

# The pion-photon transition form factor at two loops in QCD

*Monday, 2 November 2020 06:00 (1 hour)*

In this talk, I will report on our recent fully analytic calculation of the leading-power contribution to the photon-pion transition form factor at two loops in QCD. The applied techniques rely on hard-collinear factorization, together with modern multi-loop methods. I will focus both on the technical details, such as the treatment of evanescent operators, and the phenomenological implications. Our results indicate that the two-loop correction is numerically comparable to the one-loop effect in the same kinematic domain. I will also demonstrate that our results will play a key role in disentangling various models for the twist-two pion distribution amplitude thanks to the envisaged precision at future experimental facilities.

**Presenter:** Dr JI, Yao

**Session Classification:** 相空间积分