

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



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Type: **Parallel talk**

Measurements of processes sensitive to quartic electroweak couplings in ATLAS

Wednesday, 29 March 2023 09:00 (20 minutes)

Measurements of multiboson production at the LHC probe the electroweak gauge structure of the Standard Model for contributions for anomalous gauge couplings. Processes involving quartic gauge couplings have become experimentally accessible at the LHC. We present recent ATLAS results of vector-boson scattering in the $Z\gamma$ channel, where the Z boson decays to neutrinos producing missing transverse momentum in the event, and the same-sign WW channel, with both W bosons decaying leptonically. In addition, inclusive and differential measurements of triboson production are presented in the $Z\gamma\gamma$ channel. All presented results are used to constrain dimension-eight operators affecting quartic electroweak couplings in the Effective Field Theory framework. If available, additional vector-boson scattering, as well as triboson measurements will be discussed.

Submitted on behalf of a Collaboration?

Yes

Participate in poster competition?

No

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