

## 0.1 0-lepton 7-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	0l-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	0l-base: $p_T(j_1) > 90$	$96.9 \pm 0.31$	$99.32 \pm 0.12$	1.02	7.28	1	$1.0 \pm 0.0$	$1.0 \pm 0.0$	1.0	-0.29
3	0l-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	-0.24
4	0l-base: Lepton veto	$45.9 \pm 0.21$	$46.68 \pm 0.71$	1.02	1.06	3	$0.52 \pm 0.0$	$0.52 \pm 0.01$	0.99	-0.41
5	0l-base: $\Delta\phi_{\min}^{4j} > 0.5$	$30.0 \pm 0.17$	$33.34 \pm 0.67$	1.11	4.85	4	$0.65 \pm 0.0$	$0.71 \pm 0.01$	1.09	4.1
6	0l-base: MET/ $m_{\text{eff}}^{4j} > 0.2$	$25.9 \pm 0.16$	$29.14 \pm 0.64$	1.13	4.89	5	$0.86 \pm 0.01$	$0.87 \pm 0.02$	1.01	0.53
7	SR-0l-7j: $\geq 7$ jets ( $p_T > 30$ )	$24.6 \pm 0.16$	$26.84 \pm 0.63$	1.09	3.47	6	$0.95 \pm 0.01$	$0.92 \pm 0.02$	0.97	-1.29
8	SR-0l-7j: $\geq 3$ b-jets ( $p_T > 30$ )	$11.5 \pm 0.11$	$10.38 \pm 0.43$	0.9	-2.52	7	$0.47 \pm 0.0$	$0.39 \pm 0.02$	0.83	-4.85
9	SR-0l-7j-A: MET $> 200$	$11.3 \pm 0.11$	$10.28 \pm 0.43$	0.91	-2.31	8	$0.98 \pm 0.01$	$0.99 \pm 0.04$	1.01	0.18
10	SR-0l-7j-A	$11.3 \pm 0.11$	$10.22 \pm 0.43$	0.9	-2.45	9	$1.0 \pm 0.01$	$0.99 \pm 0.04$	0.99	-0.14
11	SR-0l-7j-B: MET $> 350$	$9.2 \pm 0.1$	$8.32 \pm 0.39$	0.9	-2.19	8	$0.8 \pm 0.01$	$0.8 \pm 0.04$	1.0	0.04
12	SR-0l-7j-B	$9.2 \pm 0.1$	$8.32 \pm 0.39$	0.9	-2.19	11	$1.0 \pm 0.01$	$1.0 \pm 0.05$	1.0	0.0
13	SR-0l-7j-C: MET $> 250$	$10.8 \pm 0.1$	$9.92 \pm 0.42$	0.92	-2.02	8	$0.94 \pm 0.01$	$0.96 \pm 0.04$	1.02	0.4
14	SR-0l-7j-C	$9.5 \pm 0.1$	$8.56 \pm 0.4$	0.9	-2.31	13	$0.88 \pm 0.01$	$0.86 \pm 0.04$	0.98	-0.41

Table 1: The cut-flow table for the 0-lepton 7-jet channel in Gtt model.