1. Record Nr. UNINA9910784444503321

Autore	Bhattacharya R. N (Rabindra Nath), <1937->
Titolo	Random dynamical systems : theory and applications / / Rabi Bhattacharya, Mukul Majumdar [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2007
ISBN	1-107-15995-4 1-280-81588-4 9786610815883 0-511-27436-X 0-511-27506-4 0-511-27274-X 0-511-32079-5 0-511-61862-X 0-511-27353-3
Descrizione fisica	1 online resource (xv, 463 pages) : digital, PDF file(s)
Disciplina	515/.39
Soggetti	Random dynamical systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 435-451) and indexes.
Nota di contenuto	Cover; Half-title; Dedication; Title; Copyright; Contents; Preface; Acknowledgment; Notation; 1 Dynamical Systems; 2 Markov Processes; 3 Random Dynamical Systems; 4 Random Dynamical Systems: Special Structures; 5 Invariant Distributions: Estimation and Computation; 6 Discounted Dynamic Programming Under Uncertainty; Appendix; Bibliography; Author Index; Subject Index
Sommario/riassunto	This treatment provides an exposition of discrete time dynamic processes evolving over an infinite horizon. Chapter 1 reviews some mathematical results from the theory of deterministic dynamical systems, with particular emphasis on applications to economics. The theory of irreducible Markov processes, especially Markov chains, is surveyed in Chapter 2. Equilibrium and long run stability of a dynamical system in which the law of motion is subject to random perturbations is the central theme of Chapters 3-5. A unified account of relatively

recent results, exploiting splitting and contractions, that have found applications in many contexts is presented in detail. Chapter 6 explains how a random dynamical system may emerge from a class of dynamic programming problems. With examples and exercises, readers are guided from basic theory to the frontier of applied mathematical research.