



Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics

By Malcolm Longair



Download



Read Online

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair

Written for advanced undergraduates, physicists, and historians and philosophers of physics, this book tells the story of the development of our understanding of quantum phenomena through the extraordinary years of the first three decades of the twentieth century. Rather than following the standard axiomatic approach, this book adopts a historical perspective, explaining clearly and authoritatively how pioneers such as Heisenberg, Schrodinger, Pauli and Dirac developed the fundamentals of quantum mechanics and merged them into a coherent theory, and why the mathematical infrastructure of quantum mechanics has to be as complex as it is. The author creates a compelling narrative, providing a remarkable example of how physics and mathematics work in practice. The book encourages an enhanced appreciation of the interaction between mathematics, theory and experiment, helping the reader gain a deeper understanding of the development and content of quantum mechanics than any other text at this level.



[Download Quantum Concepts in Physics: An Alternative Approa ...pdf](#)



[Read Online Quantum Concepts in Physics: An Alternative Appr ...pdf](#)

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics

By Malcolm Longair

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair

Written for advanced undergraduates, physicists, and historians and philosophers of physics, this book tells the story of the development of our understanding of quantum phenomena through the extraordinary years of the first three decades of the twentieth century. Rather than following the standard axiomatic approach, this book adopts a historical perspective, explaining clearly and authoritatively how pioneers such as Heisenberg, Schrodinger, Pauli and Dirac developed the fundamentals of quantum mechanics and merged them into a coherent theory, and why the mathematical infrastructure of quantum mechanics has to be as complex as it is. The author creates a compelling narrative, providing a remarkable example of how physics and mathematics work in practice. The book encourages an enhanced appreciation of the interaction between mathematics, theory and experiment, helping the reader gain a deeper understanding of the development and content of quantum mechanics than any other text at this level.

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair Bibliography

- Sales Rank: #1672305 in Books
- Brand: Brand: Cambridge University Press
- Published on: 2013-03-25
- Original language: English
- Number of items: 1
- Dimensions: 9.69" h x .91" w x 7.44" l, .0 pounds
- Binding: Hardcover
- 459 pages

 [Download Quantum Concepts in Physics: An Alternative Approa ...pdf](#)

 [Read Online Quantum Concepts in Physics: An Alternative Appr ...pdf](#)

Download and Read Free Online Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair

Editorial Review

Review

"... will be extremely useful to instructors in quantum physics courses who wish to include some of the material in their own lectures. It should be required reading for those working in the philosophy or history of physics. An accessible, comprehensive treatment of the development of quantum mechanics. Highly recommended."

M. C. Ogilvie, Washington University, Choice

"... a beautiful book ... should be included in any respectable physics library."

Daniela Dragoman, Optics and Photonics News

About the Author

Malcolm Longair is Emeritus Jacksonian Professor of Natural Philosophy and Director of Development at the Cavendish Laboratory, University of Cambridge. He has held many highly distinguished positions within physics and astronomy and has served on and chaired many international committees, boards and panels, working with both NASA and the European Space Agency. He has received much recognition for his work, including the Pilkington Prize of the University of Cambridge for Excellence in Teaching and a CBE in the millennium honours list for his services to astronomy and cosmology. His previous well-received books for Cambridge University Press include *Theoretical Concepts in Physics* (2003), *The Cosmic Century: A History of Astrophysics and Cosmology* (2005) and *High Energy Astrophysics* (2011).

Users Review

From reader reviews:

Pamela Brock:

Book will be written, printed, or highlighted for everything. You can know everything you want by a publication. Book has a different type. We all know that that book is important point to bring us around the world. Beside that you can your reading expertise was fluently. A e-book *Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics* will make you to become smarter. You can feel more confidence if you can know about almost everything. But some of you think which open or reading the book make you bored. It's not make you fun. Why they might be thought like that? Have you seeking best book or suited book with you?

Stacey Stern:

This book untitled *Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics* to be one of several books that will best seller in this year, this is because when you read this guide you can get a lot of benefit into it. You will easily to buy this particular book in the book store or you can order it through online. The publisher of the book sells the e-book too. It makes you more easily to read this book, since you can read this book in your Mobile phone. So there is no reason to you personally to past this book from your list.

Dana Register:

Reading a e-book can be one of a lot of pastime that everyone in the world loves. Do you like reading book thus. There are a lot of reasons why people fantastic. First reading a guide will give you a lot of new info. When you read a book you will get new information since book is one of various ways to share the information or even their idea. Second, studying a book will make you more imaginative. When you examining a book especially tale fantasy book the author will bring you to imagine the story how the character types do it anything. Third, you may share your knowledge to other folks. When you read this Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics, you are able to tells your family, friends along with soon about yours publication. Your knowledge can inspire the others, make them reading a reserve.

Walter Blankenship:

Reading a publication tends to be new life style in this particular era globalization. With looking at you can get a lot of information that may give you benefit in your life. Together with book everyone in this world could share their idea. Guides can also inspire a lot of people. A great deal of author can inspire their reader with their story or maybe their experience. Not only situation that share in the ebooks. But also they write about the data about something that you need example of this. How to get the good score toefl, or how to teach your kids, there are many kinds of book that exist now. The authors on this planet always try to improve their talent in writing, they also doing some exploration before they write on their book. One of them is this Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics.

Download and Read Online Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair #VDSGXM7RT8U

Read Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair for online ebook

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair 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 Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair books to read online.

Online Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair ebook PDF download

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair Doc

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair Mobipocket

Quantum Concepts in Physics: An Alternative Approach to the Understanding of Quantum Mechanics By Malcolm Longair EPub