

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## Measurements of multi-boson production at ATLAS

*Thursday, 15 April 2021 08:18 (15 minutes)*

Measurements of multiple electroweak bosons production at the LHC constitutes a stringent test of the electroweak sector and provides a model-independent means to search for new physics at the TeV scale. In this talk, we present recent results from the ATLAS experiment for multi-boson production in proton-proton collisions at  $\sqrt{s}=13$  TeV. The measurements exploit both the leptonic and hadronic decays of the weak vector bosons and in some cases the production in association with jets is explored. Differential cross sections are measured, which probe the topology of each final state. The data are corrected for detector inefficiency and resolution and are compared to theoretical predictions at NLO (and NNLO) in perturbative QCD. The measurements are sensitive to anomalous triple gauge couplings and in some cases are reinterpreted in terms of an effective field theory to constrain new physics beyond the Standard Model.

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**Session Classification:** Electroweak Physics and Beyond the Standard Model

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