Record Nr. UNINA9910965935803321 **Titolo** Multi-scale phenomena in complex fluids: modeling, analysis and numerical simulation / / editors, Thomas Y. Hou, Chun Liu, Jian-Guo Liu Beijing, : Higher Education Press Pubbl/distr/stampa [Hackensack], N.J., : World Scientific, c2009 Beijing, China:,: Higher Education Press,, 2009 ©2009 **ISBN** 9786612443169 9787894236241 7894236241 9781282443167 128244316X 9789814273268 9814273260 Edizione [1st ed.] Descrizione fisica 1 online resource (379 p.) Collana Series in contemporary applied mathematics;; 12 Altri autori (Persone) HouThomas Y LiuChun LiuJian-Guo 532.00151 Disciplina Soggetti Fluid dynamics - Mathematics Complex fluids - Analysis Complex fluids - Mathematics Differential equations, Partial - Mathematical models Numerical analysis - Simulation methods 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. Nota di contenuto Preface; Contents; Zhaojun Bai, Wenbin Chen, Richard Scalettar, Ichitaro Yamazaki: Numerical Methods for Quantum Monte Carlo Simulations of the Hubbard Model; Albert C. Fannjiang: Introduction to Propagation, Time Reversal and Imaging in Random Media; Thomas Y. Hou:

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Sommario/riassunto

Liu: An Introduction of Elastic Complex Fluids: An Energetic Variational Approach; Qi Wang: Introduction to Kinetic Theory for Complex Fluids Multi-Scale Phenomena in Complex Fluids is a collection of lecture notes delivered during the first two series of mini-courses from "Shanghai Summer School on Analysis and Numerics in Modern Sciences", which was held in 2004 and 2006 at Fudan University, Shanghai, China. This review volume of 5 chapters, covering various fields in complex fluids, places emphasis on multi-scale modeling, analyses and simulations. It will be of special interest to researchers and graduate students who want to work in the field of complex fluids.