



Contribution ID: 91

Type: **Parallel session**

Measurement of Higgs boson mass using bosonic decay channels with the CMS detector

Wednesday, 29 November 2023 16:40 (15 minutes)

The mass of the Higgs boson can be measured in the Higgs to four leptons and Higgs to two photons decay channels, thanks to their excellent mass resolution. The same decays can be used to measure the Higgs boson natural width, either by exploiting the offshell Higgs contribution to the four leptons and two leptons plus two neutrinos production at high mass, or by fitting the on-shell distribution in the diphoton decay. This talk presents the most recent measurements of Higgs boson mass and width performed by the CMS experiment, using Run 2 data of pp collisions collected at 13 TeV at the LHC.

You are

non-PhD student

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Session Classification: Parallel: Precision & Yukawas

Track Classification: Precision & Yukawas