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Exclusive quarkonium photoproduction in ultraperipheral collisions at the LHC

Tuesday 2 August 2022 10:10 (20 minutes)

We discuss exclusive heavy vector meson photoproduction in proton-proton and lead-lead ultraperipheral collisions (UPCs) at the LHC, initially in conventional collinear factorisation at NLO and then subsequently in a refined approach with a programme of low x resummation and implementation of a crucial low Q subtraction included. We compare and contrast predictions in both frameworks and make a comparison with data from HERA and LHC. Time permitting, we will also discuss asymmetric proton-lead collisions. We conclude by remarking obout the possibility to constrain and ultimately determine the low x and low scale gluon PDF in the proton and heavy nuclei, emphasising the significance of this for future global PDF analyses.

Preferred track

Forward & Diffractive Physics

Subfield

HEP theory

Attending in-person?

Yes

On behalf of collaboration?

No

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