

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

N3LO extraction of the Siverts function from SIDIS, Drell-Yan and W_{\pm}/Z data.¹ ALEXEI PROKUDIN, Penn State Berks, ALEXEY VLADIMIROV, MARCIN BURY, Regensburg University — We perform the global analysis of polarized Semi-Inclusive Deep Inelastic Scattering (SIDIS), pion-induced polarized Drell-Yan (DY), and W_{\pm}/Z boson production data and extract the Siverts function for u, d, s, and for sea-quarks. We use the framework of transverse momentum dependent factorization at NLO accuracy. The Qiu-Sterman function is determined in a model-independent way from the extracted Siverts function. We also evaluate the significance of the predicted sign change of Siverts function in DY with respect to SIDIS.

¹This work was partially supported by DFG FOR 2926 “Next Generation pQCD for Hadron Structure: Preparing for the EIC”, project number 430824754 (M.B and A.V) and by the National Science Foundation under the Contract No. PHY-2012002 (A.P.), and by the US Department of Energy under contract No. DE-AC05-06OR23177 (A.P.) under which JSA, LLC operates Jefferson Lab, and within the framework of the TMD Topical Collaboration (A.P.)

Alexei Prokudin
Penn State Berks

Date submitted: 04 Mar 2021

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