1. Record Nr. UNINA9910300146203321

Autore	Ma Tian
Titolo	Phase transition dynamics / / Tian Ma, Shouhong Wang
Pubbl/distr/stampa	New York : , : Springer, , 2014
ISBN	1-4614-8963-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (xxii, 555 pages) : illustrations
Collana	Gale eBooks
Disciplina	515.353
Soggetti	Phase transformations (Statistical physics)
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	User’s Guide -- General Theory of Phase Transition Dynamics -- Dynamic Transition Theory.- Equilibrium Phase Transition in Statistical Physics -- Fluid Dynamics -- Geophysical Fluid Dynamics and Climate Dynamics -- Dynamical Transitions in Chemistry and Biology. - References .
Sommario/riassunto	This book is an introduction to a comprehensive and unified dynamic transition theory for dissipative systems and to applications of the theory to a range of problems in the nonlinear sciences. The main objectives of this book are to introduce a general principle of dynamic transitions for dissipative systems, to establish a systematic dynamic transition theory, and to explore the physical implications of applications of the theory to a range of problems in the nonlinear sciences. The basic philosophy of the theory is to search for a complete set of transition states, and the general principle states that dynamic transitions of all dissipative systems can be classified into three categories: continuous, catastrophic and random. The audience for this book includes advanced graduate students and researchers in mathematics and physics as well as in other related fields.