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Exotic Higgs decays in ATLAS

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Exotics decays of the Higgs boson provide a unique window for the discovery of new physics, as the Higgs may couple to hidden-sector states that do not interact under the Standard Model gauge transformations. Models predicting exotic Higgs decays to pseudoscalars can explain the galactic center gamma-ray excess, if the additional pseudoscalar acts as the dark matter mediator. This talk presents recent ATLAS searches for decays of the 125 GeV Higgs boson to a pair of new light bosons, H -> aa, where the a-bosons decay to various final states and rare Higgs decays. These searches use LHC collision data at sqrt(s) = 13 TeV collected by the ATLAS experiment in Run2.

I read the instructions

Secondary track (number)

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