

NNLO QCD corrections to semi-inclusive DIS

Tuesday 5 November 2024 14:00 (45 minutes)

In this talk, we present the second order QCD corrections to the semi-inclusive deep-inelastic scattering process. We compute both virtual and phase-space integrals analytically, using the state-of-the-art techniques namely, the method of reverse unitarity, IBP reduction and the method of differential equations. After appropriate mass-subtraction, we obtain the finite partonic cross-section and perform a numerical analysis to demonstrate the impact of NNLO correction.

Presenter: RANA, Narayan