

1. Record Nr.	UNISA996466624503316
Titolo	Probabilistic models for nonlinear partial differential equations : lectures given at the 1st session of the Centro internazionale matematico estivo (C.I.M.E.) held in Montecatini Terme, Italy, May 22-30, 1995 // C. Graham, D. Talay, L. Tubaro (editors)
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer, , [1996] ©1996
ISBN	3-540-68513-8
Edizione	[1st ed. 1996.]
Descrizione fisica	1 online resource (X, 302 p.)
Collana	C.I.M.E. Foundation Subseries ; ; 1627
Disciplina	519.2
Soggetti	Convergence Differential equations, Nonlinear - Numerical solutions Stochastic partial differential equations - Numerical solutions
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Weak convergence of stochastic integrals and differential equations -- Asymptotic behaviour of some interacting particle systems; McKean-Vlasov and Boltzmann models -- Kinetic limits for stochastic particle systems -- A statistical physics approach to large networks -- Probabilistic numerical methods for partial differential equations: Elements of analysis -- Weak convergence of stochastic integrals and differential equations II: Infinite dimensional case.
Sommario/riassunto	The lecture courses of the CIME Summer School on Probabilistic Models for Nonlinear PDE's and their Numerical Applications (April 1995) had a three-fold emphasis: first, on the weak convergence of stochastic integrals; second, on the probabilistic interpretation and the particle approximation of equations coming from Physics (conservation laws, Boltzmann-like and Navier-Stokes equations); third, on the modelling of networks by interacting particle systems. This book, collecting the notes of these courses, will be useful to probabilists working on stochastic particle methods and on the approximation of SPDEs, in particular, to PhD students and young researchers.

