Record Nr. UNINA9910139820803321 Lectures on Quark Matter [[electronic resource] /] / edited by W. **Titolo** Plessas, L. Mathelitsch Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2002 **ISBN** 3-540-45792-5 Edizione [1st ed. 2002.] 1 online resource (XIV, 338 p.) Descrizione fisica Collana Lecture Notes in Physics, , 0075-8450;; 583 Disciplina 539.7/2167 Soggetti Nuclear physics Heavy ions **Astrophysics** Nuclear Physics, Heavy Ions, Hadrons Astrophysics and Astroparticles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "The 40 Internationale Universitatswochen fur Theoretische Physik in Note generali Schladming, Austri, took place during the period March 3rd-10th, 2001"--Pref. Nota di bibliografia Includes bibliographical references. Nota di contenuto Quark Matter Production in Heavy-Ion Collisions -- Theory of High-Energy A+A at RHIC -- Dense Quark Matter in Compact Stars -- Theory of the Quark-Gluon Plasma -- Thermal Gauge Field Theories -- Lattice QCD at High Temperature and Density -- Nonperturbative Phenomena and Phases of QCD -- The Color Glass Condensate and Small-x Physics. This set of lectures deals with the transition from nuclear matter to Sommario/riassunto quark matter. The reader will learn not only about the theory of quarkgluon plasmas but also how they are obtained in the laboratory through heavy-ion collisions or where they can be found in astrophysical objects such as compact stars. The book fills a gap between wellknown textbook material and the research literature and is thus perfectly suited for postgraduate students who wish to enter this field, for lecturers looking for advanced material for their courses and for scientists in search of a modern source of reference on these topics.