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Titolo	Large Scale Dynamics of Interacting Particles [[electronic resource] /] / by Herbert Spohn
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1991
ISBN	3-642-84371-9
Edizione	[1st ed. 1991.]
Descrizione fisica	1 online resource (XI, 342 p.)
Collana	Theoretical and Mathematical Physics, , 1864-5879
Disciplina	536.7
Soggetti	Thermodynamics Statistical physics Dynamical systems Probabilities Complex Systems Probability Theory and Stochastic Processes Statistical Physics and Dynamical Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"With 19 Figures."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Scales -- Outline -- I Classical Particles -- 1. Dynamics -- 2. States of Equilibrium and Local Equilibrium -- 3. The Hydrodynamic Limit -- 4. Low Density Limit: The Boltzmann Equation -- 5. The Vlasov Equation -- 6. The Landau Equation -- 7. Time Correlations and Fluctuations -- 8. Dynamics of a Tracer Particle -- 9. The Role of Probability, Irreversibility -- II Stochastic Lattice Gases -- 1. Lattice Gases with Hard Core Exclusion -- 2. Equilibrium Fluctuations -- 3. Nonequilibrium Dynamics for Reversible Lattice Gases -- 4. Nonequilibrium Dynamics of Driven Lattice Gases -- 5. Beyond the Hydrodynamic Time Scale -- 6. Tracer Dynamics -- 7. Stochastic Models with a Single Conservation Law Other than Lattice Gases -- 8. Non-Hydrodynamic Limit Dynamics -- References -- List of Mathematical Symbols.
Sommario/riassunto	This book deals with one of the fundamental problems of nonequilibrium statistical mechanics: the explanation of large-scale dynamics (evolution differential equations) from models of a very large

number of interacting particles. This book addresses both researchers and students. Much of the material presented has never been published in book-form before.

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