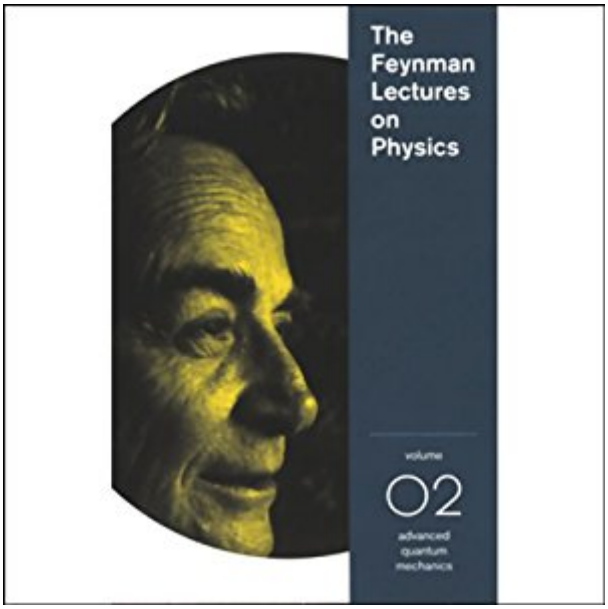
The Feynman Lectures On Physics: Volume 2, Advanced Quantum Mechanics



Synopsis

For more than 30 years, Richard P. Feynman’s three-volume Lectures on Physics has been known worldwide as the classic resource for students and professionals alike. Ranging from the most basic principles of Newtonian physics through such formidable theories as Einstein’s general relativity, superconductivity, and quantum mechanics, Feynman’s lectures stand as a monument of clear exposition and deep insight. This timeless audio serves as a comprehensive library of essential physics by a legend in science. Volume 2 makes up a course in Advanced Quantum Mechanics and includes chapters on symmetry in physical laws, identical particles, symmetry and conservation laws, the hydrogen atom and the periodic table, and the SchrÃƒÂ¶dinger equation in a classical context (this chapter also includes a seminar on superconductivity).

Book Information

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Customer Reviews

This 3-volume, 1963 - 1965 edition of Nobel-prize-winning physicist Richard Feynman’s lectures to Caltech freshmen and sophomores has been part of my library ever since I was introduced to them as textbooks in my undergraduate physics classes. Volume I concentrates on mechanics, radiation, and heat; Volume II on electromagnetism and matter; and Volume III on quantum mechanics.Volume I: the first three chapters ("Atoms in Motion," "Basic Physics," and "The Relation of Physics to Other Sciences") were meant by Feynman to outline the relationship of physics to other sciences, and other sciences to each other, and to discuss the overall meaning of `Science.’ Here in the introduction to Volume I, Feynman iterates one of his most-quoted ideas on science: "If, in some cataclysm, all of scientific knowledge were to be destroyed, and only one sentence passed on to the next generation of creatures, what statement would contain the most information in the

fewest words? I believe it is the atomic hypothesis...that `all things are made of atoms--little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another.'"There are 52 chapters in Volume I, from "Atoms in Motion" to "Symmetry in Physical Laws." It would be well to remember that this book and its fellows are not meant to be read in isolation. Rather the lectures were connected with a series of experiments and demonstrations. As Feynman puts it: "The principle of science, the definition, almost, is the following: `The test of all knowledge is experiment.'"Volume II: the first two-thirds of this series of lectures is devoted to a reasonably inclusive treatment of the physics of electricity and magnetism.

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