0.1 $\tilde{q}\tilde{q}$ direct (850, 100): (ATLAS_CONF_2013_047)

- Process: $pp \to \tilde{q}\tilde{q} \to (q\chi_1^0)(q\chi_1^0)$.
- Mass: $m_{\tilde{q}} = 850$ GeV, $m_{\tilde{\chi}_1^0} = 100$ GeV.
- The number of events: 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	98.5 ± 1.4	99.96 ± 0.03	1.01	1.04	0	0.99 ± 0.01	1.0 ± 0.0	1.01	1.04
2	base: MET > 160	89.87 ± 1.34	90.72 ± 0.41	1.01	0.61	1	0.91 ± 0.01	0.91 ± 0.0	0.99	-0.34
3	base: $p_T(j_1) > 130$	89.73 ± 1.34	90.56 ± 0.41	1.01	0.59	2	1.0 ± 0.01	1.0 ± 0.0	1.0	-0.01
4	base: $p_T(j_2) > 60$	87.41 ± 1.32	87.52 ± 0.47	1.0	0.08	3	0.97 ± 0.01	0.97 ± 0.01	0.99	-0.5
5	A base: $\Delta\phi(j_i, \text{MET}) > 0.4$	79.14 ± 1.26	80.64 ± 0.56	1.02	1.09	4	0.91 ± 0.01	0.92 ± 0.01	1.02	1.02
6	AM: $\text{MET}/\sqrt{H_T} > 15$	79.14 ± 1.26	53.44 ± 0.71	0.68	-17.82	5	1.0 ± 0.02	0.66 ± 0.01	0.66	-18.59
7	AM: $_{\rm meff}(\text{inc}) > 1600$	16.48 ± 0.57	18.5 ± 0.55	1.12	2.55	6	0.21 ± 0.01	0.35 ± 0.01	1.66	10.97

Table 1: The cut-flow table for A medium signal region: $\tilde{q}\tilde{q}$ direct (850, 400).