

$\tilde{\chi}_1^\pm(100) \rightarrow W^\pm \tilde{\chi}_1^0(0)$ (**ATLAS_2014_I1286761 (1403.5294)**)

- Process: $\tilde{\chi}_1^+ \tilde{\chi}_1^- : \tilde{\chi}_1^\pm \rightarrow W^\pm \tilde{\chi}_1^0$.
- Mass: $m_{\tilde{\chi}_1^\pm} = 100$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV.
- The number of events: $5 \cdot 10^4$.
- 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	= 2 OSlep $p_T > 35, 20$: SF	100.0 ± 0.32	100.0 ± 3.92			-1	\pm	\pm		
1	Jet Veto: SF	49.5 ± 0.22	68.02 ± 3.24	1.37	5.7	0	0.49 ± 0.0	0.68 ± 0.03	1.37	5.7
2	Z Veto: SF	40.81 ± 0.2	53.67 ± 2.88	1.31	4.45	1	0.82 ± 0.0	0.79 ± 0.04	0.96	-0.84
3	WWa: $p_T(\ell\ell) > 80$: SF	6.85 ± 0.08	7.96 ± 1.11	1.16	0.99	2	0.17 ± 0.0	0.15 ± 0.02	0.88	-0.94
4	WWa: METrel > 80 : SF	4.06 ± 0.06	5.46 ± 0.92	1.34	1.51	3	0.59 ± 0.01	0.69 ± 0.12	1.16	0.81
5	WWa: $m_{\ell\ell} < 120$: SF	2.77 ± 0.05	4.21 ± 0.81	1.52	1.77	4	0.68 ± 0.01	0.77 ± 0.15	1.13	0.6

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 ± 0.32	100.0 ± 3.9			-1	\pm	\pm		
1	Jet Veto: DF	49.93 ± 0.22	65.23 ± 3.15	1.31	4.84	0	0.5 ± 0.0	0.65 ± 0.03	1.31	4.84
2	Z Veto: DF	49.93 ± 0.22	65.23 ± 3.15	1.31	4.84	1	1.0 ± 0.0	1.0 ± 0.05	1.0	0.0
3	WWa: $p_T(\ell\ell) > 80$: DF	7.69 ± 0.09	6.46 ± 1.0	0.84	-1.23	2	0.15 ± 0.0	0.1 ± 0.02	0.64	-3.57
4	WWa: METrel > 80 : DF	4.82 ± 0.07	3.69 ± 0.75	0.77	-1.48	3	0.63 ± 0.01	0.57 ± 0.12	0.91	-0.47
5	WWa: $m_{\ell\ell} < 120$: DF	3.29 ± 0.06	3.08 ± 0.69	0.93	-0.31	4	0.68 ± 0.01	0.83 ± 0.19	1.22	0.8

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