

$$tHq(2ISS+1\pi)$$

SR

CR  $\bar{t}t + \bar{t}tX$ 

MET soft reso (parp.)  
MET soft reso (para.)  
MET soft scale  
Tau fake norm.  
Tau fake shape  
Lepton fake leading  
Lepton fake sub-leading  
RNN Tau ID syst.  
RNN Tau ID High-pT  
RNN Tau ID 3P (40)  
RNN Tau ID 3P (30-40)  
RNN Tau ID 3P (25-30)  
RNN Tau ID 3P (20-25)  
RNN Tau ID 1P (40)  
RNN Tau ID 1P (30-40)  
RNN Tau ID 1P (25-30)  
RNN Tau ID 1P (20-25)  
Tau reconstruction  
Tau electron veto (syst.)  
Tau electron veto (stat.)  
Tau electron veto (tot.)  
Tau energy scale (physicslist)  
Tau energy scale (model closure)  
Tau energy scale (insitu fit)  
Tau energy scale (insitu exp.)  
Tau energy scale (detector)  
Muon TTVA eff. (stat)  
Muon trigger eff. (stat)  
Muon isol. eff. (stat)  
Muon low pt ID eff. (stat)  
Muon ID eff. (stat)  
Muon TTVA eff. (syst)  
Muon trigger eff. (syst)  
Muon isol. eff. (syst)  
Muon low pT ID eff. (syst)  
Muon ID eff. (syst)  
Muon energy scale  
Muon sagitta p topology  
Muon sagitta residual bias  
Muon energy resolution (MS)  
Muon energy resolution (ID)  
Electron trigger eff.  
Electron reco. eff.  
Electron isol. eff. (syst)  
Electron isol. eff. (stat)  
Electron ID eff.  
Electron energy scale  
Electron energy scale AFII  
Electron energy resolution  
Forward Jet-Vertex-Tagger (fJVT)  
Jet-Vertex-Tagger (JVT)  
Pile-up rew.  
Luminositi

- Not present
- Kept
- Shape dropped
- Norm. dropped
- Dropped
- Norm >99% (dropped)
- Bad shape (dropped)
- Bad shape & norm. (dropped)

Channel	Model	$\sigma$ [fb]	$\sigma/\sigma_{SM}$	$\sigma/\sigma_{SM}^{95\%CL}$
$tHq$	1	0.00000	0.00000	0.00000
$tWH$	1	0.00000	0.00000	0.00000
$tWZ$	1	0.00000	0.00000	0.00000
$t\bar{t}$	1	0.00000	0.00000	0.00000
$t\bar{t}W$	1	0.00000	0.00000	0.00000
$t\bar{t}Z$	1	0.00000	0.00000	0.00000
$t\bar{t}H$	1	0.00000	0.00000	0.00000
$tZq$	1	0.00000	0.00000	0.00000
$tW$	1	0.00000	0.00000	0.00000
Z+jets	1	0.00000	0.00000	0.00000
Diboson	1	0.00000	0.00000	0.00000
minor bkg	1	0.00000	0.00000	0.00000
minor bkg	1	0.00000	0.00000	0.00000

$tHq$	
$tWH$	
$tWZ$	
$t\bar{t}$	
$t\bar{t}W$	
$t\bar{t}Z$	
$t\bar{t}H$	
$tZq$	
$tW$	
Z+jets	
Diboson	
minor bkg	
minor bkg	