

Common event selection criteria

Exactly one electron or muon

Veto secondary low- p_T charged loose leptons

Exactly two jets

$$E_T^{\text{miss}} > 35 \text{ GeV}$$

$$m_T(\ell, E_T^{\text{miss}}) > 60 \text{ GeV}$$

$$p_T(\ell) > 50 \left(1 - \frac{\pi - |\Delta\phi(p_T(j_1), p_T(\ell))|}{\pi - 1} \right) \text{ GeV}$$

Preselection region	Signal region	$t\bar{t}$ control region	W + jets control region
Exactly one b -tagged jet	Exactly one b -tagged jet $m_{\ell b} < 153 \text{ GeV}$ $m_{j\ell\nu b} > 320 \text{ GeV}$ Trapezoidal requirement $H_T > 190 \text{ GeV}$	Exactly two b -tagged jet	Exactly one b -tagged jet $m_{\ell b} > 153 \text{ GeV}$ $m_{j\ell\nu b} < 320 \text{ GeV}$ Veto trapezoidal requirement $H_T < 190 \text{ GeV}$