0.1 $\tilde{g}\tilde{g}$ one step (1265, 865, 465): (ATLAS_CONF_2013_047)

- Process: $pp \to \tilde{g}\tilde{g} : \tilde{g} \to qq\chi_1^{\pm} \to W^{\pm}qq\tilde{\chi}_1^0$.
- Mass: $m_{\tilde{q}} = 1265$ GeV, $m_{\tilde{\chi}_1^{\pm}} = 865$ GeV, $m_{\tilde{\chi}_1^0} = 465$ GeV.
- The number of events: $2 \cdot 10^4$.
- Event Generator: `MadGraph 5 and Pythia 6`. The MLM merging is used with the shower-k_T scheme implemented in MadGraph 5 and Pythia 6, where we take xqcut = qcut = $M_{\rm SUSY}/4$ with MSUSY being the mass of the heavier SUSY particles in the production.

#	cut name	$\epsilon_{\rm Exp}$	$\epsilon_{\rm Atom}$	$\frac{\rm Atom}{\rm Exp}$	$\frac{\rm (Exp-Atom)}{\rm Error}$	#/?	$R_{\rm Exp}$	$R_{\rm Atom}$	$\frac{\rm Atom}{\rm Exp}$	$\frac{\rm (Exp-Atom)}{\rm Error}$
0	No cut	100.0	100.0							
1	base: 0 lepton	63.5 ± 0.56	64.49 ± 0.34	1.02	1.51	0	0.64 ± 0.01	0.64 ± 0.0	1.02	1.51
2	base: MET > 160	55.6 ± 0.53	56.18 ± 0.35	1.01	0.92	1	0.88 ± 0.01	0.87 ± 0.01	0.99	−0.45
3	base: $p_T(j_1) > 130$	55.6 ± 0.53	56.08 ± 0.35	1.01	0.76	2	1.0 ± 0.01	1.0 ± 0.01	1.0	−0.16
4	base: $p_T(j_2) > 60$	55.6 ± 0.53	56.07 ± 0.35	1.01	0.75	3	1.0 ± 0.01	1.0 ± 0.01	1.0	−0.01
5	$p_T(j_3) > 60$	55.4 ± 0.53	55.78 ± 0.35	1.01	0.61	4	1.0 ± 0.01	0.99 ± 0.01	1.0	−0.14
6	$p_T(j_4) > 60$	53.4 ± 0.52	53.82 ± 0.35	1.01	0.67	5	0.96 ± 0.01	0.96 ± 0.01	1.0	0.08
7	$p_T(j_5) > 60$	46.3 ± 0.48	45.81 ± 0.35	0.99	−0.81	6	0.87 ± 0.01	0.85 ± 0.01	0.98	−1.42
8	$p_T(j_6) > 60$	31.7 ± 0.4	30.33 ± 0.33	0.96	−2.67	7	0.68 ± 0.01	0.66 ± 0.01	0.97	−2.03
9	E base: $\Delta\phi(j_i, \text{MET}) > 0.4$	26.5 ± 0.36	25.54 ± 0.31	0.96	−2.01	8	0.84 ± 0.01	0.84 ± 0.01	1.01	0.4
10	E base: $\Delta\phi(j_i > 40, \text{MET}) > 0.2$	21.3 ± 0.33	20.82 ± 0.29	0.98	−1.1	9	0.8 ± 0.01	0.82 ± 0.01	1.01	0.68
11	ET: $\text{MET}/m_{\rm eff}(6j) > 0.25$	12.0 ± 0.24	11.95 ± 0.23	1.0	−0.16	10	0.56 ± 0.01	0.57 ± 0.01	1.02	0.65
12	ET: $m_{\rm eff}(\text{inc}) > 1500$	7.9 ± 0.2	8.22 ± 0.19	1.04	1.15	11	0.66 ± 0.02	0.69 ± 0.02	1.05	1.28

Table 1: The cut-flow table for E tight signal region: $\tilde{g}\tilde{g}$ one step (1265, 865, 465).