Risk And Et Allocation Springer Finance

Data sharing can accelerate new discoveries by avoiding duplicative trials, stimulating new ideas for research, and enabling the maximal scientific knowledge and benefits to be gained from the efforts of clinical trial participants and investigators. At the same time, sharing clinical trial data presents risks, burdens, and challenges. These include the need to protect the privacy and honor the consent of clinical trial participants; safeguard the legitimate economic interests of sponsors; and guard against invalid secondary analyses, which could undermine trust in clinical trials or otherwise harm public health. Sharing Clinical Trial Data presents activities and strategies for the responsible sharing of clinical trial data. With the goal of increasing scientific knowledge to lead to better therapies for patients, this book identifies guiding principles and makes recommendations to maximize the benefits and minimize risks. This report offers guidance on the types of clinical trial data available at different points in the process, the points in the process at which each type of data should be shared, methods for sharing data, what groups should have access to data, and future knowledge and infrastructure needs. Responsible sharing of clinical trial data will allow other investigators to replicate published findings and carry out additional analyses, strengthen the evidence base for regulatory and clinical decisions, and increase the scientific knowledge gained from investments by the funders of clinical trials. The recommendations of Sharing Clinical Trial Data will be useful both now and well into the future as improved sharing of data leads to a stronger evidence base for treatment. This book will be of interest to stakeholders across the spectrum of research--from funders, to researchers, to journals, to physicians, and ultimately, to patients.

This content provides financial analysts, investment professionals, and financial planners with a review of how financial risk-tolerance tests can and should be evaluated. It begins by clarifying terms related to risk taking and is followed by a broad overview of two important measurement terms: validity and reliability. It concludes with examples for practice.

In response to the coronavirus disease 2019 (COVID-19) pandemic and the societal disruption it has brought, national governments and the international community have invested billions of dollars and immense amounts of human resources to develop a safe and effective vaccine in an unprecedented time frame. Vaccination against this novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), offers the possibility of significantly reducing severe morbidity and mortality and transmission when deployed alongside other public health strategies and improved therapies. Health equity is intertwined with the impact of COVID-19 and there are certain populations that are at increased risk of severe illness or death from COVID-19. In the United States and worldwide, the pandemic is having a disproportionate impact on people who are already disadvantaged by virtue of their race and ethnicity, age, health status, residence, occupation, socioeconomic condition, or other contributing factors. Framework for Equitable Allocation of COVID-19 Vaccine offers an overarching framework for vaccine allocation to assist policy makers in the domestic and global health communities. Built on widely accepted foundational principles and recognizing the distinctive characteristics of COVID-19, this report's recommendations address the commitments needed to implement equitable allocation policies for COVID-19 vaccine.

This second edition of the authoritative resource summarizes the state of consumer finance research across disciplines for expert findings on—and strategies for enhancing—consumers' economic health. New and revised chapters offer current research insights into familiar concepts (retirement saving, bankruptcy, marriage and finance) as well as the latest findings in emerging areas, including healthcare costs, online shopping, financial therapy, and the neuroscience behind buyer behavior. The expanded coverage also reviews economic challenges of diverse populations such as ethnic groups, youth, older adults, and entrepreneurs, reflecting the ubiquity of monetary issues and concerns. Underlying all chapters is the increasing importance of financial literacy training and other large-scale interventions in an era of economic transition. Among the topics covered: Consumer financial capability and well-being. Advancing financial literacy education using a framework for evaluation. Financial coaching: defining an emerging field. Consumer finance of low-income families. Financial parenting: promoting financial self-reliance of young consumers. Financial sustainability and personal finance education. Accessibly written for researchers and practitioners, this Second Edition of the Handbook of Consumer Finance Research will interest professionals involved in improving consumers' fiscal competence. It also makes a worthwhile text for graduate and advanced undergraduate courses in economics, family and consumer studies, and related fields.

Contaminants in Agriculture and Environment: Health Risks and Remediation
Sharing Clinical Trial Data
A New Approach to Managing Risk
Framework for Equitable Allocation of COVID-19 Vaccine
Hidden Geographies
with Applications in Python

Safety and Reliability of Complex Engineered Systems contains the Proceedings of the 25th European Safety and Reliability Conference, ESREL 2015, held 7-10 September 2015 in Zurich, Switzerland. It includes about 570 papers accepted for presentation at the conference. These contributions focus on theories and methods in the area of risk, safety and

Each financial crisis calls for — by its novelty and the mechanisms it shares with preceding crises — appropriate means to analyze financial risks. In Extreme Financial Risks and Asset Allocation, the authors present in an accessible and timely manner the concepts, methods, and techniques that are essential for an understanding of these risks in an environment where asset prices are subject to sudden, rough, and unpredictable changes. These phenomena, mathematically known as "jumps", play an important role in practice. Their quantitative treatment is generally tricky and is sparsely tackled in similar books. One of the main appeals of this book lies in its approachable and concise presentation of the ad hoc mathematical tools without sacrificing the necessary rigor and precision.

This book contains theories and methods which are usually found in highly technical mathematics books or in scattered, often very recent, research articles. It is a remarkable pedagogical work that makes these difficult results accessible to a large readership. Researchers, Masters and PhD students, and financial engineers alike will find this book highly useful. Contents:IntroductionMarket FrameworkStatistical Description of MarketsLé vy ProcessesStable Distributions and ProcessesLaplace Distributions and ProcessesThe Time Change FrameworkTail DistributionsRisk BudgetsThe Psychology of RiskMonoperiodic Portfolio ChoiceDynamic Portfolio ChoiceConclusion Readership: Researchers, graduate students and financial engineers in the field of mathematical and quantitative finance. Key Features:This book offers an excellent synthesis of the academic literature in a clear, ordered, and intuitive wayThe continuous-time theory of the choice of portfolio is exposed with particular care when asset dynamics are modeled with processes admitting a jump component. This is a technically difficult topic that is tackled here with a lot of clarityThe collated works in this book facilitates access to the most recent techniques, making it user-friendly for readersKeywords:Lé vy Process;Extreme Risks;Risk Management;Portfolio Management;Asset AllocationReviews: " A pedagogical work of updated financial models using Lé vy processes. Very well written, very well explained and argued with examples and appropriate simulations. Recommended to academics, researchers and PhD students, slightly less to practitioners." Zentralblatt MATH

This book provides an authoritative insight on the Loss and Damage discourse by highlighting state-of-the-art research and policy linked to this discourse and articulating its multiple concepts, principles and methods. Written by leading researchers and practitioners, it identifies practical and evidence-based policy options to inform the discourse and climate negotiations. With climate-related risks on the rise and impacts being felt around the globe has come the recognition that climate mitigation and adaptation may not be enough to manage the effects from anthropogenic climate change. This recognition led to the creation of the Warsaw International Mechanism on Loss and Damage in 2013, a climate policy mechanism dedicated to dealing with climate-related effects in highly vulnerable countries that face severe constraints and limits to adaptation. Endorsed in 2015 by the Paris Agreement and effectively considered a third pillar of international climate policy, debate and research on Loss and Damage continues to gain enormous traction. Yet, concepts, methods and tools as well as directions for policy and implementation have remained contested and vague. Suitable for researchers, policy-advisors, practitioners and the interested public, the book furthermore: • discusses the political, legal, economic and institutional dimensions of the issue• highlights normative questions central to the discourse • provides a focus on climate risks and climate risk management. • presents salient case studies from around the world.

In Asset Management: A Systematic Approach to Factor Investing, Professor Andrew Ang presents a comprehensive, new approach to the age-old problem of where to put your money. Years of experience as a finance professor and a consultant have led him to see that what matters aren't asset class labels, but instead the bundles of overlapping risks they represent. Factor risks must be the focus of our attention if we are to weather market turmoil and receive the rewards that come with doing so. Clearly written yet full of the latest research and data, Asset Management is indispensable reading for trustees, professional money managers, smart private investors, and business students who want to understand the economics behind factor risk premiums, to harvest them efficiently in their portfolios, and to embark on the search for true alpha.

Evaluating Performance, Risk and Return

The Behavioral High-Risk Paradigm in Psychopathology

The Rate and Direction of Inventive Activity

Introduction to Risk Parity and Budgeting

Risk and Asset Allocation

Communities in Action

This volume examines the impact of globalization on international environmental law and the implementation of sustainable development in the Global South. Comprising contributions from lawyers from the Global South or who have experience in the Global South, this volume is organized into three parts, with a thematic inquiry woven through every chapter to ask how law can enable economies that can be sustained, given the limited carrying capacity of the earth. Part I describes and characterizes the status quo of environmental and economic problems in the Global South during the process of globalization. Some of those problems include redistribution of environmental burden on the public through over-reliance on the state in emerging economies and the transition to public-private partnerships, as well as extreme uncontrolled economic expansion. Building on Part I, Part II takes an international perspective by presenting some tools that are in place during the process of globalization that lead to friction and interfaces between developed and developing economies in environmental law. Recognizing the impossibility of a globalized Northern economy, the authors in Part III present some alternatives through framework ideas of human and civil rights, environmental rights, and indigenous persons' rights, as well as concrete and specific legal tools to strengthen justice and rule of law institutions. The book gives new perspectives to familiar approaches through concrete examples by professional practitioners and theoretical discourse by academic researchers, and can thereby form the basis for changes in practices, as well as further discussions and comparisons. This book will be of great interest to students and scholars of environmental law, sustainable development, and globalization and international relations, as well as legal professionals and practitioners.

As editor of the Springer-Verlag Series in Psychopathology, Lauren Alloy knew of my work in cognitive psychophysiology to study processing anomalies in nonpatients at risk for psychopathology and invited me to edit a book for the series. This evolved into an opportunity to address an aspect of the unfortunate nature-nurture battle in the field, which too often emphasizes genes and macrolevel environment. Extreme positions are often taken (sometimes unwittingly), even though a great deal of the actual research is between the extremes, including laboratory psycho logical and psychophysiological studies. There is more to biology than genes and even more to it than things like brain imaging, enlarged

ventricles, glucose metabolism rate, and receptor density, which have received a great deal of attention in recent years. of studies at the One goal of this book is to provide demonstrations intersection between psychology and biology via psychophysiology. In parallel, another goal is to showcase solid psychological research that may bear directly on what are often considered biological issues. For example, Chapter 4, by Walker and colleagues, can be considered classically psychological, because the authors focus on overt behavior. Yet some of the importance of their work is its implication of a particular biological process involved in the gross motor behavior anomalies they have identified in the etiology of schizophrenia. Similarly, whereas in Chapter 7, Klein and Anderson articulate the behavioral high-risk paradigm quite well, in Chapter 10, Yee relies on their approach in pursuing psycho physiological research on risk for depression.

This Open Access book highlights the ethical issues and dilemmas that arise in the practice of public health. It is also a tool to support instruction, debate, and dialogue regarding public health ethics. Although the practice of public health has always included consideration of ethical issues, the field of public health ethics as a discipline is a relatively new and emerging area. There are few practical training resources for public health practitioners, especially resources which include discussion of realistic cases which are likely to arise in the practice of public health. This work discusses these issues on a case to case basis and helps create awareness and understanding of the ethics of public health care. The main audience for the casebook is public health practitioners, including front-line workers, field epidemiology trainers and trainees, managers, planners, and decision makers who have an interest in learning about how to integrate ethical analysis into their day to day public health practice. The casebook is also useful to schools of public health and public health students as well as to academic ethicists who can use the book to teach public health ethics and distinguish it from clinical and research ethics.

The book entitled "Contaminants in Agriculture and Environment: Health Risks and Remediation" is focused on the emerging contaminants in agriculture and environment and it will be helpful for the researchers, academicians, scientists, UG and PG students and other stakeholders engaged in the field of agriculture and environmental studies. The contaminants of crops, vegetables, fruits, fishes, grains and pulses and their health effects and impact of pollutants on human/animal health, growth and productivity of agricultural crops.

Extreme Financial Risks and Asset Allocation
Quantitative Portfolio Management
Stochastic Optimization
Climate Variability, Predictability and Climate Risks
Globalization, Environmental Law, and Sustainable Development in the Global South
Asset Allocation Strategies for Mutual Funds

This handbook contains surveys of state-of-the-art concepts, systems, applications, best practices as well as contemporary research in the intersection between IT and finance. Included are recent trends and challenges, IT systems and architectures in finance, essential developments and case studies on management information systems, and service oriented architecture modeling. The book shows a broad range of applications, e.g. in banking, insurance, trading and in non-financial companies. Essentially, all aspects of IT in finance are covered.

The papers here range from description and analysis of how our political economy allocates its inventive effort, to studies of the decision making process in specific industrial laboratories. Originally published in 1962. The Princeton Legacy Library uses the latest print-on-demand technology to again make available previously out-of-print books from the distinguished backlist of Princeton University Press. These editions preserve the original texts of these important books while presenting them in durable paperback and hardcover editions. The goal of the Princeton Legacy Library is to vastly increase access to the rich scholarly heritage found in the thousands of books published by Princeton University Press since its founding in 1905.

This book presents an integrated framework for risk measurement, capital management and value creation in banks. Moving from the measurement of the risks facing a bank, it defines criteria and rules to support a corporate policy aimed at maximizing shareholders' value. Parts I - IV discuss different risk types (including interest rate, market, credit and operational risk) and how to assess the amount of capital they absorb by means of up-to-date, robust risk-measurement models. Part V surveys regulatory capital requirements: a special emphasis is given to the Basel II accord, discussing its economic foundations and managerial implications. Part VI presents models and techniques to calibrate the amount of economic capital at risk needed by the bank, to fine-tune its composition, to allocate it to risk-taking units, to estimate the "fair" return expected by shareholders, to monitor the value creation process. Risk Management and Shareholders' Value in Banking includes: * Value at Risk, Monte Carlo models, Creditrisk+, Creditmetrics and much more * formulae for risk-adjusted loan pricing and risk-adjusted performance measurement * extensive, hands-on Excel examples are provided on the companion website www.wiley.com/go/rmsv * a complete, up-to-date introduction to Basel II * focus on capital allocation, Raroc, EVA, cost of capital and other value-creation metrics

Although portfolio management didn't change much during the 40 years after the seminal works of Markowitz and Sharpe, the development of risk budgeting techniques marked an important milestone in the deepening of the relationship between risk and asset management. Risk parity then became a popular financial model of investment after the global financial crisis in 2008. Today, pension funds and institutional investors are using this approach in the development of smart indexing and the redefinition of long-term investment policies. Written by a well-known expert of asset management and risk parity, Introduction to Risk Parity and Budgeting provides an up-to-date treatment of this alternative method to Markowitz optimization. It builds financial exposure to equities and commodities, considers credit risk in the management of bond portfolios, and designs long-term investment policy. The first part of the book gives a theoretical account of portfolio optimization and risk parity. The author discusses modern portfolio theory and offers a comprehensive guide to risk budgeting. Each chapter in the second part presents an application of risk parity to a specific asset class. The text covers risk-based equity indexation (also called smart beta) and shows how to use risk budgeting techniques to manage bond portfolios. It also explores alternative investments, such as commodities and hedge funds, and applies risk parity techniques to multi-asset classes. The book's first appendix provides technical materials on optimization problems, copula functions, and dynamic asset allocation. The second appendix contains 30 tutorial exercises. Solutions to the exercises, slides for instructors, and Gauss computer programs to reproduce the book's examples, tables, and figures are available on the author's website.

A Systematic Approach to Factor Investing
From Risk Measurement Models to Capital Allocation Policies
Maximizing Benefits, Minimizing Risk
Economic and Social Factors
Applied Quantitative Finance
Financial Markets In Practice: From Post-crisis Intermediation To Fintechs

An applied treatment of the key methods and state-of-the-art tools for visualizing and understanding statistical data Smoothing of Multivariate Data provides an illustrative and hands-on approach to the multivariate aspects of density estimation, emphasizing the use of visualization tools. Rather than outlining the theoretical concepts of classification and regression, this book focuses on the procedures for

estimating a multivariate distribution via smoothing. The author first provides an introduction to various visualization tools that can be used to construct representations of multivariate functions, sets, data, and scales of multivariate density estimates. Next, readers are presented with an extensive review of the basic mathematical tools that are needed to asymptotically analyze the behavior of multivariate density estimators, with coverage of density classes, lower bounds, empirical processes, and manipulation of density estimates. The book concludes with an extensive toolbox of multivariate density estimators, including anisotropic kernel estimators, minimization estimators, multivariate adaptive histograms, and wavelet estimators. A completely interactive experience is encouraged, as all examples and figurescan be easily replicated using the R software package, and every chapter concludes with numerous exercises that allow readers to test their understanding of the presented techniques. The R software is freely available on the book's related Web site along with "Code" sections for each chapter that provide short instructions for working in the R environment. Combining mathematical analysis with practical implementations, Smoothing of Multivariate Data is an excellent book for courses in multivariate analysis, data analysis, and nonparametric statistics at the upper-undergraduate and graduatelevels. It also serves as a valuable reference for practitioners and researchers in the fields of statistics, computer science, economics, and engineering.

This open access book provides a concise yet comprehensive overview on how to build a quality management program for hematopoietic stem cell transplantation (HSCT) and cellular therapy. The text reviews all the essential steps and elements necessary for establishing a quality management program and achieving accreditation in HSCT and cellular therapy. Specific areas of focus include document development and implementation, audits and validation, performance measurement, writing a quality management plan, the accreditation process, data management, and maintaining a quality management program. Written by experts in the field, Quality Management and Accreditation in Hematopoietic Stem Cell Transplantation and Cellular Therapy: A Practical Guide is a valuable resource for physicians, healthcare professionals, and laboratory staff involved in the creation and maintenance of a state-of-the-art HSCT and cellular therapy program.

This book defines and discusses the term "hidden geographies" in two ways: systematically and by presenting a variety of examples of the research fields and topics concerning hidden geographies, with the aim of stimulating further basic and applied research in this area. While the term is quite rarely used in the scientific literature (more often as a figure of speech than to illustrate or problematize its deeper meaning), we argue that hidden geographies are everywhere and many of them have significant impacts on (other) natural and social phenomena and processes, subsequently triggering changes, for example in landscape, economy, culture, health or quality of life. The introductory section of the book conceptualises hidden geographies and discusses cognitive geography, symbolization of space, and the hidden geographies in mystical literature. Case studies of hidden environmental geographies address soils, air pollution, coastal pollution and the allocation of an astronomical tourism site. Revealing hidden historical and sacred places is illustrated through examples of the visualisation of the subterranean mining landscape, the analysis of the historical road network and trade, border stones and historical spatial boundaries, and the monastic Carthusian space. Hidden urban geographies are discussed in terms of the urban development of an entire city, presenting the role of geography in rescuing architecture, revealing illegal urbanisation, and the quality of habitation in Roma neighbourhoods. Case studies of hidden population geographies shed light on the ageing of rural populations and the impact of spatial-demographic disparities on fertility variations. Discussions of hidden social and economic geographies problematize recent social changes and conflicts in a country, present the implementation of the fourth industrial revolution and borders as hidden obstacles in the organisation of public transport. Hidden geographies are explicitly linked to perceptions and explanations in case studies that address local responses to perceived marginalisation in a city, the solo women travellers' perceived risk and safety, and hidden geographical contexts of visible post-war landscapes. The book brings such a diversity of views, ideas and examples related to hidden geographies that can serve both to deepen their understanding and their various impacts on our lives and environment, and to attract further cross-disciplinary interest in considering hidden geographies – in research and in our every-day lives.

This book provides an integrated assessment of issues related to climate variability and change, predictability and risks. It details both the technical aspects of variability and abrupt climate change and the agricultural and economical impacts and consequences.

Loss and Damage from Climate Change

Handbook of Consumer Finance Research

Business Process Management

Food Price Volatility and Its Implications for Food Security and Policy

Challenges for Implementation

Public Health Ethics: Cases Spanning the Globe

This book is about making machine learning models and their decisions interpretable. After exploring the concepts of interpretability, you will learn about simple, interpretable models such as decision trees, decision rules and linear regression. Later chapters focus on general model-agnostic methods for interpreting black box models like feature importance and accumulated local effects and explaining individual predictions with Shapley values and LIME. All interpretation methods are explained in depth and discussed critically. How do they work under the hood? What are their strengths and weaknesses? How can their outputs be interpreted? This book will enable you to select and correctly apply the interpretation method that is most suitable for your machine learning project.

This book provides a complete and comprehensive reference/guide to Pyomo (Python Optimization Modeling Objects) for both beginning and advanced modelers, including students at the undergraduate and graduate levels, academic researchers, and practitioners. The text illustrates the breadth of the modeling and analysis capabilities that are supported by the software and support of complex real-world applications. Pyomo is an open source software package for formulating and solving large-scale optimization and operations research problems. The text begins with a tutorial on simple linear and integer programming models. A detailed reference of Pyomo's modeling components is illustrated with extensive examples, including a discussion of how to load data from data sources like spreadsheets and databases. Chapters describing advanced modeling capabilities for nonlinear and stochastic optimization are also included. The Pyomo software provides familiar modeling features within Python, a powerful dynamic programming language that has a very clear, readable syntax and intuitive object orientation. Pyomo includes Python classes for

defining sparse sets, parameters, and variables, which can be used to formulate algebraic expressions that define objectives and constraints. Moreover, Pyomo can be used from a command-line interface and within Python's interactive command environment, which makes it easy to create Pyomo models, apply a variety of optimizers, and examine solutions. The software supports a different modeling approach than commercial AML (Algebraic Modeling Languages) tools, and is designed for flexibility, extensibility, portability, and maintainability but also maintains the central ideas in modern AMLs.

This Intergovernmental Panel on Climate Change Special Report (IPCC-SREX) explores the challenge of understanding and managing the risks of climate extremes to advance climate change adaptation. Extreme weather and climate events, interacting with exposed and vulnerable human and natural systems, can lead to disasters. Changes in the frequency and severity of the physical events affect disaster risk, but so do the spatially diverse and temporally dynamic patterns of exposure and vulnerability. Some types of extreme weather and climate events have increased in frequency or magnitude, but populations and assets at risk have also increased, with consequences for disaster risk. Opportunities for managing risks of weather- and climate-related disasters exist or can be developed at any scale, local to international. Prepared following strict IPCC procedures, SREX is an invaluable assessment for anyone interested in climate extremes, environmental disasters and adaptation to climate change, including policymakers, the private sector and academic researchers.

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.

Density Estimation and Visualization

Special Report of the Intergovernmental Panel on Climate Change

Pyomo – Optimization Modeling in Python

ESREL 2015

Concepts, Methods and Policy Options

Probability via Expectation

The conferences on 'Applications for Computers and Operations Research in the Minerals Industry' (APCOM) initially focused on the optimization of geostatistics and resource estimation. Several standard methods used in these fields were presented in the early days of APCOM. While geostatistics remains an important part, information technology has emerged, and nowadays APCOM not only focuses on geostatistics and resource estimation, but has broadened its horizon to Information and Communication Technology (ICT) in the mineral industry. Mining Goes Digital is a collection of 90 high quality, peer reviewed papers covering recent ICT-related developments in: - Geostatistics and Resource Estimation - Mine Planning - Scheduling and Dispatch - Mine Safety and Mine Operation - Internet of Things, Robotics - Emerging Technologies - Synergies from other industries - General aspects of Digital Transformation in Mining Mining Goes Digital will be of interest to professionals and academics involved or interested in the above-mentioned areas.

Stochastic programming is the study of procedures for decision making under the presence of uncertainties and risks. Stochastic programming approaches have been successfully used in a number of areas such as energy and production planning, telecommunications, and transportation. Recently, the practical experience gained in stochastic programming has been expanded to a much larger spectrum of applications including financial modeling, risk management, and probabilistic risk analysis. Major topics in this volume include: (1) advances in theory and implementation of stochastic programming algorithms; (2) sensitivity analysis of stochastic systems; (3) stochastic programming applications and other related topics. Audience: Researchers and academies working in optimization, computer modeling, operations research and financial engineering. The book is appropriate as supplementary reading in courses on optimization and financial engineering.

This book has exerted a continuing appeal since its original publication in 1970. It develops the theory of probability from axioms on the expectation functional rather than on probability measure, demonstrates that the standard theory unrolls more naturally and economically this way, and that applications of real interest can be addressed almost immediately. A secondary aim of the original text was to introduce fresh examples and convincing applications, and that aim is continued in this edition, a general revision plus the addition of chapters giving an economical introduction to

dynamic programming, that is then applied to the allocation problems represented by portfolio selection and the multi-armed bandit. The investment theme is continued with a critical investigation of the concept of risk-free'trading and the associated Black-Sholes formula, while another new chapter develops the basic ideas of large deviations. The book may be seen as an introduction to probability for students with a basic mathematical facility, covering the standard material, but different in that it is unified by its theme and covers an unusual range of modern applications.

This book provides fresh insights into concepts, methods and new research findings on the causes of excessive food price volatility. It also discusses the implications for food security and policy responses to mitigate excessive volatility. The approaches applied by the contributors range from on-the-ground surveys, to panel econometrics and innovative high-frequency time series analysis as well as computational economics methods. It offers policy analysts and decision-makers guidance on dealing with extreme volatility.

Algorithms and Applications

Pathways to Health Equity

Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation

Handbook on Information Technology in Finance

Innovative Technology at the Interface of Finance and Operations

Asset allocation has long been viewed as a safe bet for reducing risk in a portfolio. Asset allocators strive to buy when prices are low and sell when prices rise. Tactical asset allocation (TAA) practitioners tend to emphasize shorter-term adjustments, reducing exposure when recent market performance has been good, and increasing exposure in a slipping market (in contrast to dynamic asset allocation, or portfolio insurance). As interest in this technique continues to grow, J.P. Morgan's Wai Lee provides comprehensive coverage of the analytical tools needed to successfully implement and monitor tactical asset allocation.

Discusses in the practical and theoretical aspects of one-period asset allocation, i.e. market Modeling, invariants estimation, portfolia evaluation, and portfolio optimization in the prexence of estimation risk The book is software based, many of the exercises simulate in Matlab the solution to practical problems and can be downloaded from the book's web-site

This book offers an overview of the best-working strategies in the field of equity and fixed income mutual fund-based portfolio management. This timely research considers different market conditions, such as global financial crises, across various geographical regions such as the USA and Europe. Combining academic and practical findings, the author presents a practitioner perspective on mutual fund-based portfolio strategies, appealing not only to finance scholars but also professionals within the asset management industry. This book synthesizes a large part of the academic research to date on the mutual fund industry by drawing from the most widely cited academic journals. The author makes a systematic use of numerical examples to facilitate the understanding of Investment themes organized around several important topics: size, diversification, flows, active management, volatility, performance persistence and rating.

This book covers several new areas in the growing field of analytics with some innovative applications in different business contexts, and consists of selected presentations at the 6th IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence. The book is conceptually divided in seven parts. The first part gives expository briefs on some topics of current academic and practitioner interests, such as data streams, binary prediction and reliability shock models. In the second part, the contributions look at artificial intelligence applications with chapters related to explainable AI, personalized search and recommendation, and customer retention management. The third part deals with credit risk analytics, with chapters on optimization of credit limits and mitigation of agricultural lending risks. In its fourth part, the book explores analytics and data mining in the retail context. In the fifth part, the book presents some applications of analytics to operations management. This part has chapters related to improvement of furnace operations, forecasting food indices and analytics for improving student learning outcomes. The sixth part has contributions related to adaptive designs in clinical trials, stochastic comparisons of systems with heterogeneous components and stacking of models. The seventh and final part contains chapters related to finance and economics topics, such as role of infrastructure and taxation on economic growth of countries and connectedness of markets with heterogenous agents, The different themes ensure that the book would be of great value to practitioners, post-graduate students, research scholars and faculty teaching advanced business analytics courses.

Asset Management

Financial Risk Tolerance: A Psychometric Review

Mining goes Digital

Quality Management and Accreditation in Hematopoietic Stem Cell Transplantation and Cellular Therapy

Applied Advanced Analytics

Interpretable Machine Learning

Financial Markets in Practice: From Post-Crisis Intermediation to FinTechs delivers an overview of the development of risk-transformation undertaken by the financial services industry from the perspective of quantitative finance. It provides an instructional and comprehensive explanation of the structure of the financial system as a network of risk suppliers and risk consumers, where different categories of market participants buy, transform, net, and re-sell different kinds of risks. This risk-transformation oriented view is supported by the changes that followed the last global financial crisis: consumers of financial products asked for less complex risk transformations, regulators demanded limiting risks inside financial institutions to the maximum extent possible, and market participants turned to run mass market-like businesses and away from bespoke 'haute couture'-like businesses.This book portrays the network of intermediaries that compose the financial system, describes their most common business models, explains the exact role of each kind of market participant, and underlines the interaction between them. It seeks to reveal the potential disintermediation that could occur inside the financial sector, led by FinTechs and Artificial Intelligence-based innovations.Readers are invited to reconsider the role of market participants in the post-crisis world and are prepared for the next wave of changes driven by data science, AI, and blockchain. Amid these innovations, quantitative finance will be increasingly involved in all aspects of the financial system. This handy resource helps practitioners from both the buy-side and sell-side gain insights to, and provides an overview of, business models in the financial system from an intermediation perspective, and guides students to comprehensively understand the complex ecosystem in which they will evolve.

In the United States, some populations suffer from far greater disparities in health than others. Those disparities are caused not only by fundamental differences in health status across segments of the population, but also because of inequities in factors that impact health status, so-called determinants of health. Only part of an individual's health status depends on his or her behavior and choice; community-wide problems like poverty, unemployment, poor education, inadequate housing, poor public transportation, interpersonal violence, and decaying neighborhoods also contribute to health inequities, as well as the historic and ongoing interplay of structures, policies, and norms that shape lives. When these factors are not optimal in a community, it does not mean they are intractable: such inequities can be mitigated by social policies that can shape health in powerful ways. Communities in Action: Pathways to Health Equity seeks to delineate the causes of and the solutions to health inequities in the United States. This report focuses on what communities can do to promote health equity, what actions are needed by the many and varied stakeholders that are part of communities or support them, as well as the root causes and structural barriers that need to be overcome.

This book examines the challenges and opportunities arising from an assortment of technologies as they relate to Operations Management and Finance. It contains primers on operations, finance, and their interface. Innovative technologies and new business models enabled by those technologies are changing the practice and the theory of Operations Management and Finance, as well as their interface. These technologies and business models include Big Data and Analytics, Artificial Intelligence, Machine Learning, Blockchain, IoT, 3D printing, sharing platforms, crowdfunding, and crowdsourcing. The book will be an attractive choice for PhD-level courses and for self-study.

This book introduces students to business process management, an approach that aims to align the organization's business processes with the demands of the marketplace. Processes serve as a coordination mechanism, and the aim of business process management is to improve the organization's effectiveness and efficiency in adapting to change, and maintaining competitive advantage. In Business Process Management, Kumar argues for the value of looking at businesses as a collection of processes that cut across departments, and for breaking down functional silos. The book provides an overview of the basic concepts in this field before moving on to more advanced topics such as process verification, flexible processes, process security and evaluation, resource assignment, and social networks. The book concludes with an examination of the future directions of the discipline. Blending a strong grounding in current research with a focus on concepts and tools, Business Process Management is an accessible textbook full of practical examples and cases that will appeal to upper level students.

Safety and Reliability of Complex Engineered Systems

The JACIE Guide

Risk Management and Shareholders' Value in Banking

Financial Statements-Based Bank Risk Aggregation

Bibliographie CIID

Catastrophe Modeling

This self-contained book presents the main techniques of quantitative portfolio management and associated statistical methods in a very didactic and structured way, in a minimum number of pages. The concepts of investment portfolios, self-financing portfolios and absence of arbitrage opportunities are extensively used and enable the translation of all the mathematical concepts in an easily interpretable way. All the results, tested with Python programs, are demonstrated rigorously, often using geometric approaches for optimization problems and intrinsic approaches for statistical methods, leading to unusually short and elegant proofs. The statistical methods concern both parametric and non-parametric estimators and, to estimate the factors of a model, principal component analysis is explained. The presented Python code and web scraping techniques also make it possible to test the presented concepts on market data. This book will be useful for teaching Masters students and for professionals in asset management, and will be of interest to academics who want to explore a field in which they are not specialists. The ideal pre-requisites consist of undergraduate probability and statistics and a familiarity with linear algebra and matrix manipulation. Those who want to run the code will have to install Python on their pc, or alternatively can use Google Colab on the cloud. Professionals will need to have a quantitative background, being either portfolio managers or risk managers, or potentially quants wanting to double check their understanding of the subject.

Based on the research that has been conducted at Wharton Risk Management Center over the past five years on catastrophic risk. Covers a hot topic in the light of recent terroristic activities and nature catastrophes. Develops risk management strategies for reducing and spreading the losses from future disasters. Provides glossary of definitions and terms used throughout the book.

Volume II

Smoothing of Multivariate Data

Theory and Methodology of Tactical Asset Allocation

Proceedings of the 39th International Symposium 'Application of Computers and Operations Research in the Mineral Industry' (APCOM 2019), June 4-6, 2019, Wroclaw, Poland

A European Perspective

6th IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence