

Searches for Beyond Standard Model Higgs boson decays (including low mass resonances)

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The discovery of the Higgs boson with the mass of about 125 GeV completed the particle content predicted by the Standard Model. Even though this model is well established and consistent with many measurements, it is not capable of explaining some observations by itself. Many extensions of the Standard Model addressing such shortcomings introduce beyond-the-Standard-Model couplings to the Higgs boson. In this talk, the latest searches in the Higgs sector are reported, with emphasis on the results obtained with the full LHC Run 2 dataset at 13 TeV and including a series of searches for low-mass resonances in merged or boosted topologies.

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