Study of WW and WZ Productions at LHC with ATLAS

XUEFEI LI, University of Michigan, ATLAS COLLABORATION — We report studies of the Standard Model WW and WZ diboson productions at LHC with the ATLAS detector using fully simulated Monte Carlo events. The cross section uncertainties for the Standard Model WW and WZ productions are estimated through the diboson leptonic decay channels at center-of-mass energy of 10 TeV for the first year of LHC data. The detection sensitivities of the anomalous triple-gauge-boson couplings from the diboson final states are investigated using the diboson Monte Carlo events produced at 14 TeV. The application of the advanced technique, the Boosted Decision Trees, in diboson physics analysis is also presented.

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