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NNLO QCD corrections to semi-inclusive DIS

Thursday 18 April 2024 09:00 (30 minutes)

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

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