

# NLO computation of diffractive di-hadron production in a saturation framework

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The cross-sections of diffractive double hadron photo- or electroproduction with large  $p_T$ , on a nucleon or a nucleus, are calculated to NLO accuracy.

A hybrid formalism mixing collinear factorization and high energy  $kt$  factorization, more precisely the shock-wave formalism, is used to derive the results.

The cancellation of divergences is explicitly shown, and the finite parts of the NLO differential cross-section are found. We work in arbitrary kinematics such that both photoproduction and leptonproduction are considered, making the results usable in order to detect saturation at both the future EIC or already at LHC, using UPC

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