

Easley And Kleinberg Networks Solutions Exercises

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Complex Networks - Vito Latora 2017-09-28
Networks constitute the backbone of complex systems, from the human brain to computer communications, transport infrastructures to online social systems and metabolic reactions to

financial markets. Characterising their structure improves our understanding of the physical, biological, economic and social phenomena that shape our world. Rigorous and thorough, this textbook presents a detailed overview of the new

theory and methods of network science.

Covering algorithms for graph exploration, node ranking and network generation, among others, the book allows students to experiment with network models and real-world data sets, providing them with a deep understanding of the basics of network theory and its practical applications. Systems of growing complexity are examined in detail, challenging students to increase their level of skill. An engaging presentation of the important principles of network science makes this the perfect reference for researchers and undergraduate and graduate students in physics, mathematics, engineering, biology, neuroscience and the social sciences.

Principles of Conflict Economics - Charles H. Anderton 2019-04-25

Provides comprehensive, up-to-date coverage of the key themes and principles of conflict economics.

Organizations and Organizing - W Richard

Scott 2015-08-07

This broad, balanced introduction to organizational studies enables the reader to compare and contrast different approaches to the study of organizations. This book is a valuable tool for the reader, as we are all intertwined with organizations in one form or another. Numerous other disciplines besides sociology are addressed in this book, including economics, political science, strategy and management theory. Topic areas discussed in this book are the importance of organizations; defining organizations; organizations as rational, natural, and open systems; environments, strategies, and structures of organizations; and organizations and society. For those employed in fields where knowledge of organizational theory is necessary, including sociology, anthropology, cognitive psychology, industrial engineering, managers in corporations and international business, and business strategists.

Networked Life - Mung Chiang 2012-09-10

How does the internet really work? This book explains the technology behind it all, in simple question and answer format.

Lectures on Network Systems - Francesco Bullo 2018-03-10

These lecture notes provide a mathematical introduction to multi-agent dynamical systems, including their analysis via algebraic graph theory and their application to engineering design problems. The focus is on fundamental dynamical phenomena over interconnected network systems, including consensus and disagreement in averaging systems, stable equilibria in compartmental flow networks, and synchronization in coupled oscillators and networked control systems. The theoretical results are complemented by numerous examples arising from the analysis of physical and natural systems and from the design of network estimation, control, and optimization systems.

Analyzing Social Media Networks with NodeXL -

Derek Hansen 2010-09-14

Analyzing Social Media Networks with NodeXL offers backgrounds in information studies, computer science, and sociology. This book is divided into three parts: analyzing social media, NodeXL tutorial, and social-media network analysis case studies. Part I provides background in the history and concepts of social media and social networks. Also included here is social network analysis, which flows from measuring, to mapping, and modeling collections of connections. The next part focuses on the detailed operation of the free and open-source NodeXL extension of Microsoft Excel, which is used in all exercises throughout this book. In the final part, each chapter presents one form of social media, such as e-mail, Twitter, Facebook, Flickr, and Youtube. In addition, there are descriptions of each system, the nature of networks when people interact, and types of analysis for identifying people, documents, groups, and events. Walks you through NodeXL,

while explaining the theory and development behind each step, providing takeaways that can apply to any SNA Demonstrates how visual analytics research can be applied to SNA tools for the mass market Includes case studies from researchers who use NodeXL on popular networks like email, Facebook, Twitter, and wikis Download companion materials and resources at

<https://nodexl.codeplex.com/documentation>

Social Network Data Analytics - Charu C. Aggarwal 2011-03-18

Social network analysis applications have experienced tremendous advances within the last few years due in part to increasing trends towards users interacting with each other on the internet. Social networks are organized as graphs, and the data on social networks takes on the form of massive streams, which are mined for a variety of purposes. Social Network Data Analytics covers an important niche in the social network analytics field. This edited volume,

contributed by prominent researchers in this field, presents a wide selection of topics on social network data mining such as Structural Properties of Social Networks, Algorithms for Structural Discovery of Social Networks and Content Analysis in Social Networks. This book is also unique in focussing on the data analytical aspects of social networks in the internet scenario, rather than the traditional sociology-driven emphasis prevalent in the existing books, which do not focus on the unique data-intensive characteristics of online social networks.

Emphasis is placed on simplifying the content so that students and practitioners benefit from this book. This book targets advanced level students and researchers concentrating on computer science as a secondary text or reference book. Data mining, database, information security, electronic commerce and machine learning professionals will find this book a valuable asset, as well as primary associations such as ACM, IEEE and Management Science.

The Palgrave Handbook of European Banking - Thorsten Beck 2017-01-12

This handbook presents a timely collection of original studies on relevant themes, policies and developments in European banking. The contributors analyse how the crisis years have had a long lasting impact on the structure of European banking and explore the regulatory architecture that has started to take form in their wake. Academic experts and senior policy makers have contributed to this volume, which is organized in five main parts. The first part presents an overview of European banking through the crisis and beyond. The second part analyses performance and innovation in EU banking markets. The third part discusses the key regulatory changes aimed at fostering financial stability. Part four looks at the relevance of cross-border banking and part five presents a detailed analysis of the main EU banking markets. This is a highly informative and carefully presented handbook, which

provides thought-provoking insights into the past, present and future landscapes of European banking. It will appeal to a wide readership, from scholars and students, through to researchers, practitioners and policy-makers.

Fundamentals of Service Systems - Jorge Cardoso 2015-12-12

This textbook addresses the conceptual and practical aspects of the various phases of the lifecycle of service systems, ranging from service ideation, design, implementation, analysis, improvement and trading associated with service systems engineering. Written by leading experts in the field, this indispensable textbook will enable a new wave of future professionals to think in a service-focused way with the right balance of competencies in computer science, engineering, and management. Fundamentals of Service Systems is a centerpiece for a course syllabus on service systems. Each chapter includes a summary, a list of learning objectives, an opening case, and a review section with

questions, a project description, a list of key terms, and a list of further reading bibliography. All these elements enable students to learn at a faster and more comfortable pace. For researchers, teachers, and students who want to learn about this new emerging science, *Fundamentals of Service Systems* provides an overview of the core disciplines underlying the study of service systems. It is aimed at students of information systems, information technology, and business and economics. It also targets business and IT practitioners, especially those who are looking for better ways of innovating, designing, modeling, analyzing, and optimizing service systems.

Network Analysis Literacy - Katharina A. Zweig 2016-10-26

This book presents a perspective of network analysis as a tool to find and quantify significant structures in the interaction patterns between different types of entities. Moreover, network analysis provides the basic means to relate these

structures to properties of the entities. It has proven itself to be useful for the analysis of biological and social networks, but also for networks describing complex systems in economy, psychology, geography, and various other fields. Today, network analysis packages in the open-source platform R and other open-source software projects enable scientists from all fields to quickly apply network analytic methods to their data sets. Altogether, these applications offer such a wealth of network analytic methods that it can be overwhelming for someone just entering this field. This book provides a road map through this jungle of network analytic methods, offers advice on how to pick the best method for a given network analytic project, and how to avoid common pitfalls. It introduces the methods which are most often used to analyze complex networks, e.g., different global network measures, types of random graph models, centrality indices, and networks motifs. In addition to introducing these

methods, the central focus is on network analysis literacy – the competence to decide when to use which of these methods for which type of question. Furthermore, the book intends to increase the reader's competence to read original literature on network analysis by providing a glossary and intensive translation of formal notation and mathematical symbols in everyday speech. Different aspects of network analysis literacy – understanding formal definitions, programming tasks, or the analysis of structural measures and their interpretation – are deepened in various exercises with provided solutions. This text is an excellent, if not the best starting point for all scientists who want to harness the power of network analysis for their field of expertise.

Building Integrated Economies in West

Africa - Mr.Alexei P Kireyev 2016-04-13

The West African Economic and Monetary Union (WAEMU) has a long and varied history, and this book examines how the WAEMU can achieve its

development and stability objectives, improve the livelihood of its people, and enhance the inclusiveness of its economic growth, all while preserving its financial stability, enhancing its competitiveness, and maintaining its current fixed exchange rates.

Trends in Telecommunication Reform 2016 - International Telecommunication Union 2017-07-11

The annual Trends in Telecommunication Reform publications are a key part of the dialogue with the world's information and communications technology (ICT) policy-makers and regulators in an increasingly converged digital environment. Under the overarching theme "Regulatory incentives to achieve digital opportunities", the 16th edition of Trends explores topical issues regulators need to address to ensure that citizens can benefit from the social and economic opportunities brought about by the digital economy. For digital opportunities to fully materialize, an adaptive,

consultative and innovative approach to ICT policy and regulation is more than ever necessary. The thematic chapters, drawing up from discussion papers presented at the 2015 ITU Global Symposium for Regulators, examine investment strategies to foster the deployment of broadband and access to the digital economy, network sharing and co-investment regulation, regulation and the Internet of Things (IoT), interoperability in the digital ecosystem and smart regulation to facilitate m-services and applications uptake and diffusion.

Mastering Gephi Network Visualization - Ken Cherven 2015-01-28

This book is intended for anyone interested in advanced network analysis. If you wish to master the skills of analyzing and presenting network graphs effectively, then this is the book for you. No coding experience is required to use this book, although some familiarity with the Gephi user interface will be helpful.

Predictive Analytics, Data Mining and Big

Data - S. Finlay 2014-07-01

This in-depth guide provides managers with a solid understanding of data and data trends, the opportunities that it can offer to businesses, and the dangers of these technologies. Written in an accessible style, Steven Finlay provides a contextual roadmap for developing solutions that deliver benefits to organizations.

Graph Theory - Karin R Saoub 2021-03-17

Graph Theory: An Introduction to Proofs, Algorithms, and Applications Graph theory is the study of interactions, conflicts, and connections. The relationship between collections of discrete objects can inform us about the overall network in which they reside, and graph theory can provide an avenue for analysis. This text, for the first undergraduate course, will explore major topics in graph theory from both a theoretical and applied viewpoint. Topics will progress from understanding basic terminology, to addressing computational questions, and finally ending with broad theoretical results. Examples and

exercises will guide the reader through this progression, with particular care in strengthening proof techniques and written mathematical explanations. Current applications and exploratory exercises are provided to further the reader's mathematical reasoning and understanding of the relevance of graph theory to the modern world. Features The first chapter introduces graph terminology, mathematical modeling using graphs, and a review of proof techniques featured throughout the book The second chapter investigates three major route problems: eulerian circuits, hamiltonian cycles, and shortest paths. The third chapter focuses entirely on trees - terminology, applications, and theory. Four additional chapters focus around a major graph concept: connectivity, matching, coloring, and planarity. Each chapter brings in a modern application or approach. Hints and Solutions to selected exercises provided at the back of the book. Author Karin R. Saoub is an Associate Professor of Mathematics at Roanoke

College in Salem, Virginia. She earned her PhD in mathematics from Arizona State University and BA from Wellesley College. Her research focuses on graph coloring and on-line algorithms applied to tolerance graphs. She is also the author of *A Tour Through Graph Theory*, published by CRC Press.

Advanced Location-Based Technologies and Services - Hassan A. Karimi 2016-04-19

Since the publication of the first edition in 2004, advances in mobile devices, positioning sensors, WiFi fingerprinting, and wireless communications, among others, have paved the way for developing new and advanced location-based services (LBSs). This second edition provides up-to-date information on LBSs, including WiFi fingerprinting, mobile computing, geospatial clouds, geospatial data mining, location privacy, and location-based social networking. It also includes new chapters on application areas such as LBSs for public health, indoor navigation, and advertising. In addition,

the chapter on remote sensing has been revised to address advancements.

Introduction to Mathematical Sociology - Phillip Bonacich 2012-04

A comprehensive textbook on the tools of mathematical sociology and their applications. Mathematical models and computer simulations of complex social systems have become everyday tools in sociology. Yet until now, students had no up-to-date textbook from which to learn these techniques. Introduction to Mathematical Sociology fills this gap, providing undergraduates with a comprehensive, self-contained primer on the mathematical tools and applications that sociologists use to understand social behavior. Phillip Bonacich and Philip Lu cover all the essential mathematics, including linear algebra, graph theory, set theory, game theory, and probability. They show how to apply these mathematical tools to demography; patterns of power, influence, and friendship in social networks; Markov chains; the evolution

and stability of cooperation in human groups; chaotic and complex systems; and more.

Introduction to Mathematical Sociology also features numerous exercises throughout, and is accompanied by easy-to-use Mathematica-based computer simulations that students can use to examine the effects of changing parameters on model behavior. Provides an up-to-date and self-contained introduction to mathematical sociology. Explains essential mathematical tools and their applications. Includes numerous exercises throughout. Features easy-to-use computer simulations to help students master concepts.

Digital Transformation of Identity in the Age of Artificial Intelligence - Kazuhiko Shibuya 2020-02-19

This book examines the digital transformation of identity in the age of artificial intelligence. It articulates the nature of identity of human beings, based on cutting-edge knowledge in the field of AI and big-data sciences, and discusses

identity by drawing on comprehensive investigations in digital social sciences and exploring wider disciplines related to philosophy, ethics, sociology, STS, computer sciences, engineering, and medical sciences. Reviewing contemporary conditions proliferated by advanced technological trends and unveiling social mechanisms of human identity, this book appeals to undergraduate and graduate students as well as academic researchers.

Dynamical Systems on Networks - Mason Porter 2016-03-31

This volume is a tutorial for the study of dynamical systems on networks. It discusses both methodology and models, including spreading models for social and biological contagions. The authors focus especially on “simple” situations that are analytically tractable, because they are insightful and provide useful springboards for the study of more complicated scenarios. This tutorial, which also includes key pointers to the literature,

should be helpful for junior and senior undergraduate students, graduate students, and researchers from mathematics, physics, and engineering who seek to study dynamical systems on networks but who may not have prior experience with graph theory or networks.

Mason A. Porter is Professor of Nonlinear and Complex Systems at the Oxford Centre for Industrial and Applied Mathematics, Mathematical Institute, University of Oxford, UK. He is also a member of the CABDyN Complexity Centre and a Tutorial Fellow of Somerville College. James P. Gleeson is Professor of Industrial and Applied Mathematics, and co-Director of MACSI, at the University of Limerick, Ireland.

Link Mining: Models, Algorithms, and Applications - Philip S. Yu 2010-09-16

This book offers detailed surveys and systematic discussion of models, algorithms and applications for link mining, focusing on theory and technique, and related applications: text

mining, social network analysis, collaborative filtering and bioinformatics.

Networks, Crowds, and Markets - David Easley 2010-07-19

Are all film stars linked to Kevin Bacon? Why do the stock markets rise and fall sharply on the strength of a vague rumour? How does gossip spread so quickly? Are we all related through six degrees of separation? There is a growing awareness of the complex networks that pervade modern society. We see them in the rapid growth of the Internet, the ease of global communication, the swift spread of news and information, and in the way epidemics and financial crises develop with startling speed and intensity. This introductory book on the new science of networks takes an interdisciplinary approach, using economics, sociology, computing, information science and applied mathematics to address fundamental questions about the links that connect us, and the ways that our decisions can have consequences for

others.

OECD/G20 Base Erosion and Profit Shifting Project Addressing the Tax Challenges of the Digital Economy, Action 1 - 2015 Final Report - OECD 2015-10-05

Addressing base erosion and profit shifting (BEPS) is a key priority of governments. In 2013, OECD and G20 countries, working together on an equal footing, adopted a 15-point Action Plan to address BEPS. This publication is the final report for Action 1.

Probability, Choice, and Reason - Leighton Vaughan Williams 2021-09-15

Much of our thinking is flawed because it is based on faulty intuition. By using the framework and tools of probability and statistics, we can overcome this to provide solutions to many real-world problems and paradoxes. We show how to do this, and find answers that are frequently very contrary to what we might expect. Along the way, we venture into diverse realms and thought experiments which

challenge the way that we see the world.
Features: An insightful and engaging discussion of some of the key ideas of probabilistic and statistical thinking Many classic and novel problems, paradoxes, and puzzles An exploration of some of the big questions involving the use of choice and reason in an uncertain world The application of probability, statistics, and Bayesian methods to a wide range of subjects, including economics, finance, law, and medicine Exercises, references, and links for those wishing to cross-reference or to probe further Solutions to exercises at the end of the book This book should serve as an invaluable and fascinating resource for university, college, and high school students who wish to extend their reading, as well as for teachers and lecturers who want to liven up their courses while retaining academic rigour. It will also appeal to anyone who wishes to develop skills with numbers or has an interest in the many statistical and other paradoxes that permeate

our lives. Indeed, anyone studying the sciences, social sciences, or humanities on a formal or informal basis will enjoy and benefit from this book.

Random Graphs and Complex Networks - Remco van der Hofstad 2016-12-22

This classroom-tested text is the definitive introduction to the mathematics of network science, featuring examples and numerous exercises.

Routledge Handbook of World-Systems Analysis - Salvatore J. Babones 2012

This volume reviews the state of the field of world-systems analysis. World-systems analysts study the structure of the relationships among people, organisations, and states and how those relationships change over time.

Mobile and Ubiquitous Systems: Computing, Networking, and Services - Kan Zheng 2013-08-15

This book constitutes the thoroughly refereed post-conference proceedings of the 9th

International ICST Conference on Mobile and Ubiquitous Systems: Computing, Networking, and Services, MobiQuitous 2012, held in Beijing, China, Denmark, in December 2012. The revised full papers presented were carefully reviewed and selected from numerous submissions. They cover a wide range of topics such as localization and tracking, search and discovery, classification and profiling, context awareness and architecture, location and activity recognition. The proceedings also include papers from the best paper session and the industry track, as well as poster and demo papers.

A Course in Networks and Markets - Rafael Pass
2019-04-16

A graduate-level, mathematically rigorous introduction to strategic behavior in a networked world. This introductory graduate-level text uses tools from game theory and graph theory to examine the role of network structures and network effects in economic and information markets. The goal is for students to develop an

intuitive and mathematically rigorous understanding of how strategic agents interact in a connected world. The text synthesizes some of the central results in the field while also simplifying their treatment to make them more accessible to nonexperts. Thus, students at the introductory level will gain an understanding of key ideas in the field that are usually only taught at the advanced graduate level. The book introduces basic concepts from game theory and graph theory as well as some fundamental algorithms for exploring graphs. These tools are then applied to analyze strategic interactions over social networks, to explore different types of markets and mechanisms for networks, and to study the role of beliefs and higher-level beliefs (beliefs about beliefs). Specific topics discussed include coordination and contagion on social networks, traffic networks, matchings and matching markets, exchange networks, auctions, voting, web search, models of belief and knowledge, and how beliefs affect auctions and

markets. An appendix offers a “Primer on Probability.” Mathematically rigorous, the text assumes a level of mathematical maturity (comfort with definitions and proofs) in the reader.

Handbook on the Economics of the Internet

- Johannes M. Bauer 2016-05-27

The Internet is connecting an increasing number of individuals, organizations, and devices into global networks of information flows. It is accelerating the dynamics of innovation in the digital economy, affecting the nature and intensity of competition, and enabling private companies, governments, and the non-profit sector to develop new business models. In this new ecosystem many of the theoretical assumptions and historical observations upon which economics rests are altered and need critical reassessment.

Networks, Crowds, and Markets - David Easley 2010-07-19

Over the past decade there has been a growing

public fascination with the complex connectedness of modern society. This connectedness is found in many incarnations: in the rapid growth of the Internet, in the ease with which global communication takes place, and in the ability of news and information as well as epidemics and financial crises to spread with surprising speed and intensity. These are phenomena that involve networks, incentives, and the aggregate behavior of groups of people; they are based on the links that connect us and the ways in which our decisions can have subtle consequences for others. This introductory undergraduate textbook takes an interdisciplinary look at economics, sociology, computing and information science, and applied mathematics to understand networks and behavior. It describes the emerging field of study that is growing at the interface of these areas, addressing fundamental questions about how the social, economic, and technological worlds are connected.

Molecular Marketing. Market Leadership Creative Modeling - Iveta Merlinova 2015

Computational Network Science - Henry Hexmoor 2014-09-23

The emerging field of network science represents a new style of research that can unify such traditionally-diverse fields as sociology, economics, physics, biology, and computer science. It is a powerful tool in analyzing both natural and man-made systems, using the relationships between players within these networks and between the networks themselves to gain insight into the nature of each field. Until now, studies in network science have been focused on particular relationships that require varied and sometimes-incompatible datasets, which has kept it from being a truly universal discipline. Computational Network Science seeks to unify the methods used to analyze these diverse fields. This book provides an introduction to the field of Network Science and

provides the groundwork for a computational, algorithm-based approach to network and system analysis in a new and important way. This new approach would remove the need for tedious human-based analysis of different datasets and help researchers spend more time on the qualitative aspects of network science research. Demystifies media hype regarding Network Science and serves as a fast-paced introduction to state-of-the-art concepts and systems related to network science Comprehensive coverage of Network Science algorithms, methodologies, and common problems Includes references to formative and updated developments in the field Coverage spans mathematical sociology, economics, political science, and biological networks **Tool-Supported Innovation Management in Service Ecosystems** - Christoph Riedl 2011-07-14 Christoph Riedl elaborates conceptual solutions and tool support for networked environments.

The author draws on the fields of new service development and open innovation, in particular building on online communities. Based on the design science paradigm, the author offers guidelines how tool support for online innovation communities can be developed.

The Network Reshapes the Library - Lorcan Dempsey 2014-08-18

Since he began posting in 2003, Dempsey has used his blog to explore nearly every important facet of library technology, from the emergence of Web 2.0 as a concept to open source ILS tools and the push to web-scale library management systems.

The Network Reshapes the Library - Lorcan Dempsey 2014-08-18

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Twenty Lectures on Algorithmic Game Theory - Tim Roughgarden 2016-08-30

Computer science and economics have engaged in a lively interaction over the past fifteen years, resulting in the new field of algorithmic game theory. Many problems that are central to modern computer science, ranging from resource allocation in large networks to online advertising, involve interactions between multiple self-interested parties. Economics and game theory offer a host of useful models and definitions to reason about such problems. The flow of ideas also travels in the other direction, and concepts from computer science are increasingly important in economics. This book grew out of the author's Stanford University course on algorithmic game theory, and aims to give students and other newcomers a quick and accessible introduction to many of the most important concepts in the field. The book also includes case studies on online advertising, wireless spectrum auctions, kidney exchange,

and network management.

Social Media Mining - Reza Zafarani

2014-04-28

Integrates social media, social network analysis, and data mining to provide an understanding of the potentials of social media mining.

Bridging the Information Gap - Nils Ringe

2013-10-08

By cutting across party and committee lines, legislative member organizations facilitate the flow of vital information

Towards the Internet of Services: The THESEUS Research Program - Wolfgang

Wahlster 2014-09-01

The Internet of Services and the Internet of Things are major building blocks of the Future Internet. The digital enterprise of the future is based not only on mobile, social, and cloud technologies, but also on semantic technologies and the future Internet of Everything. Semantic technologies now enable mass customization for the delivery of goods and services that meet

individual customer needs and tastes with near mass production efficiency and reliability. This is creating a competitive advantage in the industrial economy, the service economy, and the emerging data economy, leading to smart products, smart services, and smart data, all adaptable to specific tasks, locations, situations, and contexts of smart spaces. Such technologies allow us to describe, revise, and adapt the characteristics, functions, processes, and usage patterns of customization targets on the basis of machine-understandable content representation that enables automated processing and information sharing between human and software agents. This book explains the principal achievements of the Theseus research program, one of the central programs in the German government's Digital 2015 initiative and its High-Tech Strategy 2020. The methods, toolsets, and standards for semantic technologies developed during this program form a solid basis for the fourth industrial revolution (Industrie

4.0), the hybrid service economy, and the transformation of big data into useful smart data for the emerging data economy. The contributing authors are leading scientists and engineers, representing world-class academic and industrial research teams, and the ideas, technologies, and representative use cases they describe in the book derive from results in multidisciplinary fields, such as the Internet of Services; the Semantic Web, and semantic technologies, knowledge management, and search; user interfaces, multimodal interaction, and visualization; machine learning and data mining; and business process support, manufacturing, automation, medical systems, and integrated service engineering. The book will be of value to both researchers and practitioners in these domains.

Game Theory And Mechanism Design - Y

Narahari 2014-03-13

This book offers a self-sufficient treatment of a key tool, game theory and mechanism design, to

model, analyze, and solve centralized as well as decentralized design problems involving multiple autonomous agents that interact strategically in a rational and intelligent way. The contents of the book provide a sound foundation of game theory and mechanism design theory which clearly represent the “science” behind traditional as well as emerging economic applications for the society. The importance of the discipline of game theory has been recognized through numerous Nobel prizes in economic sciences being awarded to game theorists, including the 2005, 2007, and 2012 prizes. The book distills the marvelous contributions of these and other celebrated game theorists and presents it in a way that can be easily understood even by senior undergraduate students. A unique feature of the book is its detailed coverage of mechanism design which is the art of designing a game among strategic agents so that a social goal is realized in an equilibrium of the induced game.

Another feature is a large number of illustrative examples that are representative of both classical and modern applications of game theory and mechanism design. The book also includes informative biographical sketches of game theory legends, and is specially customized to a general engineering audience. After a thorough reading of this book, readers would be able to apply game theory and mechanism design in a principled and mature way to solve relevant problems in computer science (esp, artificial intelligence/machine learning), computer engineering, operations research, industrial engineering and microeconomics.

Solutions for Sustainability - Rafael Leal-Arcas 2019-08-26

This book explores links and synergies between international trade and two of the most urgent challenges of the 21st century: achieving sustainable energy (i.e., energy that is affordable, secure, and clean) and mitigating climate change. It takes the unique approach of not only examining how international trade can help achieve energy and climate goals, but also the impact of emerging tools and technologies such as smart grids and demand response, and the potential role and impact of citizens and prosumers. The book analyzes energy- and trade-related regulations in a range of jurisdictions to assess how conducive the regulation is towards achieving sustainable energy, and identifies gaps and overlaps in the existing legal framework.