Record Nr. UNINA9910450436803321 Autore Khare Avinash Titolo Fractional statistics and quantum theory [[electronic resource] /] / Avinash Khare Singapore; ; River Edge, N.J., : World Scientific, 2005 Pubbl/distr/stampa **ISBN** 1-281-37251-X 9786611372514 981-256-775-5 Edizione [2nd ed.] 1 online resource (316 p.) Descrizione fisica Disciplina 530.12 Anyons - Statistical methods Soggetti Quantum theory Quantum statistics Electronic books. 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 Preface to the Second Edition; Preface; Contents; Chapter 1 Introduction; Chapter 2 Fractional Statistics in Two Dimensions; Chapter 3 Quantum Mechanics of Anyons: Chapter 4 Statistical Mechanics of an Ideal Anyon Gas: Chapter 5 Fractional Exclusion Statistics; Chapter 6 Introduction to the Chern-Simons Term; Chapter 7 Soliton as Anyon in Field Theories; Chapter 8 Anyons as Elementary Field Quanta; Chapter 9 Anyon Superconductivity; Chapter 10 Quantum Hall Effect and Anyons; Chapter 11 Omitted Topics; Index This book explains the subtleties of quantum statistical mechanics in Sommario/riassunto lower dimensions and their possible ramifications in quantum theory. The discussion is at a pedagogical level and is addressed to both graduate students and advanced researchers with a reasonable background in quantum and statistical mechanics. Topics in the first part of the book include the flux tube model of anyons, the braid group and a detailed discussion about the various aspects of quantum and statistical mechanics of a noninteracting anyon gas. The second part of

the book includes a detailed discussion