

MSHT20aN3LO - Approximate N3LO PDFs and theoretical uncertainties

Thursday 14 December 2023 17:10 (25 minutes)

We consider the extension of the MSHT20 PDFs to approximate N3LO order. We describe the inclusion of the known N3LO information and the parameterisation of the remaining missing N3LO contributions, as well as the determination of the theoretical uncertainties from missing pieces and their interpretation. We then examine the impact on the PDFs as well as on predicted cross-sections. Finally, if time allows we will provide an update on further developments and added datasets, including a study on the impact of the EIC on the PDFs.

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