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Fitting HERA data at low-x Using a Modified BFKL Kernel

Using a modification of the BFKL equation which admits discrete pomeron pole solutions, we obtain a good fit to HERA data on structure functions at low-x, including the Q^2 dependence of the 1/x slope. The fit is very sensitive to the running of the QCD coupling, up to high energies and therefore sensitive to any new physics which may be encountered. It is suggested that the quality of such fits could provide "fossil evidence" for Physics Beyond the Standard Model even though the data analyzed are at energies far below the threshold for any such new Physics.

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