

Erratum: Fully Differential Vector-Boson-Fusion Higgs Production at Next-to-Next-to-Leading Order [Phys. Rev. Lett. 115, 082002 (2015)]

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The NLO 3-jet calculation [1] and its POWHEG implementation [2] has been found to have a bug in its virtual terms. Resolving this bug reduces the impact of the NNLO corrections and they are now of order 4% for the total cross section (with VBF cuts) and up to 4%–7% in differential distributions. Updated results for the total cross section and differential distributions are to be found in Table I and Fig. 1, respectively.

TABLE I. Cross sections at LO, NLO, and NNLO for VBF Higgs production, fully inclusively and with VBF cuts. The quoted uncertainties correspond to scale dependence, while statistical errors at NNLO are about 0.1% with VBF cuts and much smaller without.

	$\sigma^{(\text{no cuts})}$ [pb]	$\sigma^{(\text{VBF cuts})}$ [pb]
LO	$4.032^{+0.057}_{-0.069}$	$0.957^{+0.066}_{-0.059}$
NLO	$3.929^{+0.024}_{-0.023}$	$0.876^{+0.008}_{-0.018}$
NNLO	$3.888^{+0.016}_{-0.012}$	$0.844^{+0.008}_{-0.008}$

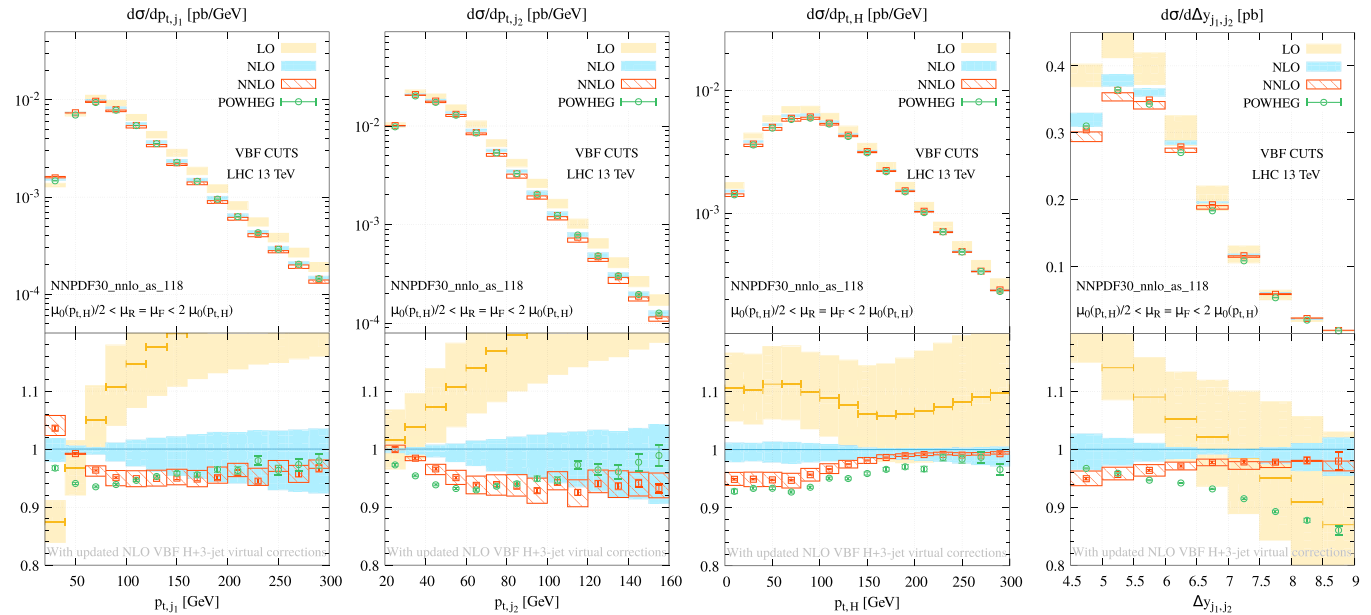


FIG. 1. From left to right, differential cross sections for the transverse momentum distributions for the two leading jets, p_{t,j_1} and p_{t,j_2} , for the Higgs boson, $p_{t,H}$, and the distribution for the rapidity separation between the two leading jets, $\Delta y_{j_1,j_2}$.

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- [3] J. Cruz-Martinez, T. Gehrmann, E. W. N. Glover, and A. Huss, [arXiv:1802.02445](#).