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Type: Parallel Talk

Initial state QED radiation at next-to-leading logarithmic accuracy for future e^+e^- colliders

Friday, 8 July 2022 17:45 (15 minutes)

In this talk, we will present state-of-the-art results for the QED Parton Distribution Functions (PDFs), which have been recently pushed up to next-to-leading logarithmic (NLL) accuracy. NLL PDFs properly take into account the mixing between the electron/positron with the photon and the other fermions, running- α effects and the dependence on the renormalisation and factorisation scheme. We will also discuss the inclusion of NLL PDFs in the automated MADGRAPH5_AMC@NLO framework, which have been equipped with next-to-leading order (NLO) electroweak corrections, and we will present first NLL+NLO predictions for physical observables at lepton colliders.

In-person participation

Yes

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