

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 τ_{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

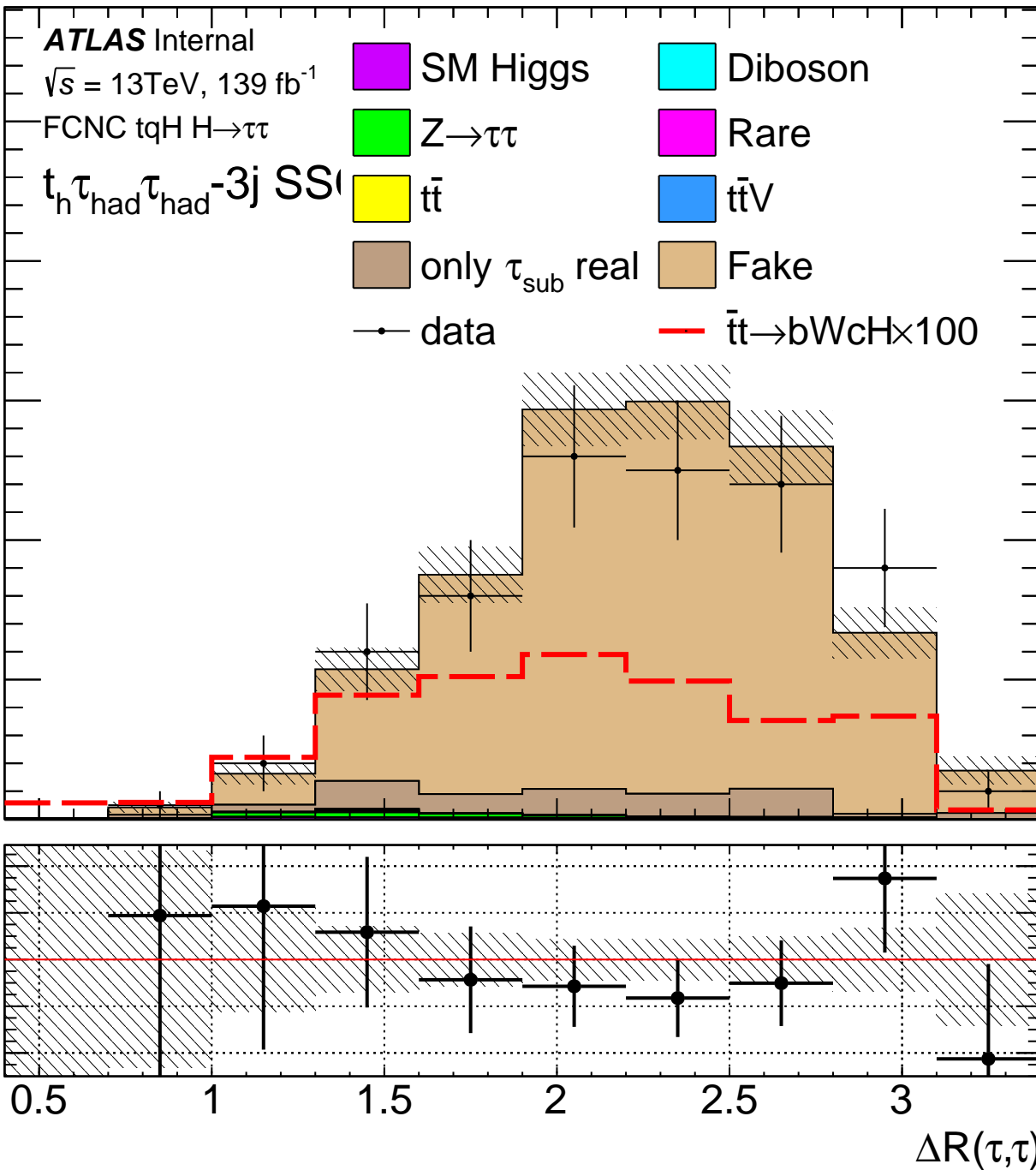
1.4

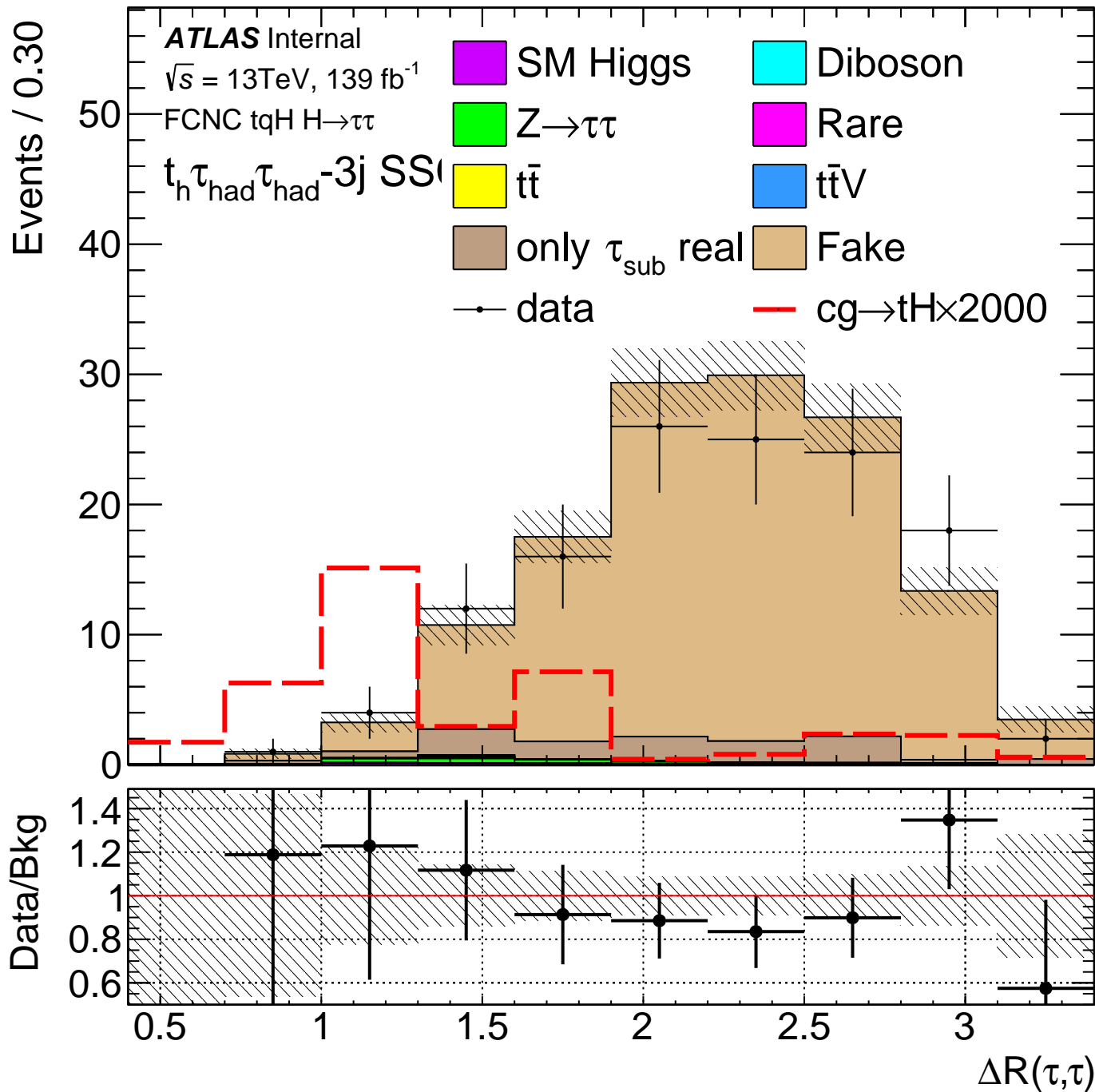
1.2

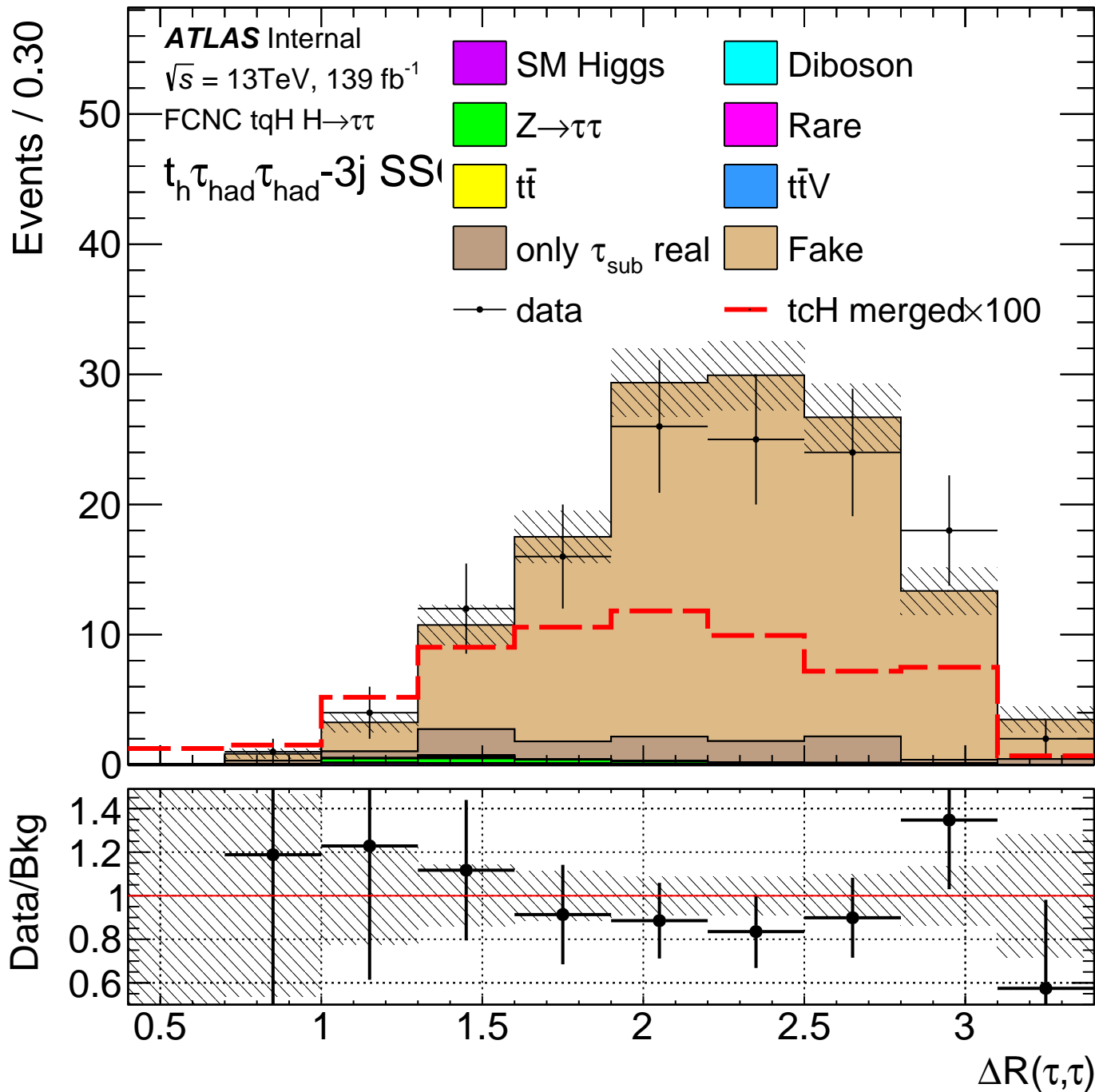
1.0

0.8

0.6

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





Events / 0.30

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SM Higgs

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—•— data

Diboson

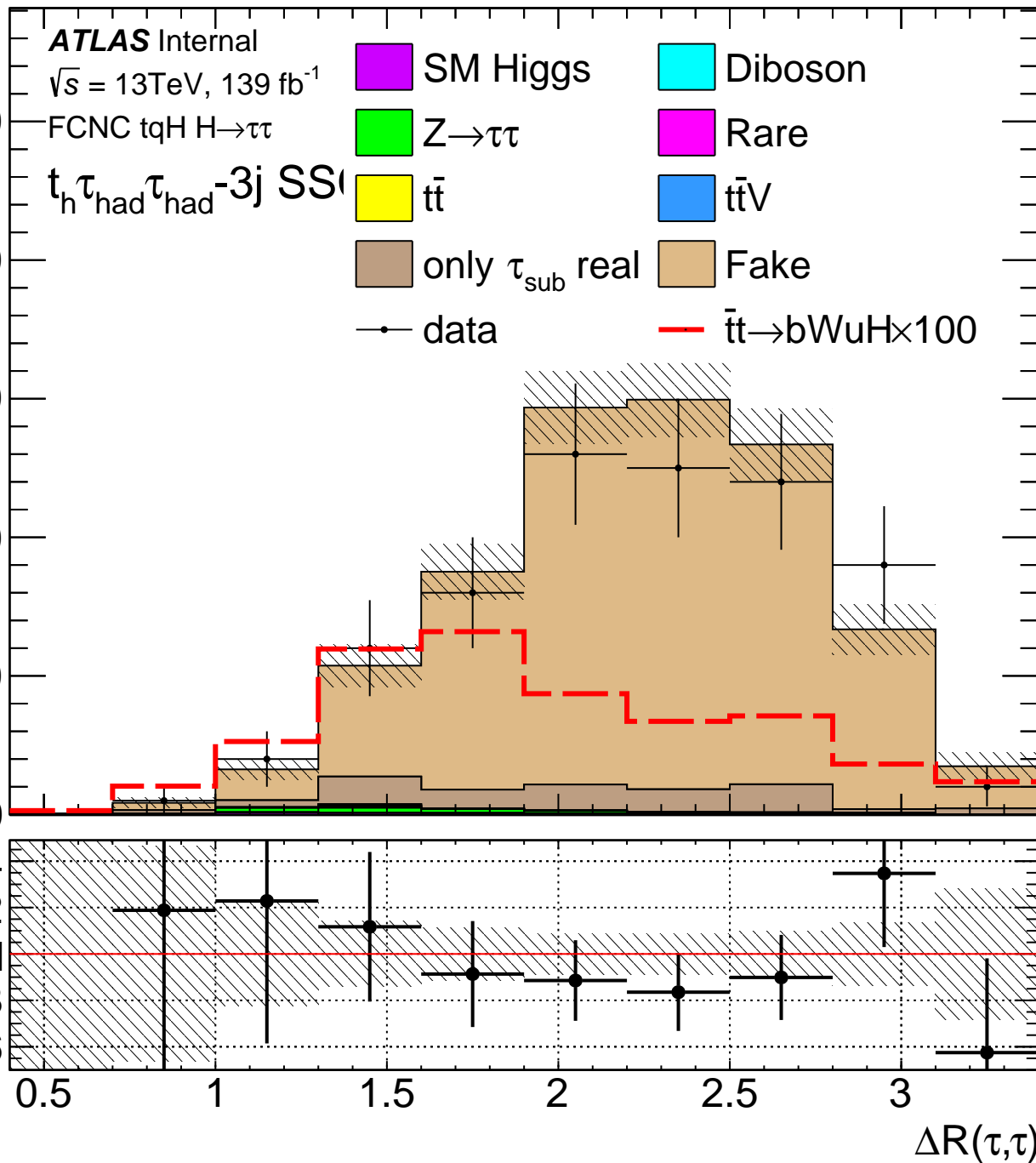
Rare

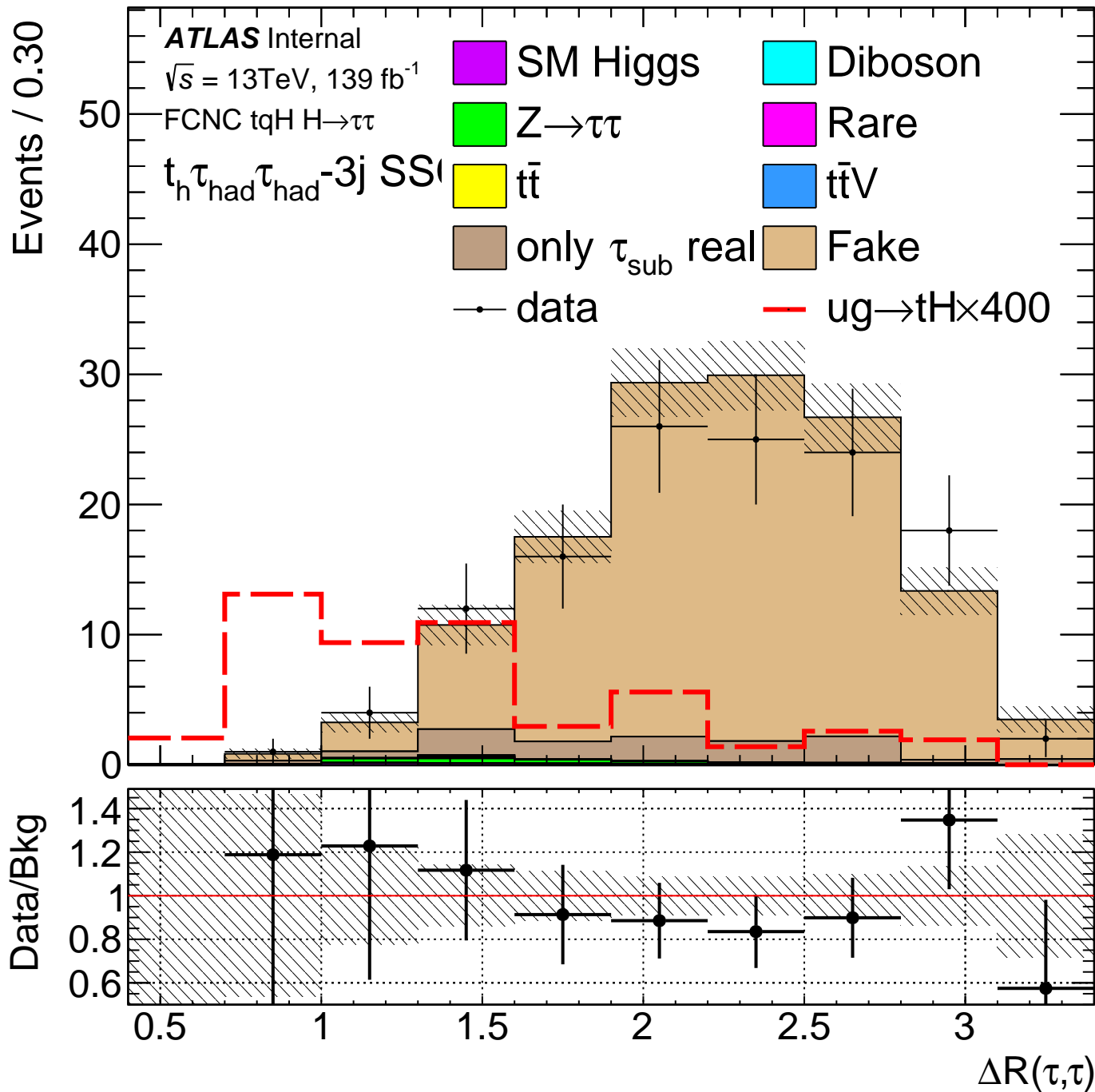
 $t\bar{t}V$

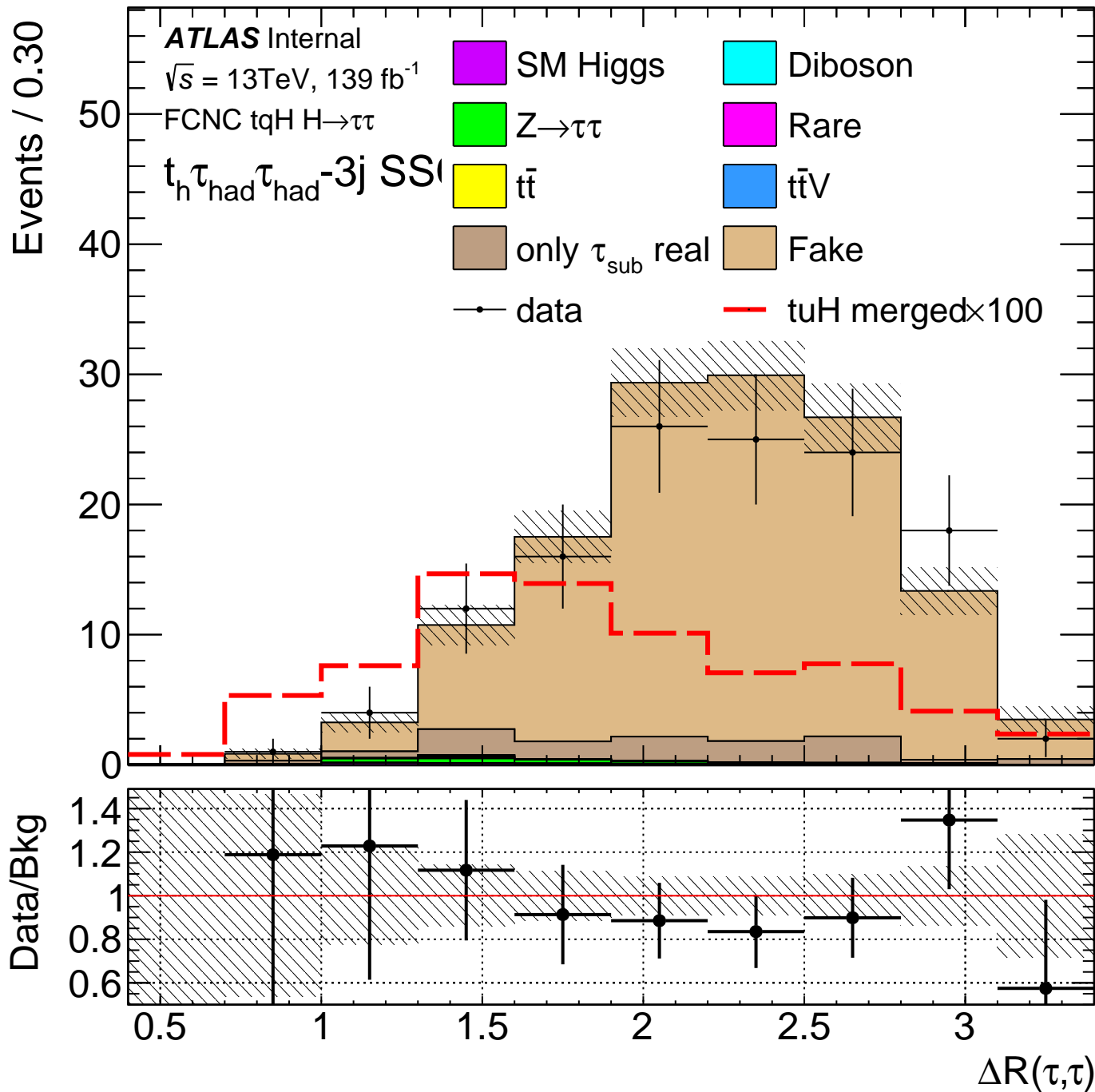
Fake

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

Data/Bkg

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





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 τ_{sub} real

data

 $cg \rightarrow tH \times 2000$ $ug \rightarrow tH \times 400$

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

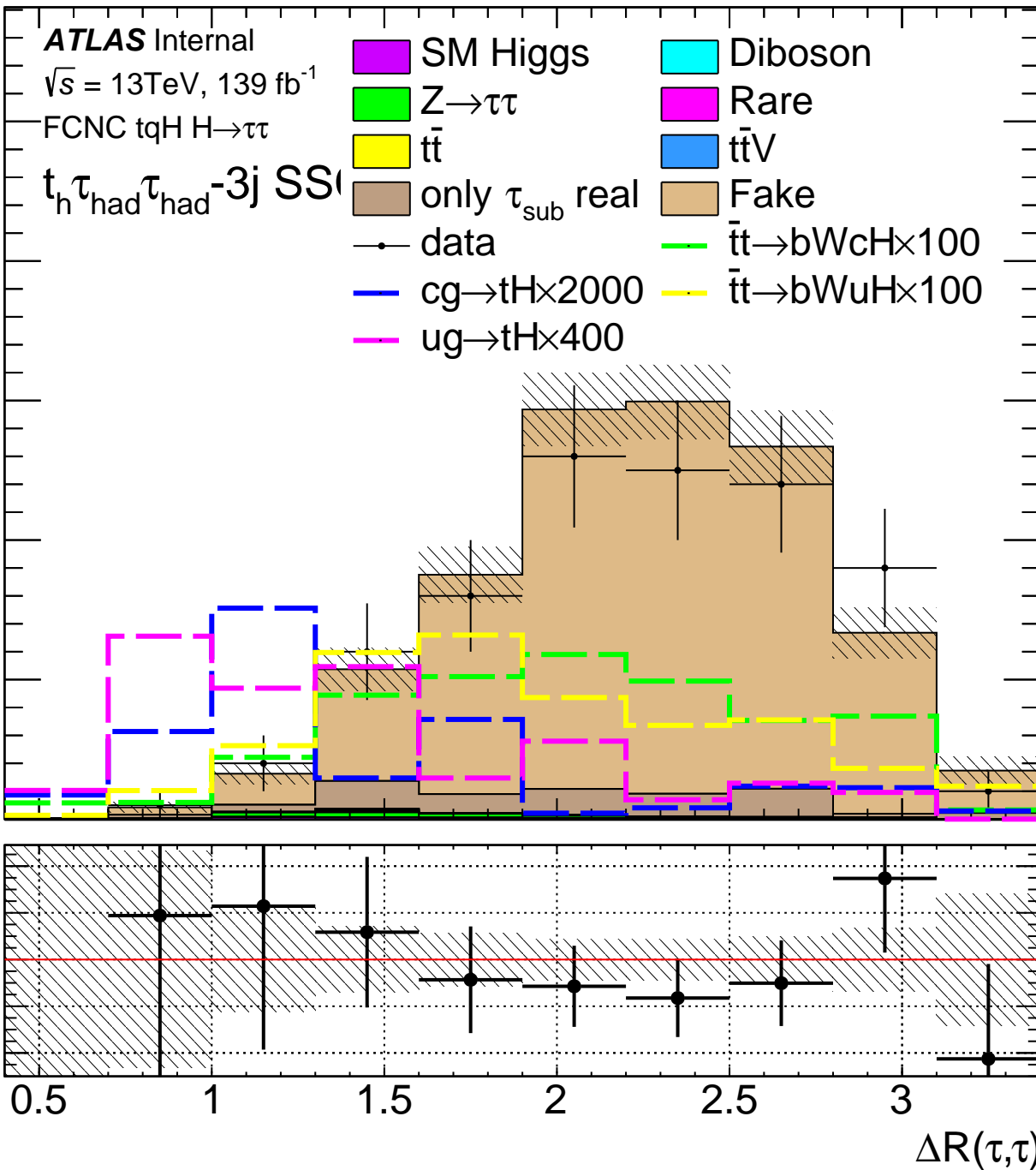
1.4

1.2

1.0

0.8

0.6

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