

Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}}^{-2j} SS(\tau_{\text{had}})$ 

SM Higgs

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

data

Diboson

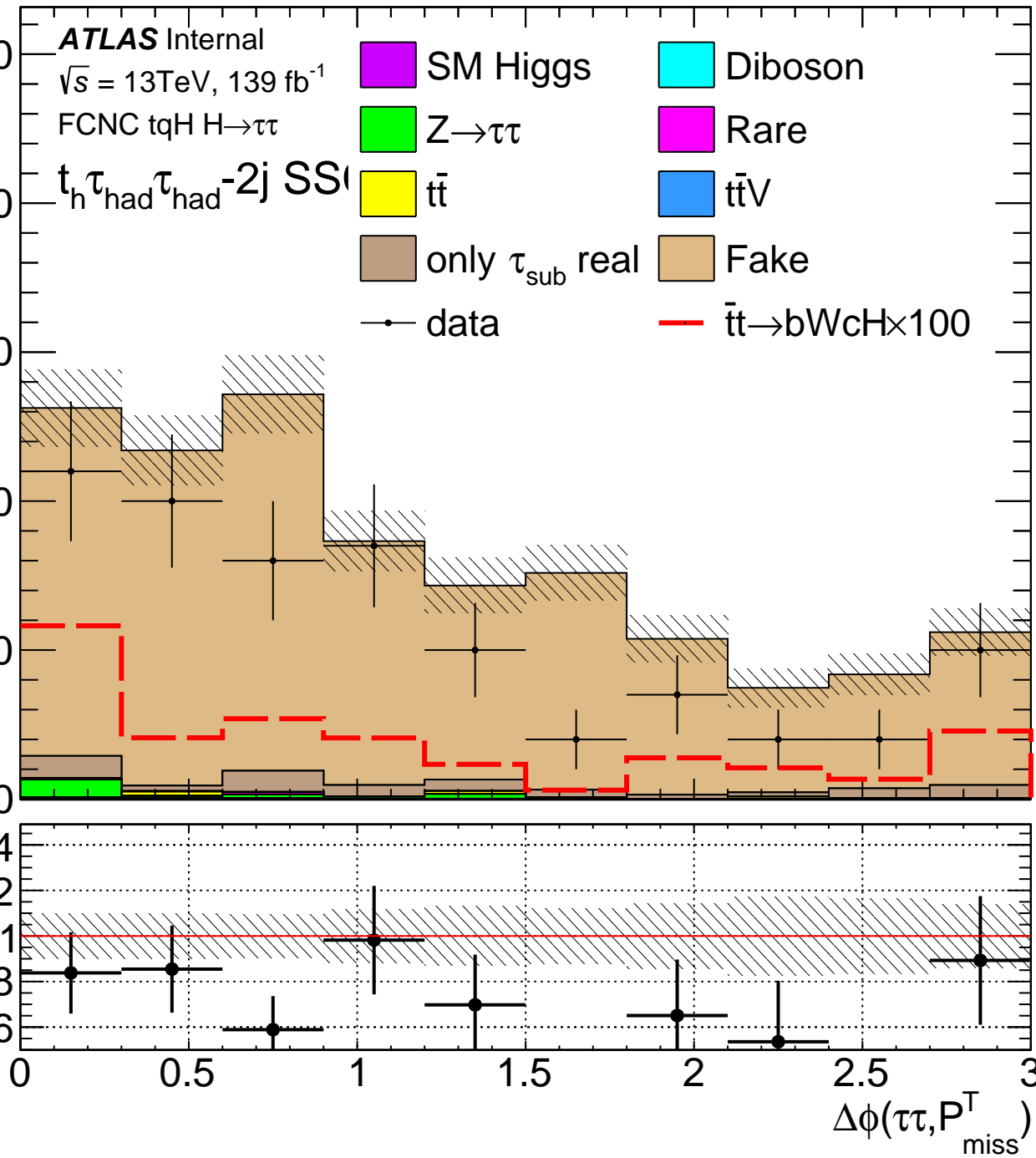
Rare

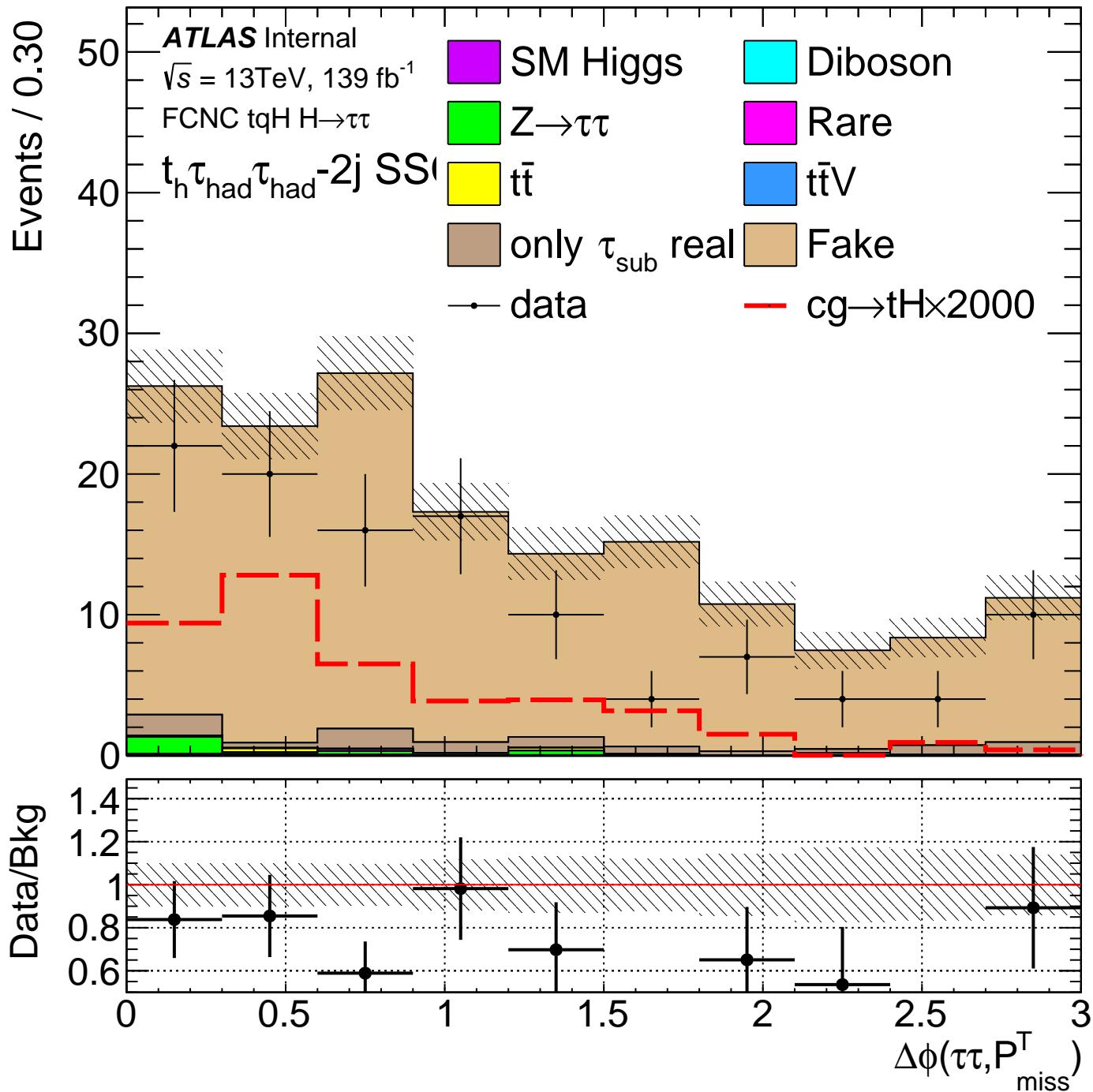
 $t\bar{t}V$ 

Fake

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

Data/Bkg





Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}} - 2j \text{ SS}($ 

SM Higgs

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

data

Diboson

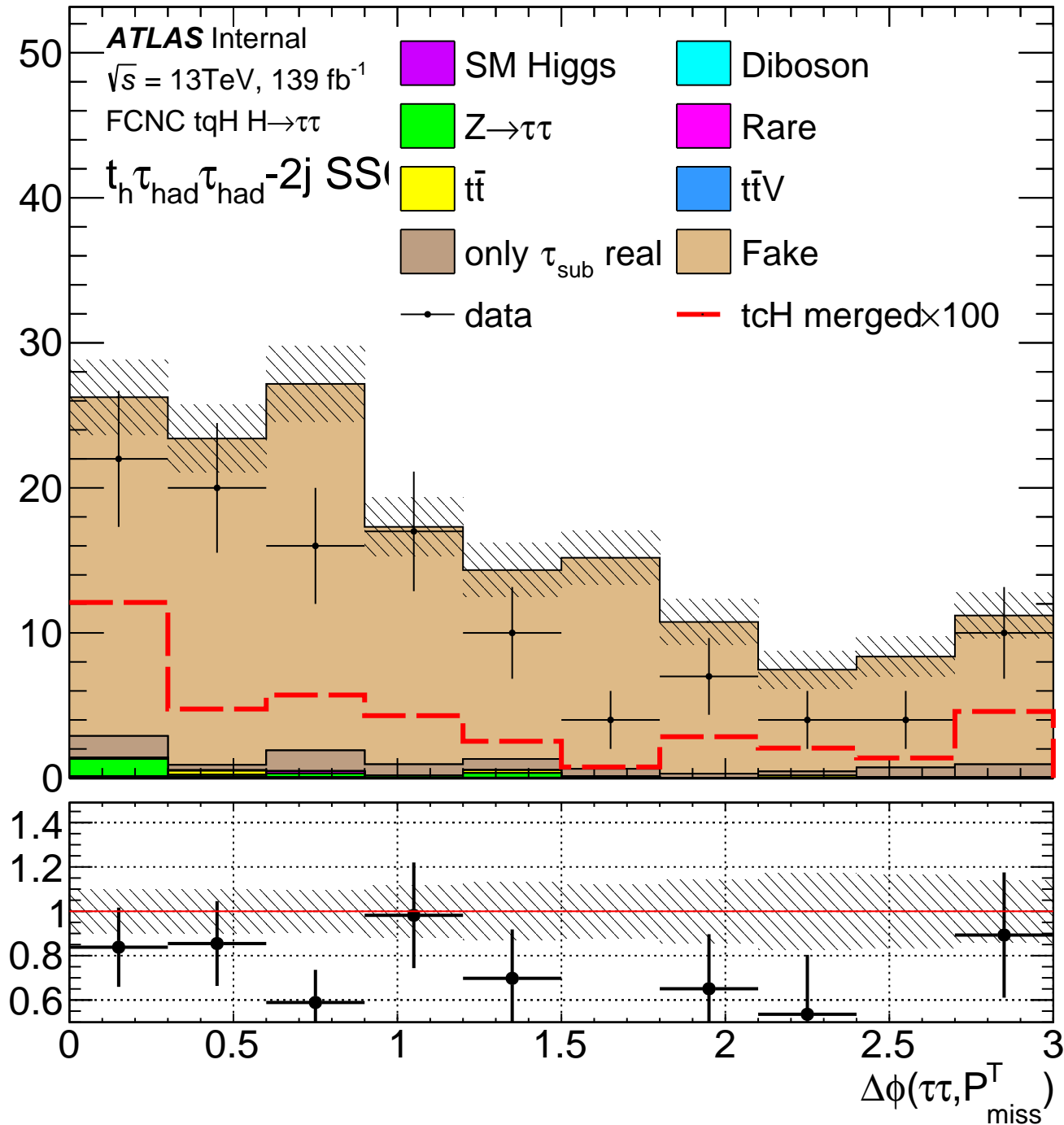
Rare

 $t\bar{t}V$ 

Fake

tcH merged  $\times 100$ 

Data/Bkg



Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}}^{-2j} SS(\tau_{\text{had}})$ 

SM Higgs

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

—•— data

Diboson

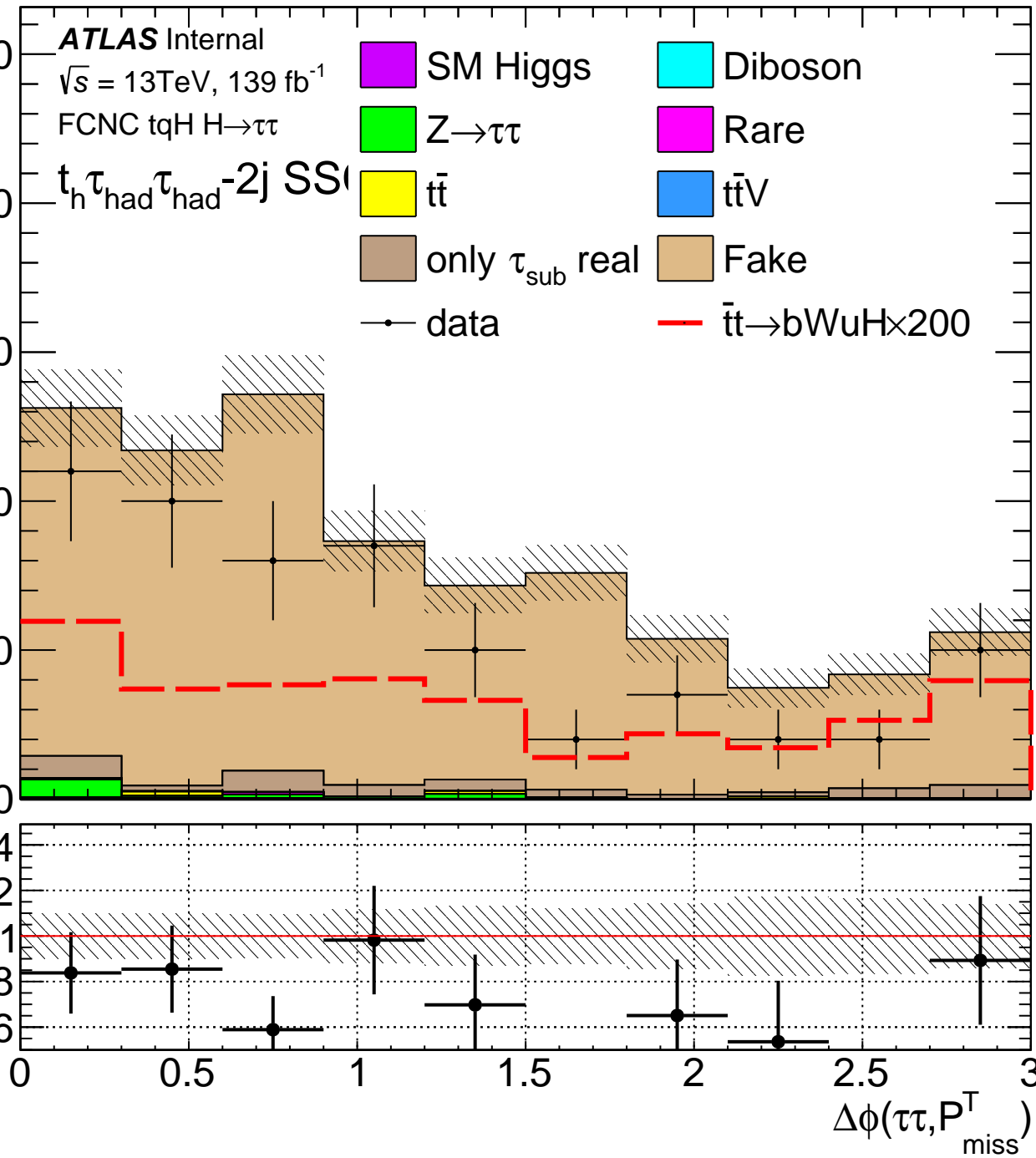
Rare

 $t\bar{t}V$ 

Fake

—  $t\bar{t} \rightarrow bWuH \times 200$ 

Data/Bkg

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

Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}}^{-2j} SS(\tau_{\text{had}})$ 

SM Higgs

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

data

Diboson

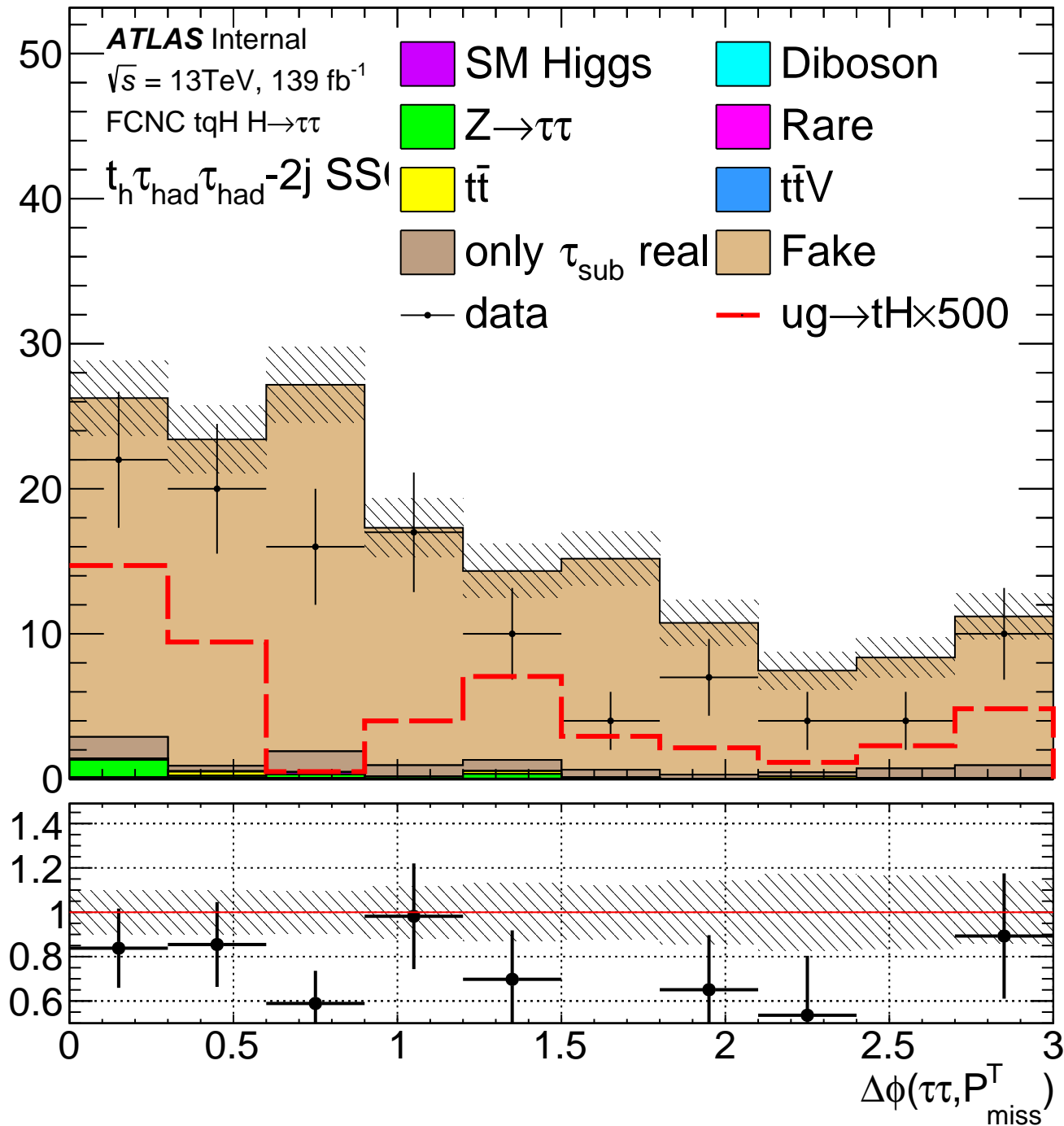
Rare

 $t\bar{t}V$ 

Fake

 $ug \rightarrow tH \times 500$ 

Data/Bkg



Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}}^{-2j} SS(\tau_{\text{had}})$ 

SM Higgs

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

data

Diboson

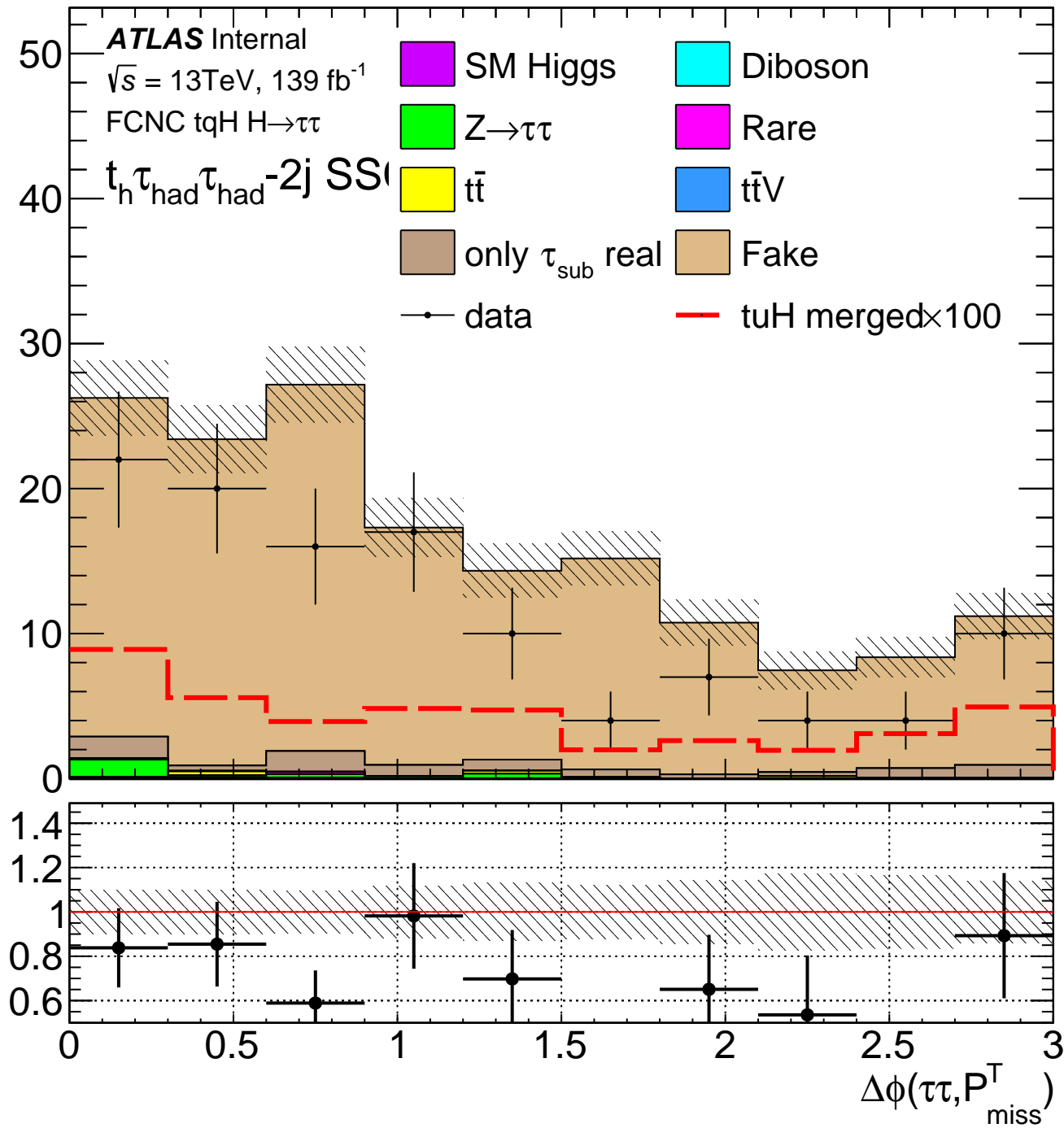
Rare

 $t\bar{t}V$ 

Fake

tuH merged  $\times 100$ 

Data/Bkg



Events / 0.30

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

$t_h \tau_{\text{had}} \tau_{\text{had}}^{-2j} SS(\dots)$

SM Higgs

$Z \rightarrow \tau\tau$

$t\bar{t}$

only  $\tau_{\text{sub}}$  real

data

$cg \rightarrow tH \times 2000$

$ug \rightarrow tH \times 500$

Diboson

Rare

$t\bar{t}V$

Fake

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

$t\bar{t} \rightarrow bWuH \times 200$

Data/Bkg

