

This best-selling graduate textbook on quantum mechanics is now available in a re-issued edition from Cambridge University Press.

The author, J. J. Sakurai, was a renowned theorist in particle theory. This revision by Jim Napolitano retains the original material while adding topics that extend the text's usefulness into the 21st century, and better prepares students for the next course in quantum field theory.

Features:

- Classic developments such as neutron interferometer experiments, Feynman path integrals, correlation measurements, and Bell's inequality.
- Explicit solutions to the Schrödinger Wave Equation, including the linear potential, the simple harmonic oscillator using generating functions, and the derivation of spherical harmonics.
- A discussion, comprising literature references, of experimental demonstration of quantum mechanical phenomena is included, as well as: the Stern-Gerlach experiment on cesium atoms, muon spin rotation and $g-2$, neutrino oscillations, "bouncing" ultracold neutrons, Berry's phase with neutrons, elastic scattering of protons from nuclei, the effects of exchange symmetry in nuclear decay, and the Casimir effect, among others.
- Advanced mathematical techniques (for example generating functions and contour integrals) associated with quantum mechanical calculations appear throughout.
- A discussion of $SO(4)$ symmetry and its application to solving the hydrogen atom and approximation techniques based on extreme time dependences appears in the early chapters.



Online Resources
www.cambridge.org/napolitano

▮ Solutions manual, for instructors use only

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