

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

- Process:  $pp \rightarrow \tilde{\chi}_1^\pm \tilde{\chi}_2^0 \rightarrow (\ell^\pm \nu \tilde{\chi}_1^0)(\ell^+ \ell^- \tilde{\chi}_1^0)$  via an on-shell  $\tilde{\ell}_L$ .
- Mass:  $m_{\tilde{\chi}_1^\pm} = m_{\tilde{\chi}_2^0} = 192.5$  GeV,  $m_{\tilde{\ell}_L} = 175$  GeV,  $m_{\tilde{\chi}_1^0} = 157.5$  GeV.
- The number of events:  $10^3$ .
- 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	$100.0 \pm 0.63$	$100.0 \pm 15.1$			-1	$\pm$	$\pm$		
1	SFOS requirement	$99.85 \pm 0.63$	$90.48 \pm 14.4$	0.91	-0.65	0	$1.0 \pm 0.01$	$0.9 \pm 0.14$	0.91	-0.65
2	$b$ -jet veto	$91.42 \pm 0.6$	$85.71 \pm 14.03$	0.94	-0.41	1	$0.92 \pm 0.01$	$0.95 \pm 0.16$	1.03	0.21
3	$Z$ veto	$88.68 \pm 0.6$	$85.71 \pm 14.03$	0.97	-0.21	2	$0.97 \pm 0.01$	$1.0 \pm 0.16$	1.03	0.18
4	SRnoZa: MET > 50	$30.01 \pm 0.35$	$28.57 \pm 8.2$	0.95	-0.18	3	$0.34 \pm 0.0$	$0.33 \pm 0.1$	0.98	-0.05
5	SRnoZa: mSFOS < 60	$26.29 \pm 0.32$	$21.43 \pm 7.11$	0.82	-0.68	4	$0.88 \pm 0.01$	$0.75 \pm 0.25$	0.86	-0.51
6	SRnoZa: SRnoZc veto	$26.29 \pm 0.32$	$21.43 \pm 7.11$	0.82	-0.68	5	$1.0 \pm 0.01$	$1.0 \pm 0.33$	1.0	0.0

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