

Recent electroweak results from ATLAS (20+10min)

Friday, 4 September 2015 16:30 (30 minutes)

ATLAS measurements of multi-boson production processes involving combinations of W, Z and isolated photons are summarized. In processes like WW, ZZ, Zgamma or Wgamma large next-to-next-to-leading order QCD corrections were recently calculated and are confronted with integrated and differential data measurements. Furthermore a measurement of the differential cross section for the inclusive four-lepton production as a function of the mass ranging from 80 to 1000 GeV is presented. Several distinct physics processes give rise to the production of

4-lepton final state: the single Z resonant processes, the Higgs production at 125 GeV, as well as continuum ZZ production processes with qq and gg initial states. Production processes sensitive to vector boson fusion and vector boson scattering such as electroweak production of single and double vector boson associated with two forward jets at 8 TeV pp collisions are also presented and compared to Standard Model expectations.

Primary author: FERRARI, Arnaud (Uppsala University (SE))

Co-author: PADILLA ARANDA, Cristobal (IFAE-Barcelona (ES))

Presenter: BAAS, Alessandra (Ruprecht-Karls-Universitaet Heidelberg (DE))

Session Classification: Hard QCD

Track Classification: Hard QCD