

Phys 402
Spring 2019
Homework 3
Due Friday, February 22, 2019 @ 9 AM

1. **Griffiths, 2nd Edition, Problem 6.1 or Griffiths, 3rd Edition, Problem 7.1**
[perturbation theory]
2. **Griffiths, 2nd Edition, Problem 6.2 or Griffiths, 3rd Edition, Problem 7.2**
[more on perturbation theory]
3. **Griffiths, 2nd Edition, Problem 6.16 or Griffiths, 3rd Edition, Problem 7.19**
[commutators for spin-orbit interaction]
4. **Griffiths, 2nd Edition, Problem 6.19 or Griffiths, 3rd Edition, Problem 7.22**
[quick exercise on expansions in series]
5. **Griffiths, 2nd Edition, Problem 6.20 or Griffiths, 3rd Edition, Problem 7.23**
[qualitative determination of when Zeeman effect becomes
“weak” – in class we touched the strong Zeeman effect: let’s
see what “strong” means...]