

(To be returned by 10.00 on Monday 11.3.)

1. Take the latest version of HDECAY and calculate the SM Higgs boson width for  $m_H = 125$  GeV. How does the width change as a function of Higgs boson mass? Plot the width as a function of the Higgs mass.
2. Calculate the SM Higgs boson width using FeynHiggs, and make a comparison plot with HDECAY values: plot both HDECAY and FeynHiggs widths in one plot, and beneath it plot a ratio FeynHiggs width/HDECAY width.

**Note:** There is no lecture nor the exercise session on Monday 4.3. due to the break between the teaching periods.

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