

TMD Fragmentations from thrust dependent processes

Tuesday, May 23, 2023 9:25 AM (20 minutes)

Extending the TMD factorization to thrust-dependent observables entails difficulties ultimately associated with the behavior of soft radiation.

In this talk, the factorization properties of the thrust distribution of e^+e^- annihilation into a single hadron are discussed and their peculiarities with respect to standard TMD factorization are highlighted.

I present the phenomenological extraction of the unpolarized TMD Fragmentation Function for pions, for the first time based on a sound factorization theorem that correctly takes into account the thrust dependence in the 2-jet region.

Primary author: SIMONELLI, Andrea (ODU Research Foundation and JLAB)

Co-author: Prof. BOGLIONE, mariaelena (University of Turin)

Presenter: SIMONELLI, Andrea (ODU Research Foundation and JLAB)

Session Classification: TMDs