

# Measurements of the Higgs boson properties with the ATLAS experiment and their interpretations with the ATLAS experiment

*Wednesday, 27 October 2021 15:00 (20 minutes)*

With the full Run 2 pp collision dataset collected at 13 TeV, very detailed measurements of Higgs boson properties and its interactions can be performed using its decays into bosons and fermions. These measurements are combined allowing to reach the highest possible measurement precision. This talk presents the latest measurements of the Higgs boson properties by the ATLAS experiment in various decay channels, including production mode cross sections, simplified template cross sections, differential and fiducial cross sections, as well as their combination and interpretations. Specific scenarios of physics beyond the Standard Model are tested, as well as a generic extension in the framework of the Standard Model Effective Field Theory.

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