

<<相对论量子力学>>

图书基本信息

书名：<<相对论量子力学>>

13位ISBN编号：9787506265881

10位ISBN编号：7506265885

出版时间：2003-12

出版时间：世界图书出版公司

作者：Walter Greiner

页数：424

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>

<<相对论量子力学>>

内容概要

本书内容包括：自旋-0粒子用的相对论波动方程；自旋-1/2粒子用的波动方程；Dirac方程的洛伦兹协变性；空间反射下的旋量；Dirac旋量的双直线协变式；能量和自旋用的投影算子；平面Dirac波的波包；外场中的Dirac粒子；双同心Dirac方程；空穴理论；Klein佯谬；Weyl方程；任意自旋粒子用波动方程；洛伦兹不变性和相对论对称原理。

理论物理专业的大学生、教师、研究生及研究人员，以及广大爱好理论物理学的各方面人士。

<<相对论量子力学>>

书籍目录

1. Relativistic Wave Equation for Spin Particles: The Klein-Gordon Equation and its Applications 1.1 The Notation 1.2 The Klein-Gordon Equation 1.3 The Nonrelativistic Limit 1.4 Free Spin-0 Particle 1.5 Energy-Momentum Tensor of the Klein-Gordon Field 1.6 The Klein-Gordon Equation in Schrödinger Form 1.7 Charge Conjugation 1.8 Free Spin-0 Particles in the Feshbach-Villars Representation 1.9 The Interaction of a Spin-0 Particle with an Electromagnetic Field 1.10 Gauge Invariance of the Coupling 1.11 The Nonrelativistic Limit with Fields 1.12 Interpretation of One-Particle Operators in Relativistic Quantum Mechanics 1.13 Biographical Notes

2. A Wave Equation for Spin 1/2 Particles: The Dirac Equation 2.1 Free Motion of a Dirac Particle 2.2 Single-Particle Interpretation of the Plane (Free) Dirac Waves 2.3 Nonrelativistic Limit of the Dirac Equation 2.4 Biographical Notes

3. Lorentz Covariance of the Dirac Equation 3.1 Formulation of Covariance (Form Invariance) 3.2 Continuity of the Operator for Infinitesimal Lorentz Transformations 3.3 Finite Proper Lorentz Transformations 3.4 The S Operator for Proper Lorentz Transformations 3.5 The Four-Current Density 3.6 Biographical Notes

4. Spinors Under Spatial Reflection 5. Bilinear Covariants of the Dirac Spinors 5.1 Biographical Notes

6. Another Way of Constructing Solutions of the Free Dirac Equation: Construction by Lorentz Transformations

7. Projection Operators for Energy and Spin

8. Wave Packets of Plane Dirac Waves

9. Dirac Particles in External Fields: Examples and Problems

10. The Two-Centre Dirac Equation

11. The Foldy-Wouthuysen Representation for Free Particles

12. The Hole Theory

13. Klein's Paradox

14. The Weyl Equation - The Neutrino

15. Wave Equations for Particles with Arbitrary Spins

16. Lorentz Invariance and Relativistic Symmetry Principles

Subject Index

<<相对论量子力学>>

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>