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# Measurement of $D^+$ and $\Lambda_c^+$ production in deep inelastic scattering at HERA

## Content :

Charm production in deep inelastic scattering has been measured with the ZEUS detector at HERA using an integrated luminosity of  $120 \text{ pb}^{-1}$ . The hadronic decay channels  $D^+ \rightarrow K^0 S \pi^+$ ,  $\Lambda_c^+ \rightarrow p K^0 S$  and  $\Lambda_c^+ \rightarrow \Lambda \pi^+$ , and their charge conjugates, were reconstructed. The presence of a neutral strange hadron in the final state reduces the combinatorial background and extends the measured sensitivity into the low transverse momentum region. The kinematic range is  $0 < p_T(D^+, \Lambda_c^+) < 10 \text{ GeV}$ ,  $|\eta(D^+, \Lambda_c^+)| < 1.6$ ,  $1.5 < Q^2 < 1000 \text{ GeV}^2$  and  $0.02 < y < 0.7$ . Inclusive and differential cross sections for the production of  $D^+$  mesons are compared to next-to-leading-order QCD predictions. The fraction of  $c$  quarks hadronising into  $\Lambda_c^+$  baryons is extracted.

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## Comments :

These results will be presented on behalf of the ZEUS Collaboration