Electroweak search with tau leptons
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1 $\tilde{\chi}_1^+ \tilde{\chi}_1^-$

Process: $pp \to \tilde{\chi}_1^+ \tilde{\chi}_1^-$
$\tilde{\chi}_1^\pm \to \tau^\pm \tilde{\nu}$ (50%) $\quad \tilde{\chi}_1^\pm \to \tilde{\tau}^\pm \nu$ (50%)
$m_{\tilde{\chi}_1^\pm} = 600$ GeV, $m_{\tilde{\tau}_1} = 300$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV Events generated with `MG5_aMC 2.6.0` interfaced to `Pythia8` with up to two extra partons. 10000 MC events weighted to 36.1/fb.

Selection	ATLAS	CheckMATE
Total	342.3	343
at least 2 medium taus and trigger	21.2	22.1
OS tau pair	21.0	21.5
b veto	20.3	20.4
Z veto	19.7	19.4
at least one tight tau	16.3	12.6
$p_{T,\tau_1} > 80$ GeV	16.1	12.5
$m(\tau_1, \tau_2) > 110$ GeV	13.5	12.1
$E_T^{\mathrm{miss}} > 110$ GeV	12.5	9.6
$m_{\mathrm{T2}} > 90$ GeV	10.0 ± 0.4	7.5 ± 0.6

2 $\tilde{\chi}_1^\pm \tilde{\chi}_2^0$

Process: $pp \to \tilde{\chi}_1^+ \tilde{\chi}_2^0$
$\tilde{\chi}_1^\pm \to \tau^\pm \tilde{\nu}$ (50%) $\quad \tilde{\chi}_1^\pm \to \tilde{\tau}^\pm \nu$ (50%)
$\tilde{\chi}_2^0 \to \tau^\pm \tilde{\tau}^\pm$ (50%) $\quad \tilde{\chi}_2^0 \to \tilde{\nu} \nu$ (50%)
$m_{\tilde{\chi}_1^\pm} = 600$ GeV, $m_{\tilde{\tau}_1} = 300$ GeV, $m_{\tilde{\chi}_1^0} = 0$ GeV Events generated with `MG5_aMC 2.6.0` interfaced to `Pythia8` with up to two extra partons. 10000 MC events weighted to 36.1/fb.

Selection	ATLAS	CheckMATE
Total	727	720
at least 2 medium taus and trigger	33.5	28.3
OS tau pair	24.0	19.7
b veto	22.2	18.5
Z veto	21.3	17.8
di-tau $+ E_T^{\mathrm{miss}}$ trigger	13.3	10.7
$m_{\mathrm{T2}} > 70$ GeV	11.8 ± 0.4	9.0 ± 0.4