

Events / 0.25

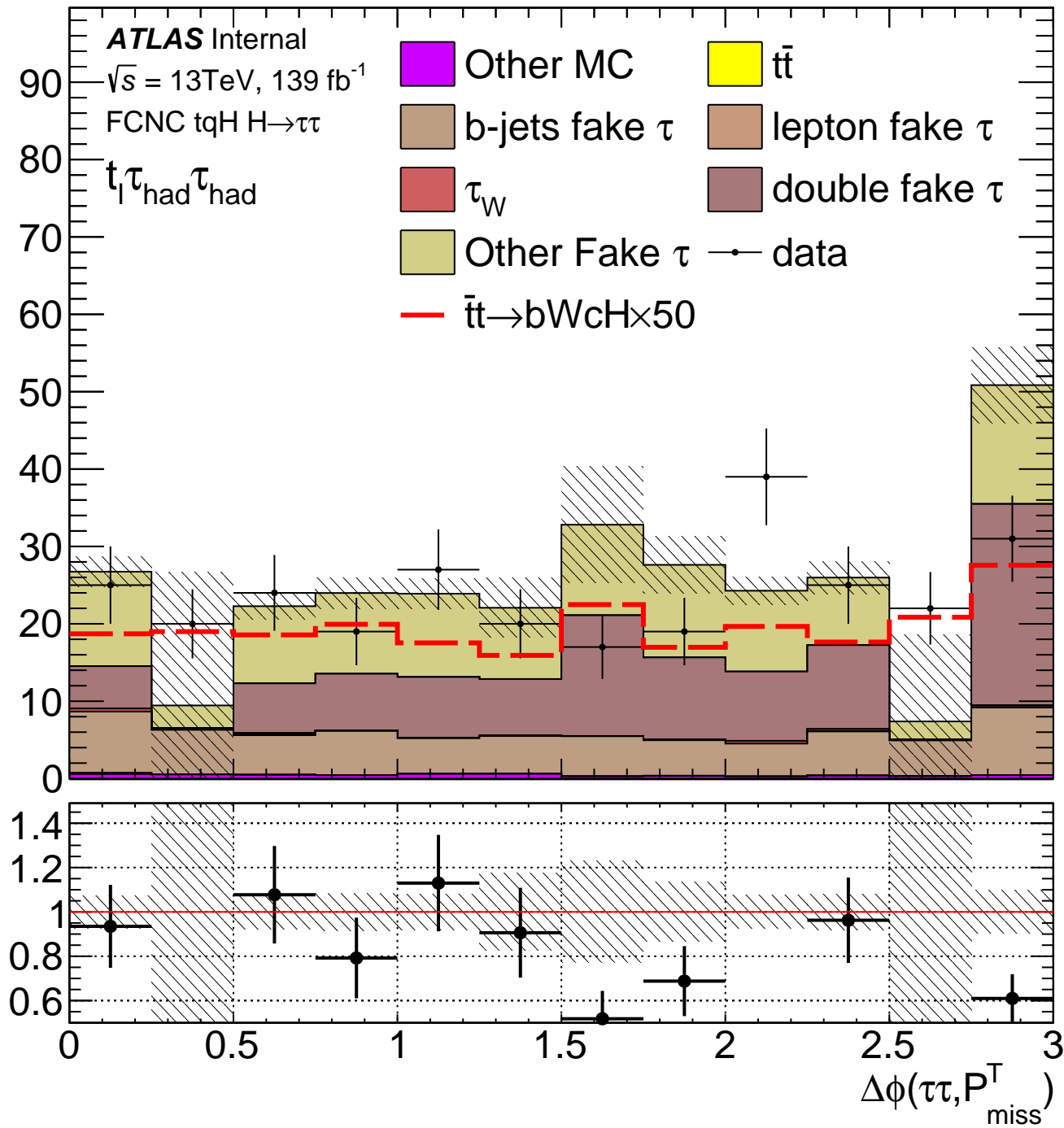
ATLAS Internal
 $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$
FCNC $t\bar{q}H \rightarrow \tau\tau$

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

Other MC
b-jets fake τ
 τ_W
Other Fake τ
 $\bar{t}t \rightarrow bWcH \times 50$

$t\bar{t}$
lepton fake τ
double fake τ
data

Data/Bkg



Events / 0.25

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

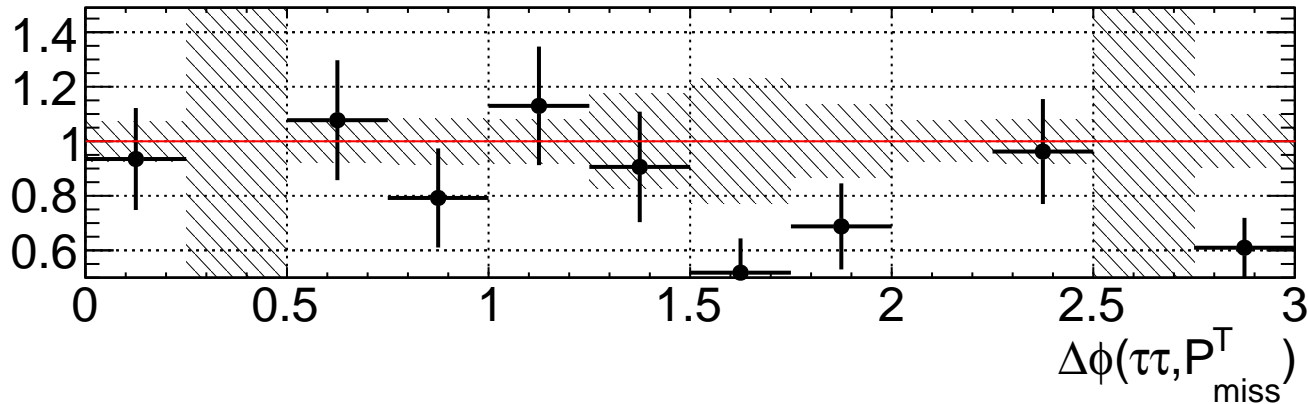
Other MC

 $t\bar{t}$ b-jets fake τ lepton fake τ τ_W double fake τ Other Fake τ

—•— data

— $cg \rightarrow tH \times 500$

Data/Bkg



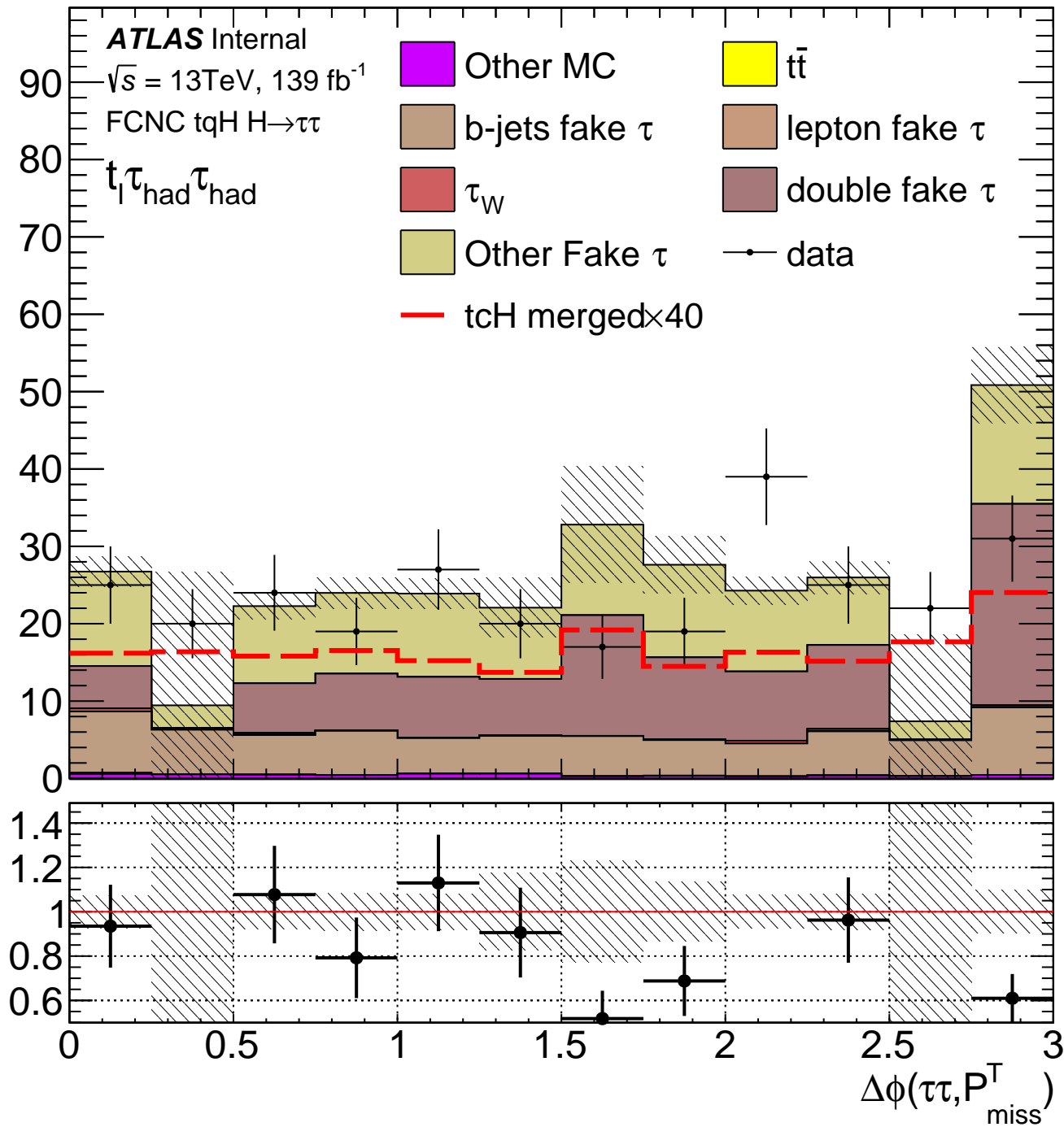
Events / 0.25

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
tcH merged $\times 40$

$t\bar{t}$
lepton fake τ
double fake τ
data

Data/Bkg



Events / 0.25

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

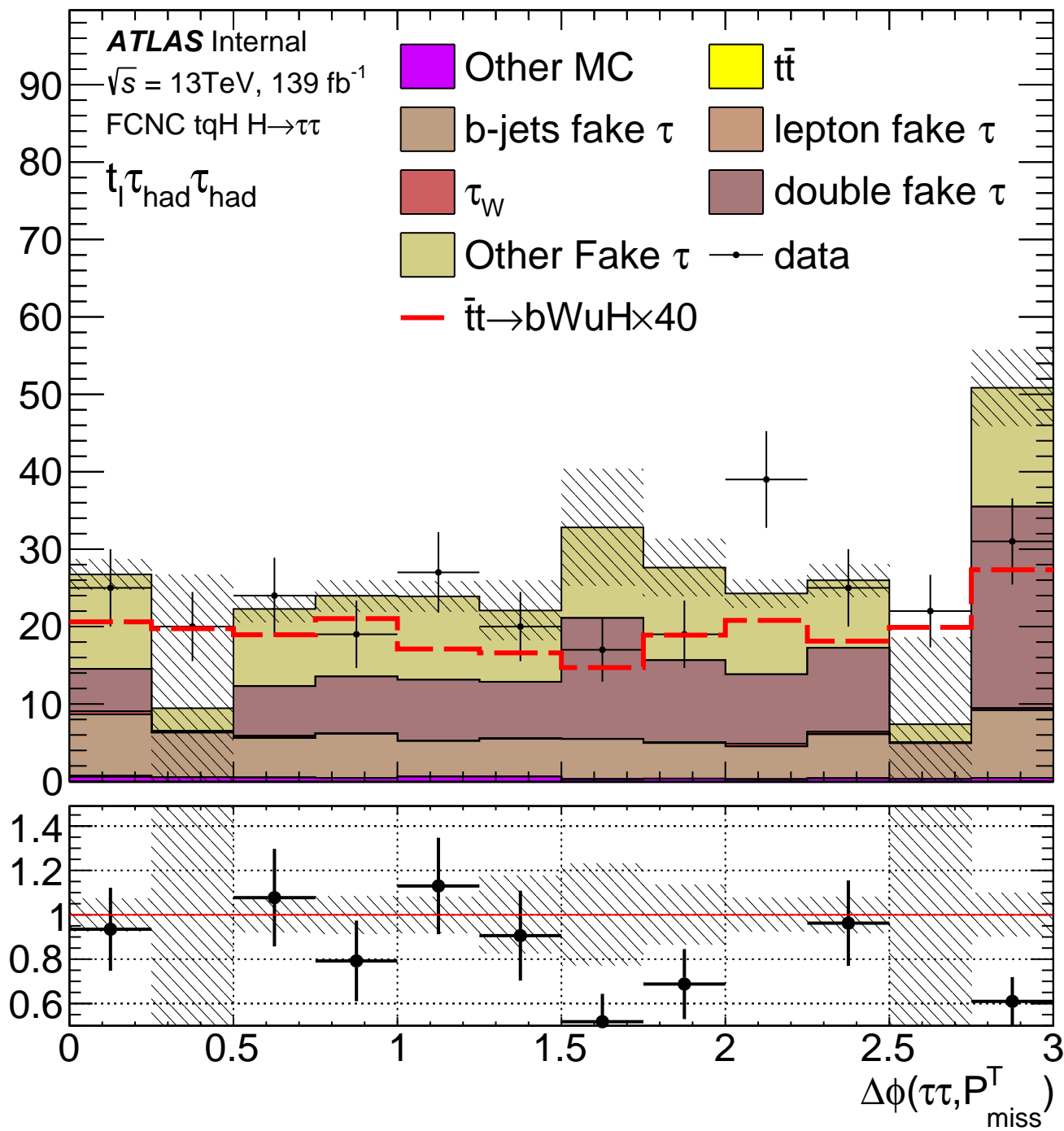
 $t_l \tau_{\text{had}} \tau_{\text{had}}$

Other MC

b-jets fake τ τ_W Other Fake τ $\bar{t}t \rightarrow bWuH \times 40$ $t\bar{t}$ lepton fake τ double fake τ

data

Data/Bkg



Events / 0.25

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

$u\bar{g} \rightarrow t\bar{t}H \times 100$

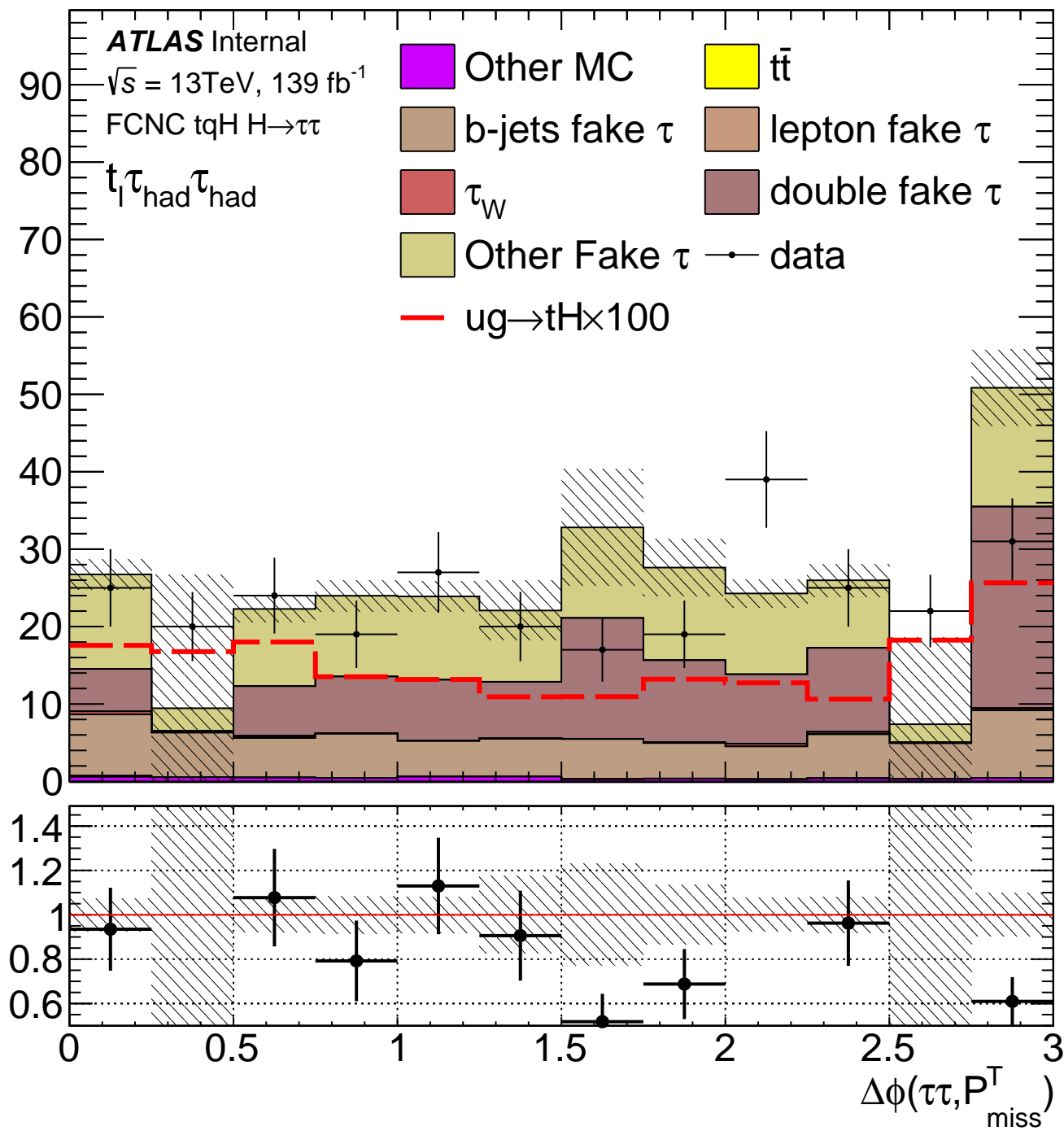
$t\bar{t}$

lepton fake τ

double fake τ

data

Data/Bkg



Events / 0.25

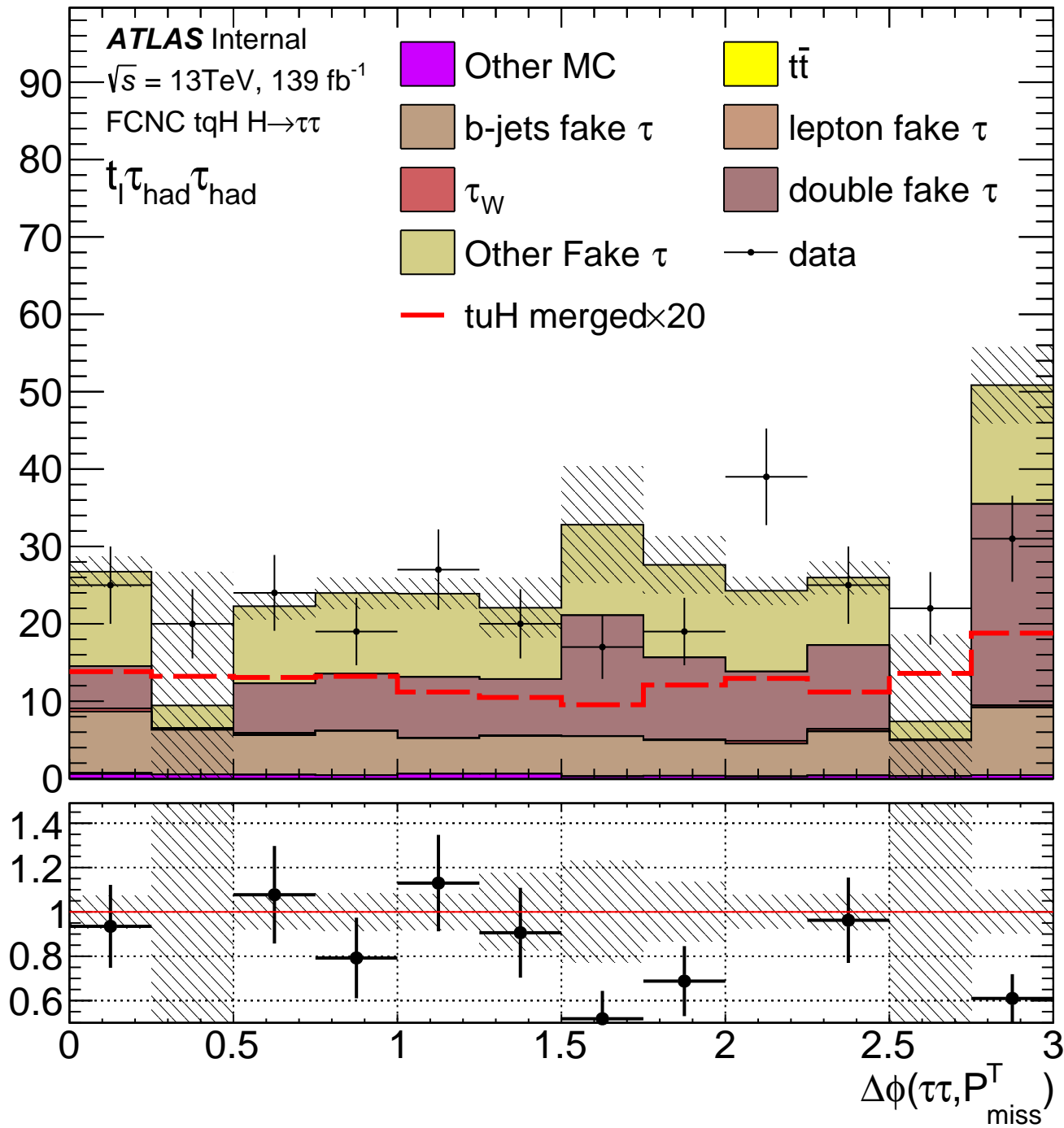
ATLAS Internal
 $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$
FCNC $t\bar{q}H \rightarrow \tau\tau$

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

Other MC
b-jets fake τ
 τ_W
Other Fake τ
tuH merged $\times 20$

$t\bar{t}$
lepton fake τ
double fake τ
data

Data/Bkg



Events / 0.25

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
- $\bar{t}t \rightarrow bWcH \times 50$
- $\bar{t}t \rightarrow bWuH \times 40$
- $t\bar{t}$
- lepton fake τ
- double fake τ
- data
- $cg \rightarrow tH \times 500$
- $ug \rightarrow tH \times 100$

Data/Bkg

