

Event category	SM Higgs ($m_H = 125$ GeV)				Background	Data	$\frac{S}{S+B}$	RMS (GeV)
	ggH	VBF	VH	Σ signal				
$\mu\tau_h$								
0-jet low- $p_T^{\tau_h}$ 7 TeV	23.1	0.2	0.1	23.5 ± 3.4	11950 ± 590	11959	0.002	17.4
0-jet low- $p_T^{\tau_h}$ 8 TeV	83.0	0.8	0.4	85.0 ± 11.0	40800 ± 1900	40353	0.003	16.3
0-jet high- $p_T^{\tau_h}$ 7 TeV	17.5	0.2	0.2	17.9 ± 2.6	1595 ± 83	1594	0.022	15.1
0-jet high- $p_T^{\tau_h}$ 8 TeV	66.2	0.7	0.6	67.5 ± 9.3	5990 ± 250	5789	0.020	15.2
1-jet low- $p_T^{\tau_h}$ 7 TeV	9.1	1.6	0.8	11.5 ± 1.7	2020 ± 120	2047	0.012	18.8
1-jet low- $p_T^{\tau_h}$ 8 TeV	36.0	6.0	3.0	45.0 ± 6.0	9030 ± 360	9010	0.010	18.6
1-jet high- $p_T^{\tau_h}$ 7 TeV	7.7	1.1	0.6	9.4 ± 1.3	796 ± 39	817	0.033	19.1
1-jet high- $p_T^{\tau_h}$ 8 TeV	29.6	4.3	2.4	36.3 ± 4.6	3180 ± 130	3160	0.029	19.7
1-jet high- $p_T^{\tau_h}$ boosted 7 TeV	2.6	0.8	0.5	3.9 ± 0.6	282 ± 16	269	0.054	17.7
1-jet high- $p_T^{\tau_h}$ boosted 8 TeV	11.5	2.9	2.0	16.5 ± 2.6	1265 ± 62	1253	0.072	17.2
VBF tag 7 TeV	0.2	1.3	–	1.6 ± 0.1	22 ± 2	23	0.14	19.6
Loose VBF tag 8 TeV	1.1	3.4	–	4.5 ± 0.4	81 ± 7	76	0.17	17.0
Tight VBF tag 8 TeV	0.3	2.0	–	2.4 ± 0.2	15 ± 2	20	0.49	18.1
$e\tau_h$								
0-jet low- $p_T^{\tau_h}$ 7 TeV	11.8	0.1	0.1	12.0 ± 1.8	6140 ± 320	6238	0.002	16.4
0-jet low- $p_T^{\tau_h}$ 8 TeV	33.4	0.3	0.2	34.0 ± 4.6	16750 ± 750	17109	0.002	15.8
0-jet high- $p_T^{\tau_h}$ 7 TeV	11.1	0.1	0.1	11.3 ± 1.7	1159 ± 62	1191	0.015	14.3
0-jet high- $p_T^{\tau_h}$ 8 TeV	31.4	0.3	0.3	32.1 ± 4.4	4380 ± 170	4536	0.010	15.4
1-jet low- $p_T^{\tau_h}$ 7 TeV	3.1	0.6	0.3	4.0 ± 0.6	366 ± 25	385	0.029	19.6
1-jet low- $p_T^{\tau_h}$ 8 TeV	9.1	1.8	1.0	11.9 ± 1.6	1200 ± 56	1214	0.025	16.5
1-jet high- $p_T^{\tau_h}$ boosted 7 TeV	1.2	0.3	0.2	1.8 ± 0.3	150 ± 9	167	0.089	15.5
1-jet high- $p_T^{\tau_h}$ boosted 8 TeV	5.1	1.4	0.9	7.5 ± 1.1	497 ± 27	476	0.11	15.5
VBF tag 7 TeV	0.2	0.7	–	0.9 ± 0.1	14 ± 2	13	0.24	15.9
Loose VBF tag 8 TeV	0.6	1.8	–	2.4 ± 0.2	45 ± 4	40	0.14	16.7
Tight VBF tag 8 TeV	0.3	1.3	–	1.6 ± 0.1	9 ± 2	7	0.51	16.2
$\tau_h\tau_h$								
1-jet boosted 8 TeV	7.2	2.1	1.0	10.3 ± 1.7	1133 ± 49	1120	0.054	15.2
1-jet highly-boosted 8 TeV	5.6	1.6	1.2	8.4 ± 1.2	380 ± 23	366	0.14	13.1
VBF tag 8 TeV	0.5	2.4	–	3.0 ± 0.3	29 ± 4	34	0.32	14.3
$e\mu$								
0-jet low- p_T^μ 7 TeV	20.8	0.2	0.2	21.1 ± 3.0	11320 ± 260	11283	0.002	24.4
0-jet low- p_T^μ 8 TeV	70.3	0.7	0.7	71.7 ± 9.6	40410 ± 830	40381	0.002	23.6
0-jet high- p_T^μ 7 TeV	7.5	0.1	0.1	7.8 ± 1.1	1636 ± 55	1676	0.007	22.7
0-jet high- p_T^μ 8 TeV	24.0	0.2	0.5	24.7 ± 3.3	6000 ± 150	6095	0.006	20.7
1-jet low- p_T^μ 7 TeV	9.0	1.6	1.0	11.7 ± 1.5	2475 ± 74	2482	0.009	23.7
1-jet low- p_T^μ 8 TeV	40.6	6.5	3.7	50.8 ± 6.1	10910 ± 250	10926	0.007	23.8
1-jet high- p_T^μ 7 TeV	4.7	1.0	0.6	6.2 ± 0.8	928 ± 37	901	0.015	23.3
1-jet high- p_T^μ 8 TeV	18.0	3.4	2.6	23.9 ± 2.9	4040 ± 110	4050	0.014	23.1
Loose VBF tag 7 TeV	0.2	1.0	–	1.2 ± 0.1	19 ± 1	12	0.13	23.0
Loose VBF tag 8 TeV	0.6	2.6	–	3.3 ± 0.3	99 ± 6	112	0.054	23.5
Tight VBF tag 8 TeV	0.2	1.5	–	1.6 ± 0.1	14 ± 1	17	0.31	17.8