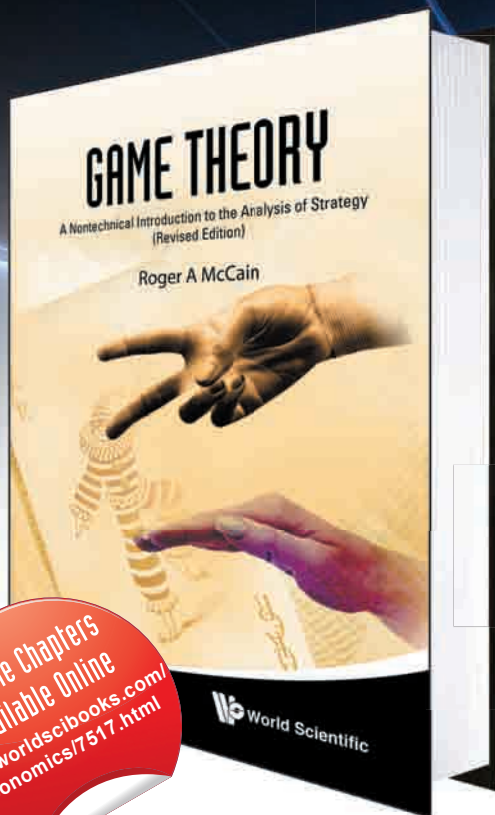


Important Textbooks in Game Theory



Sample Chapters Available Online
www.worldscientific.com/economics/7517.html

GAME THEORY

A Nontechnical Introduction to the Analysis of Strategy (Revised Edition)

by **Roger A McCain** (*Drexel University, USA*)

Author **Roger A McCain** was born in the state of Louisiana, USA, and studied at Louisiana State University. He has been a faculty member in economics for over 40 years at several American universities. He is the author of five books and about 100 other publications on economics and game theory.

Key Features:

- Introduces Game Theory with an intuitive and interdisciplinary approach which makes it accessible to students with no prior knowledge of game theory or economics
- Extensive examples on all topics, arranged by way of the Karplus Learning Cycle
- Explores in-depth noncooperative and cooperative games, repeated play, correlated equilibrium, and a wide range of applications

This book serves as an introduction to game theory for students with no prior game theory knowledge or with limited background in economics and mathematics.

It is specifically designed to provide an intuitive and accessible interdisciplinary approach to game theory while simultaneously exploring cooperative games, repeated play, correlated equilibrium and a range of applications.

The Instructor Manual is available upon request for all instructors who adopt this book as a course text.

Readership:

Undergraduates and graduates studying game theory or those interested in knowing more about game theory.

632pp Aug 2010

978-981-4289-65-8
US\$99 £61

Contents:

Fundamentals

- Conflict, Strategy, and Games
- Games in Extensive and Normal Form

Two-Person Games

- Dominant Strategies and Social Dilemmas
- Nash Equilibrium
- Further Topics on Two-Person Games in Normal Form
- Duopoly Strategies and Prices

Larger Numbers and Uncertainty

- Three-Person Games
- Probability and Game Theory
- Mixed Strategy Nash Equilibria
- N-Person Games
- Alternatives to Nash Equilibrium

Games in Extensive Form and

Repeated Play

- Sequential Games

- Imbedded Games
- Repeated Play
- Indefinitely Repeated Play

Cooperation

- Elements of Cooperative Games
- Applications of Cooperative Solutions to Economics

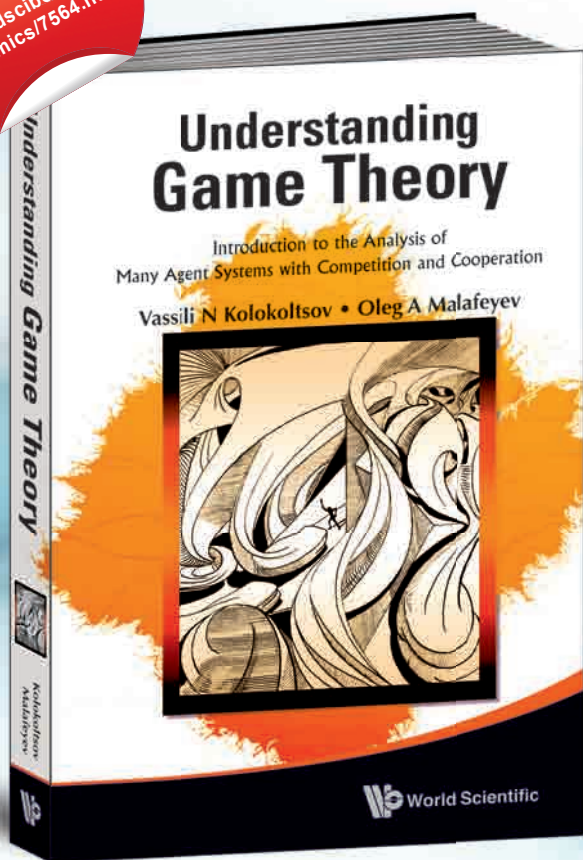
Behavioral and Evolutionary Game Theory

- Games, Experiments, and Behavioral Game Theory
- Evolution and Adaptive Learning

Selected Applications

- Voting Games
- Auctions
- Game Theory, Law, and Social Mechanism Design

Sample Chapters
Available Online
www.worldscibooks.com/
economics/7564.html



Understanding Game Theory

Introduction to the Analysis of
Many Agent Systems with
Competition and Cooperation

by

Vassili N Kolokoltsov

The University of Warwick, UK

Oleg A Malafeyev

St. Petersburg State University, Russia

Key Features:

- Reveals information on game theory in relation to other fields of human culture, making the book accessible to a wider range of readers and stresses natural connections to a variety of sciences and human creative activities (biology, philosophy, sociology, politics, military strategy, etc)
- Provides a clear separation into two parts of elementary and advanced levels, allowing a grasp of ideas without spending too much time on unnecessary technicalities
- Includes exercises with detailed hints to enhance the appreciation of the materials presented
- Highly illustrated in graphics by world-renown mathematician and mathematics imaging artist, A T Fomenko

Contents:

Basic Ideas:

- Around the Prisoner's Dilemma
- Auctions and Networks
- Wise Men and Businessmen
- Hawks and Doves, Lions and Lambs
- Coalitions and Distribution
- Presidents and Dictators
- At the Doors of Quantum Games
- It's Party Time!

Armed with Mathematics:

- A Rapid Course in Mathematical Game Theory
- Examples of Game Models
- Elements of More Advanced Analysis

Readership:

Undergraduates and graduate students in applied mathematics, economics, business, finances and systems biology; non-experts interested in the application of mathematical methods and ideas in natural and social sciences, business and life.

Steadily growing applications of game theory in modern science (including psychology, biology and economics) require sources to provide rapid access in both classical tools and recent developments to readers with diverse backgrounds.

This book on game theory, its applications and mathematical methods, is written with this objective in mind. It gives a concise but wide-ranging introduction to games including older (pre-game theory) party games and more recent topics like elections and evolutionary games and is generously spiced with excursions into philosophy, history, literature and politics.

A distinguished feature is the clear separation of the text into two parts: elementary and advanced, which makes the book ideal for study at various levels.

To stimulate the mathematical and scientific imagination, graphics by a world-renowned mathematician and mathematics imaging artist, A T Fomenko, are used. The carefully selected works of this artist fit remarkably into the many ideas expressed in the book.

300pp

Jan 2010

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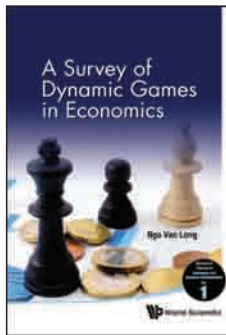
Surveys on Theories in Economics and Business Administration - Vol. 1

A SURVEY OF DYNAMIC GAMES IN ECONOMICS

by **Van Long Ngo** (*McGill University, Canada*)

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Stephen W Salant, Professor of Economics, University of Michigan



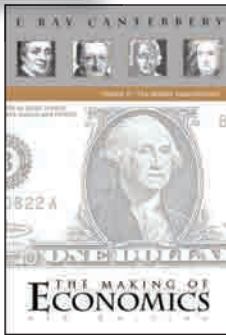
This book provides readers with a comprehensive survey of models of dynamic games in economics, including an extensive coverage of numerous fields of applications.

292pp **Sep 2010**
978-981-4293-03-7 **US\$99** **£68**
978-981-4293-04-4(ebook) **US\$129**

THE MAKING OF ECONOMICS (4th Edition)

Volume II: The Modern Superstructure
 by **E Ray Canterbury** (*Florida State University, USA*)

Textbook



"Canterbury has been a productive and versatile economist, writing prolifically in a large number of fields. Whatever the subject and the audience, he writes clear and interesting prose. He is independent in his views, often heterodox but always worth considering."

James Tobin, Nobel Prize, Economic Sciences, 1981

Volume II in *The Making of Economics, 4th Edition* series fills a major gap in the literature of economics, providing in brief fashion a complete treatment of high theory in economics. The author walks the reader through the maze of contemporary economics, acquainting them with the most up-to-date theories as well as recent economic history. The learning tasks are eased by volleys of examples as well as dramatic illustrations. Although designed to be used with Volume I, it can also stand alone as a text or textbook supplement for a wide range of courses in economics and finance.

This book is also available as a set with *Volume I: The Foundation* and *Volume III: The Radical Assault*. [978-981-4322-67-6 (Set) US\$116 / £77]

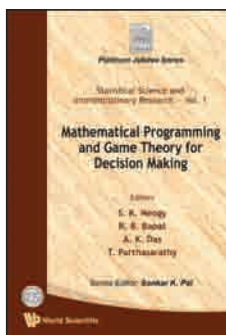
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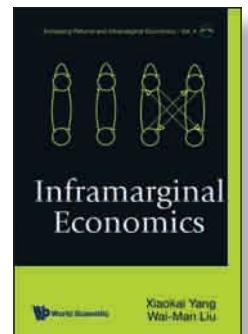
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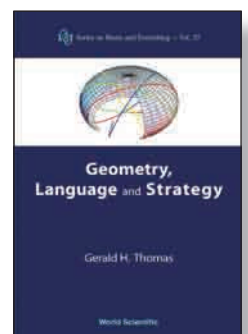
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Geometry, Language and Strategy is a way of looking at game theory or strategic decision-making from a scientific perspective, using standard equations from the fields of engineering and physics. To better approximate reality, it extends game theory beyond the two-player set piece.

The book begins where former game theory literature ends — with multi-person games on a world stage. It encompasses many of the variables encountered in strategic planning, using mathematics borrowed from physics and engineering, rather than the economic models which have not proven to be good in predicting reality.



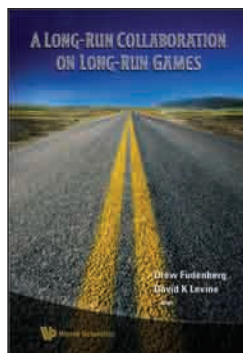
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A LONG-RUN COLLABORATION ON LONG-RUN GAMES

edited by **Drew Fudenberg** (Harvard University, USA) & **David K Levine** (Washington University in St. Louis, USA)

This book brings together the joint work of Drew Fudenberg and David Levine (through 2008) on the closely connected topics of repeated games and reputation effects, along with related papers on more general issues in game theory and dynamic games. The unified presentation highlights the recurring themes of their work.

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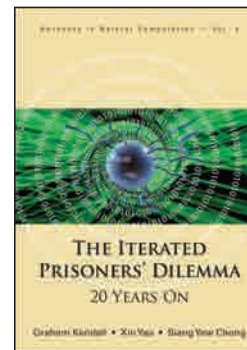
Advances in Natural Computation - Vol. 4

THE ITERATED PRISONERS' DILEMMA

20 Years On

by **Graham Kendall, Xin Yao & Siang Yew Chong**
(The University of Birmingham, UK)

In 1984, Robert Axelrod published a book, relating the story of two competitions which he ran, where invited academics entered strategies for the Iterated Prisoners' Dilemma. The book, almost 20 years on, is still widely read and cited by academics and the general public. As a celebration of that landmark work, we have recreated those competitions to celebrate its 20th anniversary, by again inviting academics to submit prisoners' dilemma strategies.



The first of these new competitions was run in July 2004, and the second in April 2005. *Iterated Prisoners' Dilemma: 20 Years On* essentially provides an update of the Axelrod's book.

Specifically, it

- Presents the prisoners' dilemma, its history and variants
- Highlights original Axelrod's work and its impact
- Discusses results of new competitions
- Showcases selected papers that reflect the latest researches in the area

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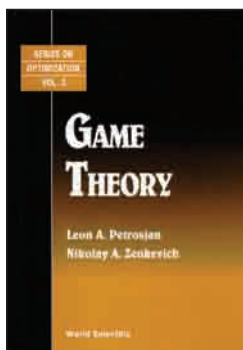
by **Leon A Petrosjan & Nikolay A Zenkevich**
(St. Petersburg State University, Russia)

"A distinctive feature of the book is its coverage of cooperative differential games. In this respect, the book is a welcome alternative or supplement to other existing books."

Mathematics Abstracts

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