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Gluon Sivers function in SIDIS dijet production at EIC

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Abstract

The factorization theorem for transverse momentum dependent (TMD) distributions in dijet production in semi-inclusive deep inelastic scattering is used here to make predictions about the gluon Sivers function. We revise the unpolarized TMD case and we study the impact of TMD evolution in two schemes and using current extractions of the evolution kernel at N3LO. The process depends strongly on gluon TMD distributions and gluon evolution kernel. Big values of Sivers asymmetry, between 5-50% are predicted.

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