

Quantum Mechanics

Quantum Mechanics

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Quantum Mechanics

Quantum Mechanics

This book is part of a series on **Modern Physics**:

Matter Waves[[edit](#)]

1. [Introduction to QM](#)
2. [Waves and Modes](#)
3. [Blackbody Radiation](#)
4. [Bragg's Law](#)
5. [X-Ray Diffraction Techniques](#)
6. [Operators and Commutators](#)
7. [Heisenberg Uncertainty Principle](#)
8. [Meaning of Quantum Wave Function](#)
9. [Time Independent Schrödinger](#)
10. [Mass, Momentum and Energy](#)
11. [Perturbation Theory](#)

[Problems](#)

Symmetry and Bound States[[edit](#)]

1. [Complex Waves](#)
2. [Symmetry and Quantum Mechanics](#)
3. [Confined Matter Waves](#)

Problems

Measuring the Very Small[[edit](#)]

1. Continuous Matter or Atoms?
2. The Ring Around the Moon
3. The Geiger-Marsden Experiment
4. Cosmic Rays and Accelerator Experiments
5. Commentary

Problems

Atoms[[edit](#)]

1. Fermions and Boson
2. The Hydrogen Atom
3. The Periodic Table of the Elements
4. Atomic Spectra

Problems

The Standard Model[[edit](#)]

1. Quarks and Leptons
2. Quantum Chromodynamics
3. The Electroweak Theory
4. Grand Unification?

Problems

Further Reading and Resources[[edit](#)]

- [This Quantum World](#) - a complete introductory text.



- [Quantum mechanics for mathematicians](#) - answers some questions no other books do!!!

<http://www.math.sunysb.edu/~leontak/570-S06/ChapterI-II.pdf>