

A measurement of the forward-backward asymmetry in neutral current Drell-Yan processes and of the weak mixing angle at ATLAS

Dr. Regina Caputo
Johannes-Gutenberg-Universität Mainz

This talk presents a study by the ATLAS experiment of lepton pairs from Z/γ^* -boson decay. The results are based on the full set of data collected in 2011 in pp collisions at the LHC at a center-of-mass energy of 7 TeV, corresponding to an integrated luminosity of 4.8 fb⁻¹. The forward-backward asymmetry in the Z-boson rest frame is measured and used to determine the effective weak mixing angle.