Contribution ID: **63** Type: **Parallel session**

Measurements and interpretations of Simplified Template Cross Sections and differential and fiducial cross sections in Higgs boson decays to two W bosons with the ATLAS detector

Wednesday, 29 November 2023 15:00 (15 minutes)

The Higgs boson decay to two W bosons provides the largest branching fraction among bosonic decays, and can be used to perform some of the most precise measurements of the Higgs boson production cross sections. This talk presents Higgs boson measurements by the ATLAS experiment in the WW decay channel within the Simplified Template Cross-section (STXS) framework, targeting the gluon-gluon fusion (ggF), vector-boson fusion (VBF) and vector-boson associated production (VH) modes. Higgs boson fiducial and differential cross section measurements targeting both the ggF and VBF modes will also be shown. Interpretations of these results in the context of Standard Model effective field theories will be presented. The results are based on pp collision data collected at 13 TeV during Run 2 of the LHC.

You are

non-PhD student

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