

# High-energy resummation in Higgs-plus-jet production

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Precision physics in the Higgs sector has been one of the main challenges in recent years. The pure fixed-order calculations, entering the collinear factorization framework, in particular conditions, must be supplemented by all-order resummations. In this talk, we consider the production of a Higgs boson in association with a jet at large rapidity separation. When the two detected objects are widely separated in rapidity, the hard scattering cross section gets large logarithmic corrections that can be resummed through the Balitsky-Fadin-Kuraev-Lipatov (BFKL) approach.

We present the full next-to-leading order resummation for the aforementioned process and discuss preliminary phenomenological results for the LHC kinematical configurations.

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