

# Further reading

Books relating to quantum theory are legion. The following list gives a short personal selection that a reader in search of further insight might find useful to consult.

Books that use more mathematics than this one, while still remaining popular in style:

T. Hey and P. Walters, *The Quantum Universe* (Cambridge University Press, 1987)

J. C. Polkinghorne, *The Quantum World* (Penguin, 1990)

M. Rae, *Quantum Physics: Illusion or Reality?* (Cambridge University Press, 1986)

A book that uses mathematics at a professional level, while being much more concerned with interpretative issues than is usual in textbooks:

C. J. Isham, *Lectures on Quantum Theory: Mathematical and Structural Foundations* (Imperial College Press, 1995)

The classic exposition by one of the founders of the subject:

P. A. M. Dirac, *The Principles of Quantum Mechanics*, 4th edn. (Oxford University Press, 1958)

A philosophically sophisticated discussion of interpretative issues:

B. d'Espagnat, *Reality and the Physicist: Knowledge, Duration and the Quantum World* (Cambridge University Press, 1989)

A more general introduction to issues in the philosophy of science:

W. H. Newton-Smith, *The Rationality of Science* (Routledge and Kegan Paul, 1981)

Newton-Smith, however, neglects the thought of Michael Polanyi, which can be found in:

M. Polanyi, *Personal Knowledge* (Routledge and Kegan Paul, 1958)

Books of special relevance to the Bohmian version of quantum theory:

D. Bohm and B. Hiley, *The Undivided Universe* (Routledge, 1993)

J. T. Cushing, *Quantum Mechanics: Historical Contingency and the Copenhagen Hegemony* (University of Chicago Press, 1994)

Reflective writings by two of the founding figures:

N. Bohr, *Atomic Physics and Human Knowledge* (Wiley, 1958)

W. Heisenberg, *Physics and Philosophy: The Revolution in Modern Science* (Allen & Unwin, 1958)

Biographies of significant quantum physicists:

A. Pais, *Niels Bohr's Times in Physics, Philosophy and Polity* (Oxford University Press, 1991)

H. S. Kragh, *Dirac: A Scientific Biography* (Cambridge University Press, 1990)

A. Pais, 'Subtle is the Lord . . .': *The Science and Life of Albert Einstein* (Oxford University Press, 1982)

J. Gleick, *Genius: The Life and Science of Richard Feynman* (Pantheon, 1992)

D. C. Cassidy, *Uncertainty: The Life and Science of Werner Heisenberg* (W. H. Freeman, 1992)

W. Moore, *Schrödinger: Life and Thought* (Cambridge University Press, 1989)