

0.1 $\tilde{t}_L \tilde{t}_L^* \rightarrow t \tilde{\chi}_1^0 \bar{t} \tilde{\chi}_1^0$ (ATLAS_CONF_2013_024)

#	cut name	ϵ_{Exp}	ϵ_{Atom}	Atom Exp	(Exp-Atom) Error	#/?	R_{Exp}	R_{Atom}	Atom Exp	(Exp-Atom) Error
0	No cut	100.0	100.0							
1	μ veto	75.34 ± 0.17	80.61 ± 0.18	1.07	21.27	0	0.75 ± 0.0	0.81 ± 0.0	1.07	21.27
2	e veto	57.62 ± 0.15	56.11 ± 0.22	0.97	-5.62	1	0.76 ± 0.0	0.7 ± 0.0	0.91	-20.15
3	MET > 130	53.24 ± 0.15	48.51 ± 0.22	0.91	-17.73	2	0.92 ± 0.0	0.86 ± 0.0	0.94	-12.59
4	N_{jets} and p_T	18.17 ± 0.09	43.62 ± 0.22	2.4	107.09	3	0.34 ± 0.0	0.9 ± 0.0	2.63	115.15
5	MET _{track} > 30	17.84 ± 0.08	43.45 ± 0.22	2.44	107.97	4	0.98 ± 0.0	1.0 ± 0.01	1.01	2.12
6	$\Delta\phi(\text{MET}, \text{MET}_{\text{track}}) < \pi/3$	16.62 ± 0.08	42.82 ± 0.22	2.58	111.12	5	0.93 ± 0.0	0.99 ± 0.01	1.06	7.89
7	$\Delta\phi(\text{jet}, \text{MET}) < \pi/5$	14.19 ± 0.08	39.59 ± 0.22	2.79	109.81	6	0.85 ± 0.0	0.92 ± 0.01	1.08	10.33
8	τ veto	12.2 ± 0.07	37.47 ± 0.22	3.07	111.08	7	0.86 ± 0.0	0.95 ± 0.01	1.1	11.77
9	≥ 2 -bjets	6.21 ± 0.05	15.36 ± 0.16	2.47	54.21	8	0.51 ± 0.0	0.41 ± 0.0	0.81	-16.68
10	$m_T(\text{bjet}, \text{MET}) > 175$	4.65 ± 0.04	11.82 ± 0.14	2.54	47.56	9	0.75 ± 0.01	0.77 ± 0.01	1.03	1.74
11	$80 < m_{jjj}^0 < 270$	4.02 ± 0.04	8.04 ± 0.12	2.0	31.37	10	0.86 ± 0.01	0.68 ± 0.01	0.79	-13.73
12	$80 < m_{jjj}^1 < 270$	2.35 ± 0.03	1.91 ± 0.06	0.82	-6.3	11	0.58 ± 0.01	0.24 ± 0.01	0.41	-32.03
13	SR1: MET > 200	2.21 ± 0.03	1.77 ± 0.06	0.8	-6.66	12	0.94 ± 0.01	0.92 ± 0.03	0.98	-0.52
14	SR1: MET > 300	1.64 ± 0.03	1.29 ± 0.05	0.79	-6.16	13	0.74 ± 0.01	0.73 ± 0.03	0.98	-0.41
15	SR1: MET > 350	1.3 ± 0.02	1.03 ± 0.05	0.79	-5.31	14	0.8 ± 0.01	0.8 ± 0.04	1.01	0.16

Table 1: The cut-flow table for the $\tilde{t}_L \tilde{t}_L^* \rightarrow t \tilde{\chi}_1^0 \bar{t} \tilde{\chi}_1^0$ process. The masses are set at $m_{\tilde{t}_L} = 600$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV. The Atom efficiencies are calculated using 10^4 events generated by **Herwig++ 2.5.2**.