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Measurement of charm and beauty production in deep inelastic ep scattering from decays into muons at HERA

Content :

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 GeV^2, using an integrated luminosity of 126 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 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.

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Comments :

These results will be presented on behalf of the ZEUS Collaboration