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Monte Carlo Methods in Financial Engineering Monte Carlo Techniques in Radiation Therapy Financial Optimization Random Number Generation and Monte Carlo Methods *Better Mousetrap 3e Deluxe* **Cumulative List of Organizations Described in Section 170 (c) of the Internal Revenue Code of 1954** *Official Gazette of the United States Patent and Trademark Office* Neutronics of Advanced Nuclear Systems *Maximum Simulated Likelihood Methods and Applications* **Monte Carlo Methods in Financial Engineering** *Unifying Electrical Engineering and Electronics Engineering Computational Science - ICCS 2007* Defending Planet Earth **Handbook of Markov Chain Monte Carlo Fundamentals of Ionizing Radiation Dosimetry** *New Technologies in Radiation Oncology* **Adsorption by Carbons** Radiative Transfer in Coupled Environmental Systems **Interest Rate Modeling Mathematical Modelling and Numerical Methods in Finance Maize in the Philippines: production systems, constraints, and research priorities** California Brand Book **The Oxford Handbook of Sound Art** *ECAI 2010 Martingale Methods in Financial Modelling* **The O'Neill** Energy Resources and Systems **Crisis Management: Concepts, Methodologies, Tools, and Applications Continuum Scale Simulation of Engineering Materials Finding Monte Cristo** Applied Quantitative Finance *Radiation in Medicine and Biology* **Thomson Bank Directory Authentic Self-love** Actuarial Finance *Design of Advanced Manufacturing Systems Neurodevelopmental Disorders Stereotactic Body Radiation Therapy* Principles of Diffuse Light Propagation **Selected Water Resources Abstracts**

Random Number Generation and Monte Carlo Methods Jul 31 2022 Monte Carlo simulation has become one of the most important tools in all fields of science. This book surveys the basic techniques and principles of the subject, as well as general techniques useful in more complicated models and in novel settings. The emphasis throughout is on practical methods that work well in current computing environments. *Unifying Electrical Engineering and Electronics Engineering* Dec 24 2021 Unifying Electrical Engineering and Electronics Engineering is based on the Proceedings of the 2012 International Conference on Electrical and Electronics Engineering (ICEE 2012). This book collects the peer reviewed papers presented at the conference. The aim of the conference is to unify the two areas of Electrical and Electronics Engineering. The book examines trends and techniques in the field as well as theories and applications. The editors have chosen to include the following topics; biotechnology, power engineering, superconductivity circuits, antennas technology, system architectures and telecommunication.

Continuum Scale Simulation of Engineering Materials Jun 05 2020 This book fills a gap by presenting our current knowledge and understanding of continuum-based concepts behind computational methods used for microstructure and process simulation of engineering materials above the atomic scale. The volume provides an excellent overview on the different methods, comparing the different methods in terms of their respective particular weaknesses and advantages. This trains readers to identify appropriate approaches to the new challenges that emerge every day in this exciting domain. Divided into three main parts, the first is a basic overview covering fundamental key methods in the field of continuum scale materials simulation. The second one then goes on to look at applications of these methods to the prediction of microstructures, dealing with explicit simulation examples, while the third part discusses example applications in the field of process simulation. By presenting a spectrum of different computational approaches to materials, the book aims to initiate the development of corresponding virtual laboratories in the industry in which these methods are exploited. As such, it addresses graduates and undergraduates, lecturers, materials scientists and engineers, physicists, biologists, chemists, mathematicians, and mechanical engineers.

Neutronics of Advanced Nuclear Systems Mar 27 2022 This book provides a systematic and comprehensive introduction to the neutronics of advanced nuclear systems, covering all key aspects, from the fundamental theories and methodologies to a wide range of advanced nuclear system designs and experiments. It is the first-ever book focusing on the neutronics of advanced nuclear systems in the world. Compared with traditional nuclear systems, advanced nuclear systems are characterized by more complex geometry and nuclear physics, and pose new challenges in terms of neutronics. Based on the achievements and experiences of the author and his team over the past few decades, the book focuses on the neutronics characteristics of advanced nuclear systems and introduces novel neutron transport methodologies for complex systems, high-fidelity calculation software for nuclear design and safety evaluation, and high-intensity neutron source and technologies for neutronics experiments. At the same time, it describes the development of various neutronics designs for advanced nuclear systems, including neutronics design for ITER, CLEAR and FDS series reactors. The book not only summarizes the progress and achievements of the author's research work, but also highlights the latest advances and investigates the forefront of the field and the road ahead.

Cumulative List of Organizations Described in Section 170 (c) of the Internal Revenue Code of 1954 May 29 2022

Principles of Diffuse Light Propagation Jul 27 2019 Principles of Diffuse Light Propagation: Light Propagation in Tissues with Applications in Biology and Medicine.

Adsorption by Carbons Jun 17 2021 Adsorption by Carbons covers the most significant aspects of adsorption by carbons, attempting to fill the existing gap between the fields of adsorption and carbonaceous materials. Both basic and applied aspects are presented. The first section of the book introduces physical adsorption and carbonaceous materials, and is followed by a section concerning the fundamentals of adsorption by carbons. This leads to development of a series of theoretical concepts that serve as an introduction to the following section in which adsorption is mainly envisaged as a tool to characterize the porous texture and surface chemistry of carbons. Particular attention is paid to some novel nanocarbons, and the electrochemistry of adsorption by carbons is also addressed. Finally, several important technological applications of gas and liquid adsorption by carbons in areas such as environmental protection and energy storage constitute the last section of the book. The first book to address the interplay between carbonaceous materials and adsorption Includes important environmental applications, such as the removal of volatile organic compounds from polluted atmospheres Covers both gas-solid and liquid-solid adsorption

Selected Water Resources Abstracts Jun 25 2019

Radiative Transfer in Coupled Environmental Systems May 17 2021 Radiative Transfer in Coupled Environmental Systems This book discusses radiative transfer in coupled media such as atmosphere-ocean systems with Lambertian as well non-Lambertian refl ecting surfaces at the lower boundary. The spectral range from the ultraviolet to the microwave region of the electromagnetic spectrum is considered, and multi-spectral as well as hyperspectral remote sensing is discussed. Solutions of the forward problem for unpolarized and polarized radiation are discussed in considerable detail, but what makes this book unique is that formulations and solutions of the inverse problem related to such coupled media are covered in a comprehensive and systematic manner. This book teaches the reader how to formulate and solve forward and inverse problems related to coupled media, and gives examples of how to solve concrete problems in environmental remote sensing of coupled atmosphere-surface systems. From the contents: Inherent Optical Properties (IOPs) Basic Radiative Transfer Theory Forward Radiative Transfer Modeling The Inverse Problem Applications

Monte Carlo Techniques in Radiation Therapy Oct 02 2022 About ten years after the first edition comes this second edition of Monte Carlo Techniques in Radiation Therapy: Introduction, Source Modelling, and Patient Dose Calculations, thoroughly updated and extended with the latest topics, edited by Frank Verhaegen and Joao Seco. This book aims to provide a brief introduction to the history and basics of Monte Carlo simulation, but again has a strong focus on applications in radiotherapy. Since the first edition, Monte Carlo simulation has found many new applications, which are included in detail. The applications sections in this book cover the following: Modelling transport of photons, electrons,

protons, and ions Modelling radiation sources for external beam radiotherapy Modelling radiation sources for brachytherapy Design of radiation sources Modelling dynamic beam delivery Patient dose calculations in external beam radiotherapy Patient dose calculations in brachytherapy Use of artificial intelligence in Monte Carlo simulations This book is intended for both students and professionals, both novice and experienced, in medical radiotherapy physics. It combines overviews of development, methods, and references to facilitate Monte Carlo studies.

Financial Optimization Sep 01 2022

Handbook of Markov Chain Monte Carlo Sep 20 2021 Since their popularization in the 1990s, Markov chain Monte Carlo (MCMC) methods have revolutionized statistical computing and have had an especially profound impact on the practice of Bayesian statistics. Furthermore, MCMC methods have enabled the development and use of intricate models in an astonishing array of disciplines as diverse as fisherie

ECAI 2010 Nov 10 2010 LC copy bound in 2 v.: v. 1, p. 1-509; v. 2, p. [509]-1153.

The O'Neill Sep 08 2020 "At the O'Neill, we were all engaged with full-hearted passion in sometimes the silliest of exercises, and all in service of finding that wiggly, elusive creature, a new play."—Meryl Streep "I would not be who or where I am today without the O'Neill."—Michael Douglas As the old ways of the commercial theater were dying and American playwriting was in crisis, the Eugene O'Neill Theater Center arose as a midwife to new plays and musicals, introducing some of the most exciting talents of our time (including August Wilson, Wendy Wasserstein, and Christopher Durang) and developing works that went on to win Pulitzer Prizes and Tony Awards. Along the way, it collaborated with then-unknown performers (like Meryl Streep, Michael Douglas, Courtney Vance, and Angela Bassett) and inspired Robert Redford in his creation of the Sundance Institute. This is the story of a theatrical laboratory, a place that transformed American theater, film, and television.

Interest Rate Modeling Apr 15 2021 Containing many results that are new or exist only in recent research articles, Interest Rate Modeling: Theory and Practice portrays the theory of interest rate modeling as a three-dimensional object of finance, mathematics, and computation. It introduces all models with financial-economical justifications, develops options along the martingale app

Better Mousetrap 3e Deluxe Jun 29 2022 This is the colour, distribution version. Better Mousetrap is an extensive supplement for the Mutants & Masterminds 3e rules. Written by Steven Trustrum, contributor to the DC Adventures product line, and illustrated by industry veteran, Eric Lofgren, this massive sourcebook covers everything from how to create interesting, challenging super-villains to new game mechanics (advantages, extras, flaws, Expertise variations, and more), to entirely new rules that will help you take your game to a new level of excitement.

Official Gazette of the United States Patent and Trademark Office Apr 27 2022

Authentic Self-love Jan 01 2020 We've all heard the clich•: before you can love someone else, you have to love yourself. But what does that actually mean? What does it mean to truly love yourself? Why must you love yourself before you can experience a meaningful relationship? How can you recognize authentic love?Clinical Psychologist, Sepideh Irvani, Psy.D., answers these questions and more in Authentic Self-Love: A Path to Healing the Self and Relationships. Interdisciplinary in nature, Irvani draws on a range of psychological, philosophical, and theological theories and analyzes them alongside secular literary texts to show the reader what it means to authentically love one's self. Distinction is made between the self-loathing of Narcissism and authentic self-love: one is destructive and the other healing, respectively. She offers tips to the reader about how to improve relationships with one's self and others, and provides context for healing. For those struggling to accept themselves and find love in their lives, Irvani offers a fresh, new take on the same old clich•. After reading Authentic Self-Love: A Path to Healing the Self and Relationships, you'll be able to critically analyze your life and relationships and transform it to an authentic love for yourself and for others.

Thomson Bank Directory Jan 31 2020

Applied Quantitative Finance Apr 03 2020 This volume provides practical solutions and introduces recent theoretical developments in risk management, pricing of credit derivatives, quantification of volatility and copula modeling. This third edition is devoted to modern risk analysis based on quantitative methods and textual analytics to meet the current challenges in banking and finance. It includes 14 new contributions and presents a comprehensive, state-of-the-art treatment of cutting-edge methods and topics, such as collateralized debt obligations, the high-frequency analysis of market liquidity, and realized volatility. The book is divided into three parts: Part 1 revisits important market risk issues, while Part 2 introduces novel concepts in credit risk and its management along with updated quantitative methods. The third part discusses the dynamics of risk management and includes risk analysis of energy markets and for cryptocurrencies. Digital assets, such as blockchain-based currencies, have become popular b ut are theoretically challenging when based on conventional methods. Among others, it introduces a modern text-mining method called dynamic topic modeling in detail and applies it to the message board of Bitcoins. The unique synthesis of theory and practice supported by computational tools is reflected not only in the selection of topics, but also in the fine balance of scientific contributions on practical implementation and theoretical concepts. This link between theory and practice offers theoreticians insights into considerations of applicability and, vice versa, provides practitioners convenient access to new techniques in quantitative finance. Hence the book will appeal both to researchers, including master and PhD students, and practitioners, such as financial engineers. The results presented in the book are fully reproducible and all quantlets needed for calculations are provided on an accompanying website. The Quantlet platform quantlet.de, quantlet.com, quantlet.org is an integrated QuantNet environment consisting of different types of statistics-related documents and program codes. Its goal is to promote reproducibility and offer a platform for sharing validated knowledge native to the social web. QuantNet and the corresponding Data-Driven Documents-based visualization allows readers to reproduce the tables, pictures and calculations inside this Springer book.

New Technologies in Radiation Oncology Jul 19 2021 - Summarizes the state of the art in the most relevant areas of medical physics and engineering applied to radiation oncology - Covers all relevant areas of the subject in detail, including 3D imaging and image processing, 3D treatment planning, modern treatment techniques, patient positioning, and aspects of verification and quality assurance - Conveys information in a readily understandable way that will appeal to professionals and students with a medical background as well as to newcomers to radiation oncology from the field of physics

Radiation in Medicine and Biology Mar 03 2020 This book focuses on the conventional and emerging applications of radiations, which include radio waves and ultraviolet and gamma radiations. It discusses new techniques in radiation therapy and the effects of ionizing radiations on biological systems. The applications of radiations in the synthesis and use of nanoparticles along with the effects of hypergravity indicate a new trend. The book offers a concise account of the latest studies carried out so far and shows the new initiatives to be undertaken in the field of medicine and biology. It covers the medical use of radiations, such as ferrous sulfate–benzoic acid–xylenol orange dosimetry, Co-60 tomotherapy, radio-electro-chemotherapy, and fractional radiotherapy, and radiobiological effects, such as the effects of cell phone radiations on human health parameters and the combined effects of radiations and hypergravity on plants.

Finding Monte Cristo May 05 2020 During his lifetime, Alexandre Dumas (1802-1870)--grandson of a Caribbean slave and author of The Three Musketeers and The Count of Monte Cristo--faced racial prejudice in his homeland of France and constantly strove to find a sense of belonging. For him, "Monte Cristo" was a symbol of this elusive quest. It proved equally elusive for those struggling to overcome slavery and its legacy in the former French colonies. Exiled to the margins of society, 19th and 20th century black intellectuals from the Caribbean and Africa drew on Dumas' work and celebrity to renegotiate their full acceptance as French citizens. Their efforts were influenced by earlier struggles of African Americans in the decades after the Civil War, who celebrated Dumas as a black American hero.

Mathematical Modelling and Numerical Methods in Finance Mar 15 2021 Mathematical finance is a prolific scientific domain in which there exists a particular characteristic of developing both advanced theories and practical techniques simultaneously. Mathematical Modelling and Numerical Methods in Finance addresses the three most important aspects in the field: mathematical models, computational methods, and applications, and provides a solid overview of major new ideas and results in the three domains. Coverage of all aspects of quantitative finance including models, computational methods and applications Provides an overview of new ideas and results Contributors are leaders of the field

Maximum Simulated Likelihood Methods and Applications Feb 23 2022 This collection of methodological developments and applications of simulation-based methods were presented at a workshop at Louisiana State University in November, 2009. Topics include: extensions of the GHK simulator; maximum-simulated likelihood; composite marginal likelihood; and modelling and forecasting volatility in a bayesian approach.

Energy Resources and Systems Aug 08 2020 In the lifetimes of the authors, the world and especially the United States have received three significant "wake-up calls" on energy production and consumption. The first of these occurred on October 15, 1973 when the Yom Kippur War began with an attack by Syria and Egypt on Israel. The United States and many western countries supported Israel. Because of the western support of Israel, several Arab oil exporting nations imposed an oil embargo on the west. These nations withheld five million barrels of oil per day. Other countries made up about one million barrels of oil per day but the net loss of four million barrels of oil production per day extended through March of 1974. This represented 7% of the free world's (i. e. , excluding the USSR) oil production. In 1972 the price of crude oil was about $3. 00 per barrel and by the end of 1974 the price of oil had risen by a factor of 4 to over $12. 00. This resulted in one of the worst recessions in the post World War II era. As a result, there was a movement in the United States to become energy independent. At that time the United States imported about one third of its oil (about five million barrels per day). After the embargo was lifted, the world chose to ignore the "wake-up call" and went on with business as usual.

The Oxford Handbook of Sound Art Dec 12 2020 Sound art has long been resistant to its own definition. Emerging from a liminal space between movements of thought and practice in the twentieth century, sound art has often been described in terms of the things that it is understood to have left behind: a space between music, fine art, and performance. The Oxford Handbook of Sound Art surveys the practices, politics, and emerging frameworks of thought that now define this previously amorphous area of study. Throughout the Handbook, artists and thinkers explore the uses of sound in contemporary arts practice. Imbued with global perspectives, chapters are organized in six overarching themes of Space, Time, Things, Fabric, Senses and Relationality. Each theme represents a key area of development in the visual arts and music during the second half of the twentieth century from which sound art emerged. By offering a set of thematic frameworks through which to understand these themes, this Handbook situates constellations of disparate thought and practice into recognized centers of activity.

Maize in the Philippines: production systems, constraints, and research priorities Feb 11 2021

Martingale Methods in Financial Modelling Oct 10 2020 A new edition of a successful, well-established book that provides the reader with a text focused on practical rather than theoretical aspects of financial modelling Includes a new chapter devoted to volatility risk The theme of stochastic volatility reappears systematically and has been revised fundamentally, presenting a much more detailed analyses of interest-rate models

Crisis Management: Concepts, Methodologies, Tools, and Applications Jul 07 2020 "This book explores the latest empirical research and best real-world practices for preventing, weathering, and recovering from disasters such as earthquakes or tsunamis to nuclear disasters and cyber terrorism"--Provided by publisher.

Defending Planet Earth Oct 22 2021 The United States spends approximately $4 million each year searching for near-Earth objects (NEOs). The objective is to detect those that may collide with Earth. The majority of this funding supports the operation of several observatories that scan the sky searching for NEOs. This, however, is insufficient in detecting the majority of NEOs that may present a tangible threat to humanity. A significantly smaller amount of funding supports ways to protect the Earth from such a potential collision or "mitigation." In 2005, a Congressional mandate called for NASA to detect 90 percent of NEOs with diameters of 140 meters of greater by 2020. Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies identifies the need for detection of objects as small as 30 to 50 meters as these can be highly destructive. The book explores four main types of mitigation including civil defense, "slow push" or "pull" methods, kinetic impactors and nuclear explosions. It also asserts that responding effectively to hazards posed by NEOs requires national and international cooperation. Defending Planet Earth: Near-Earth Object Surveys and Hazard Mitigation Strategies is a useful guide for scientists, astronomers, policy makers and engineers.

Stereotactic Body Radiation Therapy Aug 27 2019 Stereotactic body radiation therapy (SBRT) has emerged as an important innovative treatment for various primary and metastatic cancers. This book provides a comprehensive and up-to-date account of the physical/technological, biological, and clinical aspects of SBRT. It will serve as a detailed resource for this rapidly developing treatment modality. The organ sites covered include lung, liver, spine, pancreas, prostate, adrenal, head and neck, and female reproductive tract. Retrospective studies and prospective clinical trials on SBRT for various organ sites from around the world are examined, and toxicities and normal tissue constraints are discussed. This book features unique insights from world-renowned experts in SBRT from North America, Asia, and Europe. It will be necessary reading for radiation oncologists, radiation oncology residents and fellows, medical physicists, medical physics residents, medical oncologists, surgical oncologists, and cancer scientists.

Computational Science - ICCS 2007 Nov 22 2021 Annotation The four-volume set LNCS 4487-4490 constitutes the refereed proceedings of the 7th International Conference on Computational Science, ICCS 2007, held in Beijing, China in May 2007. More than 2400 submissions were made to the main conference and its 35 topical workshops. The 80 revised full papers and 11 revised short papers of the main track were carefully reviewed and selected from 360 submissions and are presented together with 624 accepted workshop papers in four volumes. According to the ICCS 2007 theme "Advancing Science and Society through Computation" the papers cover a large volume of topics in computational science and related areas, from multiscale physics, to wireless networks, and from graph theory to tools for program development. The papers are arranged in topical sections on efficient data management, parallel monte carlo algorithms, simulation of multiphysics multiscale systems, dynamic data driven application systems, computer graphics and geometric modeling, computer algebra systems, computational chemistry, computational approaches and techniques in bioinformatics, computational finance and business intelligence, geocomputation, high-level parallel programming, networks theory and applications, collective intelligence for semantic and knowledge grid, collaborative and cooperative environments, tools for program development and analysis in CS, intelligent agents in computing systems, CS in software engineering, computational linguistics in HCI, internet computing in science and engineering, workflow systems in e-science, graph theoretic algorithms and applications in cs, teaching CS, high performance data mining, mining text, semi-structured, Web, or multimedia data, computational methods in energy economics, risk analysis, advances in computational geomechanics and geophysics, meta-synthesis and complex systems, scientific computing in electronics engineering, wireless and mobile systems, high performance networked media and services, evolution toward next generation internet, real time systems and adaptive applications, evolutionary algorithms and evolvable systems.

Design of Advanced Manufacturing Systems Oct 29 2019 This book presents a framework and specific methods and tools for the selection and configuration of the capacity of Advanced Manufacturing Systems (AMS). AMS include Flexible Manufacturing Systems, Dedicated Manufacturing Systems, and Reconfigurable Manufacturing Systems. Starting from the characteristic of the competitive environment, the directions given by the company strategy, data regarding the products, and information regarding the different system architectures, the decision support system described here aids the decision maker by means of a formalized methodology that follows the various steps required to define the type and timing of 'capacity' acquisition and to define the detailed configuration of AMS along its life cycle. The decision making framework and tools illustrated in this volume combine decision-making theory, optimization theory, discrete event simulation and queuing networks. It will be of interest to graduate students and researchers involved in manufacturing engineering, industrial engineering and operations research.

Neurodevelopmental Disorders Sep 28 2019 Interest in the field of neurodevelopmental disorders has grown exponentially in recent years across a range of disciplines, including psychology, psychiatry, education and neuroscience. The research itself has become more sophisticated, using multidisciplinary methods to probe interdisciplinary questions. Neurodevelopmental Disorders: Research Challenges and Solutions provides a thorough overview of the key issues involved in researching neurodevelopmental disorders. The volume includes 14 chapters, arranged over three sections. Chapters in the first section address general research challenges for the study of neurodevelopmental

disorders. The second section draws upon specific disorders (such as Williams syndrome, Autism Spectrum Disorders, Down Syndrome, Fragile X Syndrome, ADHD, and Language Disorders) to consider the syndrome-specific issues or challenges that may be crucial to advancing our understanding of aspects of cognition and behavior associated with them. The final section considers how research evidence may be translated into practice to begin making an impact upon the lives of individuals who have neurodevelopmental disorders and their families. Each chapter in the book also includes 'practical tips' for either conducting research with individuals who have neurodevelopmental disorders or considering wider practical issues. The book will be indispensable reading for advanced students, researchers, and practitioners in the fields of developmental psychology, developmental psychopathology, special needs education, neuropsychology, and neurodevelopmental disorders.

Monte Carlo Methods in Financial Engineering Nov 03 2022 From the reviews: "Paul Glasserman has written an astonishingly good book that bridges financial engineering and the Monte Carlo method. The book will appeal to graduate students, researchers, and most of all, practicing financial engineers [...] So often, financial engineering texts are very theoretical. This book is not." --Glyn Holton, Contingency Analysis

Actuarial Finance Nov 30 2019 A new textbook offering a comprehensive introduction to models and techniques for the emerging field of actuarial Finance Drs. Boudreault and Renaud answer the need for a clear, application-oriented guide to the growing field of actuarial finance with this volume, which focuses on the mathematical models and techniques used in actuarial finance for the pricing and hedging of actuarial liabilities exposed to financial markets and other contingencies. With roots in modern financial mathematics, actuarial finance presents unique challenges due to the long-term nature of insurance liabilities, the presence of mortality or other contingencies and the structure and regulations of the insurance and pension markets. Motivated, designed and written for and by actuaries, this book puts actuarial applications at the forefront in addition to balancing mathematics and finance at an adequate level to actuarial undergraduates. While the classical theory of financial mathematics is discussed, the authors provide a thorough grounding in such crucial topics as recognizing embedded options in actuarial liabilities, adequately quantifying and pricing liabilities, and using derivatives and other assets to manage actuarial and financial risks. Actuarial applications are emphasized and illustrated with about 300 examples and 200 exercises. The book also comprises end-of-chapter point-form summaries to help the reader review the most important concepts. Additional topics and features include: Compares pricing in insurance and financial markets Discusses event-triggered derivatives such as weather, catastrophe and longevity derivatives and how they can be used for risk management; Introduces equity-linked insurance and annuities (EIAs, VAs), relates them to common derivatives and how to manage mortality for these products Introduces pricing and replication in incomplete markets and analyze the impact of market incompleteness on insurance and risk management; Presents immunization techniques alongside Greeks-based hedging; Covers in detail how to delta-gamma/rho/vega hedge a liability and how to rebalance periodically a hedging portfolio. This text will prove itself a firm foundation for undergraduate courses in financial mathematics or economics, actuarial mathematics or derivative markets. It is also highly applicable to current and future actuaries preparing for the exams or actuary professionals looking for a valuable addition to their reference shelf. As of 2019, the book covers significant parts of the Society of Actuaries' Exams FM, IFM and QFI Core, and the Casualty Actuarial Society's Exams 2 and 3F. It is assumed the reader has basic skills in calculus (differentiation and integration of functions), probability (at the level of the Society of Actuaries' Exam P), interest theory (time value of money) and, ideally, a basic understanding of elementary stochastic processes such as random walks.

Fundamentals of Ionizing Radiation Dosimetry Aug 20 2021 A new, comprehensively updated edition of the acclaimed textbook by F.H. Attix (Introduction to Radiological Physics and Radiation Dosimetry) taking into account the substantial developments in dosimetry since its first edition. This monograph covers charged and uncharged particle interactions at a level consistent with the advanced use of the Monte Carlo method in dosimetry; radiation quantities, macroscopic behaviour and the characterization of radiation fields and beams are covered in detail. A number of chapters include addenda presenting derivations and discussions that offer new insight into established dosimetric principles and concepts. The theoretical aspects of dosimetry are given in the comprehensive chapter on cavity theory, followed by the description of primary measurement standards, ionization chambers, chemical dosimeters and solid state detectors. Chapters on applications include reference dosimetry for standard and small fields in radiotherapy, diagnostic radiology and interventional procedures, dosimetry of unsealed and sealed radionuclide sources, and neutron beam dosimetry. The topics are presented in a logical, easy-to-follow sequence and the text is supplemented by numerous illustrative diagrams, tables and appendices. For senior undergraduate- or graduate-level students and professionals.

California Brand Book Jan 13 2021

Monte Carlo Methods in Financial Engineering Jan 25 2022 From the reviews: "Paul Glasserman has written an astonishingly good book that bridges financial engineering and the Monte Carlo method. The book will appeal to graduate students, researchers, and most of all, practicing financial engineers [...] So often, financial engineering texts are very theoretical. This book is not." --Glyn Holton, Contingency Analysis