

## SM 125 GeV Higgs boson expected signal

Analysis categories	Total	Target STXS bin(s)	Fraction of total events					$\sigma_{\text{eff}}$ (GeV)	S/(S+B)	
			ggH	qqH	WH lep	ZH lep	ggZH lep			Top
ZH lep Tag0	2.4	99.6%	—	—	—	82.0%	17.7%	0.4%	1.67	0.57
ZH lep Tag1	0.9	97.5%	0.1%	—	0.2%	80.7%	16.9%	2.2%	1.85	0.32
WH lep $p_{\text{T}}^{\text{V}} < 75$ Tag0	2.0	81.1%	—	0.2%	95.0%	3.3%	0.2%	1.3%	1.89	0.43
WH lep $p_{\text{T}}^{\text{V}} < 75$ Tag1	4.5	75.7%	2.6%	0.5%	87.2%	7.0%	0.3%	2.4%	1.85	0.19
WH lep $75 < p_{\text{T}}^{\text{V}} < 150$ Tag0	3.0	77.7%	0.7%	0.3%	93.2%	3.4%	0.8%	1.6%	1.94	0.56
WH lep $75 < p_{\text{T}}^{\text{V}} < 150$ Tag1	3.3	60.8%	1.7%	1.4%	83.1%	7.7%	1.6%	4.4%	2.02	0.33
WH lep $p_{\text{T}}^{\text{V}} > 150$ Tag0	3.5	79.9%	0.5%	0.4%	91.5%	3.6%	1.1%	2.8%	1.84	0.77
VH MET Tag0	2.2	97.9%	0.4%	0.9%	23.5%	56.9%	17.6%	0.8%	2.22	0.48
VH MET Tag1	3.6	90.5%	4.6%	3.1%	28.8%	46.0%	15.7%	1.9%	2.30	0.34
VH MET Tag2	6.6	72.2%	15.5%	8.8%	27.7%	33.5%	11.0%	3.5%	2.15	0.18