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Titolo	Non-Dissipative Effects in Nonequilibrium Systems // by Christian Maes
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ISBN	3-319-67780-2
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (VII, 53 p. 15 illus., 14 illus. in color.)
Collana	Understanding Complex Systems, , 2191-5326
Disciplina	530.13
Soggetti	Statistical physics Amorphous substances Complex fluids Thermodynamics Statistical Physics and Dynamical Systems Applications of Nonlinear Dynamics and Chaos Theory Soft and Granular Matter, Complex Fluids and Microfluidics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introductory Comments -- (Non-)dissipative eects? -- On the stationary distribution -- Transport properties -- Response -- Frenetic bounds to dissipation rates -- Symmetry breaking -- Frenometry -- Conclusions.
Sommario/riassunto	This book introduces and discusses both the fundamental aspects and the measurability of applications of time-symmetric kinetic quantities, outlining the features that constitute the non-dissipative branch of non-equilibrium physics. These specific features of non-equilibrium dynamics have largely been ignored in standard statistical mechanics texts. This introductory-level book offers novel material that does not take the traditional line of extending standard thermodynamics to the irreversible domain. It shows that although stationary dissipation is essentially equivalent with steady non-equilibrium and ubiquitous in complex phenomena, non-equilibrium is not determined solely by the time-antisymmetric sector of energy-entropy considerations. While this should not be very surprising, this book provides timely, simple

reminders of the role of time-symmetric and kinetic aspects in the construction of non-equilibrium statistical mechanics.
