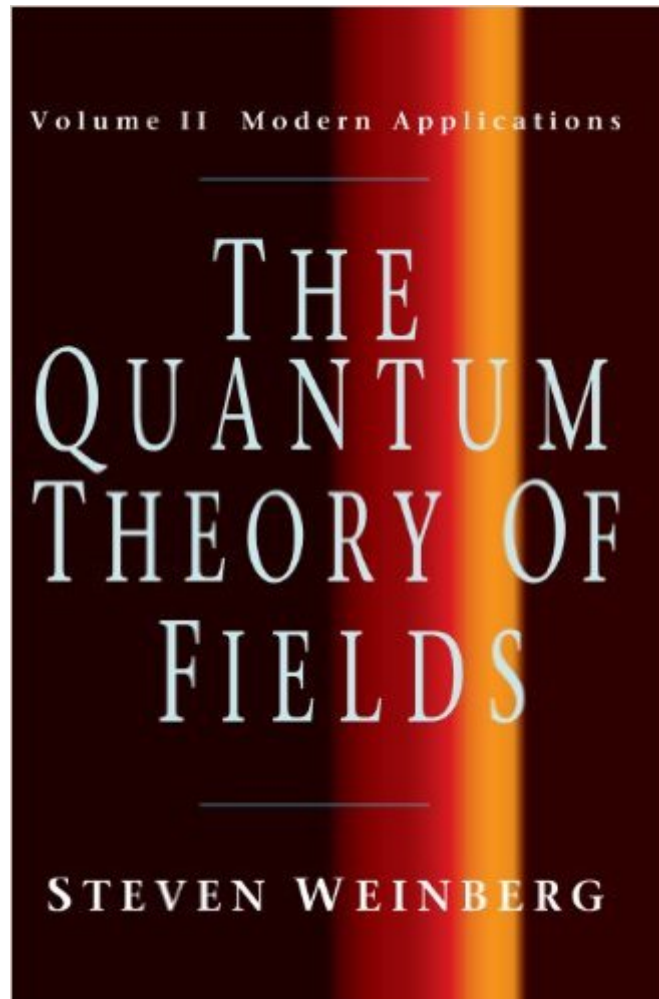The book was found

The Quantum Theory Of Fields, Vol. 2: Modern Applications

Synopsis

In this second volume of The Quantum Theory of Fields, available for the first time in paperback, Nobel Laureate Steven Weinberg continues his masterly expoistion of quantum theory. Volume 2 provides an up-to-date and self-contained account of the methods of quantum field theory, and how they have led to an understanding of the weak, strong, and electromagnetic interactions of the elementary particles. The presentation of modern mathematical methods is throughout interwoven with accounts of the problems of elementary particle physics and condensed matter physics to which they have been applied. Exercises are included at the end of each chapter.

Book Information

Series: Quantum Theory of Fields Vol. II

Hardcover: 512 pages

Publisher: Cambridge University Press; 1 edition (August 13, 1996)

Language: English

ISBN-10: 0521550025

ISBN-13: 978-0521550024

Product Dimensions: 6.8 x 1.1 x 9.7 inches

Shipping Weight: 2.3 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 starsÂ Â See all reviewsÂ (7 customer reviews)

Best Sellers Rank: #386,027 in Books (See Top 100 in Books)   #56 inÂ Books > Science & Math > Physics > Nuclear Physics > Particle Physics   #67 inÂ Books > Science & Math > Physics > Waves & Wave Mechanics   #237 inÂ Books > Science & Math > Physics > Mathematical Physics

Customer Reviews

Before Weinberg's books, a typical graduate student in theoretical physics would study the standard textbooks (e.g. Itzykson-Zuber, Peskin-Schroeder) to pass QFT courses. When confronted with actual research problems, he would discover that all he has learned is how to do calculations in perturbation theory, that he is unfamiliar with a host of ideas and techniques that are widely used in the present-day research literature and that he has to resort to original papers and reviews to learn them.Weinberg's three-volume set drastically changed this situation, giving the most authoritative and complete presentation of QFT to appear in a textbook. Although it is not suitable for beginning graduate students, it is invaluable for covering all these topics that are typically omitted in QFT courses and for providing valuable insight missing from other textbooks.The highlight of the set is Volume 2, which includes most topics where Weinberg has made his own invaluable contributions.

In his inimitable style, Weinberg guides us through the great developments in QFT from the 1960's to the 1980's, including most topics that are essential for a working knowledge of modern QFT. The presentation is crystal clear throughout and every topic is presented in as much detail as it deserves. In particular, the chapters on spontaneously broken symmetries are simply masterpieces, the treatment of anomalies is the most complete ever, while the chapter on extended objects is a thorough overview of an ever-expanding subject. This book is a must for everyone working on theoretical physics.

This is another gem of a book by Weinberg. The discussion is fairly modern at places (for instance nice discussion of BRST, BV Formalism, RG and Anomalies), but could have been more modern and compact in certain other places (like chiral lagrangians, standard model etc.). However, even those parts are a pleasure to read. It is just that some other aspects could have been discussed (as I hope he does in the third volume), such as SUSY, especially QFT dualities. Anyway, an excellent book!

This book has some of the most exquisite expositions on the theoretical aspects of quantum field theory that you are ever likely to run into, i.e. Weinberg's name is literally stamped on every page for brilliance. There are topics treated here that are not likely to be found anywhere else, for instance Batalin-Vilkovisky Quantization. Weinberg's treatment of the proof of renormalizability is compact and yet very readable. And his chapter on anomalies is simply speaking the authortiative treatment. This book is a must have for anyone interested in the more theoretical aspects of Field Theory. Though I would recommed a few months with Peskin & Schroeder, and volume 1 of Weinberg to get the full flavour of Weinberg's treatment.

I have found this text extremely useful as a guide to the essentials of modern renormalization theory, as well as modern quantization techniques for Non-abelian gauge theories. The chapter on extended field configurations is nice, though it is meant as an overview and guide to the literature. What I like most about this volume is the discussion of experimental or phenomenological issues that complements many of the discussions. He has a broad base of knowledge in particle physics, as well as field theory. If you don't have volume 1, get that first.

The Quantum Theory of Fields, Vol. 2: Modern Applications The Quantum Theory of Fields, Volume 1: Foundations The Quantum Theory of Fields, Volume 3: Supersymmetry Fields Virology (Knipe,

Fields Virology)-2 Volume Set by Knipe, David M. Published by Lippincott Williams & Wilkins 6th (sixth), 2-volume set edition (2013) Hardcover Fields Virology (Knipe, Fields Virology) Nonmetalliferous Stratabound Ore Fields (Evolution of Ore Fields Series) Quantum Mechanics and Quantum Field Theory: A Mathematical Primer Interactions Between Electromagnetic Fields and Cells (Applications of Communications Theory) MASON JAR RECIPES BOOK SET 5 book in 1: Meals in Jars (vol.1); Salads in Jars (Vol. 2); Desserts in Jars (Vol. 3); Breakfasts in Jars (Vol. 4); Gifts in Jars (Vol. 5): Easy Mason Jar Recipe Cookbooks Towards Solid-State Quantum Repeaters: Ultrafast, Coherent Optical Control and Spin-Photon Entanglement in Charged InAs Quantum Dots (Springer Theses) Quantum Nanoelectronics: An introduction to electronic nanotechnology and quantum computing QUANTUM SELF HYPNOSIS STOP SMOKING NOW: Hypnosis Script & Inductions Included! (Quantum Self Hypnosis Singles Book 2) Quantum Runes: How to Create Your Perfect Reality Using Quantum Physics and Teutonic Rune Magic (Creating Magick with The Universal Laws of Attraction Book 1) Quantum Thermodynamics: Emergence of Thermodynamic Behavior Within Composite Quantum Systems (Lecture Notes in Physics) Quantum Computation and Quantum Information: 10th Anniversary Edition A Modern Course in the Quantum Theory of Solids Modern Quantum Chemistry: Introduction to Advanced Electronic Structure Theory (Dover Books on Chemistry) Beyond Measure: Modern Physics, Philosophy, and the Meaning of Quantum Theory Modern Perspectives in Lattice QCD: Quantum Field Theory and High Performance Computing: Lecture Notes of the Les Houches Summer School: Volume 93, August 2009 Niedermeyer's Electroencephalography: Basic Principles, Clinical Applications, and Related Fields