

# Mixed QCD x QED Corrections to Drell-Yan Z Production

*Tuesday 10 September 2019 12:00 (25 minutes)*

When computing perturbative corrections to a process QCD provides the phenomenologically most significant contribution. Nevertheless, because of the similar size of  $\alpha_S^2$  respect to  $\alpha_{QED}$ , for a precision prediction one needs to consider electroweak corrections as well.

In this talk we show how one can obtain the mixed QCDxQED corrections from pure QCD NNLO corrections by means of an abelianization procedure. We show this by explicitly applying such procedure to the production of an on-shell Z boson in hadronic collisions. This way, we profit from a legacy 20-year-old NNLO calculation to extend the available knowledge up to complete QCD@QED NNLO order.

**Author:** FABRE, Ignacio (ICAS-UNSAM)

**Presenter:** FABRE, Ignacio (ICAS-UNSAM)

**Session Classification:** Tuesday Morning B