Record Nr. UNINA9910782285203321 Quark--Gluon plasma 3 [[electronic resource] /] / editors, Rudolph C. **Titolo** Hwa, Xin-Nian Wang Pubbl/distr/stampa River Edge, N.J., : World Scientific, c2004 **ISBN** 1-281-93589-1 9786611935894 981-279-553-7 Descrizione fisica 1 online resource (786 p.) Altri autori (Persone) HwaRudolph C WanXin-Nian Disciplina 530.4/4 530.44 539.72167 Soggetti Quark-gluon plasma Heavy ion collisions Quantum chromodynamics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto **CONTENTS** ; Preface ; Thermodynamics and In-Medium Hadron Properties from Lattice QCD ; 1.1 QCD thermodynamics : 1 Introduction ; 1.2 Lattice formulation of QCD thermodynamics ; 2 The QCD Phase Diagram : 3 The Transition **Temperature** ; 4 Equation of State 5 Heavy Quark Free Energies 5.1 Deconfinement order parameter ; 5.2 Heavy quark potential ; 6 Thermal Modifications of Hadron Properties ; 6.1 QCD phase transition and the hadron spectrum ; 6.2 Spatial and temporal correlation functions hadronic susceptibilities 6.3 Spectral functions from hadronic correlation functions 6.4 Spectral analysis of thermal correlation functions : 6.5 Vector meson spectral function and thermal dilepton rates : 6.6 Heavy guark spectral functions and charmonium suppression

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Sommario/riassunto

This is a review monograph on quark-gluon plasma (QGP). Different theoretical and experimental aspects of the program to produce QGP in relativistic heavy-ion collisions are covered by experts in the field. This is the third volume in a series on the subject, and the first such monograph to focus on the implications of the experimental results from RHIC, the relativistic heavy-ion collider at the National Brookhaven Laboratory. The review articles will be useful to experienced researchers as well as to graduate students entering the field. https://creativecommonograph on quark-gluon plasma (QGP). Different theoretical and experimental aspects of the program to produce QGP in relativistic heavy-ion collider at the field. The relativistic heavy-ion collider at the National Brookhaven Laboratory. The review articles will be useful to experienced researchers as well as to graduate students entering the field.

4.5 Quark number susceptibilities