Quantum Mechanics (Fowler)

These notes cover the essential core topics of a standard graduate quantum mechanics course. The first lectures here review undergraduate quantum and modern physics as a reminder, this optional material was only covered briefly in class.

- Front Matter

1: Reviewing Elementary Stuff
\[ e^{i\pi} + 1 = 0 \]

2: Some Essential Math

• 3: Mostly 1-D Quantum Mechanics

• 4: Angular Momentum, Spin and the Hydrogen Atom

• 5: Interlude - The Nature of Electrons
6: Charged Particle in Magnetic Field

7: The Density Matrix

8: Approximate Methods

9: Perturbation Theory
10: Scattering Theory

11: Other Material

Back Matter