

$M_{CT}$ Event Selection	$\bar{b}\bar{b}^* \rightarrow \bar{b}\bar{\chi}_1^0\bar{\chi}_1^0$		$\bar{t}\bar{t}^* \rightarrow \bar{t}\bar{\chi}_1^0\bar{b}\bar{\chi}_1^\pm \rightarrow \bar{t}\bar{b}W^\pm\bar{\chi}_1^0\bar{\chi}_1^0$			
	$\mathcal{B}(\bar{b} \rightarrow \bar{b}\bar{\chi}_1^0) = 1.0$		$\mathcal{B}(\bar{t} \rightarrow \bar{t}\bar{\chi}_1^0) = 0.0$		$\mathcal{B}(\bar{t} \rightarrow \bar{t}\bar{\chi}_1^0) = 0.5$	
	(275,250)	(700,100)	(250,125)	(500,125)	(250,125)	(500,125)
Pre-selection	91.56 $\pm$ 0.11	92.92 $\pm$ 0.13	91.63 $\pm$ 0.08	93.54 $\pm$ 0.18	91.63 $\pm$ 0.06	92.87 $\pm$ 0.07
$N_{\text{jet}}(p_T > 70 \text{ GeV}) == 2$	20.13 $\pm$ 0.30	37.62 $\pm$ 0.38	3.22 $\pm$ 0.17	31.71 $\pm$ 0.29	15.86 $\pm$ 0.11	23.73 $\pm$ 0.17
$e, \mu$ veto	19.78 $\pm$ 0.28	36.01 $\pm$ 0.36	3.19 $\pm$ 0.17	31.60 $\pm$ 0.29	13.62 $\pm$ 0.12	19.09 $\pm$ 0.15
IsoTrk Veto	18.72 $\pm$ 0.26	33.64 $\pm$ 0.34	2.92 $\pm$ 0.15	30.63 $\pm$ 0.28	12.08 $\pm$ 0.12	16.62 $\pm$ 0.14
3 <sup>rd</sup> Jet Veto	12.43 $\pm$ 0.21	23.1 $\pm$ 0.22	2.34 $\pm$ 0.13	21.24 $\pm$ 0.33	6.57 $\pm$ 0.08	7.32 $\pm$ 0.09
$H_T > 250 \text{ GeV}$	5.58 $\pm$ 0.14	22.13 $\pm$ 0.20	1.13 $\pm$ 0.10	20.91 $\pm$ 0.32	2.76 $\pm$ 0.04	6.41 $\pm$ 0.08
$p_T^{\text{miss}} > 175 \text{ GeV}$	1.28 $\pm$ 0.10	16.41 $\pm$ 0.18	0.92 $\pm$ 0.09	17.83 $\pm$ 0.26	0.55 $\pm$ 0.03	4.81 $\pm$ 0.07
$M_T > 200 \text{ GeV}$	0.74 $\pm$ 0.09	14.4 $\pm$ 0.15	0.86 $\pm$ 0.08	16.24 $\pm$ 0.25	0.25 $\pm$ 0.03	3.9 $\pm$ 0.05
$\Delta\phi(b_1, b_2) < 2.5$	0.71 $\pm$ 0.09	13.0 $\pm$ 0.14	0.86 $\pm$ 0.08	16.21 $\pm$ 0.25	0.86 $\pm$ 0.04	3.49 $\pm$ 0.06
$N_{\text{b-jets}} = 1$	0.39 $\pm$ 0.07	6.42 $\pm$ 0.09	0.033 $\pm$ 0.001	5.92 $\pm$ 0.13	0.19 $\pm$ 0.02	2.89 $\pm$ 0.04
$N_{\text{b-jets}} = 2$	0.08 $\pm$ 0.01	5.2 $\pm$ 0.08	0.002 $\pm$ 0.001	6.49 $\pm$ 0.16	0.02 $\pm$ 0.001	1.56 $\pm$ 0.03
$N_{\text{b-jets}} = 1, M_{CT} < 250 \text{ GeV}$	0.27 $\pm$ 0.05	1.74 $\pm$ 0.08	0.017 $\pm$ 0.001	0.68 $\pm$ 0.03	0.14 $\pm$ 0.01	0.92 $\pm$ 0.04
$N_{\text{b-jets}} = 1, M_{CT} \in [250, 350] \text{ GeV}$	0.11 $\pm$ 0.04	2.82 $\pm$ 0.09	0.015 $\pm$ 0.001	1.12 $\pm$ 0.07	0.04 $\pm$ 0.003	1.28 $\pm$ 0.05
$N_{\text{b-jets}} = 1, M_{CT} \in [250, 350] \text{ GeV}$	0.01 $\pm$ 0.006	1.73 $\pm$ 0.08	0.001 $\pm$ 0.0006	1.56 $\pm$ 0.08	0.01 $\pm$ 0.001	0.61 $\pm$ 0.03
$N_{\text{b-jets}} = 1, M_{CT} > 450 \text{ GeV}$	0.00 $\pm$ 0.00	0.13 $\pm$ 0.06	0.00 $\pm$ 0.00	2.54 $\pm$ 0.09	0.00 $\pm$ 0.00	0.06 $\pm$ 0.004
$N_{\text{b-jets}} = 2, M_{CT} < 250 \text{ GeV}$	0.08 $\pm$ 0.005	1.29 $\pm$ 0.06	0.002 $\pm$ 0.0006	0.44 $\pm$ 0.02	0.02 $\pm$ 0.001	0.5 $\pm$ 0.03
$N_{\text{b-jets}} = 2, M_{CT} \in [250, 350] \text{ GeV}$	0.00 $\pm$ 0.00	1.98 $\pm$ 0.09	0.001 $\pm$ 0.0006	1.21 $\pm$ 0.07	0.002 $\pm$ 0.001	0.72 $\pm$ 0.04
$N_{\text{b-jets}} = 2, M_{CT} \in [250, 350] \text{ GeV}$	0.00 $\pm$ 0.00	1.52 $\pm$ 0.08	0.00 $\pm$ 0.00	1.58 $\pm$ 0.08	0.0 $\pm$ 0.00	0.38 $\pm$ 0.04
$N_{\text{b-jets}} = 2, M_{CT} > 450 \text{ GeV}$	0.00 $\pm$ 0.00	0.15 $\pm$ 0.03	0.00 $\pm$ 0.00	3.21 $\pm$ 0.11	0.00 $\pm$ 0.00	0.00 $\pm$ 0.00