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Including resummation in the NLO BK equation

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Summary

We include a resummation of large transverse momentum logarithms into the next-to-leading order Balitsky-Kovchegov equation. The resummed NLO evolution equation is shown to be stable, the evolution speed being significantly reduced by higher order corrections. The contributions from α_s^2 terms that are not enhanced by large logarithms are found to be numerically important close to phenomenologically relevant initial conditions. We numerically determine the value for the constant in the resummed logarithm that includes a maximal part of the full NLO terms in the resummation.

Presentation type

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