

## CHAPTER OVERVIEW

### 3: Fundamentals of Quantum Mechanics

The previous chapter serves as a useful introduction to many of the basic concepts of quantum mechanics. In this chapter, we shall examine these concepts in a more systematic fashion. For the sake of simplicity, we shall concentrate on one-dimensional systems.

- 3.1: Schrodinger's Equation
- 3.2: Normalization of the Wavefunction
- 3.3: Expectation Values (Averages) and Variances
- 3.4: Ehrenfest's Theorem
- 3.5: Operators
- 3.6: Momentum Representation
- 3.7: Heisenberg's Uncertainty Principle
- 3.8: Eigenstates and Eigenvalues
- 3.9: Measurement
- 3.10: Stationary States
- 3.11: Exercises

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