

Recitation #6
Quantum 522

1. (Shankar 10.3.3) Consider three particles with three possible configurations a,b,c. Determine the multiplicity for: distinct, identical bosons, identical fermions.
2. (Shankar 10.3.6) Is hydrogen a boson or a fermion? Generalize to a composite of n fermions.
3. (Shankar 10.3.4) Consider two identical particles in a 1 dim. box. Write the wave function of the energy of the system is $E = \hbar^2\pi^2/mL^2$. Repeat for $E = 5\hbar^2\pi^2/2mL^2$.