

$\tilde{\chi}_1^\pm(425) \rightarrow (\ell\tilde{\nu}(250) \text{ or } \nu\tilde{\ell}(250)) \rightarrow \nu\ell\tilde{\chi}_1^0(75)$ (**ATLAS_2014_I1286761**
(**1403.5294**))

- 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: $m_{\tilde{\chi}_1^\pm} = 425$ GeV, $m_{\tilde{\ell}/\tilde{\nu}} = 250$ GeV, $m_{\tilde{\chi}_1^0} = 75$ GeV.
- The number of events: 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	= 2 OSlep $p_T > 35, 20$: SF	100.0	100.0							
1	Jet veto: SF	40.35 ± 0.71	30.02 ± 1.19	0.74	-7.42	0	0.4 ± 0.01	0.3 ± 0.01	0.74	-7.42
2	Z veto: SF	38.37 ± 0.7	28.15 ± 1.16	0.73	-7.56	1	0.95 ± 0.02	0.94 ± 0.04	0.99	-0.31
3	$m_{T2} > 90$: SF	24.01 ± 0.55	17.33 ± 0.92	0.72	-6.23	2	0.63 ± 0.01	0.62 ± 0.03	0.98	-0.28
4	$m_{T2} > 120$: SF	19.06 ± 0.49	12.94 ± 0.8	0.68	-6.54	3	0.79 ± 0.02	0.75 ± 0.05	0.94	-0.94
5	$m_{T2} > 150$: SF	14.11 ± 0.42	9.3 ± 0.68	0.66	-6.02	4	0.74 ± 0.02	0.72 ± 0.05	0.97	-0.38

Table 1: The cut-flow table for the same flavour 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	= 2 OSlep $p_T > 35, 20$: DF	100.0	100.0							
1	Jet veto: DF	39.3 ± 0.7	29.12 ± 1.17	0.74	-7.46	0	0.39 ± 0.01	0.29 ± 0.01	0.74	-7.46
2	Z veto: DF	39.3 ± 0.7	29.12 ± 1.17	0.74	-7.46	1	1.0 ± 0.02	1.0 ± 0.04	1.0	0.0
3	$m_{T2} > 90$: DF	25.24 ± 0.56	17.93 ± 0.93	0.71	-6.73	2	0.64 ± 0.01	0.62 ± 0.03	0.96	-0.76
4	$m_{T2} > 120$: DF	20.13 ± 0.5	14.74 ± 0.85	0.73	-5.49	3	0.8 ± 0.02	0.82 ± 0.05	1.03	0.47
5	$m_{T2} > 50$: DF	14.7 ± 0.43	11.04 ± 0.73	0.75	-4.3	4	0.73 ± 0.02	0.75 ± 0.05	1.03	0.35

Table 2: The cut-flow table for the different flavour channel.