

## SR Zb: (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:  $m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_2^0} = 150$  GeV,  $m_{\tilde{\chi}_1^0} = 0$  GeV.
- The number of events:  $3 \cdot 10^4$ .
- 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	100.0							
1	SFOS requirement	$99.31 \pm 8.59$	$99.01 \pm 6.98$	1.0	-0.03	0	$0.99 \pm 0.09$	$0.99 \pm 0.07$	1.0	-0.03
2	$b$ -jet veto	$92.38 \pm 8.28$	$92.57 \pm 6.75$	1.0	0.02	1	$0.93 \pm 0.08$	$0.93 \pm 0.07$	1.01	0.04
3	$Z$ requirement	$87.41 \pm 8.06$	$84.65 \pm 6.46$	0.97	-0.27	2	$0.95 \pm 0.09$	$0.91 \pm 0.07$	0.97	-0.28
4	SRZb: $75 < \text{MET} < 120$	$26.06 \pm 4.4$	$23.76 \pm 3.43$	0.91	-0.41	3	$0.3 \pm 0.05$	$0.28 \pm 0.04$	0.94	-0.27
5	SRZb: $m_T > 110$	$10.7 \pm 2.82$	$9.41 \pm 2.16$	0.88	-0.36	4	$0.41 \pm 0.11$	$0.4 \pm 0.09$	0.96	-0.1

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