## First European School on the Physics of the Electron-Ion Collider



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## Accessing linearly polarized and Sivers gluon TMD in back-to-back D-Meson and jet production at the EIC

We study the azimuthal asymmetries in the leptoproduction of *D*-meson and jet to probe the gluon TMDs in electron and unpolarized-transversely polarized proton scattering at the EIC kinematics. We give predictions for unpolarized cross-sections within the TMD factorization framework. Furthermore, we also present estimates of the upper bound on the azimuthal asymmetry with the saturation of positivity bounds. Further, we evaluate the asymmetries using the Gaussian parametrization of TMDs.

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