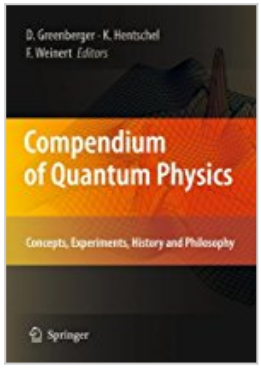

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy

From Brand: Springer

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer

With contributions by leading quantum physicists, philosophers and historians, this comprehensive A-to-Z of quantum physics provides a lucid understanding of key concepts of quantum theory and experiment. It covers technical and interpretational aspects alike, and includes both traditional and new concepts, making it an indispensable resource for concise, up-to-date information about the many facets of quantum physics.

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy

From Brand: Springer

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer

With contributions by leading quantum physicists, philosophers and historians, this comprehensive A-to-Z of quantum physics provides a lucid understanding of key concepts of quantum theory and experiment. It covers technical and interpretational aspects alike, and includes both traditional and new concepts, making it an indispensable resource for concise, up-to-date information about the many facets of quantum physics.

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer Bibliography

- Sales Rank: #1077005 in Books
- Brand: Brand: Springer
- Published on: 2009-09-09
- Original language: English
- Number of items: 1
- Dimensions: 9.47" h x 1.57" w x 6.41" l, 3.12 pounds
- Binding: Hardcover
- 901 pages

Editorial Review

Review

“From ‘Aharonov-Bohm effect’ through to ‘zero point energy’, this is a useful compendium of about 250 concepts, experimental facts, theoretical proposals, history, interpretations and philosophy. … it covers a big field and can be well recommended.” (K.-E. Hellwig, zbMATH 1318.81001, 2015)

“This is a wonderful book to dip into. … it begins with the Aharanov–Bohm effect, runs through the Born Rule and the Copenhagen Interpretation … before ending with Zero-point Energy. … Kaiser on Feynman Diagrams nicely brings all those elements together, as does Lyre on Gauge Symmetry. … a book everyone interested in the history and philosophy of quantum physics should have on their desk or even at their bedside … . it should be on hand electronically via your library’s online access.” (Steven French, Metascience, June, 2011)

“This work is a collection of 185 articles written by 90 researchers in physics, philosophy, and history. … Each article aims to include a clear definition of the term, a history of the terminology, and a small list of references. This is a useful compendium … for persons involved in interdisciplinary work. … Summing Up: Recommended. Upper-division undergraduate through professional collections.” (E. Kincanon, Choice, Vol. 47 (6), February, 2010)

“In diesem voluminösen Band behandeln Experten der experimentellen, theoretischen und mathematischen Physik ... Die einzelnen Artikel sind im Allgemei

nen sehr instruktiv geschrieben ... Besonders die Autoren aus der Physik haben sich große Mühe gegeben, ihre Themen zugleich präzise und verständlich zusammenzufassen. ... Ein schöner ausführlicher Artikel aus erster Hand widmet sich dem inzwischen fast dreißigjährigen Quanten-Hall-Effekt. ... Insgesamt darf man freilich das vorliegende Kompendium der Quantenphysik, gerade wegen seiner interdisziplinären Zusammensetzung, als eine sehr nützliche Bereicherung der quantentheoretischen Literatur empfehlen.“ (Helmut Rechenberg, in: Physik Journal, April/2010, Vol. 9, Issue 4, S. 56 f.)

From the Back Cover

With contributions by many of today's leading quantum physicists, philosophers and historians, including three Nobel laureates, this comprehensive A to Z of quantum physics provides a lucid understanding of the key concepts of quantum theory and experiment. It covers technical and interpretational aspects alike, and includes both traditional topics and newer areas such as quantum information and its relatives. The central concepts that have shaped contemporary understanding of the quantum world are clearly defined, with illustrations where helpful, and discussed at a level suitable for undergraduate and graduate students of physics, history of science, and philosophy of physics. All articles share three main aims: (1) to provide a clear definition and understanding of the term concerned; (2) where possible, to trace the historical origins of the concept; and (3) to provide a small but optimal selection of references to the most relevant literature, including pertinent historical studies. Also discussed are the often contentious philosophical implications

derived from quantum theory and its associated experimental findings.

This compendium will be an indispensable resource for all those seeking concise up-to-date information about the many facets of quantum physics.

About the Author

Daniel Greenberger, Professor of Physics at the City College of New York, CUNY, USA

Klaus Hentschel, Professor of History of Science and Technology at Stuttgart University, Germany

Friedel Weinert, Professor of Philosophy at the University of Bradford, UK

Users Review

From reader reviews:

Janette Collins:

Spent a free time and energy to be fun activity to try and do! A lot of people spent their spare time with their family, or their own friends. Usually they accomplishing activity like watching television, going to beach, or picnic from the park. They actually doing same thing every week. Do you feel it? Do you need to something different to fill your free time/ holiday? Might be reading a book can be option to fill your totally free time/ holiday. The first thing you will ask may be what kinds of guide that you should read. If you want to test look for book, may be the reserve untitled Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy can be good book to read. May be it may be best activity to you.

Mary Hopkins:

A lot of people always spent all their free time to vacation or maybe go to the outside with them family members or their friend. Are you aware? Many a lot of people spent that they free time just watching TV, or playing video games all day long. In order to try to find a new activity this is look different you can read a new book. It is really fun for yourself. If you enjoy the book that you simply read you can spent all day long to reading a e-book. The book Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy it is rather good to read. There are a lot of people who recommended this book. These people were enjoying reading this book. In the event you did not have enough space to develop this book you can buy the actual e-book. You can m0ore effortlessly to read this book from the smart phone. The price is not too costly but this book possesses high quality.

Adrian White:

You are able to spend your free time to study this book this e-book. This Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy is simple to deliver you can read it in the park your car, in the beach, train in addition to soon. If you did not possess much space to bring the actual printed book, you

can buy often the e-book. It is make you easier to read it. You can save the particular book in your smart phone. So there are a lot of benefits that you will get when one buys this book.

Sidney Robertson:

Many people spending their time by playing outside having friends, fun activity with family or just watching TV 24 hours a day. You can have new activity to enjoy your whole day by examining a book. Ugh, think reading a book really can hard because you have to take the book everywhere? It okay you can have the e-book, taking everywhere you want in your Touch screen phone. Like Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy which is finding the e-book version. So , try out this book? Let's find.

Read Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer for online ebook

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer 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 Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer books to read online.

Online Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer ebook PDF download

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer Doc

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer Mobipocket

Compendium of Quantum Physics: Concepts, Experiments, History and Philosophy From Brand: Springer EPub