

# Higgs boson differential cross section measurement in the $4l$ final state

*Tuesday, November 8, 2022 10:00 AM (15 minutes)*

The most recent fiducial differential cross section measurements performed in the  $H \rightarrow ZZ \rightarrow 4\ell$  ( $\ell = e, \mu$ ) decay channel are presented. The results have been obtained using data collected by the CMS experiment, corresponding to an integrated luminosity of  $138 \text{ fb}^{-1}$  at a centre of mass energy of 13 TeV. The fiducial cross section is measured with respect to several observables sensitive to the production and decay of the Higgs boson, where the observed results are compared with different theory predictions. A summary of possible interpretations of the obtained results is also presented.

## Type of talk

Experimental measurements

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**Session Classification:** Tuesday Session A

**Track Classification:** Physics Topics: Precision measurements