Phenomenology 2020 Symposium



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Master Integrals for the mixed EW-QCD corrections to the Drell-Yan production of a massive lepton pair

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We present the calculation of the master integrals needed for the two loop mixed QCD-Electroweak virtual corrections to the neutral current Drell-Yan processes $(q\bar{q}\to l^+l^-)$. The dependence on the lepton mass is expanded such that potentially large logarithmic contributions are kept. Finally, the canonical master integrals are given as a Taylor series around four space-time dimensions with coefficients given in terms of generalized polylogarithms up to weight four.

Summary

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