

$\tilde{\chi}_1^\pm(140) \rightarrow W^\pm \tilde{\chi}_1^0(20)$ (**ATLAS_2014_I1286761 (1403.5294)**)

- Process: $\tilde{\chi}_1^+ \tilde{\chi}_1^- : \tilde{\chi}_1^\pm \rightarrow W^\pm \tilde{\chi}_1^0$.
- Mass: $m_{\tilde{\chi}_1^\pm} = 140$ GeV, $m_{\tilde{\chi}_1^0} = 20$ 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 ± 3.77			-1	\pm	\pm		
1	Jet Veto: SF	46.68 ± 0.22	59.51 ± 2.92	1.27	4.39	0	0.47 ± 0.0	0.6 ± 0.03	1.27	4.39
2	Z Veto: SF	39.25 ± 0.2	51.3 ± 2.71	1.31	4.44	1	0.84 ± 0.0	0.86 ± 0.05	1.03	0.46
3	WWb: $m_{T2} > 90$: SF	3.15 ± 0.06	3.46 ± 0.71	1.1	0.44	2	0.08 ± 0.0	0.07 ± 0.01	0.84	-0.92
4	WWb: $m_{T2} < 170$: SF	2.72 ± 0.05	3.46 ± 0.71	1.27	1.04	3	0.87 ± 0.02	1.0 ± 0.2	1.15	0.65

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 ± 3.63			-1	\pm	\pm		
1	Jet Veto: DF	46.73 ± 0.22	58.08 ± 2.77	1.24	4.08	0	0.47 ± 0.0	0.58 ± 0.03	1.24	4.08
2	Z Veto: DF	46.73 ± 0.22	58.08 ± 2.77	1.24	4.08	1	1.0 ± 0.0	1.0 ± 0.05	1.0	0.0
3	WWb: $m_{T2} > 90$: DF	3.15 ± 0.06	2.94 ± 0.63	0.93	-0.34	2	0.07 ± 0.0	0.05 ± 0.01	0.75	-1.56
4	WWb: $m_{\ell\ell} < 170$: DF	2.84 ± 0.05	2.8 ± 0.61	0.99	-0.05	3	0.9 ± 0.02	0.95 ± 0.21	1.06	0.26

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