



Contribution ID: 29

Type: not specified

Power corrections at moderate q_T from Reggeized Partons

Tuesday 4 February 2020 14:50 (25 minutes)

Power-suppressed $O(q_T^2/Q^2)$ corrections to the Drell-Yan TMD cross-sections and structure functions, which restore QED gauge-invariance of the hadronic tensor in TMD factorization will be discussed in a framework of Parton Reggeization Approach [1,2]. These corrections are important in the region of moderate $q_T \sim Q$ for the description of q_T -spectrum and Helicity Structure Functions, and are not taken into account in the standard (Collinear Factorization based) construction of a Y -term. Therefore these corrections could potentially contribute to the resolution of q_T -puzzle in Drell-Yan and SDIS.

[1] M. Nefedov and V. Saleev,
“Off-shell initial state effects, gauge invariance and angular distributions in the Drell-Yan process,”
Phys. Lett. B 790, 551 (2019)
doi:10.1016/j.physletb.2018.12.071
[arXiv:1810.04061 [hep-ph]].

[2] M. Nefedov and V. Saleev,
“Off-shell initial state effects and gauge invariance in the Drell-Yan process,”
PoS DIS 2019, 193 (2019)
doi:10.22323/1.352.0193
[arXiv:1906.08681 [hep-ph]].

Primary authors: Dr NEFEDOV, Maxim (Uni. Hamburg, Uni. Samara); SALEEV, Vladimir (Samara National Research University)

Presenter: SALEEV, Vladimir (Samara National Research University)

Session Classification: Afternoon