Phys 402
Spring 2022
Homework 7
Due Wednesday, 19 October, 2022 @ 10 AM as a PDF upload to ELMS

Mid-term EXAM 1 will be given in class on Wednesday October 26 (10:00 AM to 11:50 AM), covering everything up to and including Homework 7

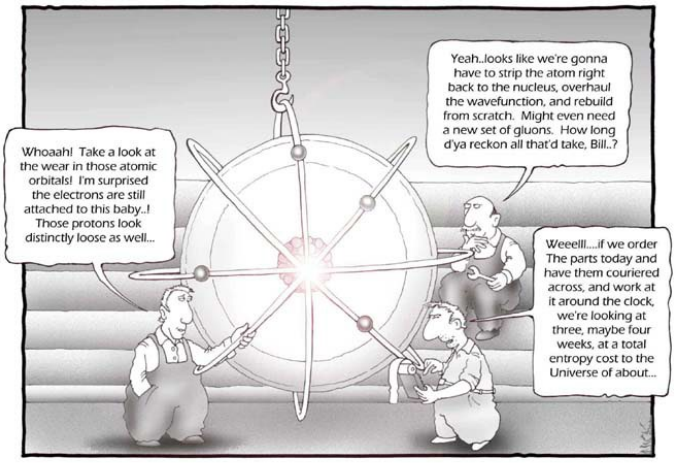
1. Griffiths, 3rd Edition, Problem 11.9 [Rotating wave approximation] {***Hint:*** ***combine the two differential equations to make a second order equation for*** $c_a(t)$***, and seek a solution of the form*** $e^{\lambda t}$}

2. Griffiths, 3rd Edition, Problem 11.24, parts (a)-(d) ONLY [Time-Dependent perturbation theory for a multi-level system]

3. Griffiths, 3rd Edition, Problem 11.27 [Transition probability after a 'brick' is dropped in to the infinite square well and then removed] {***Hint: Use Eq. (11.120) from the above problem to calculate the transition probability***}

4. Griffiths, 2nd Edition, Problem 11.29 [Magnetic resonance of a spin-1/2 particle]

Extra Credit #7
Griffiths, 3rd Edition, Problem 11.17 [Photoelectric effect using Fermi's Golden Rule]



Quantum mechanics.