

5 The Central Force Problem in Quantum Mechanics

5.1 Three-Dimensional Schrödinger Equation

5/10:

- Chapter 4 is all about Bessel functions; not relevant to me at all.
- Very much analogously to Chapter 3, the hypergeometric function is used to tackle Legendre's equation, Legendre polynomials, and associated Legendre functions.
- Finally derives where $\ell(\ell + 1)$ comes from for the first time!
- Chebyshev in the exercises, though not relevant to me.
- Chapter 6 is Bessel, Neumann, Hankel, and Laguerre (polynomials and associated functions); not relevant to me at all either.