0-lepton 4-jet channel, Gbb model (ATLAS_CONF_2013_061)

- Process: $\tilde{g}\tilde{g} \to (b\bar{b}\tilde{\chi}_1^0)(b\bar{b}\tilde{\chi}_1^0)$.
- Mass: $m_{\tilde{g}} = 1300$ GeV, $m_{\tilde{\chi}_1^0} = 100$ GeV.
- The number of events: 10^3.
- Event Generator: `MadGraph 5` and `Pythia 6`.

#	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	0l-base: ≥ 4 jets ($p_T > 30$)	95.4 ± 0.31	92.67 ± 0.84	0.97	-3.06	0	0.95 ± 0.0	0.93 ± 0.01	0.97	-3.06
2	0l-base: $p_T(j_1) > 90$	95.4 ± 0.31	92.67 ± 0.84	0.97	-3.06	1	1.0 ± 0.0	1.0 ± 0.01	1.0	0.0
3	0l-base: MET > 150	88.7 ± 0.3	86.26 ± 1.11	0.97	-2.13	2	0.93 ± 0.0	0.93 ± 0.01	1.0	0.09
4	0l-base: Lepton veto	88.7 ± 0.3	86.26 ± 1.11	0.97	-2.13	3	1.0 ± 0.0	1.0 ± 0.01	1.0	0.0
5	0l-base: $\Delta\phi_{\text{min}}^{4j} > 0.5$	58.5 ± 0.24	56.1 ± 1.6	0.96	-1.49	4	0.66 ± 0.0	0.65 ± 0.02	0.99	-0.49
6	0l-base: MET$/m_{\text{eff}}^{4j} > 0.2$	46.2 ± 0.21	44.52 ± 1.6	0.96	-1.04	5	0.79 ± 0.0	0.79 ± 0.03	1.01	0.14
7	SR-0l-4j-A: ≥ 4 jets ($p_T > 30$)	46.2 ± 0.21	44.52 ± 1.6	0.96	-1.04	6	1.0 ± 0.0	1.0 ± 0.04	1.0	0.0
8	SR-0l-4j-A: ≥ 3 b-jets ($p_T > 30$)	20.5 ± 0.14	16.84 ± 1.2	0.82	-3.02	7	0.44 ± 0.0	0.38 ± 0.03	0.85	-2.41
9	SR-0l-4j-A: MET > 200	20.5 ± 0.14	16.84 ± 1.2	0.82	-3.02	8	1.0 ± 0.01	1.0 ± 0.07	1.0	0.0
10	SR-0l-4j-A: $m_{\text{eff}}^{4j} > 1000$	20.3 ± 0.14	16.74 ± 1.2	0.82	-2.95	9	0.99 ± 0.01	0.99 ± 0.07	1.0	0.05
11	SR-0l-4j-A	10.8 ± 0.1	9.61 ± 0.95	0.89	-1.25	10	0.53 ± 0.01	0.57 ± 0.06	1.08	0.74
12	SR-0l-4j-B: ≥ 4 jets ($p_T > 50$)	42.8 ± 0.21	40.39 ± 1.58	0.94	-1.51	6	0.93 ± 0.0	0.91 ± 0.04	0.98	-0.54
13	SR-0l-4j-B: ≥ 3 b-jets ($p_T > 50$)	17.9 ± 0.13	14.26 ± 1.12	0.8	-3.22	12	0.42 ± 0.0	0.35 ± 0.03	0.84	-2.33
14	SR-0l-4j-B: MET > 350	16.2 ± 0.13	13.33 ± 1.09	0.82	-2.61	13	0.91 ± 0.01	0.93 ± 0.08	1.03	0.39
15	SR-0l-4j-B	15.9 ± 0.13	13.33 ± 1.09	0.84	-2.34	14	0.98 ± 0.01	1.0 ± 0.08	1.02	0.22
16	SR-0l-4j-C: ≥ 4 jets ($p_T > 50$)	42.8 ± 0.21	40.39 ± 1.58	0.94	-1.51	6	0.93 ± 0.0	0.91 ± 0.04	0.98	-0.54
17	SR-0l-4j-C: ≥ 3 b-jets ($p_T > 50$)	17.9 ± 0.13	14.26 ± 1.12	0.8	-3.22	16	0.42 ± 0.0	0.35 ± 0.03	0.84	-2.33
18	SR-0l-4j-C: MET > 250	17.4 ± 0.13	14.26 ± 1.12	0.82	-2.78	17	0.97 ± 0.01	1.0 ± 0.08	1.03	0.35
19	SR-0l-4j-C	15.9 ± 0.13	13.22 ± 1.09	0.83	-2.44	18	0.91 ± 0.01	0.93 ± 0.08	1.02	0.18

Table 1: The cut-flow table for the 0-lepton 4-jet channel in Gbb model.