

Events / 0.30

ATLAS Internal $\sqrt{s} = 13\text{TeV}, 140\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ TTH $\tau_{\text{had}}\tau_{\text{had}}$

SS

SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

data

Diboson

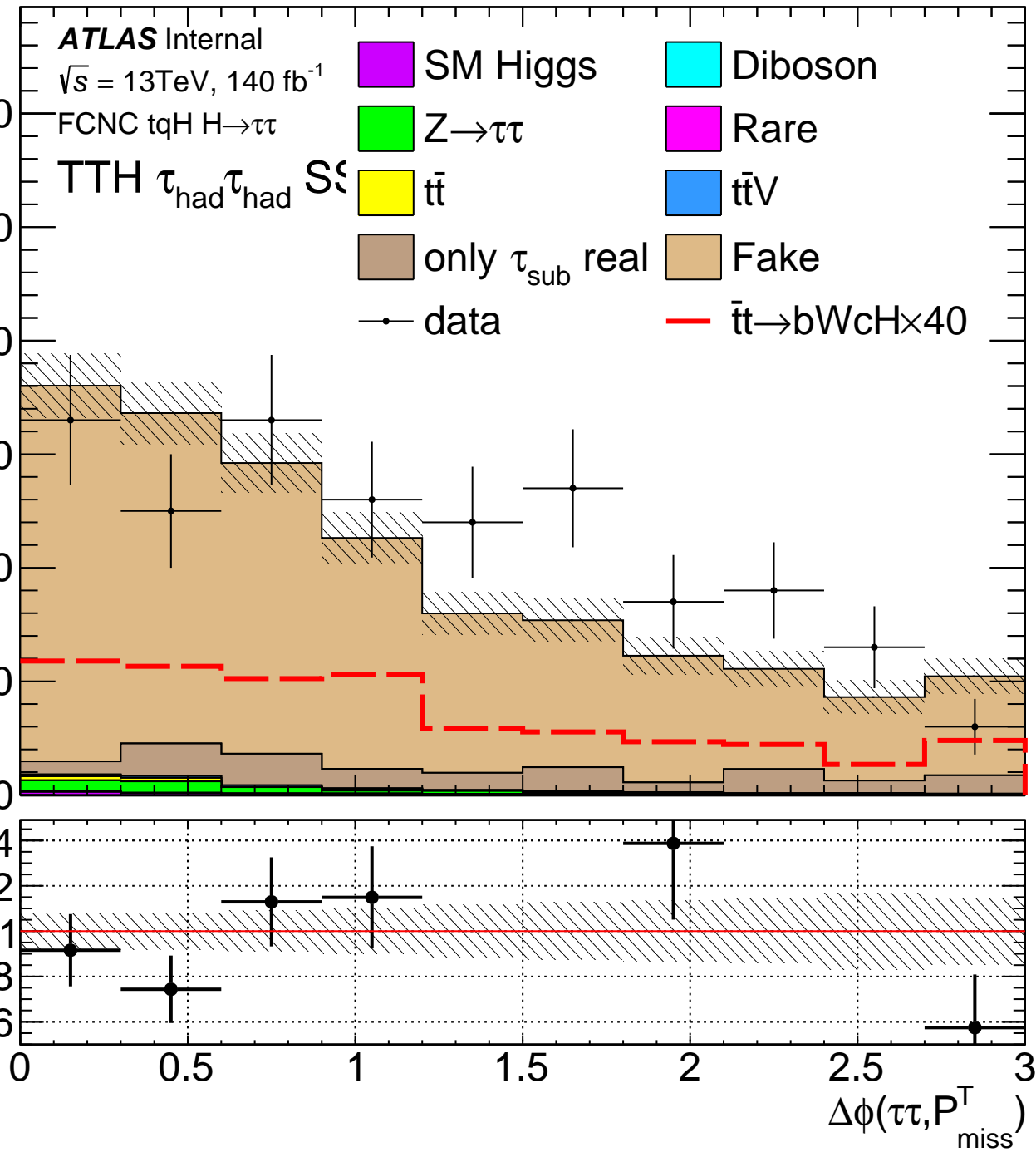
Rare

 $t\bar{t}V$

Fake

 $t\bar{t} \rightarrow bWcH \times 40$

Data/Bkg

 $\Delta\phi(\tau\tau, P_{\text{miss}}^T)$

Events / 0.30

ATLAS Internal $\sqrt{s} = 13\text{TeV}, 140\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ TTH $\tau_{\text{had}}\tau_{\text{had}}$ $S\bar{S}$

SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

—•— data

Diboson

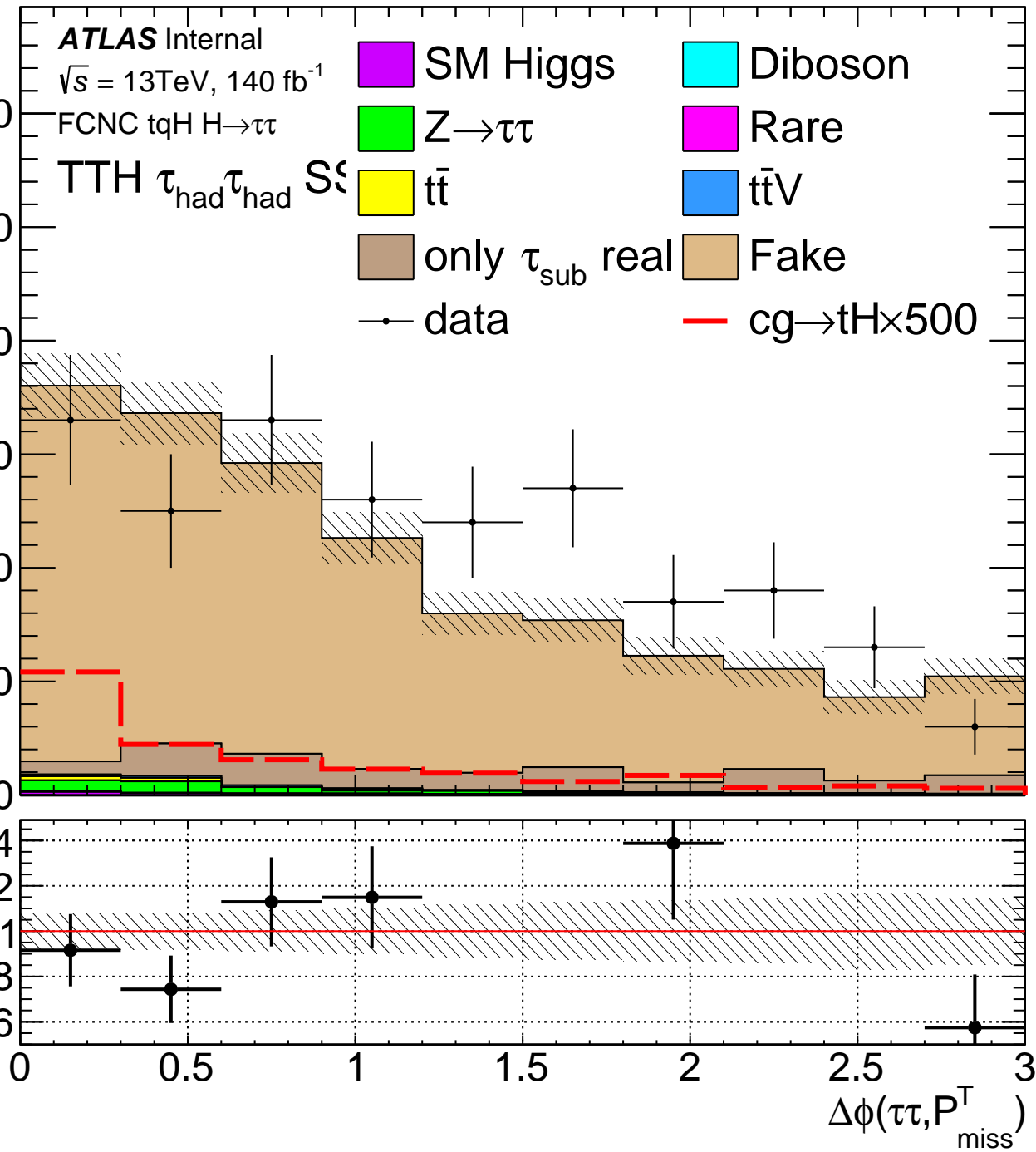
Rare

 $t\bar{t}V$

Fake

— cg $\rightarrow tH \times 500$

Data/Bkg



Events / 0.30

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SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

—•— data

Diboson

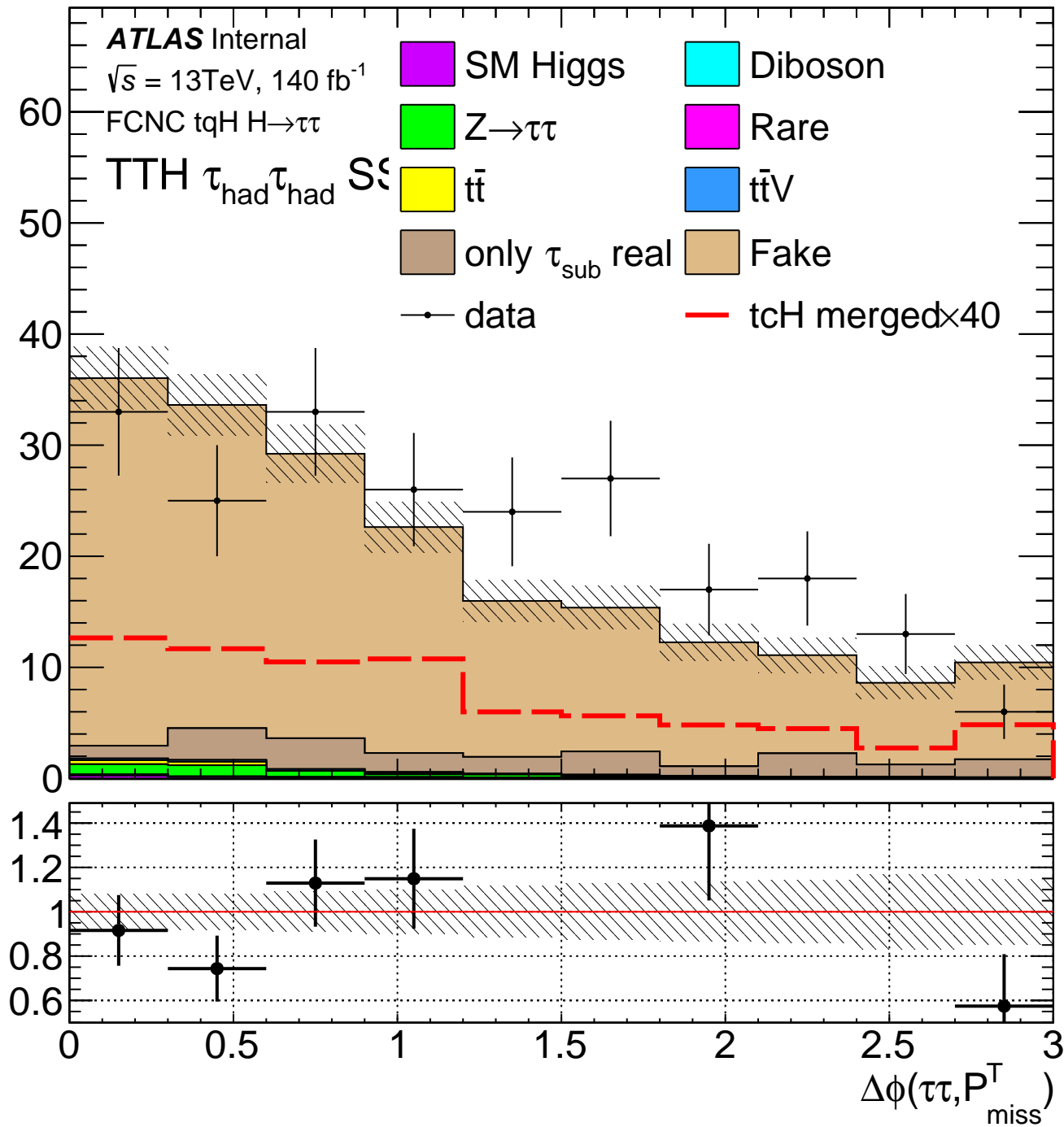
Rare

 $t\bar{t}V$

Fake

— tcH merged $\times 40$

Data/Bkg



Events / 0.30

ATLAS Internal $\sqrt{s} = 13\text{TeV}, 140\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ TTH $\tau_{\text{had}}\tau_{\text{had}}$ $S\bar{S}$

SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

data

Diboson

Rare

 $t\bar{t}V$

Fake

 $t\bar{t} \rightarrow bWuH \times 30$

60

50

40

30

20

10

0

Data/Bkg

1.4

1.2

1.0

0.8

0.6

0

0.5

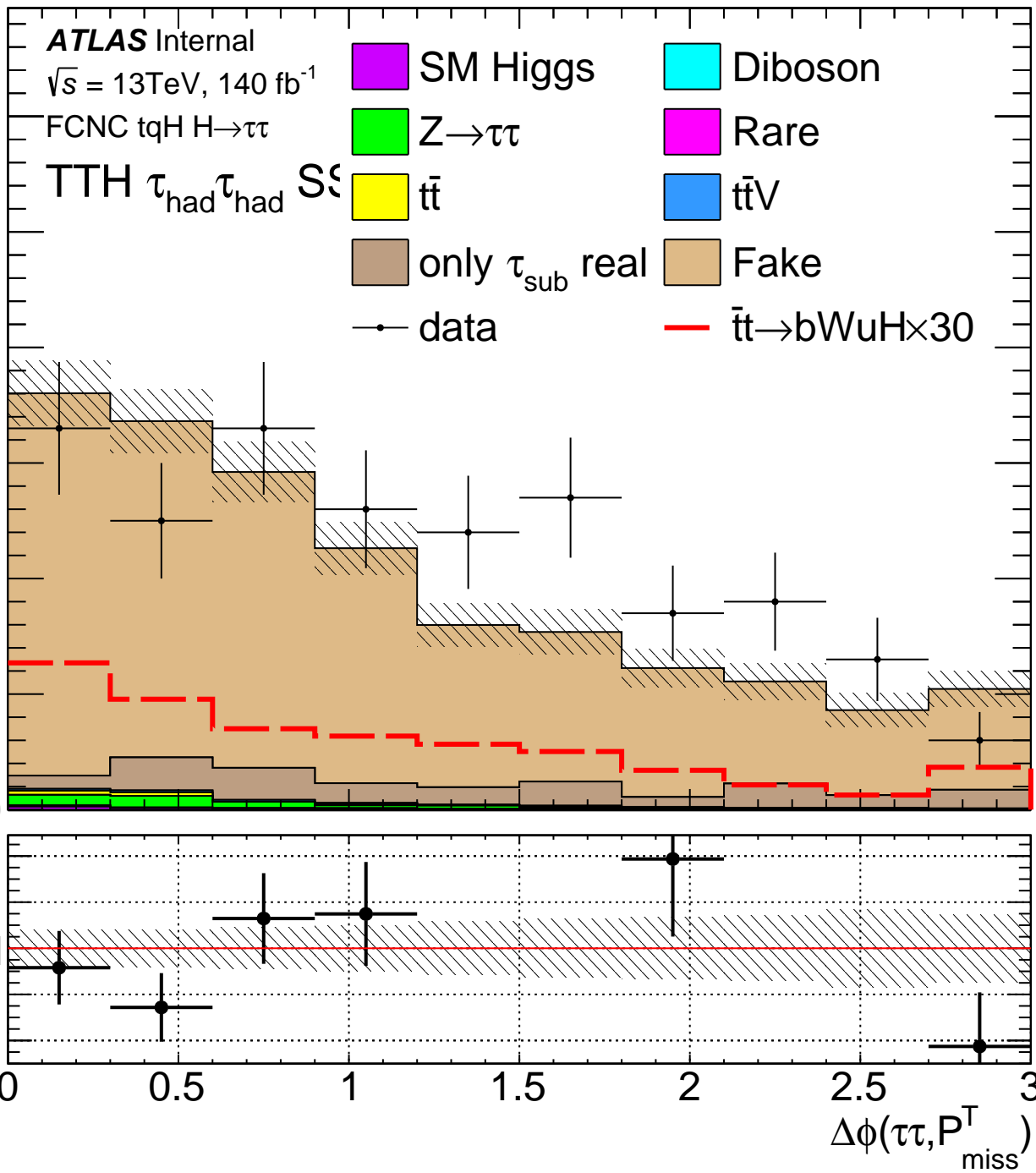
1

1.5

2

2.5

3

 $\Delta\phi(\tau\tau, P_{\text{miss}}^T)$ 

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SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

data

Diboson

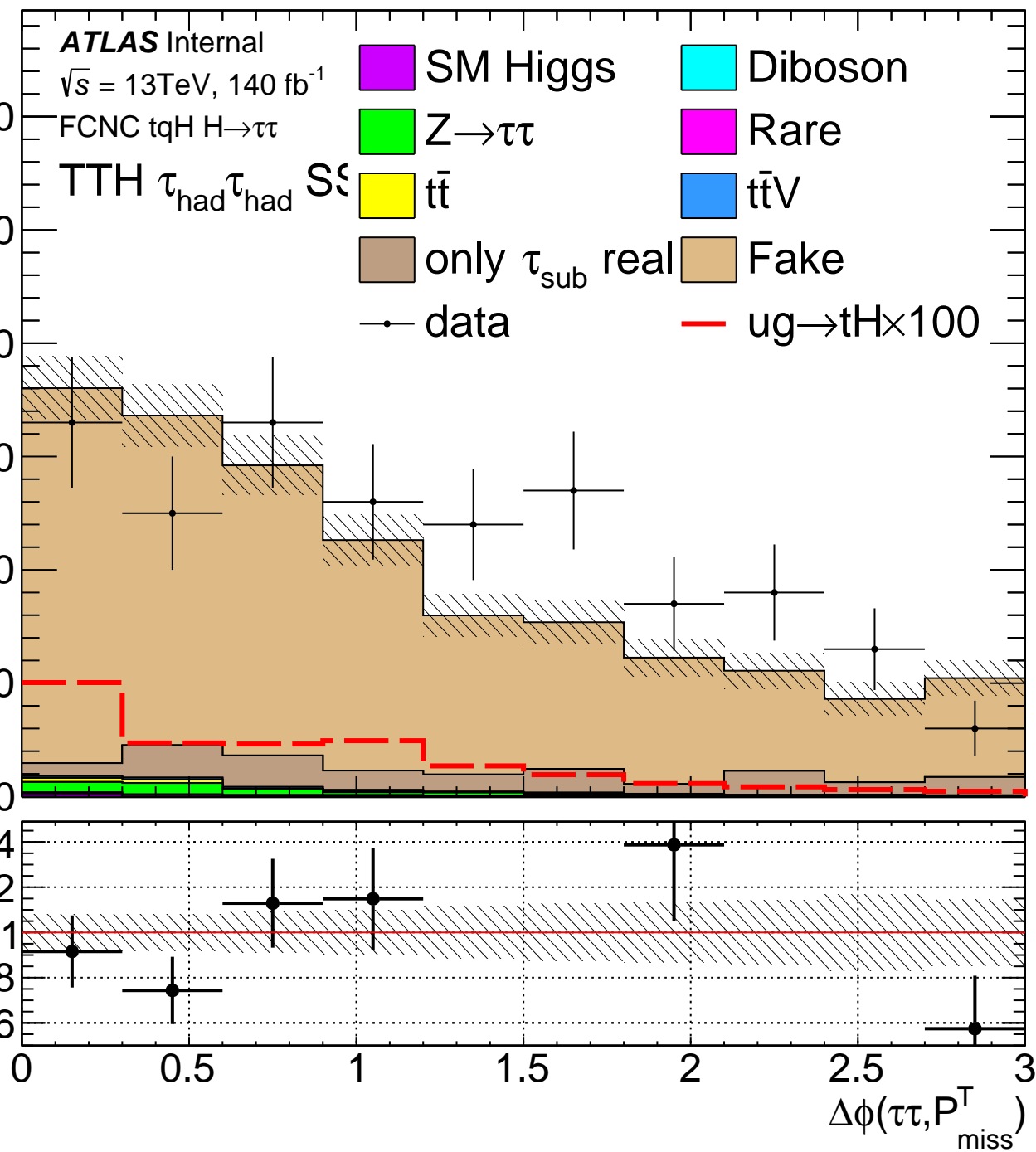
Rare

 $t\bar{t}V$

Fake

 $ug \rightarrow tH \times 100$

Data/Bkg



Events / 0.30

ATLAS Internal $\sqrt{s} = 13\text{TeV}, 140\text{ fb}^{-1}$ FCNC tqH $H \rightarrow \tau\tau$ TTH $\tau_{\text{had}}\tau_{\text{had}}$ $S\bar{S}$

SM Higgs

 $Z \rightarrow \tau\tau$ $t\bar{t}$ only τ_{sub} real

data

Diboson

Rare

 $t\bar{t}V$

Fake

tuH merged $\times 20$

Data/Bkg

