



Contribution ID: 487

Type: parallel talk

Constraining certain Higgs EFT couplings at the HL-LHC and beyond

Monday 7 May 2018 17:45 (15 minutes)

In this talk, I will discuss the present status of the Higgs boson's properties since its discovery in 2012. I will focus on the measurements of the various Higgs couplings in several standard decay modes in the context of an effective field theory by introducing dimension-6 (D6) operators. I shall show that considering the effects of the D6 operators on the experimental cut-efficiencies might become important in exploring such couplings. I will also discuss the possibility of strongly constraining the couplings affecting the triple gauge boson vertices by studying the ZH channel in the boosted Higgs regime. I will show the potential of the High luminosity run of the LHC to constrain such couplings to stronger degrees than LEP had constrained earlier.

Summary

Authors: SPANNOWSKY, Michael (IPPP Durham); ENGLERT, Christoph Peter (University of Glasgow (GB)); GUPTA, Sandeepan (Universitat Autònoma de Barcelona (ES)); MUKHOPADHYAYA, Biswarup; MUKHOPADHYAY, Satyanarayan (University of Pittsburgh); BANERJEE, Shankha (University of Durham (GB))

Presenter: BANERJEE, Shankha (University of Durham (GB))

Session Classification: Higgs I