Physics 221A
Fall 2010
Homework 11
Due Friday, November 12, 2010 at 5pm

Reading Assignment: Handwritten notes on hydrogen atom, handwritten notes on coupling of spatial and spin degrees of freedom, Sec. 3 of Notes 23 on spin-orbit term, Notes 17 (entire).

I won't ask you to calculate any Clebsch-Gordan coefficients numerically, because I assume you did that in your undergraduate course and know how. If you don't or if you're rusty, ask me and I'll give a demo in discussion section or my office hours. To keep down the level of work I won't ask you to do problem 17.3, but that is some practice along the same lines. See the table of Clebsch-Gordan coefficients in the "Reprints" section; make sure you know how to read it.

Next Thursday is a holiday, but I will hold discussion section at the regular time and place, if they will let us in the math building and the room is unoccupied. If not, we'll go over to LeConte and look for an empty room.

Please do problems 16.2, 17.1, 17.2.