

Phenomenology 2020 Symposium



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Searches for Diboson Resonances at ATLAS

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The unprecedented energy and luminosity of LHC has been used to search for the production of pairs of bosons, as predicted in heavy vector triplet and radion models, amongst others. The searches reported here use the full-run 2 ATLAS data set to look for VV, VH, HH and Hgamma boson pairs. Various boson decay modes including $W \rightarrow l\nu$ and qq , $Z \rightarrow ll$, $\nu\nu$ and qq , and $H \rightarrow bb$ and $\tau\tau$ are used, with all analyses featuring at least one hadronic boson decay. The production modes considered are either inclusive, or through vector boson fusion. Novel boosted analysis techniques have been used in both the bb and $\tau\tau$ final states.

Summary

Author: EMERMAN, Alex (Columbia University (US))

Presenter: EMERMAN, Alex (Columbia University (US))

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