

<<量子电动力学>>

图书基本信息

书名：<<量子电动力学>>

13位ISBN编号：9787506242585

10位ISBN编号：7506242583

出版时间：1999-5

出版时间：世界图书出版公司

作者：V.B.Berestetskii,E.M.Lifshitz,L.P.Pitaevskii

页数：652

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>

内容概要

THE first edition of this volume of the Course of Theoretical Physics was published in two parts (1971 and 1974) under the title "Relativistic Quantum Theory". It contained not only the basic material on quantum electrodynamics but also chapters on weak interactions and certain topics in the theory of strong interactions. The inclusion of those chapters now seems to us inopportune. The theory of strong and weak interactions is undergoing a vigorous development founded on new physical ideas , and the situation in this field is changing very rapidly , so that the time for a consistent exposition of the theory has not yet arrived. In the present edition , therefore , we have retained only quantum electrodynamics , and accordingly changed the title of the volume.

书籍目录

NOTATION. INTRODUCTION 1. The uncertainty principle in the relativistic case PHOTONS 2.
 Quantization of the free electromagnetic field 3. Photons 4. Gauge invariance 5. The electromagnetic field in
 quantum theory 6. The angular momentum and parity of the photon 7. Spherical waves of photons 8. The
 polarization of the photon 9. A two-photon system BOSONS 10. The wave equation for particles with spin zero
 11. Particles and antiparticles 12. Strictly neutral particles 13. The transformations C , P and T 14. The wave
 equation for a particle with spin one 15. The wave equation for particles with higher integral spins 16. Helicity states
 of a particle FERMIONS 17. Four-dimensional spinors 18. The relation between spinors and 4-vectors 19.
 Inversion of spinors 20. Dirac's equation in the spinor representation 21. The symmetrical form of Dirac's
 equation 22. Algebra of Dirac matrices 23. Plane waves 24. Spherical waves 25. The relation between the spin and the
 statistics 26. Charge conjugation and time reversal of spinors 27. Internal symmetry of particles and antiparticles 28.
 Bilinear forms 29. The polarization density matrix 30 Neutrinos 31 The wave equation for a particle with spin 3/2
 PARTICLES IN AN EXTERNAL FIELD 32. Dirac's equation for an electron in an external field 33. Expansion in
 powers of $1/c$ 34. Fine structure of levels of the hydrogen atom 35. Motion in a centrally symmetric field 36. Motion
 in a Coulomb field 37. Scattering in a centrally symmetric field 38. Scattering in the ultra-relativistic case 39. The
 continuous-spectrum wave functions for scattering in a Coulomb field 40. An electron in the field of an
 electromagnetic plane wave 41. Motion of spin in a external field 42. Neutron scattering in a electric field
 RADIATION SCATTERING OF RADIATION THE SCATTERING MATRIX INVARIANT
 PERTURBATION THEORY INTERACTION OF ELECTRONS INTERACTION OF ELECTRONS
 WITH PHOTONS EXACT PROPAGATORS AND VERTEX PARTS RADIATIVE CORRECTIONS XIII
 ASYMPTOTIC FORMULAE OF QUANTUM ELECTRODYNAMICS XIV ELECTRODYNAMICS OF
 HADRONS INDEX

编辑推荐

THE first edition of this volume of the Course of Theoretical Physics was published in two parts (1971 and 1974) under the title "Relativistic Quantum Theory". It contained not only the basic material on quantum electrodynamics but also chapters on weak interactions and certain topics in the theory of strong interactions. The inclusion of those chapters now seems to us inopportune. The theory of strong and weak interactions is undergoing a vigorous development founded on new physical ideas, and the situation in this field is changing very rapidly, so that the time for a consistent exposition of the theory has not yet arrived. In the present edition, therefore, we have retained only quantum electrodynamics, and accordingly changed the title of the volume. 此书为英文版。

<<量子电动力学>>

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>