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Type: **Talk**

## Electroweak measurements of multiboson production with the ATLAS experiment

Monday 2 September 2024 11:40 (20 minutes)

Measurements of multiboson production at the LHC are important probes of the electroweak gauge structure of the Standard Model and can constrain anomalous gauge boson couplings. In this talk, recent measurements of diboson and triboson production by the ATLAS experiment at 13 TeV and 13.6 TeV are presented. Studies of gauge-boson polarisation and their correlation are also presented. In WZ events, these studies have been extended to a phase space with high transverse momentum Z bosons. Measurements of diboson production in association with two additional jets at the LHC probe interactions between electroweak vector bosons predicted by the Standard Model and test contributions from anomalous quartic gauge couplings. The ATLAS experiment has recently performed such measurements in a variety of final states, amongst them semileptonic final states of W boson pairs, Z boson pairs, as well as WZ pairs, and the scattering into a massive electroweak gauge boson and a photon. The production of three massive electroweak gauge bosons will be discussed as well.

### Internet talk

No

### Is this an abstract from experimental collaboration?

Yes

### Name of experiment and experimental site

ATLAS

### Is the speaker for that presentation defined?

Yes

### Details

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