

1-lepton 6-jet channel, Gtt model (ATLAS_CONF_2013_061)

- Process: $\tilde{g}\tilde{g} \rightarrow (t\bar{t}\tilde{\chi}_1^0)(t\bar{t}\tilde{\chi}_1^0)$.
- Mass: $m_{\tilde{g}} = 1300$ GeV, $m_{\tilde{\chi}_1^0} = 100$ GeV.
- The number of events: $5 \cdot 10^3$.
- 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	No cut	100.0	100.0							
1	1l-base: ≥ 4 jets ($p_T > 30$)	96.9 ± 0.31	99.42 ± 0.11	1.03	7.65	0	0.97 ± 0.0	0.99 ± 0.0	1.03	7.65
2	1l-base: $p_T(j_1) > 90$	96.8 ± 0.31	99.32 ± 0.12	1.03	7.59	1	1.0 ± 0.0	1.0 ± 0.0	1.0	0.01
3	1l-base: MET > 150	88.3 ± 0.3	90.38 ± 0.42	1.02	4.06	2	0.91 ± 0.0	0.91 ± 0.0	1.0	-0.42
4	1l-base: ≥ 1 signal lepton	40.9 ± 0.2	43.7 ± 0.7	1.07	3.84	3	0.46 ± 0.0	0.48 ± 0.01	1.04	2.51
5	SR-1l-6j: ≥ 6 jets ($p_T > 30$)	37.3 ± 0.19	38.3 ± 0.69	1.03	1.4	4	0.91 ± 0.0	0.88 ± 0.02	0.96	-2.16
6	SR-1l-6j: ≥ 3 b-jets ($p_T > 30$)	14.3 ± 0.12	15.22 ± 0.51	1.06	1.76	5	0.38 ± 0.0	0.4 ± 0.01	1.04	1.03
7	SR-1l-6j-A: $m_T > 140$	11.3 ± 0.11	11.6 ± 0.45	1.03	0.64	6	0.79 ± 0.01	0.76 ± 0.03	0.96	-0.91
8	SR-1l-6j-A: MET > 175	10.9 ± 0.1	11.4 ± 0.45	1.05	1.08	7	0.96 ± 0.01	0.98 ± 0.04	1.02	0.46
9	SR-1l-6j-A: MET/ $\sqrt{(H_T(\text{inc}))} > 5$	10.8 ± 0.1	11.22 ± 0.45	1.04	0.92	8	0.99 ± 0.01	0.98 ± 0.04	0.99	-0.16
10	SR-1l-6j-A	10.8 ± 0.1	11.22 ± 0.45	1.04	0.92	9	1.0 ± 0.01	1.0 ± 0.04	1.0	0.0
11	SR-1l-6j-B: $m_T > 140$	11.3 ± 0.11	11.6 ± 0.45	1.03	0.64	6	0.79 ± 0.01	0.76 ± 0.03	0.96	-0.91
12	SR-1l-6j-B: MET > 225	10.0 ± 0.1	10.48 ± 0.43	1.05	1.08	11	0.88 ± 0.01	0.9 ± 0.04	1.02	0.48
13	SR-1l-6j-B: MET/ $\sqrt{(H_T(\text{inc}))} > 5$	10.0 ± 0.1	10.46 ± 0.43	1.05	1.04	12	1.0 ± 0.01	1.0 ± 0.04	1.0	-0.04
14	SR-1l-6j-B	10.0 ± 0.1	10.46 ± 0.43	1.05	1.04	13	1.0 ± 0.01	1.0 ± 0.04	1.0	0.0
15	SR-1l-6j-C: $m_T > 160$	10.7 ± 0.1	11.18 ± 0.45	1.04	1.05	6	0.75 ± 0.01	0.73 ± 0.03	0.98	-0.45
16	SR-1l-6j-C: MET > 275	8.8 ± 0.09	9.32 ± 0.41	1.06	1.23	15	0.82 ± 0.01	0.83 ± 0.04	1.01	0.3
17	SR-1l-6j-C: MET/ $\sqrt{(H_T(\text{inc}))} > 5$	8.8 ± 0.09	9.32 ± 0.41	1.06	1.23	16	1.0 ± 0.01	1.0 ± 0.04	1.0	0.0
18	SR-1l-6j-C	8.8 ± 0.09	9.32 ± 0.41	1.06	1.23	17	1.0 ± 0.01	1.0 ± 0.04	1.0	0.0

Table 1: The cut-flow table for the 1-lepton 6-jet channel in Gtt model.