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## Measurement of the Higgs Boson mass and width at CMS and projections for HL-LHC

The Higgs boson mass and width are key free parameters of the Standard Model and must be determined experimentally. This poster presents the measurement of the Higgs boson mass in the  $H \rightarrow ZZ \rightarrow 4\ell$  decay channel, using  $138 \text{ fb}^{-1}$  of proton-proton collision data collected by the CMS experiment at a centre-of-mass-energy of 13 TeV. Constraints on the Higgs boson on-shell width are also presented. The analysis strategy, and systematic uncertainties are described in detail. In addition, projections for the mass measurement at HL-LHC and the forthcoming challenges in the analysis are shown.

### Secondary track

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