

## SR Zc: (ATLAS\_CONF\_2013\_035)

- Process:  $pp \rightarrow \tilde{\chi}_1^\pm \tilde{\chi}_2^0 \rightarrow (W^\pm \chi_1^0)(Z \tilde{\chi}_1^0)$ .
- Mass:  $m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_2^0} = 250$  GeV,  $m_{\tilde{\chi}_1^0} = 0$  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	Lepton multiplicity	$100.0 \pm 0.71$	$100.0 \pm 14.68$			-1	$\pm$	$\pm$		
1	SFOS requirement	$99.25 \pm 0.7$	$100.0 \pm 14.68$	1.01	0.05	0	$0.99 \pm 0.01$	$1.0 \pm 0.15$	1.01	0.05
2	$b$ -jet veto	$91.0 \pm 0.67$	$91.3 \pm 14.03$	1.0	0.02	1	$0.92 \pm 0.01$	$0.91 \pm 0.14$	1.0	-0.03
3	$Z$ requirement	$86.0 \pm 0.66$	$89.13 \pm 13.86$	1.04	0.23	2	$0.95 \pm 0.01$	$0.98 \pm 0.15$	1.03	0.2
4	SRZc: MET $\geq 120$	$44.25 \pm 0.47$	$43.48 \pm 9.7$	0.98	-0.08	3	$0.51 \pm 0.01$	$0.49 \pm 0.11$	0.95	-0.25
5	SRZc: $m_T > 110$	$30.0 \pm 0.39$	$32.61 \pm 8.41$	1.09	0.31	4	$0.68 \pm 0.01$	$0.75 \pm 0.19$	1.11	0.37

Table 1: The cut-flow table for the Zc signal region.