

# QCD@LHC2022

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## NLO computation of diffractive double hadron production with large $p_T$ in the saturation framework

*Wednesday 30 November 2022 15:00 (15 minutes)*

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  $k_T$  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.

### Declaration

I certify that I have checked that I am authorised to submit the abstract with the listed co-authors with their current affiliations

### Change of Speaker

I understand that change of speaker is allowed provided that no participant gives more than one talk. Otherwise, we will ask the speaker to choose between one or the other abstract to be presented.

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**Session Classification:** Parallel B - WG1: 1

**Track Classification:** WG1: Higher Order and Resummed Calculations