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Type: **Parallel session talk**

Higgs boson mass and width measurement with the ATLAS detector

Monday 21 August 2023 09:00 (18 minutes)

The mass of the Higgs boson is a fundamental parameter of the Standard Model which can be measured most precisely in its decays to four leptons and two photons, which benefit from excellent mass resolution. The total width of the Higgs boson is another 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 mass and width measurements by the ATLAS experiment using the full Run 2 dataset of pp collisions at the LHC collected at 13 TeV.

Collaboration / Activity

ATLAS

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