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Descrizione fisica	1 online resource (504 p.)
Collana	Lecture Notes in Physics, , 0075-8450 ; ; 597
Disciplina	003/.857
Soggetti	Open systems (Physics) Energy dissipation Chaotic behavior in systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Nonequilibrium Dynamics -- Some Recent Advances in Classical Statistical Mechanics -- Deterministic Thermostats and Flctuation Relations -- What Is the Microscopic Response of a System Driven Far From Equilibrium? -- Non-equilibrium Statistical Mechanics of Classical and Quantum Systems -- Dynamics of Relaxation and Chaotic Behaviour -- Dynamical Theory of Relaxation in Classical and Quantum Systems -- Relaxation and Noise in Chaotic Systems -- Fractal Structures in the Phase Space of Simple Chaotic Systems with Transport -- Dynamical Semigroups -- Markov Semigroups and Their Applications -- Invitation to Quantum Dynamical Semigroups -- Finite Dissipative Quantum Systems -- Complete Positivity in Dissipative Quantum Dynamics -- Quantum Stochastic Dynamical Semigroup -- Driving, Dissipation and Control in Quantum Systems -- Driven Chaotic Mesoscopic Systems, Dissipation and Decoherence -- Quantum State Control in Cavity QED -- Solving Schrödinger's Equation for an Open System and Its Environment -- Dynamics of Large Systems -- Thermodynamic Behavior of Large Dynamical Systems -- Coherent and Dissipative Transport in Aperiodic Solids: An Overview -- Scaling Limits of Schrödinger Quantum Mechanics.
Sommario/riassunto	This collection of lectures treats the dynamics of open systems with a strong emphasis on dissipation phenomena related to dynamical chaos.

This research area is very broad, covering topics such as nonequilibrium statistical mechanics, environment-system coupling (decoherence) and applications of Markov semi-groups to name but a few. The book addresses not only experienced researchers in the field but also nonspecialists from related areas of research, postgraduate students wishing to enter the field and lecturers searching for advanced textbook material.

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