

Fitting DIS data at low values of Bjorken x

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Summary

The proton structure function F_2 is analyzed in the low x regime using BFKL evolution. We present an analytic study at next to leading logarithmic (NLL) accuracy.

Higher order corrections are taken into account through an all-orders resummation introduced to improve the collinear behavior of the NLL BFKL result. We emphasize

the importance of the running coupling effects and use a model for the coupling that freezes in the infrared and is consistent with power corrections to jet observables.

A comparison to the latest HERA data for both F_2 and the dependence of the pomeron intercept on x is presented.

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