



Lectures of Quantum Field Theory

By Ashok Das

Download now

Read Online 

Lectures of Quantum Field Theory By Ashok Das

This book consists of the lectures for a two-semester course on quantum field theory, and as such is presented in a quite informal and personal manner. The course starts with relativistic one-particle systems, and develops the basics of quantum field theory with an analysis of the representations of the Poincaré group. Canonical quantization is carried out for scalar, fermion, Abelian and non-Abelian gauge theories. Covariant quantization of gauge theories is also carried out with a detailed description of the BRST symmetry. The Higgs phenomenon and the standard model of electroweak interactions are also developed systematically. Regularization and (BPHZ) renormalization of field theories as well as gauge theories are discussed in detail, leading to a derivation of the renormalization group equation. In addition, two chapters -- one on the Dirac quantization of constrained systems and another on discrete symmetries -- are included for completeness, although these are not covered in the two-semester course.

Contents: Relativistic Equations; Solutions of the Dirac Equation; Properties of the Dirac Equation; Representations of Lorentz and Poincaré Groups; Free Klein Gordon Field Theory; Self-Interacting Scalar Field Theory; Complex Scalar Field Theory; Dirac Field Theory; Maxwell Field Theory; Dirac Method for Constrained Systems; Discrete Symmetries; Yang Mills Theory; BRST Invariance and Its Consequences; Higgs Phenomenon and the Standard Model; Regularization of Feynman Diagrams; Renormalization Theory; Renormalization Group and Equation.

 [Download Lectures of Quantum Field Theory ...pdf](#)

 [Read Online Lectures of Quantum Field Theory ...pdf](#)

Lectures of Quantum Field Theory

By Ashok Das

Lectures of Quantum Field Theory By Ashok Das

This book consists of the lectures for a two-semester course on quantum field theory, and as such is presented in a quite informal and personal manner. The course starts with relativistic one-particle systems, and develops the basics of quantum field theory with an analysis of the representations of the Poincaré group. Canonical quantization is carried out for scalar, fermion, Abelian and non-Abelian gauge theories. Covariant quantization of gauge theories is also carried out with a detailed description of the BRST symmetry. The Higgs phenomenon and the standard model of electroweak interactions are also developed systematically. Regularization and (BPHZ) renormalization of field theories as well as gauge theories are discussed in detail, leading to a derivation of the renormalization group equation. In addition, two chapters -- one on the Dirac quantization of constrained systems and another on discrete symmetries -- are included for completeness, although these are not covered in the two-semester course.

Contents: Relativistic Equations; Solutions of the Dirac Equation; Properties of the Dirac Equation; Representations of Lorentz and Poincaré Groups; Free Klein Gordon Field Theory; Self-Interacting Scalar Field Theory; Complex Scalar Field Theory; Dirac Field Theory; Maxwell Field Theory; Dirac Method for Constrained Systems; Discrete Symmetries; Yang Mills Theory; BRST Invariance and Its Consequences; Higgs Phenomenon and the Standard Model; Regularization of Feynman Diagrams; Renormalization Theory; Renormalization Group and Equation.

Lectures of Quantum Field Theory By Ashok Das Bibliography

- Sales Rank: #2704184 in Books
- Published on: 2008-09-12
- Original language: English
- Number of items: 1
- Dimensions: 8.90" h x 1.78" w x 5.98" l, 2.51 pounds
- Binding: Paperback
- 792 pages

 [Download Lectures of Quantum Field Theory ...pdf](#)

 [Read Online Lectures of Quantum Field Theory ...pdf](#)

Editorial Review

Review

This new Quantum Field Theory (QFT) book by Professor Ashok Das is a very complete introductory book on the subject. It is ideal for a graduate class that has taken two semesters of Quantum Mechanics and starting the QFT course ... There are lucid discussions of topics such as Dirac quantization method which is missing in most QFT books as well as discussions of Yang-Mills theories, BRST, methods and renormalization group equations needed for appreciating the latest developments leading to the standard model ... This truly outstanding book fills a long standing gap in the field and presents the material at just the right level for a beginning course. I recommend it very highly to anyone learning Quantum Field Theory. -- Professor R N Mohapatra, University of Maryland

Ashok Das has written an excellent, comprehensive introduction to modern quantum field theory, covering both its theoretical underpinnings and basic computational methods. It will be very useful to students, teachers, and researchers as a course text, and as a volume for self-study and reference. --Professor Stephen L Adler, Institute for Advanced Study, Princeton

Users Review

From reader reviews:

Jack Unger:

Do you have favorite book? Should you have, what is your favorite's book? Guide is very important thing for us to know everything in the world. Each guide has different aim or perhaps goal; it means that e-book has different type. Some people feel enjoy to spend their time for you to read a book. They are really reading whatever they have because their hobby will be reading a book. Why not the person who don't like reading through a book? Sometime, individual feel need book when they found difficult problem or exercise. Well, probably you will require this Lectures of Quantum Field Theory.

Jason Ayers:

What do you consider book? It is just for students as they are still students or this for all people in the world, the particular best subject for that? Just you can be answered for that problem above. Every person has various personality and hobby for each other. Don't to be compelled someone or something that they don't wish do that. You must know how great as well as important the book Lectures of Quantum Field Theory. All type of book are you able to see on many solutions. You can look for the internet methods or other social media.

Mae Mosley:

Book is to be different for every single grade. Book for children until finally adult are different content. To be sure that book is very important for us. The book Lectures of Quantum Field Theory had been making you to know about other expertise and of course you can take more information. It is very advantages for

you. The book Lectures of Quantum Field Theory is not only giving you far more new information but also to become your friend when you really feel bored. You can spend your personal spend time to read your reserve. Try to make relationship with all the book Lectures of Quantum Field Theory. You never truly feel lose out for everything in case you read some books.

Gladys Jackson:

In this time globalization it is important to someone to get information. The information will make a professional understand the condition of the world. The fitness of the world makes the information better to share. You can find a lot of sources to get information example: internet, newspapers, book, and soon. You will see that now, a lot of publisher this print many kinds of book. The book that recommended to your account is Lectures of Quantum Field Theory this e-book consist a lot of the information in the condition of this world now. This book was represented how can the world has grown up. The vocabulary styles that writer require to explain it is easy to understand. The particular writer made some exploration when he makes this book. Honestly, that is why this book appropriate all of you.

**Download and Read Online Lectures of Quantum Field Theory By
Ashok Das #OPGNQC23IX0**

Read Lectures of Quantum Field Theory By Ashok Das for online ebook

Lectures of Quantum Field Theory By Ashok Das Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Lectures of Quantum Field Theory By Ashok Das books to read online.

Online Lectures of Quantum Field Theory By Ashok Das ebook PDF download

Lectures of Quantum Field Theory By Ashok Das Doc

Lectures of Quantum Field Theory By Ashok Das Mobipocket

Lectures of Quantum Field Theory By Ashok Das EPub

OPGNQC23IX0: Lectures of Quantum Field Theory By Ashok Das