Record Nr. UNISA996466657003316 **Titolo** Spin glasses / / Erwin Bolthausen, Anton Bovier (editors) Berlin, Heidelberg:,: Springer,, [2007] Pubbl/distr/stampa ©2007 **ISBN** 1-280-74535-5 9786610745357 3-540-40908-4 Edizione [1st ed. 2007.] Descrizione fisica 1 online resource (189 p.) Collana Lecture Notes in Mathematics;; 1900 Disciplina 530.412 Soggetti Spin glasses Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali International conference proceedings. State of the art report. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Random Media and Spin Glasses: An Introduction into Some Mathematical Results and Problems -- Spin Glasses: A Perspective --Mean Field Models for Spin Glasses: Some Obnoxious Problems --Much Ado about Derrida's GREM -- Dynamics for Spherical Models of Spin-Glass and Aging -- Local vs. Global Variables for Spin Glasses --Short-Range Spin Glasses: Results and Speculations. Sommario/riassunto Spin glass theory is going through a stunning period of progress while finding exciting new applications in areas beyond theoretical physics, in particular in combinatorics and computer science. This collection of state-of-the-art review papers written by leading experts in the field covers the topic from a wide variety of angles. The topics covered are mean field spin glasses, including a pedagogical account of Talagrand's proof of the Parisi solution, short range spin glasses, emphasizing the open problem of the relevance of the mean-field theory for lattice models, and the dynamics of spin glasses, in particular the problem of ageing in mean field models. The book will serve as a concise introduction to the state of the art of spin glass theory, usefull to both graduate students and young researchers, as well as to anyone curious to know what is going on in this exciting area of mathematical physics.