

STXS stage 1.2: maximal merging scheme

Parameters	$\sigma\mathcal{B}$ [fb]				$\sigma\mathcal{B}/(\sigma\mathcal{B})_{\text{SM}}$
	SM prediction ($m_H = 125.38$ GeV)	Observed (Expected)			Observed (Expected)
		Best fit	Stat unc.	Syst unc.	Best fit
ggH 0J low p_T^H	$15.22^{+3.81}_{-3.87}$	$6.56^{+4.29}_{-4.22} \begin{pmatrix} +4.31 \\ -4.23 \end{pmatrix}$	$+4.28 \begin{pmatrix} +4.37 \\ -4.28 \end{pmatrix}$	$+0.46 \begin{pmatrix} +0.58 \\ -0.15 \end{pmatrix}$	$0.43^{+0.28}_{-0.28} \begin{pmatrix} +0.28 \\ -0.28 \end{pmatrix}$
ggH 0J high p_T^H	$44.27^{+4.55}_{-4.36}$	$56.76^{+7.13}_{-8.77} \begin{pmatrix} +8.37 \\ -8.28 \end{pmatrix}$	$+6.69 \begin{pmatrix} +8.15 \\ -8.15 \end{pmatrix}$	$+2.48 \begin{pmatrix} +1.95 \\ -1.51 \end{pmatrix}$	$1.28^{+0.16}_{-0.20} \begin{pmatrix} +0.19 \\ -0.19 \end{pmatrix}$
ggH 1J low p_T^H	$16.21^{+2.33}_{-2.34}$	$11.86^{+5.62}_{-5.74} \begin{pmatrix} +8.09 \\ -6.17 \end{pmatrix}$	$+5.57 \begin{pmatrix} +7.97 \\ -6.16 \end{pmatrix}$	$+0.83 \begin{pmatrix} +1.39 \\ -1.35 \end{pmatrix}$	$0.73^{+0.35}_{-0.35} \begin{pmatrix} +0.50 \\ -0.38 \end{pmatrix}$
ggH 1J med p_T^H	$11.22^{+1.58}_{-1.57}$	$10.42^{+3.14}_{-3.10} \begin{pmatrix} +3.33 \\ -3.23 \end{pmatrix}$	$+3.06 \begin{pmatrix} +3.26 \\ -3.04 \end{pmatrix}$	$+0.71 \begin{pmatrix} +0.73 \\ -0.56 \end{pmatrix}$	$0.93^{+0.28}_{-0.28} \begin{pmatrix} +0.30 \\ -0.29 \end{pmatrix}$
ggH 1J high p_T^H	$2.00^{+0.40}_{-0.40}$	$2.76^{+0.92}_{-0.88} \begin{pmatrix} +0.94 \\ -0.91 \end{pmatrix}$	$+0.90 \begin{pmatrix} +0.92 \\ -0.87 \end{pmatrix}$	$+0.21 \begin{pmatrix} +0.17 \\ -0.15 \end{pmatrix}$	$1.38^{+0.46}_{-0.44} \begin{pmatrix} +0.47 \\ -0.45 \end{pmatrix}$
ggH ≥ 2 J low p_T^H	$2.82^{+0.69}_{-0.69}$	$5.90^{+4.68}_{-3.76} \begin{pmatrix} +4.04 \\ -2.82 \end{pmatrix}$	$+4.59 \begin{pmatrix} +4.00 \\ -3.74 \end{pmatrix}$	$+0.94 \begin{pmatrix} +0.56 \\ -0.47 \end{pmatrix}$	$2.09^{+1.66}_{-1.33} \begin{pmatrix} +1.43 \\ -1.00 \end{pmatrix}$
ggH ≥ 2 J med p_T^H	$4.54^{+1.06}_{-1.06}$	$3.13^{+2.59}_{-2.55} \begin{pmatrix} +2.79 \\ -2.66 \end{pmatrix}$	$+2.58 \begin{pmatrix} +2.79 \\ -2.52 \end{pmatrix}$	$+0.30 \begin{pmatrix} +0.22 \\ -0.36 \end{pmatrix}$	$0.69^{+0.57}_{-0.56} \begin{pmatrix} +0.62 \\ -0.59 \end{pmatrix}$
ggH ≥ 2 J high p_T^H	$2.12^{+0.55}_{-0.55}$	$0.67^{+1.03}_{-0.67} \begin{pmatrix} +1.10 \\ -1.08 \end{pmatrix}$	$+1.02 \begin{pmatrix} +1.09 \\ -0.88 \end{pmatrix}$	$+0.11 \begin{pmatrix} +0.14 \\ -0.11 \end{pmatrix}$	$0.32^{+0.49}_{-0.32} \begin{pmatrix} +0.52 \\ -0.51 \end{pmatrix}$
ggH VBF-like	$2.22^{+0.52}_{-0.52}$	$2.34^{+3.19}_{-2.34} \begin{pmatrix} +2.74 \\ -2.22 \end{pmatrix}$	$+3.08 \begin{pmatrix} +2.69 \\ -2.35 \end{pmatrix}$	$+0.83 \begin{pmatrix} +0.51 \\ -0.83 \end{pmatrix}$	$1.06^{+1.44}_{-1.06} \begin{pmatrix} +1.24 \\ -1.00 \end{pmatrix}$
ggH BSM	$1.43^{+0.38}_{-0.38}$	$1.43^{+0.48}_{-0.45} \begin{pmatrix} +0.51 \\ -0.47 \end{pmatrix}$	$+0.46 \begin{pmatrix} +0.49 \\ -0.44 \end{pmatrix}$	$+0.14 \begin{pmatrix} +0.14 \\ -0.09 \end{pmatrix}$	$1.00^{+0.34}_{-0.32} \begin{pmatrix} +0.36 \\ -0.33 \end{pmatrix}$
qqH VBF-like	$2.96^{+0.42}_{-0.42}$	$2.14^{+1.48}_{-1.56} \begin{pmatrix} +1.59 \\ -1.52 \end{pmatrix}$	$+1.44 \begin{pmatrix} +1.56 \\ -1.52 \end{pmatrix}$	$+0.35 \begin{pmatrix} +0.29 \\ -0.35 \end{pmatrix}$	$0.72^{+0.50}_{-0.53} \begin{pmatrix} +0.54 \\ -0.51 \end{pmatrix}$
qqH VH-like	$1.29^{+0.05}_{-0.05}$	$1.16^{+1.18}_{-1.10} \begin{pmatrix} +1.22 \\ -1.14 \end{pmatrix}$	$+1.17 \begin{pmatrix} +1.21 \\ -1.10 \end{pmatrix}$	$+0.11 \begin{pmatrix} +0.11 \\ -0.08 \end{pmatrix}$	$0.90^{+0.92}_{-0.86} \begin{pmatrix} +0.95 \\ -0.89 \end{pmatrix}$
qqH BSM	$0.37^{+0.01}_{-0.01}$	$0.53^{+0.23}_{-0.22} \begin{pmatrix} +0.24 \\ -0.22 \end{pmatrix}$	$+0.23 \begin{pmatrix} +0.24 \\ -0.21 \end{pmatrix}$	$+0.03 \begin{pmatrix} +0.03 \\ -0.02 \end{pmatrix}$	$1.44^{+0.62}_{-0.58} \begin{pmatrix} +0.65 \\ -0.60 \end{pmatrix}$
WH lep	$0.88^{+0.03}_{-0.03}$	$0.40^{+0.41}_{-0.36} \begin{pmatrix} +0.45 \\ -0.40 \end{pmatrix}$	$+0.41 \begin{pmatrix} +0.45 \\ -0.36 \end{pmatrix}$	$+0.03 \begin{pmatrix} +0.04 \\ -0.01 \end{pmatrix}$	$0.45^{+0.47}_{-0.40} \begin{pmatrix} +0.51 \\ -0.45 \end{pmatrix}$
ZH lep	$0.53^{+0.02}_{-0.02}$	$0.55^{+0.37}_{-0.29} \begin{pmatrix} +0.38 \\ -0.33 \end{pmatrix}$	$+0.36 \begin{pmatrix} +0.38 \\ -0.29 \end{pmatrix}$	$+0.05 \begin{pmatrix} +0.04 \\ -0.05 \end{pmatrix}$	$1.04^{+0.69}_{-0.54} \begin{pmatrix} +0.72 \\ -0.61 \end{pmatrix}$
ttH	$1.13^{+0.08}_{-0.11}$	$1.37^{+0.44}_{-0.41} \begin{pmatrix} +0.41 \\ -0.41 \end{pmatrix}$	$+0.43 \begin{pmatrix} +0.40 \\ -0.40 \end{pmatrix}$	$+0.09 \begin{pmatrix} +0.08 \\ -0.07 \end{pmatrix}$	$1.21^{+0.39}_{-0.36} \begin{pmatrix} +0.36 \\ -0.36 \end{pmatrix}$
tH	$0.20^{+0.01}_{-0.03}$	$0.79^{+0.79}_{-0.70} \begin{pmatrix} +0.73 \\ -0.20 \end{pmatrix}$	$+0.78 \begin{pmatrix} +0.73 \\ -0.69 \end{pmatrix}$	$+0.11 \begin{pmatrix} +0.09 \\ -0.12 \end{pmatrix}$	$3.87^{+3.86}_{-3.44} \begin{pmatrix} +3.58 \\ -1.00 \end{pmatrix}$