

## **H- $\rightarrow\gamma\gamma$ studies with the CMS Experiment at the HL-LHC**

*Monday, 30 October 2017 19:07 (1 minute)*

The upgraded CMS detector at the HL-LHC will allow the properties of the Higgs boson to be measured with unprecedented precision. This poster presents the expected performance of Higgs measurements in the diphoton decay channel using the upgraded CMS detector. Current CMS analyses and near-term plans are summarised. Recent studies of the projected diphoton mass resolution at the HL-LHC, taking into account the proposed barrel calorimeter upgrade and potential timing capabilities, are discussed. In addition, extrapolations of Run 2 measurements to the full HL-LHC dataset are presented under different scenarios.

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