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Measurement of WW/WZ production in semileptonic decay channels and search for anomalous gauge couplings with the ATLAS detector

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The measurements of the production of two massive vector gauge bosons represent an important test of the Standard Model of particle physics since they probe the structure of the triple gauge boson couplings as well as test of higher-order calculations in quantum chromodynamics. In this talk, a new measurement of the production of WW or WZ boson pairs with one W decaying leptonically and one W or Z decaying hadronically is presented. The cross-section is measured in proton-proton collision data taken with the ATLAS detector at a center-of-mass energy of 8 TeV. The hadronic boson decay is reconstructed in two ways: as two resolved small-radius jets, and as a single large-radius jet. The transverse-momentum distribution of the hadronically-decaying boson is used to search for new physics, proving limits on anomalous triple gauge couplings.

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