

Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}}^{-3j} SS(\tau)$ 

SM Higgs

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

—•— data

Diboson

Rare

 $t\bar{t}V$ 

Fake

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

50

40

30

20

10

0

Data/Bkg

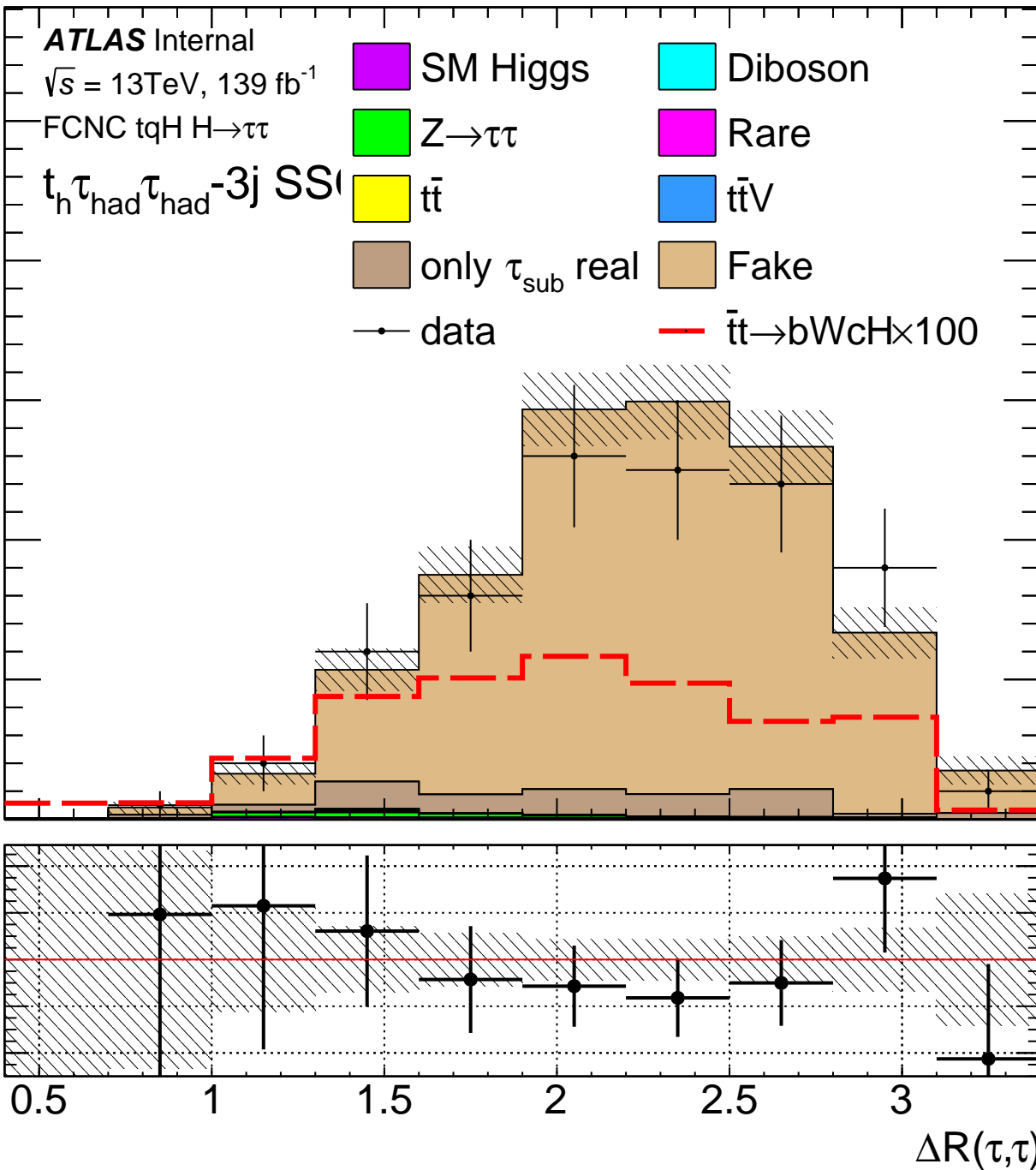
1.4

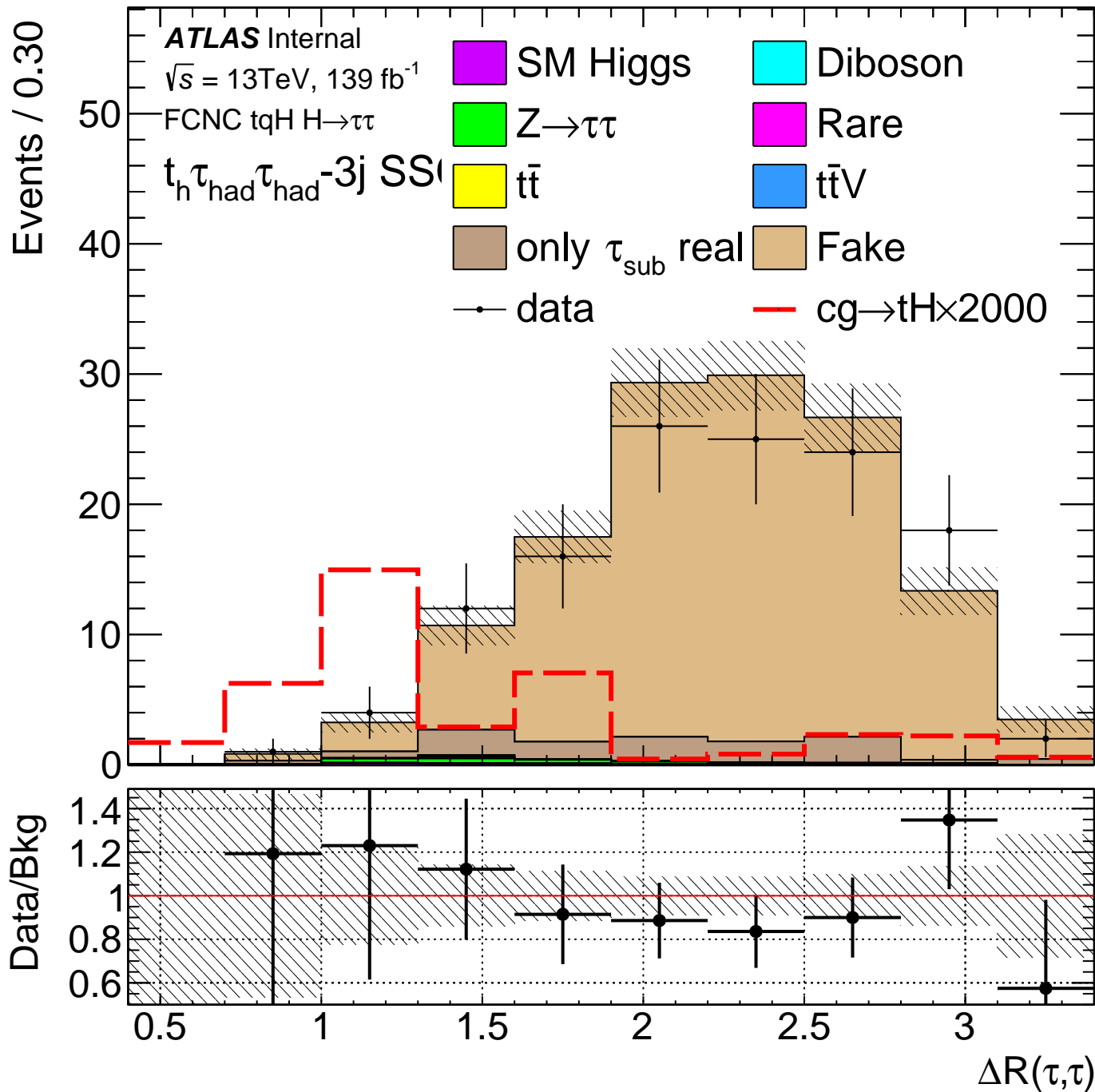
1.2

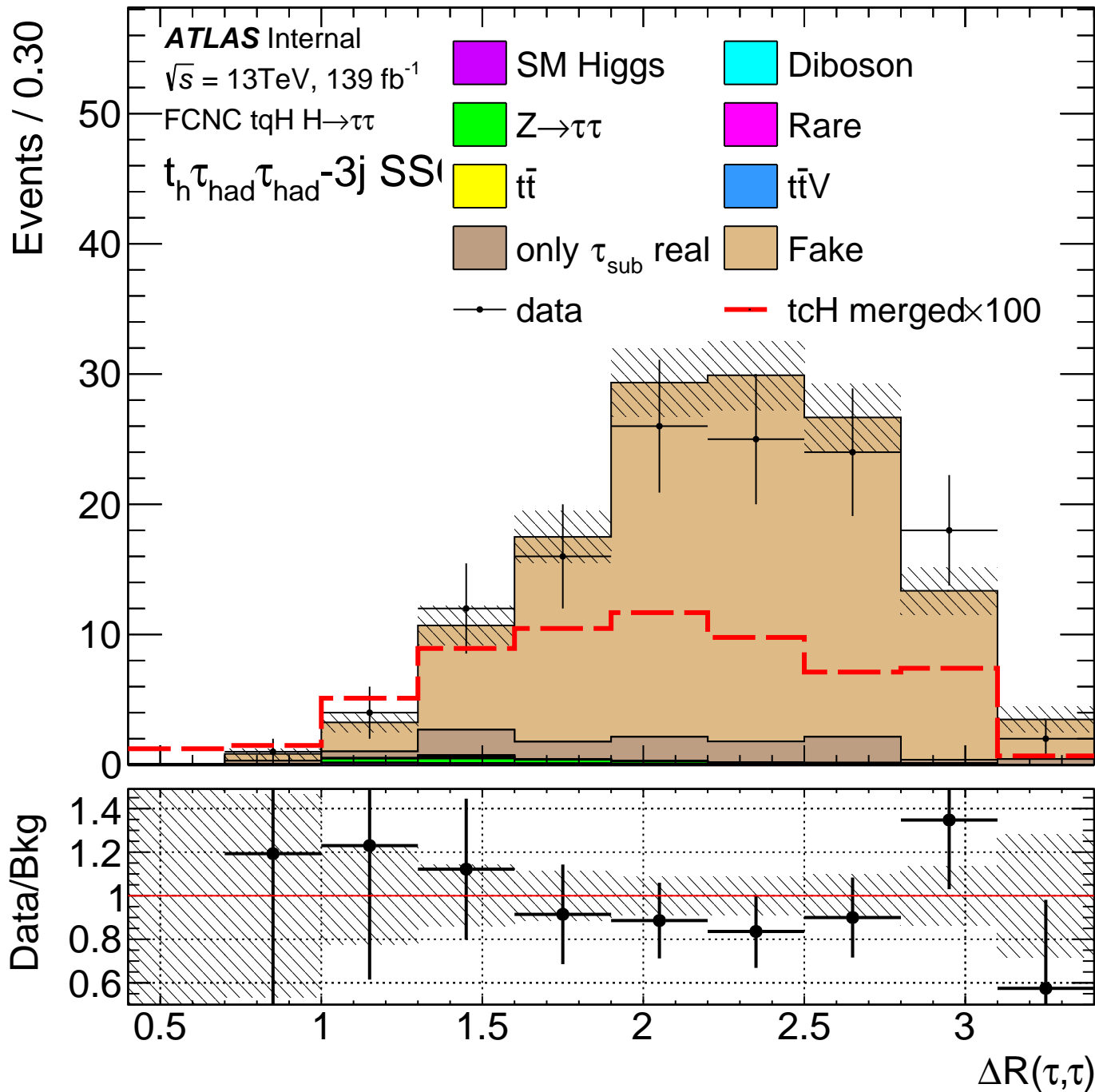
1.0

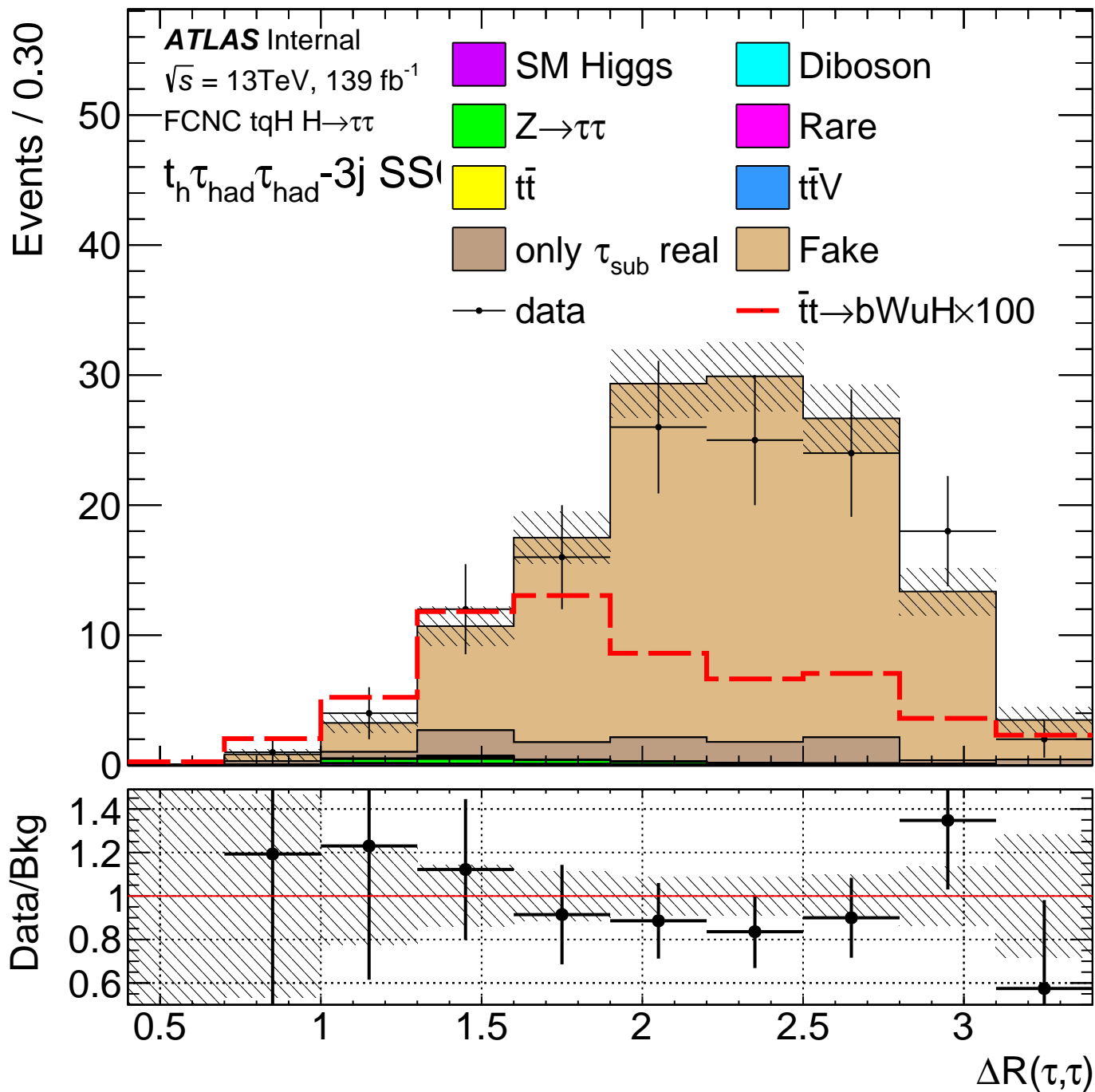
0.8

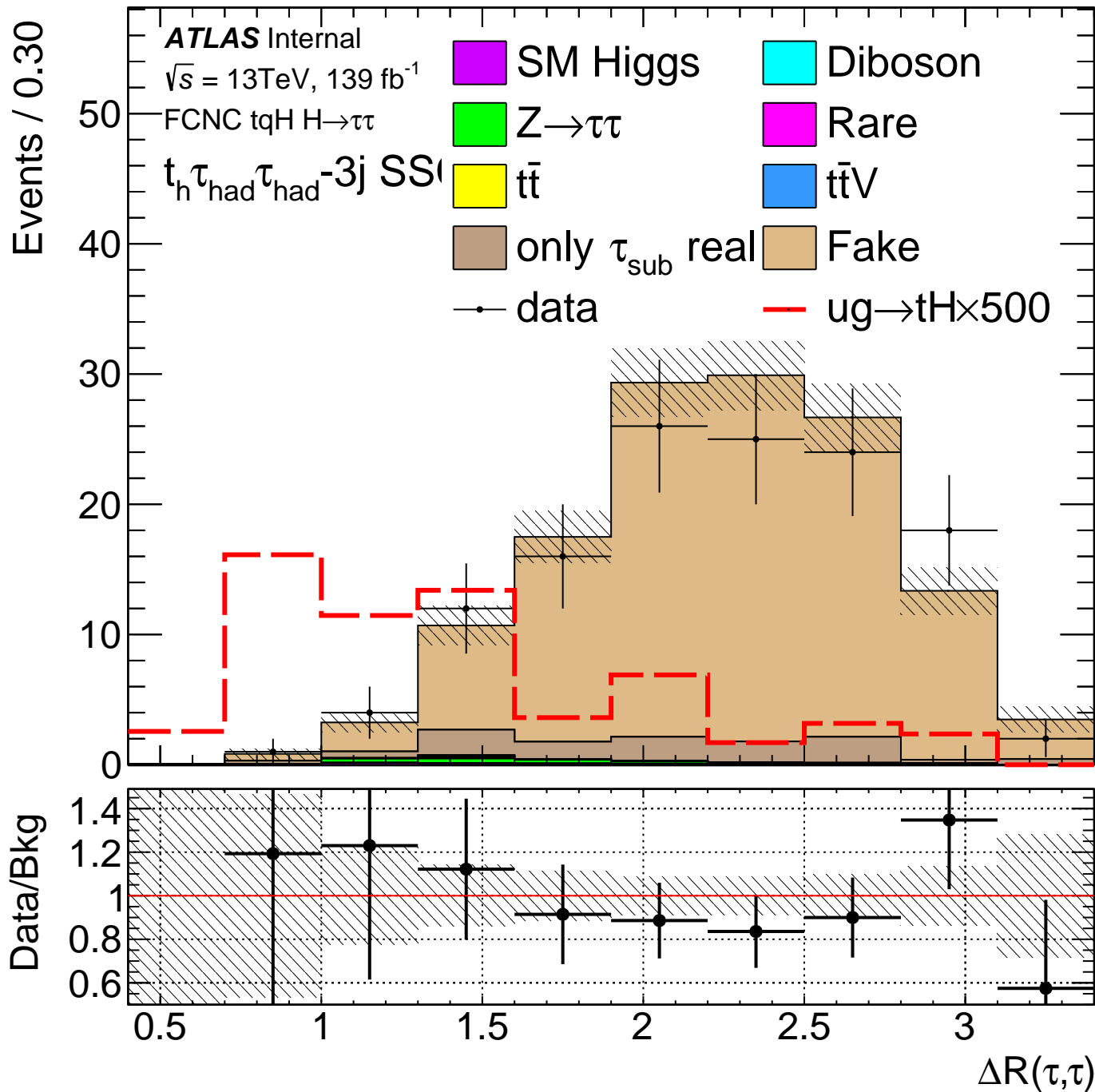
0.6

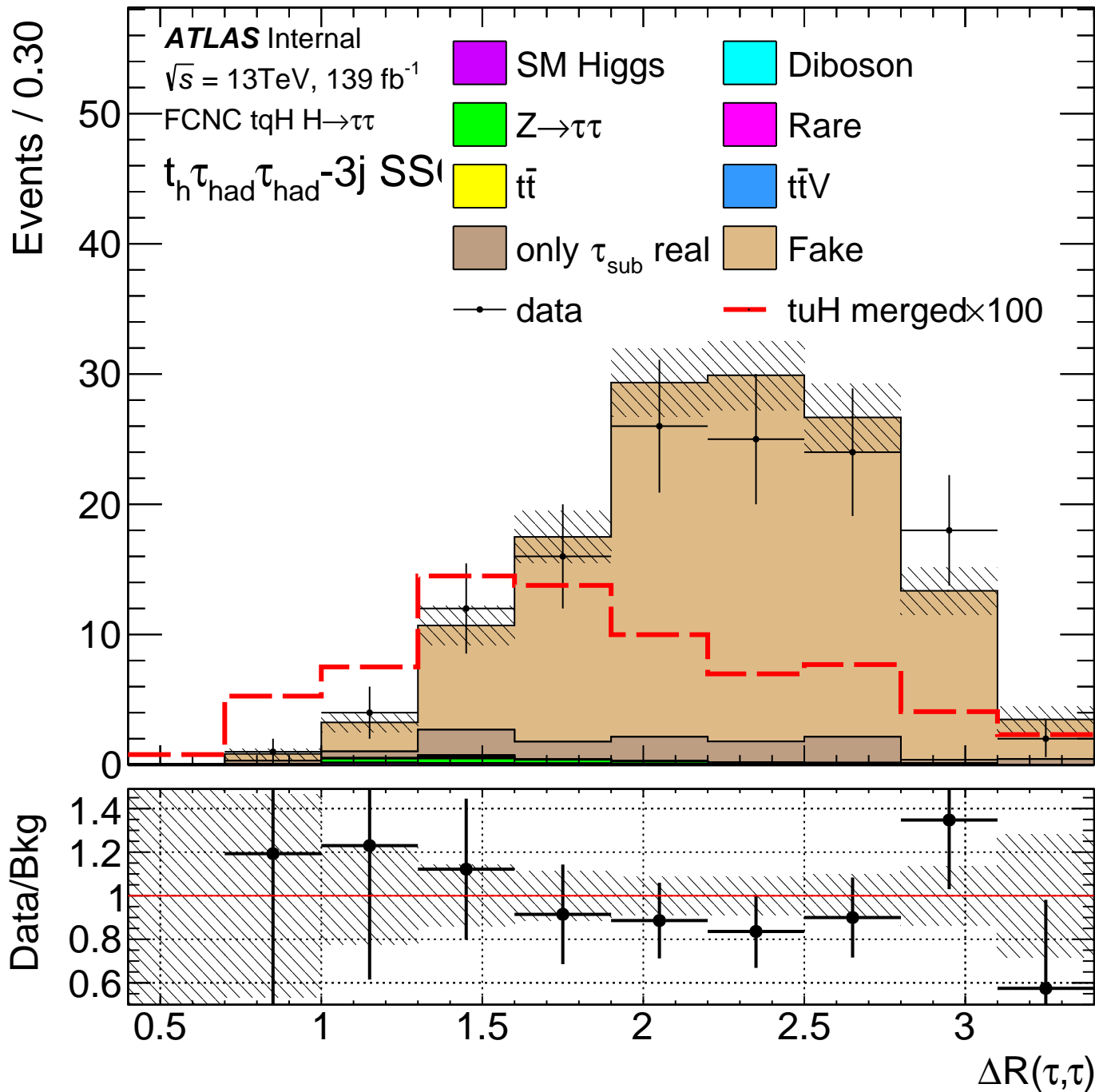
 $\Delta R(\tau, \tau)$











Events / 0.30

**ATLAS** Internal $\sqrt{s} = 13\text{TeV}, 139\text{ fb}^{-1}$ FCNC tqH  $H \rightarrow \tau\tau$  $t_h \tau_{\text{had}} \tau_{\text{had}} -3j \text{ SS}($ 

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

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

50

40

30

20

10

0

Data/Bkg

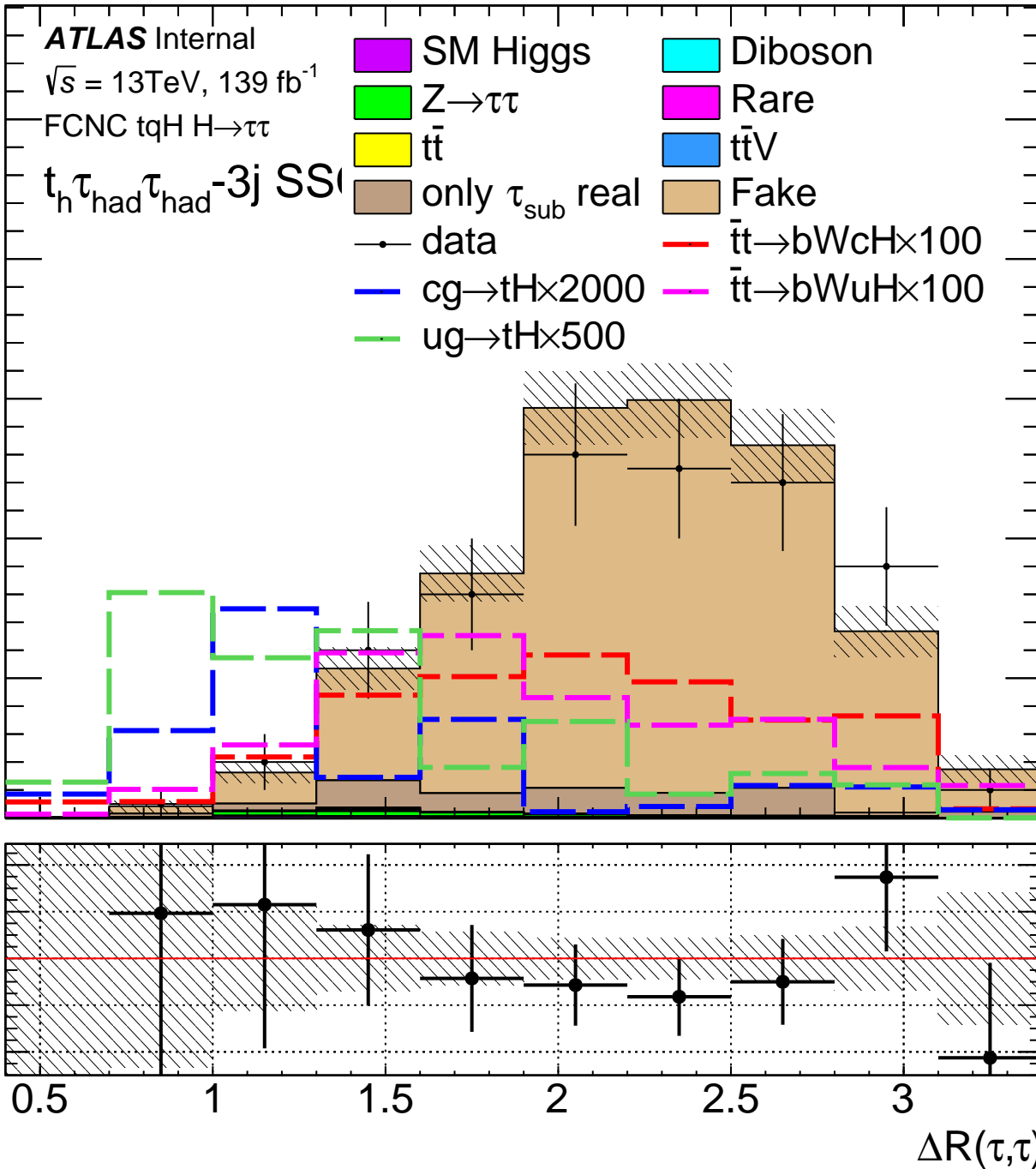
1.4

1.2

1.0

0.8

0.6

 $\Delta R(\tau, \tau)$