Contribution ID: **8** Type: **not specified**

Unraveling hadron transverse momentum in SIDIS: Dynamics, present data, future measurements

Wednesday, 2 September 2015 16:30 (30 minutes)

The transverse momentum of hadrons observed in the current fragmentation region of SIDIS is generally compounded of several parts: the intrinsic transverse momentum of partons in the target, the effects of QCD radiation, and the broadening due to the fragmentation process. Unraveling the different contributions is a major challenge that needs to be addressed before one can reliably apply QCD factorization formulas and extract information about TMD distributions. Recent pion/kaon multiplicity data from HERMES and COMPASS indicate that non-perturbative dynamics plays an essential role in the measured P_T distributions, particularly at z >˜ 0.5. In this talk I briefly summarize
(a) what our present knowledge of non-perturbative dynamics suggests regarding the magnitude of the different contributions to hadron transverse momentum;
(b) what SIDIS measurements could/should be done to unravel the different contributions;
(c) what could be learned from measurements of particle correlations between the current and target fragmentation regions.

The talk will be a concise summary and aim to provide input to the discussions.
It relates mainly to the topics of Sessions 1 and 2 of the program.

Session

3: TMDs from unpolarised SIDIS data, pT distributions, azimuthal asymmetries

Primary author: WEISS, Christian (Jefferson Lab)

Presenter: WEISS, Christian (Jefferson Lab)

Session Classification: TMDs from unpolarised SIDIS data (pT distributions, azimuthal asymmetries)