

-----  
This information is from ChoiceReviews.online, an ALA/ACRL  
publication, available by subscription at <http://www.choicereviews.org>.  
-----

39-2249            QC174            01-20041MARC

-----  
CHOICE Subject: Science and Technology-Physics  
-----

Schwinger, Julian Seymour. Quantum mechanics: symbolism of atomic measurements, ed. by Berthold-Georg Englert. Springer, 2001. 484p index  
afp ISBN 3-540-41408-8, \$49.95. Reviewed in 2001dec CHOICE.

Editor Englert has performed a service for physicists everywhere by making available this book, which is based on Schwinger's unpublished UCLA lecture notes. Schwinger, who shared the 1965 Nobel Prize with Feynman and Tomonaga, was one of the great minds of post-WW II physics. He was known for his carefully honed presentations, and this book preserves his elegant treatment of quantum mechanics. The material covered is superficially similar to that of a typical graduate quantum mechanics course: theory of measurement, free particles, angular momentum, harmonic oscillators, the hydrogen atom, and an introduction to many-body systems. However, each chapter has beautiful and unusual treatments of familiar topics. For example, the hydrogen atom is first solved by relating it to the two-dimensional harmonic oscillator, and then solved again in parabolic coordinates. There are excellent problems at the end of each chapter. This book would make an outstanding supplement and reference for a graduate quantum mechanics course. Theoretical physicists will delight in this wonderful book, which should be available in the library system of any institution with a research or graduate program in physics. Graduate students through professionals.  
--- M. C. Ogilvie, Washington University

(c) American Library Association.=20