

# XXIV International Workshop on Deep-Inelastic Scattering and Related Subjects (DIS16)



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## **Gluon transverse momentum dependent correlators in polarized high energy processes**

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We investigate the gluon transverse momentum dependent correlators as Fourier transform of matrix elements of nonlocal operator combinations. At the operator level these correlators include both field strength operators and gauge links bridging the nonlocality. In contrast to the collinear PDFs, the gauge links are no longer unique for transverse momentum dependent PDFs (TMDs) and also Wilson loops lead to nontrivial effects. We look at gluon TMDs for unpolarized, vector and tensor polarized targets. In particular a single Wilson loop operators become important when one considers the small- $x$  limit of gluon TMDs.

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