SR L: $\tilde{t}_1(300) \to b\tilde{\chi}_1^+(150) \to W^+\tilde{\chi}_1^0(1)$ (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, $m_{\tilde{\chi}_1^0} = 1$ 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	100.0							
1	Z veto: SF	70.97 ± 0.71	70.98 ± 2.12	1.0	0.0	0	0.71 ± 0.01	0.71 ± 0.02	1.0	0.0
2	$\Delta\phi_j > 1.0$: SF	38.07 ± 0.52	38.37 ± 1.6	1.01	0.18	1	0.54 ± 0.01	0.54 ± 0.02	1.01	0.17
3	$\Delta\phi_b < 1.5$: SF	36.96 ± 0.51	36.96 ± 1.57	1.0	-0.0	2	0.97 ± 0.01	0.96 ± 0.04	0.99	-0.18
4	$m_{T2} > 90$: SF	2.38 ± 0.13	2.53 ± 0.42	1.06	0.35	3	0.06 ± 0.0	0.07 ± 0.01	1.06	0.35
5	$m_{T2} > 120$: SF	0.36 ± 0.05	0.21 ± 0.12	0.59	-1.11	4	0.15 ± 0.02	0.08 ± 0.05	0.56	-1.27
6	$m_{T2} > 100, p_T(j) > 100, 50$: SF	1.02 ± 0.08	0.63 ± 0.21	0.62	-1.69	5	2.85 ± 0.24	3.0 ± 1.0	1.05	0.15
7	$m_{T2} > 110, p_T(j) > 20, 20$: SF	0.82 ± 0.08	0.42 ± 0.17	0.52	-2.1	6	0.8 ± 0.07	0.67 ± 0.27	0.83	-0.48

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	100.0							
1	$\Delta\phi_j > 1.0$: DF	51.36 ± 0.61	56.2 ± 1.95	1.09	2.36	0	0.51 ± 0.01	0.56 ± 0.02	1.09	2.36
2	$\Delta\phi_b < 1.5$: DF	49.75 ± 0.6	54.37 ± 1.92	1.09	2.29	1	0.97 ± 0.01	0.97 ± 0.03	1.0	-0.03
3	$m_{T2} > 90$: DF	3.01 ± 0.15	3.37 ± 0.5	1.12	0.7	2	0.06 ± 0.0	0.06 ± 0.01	1.03	0.16
4	$m_{T2} > 120$: DF	0.37 ± 0.05	0.15 ± 0.1	0.4	-1.9	3	0.12 ± 0.02	0.04 ± 0.03	0.36	-2.23
5	$m_{T2} > 100, p_T(j) > 100, 50$: DF	0.61 ± 0.07	1.03 ± 0.27	1.7	1.49	4	1.65 ± 0.18	7.0 ± 1.87	4.25	2.85
6	$m_{T2} > 110, p_T(j) > 20, 20$: DF	0.64 ± 0.07	0.73 ± 0.23	1.14	0.37	5	1.06 ± 0.11	0.71 ± 0.23	0.67	-1.39

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