

Events / 10.00 GeV

 $\times 10^3$ **ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 140\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ **STH** $\tau_{\text{lep}}\tau_{\text{had}}$

SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ b-jets fake τ τ_W QCD Fake μ

—•— data

Diboson

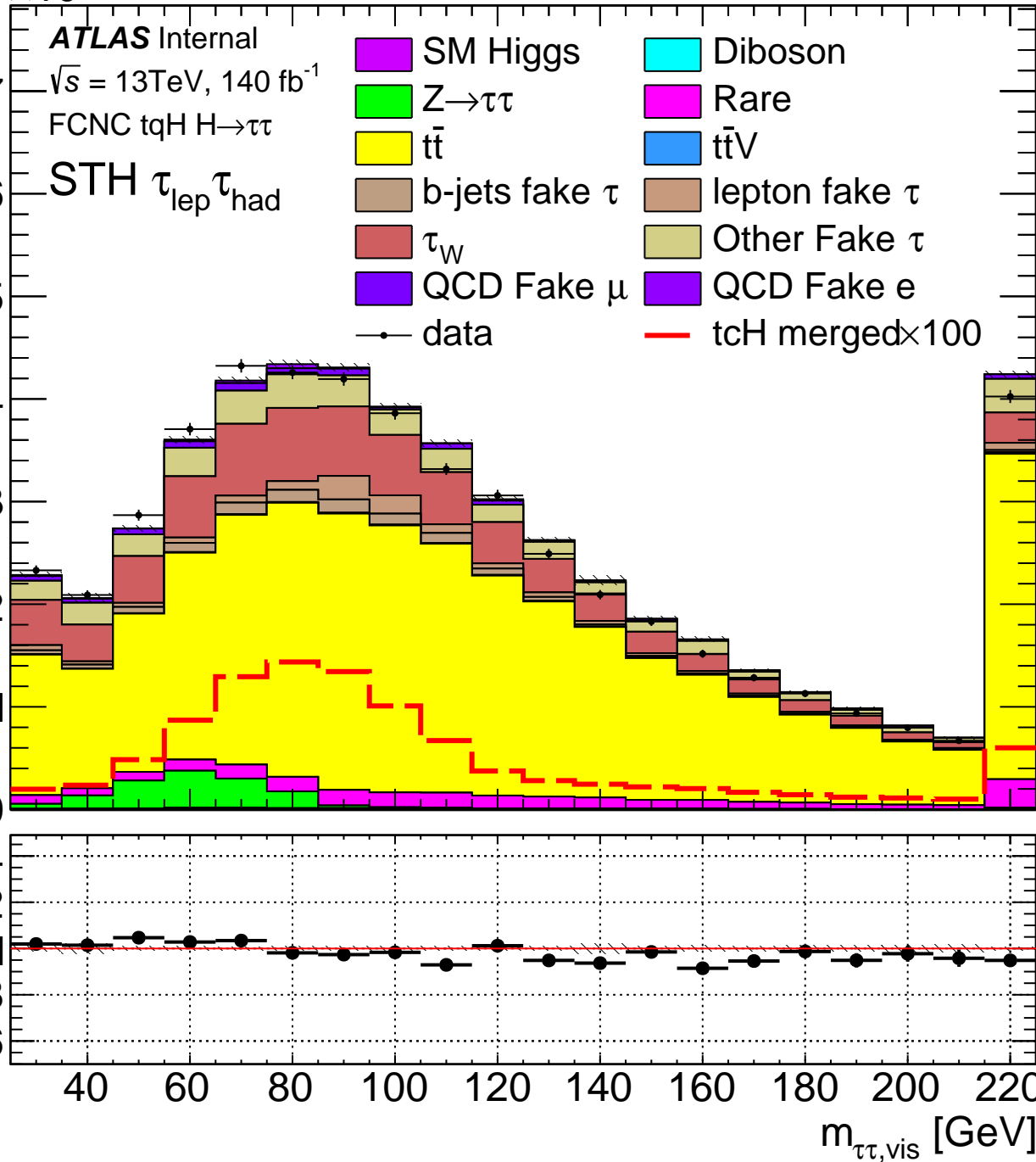
Rare

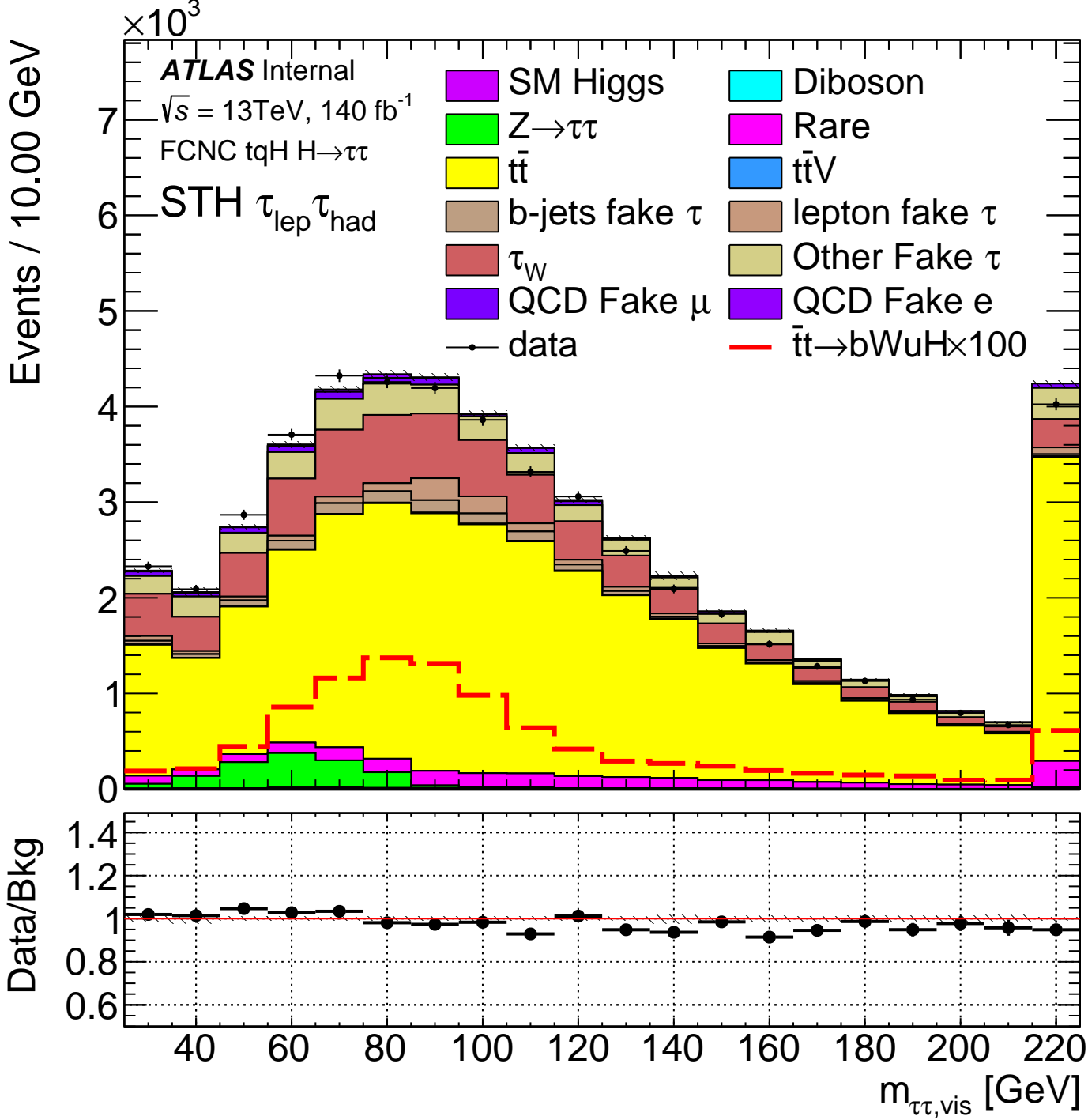
 $t\bar{t}V$ lepton fake τ Other Fake τ

QCD Fake e

— tcH merged $\times 100$

Data/Bkg

1.4
1.2
1.0
0.8
0.6 $m_{\tau\tau,\text{vis}} [\text{GeV}]$ 



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SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ b-jets fake τ τ_W QCD Fake μ

—•— data

Diboson

Rare

 $t\bar{t}V$ lepton fake τ Other Fake τ

QCD Fake e

— $ug \rightarrow tH \times 300$

Data/Bkg

1.4
1.2
1.0
0.8
0.6 $m_{\tau\tau,\text{vis}} [\text{GeV}]$ 