

PHYS 485: Problem Set 2

Due: 4:30 pm, 21 January 2010

When comparing to experimental data (here or in future assignments) please refer to the Particle Data Group (PDG) listings (on the web at <http://pdg.lbl.gov>). Some experimental results referred to in the textbook are out of date.

1. [2] Griffiths Problem 2.2.
2. [5] Griffiths Problem 2.5.
3. [4] Griffiths Problem 2.6.
4. [22] Griffiths Problem 2.7. In addition, for allowed decay and scattering processes draw a possible lowest-order Feynman diagram (except for the scattering processes involving hadrons, for which these diagrams are messy).
5. [4] Griffiths Problem 2.8. The diagrams referred to here are a bit different from those that we have drawn so far. So think about it, and try to draw a reasonable possible diagram for each decay.
6. [5] Griffiths Problem 2.12.