$\tilde{\chi}_1^{\pm}(425) \to (\ell\tilde{\nu}(250) \text{ or } \nu\tilde{\ell}(75)) \to \nu\ell\tilde{\chi}_1^0(0)$ **(ATLAS_CONF_2013_049)**

- Process: $\tilde{\chi}_1^+\tilde{\chi}_1^- : \tilde{\chi}_1^{\pm} \to (\ell\tilde{\nu} \text{ or } \nu\tilde{\ell}) \to \nu\ell\tilde{\chi}_1^0$.
- Mass: $m_{\tilde{\chi}_1^{\pm}} = 425$ GeV, $m_{\tilde{\ell}/\tilde{\nu}} = 250$ GeV, $m_{\tilde{\chi}_1^0} = 75$ 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	95.0 ± 1.46	94.74 ± 7.98	1.0	-0.03	0	0.95 ± 0.01	0.95 ± 0.08	1.0	-0.03
2	ee: Jet veto	35.0 ± 0.89	21.8 ± 4.0	0.62	-3.22	1	0.37 ± 0.01	0.23 ± 0.04	0.62	-3.2
3	ee: MET^{rel}	30.0 ± 0.82	21.05 ± 3.93	0.7	-2.23	2	0.86 ± 0.02	0.97 ± 0.18	1.13	0.6
4	ee: $m_{T2} > 90$	21.5 ± 0.69	12.78 ± 3.08	0.59	-2.76	3	0.72 ± 0.02	0.61 ± 0.15	0.85	-0.74
5	ee: $m_{T2} > 110$	18.5 ± 0.64	9.02 ± 2.59	0.49	-3.55	4	0.86 ± 0.03	0.71 ± 0.2	0.82	-0.75

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	95.0 ± 1.54	91.6 ± 8.36	0.96	-0.4	0	0.95 ± 0.02	0.92 ± 0.08	0.96	-0.4
2	$\mu\mu$: Jet veto	35.0 ± 0.94	27.73 ± 4.76	0.79	-1.5	1	0.37 ± 0.01	0.3 ± 0.05	0.82	-1.24
3	$\mu\mu$: MET^{rel}	30.0 ± 0.87	25.21 ± 4.54	0.84	-1.04	2	0.86 ± 0.02	0.91 ± 0.16	1.06	0.31
4	$\mu\mu$: $m_{T2} > 90$	21.5 ± 0.73	14.29 ± 3.44	0.66	-2.05	3	0.72 ± 0.02	0.57 ± 0.14	0.79	-1.08
5	$\mu\mu$: $m_{T2} > 110$	18.5 ± 0.68	11.76 ± 3.13	0.64	-2.11	4	0.86 ± 0.03	0.82 ± 0.22	0.96	-0.17

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	93.55 ± 1.04	94.98 ± 5.39	1.02	0.26	0	0.94 ± 0.01	0.95 ± 0.05	1.02	0.26
2	$e\mu$: Jet veto	35.48 ± 0.64	31.27 ± 3.35	0.88	-1.23	1	0.38 ± 0.01	0.33 ± 0.04	0.87	-1.39
3	$e\mu$: MET^{rel}	29.03 ± 0.58	25.87 ± 3.07	0.89	-1.01	2	0.82 ± 0.02	0.83 ± 0.1	1.01	0.09
4	$e\mu$: $m_{T2} > 90$	21.61 ± 0.5	19.31 ± 2.67	0.89	-0.85	3	0.74 ± 0.02	0.75 ± 0.1	1.0	0.02
5	$e\mu$: $m_{T2} > 110$	18.39 ± 0.46	18.15 ± 2.59	0.99	-0.09	4	0.85 ± 0.02	0.94 ± 0.13	1.1	0.66

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