Record Nr. UNINA9910739477503321 Autore Hammock Michael R Titolo Microeconomic Theory and Computation: Applying the Maxima Open-Source Computer Algebra System / / by Michael R. Hammock, J. Wilson New York, NY:,: Springer New York:,: Imprint: Springer,, 2013 Pubbl/distr/stampa **ISBN** 1-4614-9417-6 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (394 p.) 004 Disciplina 338.5 Soggetti Microeconomics **Econometrics** Game theory Computer software Game Theory, Economics, Social and Behav. Sciences Mathematical Software Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. 1 Introduction -- 2 Simple Economic Models -- 3 Demand Theory: Nota di contenuto Preferences -- 4 Demand Theory: Constraints and Optimization -- 5 Preferences and Demand -- 6 Production Theory -- 7 Cost Theory -- 8 Firm and Industry Supply in the Short-run -- 9 Long-run Supply -- 10 Competitive Markets: Extensions and Application -- 11 General Equilibrium -- 12 Price-Searcher Markets -- 13 Nonlinear Pricing: Capturing Consumer Surplus -- 14 Oligopoly -- 15 Time -- 16 Uncertainty. Sommario/riassunto Economists can use computer algebra systems to manipulate symbolic models, derive numerical computations, and analyze empirical relationships among variables. Maxima is an open-source multiplatform computer algebra system that rivals proprietary software. Maxima's symbolic and computational capabilities enable economists

and financial analysts to develop a deeper understanding of models by allowing them to explore the implications of differences in parameter values, providing numerical solutions to problems that would be

otherwise intractable, and by providing graphical representations that can guide analysis. This book provides a step-by-step tutorial for using this program to examine the economic relationships that form the core of microeconomics in a way that complements traditional modeling techniques. Readers learn how to phrase the relevant analysis and how symbolic expressions, numerical computations, and graphical representations can be used to learn from microeconomic models. In particular, comparative statics analysis is facilitated. Little has been published on Maxima and its applications in economics and finance, and this volume will appeal to advanced undergraduates, graduate-level students studying microeconomics, academic researchers in economics and finance, economists, and financial analysts.