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Measurements of processes sensitive to quartic electroweak couplings in ATLAS

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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 Zgamma 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 in Zyy channel, and recent observations of Wyy and WZy processes are presented. Results are used to constrain dimension-eight operators affecting quartic electroweak couplings in the Effective Field Theory framework. If available, additional measurements of vector-boson scattering will be discussed.

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