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Search for the HH → bb̄bb̄ process via vector-boson fusion production using proton-proton collisions at √s = 13 TeV with the ATLAS detector

The ATLAS Collaboration

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Erratum 2: Search for the $HH \to b\bar{b}b\bar{b}$ process via vector-boson fusion production using proton-proton collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

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One correction is noted for the paper. A wrong cross-section was used for the theory prediction in figure 6 due to not taking into account the VHH contamination properly in the rescaling formula for the signal samples. The change in the theory prediction leads to stricter exclusion limits on the di-vector-boson–di-Higgs-boson coupling modifier κ_{2V}. The observed excluded region corresponds to $\kappa_{2V} < -0.43$ and $\kappa_{2V} > 2.56$, while the expected exclusion is $\kappa_{2V} < -0.55$ and $\kappa_{2V} > 2.72$. Erratum JHEP 01 (2021) 145 fixed the description in the text but contains the uncorrected figure. The correct figure is shown in the new erratum.

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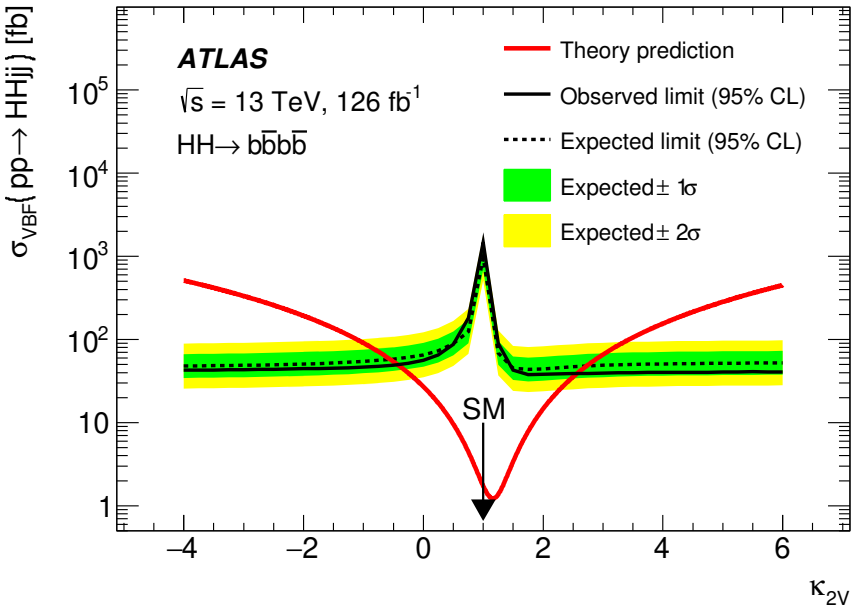

Figure 6. Observed and expected 95% CL upper limits on the production cross-section for non-resonant HH production via VBF as a function of the di-vector-boson–di-Higgs-boson coupling modifier κ_{2V}. The theory prediction of the cross-section as a function of κ_{2V} is also shown. More details on the predicted cross-section can be found in section 3.

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