

Studies of multi-jet merging with Parton Branching TMD evolution

Tuesday 3 May 2022 10:40 (20 minutes)

Recently a multi-jet merging method has been proposed which incorporates the evolution of TMD distributions [arXiv:2107.01224 [hep-ph]]. We present new studies of differential jet rates in this framework, and results for Drell-Yan (DY) production and multijets. We discuss the reduction of merging scale uncertainties owing to the TMD merging compared to collinear merging, and investigate the dependence of theoretical predictions on the merging scale as a function of DY mass, including the case of high-mass DY at the LHC.

Submitted on behalf of a Collaboration?

No

Primary authors: BERMUDEZ MARTINEZ, Armando (CMS-DESY); VAN KAMPEN, Mees; HAUTMANN, Francesco (University of Antwerp (UAntwerp))

Presenter: VAN KAMPEN, Mees

Session Classification: WG4: QCD with Heavy Flavours and Hadronic Final States

Track Classification: WG4: QCD with Heavy Flavours and Hadronic Final States