Homework 10

1. (10 points) Consider the reactions or decay channels that will allow to
check the existence of weak − neutral currents and estimate their strength
relative to the weak − charged currents. (use Particle Data Group (PDG)).

2. (10 points) Using PDG suggest decay channels that will allow to
estimate the Cabibo angle

3. (10 points) From PDG give the up to date magnitudes of the elements
of the CKM matrix.

4. (10 points optional) Give the chain reactions of the decay of top
quark to the lowest possible quark flavor state. Identify the CKM
matrix elements that enter into the decay probability.