

The complete singlet contribution to the massless quark form factor at three loops in QCD

Friday, April 29, 2022 11:30 AM (30 minutes)

In this talk, I will present an exact result for the three-loop QCD correction to the axial component of the singlet quark form factor mediated by top quarks.

The result is obtained via a numerical solution of a system of differential equation for the occurring master integrals.

Furthermore, the Wilson coefficient in front of the axial current of massless quarks in the low energy effective QCD is extracted, which can be conveniently used to approximate the leading behavior of the singlet contribution in the large top mass limit.

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Session Classification: Parallel 8