

## 0.1 $\tilde{\chi}_1^\pm(140) \rightarrow W^\pm \tilde{\chi}_1^0(20)$ (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	$\epsilon_{\text{Exp}}$	$\epsilon_{\text{Atom}}$	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	$R_{\text{Exp}}$	$R_{\text{Atom}}$	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	= 2 OSlep $p_T > 35, 20$ : SF	100.0	100.0							
1	Jet Veto: SF	$46.68 \pm 1.82$	$59.6 \pm 2.9$	1.28	3.77	0	$0.47 \pm 0.02$	$0.6 \pm 0.03$	1.28	3.77
2	Z Veto: SF	$39.25 \pm 1.67$	$51.35 \pm 2.69$	1.31	3.82	1	$0.84 \pm 0.04$	$0.86 \pm 0.05$	1.02	0.36
3	WWb: $m_{T2} > 90$ : SF	$3.15 \pm 0.47$	$3.56 \pm 0.71$	1.13	0.48	2	$0.08 \pm 0.01$	$0.07 \pm 0.01$	0.86	-0.59
4	WWb: $m_{T2} < 170$ : SF	$2.72 \pm 0.44$	$3.41 \pm 0.7$	1.25	0.84	3	$0.87 \pm 0.14$	$0.96 \pm 0.2$	1.11	0.39

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

#	cut name	$\epsilon_{\text{Exp}}$	$\epsilon_{\text{Atom}}$	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$	#/?	$R_{\text{Exp}}$	$R_{\text{Atom}}$	$\frac{\text{Atom}}{\text{Exp}}$	$\frac{(\text{Exp}-\text{Atom})}{\text{Error}}$
0	= 2 OSlep $p_T > 35, 20$ : DF	100.0	100.0							
1	Jet Veto: DF	$46.73 \pm 1.76$	$58.96 \pm 2.79$	1.26	3.71	0	$0.47 \pm 0.02$	$0.59 \pm 0.03$	1.26	3.71
2	Z Veto: DF	$46.73 \pm 1.76$	$58.96 \pm 2.79$	1.26	3.71	1	$1.0 \pm 0.04$	$1.0 \pm 0.05$	1.0	0.0
3	WWb: $m_{T2} > 90$ : DF	$3.15 \pm 0.46$	$2.79 \pm 0.61$	0.88	-0.48	2	$0.07 \pm 0.01$	$0.05 \pm 0.01$	0.7	-1.42
4	WWb: $m_{\ell\ell} < 170$ : DF	$2.84 \pm 0.43$	$2.66 \pm 0.59$	0.94	-0.25	3	$0.9 \pm 0.14$	$0.95 \pm 0.21$	1.06	0.21

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