

Dipole model analysis of $F_2^{c\bar{c}}$ derived from the new D^* data in DIS at HERA.

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I analyse the new D^* deep inelastic scattering data from HERA with the help of dipole models. I calculate $F_2^{c\bar{c}}$ from the GBW [1] and BGK [2] saturation models. I compare results with the last values determined by H1 at low Q^2 . I find good agreement with the data. In the dipole models : GBW and BGK the heavy quark contribution to F_2 was considered in the form of the $c\bar{c}$ pair production. I also show results from fits to the last σ_r data from HERA, where charm contribution as $F_2^{c\bar{c}}$ is taken into account. These results depend on the mass of charm quark. The correct treatment of effects related to the charm quark contribution in perturbative QCD calculations, in particular the mass effects, is important for the determination of parton distribution functions (PDFs).

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