1. Record Nr. UNINA9910962080803321

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Titolo	Applied computational economics and finance / / Mario J. Miranda and Paul L. Fackler
Pubbl/distr/stampa	Cambridge, Mass., : MIT Press, c2002
ISBN	1-282-09988-4 9786612099885 0-262-27992-4 0-585-44828-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (529 p.)
Altri autori (Persone)	FacklerPaul L
Disciplina	330/.01/51
Soggetti	Economics - Data processing Economics, Mathematical Finance - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. [493]-497) and index.
Nota di contenuto	Intro -- Contents -- Preface -- 1 Introduction -- 2 Linear Equations and Computer Basics -- 3 Nonlinear Equations and Complementarity Problems -- 4 Finite-Dimensional Optimization -- 5 Numerical Integration and Differentiation -- 6 Function Approximation -- 7 Discrete Time, Discrete State Dynamic Models -- 8 Discrete Time, Continuous State Dynamic Models: Theory and Examples -- 9 Discrete Time, Continuous State Dynamic Models: Methods -- 10 Continuous Time Models: Theory and Examples -- 11 Continuous Time Models: Solution Methods -- Appendix A: Mathematical Background -- Appendix B: A MATLAB Primer -- References -- Index.
Sommario/riassunto	This book presents a variety of computational methods used to solve dynamic problems in economics and finance. It emphasizes practical numerical methods rather than mathematical proofs and focuses on techniques that apply directly to economic analyses. The examples are drawn from a wide range of subspecialties of economics and finance, with particular emphasis on problems in agricultural and resource economics, macroeconomics, and finance. The book also provides an extensive Web-site library of computer utilities and demonstration

programs.The book is divided into two parts. The first part develops basic numerical methods, including linear and nonlinear equation methods, complementarity methods, finite-dimensional optimization, numerical integration and differentiation, and function approximation. The second part presents methods for solving dynamic stochastic models in economics and finance, including dynamic programming, rational expectations, and arbitrage pricing models in discrete and continuous time. The book uses MATLAB to illustrate the algorithms and includes a utilities toolbox to help readers develop their own computational economics applications.