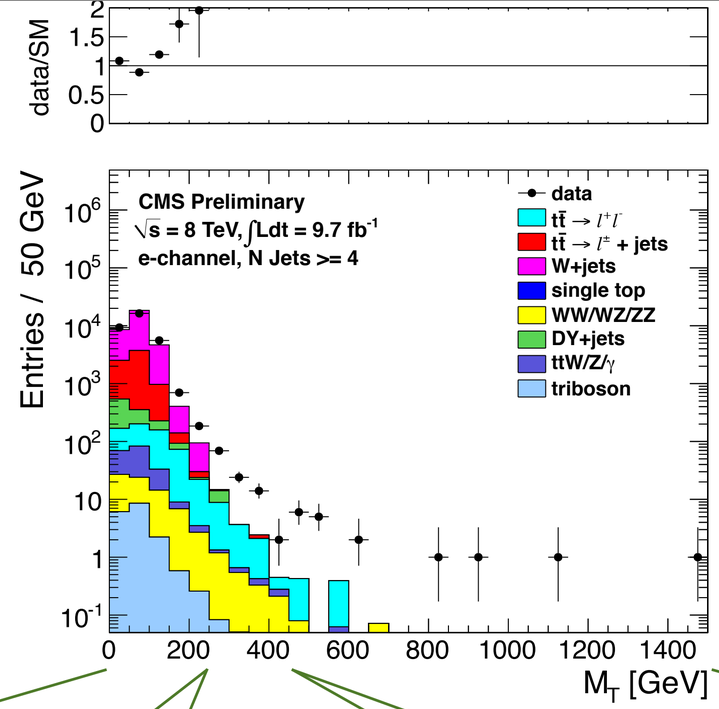
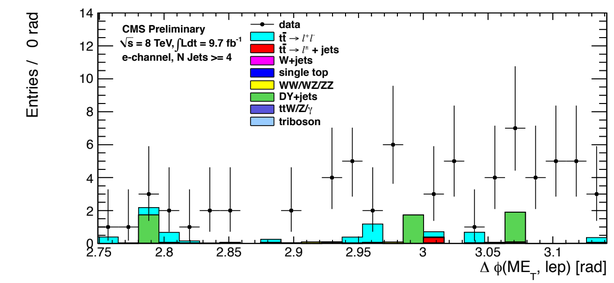
- data vs MC for M_T in CR1 (right)
  - same as signal region but 0 b-tags (and MET>50 GeV)
  - sum of MC is normalised to data
- excess observed in data in mid and high M_T ranges

note, single top events are missing from MC stacks

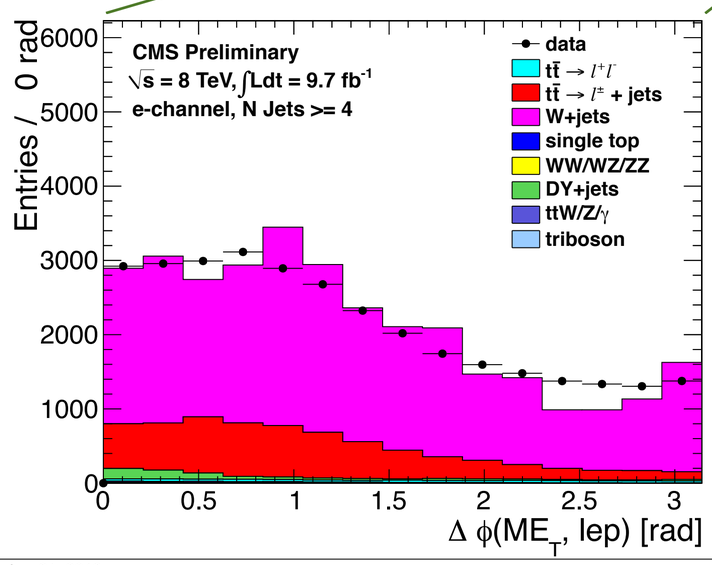


- below, Δphi(MET,lep) for different M_T ranges
- excess largest where Δphi~π
  - but no spike at Δphi=π:

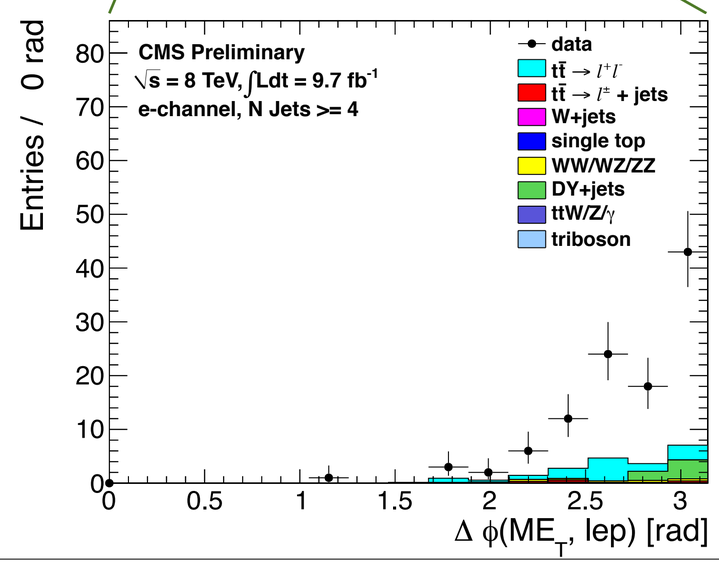


- next slide, MET and lepton p_T for the 3 M_T ranges

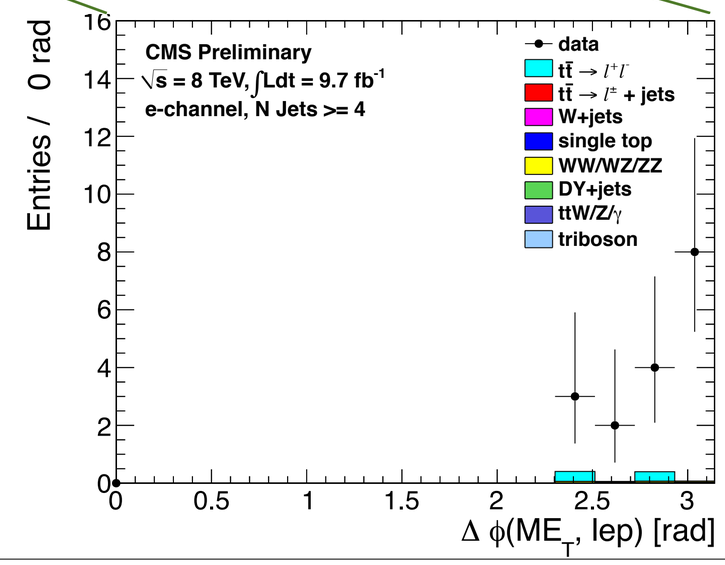
$0<M_T<250$ GeV

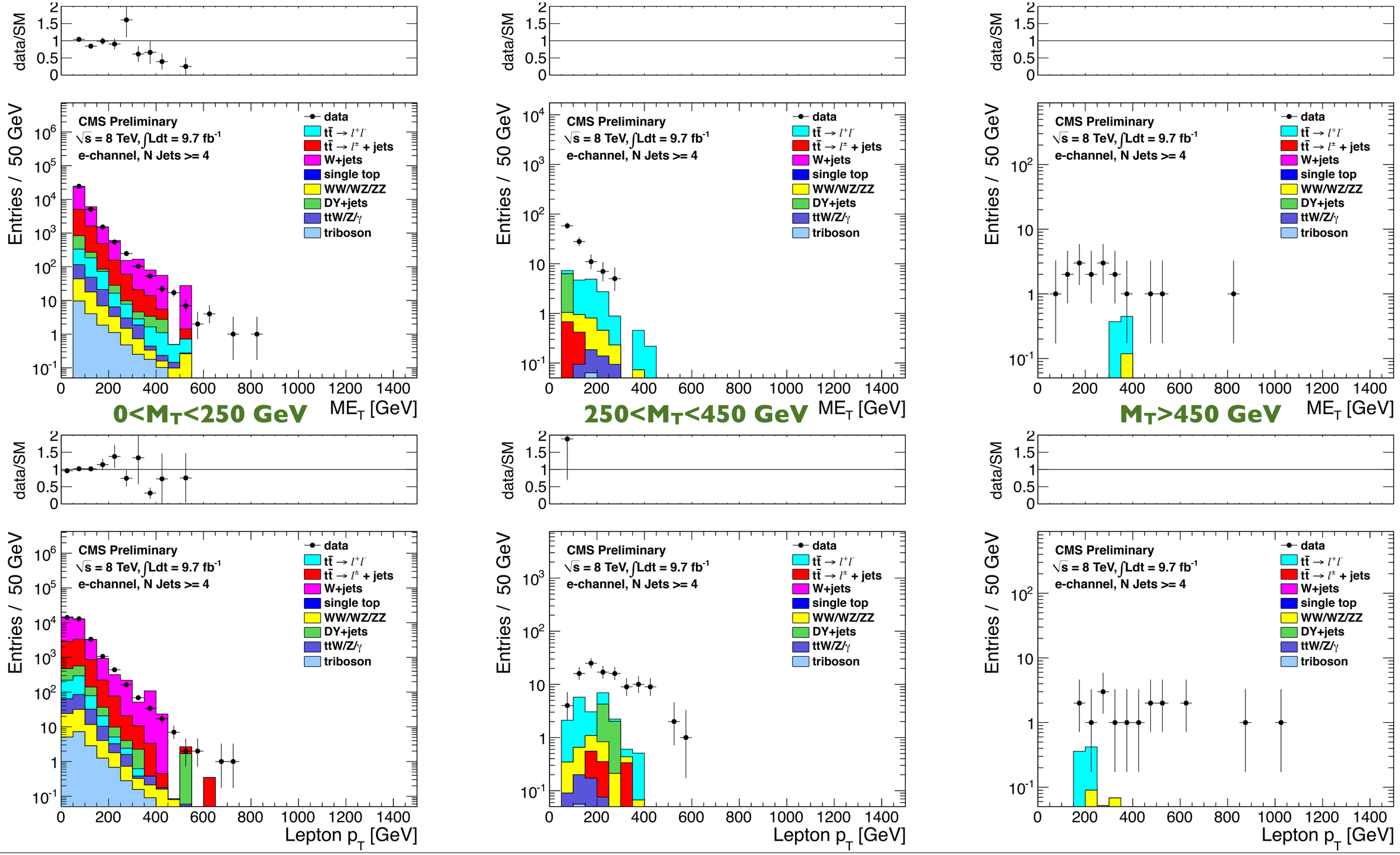
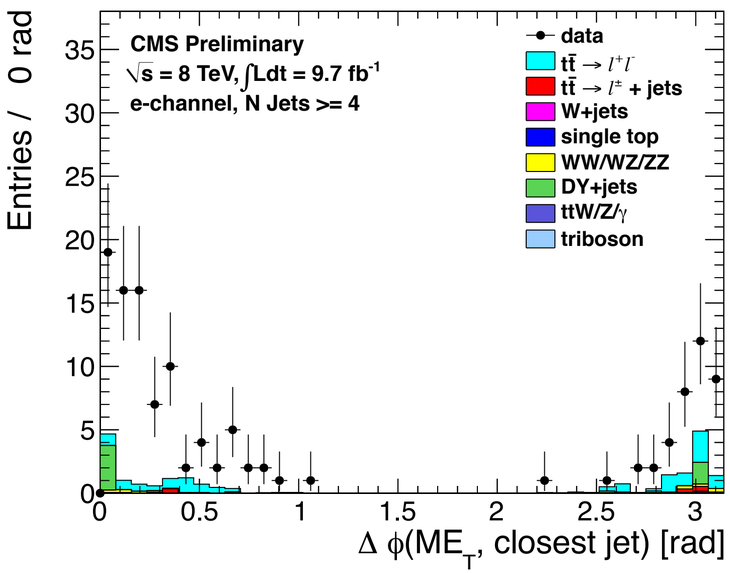
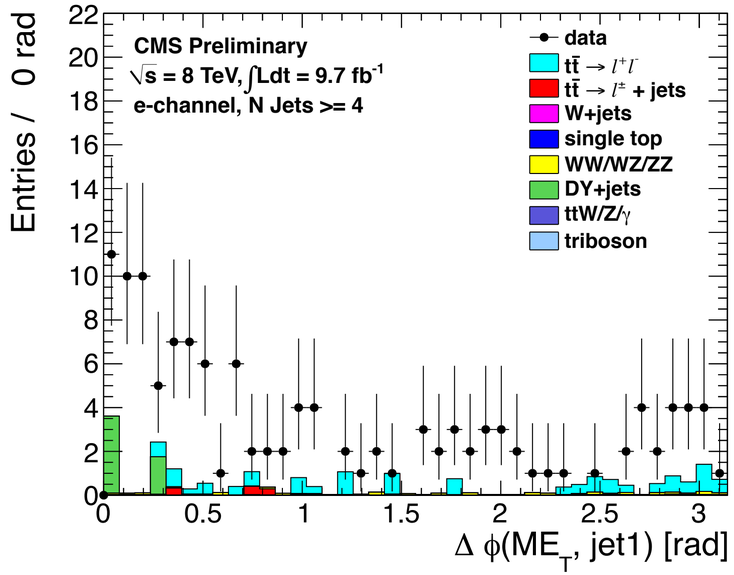
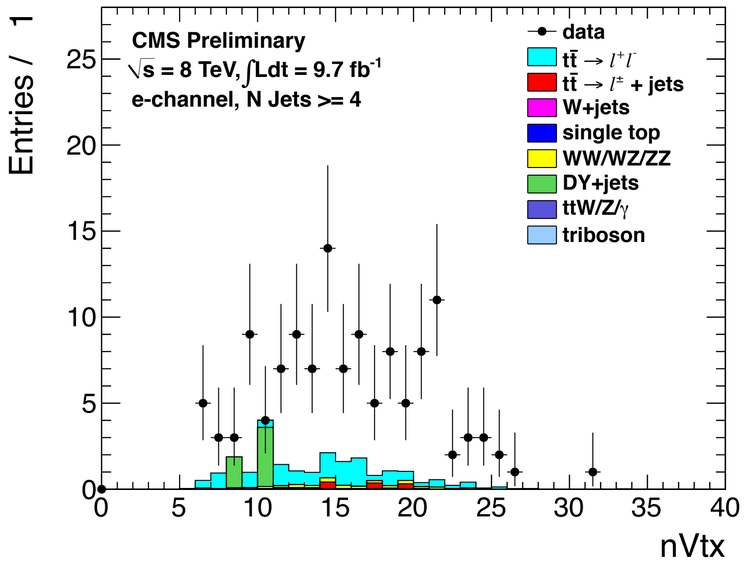
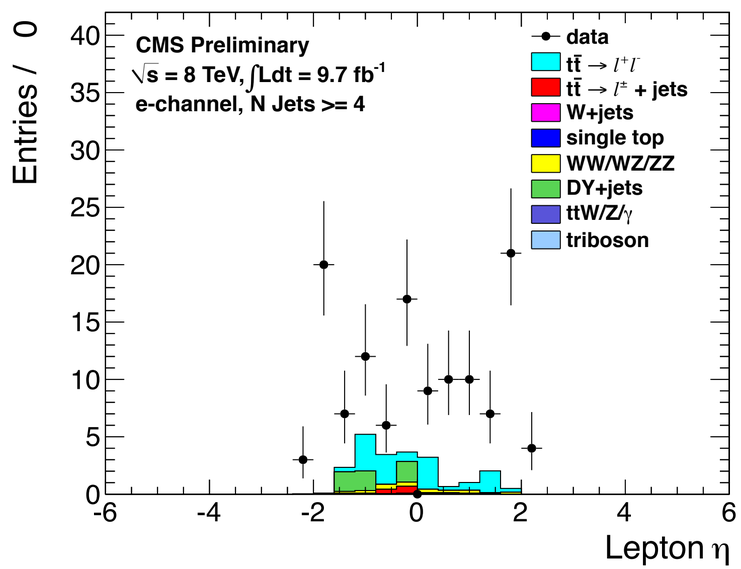
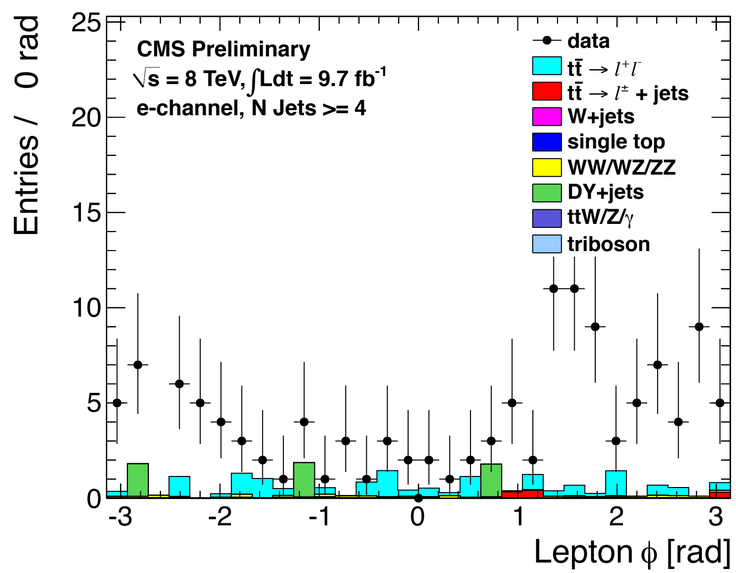
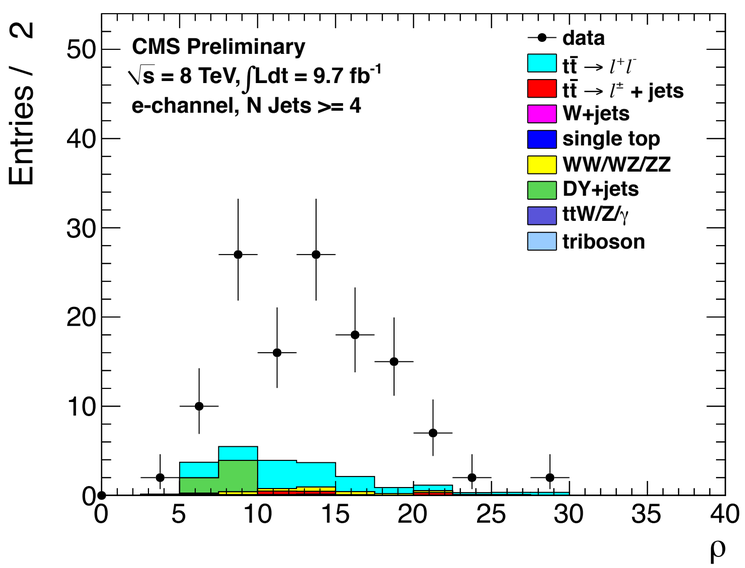


$250<M_T<450$ GeV



$M_T>450$ GeV




CMS Preliminary
√s = 8 TeV, ∫Ldt = 9.7 fb⁻¹
e-channel, N Jets >= 4
data
tt̄ → l⁺l⁻
tt̄ → l± + jets
W+jets
single top
WW/WZ/ZZ
DY+jets
ttW/Z/γ
triboson
Entries / 50 GeV
data/SM
ME_T [GeV]
Lepton p_T [GeV]
0<M_T<250 GeV
250<M_T<450 GeV
M_T>450 GeV

- more distributions for M_T>250 GeV