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Higgs self coupling: status and projections at CMS

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The Higgs boson is one of the main interests of the particle physics community. To strive for its full characterization, a new era of precise measurements has begun and will continue for the next two to five decades, as foreseen by recent updates of the European Strategy for Particle Physics. Of utmost importance is the exploration of the particle's interaction with itself. In this talk, the latest status of CMS measurements of the Higgs boson self-coupling will be presented, covering both direct Higgs boson pairs searches and indirect single Higgs boson interpretations; as well as the EFT interpretations of these results. Moreover, the latest projections of the same measurements at Run 3 and HL-LHC will be discussed.

Collaboration / Activity

CMS

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