

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

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)

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