

Abstract Submitted
for the APR20 Meeting of
The American Physical Society

Quark-Gluon Correlations¹ JAIME GOMEZ, MATTHIAS BURKARDT, New Mexico State University — Using a spectator model, we are studying quark-gluon-quark (qgq) correlations in nucleons, which are relevant to describe the distributions of particles produced by the high-energy lepton-nucleon scattering. Experimental access exists only near the ‘soft-gluon pole’ from studies of single-spin asymmetries. For QCD evolution, information is needed away from this line, and in the literature prescriptions exist on how to extrapolate into that region. Within the spectator model, we studied qgq correlations both at the soft-gluon pole (the diagonal) and away from it and tested the accuracy of these prescriptions. We find that away from the ‘diagonal’, the qgq correlations are significantly larger than anticipated.

¹supported by the Department of Energy under contract DE-FG03-95ER40965

Jaime Gomez
New Mexico State University

Date submitted: 08 Jan 2020

Electronic form version 1.4