

Drell-Yan processes at hadron colliders

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The production of a pair of high-transverse-momentum leptons plays a very important role at hadron colliders: it allows the precise measurement of basic parameters of the Standard Model like the masses and decay widths of the W and Z bosons and the weak mixing angle; it provides stringent constraints on the parametrization of the proton parton density functions; it could provide a tool to monitor the collider luminosity; it is an important background to the searches for new physics signals.

The present status of the theoretical predictions for the inclusive lepton-pair production cross-sections will be reviewed considering QCD and EW corrections and their interplay.

The implementation of these corrections in Monte Carlo event generators and the implications for the precise measurement of the W boson mass will be discussed.

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