

# Indirect measurements of the Higgs boson natural width with the ATLAS detector

*Tuesday, November 5, 2024 9:20 AM (20 minutes)*

The total width of the Higgs boson is an important parameter for Higgs sector phenomenology. It is too small to be measured directly at the LHC, but indirect measurements can be performed using the off-shell Higgs boson production process in the ZZ and WW final states, as well as through interference effects in the diphoton decay channel. This talk presents the most recent indirect width measurements by the ATLAS experiment in these channels, using the full Run 2 dataset of pp collisions at the LHC collected at 13 TeV.

## Primary track

Precision Higgs measurements and calculations

## Is the speaker a PhD student or post-doc?

No

**Presenter:** LEIGHT, William Axel (University of Massachusetts Amherst)

**Session Classification:** Precision Higgs measurements and calculations 1 - sal IV

**Track Classification:** Precision Higgs measurements and calculations