

Events / 0.20

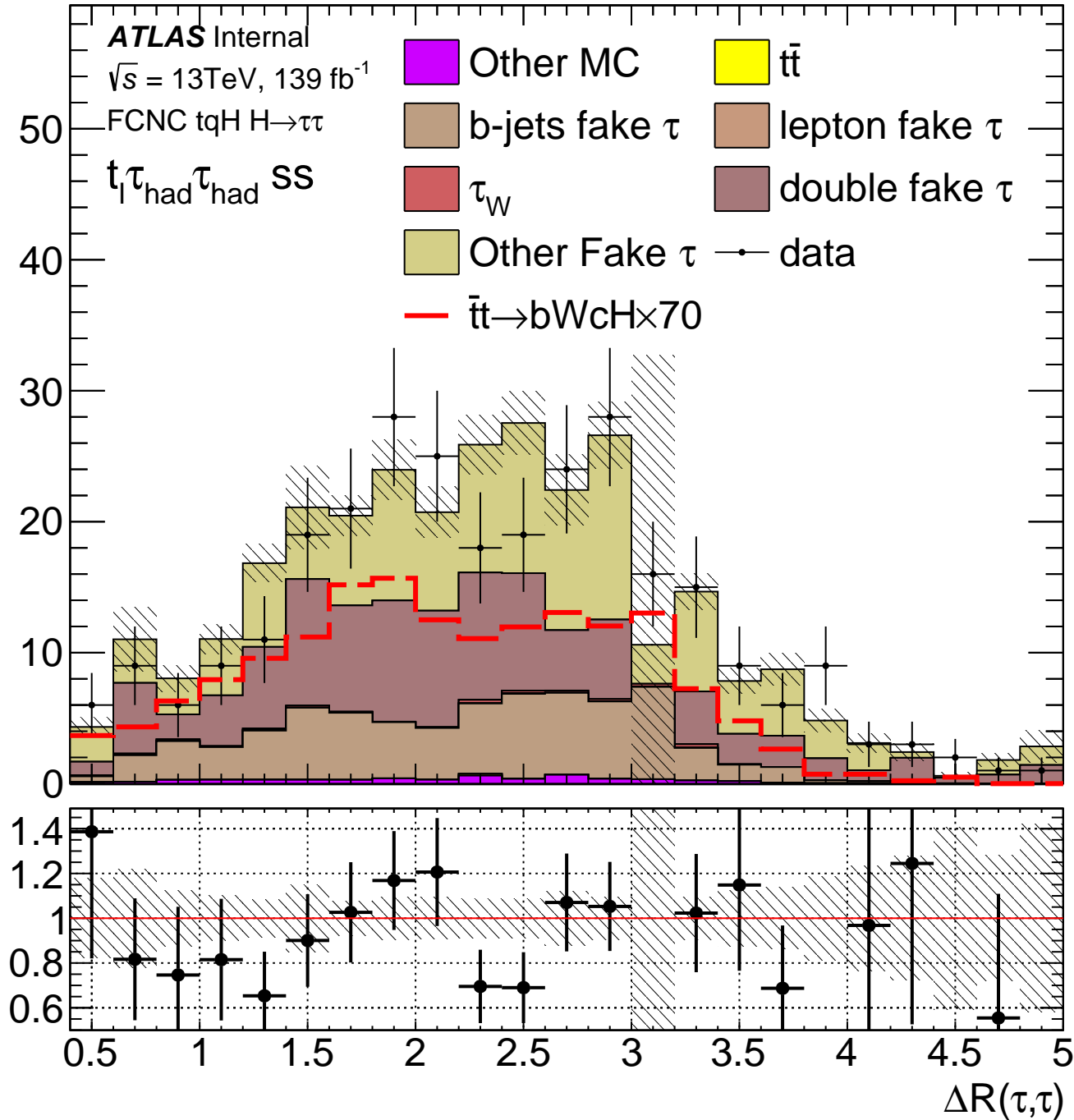
**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_l \tau_{\text{had}} \tau_{\text{had}}$  SS

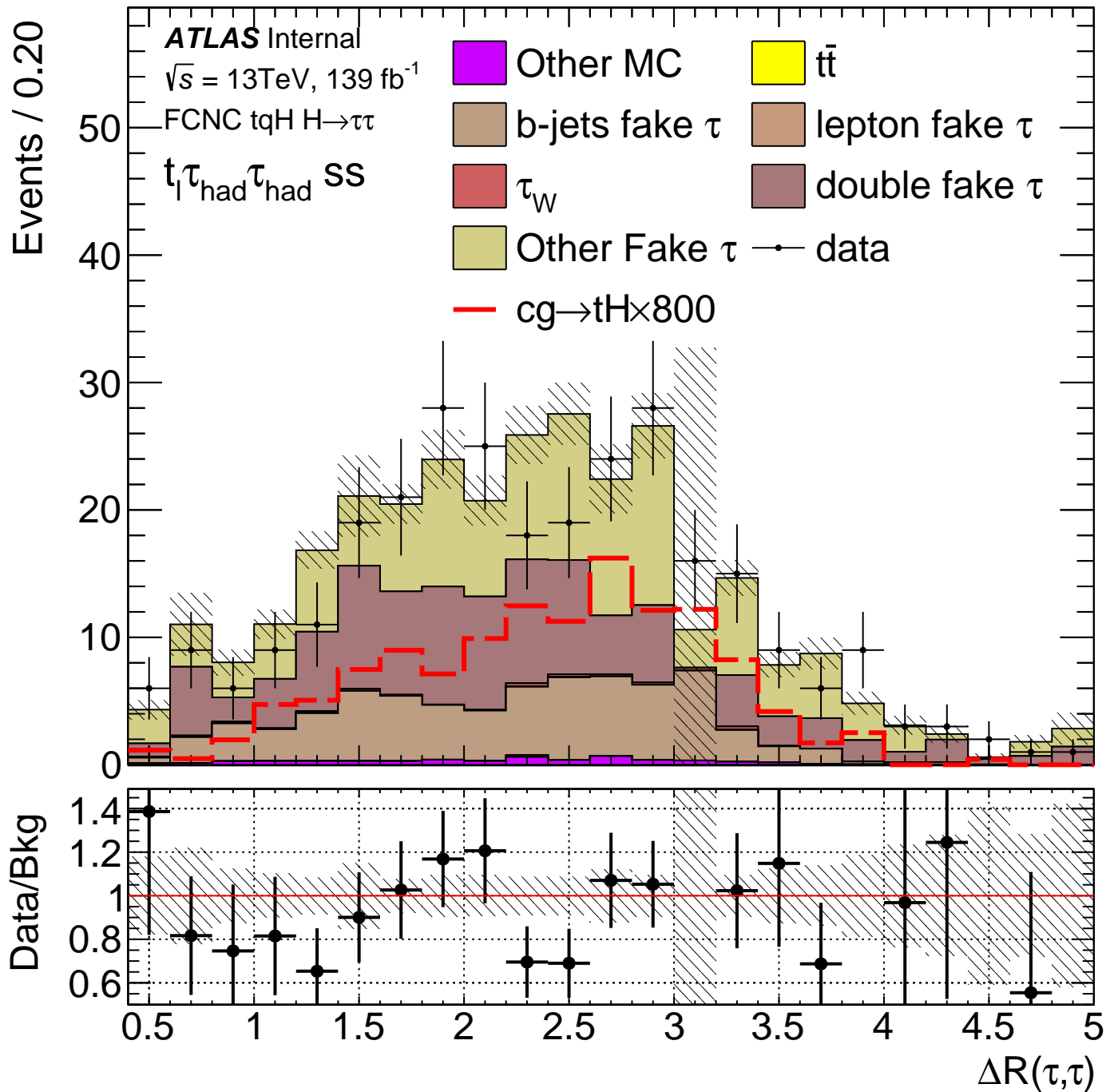
Other MC

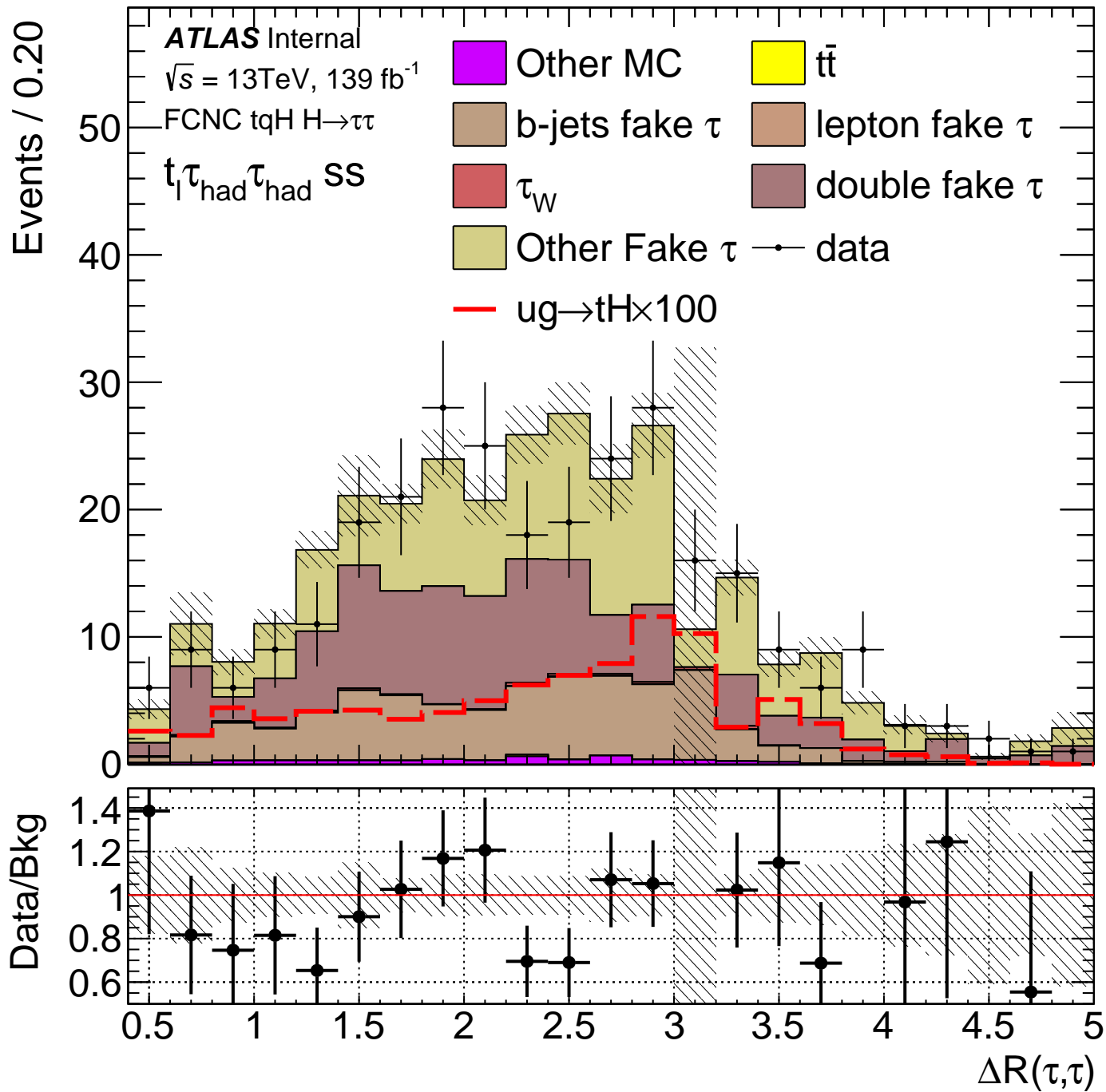
b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$  $\bar{t}t \rightarrow bWcH \times 70$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

data

Data/Bkg







Events / 0.20

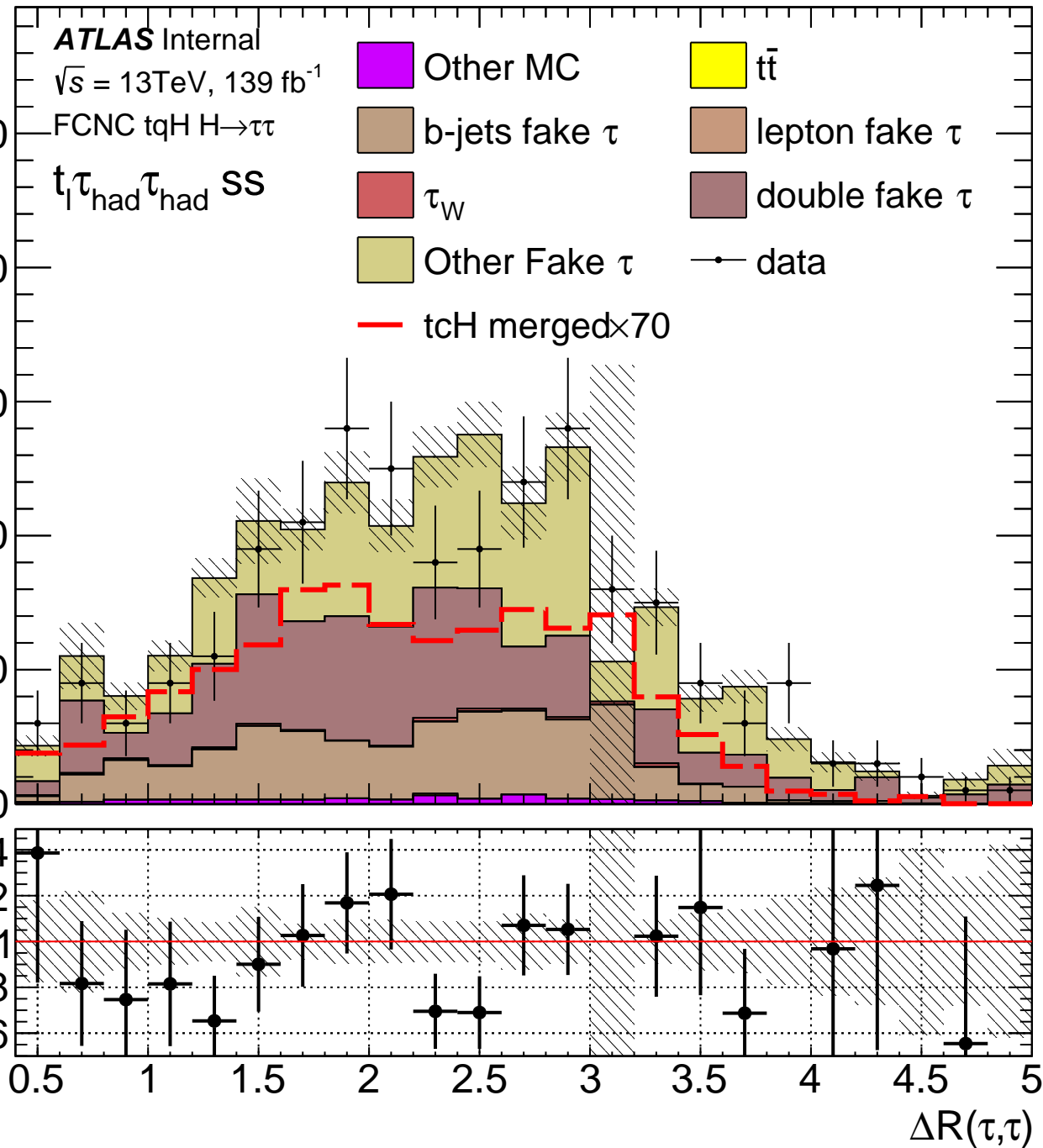
**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_l \tau_{\text{had}} \tau_{\text{had}}$  SS

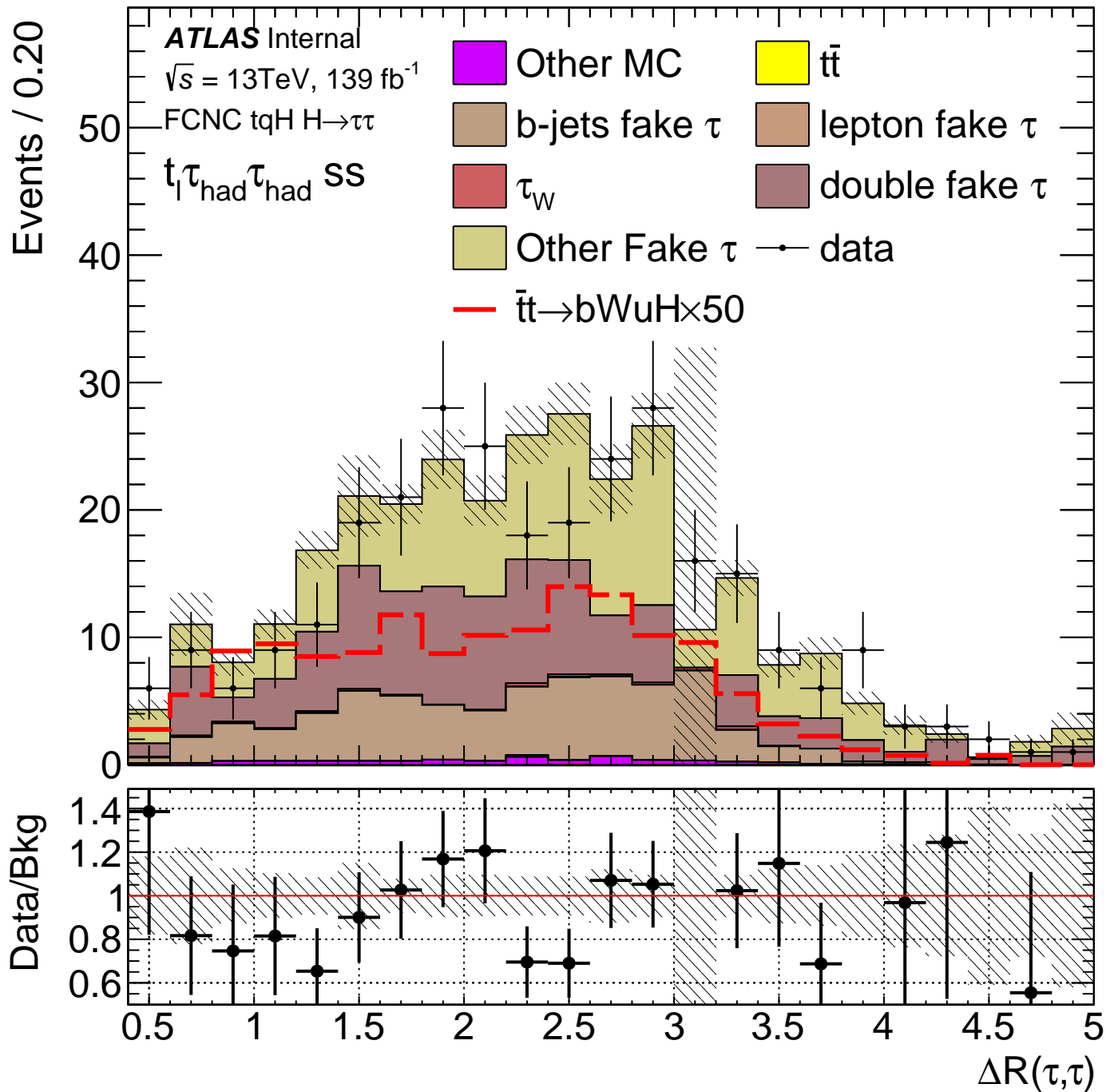
Other MC

b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$ tcH merged $\times 70$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

—•— data

Data/Bkg





Events / 0.20

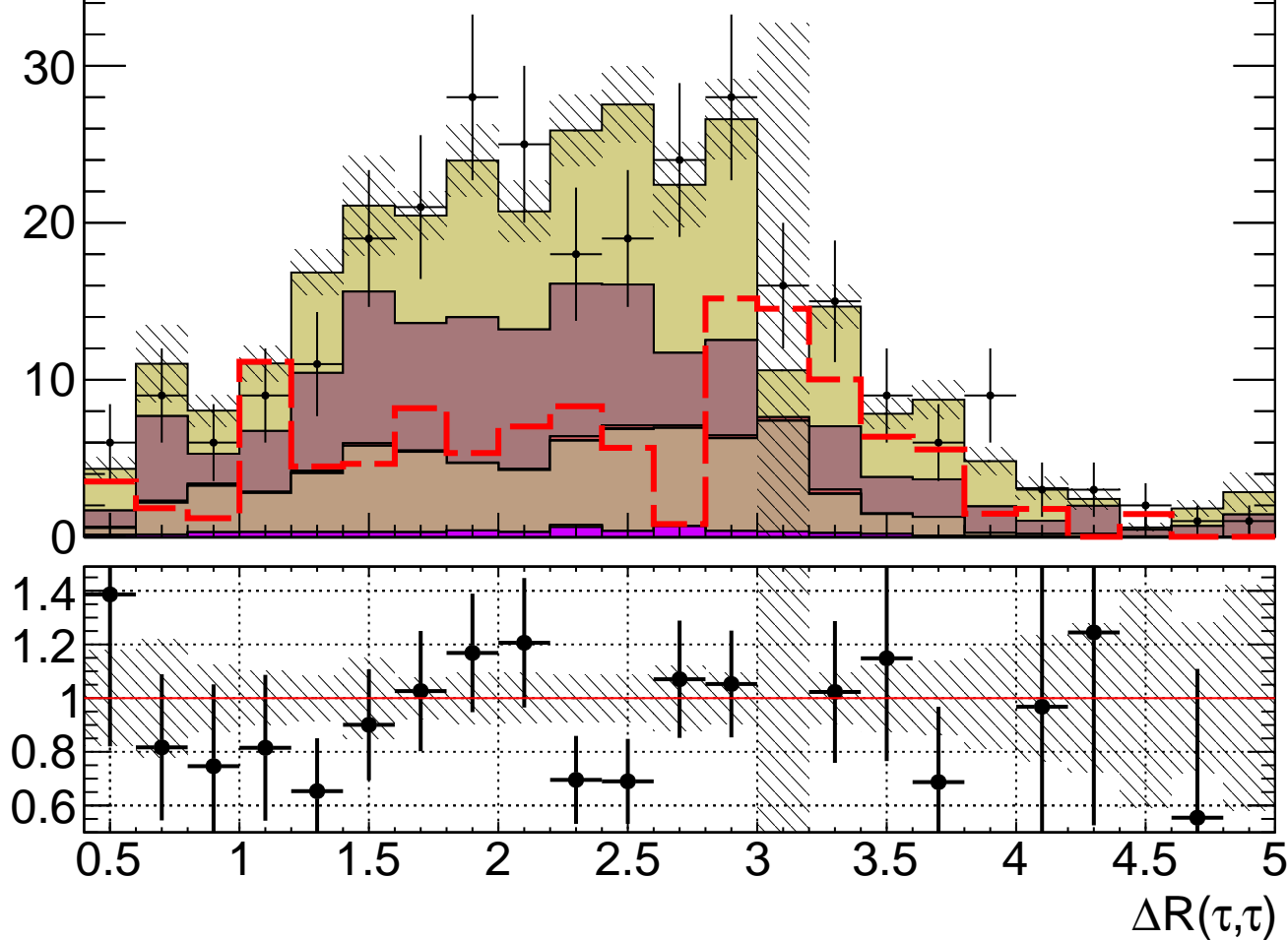
**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_l \tau_{\text{had}} \tau_{\text{had}}$  SS

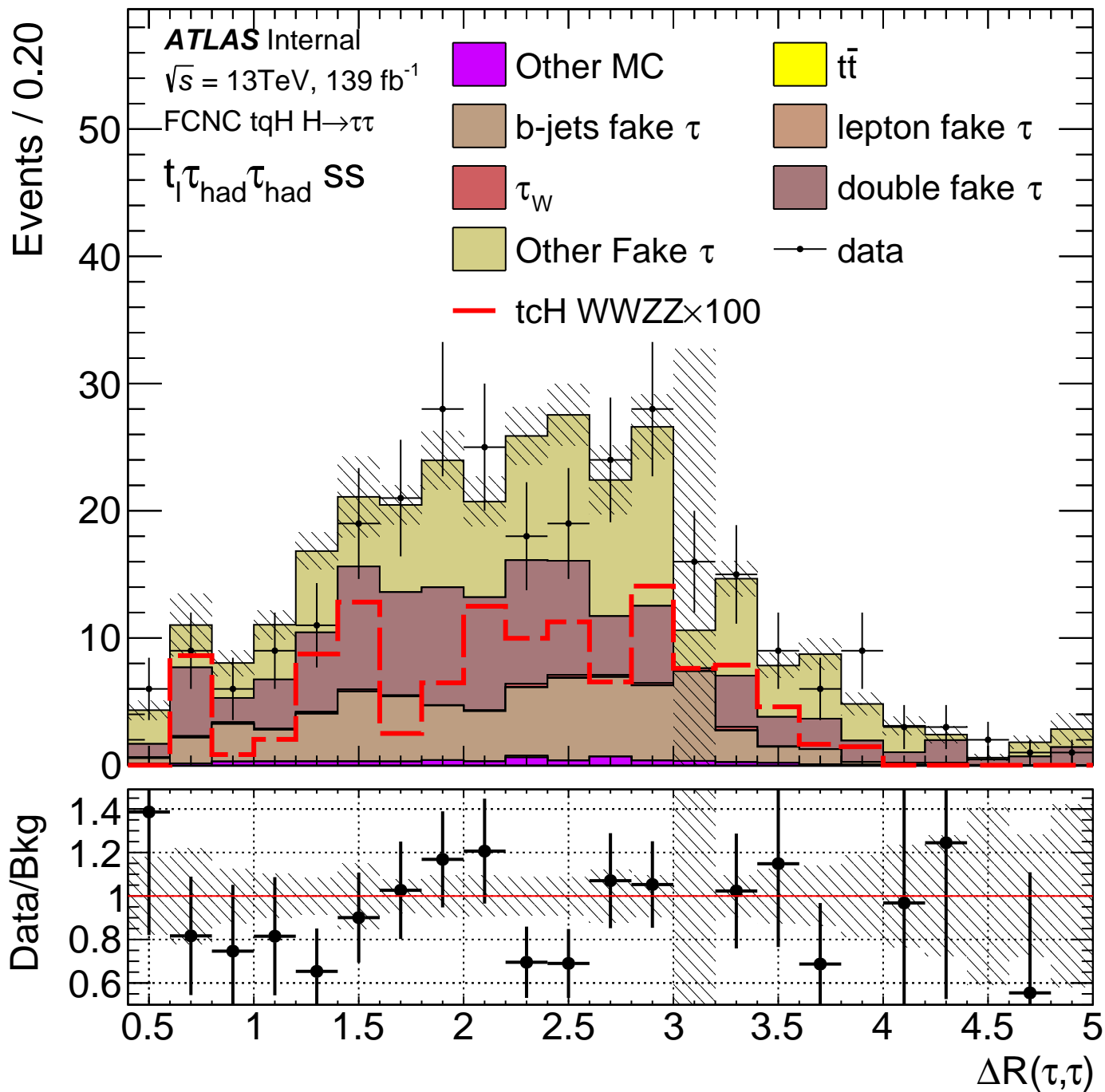
Other MC

b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$ —  $tuH\text{ WWZZ} \times 90$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

—•— data

Data/Bkg





Events / 0.20

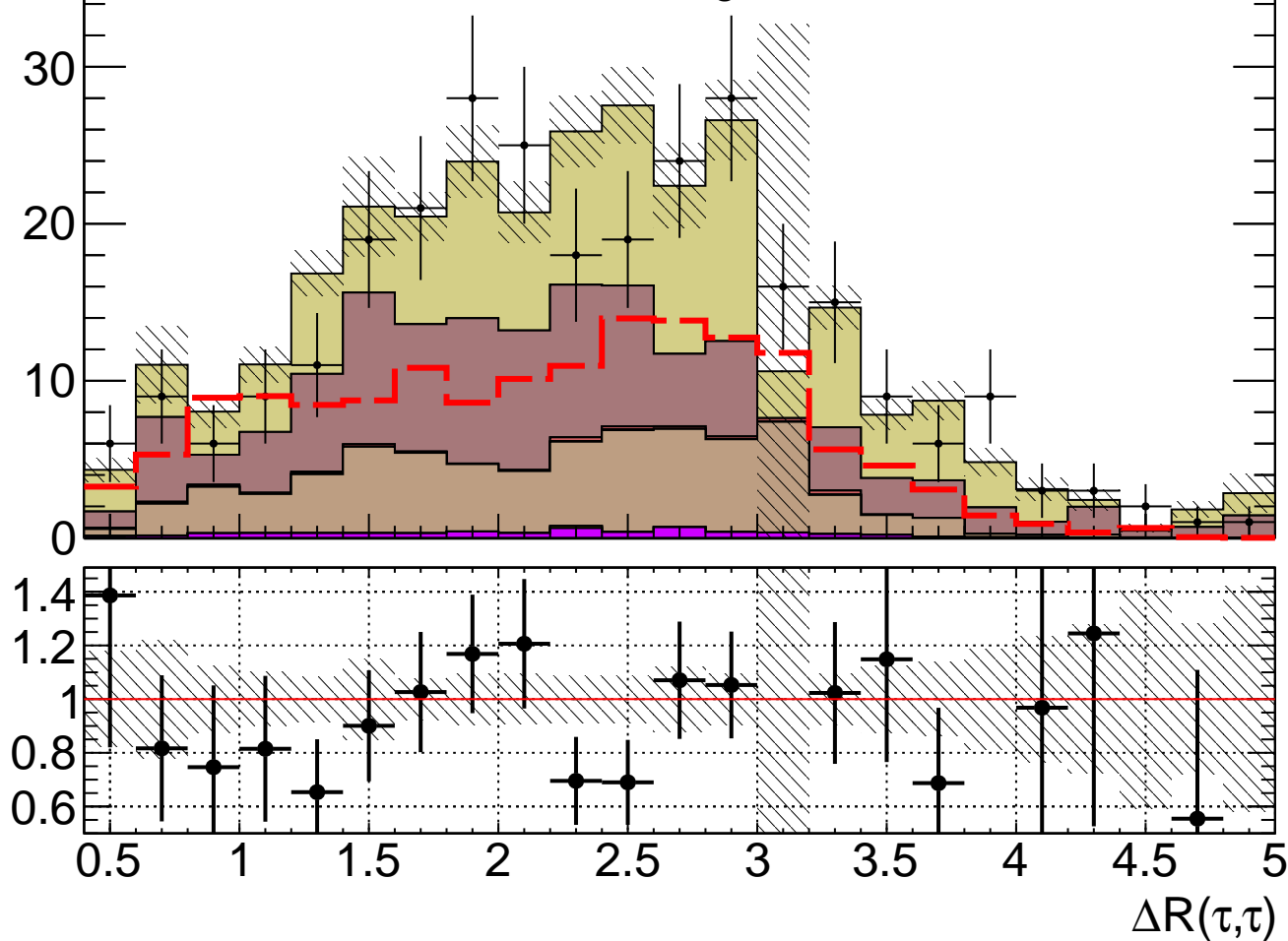
**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_l \tau_{\text{had}} \tau_{\text{had}}$  SS

Other MC

b-jets fake  $\tau$  $\tau_W$ Other Fake  $\tau$ — tuH merged $\times 40$  $t\bar{t}$ lepton fake  $\tau$ double fake  $\tau$ 

—•— data

Data/Bkg





Events / 0.20

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

FCNC tqH  $H \rightarrow \tau\tau$

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

Other MC

b-jets fake  $\tau$

$\tau_W$

Other Fake  $\tau$

$\bar{t}t \rightarrow bWcH \times 70$

$ug \rightarrow tH \times 100$

$tuH WWZZ \times 90$

$\bar{t}t$

lepton fake  $\tau$

double fake  $\tau$

data

$cg \rightarrow tH \times 800$

$\bar{t}t \rightarrow bWuH \times 50$

$tcH WWZZ \times 100$

Data/Bkg

