

Higher-Twist Mechanism and Inclusive Gluon Production in Pion–Proton Collisions

Azar Ahmadov

Department of Theoretical Physics, Baku State University
Z.Khalilov st.23, AZ-1148, Baku
Azerbaijan
ahmadovazar@yahoo.com

Joint work with: C.Aydin, R.Myrzakulov, O.Uzun

In this article we calculate the contribution of the higher-twist Feynman diagrams to the large- p_T inclusive gluon production cross section in π -p collisions in case of the running coupling and frozen coupling approaches within perturbative and holographic QCD. We obtain the structure of infrared renormalon singularities of the higher-twist subprocess cross section. We also compared and analyzed the resummed higher-twist cross sections (Borel sum) with the ones obtained in the framework of the frozen coupling approach and leading-twist cross section.