

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

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