Record Nr.	UNISA996418178303316
Autore	Luo Albert C. J
Titolo	Bifurcation and Stability in Nonlinear Discrete Systems [[electronic resource] /] / by Albert C. J. Luo
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-5212-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (X, 313 p. 43 illus., 16 illus. in color.)
Collana	Nonlinear Physical Science, , 1867-8440
Disciplina	515.35
Soggetti	Computational complexity
	Dynamics
	Ergodic theory
	Vibration
	Dynamical systems
	Complexity
	Vibration Dynamical Systems Control
	Control and Systems Theory
L'anne d'andrie Brandaue	
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Local Stability and Bifurcations Low-dimensional Discrete Systems Global Stability in 1-D discrete systems Forward and backward discrete systems Infinite-fixed-point Systems Subject index
Sommario/riassunto	This book focuses on bifurcation and stability in nonlinear discrete systems, including monotonic and oscillatory stability. It presents the local monotonic and oscillatory stability and bifurcation of period-1 fixed-points on a specific eigenvector direction, and discusses the corresponding higher-order singularity of fixed-points. Further, it explores the global analysis of monotonic and oscillatory stability of fixed-points in 1-dimensional discrete systems through 1-dimensional polynomial discrete systems. Based on the Yin-Yang theory of nonlinear discrete systems, the book also addresses the dynamics of forward and backward nonlinear discrete systems, and the existence

1.

conditions of fixed-points in said systems. Lastly, in the context of local analysis, it describes the normal forms of nonlinear discrete systems and infinite-fixed-point discrete systems. Examining nonlinear discrete systems from various perspectives, the book helps readers gain a better understanding of the nonlinear dynamics of such systems.