Workshop on Forward Physics and QCD at the LHC, the future Electron Ion Collider and Cosmic Ray Physics



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Impact parameter dependence of collinearly improved Balitsky-Kovchegov evolution

The Balistky-Kovchegov equation has been solved including the impact-parameter dependence. Previous attempts to include this dependence have been spoiled by the presence of the so-called Coulomb tails produced by the evolution. We show, that using the collinearly-improved kernel to the BK equation, the Coulomb tails are heavily suppressed which allows for a correct description of existing data –both of the structure function and exclusive vector meson production–, as well as for the prediction of processes that are feasible for measurement at future facilities such as EICs.

Author: MATAS, Marek
Presenter: MATAS, Marek