

2016:

$p_T^{\text{miss}} > 120 \text{ GeV}$  and  $H_T^{\text{miss}} > 120 \text{ GeV}$ , or  
 $H_T > 300 \text{ GeV}$  and  $p_T^{\text{miss}} > 110 \text{ GeV}$ , or  
 $H_T > 900 \text{ GeV}$ , or jet  $p_T > 450 \text{ GeV}$

2017 and 2018:

$p_T^{\text{miss}} > 120 \text{ GeV}$  and  $H_T^{\text{miss}} > 120 \text{ GeV}$ , or  
 $H_T > 60 \text{ GeV}$  and  $p_T^{\text{miss}} > 120 \text{ GeV}$  and  $H_T^{\text{miss}} > 120 \text{ GeV}$ , or  
 $H_T > 500 \text{ GeV}$  and  $p_T^{\text{miss}} > 100 \text{ GeV}$  and  $H_T^{\text{miss}} > 100 \text{ GeV}$ , or  
 $H_T > 800 \text{ GeV}$  and  $p_T^{\text{miss}} > 75 \text{ GeV}$  and  $H_T^{\text{miss}} > 75 \text{ GeV}$ , or  
 $H_T > 1050 \text{ GeV}$ , or jet  $p_T > 500 \text{ GeV}$

Trigger

Jet selection

$R = 0.4$ ,  $p_T > 30 \text{ GeV}$ ,  $|\eta| < 2.4$

b-tagged jet selection

$p_T > 20 \text{ GeV}$ ,  $|\eta| < 2.4$  and b tag

$H_T$

$H_T > 250 \text{ GeV}$

$p_T^{\text{miss}}$

$p_T^{\text{miss}} > 250 \text{ GeV}$  for  $H_T < 1200 \text{ GeV}$  or  $N_j = 1$ , else  $p_T^{\text{miss}} > 30 \text{ GeV}$   
 $\Delta\phi_{\min} = \Delta\phi(\vec{p}_T^{\text{miss}}, j_{1,2,3,4}) > 0.3$   
 $|\vec{p}_T^{\text{miss}} - \vec{H}_T^{\text{miss}}| / p_T^{\text{miss}} < 0.5$

Inclusive  $M_{T2}$  search:

$M_{T2} > 200 \text{ GeV}$  for  $H_T < 1500 \text{ GeV}$ , else  $M_{T2} > 400 \text{ GeV}$

$M_{T2}$  (if  $N_j \geq 2$ )

Disappearing tracks search:

$M_{T2} > 200 \text{ GeV}$

$p_T^{\text{sum}}$  cone (isolation)

Veto e or  $\mu$ :  $\Delta R = \min(0.2, \max(10 \text{ GeV} / p_T^{\text{lept}}, 0.05))$

Veto track:  $\Delta R = 0.3$

Veto electron

$p_T > 10 \text{ GeV}$ ,  $|\eta| < 2.4$ ,  $p_T^{\text{sum}} < 0.1 p_T^{\text{lept}}$

Veto electron track

$p_T > 5 \text{ GeV}$ ,  $|\eta| < 2.4$ ,  $M_T < 100 \text{ GeV}$ ,  $p_T^{\text{sum}} < 0.2 p_T^{\text{lept}}$

Veto muon

$p_T > 10 \text{ GeV}$ ,  $|\eta| < 2.4$ ,  $p_T^{\text{sum}} < 0.2 p_T^{\text{lept}}$

Veto muon track

$p_T > 5 \text{ GeV}$ ,  $|\eta| < 2.4$ ,  $M_T < 100 \text{ GeV}$ ,  $p_T^{\text{sum}} < 0.2 p_T^{\text{lept}}$

Veto track

$p_T > 10 \text{ GeV}$ ,  $|\eta| < 2.4$ ,  $M_T < 100 \text{ GeV}$ ,  $p_T^{\text{sum}} < 0.1 p_T^{\text{track}}$