

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## A spectator-model way to transverse-momentum-dependent gluon distribution functions

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We perform explorative analyses of the 3D gluon content of the proton via a study of unpolarized and polarized gluon TMDs at twist-2, calculated in a spectator model for the parent nucleon. Our approach embodies a flexible parametrization for the spectator-mass function, suited to describe both moderate and small- $x$  effects. All these studies can serve as a useful guidance in the investigation of the gluon dynamics inside nucleons and nuclei, which constitutes one of the major goals of new-generation colliding machines, as the EIC, the HL-LHC and NICA.

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