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Inclusive dihadron production at 7 and 13 TeV LHC in the full next-to-leading BFKL approach

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The inclusive production of a pair of hadrons (a "dihadron"system), having high transverse momenta and separated by a large interval of rapidity, is investigated. This process has much in common with the widely discussed Mueller-Navelet jet production and can be also used to access the BFKL dynamics at proton colliders. The first full NLA BFKL analysis for cross sections and azimuthal angle correlations for dihadrons produced in the LHC kinematic ranges is presented. It is made use of the Brodsky-Lapage-Mackenzie (BLM) optimization method to set the values of the renormalization scale and study the effect of choosing different values for the factorization scale. The uncertainty coming from the use of different PDF and FF parametrizations is also investigated.

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