

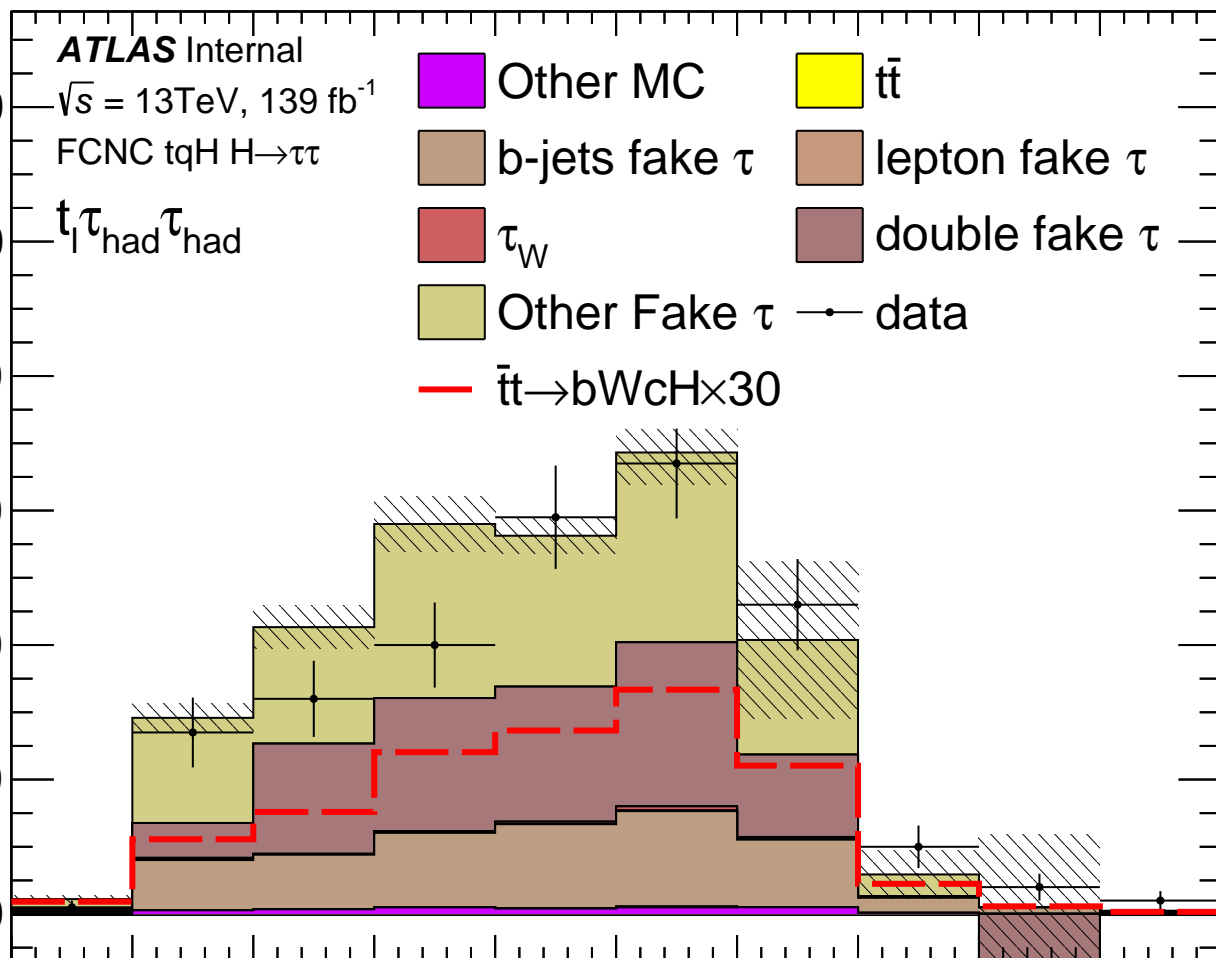
Events / 0.50

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

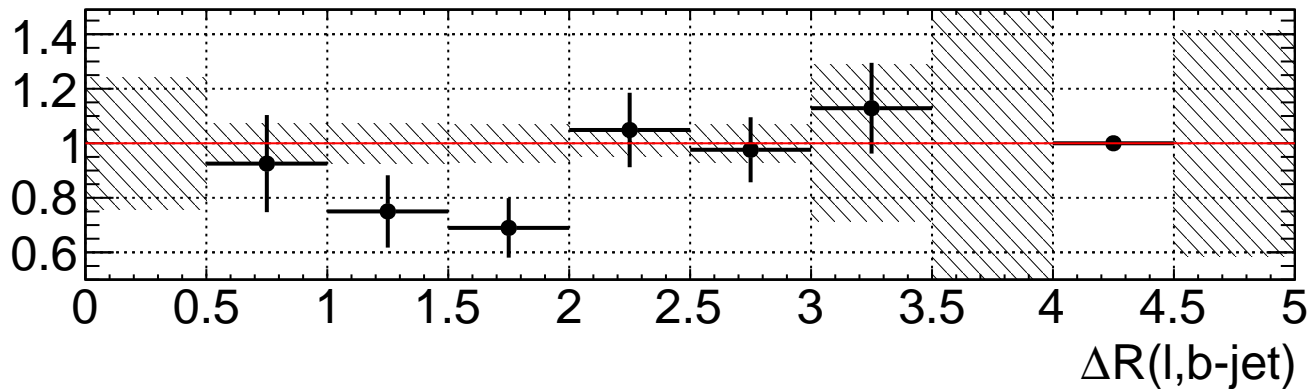
Other MC

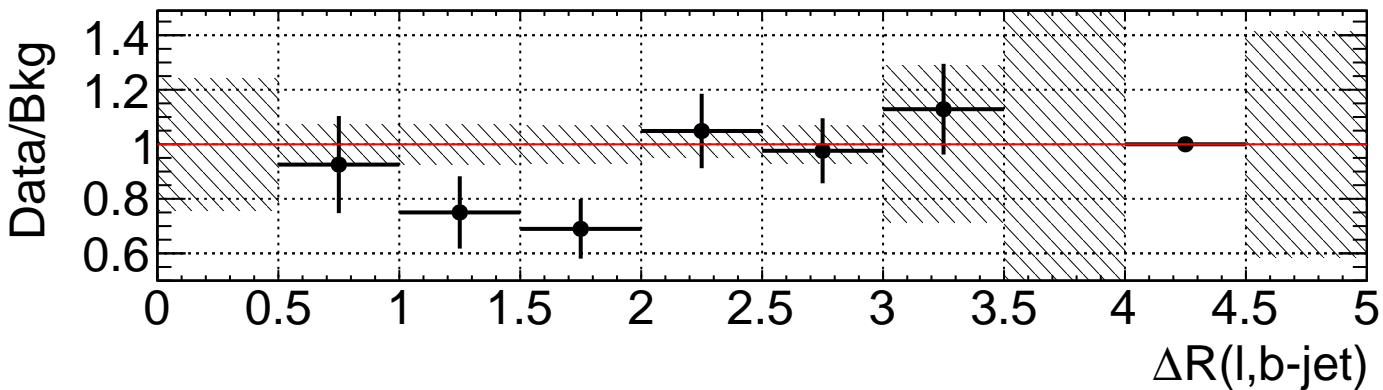
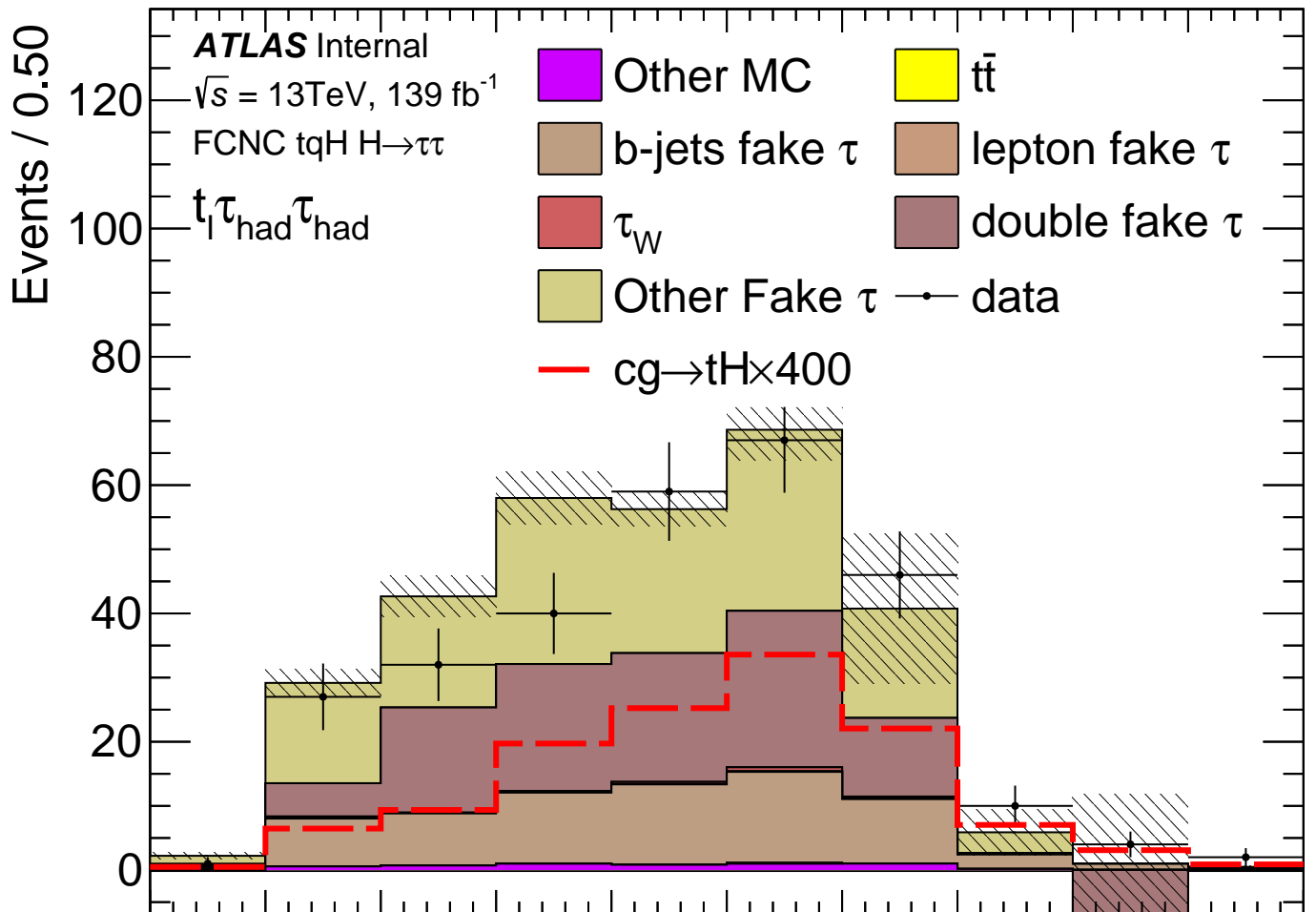
b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$  $\bar{t}t \rightarrow bWcH \times 30$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

data



Data/Bkg





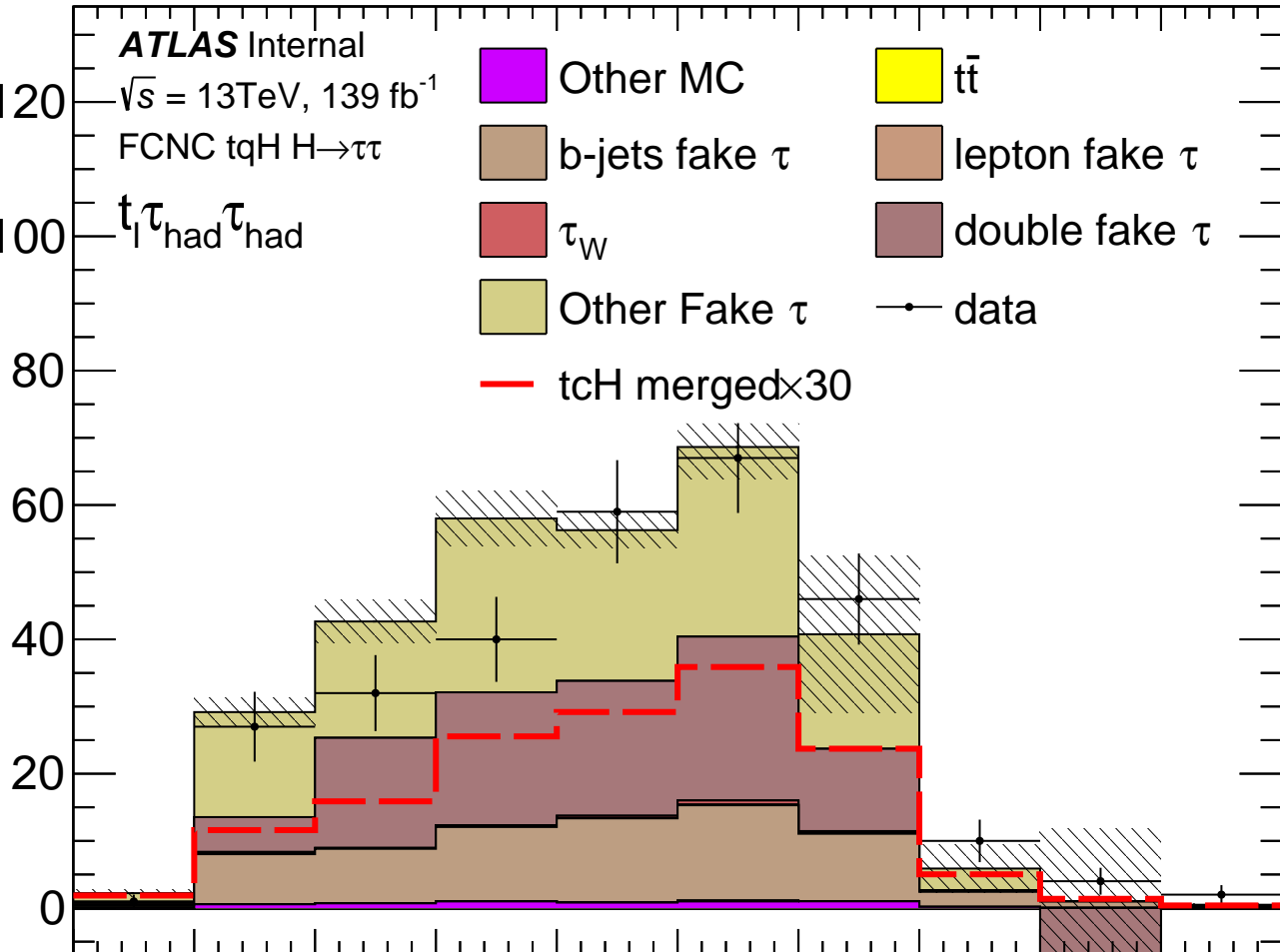
Events / 0.50

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

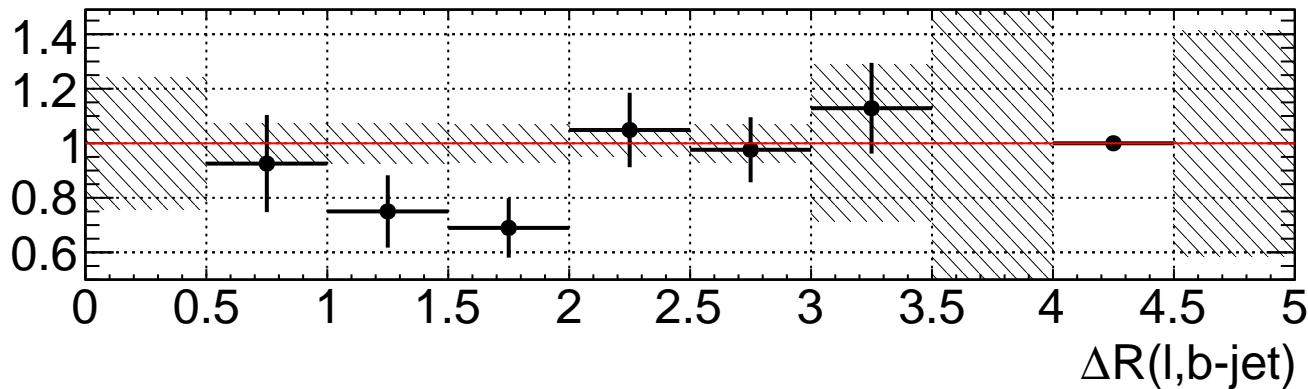
Other MC

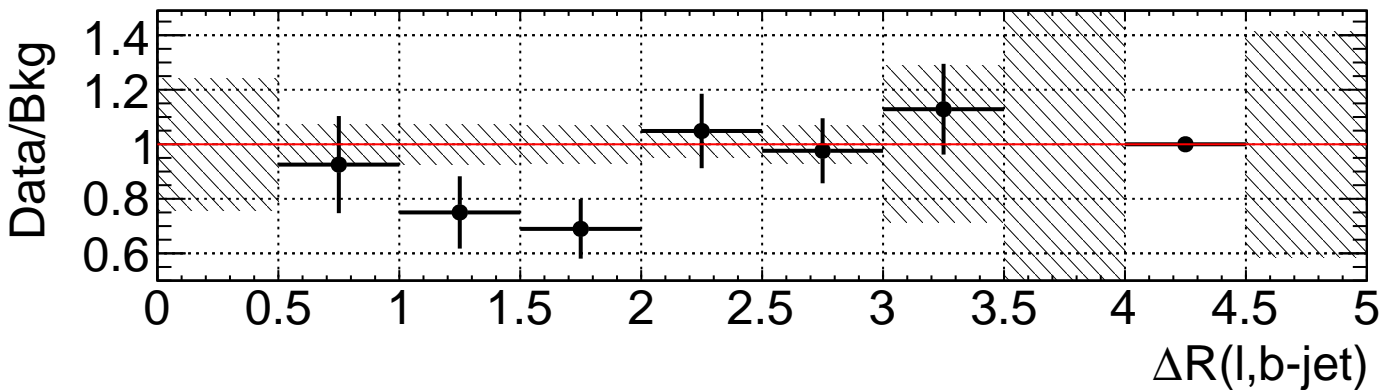
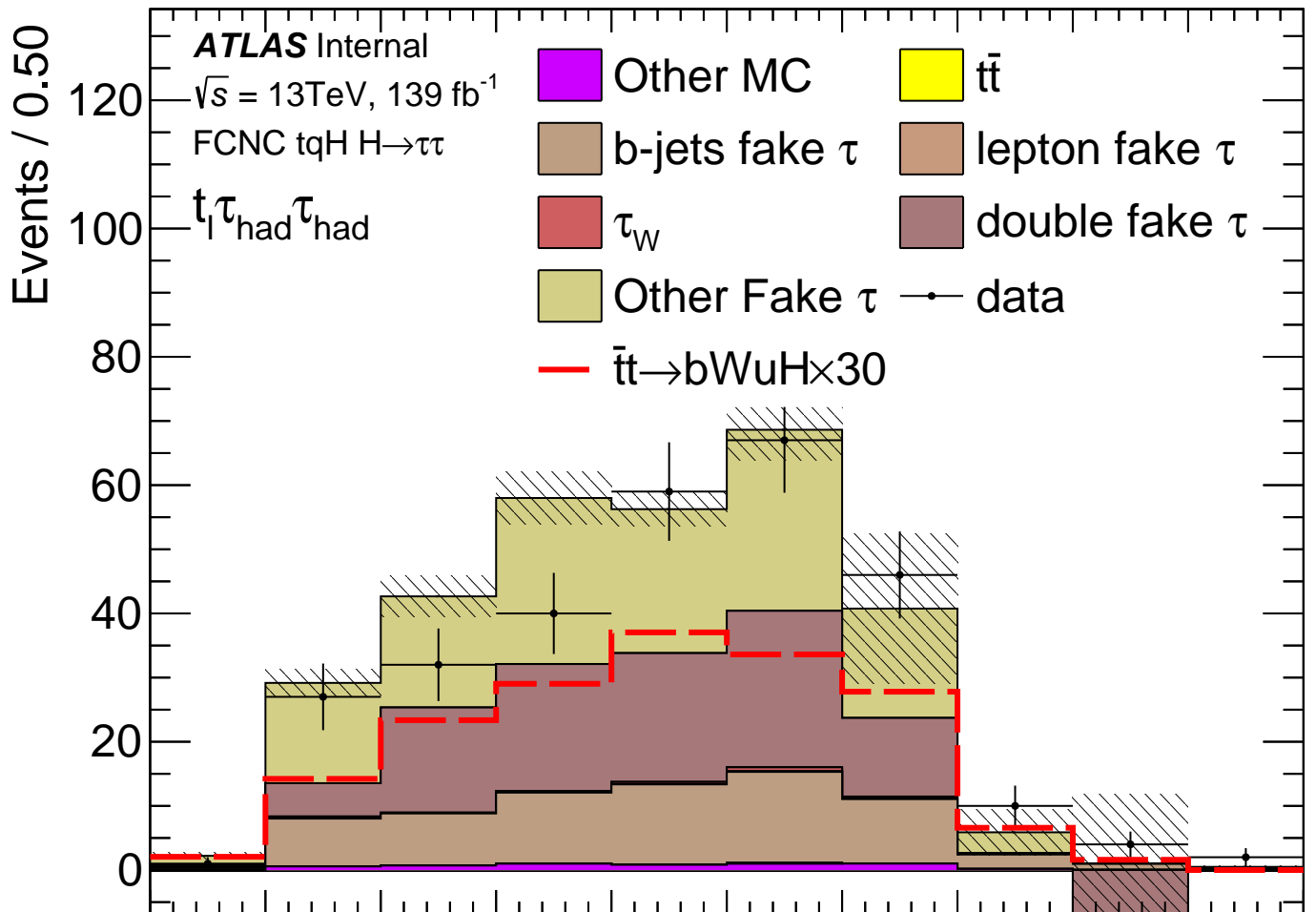
b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$ tcH merged  $\times 30$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

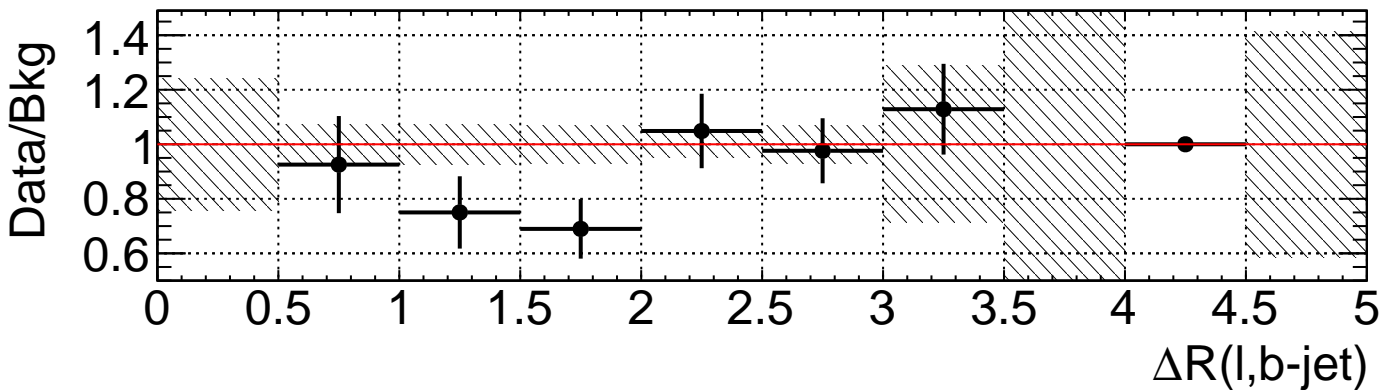
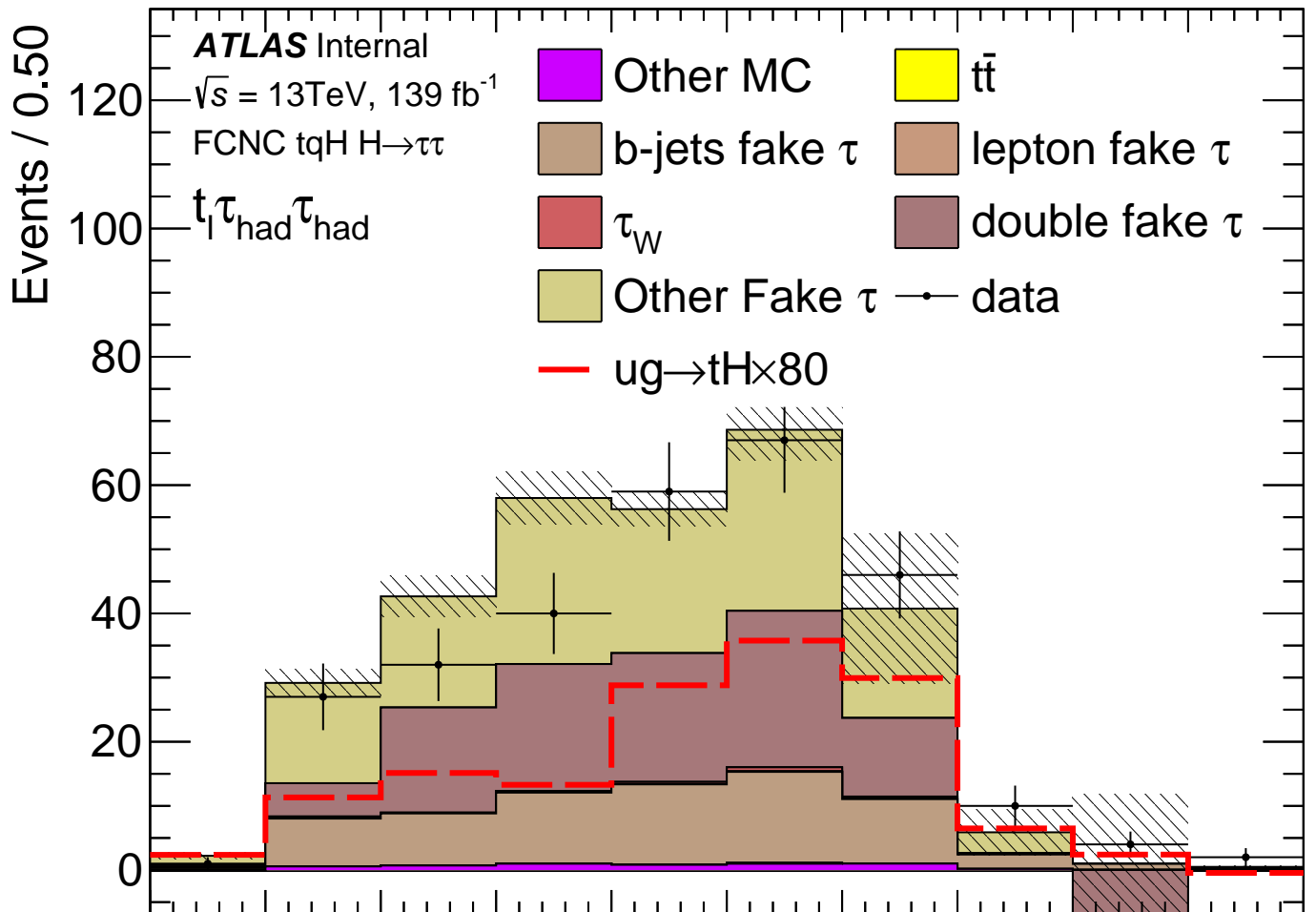
data



Data/Bkg







Events / 0.50

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

Other MC

b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$ tuH merged $\times 20$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

data

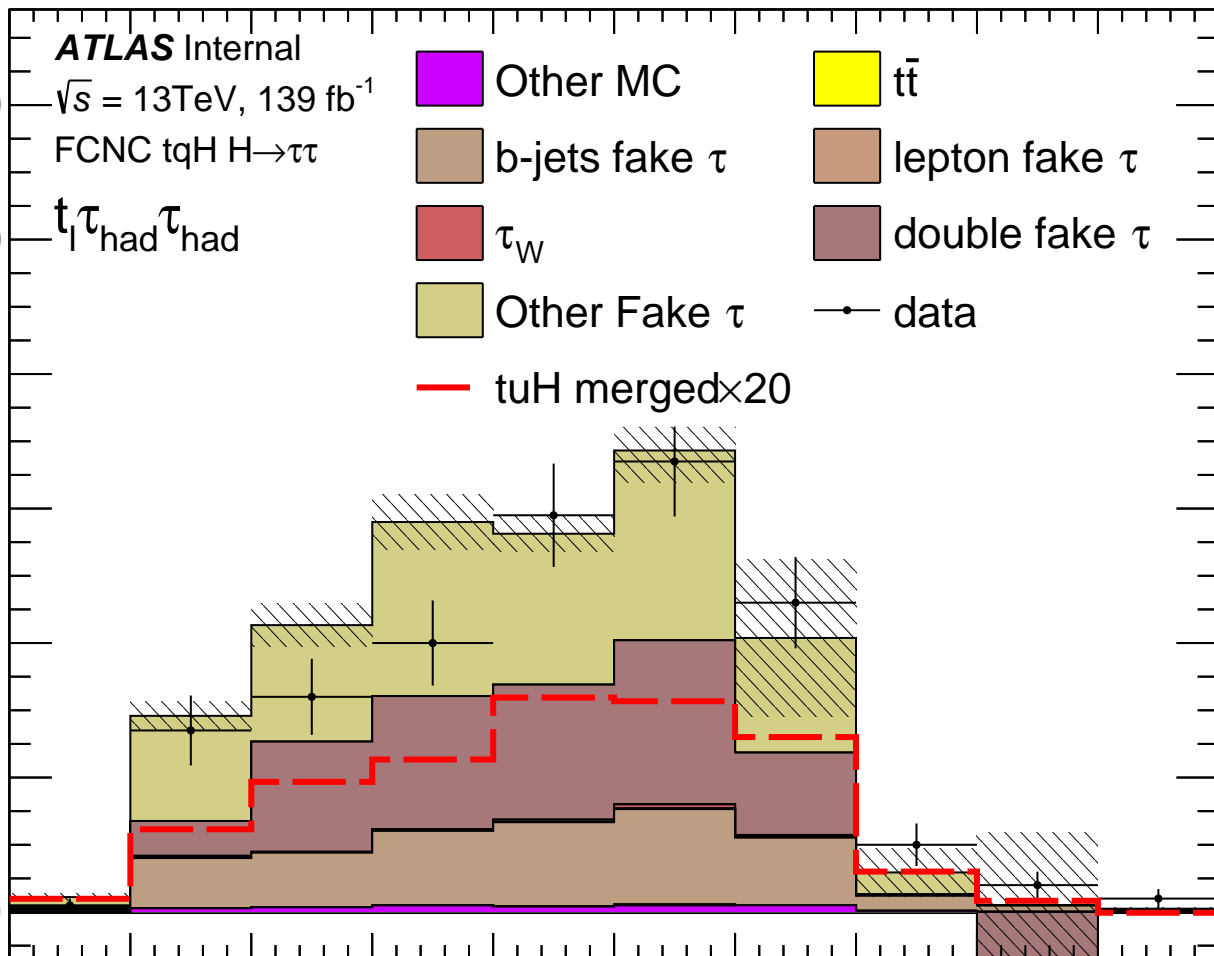
80

60

40

20

0



Data/Bkg

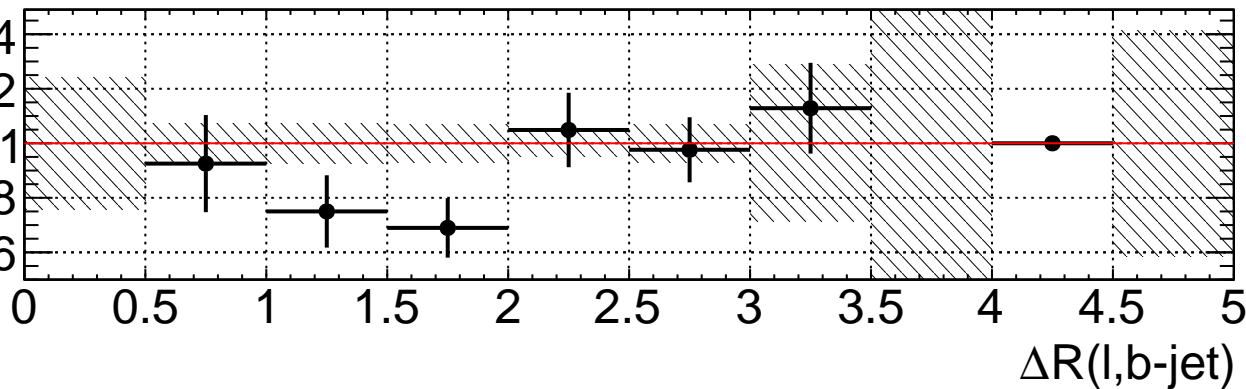
1.4

1.2

1.0

0.8

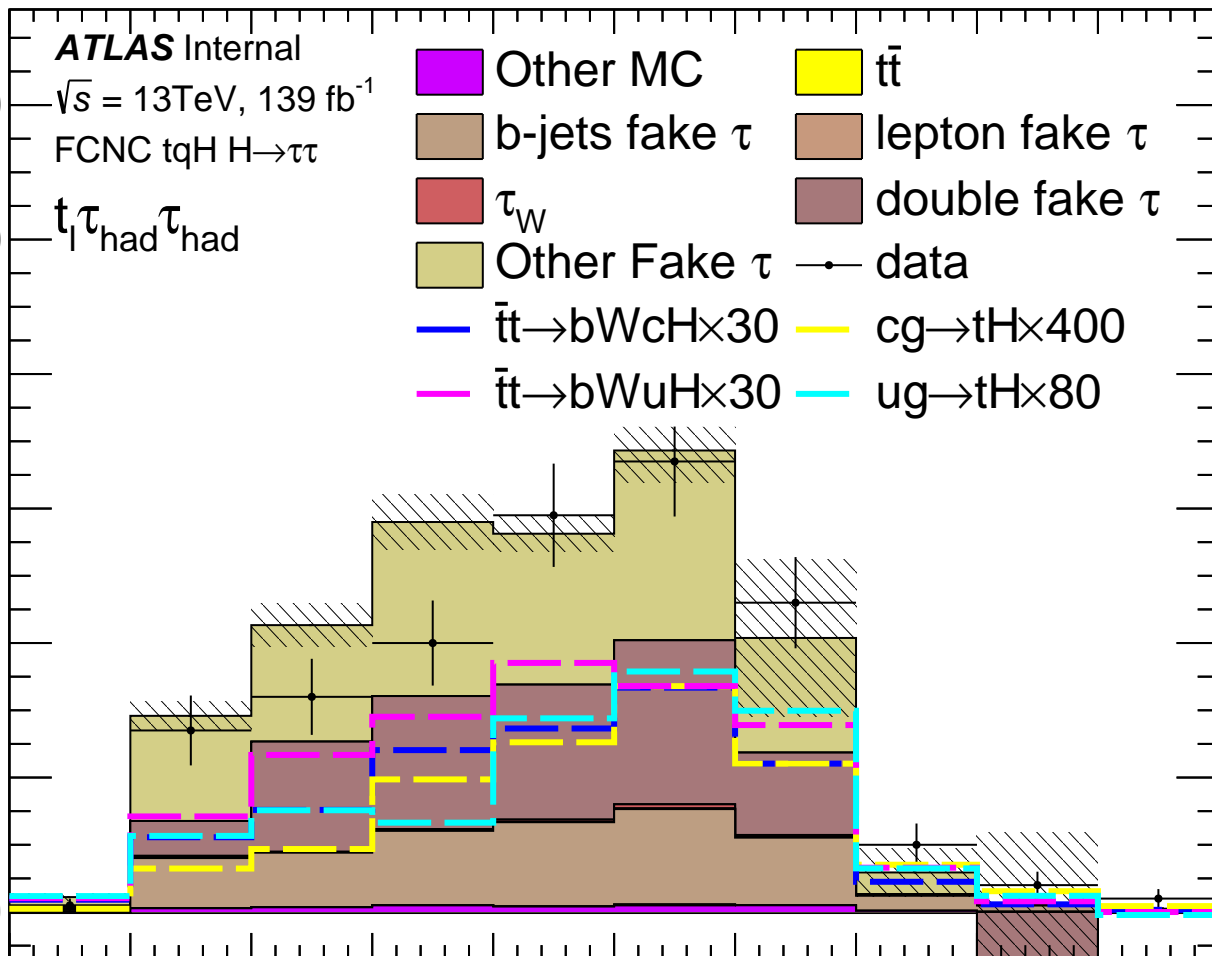
0.6

 $\Delta R(l, b\text{-jet})$

Events / 0.50

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

Other MC  
b-jets fake  $\tau$   
 $\tau_W$   
Other Fake  $\tau$   
 $\bar{t}t \rightarrow bWcH \times 30$   
 $\bar{t}t \rightarrow bWuH \times 30$   
 $t\bar{t}$   
lepton fake  $\tau$   
double fake  $\tau$   
data  
 $cg \rightarrow tH \times 400$   
 $ug \rightarrow tH \times 80$



Data/Bkg

