

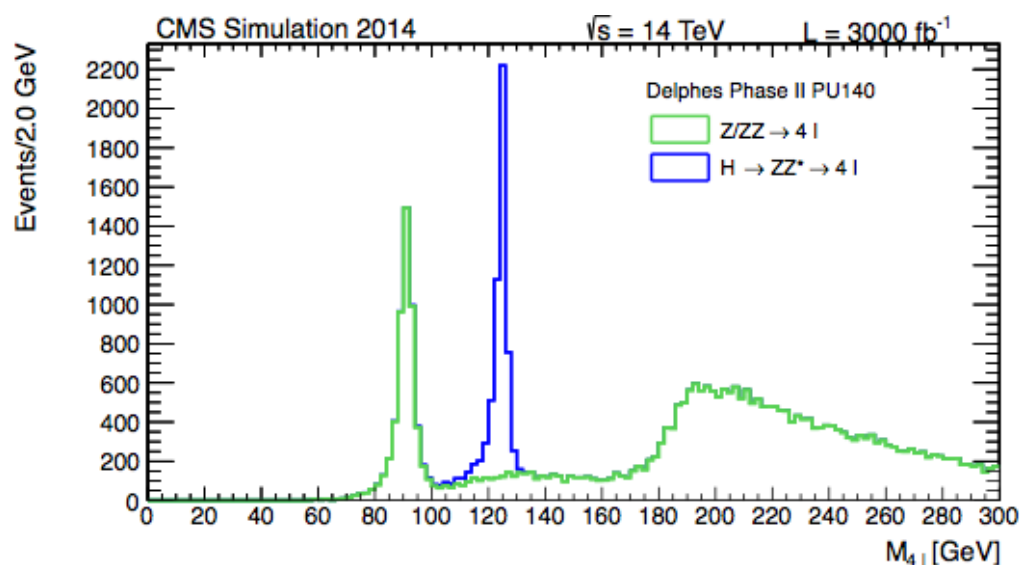
Future Higgs Physics at the High-Luminosity LHC.

Paolo Giacomelli (INFN Bologna)

Tuesday, 04 November 2014

16:45 h, Auditorium

After a shutdown preparing the Large Hadron Collider at CERN for running at its design energy, the machine will restart operations in 2015 at a centre-of-mass energy of 13 TeV, and later ramp up further to 14 TeV. After about six years of operation, the LHC will have delivered $\sim 300 \text{ fb}^{-1}$ of integrated luminosity. Then another long shutdown will follow to modify the optics of the interaction points and significantly increase the instantaneous luminosity. During this new phase, denoted “High-Luminosity LHC”, the accelerator is expected to deliver, in a time span of approximately 10 years, a total integrated luminosity of 3000 fb^{-1} . The future Higgs physics prospects with these very large datasets are reviewed and discussed. The upgrade plans of the ATLAS and CMS experiments, essential to adapt to the increased pileup conditions while maintaining or improving the detector performance, are also presented.



Coffee, tea and cookies will be served at 16:30h.

After the seminar there is a chance for private discussions with the speaker over wine and pretzels.

