

High Q2 Neutral and Charged Current in polarised collisions at HERA II with H1

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The inclusive single differential cross section $d\sigma/dQ^2$ and the reduced double differential cross section $\tilde{\sigma}(x, Q^2)$ are presented for neutral and charged current processes, $e^\pm p \rightarrow \nu X$, in interactions with longitudinally polarised lepton beams using the complete HERA-II data set. The cross sections are measured in the region of large negative four-momentum transfer squared $Q^2 \geq 200 \text{ GeV}^2$ and inelasticity $y < 0.9$. Together with the corresponding cross section obtained from the previously published unpolarised data, the polarisation dependence of the charged current cross section is measured and found to be in agreement with the Standard Model prediction. The neutral current data are consistent with the expected Q^2 dependence of polarised cross sections. The data are compared to predictions of the Standard Model which is able to provide a good description of the data.

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