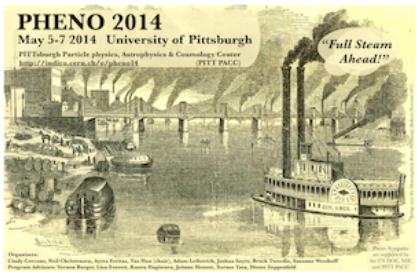

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Search for Non-SM Higgs Boson Decays to Boosted Dimuons at the LHC

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Several BSM scenarios suggest the existence of new light bosons weakly coupled to most SM particles. Examples of such models are SUSY with "dark" sector or scenarios with extended Higgs sector, e.g. NMSSM. In these models, new bosons can be produced either in the Higgs decays or as part of SUSY cascades. Exotic decays of the Higgs can either hide the Higgs boson from standard searches or slightly alter measured cross-section of the SM Higgs boson candidate observed at the LHC, depending on the branching ratio. Therefore direct search for non-SM signatures provides the fastest path (accessible with limited amount of data) to understanding the nature of the Higgs boson by either confirming or rejecting large classes of BSM scenarios. We present status and results of a search, based on the LHC data collected by the CMS experiment, for a non-SM Higgs boson decaying to a pair of new light bosons, each of which subsequently decays into a boosted dimuon final state.

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