

Leading and Higher Twist Contributions to Proton Angular Momentum

Thursday, March 22, 2018 10:15 AM (25 minutes)

I will present an analysis of the parton transverse momentum, k_T , substructure of the generalized Wandzura Wilczek relations involving twist three Generalized Parton Distributions. Out of 16 possible Equation of Motion relations that can be written in the T-even sector, I will focus on three helicity configurations that can be detected analyzing specific spin asymmetries: two correspond to longitudinal proton polarization and are associated with quark orbital angular momentum and spin-orbit correlations; the third, obtained for transverse proton polarization, is a generalization of the relation obeyed by the g_2 structure function. An additional relation connecting the off-forward extension of the Sivers function to an off-forward Qiu-Sterman term will also be discussed.

Authors: Prof. LIUTI, Simonetta (University of Virginia); Dr RAJAN, Abha (University of Virginia); ENGELHARDT, Michael

Presenter: Prof. LIUTI, Simonetta (University of Virginia)