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The role of pT resummation in fiducial cross sections at the LHC

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I discuss the importance of pT resummation in fiducial cross sections at the LHC, using gluon-fusion Higgs production in the diphoton decay channel with fiducial cuts as an example. In particular, I discuss the treatment of fiducial power corrections that make the total cross section sensitive to small-pT resummation effects, and thereby enhance the N3LO correction. Integrating the resummed pT spectrum at N3LO+N3LL' accuracy thus allows us to predict for the first time the total fiducial cross section N3LO and improved by resummation.

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