



Contribution ID: 30

Type: Talk in Parallel Session at DIS2013

Measurement of high- Q^2 neutral current deep inelastic $e+p$ scattering cross sections with a longitudinally polarised positron beam at HERA

Tuesday 23 April 2013 08:55 (20 minutes)

The cross sections for neutral current deep inelastic scattering in $e+p$ collisions with a longitudinally polarised positron beam have been measured using the ZEUS detector at HERA. The single-differential cross-sections $d\sigma/dQ^2$, $d\sigma/dx$ and $d\sigma/dy$ and the double-differential cross sections in Q^2 and x are measured in the kinematic region $Q^2 > 185 \text{ GeV}^2$ for both positively and negatively polarised electron beams and for each polarisation state separately. The measurements are based on an integrated luminosity of 136 pb^{-1} taken in 2006 and 2007 at a centre-of-mass energy of 318 GeV . The structure functions xF_3 and $xF_3^{\gamma Z}$ are determined by combining the $e+p$ results presented in this analysis with previously measured $e-p$ neutral current data. The measured cross sections are compared to the predictions

Author: BEHNKE, Olaf (DESY)

Presenter: BROCK, Ian (Universitaet Bonn (DE))

Session Classification: WG1: Structure Functions

Track Classification: Structure functions and Parton Densities