$\tilde{t}_1 \to b\tilde{\chi}_1^+ \to W^+\tilde{\chi}_1^0$ (**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: $m_{\tilde{t}_1} = 250$ GeV, $m_{\tilde{\chi}_1^\pm} = 106$ GeV, $m_{\tilde{\chi}_1^0} = 60$ 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 ± 3.68				±	±		
1	H160: $= 2b$-jets: SF	41.1 ± 0.2	41.69 ± 2.43	1.01	0.24	0	0.41 ± 0.0	0.42 ± 0.02	1.01	0.24
2	H160: $m_{T2}(\text{b}-\text{jet}) > 160$: SF	5.81 ± 0.08	2.48 ± 0.6	**0.43**	-5.51	1	0.14 ± 0.0	0.06 ± 0.01	**0.42**	-5.64
3	H160: $m_{T2} < 90$: SF	5.65 ± 0.08	2.48 ± 0.6	**0.44**	-5.24	2	0.97 ± 0.01	1.0 ± 0.24	1.03	0.12
4	H160: $p_T(\ell_1) < 60$: SF	2.88 ± 0.05	2.04 ± 0.55	0.71	-1.53	3	0.51 ± 0.01	0.82 ± 0.22	**1.61**	1.42

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 ± 3.53				±	±		
1	H160: $= 2b$-jets: DF	36.17 ± 0.19	40.16 ± 2.29	1.11	1.74	0	0.36 ± 0.0	0.4 ± 0.02	1.11	1.74
2	H160: $m_{T2}(\text{b}-\text{jet}) > 160$: DF	5.57 ± 0.07	3.5 ± 0.69	**0.63**	-3.0	1	0.15 ± 0.0	0.09 ± 0.02	**0.57**	-3.88
3	H160: $m_{T2} < 90$: DF	5.46 ± 0.07	3.5 ± 0.69	**0.64**	-2.84	2	0.98 ± 0.01	1.0 ± 0.2	1.02	0.1
4	H160: $p_T(\ell_1) < 60$: DF	2.36 ± 0.05	3.1 ± 0.65	**1.32**	1.15	3	0.43 ± 0.01	0.88 ± 0.18	**2.05**	2.46

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