

# DIS2023: XXX International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Parallel talk**

## Searches for resonances decaying to pairs of heavy bosons in ATLAS

*Thursday 30 March 2023 10:00 (20 minutes)*

Many new physics models predict the existence of resonances decaying into two bosons (W, Z, photon, or Higgs bosons) making these important signatures in the search for new physics. Searches for  $V\gamma$ ,  $VV$ , and  $VH$  resonances have been performed in various final states. In some of these searches, jet substructure techniques are used to disentangle the hadronic decay products in highly boosted configurations. 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.

### Submitted on behalf of a Collaboration?

Yes

### Participate in poster competition?

No

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**Session Classification:** WG3

**Track Classification:** WG3: Electroweak Physics and Beyond the Standard Model