

Impact of LHCb heavy flavour forward data on PDFs, charm at HERA

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Summary

The impact of recent LHCb measurements of heavy flavour production on Parton Distribution Functions (PDFs) was studied and compared to PDFs extracted from HERA data only. The analysis is performed in the fixed-flavour-number scheme (FFNS) with $n_f=3$ at next-to-leading order (NLO) QCD. A good description of the data was found within the theory model uncertainties. The heavy flavour forward data constrain the gluon distribution in the region of very low x and low Q^2 , which currently is not covered by any other data in PDF fits.

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