Contribution ID: **1284** Type: **Parallel session talk**

Forward dijet production at the LHC within an impact parameter dependent TMD approach

Saturday, 20 July 2024 15:36 (17 minutes)

We investigate possible signatures of gluon saturation using forward p + A ⟶ j + j + X di-jet production processes at the Large Hadron Collider. In the forward rapidity region, this is a highly asymmetric process where partons with large longitudinal momentum fraction x in the dilute projectile are used as a probe to resolve the small x partonic content of the dense target. Such dilute-dense processes can be described in the factorization framework of Improved Transverse Momentum Distributions (ITMDs). We present a new model for ITMDs where we explicitly introduce the impact parameter (b) dependence in the ITMDs, to properly account for the nuclear enhancement of gluon saturation effects, and discuss the phenomenological consequences for p – Pb, p – Xe and p – O collisions at the LHC.

Alternate track

I read the instructions above

Yes

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Session Classification: Heavy Ions

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