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Type: **Poster presentation**

Constraints on off-shell Higgs boson production and the Higgs boson total width in $Z Z \rightarrow 4l$ and $ZZ \rightarrow 2l2\nu$ final states using LHC proton–proton collision data at $\sqrt{s} = 13$ TeV with the ATLAS detector

Wednesday 7 September 2022 18:30 (25 minutes)

A measurement of off-shell Higgs boson production in the $ZZ \rightarrow 4l$ and $ZZ \rightarrow 2l2\nu$ decay channels, where l stands for either an electron or a muon, is performed using proton-proton collisions data at a center of mass energy of $\sqrt{s}=13$ TeV at LHC collected by the ATLAS experiment. An observed (expected) upper limit on the off-shell Higgs signal strength, defined as the event yield normalized to the Standard Model prediction, obtained at 95% confidence level (CL). Assuming the ratio of the Higgs boson couplings to the Standard Model predictions is independent of the momentum transfer of the Higgs production mechanism considered in the analysis, a combination with the on-shell signal-strength measurements yield an observed (expected) 95% CL upper limit on the Higgs boson total width.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

ATLAS Collaboration

Is the speaker for that presentation defined?

Yes

Details

Theodota Lagouri

Internet talk

Yes

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Session Classification: Poster Session

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