

# Measurement of the Higgs boson differential fiducial cross sections in the four-lepton decay channel in pp collisions at $\sqrt{s} = 13$ TeV

*Monday, 25 July 2022 09:45 (20 minutes)*

The talk would cover the properties of the Higgs boson measured in the  $H \rightarrow ZZ \rightarrow 4\ell$  ( $\ell = e, \mu$ ) decay channel. For this, a data sample of proton-proton collisions at a center-of-mass energy of 13 TeV is used, corresponding to an integrated luminosity of  $137 \text{ fb}^{-1}$  recorded by the CMS detector at the LHC. In the measurements, the fiducial cross section is reported with respect to several observables sensitive to the production and decay of the Higgs boson, where the results are compared with theory predictions.

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