



Contribution ID: 453

Type: **not specified**

Searches for resonances decaying to boson pairs in ATLAS

Thursday, 26 August 2021 17:20 (20 minutes)

Many new physics models, including supersymmetric extensions to the Standard Model such as two Higgs doublet models (2HDMs), predict the existence of new particles decaying into two bosons (W, Z, photon, or Higgs bosons) making these important signatures in the search for new physics. Searches for such diboson resonances have been performed in final states with different numbers of leptons, photons, as well as jets and b-jets where new jet substructure techniques are used to disentangle the hadronic decay products in highly boosted configuration. This talk summarises recent ATLAS searches with Run 2 data collected at the LHC and explains the experimental methods used, including vector- and Higgs-boson-tagging techniques.

Primary author: BALUNAS, William (University of Oxford (GB))

Presenter: BALUNAS, William (University of Oxford (GB))

Session Classification: Electroweak, Top quark, and Higgs Physics

Track Classification: Electroweak, Top quark, and Higgs Physics