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   Descrizione fisica   1 online resource (370 pages)

   Collana   Mathematical Marvels: Texts and Monographs in the Spirit of CR Rao, , 3005-1975

   Disciplina   515.39

   Soggetti   Dynamics
                        Functional analysis
                        Differential equations
                        Dynamical Systems
                        Functional Analysis
                        Differential Equations
                        Dinàmica
                        Equacions diferencials
                        Anàlisi funcional
                        Sistemes dinàmics diferenciables
                        Llibres electrònics

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Nota di contenuto   Introduction -- Symbolic Image of Dynamic System -- Shadowing of Trajectories -- Attractors and Filtrations -- Invariant measures -- Ergodic Measures -- Entropy -- Averaging -- Lyapunov Exponent -- Numerical Exploration -- Appendix.

   Sommario/riassunto   This book is devoted to the study of the global properties of the dynamical systems. It gives a justification of using numerical methods for solving several problems such as localization of a chain-recurrent set of trajectories, construction of attractors and their domains of attraction, construction of filtrations, calculation of invariant measures, approximation of ergodic measures, estimation of the entropy of a dynamical system, calculation of the averaging spectrum of a function, calculation of the Morse spectrum, a test for the hyperbolicity of a

dynamical system. The book is intended for researchers in dynamical systems and their applications in many scientific and technical disciplines, including engineering, physics, chemistry, biology, economics, and demography.