

Events / 20.00 GeV

ATLAS Internal

$\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$

FCNC $t\bar{q}H \rightarrow \tau\tau$

$t_l \tau_{\text{had}} \tau_{\text{had}}$

Other MC

b-jets fake τ

τ_W

Other Fake τ

$t\bar{t} \rightarrow bWcH \times 20$

$t\bar{t}$

lepton fake τ

double fake τ

data

30

25

20

15

10

5

0

Data/Bkg

1.4

1.2

1.0

0.8

0.6

100

120

140

160

180

200

220

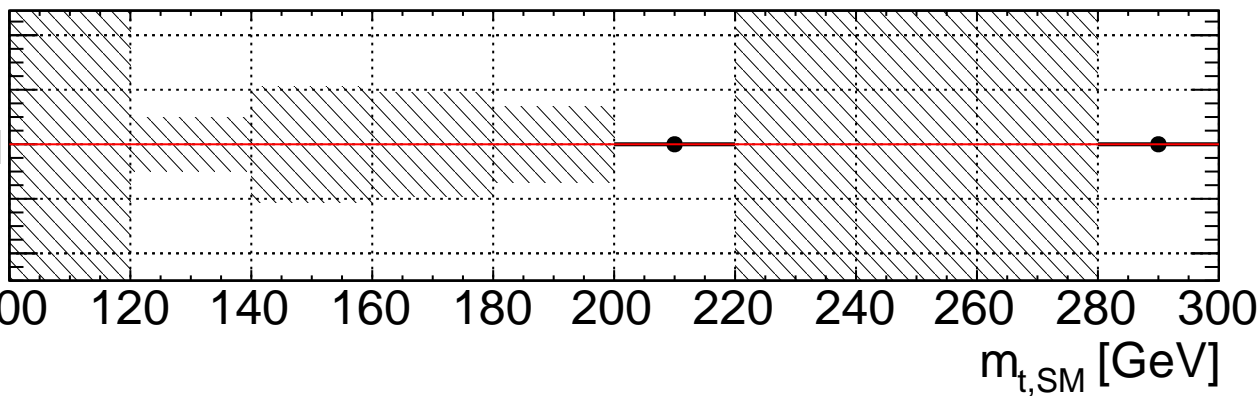
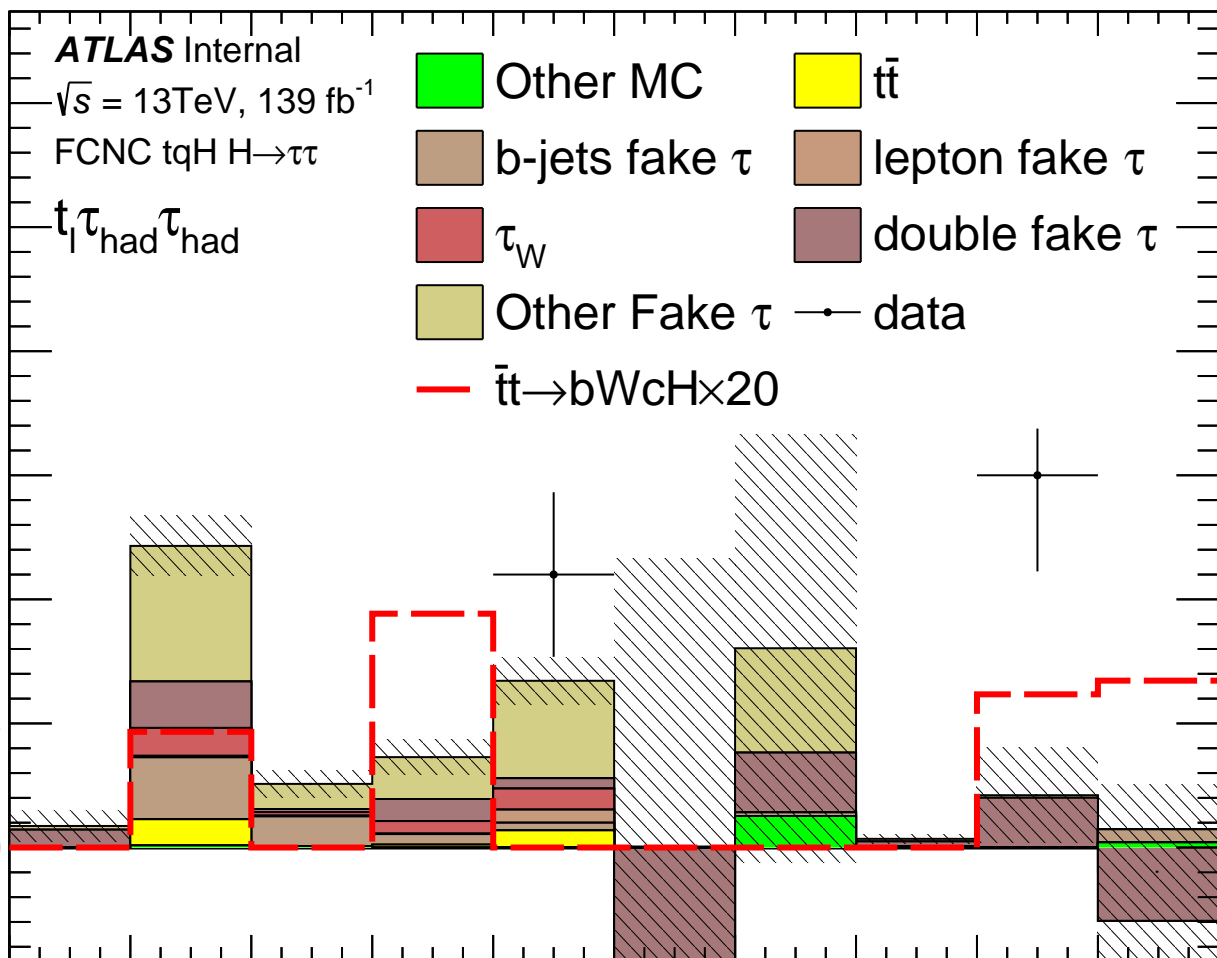
240

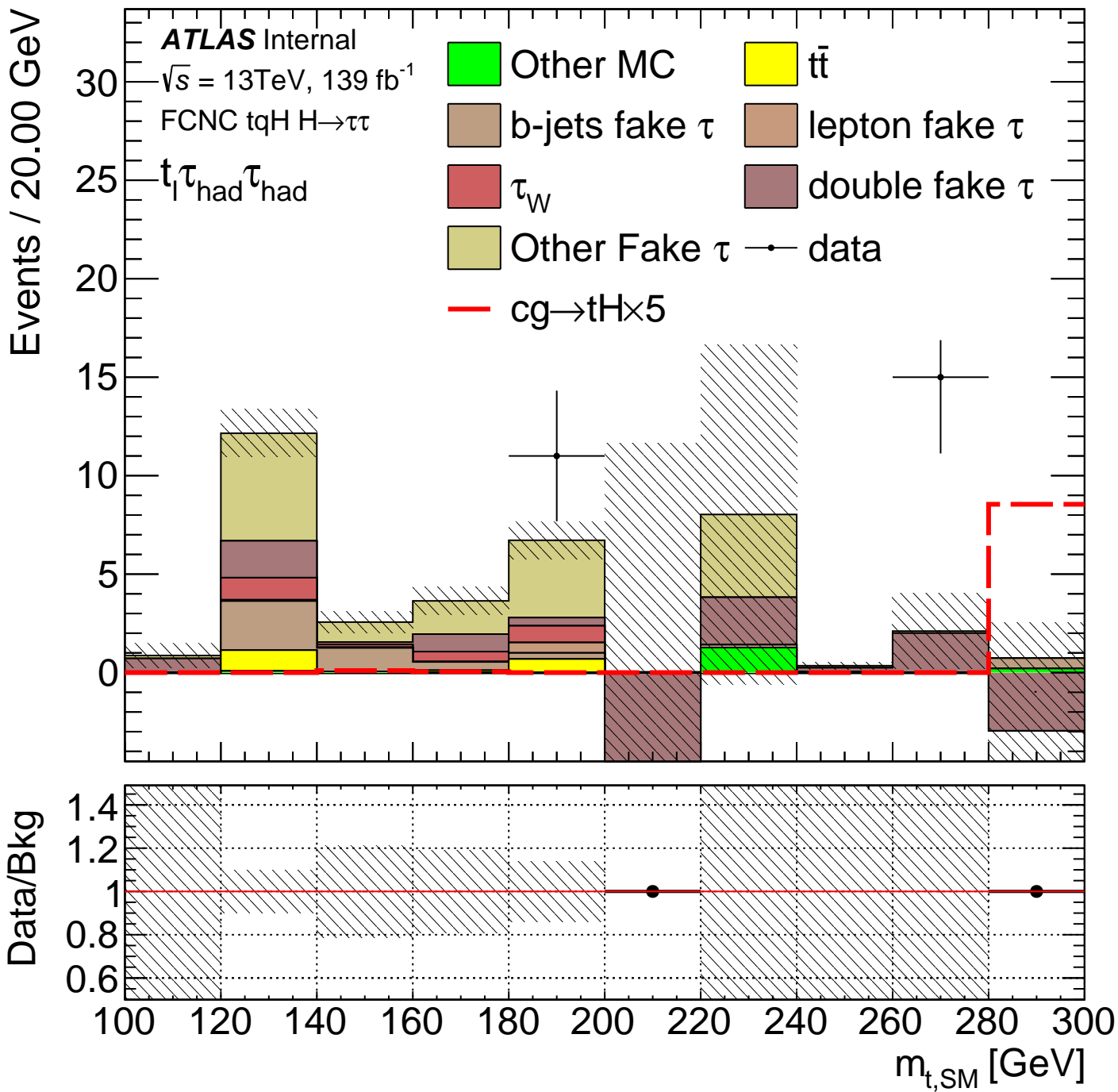
260

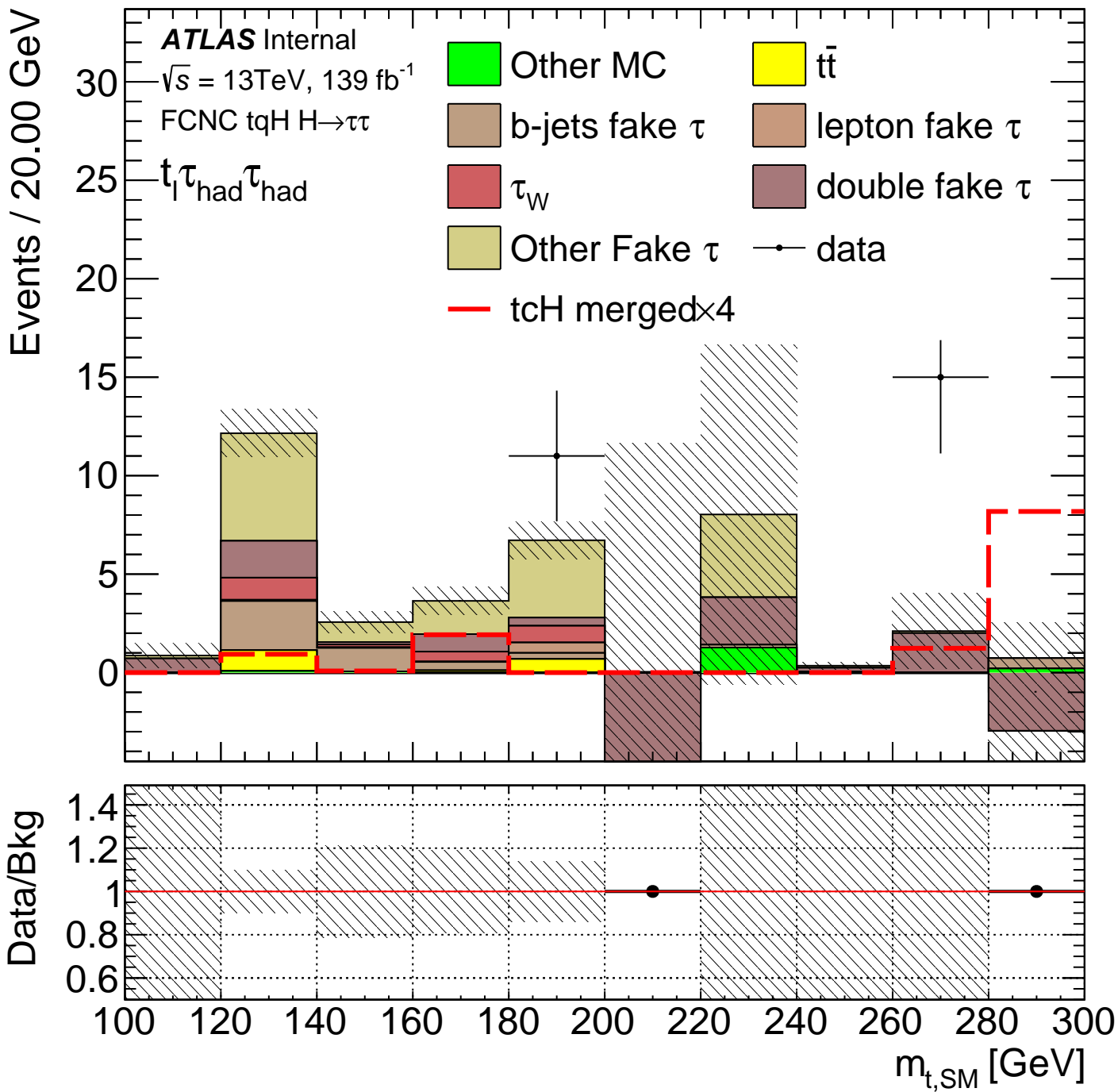
280

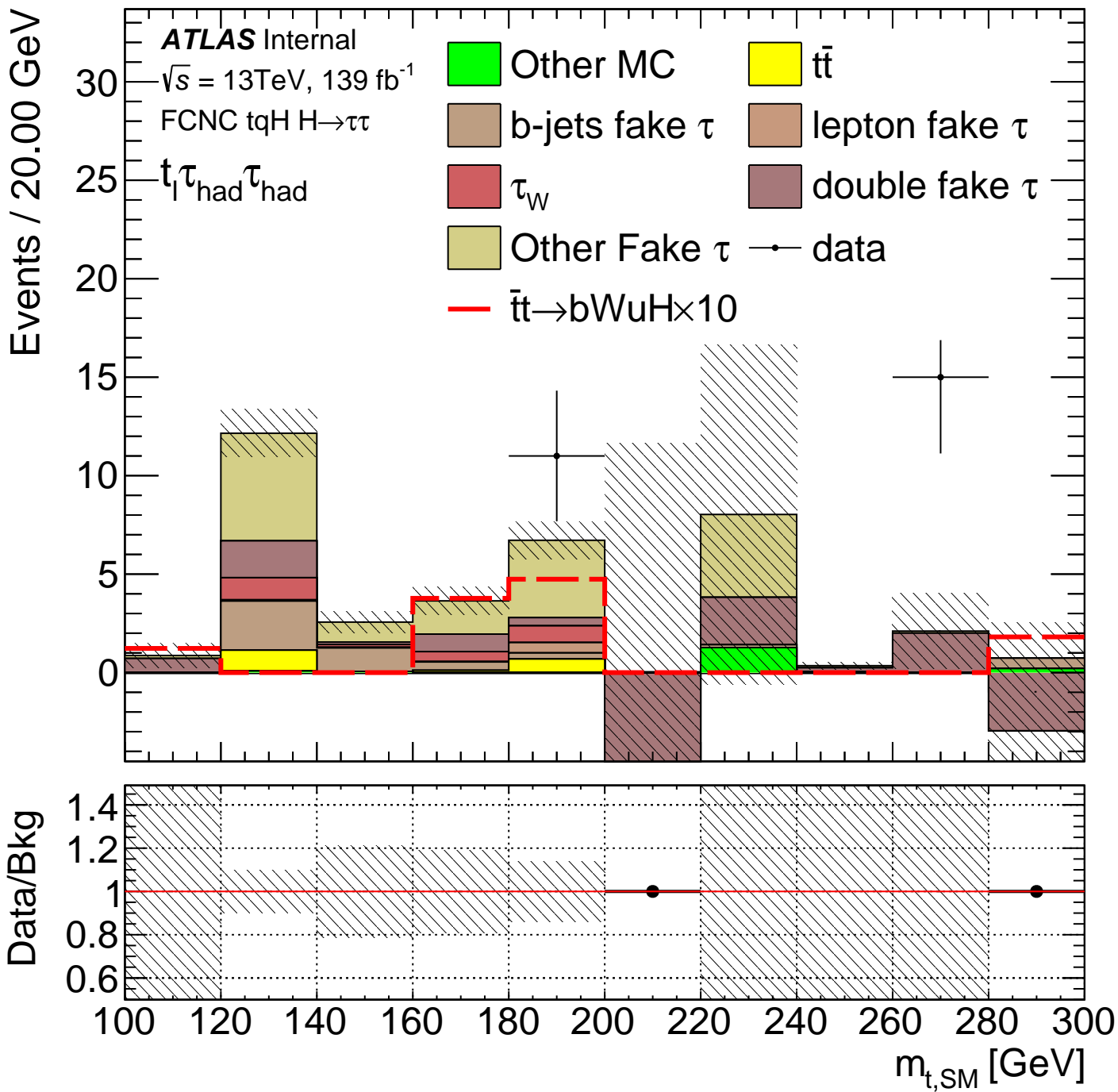
300

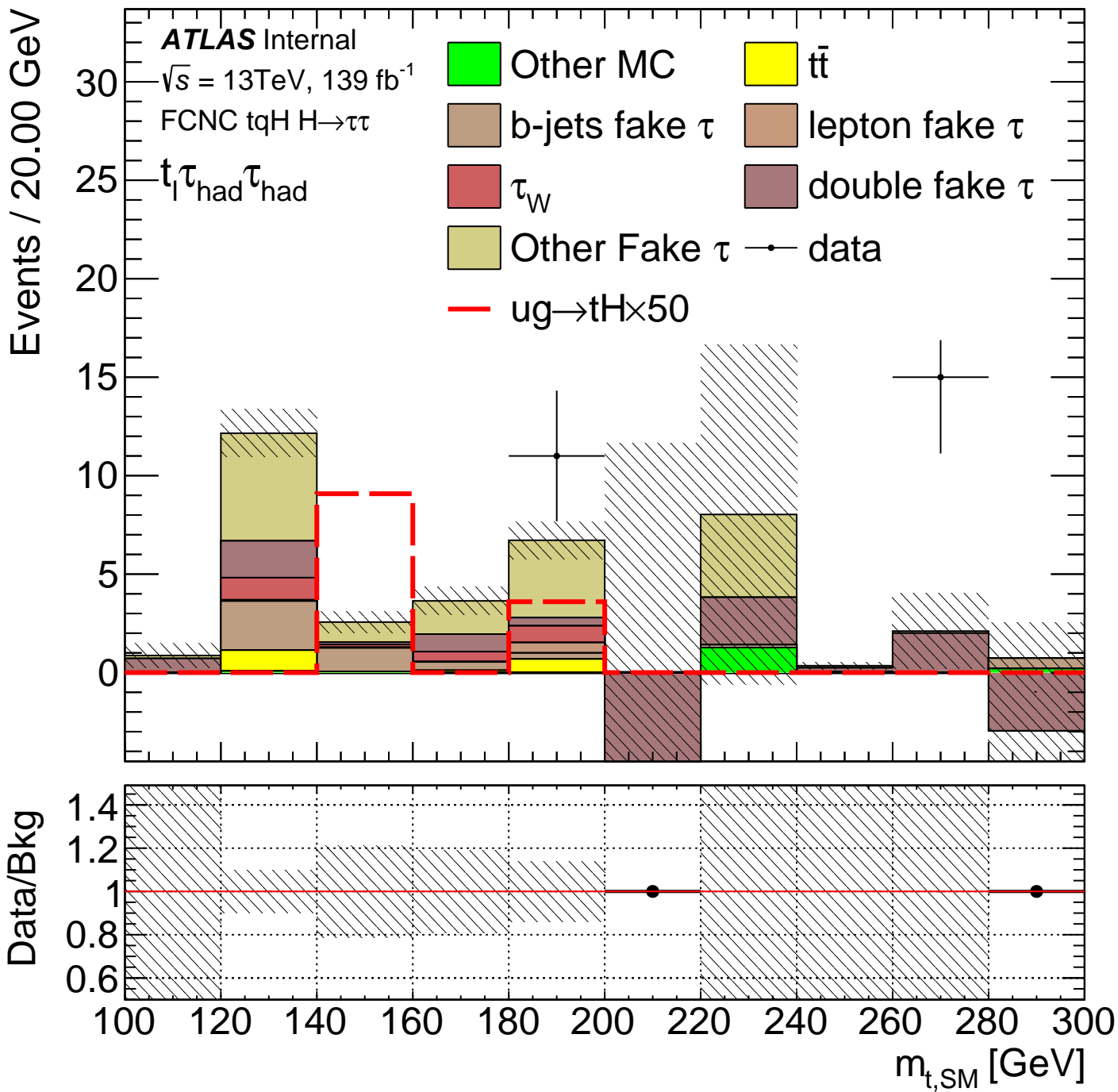
$m_{t,\text{SM}} [\text{GeV}]$











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Other MC



b-jets fake τ



τ_W



Other Fake τ



$t\bar{t}$



lepton fake τ

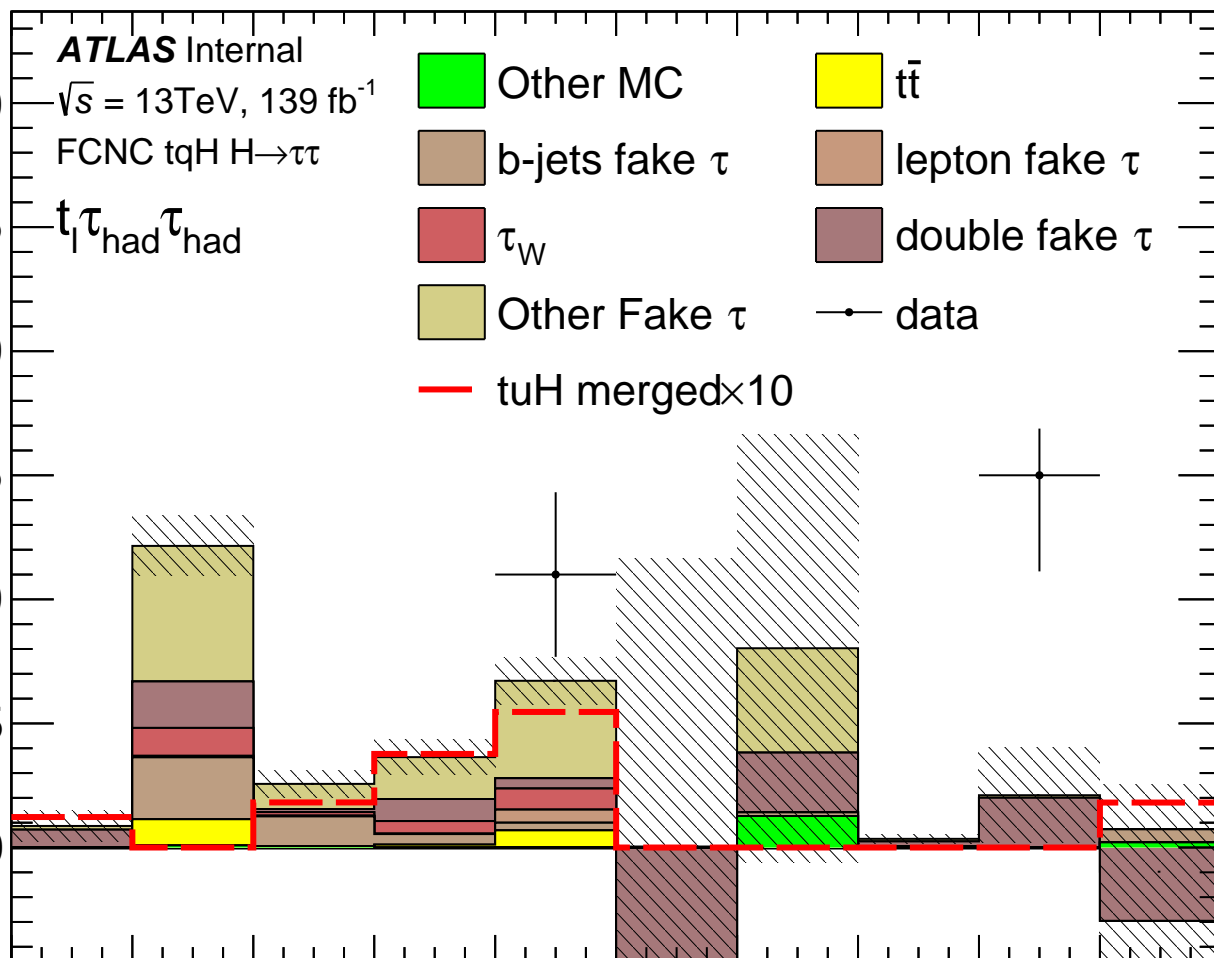


double fake τ

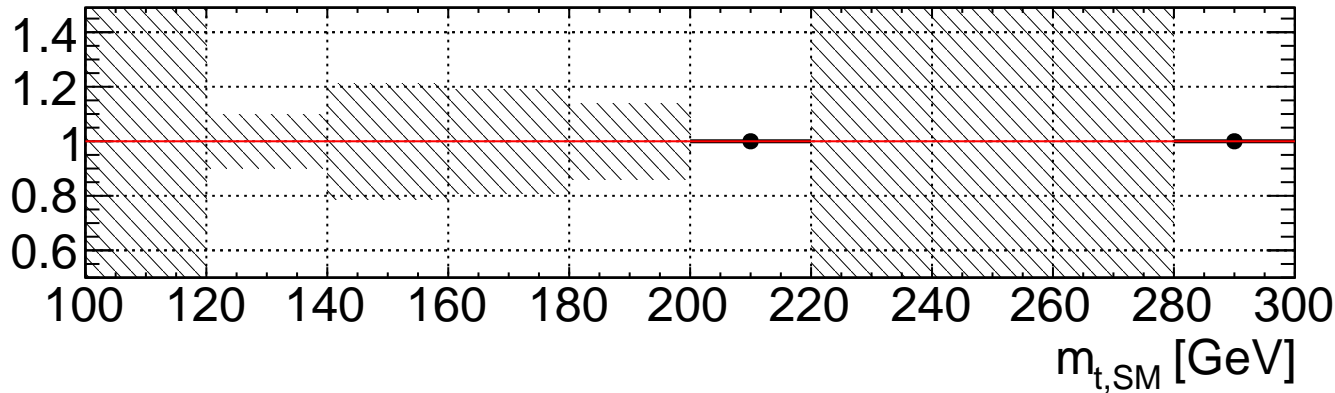


data

— tqH merged $\times 10$



Data/Bkg



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ATLAS Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ $t_l \tau_{\text{had}} \tau_{\text{had}}$

Other MC

b-jets fake τ τ_W Other Fake τ $\bar{t}t \rightarrow bWcH \times 20$ $\bar{t}t \rightarrow bWuH \times 10$ $\bar{t}t$ lepton fake τ double fake τ

data

 $cg \rightarrow tH \times 5$ $ug \rightarrow tH \times 50$

30

25

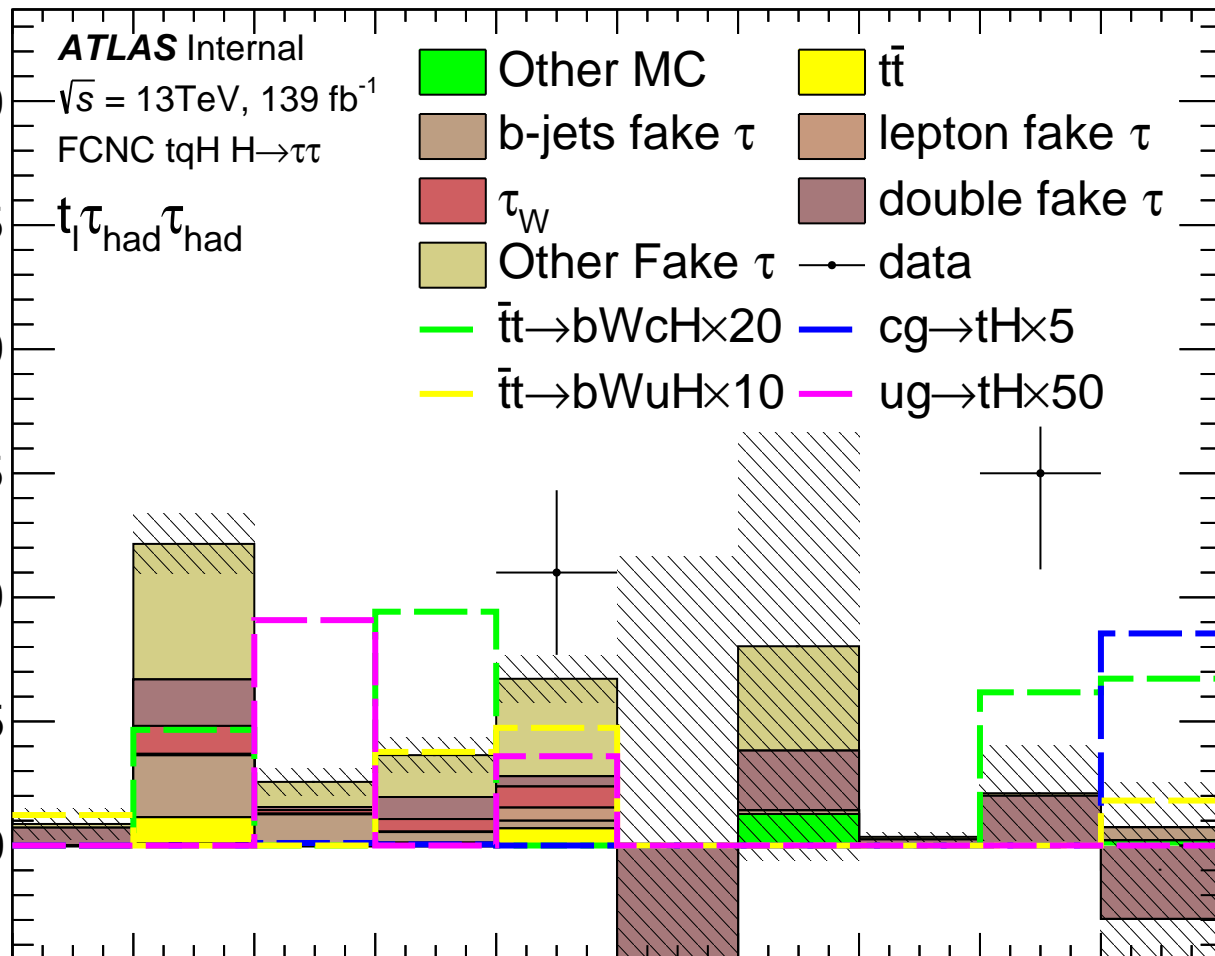
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