Contribution ID: **267** Type: **Parallel Session Talk**

Exclusive processes beyond leading twist: gamma*T -> rhoT impact factor with twist three accuracy

Friday 23 July 2010 11:50 (17 minutes)

We describe a consistent approach to factorization of scattering amplitudes for exclusive processes beyond the leading twist approximation. The method is based on the Taylor expansion of the scattering amplitude in the momentum space around the dominant light-cone direction and thus naturally introduces an appropriate set of non-perturbative correlators which encode effects not only of the lowest but also of the higher Fock states of the produced particle. The reduction of original set of correlators to a set of independent ones is achieved with the help of equations of motion and invariance of the scattering amplitude under rotation on the light-cone. As a concrete application, we compute the expressions of the impact factor for the transition of virtual photon to transversally polarised rho-meson up to the twist 3 accuracy. (Phys.Lett.B682:413-418,2010 and Nucl.Phys.B828:1-68,2010.)

Primary author: SZYMANOWSKI, Lech (Soltan INS, Warsaw)

Co-authors: PIRE, Bernard (CPHT Ecole Polytechnique); IVANOV, Dmitry Yu (Inst. of Mathematics, Novosibirsk); ANIKIN, Igor V (JINR, Dubna); WALLON, Samuel (LPT, Univ. Paris-Sud, Orsay)

Presenter: SZYMANOWSKI, Lech (Soltan INS, Warsaw)

Session Classification: 03 - Perturbative QCD, Jets and Diffractive Physics

Track Classification: 03 - Perturbative QCD, Jets and Diffractive Physics