



Contribution ID: 93

Type: **Parallel session**

Search for anomalous couplings affecting Higgs boson production and decay with the CMS experiment

Friday, 1 December 2023 09:55 (12 minutes)

A search for Higgs boson anomalous couplings is carried out using the CMS Run 2 dataset. Anomalous couplings of the Higgs boson to vector bosons (HVV) and gluons (Hgg) are considered, including CP violating effects. The ggH, VBF, and VH production modes of the Higgs boson are targeted. Kinematic information from associated jets is combined using matrix element techniques to increase sensitivity to anomalous effects at the production vertex. A simultaneous measurement of multiple Higgs boson couplings to electroweak vector bosons is performed in the framework of a standard model effective field theory. Constraints are set on the fractional contribution of the anomalous couplings to the Higgs boson cross section.

You are

non-PhD student

Primary author: LIAO, Hongbo (Institute of High Energy Physics)

Presenter: SANTOCCHIA, Attilio (Univ. di Perugia e Sez. dell'INFN)

Session Classification: Parallel: EFT