

0.1 $\tilde{\chi}_1^\pm(350) \rightarrow (\ell\tilde{\nu}(175) \text{ or } \nu\tilde{\ell}(175)) \rightarrow \nu\ell\tilde{\chi}_1^0(0)$ (**ATLAS_CONF_2013_049**)

- Process: $\tilde{\chi}_1^+ \tilde{\chi}_1^- : \tilde{\chi}_1^\pm \rightarrow (\ell\tilde{\nu} \text{ or } \nu\tilde{\ell}) \rightarrow \nu\ell\tilde{\chi}_1^0$.
- Mass: $m_{\tilde{\chi}_1^\pm} = 350$ GeV, $m_{\tilde{\ell}/\tilde{\nu}} = 175$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV.
- The number of events: $2 \cdot 10^4$.
- Event Generator: **Herwig++ 2.5.2**.

#	cut name	ϵ_{Exp}	ϵ_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	R_{Exp}	R_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	ee : Trigger	100.0	100.0							
1	ee : Z veto	92.31 ± 1.49	93.49 ± 2.02	1.01	0.47	0	0.92 ± 0.01	0.93 ± 0.02	1.01	0.47
2	ee : Jet veto	38.46 ± 0.96	36.96 ± 1.31	0.96	-0.92	1	0.42 ± 0.01	0.4 ± 0.01	0.95	-1.22
3	ee : MET ^{rel}	32.69 ± 0.89	31.71 ± 1.22	0.97	-0.65	2	0.85 ± 0.02	0.86 ± 0.03	1.01	0.2
4	ee : $m_{T2} > 90$	22.5 ± 0.74	20.43 ± 0.98	0.91	-1.68	3	0.69 ± 0.02	0.64 ± 0.03	0.94	-1.15
5	ee : $m_{T2} > 110$	18.27 ± 0.66	16.77 ± 0.89	0.92	-1.35	4	0.81 ± 0.03	0.82 ± 0.04	1.01	0.17

Table 1: The cut-flow table for the ee channel.

#	cut name	ϵ_{Exp}	ϵ_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	R_{Exp}	R_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	$\mu\mu$: Trigger	100.0	100.0							
1	$\mu\mu$: Z veto	92.31 ± 1.46	93.31 ± 1.97	1.01	0.41	0	0.92 ± 0.01	0.93 ± 0.02	1.01	0.41
2	$\mu\mu$: Jet veto	38.46 ± 0.94	36.47 ± 1.27	0.95	-1.26	1	0.42 ± 0.01	0.39 ± 0.01	0.94	-1.52
3	$\mu\mu$: MET ^{rel}	32.69 ± 0.87	31.35 ± 1.18	0.96	-0.91	2	0.85 ± 0.02	0.86 ± 0.03	1.01	0.24
4	$\mu\mu$: $m_{T2} > 90$	22.5 ± 0.72	20.24 ± 0.96	0.9	-1.89	3	0.69 ± 0.02	0.65 ± 0.03	0.94	-1.13
5	$\mu\mu$: $m_{T2} > 110$	18.27 ± 0.65	16.37 ± 0.86	0.9	-1.76	4	0.81 ± 0.03	0.81 ± 0.04	1.0	-0.06

Table 2: The cut-flow table for the $\mu\mu$ channel.

#	cut name	ϵ_{Exp}	ϵ_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	R_{Exp}	R_{Atom}	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	$e\mu$: Trigger	100.0	100.0							
1	$e\mu$: Z veto	92.31 ± 1.04	93.18 ± 1.32	1.01	0.52	0	0.92 ± 0.01	0.93 ± 0.01	1.01	0.52
2	$e\mu$: Jet veto	38.46 ± 0.67	37.6 ± 0.9	0.98	-0.77	1	0.42 ± 0.01	0.4 ± 0.01	0.97	-1.09
3	$e\mu$: MET ^{rel}	32.69 ± 0.62	32.21 ± 0.84	0.99	-0.46	2	0.85 ± 0.02	0.86 ± 0.02	1.01	0.24
4	$e\mu$: $m_{T2} > 90$	22.5 ± 0.51	20.61 ± 0.68	0.92	-2.22	3	0.69 ± 0.02	0.64 ± 0.02	0.93	-1.83
5	$e\mu$: $m_{T2} > 110$	18.27 ± 0.46	17.03 ± 0.62	0.93	-1.6	4	0.81 ± 0.02	0.83 ± 0.03	1.02	0.39

Table 3: The cut-flow table for the $e\mu$ channel.