

Four-loop form factors and three-loop amplitudes in QCD

Saturday 30 April 2022 12:00 (30 minutes)

In this talk, I present the first complete calculation of form factors to four-loop order in massless QCD. Our results for the qqA , ggH and bbH vertices confirm the predicted structure of infrared poles and allow to extract the cusp and collinear anomalous dimensions. Further, I will discuss the calculation of three-loop amplitudes for quark and gluon scattering. We verify predictions for the color quadrupole contributions to the infrared poles of multi-leg amplitudes in three-loop QCD.

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