

0.1 $\tilde{t}_1(650) \rightarrow t\tilde{\chi}_1^0(1)$ (ATLAS_CONF_2013_037)

- Process: $\tilde{t}_1\tilde{t}_1^* \rightarrow (t\tilde{\chi}_1^0)(\bar{t}\tilde{\chi}_1^0)$.
- Mass: $m_{\tilde{t}_1} = 650$ GeV, $m_{\tilde{\chi}_1^0} = 1$ GeV.
- The number of events: $5 \cdot 10^4$.
- Event Generator: Herwig++ 2.5.2.

#	cut name	ϵ_{Exp}	ϵ_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	R_{Exp}	R_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	[00] No cut	100.0	100.0							
1	[02] Lepton (= 1 signal)	23.57 ± 0.22	22.93 ± 0.19	0.97	-2.22	0	0.24 ± 0.0	0.23 ± 0.0	0.97	-2.22
2	[03] 4jets (80,60,40,25)	15.71 ± 0.18	14.09 ± 0.16	0.9	-6.87	1	0.67 ± 0.01	0.61 ± 0.01	0.92	-5.15
3	[04] ≥ 1 b in 4 leading jets	13.34 ± 0.16	12.06 ± 0.15	0.9	-5.86	2	0.85 ± 0.01	0.86 ± 0.01	1.01	0.45
4	[05] MET > 100	12.38 ± 0.16	11.18 ± 0.14	0.9	-5.65	3	0.93 ± 0.01	0.93 ± 0.01	1.0	-0.02
5	[06] MET/ $\sqrt{(H_T)} > 5$	12.14 ± 0.16	10.97 ± 0.14	0.9	-5.57	4	0.98 ± 0.01	0.98 ± 0.01	1.0	0.02
6	[07] $\Delta\phi(j_2, \text{MET}) > 0.8$	11.11 ± 0.15	10.72 ± 0.14	0.97	-1.91	5	0.92 ± 0.01	0.98 ± 0.01	1.07	3.52
7	[SRtN2] MET > 200	9.27 ± 0.14	8.85 ± 0.13	0.95	-2.26	6	0.83 ± 0.01	0.83 ± 0.01	0.99	-0.53
8	[SRtN2] MET/ $\sqrt{(H_T)} > 13$	6.75 ± 0.12	6.39 ± 0.11	0.95	-2.26	7	0.73 ± 0.01	0.72 ± 0.01	0.99	-0.35
9	[SRtN2] $m_T > 140$	6.19 ± 0.11	5.7 ± 0.1	0.92	-3.18	8	0.92 ± 0.02	0.89 ± 0.02	0.97	-1.04
10	[SRtN3] MET > 275	7.07 ± 0.12	6.25 ± 0.11	0.88	-5.1	6	0.64 ± 0.01	0.58 ± 0.01	0.92	-3.63
11	[SRtN3] MET/ $\sqrt{(H_T)} > 11$	6.98 ± 0.12	6.08 ± 0.11	0.87	-5.66	10	0.99 ± 0.02	0.97 ± 0.02	0.99	-0.62
12	[SRtN3] $m_T > 200$	5.54 ± 0.11	4.77 ± 0.1	0.86	-5.41	11	0.79 ± 0.02	0.78 ± 0.02	0.99	-0.39
13	[SRbC1-3] MET > 150	10.23 ± 0.14	9.08 ± 0.13	0.89	-6.02	6	0.92 ± 0.01	0.85 ± 0.01	0.92	-4.24
14	[SRbC1-3] MET/ $\sqrt{(H_T)} > 7$	10.05 ± 0.14	8.91 ± 0.13	0.89	-6.01	13	0.98 ± 0.01	0.98 ± 0.01	1.0	-0.06
15	[SRbC1-3] $m_T > 120$	8.78 ± 0.13	7.73 ± 0.12	0.88	-5.89	14	0.87 ± 0.01	0.87 ± 0.01	0.99	-0.3
16	[SRbC1-3] MET > 160	8.7 ± 0.13	7.67 ± 0.12	0.88	-5.79	15	0.99 ± 0.02	0.99 ± 0.02	1.0	0.07
17	[SRbC1-3] MET/ $\sqrt{(H_T)} > 8$	8.51 ± 0.13	7.52 ± 0.12	0.88	-5.65	16	0.98 ± 0.01	0.98 ± 0.02	1.0	0.08
18	[SRbC1-3] $m_{\text{eff}} > 550$	8.45 ± 0.13	7.42 ± 0.12	0.88	-5.86	17	0.99 ± 0.02	0.99 ± 0.02	0.99	-0.24
19	[SRbC1-3] $m_{\text{eff}} > 700$	7.84 ± 0.13	6.75 ± 0.11	0.86	-6.46	18	0.93 ± 0.01	0.91 ± 0.02	0.98	-0.86
20	SRtN2	3.21 ± 0.08	2.53 ± 0.07	0.79	-6.4	9	0.52 ± 0.01	0.44 ± 0.01	0.85	-4.23
21	SRtN3	2.72 ± 0.07	2.1 ± 0.06	0.77	-6.28	12	0.49 ± 0.01	0.44 ± 0.01	0.9	-2.63
22	SRbC1	6.41 ± 0.11	5.58 ± 0.1	0.87	-5.43	6	0.58 ± 0.01	0.52 ± 0.01	0.9	-4.04
23	SRbC2	1.89 ± 0.06	1.67 ± 0.06	0.89	-2.56	6	0.17 ± 0.01	0.16 ± 0.01	0.92	-1.81
24	SRbC3	1.05 ± 0.05	0.78 ± 0.04	0.75	-4.38	6	0.09 ± 0.0	0.07 ± 0.0	0.77	-3.85

Table 1: The cut-flow table for the $\tilde{t}_1(500) \rightarrow t\tilde{\chi}_1^0(200)$ model.