

Events / 0.25

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

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

Other MC

b-jets fake τ

τ_W

Other Fake τ

$\bar{t}t \rightarrow bWcH \times 100$

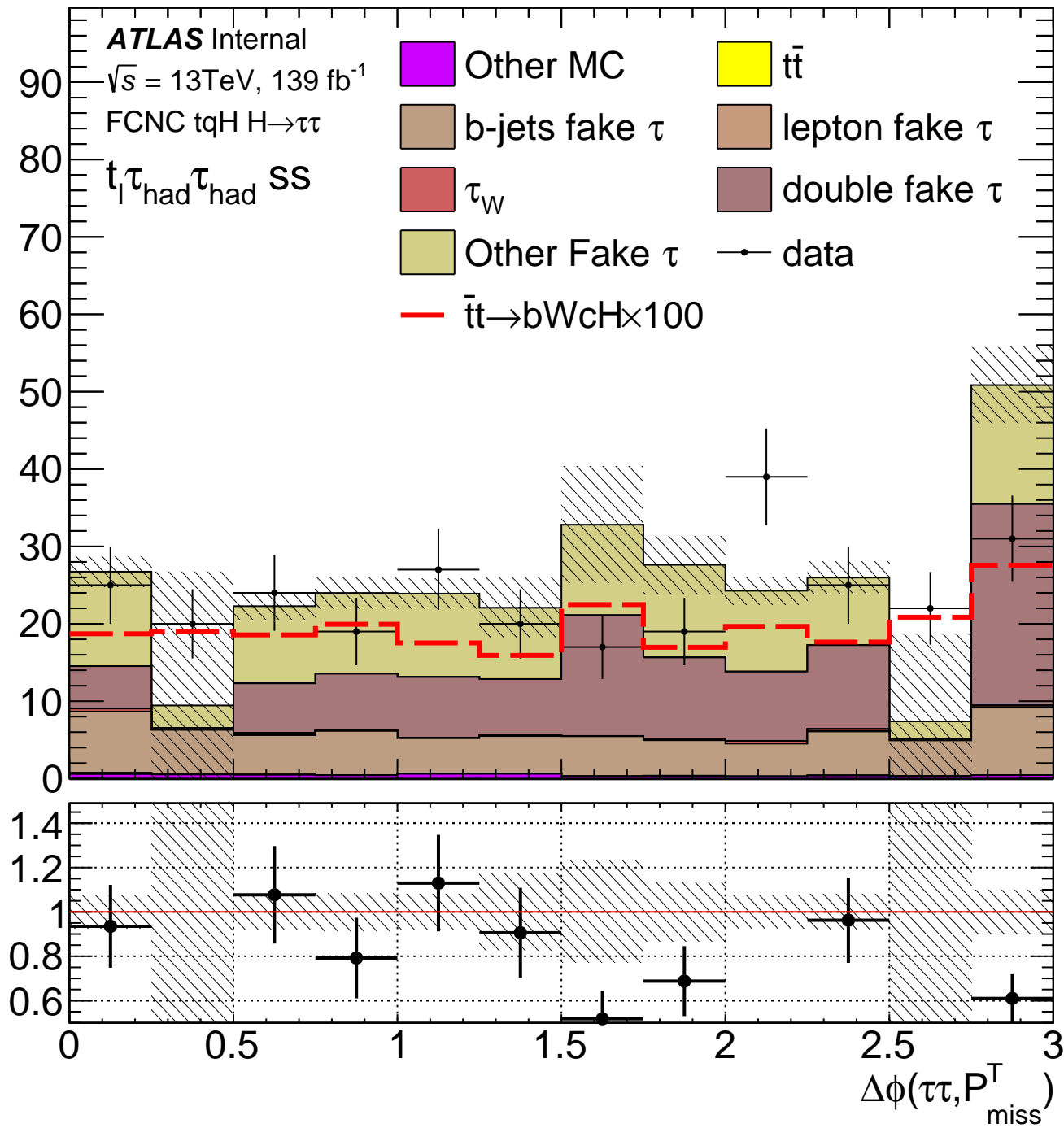
$t\bar{t}$

lepton fake τ

double fake τ

data

Data/Bkg



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

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

Other MC

b-jets fake τ

τ_W

Other Fake τ

$c\bar{g} \rightarrow t\bar{H} \times 1000$

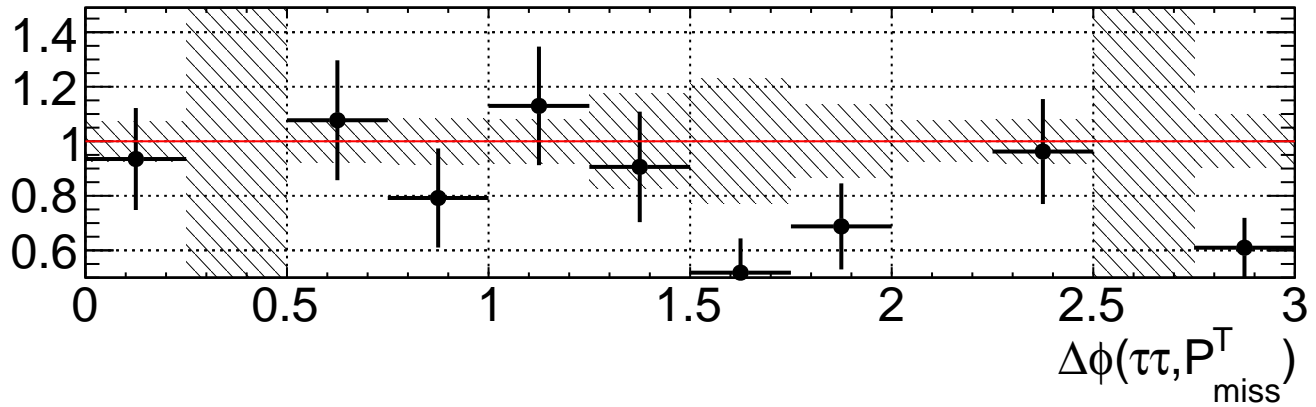
$t\bar{t}$

lepton fake τ

double fake τ

data

Data/Bkg



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

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

Other MC

b-jets fake τ

τ_W

Other Fake τ

$u\bar{g} \rightarrow t\bar{t}H \times 200$

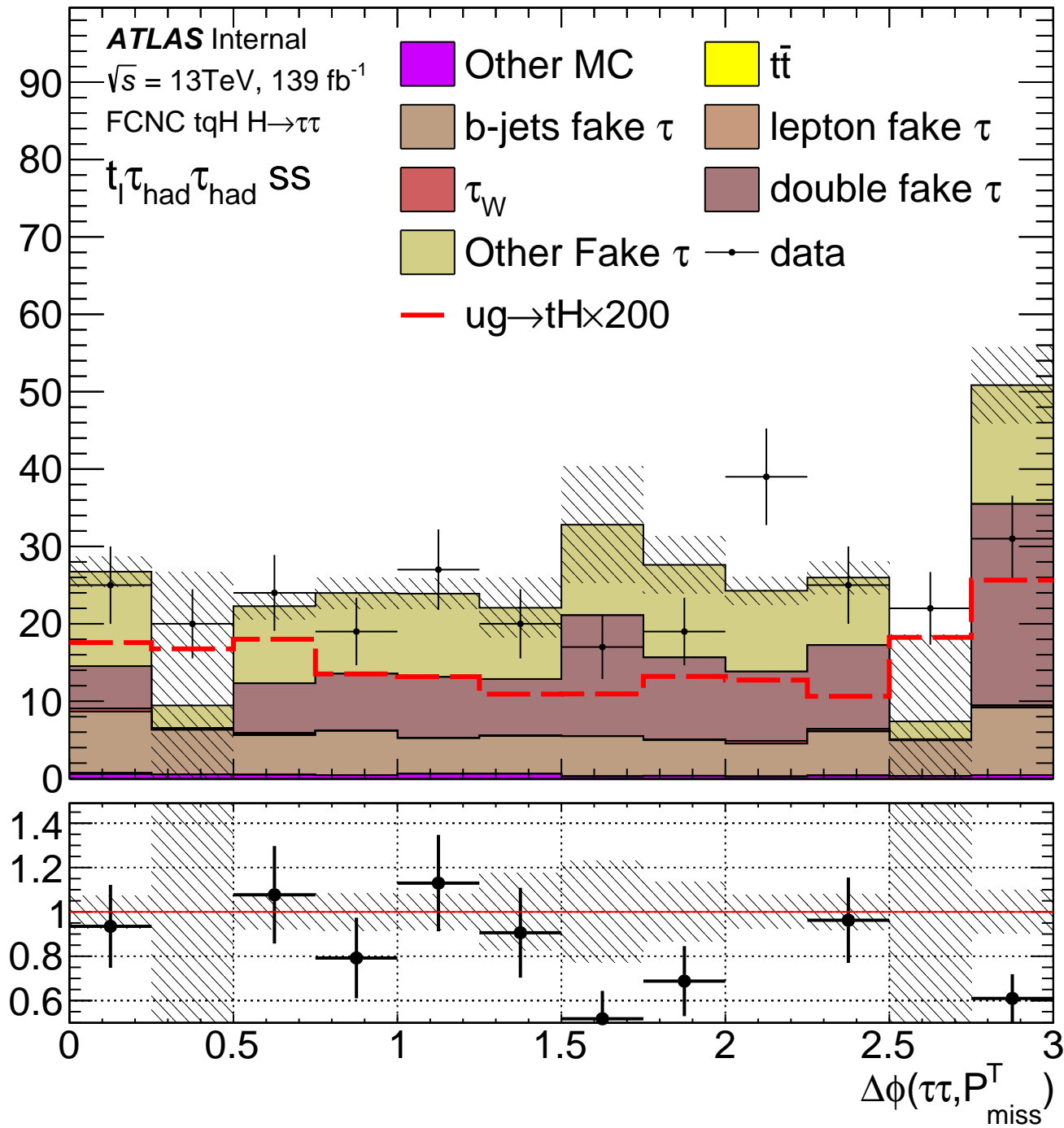
$t\bar{t}$

lepton fake τ

double fake τ

data

Data/Bkg



Events / 0.25

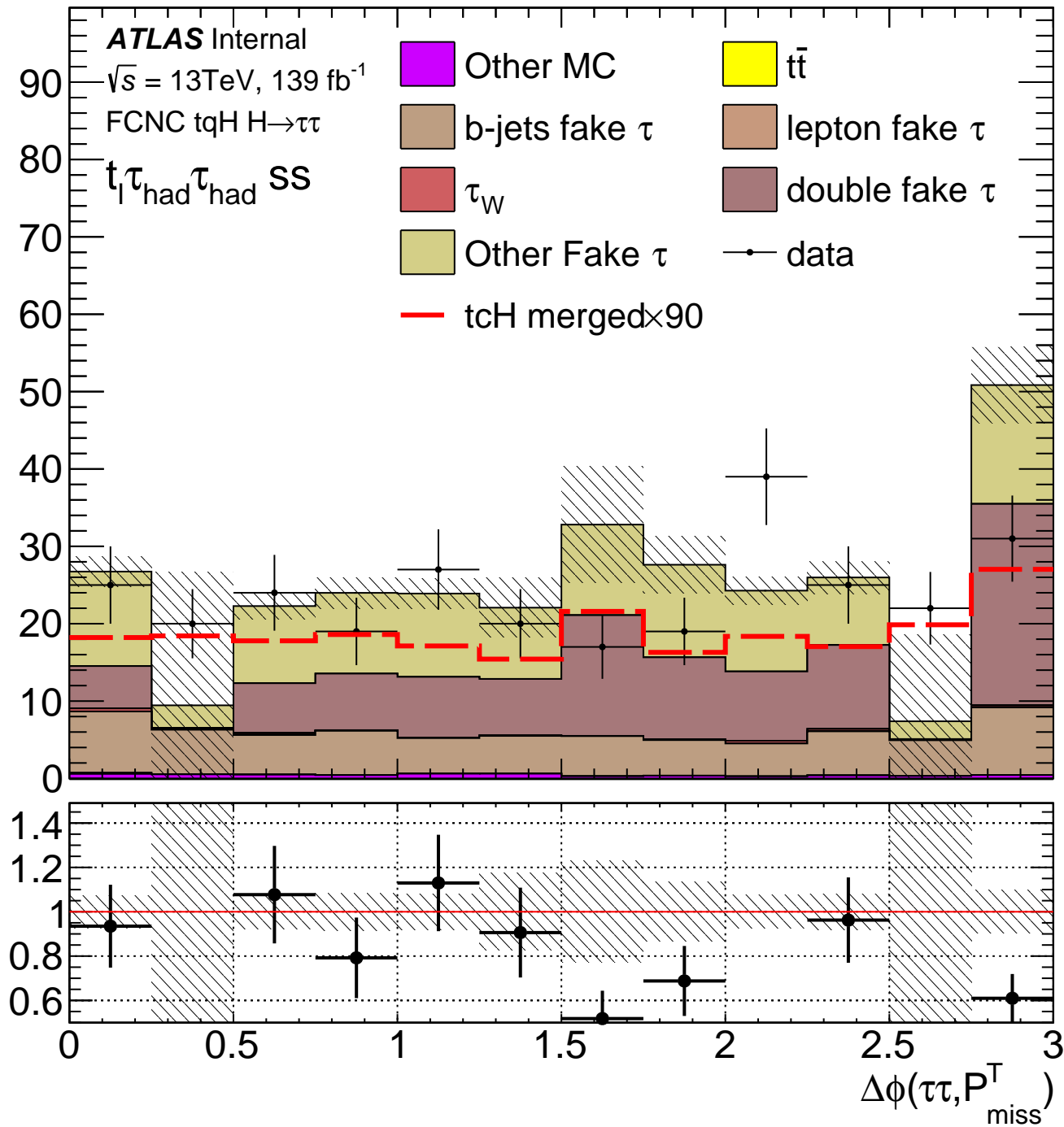
ATLAS Internal
 $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$
FCNC $t\bar{q}H \rightarrow \tau\tau$

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

Other MC
b-jets fake τ
 τ_W
Other Fake τ
tcH merged $\times 90$

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

Data/Bkg



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

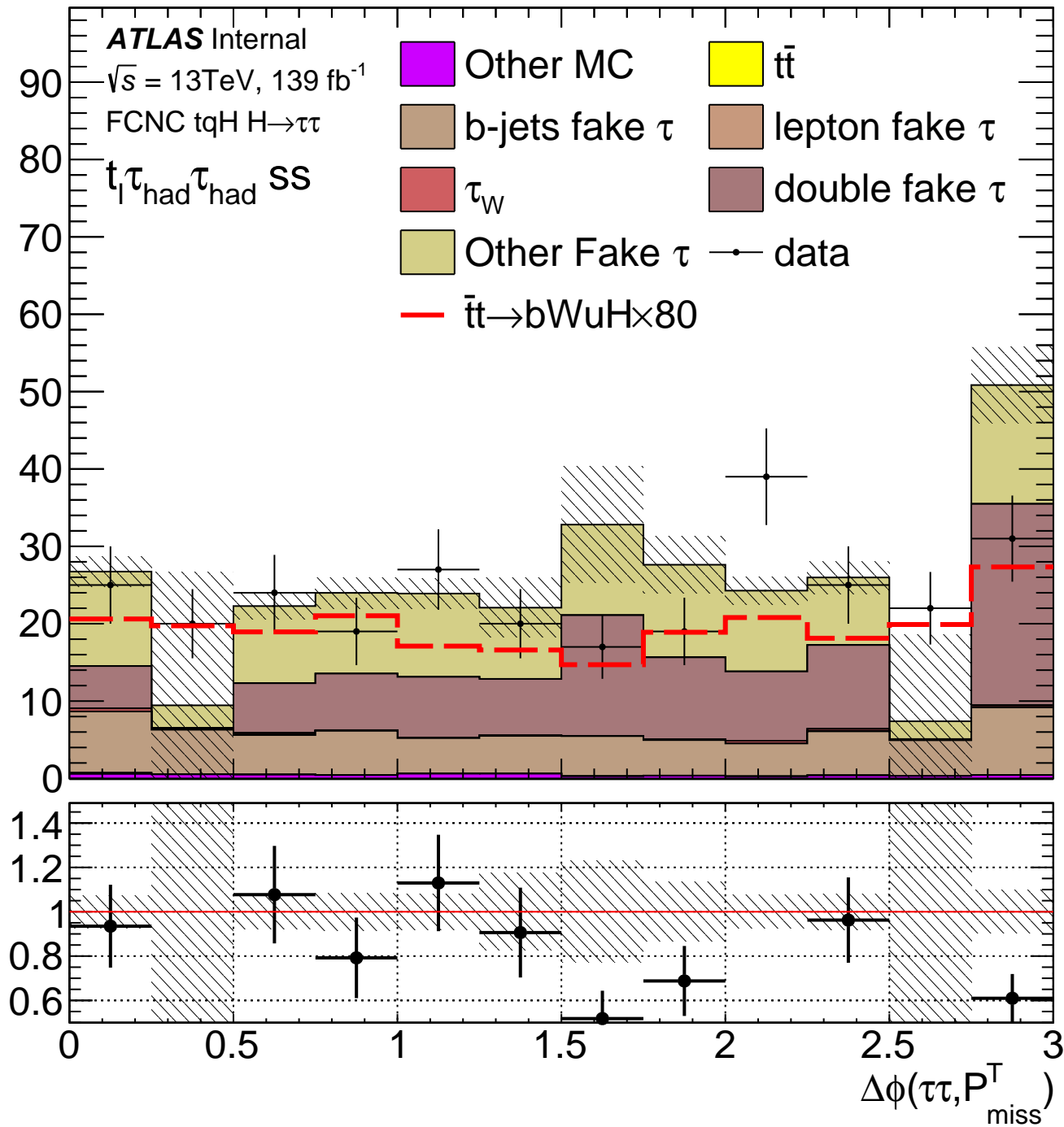
FCNC $t\bar{q}H \rightarrow \tau\tau$ $t_l \tau_{\text{had}} \tau_{\text{had}}$ SS

Other MC

b-jets fake τ τ_W Other Fake τ $\bar{t}t \rightarrow bWuH \times 80$ $t\bar{t}$ lepton fake τ double fake τ

—•— data

Data/Bkg



Events / 0.25

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

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

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

Other MC

b-jets fake τ

τ_W

Other Fake τ

tuH WWZZ $\times 100$

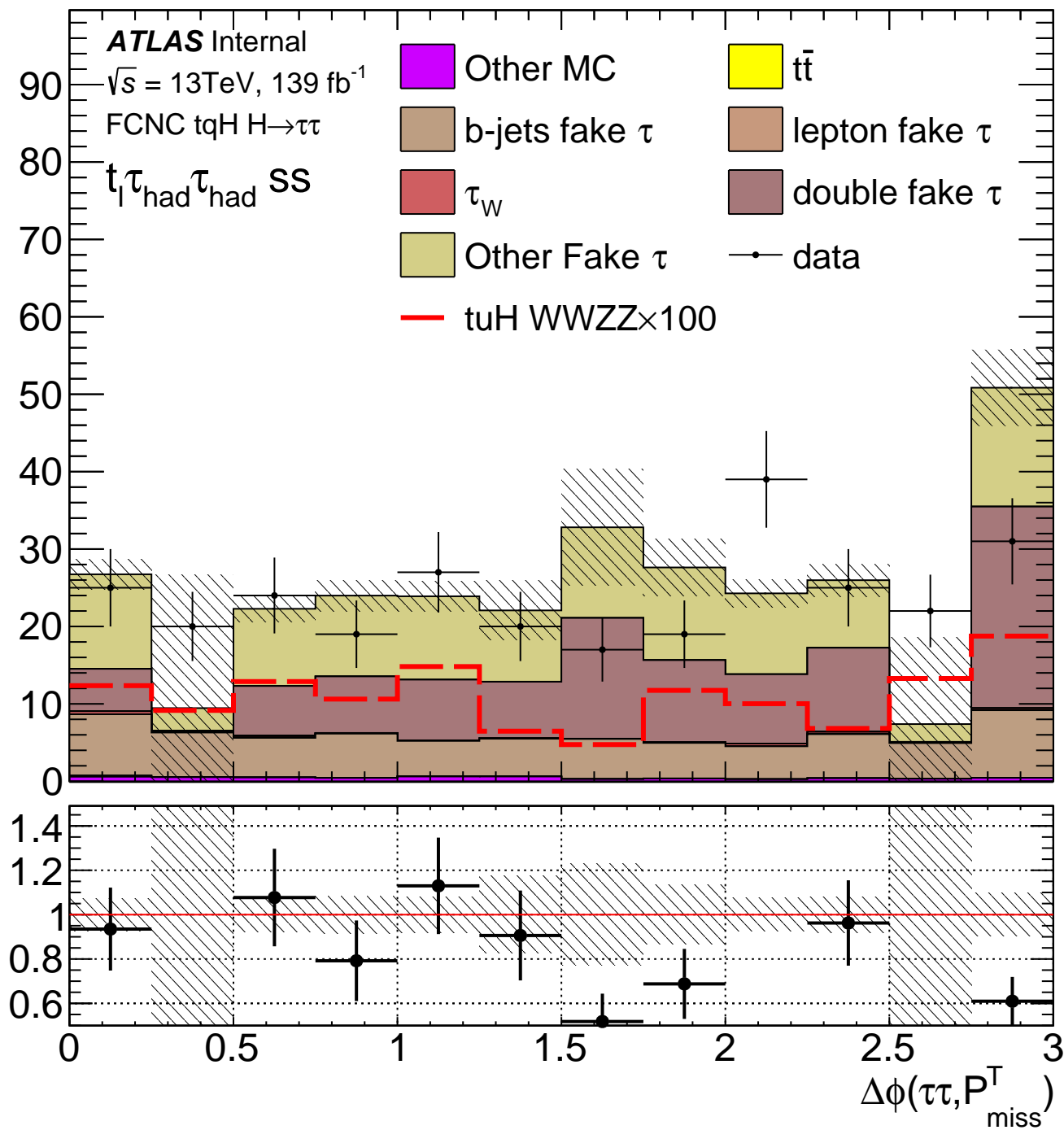
$t\bar{t}$

lepton fake τ

double fake τ

data

Data/Bkg



Events / 0.25

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

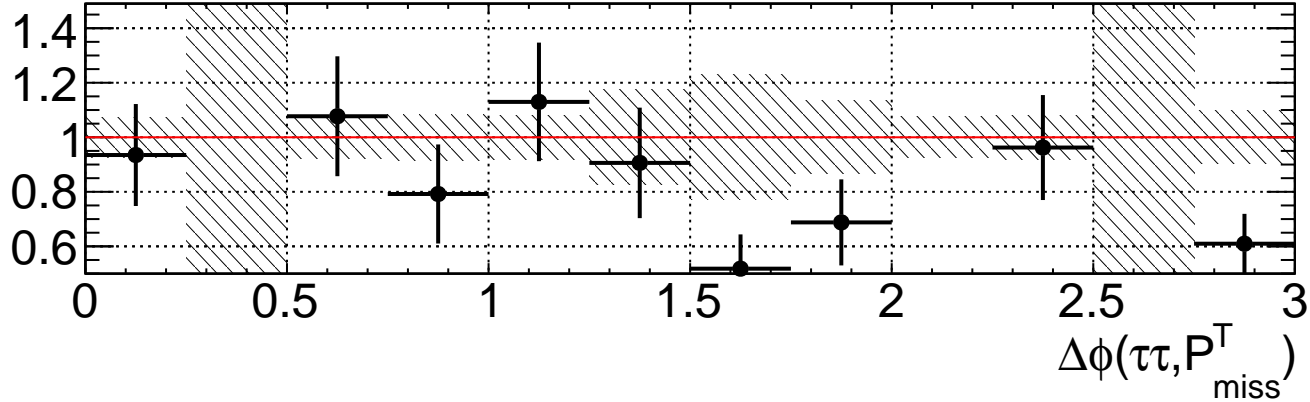
FCNC tqH $H \rightarrow \tau\tau$ $t_l \tau_{\text{had}} \tau_{\text{had}}$ SS

Other MC

b-jets fake τ τ_W Other Fake τ tcH WWZZ $\times 100$ $t\bar{t}$ lepton fake τ double fake τ

—•— data

Data/Bkg



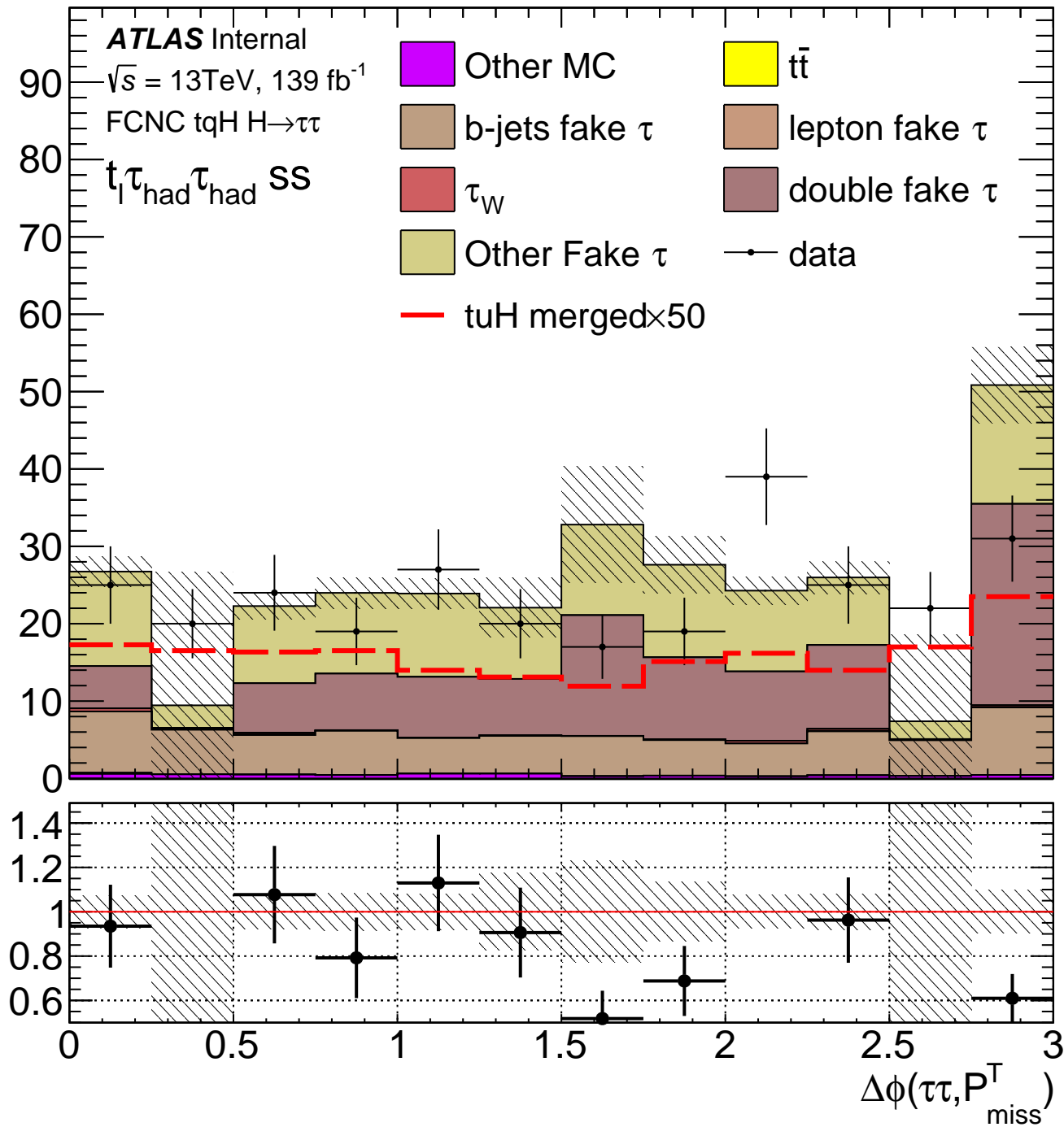
Events / 0.25

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

Other MC
b-jets fake τ
 τ_W
Other Fake τ
tuH merged $\times 50$

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

Data/Bkg



Events / 0.25

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

Other MC
b-jets fake τ
 τ_W
Other Fake τ
 $\bar{t}t \rightarrow bWcH \times 100$
 $ug \rightarrow tH \times 200$
tuH WWZZ $\times 100$
 $\bar{t}\bar{t}$
lepton fake τ
double fake τ
data
 $cg \rightarrow tH \times 1000$
 $\bar{t}t \rightarrow bWuH \times 80$
 $tcH \text{ WWZZ} \times 100$

Data/Bkg

