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Type: **Ordinary**

Electroweak results from HERA

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The neutral and charged current deep inelastic ep scattering, with longitudinally polarised lepton beams, have been studied with the H1 and ZEUS detectors at HERA. The differential cross sections are measured in the range of four-momentum transfer squared, Q^2 , up to $50'000 \text{ GeV}^2$, where electroweak effects become clearly visible. The measurements are used to determine the structure function xF_3 and to constrain vector and axial-vector couplings of light quarks to the Z^0 boson. The polarisation dependence of the charged current total cross section is also measured.

Limits for flavour changing neutral current processes are computed from search for single-top production. The elastic Z^0 production cross section is measured to be in agreement with the SM prediction. Limits n new physics phenomena at high Q^2 are also derived within the general framework of four-fermion eeqq contact interactions.

Summary

Presentation of the recent electroweak results from HERA, on behalf of the H1 and ZEUS Collaborations.

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Classification de Session: BSM & Electroweak results

Classification de thématique: Experiment