

Beyond-SM Higgs at the LHC

Friday 6 January 2023 16:00 (40 minutes)

An extended Higgs sector, with a structure richer than the single Higgs doublet field of the Standard Model (SM), could solve many shortcomings of the SM. Experimentally, it could manifest as production of additional, beyond-SM scalar bosons at the LHC, as well as deviations from SM predictions for the SM-like 125 GeV Higgs boson. In this talk, a selection of recent experimental results from the LHC experiments is presented, showcasing various extended Higgs sector models, their experimental signatures, and constraints from the LHC data. Novel experimental methods that allow unprecedented reach for these analyses are highlighted. Implications for future beyond-SM Higgs searches are discussed.

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