

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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## Simultaneous extraction of spin-dependent and spin-averaged gluon PDFs

*Tuesday, March 24, 2020 5:30 PM (15 minutes)*

We present a new, simultaneous extraction of spin-averaged and spin-dependent PDFs within a multi-step Monte Carlo analysis. Utilizing data from inclusive jet production in unpolarized and polarized proton-proton and proton-antiproton collisions, we determine for the first time the spin-dependent gluon distribution,  $\Delta g(x)$ , at the same time as the unpolarized gluon PDF,  $g(x)$ . Preliminary results from the first combined unpolarized + polarized global QCD analysis will be presented.

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