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Sex Differences in Antisocial Behaviour Terrie E. Moffitt 2001-09-27 A fresh approach to sex differences in the causes, course and consequences of antisocial behaviour. Cancer Management in Man Alfred L. Goldson 2012-12-06 Previous volumes in this series have discussed the current progression have identified a variety of targets and strategies state of our knowledge concerning the pathophysiology of to allow these goals to be realized. This volume critically cancer growth and progression. The complexity of the in reviews approaches towards cancer management in man at teraction of malignant

neoplasms and the host, the the levels of: detection, diagnosis, surgery, radiology, heterogeneity of malignant cell subpopulations, and the chronobiology and endocrine treatment. existence of metastatic tumor cells resistant to drug thera Several chapters review selected methods of cancer diag pies remain as significant clinical challenges to clinical on nosis. In addition, a variety of on-going and novel ap cologists. Indeed, conventional treatment regimens of che proaches for cancer treatment are also presented in this volume. Progress in the early detection of malignant neo motherapy, surgery and radiology are often ineffective for the therapy of a large variety of established metastatic can plasms, coupled with novel approaches for the therapy of cer in patients. When one considers the insidiousness of such neoplasms, may ultimately yield safe and well-tolerated agents for the selective therapy of solid malignancies. New progressive neoplastic growth and the emergence of con tinuously more aggressive and malignant cellular subpop therapeutic approaches, directed towards the biochemical ulations one is overwhelmed with the challenges inherent in and molecular targets identified in the earlier volumes of this series, may ultimately lead to the generation of new mo attempting to control malignant neoplasms.

Neural Stem Cells Leslie P. Weiner 2008-02-01 Many questions related to stem cell properties and neural stem cell

lineage and differentiation still linger. This second edition revises and expands upon the successful first edition in order to provide the most current, cutting-edge methods of today for the scientists working to answer these questions. The use of these step-by-step, readily reproducible laboratory protocols will allow investigators to produce pure populations that can serve as a means of understanding the biology of neural stem cells and adapting them for transplantation into disease models. This is an excellent source of information and inspiration.

Batch Effects and Noise in Microarray Experiments Andreas Scherer 2009-11-03 Batch Effects and Noise in Microarray Experiments: Sources and Solutions looks at the issue of technical noise and batch effects in microarray studies and illustrates how to alleviate such factors whilst interpreting the relevant biological information. Each chapter focuses on sources of noise and batch effects before starting an experiment, with examples of statistical methods for detecting, measuring, and managing batch effects within and across datasets provided online. Throughout the book the importance of standardization and the value of standard operating procedures in the development of genomics biomarkers is emphasized. Key Features: A thorough introduction to Batch Effects and Noise in Microrarray Experiments. A unique compilation of review and research articles on handling of

batch effects and technical and biological noise in microarray data. An extensive overview of current standardization initiatives. All datasets and methods used in the chapters, as well as colour images, are available on www.the-batch-effect-book.org, so that the data can be reproduced. An exciting compilation of state-of-the-art review chapters and latest research results, which will benefit all those involved in the planning, execution, and analysis of gene expression studies.

Recent Advances in Robust Statistics: Theory and Applications Claudio Agostinelli 2016-11-10 This book offers a collection of recent contributions and emerging ideas in the areas of robust statistics presented at the International Conference on Robust Statistics 2015 (ICORS 2015) held in Kolkata during 12–16 January, 2015. The book explores the applicability of robust methods in other non-traditional areas which includes the use of new techniques such as skew and mixture of skew distributions, scaled Bregman divergences, and multilevel functional data methods; application areas being circular data models and prediction of mortality and life expectancy. The contributions are of both theoretical as well as applied in nature. Robust statistics is a relatively young branch of statistical sciences that is rapidly emerging as the bedrock of statistical analysis in the 21st century due to its flexible nature and wide scope. Robust statistics supports the application of

parametric and other inference techniques over a broader domain than the strictly interpreted model scenarios employed in classical statistical methods. The aim of the ICORS conference, which is being organized annually since 2001, is to bring together researchers interested in robust statistics, data analysis and related areas. The conference is meant for theoretical and applied statisticians, data analysts from other fields, leading experts, junior researchers and graduate students. The ICORS meetings offer a forum for discussing recent advances and emerging ideas in statistics with a focus on robustness, and encourage informal contacts and discussions among all the participants. They also play an important role in maintaining a cohesive group of international researchers interested in robust statistics and related topics, whose interactions transcend the meetings and endure year round.

Data Mining V A. Zanasi 2004 Illustrating recent advances in data mining problems and encompassing both original research results and practical development experience, this work contains papers from a September 2004 conference. Contributions from academia and industry are grouped in sections on text and web mining, techniques such as clustering and categorization, applications in business, industry, and government, and applications in customer relationship management. Material presented here will be of interest to

researchers and application developers working in areas such as statistics, knowledge acquisition, data analysis, IT, data visualization, and business and industry. The US office of WIT Press is Computational Mechanics. Annotation : 2004 Book News, Inc., Portland, OR (booknews.com).

Particle Physics and the Universe Lars Bergstr□m 2001 It is generally felt in the cosmology and particle astrophysics community that we have just entered an era which later can only be looked back upon as a golden age. Thanks to the rapid technical development, with powerful new telescopes and other detectors taken into operation at an impressive rate, and the accompanying advancement of theoretical ideas, the picture of the past, present and future Universe is getting ever clearer. Some of the most exciting new findings and expected future developments are discussed in this invaluable volume. The topics covered include the physics of the early Universe and ultra-high energy processes. Emphasis is also put on neutrino physics and astrophysics, with the evidence for non-zero neutrino masses emerging from both solar neutrinos and atmospheric neutrinos covered in great depth. Another field with interesting new results concerns the basic cosmological parameters, where both traditional methods and the potential of new ones, like deep supernova surveys and acoustic peak detections in the cosmic microwave background, are thoroughly discussed.

Various aspects of the dark matter problem, such as gravitational lensing estimates of galaxy masses, cluster evolution and hot cluster electron distortions of the thermal microwave background spectrum, are also discussed, as are particle physics candidates of dark matter and methods to detect them. Cosmic rays of matter and antimatter are included as a topic, and so is the problem of the enigmatic dark energy of the vacuum.

Demand-Driven Inventory Optimization and Replenishment Robert A. Davis 2015-12-21 Remove built-in supply chain weak points to more effectively balance supply and demand Demand-Driven Inventory Optimization and Replenishment shows how companies can support supply chain metrics and business initiatives by removing the weak points built into their inventory systems. Beginning with a thorough examination of Just in Time, Efficient Consumer Response, and Collaborative Forecasting, Planning, and Replenishment, this book walks you through the mathematical shortcuts set up in your management system that prevent you from attaining supply chain excellence. This expanded second edition includes new coverage of inventory performance, business verticals, business initiatives, and metrics, alongside case studies that illustrate how optimized inventory and replenishment delivers results across retail, high-tech, men's clothing, and food sectors. Inventory optimization allows you to avoid out-of-stock situations without

impacting the bottom line with excessive inventory maintenance. By keeping just the right amount of inventory on hand, your company is better able to meet demand without sacrificing the cost-effectiveness of other supply chain strategies. The trick, however, is determining "just the right amount"—and this book provides the background and practical guidance you need to do just that. Examine the major supply chain strategies of the last 30 years Remove the shortcuts that prohibit supply chain excellence Optimize your supply/demand balance in any vertical Overcome systemic weaknesses to strengthen the bottom line Inventory optimization is benefitting companies around the world, as exemplified here by case studies involving Matas, PWT, Wistron, and Amway. When inefficiencies are built into the system, it's only smart business to identify and remove them—and implement a new streamlined process that runs like a well-oiled machine. Demand-Driven Inventory Optimization and Replenishment is an essential resource for exceptional supply chain management.

PCR Technology Tania Nolan 2013-06-13 PCR's simplicity as a molecular technique is, in some ways, responsible for the huge amount of innovation that surrounds it, as researchers continually think of new ways to tweak, adapt, and re-formulate concepts and applications. PCR Technology: Current Innovations, Third Edition is a collection of novel methods, insights, and points of view that provides a critical and timely

reference point for anyone wishing to use this technology. Topics in this forward-thinking volume include: The purification and handling of PCR templates The effect of the manufacture and purification of the oligonucleotide on PCR behavior Optimum buffer composition Probe options The design and optimization of qPCR assays Issues surrounding the development and refinement of instrumentation Effective controls to protect against uncertainties due to reaction variability Covering all aspects of PCR and real-time PCR, the book contains detailed protocols that make it suitable as both a reference and an instruction manual. Each chapter presents detailed guidelines as well as helpful hints and tips supplied by authors who are recognized experts in their fields. In addition to descriptions of current technology and best practices, the book also provides information about new developments in the PCR arena.

Outliers in Statistical Data Vic Barnett 1994-05-09 Every essential area is thoroughly updated to reflect the latest state of knowledge. All the topics are fully revised and extended, and additional topics and new emphases are presented.

Gene Quantification Francois Ferre 2012-12-06 Geneticists and molecular biologists have been interested in quantifying genes and their products for many years and for various reasons (Bishop, 1974). Early molecular methods were based on molecular

hybridization, and were devised shortly after Marmur and Doty (1961) first showed that denaturation of the double helix could be reversed - that the process of molecular reassociation was exquisitely sequence dependent. Gillespie and Spiegelman (1965) developed a way of using the method to titrate the number of copies of a probe within a target sequence in which the target sequence was fixed to a membrane support prior to hybridization with the probe - typically a RNA. Thus, this was a precursor to many of the methods still in use, and indeed under development, today. Early examples of the application of these methods included the measurement of the copy numbers in gene families such as the ribosomal genes and the immunoglobulin family. Amplification of genes in tumors and in response to drug treatment was discovered by this method. In the same period, methods were invented for estimating gene num bers based on the kinetics of the reassociation process - the so-called Cot analysis. This method, which exploits the dependence of the rate of reassociation on the concentration of the two strands, revealed the presence of repeated sequences in the DNA of higher eukaryotes (Britten and Kohne, 1968). An adaptation to RNA, Rot analysis (Melli and Bishop, 1969), was used to measure the abundance of RNAs in a mixed population.

Advances in Materials and Pavement Prediction Eyad Masad 2018-07-16 Advances in Materials and Pavement Performance Prediction contains the

papers presented at the International Conference on Advances in Materials and Pavement Performance Prediction (AM3P, Doha, Qatar, 16- 18 April 2018). There has been an increasing emphasis internationally in the design and construction of sustainable pavement systems. Advances in Materials and Pavement Prediction reflects this development highlighting various approaches to predict pavement performance. The contributions discuss links and interactions between material characterization methods, empirical predictions, mechanistic modeling, and statistically-sound calibration and validation methods. There is also emphasis on comparisons between modeling results and observed performance. The topics of the book include (but are not limited to): • Experimental laboratory material characterization • Field measurements and in situ material characterization • Constitutive modeling and simulation • Innovative pavement materials and interface systems • Non-destructive measurement techniques • Surface characterization, tire-surface interaction, pavement noise • Pavement rehabilitation • Case studies Advances in Materials and Pavement Performance Prediction will be of interest to academics and engineers involved in pavement engineering.

Forensic DNA Evidence Interpretation

Christopher M. Triggs 2004-11-29 Forensic DNA Evidence Interpretation is the most comprehensive resource for DNA casework available today. Written

by leaders in the fields of biology and statistics, the book emphasizes the interpretation of test results and provides the necessary formulae in an easily accessible manner. The book begins by reviewing all pertinent biology, a *Effects of Androgens on Immunity to Self and Foreign* Trine N. Jorgensen 2021-04-16 The Effects of Near-receiver Structure on Teleseismic and Regional Waveforms Glenn Eli Baker 1996

Dynamic Combinatorial Chemistry Joost N. H. Reek 2010-02-02 This long-awaited first book on this exciting new field in organic and supramolecular chemistry explains the fundamentals as well as possible applications of DCC. Authored by the "Who's Who" of DCC it spans the whole range of topics: catalysts, sensors, polymers, ligands, receptors, concluding with a look at future developments and perspectives. All set to become the standard text in the field, this one-stop reference contains everything organic, catalytic, polymer, physical and biochemists need to know.

Multivariate Data Analysis Kim H. Esbensen 2002 "Multivariate Data Analysis - in practice adopts a practical, non-mathematical approach to multivariate data analysis. The book's principal objective is to provide a conceptual framework for multivariate data analysis techniques, enabling the reader to apply these in his or her own field. Features: Focuses on the practical application of multivariate techniques such as PCA, PCR and PLS and experimental design.

Non-mathematical approach - ideal for analysts with little or no background in statistics. Step by step introduction of new concepts and techniques promotes ease of learning. Theory supported by hands-on exercises based on real-world data. A full training copy of The Unscrambler (for Windows 95, Windows NT 3.51 or later versions) including data sets for the exercises is available. Tutorial exercises based on data from real-world applications are used throughout the book to illustrate the use of the techniques introduced, providing the reader with a working knowledge of modern multivariate data analysis and experimental design. All exercises use The Unscrambler, a de facto industry standard for multivariate data analysis software packages. Multivariate Data Analysis in Practice is an excellent self-study text for scientists, chemists and engineers from all disciplines (non-statisticians) wishing to exploit the power of practical multivariate methods. It is very suitable for teaching purposes at the introductory level, and it can always be supplemented with higher level theoretical literature."Résumé de l'éditeur.

Applying Triage Principles to Medicolegal Mass Fatality Incident Investigations Elias James Kontanis 2005 Mass fatality incidents expose the human body to a wide range of violent dynamic processes that will confound decedent identification efforts. Resolving the

complexities of identification requires the application of triage management principles in morgue operations. Triage is a system of screening decedent remains to determine their identification potential and/or investigative value. However, investigators must understand the variables affecting decedent identification in order to develop effective triage strategies. This dissertation explores the primary factors affecting decedent identification and presents a detailed analysis of DNA sampling strategies. These findings will allow investigators to make informed decisions regarding human remains processing, thereby facilitating the decedent identification process.

From Capital Surges to Drought R. Ffrench-Davis 2003-10-23 This book analyzes the new trends in capital flows to emerging markets since the Asian crisis, their determinants and policy implications. It explains why such flows have declined so dramatically in recent years, emphasising both structural and cyclical factors. Senior bankers, regulators, and well-known academics explain the behaviour of different players. The book breaks new ground by showing in detail how such behaviour has contributed to the decline of flows and their volatility. The book suggests what coping mechanisms developing countries could adopt to deal with crisis situations; what measures should be taken at the national and international levels to make recipient countries less vulnerable to

international financial instability; how such instability can be reduced; and what can be done on the source countries to encourage larger more stable capital flows to developing countries.

Extreme Financial Risks Yannick Malevergne 2006-01-16 "Clearly elucidates extreme financial risks associated with rare events such as financial crashes. The highlight of the book is the delineation of various copulas in conjunction with financial dependences among different assets of a portfolio. In particular, the insightful discussion on quadrant and orthant dependences casts new light on the connection between marginal models and financial dependence...brings a vivid portrayal of the subject." --MATHEMATICAL REVIEWS

Molecular Diagnostics Lela Buckingham 2019-02-22 Meet the challenges of this rapidly expanding field with a solid understanding of the fundamentals of nucleic acid biochemistry as well as the advanced concepts integral to practice in today's laboratories. With a focus on the application of molecular concepts to the diagnosis of disease, the 3rd Edition of this popular resource encompasses microbiology, virology, genetics, oncology, and human identification.

Coordinate Measuring Machines and Systems John A. Bosch 1995-04-10 This work reviews the basic concepts of co-ordinate metrology. It defines what co-ordinate measuring machines (CMMs) are and details how they can be applied to gain a competitive

advantage in a variety of business settings, from small machine shops to global manufacturers. Areas that are critical for the successful application of CMMs - including environmental factors, the measuring of speed and accuracy, traceability, versatility and programming methodology - are considered.;The book is intended for manufacturing, mechanical, quality control, design, industrial, automation, automotive and aerospace engineers and managers, as wel as upper-level undergraduate and graduate students in these disciplines.;College or university bookstores may order five or more copies at a special student price, which is available from Marcel Dekker Inc upon request. Molecular mechanisms of cellular stress responses in cancer and their therapeutic implications Megan Chircop 2015-03-06 In response to stress, cells can activate a myriad of signalling pathways to bring about a specific cellular outcome, including cell cycle arrest, DNA repair, senescence and apoptosis. This response is pivotal for tumour suppression as all of these outcomes result in restriction of the growth and/or elimination of damaged and pre-malignant cells. Thus, a large number of anti-cancer agents target specific components of stress response signalling pathways with the aim of causing tumour regression by stimulating cell death. However, the efficacy of these agents is often impaired due to mutations in genes that are involved in these

stress-responsive signalling pathways and instead the oncogenic potential of a cell is increased leading to the initiation and/or progression of tumourigenesis. Moreover, these genetic defects can increase or contribute to resistance to chemotherapeutic agents and/or radiotherapy. Modulating the outcome of cellular stress responses towards cell death in tumour cells without affecting surrounding normal cells is thus one of the ultimate aims in the development of new cancer therapeutics. To achieve this aim, a detailed understanding of cellular stress response pathways and their aberrations in cancer is required. This Research topic aims to reflect the broadness and complexity of this important area of cancer research.

Microarrays for the Neurosciences Daniel H. Geschwind 2002 A guide to the use of DNA microarray technology in studying the central nervous system and other complex biological systems.The effort to sequence the human genome has generated a new discipline, "functional genomics," or the study of the relationship between the genetic code and its biologic potential. Gene expression studies are made possible not only by the decoding of the human genome, but by the development of new technologies. The preeminent technology in this area, DNA microarrays, is helping to revolutionize the field of neuroscience. Rather than looking at one gene at a time, researchers using DNA microarrays can monitor the expression patterns of large numbers of

genes simultaneously. Bridging the traditional gap between molecular neurobiology and systems neurobiology, DNA microarray technology has the potential to elevate molecular genetic studies of the nervous system to the system level. This book provides a comprehensive guide to the use of DNA microarrays in neuroscience and provides approaches that are applicable to other complex biological systems. Human nervous system tissue is remarkably complex. The number of cell types, the architecture, the developmental program, and the importance of environmental factors in development and functioning all pose particular challenges to the researcher using gene expression studies. After an overview of the technology, the book discusses array scanning and image application, statistical methods for array analysis, specific applications of gene expression studies in the central nervous system, the use of postmortem human tissue, and novel methods for using microarray data to develop hypotheses about regulatory networks.

Ambient Intelligence Achilles Kameas 2018-10-29 This book constitutes the refereed proceedings of the 14th European Conference on Ambient Intelligence, AmI 2018, held in Larnaca, Cyprus, in November 2018. The 12 revised full papers presented together with 6 short papers were carefully reviewed and selected from 36 submissions. The papers cover topics such as: Ambient Services and Smart Environments; Sensor Networks and Artificial Intelligence; Activity and Situation

Recognition; Ambient Intelligence in Education.

Regard for Reason in the Moral Mind Joshua May 2018-05-10 The burgeoning science of ethics has produced a trend toward pessimism. Ordinary moral thought and action, we're told, are profoundly influenced by arbitrary factors and ultimately driven by unreasoned feelings. This book counters the current orthodoxy on its own terms by carefully engaging with the empirical literature. The resulting view, optimistic rationalism, shows the pervasive role played by reason our moral minds, and ultimately defuses sweeping debunking arguments in ethics. The science does suggest that moral knowledge and virtue don't come easily. However, despite the heavy influence of automatic and unconscious processes that have been shaped by evolutionary pressures, we needn't reject ordinary moral psychology as fundamentally flawed or in need of serious repair. Reason can be corrupted in ethics just as in other domains, but a special pessimism about morality in particular is unwarranted. Moral judgment and motivation are fundamentally rational enterprises not beholden to the passions.

Biochips as Pathways to Drug Discovery Gary Hardiman 2006-10-19 In the fiercely competitive pharmaceutical marketplace, your organization cannot afford to spend excess dollars developing drugs that will fail to get FDA approval or have profoundly poor characteristics.

Biochips as Pathways to Drug Discovery takes a comprehensive look at how the industry faces these challenges, using new technologies such as biochips to reduce the cost of drug discovery and improve drug safety. The book explores the tools and skills required at each step of the discovery process when using biochips to determine biological outcomes. The authors provide an in-depth review of the clinical and pharmacogenomic relevance of biochips, ChIP-chip assays, and high-throughput approaches. They discuss how biochips are used to develop biomarkers in the drug discovery process, primarily for gene expression profiling and Single Nucleotide Polymorphism (SNP) analysis. The book includes coverage of experimental theory, quality control, clinical laboratory sampling considerations, database concepts, industrial laboratory design, and the analysis of the resultant large data sets. It discusses the application of biochips to the study of malaria, toxicogenomics, and SNPs, as well as intellectual property and market overviews. The book concludes with a comprehensive overview of how these chips are employed from early target discovery through preclinical toxicology and on through to pharmacogenomic and proof of concept studies in humans. Written in an easily accessible style, the breadth of coverage introduces the subject to those new to the field, while the depth of coverage forms a foundation for future work. The book gives you the knowledge required to leverage the technology into bona

fide discoveries. Daniel E. Levy, editor of the Drug Discovery Series, is the founder of DEL BioPharma, a consulting service for drug discovery programs. He also maintains a blog that explores organic chemistry.

Financial Development in Latin America and the Caribbean Augusto de la Torre 2011-11-30 The financial systems of Latin America and the Caribbean (LAC) have been widely resilient to the global financial crisis, which reflects strong progress in both macroeconomic management and prudential oversight. However, the current juncture provides a unique tapestry upon which this book examines several key questions and challenges looking forward. Does LAC continue to underperform on some key financial development indicators and, if so, why? How can LAC's financial systems contribute more effectively to the region's welfare and growth? How can LAC secure the benefits of deepening financial development while avoiding the fault lines that recently burst to the surface in other parts of the world?

Biometric Security and Privacy Richard Jiang 2016-12-21 This book highlights recent research advances on biometrics using new methods such as deep learning, nonlinear graph embedding, fuzzy approaches, and ensemble learning. Included are special biometric technologies related to privacy and security issues, such as cancellable biometrics and soft biometrics. The book also focuses on several emerging topics such as big data issues, internet of things,

medical biometrics, healthcare, and robot-human interactions. The authors show how these new applications have triggered a number of new biometric approaches. They show, as an example, how fuzzy extractor has become a useful tool for key generation in biometric banking, and vein/heart rates from medical records can also be used to identify patients. The contributors cover the topics, their methods, and their applications in depth. Safety Accidents in Risky Industries Sasho Andonov 2021-12-16 This text introduces bad events (incidents and accidents) named as metaphors. The metaphors, called as "safety animals," are named as black swan, gray rhino, gray swans, and invisible gorilla. The book analyzes incidents and accidents from the context of the safety management system in the risky industries including aviation, nuclear, chemical, oil, and petroleum. It further uses mathematical analysis of these events (through statistics and probabilities) and presents preventive and corrective measures in dealing with the same. It comprehensively covers important topics including real-time monitoring, reverse stress testing, change management, predictive maintenance, management system, contingency plans, human factors, behavioral safety, anticipatory failure determination, resilience engineering (RE), resilience management (RM), Swiss cheese model, and probability distribution. Aimed at professionals working in the fields of health and

safety, quality engineering, compliance engineering, aerospace engineering, occupational health and safety, and industrial engineering, this text: Provides an insight to safety managers in analyzing bad events and the ways to deal with them Covers randomness, uncertainty, and predictability in detail Explains concepts including reverse stress testing, real-time monitoring, and predictive maintenance in a comprehensive manner Presents mathematical analysis of incidents and accidents using statistics and probability theories

(Dis)Obedience in Digital Societies Sven Quadflieg 2022-03-31 Algorithms are not to be regarded as a technical structure but as a social phenomenon - they embed themselves, currently still very subtle, into our political and social system. Algorithms shape human behavior on various levels: they influence not only the aesthetic reception of the world but also the well-being and social interaction of their users. They act and intervene in a political and social context. As algorithms influence individual behavior in these social and political situations, their power should be the subject of critical discourse - or even lead to active disobedience and to the need for appropriate tools and methods which can be used to break the algorithmic power.

The Floating Strip Micromegas Detector Jonathan Bortfeldt 2015-06-05 This book discusses a novel and high-rate-capable micro pattern gaseous detector of the Micromegas

(MICRO-MEsh GAS detector) type. It provides a detailed characterization of the performance of Micromegas detectors on the basis of measurements and simulations, along with an in-depth examination of analysis and reconstruction methods. The accurate and efficient detection of minimum ionizing particles in high-rate background environments is demonstrated. The excellent performance determined here for these lightweight detectors will make possible the live medical imaging of a patient during ion-beam treatment.

ICPMG2014 - Physical Modelling in Geotechnics Christophe Gaudin 2019-01-08 The 8th International Conference on Physical Modelling in Geotechnics (ICPMG2014) was organised by the Centre for Offshore Foundation Systems at the University of Western Australia under the auspices of the Technical Committee 104 for Physical Modelling in Geotechnics of the International Society of Soil Mechanics and Geotechnical Engineering. This quadrennial conference is the traditional focal point for the physical modelling community of academics, scientists and engineers to present and exchange the latest developments on a wide range of physical modelling aspects associated with geotechnical engineering. These proceedings, together with the seven previous proceedings dating from 1988, present an inestimable collection of the technical and scientific developments and breakthroughs established over the

last 25 years. These proceedings include 10 keynote lectures from scientific leaders within the physical modelling community and 160 peer-reviewed papers from 26 countries. They are organised in 14 themes, presenting the latest developments in physical modelling technology, modelling techniques and sensors, through a wide range of soil-structure interaction problems, including shallow and deep foundations, offshore geotechnics, dams and embankments, excavations and retaining structures and slope stability. Fundamental aspects of earthquake engineering, geohazards, ground reinforcements and improvements, and soil properties and behaviour are also covered, demonstrating the increasing complexity of modelling arising from state-of-the-art technological developments and increased understanding of similitude principles. A special theme on education presents the latest developments in the use of physical modelling techniques for instructing undergraduate and postgraduate students in geotechnical engineering.

Reforming Latin America's Economies Ricardo Ffrench-Davis 2005-09-30 Provides a comprehensive analysis of why reforms in Latin America have failed in achieving growth and equity. The book focuses on three strategic areas of reforms of the Washington Consensus: Macroeconomics, Trade and Finance.

Earthquakes and Their Impact on Society Sebastiano D'Amico 2015-09-28 This book

provides an integrated approach to the assessment of seismic hazards. The reduction of losses expected by future earthquakes is probably the most important contribution of seismology to society. Large earthquakes occurred in densely populated areas highlight the dramatic inadequacy of a massive portion of the buildings demonstrating the high risks of modern industrial societies. Building earthquake-resistant structures and retrofitting old buildings on a national scale can be extremely expensive and can represent an economic challenge even for developed western countries. Earthquakes can cause also several psychological problems due to the fact that such kind of disasters will result in casualties, collapsing of houses, strategic buildings and facilities and deeply affect a community. Moreover in our society it is necessary to properly plan emergency responses and rescues taking into account any possible secondary effect in order to avoid more casualties.

Coordinate Measuring Machines and Systems

Robert J. Hocken 2016-04-19 Since John Bosch edited and published the first version of this book in 1995, the world of manufacturing and coordinate measuring machines (CMMs) and coordinate measuring systems (CMSs) has changed considerably. However, the basic physics of the machines has not changed in essence but have become more deeply understood. Completely revised and updat

Electromagnetic Boundary

Problems Edward F. Kuester 2015-09-15 Electromagnetic Boundary Problems introduces the formulation and solution of Maxwell's equations describing electromagnetism. Based on a one-semester graduate-level course taught by the authors, the text covers material parameters, equivalence principles, field and source (stream) potentials, and uniqueness, as well as: Provides analytical solutions of waves in regions with planar, cylindrical, spherical, and wedge boundaries Explores the formulation of integral equations and their analytical solutions in some simple cases Discusses approximation techniques for problems without exact analytical solutions Presents a general proof that no classical electromagnetic field can travel faster than the speed of light Features end-of-chapter problems that increase comprehension of key concepts and fuel additional research Electromagnetic Boundary Problems uses generalized functions consistently to treat problems that would otherwise be more difficult, such as jump conditions, motion of wavefronts, and reflection from a moving conductor. The book offers valuable insight into how and why various formulation and solution methods do and do not work.

Improving Forecasts with Integrated Business Planning Ganesh Sankaran 2019-03-05 This book provides both a broad overview of the forecasting process, covering technological and human aspects alike, and deep insights into algorithms and platform

functionalities in the IBP toolbox required to maximize forecast accuracy. Rich in technical and business explanations, it addresses short-, medium- and long-term forecasting processes using functionalities available in demand planning and demand sensing. There are also several theoretical concepts underpinning the algorithms discussed; these are explained with numerical examples to help demystify the IBP forecasting toolbox. Beyond standard procedures, the book also discusses custom approaches (e.g. new segmentation criteria, new outlier detection and correction methods) and new methods (e.g. the use of Markov chains for forecasting sporadic demands), etc. It subsequently benchmarks common practices using these innovative approaches and discusses the results. As measurement is an important precondition for improvement, an entire chapter is devoted to discussing process improvement and value using the Six Sigma methodology. In closing, the book provides several useful tips and tricks that should come in handy during project implementation.

Derailed Organizational Interventions for Stress and Well-Being Maria Karanika-Murray 2015-07-30 Providing an overview of researchers' and practitioners' "confessions" on the fascinating phenomenon of failed or derailed organizational health and well-being interventions and contextualizing these confessions is the aim of this innovative volume. Organizational

intervention failures, paradoxes and unexpected consequences can offer a lot of rich and extremely useful practical lessons on intervention design and implementation and possibly on the design of future research on organizational interventions. This volume presents lessons learned from derailed interventions and provides possible solutions to those tasked with implementing interventions. It provides an open, practical and solutions-focused account of researchers' and practitioners' experiences in implementing organizational interventions for health and well-being.

Computer and Computing Technologies in Agriculture XI Daoliang Li 2019-01-09 The two volumes IFIP AICT 545 and 546 constitute the refereed post-conference proceedings of the 11th IFIP WG 5.14 International Conference on Computer and Computing Technologies in Agriculture, CCTA 2017, held in Jilin, China, in August 2017. The 100 revised papers included in the two volumes were carefully reviewed and selected from 282 submissions. They cover a wide range of interesting theories and applications of information technology in agriculture. The papers focus on four topics: Internet of Things and big data in agriculture, precision agriculture and agricultural robots, agricultural information services, and animal and plant phenotyping for agriculture.