COMPUTING METHODS IN HEP Exercise 7 Spring 2025
(To be returned by 10:15 on Friday 14.3.)

1. Take the latest version of HDECAY and calculate the SM Higgs boson width for $m_H = 125$ GeV. Use ROOT to 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 with ROOT both HDECAY and FeynHiggs widths in one plot, and beneath it plot a ratio FeynHiggs width/HDECAY width.

3. (Voluntary) Latest versions of the GCC compiler considers "Type mismatch in COMPLEX(8) to REAL(8)" as an error. This can be bypassed by a compiler option -fallow-argument-mismatch. Write a **sed** script to change the HDECAY makefile to have "FFLAGS = -fallow-argument-mismatch".

Please push your answers into your public git repository.

Note: There is no lecture nor the exercise session on Friday 7.3. due to the break between the teaching periods.