

Chapter 6 The Tradeoff Between Risk And Return Userpage

Is real property appraisal evolving, or have all of the "big ideas" already been conceived? This question has been circulating among the leaders of the Appraisal Institute during the past several annual meetings, usually encountering little in the way of satisfying answers. This is not too surprising, because grand ideas and new knowledge do not typically evolve from off-hand conversation. They are the product of focused intellectual activity and hours of difficult work. This unquenched thirst for new knowledge is the primary reason for assembling this collection of new manuscripts dealing with valuation theory, which was financially underwritten by the Appraisal Institute. Their generosity and willingness to partner with the American Real Estate Society made this collection of thoughtful and thought provoking essays possible. They are the result of a global response to a worldwide call for papers, and demonstrate that real estate valuation is indeed an international discipline. The United States, Australia and New Zealand, Southeast Asia, the Pacific Rim, and Europe are all represented by this impressive collection of authors. Together, the eighteen essays that make up this volume demonstrate that there are a sufficient number of "big ideas" to challenge and improve the appraisal profession for years to come. Real Estate Valuation Theory is organized around five categories of intellectual contribution to the whole-appraiser decision making and valuation accuracy, application of nontraditional appraisal techniques such as regression and the minimum-variance grid method, appraising contaminated property, ad valorem tax assessment, and new perspectives on traditional appraisal methods. One common thread is that all of the papers are exceptionally well written and thought provoking.

The Logic of DemocracyReconciling Equality, Deliberation, and Minority Protection

Modern communication devices, such as mobile phones, teleconferencing systems, VoIP, etc., are often used in noisy and reverberant environments. Therefore, signals picked up by the microphones from telecommunication devices contain not only the desired near-end speech signal, but also interferences such as the background noise, far-end echoes produced by the loudspeaker, and reverberations of the desired source. These interferences degrade the fidelity and intelligibility of the near-end speech in human-to-human telecommunications and decrease the performance of human-to-machine interfaces (i.e., automatic speech recognition systems). The proposed book deals with the fundamental challenges of speech processing in modern communication, including speech enhancement, interference suppression, acoustic echo cancellation, relative transfer function identification, source localization, dereverberation, and beamforming in reverberant environments. Enhancement of speech signals is necessary whenever the source signal is corrupted by noise. In highly non-stationary noise environments, noise transients, and interferences may be extremely annoying. Acoustic echo cancellation is used to eliminate the acoustic coupling between the loudspeaker and the microphone of a communication device. Identification of the relative transfer function between sensors in response to a desired speech signal enables to derive a reference noise signal for suppressing directional or coherent noise sources. Source localization, dereverberation, and beamforming in reverberant environments further enable to increase the intelligibility of the near-end speech signal.

By virtue of the close relationship between logic and relational databases, it turns out that complexity has important applications to databases such as analyzing the parallel time needed to compute a query, and the analysis of nondeterministic classes. This book is a relatively self-contained introduction to the subject, which includes the necessary background material, as well as numerous examples and exercises.

A Framework for Planning with Incrementally Created Graphs in Attributed Problem Spaces

FME 2001: Formal Methods for Increasing Software Productivity

Quantitative Models for Reverse Logistics

Pro Data Backup and Recovery

The Logic of Democracy

Online Computation and Competitive Analysis

This book constitutes the refereed proceedings of the International Symposium of Formal Methods Europe, FME 2001, held in Berlin, Germany, in March 2001. The 32 revised full papers presented together with abstracts of three invited talks were carefully reviewed and selected from a total of 72 submissions. Focusing on increasing software productivity, all current aspects in formal methods are covered. Among the application areas addressed are avionics, smart cards, financial engineering, E-commerce, middleware, security, telecommunications, etc.

Recent years have witnessed considerable consolidation between the disciplines of environmental and ecological economics at research level, but until now textbooks in the area have done little to reflect this. Ahmed Hussen's book is to date the only one to reconcile the two standpoints. The central focus of the book will continue to be on this systematic integration of both mainstream and ecological approaches to environmental economics, and an acknowledgement that enduring solutions to major contemporary environmental challenges can be obtained through studies based on a well-conceived and balanced interdisciplinary approach. However, this third edition also contains much that is new. Chiefly, brand new chapters appear covering the following topics: The economics of climate change The economics of biodiversity and ecosystem services "Green" accounting and alternative economic and social indicators of sustainability The business case for environmental sustainability An Appendix that provides a brief historical account of the development of ecological economics The result is a comprehensive introduction to the main facets of environmental and ecological economics — a text that boldly refuses to put up barriers between disciplines and takes a holistic approach to vital issues. This student-friendly textbook contains a variety of study tools including learning points, boxed features, case studies, revision questions and discussion questions, and an Appendix that provides students with a review of basic economic principles relevant to the study of the environment and its management. Written in a clear and accessible style, this book will prove an excellent choice for introducing both students and academics to the world of environmental economics.

The past two decades have seen a gradual but noticeable change in the economic organization of innovative activity. Most firms used to integrate research and development with activities such as production, marketing, and distribution. Today firms are forming joint ventures, research and development alliances, licensing deals, and a variety of other outsourcing arrangements with universities, technology-based start-ups, and other established firms. In many industries, a division of innovative labor is emerging, with a substantial increase in the licensing of existing and prospective technologies. In short, technology and knowledge are becoming definable and tradable commodities. Although researchers have made significant advances in understanding the determinants and consequences of innovation, until recently they have paid little attention to how innovation functions as an economic process. This book examines the nature and workings of markets for intermediate technological inputs. It looks first at how industry structure, the nature of knowledge, and intellectual property rights facilitate the development of technology markets. It then examines the impacts of these markets on firm boundaries, the division of labor within the economy, industry structure, and economic growth. Finally, it examines the implications of this framework for public policy and corporate strategy. Combining theoretical perspectives from economics and management with empirical analysis, the book also draws on historical evidence and case studies to flesh out its research results.

*This publication represents the best thinking and solutions to amyrriad of contemporary issues in wireless networks. Coverageincludes wireless LANs, multihop wireless networks, and sensornetworks. Readers are provided with insightful guidance in tacklingsuch issues as architecture, protocols, modeling, analysis, andsolutions. The book also highlights economic issues, market trends,emerging, cutting-edge applications, and new paradigms, such asmiddleware for RFID, smart home design, and "on-demand business" inthe context of pervasive computing. Mobile, Wireless, and Sensor Networks is divided into threedistinct parts: * Recent Advances in Wireless LANs and Multihop WirelessNetworks * Recent Advances and Research in Sensor Networks * Middleware, Applications, and New Paradigms In developing this collected work, the editors have emphasized twobjectives: * Helping readers bridge the gap and understand the relationshipbetween practice and theory * Helping readers bridge the gap and understand the relationshipsand common links among different types of wireless networks Chapters are written by an international team of researchers andpractitioners who are experts and trendsetters in their fields.Contributions represent both industry and academia, including IBM,National University of Singapore, Panasonic, Intel, and SeoulNational University. Students, researchers, and practitioners who need to stay abreastof new research and take advantage of the latest techniques inwireless communications will find this publication indispensable.Mobile, Wireless, and Sensor Networks provides a clear sense ofwhere the industry is now, what challenges it faces, and where itis heading.*

Speech Processing in Modern Communication

Women, Family, and Workplace Inequality in Twenty-One Countries

Principles and Theories

Control of Fuel Cell Power Systems

Cloud Service Benchmarking

Applied General Systems Theory

Emerging Research and Opportunities

Contains theoretical foundations, applications, and examples of competitive analysis for online algorithms.

This book concerns digital communication. Specifically, we treat the transport of bit streams from one geographical location to another over various physical media, such as wire pairs, coaxial cable, optical fiber, and radio waves. Further, we cover the mul tiplexing, multiple access, and synchronization issues relevant to constructing com munication networks that simultaneously transport bit streams from many users. The material in this book is thus directly relevant to the design of a multitude of digital communication systems, including for example local and metropolitan area data net works, voice and video telephony systems, the integrated services digital network (ISDN), computer communication systems, voiceband data modems, and satellite communication systems. We extract the common principles underlying these and other applications and present them in a unified framework. This book is intended for designers and would-be designers of digital communication systems. To limit the scope to manageable proportions we have had to be selective in the topics covered and in the depth of coverage. In the case of advanced information, coding, and detection theory, for example, we have not tried to duplicate the in-depth coverage of many advanced textbooks, but rather have tried to cover those aspects directly relevant to the design of digital communication systems.

Ideally, it would be desirable if we could all adopt a high-minded commitment to a risk-free existence. Unfortunately, such an objective is beyond our reach--politicians who advocate higher taxes rarely get elected and economists who indicate that our resources are limited are often portrayed as purveyors of pessimism. Fatal Tradeoffs culminates and synthesizes the research of the government expert on the value of life and risk regulation. This volume presents Viscusi's work in the social regulation of risk, this volume covers topics relating to the value and empirical estimates of life, the rationality of individual responses to risk, and the role of government policy. In addition to a careful selection of his writings, Fatal Tradeoffs includes a new survey of the value-of-life literature, a review of the 1980s regulatory reforms, and guidelines for risk policy. Balanced with case studies, the more technical articles have been opened to include policy ramifications, making the text accessible to professionals and academics alike.

This book focuses on the tactical planning level for spare parts management. It describes a series of multi-item inventory models and presents exact and heuristic optimization methods, including greedy heuristics that work well for real, life-sized problems. The intended audience consists of graduate students, starting scholars in the field of spare parts inventory control, and spare parts planning specialists in the industry. In individual chapters the authors consider topics including: a basic single-location model: single-location models with multiple machine types and/or machine groups: the multi-location model with lateral transshipments: the classical METRIC model and its generalization to multi-indenture systems: and a single-location model with an explicit modeling of the repair capacity for failed parts and the priorities that one can set there. Various chapters of the book are used in a master course at Eindhoven University of Technology and in a PhD course of the Graduate Program Operations Management and Logistics (a Dutch network that organizes PhD courses in the field of OM&L). The required pre-knowledge consists of probability theory and basic knowledge of Markov processes and queuing theory. End-of-chapter problems appear for all chapters, with some answers appearing in an appendix.

Descriptive Complexity

Principles, Modeling, Analysis and Feedback Design

Quality, Compression, Performance, and Power Trade-off Analysis

Effective Advertising

Digital Communication

Technology, Applications, and Future Directions

Vector Quantization and Signal Compression

Understanding Effective Advertising: How, When, and Why Advertising Works reviews and summarizes an extensive body of research on advertising effectiveness. In particular, it summarizes what we know today on when, how, and why advertising works. The primary focus of the book is on the instantaneous and carryover effects of advertising on consumer choice, sales, and market share. In addition, the book reviews research on the rich variety of ad appeals, and suggests which appeals work, and when, how, and why they work. The first comprehensive book on advertising effectiveness, **Understanding Effective Advertising** reviews over 50 years of research in the fields of advertising, marketing, consumer behavior, and psychology. It covers all aspects of advertising and its effect on sales, including sales elasticity, carryover effects, content effects, and effects of frequency. Author Gerard J. Tellis distills three decades of academic and professional experience into one volume that successfully dismisses many popular myths about advertising.

This graduate textbook provides a unified view of quantum information theory. Clearly explaining the necessary mathematical basis, it merges key topics from both information-theoretic and quantum- mechanical viewpoints and provides lucid explanations of the basic results. Thanks to this unified approach, it makes accessible such advanced topics in quantum communication as quantum teleportation, superdense coding, quantum state transmission (quantum error-correction) and quantum encryption. Since the publication of the preceding book **Quantum Information: An Introduction**, there have been tremendous strides in the field of quantum information. In particular, the following topics - all of which are addressed here - made seen major advances: quantum state discrimination, quantum channel capacity, bipartite and multipartite entanglement, security analysis on quantum communication, reverse Shannon theorem and uncertainty relation. With regard to the analysis of quantum security, the present book employs an improved method for the evaluation of leaked information and identifies a remarkable relation between quantum security and quantum coherence. Taken together, these two improvements allow a better analysis of quantum state transmission. In addition, various types of the newly discovered uncertainty relation are explained. Presenting a wealth of new developments, the book introduces readers to the latest advances and challenges in quantum information. To aid in understanding, each chapter is accompanied by a set of exercises and solutions.

Cloud service benchmarking can provide important, sometimes surprising insights into the quality of services and leads to a more quality-driven design and engineering of complex software architectures that use such services. Starting with a broad introduction to the field, this book guides readers step-by-step through the process of designing, implementing and executing a cloud service benchmark, as well as understanding and dealing with its results. It covers all aspects of cloud service benchmarking, i.e., both benchmarking the cloud and benchmarking in the cloud, at a basic level. The book is divided into five parts: Part I discusses what cloud benchmarking is, provides an overview of cloud services and their key properties, and describes the notion of a cloud system and cloud-service quality. It also addresses the benchmarking lifecycle and the motivations behind running benchmarks in particular phases of an application lifecycle. Part II then focuses on benchmark design by discussing key objectives (e.g., repeatability, fairness, or understandability) and defining metrics and measurement methods, and by giving advice on developing own measurement methods and metrics. Next, Part III explores benchmark execution and implementation challenges and objectives as well as aspects like runtime monitoring and result collection. Subsequently, Part IV addresses benchmark results, covering topics such as an abstract process for turning data into insights, data preprocessing, and basic data analysis methods. Lastly, Part V concludes the book with a summary, suggestions for further reading and pointers to benchmarking tools available on the Web. The book is intended for researchers and graduate students of computer science and related subjects looking for an introduction to benchmarking cloud services, but also for industry practitioners who are interested in evaluating the quality of cloud services or who want to assess key qualities of their own implementations through cloud-based experiments.

In this book, ethnographical and archaeological perspectives on tradeoffs help the reader to think about hard choices, and how to make better decisions today and tomorrow.

Equity and Choice

International Symposium of Formal Methods Europe, Berlin, Germany, March 12–16, 2001, Proceedings

Real Estate Valuation Theory

The Biology of Life on the Move

Spare Parts Inventory Control under System Availability Constraints

The American Economy

Measuring Quality of Cloud Services from a Client Perspective

This groundbreaking principles of economics text is devoted to explaining basic economics with an issues and policy focus to undergraduates in survey and other introductory economics courses. It offers the optimal blend of theory, issues, and policy analysis, and covers micro-, macro, and international aspects of America's economy.

Offering a new answer to an age-old problem: the meaning of a just or equitable distribution of resources, Julian Le Grand examines the principal interpretations of equity used by economists and political philosophers. He argues that none captures the essence of the term as well as an alternative conception relating equity to the existence or otherwise of individual choice. Le Grand shows that this conception is not only philosophically well-grounded but is also directly relevant to key areas of distributional policy. His theoretical argument is complemented by detailed discussion of the application of the central idea to specific areas of policy, including the distribution of health and health care, central government grants to local governments and the measurement of income for tax purposes. **Equity and Choice** is written by an economist, but is intended for political philosophers and social policy analysts as well as economists. Hence the key chapters are written in a non-technical fashion, with specialized material relegated to appendices. This book is a unique combination of philosophical, economic and policy analysis and represents a major contribution in all three areas.

Gender inequality in the workplace persists, even in nations with some of the most progressive laws and generous family support policies. Yet the dimensions on which inequality is measured—levels of women's employment, number of hours worked, sex segregation by occupations and wages—tell very different stories across industrialized nations. By examining federally guaranteed parental leave, publicly provided child care, and part-time work, and looking across multiple dimensions of inequality, Becky Pettit and Jennifer Hook document the links between specific policies and aggregate outcomes. They disentangle the complex factors, from institutional policies to personal choices, that influence economic inequality. **Gendered Tradeoffs** draws on data from twenty-one industrialized nations to compare women's and men's economic outcomes across nations, and over time, in search of a deeper understanding of the underpinnings of gender inequality in different labor markets. Pettit and Hook develop the idea that there are tradeoffs between different aspects of gender inequality in the economy and explain how those tradeoffs are shaped by individuals, markets, and states. They argue that each policy or condition should be considered along two axes—whether it promotes women's inclusion in or exclusion from the labor market and whether it promotes gender equality or inequality among women in the labor market. Some policies advance one objective while undercutting the other. The volume begins by reflecting on gender inequality in labor markets measured by different indicators. It goes on to develop the idea that there may be tradeoffs inherent among different aspects of inequality and in different policy solutions. These ideas are explored in four empirical chapters on employment, work hours, occupational sex segregation, and the gender wage gap. The penultimate chapter examines whether a similar framework is relevant for understanding inequality among women in the United States and Germany. The book concludes with a thorough discussion of the policies and conditions that underpin gender inequality in the workplace. The central thesis of **Gendered Tradeoffs** is that gender inequality in the workplace is generated and reinforced by national policies and conditions. The contours of inequality across and within countries are shaped by specific aspects of social policy that either relieve or concentrate the demands of care giving within households—usually in the hands of women—and at the same time shape workplace expectations. Pettit and Hook make a strong case that equality for women in the workplace depends not on whether women are included in the labor market but on how they are included.

In this thesis, a framework for parallel planning agents is developed and applied to planning problems ranging from domain independent planning to planning for autonomous vehicle systems. This general-purpose framework combines both logic-based and cost-based planning approaches in order to allow for the creation of logic-constrained, cost optimal plans with respect to possibly dynamic environments, user objectives, and constraints while providing the ability to construct "anytime" plans in partitioned problem spaces.

Adaptive Quadrature Re-Revisited

Markets for Technology

Quantum Information Theory

Parallel Complexity of Linear System Solution

Energy Harvesting Communications

Uncertainty-based Tradeoff Analysis Methodology for Integrated Transportation Investment Decision-making

System Design Modeling and Metamodeling

Good backup and recovery strategies are key to the health of any organization. Medium- to very-large-scale systems administrators have to protect large amounts of critical data as well as design backup solutions that are scalable and optimized to meet changing conditions. Pro Data Backup and Recovery will cover some of the more common backup applications, such as Symantec NetBackup/BackupExec, EMC NetWorker, and CommVault, but the main discussion will focus on the implementation of 21st century architectures that allow the backup software to be a “commodity” item. The underlying architecture provides the framework for meeting the requirements of data protection for the organization. This book covers new developments in data protection as well as the impact of single-instance storage upon backup infrastructures. It discusses the impact of backup and data replication, the often misapplied B2D and D2D strategies, and “tapeless” backup environments. Continuous data protection and remote replication strategies are also addressed as they are integrated within backup strategies—a very important topic today. Learn backup solution design regardless of specific backup software Design realistic recovery solutions Take into account new data protection standards and the impact of data replication Whether you are using NetBackup, CommVault, or some other backup software, Pro Data Backup and Recovery will give you the information you need to keep your data safe and available.

This open access book provides a readable narrative of the bubbles and the banking crisis Japan experienced during the two decades between the late 1980s and the early 2000s. Japan, which was a leading competitor in the world’s manufacturing sector, tried to transform itself into an economy with domestic demand-led mature growth, but the ensuing bubbles and crisis instead made the country suffer from chronic deflation and stagnation. The book analyses why the Japanese authorities could not avoid making choices that led to this outcome. The chapters are based on the lectures to regulators from emerging economies delivered at the Global Financial Partnership Center of the Financial Services Agency of Japan.

PhD Thesis of Pedro Gonnet on the topic of Adaptive Quadrature.ETH Thesis Nr. 18347 accepted on the recommendation of Prof. Dr. W. Gander, Prof. Dr. J. Waldvogel and Prof. Dr. D. Laurie.

This book presents the most important parallel algorithms for the solution of linear systems. Despite the evolution and significance of the field of parallel solution of linear systems, no book is completely dedicated to the subject. People interested in the themes covered by this book belong to two different groups: numerical linear algebra and theoretical computer science, and this is the first effort to produce a useful tool for both. The book is organized as follows: after introducing the general features of parallel algorithms and the most important models of parallel computation, the authors analyze the complexity of solving linear systems in the circuit, PRAM, distributed, and VLSI models. The approach covers both the general case (i.e. dense linear systems without structure) and many important special cases (i.e. banded, sparse, Toeplitz, circulant linear systems).

Gendered Tradeoffs

The Japanese Banking Crisis

Understanding When, How, and Why Advertising Works

Managed Funds For Dummies

The Give and Take of Sustainability

Global Supply Chains and Multimodal Logistics: Emerging Research and Opportunities

Macroeconomics: Principles and Policy

This book synthesises fifty years of vegetation dynamics using innovative analyses and an organized framework to integrate perspectives on succession.

Economic, marketing, and legislative considerations are increasingly leading companies to take back and recover their products after use. From a logistics perspective, these initiatives give rise to new goods flows from the user back to the producer. The management of these goods flows opposite to the traditional supply chain flows is addressed in the recently emerged field of Reverse Logistics. This monograph considers quantitative models that support decision making in Reverse Logistics. To this end, several recent case studies are reviewed. Moreover, first hand insight from a study on used electronic equipment is reported on. On this basis, logistics issues arising in the management of "reverse" goods flows are identified. Moreover, differences between Reverse Logistics and more traditional logistics contexts are highlighted. Finally, attention is paid to capturing the characteristics of Reverse Logistics in appropriate quantitative models.

In Test Pattern Generation using Boolean Proof Engines, we give an introduction to ATPG. The basic concept and classical ATPG algorithms are reviewed. Then, the formulation as a SAT problem is considered. As the underlying engine, modern SAT solvers and their use on circuit related problems are comprehensively discussed. Advanced techniques for SAT-based ATPG are introduced and evaluated in the context of an industrial environment. The chapters of the book cover efficient instance generation, encoding of multiple-valued logic, usage of various fault models, and detailed experiments on multi-million gate designs. The book describes the state of the art in the field, highlights research aspects, and shows directions for future work.

International trade has made logistics a strategic consideration for firms. The decision-making framework is substantially different in the case of international logistics, as this involves cross-border movement of goods and multimodal transportation. An integrated framework based on customer's requirement, their country regulations, risk, and cost specific to goods and countries needs to be developed. Global Supply Chains and Multimodal Logistics: Emerging Research and Opportunities is an essential reference source that provides concepts of global logistics and its risk factors and provides an integrated framework for effective decision making. Highlighting such topics as enterprise resource planning, forecasting models, and logistics systems, this publication is ideally designed for managers, business professionals, researchers, academicians, and students in fields including but not limited to supply chain management, international business, and logistics.

Public and Private Responsibilities for Risk

Digital Video Concepts, Methods, and Metrics

Principles of Environmental Economics and Sustainability

An Integrated Economic and Ecological Approach

Business Process Modeling, Simulation and Design

A New Paradigm for Digital IC Design

Migration

This book is a venture in the worlds of modeling and of metamodeling. At this point, I will not reveal to readers what constitutes metamodeling. Suf fice it to say that the pitfalls and shortcomings of modeling can be cured only if we resort to a higher level of inquiry called meta inquiry and metadesign. We reach this level by the process of abstraction. The book contains five chapters from my previous work, Applied General Systems Theory (Harper and Row, London and New York, First Edition 1974, Second Edition 1978). More than ten years after its publication, this material still appears relevant to the main thrust of system design. This book is dedicated to all those who are involved in changing the world for the better. In a way we all are involved in system design: from the city manager who struggles with the problems of mass transportation or the consolidation of a city and its suburbs to the social worker who tries to provide benefits to the urban poor. It includes the engineer who designs the shuttle rockets. It involves the politician engaged in drafting a bill to recycle containers, or one to prevent pesticide contamination of our food. The politician might even need system design to chart his or her own re-election campaign.

This book presents Dual Mode Logic (DML), a new design paradigm for digital integrated circuits. DML logic gates can operate in two modes, each optimized for a different metric. Its on-the-fly switching between these operational modes at the gate, block and system levels provide maximal E-D optimization flexibility. Each highly detailed chapter has multiple illustrations showing how the DML paradigm seamlessly implements digital circuits that dissipate less energy while simultaneously improving performance and reducing area without a significant compromise in reliability. All the facets of the DML methodology are covered, starting from basic concepts, through single gate optimization, general module optimization, design trade-offs and new ways DML can be integrated into standard design flows using standard EDA tools. DML logic is compatible with numerous applications but is particularly advantageous for ultra-low power, reliable high performance systems, and advanced scaled technologies Written in language accessible to students and design engineers, each topic is oriented toward immediate application by all those interested in an alternative to CMOS logic. Describes a novel, promising alternative to conventional CMOS logic, known as Dual Mode Logic (DML), with which a single gate can be operated selectively in two modes, each optimized for a different metric (e.g., energy consumption, performance, size); Demonstrates several techniques at the architectural level, which can result in high energy savings and improved system performance; Focuses on the tradeoffs between power, area and speed including optimizations at the transistor and gate level, including alternatives to DML basic cells; Illustrates DML efficiency for a variety of VLSI applications.

Digital Video Concepts, Methods, and Metrics: Quality, Compression, Performance, and Power Trade-off Analysis is a concise reference for professionals in a wide range of applications and vocations. It focuses on giving the reader mastery over the concepts, methods and metrics of digital video coding, so that readers have sufficient understanding to choose and tune coding parameters for optimum results that would suit their particular needs for quality, compression, speed and power. The practical aspects are many: Uploading video to the Internet is only the beginning of a trend where a consumer controls video quality and speed by trading off various other factors. Open source and proprietary applications such as video e-mail, private party content generation, editing and archiving, and cloud asset management would give further control to the end-user. Digital video is frequently compressed and coded for easier storage and transmission. This process involves visual quality loss due to typical data compression techniques and requires use of high performance computing systems. A careful balance between the amount of compression, the visual quality loss and the coding speed is necessary to keep the total system cost down, while delivering a good user experience for various video applications. At the same time, power consumption optimizations are also essential to get the job done on inexpensive consumer platforms. Trade-offs can be made among these factors, and relevant considerations are particularly important in resource-constrained low power devices. To better understand the trade-offs this book discusses a comprehensive set of engineering principles, strategies, methods and metrics. It also exposes readers to approaches on how to differentiate and rank video coding solutions.

Presenting the latest research in the control of fuel cell technology, this book will contribute to the commercial viability of the technology. The authors' background in automotive technology gives the work added authority as a vital element of future planning.

Reconciling Equality, Deliberation, and Minority Protection

How it Works and How it Doesn't

An Essay in Economics and Applied Philosophy

Archaeological and Anthropological Perspectives on Tradeoffs

Test Pattern Generation using Boolean Proof Engines

Fatal Tradeoffs

The Economics of Innovation and Corporate Strategy

Take a policy-based approach to teaching introductory economics with Baumol/Blinder’s MACROECONOMICS: PRINCIPLES AND POLICY, 13E. Written by two of the most respected economists in the world, this edition is one of the most current economics texts on the market with data into 2014. Significant updates reflect the most recent economic events and policy developments, which the authors skillfully relate to the book’s concepts and principles using the right level of rigor and detail. Guide readers in mastering the basic principles of economics with the strong policy-based approach and vivid, current examples found only in MACROECONOMICS: PRINCIPLES AND POLICY. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Provides a systematic overview of a hot research area, examining the principles and theories of energy harvesting communications This book provides a detailed and advanced level introduction to the fundamentals of energy harvesting techniques and their use in state-of-the-art communications systems. It fills the gap in the market by covering both basic techniques in energy harvesting and advanced topics in wireless communications. More importantly, it discusses the application of energy harvesting in communications systems to give readers at different levels a full understanding of these most recent advances in communications technologies. The first half of Energy Harvesting Communications: Principles and Theories focuses on the challenges brought by energy harvesting in communications. The second part of the book looks at different communications applications enhanced by energy harvesting. It offers in-depth chapters that: discuss different energy sources harvested for communications; examine the energy harvesters used for widely used sources; study the physical layer and upper layer of the energy harvesting communications device; and investigate wireless powered communications, energy harvesting cognitive radios, and energy harvesting relaying as applications. Methodically examines the state-of-the-art of energy harvesting techniques Provides comprehensive coverage from basic energy harvesting sources and devices to the end users of these sources and devices Looks at the fundamental principles of energy harvesting communications, and biomedical application and intra-body communications Written in a linear order so that beginners can learn the subject and experienced users can attain a broader view Written by a renowned expert in the field, Energy Harvesting Communications: Principles and Theories is an excellent resource for students, researchers, and others interested in the subject.

Created especially for the Australian customer! Find your way through the managed fund maze and make the most of your investments! Multi-sector equities? Concentrated funds? How about index funds? If you’re being deafened by the volume of investment options, this accessible and informative guide shows you the way! Find the best fund for your needs with lots of insider tips. Make smart investment decisions that will pave your way to financial success! Understand what makes a managed fund tick — how managed funds differ from other investments Work out your investor profile — weighing up the level of risk you’re willing to take to reap your rewards Appreciate class and style — how a mix of asset class and management style can produce the results you’re after Identify the key players — what makes some funds stand out and what keeps them on top of the pile Calculate the costs — deciphering fees and commissions and making sure you’re not paying too much Make sense of ratings — what the ratings agencies do and how you can get your head around their research Learn the tricks of the trade — easy tips and strategies for buying, selling and monitoring your fund Analyse fund performance — how to assess returns to enhance your investment success Open the book and find: Charts and tables to illustrate how managed funds work Checklists for understanding reports and filling in the forms Concise descriptions of the different fund types Useful websites for funds and regulators Tips for managing your own investment portfolio A comprehensive glossary to cut through the jargon Learn to:

Understand the pros and cons of investing in Australian managed funds Find the best types of managed funds to meet your financial goals Implement investment strategies to maximise your money Identify risks and returns

Migration, broadly defined as directional movement to take advantage of spatially distributed resources, is a dramatic behaviour and an important component of many life histories that can contribute to the fundamental structuring of ecosystems. In recent years, our understanding of migration has advanced radically with respect to both new data and conceptual understanding. It is now almost twenty years since publication of the first edition, and an authoritative and up-to-date sequel that provides a taxonomically comprehensive overview of the latest research is therefore timely. The emphasis throughout this advanced textbook is on the definition and description of migratory behaviour, its ecological outcomes for individuals, populations, and communities, and how these outcomes lead to natural selection acting on the behaviour to cause its evolution. It takes a truly integrative approach, showing how comparisons across a diversity of organisms and biological disciplines can illuminate migratory life cycles, their evolution, and the relation of migration to other movements. Migration: The Biology of Life on the Move focuses on migration as a behavioural phenomenon with important ecological consequences for organisms as diverse as aphids, butterflies, birds and whales. It is suitable for senior undergraduate and graduate level students taking courses in behaviour, spatial ecology, 'movement ecology', and conservation. It will also be of interest and use to a broader audience of professional ecologists and behaviourists seeking an authoritative overview of this rapidly expanding field.

Challenges and Perspectives

Dual Mode Logic

Mobile, Wireless, and Sensor Networks

An Integrative Approach to Successional Dynamics

Mathematical Foundation

Herb Caen, a popular columnist for the San Francisco Chronicle, recently quoted a Voice of America press release as saying that it was reorganizing in order to "eliminate duplication and redundancy. " This quote both states a goal of data compression and illustrates its common need: the removal of duplication (or redundancy) can provide a more efficient representation of data and the quoted phrase is itself a candidate for such surgery. Not only can the number of words in the quote be reduced without losing information, but the statement would actually be enhanced by such compression since it will no longer exemplify the wrong that the policy is supposed to correct. Here compression can streamline the phrase and minimize the embarrassment while improving the English style. Compression in general is intended to provide efficient representations of data while preserving the essential information contained in the data. This book is devoted to the theory and practice of signal compression, i. e. , data compression applied to signals such as speech, audio, images, and video signals (excluding other data types such as financial data or general purpose computer data). The emphasis is on the conversion of analog waveforms into efficient digital representations and on the compression of digital information into the fewest possible bits. Both operations should yield the highest possible reconstruction fidelity subject to constraints on the bit rate and implementation complexity.

The Logic of Democracy examines some of the broadest questions in political science--what is democracy and how does it work--and provides a unified theory to explain them. McGann brings together the often antagonistic literature on normative political philosophy, social choice, and the empirical study of political institutions to show that it is possible to provide answers for many outstanding problems prevalent in all three. "This ranks with Riker and Mackie as one of the most important works in democratic theory of the last thirty years. McGann slices through fashionable nonsense like a knife through hot butter." --Iain McLean, Oxford University "McGann brings a variety of theoretical arguments together to provide a coherent logic of majoritarian democracy and a wholehearted and comprehensive defense of majority rule. Notably, he finds virtue in what is commonly viewed as majority rule's vice -- namely cycling -- and he also shows that proportional representation, not first-past-the-post, is required for true majoritarianism. The book should be read not just by formal theorists but by a broad range of political science scholars and students." --Nicholas R. Miller, University of Maryland "In The Logic of Democracy Anthony McGann practices political science the way it should be done. He takes a difficult and important theoretical question, namely how we should interpret the possibility of majority-rule cycling, pursues it single-mindedly across the unhelpful barriers raised by established subspecialties and methodologies, and arrives at a set of non-obvious normative and empirical results. Will you agree with every argument he advances? Surely not. You will, however, benefit immensely from reading this exemplary book." --Jim Johnson, University of Rochester Anthony McGann is Assistant Professor of Political Science at the University of California, Irvine.