Game Theory: An Introduction

This comprehensive textbook introduces readers to the principal ideas and applications of game theory, in a style that combines rigor with accessibility. Steven Tadelis begins with a concise description of rational decision making, and goes on to discuss strategic and extensive form games with complete information, Bayesian games, and extensive form games with imperfect information. He covers a host of topics, including multistage and repeated games, bargaining theory, auctions, rent-seeking games, mechanism design, signaling games, reputation building, and information transmission games. Unlike other books on game theory, this one begins with the idea of rationality and explores its implications for multiperson decision problems through concepts like dominated strategies and rationalizability. Only then does it present the subject of Nash equilibrium and its derivatives.

Game Theory is the ideal textbook for advanced undergraduate and beginning graduate students. Throughout, concepts and methods are explained using real-world examples backed by precise analytic material. The book features many important applications to economics and political science, as well as numerous exercises that focus on how to formalize informal situations and then analyze them.

>> Introduces the core ideas and applications of game theory

>> Covers static and dynamic games, with complete and incomplete information

>> Features a variety of examples, applications, and exercises

>> Topics include repeated games, bargaining, auctions, signaling, reputation, and information transmission

>> Ideal for advanced undergraduate and beginning graduate students

>> Complete solutions available to teachers and selected solutions available to students

"Steve Tadelis's Game Theory is an ideal textbook for advanced undergraduates, and great preparation for graduate work. It provides a clear, self-contained, and rigorous treatment of all the key concepts, along with interesting applications; it also introduces key technical tools in a straightforward and intuitive way."--Drew Fudenberg, Harvard University

"Steven Tadelis is a leading scholar in applied game theory, and his expertise shines

through in this excellent new text. Aimed at intermediate to advanced undergraduates, it presents and discusses the theory remarkably clearly, at both the intuitive and formal levels. One novel feature I like is its serious consideration of the decision theoretic foundations of game theory. Another is its transparent presentation of relatively recent topics and applications, such as reputations in asymmetric information games, legislative bargaining, and cheap talk communication."--Steve Matthews, University of Pennsylvania

"Steve Tadelis has written an up-to-date, comprehensive, yet reader-friendly introductory textbook to game theory. He explains difficult concepts in an exceptionally clear and simple way, making the book accessible to students with a minimal background in mathematics. The abundance of examples and illustrations, drawing from economics, political science, and business strategy, not only shows the wide range of applications of game theory, but also makes the book attractive and fun to read. Tadelis's book will undoubtedly become a reference textbook for a first course in game theory."--Francis Bloch, □ cole Polytechnique

"These days, game theory plays an essential role not only in economics, but in many other branches of social and engineering science, as well as philosophy, biology, psychology, even law. In all these disciplines, students and instructors alike should welcome this excellent resource for mastering the key tools of modern game theory."--Peter Hammond, University of Warwick

"It's hard to write a game theory textbook that strikes a good balance between precision and accessibility. But Steve Tadelis has accomplished this juggling act, with style and humor besides."--Eric S. Maskin, Nobel Laureate in Economics, Harvard University

"Game theory is a powerful tool for understanding strategic behavior in business, politics, and other settings. Steve Tadelis's text provides an ideal guide, taking you from first principles of decision theory to models of bargaining, auctions, signaling, and reputation building in a style that is both rigorous and reader-friendly."--Jonathan Levin, Stanford University

"Game Theory fills a void in the literature, serving as a text for an advanced undergraduate--or masters-level class. It has more detail than most undergraduate texts, while still being accessible to a broad audience and stopping short of the more technical approach of PhD-level texts. This is a valuable book, written by a meticulous scholar who is an expert in the field."--Matthew O. Jackson, author of Social and Economic Networks

"This is a great text, just at the right level for fourth-year undergraduates. The style is just right and the exercises are of high quality. Flow and organization are major strengths of the book--I can follow the text almost as is for the class I teach."--Luca Anderlini, Georgetown University

Steven Tadelis is associate professor and Barbara and Gerson Bakar Faculty Fellow at the Haas School of Business at the University of California, Berkeley, and a Distinguished Economist at eBay Research Labs.

Other Books

Introduction to the Theory of Cooperative Games, This book systematically presents the main solutions of cooperative games: the core, bargaining set, kernel, nucleolus, and the Shapley value of TU games as well as the core, the Shapley value, and the ordinal bargaining set of NTU games. The authors devote a separate chapter to each solution, wherein they study its properties in full detail. In addition, important variants are defined or even intensively analyzed.

□ □ □ □ □ . One of the strengths of this book is its treatment of non-transferable utility (NTU) games... Another strength is the emphasis the early chapters of the book on the link to mathematical programming."