

# 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

*Thursday, November 10, 2022 3:15 PM (15 minutes)*

The Higgs boson decays to two W bosons has the largest bosonic branching fraction and can be used to perform some of the most precise measurements of the Higgs boson production cross sections. This talk will present Higgs boson cross section measurements by the ATLAS experiment in the  $H \rightarrow WW^*$  decay channel using pp collision data collected at 13 TeV, including those for different Higgs boson production processes in the Simplified Template Cross Section framework, and fiducial and differential cross-sections.

## Type of talk

Experimental measurements

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**Session Classification:** Thursday Session A

**Track Classification:** Physics Topics: Precision measurements