



Contribution ID: 654

Type: Poster

Search for resonant and non-resonant Higgs boson pair production in the $b\bar{b}\tau\tau$ decay channel using 13 TeV pp collision data from the ATLAS detector

Friday, 8 July 2022 20:10 (20 minutes)

Higgs boson pair (HH) production is a sensitive probe of the Higgs boson trilinear self-coupling and an opportunity to explore Beyond the Standard Model theories. This poster presents results on the search for non-resonant and resonant HH production in the final state with two b-jets and two tau-leptons. The analysis is performed using an integrated luminosity of 139 fb^{-1} . The observed (expected) upper limits on the cross-section of non-resonant HH production is 4.7 (3.9) times the Standard Model and, for the resonant HH production, upper limits lie between 23 and 920 fb (12 and 840 fb).

In-person participation

Yes

Presenter: GUHIT, Jem

Session Classification: Poster Session

Track Classification: Higgs Physics