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	Titolo	Nonlinear Dynamics New Directions : Theoretical Aspects / / edited by Hernán González-Aguilar, Edgardo Ugalde
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	Descrizione fisica	1 online resource (223 p.)
	Collana	Nonlinear Systems and Complexity, , 2195-9994 ; ; 11
	Disciplina	530.15
	Soggetti	Computational complexity
		Automatic control
		Robotics
		Mechatronics
		Dynamics
		Ergodic theory
		Complexity
		Control, Robotics, Mechatronics
		Dynamical Systems and Ergodic Theory
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
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	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	From the Contents: A Note on the Large Deviations for Piecewise Expanding Multidimensional Maps -- Showcase of Blue Sky Catastrophes -- Directional Metric Entropy and Lyapunov Exponents for Dynamical Systems Generated by Cellular Automata -- On the Complexity of some Geometrical Objects.
	Sommario/riassunto	This book, along with its companion volume, Nonlinear Dynamics New Directions: Models and Applications, covers topics ranging from fractal analysis to very specific applications of the theory of dynamical systems to biology. This first volume is devoted to fundamental aspects and includes a number of important new contributions as well as some review articles that emphasize new development prospects. The second volume contains mostly new applications of the theory of dynamical systems to both engineering and biology. The topics addressed in the two volumes include a rigorous treatment of fluctuations in dynamical

systems, topics in fractal analysis, studies of the transient dynamics in biological networks, synchronization in lasers, and control of chaotic systems, among others. This book also: ·   Presents a rigorous treatment of fluctuations in dynamical systems and explores a range of topics in fractal analysis, among other fundamental topics ·   Features recent developments on large deviations for higher-dimensional maps, a study of measures resisting multifractal analysis and a overview of complex Kleninan groups ·   Includes thorough review of recent findings that emphasize new development prospects.