Physics 125 Problem Set 7

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due Friday, May 22 in class

1. Look up the rest energies of the $l = 0$ $S = 1$ neutral mesons: the ρ^0, ω, ϕ, J/ψ, and $\Upsilon(1S)$. Then compute twice the rest energies of the pseudoscalar mesons that these would most easily decay into, for example, $\phi \rightarrow K^+ K^-$. Make a table, and indicate which decays are kinematically allowed.

2. Griffiths 6.1

3. Griffiths 6.2

4. Griffiths 6.3