

Mathematical Economics of General Equilibrium

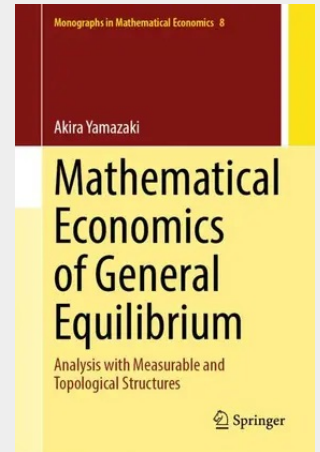
Analysis with Measurable and Topological Structures

This book presents a rigorous formulation of the general equilibrium model in economies with topological and measurable mathematical structures. It aims to provide basic tools and analytical methods for advanced graduate students and researchers interested in microeconomic theory and game theory. It is based on lecture notes distributed among advanced graduate students in the advanced mathematical economics course at the Ph.D. level. The book presents a unified treatment of the general equilibrium analysis of economies with perfectly competitive markets based on the Walrasian model. It is divided into Part I and Part II. The mathematical analysis of general equilibrium in perfectly competitive economies begins in Part II. As a mathematical preparation for Part II for most economics students, Part I collects some basic mathematical concepts and facts that are later needed and used in the theoretical economic analysis. Some readers may wish to start the book from Part II and refer back to Part I whenever it is necessary to review mathematical concepts and related well-known mathematical results referred to in the text.

The presentation of theoretical economic analysis of general equilibrium theory in Part II is organized chapter by chapter: Basic Concepts of Equilibrium Analysis, Mathematical Structure on the Space of Economic Agents' Characteristics, Individual Demands, Economies with a Measure Space of Consumers, Walrasian Equilibria of Economies, Production Economies, and Edgeworth Equilibria as the Core of Economies. The mathematical analysis in this book uses topological and measurable structures that are essentially built into the model to provide an appropriate means of expressing the characteristics of economic agents that form a basic part of economies along with commodities in market transactions and market prices for valuation in markets.

This book presents a rigorous formulation of the general equilibrium model in economies with topological and measurable mathematical structures. It aims to provide basic tools and analytical methods for advanced graduate students and researchers interested in microeconomic theory and game theory. It is based on lecture notes distributed among advanced graduate students in the advanced mathematical economics course at the Ph.D. level. The book presents a unified treatment of the general equilibrium analysis of economies with perfectly competitive markets based on the Walrasian model. It is divided into Part I and Part II. The mathematical analysis of general equilibrium in perfectly competitive economies begins in Part II. As a mathematical preparation for Part II for most economics students, Part I collects some basic mathematical concepts and facts that are later needed and used in the theoretical economic analysis. Some readers may wish to start the book from Part II and refer back to Part I whenever it is necessary to review mathematical concepts and related well-known mathematical results referred to in the text.

The presentation of theoretical economic analysis of general equilibrium theory in Part II is organized chapter by chapter: Basic Concepts of Equilibrium Analysis, Mathematical Structure on the Space of Economic Agents' Characteristics, Individual Demands, Economies with a Measure Space of Consumers, Walrasian Equilibria of Economies, Production Economies, and Edgeworth Equilibria as the Core of Economies. The mathematical analysis in this book uses topological and measurable structures that are essentially built into the model to provide an appropriate means of expressing the characteristics of economic agents that form a basic part of economies along with commodities in market transactions and market prices for valuation in markets.



90,94 €

84,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9789819694969

Medium: Buch

ISBN: 978-981-969496-9

Verlag: Springer

Erscheinungstermin: 12.10.2025

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2025

Serie: Monographs in Mathematical Economics

Produktform: Gebunden

Gewicht: 539 g

Seiten: 236

Format (B x H): 160 x 241 mm

