SR L: $\tilde{t}_1(400) \to b\tilde{\chi}_1^+(390) \to W^+\tilde{\chi}_1^0(195)$ (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: $m_{\tilde{t}_1} = 400$ GeV, $m_{\tilde{\chi}_1^\pm} = 390$ GeV, $m_{\tilde{\chi}_1^0} = 195$ GeV.
- The number of events: $2 \cdot 10^4$.
- 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	$p_T(\ell_1) > 25$: SF	100.0	100.0							
1	Z veto: SF	75.72 ± 0.66	76.52 ± 1.37	1.01	0.52	0	0.76 ± 0.01	0.77 ± 0.01	1.01	0.52
2	$\Delta\phi_j > 1.0$: SF	56.4 ± 0.57	62.86 ± 1.26	1.11	4.68	1	0.74 ± 0.01	0.82 ± 0.02	1.1	4.24
3	$\Delta\phi_b < 1.5$: SF	43.12 ± 0.49	48.01 ± 1.12	1.11	4.01	2	0.76 ± 0.01	0.76 ± 0.02	1.0	-0.04
4	$m_{T2} > 90$: SF	12.19 ± 0.26	13.09 ± 0.6	1.07	1.37	3	0.28 ± 0.01	0.27 ± 0.01	0.96	-0.72
5	$m_{T2} > 120$: SF	6.51 ± 0.19	6.76 ± 0.44	1.04	0.52	4	0.53 ± 0.02	0.52 ± 0.03	0.97	-0.49
6	$m_{T2} > 100, p_T(j) > 100, 50$: SF	0.67 ± 0.06	0.62 ± 0.13	0.94	-0.29	5	0.1 ± 0.01	0.09 ± 0.02	0.9	-0.46
7	$m_{T2} > 110, p_T(j) > 20, 20$: SF	2.64 ± 0.12	2.13 ± 0.25	0.81	-1.87	6	3.96 ± 0.18	3.41 ± 0.39	0.86	-1.28

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	$p_T(\ell_1) > 25$: SF	100.0	100.0							
1	$\Delta\phi_j > 1.0$: SF	76.33 ± 0.66	82.58 ± 1.42	1.08	4.0	0	0.76 ± 0.01	0.83 ± 0.01	1.08	4.0
2	$\Delta\phi_b < 1.5$: SF	57.5 ± 0.57	63.11 ± 1.26	1.1	4.04	1	0.75 ± 0.01	0.76 ± 0.02	1.01	0.64
3	$m_{T2} > 90$: SF	15.97 ± 0.3	17.45 ± 0.69	1.09	1.96	2	0.28 ± 0.01	0.28 ± 0.01	1.0	-0.1
4	$m_{T2} > 120$: SF	7.93 ± 0.21	8.71 ± 0.49	1.1	1.45	3	0.5 ± 0.01	0.5 ± 0.03	1.0	0.08
5	$m_{T2} > 100, p_T(j) > 100, 50$: SF	1.12 ± 0.08	0.65 ± 0.14	**0.59**	-2.93	4	0.14 ± 0.01	0.08 ± 0.02	**0.53**	-3.53
6	$m_{T2} > 110, p_T(j) > 20, 20$: SF	3.71 ± 0.15	2.88 ± 0.29	0.78	-2.6	5	3.32 ± 0.13	4.39 ± 0.44	**1.32**	2.36

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