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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (X, 298 p. 35 illus., 17 illus. in color.)
Collana	Nonlinear Systems and Complexity, , 2195-9994 ; ; 17
Disciplina	620
Soggetti	Computational complexity Statistical physics System theory Systems biology Econometrics Complexity Applications of Nonlinear Dynamics and Chaos Theory Complex Systems Systems Biology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Memorized Linear Discrete Systems -- Memorized Nonlinear Discrete Systems -- Discretization of Time-delay Systems -- Periodic Flows in Time-delay Systems -- Time-delay Duffing Oscillator.
Sommario/riassunto	This book examines discrete dynamical systems with memory—nonlinear systems that exist extensively in biological organisms and financial and economic organizations, and time-delay systems that can be discretized into the memorized, discrete dynamical systems. It book further discusses stability and bifurcations of time-delay dynamical systems that can be investigated through memorized dynamical systems as well as bifurcations of memorized nonlinear dynamical systems, discretization methods of time-delay systems, and periodic motions to chaos in nonlinear time-delay systems. The book helps readers find analytical solutions of MDS, change traditional perturbation analysis in time-delay systems, detect motion complexity

and singularity in MDS; and determine stability, bifurcation, and chaos in any time-delay system.

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