

<<量子场论 第3卷>>

图书基本信息

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## 内容概要

In *The Quantum Theory of Fields* Nobel Laureate Steven Weinberg combines his exceptional physical insight with his gift for clear exposition to provide a self-contained, comprehensive, and up-to-date introduction to quantum field theory. Volume III presents a self-contained, up-to-date and comprehensive introduction to supersymmetry, a highly active area of theoretical physics that is likely to be at the center of future progress in the physics of elementary Particles and gravitation. The text introduces and explains a broad range of topics, including supersymmetric algebras, supersymmetric field theories, extended supersymmetry, supergraphs, non-perturbative results, theories of supersymmetry in higher dimensions, and supergravity. A thorough review is given of the phenomenological implications of supersymmetry, including theories of both gauge and gravitationally mediated supersymmetry breaking. Also provided is an introduction to mathematical techniques, based on holomorphy and duality, that have proved so fruitful in recent developments. This book contains much material not found in other books on supersymmetry, some of it new. Problems are included at the end of each chapter. This will be an invaluable reference work for all physicists and mathematicians who use quantum field theory, as well as a textbook appropriate to graduate courses.

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