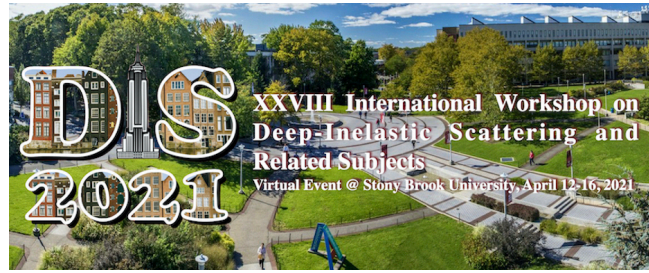


XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Drell-Yan transverse spectra at the LHC: a comparison of parton branching and analytic resummation approaches

Thursday, April 15, 2021 1:26 PM (17 minutes)

A parton branching (PB) formulation for the QCD evolution of transverse momentum dependent (TMD) parton distribution functions has been recently developed. With the implementation of this in the evolution program `updevolv` and the parton shower Monte Carlo event generator `Cascade3`, PB TMD predictions for observables in broad kinematic regimes can be made. In this talk I focus on recent PB TMD results for Drell-Yan transverse momentum spectra, and present a systematic comparison of them with results from CSS analytic resummation obtained via the program `reSolve`. I concentrate on the estimate of theoretical uncertainties in the two frameworks for the LHC kinematic region, the order of perturbative logarithmic accuracy and the role of non-perturbative TMD effects.

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