
Bookshelf

Particle Physics - One Hundred Years of Discoveries, V.V. Ezhela et al, American Institute of Physics Press, ISBN 1 56396 642 5

Several years before the official start of the 20th century, a series of milestone physics experiments pioneered the science which eventually became to be known as particle physics. A new book by several authors from the COMPAS group at the Institute for High Energy Physics, Protvino, near Moscow, and from the Particle Data Group effort at the Lawrence Berkeley Laboratory, reinforced by J.D. Jackson, has compiled a useful summary and bibliography of more than 500 key papers marking the development of particle physics from 1895 to the discovery of the top quark in 1995. Some 70 percent of the listed papers are post World War 2. The book is comprehensively indexed, including members of large collaborations and providing a useful benchmark. However actual entries confusingly use the first listed member of the collaboration, even if a Nobel Prize was subsequently awarded to another member of the team.

Infinite Potential - The Life and Times of David Bohm, by F. David Peat, Addison Wesley, ISBN 0 201 40635 7, \$25

Throughout his life, David Bohm felt himself to be different, and this was reflected in his lifestyle and in his physics. His life was one of unfulfilled searching. If one compares mainstream physics to the church, with a solid hierarchy of cardinals, archbishops and bishops, Bohm was an

ascetic hermit who would occasionally come in from the wilderness with a compelling message, only to disappear again. Bohmian quantum mechanics is not part of mainstream physics, but for those who do cross over, like John Bell, the commitment can be rewarding. In the post-war 'Un-American Activities' purge, Bohm lost a prestigious job at Princeton and temporarily his US citizenship, and his nomadic career took him to Brazil, Israel and Bristol before he finally settled in London's Birkbeck College. A sensitively-written book about a gifted, unusual and sometimes provocative figure. The interaction between Bohm and Oppenheimer is especially interesting, while Bohm's later life was bizarre.

GF

QCD and Collider Physics, by R.K. Ellis, J. Stirling and B. Webber, published by Cambridge University Press, ISBN 0 521 58189 3, price £35/\$49.95 (hbk)

Analysing experimental results in the light of QCD is a major responsibility in any modern particle physics experiment. For experimentalists, QCD is notoriously difficult to handle, but this authoritative book by well-known and respected phenomenologists traces a clear path through the QCD jungle and deserves to become a standard reference.

EPAC 96 - Proceedings of the 5th European Particle Accelerator Conference, held in Sitges, near Barcelona, 10-14 June.

These proceedings have been rapidly published by the UK Institute of Physics Publishing in an initial CD-ROM form (the book version took a bit longer). The impressive CD includes an Acrobat reader to enable the contents to be searched using and/or criteria. To accomplish all this took a lot of effort (September 1995, page 8), but this is clearly the way to go.

Books received

Feynman Lectures on Computation, by Richard P. Feynman, edited by Anthony J.G. Hey and Robin W. Allen, Addison Wesley, ISBN 0 201 48991 0.

An imaginatively and carefully edited item of Feynman memorabilia, based on courses given at Caltech from 1983-86.

The Picture Book of Quantum Mechanics, by Siegmund Brandt and Hans D. Dahmen, published by Springer, ISBN 0 387 94380 3 price DM78 (hbk)

A fresh look at quantum mechanics, including some 200 computer-generated illustrations showing the time evolution and parameter dependence of many different wave equations.