

SM 125 GeV Higgs boson expected signal

Analysis categories	Total	Target	Fraction of total events					$\sigma_{\text{eff}}$ (GeV)	S/(S+B)
		STXS bin(s)	ggH	b $\bar{b}$ H	qqH	VH lep	Top		
0J low $p_T^{\gamma\gamma}$ Tag0	296.2	86.6%	97.9%	1.1%	0.8%	0.1%	—	1.89	0.06
0J low $p_T^{\gamma\gamma}$ Tag1	340.0	88.5%	98.0%	1.0%	0.8%	0.1%	—	2.31	0.03
0J low $p_T^{\gamma\gamma}$ Tag2	279.6	89.3%	98.1%	1.0%	0.8%	0.1%	—	2.53	0.02
0J high $p_T^{\gamma\gamma}$ Tag0	612.4	81.9%	95.6%	1.4%	2.6%	0.4%	—	1.64	0.09
0J high $p_T^{\gamma\gamma}$ Tag1	1114.6	79.4%	95.4%	1.3%	2.8%	0.4%	—	2.19	0.05
0J high $p_T^{\gamma\gamma}$ Tag2	1162.6	78.3%	95.3%	1.4%	2.7%	0.5%	—	2.56	0.02
1J low $p_T^{\gamma\gamma}$ Tag0	132.0	66.2%	88.8%	0.8%	9.4%	0.8%	0.1%	1.53	0.11
1J low $p_T^{\gamma\gamma}$ Tag1	340.0	66.3%	88.6%	0.8%	9.6%	0.9%	0.1%	1.95	0.05
1J low $p_T^{\gamma\gamma}$ Tag2	260.6	66.2%	88.3%	0.8%	9.7%	1.0%	0.1%	2.37	0.02
1J med $p_T^{\gamma\gamma}$ Tag0	184.1	65.2%	81.7%	0.5%	16.3%	1.4%	0.2%	1.65	0.15
1J med $p_T^{\gamma\gamma}$ Tag1	310.2	66.3%	83.6%	0.4%	14.3%	1.6%	0.1%	1.91	0.08
1J med $p_T^{\gamma\gamma}$ Tag2	291.4	65.0%	83.7%	0.5%	13.8%	1.8%	0.2%	2.13	0.03
1J high $p_T^{\gamma\gamma}$ Tag0	37.3	61.9%	75.7%	0.2%	22.8%	1.0%	0.2%	1.55	0.30
1J high $p_T^{\gamma\gamma}$ Tag1	31.2	61.7%	75.0%	0.3%	23.4%	1.1%	0.2%	1.73	0.16
1J high $p_T^{\gamma\gamma}$ Tag2	80.9	62.2%	76.5%	0.2%	21.5%	1.6%	0.2%	1.97	0.07
$\geq 2$ J low $p_T^{\gamma\gamma}$ Tag0	17.7	52.7%	76.7%	0.6%	19.0%	1.3%	2.4%	1.56	0.06
$\geq 2$ J low $p_T^{\gamma\gamma}$ Tag1	57.6	54.0%	74.4%	0.6%	20.5%	1.4%	3.0%	1.88	0.03
$\geq 2$ J low $p_T^{\gamma\gamma}$ Tag2	43.9	50.5%	72.7%	0.6%	20.8%	1.7%	4.2%	2.46	0.01
$\geq 2$ J med $p_T^{\gamma\gamma}$ Tag0	21.2	64.9%	80.6%	0.3%	16.3%	1.0%	1.8%	1.42	0.17
$\geq 2$ J med $p_T^{\gamma\gamma}$ Tag1	70.1	61.4%	77.9%	0.3%	18.1%	1.1%	2.6%	1.82	0.07
$\geq 2$ J med $p_T^{\gamma\gamma}$ Tag2	135.4	57.5%	74.8%	0.4%	19.7%	1.4%	3.8%	2.08	0.03
$\geq 2$ J high $p_T^{\gamma\gamma}$ Tag0	29.0	65.5%	77.8%	0.2%	18.7%	1.3%	2.1%	1.48	0.23
$\geq 2$ J high $p_T^{\gamma\gamma}$ Tag1	52.5	62.3%	76.1%	0.2%	19.6%	1.5%	2.6%	1.76	0.11
$\geq 2$ J high $p_T^{\gamma\gamma}$ Tag2	45.5	58.4%	73.8%	0.2%	20.4%	1.9%	3.7%	1.92	0.05
BSM 200 < $p_T^{\gamma\gamma}$ < 300 Tag0	30.7	75.8%	77.5%	0.2%	19.4%	1.2%	1.6%	1.41	0.39
BSM 200 < $p_T^{\gamma\gamma}$ < 300 Tag1	39.6	69.9%	73.8%	0.1%	21.5%	1.7%	2.8%	1.90	0.11
BSM 300 < $p_T^{\gamma\gamma}$ < 450 Tag0	15.5	74.8%	76.3%	0.1%	19.7%	1.7%	2.2%	1.53	0.34
BSM 300 < $p_T^{\gamma\gamma}$ < 450 Tag1	2.6	66.3%	67.9%	0.1%	22.5%	2.6%	7.0%	1.42	0.09
BSM 450 < $p_T^{\gamma\gamma}$ < 650	3.1	58.1%	61.8%	0.1%	30.0%	2.4%	5.6%	1.55	0.20
BSM $p_T^{\gamma\gamma}$ > 650	0.9	72.5%	72.3%	0.1%	21.0%	2.9%	3.8%	1.21	0.36