Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Double inclusive small-x gluon production in a biased ensemble[1]
GARY KAPILEVICH, The Graduate Center, City University of New York — In this presentation, we will look at double inclusive gluon production, via glasma graphs, in high energy collisions. Specifically, we will see how a bias that modifies the spectral shape of the gluon distributions affects the transverse momentum spectrum and azimuthal correlations. That is, we consider reweighted functional averages over the stochastic ensemble of small-x gluons. Such bias could, for example, be due to the selection of configurations with a greater number of gluons or higher mean transverse momentum squared. We find that fairly simple modification of the gluon distributions can have interesting effects on the azimuthal correlations.

[1]I gratefully acknowledge support by the DOE Office of Nuclear Physics through Grant No. DE-FG02-09ER41620; and from The City University of New York through the PSC-CUNY Research grant 62098-0050. I thank A. Dumitru for numerous useful discussions and suggestions and for help with the preparation of this presentation.

Gary Kapilevich
The Graduate Center, City University of New York

Date submitted: 09 Jan 2020 Electronic form version 1.4