

$$\tilde{t}_L \tilde{t}_L^* \rightarrow t \tilde{\chi}_1^0 \bar{t} \tilde{\chi}_1^0$$

#	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	No-cut	100.0 ± 0.2	100.0 ± 0.0				\pm	\pm		
1	μ veto	75.34 ± 0.17	80.61 ± 0.18	1.07	21.27	0	0.75 ± 0.0	0.81 ± 0.81	1.07	0.07
2	e veto	57.62 ± 0.15	56.11 ± 0.22	0.97	-5.62	1	0.76 ± 0.0	0.7 ± 0.7	0.91	-0.1
3	MET > 130	53.24 ± 0.15	48.51 ± 0.22	0.91	-17.73	2	0.92 ± 0.0	0.86 ± 0.86	0.94	-0.07
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 ± 0.9	2.63	0.62
5	MET _{track}	17.84 ± 0.08	43.45 ± 0.22	2.44	107.97	4	0.98 ± 0.0	1.0 ± 1.0	1.01	0.01
6	$\Delta\phi(\text{MET}, \text{MET}_{\text{track}})$	16.62 ± 0.08	42.82 ± 0.22	2.58	111.12	5	0.93 ± 0.0	0.99 ± 0.99	1.06	0.05
7	$\Delta\phi(\text{jet}, \text{MET})$	14.19 ± 0.08	39.59 ± 0.22	2.79	109.81	6	0.85 ± 0.0	0.92 ± 0.92	1.08	0.08
8	τ veto	12.2 ± 0.07	37.47 ± 0.22	3.07	111.08	7	0.86 ± 0.0	0.95 ± 0.95	1.1	0.09
9	≥ 2 -bjet	6.21 ± 0.05	15.36 ± 0.16	2.47	54.21	8	0.51 ± 0.0	0.41 ± 0.41	0.81	-0.24
10	$m_T(\text{bjet}, \text{MET})$	4.65 ± 0.04	11.82 ± 0.14	2.54	47.56	9	0.75 ± 0.01	0.77 ± 0.77	1.03	0.03
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 ± 0.68	0.79	-0.27
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 ± 0.24	0.41	-1.45
13	SR1: MET > 200	2.21 ± 0.03	1.77 ± 0.06	0.8	-6.66	12	0.94 ± 0.01	0.92 ± 0.92	0.98	-0.02
14	SR2: MET > 300	1.64 ± 0.03	1.29 ± 0.05	0.79	-6.16	13	0.74 ± 0.01	0.73 ± 0.73	0.98	-0.02
15	SR3: MET > 350	1.3 ± 0.02	1.03 ± 0.05	0.79	-5.31	14	0.8 ± 0.01	0.8 ± 0.8	1.01	0.01

Table 1: The cut flow table for $\tilde{t}_L \tilde{t}_L^* \rightarrow t \tilde{\chi}_1^0 \bar{t} \tilde{\chi}_1^0$ process. $m_{\tilde{t}_L} = 600$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV. 10^4 events are used for Atom efficiencies.