

<<现代多粒子物理>>

图书基本信息

书名：<<现代多粒子物理>>

13位ISBN编号：9787301215500

10位ISBN编号：7301215509

出版时间：2012-12

出版时间：北京大学出版社

作者：利帕里尼

页数：582

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<现代多粒子物理>>

内容概要

《中外物理学精品书系·引进系列·现代多粒子物理：原子气体、纳米结构和量子液体（第2版）（影印版）》内容丰富，涵盖面广，可读性强，其中既有对我国传统物理学发展的梳理和总结，也有对正在蓬勃发展的物理学前沿的全面展示；既引进和介绍了世界物理学研究的发展动态，也面向国际主流领域传播中国物理的优秀专著。

可以说，《中外物理学精品书系·引进系列·现代多粒子物理：原子气体、纳米结构和量子液体（第2版）（影印版）》力图完整呈现近现代世界和中国物理科学发展的全貌，是一本目前国内为数不多的兼具学术价值和阅读乐趣的经典物理书。

书籍目录

Preface
 Preface to the Second Edition
 Chapter 1 The Independent-Particle Model
 1.1 Introduction
 1.2 Bosons
 1.3 Fermions
 1.4 Matrix Elements of One-Body Operators
 1.5 Matrix Elements of Two-Body Operators
 1.6 Density Matrices
 1.7 The Ideal Bose Gas Confined in a Harmonic Potential
 1.8 The Fermi Gas
 1.8.1 Excited States
 1.8.2 Polarized Fermi Gas
 1.8.3 The Fermi Gas in Two Dimensions with Rashba Interaction
 1.9 Finite Temperature and Quasiparticles
 Chapter 2 The Hartree-Fock Theory
 2.1 Introduction
 2.2 The Hartree-Fock Method for Fermions
 2.2.1 Examples of Physical Systems Treated by the Hartree-Fock Method
 2.2.2 Examples of Infinite Systems Treated by the Hartree-Fock Method
 2.3 The Hartree-Fock Method for Bosons
 2.4 The Gross-Pitaevskii Equations
 2.5 Hartree-Fock in Second Quantization Language
 2.6 Hartree-Fock at Finite Temperature
 2.7 Hartree-Fock-Bogoliubov and BCS
 2.8 Appendix : Second Quantization
 Chapter 3 The Brueckner-Hartree Fock Theory
 3.1 Introduction
 3.2 The Lippman-Schwinger Equation
 3.3 The Bethe-Goldstone Equation
 3.4 Examples of Application of the BHF Theory
 3.4.1 The One-Dimensional Fermion System
 3.4.2 Ultracold Highly Polarized Fermi Gases
 3.5 Numerical Results of BHF Calculation in Different Systems
 3.6 The g Matrix for the 2D Electron Gas
 3.6.1 Decomposition in Partial Waves
 3.6.2 The Separable Approximation
 3.6.3 The g Matrix Expansion
 3.6.4 Numerical Results and Discussion
 3.7 The g Matrix for Confined Electron Systems
 3.7.1 Effective Interaction in Confined Electron Systems
 3.8 The BBP Method
 3.8.1 Appendix
 Chapter 4 The Density Functional Theory
 4.1 Introduction
 4.2 The Density Functional Formalism
 4.3 Examples of Application of the Density Functional Theory
 4.3.1 The Thomas-Fermi Theory for the Atom
 4.3.2 The Gross-Pitaevskii Theory for the Ground State of a Dilute Gas of Bosons
 4.3.3 The Thomas-Fermi Approximation for the Fermi Gas Confined in a Harmonic Potential
 4.4 The Kohn-Sham Equations
 4.5 The Local Density Approximation for the Exchange-Correlation Energy
 4.6 The Local Spin Density Approximation (LSDA)
 4.7 Inclusion of Current Terms in the DFT (CDFT)
 4.8 The Ensemble Density Functional Theory (EDFT)
 4.9 The DFT for Strongly Correlated Systems : Nuclei and Helium
 4.10 The DFT for Mixed Systems
 4.11 Symmetries and Mean Field Theories
 Chapter 5 The Confined 2D Electron Gas in a Magnetic Field
 5.1 Introduction
 5.2 Quantum Dots in a Magnetic Field
 5.2.1 The $\sigma \gg \xi_c$ Case
 5.2.2 The $\xi_c \gg \sigma$ Case
 5.2.3 The Maximum Density Droplet (MDD) State
 5.3 The Fractional Regime
 Chapter 6 Spin-Orbit Coupling in the Confined 2D Electron Gas
 Chapter 7 Monte Carlo Methods
 Chapter 8 The Linear Response Function Theory
 Chapter 9 The Linear Response Function in Different Models
 Chapter 10 Dynamic Correlations and the Response Function
 Chapter 11 The Hydrodynamic and Elastic Models
 Index

<<现代多粒子物理>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>