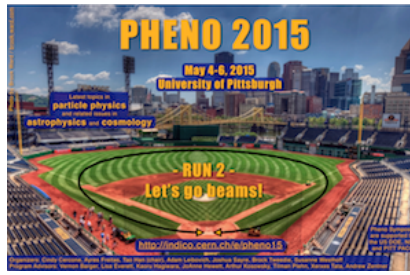


Phenomenology 2015 Symposium



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Exotic Higgs Decays at LHC and Beyond

Monday 4 May 2015 17:30 (15 minutes)

Models of Electroweak Symmetry Breaking, with an extended Higgs sector, are theoretically well motivated. In addition to to SM-like Higgs boson, in these models the low energy spectrum includes other CP-even Higgses H , CP-odd Higgses A , as well as charged ones H^\pm . Conventional search strategies focus on Higgs decays into a pair of SM fermions or gauge bosons. However, exotic decay channels in which a heavy Higgs decays into two lighter Higgses or a light Higgs plus vector boson final state can open up and might even dominate. While the appearance of exotic decays reduce the reach of the conventional search strategies, it also offers new discovery channels for non-SM like Higgses. In this talk, we present an overview of exotic Higgs decays and discuss their reach at LHC and a future 100 TeV collider.

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