$\tilde{t}_1(300) \to b\tilde{\chi}_1^+(150) \to W^+\tilde{\chi}_1^0(50)$ (**ATLAS_2014_I1286444 (1403.4853)**)

- Process: $pp \to \tilde{t}_1\tilde{t}_1^* : \tilde{t}_1 \to b\tilde{\chi}_1^+ \to W^+\tilde{\chi}_1^0$.
- Mass: $m_{\tilde{t}_1} = 300$ GeV, $m_{\tilde{\chi}_1^\pm} = 150$ GeV, $m_{\tilde{\chi}_1^0} = 50$ 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	$p_T(\ell_1) > 25$: SF	100.0 ± 0.32	100.0 ± 2.51			-1	±	±		
1	H160: $= 2b$-jets: SF	41.1 ± 0.2	42.68 ± 1.71	1.04	0.92	0	0.41 ± 0.0	0.43 ± 0.02	1.04	0.92
2	H160: $m_{T2}(\text{b}-\text{jet}) > 160$: SF	5.81 ± 0.08	4.08 ± 0.54	0.7	-3.16	1	0.14 ± 0.0	0.1 ± 0.01	**0.68**	-3.56
3	H160: $m_{T2} < 90$: SF	5.65 ± 0.08	4.08 ± 0.54	0.72	-2.86	2	0.97 ± 0.01	1.0 ± 0.13	1.03	0.21
4	H160: $p_T(\ell_1) < 60$: SF	2.88 ± 0.05	1.31 ± 0.31	**0.46**	-5.01	3	0.51 ± 0.01	0.32 ± 0.08	**0.63**	-2.47

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	$p_T(\ell_1) > 25$: DF	100.0 ± 0.32	100.0 ± 2.59			-1	±	±		
1	H160: $= 2b$-jets: DF	36.17 ± 0.19	40.77 ± 1.72	1.13	2.65	0	0.36 ± 0.0	0.41 ± 0.02	1.13	2.65
2	H160: $m_{T2}(\text{b}-\text{jet}) > 160$: DF	5.57 ± 0.07	4.62 ± 0.59	0.83	-1.6	1	0.15 ± 0.0	0.11 ± 0.01	0.73	-2.78
3	H160: $m_{T2} < 90$: DF	5.46 ± 0.07	4.38 ± 0.58	0.8	-1.85	2	0.98 ± 0.01	0.95 ± 0.13	0.97	-0.24
4	H160: $p_T(\ell_1) < 60$: DF	2.36 ± 0.05	1.92 ± 0.38	0.82	-1.12	3	0.43 ± 0.01	0.44 ± 0.09	1.02	0.09

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