

## Partial twist expansion for DIS and DVCS at small $x$

*Tuesday 3 May 2022 17:50 (20 minutes)*

We propose a novel approach to high energy scattering that allows to interpolate between the Bjorken limit and the Regge limit of QCD. It consists in performing a partial twist expansion of cross-sections which allows to resum to all orders higher twists that contribute to gluon saturation at small  $x$ . We discuss the case of gluon mediated DIS and DVCS as a first application. In this framework a novel  $x$ -dependent gluon distribution is derived whose quantum evolution generalizes BK/BFKL equations to moderate values of  $x$ .

### Submitted on behalf of a Collaboration?

No

**Authors:** BOUSSARIE, Renaud (Brookhaven National Lab); MEHTAR-TANI, Yacine

**Presenters:** BOUSSARIE, Renaud (Brookhaven National Lab); MEHTAR-TANI, Yacine

**Session Classification:** WG2: Small- $x$ , Diffraction and Vector Mesons

**Track Classification:** WG2: Small- $x$ , Diffraction and Vector Mesons