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Transverse momentum distribution of hadrons within a jet ALEXEI PROKUDIN, Penn State University, ZHONGBO KANG, Los Alamos National Laboratory — We consider the transverse momentum distribution of hadrons within a fully reconstructed jet. Within the framework of Soft Collinear Effective Theory (SCET), we demonstrate how such a distribution for inclusive jet production in proton-proton collisions can be expressed in a transverse momentum dependent (TMD) factorization formalism. We show the phenomenological application of such a formalism, for both unpolarized and polarized collisions (e.g., Collins azimuthal asymmetry), which has been measured at both RHIC and/or LHC.

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