All contributors are leading scholars in their respective fields. Dr. Shaofan Li is a professor and an expert for computational mechanics at the University of California-Berkeley, USA; Dr. Bohua Sun is a professor at Cape Peninsula University of Technology, South Africa.

Features
"Advances in Cell Mechanics" presents the latest developments in cell mechanics and biophysics, mainly focusing on interdisciplinary research in cell biology and the biophysics of cells. Moreover, a unique feature of the book is its emphasis on the molecular and complex continuum modeling and simulations of the cells. It may be the first work that brings rigorous and quantitative scientific analysis and [...]
**Advances in Computer Science, Intelligent Systems and Environment**

Vol.3

CSIIE2011 is an integrated conference concentrating its focus upon Computer Science/Intelligent System and Environment. In the proceeding, you can learn much more knowledge about Computer Science, Intelligent System and Environment of researchers all around the world. The international conference will provide a forum for engineers, scientists, teachers and all researchers to discuss their latest research achievements and their future research plan. The main role of the proceeding is to be used as an exchange pillar for researchers who are working in the mentioned field. In order to meet high standard of the organization committee has made their efforts to do the following things.

Firstly, poor quality paper has been refused after reviewing process. Secondly, periodically review meetings have been held around the conference. Finally, the conference organization had [..]

**Features**

CSIIE2011 is an integrated conference concentrating its focus upon Computer Science/Intelligent System and Environment. In the proceeding, you can learn much more knowledge about Computer Science, Intelligent System and Environment of researchers all around the world. The international conference will provide a forum for engineers, scientists, teachers and all researchers to discuss their latest research [..]

**Contents**

From the content: Study of University Physics Teaching Based on Information Technology with Education Practice. - Study of the Non-planarity of the Desargues Graph. - Using ontology and rough set building e-commerce knowledge management system. - Analyses on Influence of Training Data Set to Neural Network Supervised Learning Performance. - Multi-intelligence Agents Application in Cold-bending Formation Theory to Modification. - Reconstructing Scanning Information of 2D Contour in Direct Slicing for RP. - Situation and Risk of Earthquake-induced Geo-hazards in Middle Reaches of Bailongjiang [..]

**Advances in Numerical Modeling of Adhesive Joints**

This book deals with the most recent numerical modeling of adhesive joints. Advances in damage mechanics and extended finite element method are described in the context of the Finite Element method with examples of application. The book also introduces the classical continuum mechanics and fracture mechanics approach and discusses the boundary element method and the finite difference method with indication of the cases they are most adapted to. At the moment there is no numerical technique that can solve any problem and the analyst needs to be aware of the limitations involved in each case.

**Features**

This book deals with the most recent numerical modeling of adhesive joints. Advances in damage mechanics and extended finite element method are described in the context of the Finite Element method with examples of application. The book also introduces the classical continuum mechanics and fracture mechanics approach and discusses the boundary element method and the finite difference method with indication of [..]

**Fields of interest**

Continuum Mechanics and Mechanics of Materials; Surfaces and Interfaces, Thin Films; Operating Procedures, Materials Treatment

**Target groups**

Research

**Type of publication**

Proceedings

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

2012. W, 151 p. 64 illus. (SpringerBriefs in Computational Mechanics) Softcover

49,95 €

ISBN 978-3-642-23607-5

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**Analog Circuit Design**

Low Voltage Low Power, Short Range Wireless Front-Ends; Power Management and DC-DC

Analog Circuit Design contains the contribution of 18 tutorials of the 20th workshop on Advances in Analog Circuit Design. Each part discusses a specific topic on new and valuable design ideas in the area of analog circuit design. Each part is presented by six experts in that field and state of the art information is shared and overviewed. This book is number 20 in this successful series of Analog Circuit Design, providing valuable information and excellent overviews of: Topic 1:Low Voltage Low Power, chairman: Andrea Baschirotto Topic 2: Short Range Wireless Front-Ends, chairman: Arthur van Roermund Topic 3: Power Management and DC-DC, chairman: Michel Steyaert. Analog Circuit Design is an essential reference source for analog circuit designers and researchers wishing to keep abreast with the latest development in the field. The tutorial coverage also makes it suitable for use in an advanced design course.

**Features**

The book contains the contribution of 18 tutorials of the 20th workshop on Advances in Analog Circuit Design. Each part discusses a specific topic on new and valuable design ideas in the area of analog circuit design. Each part is presented by six experts in that field and state of the art information is shared and overviewed. This book is number 20 in this successful series of Analog Circuit [..]

**Contents**


**Fields of interest**

Circuits and Systems; Special Purpose and Application-Based Systems; Microwaves, RF and Optical Engineering

**Target groups**

Research

**Type of publication**

Monograph

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


99,95 €


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**Part I: Low-voltage Low-power Data Converters**

- Power minimization in ADC Design
- Low-power Pipelined A/D Conversion
- Low-power Successive Approximation ADCs for Wireless Applications
- Oversampling Converters Beyond Continuous-time Sigma-Delta for Nanometer CMOS Technologies
- Considerations for Cost-efficient Calibration of Scales
- A 12b 2.9GS/s DAC WITH IM3 < -60dBc Beyond 1GHz in 65NM CMOS

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**Part II: Short-range Wireless Front-Ends**

- Short Range Radio Communication
- Novel Applications and Their Physical Layer Requirements
- Ultra Low-power Wireless Body-area Sensor Networks

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**Fields of interest**

Circuits and Systems; Special Purpose and Application-Based Systems; Microwaves, RF and Optical Engineering

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**Target groups**

Research

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**Type of publication**

Monograph

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


99,95 €


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**Advances in Numerical Modeling of Adhesive Joints**

- Introduction
- Finite element method
- Boundary element method
- Boundary element method
- Conclusions

---

**Features**

This book deals with the most recent numerical modeling of adhesive joints. Advances in damage mechanics and extended finite element method are described in the context of the Finite Element method with examples of application. The book also introduces the classical continuum mechanics and fracture mechanics approach and discusses the boundary element method and the finite difference method with indication of [..]
Analog Electronic Filters
Theory, Design and Synthesis

There are some very good textbooks in Filter Theory and Design so why do we need a new one? We have been active in researching and teaching the field of electronic filters for more than three decades at both undergraduate and postgraduate courses and from our experience the depth and coverage offered by the existing books falls short on several counts. Indeed, most of the existing books concentrate on the active filters alone even though many of the design principles may stem from passive filter theory. Our long experience and involvement in all facets of the subject have enabled us to provide a coherent and seamless framework that encompasses passive and active filters and includes the most modern and up to date design methodologies. Analogical Electronic Filters is suitable both for undergraduate and postgraduate students and also for professionals who wish to understand in depth and apply filter synthesis and design methods. Recently one of the authors published a similar book in Greek. The[...]

Applications of Chaos and Nonlinear Dynamics in Engineering - Vol. 1

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 quantitative modeling and analysis of complex, nonlinear phenomena is required, chaos theory and its methods can play a key role. This volume concentrates on reviewing the most relevant contemporary applications of chaotic nonlinear systems as they apply to the various cutting-edge branches of engineering. The book covers the theory as applied to robotics, electronic communication engineering (for example chaos synchronization and cryptography) as well as to civil and mechanical engineering, where its use in damage monitoring and control is explored. Featuring contributions from active and leading research groups, this collection is ideal both as a reference and as a[...]

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 quantitative modeling and analysis of complex, nonlinear phenomena is [...]

Contents

Fields of interest
Circuits and Systems; Solid State Physics; Spectroscopy and Microscopy

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days
October 31, 2011

89,95 €
ISBN 978-94-007-2189-0

At Home in Space
The Late Seventies into the Eighties

This volume, like the others, not only focuses upon the individual missions within the decade but also upon key challenges facing human space exploration at specific points within those years—from the problems of simply breathing and eating in space to the challenges of venturing outside in a pressurized spacesuit, the development of newer and better space toilets, and the difficulties of locomotion on the Moon. The Eighties was a time when traveling into space far more commonplace. Examining in detail the American and Soviet fronts, Ben Evans gives a comprehensive analysis of the varying fortunes of the U.S. space shuttle in the Eighties, including its early test flights and commercial flights, its problems, the 51L tragedy and its aftermath, and the resumption of operations with STS-26. The U.S. story ends with STS-37 in April 1991. In the Soviet sphere, two pivotal space station efforts - Salyut 7 and its successor, Mir - are considered, showing how they were alike and different.

Features
April 12, 2011, is the 50th anniversary of Yuri Gagarin’s pioneering journey into space. To commemorate this momentous achievement, Springer-Praxis is producing a mini series of books that reveals how humanity’s knowledge of flying, working, and living in space has grown in the last half century. At Home in Space, the third book in the series, continues the story throughout the later Seventies[...]

Contents
Contents. Illustrations. Author’s Preface. Acknowledgements.- Chapter 1: Unlikely partners.- Chapter 2: A home after Apollo.- Chapter 3: A tale of two pivotal space station efforts - Salyut 7 and its successor, Mir - are considered, showing how they were alike and different.

Fields of interest
Aerospace Technology and Astronautics; Popular Science in Astronomy; Extraterrestrial Physics, Space Sciences

Target groups
Popular/general

Type of publication
Popular science

Usually dispatched within 3 to 5 business days

2012. XIII, 481 p. 65 Illus., 49 in color. (Space Exploration) Softcover
39,95 €
ISBN 978-1-4419-8809-6
Atomic Force Microscopy Based Nanorobotics

Modelling, Simulation, Setup Building and Experiments

The atomic force microscope (AFM) has been successfully used to perform nanorobotic manipulation operations on nanoscale entities such as particles, nanotubes, nanowires, nanocrystals, and DNA since 1990s. There have been many progress on modeling, imaging, teleoperated or automated control, human-machine interfacing, instrumentation, and applications of AFM based nanorobotic manipulation systems in literature. This book aims to include all of such state-of-the-art progress in an organized, structured, and detailed manner as a reference book and also potentially a textbook in nanorobotics and any other nanoscale dynamics, systems and controls related research and education. Clearly written and well-organized, this text introduces designs and prototypes of the nanorobotic systems in detail with innovative principles of three-dimensional manipulation force microscopy and parallel imaging/manipulation force microscopy.

Features

The atomic force microscope (AFM) has been successfully used to perform nanorobotic manipulation operations on nanoscale entities such as particles, nanotubes, nanowires, nanocrystals, and DNA since 1990s. There have been many progress on modeling, imaging, teleoperated or automated control, human-machine interfacing, instrumentation, and applications of AFM based nanorobotic manipulation systems in...
CMOS High Efficiency On-chip Power Management

This book will introduce various power management integrated circuits (IC) design techniques to build future energy-efficient "green" electronics. The goal is to achieve high efficiency, which is essential to meet consumers' growing need for longer battery lives. The focus is to study topologies amiable for full on-chip implementation (few external components) in the mainstream CMOS technology, which will reduce the physical size and the manufacturing cost of the devices.

Features
This book deals with the subject matter of power management integrated circuit (IC) design, or integrated power electronics, as a response to the growing need for energy-efficient electronics. The authors introduce various power management IC design techniques to build future energy-efficient "green" electronics. The goal is to achieve high efficiency, which is essential to meet consumers' growing need for [..]

Contents

Fields of interest
Circuits and Systems; Electronics and Microelectronics, Instrumentation; Power Electronics, Electrical Machines and Networks

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 120 p. 74 illus. (Analog Circuits and Signal Processing) Hardcover
99,95 €
ISBN 978-1-4419-9525-4

Computational Design Modeling

Proceedings of the Design Modeling Symposium Berlin 2011

This book publishes the peer-reviewed proceeding of the third Design Modeling Symposium Berlin. The conference constitutes a platform for dialogue on experimental practice and research within the field of computationally informed architectural design. More than 60 leading experts the computational processes within the field of computationally informed architectural design. The focus is to study topologies amiable for full on-chip implementation (few external components) in the mainstream CMOS technology, which will reduce the physical size and the manufacturing cost of the devices.

Features
This book deals with the subject matter of power management integrated circuit (IC) design, or integrated power electronics, as a response to the growing need for energy-efficient electronics. The authors introduce various power management IC design techniques to build future energy-efficient "green" electronics. The goal is to achieve high efficiency, which is essential to meet consumers' growing need for [..]

Contents

Fields of interest
Circuits and Systems; Electronics and Microelectronics, Instrumentation; Power Electronics, Electrical Machines and Networks

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XVI, 348 p. 346 illus., 254 in color. Hardcover
189,95 €
ISBN 978-3-642-23434-7

Dynamic Response of Linear Mechanical Systems

Modeling, Analysis and Simulation

Dynamic Response of Linear Mechanical Systems: Modeling, Analysis and Simulation can be utilized for a variety of courses, including junior and senior-level vibration and linear mechanical analysis courses. The author connects, by means of a rigorous, yet intuitive approach, the theory of vibration with the more general theory of systems. The book features: A seven-step modeling technique that helps structure the rather unstructured process of mechanical-system modelingA system-theoretic approach to deriving the time response of the linear mathematical models of mechanical systemsThe modal analysis and the time response of two-degree-of-freedom systems—the first step on the long way to the more elaborate study of multi-degree-of-freedom systems—using the Mohr circleSimple, yet powerful simulation algorithms that exploit the linearity of the system for both single- and multi-degree-of-freedom systemsExamples and exercises that rely on modern computational toolboxes for both numerical and symbolic[..]

Features
Dynamic Response of Linear Mechanical Systems: Modeling, Analysis and Simulation can be utilized for a variety of courses, including junior and senior-level vibration and linear mechanical analysis courses. The author connects, by means of a rigorous, yet intuitive approach, the theory of vibration with the more general theory of systems. The book features: A seven-step modeling technique that [..]

Contents

Fields of interest
Control , Robotics, Mechatronics; Mechanical Engineering

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

79,95 €
ISBN 978-1-4419-1026-4
Embedded Automation in Human-Agent Environment

This research book proposes a general conceptual framework for the development of automation in human-agents environments that will allow human-agent teams to work effectively and efficiently. We examine various schemes to implement artificial intelligence techniques in agents. The text is directed to the scientists, application engineers, professors and students of all disciplines, interested in the agency methodology and applications.

Features
This research book proposes a general conceptual framework for the development of automation in human-agents environments that will allow human-agent teams to work effectively and efficiently. We examine various schemes to implement artificial intelligence techniques in agents. The text is directed to the scientists, application engineers, professors and students of all disciplines, interested in the agency methodology and applications.

Contents
Introduction to Embedded Automation.- 2 Innovation in Modern Artificial Intelligence.- 3 Research Directions in Automation.- 4 Agent System Frameworks.- 5 Agent Interoperability and Adaptation.- 6 Enhancing Autonomy.- 7 Improving Agent Architectures.- 8 Agent Oriented Programming.- 9 Creating an Agent Factory.- 10 Case Study Background - Sudoku.- 11 Problem Solving Workshop.- 12 Future and Direction.

Fields of interest
Computational Intelligence; Artificial Intelligence (incl. Robotics); User Interfaces and Human Computer Interaction

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XX, 212 p. 36 illus. (Adaptation, Learning, and Optimization, Vol. 10) Hardcover

99,95 €
ISBN 978-3-642-22675-5

Energy Efficiency and Renewable Energy Through Nanotechnology

Reflecting the rapid growth of nanotechnology research and the potential impact of the growing energy crisis, Energy Efficiency and Renewable Energy Through Nanotechnology provides comprehensive coverage of cutting-edge research in the energy-related fields of nanoscience and nanotechnology, which aim to improve energy efficiency and the generation of renewable energy. Energy Efficiency and Renewable Energy Through Nanotechnology tightly correlates nanotechnology with energy issues in a general, comprehensive way that makes it not only suitable as a desk reference for research, but also as a knowledge resource for the non-expert general public. Readers will find Energy Efficiency and Renewable Energy Through Nanotechnology useful in a variety of ways, ranging from the creation of energy policy, to energy research development, and to education in nanotechnology and its application to energy-related problems. It can also be used as a primary or supplementary textbook for energy-related courses for [...]
Ensembles in Machine Learning Applications

This book contains the extended papers presented at the 3rd Workshop on Supervised and Unsupervised Ensemble Methods and their Applications (SUEnMA) that was held in conjunction with the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD 2010, Barcelona, Catalonia, Spain). As its two predecessors, its main theme was ensembles of supervised and unsupervised algorithms – advanced machine learning and data mining technique. Unlike a single classification or clustering algorithm, an ensemble is a group of algorithms, each of which first independently solves the task at hand by assigning a class or cluster label (voting) to instances in a dataset and after that all votes are combined together to produce the final class or cluster membership. As a result, ensembles often outperform best single algorithms in many real-world problems. This book consists of 14 chapters, each of which can be read independently of the others. In addition to two, [...]

Features

This book contains the extended papers presented at the 3rd Workshop on Supervised and Unsupervised Ensemble Methods and their Applications (SUEnMA) that was held in conjunction with the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD 2010, Barcelona, Catalonia, Spain). As its two predecessors, its main theme was ensembles of [...]

Contents


Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics)

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days


Environmental Wind Engineering and Design of Wind Energy Structures

The book presents a state-of-the-art in environmental aerodynamics and the structural design of wind energy support structures, particularly from a modern computational perspective. Examples include real-life applications dealing with pollutant dispersion in the building environment, pedestrian-level winds, comfort levels, relevant legislation and remedial measures. Design methodologies for wind energy structures include reliability assessment and code frameworks.

Features

The book presents a state-of-the-art in environmental aerodynamics and the structural design of wind energy support structures, particularly from a modern computational perspective. Examples include real-life applications dealing with pollutant dispersion in the building environment, pedestrian-level winds, comfort levels, relevant legislation and remedial measures. Design methodologies for wind energy [...]

Contents


Fields of interest

Engineering Fluid Dynamics; Renewable and Green Energy; Building Construction, HVAC, Refrigeration; Energy Efficiency (incl. Buildings)

Target groups

Research

Type of publication

Monograph

Online orders shipping within 2-3 days.


Eurofuse 2011

Workshop on Fuzzy Methods for Knowledge-Based Systems

This carefully edited book comprises the papers from EUROFUSE 2011 Workshop on Fuzzy Methods for Knowledge-based Systems. EUROFUSE was established in 1998 as the EURO (the Association of European Operational Research Societies) Working Group on Fuzzy Sets, as a successor of the former European Chapter of IFSA (the International Fuzzy Systems Association). The present EUROFUSE 2011 workshop is held at Régua, Portugal, 21-23 September, in the World Heritage Site of the Douro Wine Region and is organised by Pedro Melo-Pinto and Pedro Couto. The workshop is devoted to Fuzzy Methods for Knowledge-based Systems. And has the goal to bring together researchers and practitioners developing and applying fuzzy techniques in preference modelling and decision making in an informal atmosphere. EUROFUSE 2011 has three distinguished invited speakers: Francisco Herrera (Granada, Spain), Radko Mesiar (Bratislava, Slovakia) and Jose Luis Garcia Lapresta (Valladolid, Spain). Next to the invited speakers, the three day [...]
Fast Spectrum Reactors

This book is a complete update of the classic 1981 FAST BREEDER REACTORS textbook authored by Alan E. Waltar and Albert B. Reynolds, which, along with the Russian translation, served as a major reference book for fast reactors systems. Major updates include transmutation physics (a key technology to substantially ameliorate issues associated with the storage of high-level nuclear waste), advances in fuels and materials technology (including metal fuels and cladding materials capable of high-temperature and high burnup), and new approaches to reactor safety (including passive safety technology). New chapters on gas-cooled and lead-cooled fast spectrum reactors are also included. Key international experts contributing to the text include Chaim Braun, (Stanford University) Ronald Ombreg, (Pacific Northwest National Laboratory), Massimo Salvatores (CEA, France), Baldev Raj, (Indira Gandhi Center for Atomic Research, India), John Sackett (Argonne National Laboratory), Kevan Weaver, (TerraPower). Features

Fast Spectrum Reactors presents a detailed overview of world-wide technology contributing to the development of fast spectrum reactors. With a unique focus on the capabilities of fast spectrum reactors to address nuclear waste transmutation issues, in addition to the well-known capabilities of breeding new fuel, this volume describes how fast spectrum reactors contribute to the wide application of nuclear power.

Contents


Nuclear Engineering; Nuclear Chemistry; Nuclear Physics, Heavy Ions, Hadrons; Energy Technology

Target Groups

Professional/practitioner

Type of Publication

Professional book

Usually dispatched within 3 to 5 business days

Fiber-Optic Transmission Networks

Efficient Design and Dynamic Operation

Next generation optical communication systems will have to transport a significantly increased data volume at a reduced cost per transmitted bit. To achieve these ambitious goals optimum design is crucial in combination with dynamic adaptation to actual traffic demands and improved energy efficiency. In the first part of the book the author elaborates on the design of optical transmission systems. Several methods for efficient numerical simulation are presented ranging from meta-model based optimization to parallelization techniques for solving the nonlinear Schrödinger equation. Furthermore, fast analytical and semi-analytical models are described to estimate the various degradation effects occurring on the transmission line. In the second part of the book operational aspects of optical networks are investigated. Physical layer impairment-aware routing and regenerator placement are studied. Finally, it is analyzed how the energy efficiency of a multi-layer optical core network can be increased by [...].

Features

Next generation optical communication systems will have to transport a significantly increased data volume at a reduced cost per transmitted bit. To achieve these ambitious goals optimum design is crucial in combination with dynamic adaptation to actual traffic demands and improved energy efficiency. In the first part of the book the author elaborates on the design of optical transmission systems. Several methods for efficient numerical simulation are presented ranging from meta-model based optimization to parallelization techniques for solving the nonlinear Schrödinger equation. Furthermore, fast analytical and semi-analytical models are described to estimate the various degradation effects occurring on the transmission line. In the second part of the book operational aspects of optical networks are investigated. Physical layer impairment-aware routing and regenerator placement are studied. Finally, it is analyzed how the energy efficiency of a multi-layer optical core network can be increased by [...].

Contents


Fields of Interest

Communications Engineering, Networks; Signal, Image and Speech Processing; Microwaves, RF and Optical Engineering

Target Groups

Research

Type of Publication

Monograph

Usually dispatched within 3 to 5 business days

Fractional Order Signal Processing

Introductory Concepts and Applications

The book tries to briefly introduce the diverse literatures in the field of fractional order signal processing which is becoming an emerging topic among an interdisciplinary community of researchers. This book is aimed at postgraduate and beginning level research scholars who would like to work in the field of Fractional Order Signal Processing (FOSP). The readers should have preliminary knowledge about basic signal processing techniques. Prerequisite knowledge of fractional calculus is not essential and is exposed at relevant places in connection to the appropriate signal processing topics. Basic signal processing techniques like filtering, estimation, system identification, etc. in the light of fractional order calculus are presented along with relevant application areas. The readers can easily extend these concepts to varied disciplines like image or speech processing, pattern recognition, time series forecasting, financial data analysis and modeling, traffic modeling in communication channels.[...].

Features

The book tries to briefly introduce the diverse literatures in the field of fractional order signal processing which is becoming an emerging topic among an interdisciplinary community of researchers. This book is aimed at postgraduate and beginning level research scholars who would like to work in the field of Fractional Order Signal Processing (FOSP). The readers should have preliminary knowledge about [...].

Contents


Fields of Interest

Appl. Mathematics / Computational Methods of Engineering; Signal, Image and Speech Processing; Computational Science and Engineering

Target Groups

Research

Type of Publication

Brief

Usually dispatched within 3 to 5 business days

2012, Softcover 101 p. 6 illus., 5 in color. (SpringerBriefs in Applied Sciences and Technology) ISBN 978-3-642-23116-2 49,95 €

Functional Observers for Dynamical Systems

The theory of linear functional observers, which is the subject of this book, is increasingly becoming a popular researched topic because of the many advantages it presents in state observation and control system design. This book presents recent information on the current state of the art research in this field. This book will serve as a useful reference to researchers in this area of research to understand the fundamental concepts relevant to the theory of functional observers and to gather most recent advancements in the field. This book is useful to academics and postgraduate students researching into the theory of linear functional observers. This book can also be useful for specialized final year undergraduate courses in control systems engineering and applied mathematics with a research focus.

Features

The theory of linear functional observers, which is the subject of this book, is increasingly becoming a popular researched topic because of the many advantages it presents in state observation and control system design. This book presents recent information on the current state of the art research in this field. This book will serve as a useful reference to researchers in this area of research to understand the fundamental concepts relevant to the theory of functional observers and to gather most recent advancements in the field. This book is useful to academics and postgraduate students researching into the theory of linear functional observers. This book can also be useful for specialized final year undergraduate courses in control systems engineering and applied mathematics with a research focus.

Contents


Fields of interest

Control; Systems Theory; Control

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 220 p. 24 illus. (Lecture Notes in Control and Information Sciences, Vol. 420) Hardcover

79,95 €
ISBN 978-3-642-24063-8

Gas Hydrates

Immense Energy Potential and Environmental Challenges

Gas hydrates are both a huge energy resource and an environmental challenge. They have a significant impact on society because of their applications to the future of energy, protection of the environment and fuel transportation. Gas Hydrates opens up this fascinating, multidisciplinary field to non-specialists. It provides a scientific study of gas hydrates that considers their potential as an energy source while assessing the possible risk to the environment. The authors also examine the feasibility of using these natural compounds for storing and transporting gases such as methane and carbon dioxide. Diagrams and photos are used throughout Gas Hydrates to help readers understand the scientific and technical content. Each section has been designed so it can be read independently by academics and professionals in the oil and gas industry, as well as by all those with an interest in how hydrates combine to be an energy resource, an industrial challenge and a geological hazard.

Features

Gas hydrates are both a huge energy resource and an environmental challenge. They have a significant impact on society because of their applications to the future of energy, protection of the environment and fuel transportation. Gas Hydrates opens up this fascinating, multidisciplinary field to non-specialists. It provides a scientific study of gas hydrates that considers their potential as an energy source, an industrial challenge and a geological hazard.

Fields of interest

Renewable and Green Energy; Renewable and Green Energy; Sustainable Development; Mineral Resources; Oceanography

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011. XIV, 175 p. 130 illus., 25 in color. (Green Energy and Technology) Hardcover

99,95 €
ISBN 978-0-85729-955-0

Human – Computer Systems Interaction: Backgrounds and Applications 2

Part 1

The main contemporary human-system interaction (H-SI) problems consist in design and/or improvement of the tools for effective exchange of information between individual humans or human groups and technical systems created for humans aiding in reaching their vital goals. This book is a second issue in a series devoted to the novel in H-SI results and contributions reached for the last years by many research groups in European and extra-European countries. The preliminary (usually shortened) versions of the chapters were presented as conference papers at the 3rd International Conference on H-SI held in Rzeszow, Poland, in 2010. A large number of valuable papers selected for publication caused a necessity to publish the book in two volumes. The given, 1st Volume consists of sections devoted to 1. Decision Supporting Systems, II. Distributed Knowledge Bases and WEB Systems and III. Impaired Persons Aiding Systems. The decision supporting systems concern various application areas, like enterprises...[-]

Features

The main contemporary human-system interaction (H-SI) problems consist in design and/or improvement of the tools for effective exchange of information between individual humans or human groups and technical systems created for humans aiding in reaching their vital goals. This book is a second issue in a series devoted to the novel in H-SI results and contributions reached for the last years by many research...

Contents


Fields of interest

Computational Intelligence; Artificial Intelligence (incl. Robotics); User Interfaces and Human Computer Interaction

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 600 p. 318 illus., 185 in color. (Advances in Intelligent and Soft Computing, Vol. 98) Softcover

249,00 €
ISBN 978-3-642-23186-5
Introduction to Hardware Security and Trust

This book provides the foundations for understanding hardware security and trust, which have become major concerns for national security over the past decade. Coverage includes security and trust issues in all types of electronic devices and systems such as ASICs, COTS, FPGAs, microprocessors/DSPs, and embedded systems. This serves as an invaluable reference to the state-of-the-art research that is of critical significance to the security of, and trust in, modern society’s microelectronic-supported infrastructures.

Features
The emergence of a globalized, horizontal semiconductor business model raises a set of concerns involving the security and trust of the information systems on which modern society is increasingly reliant for mission-critical functionality. Hardware-oriented security and trust issues span a broad range including threats related to the malicious insertion of Trojan circuits designed, e.g., to act as a ‘kill’ [...]
Logistic Core Operations with SAP

Logistic Core Operations with SAP not only provides an overview of core logistics processes and functionality—it also shows how SAP’s Business Suite covers logistic core operations, what features are supported, and which systems can be used to implement end-to-end processes in the following logistic core disciplines: Procurement, Distribution, Transportation, Warehouse Logistics and Inventory Management, and Compliance and Reporting.

In this context the authors not only explain their integration, the organizational set-up, and master data, but also which solution fits best for a particular business need. This book serves as a solid foundation for understanding SAP software. No matter whether you are a student or a manager involved in an SAP implementation, the authors go far beyond traditional function and feature descriptions, helping you ask the right questions, providing answers, and making recommendations. The book assists you in understanding SAP terminology, concepts and technological aspects.

Features

"Logistic Core Operations with SAP" not only provides an overview of core logistics processes and functionality—it also shows how SAP’s Business Suite covers logistic core operations, what features are supported, and which systems can be used to implement end-to-end processes in the following logistic core disciplines: Procurement, Distribution, Transportation, Warehouse Logistics and Inventory Management.

Contents


Fields of interest

Engineering Economics, Organization, Logistics, Marketing; Computer Applications; Management of Computing and Information Systems; Production / Logistics; Information Systems Applications (incl.Internet)

Target groups

Professional/practitioner

Type of publication

Professional book

Online orders shipping within 2-3 days.

2011. VIII, 264 p. 168 illus. Hardcover

99.95 €

ISBN 978-3-642-18203-7

Low Power RF Circuit Design in Standard CMOS Technology

Low Power Consumption is one of the critical issues in the performance of small battery-powered handheld devices. Mobile terminals feature an ever increasing number of wireless communication alternatives including GPS, Bluetooth, GSM, 3G, WiFi or DVB-H. Considering that the total power available for each terminal is limited by the relatively slow increase in battery performance expected in the near future, the need for efficient circuits is now critical. This book presents the basic techniques available to design low power RF CMOS analogue circuits. It gives circuit designers a complete guide of alternatives to optimize power consumption and explains the application of these rules in the most common RF building blocks: LNA, mixers and PLLs. It is set out using practical examples and offers a unique perspective as it targets designers working within the standard CMOS process and all the limitations inherent in these technologies.

Features

Low Power Consumption is one of the critical issues in the performance of small battery-powered handheld devices. Mobile terminals feature an ever increasing number of wireless communication alternatives including GPS, Bluetooth, GSM, 3G, WiFi or DVB-H. Considering that the total power available for each terminal is limited by the relatively slow increase in battery performance expected in the near future, the [...]
Managing Temperature Effects in Nanoscale Adaptive Systems

This book discusses new techniques for detecting, controlling, and exploiting the impacts of temperature variations on nanoscale circuits and systems. A new sensor system is described that can determine the temperature dependence as well as the operating temperature to improve system reliability. A new method is presented to control a circuit’s temperature dependence by individually tuning pull-up and pull-down networks to their temperature-insensitive operating points. This method extends the range of supply voltages that can be made temperature-insensitive, achieving insensitivity at nominal voltage for the first time.

Features
This book discusses new techniques for detecting, controlling, and exploiting the impacts of temperature variations on nanoscale circuits and systems. It provides a holistic discussion of temperature management, including physical phenomena (reversal of the MOSFET temperature coefficient) that have recently become problematic, along with circuit techniques for detecting, controlling, and adapting to these [..]

Contents

Fields of interest
Circuits and Systems; Electronics and Microelectronics; Instrumentation; Nanotechnology and Microengineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XXII, 174 p. 108 illus. Hardcover

99,95 €
ISBN 978-1-4614-0747-8

Mechanical Vibrations

Modeling and Measurement

Mechanical Vibrations: Modeling and Measurement describes essential concepts in vibration analysis of mechanical systems. It incorporates the required mathematics, experimental techniques, fundamentals of modal analysis, and beam theory into a unified framework that is written to be accessible to undergraduate students, researchers, and practicing engineers. To unify the various concepts, a single experimental platform is used throughout the text. Engineering drawings for the platform are included in an appendix. Additionally, MATLAB programming solutions are integrated into the content throughout the text.

Features
Mechanical Vibrations: Modeling and Measurement describes essential concepts in vibration analysis of mechanical systems. It incorporates the required mathematics, experimental techniques, fundamentals of modal analysis, and beam theory into a unified framework that is written to be accessible to undergraduate students, researchers, and practicing engineers. To unify the various concepts, a single [..]

Contents

Fields of interest
Vibration, Dynamical Systems, Control, Theoretical and Applied Mechanics; Mechanics

Target groups
Upper undergraduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. XII, 378 p. 314 illus. Hardcover

69,95 €
ISBN 978-1-4614-0459-0

Mechanics of Crustal Rocks

The mechanical behaviour of the earth’s upper crust enters into a great variety of questions in different areas of the geological and geophysical sciences as well as in the more applied geotechnical disciplines. This volume presents a selection of papers from a CISM course in Udine on this topic. While each of these chapters will make for a useful contribution in its own right, the present bundle also illustrates, by way of examples, the variety of theoretical concepts and tools that are currently brought to bear on earth deformation studies, ranging from reviews of poroelastic field theory to micro-mechanical and homogenization studies, chemomechanics and interfacial stability theory of soluble solids under stress, and finally to an introduction to the finite element method.

Features
The mechanical behaviour of the earth’s upper crust enters into a great variety of questions in different areas of the geological and geophysical sciences as well as in the more applied geotechnical disciplines. This volume presents a selection of papers from a CISM course in Udine on this topic. While each of these chapters will make for a useful contribution in its own right, the present bundle also [..]

Contents

Fields of interest
Continuum Mechanics and Mechanics of Materials; Geotechnical Engineering & Applied Earth Sciences; Characterization and Evaluation of Materials

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. VIII, 240 p. 42 illus. (CISM International Centre for Mechanical Sciences, Vol. 533) Hardcover

119,00 €
ISBN 978-3-7091-0938-0
Mechatronic Systems

**Methods, Models, Concepts**

In this textbook, fundamental methods for model-based design of mechatronic systems are presented in a systematic, comprehensive form. The method framework presented here comprises domain-neutral methods for modeling and performance analysis: multi-domain modeling (energy/feature/signal-based), simulation (ODE/DAE/hybrid systems), robust control methods, stochastic dynamic analysis, and quantitative evaluation of designs using system budgets. The model framework is composed of analytical dynamic models for important physical and technical domains of realization of mechatronic functions, such as multibody dynamics, digital information processing and electromechanical transducers. Building on the modeling concept of a technology-independent generic mechatronic transducer, concrete formulations for electrostatic, piezoelectric, electromagnetic, and electrodynamic transducers are presented. More than 50 fully worked out design examples clearly illustrate these methods and concepts and enable independent study.

**Features**

In this textbook, fundamental methods for model-based design of mechatronic systems are presented in a systematic, comprehensive form. The method framework presented here comprises domain-neutral methods for modeling and performance analysis: multi-domain modeling (energy/feature/signal-based), simulation (ODE/DAE/hybrid systems), robust control methods, stochastic dynamic analysis, and quantitative evaluation.

**Contents**


**Fields of interest**

Mechatronics; Control; Robotics and Automation

**Target groups**

Upper undergraduate

**Type of publication**

Graduate/advanced undergraduate textbook

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

2012. XXI, 805 p. 380 illus. Hardcover

99,95 €
ISBN 978-3-642-17530-5

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Mechatronics

**Recent Technological and Scientific Advances**

The book "Mechatronics: Recent Technological and Scientific Advances" provides comprehensive and accessible coverage of the evolving disciplines of mechatronics for nanotechnology, automatic control & robotics, biomedical engineering, design manufacturing and testing of MEMS, metrology, photonics, mechatronic products majors. It is already the third volume following the previous editions in 2007 and 2009 providing a recent state of advances in mechatronics presented on the 9th International Conference Mechatronics 2011, hosted this year at the Faculty of Mechatronics, Warsaw University of Technology, Poland.

**Features**

The book "Mechatronics: Recent Technological and Scientific Advances" provides comprehensive and accessible coverage of the evolving disciplines of mechatronics for nanotechnology, automatic control & robotics, biomedical engineering, design manufacturing and testing of MEMS, metrology, photonics, mechatronic products majors. It is already the third volume following the previous editions in 2007 and 2009.

**Contents**


**Fields of interest**

Mechatronics; Control; Robotics and Automation

**Target groups**

Research

**Type of publication**

Proceedings

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

2012. XIV, 798 p. 525 illus., 338 in color. Hardcover

249,00 €
ISBN 978-3-642-23243-5

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Mechatronic Systems

**Design**

K. Janschek, TU Dresden, Germany

**Contents**


**Fields of interest**

Mechatronics; Control; Robotics and Automation

**Target groups**

Upper undergraduate

**Type of publication**

Graduate/advanced undergraduate textbook

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

2012. XXI, 805 p. 380 illus. Hardcover

99,95 €
ISBN 978-3-642-17530-5

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Mechatronic Systems

**Analysis, Design and Implementation**

This book deals with the analysis, the design and the implementation of the mechatronic systems. Classical and modern tools are developed for the analysis and the design for such systems. Robust control, H-Infinity and guaranteed cost control theory are also used for analysis and design of mechatronic systems. Different controller such as state feedback, static output feedback and dynamic output feedback controllers are used to stabilize mechatronic systems. Heuristic algorithms are provided to solve the design of the classical controller such as PID, phase lead, phase lag and phase lead-lag controllers while linear matrix inequalities (LMI) algorithms are provided for finding solutions to the state feedback, static output feedback and dynamic output feedback controllers. The theory presented in the different chapters of the volume is applied to numerical examples to show the usefulness of the theoretical results. Some case studies are also provided to show how the developed concepts apply for real world problems.

**Features**

This book deals with the analysis, the design and the implementation of the mechatronic systems. Classical and modern tools are developed for the analysis and the design for such systems. Robust control, H-Infinity and guaranteed cost control theory are also used for analysis and design of mechatronic systems. Different controller such as state feedback, static output feedback and dynamic output feedback controllers are used to stabilize mechatronic systems. Heuristic algorithms are provided to solve the design of the classical controller such as PID, phase lead, phase lag and phase lead-lag controllers while linear matrix inequalities (LMI) algorithms are provided for finding solutions to the state feedback, static output feedback and dynamic output feedback controllers. The theory presented in the different chapters of the volume is applied to numerical examples to show the usefulness of the theoretical results. Some case studies are also provided to show how the developed concepts apply for real world problems.

**Contents**


**Fields of interest**

Mechatronics; Control; Electronics and Microelectronics; Instrumentation; Simulation and Modeling; Engineering Design

**Target groups**

Research

**Type of publication**

Monograph

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

2012. XXII, 502 p. 145 illus., 58 in color. Hardcover

169,95 €
ISBN 978-3-642-23243-5
Memory Controllers for Real-Time Embedded Systems

Predicatable and Composable Real-Time Systems

Verification of real-time requirements in systems-on-chip becomes more complex as more applications are integrated. Predicatable and composable systems can manage the increasing complexity using formal verification and simulation. This book explains the concepts of predictability and compositability and shows how to apply them to the design and analysis of a memory controller, which is a key component in any real-time system.

Features
Verification of real-time requirements in systems-on-chip becomes more complex as more applications are integrated. Predicatable and composable systems can manage the increasing complexity using formal verification and simulation. This book explains the concepts of predictability and compositability and shows how to apply them to the design and analysis of a memory controller, which is a key component in any real-time system.

Contents

Fields of interest
Circuits and Systems; Memory Structures

Target groups
Research

Type of publication
Monograph

Methods and Tastes in Modern Continuum Mechanics

To the Memory of Donald E. Carlson

This book is dedicated to the memory of Donald E. Carlson, who enjoyed a long distinguished career as a Professor of Theoretical and Applied Mechanics at the University of Illinois at Urbana-Champaign; he influenced the mechanics community through his teachings, publications and interactions. The book disseminates unique research investigations which give breadth and depth to the field of continuum mechanics and provide a vision for future advancements. The common bond of Don’s publications was his sound theoretical developments and fundamental insight. He carefully delineated the principal roles of kinematics, conservation laws (including the second law of thermodynamics) and constitutive assumptions not only in his discussions and writings about fundamentals in mechanics but also in his work on the formulation of initial-boundary value problems that arise in modeling the behavior of elastic and thermoelastic bodies. This book expands this lucid practice by applying these roles to model a plethora [...]
Multi-objective Evolutionary Optimisation for Product Design and Manufacturing

With the increasing complexity and dynamism in today’s product design and manufacturing, more optimal, robust and practical approaches and systems are needed to support product design and manufacturing activities. Multi-objective Evolutionary Optimisation for Product Design and Manufacturing presents a focused collection of quality chapters on state-of-the-art research efforts in multi-objective evolutionary optimisation, as well as their practical applications to integrated product design and manufacturing. Multi-objective Evolutionary Optimisation for Product Design and Manufacturing consists of two major sections. The first presents a broad-based review of the key areas of research in multi-objective evolutionary optimisation. The second gives in-depth treatments of selected methodologies and systems in intelligent design and integrated manufacturing. Recent developments and innovations in multi-objective evolutionary optimisation make Multi-objective Evolutionary Optimisation for Product Design [...]
Multiphase Flow Dynamics 3

Thermal Interactions

Multi-phase flows are part of our natural environment such as tornadoes, typhoons, air and water pollution and volcanic activities as well as part of industrial technology such as power plants, combustion engines, propulsion systems, or chemical and biological industry. The industrial use of multi-phase systems requires analytical and numerical strategies for predicting their behavior. In its fourth extended edition the successful monograph package “Multiphase Flow Dynamics” contains theory, methods and practical experience for describing complex transient multi-phase processes in arbitrary geometrical configurations, providing a systematic presentation of the theory and practice of numerical multi-phase fluid dynamics. In the present third volume for describing of the thermal interactions in multiphase dynamics are provided. In addition a large number of valuable experiments is collected and predicted using the methods introduced in this monograph. In this way the accuracy of the methods is...

Features

Multi-phase flows are part of our natural environment such as tornadoes, typhoons, air and water pollution and volcanic activities as well as part of industrial technology such as power plants, combustion engines, propulsion systems, or chemical and biological industry. The industrial use of multi-phase systems requires analytical and numerical strategies for predicting their behavior. In its fourth...

Contents

Nucleation in liquids.- Bubble growth in superheated liquid.- Condensation of a pure steam bubble in a subcooled liquid.- Bubble departure diameter.- Bubble dynamics in single component fluid.- How accurately can we predict nucleate boiling?- Heterogeneous nucleation and flashing in adiabatic pipes.- Boiling of subcooled liquid.- Natural convection film boiling.- Forced convection boiling.- Film boiling on vertical plates and spheres.- Liquid droplets.- Heat and mass transfer at the film-gas interface.- Condensation at cooled walls.- Discrete ordinate method for radiation transport in...

Fields of interest

Engineering Fluid Dynamics; Engineering Thermodynamics, Heat and Mass Transfer; Fluid- and Aerodynamics; Thermodynamics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 336 p. 58 illus., 56 in color. Hardcover

129,95 €

ISBN 978-3-642-20748-8

Multiphase Flow Dynamics 4

Turbulence, Gas Adsorption and Release, Diesel Fuel Properties

The present Volume 4 of the successful monograph package “Multiphase Flow Dynamics” is devoted to selected Chapters of the multiphase fluid dynamics that are important for practical applications but did not find place in the previous volumes. The state of the art of the turbulence modeling in multiphase flows is presented. As introduction, some basics of the single phase boundary layer theory including some important scales and flow oscillation characteristics in pipes and rod bundles are presented. Then the scales characterizing the dispersed flow systems are presented. The description of the turbulence is provided at different level of complexity: simple algebraic models for eddy viscosity, simple algebraic models based on the Boussinesq hypothesis, modification of the boundary layer share due to modification of the bulk turbulence, modification of the boundary layer share due to nucleate boiling. The role of the following forces on the mathematical description of turbulent flows is discussed: the...

Features

The present Volume 4 of the successful monograph package “Multiphase Flow Dynamics” is devoted to selected Chapters of the multiphase fluid dynamics that are important for practical applications but did not find place in the previous volumes. The state of the art of the turbulence modeling in multiphase flows is presented. As introduction, some basics of the single phase boundary layer theory including some...

Fields of interest

Engineering Fluid Dynamics; Engineering Thermodynamics, Heat and Mass Transfer; Fluid- and Aerodynamics; Thermodynamics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XI, 336 p. 58 illus., 56 in color. Hardcover

129,95 €

ISBN 978-3-642-20748-8

Multiphase Flow Dynamics 5

Nuclear Thermal Hydraulics

The present Volume 5 of the successful book package “Multiphase Flow Dynamics” is devoted to nuclear thermal hydraulics which is a substantial part of nuclear reactor safety. It provides knowledge and mathematical tools for adequate description of the process of transferring the fission heat released in materials due to nuclear reactions into its environment. It step by step introduces into the heat release inside the fuel, temperature fields in the fuels, the “simple” boiling flow in a pipe described using ideas of different complexity like equilibrium, non equilibrium, homogeneity, non homogeneity. Then the “simple” three-fluid boiling flow in a pipe is described by gradually involving the mechanisms like entrainment and deposition, dynamic fragmentation, collisions, coalescence, turbulence. All heat transfer mechanisms are introduced gradually discussing their uncertainty. Different techniques are introduced like boundary layer treatments or integral methods. Comparisons with experimental data at...

Features

The present Volume 5 of the successful book package “Multiphase Flow Dynamics” is devoted to nuclear thermal hydraulics which is a substantial part of nuclear reactor safety. It provides knowledge and mathematical tools for adequate description of the process of transferring the fission heat released in materials due to nuclear reactions into its environment. It step by step introduces into the heat release...

Contents


Fields of interest

Engineering Fluid Dynamics; Engineering Thermodynamics, Heat and Mass Transfer; Fluid- and Aerodynamics; Thermodynamics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XXXIV, 818 p. 405 illus., 356 in color. Hardcover

199,95 €

ISBN 978-3-642-20600-9
This book presents innovative solutions for the implementation of Sigma-Delta Modulation (SDM) based Analog-to-Digital Conversion (ADC), required for the next generation of wireless handheld terminals. These devices will be based on the so-called multi-standard transceiver chips, integrated in nanometer CMOS technologies. One of the most challenging and critical parts in such transceivers is the analog-digital interface, because of the assorted signal bandwidths and dynamic ranges that can be required to handle the A/D conversion for several operation modes. This book describes new adaptive and reconfigurable SDM ADC topologies, circuit strategies and synthesis methods, specially suited for multi-standard wireless telecom systems and future Software-defined radios (SDRs) integrated in nanoscale CMOS. It is a practical book, going from basic concepts to the frontiers of SDM architectures and circuit implementations, which are explained in a didactical and systematic way. It gives a comprehensive[...]

Features
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New Advances in Intelligent Signal Processing

The current volume “New Advances in Intelligent Signal Processing” contains extended works based on a careful selection of papers presented originally at the jubilee sixth IEEE International Symposium on Intelligent Signal Processing (WISP’2009), held in Budapest Hungary, August 26-28, 2009 - celebrating the 10 years anniversary of the WISP event series. The present book does not intent to be an overall survey on the fields of interest of the area, but tries to find topics which represent new, hot, and challenging problems. The book begins with papers investigating selected problems of Modelling, Identification, and Clustering such as fuzzy random variables, evolutionary multi-objective neural network models, a structural learning model of neural networks within a Boltzmann machine, a robust DNA-based clustering techniques, and the advances of combining multi-criteria analysis of signals and pattern recognition using machine learning principles. In the second part of the book Image Processing is [...] Features

The current volume “New Advances in Intelligent Signal Processing” contains extended works based on a careful selection of papers presented originally at the jubilee sixth IEEE International Symposium on Intelligent Signal Processing (WISP’2009), held in Budapest Hungary, August 26-28, 2009 - celebrating the 10 years anniversary of the WISP event series. The present book does not intent to be [...] Contents


Appl. Mathematics / Computational Methods of Engineering; Artificial Intelligence (incl. Robotics); Signal, Image and Speech Processing

Target groups
Research

Type of publication
Monograph

Currently dispatched within 3 to 5 business days


99,95 €
ISBN 978-3-642-11738-1

Novel Trends in Rheology IV

The conference was about novel trends in theoretical and experimental rheology especially for macromolecular substances - polymers. Specific attention has been paid to introduction and/or utilization of novel rheological tools/ techniques, constitutive equations for polymer melts, non-Newtonian flow modeling, flow behavior understanding of polymers, nanocomposites, blends and hydrogels, polymer melt flow stability in extrusion and coextrusion, electro rheology, magnetorheology, electrospinning and polymeric nanofibers. The main aim of the conference was to demonstrate how rheology can be applied to understanding polymers and their processing.

Features

The conference was about novel trends in theoretical and experimental rheology especially for macromolecular substances - polymers. Specific attention has been paid to introduction and/or utilization of novel rheological tools/ techniques, constitutive equations for polymer melts, non-Newtonian flow modeling, flow behavior understanding of polymers, nanocomposites, blends and hydrogels, polymer melt flow [...] Fields of interest

Engineering Fluid Dynamics; Biophysics and Biological Physics; Physical Chemistry; Electrochemistry

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

approx. 149,95 €
ISBN 978-0-7354-0935-4

Optimization Based Clearance of Flight Control Laws

A Civil Aircraft Application

This book summarizes the main achievements of the EC funded 6th Framework Program project COFCLUO – Clearance of Flight Control Laws Using Optimization. This project successfully contributed to the achievement of a top-level objective to meet society’s needs for a more efficient, safer and environmentally friendly air transport by providing new techniques and tools for the clearance of flight control laws. This is an important part of the certification and qualification process of an aircraft – a costly and time-consuming process for the aeronautical industry. The overall objective of the COFCLUO project was to develop and apply optimization techniques to the clearance of flight control laws in order to improve efficiency and reliability. In the book, the new techniques are explained and benchmarked against traditional techniques currently used by the industry. The new techniques build on mathematical criteria derived from the certification and qualification requirements together with suitable [...] Features

This book summarizes the main achievements of the EC funded 6th Framework Program project COFCLUO – Clearance of Flight Control Laws Using Optimization. This project successfully contributed to the achievement of a top-level objective to meet society’s needs for a more efficient, safer and environmentally friendly air transport by providing new techniques and tools for the clearance of [...] Contents


Fields of interest
Control; Aerospace Technology and Astronautics; Systems Theory, Control

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XXIV, 452 p. 206 illus., 124 in color. (Lecture Notes in Control and Information Sciences, Vol. 416) Softcover
119,95 €
ISBN 978-3-642-22626-7
Principles of Mobile Communication

Principles of Mobile Communication, Third Edition, is an authoritative treatment of the fundamentals of mobile communications. This book stresses the “fundamentals” of physical-layer wireless and mobile communications engineering that are important for the design of “any” wireless system. This book differs from others in the field by stressing mathematical modeling and analysis. It includes many detailed derivations from first principles, extensive literature references, and provides a level of depth that is necessary for graduate students wishing to pursue research on this topic. The book’s focus will benefit students taking formal instruction and practicing engineers who are likely to already have familiarity with the standards and are seeking to increase their knowledge of this important subject. Major changes from the second edition: 1. Updated discussion of wireless standards (Chapter 1). 2. Updated treatment of land mobile radio propagation to include space-time correlation functions.[…]

Features
This mathematically rigorous overview of physical layer wireless communications is now in a third, fully revised and updated edition. Along with coverage of basic principles sufficient for novice students, the volume includes plenty of finer details that will satisfy the requirements of graduate students aiming to research the topic in depth. It also has a role as a handy reference for wireless engineers. […]

Contents

Fields of interest
Communications Engineering, Networks; Signal, Image and Speech Processing; Input/Output and Data Communications

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. XXII, 797 p. 358 illus. Hardcover

89,95 €
ISBN 978-1-4614-0363-0

Propagation Engineering in Wireless Communications

Propagation Engineering in Wireless Communications covers the basic principles needed for understanding of radio waves propagation for common frequency bands used in radio-communications. This book includes descriptions of new achievements and new developments in propagation models for wireless communication. The book is intended to bridge the gap between the theoretical calculations and approaches to the applied procedures needed for radio links design in a proper manner. The authors intention is to emphasize propagation engineering by giving sufficient fundamental information and then going on to explain the use of basic principles together with technical achievements in this field.

Features
Wireless communications has seen explosive growth in recent decades, in a realm that is both broad and rapidly expanding to include satellite services, radio navigation aids, remote sensing, telemonitoring, audio and video broadcasting, high-speed data communications, mobile radio systems and much more. Propagation Engineering in Wireless Communications deals with the basic principles of radio waves propagation […]

Contents
Ch. 1 Introduction to Radiowaves. - Ch. 2 Basic Principles in Radiowave Propagation. - Ch. 3 Radiowave Propagation in Troposphere. - Ch. 4 Radiowave Propagation in Ionosphere. - Ch. 5 Propagation in 3 KHz to 30 MHz Band. - Ch. 6 Terrestrial Mobile Radio Propagation. - Ch. 7 Line of Sight Propagation. - Ch. 8 Selected Topics in Radiowave Propagation.

Fields of interest
Communications Engineering, Networks; Computer Systems Organization and Communication Networks; Microwaves, RF and Optical Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XVI, 434 p. 176 illus. Hardcover

169,95 €
ISBN 978-1-4614-1076-8

Recent Advances in Intelligent Engineering Systems

This volume is a collection of 19 chapters on intelligent engineering systems written by respectable experts of the fields. The book consists of three parts. The first part is devoted to the foundational aspects of computational intelligence. It consists of 8 chapters that include studies in genetic algorithms, fuzzy logic connectives, enhanced intelligence in product models, nature-inspired optimization technologies, particle swarm optimization, evolution algorithms, model complexity of neural networks, and fitness landscape analysis. The second part contains contributions to intelligent computation in networks, presented in 5 chapters. The covered subjects include the application of self-organizing maps for early detection of denial of service attacks, combating security threats via immunity and adaptability in cognitive radio networks, novel modifications in WSN network design for improved SNR and reliability, a conceptual framework for the design of audio based cognitive infocommunication[…]

Features
This volume is a collection of 19 chapters on intelligent engineering systems written by respectable experts of the fields. The book consists of three parts. The first part is devoted to the foundational aspects of computational intelligence. It consists of 8 chapters that include studies in genetic algorithms, fuzzy logic connectives, enhanced intelligence in product models, nature-inspired […]

Contents
Part I Foundation of Computational Intelligence. - Part II Intelligent Computation in Networks. - Part III Application of Computational Intelligence.

Fields of interest
Computational Intelligence, Artificial Intelligence (incl. Robotics); Appl. Mathematics / Computational Methods of Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XX, 440 p. 187 illus. (Studies in Computational Intelligence, Vol. 378) Hardcover

129,95 €
ISBN 978-3-642-23228-2
Reliability, Availability, and Serviceability of Networks-on-Chip

This book presents an overview of the issues related to the test, diagnosis and fault-tolerance of Network on Chip-based systems. It is the first book dedicated to the quality aspects of NoC-based systems and will serve as an invaluable reference to the problems, challenges, solutions, and trade-offs related to designing and implementing state-of-the-art, on-chip communication architectures.

Features

- Introduction
- NoC Basics
- Systems-on-Chip Testing
- NoC Reuse for SoC Modular Testing
- Advanced Approaches for NoC Reuse
- Test and Diagnosis of Routers
- Test and Diagnosis of Communication Channels
- Error Control Coding and Retransmission
- Error Location and Reconfiguration
- Concluding Remarks

Fields of interest

- Circuits and Systems
- Computer-Aided Engineering (CAD, CAE) and Design
- Target groups
- Professional book

Usually dispatched within 3 to 5 business days

2012, XII, 209 p. 103 illus. Hardcover
89,95 €
ISBN 978-1-4614-0790-4

Reliability Engineering

Basic Concepts and Applications in ICT

This book gives a practical guide for designers and users in Information and Communication Technology context. In particular, in the first Section, the definition of the fundamental terms according to the international standards are given. Then, some theoretical concepts and reliability models are presented in Chapters 2 and 3: the aim is to evaluate performance for components and systems and reliability growth. Chapter 4, by introducing the laboratory tests, puts in evidence the reliability concept from the experimental point of view. In ICT context, the failure rate for a given system can be evaluate by means of specific reliability prediction handbooks; this aspect is considered in Chapter 5, with practical applications. In Chapters 6, 7, and 8, the more complex aspects regarding both the Maintainability, Availability and Dependability are taken into account; in particular, some fundamental techniques such as FMEA (Failure Mode, Effects, and Criticality Analysis) and FTA (Fault Tree Analysis) are described.

Features

- It is well known that reliability and dependability are assuming strategic role in all contexts where product performance and safety are specific requirements. To this purpose this book represents a practical guide for designers and users in Information and Communication Technology area and for those that treat the different stages of the life cycle of products.

Contents

- Introduction
- The Concept of ‘Statistical’ Reliability
- Reliability Analysis in the Design Phase
- Experimental Reliability and Laboratory Tests
- Reliability Prediction Handbooks
- Evaluation of the System Failure Rate
- Repairable Systems and Availability
- Techniques and Methods to Support Dependability
- Qualitative Techniques

Fields of interest

- Quality Control, Reliability, Safety and Risk
- Organization / Planning
- Statistics for Engineering
- Physics, Computer Science, Chemistry, and Earth Sciences
- Communications Engineering, Networks
- R & D / Technology Policy

Target groups

- Professional/practitioner

Type of publication

- Professional book

Usually dispatched within 3 to 5 business days

2012, XII, 164 p. 78 illus., 2 in color. Hardcover
79.95 €
ISBN 978-3-642-20982-6

Robotics, Vision and Control

Fundamental Algorithms in MATLAB

The practice of robotics and computer vision both involve the application of computational algorithms to data. Over the fairly recent history of the fields of robotics and computer vision a very large body of algorithms has been developed. However, this body of knowledge is something of a barrier for anybody entering the field — What is the right algorithm for a particular problem? And, importantly, How can I try it out without spending days coding and debugging it from the original research papers? The author has maintained two open-source MATLAB Toolboxes for more than 10 years: one for robotics and one for vision. The key strength of the Toolboxes provide a set of tools that allow the user to work with real problems, not trivial examples. For the student the book makes the algorithms accessible, the Toolbox code can be read to gain understanding, and the examples illustrate how it can be used — instant gratification in just a couple of lines of code.

Features

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Contents

- Part I Foundations
- Part II Mobile Robots
- Part III Arm-type Robots
- Part IV Vision
- Part V Robotics and Vision

Fields of interest

- Robotics and Automation
- Artificial Intelligence (incl. Robotics)
- Image Processing and Computer Vision
- Signal, Image and Speech Processing
- Machinery and Machine Elements
- Cognitive Psychology

Target groups

- Research

Type of publication

- Graduate/advanced undergraduate textbook

Online orders shipping within 2-3 days.

59,95 €
ISBN 978-3-642-20143-1
Safety and Risk Modeling and Its Applications

Safety and Risk Modeling presents the latest theories and methods of safety and risk with an emphasis on safety and risk in modeling. It covers applications in several areas including transportation and security risk assessments, as well as applications related to current topics in safety and risk. Safety and Risk Modeling is a valuable resource for understanding the latest developments in both qualitative and quantitative methods of safety and risk analysis and their applications in operating environments. Each chapter has been written by active researchers or experienced practitioners to bridge the gap between theory and practice and to trigger new research challenges in safety and risk. Topics include: safety engineering, system maintenance, safety in design, failure analysis, and risk concept and modeling. Postgraduate students, researchers, and practitioners in many fields of engineering, operations research, management, and statistics will find Safety and Risk Modeling a state-of-the-art [..]

Features

Safety and Risk Modeling presents the latest theories and methods of safety and risk with an emphasis on safety and risk in modeling. It covers applications in several areas including transportation and security risk assessments, as well as applications related to current topics in safety and risk. Safety and Risk Modeling is a valuable resource for understanding the latest developments [..]

Contents

2. The Price of Safety and Economic Reliability.
5. Risk Analysis.
8. Risk and Design Management Based on Failure Mode.-
12. Risk Informed Decision Making[..]

Fields of interest

Quality Control, Reliability, Safety and Risk; Simulation and Modeling; Engineering Design

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012, XIV, 429 p. 157 illus., 3 in color. (Springer Series in Reliability Engineering) Hardcover

169,95 €

Solar Lighting

Limited availability of grid-based electricity is a major challenge faced by many developing countries, particularly the rural population. Fuel-based lighting, such as the kerosene lantern, is widespread in these areas, but it is a poor alternative, contributing to global warming and causing serious health problems. Several developing countries are therefore now encouraging the use of sustainable lighting. Solar Lighting gives an in-depth analysis of energy-efficient light production through the use of solar-powered LED systems. The authors pay particular attention to the interpaly between energy transformation and device efficiency. They also discuss diverse aspects of renewable energy, including how an improvement in the efficiency of appliances can reduce the cost of energy. Solar Lighting is written for physicists, environmental experts and lighting engineers. It is also suitable for undergraduate students in the fields of environmental science, electrical engineering and renewable energy.

Features

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Contents


Fields of interest

Renewable and Green Energy; Engineering Economics, Organization, Logistics, Marketing; Sustainable Development; Renewable and Green Energy

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011, VII, 274 p. 116 illus., 24 in color. (Green Energy and Technology) Hardcover

99,95 €
ISBN 978-1-4471-2133-6

L. Fridman, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico; J. Moreno, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico; R. Irante, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico (Ed.)

R. Pode, Kyung-Hee University, Seoul, Korea

B. Diouf, Kyung-Hee University, Seoul, Korea
Speech Enhancement in the STFT Domain

This work addresses this problem in the short-time Fourier transform (STFT) domain. We divide the general problem into five basic categories depending on the number of microphones being used and whether the interframe or interband correlation is considered. The first category deals with the single-channel problem where STFT coefficients at different frames and frequency bands are assumed to be independent. In this case, the noise reduction filter in each frequency band is basically a real gain. Since a gain does not improve the signal-to-noise ratio (SNR) for any given subband and frame, the noise reduction is basically achieved by liftering the subbands and frames that are less noisy while weighing down on those that are more noisy. The second category also concerns the single-channel problem. The difference is that now the interframe correlation is taken into account and a filter is applied in each subband instead of just a gain. The advantage of using the interframe correlation is that we can[...]

Features
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Contents

Fields of interest
Signal, Image and Speech Processing; User Interfaces and Human Computer Interaction; Computational Intelligence; Energy (general)

Target groups
Research

Type of publication
Brief

Usually dispatched within 3 to 5 business days

2012. IX, 104 p. 24 illus, 3 in color. (SpringerBriefs in Speech Technology) Softcover

49,95 €
ISBN 978-1-4419-9684-8

Springer Handbook of Medical Technology

This concise, user-oriented and up-to-date desk reference offers a broad introduction to the fascinating world of medical technology, fully considering today’s progress and further development in all relevant fields. The Springer Handbook of Medical Technology is a systemized and well-structured guideline which distinguishes itself through simplification and condensation of complex facts. This book is an indispensable resource for professionals working directly or indirectly with medical systems and appliances every day. It is also meant for graduate and post graduate students in hospital management, medical engineering, and medical physics.

Features
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Contents

Fields of interest
Biomedical Engineering; Biophysics and Biological Physics; Imaging / Radiology; Public Health; Human Physiology

Target groups
Professional/practitioner

Type of publication
Handbook

Online orders shipping within 2-3 days.

2012. XLVI, 1499 p. 1008 illus. in color. Hardcover
249,00 €
ISBN 978-3-540-74657-7

2012. VII, 109 p. 5 illus. (SpringerBriefs in Electrical and Computer Engineering) Softcover

49,95 €
ISBN 978-3-642-23249-7
Supply Chain Disruptions
Theory and Practice of Managing Risk

One of the most critical issues facing supply chain managers in today’s globalized and highly uncertain business environments is how to deal proactively with disruptions that might affect the complicated supply networks characterizing modern enterprises. Supply Chain Disruptions: Theory and Practice of Managing Risk presents a state-of-the-art perspective on this particular issue. Supply Chain Disruptions: Theory and Practice of Managing Risk demonstrates that effective management of supply disruptions necessitates both strategic and tactical measures – the former involving optimal design of supply networks; the latter involving inventory, finance and demand management. It shows that managers ought to use all available levers at their disposal throughout the supply network – like sourcing and pricing strategies, providing financial subsidies, encouraging information sharing and incentive alignment between supply chain partners – in order to tackle supply disruptions. The editors combine up-to-date...[...]

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Synthesis of Computational Structures for Analog Signal Processing

Synthesis of Computational Structures for Analog Signal Processing focuses on analysis and design of analog signal processing circuits. The author presents a multitude of design techniques for improving the performances of analog signal processing circuits, and proposes specific implementation strategies that can be used in CMOS technology. The author's discussion proceeds from the perspective of signal processing as it relates to analog. Included are coverage of low-power design, portable equipment, wireless nano-sensors and medical implantable devices. The material is especially appropriate for researchers and specialists in the area of analog and mixed-signal CMOS VLSI design, as well as postgraduate or Ph.D. students working on analog microelectronics.

Features
Synthesis of Computational Structures for Analog Signal Processing focuses on analysis and design of analog signal processing circuits. The author presents a multitude of design techniques for improving the performances of analog signal processing circuits, and proposes specific implementation strategies that can be used in CMOS technology. The author's discussion proceeds from the perspective of signal processing as it relates to analog. Included are coverage of low-power design, portable equipment, wireless nano-sensors and medical implantable devices. The material is especially appropriate for researchers and specialists in the area of analog and mixed-signal CMOS VLSI design, as well as postgraduate or Ph.D. students working on analog microelectronics.

Contents

Fields of interest
Signal, Image and Speech Processing; Circuits and Systems; Appl. Mathematics / Computational Methods of Engineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012, XV, 449 p. 385 illus. Hardcover

129,95 €
ISBN 978-1-4614-0402-6

Test and Diagnosis for Small-Delay Defects

This book will introduce new techniques for detecting and diagnosing small-delay defects in integrated circuits. Although this sort of timing defect is commonly found in integrated circuits manufactured with nanometer technology, this will be the first book to introduce effective and scalable methodologies for screening and diagnosing small-delay defects, including important parameters such as process variations, crosstalk, and power supply noise.

Features
This book introduces new techniques for detecting and diagnosing small-delay defects (SDD) in integrated circuits. Although this sort of timing defect is commonly found in integrated circuits manufactured with nanometer technology, this will be the first book to introduce effective and scalable methodologies for screening and diagnosing small-delay defects, including important parameters such as process...[...]

Contents

Fields of interest
Circuits and Systems; Performance and Reliability; Nanotechnology and Microengineering

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XVI, 212 p. 114 illus. Hardcover

99,95 €
ISBN 978-1-4419-8296-4
Theory of Periodic Conjugate Heat Transfer

This book presents the theory of periodic conjugate heat transfer in a detailed way. The effects of thermophysical properties and geometry of a solid body on the commonly used and experimentally determined heat transfer coefficient are analytically presented from a general point of view. The main objective of the book is a simplified description of the interaction between a solid body and a fluid as a boundary value problem of the heat conduction equation for the solid body. At the body surface, the true heat transfer coefficient is composed of two parts: the true mean value resulting from the solution of the steady state heat transfer problem and a periodically variable part, the periodic time and length to describe the oscillatory hydrodynamic effects. The second edition is extended by (i) the analysis of stability boundaries in helium flow at supercritical conditions in a heated channel with respect to the interaction between a solid body and a fluid; (ii) a periodic model and a method of heat transfer.

Features
This book presents the theory of periodic conjugate heat transfer in a detailed way. The effects of thermophysical properties and geometry of a solid body on the commonly used and experimentally determined heat transfer coefficient are analytically presented from a general point of view. The main objective of the book is a simplified description of the interaction between a solid body and a fluid as a boundary value problem.

Contents

Fields of interest

Target groups
Research.

Type of publication
Monograph.

Usually dispatched within 3 to 5 business days

2012, XX, 226 p. 58 illus. (Mathematical Engineering, Vol. 5) Hardcover

99,95 €
ISBN 978-3-642-21420-2

Ultra-Wideband Radio Frequency Identification Systems

Ultra-Wideband Radio Frequency Identification Systems describes the essentials of radio frequency identification systems as well as their target markets. The authors provide a study of commercially available RFID systems and characterizes their performance in terms of read range and reliability in the presence of conductive and dielectric materials. The capabilities and limitations of some commercial RFID systems are reported followed by comprehensive discussions of the advantages and challenges of using ultra-wideband technology for tag/reader communications. The book presents practical aspects of UWB RFID system such as: pulse generation, remote powering, tag and reader antenna design, as well as special applications of UWB RFIDs in a simple and easy-to-understand language.

Features
Ultra-Wideband Radio Frequency Identification Systems describes the essentials of radio frequency identification systems as well as their target markets. The authors provide a study of commercially available RFID systems and characterizes their performance in terms of read range and reliability in the presence of conductive and dielectric materials. The capabilities and limitations of some commercial RFID systems are reported followed by comprehensive discussions of the advantages and challenges of using ultra-wideband technology for tag/reader communications. The book presents practical aspects of UWB RFID system such as: pulse generation, remote powering, tag and reader antenna design, as well as special applications of UWB RFIDs in a simple and easy-to-understand language.

Contents

Fields of interest

Target groups
Professional/practitioner.

Type of publication
Professional book.

Usually dispatched within 3 to 5 business days

2012, XVI, 160 p. 109 illus., 74 in color. Hardcover

89,95 €

Understanding Violence

The Intertwining of Morality, Religion and Violence: A Philosophical Stance

This volume sets out to give a philosophical "applied" account of violence, engaged with both empirical and theoretical debates in other disciplines such as cognitive science, sociology, psychiatry, anthropology, political theory, evolutionary biology, and theology. The book's primary thesis is that violence is inescapably intertwined with morality and typically enacted for "moral" reasons. To show this, the book compellingly demonstrates how morality operates to trigger and justify violence and how people, in their violent behaviors, can engage and disengage with discrete moralities. The author’s fundamental account of language, and in particular its normative aspects, is particularly insightful as regards extending the range of what is to be understood as violence beyond the domain of physical harm. By employing concepts such as "coalition enforcement", "moral bubbles", "cognitive niches", "overmoralization", "military intelligence" and so on, the book aims to spell out how perpetrators and...
## Environment

**Authors:** D.J. Davidson, University of Alberta, Edmonton, AB, Canada; M. Gionomiti, Athabasca University, Athabasca, AB, Canada

**Contents**
- **Fields of interest**
  - Environment (general); Energy Policy, Economics and Management; Mineral Resources; Political Science, general
- **Target groups**
  - Professional/practitioner
- **Type of publication**
  - Monograph
- **Usually dispatched within 3 to 5 business days**
  - 2011. XV, 232 p. 80 illus., 47 in color. Hardcover
  - 99,95 €

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## Drilling Down

**Authors:** J.A. Tainter, Utah State University, Logan, UT, USA; T.W. Patzek, The University of Texas at Austin, TX, USA

**Contents**
- **Fields of interest**
  - Environmental Management; Energy Economics; Energy Policy, Economics and Management; Operation Research / Decision Theory; Statistical Physics, Dynamical Systems and Complexity; Sustainable Development
- **Target groups**
  - Popular/general
- **Type of publication**
  - Monograph
- **Usually dispatched within 3 to 5 business days**
  - 2012. IX, 242 p. 80 illus., 47 in color. Softcover
  - 19,95 €

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## VLSI 2010 Annual Symposium

**Selected papers**


**Features**

This book intends to serve as a basis for presenting to young and experienced scientists the latest advances in VLSI technology and related areas, and how they can be effectively employed for the design of modern systems. All contributions to the book have been carefully written, focusing on the pedagogical aspect so as to become a relevant teaching material. Therefore, this book addresses in particular [...]
**Environmental Protection Strategies for Sustainable Development**

The environment of our planet is degrading at an alarming rate because of non-sustainable urbanization, industrialization, and agriculture. Unsustainable trends in relation to climate change and energy use, threats to public health, poverty and social exclusion, demographic pressure and ageing, management of natural resources, biodiversity loss, land use and transport still persist and new challenges are arising. Since these negative trends bring about a sense of urgency, short term action is required, whilst maintaining a longer term perspective. The main challenge is to gradually change our current unsustainable consumption patterns and production patterns and the nonintegrated approach to policy-making. This book covers the broad area including potential of rhizospheric microorganisms in the sustainable plant development in anthropogenic polluted soils, bioremediation of pesticides from soil and waste water, toxic metals from soil, biological treatment of pulp and paper industry wastewater, sustainable[...]

**Features**

The environment of our planet is degrading at an alarming rate because of non-sustainable urbanization, industrialization, and agriculture. Unsustainable trends in relation to climate change and energy use, threats to public health, poverty and social exclusion, demographic pressure and ageing, management of natural resources, biodiversity loss, land use and transport still persist and new challenges are[...]

**Contents**


**Fields of interest**

Sustainable Development; Environmental Management; Agriculture; Waste Management / Waste Technology; Applied Microbiology

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

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

2012, XIV, 605 p. 67 illus., 19 in color. (Strategies for Sustainability, Vol. 0)

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**Environmental Sensing**

**Analytical Techniques for Earth Observation**

Remote sensing has witnessed a renaissance as new sensor systems, data collection capabilities and image processing methodologies have expanded and new and important applications areas. Perhaps nowhere has this trend been more evident than in the study of earth environments. Within this broad application area remote sensing has proven to be an invaluable asset supporting timely data gathering at a range of synoptic scales, facilitating the mapping of complex landscapes and promoting the analysis of environmental process. Yet remote sensing's contribution to the study of human/environmental interaction is scattered throughout a rich and diverse literature spanning the social and physical sciences, which frustrates access to, and the sharing of the knowledge gained through these recent advances, and inhibits the operational use of these methods and techniques in day to day environmental practice, a recognized gap that reduces the effectiveness of[...]

**Features**

Remote sensing is a mature technology that has been largely under-utilized in a world increasing focus on Geographic Information Systems. With the goal of encouraging a wider appreciation of what this science can achieve, Environmental Sensing: Analytical Techniques for Earth Observation introduces the scope and method of remote sensing within the context of environmental analysis and assessment.[...]

**Contents**


**Fields of interest**

Environmental Management; Geophysical Information Systems / Cartography; Monitoring / Environmental Analyses

**Target groups**

Research

**Type of publication**

Graduate/advanced undergraduate textbook

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

2012. XIV, 334 p. 100 illus., 28 in color. Hardcover

59.95 €

ISBN 978-1-4614-0142-1

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**Experimental and Theoretical Advances in Fluid Dynamics**

The book is comprised of lectures and selected contributions presented at the Enzo Levi and XVI Annual Meeting of the Fluid Dynamic Division of the Mexican Physical Society in 2010. It is aimed at fourth year undergraduate and graduate students, as well as scientists in the fields of physics, engineering and chemistry with an interest in fluid dynamics from the experimental and theoretical point of view. The lectures are introductory and avoid the use of complicated mathematics. The other selected contributions are also geared to fourth year undergraduate and graduate students. The fluid dynamics applications include multiphase flow, convection, diffusion, heat transfer, rheology, granular material, viscous flow, porous media flow, geophysics and astrophysics. The material contained in the book includes recent advances in experimental and theoretical fluid dynamics and will be of great use to those involved in either teaching and/or research.

**Features**

The book is comprised of lectures and selected contributions presented at the Enzo Levi and XVI Annual Meeting of the Fluid Dynamic Division of the Mexican Physical Society in 2010. It is aimed at fourth year undergraduate and graduate students, as well as scientists in the fields of physics, engineering and chemistry with an interest in fluid dynamics from the experimental and theoretical point of view.[...]

**Contents**


**Fields of interest**

Environment (general); Geophysics and Environmental Physics

**Target groups**

Research

**Type of publication**

Monograph

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

2012. XXII, 517 p. 286 illus., 19 in color. (Environmental Science and Engineering) Hardcover

169,95 €

ISBN 978-3-642-17957-0
**Introduction to Phytoremediation of Contaminated Groundwater**

**Historical Foundation, Hydrologic Control, and Contaminant Remediation**

This book provides the reader with the comprehensive view necessary to understand and critically evaluate the design, implementation, and monitoring of phytoremediation at sites characterized by contaminated groundwater. Part I presents the historical foundation of the interaction between plants and groundwater, introduces fundamental groundwater concepts for plant physiologists, and introduces basic plant physiology for hydrogeologists. Part II presents information on how to assess, design, implement, and monitor phytoremediation projects for hydrologic control. Part III presents how plants take up and detoxify a wide range of organic xenobiotics in contaminated groundwater systems, and provides various approaches on how this can be assessed and monitored. Throughout, concepts are emphasized with numerous case studies, illustrations and pertinent literature citations.

**Features**

This book provides the reader with the comprehensive view necessary to understand and critically evaluate the design, implementation, and monitoring of phytoremediation at sites characterized by contaminated groundwater.

Part I presents the historical foundation of the interaction between plants and groundwater, introduces fundamental groundwater concepts for plant physiologists, and introduces basic plant physiology for hydrogeologists. Part II presents information on how to assess, design, implement, and monitor phytoremediation projects for hydrologic control. Part III presents how plants take up and detoxify a wide range of organic xenobiotics in contaminated groundwater systems, and provides various approaches on how this can be assessed and monitored. Throughout, concepts are emphasized with numerous case studies, illustrations and pertinent literature citations.

**Contents**


**Fields of interest**

Terrestrial Pollution; Hydrogeology; Plant Sciences; Environmental Engineering / Biotechnology; Plant Ecology; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution

**Target groups**

Graduate

**Type of publication**

Monograph

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

2012. XXI, 415 p. 172 illus., 15 in color. Hardcover

129,95 €


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**Metaphorical Management**

Using Intuition and Creativity as a Guiding Mechanism for Complex Systems

In times of general instability change management is a great challenge. Our fossil mental patterns are not sufficient any more to be able to navigate sensibly the global scenario of complexity. Metaphorical thinking is a method which releases creative impulses into every change process and is of practical use, activating collective knowledge as a new network resource at the same time. This book reflects modern economy, ecology, sustainability and perception from an artistic perspective. However, it is not so much about ‘art’, but rather how the modern artist takes on a serving role in the social arena again. He makes his creative knowledge available to connect processes of large-scale social development, he extends the boundaries of our scientifically limited world view and creates inspired playgrounds where the sensory-visionary can freely interact with the technically-necessary. This is no new aesthetic theory but rather a practical application of the creative process in operation at the[...]

**Features**

In times of general instability change management is a great challenge. Our fossil mental patterns are not sufficient any more to be able to navigate sensibly the global scenario of complexity. Metaphorical thinking is a method which releases creative impulses into every change process and is of practical use, activating collective knowledge as a new network resource at the same time. This book reflects modern[...]

**Contents**

Introduction; Travel to arrive as someone else; Centrifugal Metaphors 1. Sustainability: teach the unsharp how to manage: Newton Mechanics; Quantum Physics; Tissue of Reality; Evolutionary Threads; Materialistic patterns - 2. Paradigm Shift: from Fossile to Solar Aeons; Combustion energy; conscious energy transfer; linear thinking; systemic action; male domination; shift to female.- 3. The Integral Model: the navigation system for instable Systems; longing for order; from simple to high complexity; From 1 to We, to We go all.- 4. Perception: or the construction of our inner manoeuvring[...]

**Fields of interest**

Sustainable Development; Business & Management Science; Complexity; Environmental Management; Business & Economics (general); Psychology (general)

**Target groups**

Popular/general

**Type of publication**

Professional book

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

2012. 250 p. Hardcover

46,68 €

ISBN 978-94-007-0340-7

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**Polyfluorinated Chemicals and Transformation Products**

Due to their unparalleled effectiveness and efficiency, polyfluorinated chemicals (PFC) have become essential in numerous technical applications. However, many PFCs brought to market show limited biodegradability, and their environmental persistence combined with toxic and bioaccumulative potential have become a matter of concern in some instances. This volume highlights the synthesis of PFCs, focusing on substances with improved application and environmental properties, which are a challenge for synthetic chemists. Further, modern mass spectrometric techniques for the detection and identification of biotransformation products of PFCs are described. The sorption and leaching behavior of PFC in soil is also addressed in order to predict their fate in the environment. Several contributions discuss the monitoring of PFCs in European surface, ground and drinking waters, treatment options for PFC removal from drinking water, occurrence in food, and the human biomonitoring of PFCs.

**Features**

Due to their unparalleled effectiveness and efficiency, polyfluorinated chemicals (PFC) have become essential in numerous technical applications. However, many PFCs brought to market show limited biodegradability, and their environmental persistence combined with toxic and bioaccumulative potential have become a matter of concern in some instances. This volume highlights the synthesis of PFCs.[...]

**Contents**


**Fields of interest**

Environmental Chemistry; Analytical Chemistry; Monitoring / Environmental Analysis; Ecotoxicology; Geochemistry; Environmental Health

**Target groups**

Research

**Type of publication**

Reviews

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


189,95 €

ISBN 978-3-642-21871-2
Produced Water
Environmental Risks and Advances in Mitigation Technologies

A state-of-the-art review of scientific knowledge on the environmental risk of ocean discharge of produced water and advances in mitigation technologies. In offshore oil and gas operations, produced water (the water produced with oil or gas from a well) accounts for the largest waste stream (in terms of volume discharged). Its discharge is continuous during oil and gas production and typically increases in volume over the lifetime of an offshore production platform. Produced water discharge as waste into the ocean has become an environmental concern because of its potential contaminant content. Environmental risk assessments of ocean discharge of produced water have yielded different results. For example, several laboratory and field studies have shown that significant acute toxic effects cannot be detected beyond the point of discharge due to rapid dilution in the receiving waters. However, there is some preliminary evidence of chronic sub-lethal impacts in biota associated with the discharge off...[...]

Features
Produced Water: Environmental Risks and Advances in Mitigation Technologies The discharge of produced water from offshore oil and gas facilities remains an environmental concern due to uncertainty regarding its fate, transport and potential biological effects. This book of peer-reviewed papers provides an overview of current knowledge and [...] Contents

Fields of interest
Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution; Biogeoecosciences; Monitoring / Environmental Analysis; Environmental Management

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2011. XVIII, 608 p. 163 illus., 90 in color. Hardcover

Reviews of Environmental Contamination and Toxicology

Reviews of Environmental Contamination and Toxicology attempts to provide concise, critical reviews of timely advances, philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiology, in any segment of the environment, as well as toxicological implications.

Features

Fields of interest
Ecoxicology; Environmental Management; Waste Management / Waste Technology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days


99,95 €

Teaching Environmental Health to Children

An Interdisciplinary Approach

Every day we are exposed to toxins and toxicants that can impact our health. Yet we rarely teach elementary and secondary students about these exposures and how they can reduce their risk to them. In this book we highlight activities and curriculum developed at nine universities in the United States from a grant funded by the National Institute of Environmental Health Sciences. Our goal is to extend these lessons to a global audience and for classroom teachers of all subjects and age levels to include environmental health in their teaching. An invaluable tool for equipping informed citizens to think about the environment and its human impacts -- both the science, and equally important, the social and ethical dimensions... Howard Frumkin, M.D., Dr. P.H., Dean, School of Public Health, University of Washington, Seattle, WA, USA

Features
Every day we are exposed to toxins and toxicants that can impact our health. Yet we rarely teach elementary and secondary students about these exposures and how they can reduce their risk to them. In this book we highlight activities and curriculum developed at nine universities in the United States from a grant funded by the National Institute of Environmental Health Sciences. Our goal is to extend [...] Contents

Fields of interest
Environmental Health; Education (general); Medicine (general); Health Promotion and Disease Prevention; Environmental Law / Policy / Ecojustice

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. X, 93 p. 3 illus. 2 in color (SpringerBriefs in Environmental Science, Vol.) Softcover

49,95 €
ISBN 978-94-007-1810-4
Geospatial Techniques for Managing Environmental Resources

'Geospatial Information' is spatial data concerning a place or, in space, collected in real time. Geospatial techniques together with remote sensing, geographic information science, Global Positioning System (GPS), cartography, geovisualization, and spatial statistics are being used to capture, store, manipulate and analyze to understand complex situations to solve mysteries of the universe. These techniques have been applied in various fields such as meteorology, forestry, environmental management, agriculture, health, homeland security etc. around the globe. This volume presents case studies and examples from various parts of the world and provides a broad overview of various approaches; data sets; data acquiring, monitoring and dissemination methods; satellites and sensors; tools and techniques used; integrating tools, techniques and application to various fields for the sustainable management of environmental resources in the context of global environmental change and natural hazards. The[...]

Features
'Geospatial Information' is spatial data concerning a place or, in space, collected in real time. Geospatial techniques together with remote sensing, geographic information science, Global Positioning System (GPS), cartography, geovisualization, and spatial statistics are being used to capture, store, manipulate and analyze to understand complex situations to solve mysteries of the universe. These[...]

Contents

Fields of interest
Remote Sensing / Photogrammetry; Physical Geography; Environmental Management

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. X, 280 p. 20 illus. in color. Hardcover

99,95 €
ISBN 978-3-642-15446-1
**Urban Geology**


Urban subsurface resources and particularly urban groundwater are vulnerable to environmental impacts, and their rational management is of major importance. In this book, specialists and scientists in process-oriented approaches to the sustainable use of these resources contribute theories and case studies from Northwestern Switzerland. Described are representative environments, problems caused by karst in urban environments, and the use of shallow geothermal energy and natural hazards such as flood events and earthquakes. It is demonstrated that modern quantitative earth sciences can contribute significantly in finding solutions concerning the sustainable use of subsurface resources in urban environments.

**Contents**

- Hypotheses, Concepts
- Methods, Examples and Case Studies
- Features
- Urban subsurface resources

**Fields of interest**

- Applied Earth Sciences
- Sustainable Development
- Hydrogeology
- Geotechnical Engineering and Landscape, Regional and Urban Planning

**Type of publication**

Contributed Volume

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

2011. XVI, 216 p. 92 illus. in color. Hardcover

99,95 €

ISBN 978-3-0348-0184-3

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**Information Security Law in the EU and the U.S.**

L. Feiler

A Risk-Based Assessment of Regulatory Policies

Security breaches affecting millions of consumers worldwide, media reports about "cyber war" and speculations about "cyber terrorism" have brought information security (often also referred to as "cyber security") to the forefront of the public debate.

"Information Security Law in the EU and the U.S." provides the first comprehensive assessment of EU and U.S. information security law, covering laws and regulations that require the implementation of security measures, laws that impose or limit liability for security breaches, laws that mandate the disclosure of vulnerabilities or security breaches, and laws that deter malicious actors by providing criminal sanctions.

To facilitate this comparative assessment, a risk-based assessment methodology is used. The book also contains a concluding comparative assessment that summarizes the current state of information security law. Building on this concluding assessment, policy recommendations are presented that fundamentally improve information security.

**Features**

- Security breaches affecting millions of consumers
- Media reports about "cyber war"
- Speculations about "cyber terrorism"

**Contents**

- Introduction
- The Foundations and Challenges of Information Security
- A Methodology for Assessing Regulatory Policies
- Regulatory Information Security by Mandating Security Controls
- Regulating Information Security by Imposing or Limiting Liability
- Regulating Information Security by Mandating Transparency
- Regulating Information Security by Deterring Malicious Threat Agents
- Concluding Comparative Assessment
- Policy Recommendations
- Conclusion
- References
- List of Abbreviations
- Index

**Fields of interest**

- Law (general)

**Type of publication**

Handbook

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

2012. XV, 551 p. Hardcover

159,95 €

ISBN 978-3-7091-0925-0

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**Integration by Cooperation**

E. Dieth, Bonaduz, Switzerland

A Constructivist Social Theory and a Theory of the State and the Law

The last thirty years were lost years. The neoliberal revolution and its economic absolutism have led to injustice and a loss of freedom. Every realm of life has become subordinated to economic criteria as the competitive homo oeconomicus has been made the exclusive concept of humankind. This book proposes an alternative that is based on cooperation. To overcome the supremacy of the economy, with its isolated individuals who lack solidarity, a new social theory is developed, one that is grounded on a cooperative understanding of freedom and enriched by solidarity, responsibility, and justice.

**Features**

- The last thirty years were lost years
- The neoliberal revolution and its economic absolutism
- The competitive homo oeconomicus

**Contents**

- A. Introduction
- B. Social construction of „reality”
- 1. Different worlds
- 2. Value-based „reality”
- C. Concept of humankind and community
- 1. Neo homo oeconomicus – selfish individualism
- 2. Homo interacticus – interdependent individuals
- D. Integration process
- 1. Consensus
- 2. Construction phases and integration modes
- 3. Integration quality
- 4. Fragile stability
- 5. Collective identity
- 6. Value-based constructivism
- E. Integration elements
- 1. Basic values
- 2. Recognition
- 3. Respect
- 4. Reciprocity
- 5. Trust
- 6. Decision-making process
- 7. People – Space
- 8. […]

**Fields of interest**

- Constitutional Law
- Public International Law
- Social Sciences (general)
- Political Science, general

**Type of publication**

Handbook

**Usually dispatched within 2-3 days**

2012. VIII, 497 p. 26 illus. Softcover

99,95 €

ISBN 978-3-211-99415-3
Organising the Firm
Theories of Commercial Law, Corporate Governance and Corporate Law

The theoretical basis of commercial law, corporate governance law, and corporate law is still unsatisfactory. There essentially is no theory of commercial law, and existing theories of corporate governance and corporate law cannot explain the behaviour of firms or the contents of existing regulation. This book proposes a coordinated solution for all three areas. The starting point is that all three areas deal with the organisation of firms. Commercial law, corporate governance, and corporate law are therefore studied from the perspective of the firm rather than that of the judge or the investor. Changing the perspective makes it easier to formulate an “umbrella” theory of commercial law, and theories of corporate governance and corporate law as applications of the main theory. The book provides examples of how the proposed theories work by studying legal corporate governance tools and practices that increase the sustainability of the firm. Sustainability can be bolstered by making the governance.[…]

Features
Commercial law, corporate governance and corporate law deal with the organisation of firms. This book proposes a coordinated answer to three problems - the absence of theories of commercial law, the failure of existing theories of corporate governance to explain the actual behaviour of firms, and the failings of existing theories to explain the contents of corporate law. All three areas can be studied […]

Contents

Fields of interest
Commercial Law; Industrial Organization; Theories of Law, Philosophy of Law, Legal History

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

89,95 €
ISBN 978-3-642-22196-5

Outsourcing in Society, Politics and Law
Spaceflight is a rational undertaking, yet full of emotions. It is a dream of mankind and a multi-billion industry likewise. It is subject to a distinct branch of law - and moreover part of modern pop culture. In short: spaceflight is fascinating. "Outer Space in society, politics and law" is an interdisciplinary approach to the understanding of modern space law. Technical, cultural and historical aspects lay the foundation for a sound comprehension why space law norms have been established and what they mean in practice. The reader will realize the impact space and spaceflight have on society – from Stonehenge to climate change. A new approach to presenting space law: comprehensive and illustrative. "We live in a society absolutely dependent on science and technology and yet have cleverly arranged things so that almost no one understands science and technology. That’s a clear prescription for disaster." Carl Sagan

Features
Spaceflight is a rational undertaking, yet full of emotions. It is a dream of mankind and a multi-billion industry likewise. It is subject to a distinct branch of law – and moreover part of modern pop culture. In short: spaceflight is fascinating. “Outer Space in society, politics and law” is an interdisciplinary approach to the understanding of modern space law. Technical, cultural and historical aspects […]

Contents

Fields of interest
Law of the Sea, Air and Outer Space

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days

2011. XXI, 876 p. 154 illus., 33 in color. (Studies in Space Policy, Vol. 8) Hardcover
199,95 €
ISBN 978-3-7091-0663-1

Public Services and the European Union
Healthcare, Health Insurance and Education Services

Politically sensitive and economically important, welfare services such as health care, health insurance and education have opened up a heated debate in the EU. The application of EU law to welfare services raises discontent from the part of the Member States who perceive their systems to be under threat. Resisting to the application of the EU law is sometimes seen as part of protecting those values. This book suggests that this resistance is largely unjustified. EU law is not damaging to welfare systems, but it provides adequate balancing mechanisms to ensure that all interests are protected. The approach taken in analysing the impact of EU law on welfare services is to look at the negative integration process and answer the questions related to the extent to which EU law applies to welfare services and the kinds of safeguards the Court offers for these services. The proportionality principle distinguishes itself as the central element in balancing national and Community interests. Being part of […]

Features
Patients travelling abroad to receive medical treatment, healthcare providers wishing to establish their seat or to provide services abroad, and students travelling abroad for education were faced with different barriers which have been declared illegal by the Court of Justice of the European Union. Member States started to use market mechanisms in their welfare systems and this triggered the application of […]

Contents
Introduction.- The organisation of welfare.- The reach of internal market rules.- The application of the rules on competition.- Positive and soft law.

Fields of interest
Public International Law

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

109,95 €
Reconstituting the Constitution

All nation states, whether ancient or newly created, must examine their constitutional fundamentals to keep their constitutions relevant and dynamic. Constitutional change has greater legitimacy when the questions are debated before the people and accepted by them. Who are the peoples in this state? What role should they have in relation to the government? What rights should they have? Who should be Head of State? What is our constitutional relationship with other nation states? What is the influence of international law on our domestic system? What process should constitutional change follow? In this volume, scholars, practitioners, politicians, public officials, and young people explore these questions and others in relation to the New Zealand constitution and provide some thought-provoking answers. This book is recommended for anyone seeking insight into how a former British colony with bicultural foundations is making the transition to a multicultural society in an increasingly complex and...]

Features
All nation states, whether ancient or newly created, must examine their constitutional fundamentals to keep their constitutions relevant and dynamic. Constitutional change has greater legitimacy when the questions are debated before the people and accepted by them. Who are the peoples in this state? What role should they have in relation to the government? What rights should they have? Who should be Head of State? What is our constitutional relationship with other nation states? What is the influence of international law on our domestic system? What process should constitutional change follow? In this volume, scholars, practitioners, politicians, public officials, and young people explore these questions and others in relation to the New Zealand constitution and provide some thought-provoking answers. This book is recommended for anyone seeking insight into how a former British colony with bicultural foundations is making the transition to a multicultural society in an increasingly complex and...

Contents

Fields of interest
Private International Law, International & Foreign Law, Comparative Law; Constitutional Law; Political Science, general.

Target groups
Research.

Type of publication
Monograph.

The Europeanisation of International Family Law

Choice of law determines which national legal system applies to an international case. Currently many choice of law rules in the field of family law are regulated by national law. However, these national rules of the EU Member States are more and more displaced by common European rules. This book describes the changes brought by the Europeanisation of the choice of law on divorce. From the conclusions drawn in the field of divorce the concluding chapter discusses the changes of Europeanisation of international family law in a broader perspective.

Features
International family law is an area that is predominantly regulated by national law. Currently the national choice of law rules of the EU Member States are more and more displaced by common European rules, which will entail considerable changes. In this book, the nature and reasons of the changes brought about by the transition from a national to a supranational choice of law approach are discussed in...

Contents
Introduction. - The Dutch choice of law rules on divorce. - The Dutch choice of law rules on the termination of registered partnerships. - The Europeanisation of international family law: the EU legislature’s competence. - The proposed European choice of law rules on divorce. - The failure of the establishment of a common European choice of law on divorce. - The Dutch and the European choice of law rules on divorce compared. - A unified system of international family law in the European Union: which way forward?

Fields of interest
Private International Law, International & Foreign Law, Comparative Law.

Target groups
Research.

Type of publication
Monograph.

Usually dispatched within 3 to 5 business days

2011. XV, 341 p. Hardcover
99,95 €

The Future of Asylum in the European Union

Problems, proposals and human rights

This book is based on a conference on the future of the European asylum policy at Erasmus School of Law in Rotterdam, the Netherlands. After a challenge set by the Dutch State Secretary for Justice, Ms Nebahat Albayrak, the contributions to this book focus on human rights aspects of the European asylum policy and the way the EU Member States need to cooperate in the future in order to reach results. The authors are scholars, policy makers and representatives of NGOs. In this way, many different aspects of the problems are put forward. In the introduction and the conclusion the editors evaluate the results of this broad cooperation. Valuable for academics, practitioners, policymakers and NGO’s involved with European asylum policy issues.

Features
The position and treatment of asylum seekers has been at the centre of attention in most of the Member States of the EU in recent years. These Member States have decided to cooperate more and more on asylum issues. However, this leads to questions concerning the human rights protection of asylum seekers as a result of EU decisions, both at the moment they apply for asylum at the border and during the...

Contents

Fields of interest
International Law.

Target groups
Research.

Type of publication
Contributed volume.

Usually dispatched within 3 to 5 business days

89,95 €

N.A. Baarsma, Groningen, The Netherlands.

F.A.N.J. Goudappel, Erasmus University Rotterdam, The Netherlands; H.S. Raulus, Erasmus University Rotterdam, The Netherlands (Eds.).
The Need for an Integrated Regulatory Regime for Aviation and Space

ICAO for Space?

In the new space age after the end of the Cold War, orbit and frequency allocations, traffic control, safety, and a number of support services such as space weather forecast and orbital debris monitoring need to be coordinated transparently and effectively by clear rules at an international level. The establishment of an international civil space regulatory framework is the central theme of this book, in particular, the possible extension to space of the international regulatory framework model adopted for aviation more than 60 years ago with the establishment of the International Civil Aviation Organization (ICAO). The book also highlights the increased reliance of aviation safety on space-based navigation and communication systems, the increasing space systems traffic through the international airspace under the jurisdiction of the ICAO, and the emerging hybrid systems such as aero-spacecraft and space planes, to advocate the practical benefits of directly expanding the ICAO Convention domain.[…]

Features

In the new space age after the end of the Cold War, orbit and frequency allocations, traffic control, safety, and a number of support services such as space weather forecast and orbital debris monitoring need to be coordinated transparently and effectively by clear rules at an international level. The establishment of an international civil space regulatory framework is the central theme of this book, in […]

Contents


Fields of interest

Law of the Sea, Air and Outer Space; Aerospace Technology and Astronautics; Technology Management

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 2 to 3 business days

2012. XXIV, 187 p. 9 illus. (Studies in Space Policy, Vol. 7) Hardcover

99.95 €
ISBN 978-3-7091-0717-1
Aralkum - a Man-Made Desert
The Desiccated Floor of the Aral Sea (Central Asia)

Having been the fourth largest lake on the globe roughly 50 years ago, today the Aral Sea no longer exists. Human activities caused its desiccation and the formation of a huge new desert, the Aralkum, which can be regarded as one of the greatest ecological catastrophes and - at the same time - the largest primary succession experiment of mankind. This volume brings together the results of international and interdisciplinary long-term studies on the new desert ecosystem and is divided into four main sections. The first section provides an overview of the physical characteristics of the area and covers geological, pedological, geomorphological and climatological aspects and their dynamics, especially dust-storm dynamics. The second focuses on the biotic aspects and highlights the spatial and temporal patterns of the flora and fauna. In the third section studies and projects aiming to combat desertification by phytomelioration and to develop strategies for the conservation of biodiversity are[...]

Features
Having been the fourth largest lake on the globe roughly 50 years ago, today the Aral Sea no longer exists. Human activities caused its desiccation and the formation of a huge new desert, the Aralkum, which can be regarded as one of the greatest ecological catastrophes and - at the same time - the largest primary succession experiment of mankind. This volume brings together the results of [...]
Detoxification of Heavy Metals

Heavy metals are severe environmental pollutants, and many of them are toxic even at very low concentrations. With industrial development, soil pollution with heavy metal elements have dramatically increased. The uptake of heavy metals via plants that are exposed to contaminated soils is a risk for human health and a major hazard for the ecosystem as a whole, including soil microorganisms. On the other hand, plants may be used in the decontamination of soils. The topics presented in this book include: sources of heavy metals contaminants in soils; plant species that can grow on contaminated soils; the phytoremediation of contaminated soils; tolerance, accumulation and detoxification mechanisms of zinc, copper, arsenic, cadmium and vanadium in plants; the critical role of sulfur metabolism in heavy metal tolerance; the role of aquatic macrophytes, plant growth-promoting bacteria, sugar crops and earthworms in detoxification; and heavy metal stabilization by promoting zeolite synthesis in soils.

Features
Heavy metals are severe environmental pollutants, and many of them are toxic even at very low concentrations. With industrial development, soil pollution with heavy metal elements have dramatically increased. The uptake of heavy metals via plants that are exposed to contaminated soils is a risk for human health and a major hazard for the ecosystem as a whole, including soil microorganisms. On the other [...]
Frontiers in Sensing
From Biology to Engineering

Biological sensory systems, fine-tuned to their specific tasks with remarkable perfection, have an enormous potential for technical, industrial, and medical applications. This applies to sensors specialized for a wide range of energy forms such as optical, mechanical, electrical, and magnetic, to name just a few. This book brings together first-hand knowledge from the frontiers of different fields of research in sensing. It aims to promote the interaction between biologists, engineers, physicists, and mathematicians and to pave the way for innovative lines of research and cross-disciplinary approaches. The topics presented cover a broad spectrum ranging from energy transformation and transduction processes in animal sensing systems to the fabrication and application of bio-inspired synthetic sensor arrays. The various contributions are linked by the similarity of what sensing has to accomplish in both biology and engineering.

Features
Biological sensory systems, fine-tuned to their specific tasks with remarkable perfection, have an enormous potential for technical, industrial, and medical applications. This applies to sensors specialized for a wide range of energy forms such as optical, mechanical, electrical, and magnetic, to name just a few. This book brings together first-hand knowledge from the frontiers of different fields of research in sensing. It aims to promote the interaction between biologists, engineers, physicists, and mathematicians and to pave the way for innovative lines of research and cross-disciplinary approaches. The topics presented cover a broad spectrum ranging from energy transformation and transduction processes in animal sensing systems to the fabrication and application of bio-inspired synthetic sensor arrays. The various contributions are linked by the similarity of what sensing has to accomplish in both biology and engineering.

Contents

Target groups Research

Type of publication Professional book

Online orders shipping within 2-3 days.

2012, X, 438 p. 186 illus. in color. Hardcover

149,95 €
ISBN 978-3-211-99748-2

Functional Coherence of Molecular Networks in Bioinformatics

M. Koytik, Case Western Reserve University, Cleveland, OH, USA; S. Subramaniam, University of California, San Diego, La Jolla, CA, USA; A. Grama, Purdue University, West Lafayette, IN, USA (Eds.)

Functional Genomics and Evolution of Photosynthetic Systems

R. Burnap, Oklahoma State University, Stillwater, OK, USA; W. Verraas, Arizona State University, Tempe, AZ, USA (Eds.)

Functional Genomics and Evolution of Photosynthetic Systems

New possibilities have been brought about by the stunning number of genomic sequences becoming available for photosynthetic organisms. This new world of whole genome sequence data spans the phyla from photosynthetic microbes to algae to higher plants. These whole genome projects are intrinsically interesting, but also inform the variety of other molecular sequence databases including the recent ‘meta-genomic’ sequencing efforts that analyze entire communities of organisms. As impressive as they are, are obviously only the beginning of the effort to decipher the biological meaning encoded within them. This book aims to highlight progress in this direction. This book aims toward a genome-level understanding of the structure, function, and evolution of photosynthetic systems and the advantages accrued from the availability of phyletically diverse sets of gene sequences for the major components of the photosynthetic apparatus. While not meant to be fully comprehensive in terms of the topics [...] Features
Recent advances in the genomics of photosynthetic organisms, coupled with increased understanding photosynthetic mechanisms, provides new perspectives on the function and evolution of the photosynthetic mechanisms. Correspondingly, a central theme of the book is the application of comparative methods that exploit the explosive growth in biological sequence data to inform our understanding of the operation [...] Contents
From the Series Editor. - Contents. - Preface. - The Editors. - Contributors. - Author Index.- 1. Functional Genomics in an Ecological and Evolutionary Context: Maximizing the Value of Genomes in Systems Biology; David M. Ward et al.- 2. Probing Functional Diversity of Thermophilic Cyanobacteria in Microbial Mats; Devaki Bhaya.- 3. Comparative and Functional Genomics of Anoxygenic Green Bacteria from the Taxa Chlorobi, Chlororhizis, and Acidobacteria; Donald A. Bryant et al.- 4. Recent Functional Genomics Studies of Marine Synechococcus; Brian Palenik.- 5. Functional Analysis of the [...] Fields of interest Life Sciences (general); Plant Biochemistry; Plant Genetics and Genomics; Microbial Genetics and Genomics; Gene Function; Energy Harvesting

Target groups Research

Type of publication Contributed volume

Usually dispatched within 3 to 5 business days

2012, XXXV, 392 p. 94 illus., 60 in color. (Advances in Photosynthesis and Respiration, Vol. 33) Hardcover

369,00 €
Himalayan Biodiversity in the Changing World

This book presents some results on selected taxa in the Himalayan region (mainly Nepal), pinpoints the threats to their survival and suggests ways how to avoid their extinction. Most chapters are based on graduate research projects – relatively long-term field studies. The data presented here can be a good source of updated information on the subject and will prove to be a very useful reference in future studies of Himalayan biodiversity. They also tend to pinpoint the existing gaps in our knowledge of this region. All the chapters are based on recent trends of biodiversity and conservation vision, so the book can be a potential alternative to the existing relatively older books with outdated vision and information. Its main goal, however, is to disseminate the information about biodiversity conservation problems in the Himalayan region among the people in the developed world.

Features
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Contents

Fields of interest
Ecology; Conservation Biology / Ecology; Biodiversity; Ecosystems; Landscape Ecology

Type of publication
Graduate

Human Cell Transformation
Role of Stem Cells and the Microenvironment

Rhim and Kremer’s state-of-the-art volume on Human Cell Transformation: Role of Stem Cells and the Microenvironment highlights the latest findings on the current state of human cell transformation model systems and provides the insight into the molecular and cellular changes involved in the conversion of normal cells to neoplastic cells. Chapters cover all recently developed novel human cell models. In addition, the rapidly growing fields of knowledge regarding not only stem cells in cancer progression, but also the role of the microenvironments in human carcinogenesis are discussed. A wealth of topics is presented including: - Derivation of epithelial, fibroblastic, and hematopoietic in vitro model systems - Oncogenes. Tumor suppressor genes. - Viral transformation. - In vitro model systems for viral, chemical and radiation carcinogenesis. - Cell aging. - The multistep nature of human carcinogenesis. - The role of stem cells and the [...]

Features
No back cover text

Contents

Fields of interest
Cell Biology; Stem Cells

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

139,95 €
ISBN 978-1-4614-0253-4

Human Embryonic and Induced Pluripotent Stem Cells

Lineage-Specific Differentiation Protocols

Because of the huge potential of human embryonic stem (hES) cells, especially the newly developed human induced pluripotent stem (hiPS) cells, in disease treatment and life quality improvement, enormous efforts have been made to develop new methodologies to translate lab discoveries in stem cell research into bedside clinical technologies. In Human Embryonic and Induced Pluripotent Stem Cells: Lineage-Specific Differentiation Protocols, experts in the field present a comprehensive collection of protocols designed for labs around the world. The topics covered in this detailed volume include techniques used for maintenance of hES and iPS cells in either small or large scale, techniques for directing hES and iPS cell lineage specification, techniques for enhancing the maturity of differentiated hES and iPS cells within three-dimensional scaffolds, techniques for programming adult cells into iPS cells, techniques for generating patient-specific iPS cells, and techniques for translating hES and iPS [...]

Contents
Feeder-Free Growth of Undifferentiated Human Embryonic Stem Cells. - Growth of Human Embryonic Stem Cells in Long-Term Hypoxia. - Laboratory–Scale Purification of a Recombinant E-Cadherin-IgG Fc Fusion Protein that Provides a Cell Surface Matrix for Extended Culture and Efficient Subculture of Human Pluripotent Stem Cells. - Scale-Up of Single Cell-Inoculated Suspension Cultures of Human Embryonic Stem Cells. - Three-Dimensional Culture for Expansion and Differentiation of Embryonic Stem Cells. - Expansion of Pluripotent Stem Cells in Defined Xeno-Free Culture System. - Pluripotent Stem Cells [...]

Fields of interest
Cell Biology; Stem Cells

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. XVI, 486 p. 88 illus., 48 in color. (Springer Protocols Handbooks) Hardcover
124,95 €
ISBN 978-1-61779-266-3
Humans on Earth
From Origins to Possible Futures

This is a wide-ranging and persuasive book written by an undisputed expert. Beginning with a broad history of the Universe, Earth, Life, and Man, it considers the origins and rise of science and technology, before moving on to discuss the present state of the world and its/our possible futures. Humans on Earth then addresses the main challenges for social and economic development in the 21st century in the context of global change. It presents a detailed but non-technical analysis of questions relating to climate change, our dependence on fossil fuels, deforestation, loss of biodiversity, desertification, and air, water, soil, and ocean pollution, as well as problems related to overpopulation, poverty, social and economic inequalities, and conflict potential. The three main, but largely mutually exclusive, discourses on human development and the environment are described and discussed. The main emphasis is on the risks and uncertainties of the short-term future – the next 50 to 100 years – with...[]

Innovations as Key to the Green Revolution in Africa
Exploring the Scientific Facts

Africa can achieve self sufficiency in food production through adoption of innovations in the agriculture sector. Numerous soil fertility and crop production technologies have been generated through research, however, wide adoption has been low. African farmers need better technologies, more sustainable practices, and fertilizers to improve and sustain their crop productivity and to prevent further degradation of agricultural lands. The agricultural sector also needs to be supported by functional institutions and policies that will be able to respond to emerging challenges of globalization and climate change.

Features
Africa urgently needs a uniquely African Green Revolution - a revolution that is long overdue, a revolution that will help the continent in its quest for dignity and peace. Mr. Kofi Annan, Former Secretary General of the United Nations (UN), currently the Board Chair of Alliance for a Green Revolution in Africa [...]
Mechanical Stretch and Cytokines

This book presents the latest findings in the field of investigation of molecular mechanisms of mechanical stretch and the role of cytokines in response of different tissues to it. On the one hand this Volume demonstrates how mechanical stretch enhances cytokines production. It describes how cytokines influence tissues and cells on a background of a mechanical stretching. It provides a description of how cells in different tissues are activated by stretch and cytokines via various signaling pathways, and how they change their gene expression. The book is a unique collection of reviews outlining current knowledge and future developments in this rapidly growing field. Knowledge of biomechanics, and mechanisms which underlie it on molecular, cellular and tissue, is necessary for understanding of the normal functioning of living organisms and allows to predict changes, which arise due to alterations of their environment.

Features
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Contents
Foreword by Leonid V. Rosenshtaukh, Editorial, Andre Kamkin and Irina Kiseleva. - 1 Cytokine System, Andrey A. Sinibortsev and Ivan G. Kozlov. - 2 Mechanical stretching of cells of different tissues: The role of mediators of innate immunity, Leonid V. Kovalchuk et al. - 3 Mechanosensitive pro-inflammatory gene expression in vascular cells, Marco Cattaruzza, Andreas H. Wagner, and Markus Hecker. - 4 Cytokines, heart and calcium current in sepsis, Stengl Milan, Prucha Miroslav, and Matejovic Martin. - 5 The role of proinflammatory cytokines in regulation of cardiac bioelectrical activity: Link[..]

Fields of interest
Cell Biology; Biomedicine (general); Human Physiology; Immunology; Molecular Medicine

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012, XV, 236 p. 31 illus., 15 in color. (Mechanosensitivity in Cells and Tissues, Tentative volume 5) Hardcover


Metal Toxicity in Plants: Perception, Signaling and Remediation

Heavy metal accumulation in soil and water from natural sources or anthropogenic activities have produced severe environmental contamination in some parts of the world due to the persistence of metals in the environment by their accumulation throughout the food chain. The purpose of this book is to present the most recent advances in this field, mainly concerning the uptake and translocation of heavy metals in plants, mechanisms of toxicity, perception of metal and regulation of cell response under metal stress. Another key feature of this book is related to the studies on signaling and remediation processes in recent years, which have taken advantage of recent technological advances including ‘omic’ approaches. In recent years transcriptomic, proteomic and metabolomic studies have become very important tools for analyzing both the dynamics of changes in gene expression and the profiles of protein and metabolites under heavy metal stress. This information is also very useful for plotting the complex[..]

Features
Heavy metal accumulation in soil and water from natural sources or anthropogenic activities have produced severe environmental contamination in some parts of the world due to the persistence of metals in the environment by their accumulation throughout the food chain. The purpose of this book is to present the most recent advances in this field, mainly concerning the uptake and translocation of heavy metals [..]

Contents
Heavy Metal Bindings and Its Interactions with Thiol Peptides and Other Biological Ligands in Plant Cells. - Heavy Metal Perception in a Microscale Environment: A Model System Using High Doses of Pollutants. - Genetic and Molecular Aspects of Metal Tolerance and Hyperaccumulation. - Cadmium and Copper Stress Induce a Cellular Oxidative Challenge Leading to Damage Versus Signaling. - Insights into Cd Toxicity: Reactive Oxygen and Nitrogen Species Function. - Exploring the Plant Response to Cadmium Exposure by Transcriptomic, Proteomic and Metabolomic Approaches: Potentiality of[..]

Fields of interest
Plant Physiology; Agriculture; Plant Biochemistry; Oxidative Stress; Plant Pathology

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012, X, 264 p. 21 illus., 14 in color. Hardcover

139,95 € ISBN 978-3-642-22080-7

Microbial Stress Tolerance for Biofuels

Systems Biology

The development of sustainable and renewable biofuels is attracting growing interest. It is vital to develop robust microbial strains for biocatalysts that are able to function under multiple stress conditions. This Microbiology Monograph provides an overview of methods for studying microbial stress tolerance for biofuels applications using a systems biology approach. Topics covered range from mechanisms to methodology for yeast and bacteria, including the genomics of yeast tolerance and detoxification; genetics and regulation of glycogen and trehalose metabolism; programmed cell death; high gravity fermentations; ethanol tolerance; improving biomass sugar utilization by engineered Saccharomyces; the genomics on tolerance of Zymomonas mobilis; microbial solvent tolerance; control of stress tolerance in bacterial host organisms; metabolomics for ethanologenic yeast; automated proteomics work cell systems for strain improvement; and unification of gene expression data for comparable analyses under[..]

Features
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Contents
Genomics of yeast tolerance and in situ detoxification. - Genetics and regulation of glycogen and trehalose metabolism in Saccharomyces cerevisiae. - Molecular mechanisms of programmed cell death induced by acetic acid in Saccharomyces cerevisiae. - Molecular mechanisms of ethanol tolerance in Saccharomyces cerevisiae. - High gravity ethanol fermentations and yeast tolerance. - Improving biomass sugar utilization by engineered Saccharomyces cerevisiae. - Genomics on pretreatment inhibitor tolerance of Zymomonas mobilis. - Mechanisms and applications of microbial solvent tolerance. - Control of[..]

Fields of interest
Microbial Genetics and Genomics; Systems Biology; Cell Biology; Biotechnology; Applied Microbiology

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days


139,95 € ISBN 978-3-642-21466-0
Molecular Chaperones

Methods and Protocols

The proteome consists of a complex mixture of proteins each of which need to be folded correctly in order to function for the health of the organism, and many of these proteins require molecular chaperones to reach the correct conformation and, in some cases, to remain in a folded form. In Molecular Chaperones: Methods and Protocols, expert researchers address a wide variety of approaches to the study these mechanisms, featuring the workings of heat shock proteins and heat shock transcription factors, in vitro and in vivo. Written in the highly successful Methods in Molecular Biology™ series format, chapters features 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. Authoritative and cutting-edge, Molecular Chaperones: Methods and Protocols serves as an ideal guide for all scientists who wish to pursue this vital biological action and its impact on [...] Features

The proteome consists of a complex mixture of proteins each of which need to be folded correctly in order to function for the health of the organism, and many of these proteins require molecular chaperones to reach the correct conformation and, in some cases, to remain in a folded form. In Molecular Chaperones: Methods and Protocols, expert researchers address a wide variety of approaches to the [...] Contents

Targeted Deletion of Hsf1, 2, and 4 Genes in Mice.- The Role Of Heat Shock Factors in Stress-Induced Transcription.- Hsp90 and Client Protein Maturation.- The Role of p23, Hop, Immunophillin and Other Co-Chaperones in Regulating Hsp90 Function.- Detecting Hsp90 Phosphorylation.- Role of Molecular Chaperones in Biogenesis of the Protein Kinome.- Nucleotide Exchange Factors for Hsp70 Chaperones.- Reconstitution of CHIP E3 Ubiquitin Ligase Activity.- Structure-Functions of Hsp81 (Hsp27).- Combined Lentiviral and RNAi Technologies for the Delivery and Permanently Silencing of the hsp25 [...] Fields of interest

Biochemistry; Proteomics

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


109,95 €


Nonaproteomics

Methods and Protocols

As two relatively new fields of study, proteomics and nanotechnology have developed in parallel with each other to allow an increased precision in the identification of post-translational protein modifications as well as to provide a more automated isolation and detection of rare proteins in both serum and tissues. The Nonaproteomics: Methods and Protocols volume organizes and collects technical advances from leaders in the field to make laboratory protocols more readily available and understandable to those who are attempting to incorporate nanotechnology and proteomic techniques into their proteomic research. Conveniently divided into five sections, this detailed volume covers preliminary sample preparation, nanoscale fluidic devices and methods, nanostructured surfaces and nanomaterials, and nanotechnology and proteomic techniques to detect and understand protein and proteomic alterations specific to human pathology. Written in the highly successful series entitled Methods in Molecular Biology™, these chapters include [...] Features

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Protein Science; Proteomics

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


94,95 €


Network Biology

Methods and Applications

While extremely large datasets describing gene sequences, mRNA transcripts, protein abundance, and metabolite concentrations are increasingly commonplace, these represent only starting 'parts lists' that are usually insufficient to unlock mechanistic insights on their own right. Fortunately, as Network Biology: Methods and Applications examines, concepts emerging from the study of biological entities such as networks (e.g. functional interactions linking genes, proteins, metabolites, etc.) suggest that order rather than chaos prevails, with such principles as modular and hierarchical organization, reactive information-driven causal-response behaviours, systems robustness, co-evolution, and self-organization guiding the way. This volume presents detailed, practical descriptions of the experimental and computational approaches currently prevalent in network biology as written by practiced experts in the field. Written in the highly successful Methods in Molecular Biology™ series format, relevant [...] Features

While extremely large datasets describing gene sequences, mRNA transcripts, protein abundance, and metabolite concentrations are increasingly commonplace, these represent only starting 'parts lists' that are usually insufficient to unlock mechanistic insights on their own right. Fortunately, as Network Biology: Methods and Applications examines, concepts emerging from the study of biological [...] Contents

Analysis of Protein–Protein Interactions Using High-throughput Yeast Two-Hybrid Screens.- Identification of Mammalian Protein Complexes by Lentiviral-Based Affinity Purification and Mass Spectrometry.- Protein Networks Involved in Vesicle Fusion, Transport, and Storage Revealed by Array-Based Proteomics.- Identification and Relative Quantification of Native and Proteolytically Generated Protein C-termini from Complex Proteomes: C-terminome Analysis.- Construction of Protein Interaction Networks Based on the Label Free Quantitative Proteomics.- Studying Binding Specificities of Peptide [...] Fields of interest

Bioinformatics; Systems Biology; Computer Applications in Life Sciences

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


109,95 €

Noise-Induced Hearing Loss

Scientific Advances
Exposure to loud noise continues to be the largest cause of hearing loss in the adult population. The problem of NIHL impacts a number of disciplines. US standards for permissible noise exposure were originally published in 1968 and remain largely unchanged today. Indeed, permissible noise exposure for US personnel is significantly greater than that allowed in numerous other countries, including for example, Canada, China, Brazil, Mexico, and the European Union. However, there have been a number of discoveries and advances that have increased our understanding of the mechanisms of NIHL. These advances have the potential to impact how NIHL can be prevented and how our noise standards can be made more appropriate.

Features
Exposure to loud noise continues to be one of the largest causes of hearing loss in the adult population, already affecting some 15 percent of Americans between the ages of 20 and 69. There have been a number of discoveries and advances that have increased our understanding of the mechanisms of Noise-Induced Hearing Loss (NIHL). These advances have the potential to impact how NIHL can be prevented and how...
Poly(ADP-ribose) Polymerase

Methods and Protocols

Poly (ADP-ribose) Polymerases (PARPs) are abundant and ubiquitous proteins that regulate crucial processes of the cell cycle, DNA repair, genomic stability, and transcriptional regulation. Being involved in basic cell functions, PARPs mediate rapid responses to such environmental factors as stress, infection, nutrition and hormonal signals. Whereas PARP inhibitors can suppress tumor growth and proliferation in certain breast, ovarian, and prostate cancers, understanding how PARP controls cellular functions is essential for the development of novel cancer treatments strategies. Divided into three convenient sections, Poly(ADP-Ribose) Polymerases: Methods and Protocols aims to explain how PARP proteins act within the normal development of an organism as well as in pathogenic conditions, seeks to advance the knowledge of developmental pathways regulation, and endeavors to facilitate the development of new therapeutic drugs and methods to target PARP-dependent processes. Written in the highly successful [...] Principles of Terrestrial Ecosystem Ecology

Humans have directly modified half of the ice-free terrestrial surface and use 40% of terrestrial production. We are causing the sixth major extinction event in the history of life on Earth. With the Earth’s climate, flora, and fauna changing rapidly, there is a pressing need to understand terrestrial ecosystem processes and their sensitivity to environmental and biotic changes. This book offers a framework to do just that. Ecosystem ecology regards living organisms, including people, and the elements of their environment as components of a single integrated system. The comprehensive coverage in this textbook examines the central processes at work in terrestrial ecosystems, including their freshwater components. It traces the flow of energy, water, carbon, and nutrients from their abiotic origins to their cycles through plants, animals, and decomposer organisms. As well as detailing the processes themselves, the book goes further to integrate them at various scales of magnitude—those of the [...] Principles of Terrestrial Ecosystem Ecology

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Recent Advances in Entomological Research

From Molecular Biology to Pest Management

In recent years the field of entomology, due in part to the penetration of other disciplines, has made rapid progress. "Recent Advances in Entomological Research: From Molecular Biology to Pest Management" includes 25 chapters contributed by more than 40 distinguished entomologists and introduces the latest progress in entomology, from molecular biology, insect-plant interactions and insecticide toxicology, to emerging technologies in pest management. Not only is the book interesting and informative, but it provides useful, innovative research advances and will serve as a valuable resource for entomologists, zoologists, botanists and other researchers in the field of plant protection. Tong-Xian Liu is a professor of entomology at the College of Plant Protection, Northwest A&F University, China. Le Kang is a professor of entomology at the Institute of Zoology, Chinese Academy of Sciences, China.

Contents

Single Molecule Analysis

Methods and Protocols

Life scientists believe that life is driven, directed, and shaped by biomolecules working on their own or in concert. It is only in the last few decades that technological breakthroughs in sensitive fluorescence microscopy and single-molecule manipulation techniques have made it possible to observe and manipulate single biomolecules and measure their individual properties. The methodologies presented in Single Molecule Techniques: Methods and Protocols are being applied more and more to the study of biologically relevant molecules, such as DNA, DNA-binding proteins, and motor proteins, and are becoming commonplace in molecular biophysics, biochemistry, and molecular and cell biology. The aim of Single Molecule Techniques: Methods and Protocols is to provide a broad overview of single-molecule approaches applied to biomolecules on the basis of clear and concise protocols, including a solid introduction to the most widely used single-molecule techniques, such as optical tweezers, single-molecule...[

Features

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Contents


Fields of interest

Biochemistry

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days


94,95 €

ISBN 978-1-61779-281-6

Stress Ecology

Environmental Stress as Ecological Driving Force and Key Player in Evolution

Not all stress is stressful; instead, it appears that stress in the environment, below the mutation threshold, is essential for many subtle manifestations of population structures and biodiversity, and has played a substantial role in the evolution of life. Intrigued by the behavior of laboratory animals that contradicted our current understanding of stress, the author and his group studied the beneficial effects of stress on animals and plants. The seemingly “crazy” animals demonstrated that several stress paradigms are outdated and have to be reconsidered. The book describes the general stress responses in microorganisms, plants, and animals to abiotic and biotic, to natural and anthropogenic stressors. These stress responses include the activation of oxygen, the biotransformation system, the stress proteins, and the metal-binding proteins. The potential of stress response lies in the transcription of genes, whereas the actual response is manifested by proteins and metabolites. Yet, not all...[

Features

Not all stress is stressful; instead, it appears that stress in the environment, below the mutation threshold, is essential for many subtle manifestations of population structures and biodiversity, and has played a substantial role in the evolution of life. Intrigued by the behavior of laboratory animals that contradicted our current understanding of stress, the author and his group studied the beneficial...[

Contents


Fields of interest

Ecology: Animal Ecology; Freshwater & Marine Ecology; Molecular Ecology; Plant Ecology

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012, XII, 480 p. 203 illus., 111 in color. Hardcover

129,95 €

ISBN 978-94-007-2071-8

Sustainable Urban Environments

An Ecosystem Approach

The urban environment – buildings, cities, and infrastructure – represents one of the most important contributors to climate change, while at the same time holding the key to a more sustainable way of living. The transformation from traditional to sustainable systems requires interdisciplinary knowledge of the re-design, construction, operation and maintenance of the built environment. Sustainable Urban Environments: An Ecosystem Approach presents fundamental knowledge of the built environment. Approaching the topic from an ecosystems perspective, it shows the reader how to combine diverse practical elements into sustainable solutions for future buildings and cities. You’ll learn to connect problems and solutions at different spatial scales, from urban ecology to material, water and energy use, from urban transport to livability and health. The authors introduce and explore a variety of governance tools that support the transformation process, and show how they can help overcome institutional...[

Features

The urban environment – buildings, cities, and infrastructure – represents one of the most important contributors to climate change, while at the same time holding the key to a more sustainable way of living. The transformation from traditional to sustainable systems requires interdisciplinary knowledge of the re-design, construction, operation and maintenance of the built environment. Sustainable...[

Contents

1. Introduction. 1.1 The built environment: problem and solution. 1.2 Analyzing the urban environment: an ecosystem approach. 1.3 Analytical focus is on ecological processes. 1.4 Setting the boundaries in this book; E. van Bueren.. 2. (Eco)system thinking: ecological principles for buildings, roads, industrial and urban areas. 2.1 Introduction. 2.2 General characteristics of (eco)system thinking. 2.3 The development of system theory and ecosystem theory. 2.4 Important concepts and characteristics of ecosystems. 2.5 Classification of ecosystems on different levels of scale (from global to...[

Fields of interest

Urban Ecology; Architecture; Landscape, Regional and Urban Planning; Renewable and Green Energy; Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012, XIX, 429 p. 138 illus., 45 in color. Softcover

49,95 €

The Nucleolus

Within the past two decades, extraordinary new functions for the nucleolus have begun to appear, giving the field a new vitality and generating renewed excitement and interest. These new discoveries include both newly-discovered functions and aspects of its conventional role. The Nucleolus is divided into three parts: nucleolar structure and organization, the role of the nucleolus in ribosome biogenesis, and novel functions of the nucleolus.

Contents

Fields of interest
Cell Biology; Protein Science; Nucleic Acid Chemistry; Biochemistry; Oxidative Stress; Gene Function

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2011. XXV, 466 p. 67 illus., 53 in color. (Protein Reviews, Vol. 15) Hardcover

149,95 €

The Pollination Biology of North American Orchids: Volume 2

North of Florida and Mexico

Recent studies have revealed remarkable complexity and diversity in orchid-pollinator relationships. These studies comprise a vast literature currently scattered in numerous, often obscure, journals and books. The Pollination Biology of North American Orchids brings together, for the first time, a comprehensive treatment of this information for all native and introduced North American orchids found north of Mexico and Florida. It provides detailed information on genetic compatibility, breeding systems, pollinators, pollination mechanisms, fruiting success, and limiting factors for each species. Distribution, habitat, and floral morphology are also summarized. In addition, detailed line drawings emphasize orchid reproductive organs and their adaptation to known pollinators. This, the second of two volumes, treats the subfamily Orchidoeae with the tribe Cランチシデアイ. This is followed by examination of the seven North American tribes of subfamily Epipendroideae and the single North American tribe of...[...]

Contents

Fields of interest
Plant Sciences; Plant Breeding / Biotechnology; Plant Anatomy / Development; Plant Genetics and Genomics

Target groups
Graduate

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. IX, 202 p. 43 illus. Hardcover

139,95 €
ISBN 978-1-4614-0621-1

Tissue Engineering in Regenerative Medicine

Over the past decade, significant advances in the fields of stem cell biology, bioengineering, and animal models have converged on the discipline of regenerative medicine. Significant progress has been made leading from pre-clinical studies through phase 3 clinical trials for some therapies. This volume provides a state-of-the-art report on tissue engineering toward the goals of tissue and organ restoration and regeneration. Examples from different organ systems illustrate progress with growth factors to assist in tissue remodeling; the capacity of stem cells for restoring damaged tissues; novel synthetic biomaterials to facilitate cell therapy; transplantable tissue patches that preserve three-dimensional structure; synthetic organs generated in culture; aspects of the immune response to transplanted cells and materials; and suitable animal models for non-human clinical trials. The chapters of this book are organized into six sections: Stem Cells, Biomaterials and the Extracellular Environment,[...]

Features
Over the past decade, significant advances in the fields of stem cell biology, bioengineering, and animal models have converged on the discipline of regenerative medicine. This volume provides a state-of-the-art report on tissue engineering toward the goals of tissue and organ restoration and regeneration. Examples from different organ systems are used to illustrate progress with growth factors to assist in[...]

Contents

Fields of interest
Stem Cells; Cell Biology; Biotechnology

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2011. XIV, 426 p. 56 illus., 52 in color. (Stem Cell Biology and Regenerative Medicine) Hardcover

169,95 €
**Tropical and Sub-Tropical Reservoir Limnology in China**

**Theory and practice**

Reservoirs are specific aquatic ecosystems and have complex behaviors of both natural lakes and rivers, regulated significantly by their functions such as flood controlling, hydropower generation, irrigation and fishery. This volume offers a general description of reservoir limnology in tropical and subtropical China. It functions as a window opening to all the aquatic scientists with a main focus on reservoirs in southern China and at the same time also covering several important, large reservoirs such as the Three Gorge Reservoir and Danjiangkou Reservoir. Topics discussed are zooplankton, phytoplankton and zoobenthos communities, cyanobacteria, nutrient budget, sediments, biogeochemical cycling of mercury, fishery and eutrophication.

**Features**

Reservoirs are specific aquatic ecosystems and have complex behaviors of both natural lakes and rivers, regulated significantly by their functions such as flood controlling, hydropower generation, irrigation and fishery. This volume offers a general description of reservoir limnology in tropical and subtropical China. It functions as a window opening to all the aquatic scientists with a main focus on [...]
Chitosan for Biomaterials I


Contents

Features
Energetic Materials at Extreme Conditions

David I.A. Millar’s thesis explores the effects of extreme conditions on energetic materials. His study identifies and structurally characterises new polymorphs obtained at high pressures and/or temperatures. The performance of energetic materials (pyrotechnics, propellants and explosives) can depend on a number of factors including sensitivity to detonation, detonation velocity, and chemical and thermal stability. Polymorphism and solid-state phase transitions may therefore have significant consequences for the performance and safety of energetic materials. In order to model the behaviour of these important materials effectively under operational conditions it is essential to obtain detailed structural information at a range of temperatures and pressures.

Features
David I.A. Millar’s thesis explores the effects of extreme conditions on energetic materials. His study identifies and structurally characterises new polymorphs obtained at high pressures and/or temperatures. The performance of energetic materials (pyrotechnics, propellants and explosives) can depend on a number of factors including sensitivity to detonation, detonation velocity, and chemical and thermal [...]
NanoBiosensing
Principles, Development and Application

This book will cover the full scope of nanobiosensing, which combines the newest research results in the cross-disciplines of chemistry, biology, and materials science with biosensing and bioanalysis to develop novel detection principles, sensing mechanisms, and device engineering methods. It not only covers the important types of nanomaterials for biosensing applications, including carbon nanotubes, carbon nanofiber, quantum dots, fullerene, fluorophore and biological molecules, etc., but also illustrates a wide range of sensing principles, including electrochemical detection, fluorescence, chemiluminescence, antibody–antigen interactions, and magnetic detection. The book details novel developments in the methodology and devices of biosensing and bioanalysis combined with nanoscience and nanotechnology, as well as their applications in biomedicine and environmental monitoring. Furthermore, the reported works on the application and biofunction of nanoparticles have attracted extensive attention and [...] Features

This book will cover the full scope of nanobiosensing, which combines the newest research results in the cross-disciplines of chemistry, biology, and materials science with biosensing and bioanalysis to develop novel detection principles, sensing mechanisms, and device engineering methods. It not only covers the important types of nanomaterials for biosensing applications, including carbon nanotubes, carbon [...] Contents


Nanotechnology; Biophysics and Biological Physics; Biomedical Engineering; Nanotechnology and Microengineering

Target groups

Professional/practitioner

Type of publication

Monograph

Online orders shipping within 2-3 days.

Mathematics

T.D. Pham, The University of New South Wales, Canberra, ACT, Australia; X. Zhou, Cornell University, Houston, TX, USA; H. Tanaka, Tokyo Medical and Dental University, Japan; M. Oyama-Higa, Osaka University, Japan; X. Jiang, University of Münster, Germany; C. Sun, CSIRO, North Ryde, NSW, Australia; J. Kowalski, Emory University, Atlanta, GA, USA; X. Jia, The University of New South Wales, Canberra, ACT, Australia (Eds.)

2011 International Symposium on Computational Models for Life Sciences (CMLS-11)

This conference aims to bring biologists, medical and health science researchers together with computational scientists to focus on problems at the frontier of computational life sciences. The conference proceedings consists of research papers addressing novel applications of computer, physical, engineering and mathematical models for solving modern challenging problems in life sciences. Topics include image analysis, computer vision, pattern analysis and classification, information visualization, signal processing, control theory, information theory, statistical analysis, numerical analysis, fractals and chaos, optimization, simulation and modeling, computational intelligence methods, machine learning, data mining, decision support systems, database integration and management.

Features

- Fields of interest
  Computational Science and Engineering; Nanotechnology and Microengineering; Ecotoxicology; Computational Biology / Bioinformatics; Theoretical and Computational Chemistry; Nanochemistry

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.

2011. 356 p. (Mathematical and Statistical Physics, Vol. 1371) Softcover

139,95 €


A Sequence of Problems on Semigroups

This text consists of a sequence of problems which develop a variety of aspects in the field of semigroups. The problems are not found easily in other books. Written in the Socratic/Moore method, this is a problem book without the answers presented. To get the most out of the book requires high motivation from the reader to work out the exercises. The reader is given the opportunity to discover important developments of the subject and to quickly arrive at the point of independent research. The compactness of the volume and the reputation of the author lends this consider set of problems to be a classic in the making. This text is highly recommended for us as supplementary material for 3 graduate level courses.

Features

- A Sequence of Problems on Semigroups consists of an arrangement of problems which are designed to develop a variety of aspects to understanding the area of one-parameter semigroups of operators. Written in the Socratic/Moore method, this is a problem book with neither the proofs nor the answers presented. To get the most out of the content requires high motivation to work out the exercises. However,[...]

Contents


Fields of interest

Order; Lattices; Ordered Algebraic Structures; Category Theory; Homological Algebra; General Algebraic Systems

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. VI, 146 p. (Problem Books in Mathematics) Hardcover

39,95 €


139,95 €

An Introduction to Riemann Surfaces

This textbook presents a unified approach to compact and noncompact Riemann surfaces from the point of view of the so-called $L^2$ method. This method is a powerful technique from the theory of several complex variables, and provides for a unique approach to the fundamentally different characteristics of compact and noncompact Riemann surfaces. The inclusion of continuing exercises running throughout the book, which lead to generalizations of the main theorems, as well as the exercises included in each chapter make this text ideal for a one- or two-semester graduate course. The prerequisites are a working knowledge of standard topics in graduate level real and complex analysis, and some familiarity of manifolds and differential forms.

Contents
Preface.- Introduction.- Complex analysis in C.- Riemann Surfaces and the $L^2$ Method for Scalar-Valued Forms.- The $L^2$ Method in a Holomorphic Line Bundle.- Compact Riemann Surfaces.- Uniformization and Embedding of Riemann Surfaces.- Holomorphic Structures on Topological Surfaces.- Background Material on Analysis in $\mathbb{R}^n$ and Hilbert Space Theory.- Background Material on Linear Algebra.- Background Material on Manifolds.- Background Material on Fundamental Groups, Covering Spaces, and (Co)homology.- Background Material on Sobolev Spaces and Regularity.- References.- Notation.-

Fields of interest
Several Complex Variables and Analytic Spaces; Global Analysis and Analysis on Manifolds; Analysis

Type of publication
Research

Target groups
Research

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012, XVI, 560 p. 42 illus. (Cornerstones) Hardcover

64,95 €

Asymptotics in Dynamics, Geometry and PDEs; Generalized Borel Summation

Proceedings of the conference held in CRM Pisa, 12-16 October 2009, Vol. II

These are the proceedings of a one-week international conference centered on asymptotic analysis and its applications. They contain major contributions dealing with: mathematical physics: PT symmetry, perturbative quantum field theory, WKB analysis, local dynamics: parabolic systems, small denominator questions, new aspects in mould calculus, with related combinatorial Hopf algebras and application to multizeta values, a new family of resurgent functions related to knot theory.

Fields of interest
Analysis; Theoretical, Mathematical and Computational Physics

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

28,00 €

Edmond Halley’s Reconstruction of the Lost Book of Apollonius’s Conics

Translation and Commentary

Apollonius’s Conics was one of the greatest works of advanced mathematics in antiquity. The work comprised eight books, of which four have come down to us in their original Greek and three in Arabic. By the time the Arabic translations were produced, the eighth book had already been lost. In 1710, Edmond Halley, then Savilian Professor of Geometry at Oxford, produced an edition of the Greek text of the Conics of Books I-IV, a translation into Latin from the Arabic versions of Books V-VII, and a reconstruction of Book VIII. The present work provides the first complete English translation of Halley’s reconstruction of Book VIII with supplementary notes on the text. It also contains 1) an introduction discussing aspects of Apollonius’s Conics 2) an investigation of Edmond Halley’s understanding of the nature of his venture into ancient mathematics, and 3) an appendix giving a brief account of Apollonius’s approach to conic sections and his mathematical techniques. This book will be of interest to...

Contents

Fields of interest
History of Mathematics; Geometry

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012, X, 132 p. 64 illus. (Sources and Studies in the History of Mathematics and Physical Sciences, Vol.) Hardcover
89,95 €
Falling Liquid Films

Falling Liquid Films gives a detailed review of state-of-the-art theoretical, analytical and numerical methodologies, for the analysis of dissipative wave dynamics and pattern formation on the surface of a film falling down a planar inclined substrate. This prototype is an open-flow hydrodynamic instability, that represents an excellent paradigm for the study of complexity in active nonlinear media with energy supply, dissipation and dispersion. It will also be of use for a more general understanding of specific events characterizing the transition to spatio-temporal chaos and weak/dissipative turbulence.

Particular emphasis is given to low-dimensional approximations for such flows through a hierarchy of modeling approaches, including equations of the boundary-layer type, averaged formulations based on weighted residuals approaches and long-wave expansions. Whenever possible the link between theory and experiment is illustrated, and, as a further bridge between the two, the development of...[

Features
Falling Liquid Films gives a detailed review of state-of-the-art theoretical, analytical and numerical methodologies, for the analysis of dissipative wave dynamics and pattern formation on the surface of a film falling down a planar inclined substrate. This prototype is an open-flow hydrodynamic instability, that represents an excellent paradigm for the study of complexity in active nonlinear media. [...]
Hamiltonian Structures and Generating Families

This book is an enhanced version of an earlier Russian edition. Besides thorough revisions, more emphasis was put on reordering the topics according to a category-theoretical view. This allows the mathematical results to be stated, proved, and understood in a much easier and elegant way. From the reviews of the Russian edition: "The main accent is shifted to the application ... in geometrical optics, thermostatics and control theory, and not to the Hamiltonian mechanics only. ... To make the book fairly self-contained, full details of basic definitions and all proofs are included. In this way, the majority of the text can be read without the prerequisite of a course in geometry. The excellent collection of examples illustrates the relatively hard and highly abstract mathematical theory and its hidden difficulties. ... The book can rise real interest for specialists ... . The ... book is a significant input in the modern symplectic geometry and its applications." (Andrey Tsiganov, St.[-]

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Contents
Preface.- Basic Notions of Calculus on Manifolds.- Relations.- Symplectic Relations on Symplectic Manifolds.- Symplectic Relations on Cotangent Bundles.- The Geometry of the Hamilton-Jacobi Equation.- Hamiltonian Optics in Euclidean Spaces.- Control of Static Systems.- Supplementary Topics.- Global Hamilton Principal Functions on S2 and H2.- References.- Index.

Fields of interest
Global Analysis and Analysis on Manifolds; Systems Theory, Control; Mathematical Applications in the Physical Sciences; Differential Geometry; Mathematical Physics

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. XIV, 258 p. 50 illus. (Universitext) Softcover

49,95 €
ISBN 978-1-4614-1498-8

Linear and Nonlinear Integral Equations

Methods and Applications

Linear and Nonlinear Integral Equations: Methods and Applications is a self-contained book divided into two parts. Part I offers a comprehensive and systematic treatment of linear integral equations of the first and second kinds. The text brings together newly developed methods to reinforce and complement the existing procedures for solving linear integral equations. The Volterra integral and integro-differential equations, the Fredholm integral and integro-differential equations, the Volterra-Fredholm integral equations, singular and weakly singular integral equations, and systems of these equations, are handled in this part by using many different computational schemes. Selected worked-through examples and exercises will guide readers through the text. Part II provides an extensive exposition on the nonlinear integral equations and their varied applications, presenting in an accessible manner a systematic treatment of ill-posed Fredholm problems, bifurcation points, and singular points. Selected[...]

Features
Linear and Nonlinear Integral Equations: Methods and Applications is a self-contained book divided into two parts. Part I offers a comprehensive and systematic treatment of linear integral equations of the first and second kinds. The text brings together newly developed methods to reinforce and complement the existing procedures for solving linear integral equations. The Volterra integral and [...]
Mathematical Modeling in Biomedical Imaging II

Optical, Ultrasound, and Opto-Acoustic Tomographies

This volume reports on recent mathematical and computational advances in optical, ultrasound, and opto-acoustic tomographies. It outlines the state-of-the-art and future directions in these fields and provides readers with the most recently developed mathematical and computational tools. It is particularly suitable for researchers and graduate students in applied mathematics and biomedical engineering.

Contents

Fields of interest
Applications of Mathematics; Imaging / Radiology; Mathematical Methods in Physics; Biomedical Engineering

Mathematical Olympiad Treasures

This second edition of Mathematical Olympiad Treasures contains a stimulating collection of problems in geometry and trigonometry, algebra, number theory, and combinatorics. It encourages readers to think creatively about techniques and strategies for solving real-world problems, with new sections, revisions, and many more Olympiad-like problems at various levels of difficulty. The problems are clustered by topic into three self-contained chapters. The book begins with elementary facts, followed by carefully selected problems and detailed, step-by-step solutions, which then lead to more complicated, challenging problems and their solutions. Reflecting the vast experience of two professors and Mathematical Olympiad coaches, the text will be invaluable to teachers, students, and puzzle enthusiasts. The advanced reader is challenged to find alternative solutions and extensions of the proposed problems.

Fields of interest
Geometry and Trigonometry. - 6 Number Theory. - 5 Combinatorics.

8 Algebra.

Mathematics (general)

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

Matrix Theory

Basic Results and Techniques

The aim of this book is to concisely present fundamental ideas, results, and techniques in linear algebra and matrix theory. The book contains ten chapters covering various topics ranging from similarity and special types of matrices to Schur complements and matrix normality. Each chapter focuses on the results, techniques, and methods that are beautiful, interesting, and representative, followed by carefully selected problems. Major changes in this revised and expanded second edition:
- Expansion on topics such as matrix functions, nonnegative matrices, and (unitarily invariant) matrix norms. The inclusion of more than 1000 exercises. - A new chapter, Chapter 4, with updated material on numerical ranges and radii, matrix norms, and special operations such as the Kronecker and Hadamard products and compound matrices. - A new chapter, Chapter 10, on matrix inequalities, which presents a variety of inequalities on the eigenvalues and singular values of matrices and unitarily invariant norms.

Fields of interest
Linear and Multilinear Algebras, Matrix Theory; Operator Theory

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

34,95 €

ISBN 978-3-642-22989-3

44,95 €

ISBN 978-0-8176-8252-1

F. Zhang, Nova Southeastern University, Fort Lauderdale, FL, USA

138 Mathematics

H. Ammari, École Normale Supérieure, Paris, France (Ed.)

T. Andreescu, University of Texas, Dallas, TX, USA; B. Enescu, B.P. Hasdeu National College, Buzau, Romania
Modeling of Physiological Flows

This book offers a mathematical update of the state of the art of the research in the field of mathematical and numerical models of the circulatory system. It is structured into different chapters, written by outstanding experts in the field. Many fundamental issues are considered, such as: the mathematical representation of vascular geometries extracted from medical images, modelling blood rheology and the complex multilayer structure of the vascular tissue, and its possible pathologies, the mechanical and chemical interaction between blood and vascular walls, and the different scales coupling local and systemic dynamics. All of these topics introduce challenging mathematical and numerical problems, demanding for advanced analysis and efficient simulation techniques, and pay constant attention to applications of relevant clinical interest. This book is addressed to graduate students and researchers in the field of bioengineering, applied mathematics and medicine, wishing to engage themselves in the [...]

Features
This book offers a mathematical update of the state of the art of the research in the field of mathematical and numerical models of the circulatory system. It is structured into different chapters, written by outstanding experts in the field. Many fundamental issues are considered, such as: the mathematical representation of vascular geometries extracted from medical images, modelling blood rheology and the [...]

Contents

Fields of interest
Computational Mathematics and Numerical Analysis; Human Physiology; Mathematical Modeling and Industrial Mathematics; Computer Applications in Life Sciences; Partial Differential Equations; Biomedical Engineering

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

79,95 €

Neutral and Indifference Portfolio Pricing, Hedging and Investing

With applications in Equity and FX

This book is written for quantitative finance professionals, students, educators, and mathematically inclined individual investors. It is about some of the latest developments in pricing, hedging, and investing in incomplete markets. With regard to pricing, two frameworks are fully elaborated: neutral and indifference pricing. With regard to hedging, the most conservative and relaxed hedging formulas are derived. With regard to investing, the neutral pricing methodology is also considered as a tool for connecting market asset prices with optimal positions in such assets.Srdjan D. Stojanovic is Professor in the Department of Mathematical Sciences at University of Cincinnati (USA) and Professor in the Center for Financial Engineering at Suzhou University (China).

Features
This book is written for quantitative finance professionals, students, educators, and mathematically inclined individual investors. It is about some of the latest developments in pricing, hedging, and investing in incomplete markets. With regard to pricing, two frameworks are fully elaborated: neutral and indifference pricing. With regard to hedging, the most conservative and relaxed hedging formulas are [...]

Contents

Fields of interest
Computational Mathematics, Vol. 35) Softcover

Graduate/advanced undergraduate textbook

2012, XIV, 263 p. 6 illus. Hardcover
49,95 €

Newton Methods for Nonlinear Problems

Affine Invariance and Adaptive Algorithms

This book deals with the efficient numerical solution of challenging nonlinear problems in science and engineering, both in finite dimension (algebraic systems) and in infinite dimension (ordinary and partial differential equations). Its focus is on local and global Newton methods for direct problems or Gauss-Newton methods for inverse problems. The term 'affine invariance' means that the presented algorithms and their convergence analysis are invariant under one out of four subclasses of affine transformations of the problem to be solved. Compared to traditional textbooks, the distinguishing affine invariance approach leads to shorter theorems and proofs and permits the construction of fully adaptive algorithms. Lots of numerical illustrations, comparison tables, and exercises make the text useful in computational mathematics classes. At the same time, the book opens many directions for possible future research.

Features
This book deals with the efficient numerical solution of challenging nonlinear problems in science and engineering, both in finite dimension (algebraic systems) and in infinite dimension (ordinary and partial differential equations). Its focus is on local and global Newton methods for direct problems or Gauss-Newton methods for inverse problems. The term 'affine invariance' means that the presented [...]
Notions of Positivity and the Geometry of Polynomials

The book consists of solicited articles from a select group of mathematicians and physicists working at the interface between positivity and the geometry, combinatorics or analysis of polynomials of one or several variables. It is dedicated to the memory of Julius Borcea (1968-2009), a distinguished mathematician, Professor at the University of Stockholm. With his extremely original contributions and broad vision, his impact on the topics of the planned volume cannot be underestimated. All contributors knew or have exchanged ideas with Dr. Borcea, and their articles reflect, at least partially, his heritage.

Features
The book consists of solicited articles from a select group of mathematicians and physicists working at the interface between positivity and the geometry, combinatorics or analysis of polynomials of one or several variables. It is dedicated to the memory of Julius Borcea (1968-2009), a distinguished mathematician, Professor at the University of Stockholm. With his extremely original contributions and broad vision, his impact on the topics of the planned volume cannot be underestimated. All contributors knew or have exchanged ideas with Dr. Borcea, and their articles reflect, at least partially, his heritage.

Fields of interest
includes an extensive treatment [...]

Contents
Preface. - 1 INTERPOLATION and CURVE FITTING. - 2 ZEROS of a FUNCTION. - 3 SERIES. - 4 INTEGRATION. - 5 DETERMINANTS and MATRICES. - 6 ORDINARY FIRST ORDER DIFFERENTIAL EQUATIONS. - 7 ORDINARY SECOND ORDER DIFFERENTIAL EQUATIONS. - 8 PARTIAL DIFFERENTIAL EQUATIONS. - 9 LINEAR INTEGRAL EQUATIONS IN ONE VARIABLE. - APPENDIX 1 PADE APPROXIMANTS. - APPENDIX 2 INFINITE SERIES CONVERGENCE TESTS. - APPENDIX 3 GAMMA and BETA FUNCTIONS. - APPENDIX 4 PROPERTIES OF DETERMINANTS. - APPENDIX 5 PROOF OF THE SINGULARITY OF A MATRIX. - References. - INDEX.

Fields of interest
Computational Mathematics and Numerical Analysis; Numerical and Computational Physics; Appl. Mathematics / Computational Methods of Engineering

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2011. XX, 403 p. 17 illus., 3 in color. (Trends in Mathematics) Hardcover
109,95 €
ISBN 978-3-0348-0141-6

Numerical Approximation Methods

This book presents numerical and other approximation techniques for solving various types of mathematical problems that cannot be solved analytically. In addition to well known methods, it contains some non-standard approximation techniques that are now formally collected as well as original methods developed by the author that do not appear in the literature. This book contains an extensive treatment of approximate solutions to various types of integral equations, a topic that is not often discussed in detail. There are detailed analyses of ordinary and partial differential equations and descriptions of methods for estimating the values of integrals that are presented in a level of detail that will suggest techniques that will be useful for developing methods for approximating solutions to problems outside of this text. This book is intended for researchers who must approximate solutions to problems that cannot be solved analytically. It is also appropriate for students taking courses in [...]

Features
This book presents numerical approximation techniques for solving various types of mathematical problems that cannot be solved analytically. In addition to well known methods, it contains a collection of non-standard approximation techniques that appear in the literature but are not otherwise well known. This text also contains original methods developed by the author. It includes an extensive treatment [...]

Contents
Preface. - 1 INTERPOLATION and CURVE FITTING. - 2 ZEROS of a FUNCTION. - 3 SERIES. - 4 INTEGRATION. - 5 DETERMINANTS and MATRICES. - 6 ORDINARY FIRST ORDER DIFFERENTIAL EQUATIONS. - 7 ORDINARY SECOND ORDER DIFFERENTIAL EQUATIONS. - 8 PARTIAL DIFFERENTIAL EQUATIONS. - 9 LINEAR INTEGRAL EQUATIONS IN ONE VARIABLE. - APPENDIX 1 PADE APPROXIMANTS. - APPENDIX 2 INFINITE SERIES CONVERGENCE TESTS. - APPENDIX 3 GAMMA and BETA FUNCTIONS. - APPENDIX 4 PROPERTIES OF DETERMINANTS. - APPENDIX 5 PROOF OF THE SINGULARITY OF A MATRIX. - References. - INDEX.

Fields of interest
Applications of Mathematics; Appl. Mathematics / Computational Methods of Engineering; Computer Applications in Chemistry; Computer Applications in Life Sciences; Numerical and Computational Physics

Type of publication
Undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. X, 256 p. 32 illus. With online files/update. Hardcover
49,95 €
ISBN 978-94-007-1365-9

Numerical Methods with Worked Examples: Matlab Edition

This book is for students following an introductory course in numerical methods, numerical techniques or numerical analysis. It introduces MATLAB as a computing environment for experimenting with numerical methods. It approaches the subject from a pragmatic viewpoint; theory is kept at a minimum commensurate with comprehensive coverage of the subject and it contains abundant worked examples which provide easy understanding through a clear and concise theoretical treatment. This edition places even greater emphasis on ‘learning by doing’ than the previous edition. Fully documented MATLAB code for the numerical methods described in the book will be available as supplementary material to the book on http://extras.springer.com

Features
This book is for students following an introductory course in numerical methods, numerical techniques or numerical analysis. It introduces MATLAB as a computing environment for experimenting with numerical methods. It approaches the subject from a pragmatic viewpoint; theory is kept at a minimum commensurate with comprehensive coverage of the subject and it contains abundant worked examples which provide [...]
Rational Number Theory in the 20th Century

From PNT to FLT

The last one hundred years have seen many important achievements in the classical part of number theory. After the proof of the Prime Number Theorem in 1896, a quick development of analytical tools led to the invention of various new methods, like Brun’s sieve method and the circle method of Hardy, Littlewood and Ramanujan; developments in topics such as prime and additive number theory, and the solution of Fermat’s problem.

Rational Number Theory in the 20th Century: From PNT to FLT offers a short survey of 20th century developments in classical number theory, documenting between the proof of the Prime Number Theorem and the proof of Fermat’s Last Theorem. The focus lays upon the part of number theory that deals with properties of integers and rational numbers. Chapters are divided into five time periods, which are then further divided into subject areas. With the introduction of each new topic, developments are followed through to the present day. This book will appeal to graduate researchers.

Features
- The last one hundred years have seen many important achievements in the classical part of number theory. After the proof of the Prime Number Theorem in 1896, a quick development of analytical tools led to the invention of various new methods, like Brun’s sieve method and the circle method of Hardy, Littlewood and Ramanujan. These methods were the driving force behind new advances in prime and additive number theory, and the solution of Fermat’s problem.

Contents
- The Heritage
- The First Years
- The Thirties
- The Forties and Fifties
- The Last Period
- The Heritage
- The First Years
- The Thirties
- The Forties and Fifties
- The Last Period
- Fermat’s Last Theorem

Fields of interest
- Number Theory
- History of Mathematics

Target groups
- Research

Type of publication
- Monograph

Usually dispatched within 3 to 5 business days

2012. XIV, 654 p. (Springer Monographs in Mathematics) Hardcover

99,95 €
ISBN 978-0-85729-531-6

Rational Number Theory in the 20th Century

Regression Analysis Under A Priori Parameter Restrictions

This monograph focuses on the construction of regression models with linear and non-linear constrain inequalities from the theoretical point of view. Unlike previous publications, this volume analyses the properties of regression with inequality constraints, investigating the flexibility of inequality constrains and their ability to adapt in the presence of additional a priori information. The implementation of inequality constraints improves the accuracy of models, and decreases the likelihood of errors. Based on the obtained theoretical results, a computational technique for estimation and prognostication problems is suggested. This approach lends itself to numerous applications in various practical problems, several of which are discussed in detail. The book is useful resource for graduate students, PhD students, as well as for researchers who specialize in applied statistics and optimization. This book may also be useful to specialists in other branches of applied mathematics and the theory of probability.

Features
- Construction of various models of objects under uncertainty is one of the most important problems in modern decision making theory. Regression models are some of the most prevalent tools for modeling under uncertainty and are widely applied in different branches of science such as in industrial research, agriculture, medicine, and business and economics.

Contents
- Preface
- 2. C.A. Tudor: Kernel Density Estimation, Local Time and Chaos Expansion
- 4. C. El Nouty: The Lower Classes of the Sub-Fractional Brownian Motion
- 6. A. Ayache, Q. Peng: Stochastic Volatility and Multifractional

Fields of interest
- Probability Theory and Stochastic Processes; Game Theory, Economics, Social and Behav. Sciences; Systems Theory, Control

Target groups
- Research

Type of publication
- Proceedings

Usually dispatched within 3 to 5 business days

2012. XII, 233 p. 4 illus. (Springer Optimization and Its Applications, Vol. 54) Hardcover

79,95 €
Stochastic Stability of Differential Equations

Since the publication of the first edition of the present volume in 1980, the stochastic stability of differential equations has become a very popular subject of research in mathematics and engineering. To date exact formulas for the Lyapunov exponent, the criteria for the moment and almost sure stability, and for the existence of stationary and periodic solutions of stochastic differential equations have been widely used in the literature. In this updated volume readers will find important new results on the moment Lyapunov exponent, stability index and some other fields, obtained after publication of the first edition, and a significantly expanded bibliography. This volume provides a solid foundation for students in graduate courses in mathematics and its applications. It is also useful for those researchers who would like to learn more about this subject, to start their research in this area or to study the properties of concrete mechanical systems subjected to random perturbations.

Features
Since the publication of the first edition of the present volume in 1980, the stochastic stability of differential equations has become a very popular subject of research in mathematics and engineering. To date exact formulas for the Lyapunov exponent, the criteria for the moment and almost sure stability, and for the existence of stationary and periodic solutions of stochastic differential equations have been widely used in the literature.

Contents

Fields of interest
Probability Theory and Stochastic Processes; Mechanics

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days


89,95 €
ISBN 978-3-642-23279-4

XIX International Fall Workshop on Geometry and Physics

The aim of this series of meetings is to provide a context for exchanging ideas among researchers of different fields in Differential Geometry, Applied Mathematics and Physics; in general, among all people interested in the application of geometric methods and techniques to the study of physical problems.

Features
The aim of this series of meetings is to provide a context for exchanging ideas among researchers of different fields in Differential Geometry, Applied Mathematics and Physics; in general, among all people interested in the application of geometric methods and techniques to the study of physical problems.

Fields of interest
Differential Geometry; Mathematical Methods in Physics; Statistical Physics, Dynamical Systems and Complexity

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. 184 p. (Mathematical and Statistical Physics, Vol. 1360) Softcover

approx. 119,95 €

Adipose Stem Cells and Regenerative Medicine

The therapeutic potential of the use of adipose stem cells in regenerative medicine has been increasingly recognized, and in recent years concrete clinical benefits have accrued as these cells have been explored for a variety of applications. This readable and informative textbook tracks the progress that has been made in this fascinating new area of biomedicine. All aspects of the subject are considered, with particular attention to adipose cell biology, adipose tissue engineering strategies, and the diverse clinical applications of adipose stem cells. Funding issues, industrial approaches, regulatory challenges, and future directions are also examined. The two editors have vast experience in the field and have chosen leading experts from different countries to write on each topic. This book will excite the interest of all researchers, clinicians, and students wishing to gain an in-depth understanding of adipose stem cells and their flourishing role in regenerative medicine.

Features
Adipose tissue represents an abundant and accessible source of adult stem cells with the ability to differentiate along multiple lineage pathways, including cardiac, neural, cartilage, muscle, and bone tissue. The therapeutic potential of the use of adipose stem cells in regenerative medicine has been increasingly recognized, and in recent years concrete clinical benefits have accrued as these cells have been widely used.

Contents

Fields of interest
Plastic Surgery; Human Genetics; Medical Biochemistry; Laboratory Medicine; Microbiology; Biomaterials

Target groups
Professional/practitioner

Type of publication
Contributed volume

Online orders shipping within 2-3 days.

2011. XII, 278 p. 104 illus., 93 in color. Hardcover

139,95 €
ISBN 978-3-642-20011-3
Advances in Radiation Oncology in Lung Cancer

This is the second, completely updated edition of a comprehensive book in which many of the world’s leading lung cancer specialists discuss the recent advances in the radiation oncology of lung cancer and reflect on the latest research findings. The first three sections cover the basic science of lung cancer, clinical investigations, including histology and staging, and a wide range of fundamental treatment considerations. Current treatment strategies for small cell and non-small cell lung cancer are then explained and evaluated in detail, with due attention to novel approaches that promise further improvements in outcome. The various types of treatment-related toxicity are discussed, and quality of life studies and prognostic factors are also considered. After evaluating the latest technological and biological advances, including IMRT, IMAT, cyberknife treatment, and tomotherapy, the book concludes by thorough consideration of specific aspects of clinical research in lung cancer.

Features
Although decades of laboratory and clinical research have led to incremental improvement in treatment outcome, lung cancer remains one of the most deadly diseases. In the second, completely updated edition of this comprehensive book, many of the world’s leading lung cancer specialists discuss the recent advances in the radiation oncology of lung cancer and reflect on the latest research findings. The first [...]
Atlas of SPECT-CT

The field of nuclear medicine has evolved rapidly in recent years, and one very important aspect of this progress has been the introduction of hybrid imaging systems. PET-CT has already gained widespread acceptance in many clinical settings, especially within oncology, and now SPECT-CT promises to emulate its success. Useful applications of this new approach have been identified not only in oncology but also in endocrinology, cardiology, internal medicine, and other specialties. This atlas, which includes hundreds of high-quality images, is a user-friendly guide to the optimal use and interpretation of SPECT-CT. The full range of potential SPECT-CT applications in clinical routine is considered and assessed by acknowledged experts. The book is designed to serve as a reference text for both nuclear physicians and radiologists; it will also provide fundamental support for radiographers, technologists, and nuclear medicine and radiology residents.

Contents

Fields of interest
Nuclear Medicine; Imaging / Radiology; Oncology

Target groups
Professional/practitioner

Type of publication
Atlas

Online orders shipping within 2-3 days.

2012, XI, 229 p. 110 illus., 108 in color. Softcover

49,95 €
ISBN 978-3-642-15725-7

Auditory Prostheses

New Horizons
Cochlear implants are currently the standard treatment for profound sensorineural hearing loss. In the last decade, advances in auditory science and technology have not only greatly expanded the utility of electric stimulation to other parts of the auditory nervous system in addition to the cochlea, but have also demonstrated drastic changes in the brain in response to electric stimulation, including changes in language development and music perception. Volume 20 of SHAR focused on basic science and technology underlying the cochlear implant. However, due to the newness of the ideas and technology, the volume did not cover any emerging applications such as bilateral cochlear implants, combined acoustic-electric stimulation, and other types of auditory prostheses, nor did it review brain plasticity in responses to electric stimulation and its perceptual and language consequences. This proposed volume takes off from Volume 20, and expands the examination of implants into new and highly exciting[...]

Features
Cochlear implants are currently the standard treatment for profound sensorineural hearing loss. In the last decade, advances in auditory science and technology have not only greatly expanded the utility of electric stimulation to other parts of the auditory nervous system in addition to the cochlea, but have also demonstrated drastic changes in the brain in response to electric stimulation, including[...]

Contents

Fields of interest
Otorhinolaryngology; Neurobiology; Neurosciences

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days.


199,95 €

Brain Mapping

From Neural Basis of Cognition to Surgical Applications
The goal of this book is to make a link between fundamental research in the field of cognitive neurosciences, which now benefits from a better knowledge of the neural foundations of cerebral processing, and its clinical application, especially in neurosurgery – itself able to provide new insights into brain organization. The anatomical bases are presented, advances and limitations of the different methods of functional cerebral mapping are discussed, updated models of sensorimotor, visuospatial, language, memory, emotional, and executive functions are explained in detail. In the light of these data, new strategies of surgical management of cerebral lesions are proposed, with an optimization of the benefit–risk ratio of surgery. Finally, perspectives about brain connectivity and plasticity are discussed on the basis of translational studies involving serial functional neuroimaging, intraoperative cortico-subcortical electrical mapping, and biomathematical modeling of interactions between parallel[...]

Features
The goal of this book is to make a link between fundamental research in the field of cognitive neurosciences, which now benefits from a better knowledge of the neural foundations of cerebral processing, and its clinical application, especially in neurosurgery – itself able to provide new insights into brain organization. The anatomical bases are presented, advances and limitations of the different[...]

Contents
Brain anatomy. - Methods of brain mapping: advances and limitations. - New insights into neurocognition provided by brain mapping. - Surgical applications. - Perspectives.

Fields of interest
Neurosurgery; Neurosciences

Target groups
Professional/practitioner

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012, XII, 392 p. 140 illus., 70 in color. Hardcover

199,95 €
ISBN 978-3-7091-0722-5
**CT of the Acute Abdomen**

CT of the Acute Abdomen provides a comprehensive account of the use of CT in patients with acute abdomen. Recent important developments in CT, including multislice CT and multidimensional reconstructions, receive particular attention. CT features are clearly illustrated, and pitfalls and differential diagnoses are discussed. The first section of the book presents epidemiological and clinical data in acute abdomen. The second and third sections document the key CT findings and their significance and discuss the technological background. The fourth and fifth sections, which form the main body of the book, examine in detail the various clinical applications of CT in nontraumatic and traumatic acute abdomen. This book will serve as an ideal guide to the performance and interpretation of CT in the setting of the acute abdomen; it will be of value to all general and gastrointestinal radiologists, as well as emergency room physicians and gastrointestinal surgeons.

**Contents**


**Fields of interest**

Imaging / Radiology; Diagnostic Radiology; Gastroenterology; Internal Medicine

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

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

2012, IX, 473 p. 400 illus., 200 in color. (Diagnostic Imaging) Hardcover

239,00 €
ISBN 978-3-540-89231-1

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**Cardiology in Family Practice**

**A Practical Guide**

A concise summary of the most important medical and scientific topics concerning cardiovascular medicine in the primary care environment, this new edition of Cardiology in Family Practice has been updated with cutting-edge information and useful tips. Written in an easy-to-read format (background, diagnosis and disease management) and emphasizing practical techniques for evaluation and treatment, the authors explain the basic mechanisms underlying cardiovascular disease states and the treatment strategies that arise from them. Topics include stable angina, acute coronary syndromes, arrhythmias, hypertension, pericardial and valvular diseases, and hyperlipidemia. New figures have been added to each chapter in this edition. This book is a must-have for primary care physicians who wish to keep up to date with the rapidly changing field of cardiology.

**Features**


**Contents**


**Fields of interest**

General Practice / Family Medicine; Primary Care Medicine; Cardiology

**Target groups**

Professional/practitioner

**Type of publication**

Professional book

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

2012, XII, 159 p. 18 illus., 9 in color. (Current Clinical Practice) Softcover

44,95 €
ISBN 978-1-61779-384-4

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**Clinical Neuroimmunology**

**Multiple Sclerosis and Related Disorders**

Clinical Neuroimmunology: Multiple Sclerosis and Related Disorders serves as an indispensable resource for physicians interested in, and dealing with, this very complex and evolving branch of neurology. This comprehensive title provides an introduction to basic neuroimmunology and principles of immunotherapy and also serves as a thorough guide to immune-mediated disorders of the central and peripheral nervous system, as well as other systemic disorders with a significant neuroimmunologic component. The chapters are written by experts in their fields and include the most up to date scientific information. This volume is made to simplify complex immunological mechanisms and to focus on practical patient-related issues. Clinical Neuroimmunology: Multiple Sclerosis and Related Disorders is an invaluable addition to the literature and will be of significant interest to neurologists, residents and fellows, internists, and general practitioners who treat patients with neurologic disorders and other...[–]

**Features**

Clinical Neuroimmunology: Multiple Sclerosis and Related Disorders serves as an indispensable resource for physicians interested in, and dealing with, this very complex and evolving branch of neurology. This comprehensive title provides an introduction to basic neuroimmunology and principles of immunotherapy and also serves as a thorough guide to immune-mediated disorders of the central and [...]
Color Atlas of Fetal and Neonatal Histology

Color Atlas of Fetal and Neonatal Histology serves as a comprehensive atlas of the developmental histology of the major organs from 15 weeks gestation to the neonatal period. Each section includes text on basic embryologic processes that influence the development of each organ and highlight major histologic features that correspond with certain developmental periods. In addition, there are many color photomicrographs at key developmental stages to assist the reader in identifying appropriate histologic changes at each developmental stage. This book will be of great value to students of embryology, pathology residents and fellows, and attending pathologists who perform fetal autopsies.

Features
This book serves as a comprehensive atlas of the developmental histology of the major organs from 15 weeks gestation to the neonatal period. Each section includes text on basic embryologic processes that influence the development of each organ and highlight major histologic features that correspond with certain developmental periods. In addition, there are many color photomicrographs at key developmental [...]
Creating Infrastructures for Latino Mental Health

Latinos are the fastest growing and largest minority group in the United States. In 2008, this group numbered over 47 million; by 2050, the population is expected to triple, reaching 133 million. Traditionally, Latinos have immigrated to large urban centers (e.g., New York, Los Angeles) that over long periods of time developed a complex infrastructure to receive new immigrants. Increasingly, new Spanish-speaking immigrants are moving into areas of the country previously unfamiliar to them. Although urban co-ethnic communities continue to be the destination of many newcomers, immigrants from Mexico, Central America, and South America in pursuit of low-skilled labor opportunities are settling in small towns and rural areas of the South and Midwest. This new demographic trend has resulted in the creation of the term “new growth communities,” which refers to small rural areas that are now home to a small but rapidly growing Hispanic population. Unfortunately, these communities, which are now present in[...] 

Features
The growing Latino population of the United States stands poised to shape the nation’s future throughout the twenty-first century, yet serious obstacles hinder the full participation of the Latino community in American society. Access to mental health care poses a particular challenge for many segments of the population. Although significant scholarship has focused on the delivery of culturally sensitive care, lack of awareness of the crisis continues to exist. This book addresses the specific needs of this group. [...

Fields of interest
Public Health; Cross Cultural Psychology; Social Work

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. XXVIII, 276 p. 7 illus. Hardcover

ISBN 978-1-4419-9451-6

Diabetes Care for the Older Patient
A Practical Handbook

The management of older people with diabetes requires careful attention to the specific needs of this age group. This practical handbook addresses the issues surrounding the care of older diabetic patients, including dementia, frailty, depression and cardiovascular risk. Intended for day-to-day use in clinical practice, each chapter closes with a list of salient practical points in the clinical management of older patients with diabetes. Concisely written by authorities in the field, this book is a valuable resource for all those involved in the diabetes care of older people.

Features
The management of older people with diabetes requires careful attention to the specific needs of this age group. This practical handbook addresses the issues surrounding the care of older diabetic patients, including dementia, frailty, depression and cardiovascular risk. Intended for day-to-day use in clinical practice, each chapter closes with a list of salient practical points in the clinical[...]

Contents
Epidemiology of Diabetes in Older People.- Type 2 Diabetes and Dementia.- Depression in Older People with Diabetes.- Hypoglycemia and the Older Person.- Cardiovascular Risk, Glucose and Lipids.- Targets for Management of Diabetes in Older People.- Diabetes and Frailty.- Perceptions of Users and Carers in Supporting Diabetes Care: Practical Guidance, Support and Information for Carers.- Management of Elderly People with Diabetes in Primary Care.- Appendix: HbA1c Conversion Chart for DCCT-aligned (%) and IFCC-standardised (mmol/mol) concentrations.

Fields of interest
Diabetes; Geriatrics / Gerontology; Primary Care; Endocrinology

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

2012. VIII, 175 p. 11 illus., 6 in color. Softcover

39,95 €

Diagnostic Molecular Pathology in Practice
A Case-Based Approach

This entirely case-based book covers a broad cross-section of the practical issues encountered in the day-to-day activities of a molecular genetic pathologist. The book is divided into four sections on the principal areas addressed in molecular genetic pathology (MGP): inherited diseases, hematopathology, solid tumors, and infectious diseases. The topics covered by the cases in each section include test selection, qualitative and quantitative laboratory techniques, test interpretation, prognostic and therapeutic considerations, technical troubleshooting, and result reporting. This book will be ideal for trainees in MGP and clinical molecular genetics who require a practical-based preparation for board examinations. It will also be very useful for residents and fellows in medical specialties to which MGP is pertinent, and for practicing pathologists who want to learn more about the current practice of molecular diagnostics.

Features
The specialty of molecular genetic pathology (MGP) focuses on the molecular identification of inherited genetic conditions, acquired genetic diseases, and infectious diseases. This entirely case-based book covers a broad cross-section of the practical issues encountered in the day-to-day activities of a molecular genetic pathologist. The book is divided into four sections on the principal areas[...]

Contents

Fields of interest
Pathology; Oncology

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

2012. XI, 339 p. 60 illus., 40 in color. Softcover

49,95 €
ISBN 978-3-642-19676-8
Endemic Cretinism

Responding to a renewed interest in the growing problem of iodine deficiency worldwide, Drs. Charles Oxnard and Peter Obendorf, along with experienced translator and anatomist John Dennison, take a fresh look at the classic text, Der endemische Kretinismus, published in 1936 by Springer. Translated here for the first time into English, this landmark text will be a welcome resource for researchers confronting the problem of iodine deficiency. Oxnard and Obendorf point out that there is very little detailed knowledge or numerical data on cretinism available in the English-speaking world. In addition, highly-renowned Professor Basil S. Hetzel, recently-retired World Health Organization Chairman of the International Council for Control of Iodine Deficiency Disorders, published in 2009 with Dr Chen Zaipei on the resurgence of iodine deficiency in China. Indeed, throughout the entire developing world there may be as many as two billion people at risk to iodine deficiency; perhaps three quarters of a[...]

Features

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Contents

Etymology of the word 'cretin' (Wegelin). - Definition (de Quervain). - Historical (Wegelin). - Epidemiology (Wegelin). - Course and clinical pattern of cretinism (de Quervain). - Pathological anatomy and histology (Wegelin). - Pathological physiology (de Quervain). - Pathogenesis (de Quervain and Wegelin). - Prophylaxis and Treatment of Cretinism (de Quervain)

Fields of interest

Endocrinology; Internal Medicine; Neurology

Target groups

Professional/practitioner

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

Fertility Preservation

Emerging Technologies and Clinical Applications

A growing majority of women in the western hemisphere have been delaying initiation of childbearing to later in life. Consequently, more women in their late 30s to early 40s are attempting to get pregnant for the first time than ever before. Since the incidence of most cancers increases with age, delayed childbearing results in more female cancer survivors interested in fertility preservation. In this book, the editors provide strategies for fertility preservation in women and men who require gonadotoxic treatment. In addition, epidemiologic, ethical, medico-legal, psychologic, and social aspects of fertility preservation are discussed. Using a format that combines concise scientific background with practical methodological information and easy-to-grasp algorithms, the chapters all conform to a uniform structure, including a brief abstract, keyword glossary, step by step protocol of laboratory procedures, key issues in commentary and a list of references. The result is a unique, practical reference[...]

Features

A growing majority of women in the western hemisphere have been delaying initiation of childbearing to later in life. Consequently, more women in their late 30s to early 40s are attempting to get pregnant for the first time than ever before. Since the incidence of most cancers increases with age, delayed childbearing results in more female cancer survivors interested in fertility preservation. In[...]

Contents


Fields of interest

Endocrinology; Urology / Andrology; Developmental Biology; Cell Biology; Obstetrics / Perinatology

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days
Forensic Histopathology
Fundamentals and Perspectives

This book, which combines the features of an atlas and a textbook, presents findings in forensic histology, immunohistochemistry, and cytology based on microscopic investigations using different stainings and different antibodies. The principal aim is to provide practitioners with detailed information and guidance on how microscopy can help to clarify the cause of sudden and unexpected death. Many of the topics will be of interest not only to forensic pathologists but also to general pathologists, whether practitioners or researchers. Examples include the pathology of drug abuse, wound age determination, adverse drug reactions, histopathology of the sudden infant death syndrome, and age determination of myocardial infarction. Both typical and unusual findings are demonstrated with the aid of numerous high-quality color illustrations, and other key literature in forensic histology and immunohistochemistry is highlighted for each topic.

Features
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Introduction.- Staining Techniques and Microscopy.- Histopathology of Selected Trauma.- Histopathology and Drug Abuse.- Toxin- and Drug-Induced Pathologies.- Alcohol-Related Histopathology.- Heat, Fire, Electricity, Lightning, Radiation, and Gases.- Hypothermia.- Thrombosis and Embolism.- Vitality, Injury Age, Determination of Skin Wound Age, and Fracture Age.- Aspiration and Inhalation.- Forensic histologic Species, Sex, Age and Identity Diagnostics.- Coronary Sclerosis, Myocardial Infarction, Myocarditis, Cardiomyopathy, Coronary Anomalies, and the Cardiac Conduction System.- Vascular,[...]

Fields of interest
Pathology, Forensic Medicine

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

2012. XXIV, 454 p. 370 illus. in color. Hardcover

139,95 €
ISBN 978-3-642-20658-0

HIV and Liver Disease

Liver disease has been identified as a leading cause of death in HIV-infected patients since the introduction of highly active antiretroviral therapy (HAART) in 1996. The HIV treatment community has been caught largely unaware of this emerging dilemma. Many HIV care providers are ill-equipped to understand and interpret liver injury patterns, or to provide comprehensive care and management for viral coinfections which they are not familiar with. HIV and Liver Disease provides a comprehensive update of the field covering the epidemiology, pathogenesis, management and treatment of liver disease in patients with HIV infection. The volume will help HIV care providers understand and interpret liver injury patterns, and/or provide comprehensive care and management for viral coinfections. Gastroenterologists and hepatologists will gain an understanding of complex drug regimens that are used to treat HIV and which may impact HCV and HBV treatment. Written by expert clinicians and researchers across multiple[...]

Features
Liver disease has been identified as a leading cause of death in HIV-infected patients since the introduction of highly active antiretroviral therapy (HAART) in 1996. The HIV treatment community has been caught largely unaware of this emerging dilemma. Many HIV care providers are ill-equipped to understand and interpret liver injury patterns, or to provide comprehensive care and management for viral[...]

Contents

Fields of interest
Gastroenterology, Hepatology, Internal Medicine

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. XIII, 209 p. 36 illus., 29 in color. Hardcover

139,95 €

Imaging of Acute Appendicitis in Adults and Children

This book is a comprehensive account of imaging of acute appendicitis and other appendicetal diseases. Background information is first provided on clinical presentation, perforation and negative appendectomy rates, and treatment options. The role of each imaging modality – radiography, ultrasound, CT, and MRI – is then considered separately in adults and children with suspected acute appendicitis. Many high-quality illustrations are included, and detailed information is provided on appropriate protocols and radiation saving. Further chapters addresses the spontaneously resolving and chronic appendicitis as well as other appendicetal lesions and review the findings of evidence-based medicine and cost-effectiveness analyses. Emergency physicians, pediatricians, surgeons, and radiologists will all find this book to be an excellent source of information and guidance.

Features
Imaging is increasingly used in patients suspected of having acute appendicitis in order to reduce the rates of perforation and negative appendectomy and to detect alternative diagnoses. As many of these patients are young, radiation dose is of particular concern. Numerous studies have therefore investigated reduction of the radiation dose delivered by CT and whether ultrasound may be a preferable option.[...]

Contents

Fields of interest
Imaging / Radiology; Diagnostic Radiology; Ultrasound; Emergency Medicine; Abdominal Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

Online orders shipping within 2-3 days.

2012. IX, 256 p. 340 illus., 40 in color. (Diagnostic Imaging) Hardcover

179,95 €
ISBN 978-3-642-17871-9
### Informed Consent, Proxy Consent, and Catholic Bioethics

**For the Good of the Subject**

This work offers a comprehensive understanding rooted in Catholic anthropology and moral theory of the meaning and limits of informed and proxy consent to experimentation on human subjects. In particular, it seeks to articulate the rationale for proxy consent in both therapeutic and nontherapeutic settings. As to the former, the book proposes that the Golden Rule, recognizing the basic inclinations of human nature toward objective goods perfective of human persons, should underpin the notion of proxy consent to experimentation on humans. As to the latter, an additional scrutiny of the amount of risk involved is necessary, since the risk-benefit ratio frequently invoked to justify higher-risk therapeutic research does not exist in its nontherapeutic counterpart. This study discusses a number of possible solutions to this question and develops a position that builds upon the objective notion of the human good.

**Features**

This work offers a comprehensive understanding rooted in Catholic anthropology and moral theory of the meaning and limits of informed and proxy consent to experimentation on human subjects. In particular, it seeks to articulate the rationale for proxy consent in both therapeutic and nontherapeutic settings. As to the former, the book proposes that the Golden Rule, recognizing the basic inclinations of human nature toward objective goods perfective of human persons, should underpin the notion of proxy consent to experimentation on humans. As to the latter, an additional scrutiny of the amount of risk involved is necessary, since the risk-benefit ratio frequently invoked to justify higher-risk therapeutic research does not exist in its nontherapeutic counterpart. This study discusses a number of possible solutions to this question and develops a position that builds upon the objective notion of the human good.

**Contents**


**Fields of interest**

Theory of Medicine / Bioethics; Ethics; Medical Law; Private International Law, International & Foreign Law; Comparative Law

**Target groups**

Research

**Type of publication**

Monograph

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### Ischemic Optic Neuropathies

**Ischemic optic neuropathy, often referred to as a stroke of the optic nerve, is one of the major causes of visual impairment or loss of vision. Yet it is a highly controversial and confusing subject because of the general lack of in-depth scientific understanding of the subject. In this book the leading authority in the field describes in detail the current knowledge about the different forms of the often devastating disease. Insights into the underlying pathogenesis and peculiar clinical features are given, leading the reader to the most appropriate way of management. This information will help any physician dealing with patients who suffer from sudden loss of vision.**

**Features**

Ischemic optic neuropathy, often referred to as a stroke of the optic nerve, is one of the major causes of visual impairment or loss of vision. Yet it is a highly controversial and confusing subject because of the general lack of in-depth scientific understanding of the subject. In this book the leading authority in the field describes in detail the current knowledge about the different forms of the often […]

**Contents**


**Fields of interest**

Ophthalmology; Neurology; Rheumatology

**Target groups**

Professional/practitioner

**Type of publication**

Professional book

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

2012. XII, 456 p. 281 illus., 82 in color. Hardcover

159,95 €

ISBN 978-3-642-11849-4

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### Knee Arthroscopy

**Knee Arthroscopy**

Arthroscopic procedures are a welcome alternative to total joint replacement and, with millions of procedures performed each year, the field of knee arthroscopy is rapidly advancing as instrumentation and applications are developed and refined. Knee Arthroscopy is a technique-oriented ‘how-to’ guide, written by internationally renowned authorities who present the latest advances in the field in a clear, step-by-step format. Chapters discuss issues such as meniscal transplantation, articular cartilage repair, anterior cruciate ligament treatment and other surgical procedures, and the text is supplemented throughout by case studies, clinical pearls and a wealth of illustrations. Knee Arthroscopy is a comprehensive reference sure to be invaluable for anyone involved in care of the knee, from the general orthopedist to the most skilled knee surgeon.

**Features**

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**Contents**


**Fields of interest**

Surgical Orthopedics; Sports Medicine

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

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

2011. 206 p. 302 illus., 225 in color. Softcover

74,95 €

Lasers in Dermatology and Medicine

Laser technology is constantly evolving and progressing. The use of laser therapy is vastly expanding and for this reason a medical book of this magnitude is necessary. Lasers and Light Therapy includes an up-to-date comprehensive look at lasers and light therapy not only in the field of Cutaneous Laser Surgery, but in other medical specialties as well.

Features
Laser technology is quickly evolving with developments in laser technology and new indications in their use. Laser medicine has become a major discipline in its own right, with applications in dermatology, plastic surgery, ophthalmology, cardiology, gynecology, otolaryngology, neurology and neurosurgery. Lasers in Dermatology and Medicine offers a comprehensive review of all the major ...

Contents

Fields of interest
Dermatology; Ophthalmology; Head and Neck Surgery; Gynecology; Dentistry

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

2012. XXI, 611 p. 310 illus., 287 in color. Hardcover

approx. 179.95 €

Master Techniques in Blepharoplasty and Periorbital Rejuvenation

Master Techniques in Blepharoplasty and Eyelid Reconstruction is a comprehensive, multi-speciality textbook and surgical atlas on blepharoplasty and eyelid reconstruction, presenting multiple competing and complementary techniques by the leading experts in the field of plastic surgery, facial plastic surgery, and oculoplastic surgery. Only the most pioneering and time-tested surgical procedures are presented in step-by-step, illustrative detail. All areas of eyelid surgery are covered in a balanced and systematic approach. An accompanying on-line surgical atlas shows digitally videotaped procedures by the leading authors, extremely useful to any surgeon interested in blepharoplasty. Master Techniques in Blepharoplasty and Eyelid Reconstruction is the definitive textbook and atlas for any surgeon who interested in this topic.

Features
The eyes are a central feature of facial appearance, expression and provide us the ability to see, our most important sensory function. For this reason, mastering the evaluation and execution of aesthetic rejuvenation of the eyelids and adjacent areas is critical to all surgeons who operate on these very delicate and interconnected structures. Master Techniques in Blepharoplasty and Periorbital ...

Fields of interest
Ophthalmology; Plastic Surgery; Otorhinolaryngology

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

2012. XVIII, 342 p. 445 illus., 438 in color. Hardcover

159,95 €
ISBN 978-1-4614-0066-0

Minimally Invasive Spine Surgery

A Practical Guide to Anatomy and Techniques

Minimally Invasive Spine Surgery: A Practical Guide to Anatomy and Techniques is a beautifully illustrated text describing the 18 most widely accepted minimally-invasive procedures in spine surgery. Written by leaders in both neurologic and orthopedic spine surgery, this book offers the most up-to-date material and the broadest perspective on the subject. Procedures range from simple to complex and cover the cervical, thoracic and lumbar regions of the spine. Chapter topics include: - image-guided spinal navigation - posterior cervical instrumentation and fusion - thoracoscopic deformity correction - facet joint and epidural injections - discography and endoscopic lumbar disectomy - thoracolumbar interbody fusion (TLIF) - anterior lumbar interbody fusion (ALIF) - iliac crest bone graft harvest and fusion techniques

Features
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Contents

Fields of interest
Orthopedics; Surgical Orthopedics; Surgery; Minimally Invasive Surgery; Neurosurgery

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.


59,95 €
ISBN 978-1-4614-0762-1
Minimally Invasive Surgery in Orthopedics

Upper Extremity Handbook

Minimally Invasive Surgery in Orthopedics: The Upper Extremity Handbook contains all of the valuable chapters from Section I of Scuderi and Tria’s 2010 hardcover reference. Newly available in an affordable softcover format, this book covers minimally invasive procedures and techniques for the shoulder, elbow, wrist and other topics applicable to the upper extremity. The book is fully illustrated with more than one hundred pictures and clearly written for ease of understanding. Surgeons, residents, and fellows alike will find this thorough and focused handbook invaluable.

Features
Minimally Invasive Surgery in Orthopedics: The Upper Extremity Handbook contains all of the valuable chapters from Section I (The Upper Extremities) of Scuderi and Tria’s 2010 hardcover reference. Newly available in this convenient and affordable softcover format, this book covers minimally invasive procedures and techniques for the shoulder, elbow, wrist and hand. The book is fully illustrated with more [...]"I______________________________________________________________________________"________________________________________________________________________

Contents

Fields of interest
Orthopedics; Surgical Orthopedics; Minimally Invasive Surgery

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012, IX, 199 p. 176 illus. Softcover

59.95 €

Neurofibromatoses in Clinical Practice

Neurofibromatoses in Clinical Practice provides a succinct, accessible guide to the neurofibromatoses including diagnosis, management protocols and indications for referral to specialist centers. Neurocutaneous diseases are complex to diagnose and treat and many patients require specialist multidisciplinary management and surveillance. Due to multiple disease manifestations, patients can present to different clinicians without specialist expertise - general practitioners, pediatricians, neurologists, geneticists, surgeons and ophthalmologists. The clinically focused format will enable rapid consultation during clinics, facilitate disease pattern recognition, and indicate care pathways. The clinical quiz highlights common pitfalls in diagnosis and management and a glossary and reference section provide details for access to specialist NF clinics throughout the UK and internationally. Written by experts in the field Neurofibromatoses in Clinical Practice is a succinct and practical guide for [...]"I______________________________________________________________________________"________________________________________________________________________

Features
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Contents
Introduction - Neurofibromatosis 1 - Neurofibromatosis 2 - Differential Diagnosis of NF1 and NF2 - Psychological impact of disease and quality of life - Clinical quiz emphasising diagnostic and management pitfalls of neurocutaneous disease - Glossary of terms - Useful websites for NF information, lay groups and specialist NF centres

Fields of interest
Neurology; Neurosurgery; Oncology; Pediatrics; Plastic Surgery; Ophthalmology

Target groups
Professional/practitioner

Type of publication
Contributed volume

Online orders shipping within 2-3 days

2011, XVII, 162 p. 40 illus., 20 in color. Softcover

29.95 €

Nutrition Guide for Physicians

Nutrition Guide for Physicians is a desktop reference guide on nutrition and its clinical implications for health and disease through the lifecycle. Presented in a new softcover format and user-friendly style, it serves as a valuable resource of practical information on nutrition for physicians in their daily practice. Nutrition Guide for Physicians is divided into three parts that cross the spectrum of nutritional concerns for improving the practice of medicine. Part One provides basic nutritional principles for physicians. Part Two covers nutrition through the lifecycle and optimal nutrition patterns through all stages of development. Part Three covers diet and its role in prevention, cause and treatment of disease. All chapters include figures and tables that provide useful descriptive and visual reviews. "Key points" and succinct "conclusions" are also provided for each topic. Nutrition Guide for Physicians provides a wide perspective of the impact that nutrition has upon medical practice and [...]"I______________________________________________________________________________"________________________________________________________________________

Features
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Contents

Fields of interest
Clinical Nutrition; Nutrition; Primary Care Medicine; General Practice / Family Medicine; Health Promotion and Disease Prevention

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2011, XXIV, 444 p. (Nutrition and Health) Softcover

29.95 €
ISBN 978-1-61779-409-4
Nutrition and Skin

Lessons for Anti-Aging, Beauty and Healthy Skin

The book will educate and decode the role of vitamins, essential fatty acids and other nutraceuticals on skin health and their tremendous impact to the current needs of the skin care industry. Focus on conditions, as acne, dermatitis, dry scaly skin or alopecia will provide a comprehensive knowledge of the relationship of nutrition and skin as well as the current attempts in nutritional or dermatological research. It will stimulate food professionals to brainstorm for new products and opportunities that will target the emerging antiaging and wellness trends and modern consumer needs.

Features
Nutrition and skin health are often linked in the mind of the consumer. The last few years have produced excellent nutritional studies addressing the effects of nutrients on skin. This book aims to summarize these studies and discuss the relationship between certain nutrients and skin health in the hope of encouraging and enabling food and skin care professionals to create products that promote skin health.

Contents

Fields of interest
Dermatology; Food Science; Chemistry (general)

Target groups
Research

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

2012. X, 228 p. 19 illus., 13 in color. Hardcover
139,95 €
ISBN 978-1-4419-7966-7

Oncolytic Viruses

Methods and Protocols

Since the first report of an engineered oncolytic virus, there has been a continuing and steady increase of interest in the field, and while bench research remains vital for the translation of research in this field, its success depends on breakthroughs in clinical studies. Oncolytic Viruses: Methods and Protocols describes the construction and purification of capsid-modified adenoviruses as well as oncolytic adenoviruses, presents protocols for many individual virus species including engineering and preparation of oncolytic HSV, propagation, purification, and in vivo testing of oncolytic VSV, details properties of oncolytic reovirus and NDV, and describes the generation and testing of next generation of oncolytic vaccinia virus. As the host immune system plays a critical role in determining efficacy of oncolytic viruses, two chapters are devoted to the study of immune response. Recent advances in stem cell research have led the field in two distinct directions: the use of stem cells as carrier[..]

Features
Since the first report of an engineered oncolytic virus, there has been a continuing and steady increase of interest in the field, and while bench research remains vital for the translation of research in this field, its success depends on breakthroughs in clinical studies. Oncolytic Viruses: Methods and Protocols describes the construction and purification of capsid-modified adenoviruses as well as [..]

Contents

Fields of interest
Infectious Diseases

Target groups
Professional/practitioner

Type of publication
Contributed volume

Usually dispatched within 3 to 5 business days

74,95 €
ISBN 978-1-61779-339-4

Orthopedic Sports Medicine

Principles and Practice

Aim of this book is to give an update on the main issues in sports traumatology and orthopedics, involving different body sections. Exploring the most important aspects of sports medicine - from anatomy to normal movements description, from diagnosis to sports injuries treatment, from conservative to surgical treatments - it gives a global overview of the field, describing also diagnostic tools recently introduced in this field, such as hip arthroscopy, and taking into consideration related areas like nutrition, prevention, training and rehabilitation. The single chapters deal with relevant problems such as emergencies on the field, pathologies of the upper and lower extremity, spine problems in athletes. Each injury is approached on the basis of both the specific body area and of the different sports/activities. Written by a multidisciplinary team of experts, this volume will be a fundamental book for orthopedic surgeons, physiotherapists, general practitioners, personal and athletic trainers.[..]

Features
Aim of this book is to give an update on the main issues in sports traumatology and orthopedics, involving different body sections. Exploring the most important aspects of sports medicine - from anatomy to normal movements description, from diagnosis to sports injuries treatment, from conservative to surgical treatments - it gives a global overview of the field, describing also diagnostic tools [..]

Fields of interest
Orthopedics; Sports Medicine; Rehabilitation

Target groups
Professional/practitioner

Type of publication
Professional book

Online orders shipping within 2-3 days.

74,95 €
ISBN 978-88-470-1701-6
Pathology and surgery around the vertebral artery

Features
This is the first comprehensive book about surgery on and around the vertebral artery all along its cervical and intracranial course. This vessel has been considered for long as out of surgical reach leaving many different pathologies not or incompletely treated. The surgical exposure and control of the vertebral artery not only permit to treat lesions of the vertebral artery wall or developed in contact to [..]

Contents
Table of Contents available as PDF

Fields of interest
Medicine (general); Neurosurgery; Head and Neck Surgery; Surgical Orthopedics

Target groups
Professional/practitioner

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. XVI, 674 p. Hardcover

290.00 €

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Pediatric Sedation Outside of the Operating Room
A Multispecialty International Collaboration

This comprehensive guide provides tips and instruction for the entire range of specialists that utilize pediatric sedation. Each specialty receives tailored coverage that focuses on its unique patient population, challenges, potential solutions, and sedation techniques. Each chapter is written by a leading specialist in the field. A comprehensive spectrum of pediatric sedation will be covered, which will be of interest to oncologists, pediatricians, hospitalists, intensivists, radiologists, emergency medicine specialists, anesthesiologists, nurses, dentists, and gastroenterologists. Background chapters cover pharmacology as well as pediatric anatomy, with special focus on the airway and respiratory mechanics. The future of pediatric sedation is also reviewed as well as the cutting-edge research that is being done in the field.

Features
Pediatric sedation has evolved to include many specialties. This is the first book which is directed towards the broad range of specialists who deliver pediatric sedation outside of the operating room. The contributing authors are internationally recognized leaders in sedation and in their specialty. The specialty-specific chapters are designed to be applicable to all sedation providers [..]

Contents

Fields of interest
Anesthesiology; Emergency Medicine; Imaging / Radiology; Intensive / Critical Care Medicine

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days

2012. 200 p. 150 illus., 100 in color. Hardcover

139.95 €
ISBN 978-88-470-2076-4

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Prevention and Treatment of Complications in Proctological Surgery

The volume is authored by a colorectal surgeon with long-standing clinical and scientific experience and is devoted to the management of complications following surgery of the anorectum and the pelvic floor. It is aimed not only at general surgeons, proctologists and, of course, proctologists, but also at gastroenterologists, endoscopists, radiologists and physiotherapists, i.e. those who may be involved in both diagnosis and cure whenever an adverse event, either unpredictable or potentially preventable, causes an intra- or postoperative, early or late, mild or life-threatening complication. Severe bleeding, dehiscence, perforation, anorectal stricture, fecal incontinence, and even caval vein thrombosis, fatal Fournier gangrene and pneumomediastinum may occur after anal surgery. The incidence, pathogenesis prevention and treatment of such events are discussed in detail in 10 chapters with 30 tables, 200 illustrations and more than 1000 references. Both conventional procedures and recent[..]

Features
This comprehensive guide provides tips and instruction for the entire range of specialists that utilize pediatric sedation. Each specialty receives tailored coverage that focuses on its unique patient population, challenges, potential solutions, and sedation techniques. Each chapter is written by a leading specialist in the field. A comprehensive spectrum of pediatric sedation will be covered, which will be of interest to oncologists, pediatricians, hospitalists, intensivists, radiologists, emergency medicine specialists, anesthesiologists, nurses, dentists, and gastroenterologists. Background chapters cover pharmacology as well as pediatric anatomy, with special focus on the airway and respiratory mechanics. The future of pediatric sedation is also reviewed as well as the cutting-edge research that is being done in the field.

Contents

Fields of interest
Proctology; General Surgery

Target groups
Professional/practitioner

Type of publication
Monograph

Online orders shipping within 2-3 days.

2012. 200 p. 150 illus., 100 in color. Hardcover

139.95 €
ISBN 978-88-470-2076-4

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Surgery

2012. XVI, 674 p. Hardcover

290.00 €

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Proctology; General Surgery

2012. XVI, 674 p. Hardcover

290.00 €

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2012. XVI, 674 p. Hardcover

290.00 €

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290.00 €

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2012. XVI, 674 p. Hardcover

290.00 €
Preventive Dermatology in Infectious Diseases

The physician’s responsibility continues to increase daily while providing health care in the 21st century; not only in keeping up with the increase of information, but also having to pay more attention to patient compliance. In addition, patients are educated, and often appreciate participation with a provider about treatment and medication choice. Often they have access to the Internet and other medical information and want to make informed choices along with their physician. Preventive Dermatology in Infectious Diseases will convey prevention and medication information to patients and thus help them reap the benefits of participating in their own health care and disease reduction.

Features
We live in a world between expectation and reality, and the goal for dermatologists is to help ourselves and our patients anticipate problems and provide solutions. Preventive Dermatology in Infectious Diseases is the first book fully dedicated to prevention of these types of skin disease. It seems almost counter-intuitive to take on this task, because so much of what we do in dermatology is [...] Contents

Fields of interest
Dermatology; Medicine (general)

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days

Psychological Co-morbidities of Physical Illness

A Behavioral Medicine Perspective
Evidence for the efficacy of behavioral approaches to the treatment and management of physical illness is mounting, as is the evidence for behavioral interventions for psychological disorders. A pressing question that remains is how to effectively treat co-morbid physical and psychological illnesses. Diseases co-occur more often than not, and the co-occurrence of physical and psychological illnesses is associated with greater impairment and healthcare costs. Unfortunately, the treatment literature has traditionally been disease-specific, with fewer insights and discoveries regarding the underlying processes of co-morbid physical and psychological illnesses, and even fewer of approaches to treatment. Research on co-morbidities between physical and psychological illnesses has focused primarily on depression. Quite extensive literatures describe the negative impact of depression on type 2 diabetes, cardiovascular disease, cancer, obesity, pain, and other physical illnesses. More recently, higher rates [...] Features
The scenario is all too common, patients presenting with medical conditions who have co-occurring psychological disorders, and vice versa. Clinical challenges include poor treatment outcome, low adherence, and impaired quality of life. Yet as a common clinical phenomenon, these co-morbidities tend to be understudied by researchers and undertreated by practitioners. Psychological Co-Morbidities of Physical [...] Contents

Fields of interest
Psychological Co-Morbidities of Physical Illness: Pain (Headache, Rheumatologic, and Orthopedic Disorders); - Obstetrical and Gynecological Disorders.

Target groups
Professional/practitioner

Type of publication
Contribution volume

Usually dispatched within 3 to 5 business days
Quick Reference Handbook for Surgical Pathologists

This book is a compilation of high-yield, at-a-glance summaries for various topics on which pathologists frequently need information in a quick reference format while at the microscope (or when cramming for the boards). The authors are early-career pathologists who have compiled this book from the perspective of pathologists-in-training. The focus is not organ-based histologic criteria, but rather everything else that goes into pathologic diagnoses but is difficult to keep committed to memory. The emphasis is on immunohistochemistry, special stains, grading systems, molecular markers, tumor syndromes, and helpful clinical references. The book has a unique format in that the information is presented primarily in tables and diagrams accompanied by minimal explanatory text. It is intended to serve as a ‘peripheral brain’ for pathology residents and also practicing pathologists, where frequently needed information is readily accessible and easy to navigate.

Features
This book is a compilation of high-yield, at-a-glance summaries for various topics on which pathologists frequently need information in a quick reference format while at the microscope (or when cramming for the boards). The authors are early-career pathologists who have compiled this book from the perspective of pathologists-in-training. The focus is not organ-based histologic criteria, but rather [...]
**Sjögren’s Syndrome**

**Practical Guidelines to Diagnosis and Therapy**

The key knowledge assembled in this book comprises today’s most comprehensive resource on Sjögren’s syndrome. Sjögren’s patients require the care of a wide variety of clinical and surgical specialists to treat their disease and improve their quality of life. This volume presents a broad multidisciplinary approach, enlisting the expertise of well-respected authors from around the world, covering the specialties of rheumatology, ophthalmology, oral medicine, oral surgery, otolaryngology, hematology, and others. This practical clinical resource begins with an overview of Sjögren’s myths, pearls and tips, information for referring physicians, and diagnostic and classification and criteria. The second section covers pathogenesis, providing the backbone for our understanding current diagnostics and therapeutics. The third section is devoted to clinical manifestations and therapeutic considerations. It covers the entire spectrum of symptoms and treatment, infused with the experience and astute...[

**Features**

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**Contents**


**Fields of interest**

Rheumatology; Otorhinolaryngology; Ophthalmology; Internal Medicine

**Target groups**

Professional/practitioner

**Type of publication**

Contributed volume

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

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**The Causes and Behavioral Consequences of Disasters**

**Models informed by the global experience 1950-2005**

The Causes and Behavioral Consequences of Disasters brings a public health perspective to the literature, reflecting the increasing importance of the field in both disaster preparedness and disaster response. Arguing that a disaster is not only the event but its aftermath as well, the authors apply salient local content to the study of scenarios ranging from the Cuzco, Peru, earthquake of 1950 to the Columbine school shooting, the Oklahoma City bombing, and 9/11. These case studies form the basis for models of vulnerabilities to disasters and population behavior following disasters, illustrating how careful pre-event planning and coordinated post-event response strategies can minimize the initial damage and negative aftereffects. The Causes and Behavioral Consequences of Disasters will further professional discussion and understanding among a wide range of professionals and students across public health, mental health, education, health administration and policy, social work, and the social sciences.

**Features**

The World Trade Center attacks. A typhoid outbreak in Eastern Europe. Hurricane Katrina. While each is a unique disaster, devastating events such as these are united both by their causes, and by the wide-ranging, and long-lasting health consequences that characterize their aftermath. Many of these consequences can be controlled or avoided. The Causes and Behavioral Consequences of Disasters brings a public[...]

**Contents**


**Fields of interest**

Rheumatology; Otorhinolaryngology; Ophthalmology; Internal Medicine

**Target groups**

Professional/practitioner

**Type of publication**

Monograph

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

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**The Ethics of Screening in Health Care and Medicine**

**Serving Society or Serving the Patient?**

Medical or health-oriented screening programs are amongst the most debated aspects of health care and public health practices in health care and public health ethics, as well as health policy discussions. In spite of this, most treatments of screening in the research literature restrict themselves to isolated scientific aspects, sometimes complemented by economic analyses or loose speculations regarding policy aspects. At the same time, recent advances in medical genetics and technology, as well as a rapidly growing societal focus on public health concerns, inspires an increase in suggested or recently started screening programs. This book involves an in-depth analysis of the ethical, political and philosophical issues related to health-oriented screening programs. It explores the considerations that arise when health care interacts with other societal institutions on a large scale, as is the case with screening. What values may be promoted or compromised by screening programs? What conflicts of[...]

**Features**

Medical or health-oriented screening programs are amongst the most debated aspects of health care and public health practices in health care and public health ethics, as well as health policy discussions. In spite of this, most treatments of screening in the research literature restrict themselves to isolated scientific aspects, sometimes complemented by economic analyses or loose speculations regarding[...]

**Contents**


**Fields of interest**

Theory of Medicine / Bioethics; Philosophy of Medicine; Public Health

**Target groups**

Research

**Type of publication**

Monograph

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

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1. Introduction
2. Physical and chemical principles
3. Impact of land-cover changes
4. Future challenges
5. Appendices

**Fields of interest**

Meteorology / Climatology

**Type of publication**

Monograph

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

2012. 208 p. (Updates in Surgery) Hardcover

139.95 €

ISBN 978-88-470-2329-1

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**Contents**


**Fields of interest**

Abdominal Surgery; Minimally Invasive Surgery

**Target groups**

Professional/practitioner

**Type of publication**

Monograph

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

2012. 208 p. (Updates in Surgery) Hardcover

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4. Future challenges
5. Appendices

**Fields of interest**

Meteorology / Climatology

**Type of publication**

Monograph

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

2012. IX, 189 p. 42 illus., 2 in color. (Atmospheric and Oceanographic Sciences Library, Vol. 44) Hardcover

99.95 €

ISBN 978-94-007-1526-4
**Integrating History and Philosophy of Science**

Problems and Prospects

Though the publication of Kuhn’s Structure of Scientific Revolutions seemed to herald the advent of a unified study of the history and philosophy of science, it is a hard fact that history of science and philosophy of science have increasingly grown apart. Recently, however, there has been a series of workshops on both sides of the Atlantic (called ‘&HPS’) intended to bring historians and philosophers of science together to discuss new integrative approaches. This is therefore an especially appropriate time to explore the problems with and prospects for integrating history and philosophy of science. The original essays in this volume, all from specialists in the history of science or philosophy of science, offer such an exploration from a wide variety of perspectives. The volume combines general reflections on the current state of history and philosophy of science with studies of the relation between the two disciplines in specific historical and scientific cases.

Features

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Fields of interest

Philosophy of Science; History; Interdisciplinary Studies; History of Medicine; History of Philosophy

**Law, Order and Freedom**

A Historical Introduction to Legal Philosophy

The central question in legal philosophy is the relationship between law and morality. The legal systems of many countries around the world have been influenced by the principles of the Enlightenment: freedom, equality and fraternity. The position is similar in relation to the accompanying state ideal of the democratic constitutional state as well as the notion of a welfare state. The foundation of these principles lies in the ideal of individual autonomy. The law must in this view guarantee a social order which secures the equal freedom of all. This freedom is moreover fundamental because in modern pluralistic societies a great diversity of views exist concerning the appropriate way of life. This freedom ideal is moreover also strongly contested.

In Law, Order and Freedom, a historical overview is given pertaining to the question of the extent to which the modern Enlightenment values can serve as the universal foundation of law and society.

Features

Law, Order and Freedom gives an account of the history of Western legal and political philosophy, starting with the pre-Socratics and ending with Rawls. It examines in detail the development of the Enlightenment values of freedom and equality, the foremost principles of many present-day constitutions. The underlying ideal of individual autonomy, characteristic of modern times, has nevertheless been...

Contents

Chapter 1 Legal Philosophy: The Most Important Controversies; Maris - Chapter 2 Antiquity and the Middle Ages; Van der Vliet (2.1-2.4, with contributions by Maris), Jacobs (2.5-2.8, with contributions by Van der Vliet) - Chapter 3 The Commencement of the Modern Age; Den Hartog, with an introduction by Maris. - Chapter 4 Hobbes, Locke and Spinoza; Den Hartog (4.1, 4.2, 4.4), Jacobs (4.3) - Chapter 5 Eighteenth-Century French Enlightenment; Kaptein (5.1-5.7, 5.6 partly by Maris). - Chapter 6 The Synthesis of Kant; Maris (6.1, 6.2, 6.5), Jacobs (6.3, 6.4.3, 6.6), Van der Vliet (6.4.1, 6.4.2)

Fields of interest

Philosophy of Law; Theories of Law; Philosophy of Law, Legal History; Political Philosophy

**Target groups**

Research

Type of publication

Contributed volume

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


139,95 €

ISBN 978-94-007-1456-4
Niels Bohr’s Complementarity
Its Structure, History, and Intersections with Hermeneutics and Deconstruction

This book explores the modern physicist Niels Bohr’s philosophical thought, specifically his pivotal idea of complementarity, with a focus on the relation between the roles of what he metaphorically calls “spectators” and “actors.” It seeks to spell out the structural and historical complexity of the idea of complementarity in terms of different modes of the ‘spectator-actor’ relation, showing, in particular, that the reorganization of Bohr’s thought starting from his 1935 debate with Einstein and his collaborators is characterized by an extension of the dynamic conception of complementarity from non-physical contexts to the very field of quantum theory. Further, linked with this analysis, the book situates Bohr’s complementarity in contemporary philosophical context by examining its intersections with post-Heideggerian hermeneutics as well as Derridian deconstruction. Specifically, it points to both the close affinities and the differences between Bohr’s idea of the ‘actor-spectator’ relation and [...] Features

This book explores the modern physicist Niels Bohr’s philosophical thought, specifically his pivotal idea of complementarity, with a focus on the relation between the roles of what he metaphorically calls “spectators” and “actors.” It seeks to spell out the structural and historical complexity of the idea of complementarity in terms of different modes of the ‘spectator-actor’ relation, showing, in [...] Contents


Radioactive Waste
Technical and Normative Aspects of its Disposal

Radioactive waste (above all highly radioactive wastes from nuclear installations) caused by research, medicine and technology must be disposed of safely. However both the strategies disputed for the disposal of radioactive waste as well as concrete proposals for choosing a location for final waste disposal are highly debatable. An appropriate disposal must conform to both complex, technical requirements and fulfill the radio-biological conditions to appropriately protect man and nature. Ethical, legal and social conditions must also be considered. An interdisciplinary team from various, relevant fields compiled the current status-quo and developed criteria and strategies, which on the one hand meet the requirements of optimal warning and prevention of risk for present and future generations, and additionally on the other hand meet the needs of what current society agrees what is expected to be allowed. This study can be understood as an advanced and continuing contribution to the corresponding [...] Features

Waste caused by the use of radioactive material in research, medicine and technologies, above all high level waste from nuclear power plants, must be disposed of safely. However, the strategies discussed for the disposal of radioactive waste as well as proposals for choosing a proper site for final waste disposal are strongly debated. An appropriate disposal must satisfy complex technical [...] Contents

Executive Summary and Recommendations.- Technical and Normative Foundations.- Annex and Apparatus.-

Fields of interest
Ethics; Waste Management / Waste Technology; Nuclear Engineering; Nuclear Energy; Technology Management

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. XV, 176 p. 6 illus. (Boston Studies in the Philosophy of Science, Vol. 286) Hardcover

99,95 €
ISBN 978-94-007-1747-3

Rethinking Virtue Ethics

Rethinking Virtue Ethics offers a model of Aristotelian virtue ethics based on a deductive paradigm. This book argues that, contrary to what many contemporary thinkers are inclined to believe, Aristotelian virtue ethics is consistent with at least some action-guiding moral principles being true unconditionally, and that a justification for general moral principles can be grounded in fundamental conceptual within Aristotle’s theory. An analysis of ethical propositions that hold for the most part is proposed that fits well within the deductive paradigm developed. This unique interpretation of virtue ethics has implications for recent discussions of the virtues in social psychology, issues about how fundamental moral principles are known, questions about the justification of inalienable rights, debates about moral particularism and generalism, and discussions of moral realism and anti-realism.

Features

Rethinking Virtue Ethics offers a model of Aristotelian virtue ethics based on a deductive paradigm. This book argues that, contrary to what many contemporary thinkers are inclined to believe, Aristotelian virtue ethics is consistent with at least some action-guiding moral principles being true unconditionally, and that a justification for general moral principles can be grounded in fundamental [...] Fields of interest
Ethics; Personality and Social Psychology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days


99,95 €
ISBN 978-94-007-2192-0
The Fullness of the Logos in the Key of Life
Book I. Christo-Logos: Metaphysical Rhapsodies of Faith
(Book itinerary mentis in deo)

This highly personal account of a lifetime's spiritual and philosophical enquiry charts the author’s journey of faith through contemporary culture. Distinguishing between what she posits as the 'universal' and the 'rhapsodic' logos, Tymieniecka interrogates concepts as varied as creativity and the media, joy and suffering, and truth and ambiguity. She contemplates the possibilities and limits of communication between human beings, and outlines what she calls the 'transnatural destiny' of the human soul. The book asserts that unlike truth, which unfolds a logical continuity, and unlike dialogue, which is directed sequentially upward toward intellectual conclusions, the mode of reflection of the 'rhapsodic logos' imposes no limits or caps upon its understanding. Instead, the 'logic' flow interlaces the rhapsodic cadences of our reflections on reality, in all their innumerable fluctuations, and sifts them to mold the intimate mind/soul inwardness that we experience as faith. The radiative meditations...

The Importance of Assent
A Theory of Coercion and Dignity

The view that persons are entitled to respect because of their moral agency is commonplace in contemporary moral theory. What exactly this respect entails, however, is far less uncontroversial. In this book, Van der Rijt argues powerfully that this respect for persons' moral agency must also encompass respect for their subjective moral judgments – even when these judgments can be shown to be fundamentally flawed. Van der Rijt scrutinizes the role persons' subjective moral judgments play within the context of coercion and domination. His fresh, original analysis of Kant's third formulation of the Categorical Imperative reveals how these judgments are intimately connected to a person's dignity. The result is an insightful new account of coercion, a novel Kantian reformulation of the republican notion of non-domination and a compelling, innovative argument in favour of retributive justice. In this admirably clear and insightful work, Van der Rijt develops an original account of coercion and dignity...

Features
This highly personal account of a lifetime's spiritual and philosophical enquiry charts the author's journey of faith through contemporary culture. Distinguishing between what she posits as the 'universal' and the 'rhapsodic' logos, Tymieniecka interrogates concepts as varied as creativity and the media, joy and suffering, and truth and ambiguity. She contemplates the possibilities and limits of...

Contents
Preface.- Pro-logos.- Part I. - A period of preparation for faith/the first sermon of timothy the dispossessed the quest.- Part II. - Glimmerings.- The second sermon of timothy the dispossessed: does god speak to the soul.- Part III. - The window upon the absolute.- Part IV.- Opening the window to the absolute.- Part V. - Retracing our steps to the cave, illuminating it.- Part VI. - In the pursuit of truth.- Part VII.- Embodiment: our inward drama situated within the world of life, nature, and the cosmos/that third sermon of timothy... The mystery of incarnation/pars. - Part VIII. - The constitutive archetypes...[...]

Field of interest
Philosophy of Religion; Classical Philosophy; Metaphysics; Phenomenology

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

99,95 €
ISBN 978-94-007-2256-9

The Realism-Antirealism Debate in the Age of Alternative Logics

The relation between logic and knowledge has been at the heart of a lively debate since the 1960s. On the one hand, the epistemic approaches based their formal arguments in the mathematics of Brouwer and intuitionistic logic. Following Michael Dummett, they started to call themselves ‘antirealists’. Others persisted with the formal background of the Frege-Tarski tradition, where Cantorian set theory is linked via model theory to classical logic. Jaakko Hintikka tried to unify both traditions by means of what is now known as ‘explicit epistemic logic’. Under this view, epistemic contents are introduced into the object language as operators yielding propositions from propositions, rather than as metalogical constraints on the notion of inference. The Realism-Antirealism debate has thus had three players: classical logicians, intuitionists and explicit epistemic logicians. The editors of the present volume believe that in the age of Alternative Logics, where manifold developments in logic happen at a...
Truth and Falsehood

An Inquiry into Generalized Logical Values

The book presents a thoroughly elaborated logical theory of generalized truth-values understood as subsets of some established set of (basic) truth values. After elucidating the importance of the very notion of a truth value in logic and philosophy, we examine some possible ways of generalizing this notion. The useful four-valued logic of first-degree entailment by Nuel Belnap and the notion of a bilattice (a lattice of truth values with two ordering relations) constitute the basis for further generalizations. By doing so we elaborate the idea of a multilattice, and most notably, a trilattice of truth values—a specific algebraic structure with information ordering and two distinct logical orderings, one for truth and another for falsity. Each logical order not only induces its own logical vocabulary, but determines also its own entailment relation. We consider both semantic and syntactic ways of formalizing these relations and construct various logical calculi.

Features

The book presents a thoroughly elaborated logical theory of generalized truth-values understood as subsets of some established set of (basic) truth entities. After elucidating the importance of the very notion of a truth value in logic and philosophy, the authors examine some possible ways of generalizing this notion. The useful four-valued logic of first-degree entailment by Nuel Belnap and Michael Dunn [...]
Advances in the Physics of Particles and Nuclei - Volume 31

The series Advances in the Physics of Particles and Nuclei (APPN) is devoted to the archiving, in printed high-quality book format, of the comprehensive, long shelf-life reviews published in The European Physical Journal A and C. APPN will be of benefit in particular to those librarians and research groups, who have chosen to have only electronic access to these journals. Occasionally, original material in review format and refereed by the series' editorial board will also be included. This volume contains the following two reviews: Nora Brambilla et al.: Heavy Quarkonium: Progress, Puzzles and Opportunities Daniel Wicke: Properties of the Top Quark

Features
The series Advances in the Physics of Particles and Nuclei (APPN) is devoted to the archiving, in printed high-quality book format, of the comprehensive, long shelf-life reviews published in The European Physical Journal A and C. APPN will be of benefit in particular to those librarians and research groups, who have chosen to have only electronic access to these journals. Occasionally, original material in [...]
BioNanoTox (Biology, Nanotechnology, and Toxicology) is a novel field of research that investigates biological systems (plants, human, and animals) and the environment in conjunction with nanomaterials. BioNanoTox is the platform for vigorous interactions between disciplines, and offers attending researchers to demonstrate their latest findings. This brings new knowledge together and encourages interdisciplinary research collaboration.

**Features**

Learn how the multidisciplinary BioNanoTox Conference brings together various disciplines encompassing biology, chemistry, toxicology, computational sciences, mathematics, physics, engineering, and nanotechnology. BioNanoTox (Biology, Nanotechnology, and Toxicology) is a novel field of research that investigates biological systems (plants, human, and animals) and the environment in conjunction with nanomaterials. BioNanoTox is the platform for vigorous interactions between disciplines, and offers attending researchers to demonstrate their latest findings. This brings new knowledge together and encourages interdisciplinary research collaboration.

**Fields of interest**

- Spectroscopy and Microscopy
- Computer Applications in Chemistry; Chemistry (general)
- Nanotechnology and Microengineering; Optical and Electronic Materials

**Target groups**

Research

**Type of publication**

Proceedings

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


approx. 129.95 €

ISBN 978-0-7354-0910-1

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**M. Thierit, Université Pierre et Marie Curie, Paris, France**

**Cell and Tissue Organization in the Circulatory and Ventilatory Systems**

The volumes in this authoritative series present a multidisciplinary approach to modeling and simulation of flows in the cardiovascular and ventilatory systems, especially multiscale modeling and coupled simulations. The cardiovascular and respiratory systems are tightly coupled, as their primary function is to supply oxygen to and remove carbon dioxide from the body’s cells. Because physiological conduits have deformable and reactive walls, macroscopic flow behavior and prediction must be coupled to nano- and microscopic events in a corrector scheme of regulated mechanisms. Therefore, investigation of flows of blood and air in physiological conduits requires an understanding of the biology, chemistry, and physics of these systems together with the mathematical tools to describe their functioning. The present volume is devoted to cellular events that allow adaptation to environmental conditions, particularly mechanotransduction. It begins with cell organization and a survey of cell types in the [...]
Diffraction 2010: International Workshop on Diffraction in High Energy Physics

The Workshop “Diffraction 2010” was the sixth of a series of biennial events dedicated to the study of diffractive processes in high-energy physics. The purpose of the Workshop was to review both experimental and theoretical aspects of diffraction in high energy physics, to discuss new developments and to identify significant progress. The main topics which were covered included diffraction in electron-proton, in hadron-hadron and in heavy ion collisions, forward physics at the hadron colliders, low-x physics at the LHC, perturbative QCD and spin physics.

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Fields of interest
Particle and Nuclear Physics; Elementary Particles, Quantum Field Theory

Econodynamics
The Theory of Social Production

In this book the theory of social production is systematically formulated in terms and concepts of classical political economy and neo-classical economics. In this way the subject becomes accessible not only to researchers in areas of the theory of production and economic growth, but also to the educated reader who is curious about the principles behind the functioning of a national economy. The book can be considered as an introduction for students with a background in physics, chemistry and engineering, who wish to specialize in economics. It is explained how the growth of production is connected with achievements in technological consumption of labour and energy. The theory allows one to analyse the past and the present of the social production system and to build scripts of the future progress.

The book could be interesting for energy specialists who are engaged in planning and analysing production and consumption of energy carriers and determining energy policy, and for economists.[…]

Features
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Contents

Fields of interest
Socio- and Econophysics, Population and Evolutionary Models; Economic Theory; Thermodynamics; Economic Growth

Methods

R. D’Auria, M. Trigiante

From Special Relativity to Feynman Diagrams
A Course of Theoretical Particle Physics for Beginners

The first two chapters of the book deal, in a detailed way, with relativistic kinematics and dynamics, while in the third chapter some elementary concepts of General Relativity are given. Eventually, after an introduction to tensor calculus, a Lorentz covariant formulation of electromagnetism is given its quantization is developed. For a proper treatment of invariance and conservation laws in physics, an introductory chapter on group theory is given. This introduction is propedutical to the discussion of conservation laws in the Lagrangian and Hamiltonian formalism, which will allow us to export this formalism to quantum mechanics and, in particular, to introduce linear operators on quantum states and their transformation laws. In the last part of the book we analyze, in the first quantized formalism, relativistic field theory for both boson and fermion fields. The second quantization of free fields is then introduced and some preliminary concepts of perturbation theory and Feynmann diagrams are[…]

Features
This books aims at filling a gap between the basics courses of classical and quantum mechanics and advanced courses of (relativistic) quantum mechanics and field theory. Particular emphasis is given to the role of symmetry in modern theoretical physics. For this reason this book is particularly suited to those students who are interested in a deeper knowledge of modern developments in elementary particle.[…]

Fields of interest
Quantum Physics; Mathematical Methods in Physics; Elementary Particles, Quantum Field Theory; Classical and Quantum Gravitation, Relativity Theory; Cosmology

Target groups
Graduate

Type of publication
Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2012. XVI, 573 p. 55 illus. (Collana di Fisica e Astronomia) Softcover
69,95 €
R. Tahir-Kheli, Temple University, Philadelphia, PA, USA

General and Statistical Thermodynamics

This textbook explains completely the general and statistical thermodynamics. It begins with an introductory statistical mechanics course, deriving all the important formulae meticulously and explicitly, without mathematical short cuts. The main part of the book deals with the careful discussion of the concepts and laws of thermodynamics, van der Waals, Kelvin and Cladius theories, ideal and real gases, thermodynamic potentials, phonons and all the related aspects. To elucidate the concepts introduced and to provide practical problem solving support, numerous carefully worked examples are of great value for students. The text is clearly written and punctuated with many interesting anecdotes. This book is written as main textbook for upper undergraduate students attending a course on thermodynamics.

Features

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Contents


Fields of interest

Thermodynamics; Statistical Physics; Dynamical Systems and Complexity; Engineering Thermodynamics; Heat and Mass Transfer; Mathematical Methods in Physics

Target groups

Graduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

A. Ghoshray, Saha Institute of Nuclear Physics, Bidhannagar, Kolkata, India; B. Bandyopadhyay, Saha Institute of Nuclear Physics, Bidhannagar, Kolkata, India; C. Mazumdar, Saha Institute of Nuclear Physics, Bidhannagar, Kolkata, India (Eds.)

International Conference on Magnetic Materials (ICMM-2010)

For researchers in Condensed Matter Physics, this conference provided a forum for presentation and discussion of the new concepts and developments in magnetic materials encompassing areas like: (1) magnetic thin film and multilayer, (2) nanostructured materials, (3) disordered and frustrated systems (4) alloy and intermetallics (5) transition metal oxides (6) spintronics and magnetic transport (7) application in magnetic recording. New results obtained using experimental techniques such as: (a) magnetization and magneto-transport and magneto-calorice, (b) scattering techniques (light and neutron), and (c) resonance techniques (EPR, NMR and Mossbauer) as well as many important theoretical developments were discussed. Detail experimental and theoretical aspects of Fe-pnictide superconductor were also discussed.

Features

For researchers in Condensed Matter Physics, this conference provided a forum for presentation and discussion of the new concepts and developments in magnetic materials encompassing areas like: (1) magnetic thin film and multilayer, (2) nanostructured materials, (3) disordered and frustrated systems, (4) alloy and intermetallics, (5) transition metal oxides, (6) spintronics and magnetic transport (7) application [...] 

Fields of interest

Condensed Matter Physics; Semiconductors; Electronics and Microelectronics, Instrumentation

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.

W. Benz, Tokai University, Kanagawa, Japan; M. Oka, Tokyo Institute of Technology, Japan; T. Otsuka, The University of Tokyo, Japan; N. Yoshinaga, Saitama University, Japan (Eds.)

International Symposium on New Faces of Atomic Nuclei

Festschrift in Honour of Akito Arima’s 80th Birthday

The conference was about basic nuclear science (nuclear physics), with emphasis on theoretical models used in nuclear structure physics. Some interdisciplinary links to astrophysics, medical physics and the use of nuclear energy were also discussed. The purpose of this symposium was to celebrate the 80th birthday of Prof. Akito Arima, who is one of the most famous nuclear physicists in the world, and his award of the Order of Culture.

Features

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Fields of interest

Particle and Nuclear Physics; Astrophysics and Astroparticles; Nuclear Fusion

Target groups

Research

Type of publication

Proceedings

Online orders shipping within 2-3 days.


119,95 €


109,95 €
International Workshop on Double and Multiple Stars: Dynamics, Physics, and Instrumentation

The Workshop makes a brief overview of different topics related with fundamental parameters, dynamics and large astronomical databases compilation as well as several aspects of astronomical instrumentation used in such studies. This Workshop was centered on large field beginning from the nature of exoplanets (presented by H. Abt) to the expected results of the Gaia astronomical satellite mission.

Features
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Fields of interest
Astronomy, Astrophysics and Cosmology; Astronomy, Observations and Techniques

Target groups
Research

Type of publication
Proceedings

Introduction to the Mechanics of Space Robots

Based on lecture notes on a space robotics course, this book offers a pedagogical introduction to the mechanics of space robots. After presenting an overview of the environments and conditions space robots have to work in, the author discusses a variety of manipulatory devices robots may use to perform their tasks. This is followed by a discussion of robot mobility in these environments and the various technical approaches. The last two chapters are dedicated to actuators, sensors and power systems used in space robots. This book fills a gap in the space technology literature and will be useful for students and for those who have an interest in the broad and highly interdisciplinary field of space robotics, and in particular in its mechanical aspects.

Features
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Contents

Fields of interest
Astronomy, Astrophysics and Cosmology; Aerospace Technology and Astronautics; Control, Robotics, Mechatronics

Target groups
Research

Type of publication
Monograph

Key processes in Solar-Terrestrial Physics

"Key processes in Solar-Terrestrial Physics" deals with a nice selection of key phenomena concerning Solar-Terrestrial relations. During the week of October 4 – 9, 2009, about 160 participants from 19 countries met at the Itamambuca resort area of Ubatuba, Sao Paulo, Brazil to discuss the influence of solar variability on geophysical and heliospheric phenomena at a conference organized by the International Living With a Star (ILWS) Program of NASA and by the National Institute of Space Research (INPE) of Brazil. Five of the invited review talks of this Conference are being published in this special issue, plus one (on magnetospheric reconnection) especially invited to cover a missing important subject within the Solar-Terrestrial physics domain. Previously published in Space Science Reviews Journal, Vol. 158/1, 2011.

Features
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Contents

Fields of interest
Astronomy, Observations and Techniques; Extraterrestrial Physics, Space Sciences

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

139,95 €
ISBN 978-94-007-1795-4
Accessing and Using Space Experiment Data

For decades experiments conducted on space stations like MIR and the ISS have been gathering data in many fields of research in the natural sciences, medicine and engineering. The EU-sponsored Ulisse Internet Portal provides metadata from space experiments of all kinds and links to the data. Complementary to the portal, this book will serve as handbook listing space experiments by type of infrastructure, area of research in the life and physical sciences, data type, what their mission was, what kind of data they have collected and how one can access this data through Ulisse for further research. The book will provide an overview of the wealth of space experiment data that can be used for research, and will inspire academics (e.g. those looking for topics for their PhD thesis) and research departments in companies for their continued development.

Contents
I Introduction.- 2 Space and Ground-Based Infrastructures.- 2.1 Characteristics of the Space Environment.- 2.2 Space Infrastructure.- 2.3 Non- orbital weightless research platforms.- 2.4 Ground-based facilities and space simulators.- 3 Areas of research.- 3.1 Physical sciences.- 3.2 Life sciences.- 4 ULISSE access to data.- 4.1 Data description.- 4.2 Identification of information: the ULISSE knowledge base.- 4.3 ULISSE: data access services.

Fields of interest
Astronomy, Astrophysics and Cosmology; Aerospace Technology and Astronautics; Life Sciences (general); Medicine (general); Earth Sciences (general); Data Mining and Knowledge Discovery

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. XV, 215 p. 72 illus., 21 in color. Hardcover
99,95 €
ISBN 978-3-642-21143-0

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Light Scattering Reviews, Vol. 6

Light Scattering and Remote Sensing of Atmosphere and Surface

This is the next volume in series of Light Scattering Reviews. Volumes 1-5 have already been printed by Springer. The volume is composed of several papers (usually, 10) of leading researchers in the respective field. The main focus of this book is light scattering, radiative transfer and optics of snow.

Features
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Contents

Fields of interest
Physics (general); Earth Sciences (general); Environment (general)

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2012. XXII, 336 p. 142 illus., 67 in color. Hardcover
129,95 €
ISBN 978-3-642-15530-7

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Many-Body Schrödinger Dynamics of Bose-Einstein Condensates

At extremely low temperatures, clouds of bosonic atoms form what is known as a Bose-Einstein condensate. Recently, it has become clear that many different types of condensates – so called fragmented condensates – exist. In order to tell whether fragmentation occurs or not, it is necessary to solve the full many-body Schrödinger equation, a task that remained elusive for experimentally relevant conditions for many years. In this thesis the first numerically exact solutions of the time-dependent many-body Schrödinger equation for a bosonic Josephson junction are provided and compared to the approximate Gross-Pitaevskii and Bose-Hubbard theories. It is thereby shown that the dynamics of Bose-Einstein condensates is far more intricate than one would anticipate based on these approximations. A special conceptual innovation in this thesis are optimal lattice models. It is shown how all quantum lattice models of condensed matter physics that are based on Wannier functions, e.g. the Bose-Fermi Hubbard[...]

Features
At extremely low temperatures, clouds of bosonic atoms form what is known as a Bose-Einstein condensate. Recently, it has become clear that many different types of condensates – so called fragmented condensates – exist. In order to tell whether fragmentation occurs or not, it is necessary to solve the full many-body Schrödinger equation, a task that remained elusive for experimentally relevant conditions[...]

Contents

Fields of interest
Quantum Gases and Condensates; Theoretical, Mathematical and Computational Physics; Strongly Correlated Systems, Superconductivity

Target groups
Research

Type of publication
Monograph

Usually dispatched within 3 to 5 business days

2011. XII, 130 p. 20 illus., 17 in color. (Springer Theses, Vol.) Hardcover
99,95 €
ISBN 978-3-642-22865-0
Nanoethics and Nanotoxicology

Nanoethics and Nanotoxicology is a fast developing field of research and application in many domains such as in medicine, pharmacy, cosmetics and agro-industry. The book addresses the latest fundamental results on nanotoxicology and nanotoxicity, and the enormous range of potential applications in the fields of medical diagnostics, nanomedicine, and food and water administration. Nanoscale objects have properties leading to specific kinds of behaviour, sometimes exacerbating their chemical reactivity, physical behaviour, or potential to penetrate deeply within living organisms. Hence it is important to ensure the responsible and safe development of nanomaterials and nanotechnologies. This fourth volume in the Nanoscience series should make its mark, by presenting the state of the art in the fields of nanotoxicology and nanotoxicity. This is the first book to combine both scientific knowledge and ethical and social recommendations. It also presents specific policies on nanotechnologies set up by national and international organisations. [...] Features Nanoethics and Nanotoxicology is a fast developing field of research and application in many domains such as in medicine, pharmacy, cosmetics and agro-industry. The book addresses the latest fundamental results on nanotoxicology and nanotoxicity, and the enormous range of potential applications in the fields of medical diagnostics, nanomedicine, and food and water administration. Nanoscale objects have properties [...]

Contents Management in the workplace. - Health protection. - Part B: Experimental toxicology of nanoparticles and their impact on the environment. - Surface reactivity of manufactured nanoparticles. - nanoparticle transfer. - Ecotoxicology: reactivity in living systems. - toxicological models. - life cycle models. - nanoethics. - nano-ethics: challenges and opportunities. - Philosophical guidelines for the responsible use of nanotechnology. - Ethics and regulation. - the situation in france. - the situation in europe and the rest of the world. - nanotechnology and the law. - social issues. [...] Fields of interest Nanoscience and Technology; Ethics; Nanotechnology; Nanoscience and Microengineering; Theory of Medicine / Bioethics; Pharmacology / Toxicology Target groups Research Type of publication Monograph Online orders shipping within 2-3 days.

2011. XLIII, 620 p. 113 illus., 8 in color. Hardcover 139,95 € ISBN 978-3-642-20176-9

Optimised Projections for the Ab Initio Simulation of Large and Strongly Correlated Systems

Density functional theory (DFT) has become the standard workhorse for quantum mechanical simulations as it offers a good compromise between accuracy and computational cost. However, there are many important systems for which DFT performs very poorly, most notably strongly-correlated materials, resulting in a significant recent growth in interest in ‘beyond DFT’ methods. The widely used DFT+U technique, in particular, involves the addition of explicit Coulomb repulsion terms to reproduce the physics of spatially localised electronic subspaces. The magnitude of these corrective terms, measured by the famous Hubbard U parameter, has received much attention but less so for the projections used to delineate these subspaces. The dependence on the choice of these projections is studied in detail here and a method to overcome this ambiguity in DFT+U, by self-consistently determining the projections, is introduced. The author shows how nonorthogonal representations for electronic states may be used to [...] Features Density functional theory (DFT) has become the standard workhorse for quantum mechanical simulations as it offers a good compromise between accuracy and computational cost. However, there are many important systems for which DFT performs very poorly, most notably strongly-correlated materials, resulting in a significant recent growth in interest in ‘beyond DFT’ methods. The widely used DFT+U technique. [...] Contents An Introduction to Linear-Scaling Ab Initio Calculations. - Linear-Scaling DFT+U for Large Strongly-Correlated Systems. - Projector Self-Consistent DFT+U Using Nonorthogonal Generalised Wannier Functions. - Linear-Scaling Ab Initio Calculations. - Linear-Scaling DFT+U for Large Strongly-Correlated Systems. - Optimised Projections for Strongly-Correlated Subspaces. - Projector Self-Consistent DFT+U Using Nonorthogonal Generalised Wannier Functions. - Subspace Representations in Ab Initio Methods for Strongly Correlated Systems. - Tensorial Consequences of Projection Optimisation. - Geometric [...] Fields of interest Strongly Correlated Systems, Superconductivity; Theoretical, Mathematical and Computational Physics; Solid State Physics Target groups Research Type of publication Monograph Usually dispatched within 3 to 5 business days


Physics of Transitional Shear Flows

Instability and Laminar-Turbulent Transition in Incompressible Near-Wall Shear Layers

Starting from fundamentals of classical stability theory, an overview is given of the transition phenomena in subsonic, wall-bounded shear flows. At first, the consideration focuses on elementary small-amplitude velocity perturbations of laminar shear layers, i.e. instability waves, in the simplest canonical configurations of a plane channel flow and a flat-plate boundary layer. Then the linear stability problem is expanded to include the effects of pressure gradients, flow curvature, boundary-layer separation, wall compliance, etc. related to applications. Beyond the amplification of instability waves is the non-modal growth of local stationary and non-stationary shear flow perturbations which are discussed as well. The volume continues with the key aspect of the transition process, that is, receptivity of convectively unstable shear layers to external perturbations, summarizing main paths of the excitation of laminar flow disturbances. The remainder of the book addresses the instability phenomena [...] Features Starting from fundamentals of classical stability theory, an overview is given of the transition phenomena in subsonic, wall-bounded shear flows. At first, the consideration focuses on elementary small-amplitude velocity perturbations of laminar shear layers, i.e. instability waves, in the simplest canonical configurations of a plane channel flow and a flat-plate boundary layer. Then the linear stability [...] Contents Part I Fundamentals of the linear stability theory: 1 Concept of hydrodynamic stability. - 1.1 Hydrodynamic stability. - 1.2 Stability of fluid motion in time. - 1.2.1 Critical parameters for onset of instability. - 1.2.2 Conditional stability. - 1.2.3 Growth of disturbance energy. - References. - Further Reading. - 2 Theoretical aspects: 2.1 Formulation of linear hydrodynamic stability problems. - 2.1.1 Spectral formulation of stability. - 2.1.2 Inviscid instability mechanism. - 2.1.3 Viscous instability mechanism. - 2.2 Instability in space. - 2.3 Gaster's transformation. - 2.4 [...] Fields of interest Fluid- and Aerodynamics; Engineering Fluid Dynamics; Numerical and Computational Physics Target groups Graduate Type of publication Monograph Usually dispatched within 3 to 5 business days

Problems in Quantum Mechanics

with Solutions

242 solved problems of several degrees of difficulty in nonrelativistic Quantum Mechanics, ranging from the themes of the crisis of classical physics, through the achievements in the framework of modern atomic physics, down to the still alive, more intriguing aspects connected e.g. with the EPR paradox, the Aharonov-Bohm effect, quantum teleportation.

Features

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Contents


Fields of interest

Quantum Physics

Target groups

Upper undergraduate

Type of publication

Graduate/advanced undergraduate textbook

Usually dispatched within 3 to 5 business days

2011. IX, 354 p. (Collana di Fisica e Astronomia, 0)
Softcover

59,95 €
Protein Folding and Misfolding

Infrared spectroscopy is a new and innovative technology to study protein folding/misfolding events in the broad arsenal of techniques conventionally used in this field. The progress in understanding protein folding and misfolding is primarily due to the development of biophysical methods which permit to probe conformational changes with high kinetic and structural resolution. The most commonly used approaches rely on rapid mixing methods to initiate the folding event via a sudden change in solvent conditions. Traditionally, techniques such as fluorescence, circular dichroism or visible absorption are applied to probe the process. In contrast to these techniques, infrared spectroscopy came into play only very recently, and the progress made in this field up to date which now permits to probe folding events over the time scale from picoseconds to minutes has not yet been discussed in a book. The aim of this book is to provide an overview of the developments as seen by some of the main contributors to [...]
Review of Progress in Quantitative Nondestructive Evaluation

Volume 30A; Volume 30B

These proceedings provide the latest research and development papers in nondestructive evaluation (NDE) and its applications to flaw detection, material properties, NDE, and structural reliability. The papers are prepared by internationally known researchers and are reviewed by qualified scientists. Papers cover recent developments in essentially all measuring techniques (ultrasonics, electromagnetic, x-rays, thermal, acoustic emission, etc.) and their applications to flaw detection and structural reliability.

Features
These proceedings provide the latest research and development papers in nondestructive evaluation (NDE) and its applications to flaw detection, material properties, NDE, and structural reliability. The papers are prepared by internationally known researchers and are reviewed by qualified scientists. Papers cover recent developments in essentially all measuring techniques (ultrasonics, electromagnetic, x-rays, [...]

Fields of interest
Acoustics, Magnetism, Magnetic Materials; Nanoscale Science and Technology; Nanotechnology and Microengineering; Electrical Engineering; Electronics and Microelectronics, Instrumentation

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


359,00 €

Second International Ulaanbaatar Conference on Nuclear Physics and Applications

This is the second international Ulaanbaatar conference on Nuclear Physics and applications. The first conference was held in 2008. These conferences are motivated by the worldwide increase of nuclear energy for peaceful use. Uranium rich Mongolia plans to use uranium resources with further intentions of nuclear fuel cycles steps. The conference attendees included participants from more than a dozen countries as well as scientists and policy makers in Mongolia. The conference proceedings book includes technical papers and basic nuclear science in various nuclear science applications such as nuclear power reactors.

Features
This is the second international Ulaanbaatar conference on Nuclear Physics and applications. The first conference was held in 2008. These conferences are motivated by the worldwide increase of nuclear energy for peaceful use. Uranium rich Mongolia plans to use uranium resources with further intentions of nuclear fuel cycles steps. The conference attendees included participants from more than a dozen [...]

Fields of interest
Nuclear Physics, Heavy Ions, Hadrons; Particle and Nuclear Physics; Nuclear Fusion

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.


approx. 114,95 €


Every amateur astronomer has at least heard of the many different catalogs of deep-sky objects; the most well known are the Messier, the Caldwell, the Herschel, and the NGC. All of these catalogs are, in general, readily available, but very few amateur observers are in a position to choose the best catalog for their particular deep-sky observing program, know how to use the catalog, or even realize just how many there are out there! The Amateur Astronomer’s Guide to the Deep-Sky Catalogs is a single compilation of the historical and modern astronomical deep-sky catalogs. It discusses their origins, compares what’s in them, explains how to interpret the data they contain, and even outlines how readers can create suitable 'custom' catalogs for their own use. The last section provides a set of three deep-sky catalogs created by the author, for observers of different levels of experience, from newcomer to expert.

Features
All of us familiar with astronomy know of Charles Messier and his early work on creating a catalog of celestial objects. Did you know that Messier was compiling a list of objects to avoid when searching the skies? He was a comet hunter, and he wanted to not mistake other things for comets. Other lists and catalogs followed this, and many, including Messier’s, have become popular with amateur [...]
The Mythology of the Night Sky

D.E. Falkner, Blaine, MN, USA

The Mythology of the Night Sky is intended primarily for amateur astronomers who would like to know the mythology behind the names of constellations and planets. It deals with the 48 constellations identified by the ancient Greek astronomer Ptolemy, as well as all the planets of our solar system and their moons, which are named after Roman gods. To assist practical observers the book gives the location and description of each constellation, including named stars and deep-sky objects. Readers are encouraged to observe and image the constellations for themselves, and there is a lot of practical information in this book to help them along the way. In addition to providing a detailed (and mostly Greek) mythology of the constellations and the vast soap opera that was part of the ancient Greek pantheon, this book also addresses the planets of the Solar System, which are named after the Roman - not Greek - gods.

Features

Every amateur astronomer can easily recognize most of the constellations, but how many of us know the story behind them? What myths did the ancient Greeks weave around the mighty hunter Orion that places him so prominently in the sky? Did you know that this mythical being was said to have been killed by Diana, herself a hunter, while he was exhausted by his fight with Scorpion? The constellation of [...] is named after the Roman goddess Diana.

Contents


Fields of interest

Astronomy, Astrophysics and Cosmology; Popular Science in Astronomy

Type of publication

Popular

Target groups

Popular/general

The Performance of the ATLAS Detector

The ATLAS detector at the CERN Large Hadron Collider is an apparatus of unprecedented complexity, designed to probe physics in proton-proton collisions at centre-of-mass energies up to 14 TeV. It was installed in its underground cavern at the LHC during the period 2004 to 2008. Testing of individual subsystems began immediately with calibration systems and cosmic rays, and by 2008 full detector systems could be operated with the planned infrastructure, readout, and monitoring systems. Several commissioning runs of the full detector were organized in 2008 and 2009. During these runs the detector was operated continuously for several months with its readout triggered by cosmic ray muons. At the same time, regular calibrations of individual detector systems were made. In the course of these runs, signals from tens of millions of cosmic ray events were recorded. These commissioning runs continued until the first beam-beam collisions in late 2009. This volume is a collection of seven performance papers [...] .

Features

The ATLAS detector at the CERN Large Hadron Collider is an apparatus of unprecedented complexity, designed to probe physics in proton-proton collisions at centre-of-mass energies up to 14 TeV. It was installed in its underground cavern at the LHC during the period 2004 to 2008. Testing of individual subsystems began immediately with calibration systems and cosmic rays, and by 2008 full detector systems could [...] .

Contents


Fields of interest

Elementary Particles, Quantum Field Theory; Measurement Science, Instrumentation; Nuclear Physics, Heavy Ions, Hadrons

Target groups

Research

Type of publication

Monograph

The Physics of Music and Color

The Physics of Music and Color deals with two subjects, music and color - sound and light in the physically objective sense - in a single volume. The basic underlying physical principles of the two subjects overlap greatly: both music and color are manifestations of wave phenomena, and commonalities exist as to the production, transmission, and detection of sound and light. This book aids readers in studying both subjects, which involve nearly the entire gamut of the fundamental laws of classical as well as modern physics. Where traditional introductory physics and courses are styled so that the basic principles are introduced first and are then applied wherever possible, this book is based on a motivational approach: it introduces a subject by demonstrating a set of related phenomena, challenging readers by calling for a physical basis for what is observed. The Physics of Music and Color is written at level suitable for college students without any scientific background, requiring only simple [...] .

Features

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Contents


Fields of interest

Acoustics, Classical Electrodynamics, Wave Phenomena; Engineering Acoustics; Physics (general); Biophysics and Biological Physics

Target groups

Lower undergraduate

Type of publication

Monograph
**The Spiral Galaxy M33**

This book summarizes the gathering of information on and the growing understanding of M33 from the 1920s, when Hubble first determined its true nature, to the 21st century, when the Hubble Telescope probed deeply into its many secrets. With its regular symmetrical spiral structure, and its being not tilted too much and near enough to allow detailed studies of its stars, M33 is well-suited for the study of a typical spiral galaxy. In this work, Paul Hodge places current research on M33 (and similar galaxies) in both historical and global perspectives. The book is written in a language accessible for specialists and non-specialists, for professional and amateur astronomers, for scientists and the curious public and, most importantly, for students.

**Features**

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XXXIII Brazilian Workshop on Nuclear Physics

V.R. Vanin, University of São Paulo, SP, Brazil (Ed.)

This meeting was attended mostly by Brazilian researchers and selected collaborators invited from abroad. The current studies in Nuclear Physics, from basic theoretical work to instrumentation and applied methods, were presented and discussed in conferences, oral, and poster presentations, in order to disseminate new ideas and evaluate the progress in this research area.

Features
This meeting was attended mostly by Brazilian researchers and selected collaborators invited from abroad. The current studies in Nuclear Physics, from basic theoretical work to instrumentation and applied methods, were presented and discussed in conferences, oral, and poster presentations, in order to disseminate new ideas and evaluate the progress in this research area.

Fields of interest
Particle and Nuclear Physics; Atomic, Molecular, Optical and Plasma Physics; Elementary Particles; Quantum Field Theory

Target groups
Research

Type of publication
Proceedings

Online orders shipping within 2-3 days.

2011. 428 p. (High Energy Physics, Vol. 1351) Softcover approx. 139,95 €

Popular Science

J. Waxman, Imperial College London, UK

The Elephant in the Room
Stories About Cancer Patients and their Doctors

The Elephant in the Room is a collection of short stories that creatively communicate the cancer patient’s journey. The stories, based on real-life accounts, are built around the idiosyncratic relationships between patients and their doctors. Using humor, empathy and wisdom, Jonathan Waxman explores the very human side of cancer as well as providing expert commentary on the clinical aspects of diagnosis and therapy of this disease. These stories comfort and entertain, inform and engage, and are a treat to read for anyone whose life has been affected by cancer.

Features
The Elephant in the Room is a collection of real life short stories about cancer patients and their doctors. These stories comfort and entertain, inform and engage, and are a treat to read. With humour and empathy, Jonathan Waxman explores the human side of cancer.

Contents
Rick’s Big Adventure.- All My Trials.- Snake Oil and Chips.- Smoker’s Cough.- Conference with Counsel.- Coming Through.- Here’s Harry.- Why Me?.- How Do They Know What I’ve Got?.- Doctors and Cancer.- Firewall.

Fields of interest
Popular Science in Medicine and Health; Oncology

Target groups
Popular/general

Type of publication
Popular science

Usually dispatched within 3 to 5 business days

2012. XIX, 264 p. Softcover
24,95 €

Beyond Individual Differences
Organizing Processes, Information Overload, and Classroom Learning

In an era of intense interest in educational reform, spurred by increasing global competition for jobs and advancement, it is more critical than ever to understand the nature of learning. And although much attention is paid to differences between learners, short shrift is often given to cognitive functions that characterize successful learning for all students. Yet these are the very functions that determine the difference between successful and rewarding learning versus merely “doing” without truly learning. Firmly grounded in the principles of neuropsychology, Beyond Individual Differences analyzes both successful and unproductive learning in terms of the brain’s organizing processes – that is, its unconscious sifting, selecting, and meaning-making that enable students to incorporate and build on what they’ve learned in the past. At the same time, it explores the learning situations that cause organization to break down and offers several preventive strategies.Key areas of coverage include: The...

Features
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Contents

Fields of interest
Child and School Psychology; Learning and Instruction; Social Work; Psychotherapy and Counseling; Speech Pathology; Neuropsychology

Target groups
Professional/practitioner

Type of publication
Professional book

Usually dispatched within 3 to 5 business days

2012. XVII, 125 p. Hardcover
39,95 €
Brain, Mind and Consciousness

Advances in Neuroscience Research

Neuropsychological research on the neural basis of behavior generally asserts that brain mechanisms ultimately suffice to explain all psychologically described phenomena. This assumption stems from the idea that the brain consists entirely of material particles and fields, and that all causal mechanisms relevant to neuroscience can be formulated solely in terms of properties of these elements. Contemporary basic physical theory differs from classic physics on the important matter of how consciousness of human agents enters into the structure of empirical phenomena. The new principles contradict the older idea that local mechanical processes alone account for the structure of all empirical data. Contemporary physical theory brings directly into the overall causal structure certain psychologically described choices made by human agents about how they will act. This key development in basic physical theory is applicable to neuroscience. This book explores this new framework.

Features

Neuropsychological research on the neural basis of behavior generally asserts that brain mechanisms ultimately suffice to explain all psychologically described phenomena. This assumption stems from the idea that the brain consists entirely of material particles and fields, and that all causal mechanisms relevant to neuroscience can be formulated solely in terms of properties of these elements. Contemporary [...] [1]

Contents


Fields of interest

Neuropsychology; Psychiatry; Neurosciences

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2011. VIII, 144 p. 12 illus. Hardcover

89,95 €
ISBN 978-1-4614-0435-4

Encyclopedia of Adolescence

The Encyclopedia of Adolescence will break new ground as an important central resource for the study of adolescence. Comprehensive in breadth and textbook in depth, the Encyclopedia of Adolescence – with entries presented in easy-to-access A to Z format – will serve as a reference repository of knowledge in the field as well as a frequently updated conduit of new knowledge long before such information trickles down from research to standard textbooks. By making full use of Springer’s print and online flexibility, the Encyclopedia will be at the forefront of efforts to advance the field by pushing and creating new boundaries and areas of study that further our understanding of adolescents and their place in society. Substantively, the Encyclopedia draws from four major areas of research relating to adolescence. The first broad area includes research relating to “Self, Identity and Development in Adolescence”. This area covers research relating to identity, from early adolescence through emerging[...]

Features

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Contents

Approximately 700 entries, in A to Z format, dealing in depth with such major topics as: self, identity, and development in adolescence; adolescents’ social and personal relationships; adolescents in social institutions; and adolescent psychopathology and mental health.

Fields of interest

Child and School Psychology; Psychiatry; Developmental Psychology; Criminology & Criminal Justice; Sociology, general; Sociology of Education

Target groups

Research

Type of publication

Encyclopaedia

Usually dispatched within 3 to 5 business days

2012. LIV, 3363 p. In 5 volumes, not available separately. Hardcover

1,500,00 €

Household Economic Behaviors

Significant recent changes in the structure and composition of households make the study of the economic relationships within the household of particular interest for academics and policy-makers. In this context, Household Economic Behaviors, through its focus on theoretical and empirical chapters on a range of economic behaviors within the household, provides a new and timely viewpoint. Following the Introduction and one or two surveys which give a general background, the volume includes theoretical and empirical perspectives on allocation of available time within the household, monetary and non-monetary transfers between household members, and intra-household bargaining.

Features

For decades, the traditional model of household economic behavior assumed a nuclear family and a standardized structure. But recent seismic shifts in family composition (e.g., childless, cohabiting, blended) and in the ways family members shop, save, and work are bringing challenges to the unitary model and opening up new avenues for study. In Household Economic Behaviors, a distinguished [...] [3]

Contents


Fields of interest

Psychotherapy and Counseling; Sociology, general; Economics

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XII, 185 p. 6 illus. (International Series on Consumer Science) Hardcover

89,95 €
ISBN 978-1-4419-9430-1
Rural Caregiving in the United States
Research, Practice, Policy
Caregivers living in rural areas face daunting obstacles. In addition to the isolation and anxiety that many caregivers across the country experience, rural caregivers must also cope with limited access to uncoordinated resources and severe shortages of trained professionals. Although many research, policy, and practice upgrades have been made in response to caregivers’ general concerns, the specific problems facing the rural caregiver have been less frequently addressed. Focusing on what is known as well as what is needed – and zeroing in on major subgroups within this diverse population – Rural Caregiving in the United States replaces misconceptions of the nonurban experience with real-life issues, findings, and solutions. For example, this pioneering volume: Covers a broad range of issues unique to rural caregiving, including research, education/training, policy, and practice. Identifies specific needs related to education, training, and support for rural caregivers. Examines both the positive and […]

Features
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Contents

Fields of interest
Clinical Psychology; Social Work; Medicine (general); Geriatrics / Gerontology; Social Policy; Educational Policy and Politics

Target groups
Research

Type of publication
Monograph

Online orders shipping within 2-3 days.

2011. XV, 177 p. 22 illus., 1 in color. (The Science of the Mind, 0) Hardcover

139,95 €
ISBN 978-4-431-53935-3

Trust
The Evolutionary Game of Mind and Society

This book is written around the central message that collective societies produce security, but destroy trust. In collective societies, people are connected through networks of strong personal ties where the behavior of all agents is constantly monitored and controlled. As a result, individuals in collective networks are assured that others will abide by social norms, and gain a sense of security erroneously thought of as “trust.” However, this book argues that this security is not truly trust, based on beliefs regarding the integrity of others, but assurance, based on the system of mutual control within the network. In collective societies, security is assured insofar as people stay within the network, but people do not trust in the benevolence of human nature. On the one hand, transaction costs are reduced within collective networks, as once accepted into a network the risk of being maltreated is minimized. However, joining the network requires individuals to pay opportunity cost, that […]

Features
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Fields of interest
Personality and Social Psychology; Cross Cultural Psychology; Sociology, general; Behavioural Sciences

Target groups
Research

Type of publication
Monograph

Social Sciences

Conceptualizing Cultural Hybridization

A Transdisciplinary Approach

Within the context of globalization, cultural transformations are increasingly analyzed as hybridization processes. Hybridity itself, however, is often treated as a specifically post-colonial phenomenon. The contributors in this volume assume the historicity of transcultural flows and entanglements; they consider the resulting transformative powers to be a basic feature of cultural change. By juxtaposing different notions of hybridization and specific methodologies, as they appear in the various disciplines, this volume’s design is transdisciplinary. Each author presents a disciplinarily valid concept of hybridization and shows how it operates in specific case studies. The aim is to generate a transdisciplinary perception of hybridity that paves the way for a wider application of this crucial concept

Features
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Contents
Questioning Hybridity. - Cultural Hybridity. - Circulating Objects and the Power of Hybridization as a Localizing Strategy. - The Agony of the Signified. - Hybridity and Hybridization Processes. - Transformations are increasingly analyzed as […]

Fields of interest
Archaeology; Anthropology; Political Science, general

Target groups
Research

Type of publication
Monograph

Social Sciences

Usually dispatched within 3 to 5 business days

2012. IX, 214 p. 28 illus., 10 in color. (Transcultural Research – Heidelberg Studies on Asia and Europe in a Global Context) Softcover

99,95 €
ISBN 978-3-642-21845-3
Contradictions of Neoliberal Planning
Cities, Policies, and Politics

This book argues that the concepts of ‘neoliberalism’ and ‘neoliberalisation,’ while in common use across the whole range of social sciences, have thus far been generally overlooked in planning theory and the analysis of planning practice. Offering insights from papers presented during a conference session at a meeting of the Association of American Geographers in Boston in 2008 and a number of commissioned chapters, this book fills this significant hiatus in the study of planning. What the case studies from Africa, Asia, North-America and Europe included in this volume have in common is that they all reveal the uneasy cohabitation of ‘planning’ – some kind of state intervention for the betterment of our built and natural environment – and ‘neoliberalism’ – a belief in the superiority of market mechanisms to organize land use and the inferiority of its opposite, state intervention. Planning, if anything, may be seen as being in direct contrast to neoliberalism, as something that should be rolled[...]

Features
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Investigating Quality of Urban Life

Theory, Methods, and Empirical Research

The study of quality of urban life involves both an objective approach to analysis using spatially aggregated secondary data and a subjective approach using unit record survey data whereby people provide subjective evaluations of QOL domains. This book provides a comprehensive overview of theoretical perspectives on QOL and methodological approaches to research design to investigate QOL and measure QOL dimensions. It incorporates empirical investigations into QOL in a range of cities across the world.

Features

This volume synthesizes past and current, international research on the quality of urban life. It emphasizes the contributions of the urban environment to the overall well-being of residents living in urban areas ranging in scale from small cities and their hinterlands to metropolitan regions. The term urban environment refers to the socio-physical aspects of urban living ranging from individual dwellings to.

Contents


Fields of interest

Quality of Life Research; Landscape, Regional and Urban Planning; Cities, Countries, Regions; Regional and Cultural Studies; Behavioural Sciences

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2011. XVI, 450 p. 81 illus. (Social Indicators Research Series, Vol. 45) Hardcover

139,95 €

ISBN 978-1-4614-0340-1

New Perspectives in Global Public Archaeology

Since its very beginning, archaeology has in many senses always related to a much wider constituency than just archaeologists. This relationship between archaeology and the public has often been overlooked and constantly changes. Public archaeology, as a field of research and practice, has been developing since the 1970s in English-speaking countries, particularly in the United States, Britain, and Australia, and is today beginning to spread to other parts of the world. Global expansion of public archaeology comes with the recognition of the need for a careful understanding of local contexts, particularly the culture and socio-political climate. This volume critically examines the current theories and practices of public archaeology through relevant case studies from different regions throughout the world, including Japan, China, South Korea, New Caledonia, South Africa, Senegal, Jordan, Italy, Peru, Canada, the United Kingdom, the United States, and Australia. These case studies are examined from.[...]

Features

New Perspectives in Global Public Archaeology Edited by Katsuyuki Okamura and Akira Matsuda. Since its very beginning, archaeology has in many senses always related to a much wider constituency than just archaeologists. This relationship between archaeology and the public has often been overlooked and constantly changes. Public archaeology, as a field of research and practice, has been.[...]

Contents


Fields of interest

Archaeology; Cultural Heritage; Anthropology

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. VIII, 280 p. 32 illus., 22 in color. Hardcover

89,95 €

ISBN 978-1-4614-0340-1

Putting Fear of Crime on the Map

Investigating Perceptions of Crime Using Geographic Information Systems

Since first emerging as an issue of concern in the late 1960s, fear of crime has become one of the most researched topics in contemporary criminology and receives considerable attention in a range of other disciplines including social ecology, social psychology and geography. Researchers looking at the subject have consistently uncovered alarming characteristics, primarily related to the behavioural responses that people adopt in relation to their fear of crime. This book reports on research conducted over the past eight years, in which efforts have been made to pioneer the combination of techniques from behavioural geography with Geographic Information Systems (GIS) in order to map the fear of crime. The first part of the book outlines the history of research into fear of crime, with an emphasis on the many approaches that have been used to investigate the problem and the need for a spatially-explicit approach. The second part provides a technical break down of the GIS-based techniques used to map.[...]

Features

The impact of crime on society is well-known and well-documented. But fear of crime also takes a major toll, affecting individual mobility, neighborhood cohesion, and local economies, and is an increasingly important topic in criminology and other disciplines. In recent years, Geographic Information Systems technology has brought needed spatial dimensions to research into fear of crime.[...]

Contents


Fields of interest

Criminology & Criminal Justice; Human Geography; Psychology (general)

Target groups

Research

Type of publication

Monograph

Usually dispatched within 3 to 5 business days

2012. XVII, 283 p. 85 illus., 61 in color. (Springer Series on Evidence-Based Crime Policy, Vol. 0) Hardcover

89,95 €

ISBN 978-1-4419-5646-0
Rural Families and Work

Context and Problems

Rural Families and Work focuses on the findings of the Rural Families Speak research and the theoretical frameworks that are utilized to examine the context of rural low-income families’ employment. This volume provides a solid foundation for understanding rural employment problems and issues. Family ecological theory is the central framework with a discussion of theories that contribute to the opportunities for the contextual research, including family economic stress theory, human capital, human capability, and some selected policy frameworks. Employment is addressed through review of policy issues, community contexts, family and social support, and available resources. Throughout the volume future research directions and applications are highlighted.

Features

The recent economic downturn has been especially devastating in America’s rural areas, where low wages, sporadic seasonal work, and manufacturing industries moving their plants out of the U.S. are widespread, and grocery stores and health care services may be miles away. Many families eligible for government programs are unaware of them. The transition from welfare to work is made more difficult by not only [..]

Contents

RURAL FAMILIES and WORK OVERVIEW. - THEORIES FOR STUDYING RURAL FAMILIES AND WORK. - RURAL DOES MATTER: UNDERSTANDING THE RURAL CONTEXT. - MAKING RURAL EMPLOYMENT WORK. - PHYSICAL HEALTH, FOOD SECURITY, AND ECONOMIC WELL-BEING: THE RURAL PERSPECTIVE. - INVISIBLE BARRIERS TO EMPLOYMENT: MENTAL AND BEHAVIORAL HEALTH PROBLEMS THAT HINDER SELF-SUFFICIENCY. - THE CHALLENGE OF CHILD CARE FOR RURAL LOW-INCOME MOTHERS. - RESOURCES AS THE KEY TO RURAL EMPLOYMENT. - “I DON’T KNOW HOW WE WOULD MAKE IT” - SOCIAL SUPPORT IN RURAL LOW-INCOME FAMILIES. - THE EARNED INCOME TAX CREDIT: AN INCENTIVE TO RURAL[..]

Fields of interest

Family; Psychotherapy and Counseling; Social Policy

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. XII, 258 p. 6 illus. (International Series on Consumer Science) Hardcover

89,95 €
ISBN 978-1-4614-0381-4

The Beginnings of Scholarly Economic Journalism

The Austrian Economist and The German Economist

The twin journals, Der Österreichische Volkswirt (The Austrian Economist) and Der Deutsche Volkswirt (The German Economist) were created by Gustav Stolper, godfather of Joseph Schumpeter, first in Vienna and then after the First World War, in Berlin. Schumpeter was to become a frequent contributor of the Berlin-based journal, which combined a successful blend of economic analysis and political and business insider knowledge which Stolper gained with his famous and sought after parties at his Wannsee villa. The two publications offer a kaleidoscope of many different ideas and concepts, some of which are addressed in this book, including philosophy, demography, monetary aspects, foreign developments, employment policy, and politics. The personal and professional contributions of Gustav Stolper and his secretary, Lilo Linke, are also discussed. Very little has been published on these early ventures into economic journalism, and this book will appeal to anyone studying economic journalism or the[..]

Features

The twin journals, Der Österreichische Volkswirt (The Austrian Economist) and Der Deutsche Volkswirt (The German Economist) were created by Gustav Stolper, godfather of Joseph Schumpeter, first in Vienna and then after the First World War, in Berlin. Schumpeter was to become a frequent contributor of the Berlin-based journal, which combined a successful blend of economic analysis and political[..]

Fields of interest

Methodology of the Social Sciences

Target groups

Professional/practitioner

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. VIII, 164 p. 2 illus., 1 in color. (The European Heritage in Economics and the Social Sciences) Hardcover

89,95 €

The Many Faces of Youth Crime

Contrasting Theoretical Perspectives on Juvenile Delinquency across Countries and Cultures

This book presents the first comprehensive analysis of the second International Self-Report Delinquency study (ISRD-2). An earlier volume, Juvenile Delinquency in Europe and Beyond (Springer, 2010) focused mainly on the findings with regard to delinquency, victimization and substance use in each of the individual participating ISRD-2 countries. The Many Faces of Youth Crime is based on analysis of the merged data set and has a number of unique features: # The analyses are based on an unusually large number of respondents (about 67,000 7th, 8th and 9th graders) collected by researchers from 31 countries; # It includes reports on the characteristics, experiences and behaviour of first and second generation migrant youth from a variety of cultures; # It is one of the first large-scale international studies asking 12-16 year olds about their victimization experiences (bullying, assault, robbery, theft); # It describes both intriguing differences between young people from different countries and country[..]

Features

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Contents


Fields of interest

Criminology & Criminal Justice; Child and School Psychology; Sociology, general

Target groups

Research

Type of publication

Contributed volume

Usually dispatched within 3 to 5 business days

2012. VIII, 368 p. 62 illus. Hardcover

89,95 €
Statistics

H.-M. Kaltenbach, ETH Zurich, Switzerland

A Concise Guide to Statistics

The text gives a concise introduction into fundamental concepts in statistics. Chapter 1: Short exposition of probability theory, using generic examples. Chapter 2: Estimation in theory and practice, using biologically motivated examples. Maximum-likelihood estimation in covered, including Fisher information and power computations. Methods for calculating confidence intervals and robust alternatives to standard estimators are given. Chapter 3: Hypothesis testing with emphasis on concepts, particularly type-I, type-II errors, and interpreting test results. Several examples are provided. T-tests are used throughout, followed important other tests and robust/nonparametric alternatives. Multiple testing is discussed in more depth, and combination of independent tests is explained. Chapter 4: Linear regression, with computations solely based on R. Multiple group comparisons with ANOVA are covered together with linear contrasts, again using R for computations.

Features
The authors of Work and Mental Health in Social Context take a different approach to understanding the causes of job stress. Job stress is systematically created by the characteristics of the jobs themselves, by the workers’ occupation, the organizations in which they work, their placements in different labor markets, and by broader social, economic and institutional structures, processes and [..]

Contents

Fields of interest
Sociology, general; Medicine (general); Social Policy

Target groups
Research

Type of publication
Monograph

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Léopold Simar became Professor of Statistics at the Université catholique de Louvain (UCL) in 1992, after moving from the Faculté des Sciences Economiques Sociales et Politiques (FSESP) at Facultés Universitaires Saint-Louis in Brussels, where he had served as Professor of Statistics since 1974 and as Dean of the FSESP from 1978 to 1990. He founded the Institute of Statistics at the UCL in 1992, and [..]

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