

Fully differential VBF Higgs production at NNLO (15+5min)

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In this talk, we will present the fully differential NNLO corrections to vector-boson fusion (VBF) Higgs production at hadron colliders, in the limit in which there is no cross-talk between the hadronic systems associated with the two protons. This result is achieved by combining an inclusive NNLO calculation in the structure-function approach and a suitably factorised NLO VBF Higgs plus 3-jet calculation, supplemented with appropriate Higgs plus 2-parton counterevents. An earlier calculation of the fully inclusive cross section had found small NNLO corrections, at the percent level. In contrast, we will show that the cross section after typical experimental VBF cuts and differential distributions receive large NNLO corrections.

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