

Input analysis	Decay tags	Production tags	Process granularity	References
$H \rightarrow \gamma\gamma$	$\gamma\gamma$	ggH, $p_T^H \times \text{N-jet} + \text{BSM bins}$ VBF, $m_{jj} \times p_T^{\text{H}ij} + \text{BSM bins}$ VH hadronic WH leptonic, p_T^V bins ZH leptonic ttH, p_T^H bins tH	STXS stage 1.2	[39]
$H \rightarrow ZZ \rightarrow 4\ell$	$4\mu, 2e2\mu, 4e$	ggH, $p_T^H \times \text{N-jet} + \text{BSM bins}$ VBF, $m_{jj} \times \text{N-jet} + \text{BSM bins}$ VH hadronic VH leptonic, p_T^V bins ttH	STXS stage 1.2	[40]
$H \rightarrow WW \rightarrow \ell\nu\ell\nu$	$e\mu/\mu e, ee+\mu\mu, e\mu+jj$ $3\ell, 4\ell$	ggH, $p_T^H \times \text{N-jet} + \text{BSM bins}$ VBF-like $m_{jj} + \text{BSM bins}$ VH hadronic WH leptonic ZH leptonic	STXS stage 1.2	[41]
$H \rightarrow \tau\tau$	$e\mu, e\tau_h, \mu\tau_h, \tau_h\tau_h$	ggH, $p_T^H \times \text{N-jet} + \text{BSM bins}$ VBF, $m_{jj} \times \text{N-jet} + \text{BSM}$ WH leptonic, p_T^V bins ZH leptonic, p_T^V bins	Inclusive production mode STXS stage 1.2	[42]
$H \rightarrow b\bar{b}$ boosted	b $\bar{b}$	ggH, high p_T^H bins VBF, high p_T^H bins	Inclusive production mode STXS stage 1.2	[26]
VBF ($H \rightarrow b\bar{b}$)	b $\bar{b}$	VBF, resolved	Inclusive production mode	[25]
VH ($H \rightarrow b\bar{b}$)	b $\bar{b}$	WH leptonic, p_T^V bins ZH leptonic, p_T^V bins	STXS stage 1.2	[29]
ttH ($H \rightarrow b\bar{b}$)	b $\bar{b}$	ttH, p_T^H bins tH	Inclusive production mode STXS stage 1.2	[30]
ttH ($H \rightarrow \text{leptons}$)	$2\ell(\text{ss}), 3\ell, 4\ell$ $1\ell+2\tau_h, 2\ell(\text{ss})+1\tau_h, 3\ell+1\tau_h$	ttH, tH	STXS stage 1.2	[43]
$H \rightarrow \mu\mu$	$\mu\mu$	ggH, VBF, VH, ttH	Inclusive production mode	[44]
$H \rightarrow Z\gamma$	$\ell^+\ell^-\gamma$	ggH, VBF	Inclusive production mode	[45]
$H \rightarrow \text{inv}$	MET	Mono-jet VBF VH leptonic VH/ttH hadronic	Inclusive production mode	[46,47,48,28]
Offshell ($H \rightarrow ZZ \rightarrow 4\ell$)	$H \rightarrow ZZ \rightarrow 4\ell$	Offshell production	Offshell production contributions (see Eq. ??)	[27]