



LHC Seminar

SPEAKER: WU, Y. (University of Michigan; Institute of Physics, Academia Sinica)

TITLE: **Recent Multiboson measurements with the ATLAS experiment**

DATE: Tue 14/06/2016 11:00

PLACE: 222-R-001 - Filtration Plant

ABSTRACT

Measurements of the cross sections of the production of two electroweak gauge bosons constitute stringent tests of the electroweak sector of the Standard Model and provide a model-independent means to search for new physics at the TeV scale. We present recent ATLAS measurements of inclusive and differential cross sections for WW, WZ, ZZ and Z + photon at centre of mass energies of 8 TeV and 13 TeV. Large next-to-next-to-leading order QCD corrections were recently calculated and are confronted with the measurements. We also present recent ATLAS measurements of inclusive cross sections for electroweak production of WZ + 2 jets and production of Z + di-photon at 8 TeV. Differential distributions sensitive to anomalous triple and quartic gauge couplings have been studied and limits on new physics have been derived.