



Contribution ID: 107

Type: **Parallel Sessions**

Measurement of Higgs production and search for an additional SM-like Higgs boson in the diphoton decay channel with the CMS detector

Wednesday 20 October 2021 09:10 (10 minutes)

We present a recent analysis from the CMS Collaboration of the full run 2 dataset in which production properties of the Higgs boson are measured using the diphoton decay channel. All major Higgs boson production mechanisms are considered, enabling a wide range of cross section and coupling measurements to be performed. Highlights include the first CMS measurement of Higgs boson production in association with a single top quark in this decay channel and a simultaneous measurement of 27 independent Higgs boson production parameters. In addition, we present a search for an additional SM-like Higgs bosons in the diphoton final state.

Author: CMS

Presenter: SHAHZAD, Muhammad Aamir (Chinese Academy of Sciences (CN))

Session Classification: Parallel: BSM

Track Classification: BSM Higgs