Scalars 2023

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Studies of the Higgs boson and searches for new scalars at CMS

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Content :

The discovery of the Higgs boson over ten years ago at the LHC at CERN started a rich physics program of studies of properties of the first scalar particle. Since then Atlas and CMS accumulated over 140fb-1 each of pp collision data collected during LHC runs between 2015 and 2018. These data are being extensively analyzed and provided a broad plethora of results with increasing precision and reaching sensitivity to rare Higgs decay modes. Is the Higgs boson the only scalar or there are more scalars to be discovered ? In my presentation I will discuss latest Higgs results obtained by CMS and I will review searches for new scalar particles in Run 2 data.

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