

ATLAS Internal $\sqrt{s} = 13 \text{ TeV}, 126 \text{ fb}^{-1}$ $\sigma_{\text{ggF}, \text{HH}}^{\text{SM}} = 31.05 \text{ fb}, \text{bkg syts}$

— — Expected

±1σ

±2σ

4b: inclusive

8.14

4b: $\Delta\eta_{\text{HH}}, X_{\text{HH}}$ categories

6.20

4b + 3b1l: $\Delta\eta_{\text{HH}}, X_{\text{HH}}$ categories

5.98

2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0
95% CL upper limit on $\sigma_{\text{ggF}, \text{HH}} / \sigma_{\text{ggF}, \text{HH}}^{\text{SM}}$