Phenomenology 2016 Symposium



Contribution ID: 123 Type: parallel talk

Vectorlike lepton in Higgs cascade decays: Episode I - The Three Resonances

Monday 9 May 2016 17:15 (15 minutes)

In models with extended Higgs sector and vectorlike leptons, the decay of a heavy Higgs boson can be dominated by cascade decays through new leptons. In this talk I will discuss these novel decay topologies focussing on a Higgs cascade decay where the SM Higgs is involved in the process. In this case we expect three resonance signals from combining the final states, which are quite promising in the search of new physics signals at the LHC.

Summary

In models with extended Higgs sector and vectorlike leptons, the decay of a heavy Higgs boson can be dominated by cascade decays through new leptons. In this talk I will discuss these novel decay topologies focussing on a Higgs cascade decay where the SM Higgs is involved in the process. In this case we expect three resonance signals from combining the final states, which are quite promising in the search of new physics signals at the LHC.

Author: Dr SHIN, Seodong (Indiana University)

Co-authors: LUNGHI, Enrico (Indiana University (US)); DERMISEK, Radovan

Presenter: Dr SHIN, Seodong (Indiana University)

Session Classification: BSM Higgs I