

SR H160: $\tilde{t}_1(250) \rightarrow b\tilde{\chi}_1^+(106) \rightarrow W^+\tilde{\chi}_1^0(60)$ (**ATLAS_2014_I1286444**
(**1403.4853**))

- Process: $pp \rightarrow \tilde{t}_1\tilde{t}_1^* : \tilde{t}_1 \rightarrow b\tilde{\chi}_1^+ \rightarrow W^+\tilde{\chi}_1^0$.
- 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	100.0							
1	H160: $= 2b$ -jets: SF	41.1 ± 0.77	41.69 ± 2.43	1.01	0.23	0	0.41 ± 0.01	0.42 ± 0.02	1.01	0.23
2	H160: $m_{T2}(b - \text{jet}) > 160$: SF	5.81 ± 0.29	2.48 ± 0.6	0.43	-5.0	1	0.14 ± 0.01	0.06 ± 0.01	0.42	-5.11
3	H160: $m_{T2} < 90$: SF	5.65 ± 0.29	2.48 ± 0.6	0.44	-4.76	2	0.97 ± 0.05	1.0 ± 0.24	1.03	0.11
4	H160: $p_T(\ell_1) < 60$: SF	2.88 ± 0.2	2.04 ± 0.55	0.71	-1.44	3	0.51 ± 0.04	0.82 ± 0.22	1.61	1.41

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	H160: $= 2b$ -jets: DF	36.17 ± 0.7	40.16 ± 2.29	1.11	1.67	0	0.36 ± 0.01	0.4 ± 0.02	1.11	1.67
2	H160: $m_{T2}(b - \text{jet}) > 160$: DF	5.57 ± 0.27	3.5 ± 0.69	0.63	-2.8	1	0.15 ± 0.01	0.09 ± 0.02	0.57	-3.58
3	H160: $m_{T2} < 90$: DF	5.46 ± 0.27	3.5 ± 0.69	0.64	-2.66	2	0.98 ± 0.05	1.0 ± 0.2	1.02	0.1
4	H160: $p_T(\ell_1) < 60$: DF	2.36 ± 0.18	3.1 ± 0.65	1.32	1.11	3	0.43 ± 0.03	0.88 ± 0.18	2.05	2.42

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