1. Record Nr. UNINA9910778260803321

Titolo	Pairing in fermionic systems [[electronic resource]] : basic concepts and modern applications / / editors, Armen Sedrakian, John W. Clark, Mark Alford
Pubbl/distr/stampa	Singapore ; ; Hackensack, NJ, : World Scientific, c2006
ISBN	1-281-92455-5 9786611924553 981-277-304-5
Descrizione fisica	1 online resource (296 p.)
Collana	Series on advances in quantum many-body theory ; ; v. 8
Altri autori (Persone)	AlfordMark Gower ClarkJ. W <1935-> (John Walter) SedrakianA <1965-> (Armen)
Disciplina	539.7/21
Soggetti	Fermions Many-body problem Pairing correlations (Nuclear physics) Superconductivity
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 and index.
Nota di contenuto	Contents ; Preface ; 1. Color Superconductivity in Dense but not Asymptotically Dense Quark Matter ; 1.1. Introduction ; 1.2. Review of color superconductivity ; 1.3. The crystallography of three-flavor quark matter ; 1.4. Coda ; Bibliography 2. Larkin-Ovchinnikov-Fulde-Ferrell Phases in QCD 2.1. Introduction ; 2.2. High density effective theory ; 2.3. Two-species fermions with unpaired Fermi surfaces ; 2.4. LOFF phase in QCD with two flavors: one plane wave ; 2.5. LOFF phase of QCD with two flavors and more plane waves 2.6. LOFF phase of QCD with three flavors in the GL approximation Bibliography ; 3. Phase Diagram of Neutral Quark Matter at Moderate Densities ; 3.1. Introduction ; 3.2. Model ; 3.3. Phase diagram

Sommario/riassunto

Cooper pairing of fermions is a profound phenomenon that has become very important in many different areas of physics in the recent past. This book brings together, for the first time, experts from various fields involving Cooper pairing, at the level of BCS theory and beyond, including the study of novel states of matter such as ultracold atomic gases, nuclear systems at the extreme, and quark matter with application to neutron stars. Cross-disciplinary in nature, the book will be of interest to physicists in many different specialties, including condensed matter, nuclear, high-energy, and a