

1. Calculate the SM Higgs boson width for  $m_H = 125$  GeV using PYTHIA8.
2. Simulate 1000 SM Higgs events with PYTHIA8 for  $m_H = 125$  GeV using CTEQ6L1 structure functions. Plot the Higgs boson mass distribution and calculate the (Breit-Wigner) width from the plot.

Please make a tar-ball from your files and return it by email to Sami.Lehti(at)helsinki.fi.