

## Higgs Production in association with a hadronic jet at NNLO in QCD

*Tuesday 16 April 2013 11:02 (22 minutes)*

In this talk, we will present new results for the differential cross-section of Higgs boson production in gluon fusion in association with a hadronic jet at next-to-next-to-leading order (NNLO) in perturbative QCD.

This result is urgently needed in order to reduce the theoretical uncertainties hindering a precise extraction of the Higgs properties at the LHC. Currently, the theoretical errors in the one-jet bin comprise one of the largest systematic errors in the Higgs analyses at the LHC, particularly in the WW final state. Our new NNLO QCD corrections significantly reduce the residual scale dependence of the cross-section.

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