

The first complete NLL BFKL study of Mueller Navelet jets at LHC

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We present the first next-to-leading BFKL study of the cross section and azimuthal decorrelation of Mueller Navelet jets. This includes both next-to-leading corrections to the Green's function and next-to-leading corrections to the Mueller Navelet vertices. The obtained results for standard observables proposed for studies of Mueller Navelet jets show that both sources of corrections are of equal and big importance for final magnitude and final behavior of observables, in particular for the LHC kinematics investigated here in detail. Our analysis reveals that the observables obtained within the complete next-to-leading order BFKL framework of the present study are quite similar to the same observables obtained within next-to-leading logarithm DGLAP type of treatment. The only noticeable difference is the ratio the azimuthal angular moments $\langle \cos 2\phi \rangle / \langle \cos \phi \rangle$ which still differs in both treatments.

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