

The dynamic of diffractive structure functions

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We extract diffractive parton distribution functions (DPDFs) and diffractive structure functions from the most recent H1 and ZEUS diffractive DIS data obtained by various methods. We consider Pomeron as an object with parton distribution function, evolving according to the next-to-leading order (NLO) DGLAP equations within the framework of the ‘Fixed Flavour Number Scheme’ (FFNS). Having performed a global fit analysis, we achieve a very good description of all available measurements by introducing a new set of quark distribution form for the Pomeron. We predict longitudinal and charm proton diffractive structure function as well. Our results are compared with other analysis from the literature.

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