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. Use ROOT to plot the Higgs boson mass distribution and calculate the (Breit-Wigner) width from the plot.

Please push your answers into your public git repository.