PHYS 451: Quantum Mechanics I
Homework #11, due Tuesday December 2, in class

1. Given three spin 1/2 particles, express all eigenstates $|S, M\rangle$ of the total angular momentum operators ($\hat{S}^2$, $\hat{S}_z$) explicitly in terms of the uncoupled basis

$$|\pm, \pm, \pm\rangle \equiv |\tfrac{1}{2}, m_1\rangle |\tfrac{1}{2}, m_2\rangle |\tfrac{1}{2}, m_3\rangle.$$

2. Problem 5.6 in Griffiths.

3. Problem 5.12 in Griffiths.

4. Problem 5.13 in Griffiths.

Found an error or need a clarification? Email the instructor at sergiy.bubin@nu.edu.kz