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High-energy effects in forward inclusive dijet and hadron-jet production

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Semi-hard processes serve as a special testing ground for calculations of high-energy scatterings in perturbative QCD. In this kinematic limit, the enhanced effect of energy logarithms calls for an all-order resummation procedure. The most natural language to resum these large logarithms, both in the leading and the next-to-leading approximation, is elegantly embodied by the BFKL approach. Pursuing the goal to single out the validity region of the high-energy resummation, and to possibly disentangle BFKL effects from the ones coming from a DGLAP-inspired, fixed-order description, we will first present our recent results for cross section and azimuthal correlations in the Mueller-Navelet jet production. Then, with the aim of enriching the final-state exclusiveness, we will give new predictions, tailored on the CMS and CASTOR acceptances, for forward inclusive hadron-jet correlations.

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