

**Physics 221A**  
**Fall 2017**  
**Homework 12**  
**Due Friday, November 17, 2017 at 6pm**

**Reading Assignment:** Notes 22, Secs. 6–7; Notes 23 entire; Notes 24, Secs. 1-9. Supplementary reading: Commins treats the Stark effect in Sec. 10.4, where he evaluates the second order energy shift exactly (we only got an upper bound). He treats the fine structure in Sec. 10.1, including a brief discussion of the Lamb shift.

Please do problems 22.2 and 23.1.