

Investment Science Solution Chapter 3

This book aims to provide a rigorous yet pragmatic approach to the valuation and management of investments in the energy sector. Time and uncertainty pervade most if not all issues relevant to energy assets. They run from the early stage of prototype and demonstration to the ultimate abandonment and decommissioning. Risk in particular appears in several areas; thus, one can distinguish technical risk from financial risk. Furthermore, the extent to which one can react to them is different (just think of price risk and regulation risk). Markets in general, and financial markets in particular, regularly put a price on a number of assets which differ in their return/risk characteristics. And academia has developed sound financial principles for valuation purposes in a number of contexts. Nonetheless, the physical characteristics of the assets involved also play a key role in their valuation if only because of the restrictions that they entail. There are some instances in which the practitioner/researcher is able to come up with an analytical solution to the valuation problem. Typically, however, these instances are limited because of their relying on stylized facts or idealized frameworks. Unfortunately, many relevant instances lack analytical solutions, so one must resort to numerical methods. The book clearly explains how to implement them in a meaningful way. Their usefulness is further enhanced when numerical estimates of relevant parameters are derived from actual market prices (as long as these are available and reliable). The book starts from the basics of valuation in a dynamic, certain context. The second part then considers uncertainty and introduces a number of useful results and tools to grapple effectively with it. The last part applies these tools to the valuation of energy assets in a sequential manner, i.e. by considering one, two and three sources of risk. The last chapter provides examples of joint optimal management and value maximization in conventional power plants.

This volume includes selected contributions presented during the 2nd edition of the international conference on WaterEnergyNEXUS which was held in Salerno, Italy in November 2018. This conference was organized by the Sanitary Environmental Engineering Division (SEED) of the University of Salerno (Italy) in cooperation with Advanced Institute of Water Industry at Kyungpook National University (Korea) and with The Energy and Resources Institute, TERI (India). The initiative received the patronage of UNESCO - World Water Association Programme (WWAP) and of the International Water Association (IWA) and was organized with the support of Springer (MENA Publishing Program), Arab Water Council (AWC), Korean Society of Environmental Engineering (KSEE) and Italian Society of Sanitary Environmental Engineering Professors (GIITSA). In the support of international experts invited as plenary and keynote speakers, the conference aimed to give a platform for Euro-Mediterranean countries to share and discuss key topics on such water-energy issues through the presentation of nature-based solutions, advanced technologies and best practices for a more sustainable environment. This volume gives a general and brief overview on current research focusing on emerging Water-Energy-Nexus issues and challenges and its potential applications to a variety of environmental problems that are impacting the Euro-Mediterranean zone and surrounding regions. A selection of novel and alternative solutions applied worldwide are included. The volume contains over about one hundred carefully refereed contributions from 44 countries worldwide selected for the conference. Topics covered include (1) Nexus framework and governance, (2) Environmental solutions for the sustainable development of the water sector, (3) future clean energy technologies and systems under water constraints, (4) environmental engineering and management, (5) Implementation and best practices Intended for researchers in environmental engineering, environmental science, chemistry, and civil engineering.

This volume is also an invaluable guide for industry professionals working in both water and energy sectors.

This first volume of the Handbook of Asset and Liability Management presents the theories and methods supporting models that align a firm's operations and tactics with its uncertain environment. Detailing the symbiosis between optimization tools and financial decision-making, its original articles cover term and volatility structures, interest rates, risk-return analysis, dynamic asset allocation strategies in discrete and continuous time, the use of stochastic programming models, bond portfolio management, and the Kelly capital growth theory and practice. They effectively set the scene for Volume Two by showing how the management of risky assets and uncertain liabilities within an integrated, coherent framework remains the core problem for both financial institutions and other business enterprises as well. *Each volume presents an accurate survey of a sub-field of finance *Fills a substantial gap in this field *Broad in scope

This SpringerBrief discusses the rise of the smart grid from the perspective of computing and communications. It explains how current and next-generation network technology and methodologies help recognize the potential that the smart grid initiative promises. Chapters provide context on the smart grid before exploring specific challenges related to communication control and energy management. Topics include control in heterogeneous power supply, solutions for backhaul and wide area networks, home energy management systems, and technologies for smart energy management systems. Designed for researchers and professionals working on the smart grid, Communication Challenges and Solutions in the Smart Grid offers context and applications for the common issues of this developing technology. Advanced-level students interested in networking and communications engineering will also find the brief valuable.

Data Science For Dummies

Asset Management

The Elements of Polymer Science and Engineering

Computational Science and Its Applications -- ICCSA 2015

An Introduction to Management Science: Quantitative Approaches to Decision Making

Handbook of Asset and Liability Management

The five-volume set LNCS 9155-9159 constitutes the refereed proceedings of the 15th International Conference on Computational Science and Its Applications, ICCSA 2015, held in Banff, AB, Canada, in June 2015. The 232 revised full papers presented in 22 workshops and a general track were carefully reviewed and selected from 780 initial submissions for inclusion in this volume. They cover various areas in computational science ranging from computational science technologies to specific areas of computational science such as computational geometry and security.

A practical, step-by-step guide to using Microsoft's AutoML technology on the Azure Machine Learning service for developers and data scientists working with the Python programming language Key Features>Create, deploy, productionalize, and scale automated machine learning solutions on Microsoft AzureImprove the accuracy of your ML models through automatic data featurization and model trainingIncrease productivity in your organization by using artificial intelligence to solve common problemsBook Description Automated Machine Learning with Microsoft Azure will teach you how to build high-performing, accurate machine learning models in record time. It will equip you with the knowledge and skills to easily create and deploy machine learning models to production. Using a careful, step-by-step approach, this book will teach you how to use Azure AutoML with a GUI as well as the AzureML Python software development kit (SDK). First, you'll learn how to prepare data, train models, and register them to your Azure Machine Learning workspace. You'll then discover how to take those models and use them to create both automated batch solutions using machine learning pipelines and real-time scoring solutions using Azure Kubernetes Service (AKS). Finally, you will be able to use AutoML on your own data to not only train regression, classification, and forecasting models but also use them to solve a wide variety of business problems. By the end of this Azure book, you'll be able to show your business partners exactly how your ML models are making predictions through automatically generated charts and graphs, earning their trust and respect. What you will learnUnderstand how to train classification, regression, and forecasting ML algorithms with Azure AutoMLPrepare data for Azure AutoML to ensure smooth model training and deploymentAdjust AutoML configuration settings to make your models as accurate as possibleDetermine when to use a batch-scoring solution versus a real-time scoring solutionProductitalize your AutoML and discover how to quickly deliver valueCreate real-time scoring solutions with AutoML and Azure Kubernetes ServiceTrain a large number of AutoML models at once using the AzureML Python SDKWho this book is for Data scientists, aspiring data scientists, machine learning engineers, or anyone interested in applying artificial intelligence or machine learning in their business will find this machine learning book useful. You need to have beginner-level knowledge of artificial intelligence and a technical background in computer science, statistics, or information technology before getting started. Familiarity with Python will help you implement the more advanced features found in the chapters, but even data analysts and SQL experts will be able to train ML models after finishing this book.

This text introduces upper division undergraduate/beginning graduate students in mathematics, finance, or economics, to the core topics of a beginning course in finance/financial engineering. Particular emphasis is placed on exploiting the power of the Monte Carlo method to illustrate and explore financial principles. Monte Carlo is the uniquely appropriate tool for modeling the random factors that drive financial markets and simulating their implications. The Monte Carlo method is introduced early and it is used in conjunction with the geometric Brownian motion model (GBM) to illustrate and analyze the topics covered in the remainder of the text. Placing focus on Monte Carlo methods allows for students to travel a short road from theory to practical applications. Coverage includes investment science, mean-variance portfolio theory, option pricing principles, exotic options, option trading strategies, jump diffusion, exponential Lévy alternative models, and the Kelly criterion for maximizing investment growth. Novel features: inclusion of both portfolio theory and contingent claim analysis in a single text pricing methodology for exotic options expansion analysis of option trading strategies pricing models that transcend the Black-Scholes framework optimizing investment allocations concepts thoroughly explored through numerous simulation exercises numerous worked examples and illustrations The mathematical background required is a year and one-half course in calculus, matrix algebra covering solutions of linear systems, and a knowledge of probability including expectation, densities and the normal distribution. A refresher for these topics is presented in the Appendices. The programming background needed is how to code branching, loops and subroutines in some mathematical or general purpose language. The algebraic background required is a year and one-half course in calculus, matrix algebra covering solutions of linear systems, and a knowledge of probability including expectation, densities and the normal distribution. A refresher for these topics is presented in the Appendices. The programming background needed is how to code branching, loops and subroutines in some mathematical or general purpose language. Also by the author: (with F. Mendivil) Explorations in Monte Carlo, ©2009, ISBN: 978-0-387-87836-2; (with J. Herold) Mathematical Biology: An Introduction with Maple and Matlab, Second edition, ©2009, ISBN: 978-0-387-70983-3.

Monetize your company's data and data science expertise without spending a fortune on hiring independent strategy consultants to help What if there was one simple, clear process for ensuring that all your company's data science projects achieve a high a return on investment? What if you could validate your ideas for future data science projects, and select the one idea that's most prime for achieving profitability while also moving your company closer to its business vision? There is. Industry-acclaimed data science consultant, Lillian Pierson, shares her proprietary STAR Framework – A simple, proven process for leading profit-forming data science projects. Not sure what data science is yet? Don't worry! Parts 1 and 2 of Data Science For Dummies will get all the bases covered for you. And if you're already a data science expert? Then you really won't want to miss the data science strategy and data monetization gems that are shared in Part 3 onward throughout this book. Data Science For Dummies demonstrates: The only process you'll ever need to lead profitable data science projects Get real, reverse-engineered data monetization tactics that no one's talking about The shocking truth about how simple natural language processing can be How to beat the crowd of data professionals by cultivating your own unique blend of data science expertise Whether you're new to the data science field or already a decade in, you're sure to learn something new and incredibly valuable from Data Science For Dummies. Discover how to generate massive business wins from your company's data by picking up your copy today.

Quantitative Approaches to Decision Making

Risks and Solutions

Gain a strong understanding of the role of management science in the decision-making process while mastering the latest advantages of Microsoft Office Excel 365 with Camm/Cochran/Fry/Ohlmann/Anderson/Sweeney/Williams' AN INTRODUCTION TO MANAGEMENT SCIENCE: QUANTITATIVE APPROACHES TO DECISION MAKING, 16E. This market-leading edition uses a proven problem-scenario approach in a new full-color design as the authors introduce each quantitative technique within an application setting. You learn to apply the management science model to generate solutions and make recommendations for management. Updates clarify concept explanations while new vignettes and problems demonstrate concepts at work. All data sets, applications and screen visuals reflect the details of Excel 365 to prepare you to work with the latest spreadsheet tools. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Reflecting the latest developments in Microsoft Office Excel 2013, Anderson/Sweeney/Williams/Camm/Cochran/Fry/Ohlmann's AN INTRODUCTION TO MANAGEMENT SCIENCE: QUANTITATIVE APPROACHES TO DECISION MAKING, 14E equips readers with a sound conceptual understanding of the role that management science plays in the decision-making process. The trusted market leader for more than two decades, the book uses a proven problem-scenario approach to introduce each quantitative technique within an applications setting. All data sets, applications, and screen visuals reflect the details of Excel 2013 to effectively prepare you to work with the latest spreadsheet tools. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Offering a comprehensive review of reform policy, followed by an examination of major approaches to institutional restructuring, Shulin Gu explores the way in which China's industrial technology has responded to economic reforms. At the heart of the work is the argument that market reform and organisational change are closely interdependent. Gu outlines the interaction of the two in China and reveals the damage which may result if market reform is not accompanied by new organisational design. Analysis of these issues is drawn from first-hand experience of Chinese technology systems, supported by insights from technological innovation economics and transaction cost economics.

After the United Nations adopted the 17 Sustainable Development Goals (SDGs) to "end poverty, protect the planet, and ensure prosperity for all," researchers and policy makers highlighted the importance of targeted investment in science, technology, and innovation (STI) to make tangible progress. Science, Technology, and Innovation for Sustainable Development Goals showcases the roles that STI solutions can play in meeting on-the-ground socio-economic and environmental challenges among domestic and international organizations concerned with the SDGs in three overlapping areas: agriculture, health, and environment/energy. Authors and researchers from 31 countries tackle both big-picture questions, such as scaling up the adoption and diffusion of new sustainable technologies, and specific, localized case studies, focusing on developing and middle-income countries and specific STI solutions and policies. Issues addressed include renewable energy, automated vehicles, vaccines, digital health, agricultural biotechnology, and precision agriculture. In bringing together diverse voices from both policy and academic spheres, this volume provides practical and relevant insights and advice to support policy makers and managers seeking to enhance the roles of STI in sustainable development.

This book constitutes the refereed proceedings of the Second International Symposium on Algorithmic Game Theory, SAGT 2009, held in Paphos, Cyprus, in October 2009. The 29 revised full papers presented together with 3 invited lectures were carefully reviewed and selected from 55 submissions. The papers are intended to cover all important areas such as solution concepts, game classes, computation of equilibria and market equilibria, algorithmic mechanism design, automated mechanism design, convergence and learning in games, complexity classes in game theory, algorithmic aspects of fixed-point theorems, mechanisms, incentives and coalitions, cost-sharing algorithms, computational problems in economics, finance, decision theory and formation of equilibria.

Market-leading FINITE MATHEMATICS FOR THE MANAGERIAL, LIFE, AND SOCIAL SCIENCES, Eleventh Edition balances modern applications, solid pedagogy, and the latest technology to provide students the context they need to stay motivated in the course and interested in the material. Suitable for majors and non-majors alike, the text uses an intuitive approach that teaches concepts through examples drawn from real-life—particularly from students' fields of interest. In addition, insightful Portfolios highlight the careers of real people and discuss how they incorporate math into their daily professional activities. Numerous exercises ensure that students have a concrete understanding of concepts before advancing to the next topic. The text's pedagogical features coupled with an exciting array of supplements equip students with the tools they need to make the most of their study time and to succeed in the course. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Seeking Solutions

Science and Technology

Insights from Agriculture, Health, Environment, and Energy

China's Industrial Technology

Market Reform and Organisational Change

Maximizing American Talent by Advancing Women of Color in Academia: Summary of a Conference

David G. Luenberger's Investment Science has become the dominant seller in Master of Finance programs, Senior or Masters level engineering, economics and statistics programs, as well as the programs in Financial Engineering. The author gives thorough yet highly accessible mathematical coverage of the fundamental topics of introductory investments: fixed-income securities, modern portfolio theory and capital asset pricing theory, derivatives (futures, options, and swaps), and innovations in optimal portfolio growth andvaluation of multi period risky investments. Throughout the text, Luenberger uses mathematics to present essential ideas about investments and their applications in business practice. The new edition is updated to include the significant advances in financial theory and practice. The text now includes two new chapters on Risk Measurement and Credit Risk, and the expanded use of so-called real options, the characterization of volatility changes, and methods for incorporating suchbehavior in valuation. New exercise material and modifications to reflect the most recent financial changes have been made to nearly all chapters in this second edition. In the last 12 years we have observed amazing growth of electronic communication. From typical local networks through countrywide systems and business-based distributed processing, we have witnessed widespread implementation of computer-controlled transmissions encompassing almost every aspect of our business and private lives.Internet and Intranet Security, Management, Risks and Solutions addresses issues of information security from the managerial, global point of view. The global approach allows us to concentrate on issues that could be influenced by activities happening on opposite sides of the globe.

Digital Innovation for Healthcare in COVID-19 Pandemic: Strategies and Solutions provides comprehensive knowledge and insights on the application of information technologies in the healthcare sector, sharing experiences from leading researchers and academics from around the world. The book presents innovative ideas, solutions and examples to deal with one of the major challenges of the world, a global problem with health, economic and political dimensions. Advanced information technologies can play a key role in solving problems generated by the COVID-19 outbreak. The book addresses how science, technology and innovation can provide advances and solutions to new global health challenges. This is a valuable resource for researchers, clinicians, healthcare workers, policymakers and members of the biomedical field who are interested in learning how digital technologies can help us avoid and solve global disease dissemination. Presents real-world cases with experiences of applications of healthcare solutions during the pandemic of COVID-19 Discusses new approaches, theories and tools developed during an unprecedented health situation and how they can be used afterwards Encompasses information on preparedness for future outbreaks to make less costly and more effective healthcare responses to crises

The Elements of Polymer Science and Engineering, Third Edition, is a textbook for one- or two-semester introductory courses in polymer science and engineering taught primarily to senior undergraduate and first-year graduate students in a variety of disciplines, but primarily chemical engineering and materials science. Since the publication of the second edition in 1999, the field of polymers has advanced considerably. A key feature of this new edition is the inclusion of new concepts such as polymer nanocomposites and metallocene catalysts in existing chapters as well as new chapters covering selected contemporary topics such as behavior of natural polymers, polymer dynamics, and diffusion in polymers. This book has been completely reorganized to become more aligned with how instructors currently teach the course. There are now several enhancements to the book's pedagogy, including the addition of numerous worked examples and new figures to better illustrate key concepts and the addition of a large number of end-of-chapter exercises, many of which are based on recently published research and relevant industrial data. This third edition will appeal to advanced undergraduate and graduate students in the physics, chemistry, and chemical engineering departments who are taking courses related to polymer science and engineering, as well as engineers new to the field of polymers. Focuses on applications of polymer chemistry, engineering, and technology Explains terminology, applications, and versatility of synthetic polymers Connects polymerization chemistry with engineering applications Contains practical lead-ins to emulsion polymerization, viscoelasticity, and polymer rheology

How to Create Value with Artificial Intelligence

Build highly accurate and scalable end-to-end AI solutions with Azure AutoML

Investment Science

Quantitative Approaches to Decision Making

Risks and Solutions

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This book offers practical guidelines on creating value from the application of data science based on selected artificial intelligence methods. In Part I, the author introduces a problem-driven approach to implementing AI-based data science and offers practical explanations of key technologies: machine learning, deep learning, decision trees and random forests, evolutionary computation, swarm intelligence, and intelligent agents. In Part II, he describes the main steps in creating AI-based data science solutions for business problems, including problem knowledge acquisition, data preparation, data analysis, model development, and model deployment lifecycle. Finally, in Part III the author illustrates the power of AI-based data science with successful applications in manufacturing and business. He also shows how to introduce this technology in a business setting and guides the reader on how to build the appropriate infrastructure and develop the required skills. The book is ideal for data scientists who will implement the proposed methodology and techniques in their projects. It is also intended to help business leaders and entrepreneurs who want to create competitive advantage by using AI-based data science, as well as academics and students looking for an industrial view of this discipline.

Stocks and bonds? Real estate? Hedge funds? Private equity? If you think those are the things to focus on in building an investment portfolio, Andrew Ang has accumulated a body of research that will prove otherwise. In his new book Asset Management: A Systematic Approach to Factor Investing, Ang upends the conventional wisdom about asset allocation by showing that what matters aren't asset class labels but the bundles of overlapping risks they represent. Making investments is like eating a healthy diet, Ang says: you've got to look through the foods you eat to focus on the nutrients they contain. Failing to do so can lead to a serious case of malnutrition - for investors as well as diners. The key, in Ang's view, is bad times, and the fact that every investor's bad times are somewhat different. The notion that bad times are paramount is the guiding principle of the book, which offers a new approach to the age-old problem of where do you put your money? Years of experience, both as a finance professor and as a consultant, have led Ang to see that the traditional approach, with its focus on asset classes, is too crude and ultimately too costly to serve investors adequately. He focuses instead on factor risks, "the peculiar sets of hard times that cut across asset classes, and that must be the focus of our attention if we are to weather market turmoil and receive the rewards that come with doing so. Optimally harvesting factor premiums - on our own or by hiring others -r equires identifying your particular set of hard times, and exploiting the difference between them and those of the average investor. Clearly written yet chock-full of the latest research and data, Asset Management will be indispensable reading for trustees, professional money managers, smart private investors, and business students who want to understand the economics behind factor risk premiums, harvest them efficiently in their portfolios, and embark on the search for true alpha."

Frontiers in Water-Energy-Nexus—Nature-Based Solutions, Advanced Technologies and Best Practices for Environmental Sustainability

Theory and Methodology

Science Indicators

Finite Mathematics for the Managerial, Life, and Social Sciences

Communication Challenges and Solutions in the Smart Grid

Applied Mechanics Reviews

Seeking Solutions: Maximizing American Talent by Advancing Women of Color in Academia is the summary of a 2013 conference convened by the Committee on Women in Science, Engineering and Medicine of the National Research Council to discuss the current status of women of color in academia and explore the challenges and successful initiatives for creating the institutional changes required to increase representation of women of color at all levels of the academic workforce. While the number of women, including minority women, pursuing higher education in science, engineering and medicine has grown, the number of minority women faculty in all institutions of higher education has remained small and has grown less rapidly than the numbers of nonminority women or minority men. Seeking Solutions reviews the existing research on education and academic career patterns for minority women in science, engineering, and medicine to enhance understanding of the barriers and challenges to the full participation of all minority women in STEM disciplines and academic careers. Additionally, this report identifies reliable and credible data source and data gaps, as well as key aspects of exemplary policies and programs that are effective in enhancing minority women's participation in faculty ranks. Success in academia is predicated on many factors and is not solely a function of talent. Seeking Solutions elucidates those other factors and highlights ways that institutions and the individuals working there can take action to create institutional cultures hospitable to people of any gender, race, and ethnicity.

Genetic Programming Theory and Practice II Springer Science & Business Media

Genetic Programming Theory and Practice IV was developed from the fourth workshop at the University of Michigan's Center for the Study of Complex Systems. The workshop was convened in May 2006 to facilitate the exchange of ideas and information related to the rapidly advancing field of Genetic Programming (GP). The text explores the synergy between theory and practice, producing a comprehensive view of the state of the art in GP application.

Recent international economic events have demonstrated the vulnerability of individual countries to external disturbances, or 'shocks'. Such disturbances necessitate major adjustments to developing countries' trade behaviour, and therefore also to their domestic economies. This volume is an integrated theoretical and econometric study of the impact of global economic changes on the developing Turkish economy during the period 1970-1983. Structural adjustment is defined and presented in the context of a small open economy reacting to external shocks. The interaction of government and private sector is incorporated explicitly in an intertemporal model through examination of dynamic game equilibria, and the implications of this interaction for the effectiveness of stabilization and liberalization policies are explored. This theoretical structure provides the structure for macroeconomic estimation. The estimated model then is employed for an econometric decomposition of Turkish historical economic experience into portions due to various external shocks and government policy changes. The theoretical section demonstrates the necessity of consideration of government/private interactions when measuring and evaluating structural adjustment policies. The econometric results confirm the importance of such analysis for Turkey, and provide evidence of the impact of various government policies on aggregate consumption, investment, inflation and current account deficits. This book will be of use to both international and development economists as a systematic and insightful examination of structural adjustment in Turkey, as well as a template for similar analyses for other open economies.

Applying Data Science

Numerical methods in theory and practice

Computational Science and Its Applications -- ICCSA 2013

Challenges and Opportunities

A Systematic Approach to Factor Investing

This issue of the African Development Perspectives Yearbook focusses on the relevance of Sustainable Development Goal (SDG) 9 ("Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation") for Africa's development. Issues are analysed at the continental level and in country case studies. Unit 1 presents in four essays the African continental perspectives and achievements. Unit 2 presents six essays, which are focussing on aspects of the eight targets of SDG 9 in country cases. Unit 3 presents book reviews and book notes in the context of SDG 9.

Your logical, linear guide to the fundamentals of data science programming Data science is exploding—in a good way—with a forecast of 1.7 megabytes of new information created every second for each human being on the planet by 2020 and 11.5 million job openings by 2026. It clearly pays dividends to be in the know. This friendly guide charts a path through the fundamentals of data science and then delves into the actual work: linear regression, logical regression, machine learning, neural networks, recommender engines, and cross-validation of models. Data Science Programming All-In-One For Dummies is a compilation of the key data science, machine learning, and deep learning programming languages: Python and R. It helps you decide which programming languages are best for specific data science needs. It also gives you the guidelines to build your own projects to solve problems in real time. Get grounded: the ideal start for new data professionals What lies ahead: learn about specific areas that data is transforming Be meaningful: find out how to tell your data story See clearly: pick up the art of visualization Whether you're a beginning student or already mid-career, get your copy now and add even more meaning to your life—and everyone else's!

Quantitative Approaches to Decision Making

The United States possesses a treasure-trove of extraterrestrial samples that were returned to Earth via space missions over the past four decades. Analyses of these previously returned samples have led to major breakthroughs in the understanding of the age, composition, and origin of the solar system. Having the instrumentation, facilities and qualified personnel to undertake analyses of returned samples, especially from missions that take up to a decade or longer from launch to return, is thus of paramount importance if the National Aeronautics and Space Administration (NASA) is to capitalize fully on the investment made in these missions, and to achieve the full scientific impact afforded by these extraordinary samples. Planetary science may be entering a new golden era of extraterrestrial sample return; now is the time to assess how prepared the scientific community is to take advantage of these opportunities. Strategic Investments in Instrumentation and Facilities for Extraterrestrial Sample Curation and Analysis assesses the current capabilities within the planetary science community for sample return analyses and curation, and what capabilities are currently missing that will be needed for future sample return missions. This report evaluates whether current laboratory support infrastructure and NASA's investment strategy is adequate to meet these analytical challenges and advises how the community can keep abreast of evolving and new techniques in order to stay at the forefront of extraterrestrial sample analysis.

Sustainable Development Goal Nine and African Development

Automated Machine Learning with Microsoft Azure

Practical Management Science

Proceedings of the 2nd WaterEnergyNEXUS Conference, November 2018, Salerno, Italy

Integrated Macro-Micro Modelling Under Rational Expectations

Energy and Water Development Appropriations for 2011, Part 3, February 2010, 111-2 Hearings

The five-volume set LNCS 7971-7975 constitutes the refereed proceedings of the 13th International Conference on Computational Science and Its Applications, ICCSA 2013, held in Ho Chi Minh City, Vietnam, in June 2013. Apart from the general track, ICCSA 2013 also include 33 special sessions and workshops, in various areas of computational sciences, ranging from computational science, such as computer graphics and virtual reality, There are 46 papers from the general track, and 202 in special sessions and workshops.

Take full advantage of the power of spreadsheet modeling with the guidance in PRACTICAL MANAGEMENT SCIENCE, 6E, geared entirely to Excel 2016. This edition integrates modeling into all functional areas of business -- finance, marketing, operations management -- using real examples and real data. The book emphasizes applied, relevant learning while presenting strong foundation. Exercises offer practical, hands-on experience working with the methodologies. The authors focus on modeling rather than algebraic formulations or memorization of particular models. This edition provides new and updated cases as well as a new chapter on data mining. Important Notice: Media content referenced within the product description This monograph is concerned with the formulation and implementation of ORANI-INT, an intertemporal Computable General Equilibrium (CGE) model of the Australian economy. The aim is to bring together, in a balanced approach, theory and data for the purpose of developing a practical state-of-the-art tool for policy analysis. The modelling approach adopted is motivated by the respective strengths of traditional CGE models and modern macroeconomic models. Traditional CGE models typically provide a disaggregate representation of the economy at a single point in time. Such models are useful for analysing issues involving the allocation of resources among the various agents identified at a particular point in time. Modern macro aggregate representation of the economy over many points in time. Such models are useful for analysing issues involving the allocation of resources across time. A model that combines the strengths of static CGE models and modern macro-dynamic models is amenable to addressing a wide range of policy issues. To demonstrate this point ORANI-INT is used to anal

Data Science Programming All-in-One For Dummies

15th International Conference, Banff, AB, Canada, June 22-25, 2015, Proceedings, Part I

An Introduction to Management Science

Digital Innovation for Healthcare in COVID-19 Pandemic: Strategies and Solutions

Guan li ke xue ji chu

Economic Shocks and Structural Adjustments: Turkey after 1973