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Two-loop QED correction to the mu-e elastic scattering

In this talk we present the analytic evaluation of the two-loop QED correction to the mu-e elastic scattering, retaining the full dependence on the muon mass and considering the electron as a massless particle. We discuss the generation of integrands from Feynman diagrams as well as the evaluation of the latter by recalling the analytic expressions of the two-loop master integrals, recently computed for this kinematics. Likewise, the renormalisation procedure is discussed in details. We also comment that this calculation can straightforwardly be applied to crossing related processes like di-muon production, e+e- -> mu+mu-, as well as the heavy-quark production in QCD, qqbar -> ttbar.

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Collaboration / Activity

TBD

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