

## Heavy flavours in DIS using muon tags at HERA

*Friday, July 17, 2009 9:40 AM (15 minutes)*

The production of charm and beauty quarks in ep interactions has been measured with the ZEUS detector at HERA for squared four-momentum exchange  $Q^2 > 20 \text{ GeV}^2$ , using an integrated luminosity of  $126 \text{ pb}^{-1}$ . Charm and beauty quarks were identified through their decays into muons. Differential cross sections were measured for muon transverse momenta  $p_T^{\mu} > 1.5 \text{ GeV}$  and pseudorapidities  $-1.6 < \eta^{\mu} < 2.3$ , as a function of  $p_T^{\mu}$ ,  $\eta^{\mu}$ ,  $Q^2$  and Bjorken  $x$ . The charm and beauty contributions to the proton structure function  $F_2$  were also extracted. The results agree with previous measurements based on independent techniques and are well described by QCD predictions.

**Primary authors:** CORRADI, Massimo (Bologna University and INFN); ZEUS COLLABORATION, Monica Turcato (Hamburg University)

**Presenters:** CORRADI, Massimo (Bologna University and INFN); Dr CORRADI, massimo (INFN Bologna)

**Session Classification:** V. QCD at Colliders

**Track Classification:** QCD at Colliders