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Titolo	Dynamics of Coupled Map Lattices and of Related Spatially Extended Systems [[electronic resource] /] / edited by Jean-René Chazottes, Bastien Fernandez
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Descrizione fisica	1 online resource (XII, 362 p.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 671
Disciplina	530.1
Soggetti	Mathematical physics Statistical physics Dynamical systems Theoretical, Mathematical and Computational Physics Complex Systems Statistical Physics and Dynamical Systems
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Nota di contenuto	Clustering in Globally Coupled Maps -- Synchronisation in CML -- Dynamics of Frenkel-Kontorova Chains -- Attractors and Bifurcations in CML -- Dynamics of Genetic Regulation Networks -- Phase Transitions in CML -- Introduction to CML -- Topological Properties of Chaotic CML -- TBA -- Monotonic Dynamics of Extended Systems -- Neural Networks: Integro-Differential Models -- Equilibrium States for CML -- Transfer Operators in CML.
Sommario/riassunto	This book is about the dynamics of coupled map lattices (CML) and of related spatially extended systems. It will be useful to post-graduate students and researchers seeking an overview of the state-of-the-art and of open problems in this area of nonlinear dynamics. The special feature of this book is that it describes the (mathematical) theory of CML and some related systems and their phenomenology, with some examples of CML modeling of concrete systems (from physics and biology). More precisely, the book deals with statistical properties of (weakly) coupled chaotic maps, geometric aspects of (chaotic) CML,

monotonic spatially extended systems, and dynamical models of specific biological systems.
