

## Measurement of beauty production in deep inelastic scattering at HERA using decays into electrons

The production of beauty quarks in ep interactions has been studied with the ZEUS detector at HERA for exchanged four-momentum squared  $Q^2 > 10 \text{ GeV}^2$ , using an integrated luminosity of  $363 \text{ pb}^{-1}$ . The beauty events were identified using electrons from semileptonic b decays with a transverse momentum  $0.9 < p_{T^e} < 8 \text{ GeV}$  and pseudorapidity  $|\eta^e| < 1.5$ . Cross sections for beauty production were measured and compared with next-to-leading-order QCD calculations. The beauty contribution to the proton structure function  $F_2$  was extracted from the double-differential cross section as a function of Bjorken-x and  $Q^2$ .

**Auteur principal:** Prof. ZEUS, Collaboration (Tel Aviv University)

**Orateur:** Mme SHEHZADI, Ramoona

**Classification de thématique:** QCD