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Multi-boson production with the ATLAS detector

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Processes involving quartic electroweak gauge couplings have become experimentally accessible for the first time in the run-2 dataset of the LHC. In this talk, recent observations of multi-boson production in various channels by the ATLAS experiment are presented, and their measured cross-sections are reported. This includes measurements of $W\gamma$, $WZ\gamma$ and WWW production. Moreover, differential measurements of $Z\gamma\gamma$ production are highlighted. The results are used to constrain dimension-eight operators affecting quartic electroweak couplings in an Effective Field Theory framework.

Keyword-1

LHC

Keyword-2

ATLAS

Keyword-3

multi-boson

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