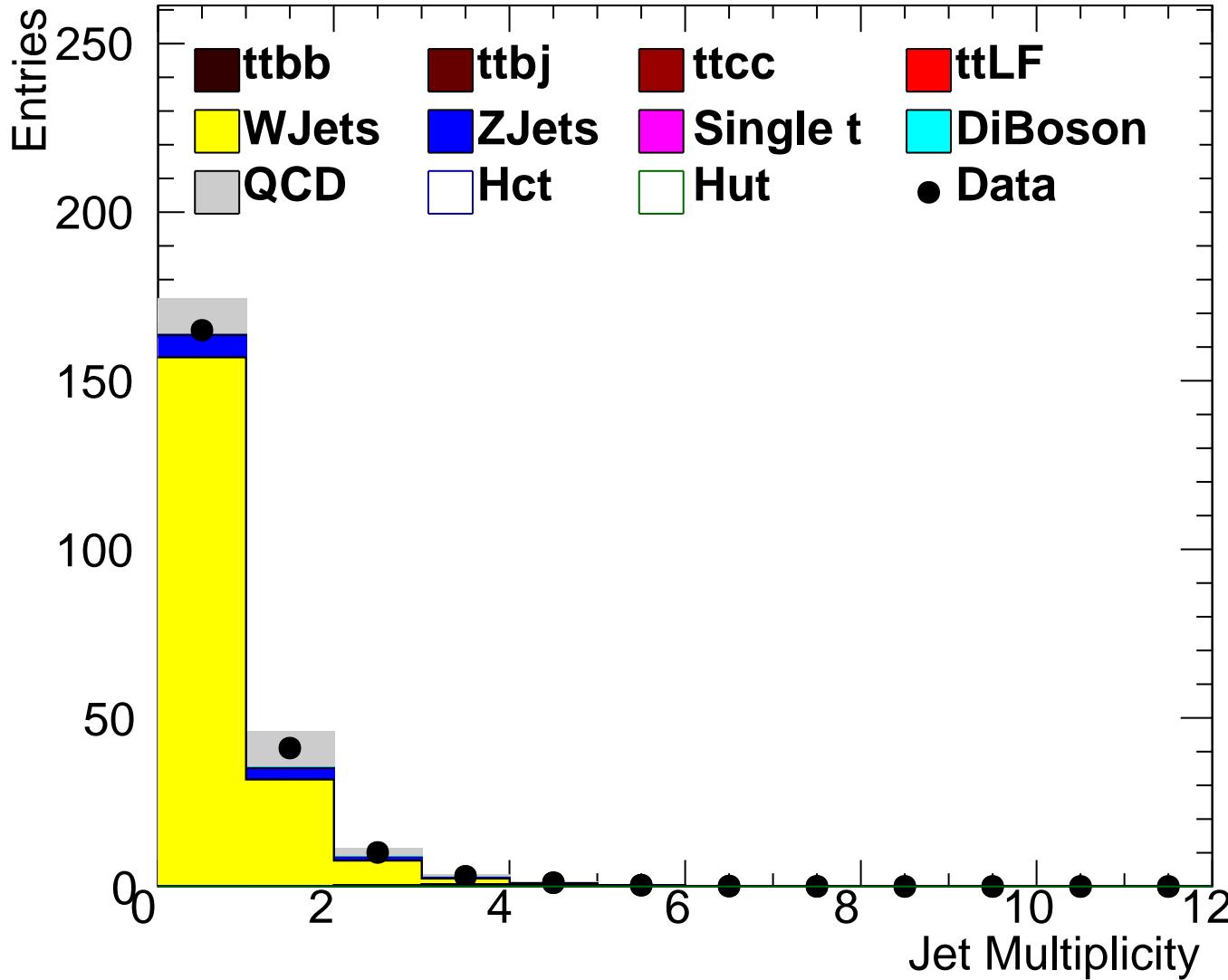
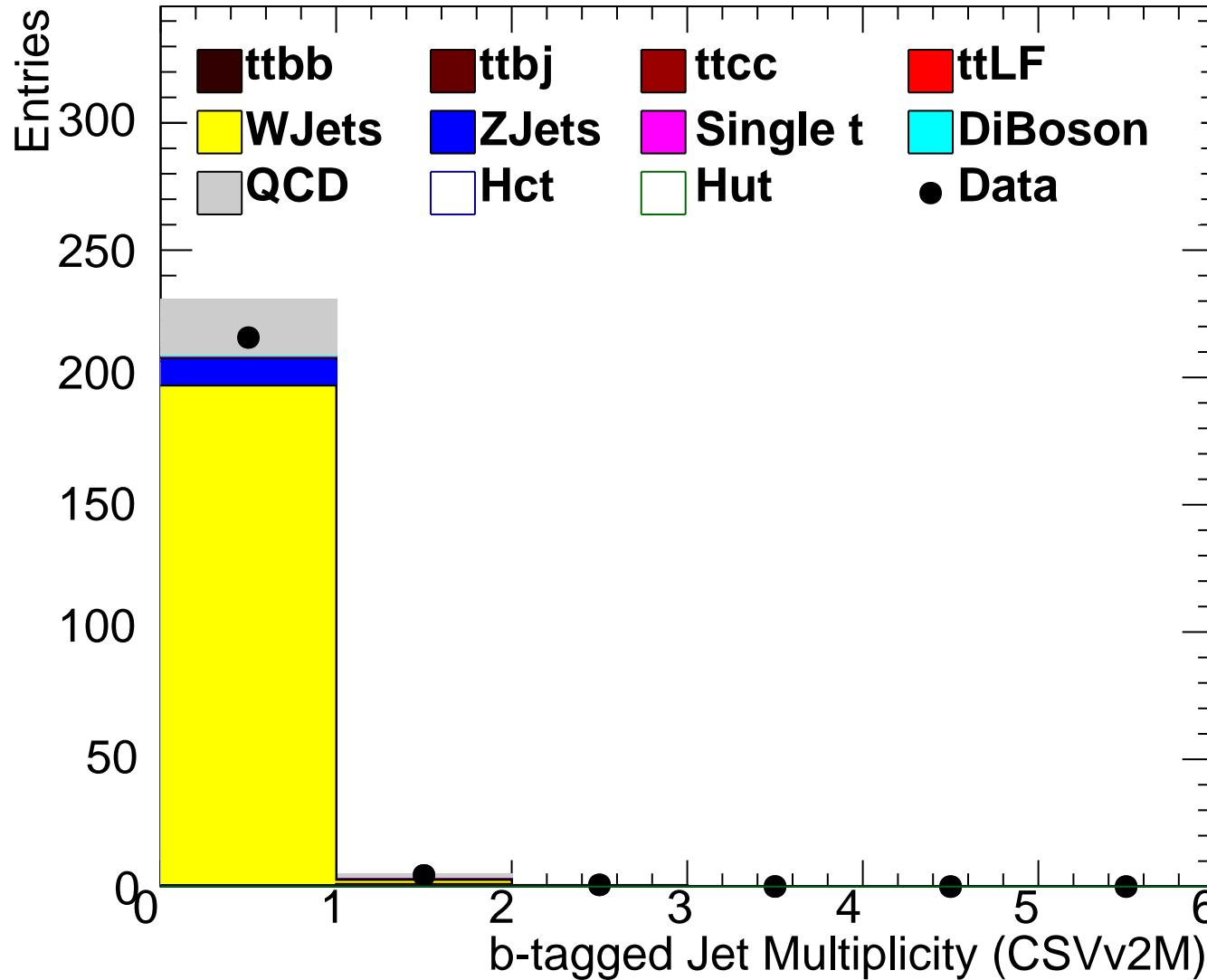


Ch0_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch0_so

6

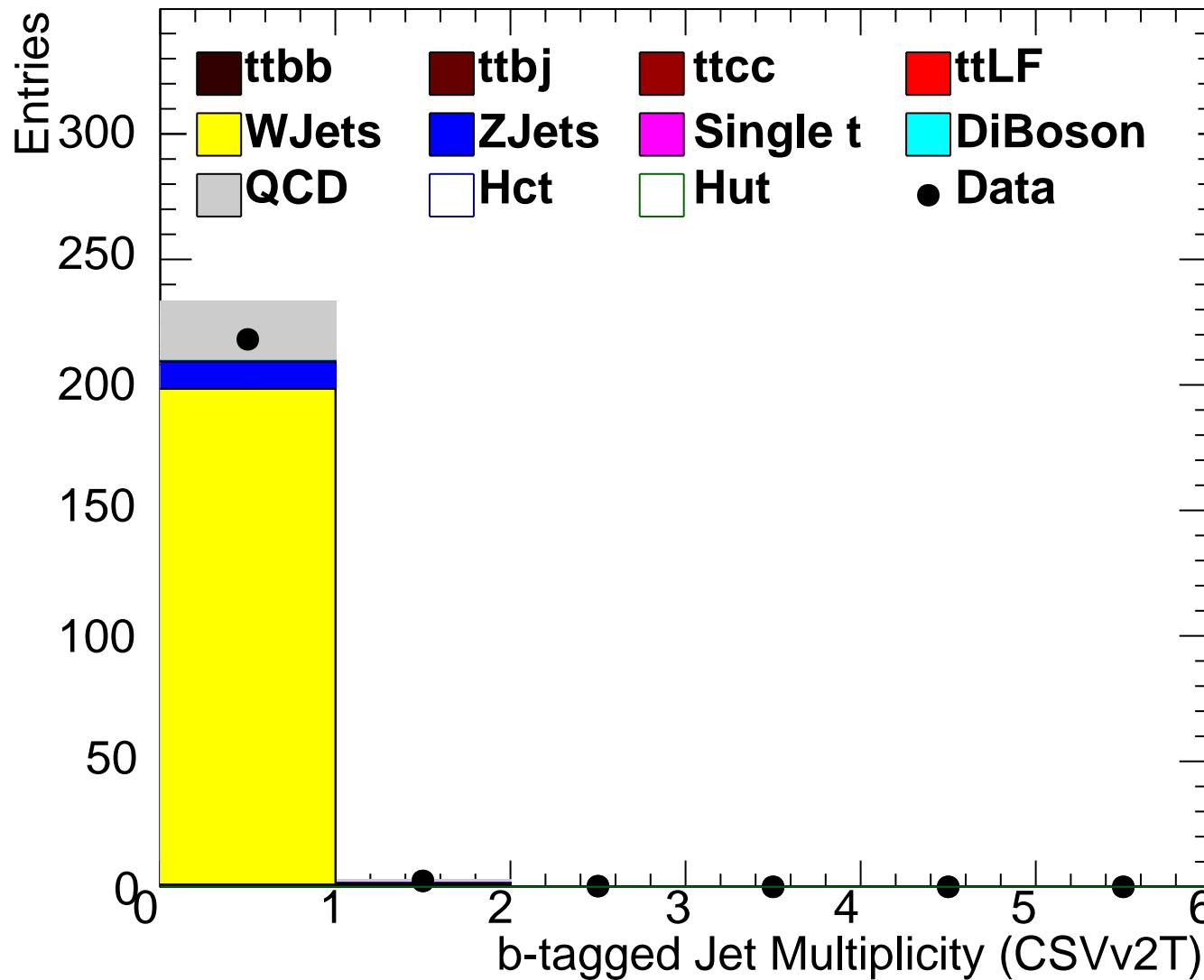
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_so

6

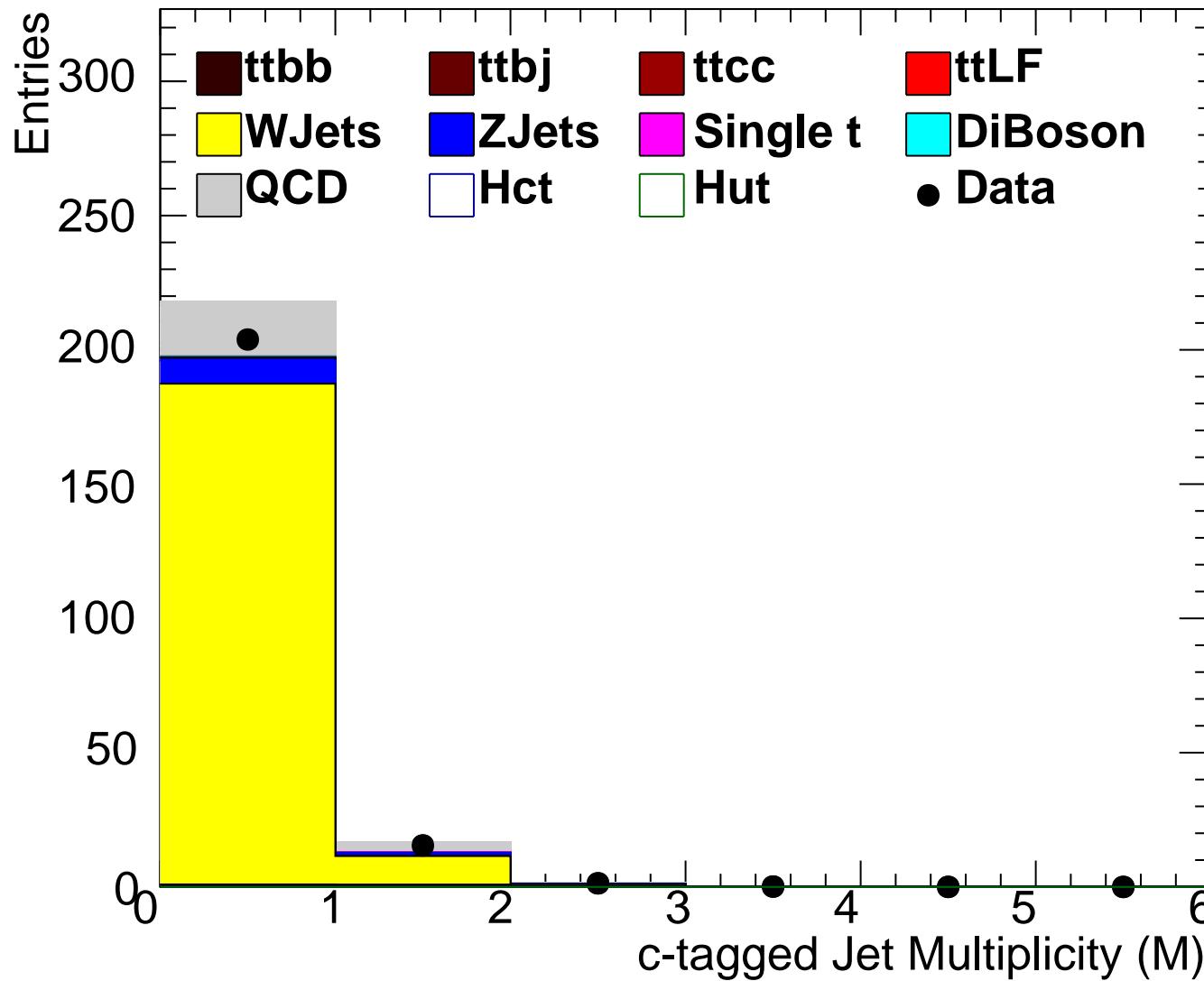
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_so

6

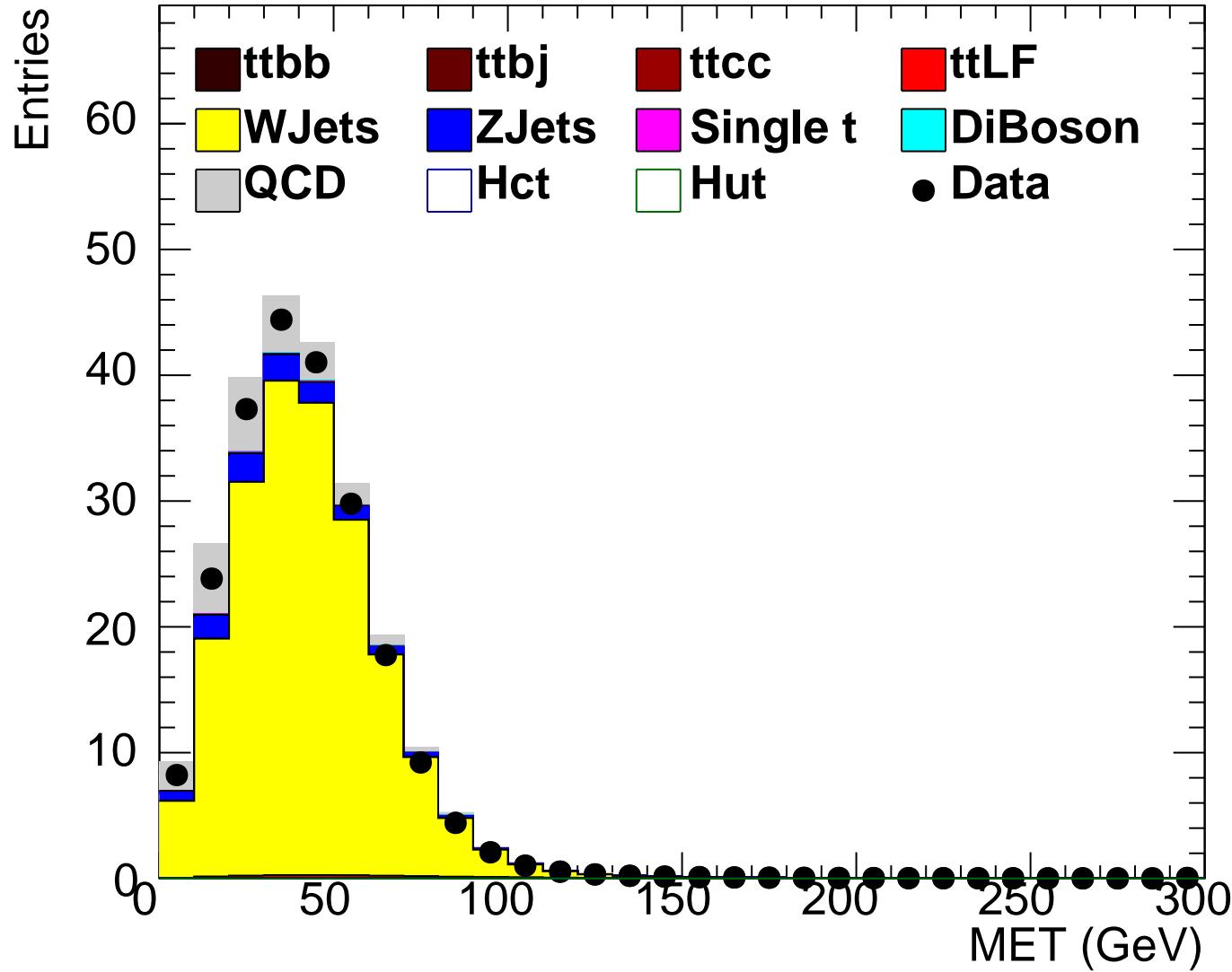
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_so

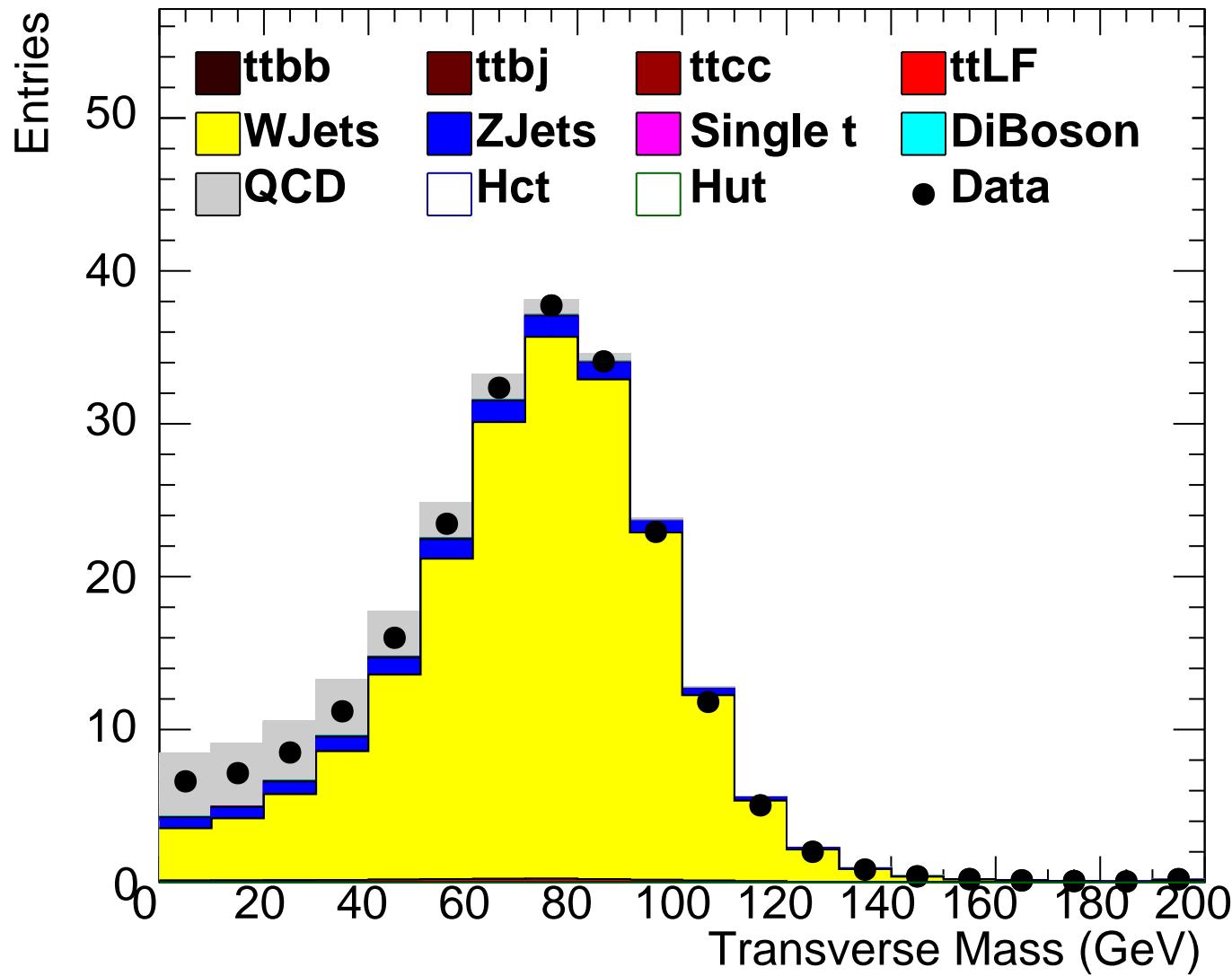
6

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_so

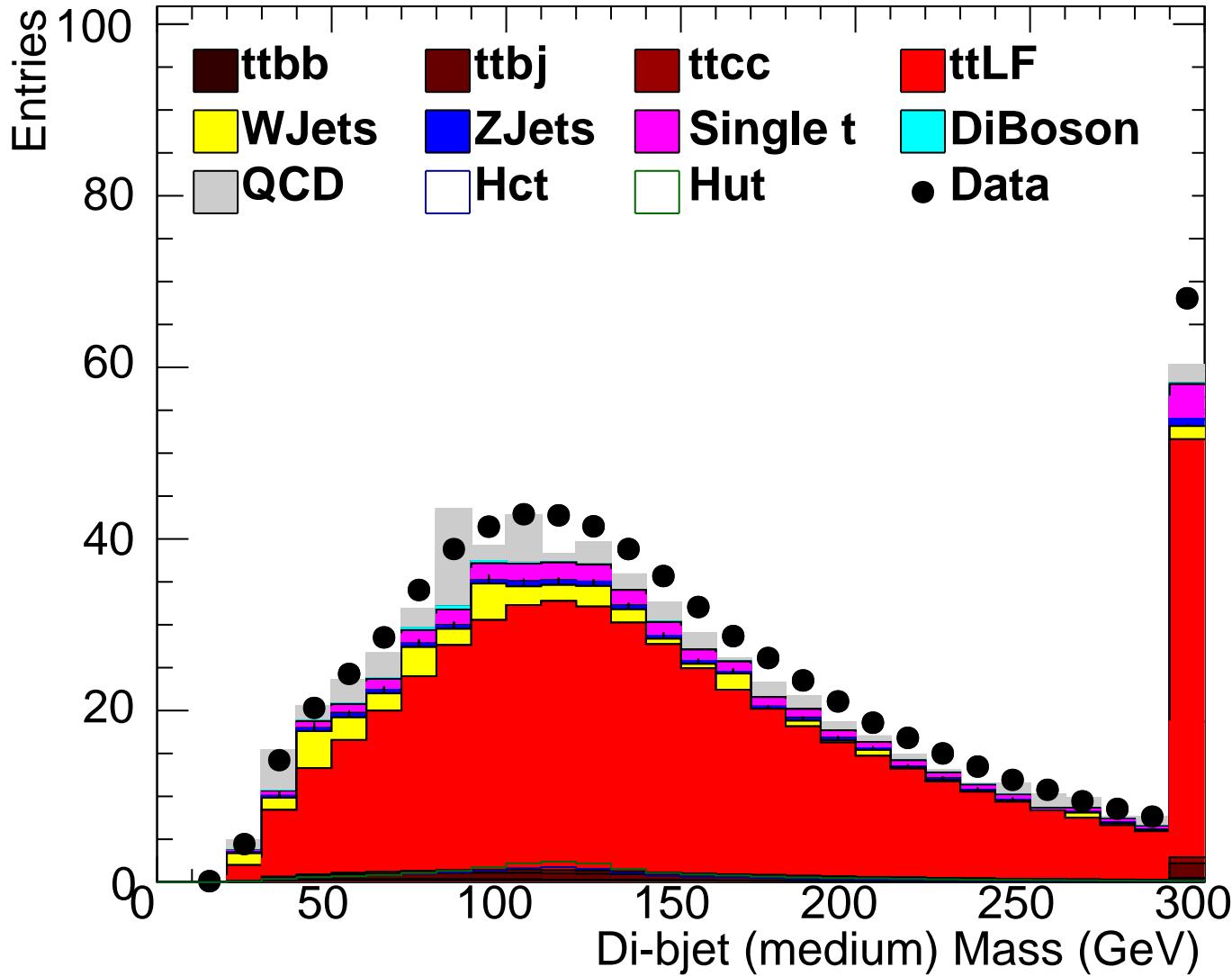
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

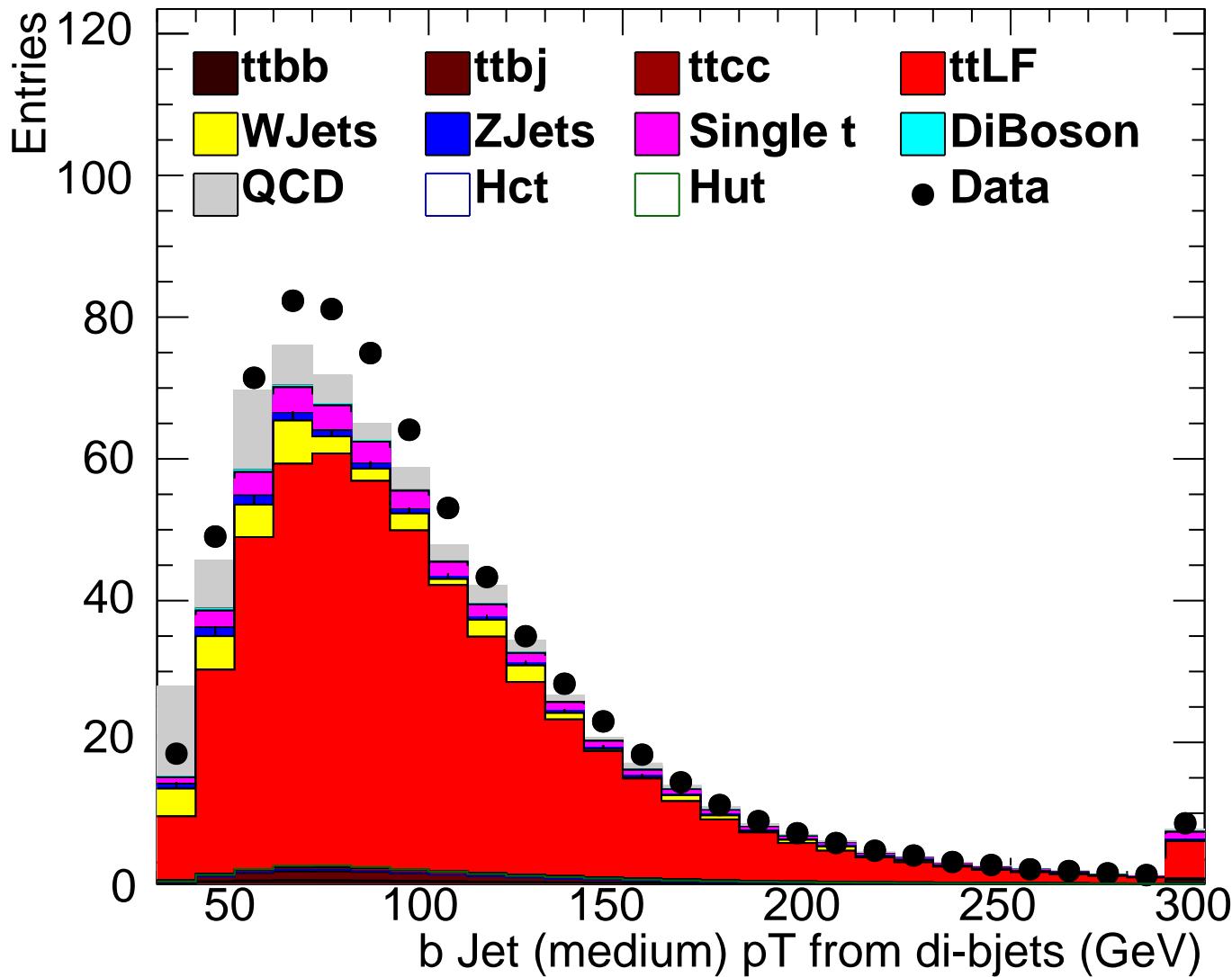


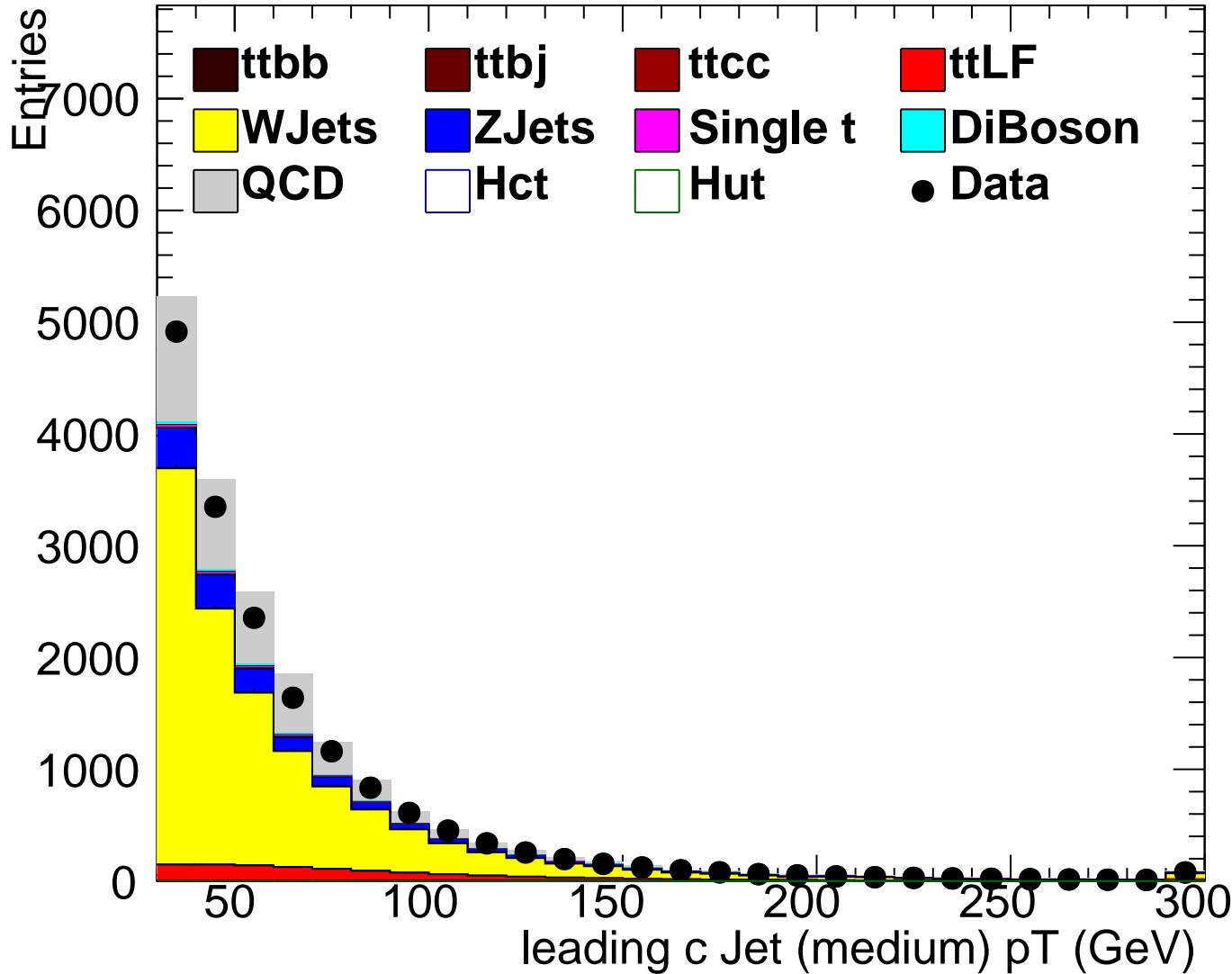
Ch0_S0

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S0x 10⁻³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch0_S0x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch0_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

16

14

12

10

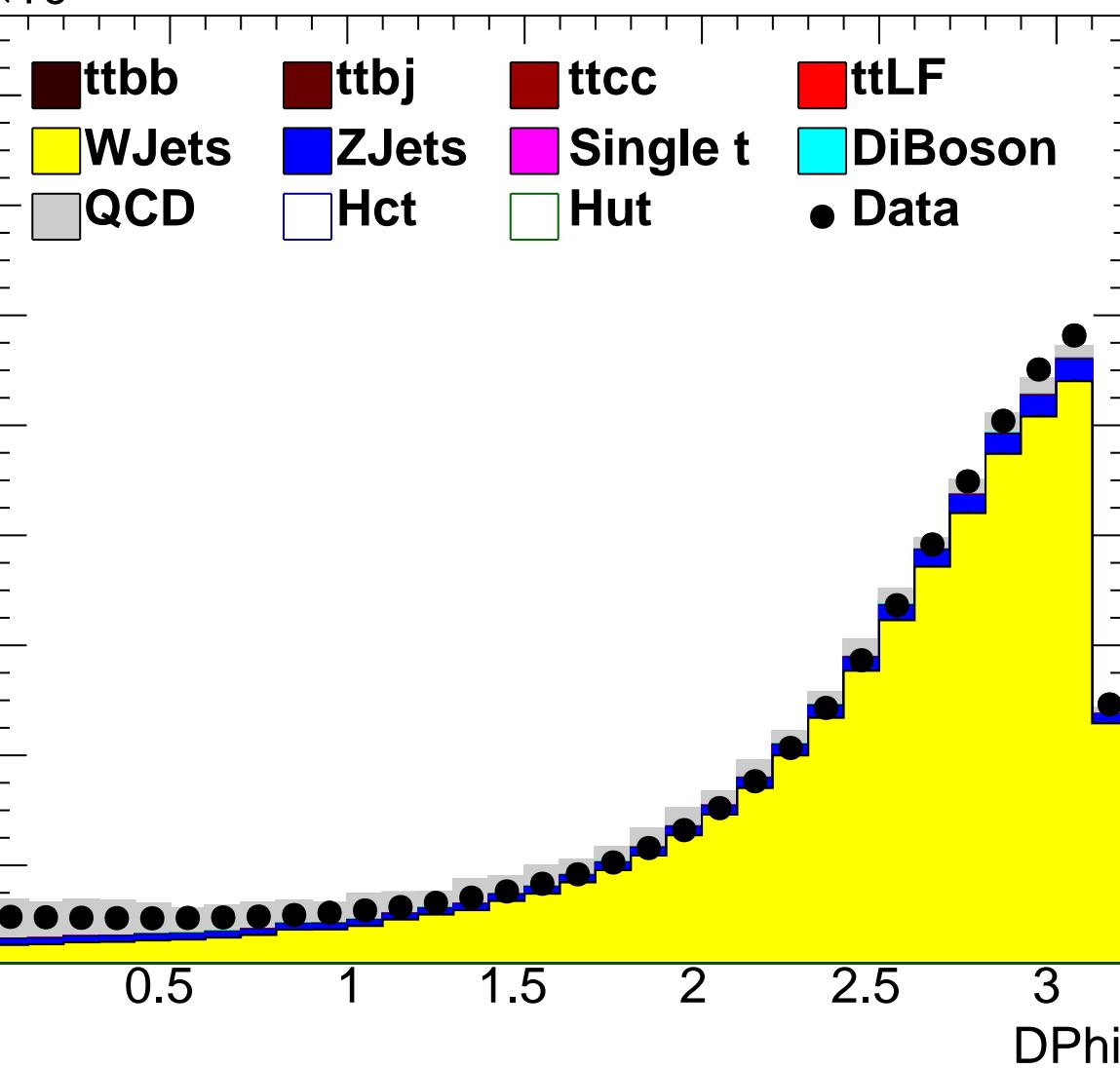
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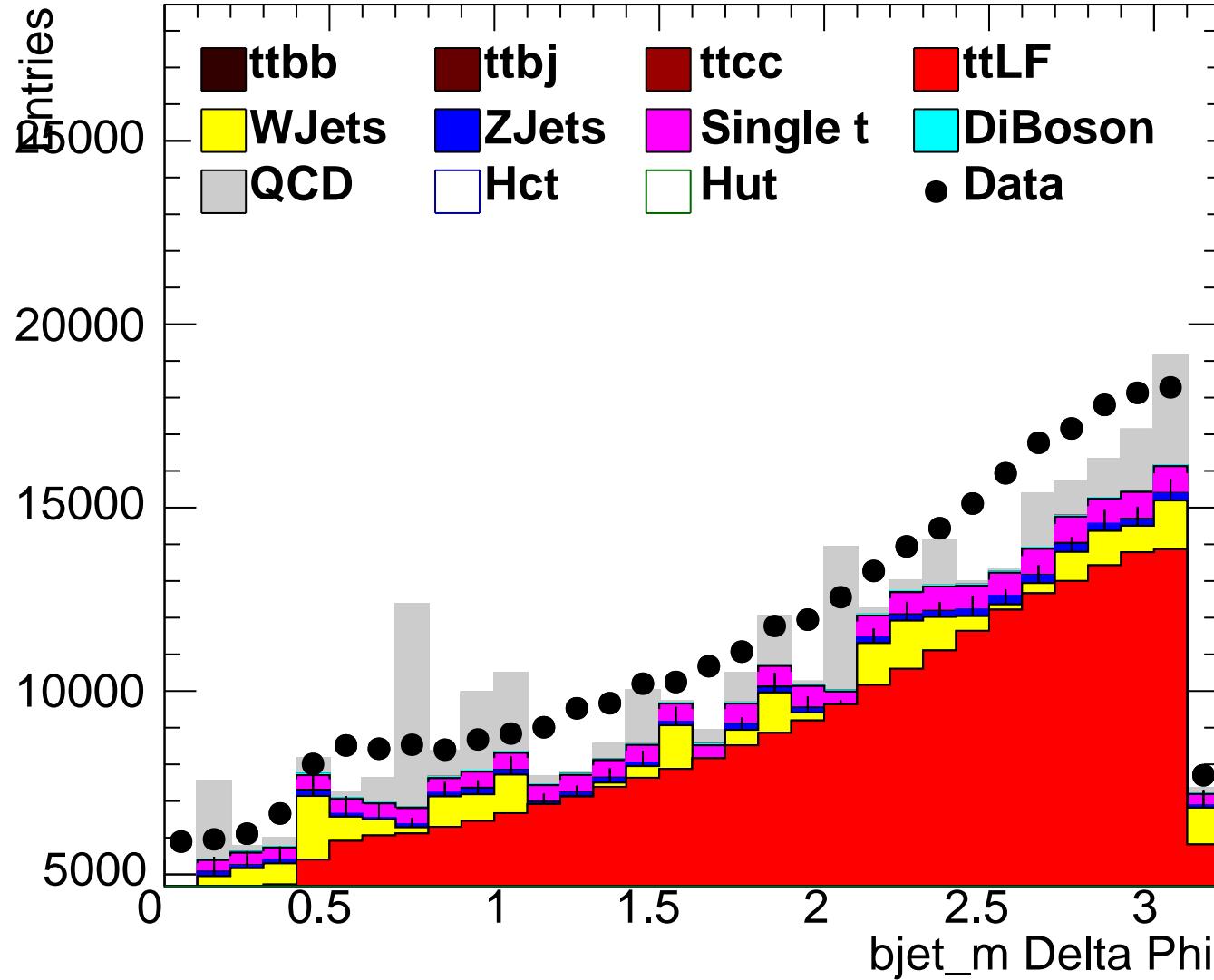
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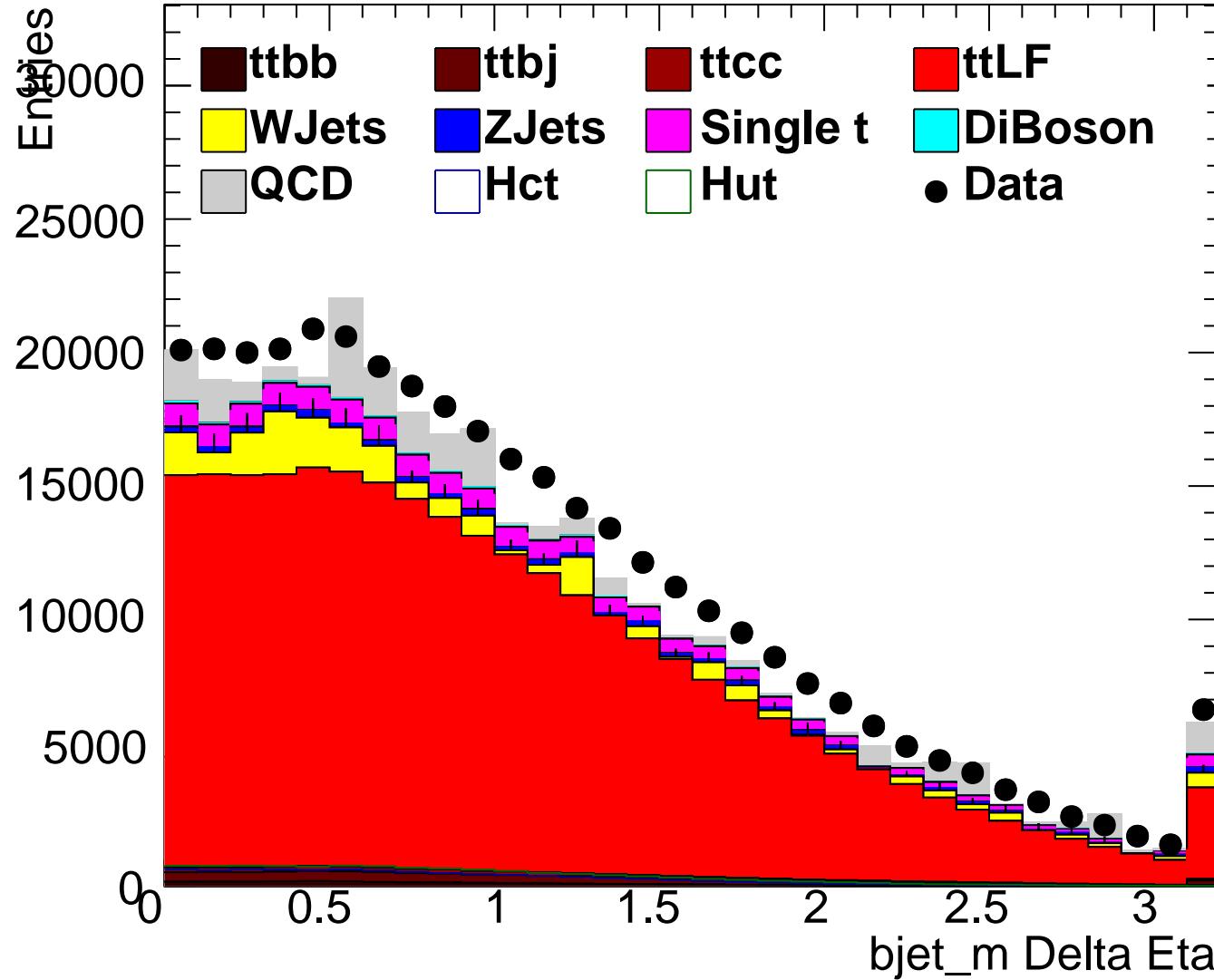
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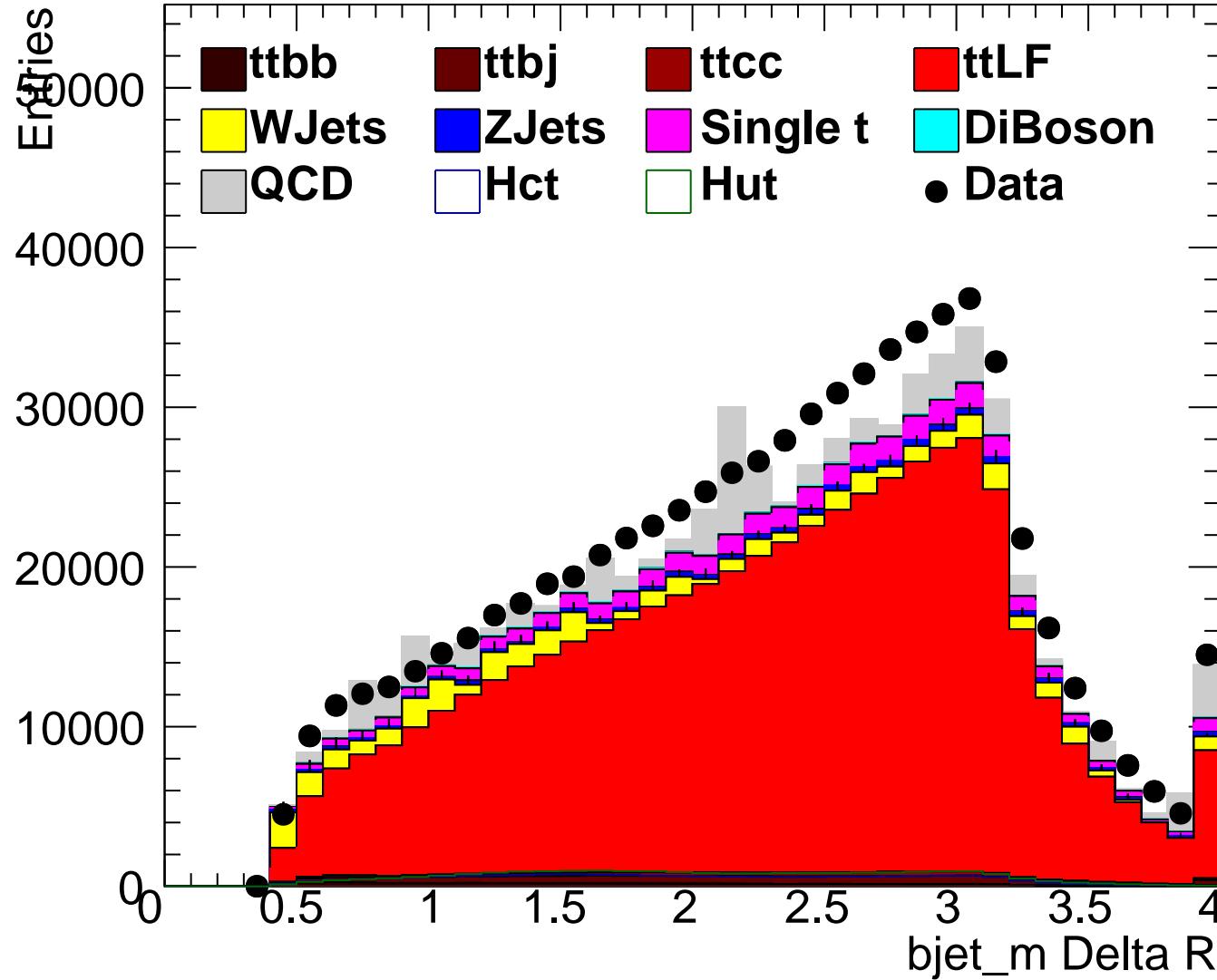
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0

x 10⁶

Ch0_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S0

$\times 10^6$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

140

120

100

80

60

40

20

0

0 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2

Relative Isolation

ttbb

ttbj

ttcc

ttLF

WJets

ZJets

Single t

DiBoson

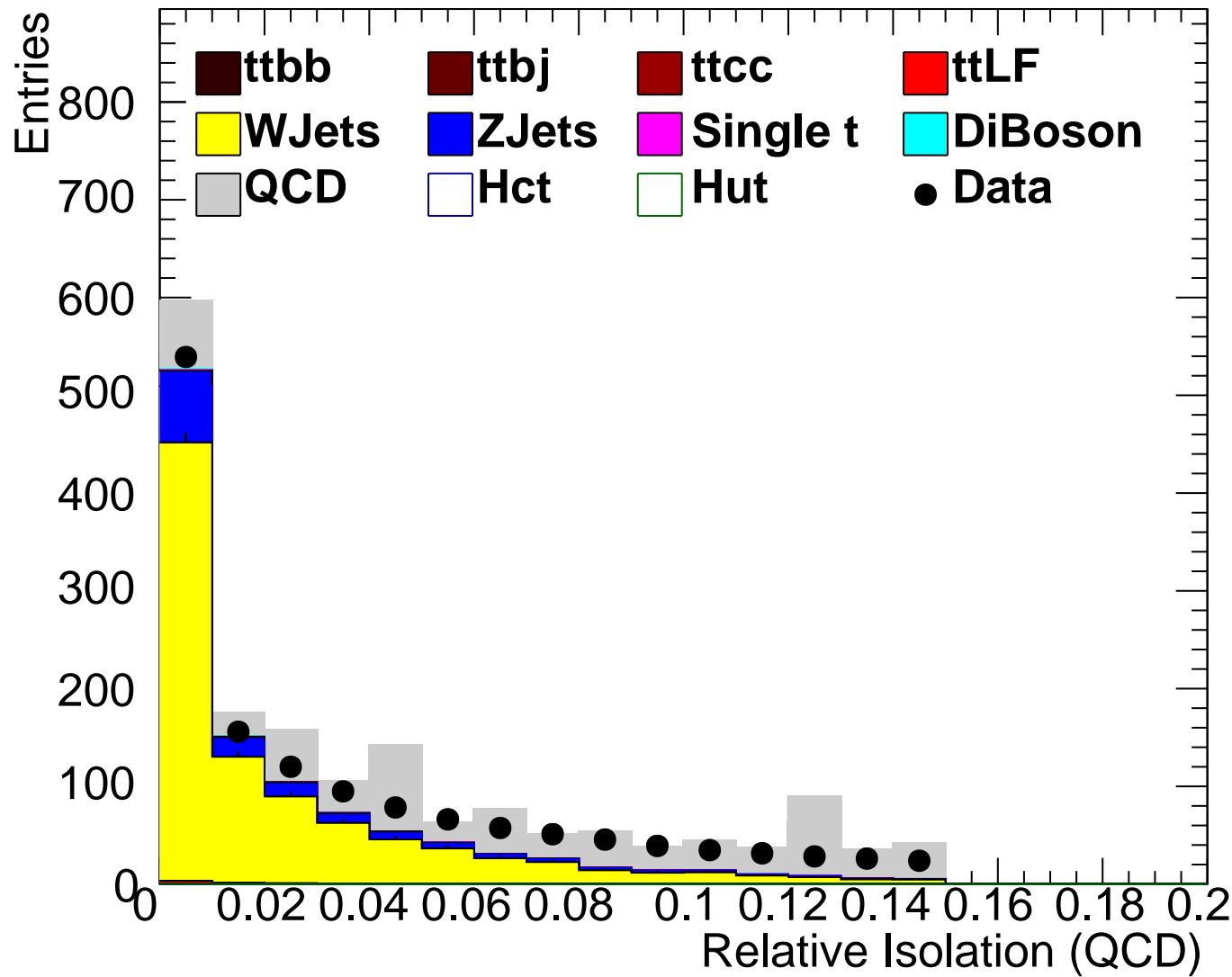
QCD

Hct

Hut

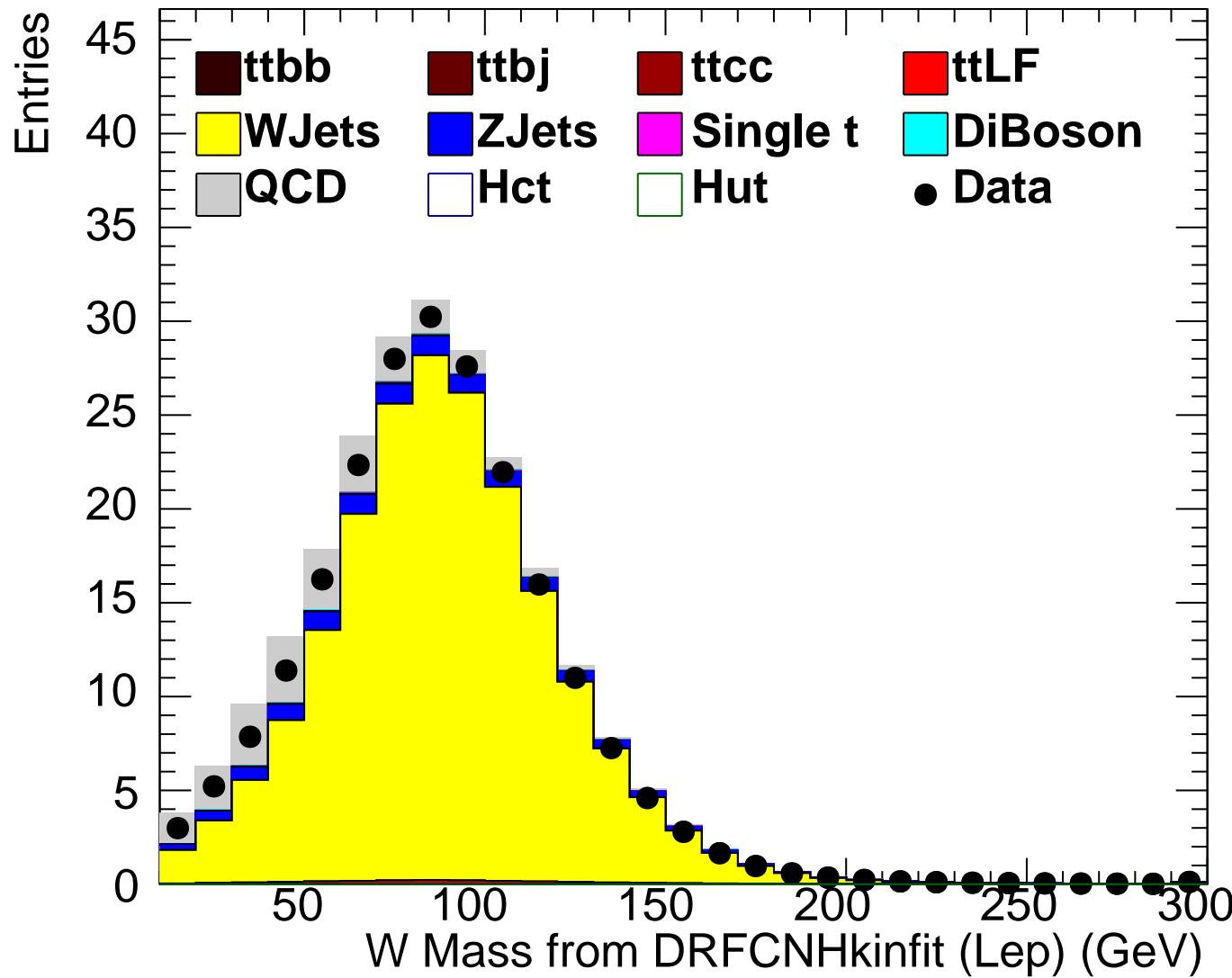
Data





Ch0_S0

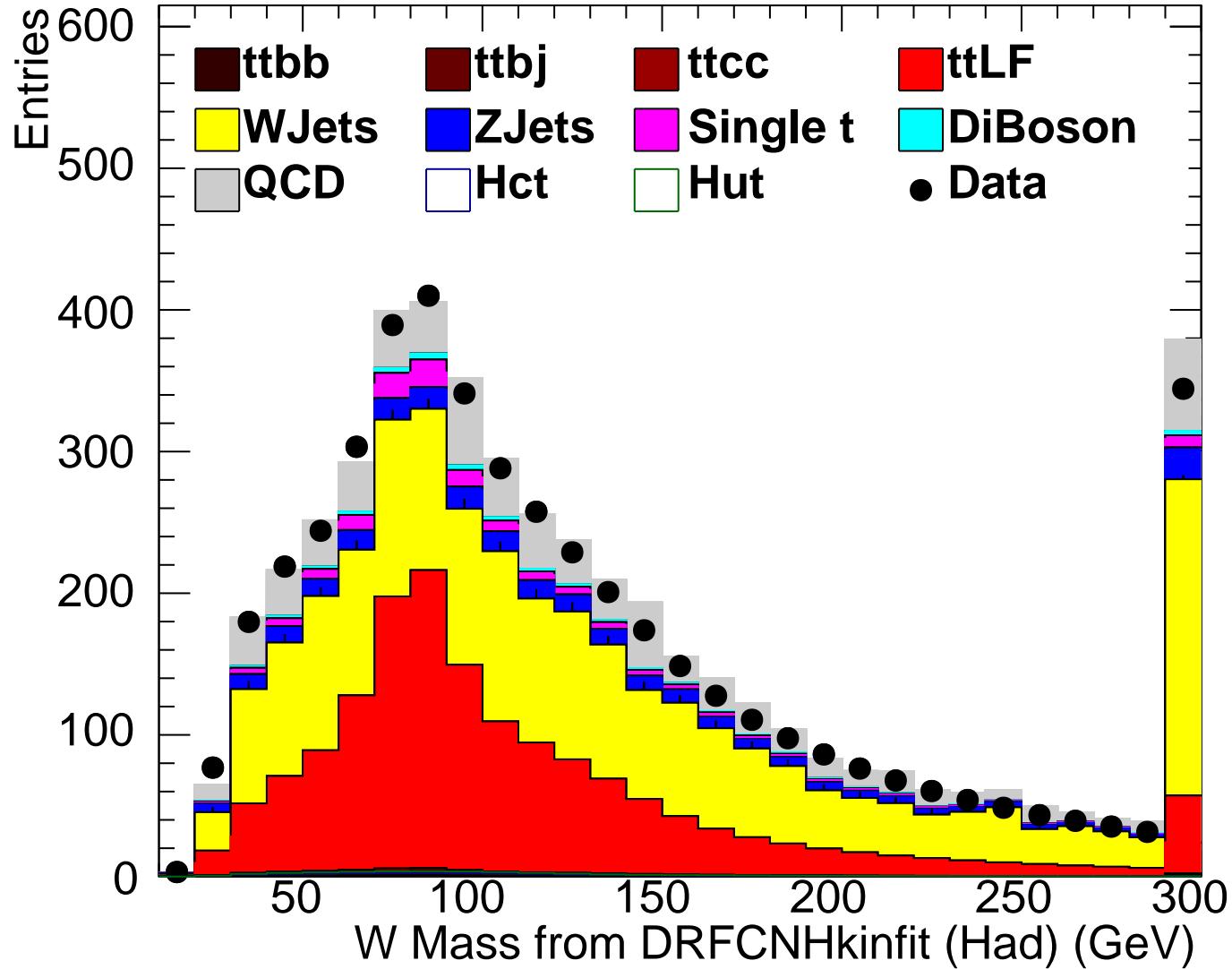
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch0_S0

$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S0

$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

600

500

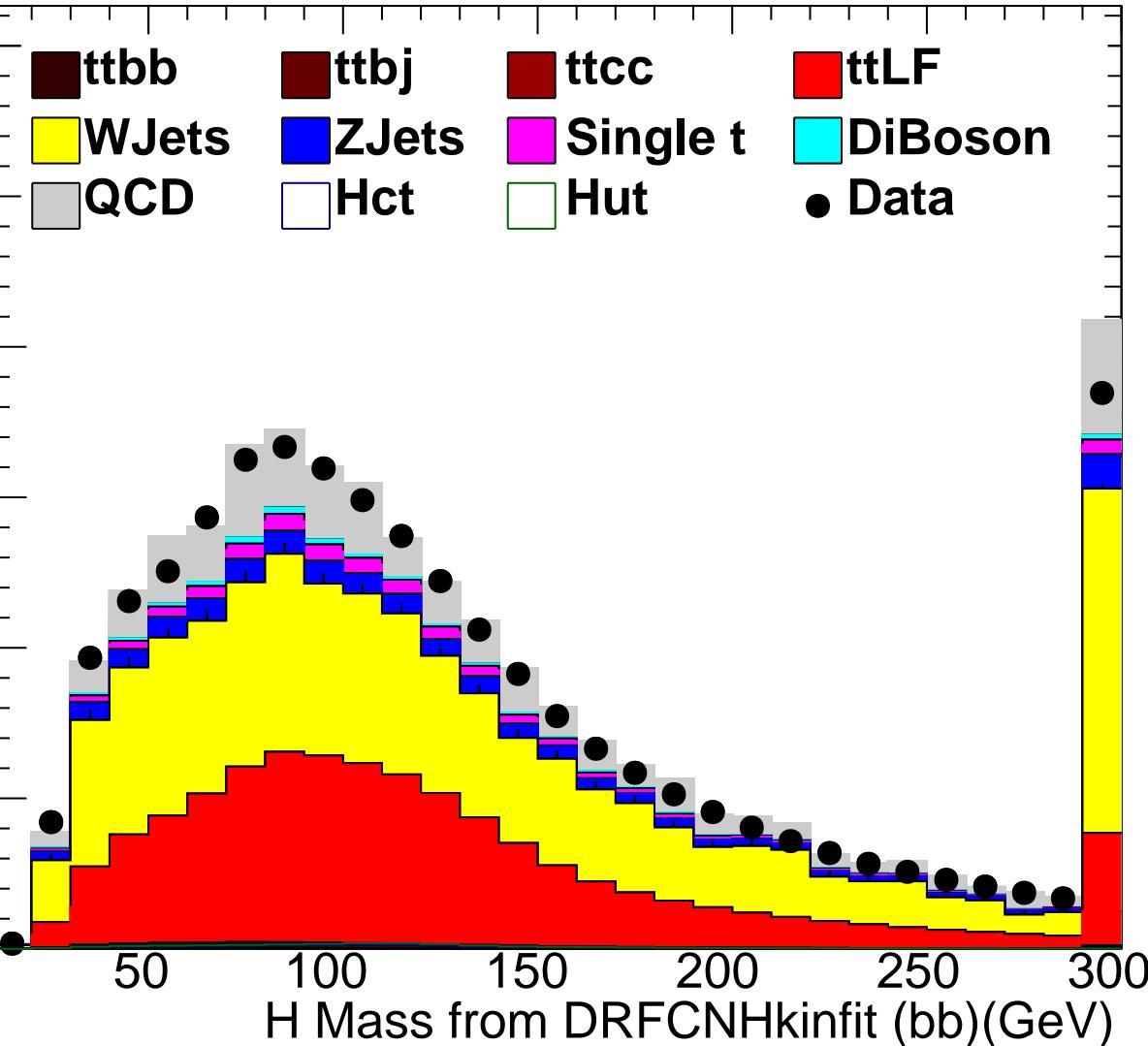
400

300

200

100

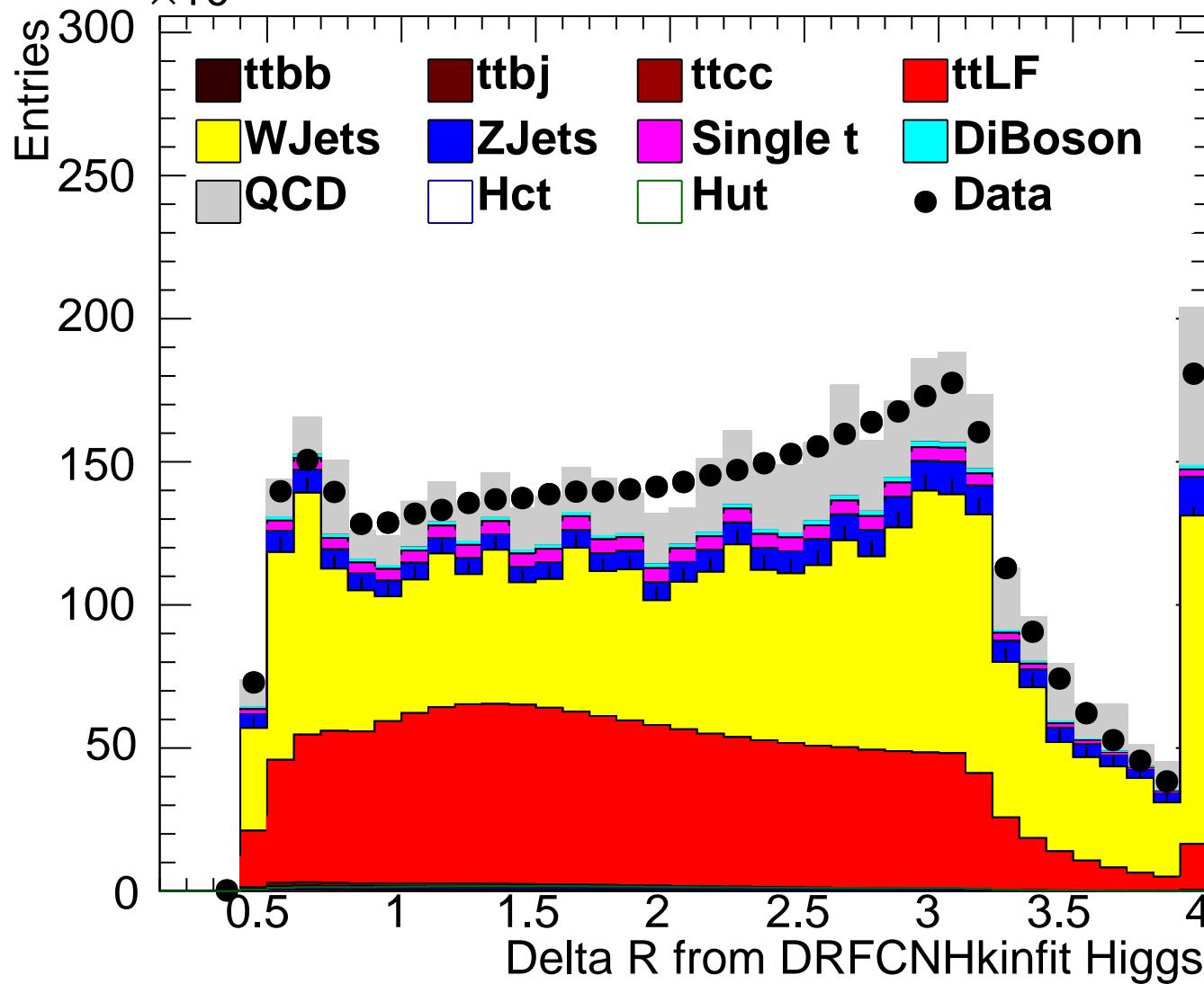
0



Ch0_S0

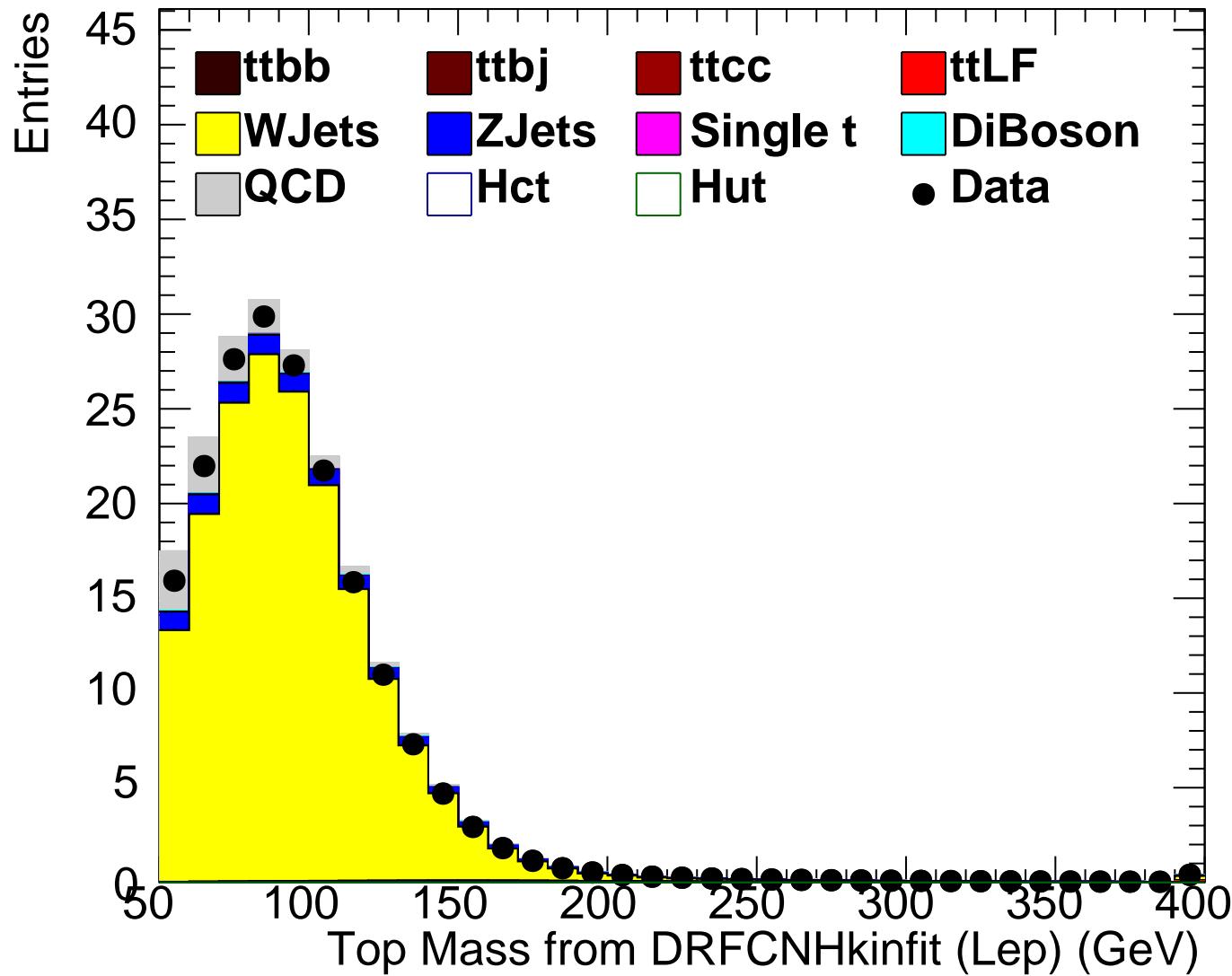
$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S0

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch0_S0

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

1000

800

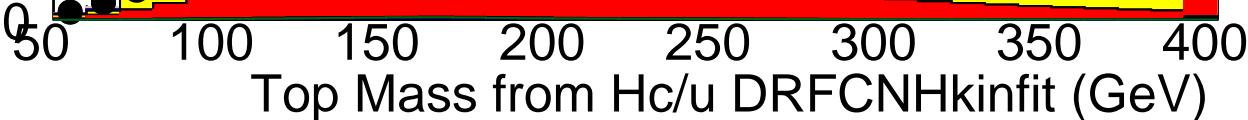
600

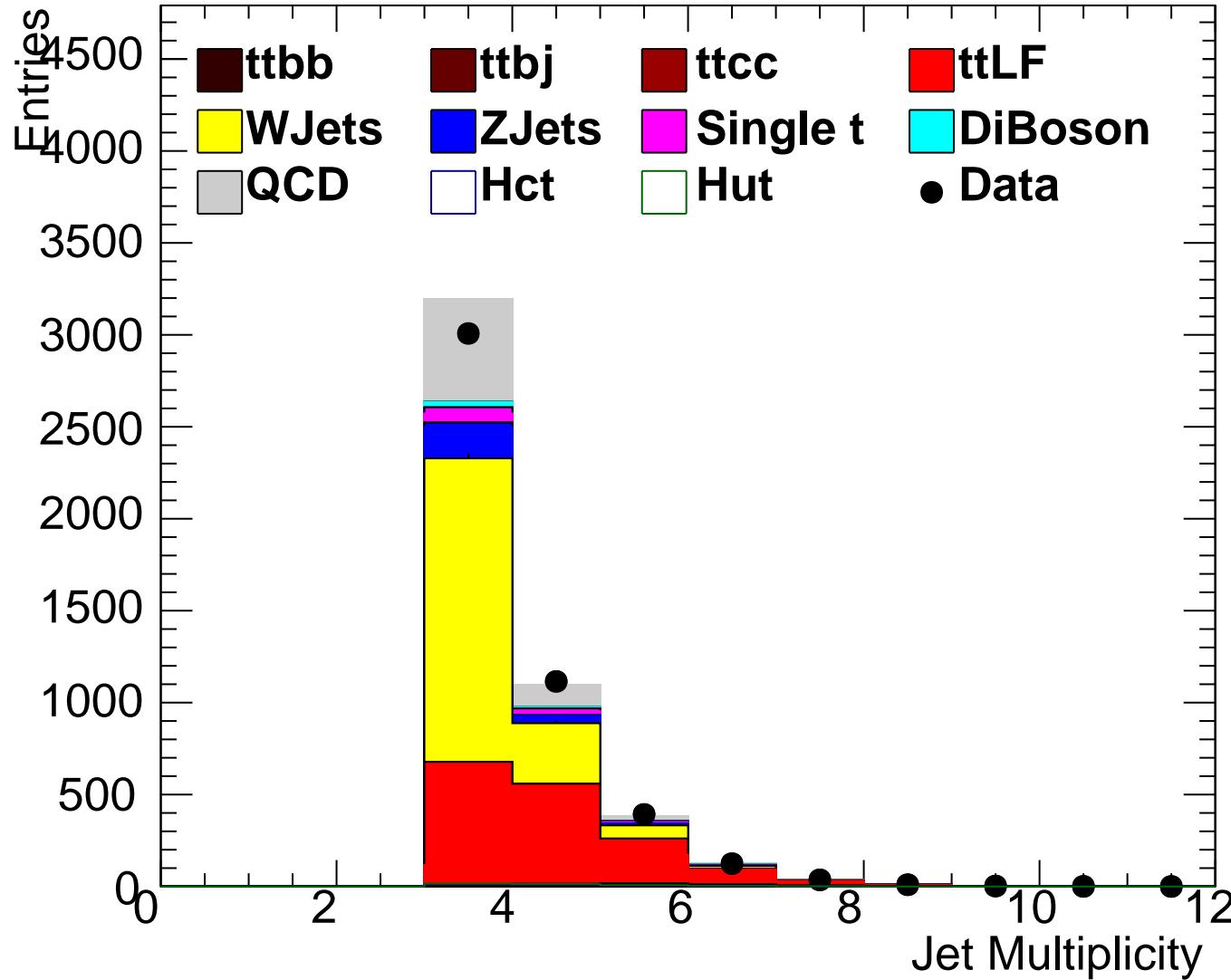
400

200

0

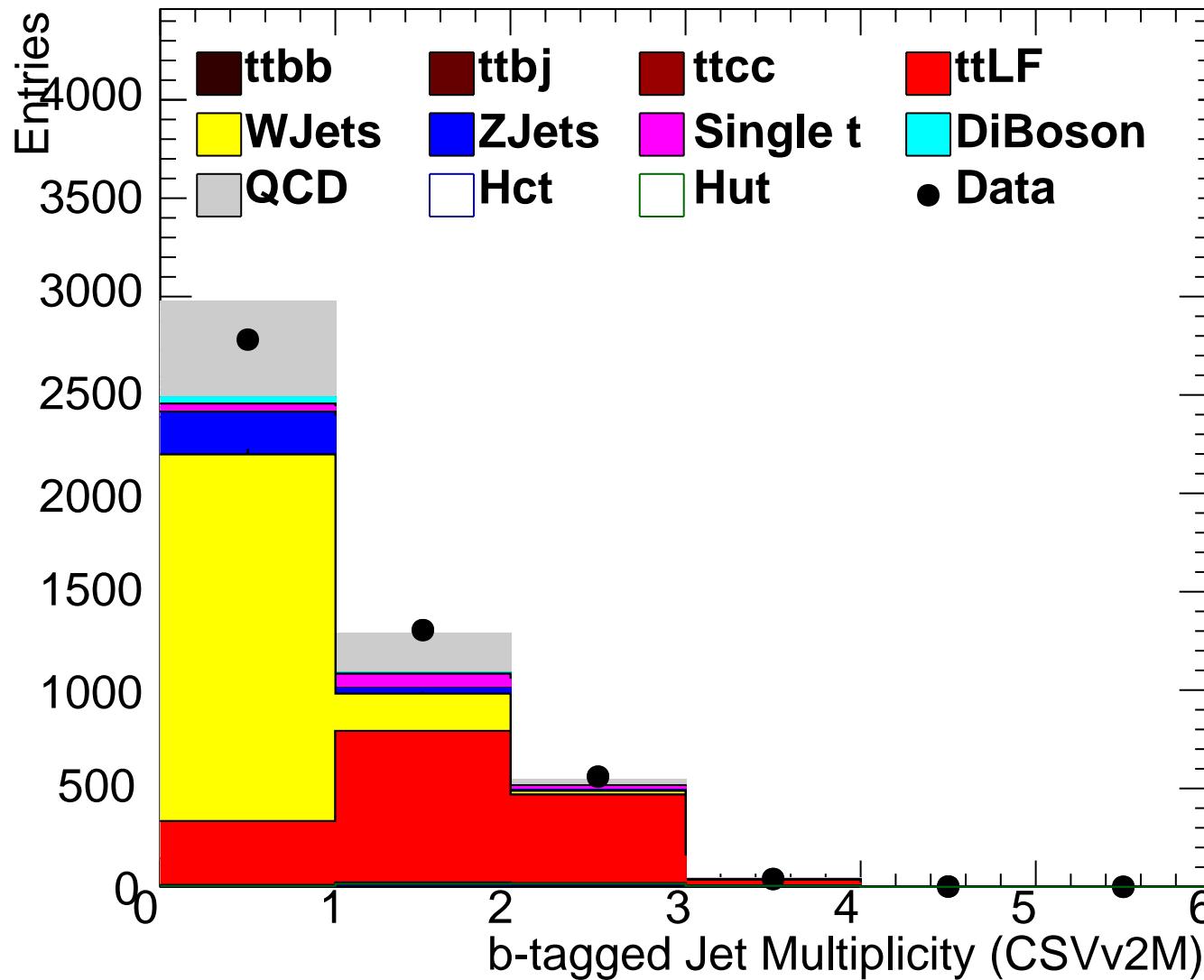
ttbb **ttbj** **ttcc** **ttLF**
WJets **ZJets** **Single t** **DiBoson**
QCD **Hct** **Hut** ● Data



Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

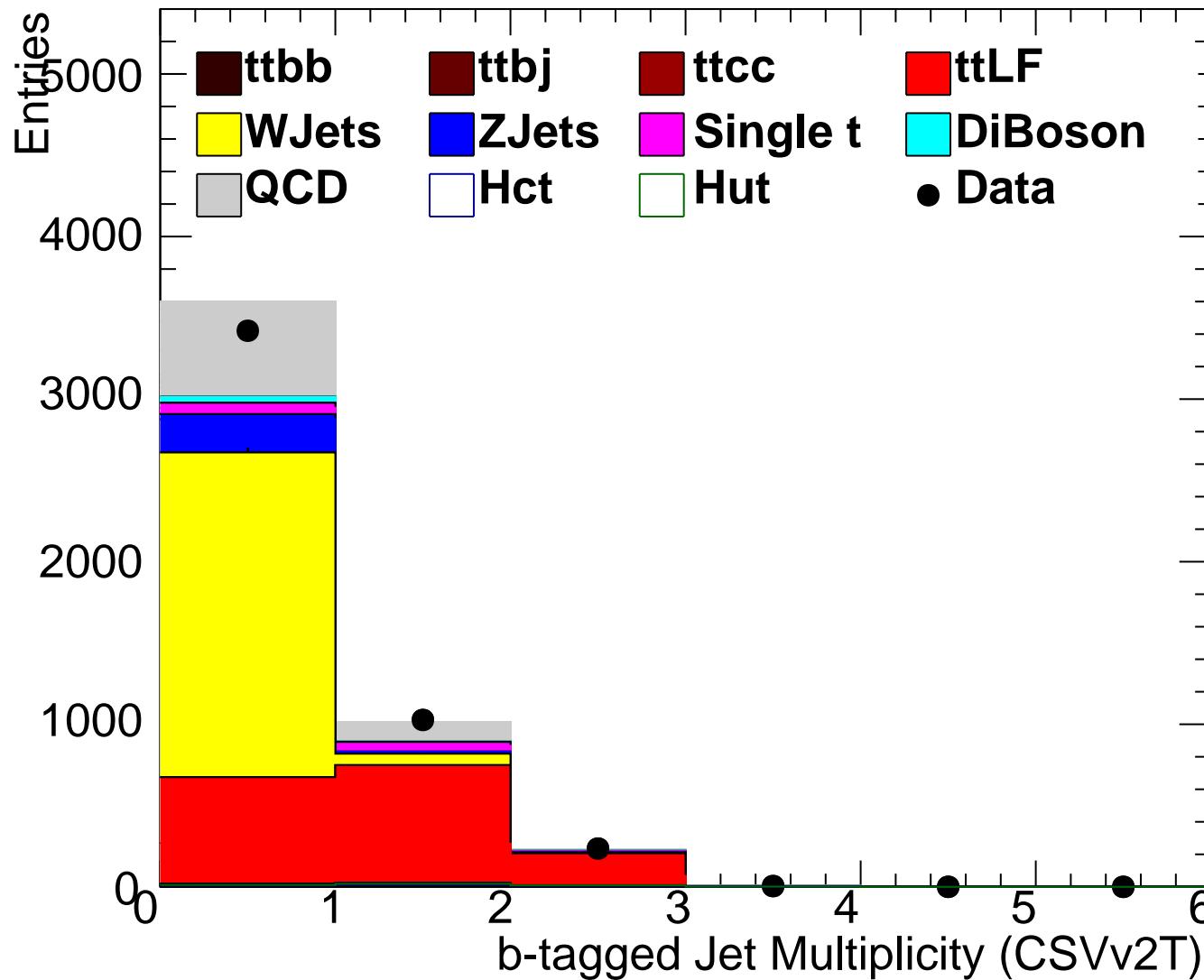
Ch0_S1

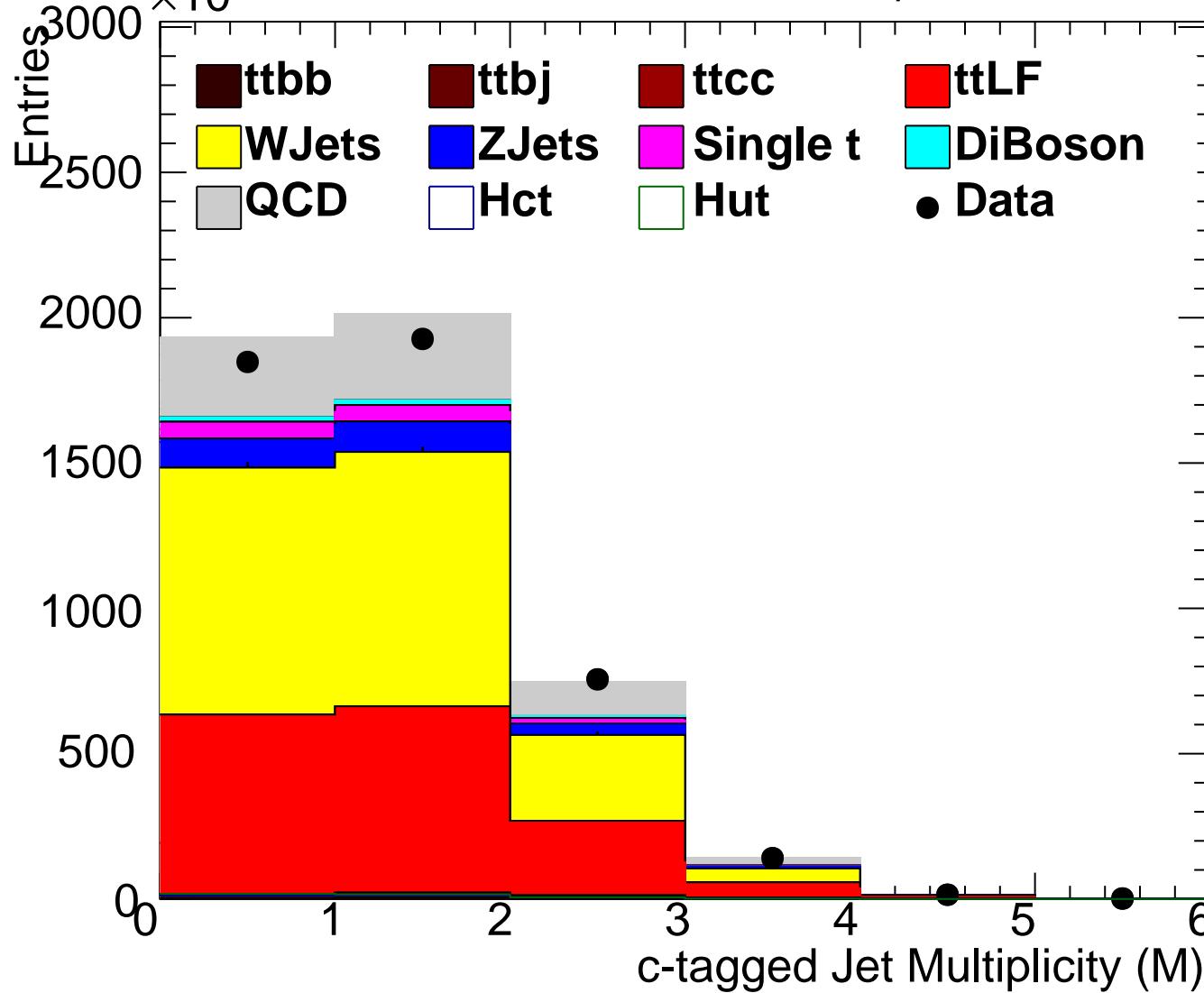
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

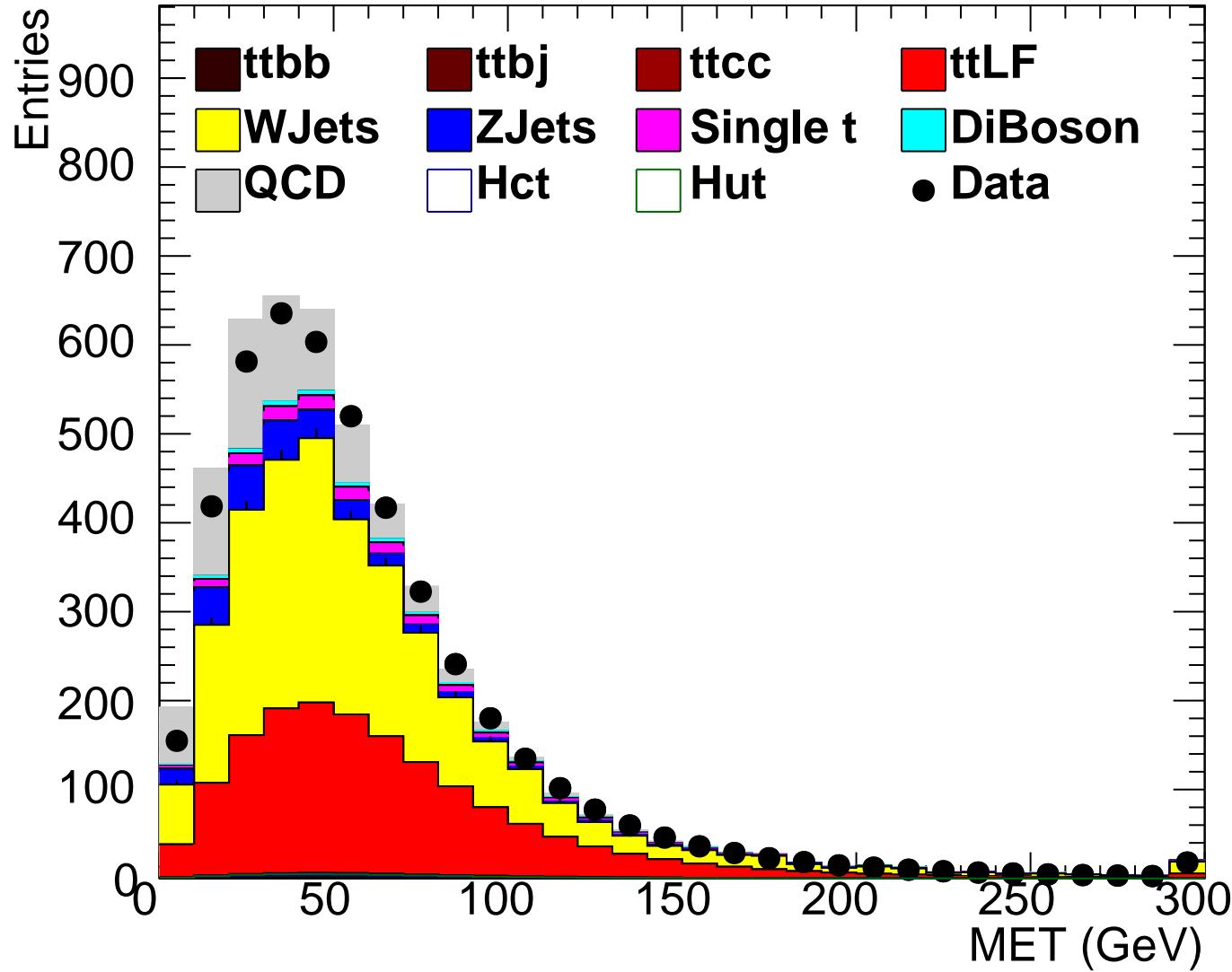


Ch0_S1

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

700

600

500

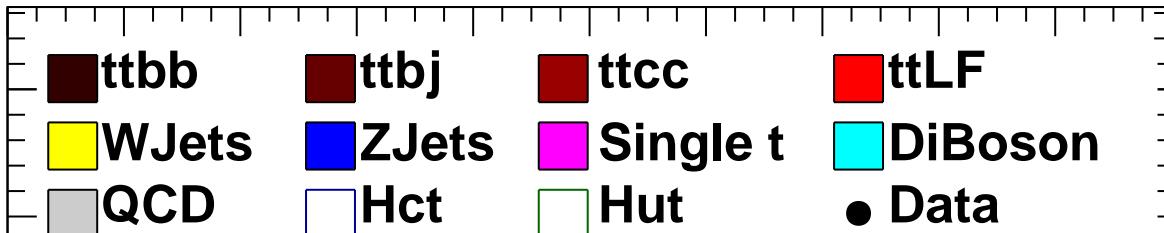
400

300

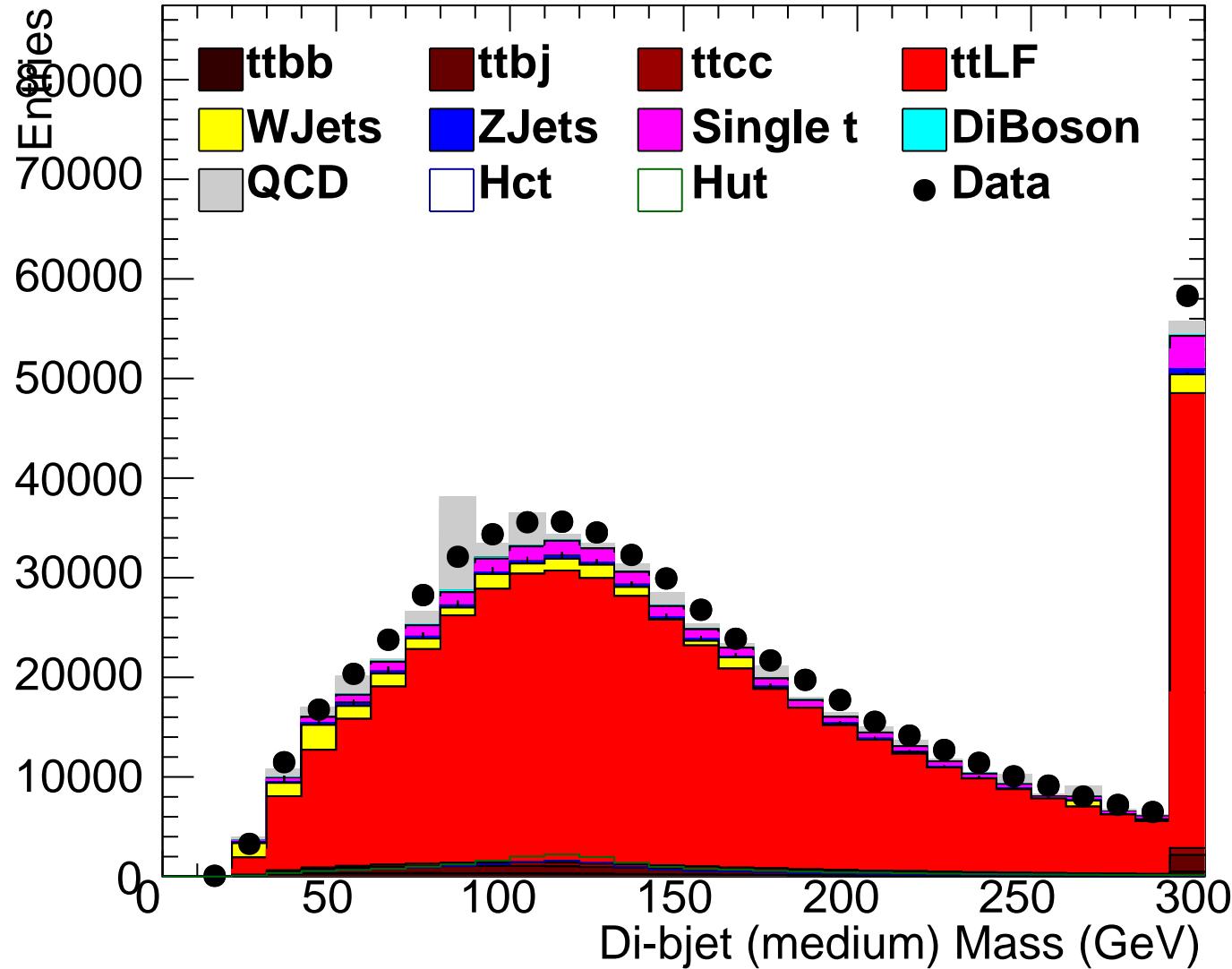
200

100

0

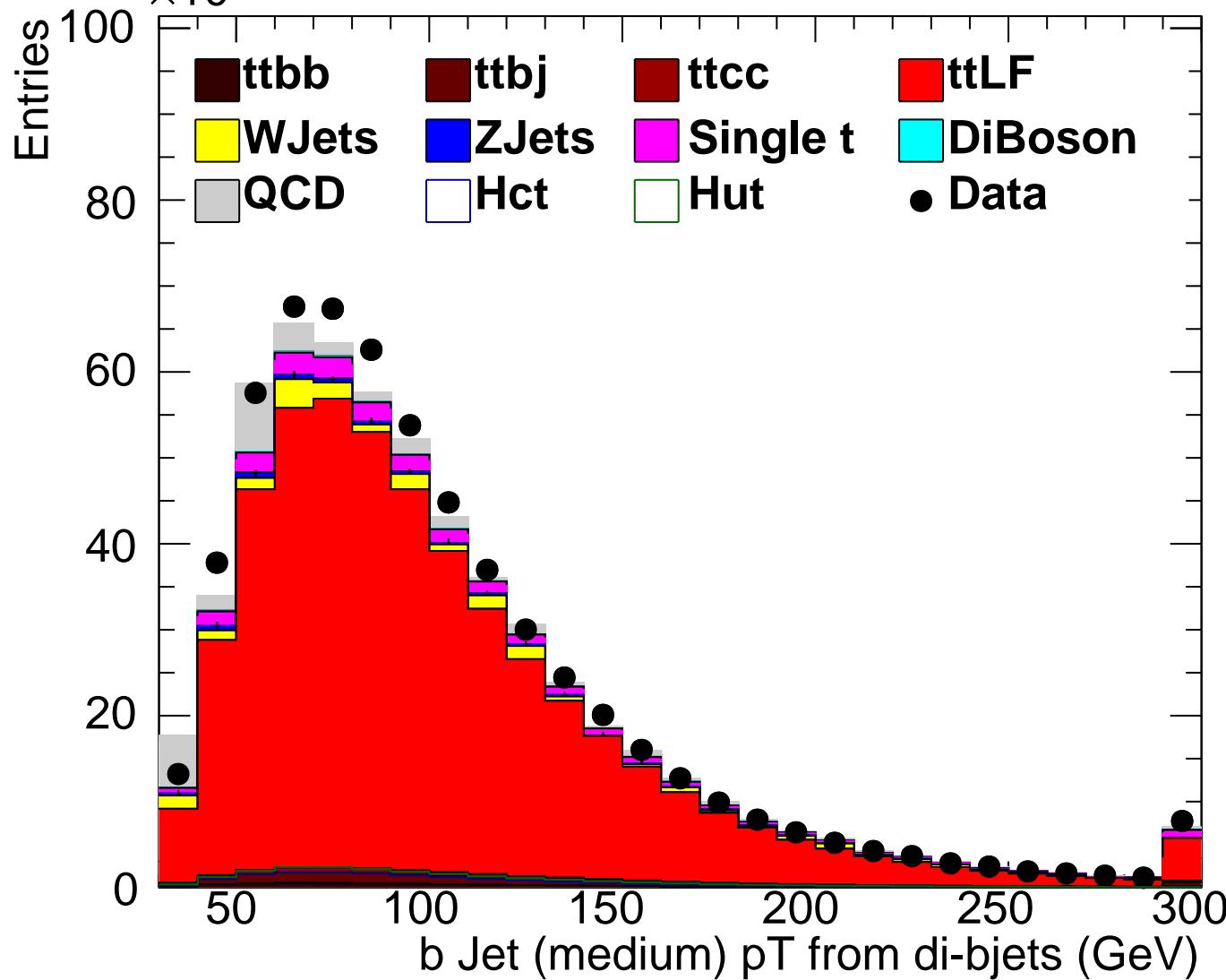


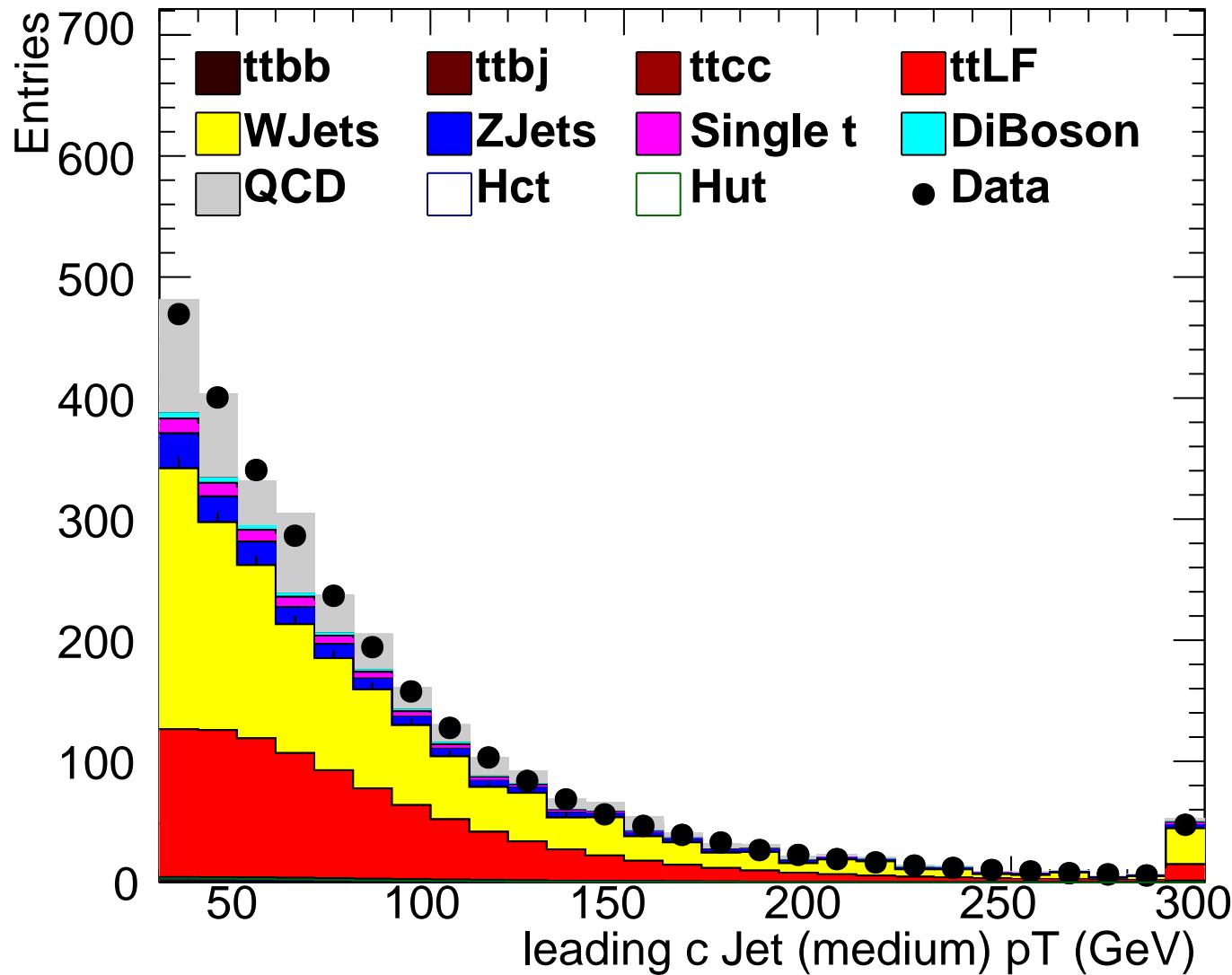
Transverse Mass (GeV)

Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

140

120

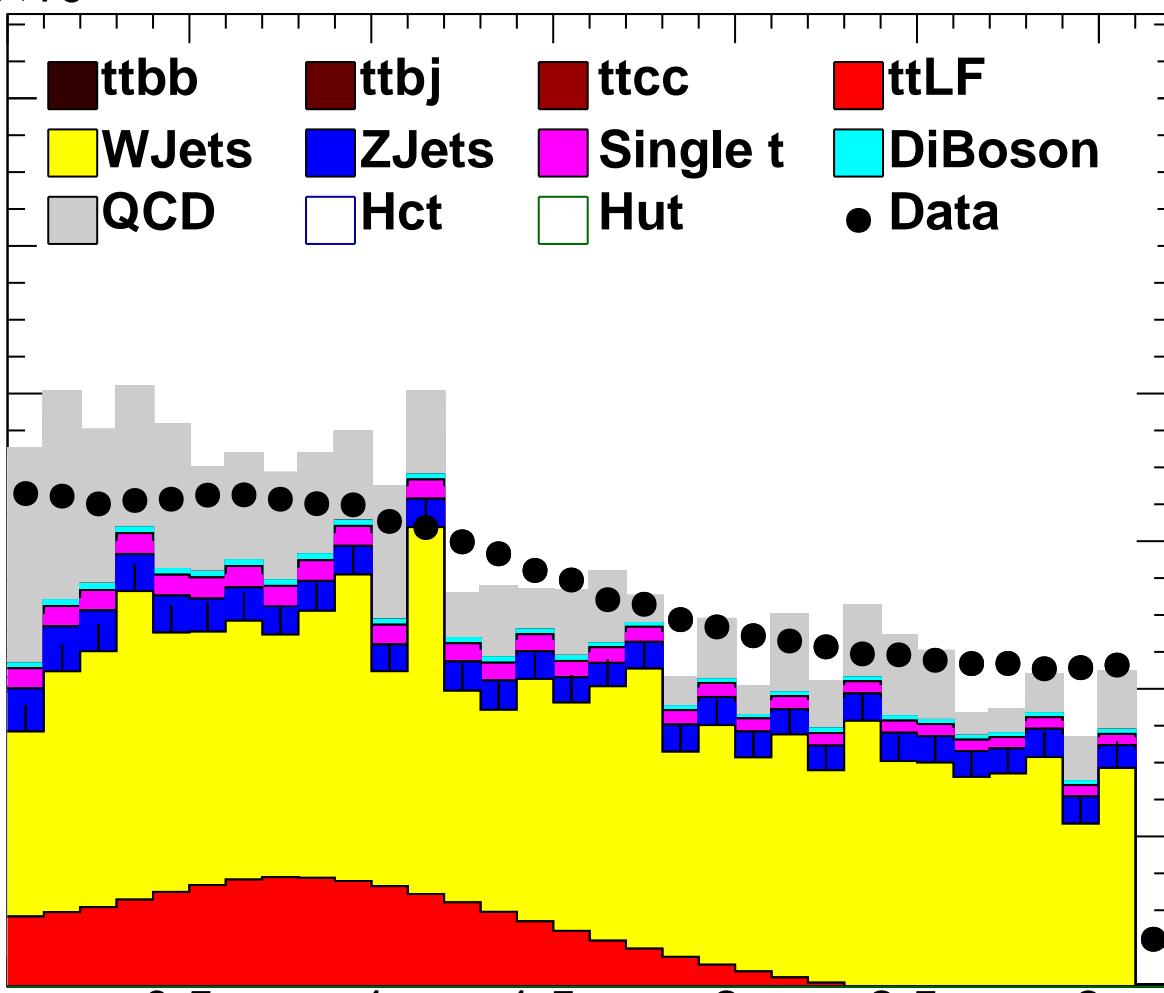
100

80

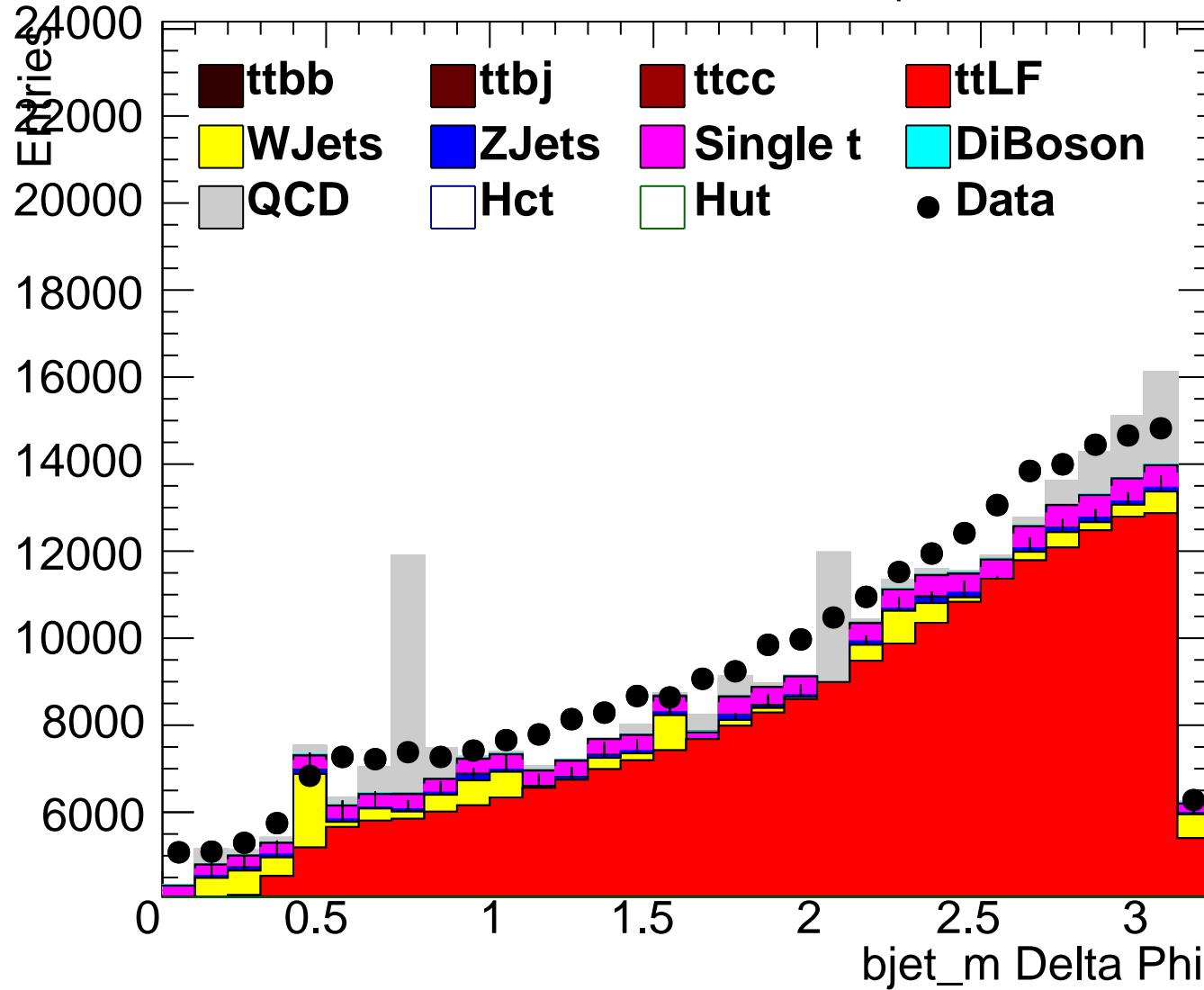
60

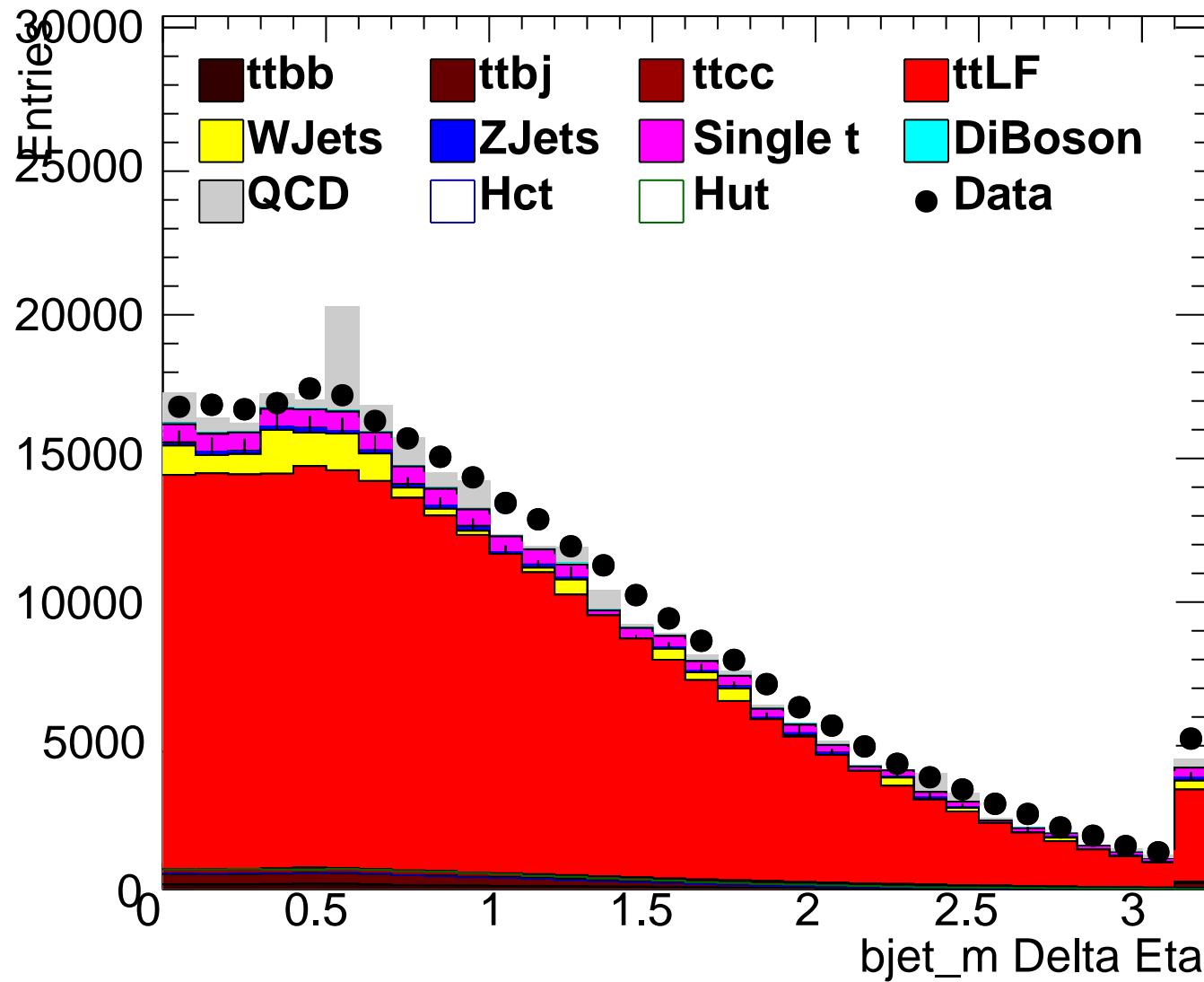
40

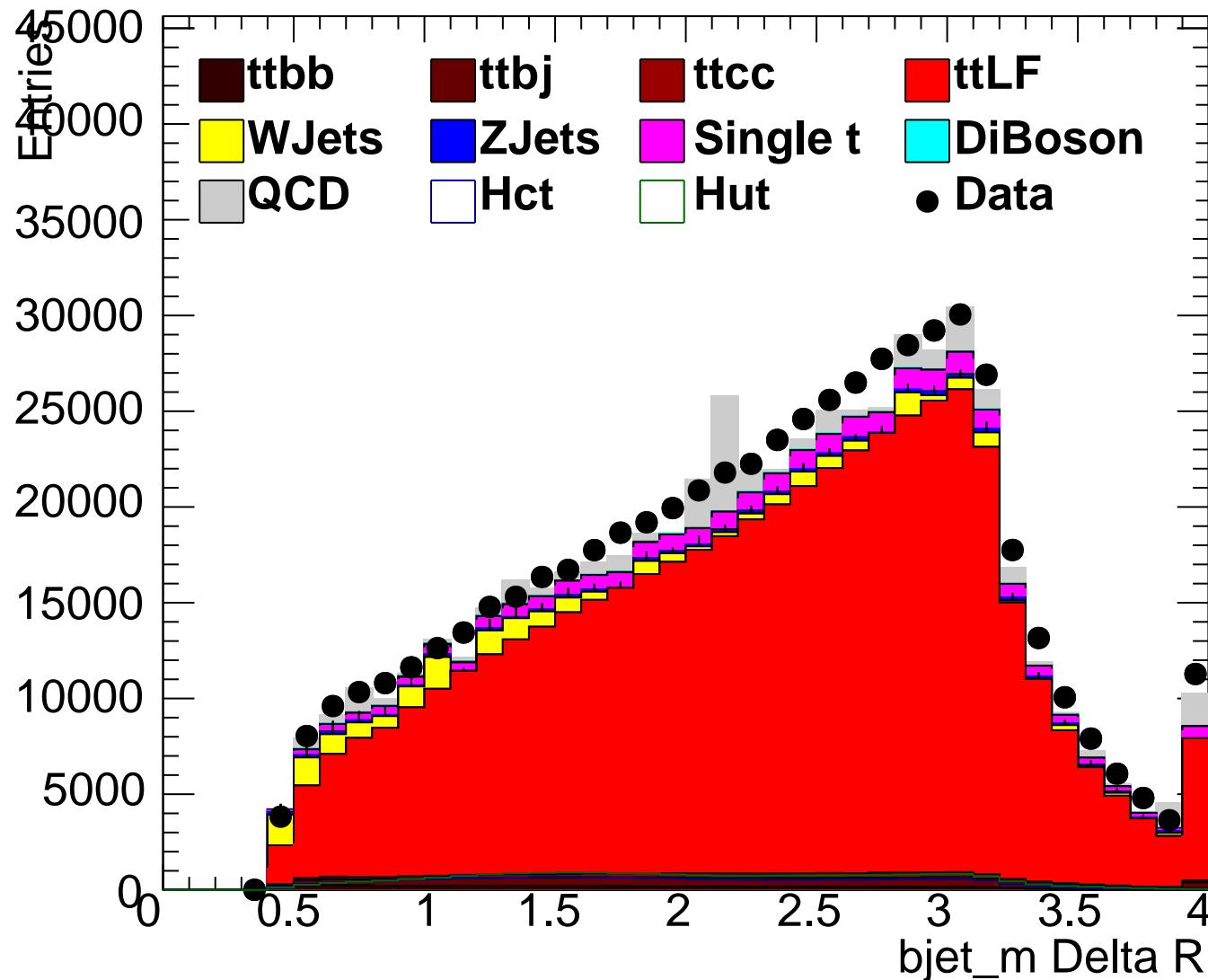
20



DPhi

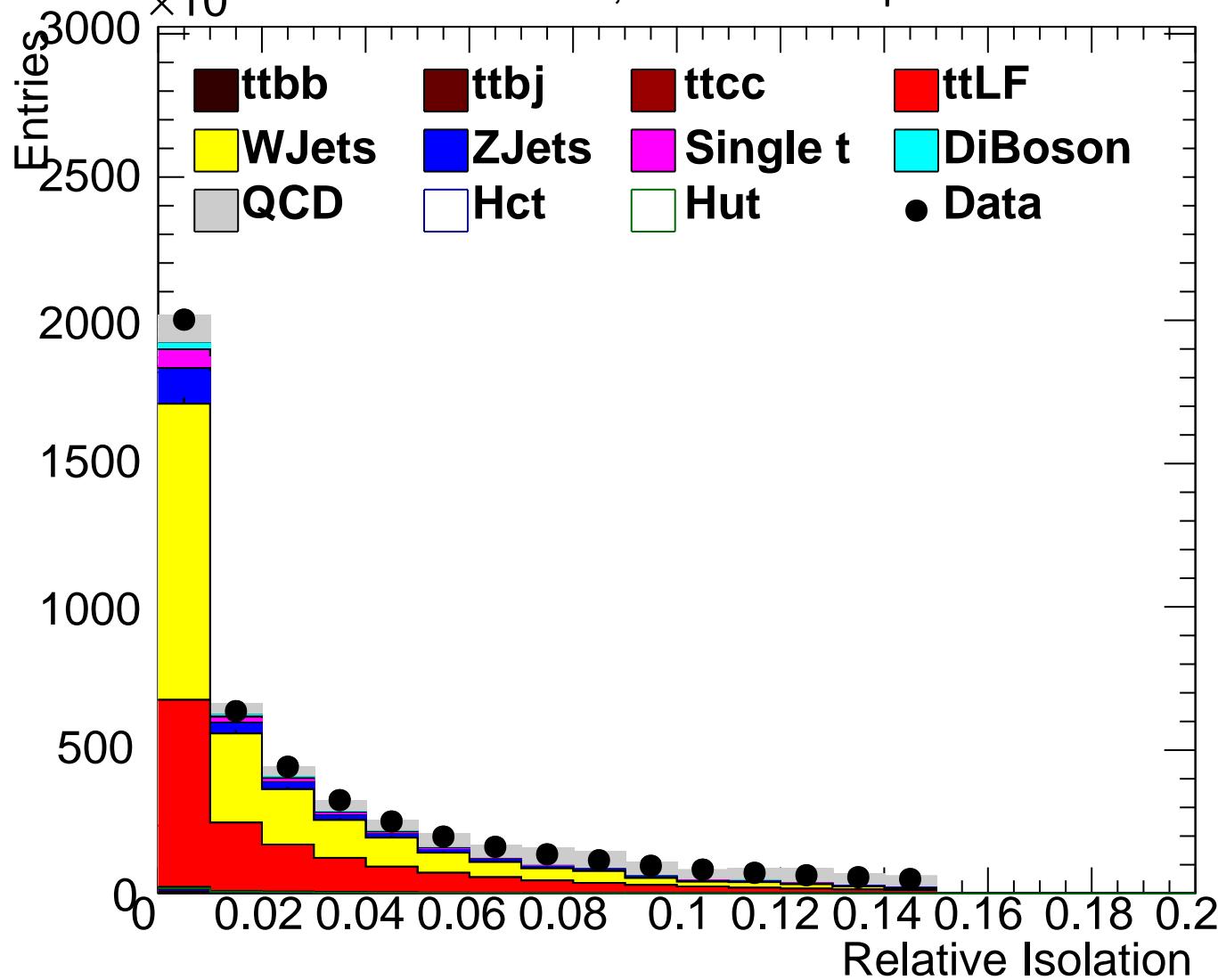
Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

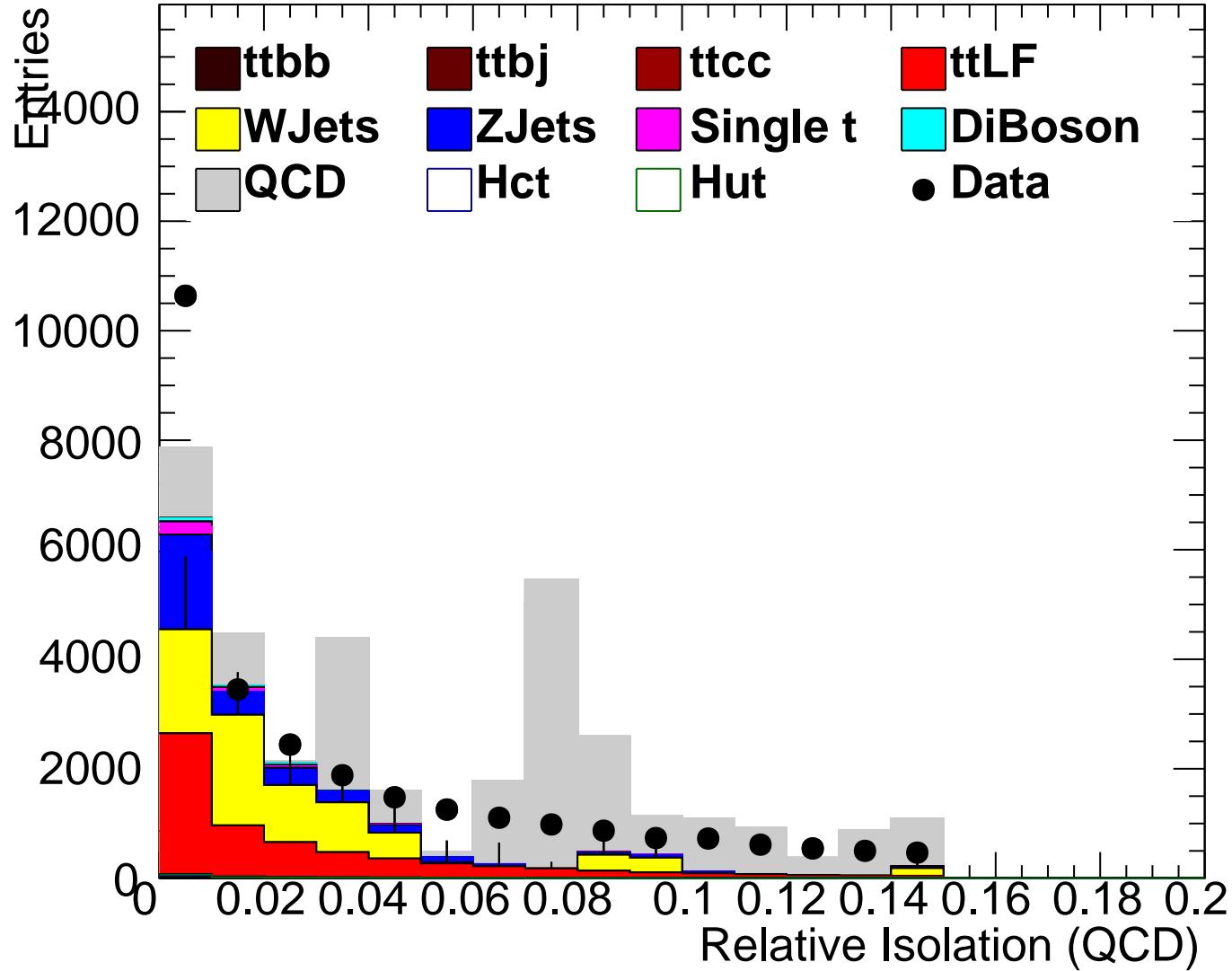
Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV





Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

600

500

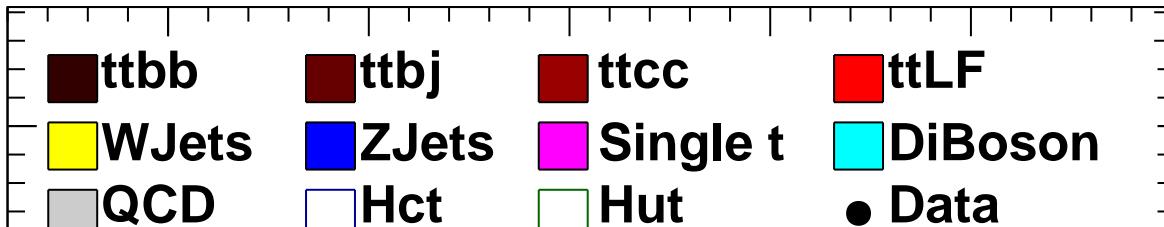
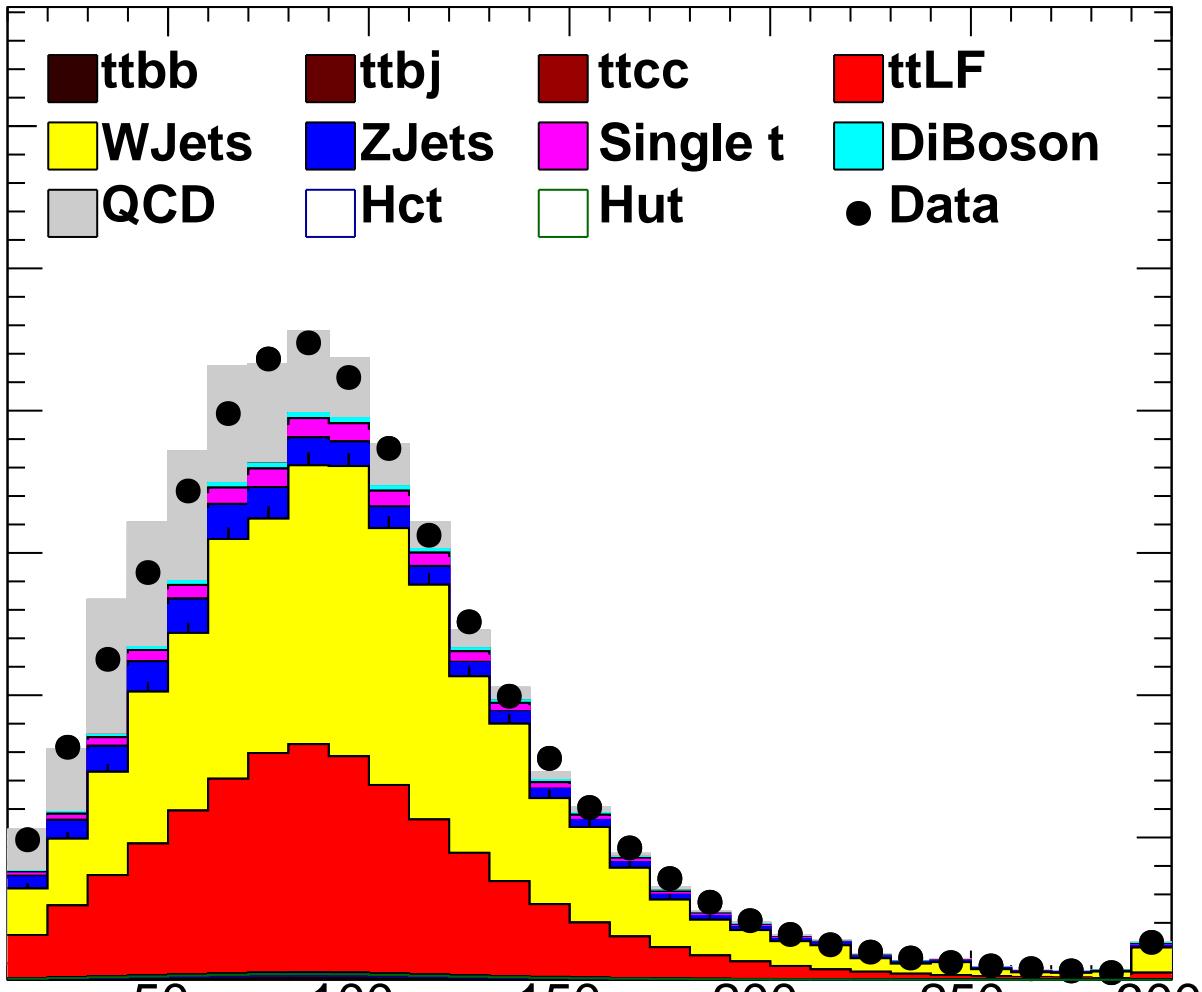
400

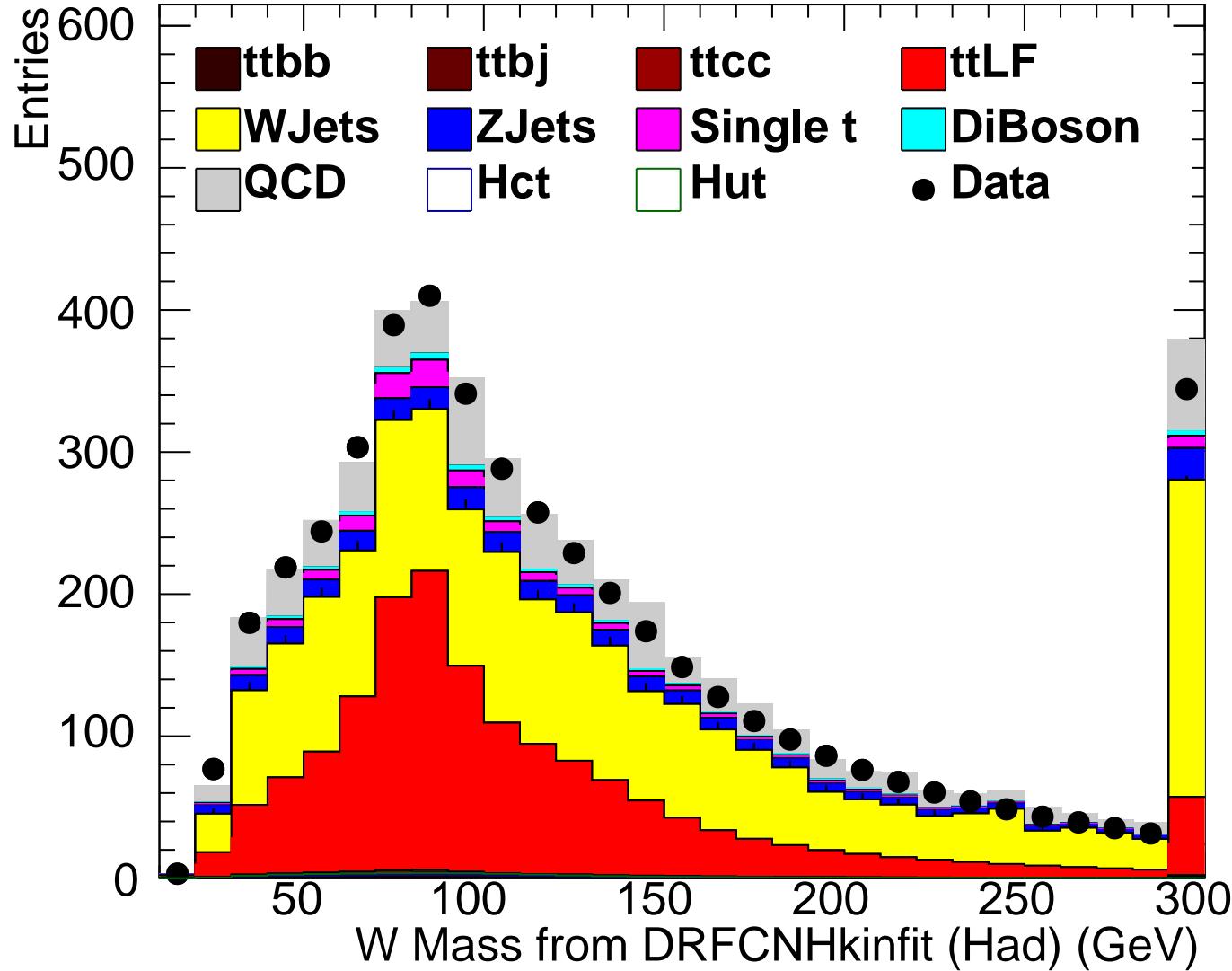
300

200

100

0

W Mass from DRFCN_Hkinfit (Lep) (GeV)

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

600

500

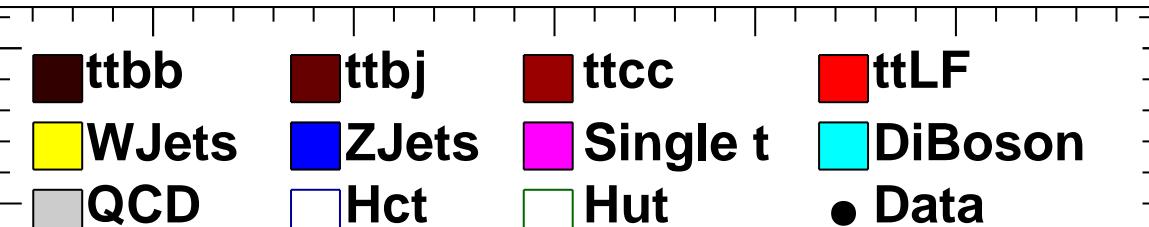
400

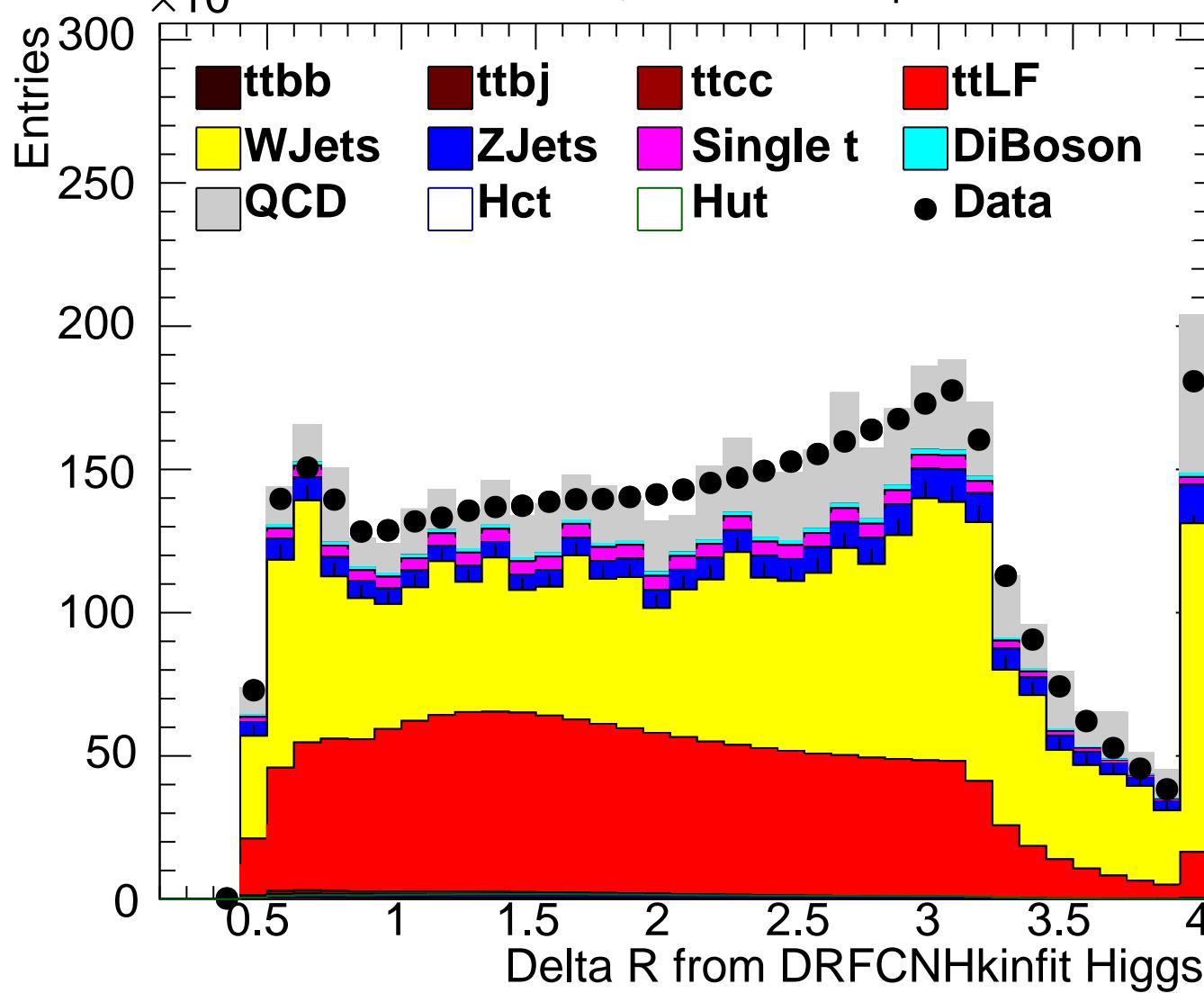
300

200

100

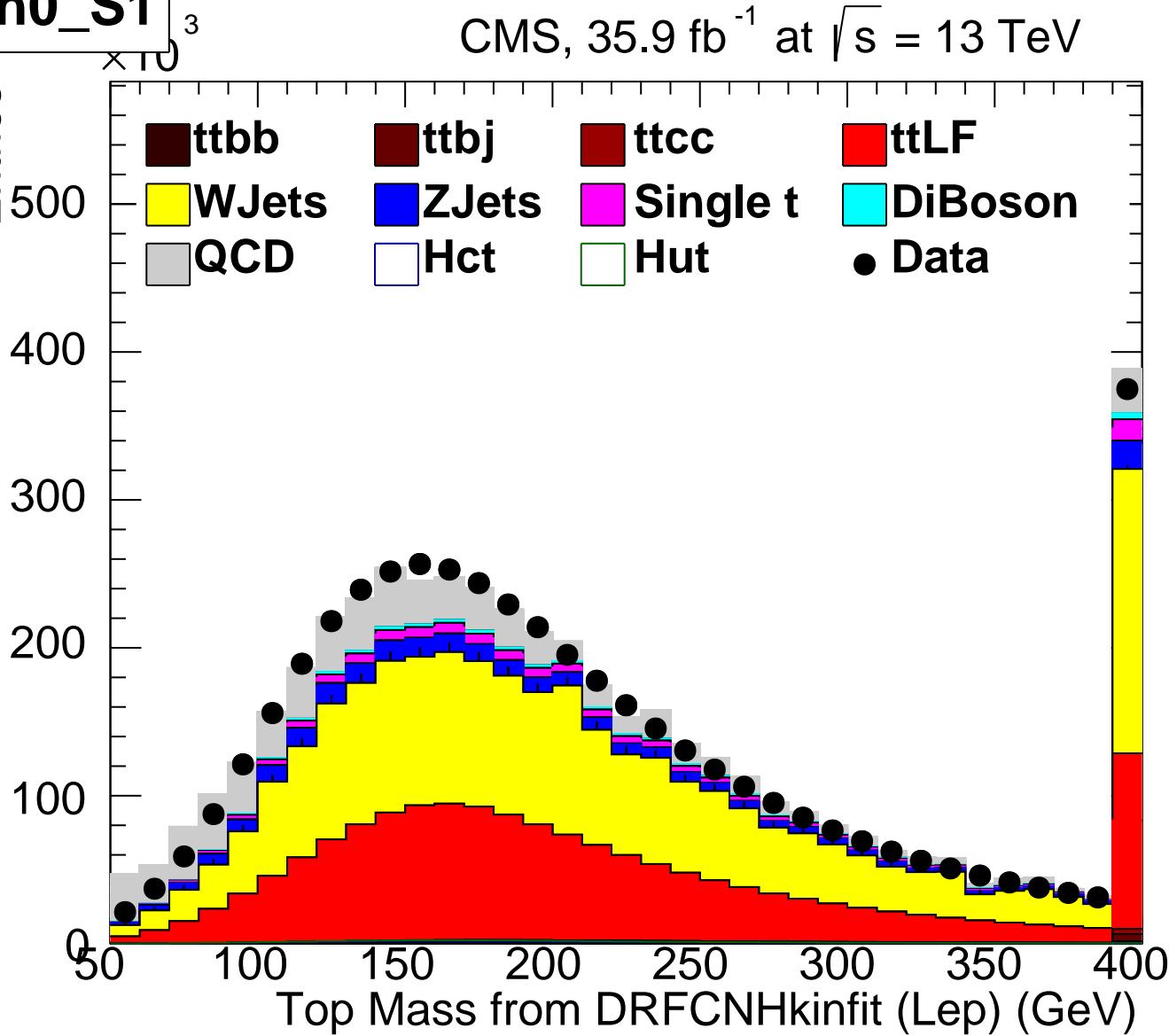
0

H Mass from DRFCN_Hkinfit (bb)(GeV)

Ch0_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

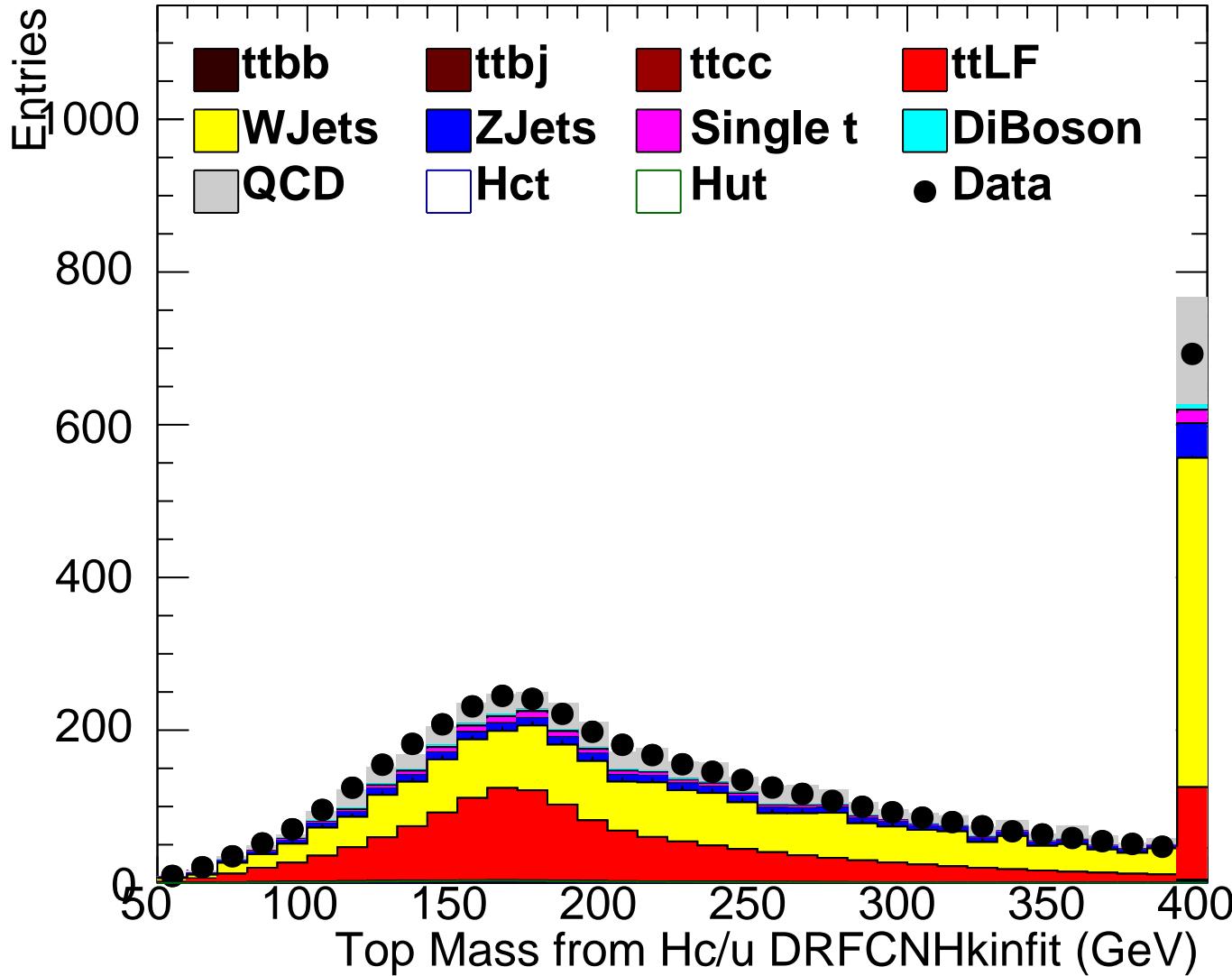
Entries

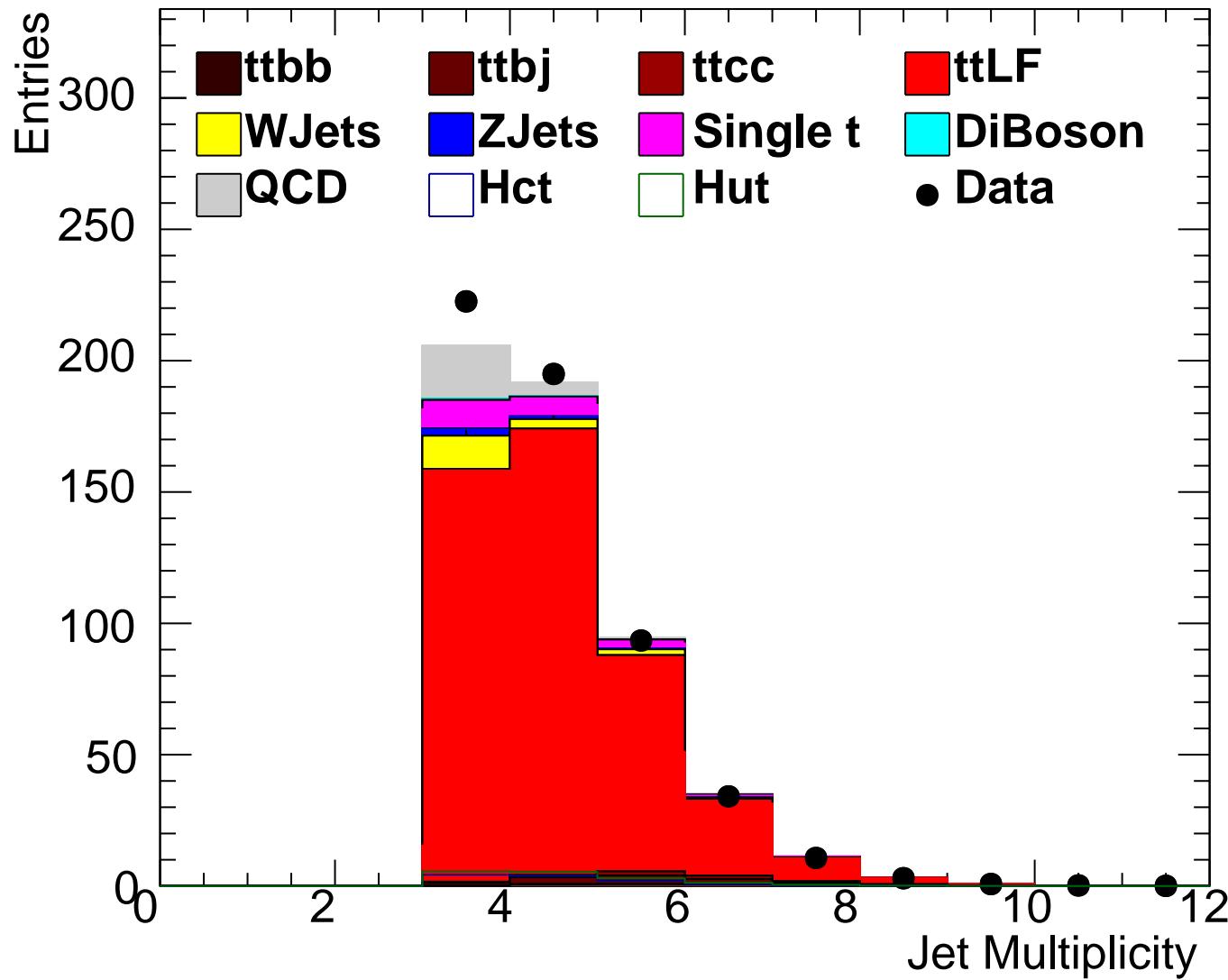


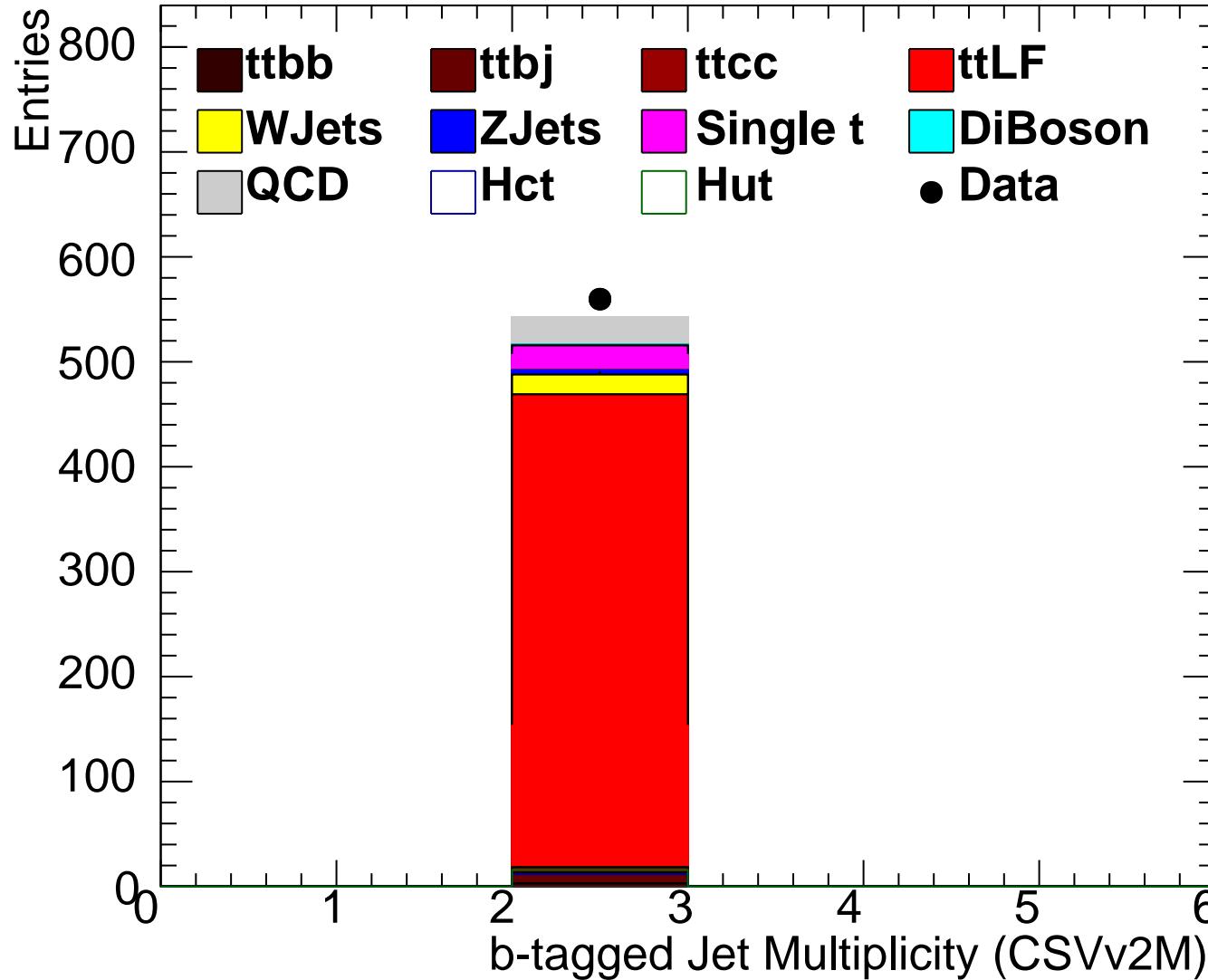
Ch0_S1

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

3



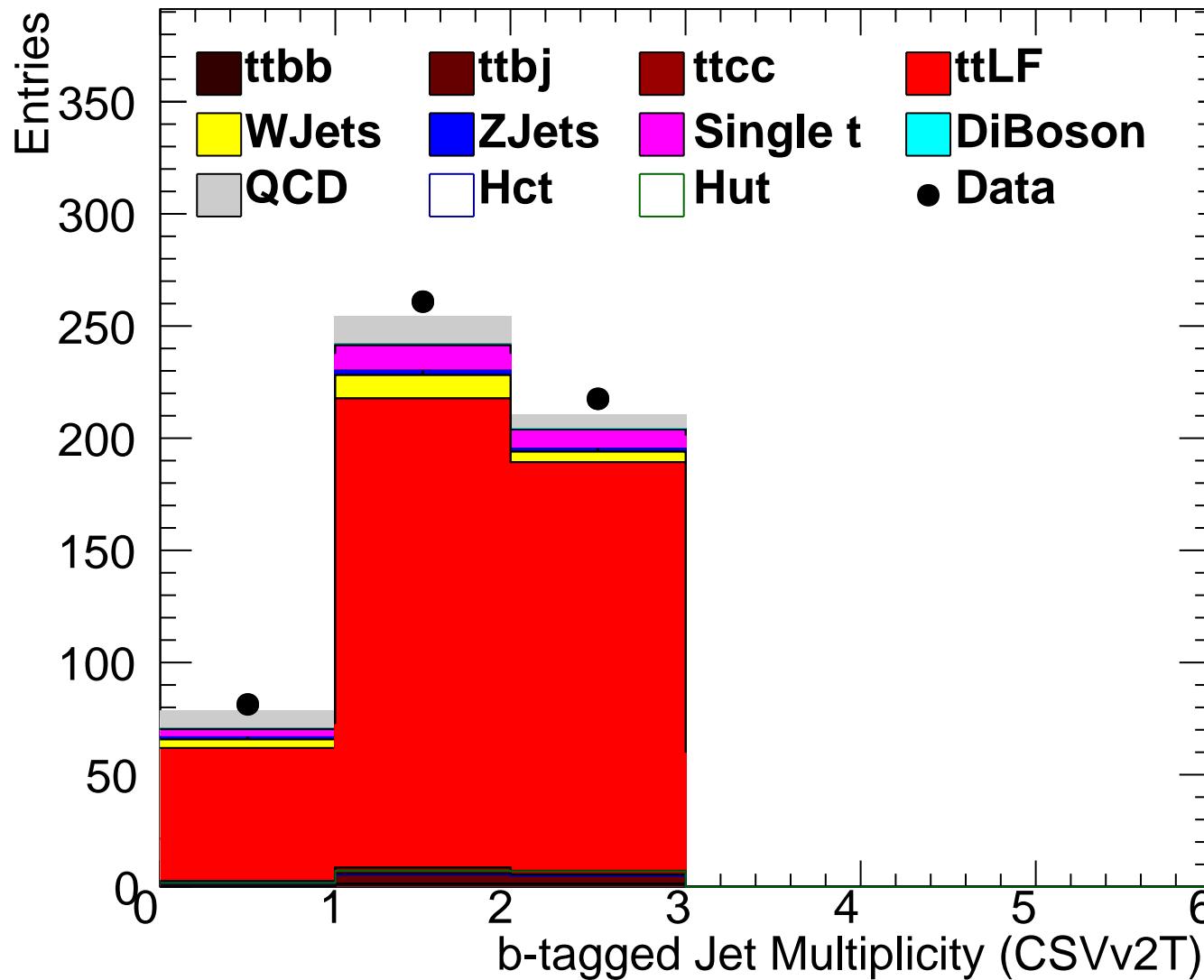


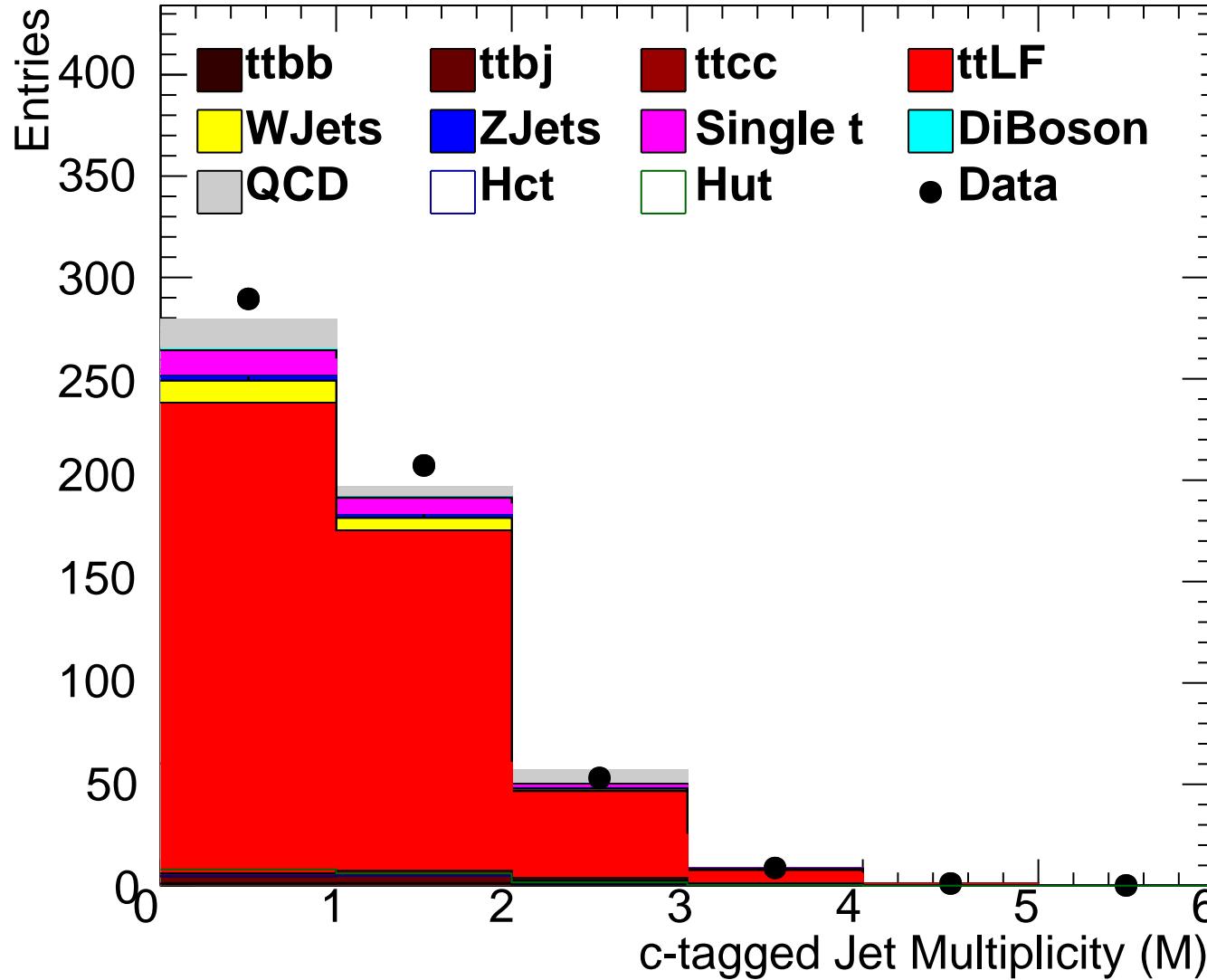


Ch0_S2

3

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S23
 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S2x 10⁻³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

100

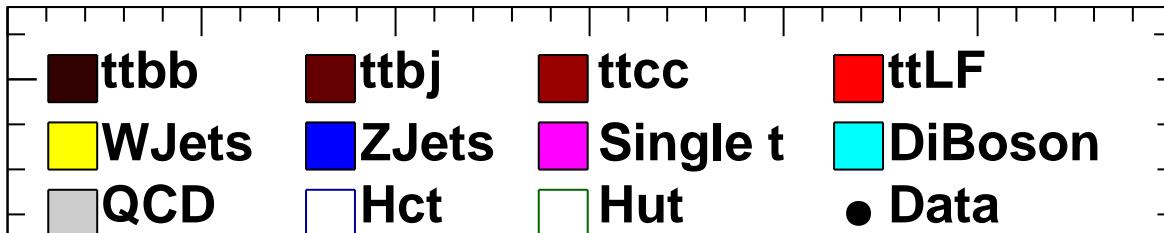
80

60

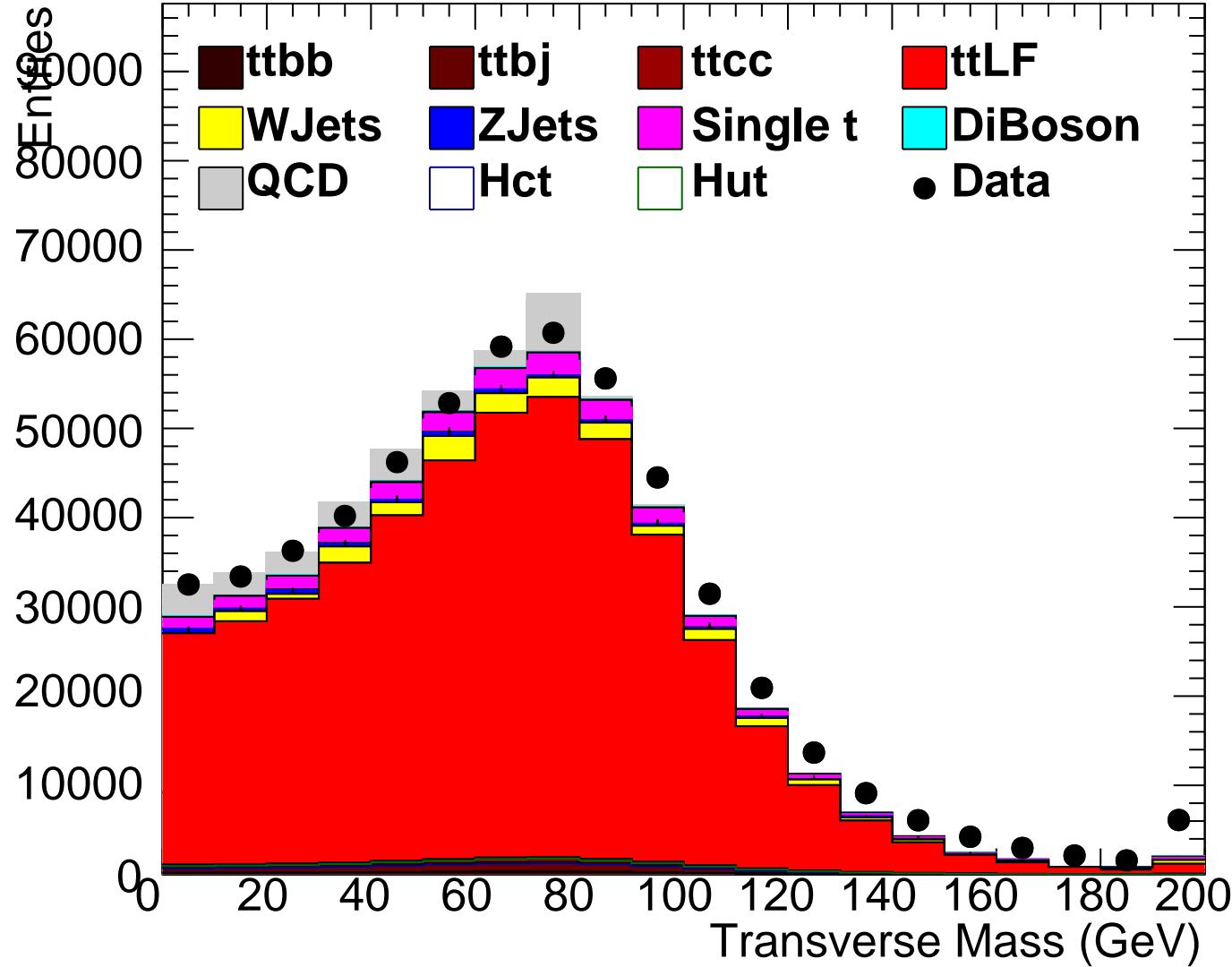
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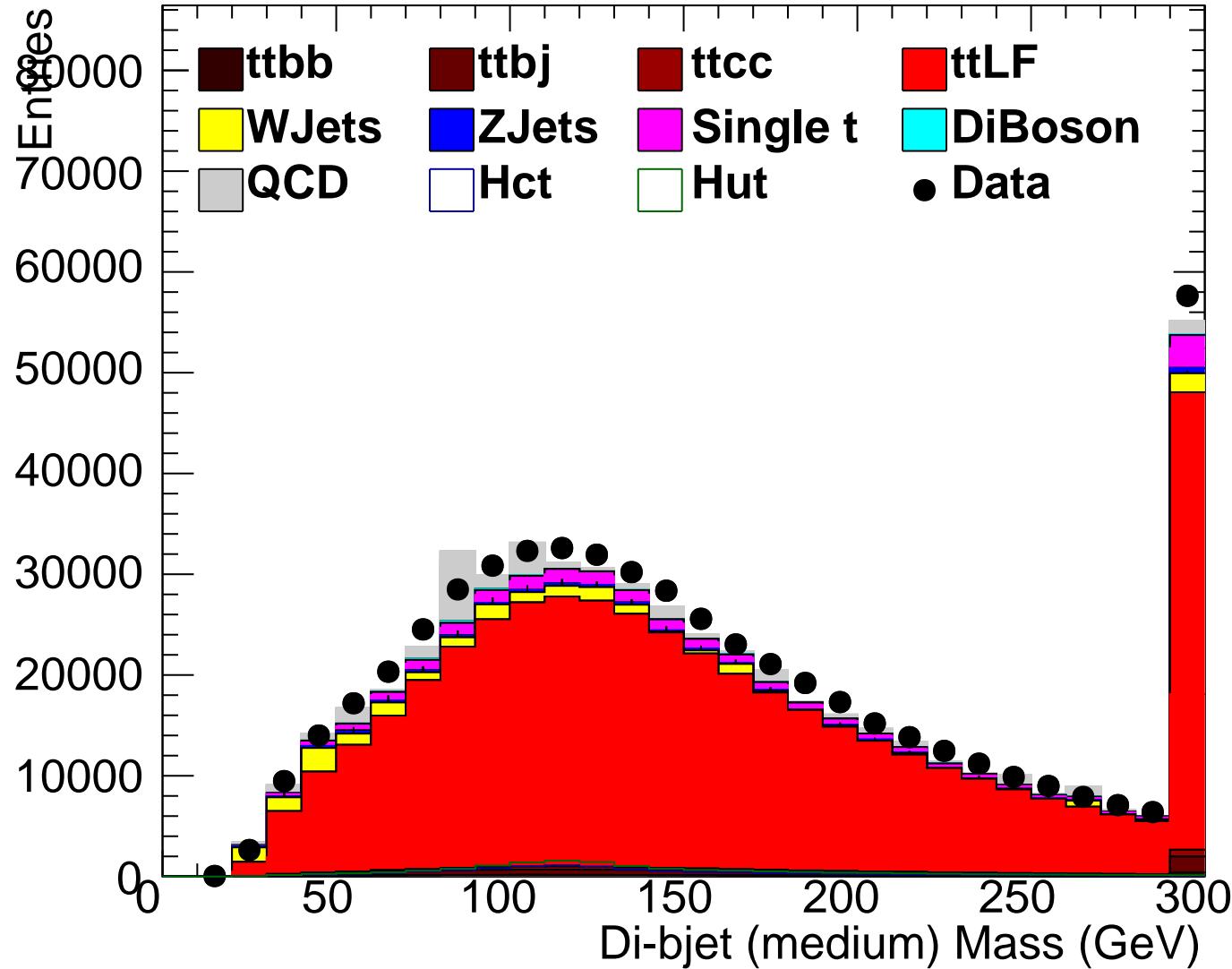
20

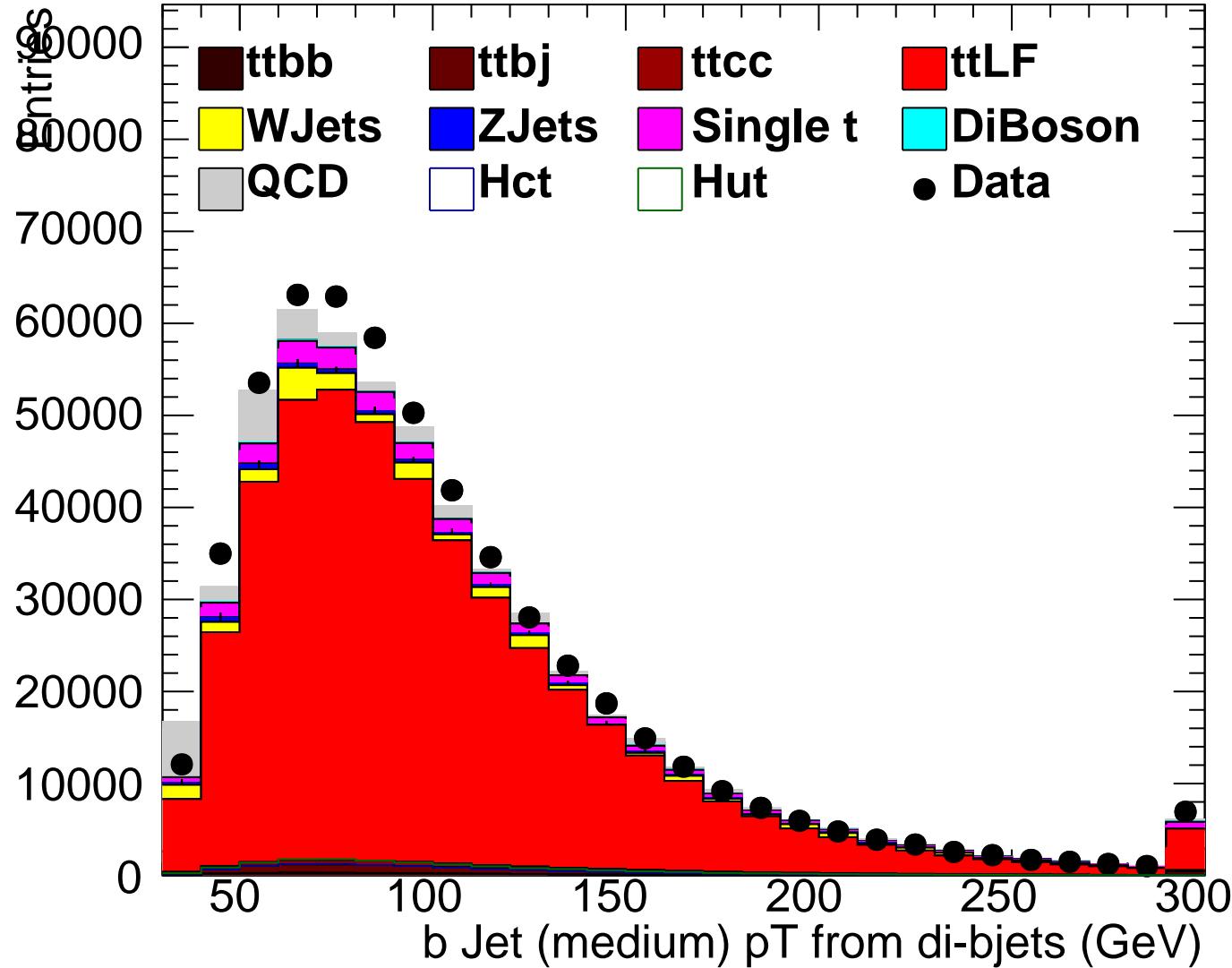
0

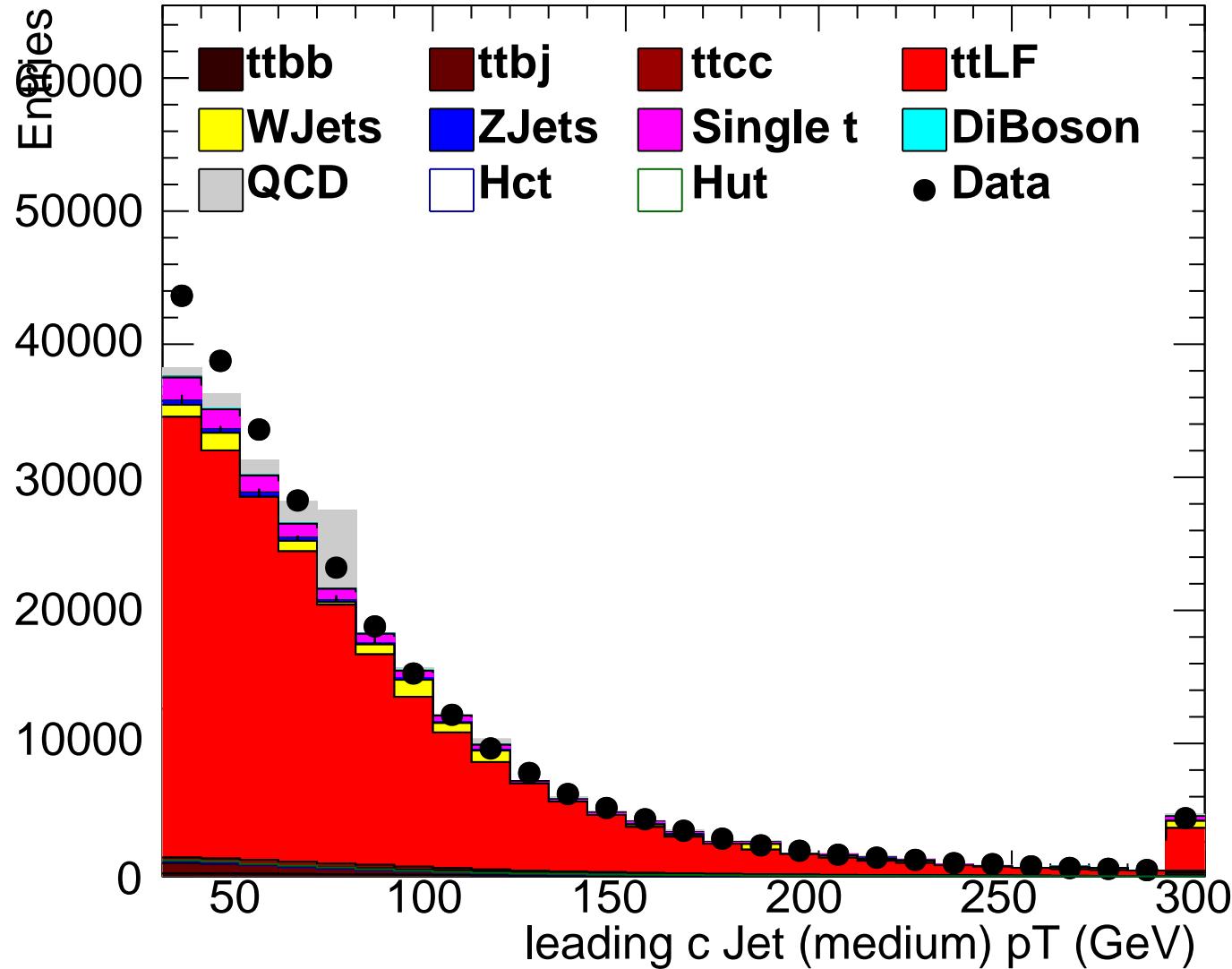


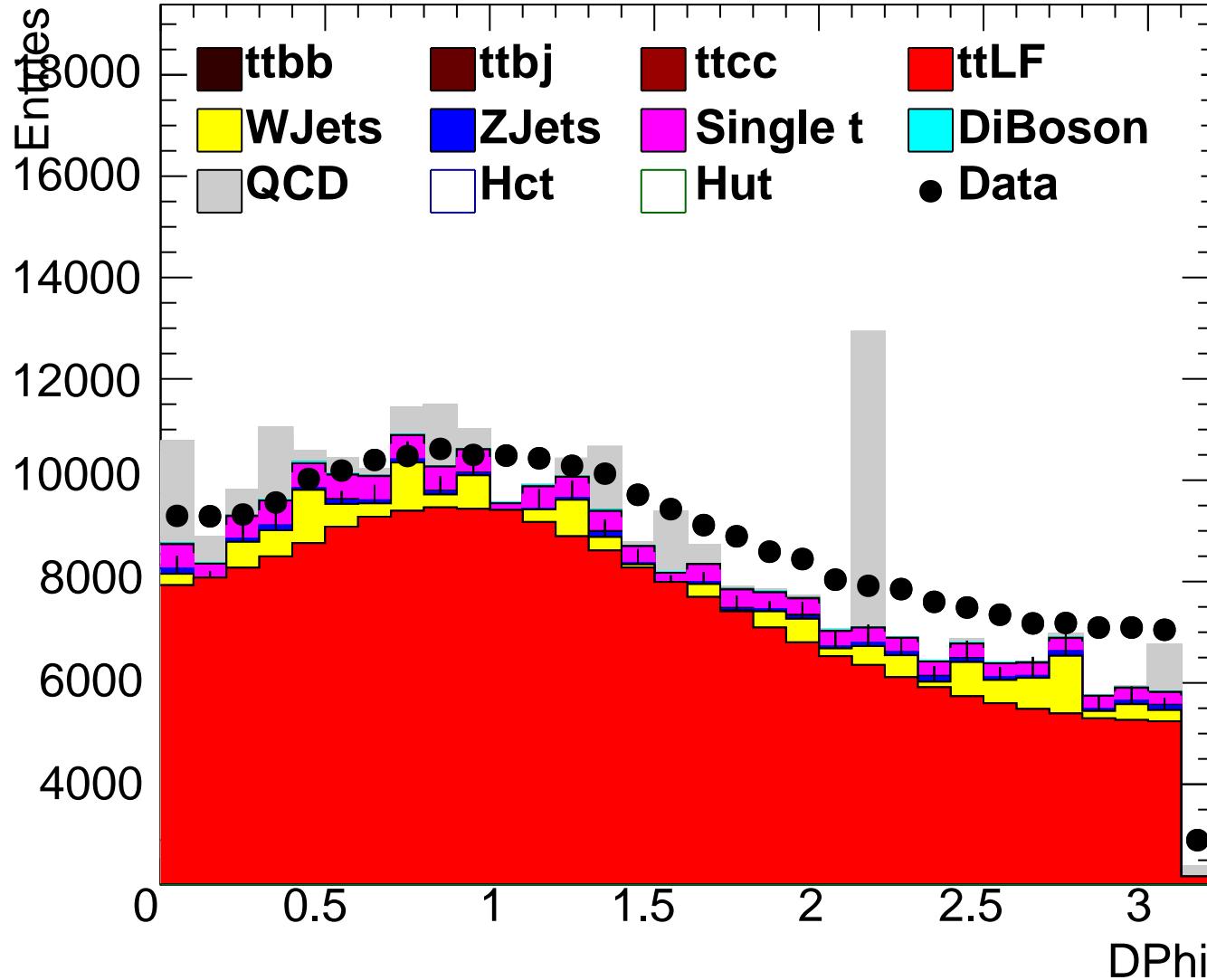
MET (GeV)

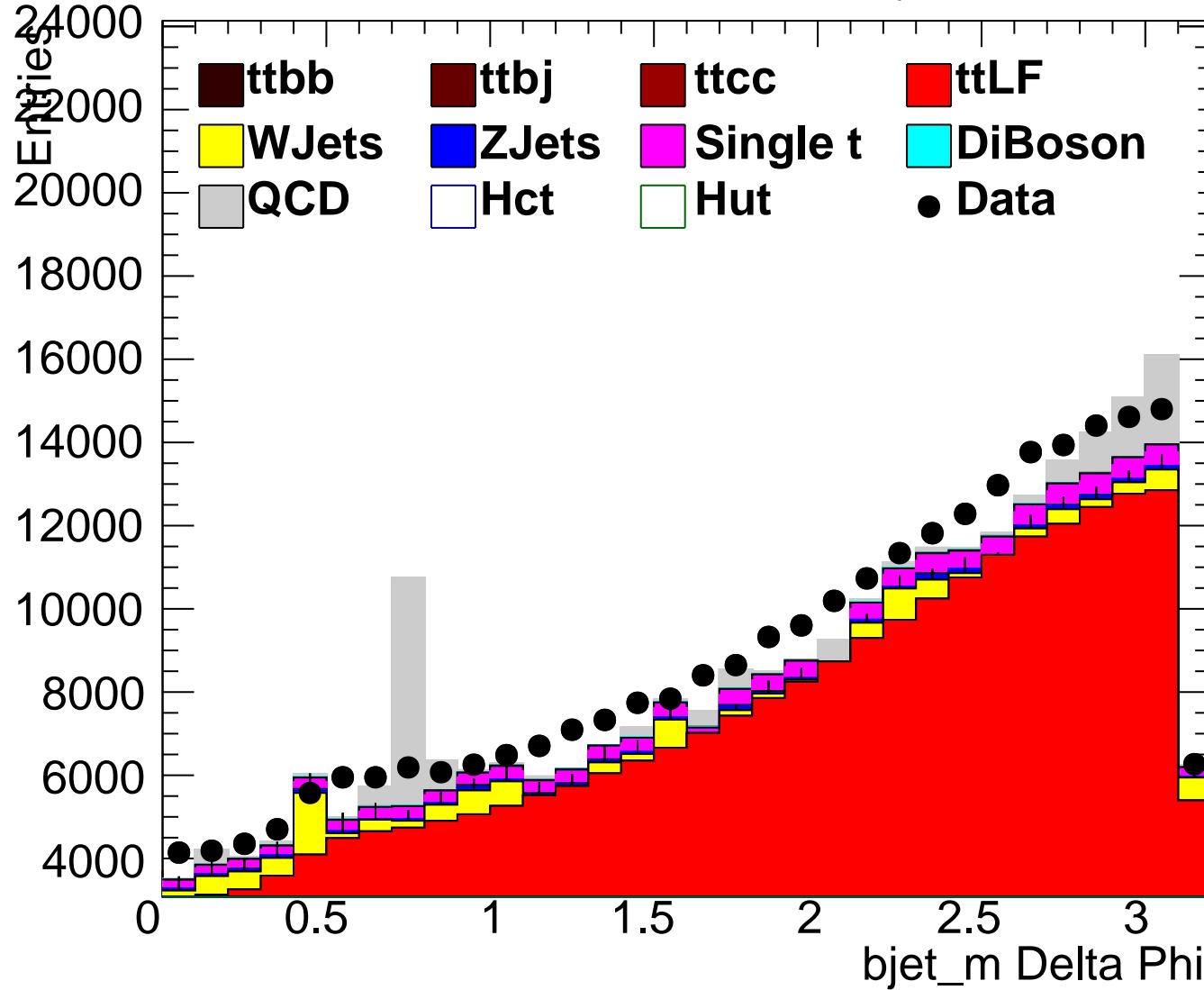
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

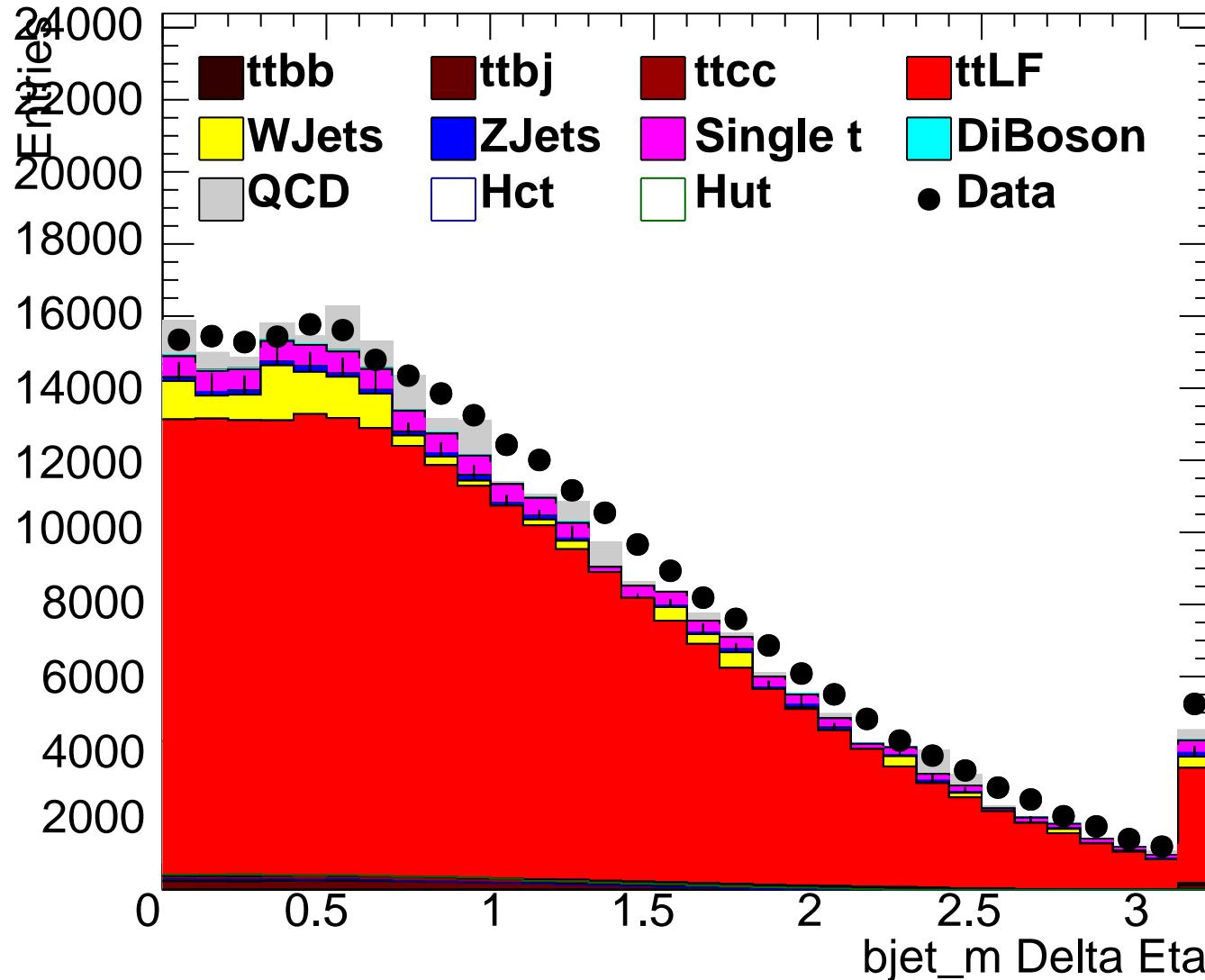
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

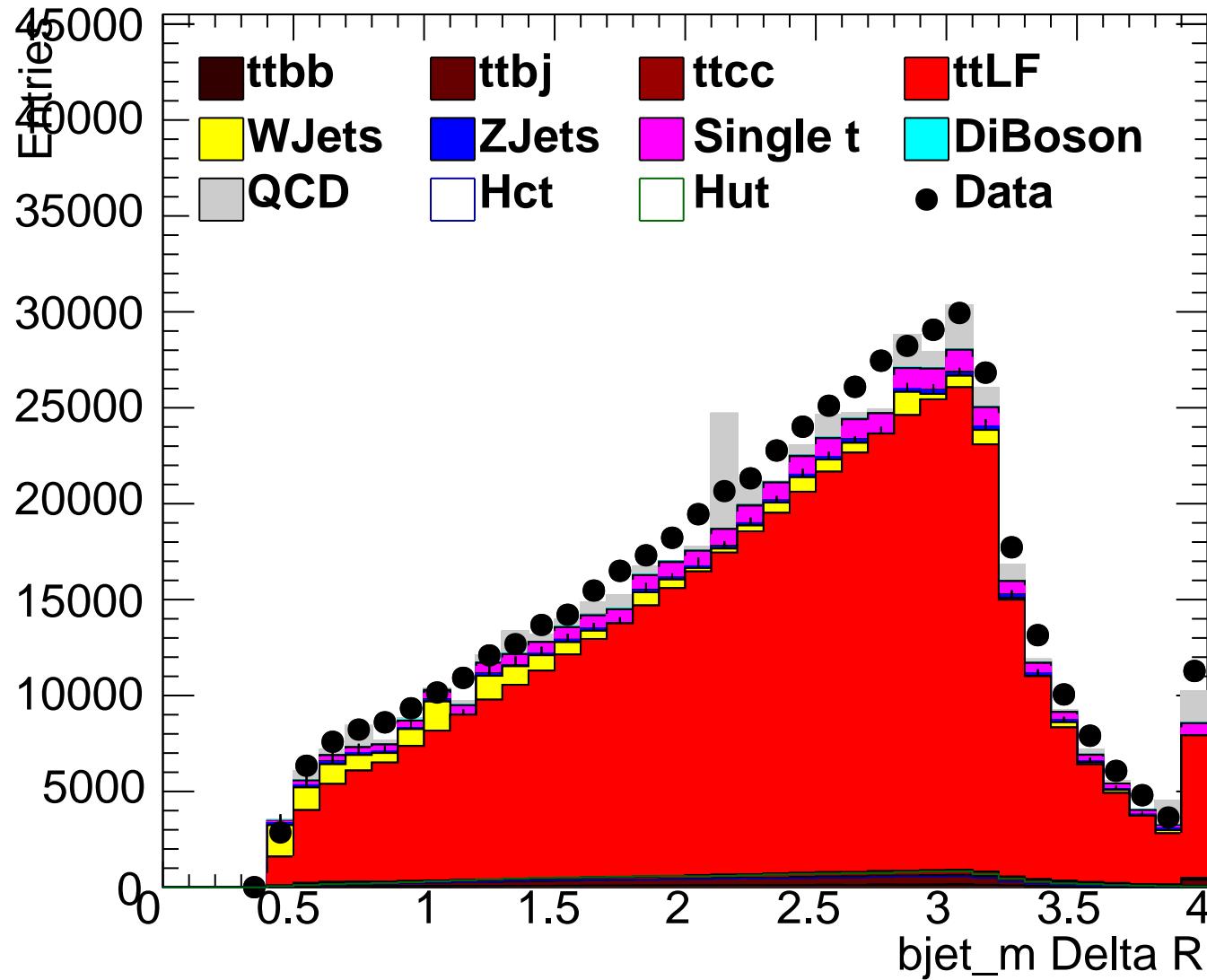
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

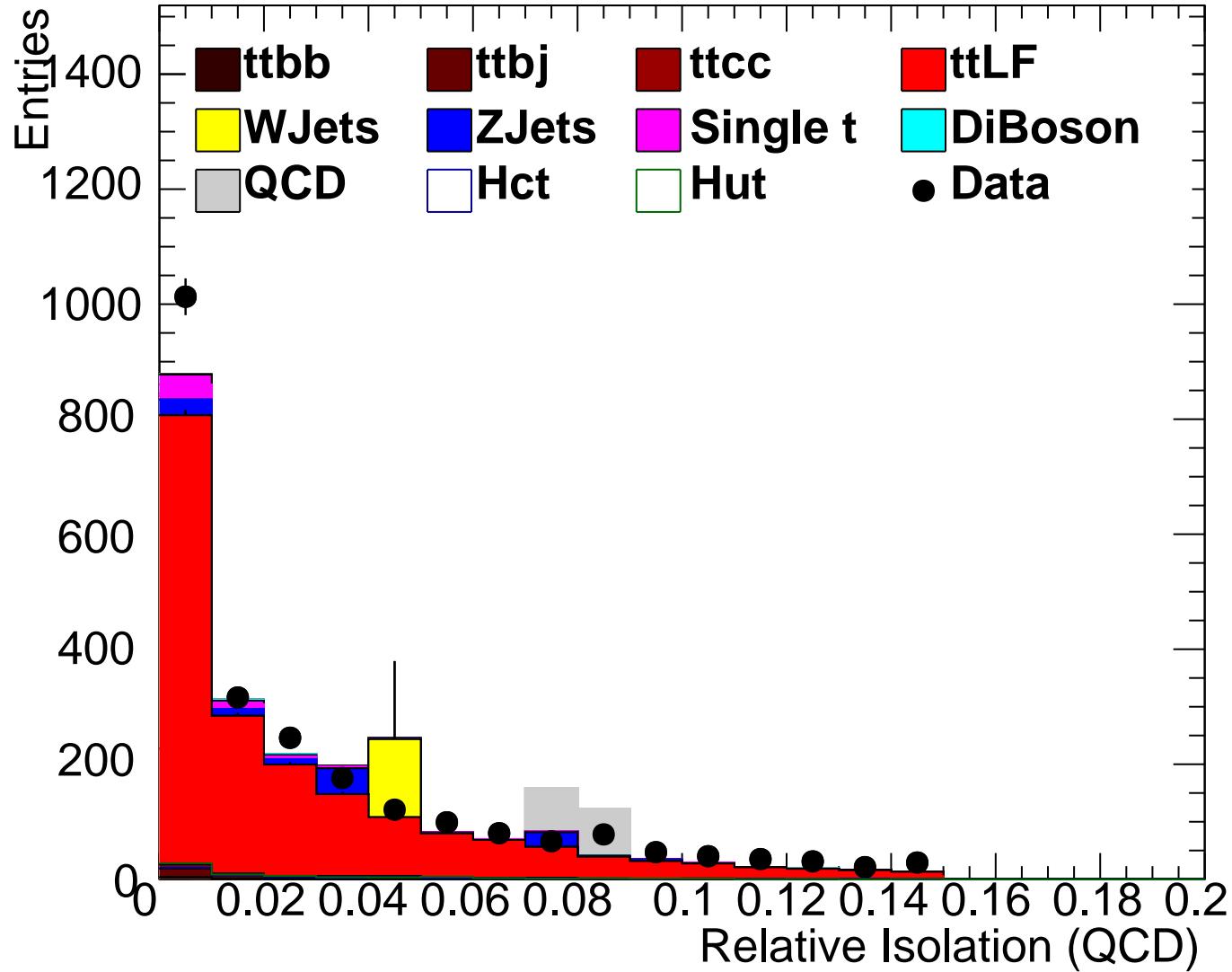
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

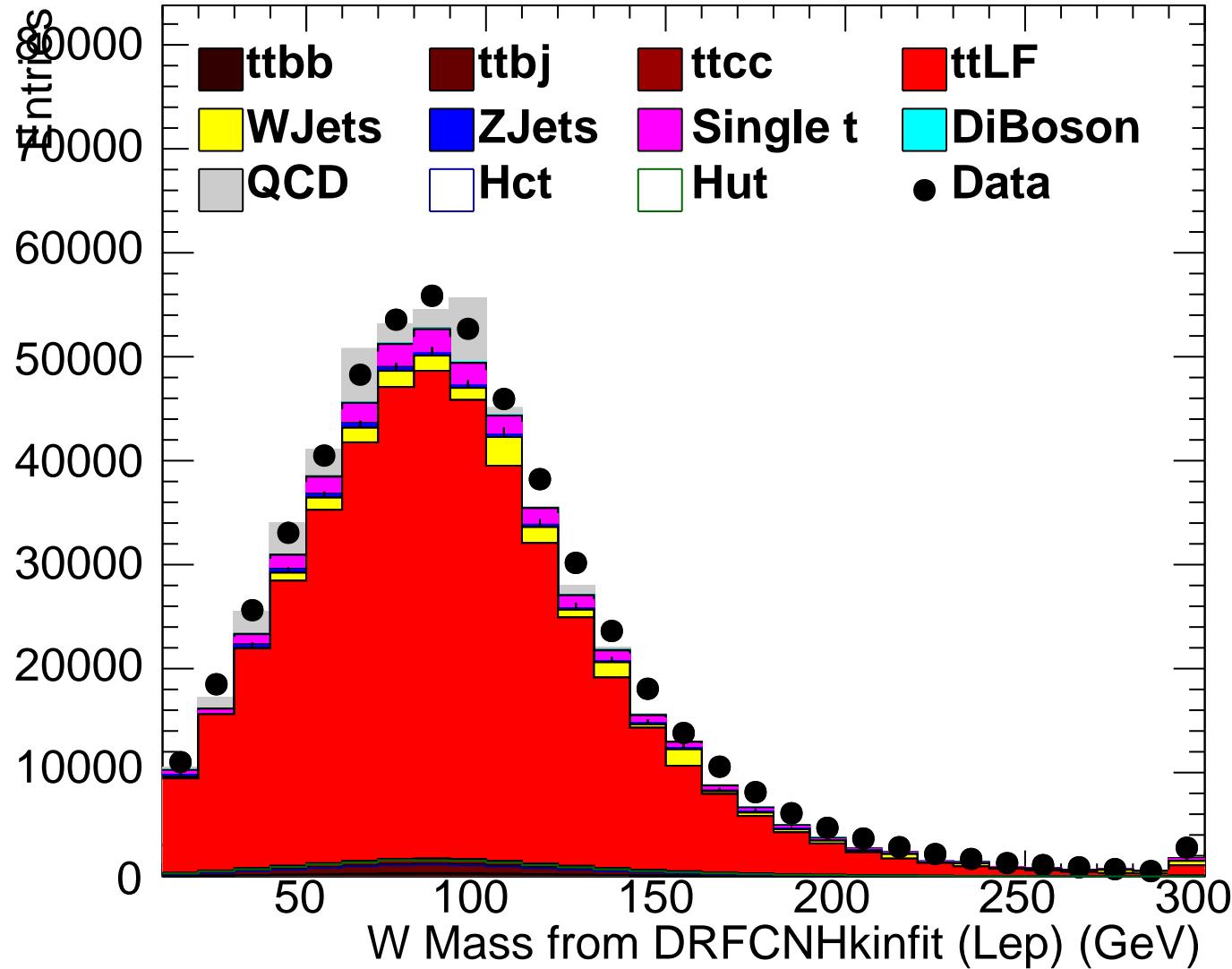


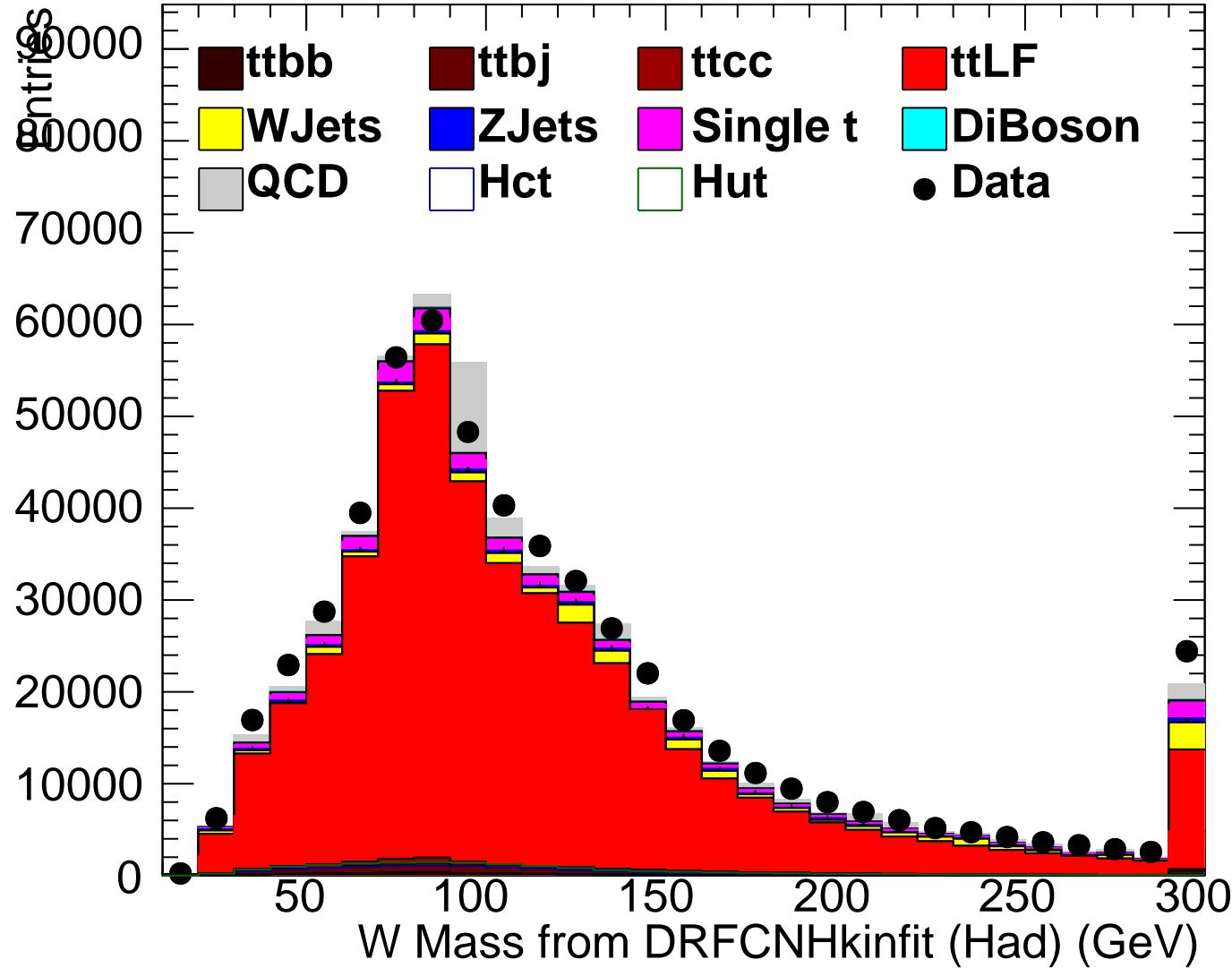
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

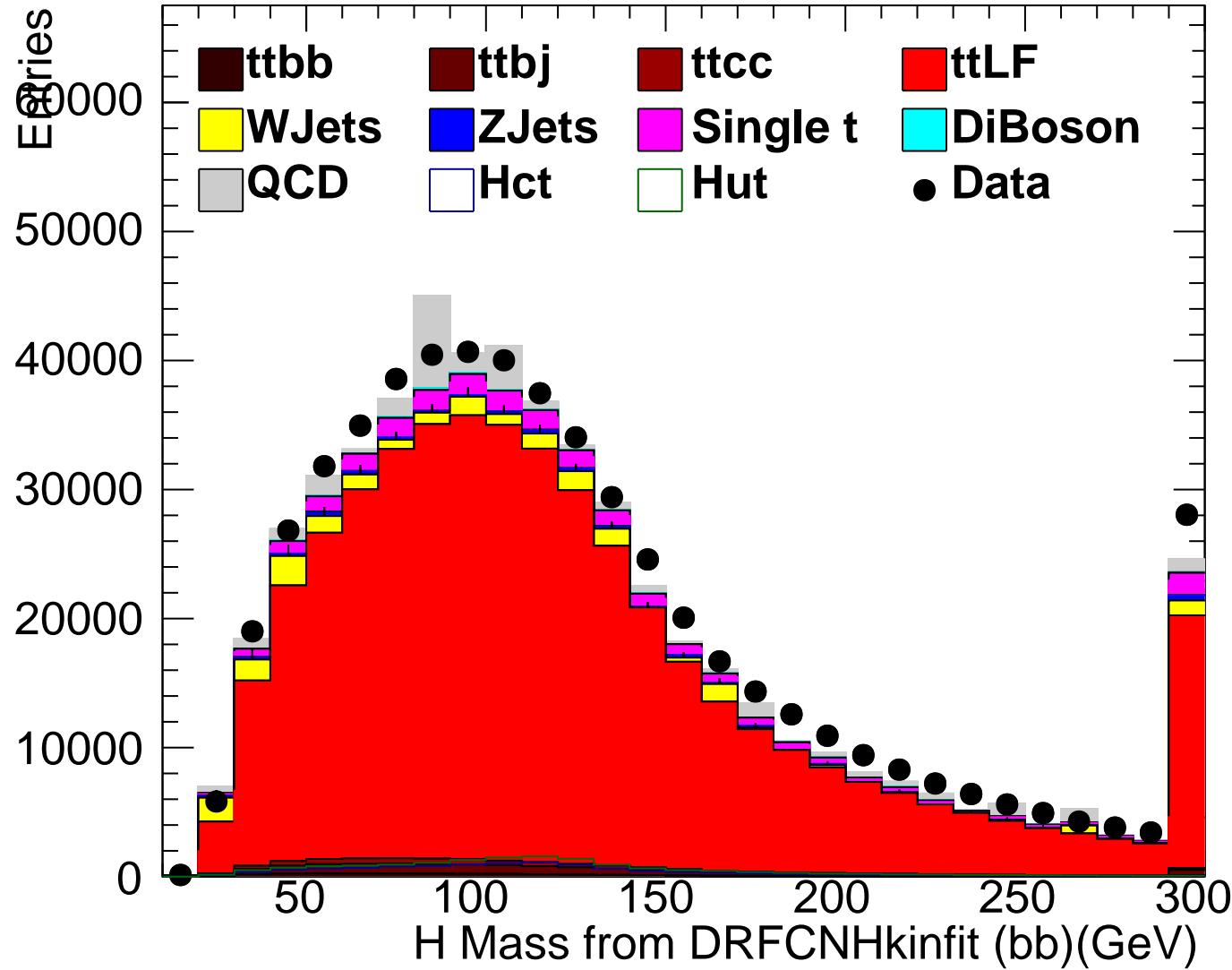
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

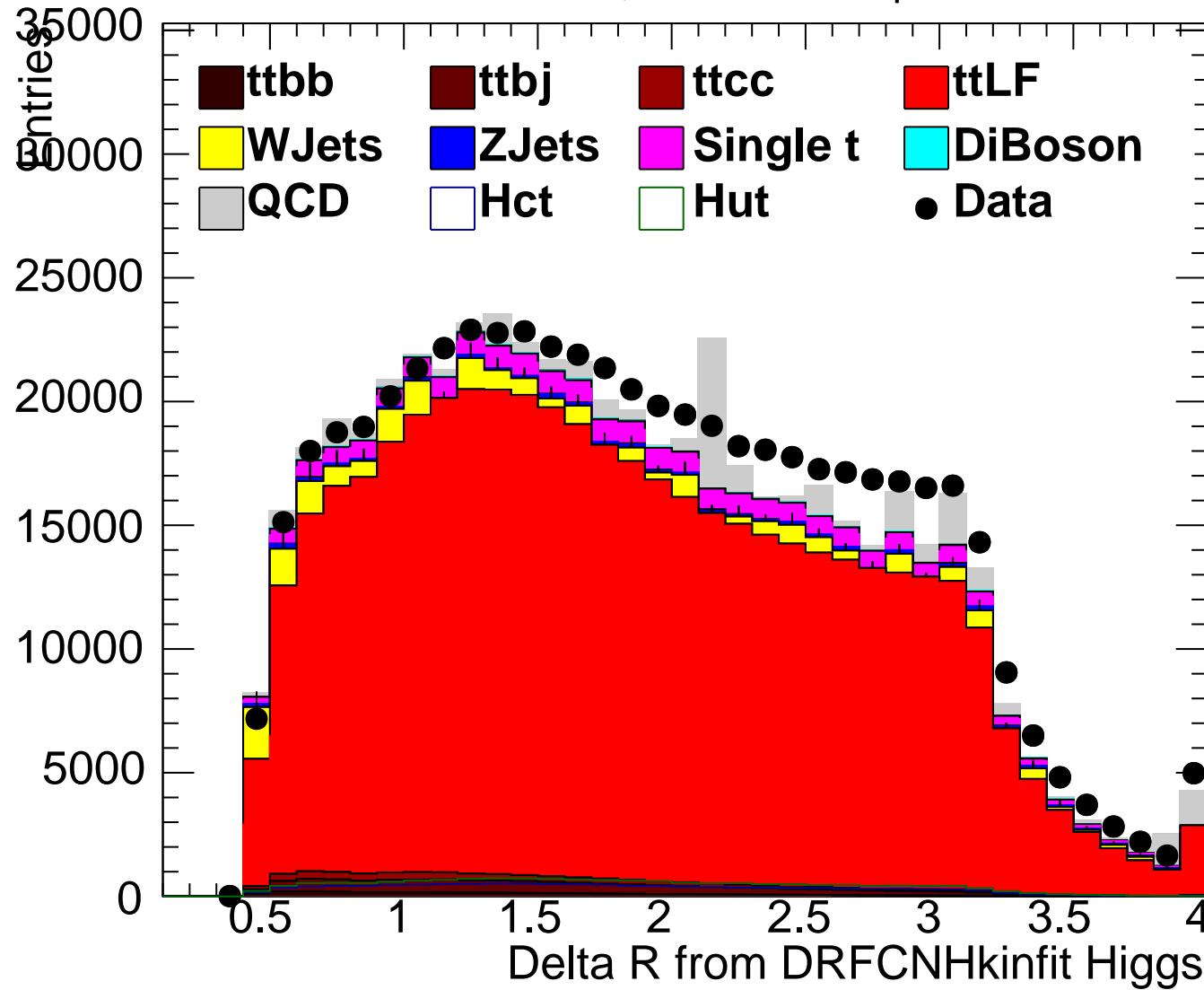
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

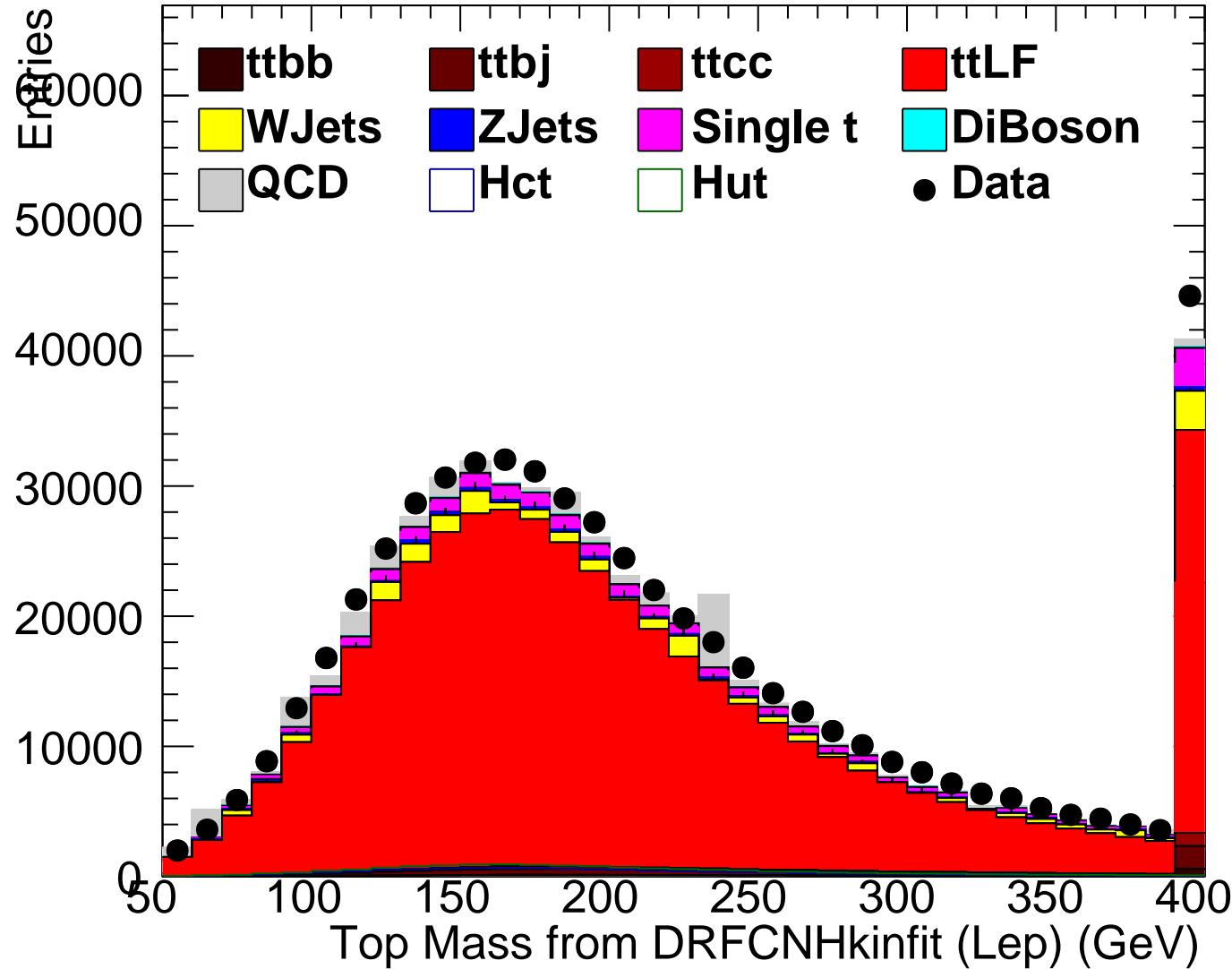


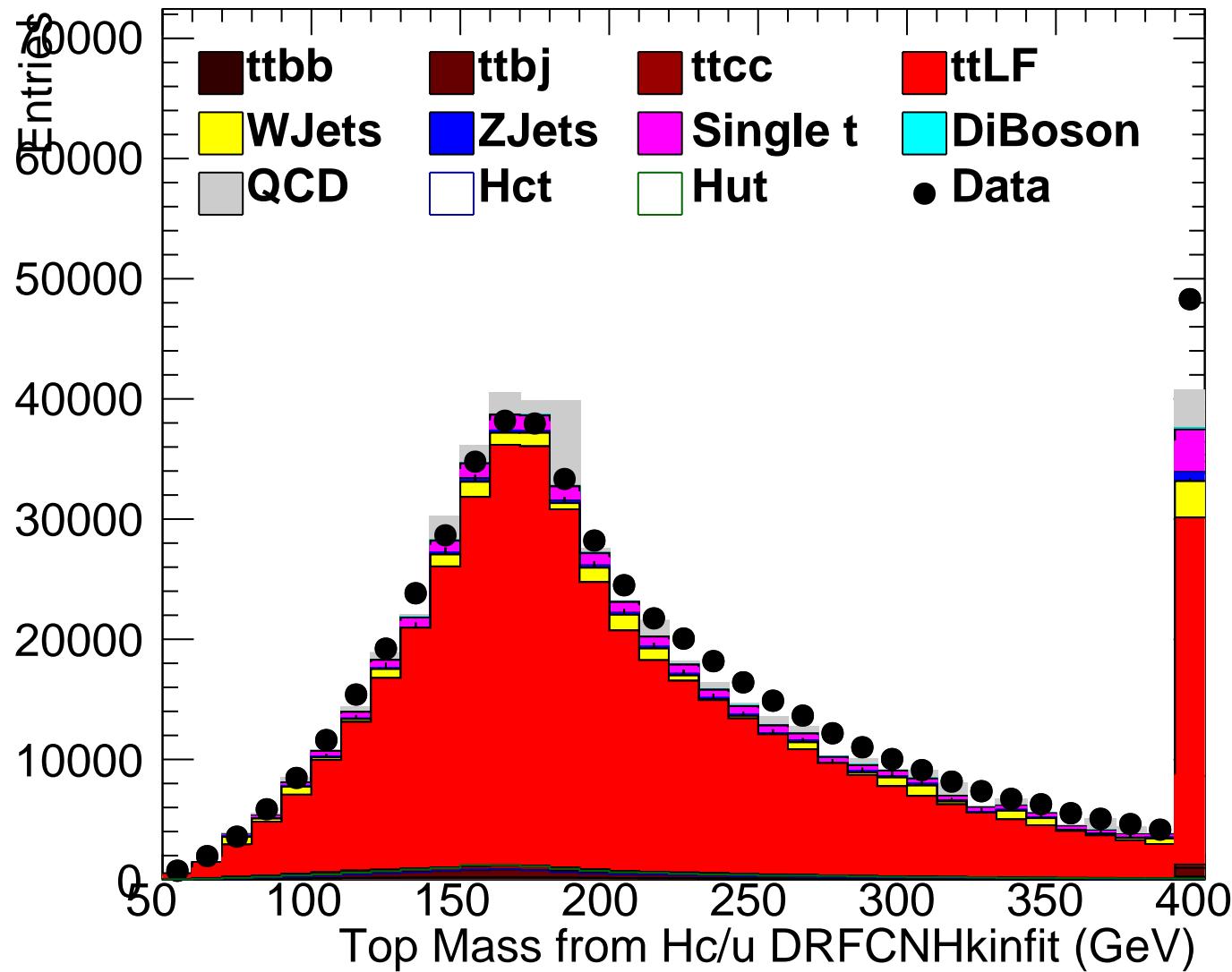
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

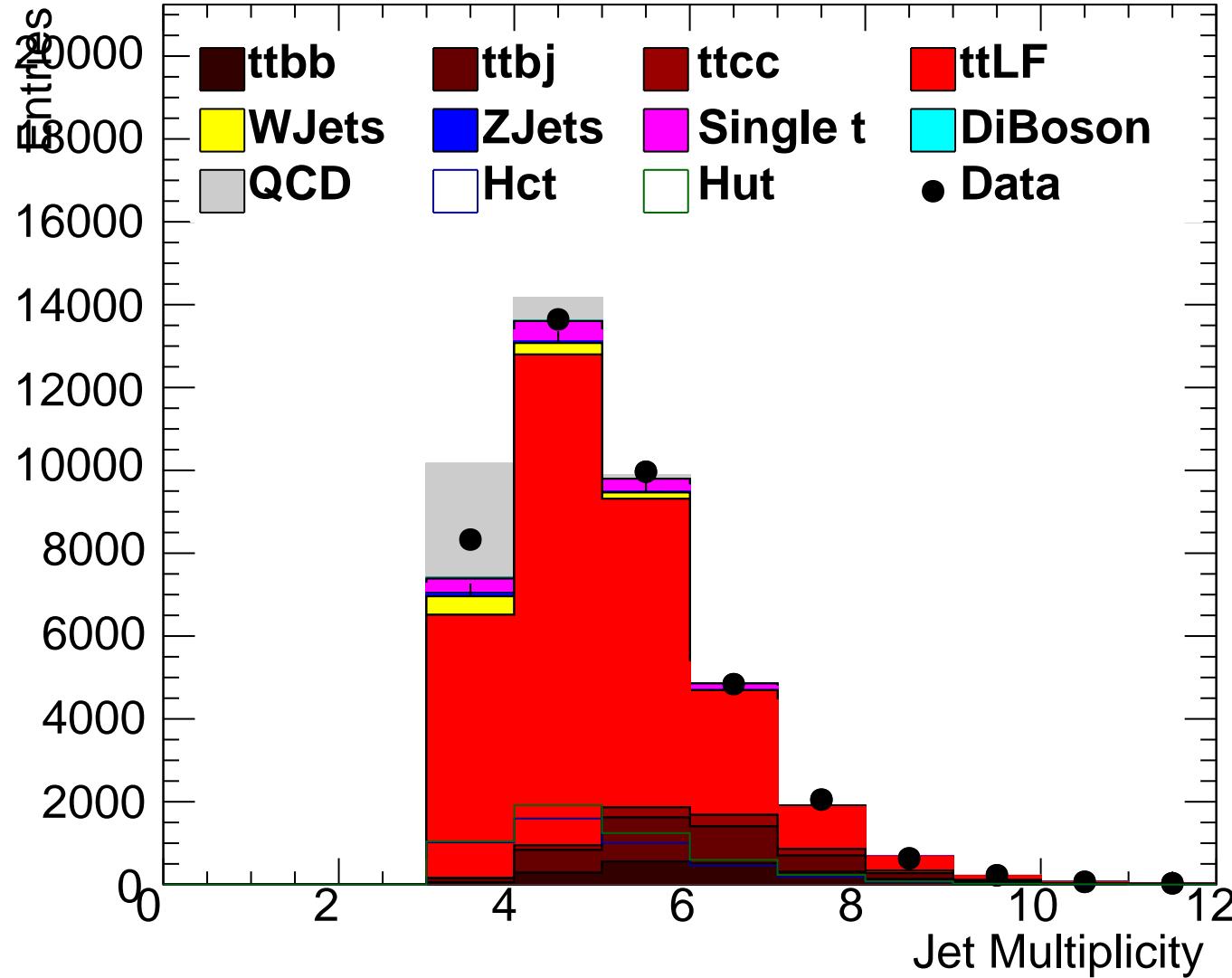
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

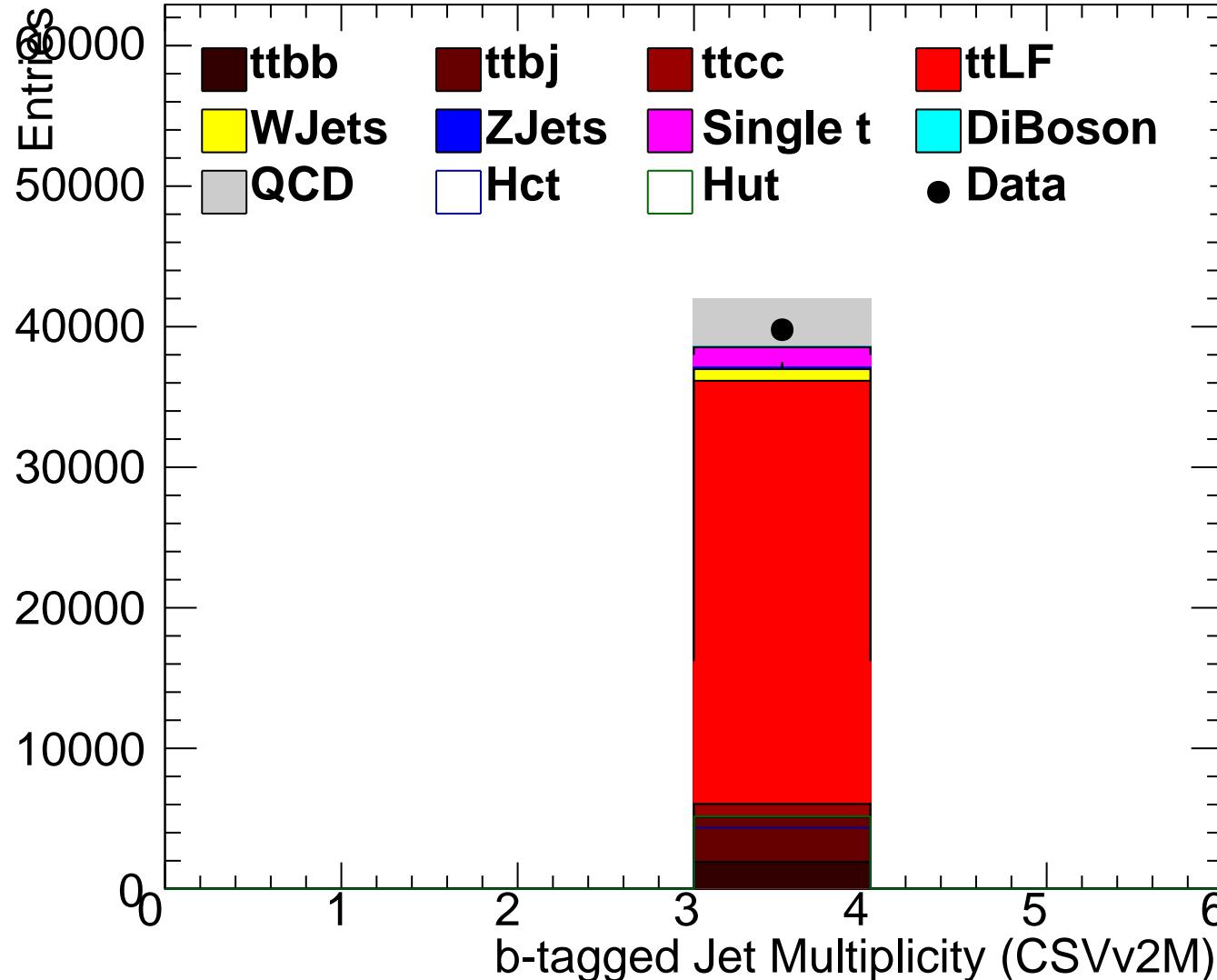
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

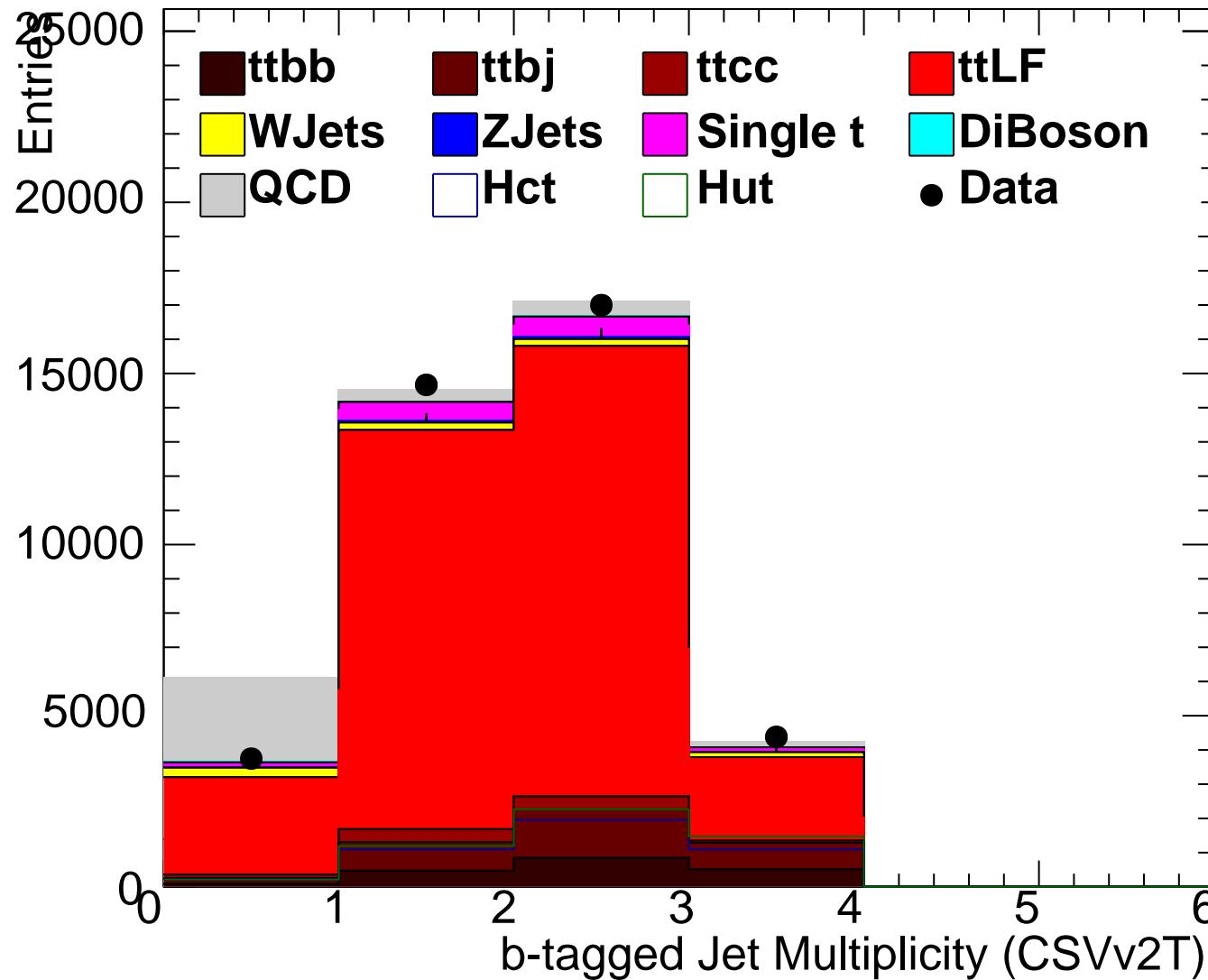
Ch0_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

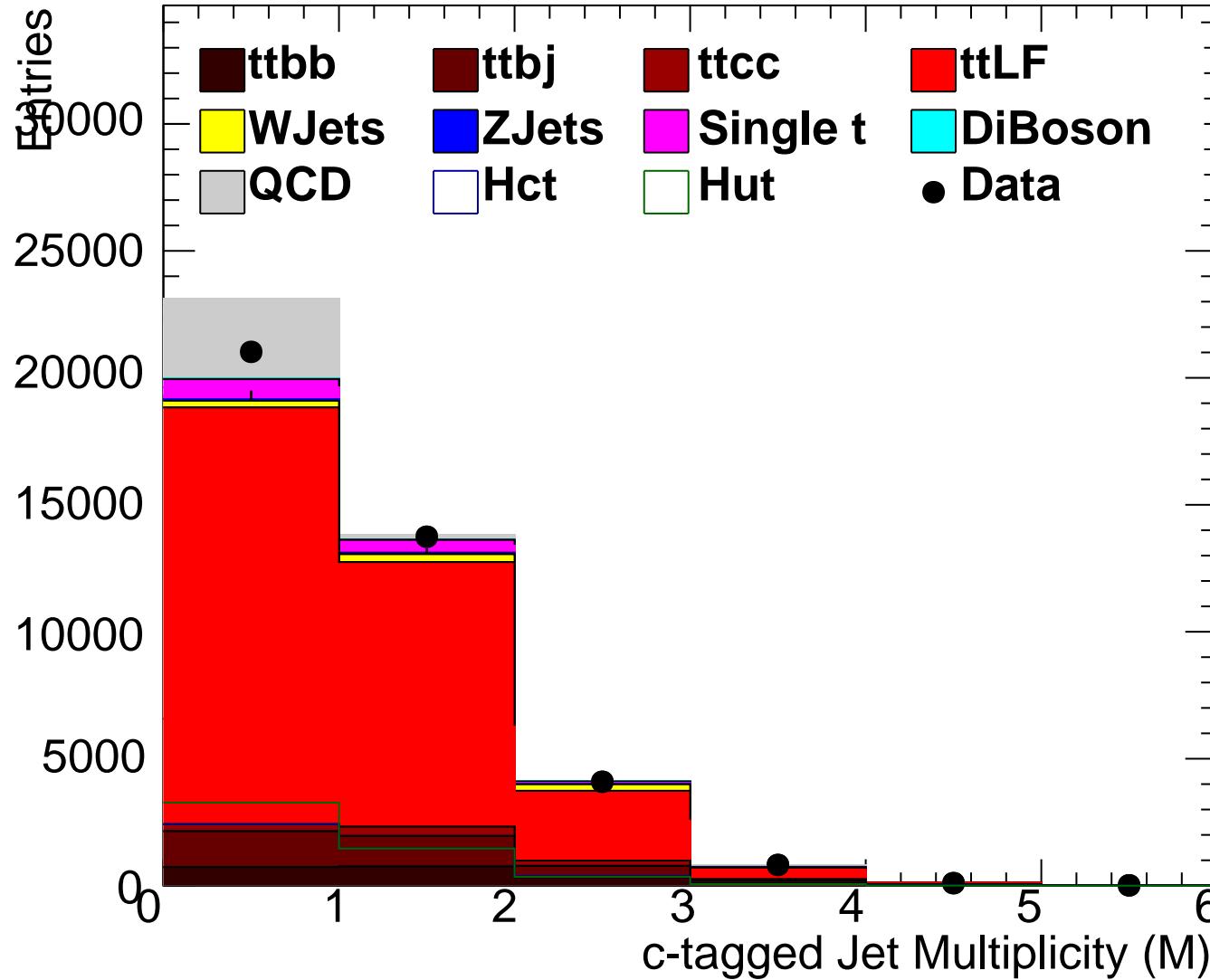


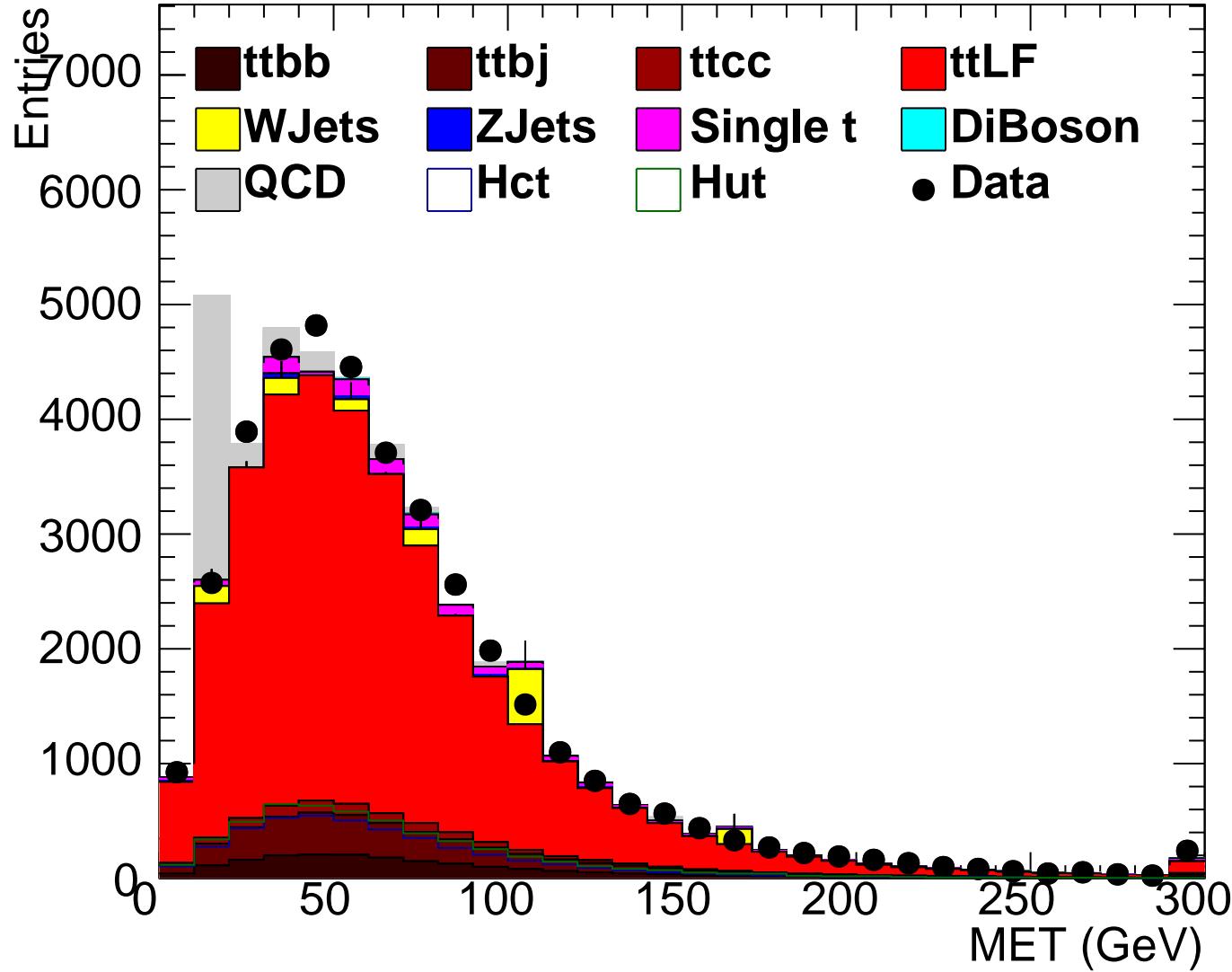


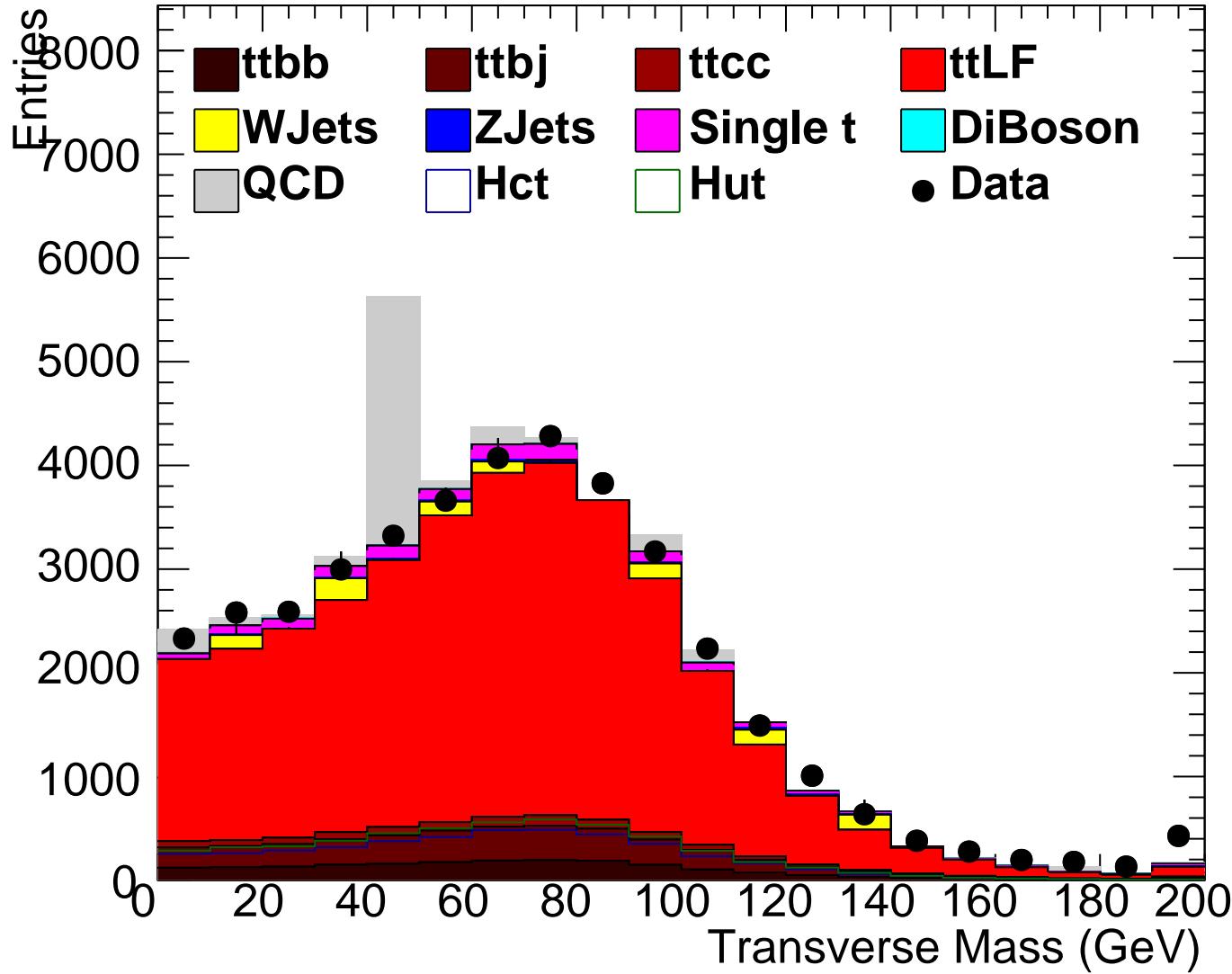
Ch0_S3

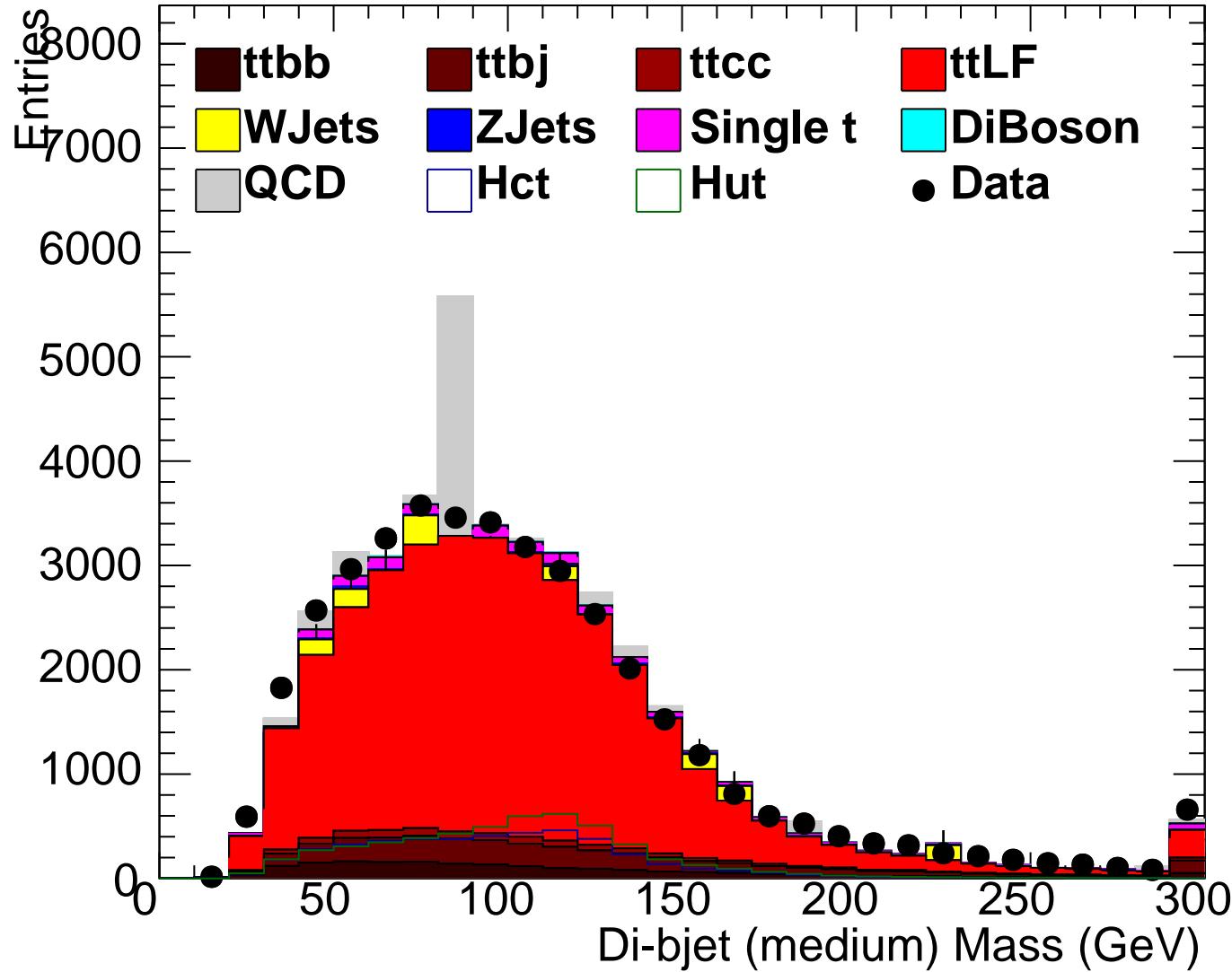
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

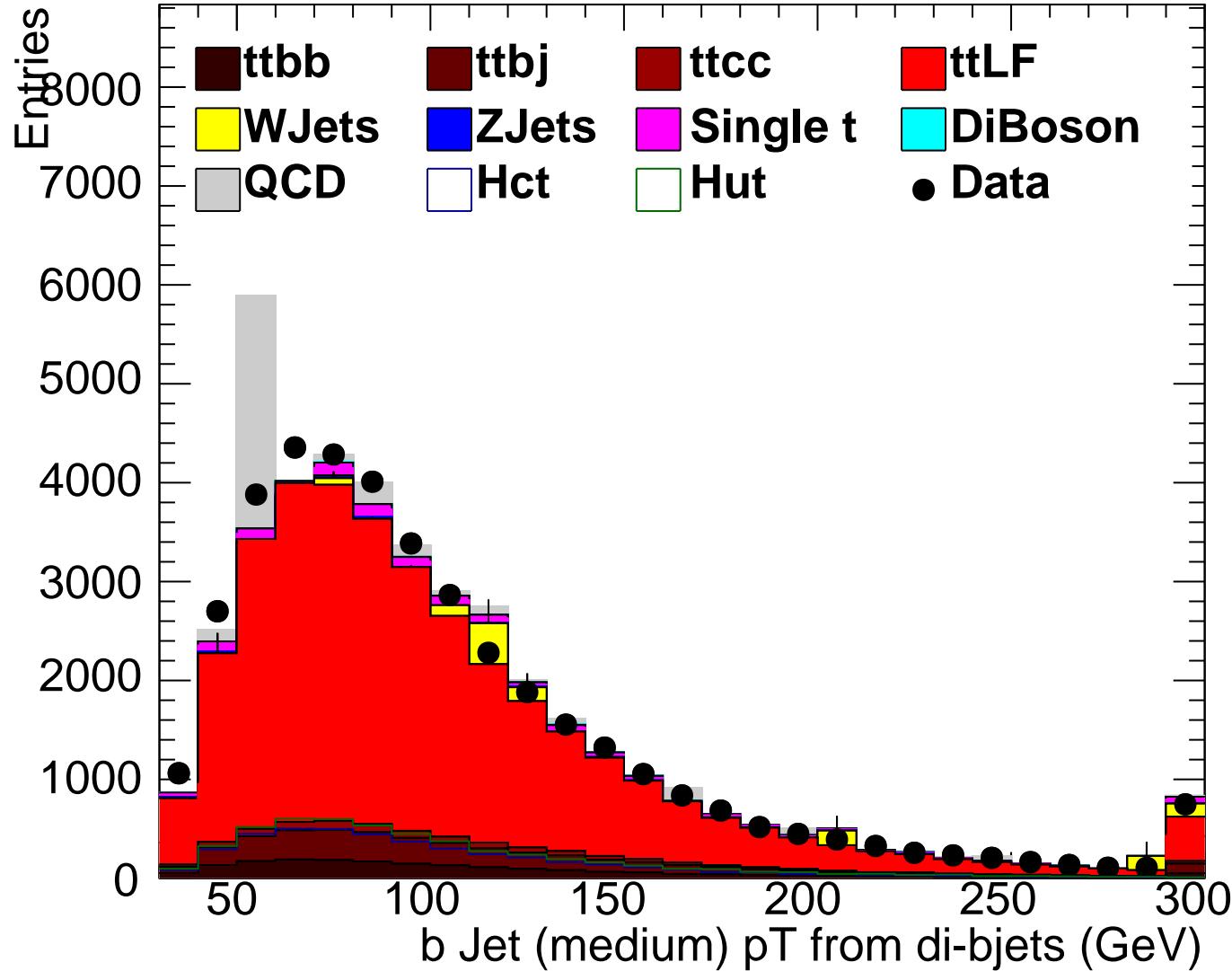


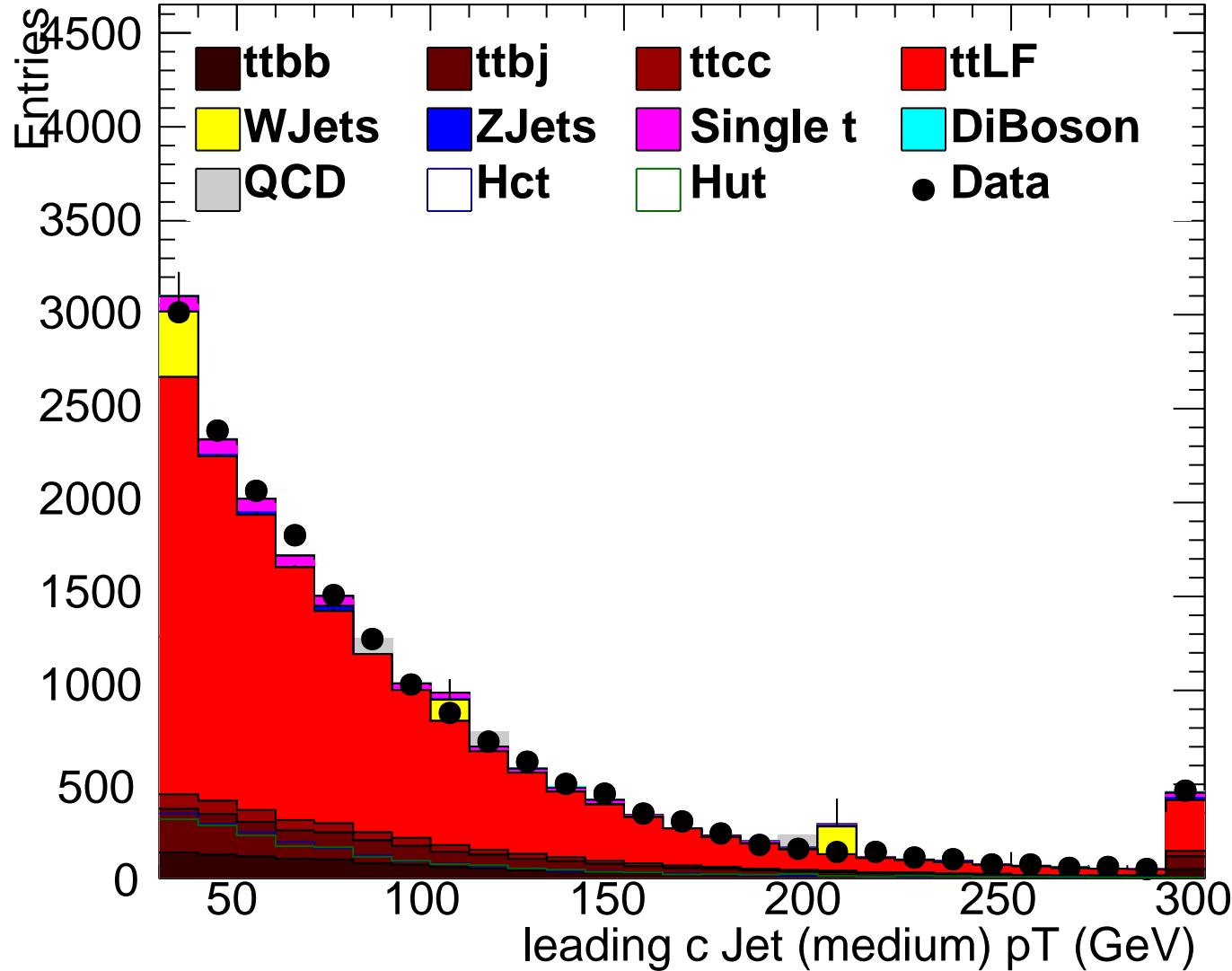


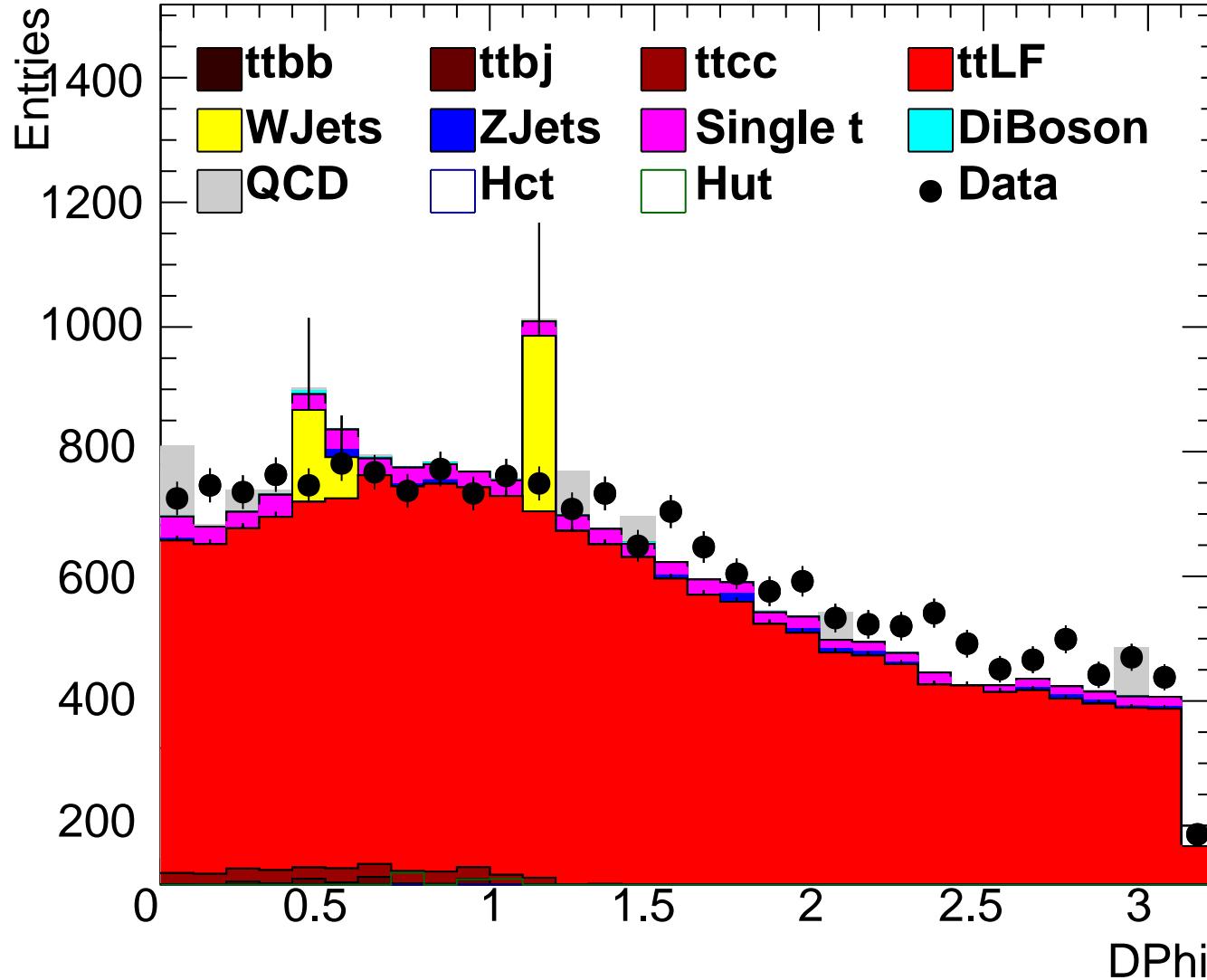
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

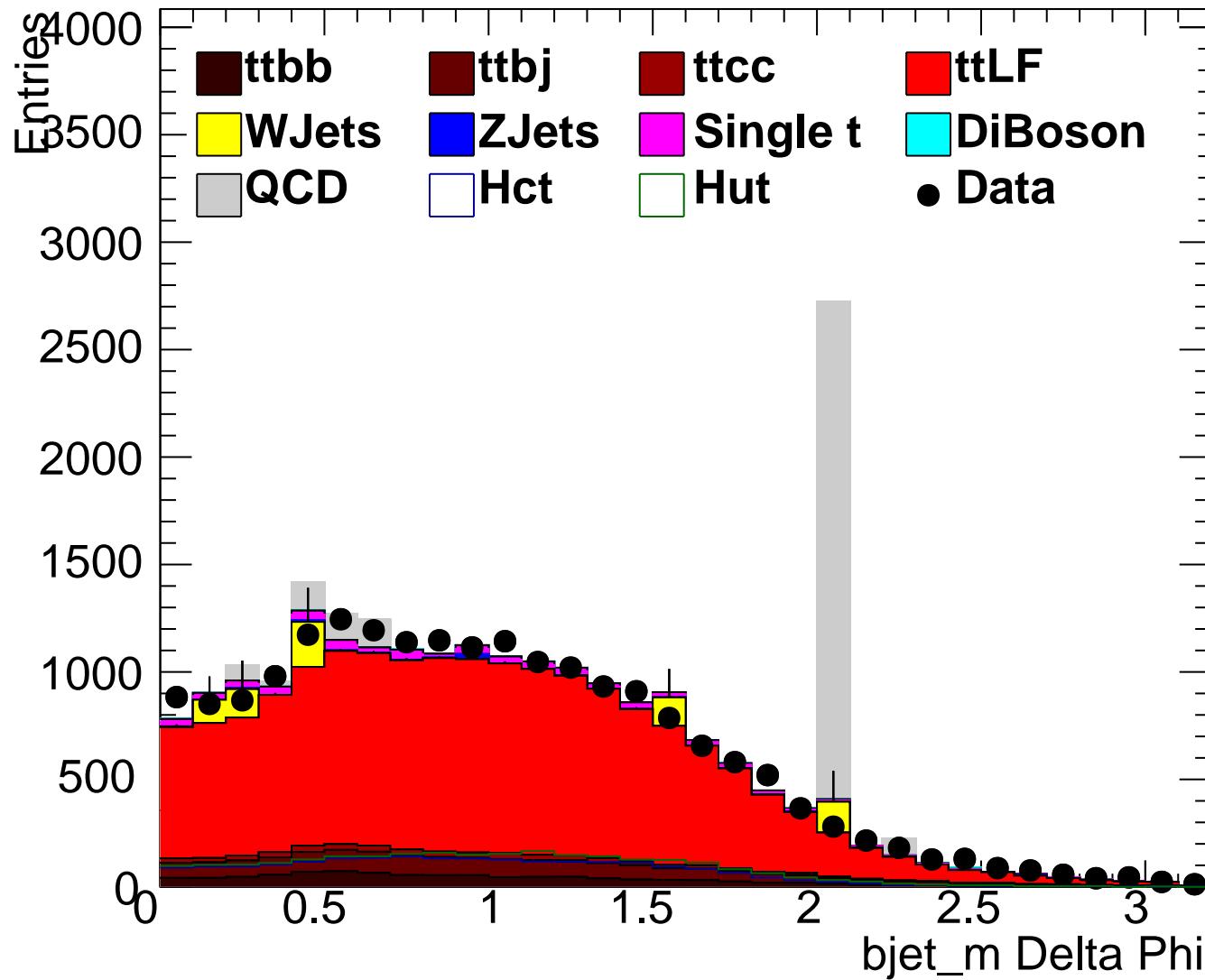


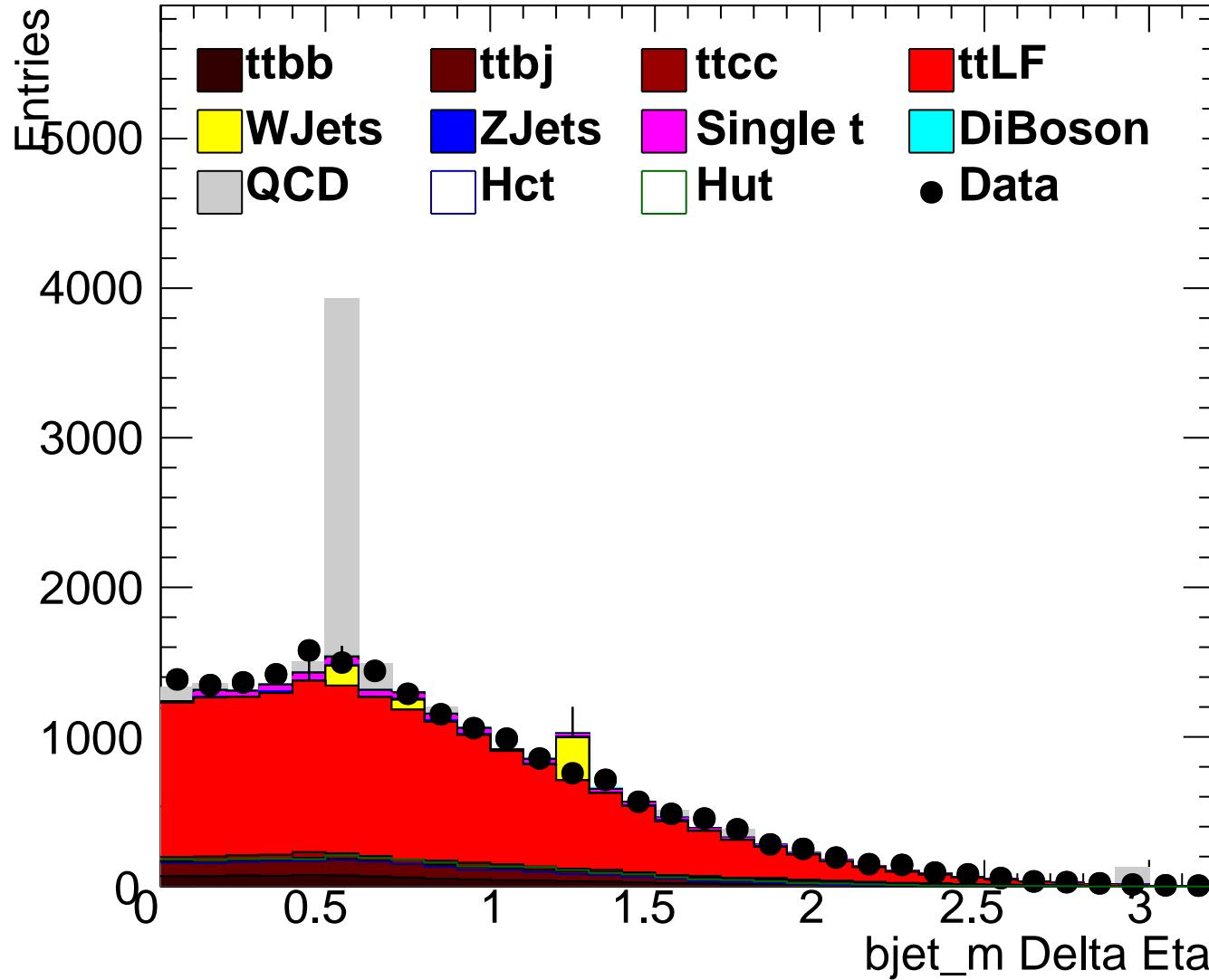


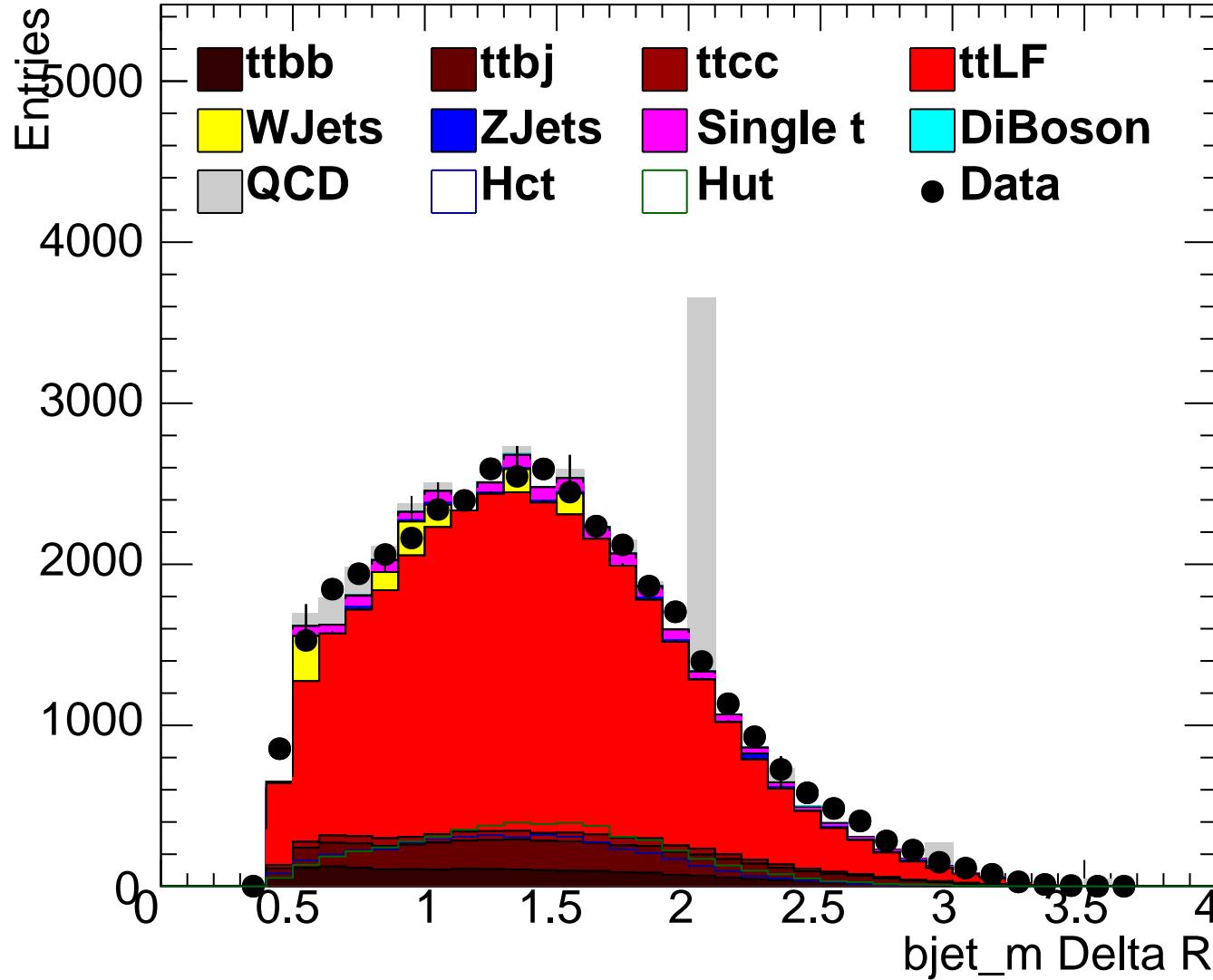
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

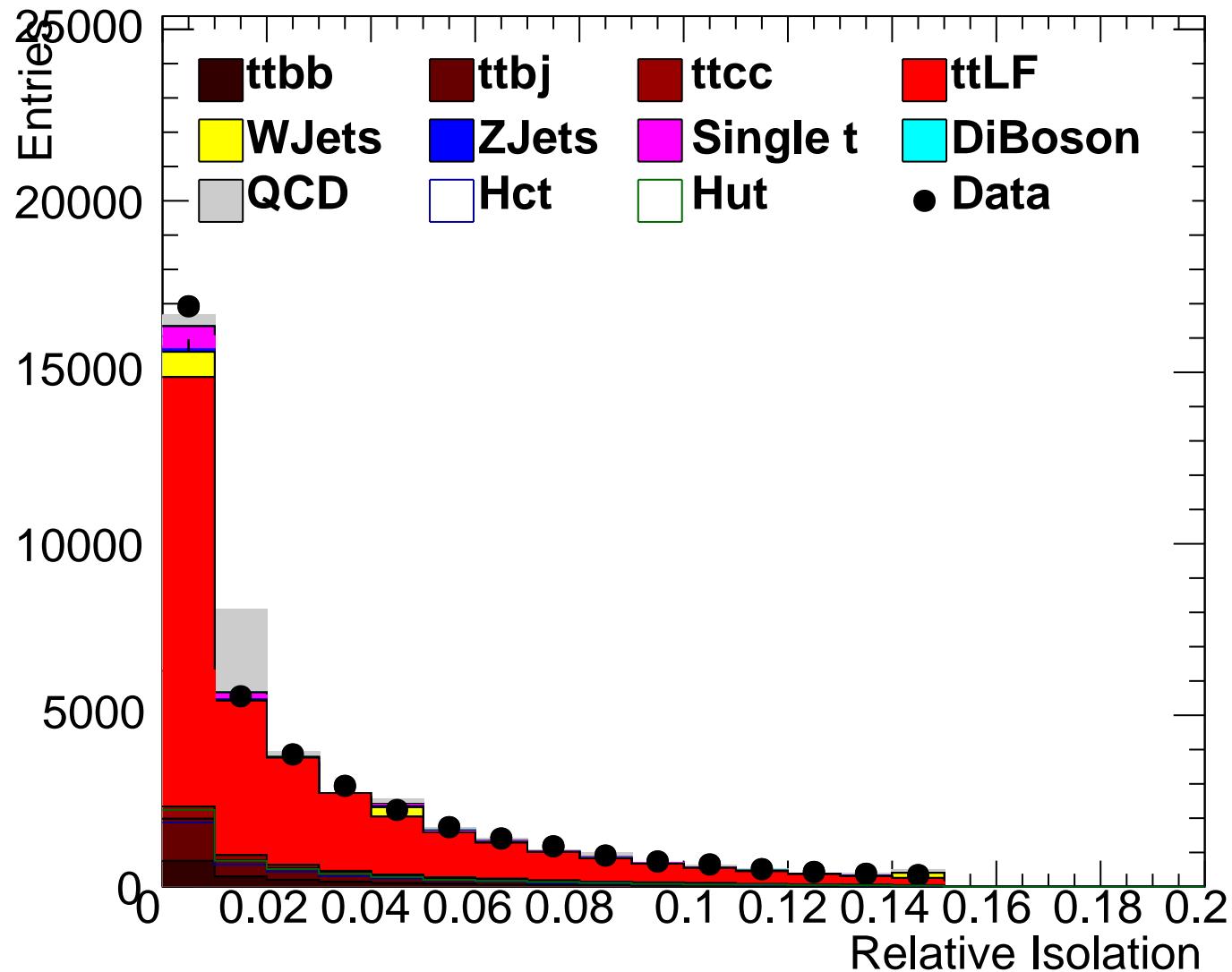
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

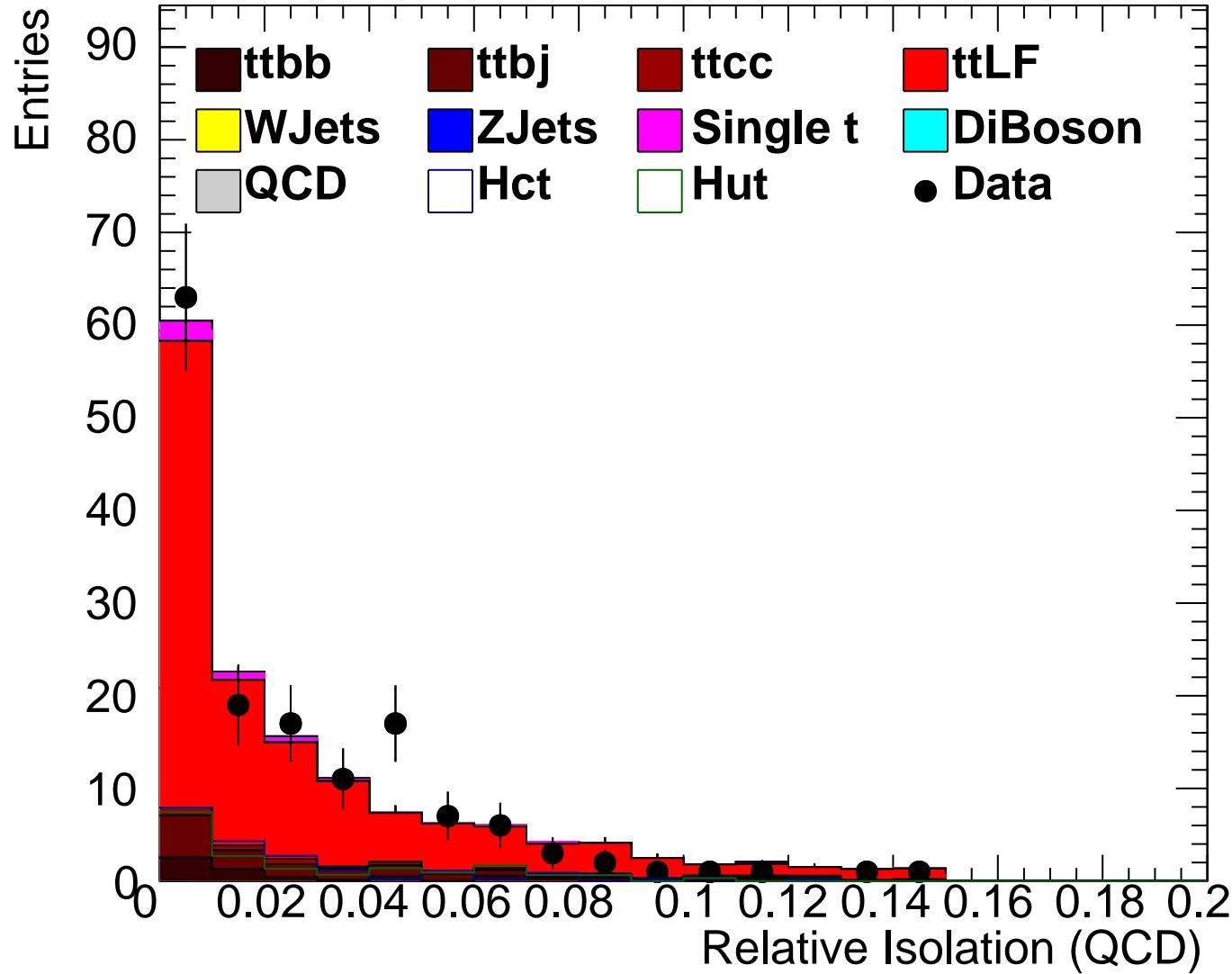


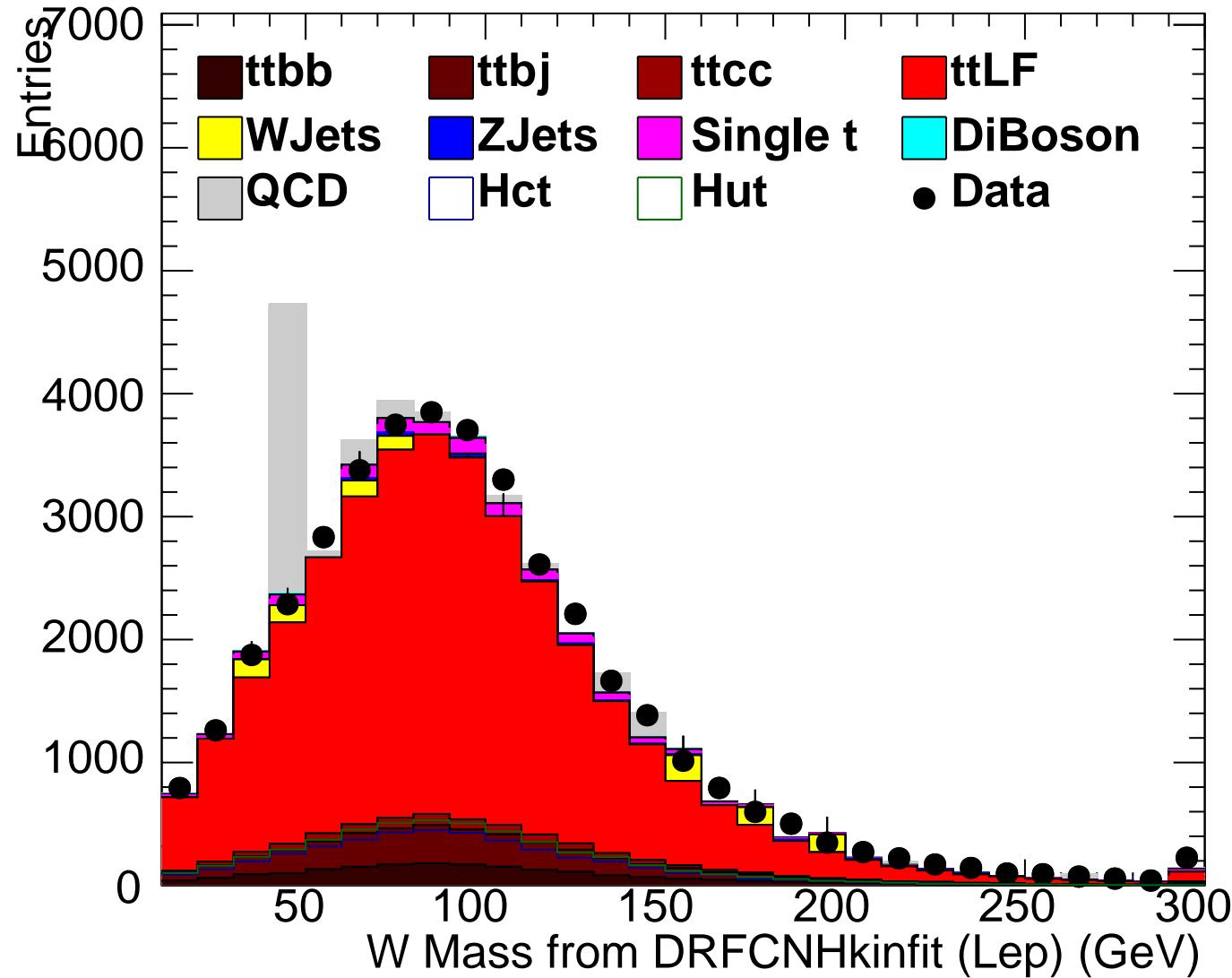
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

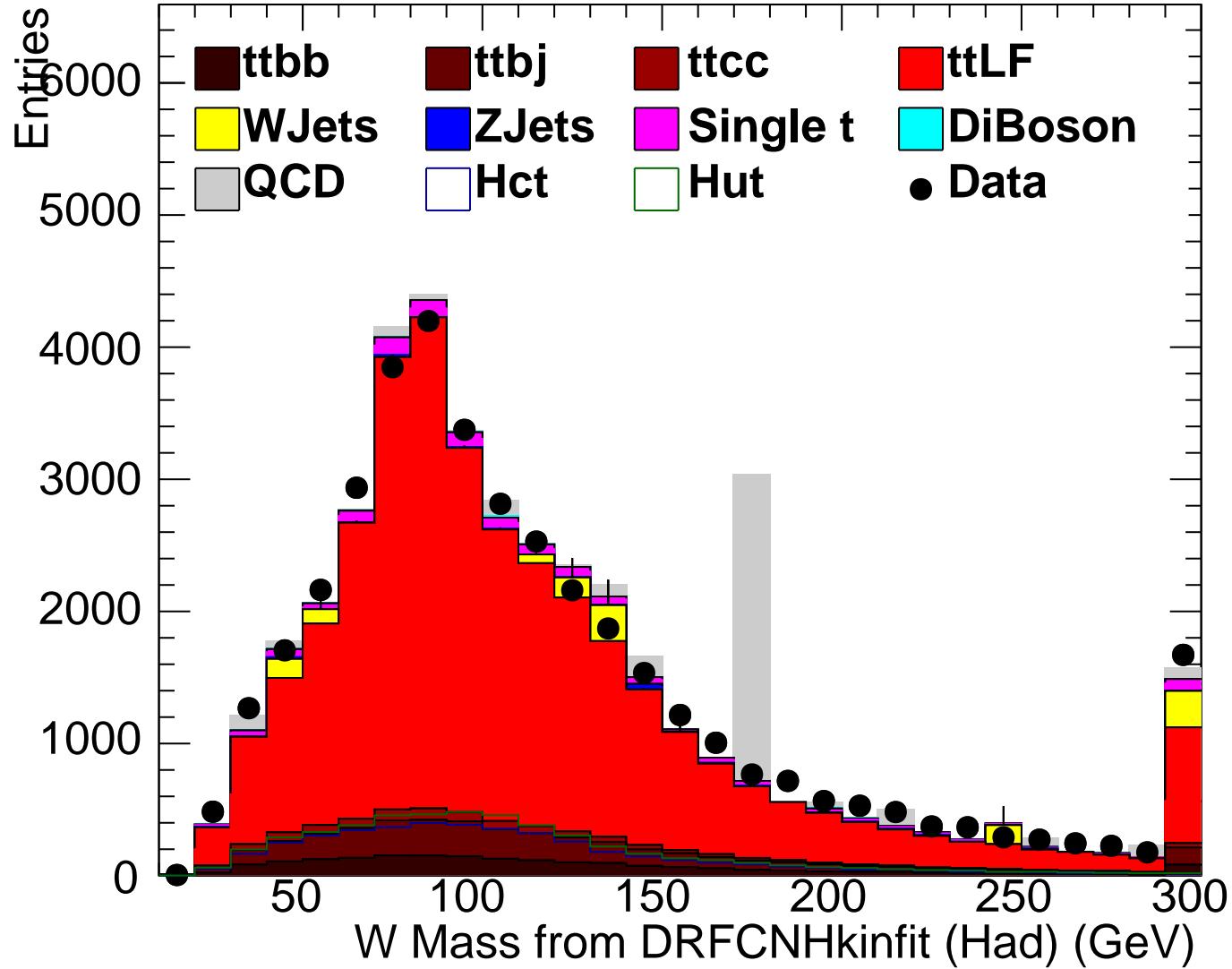


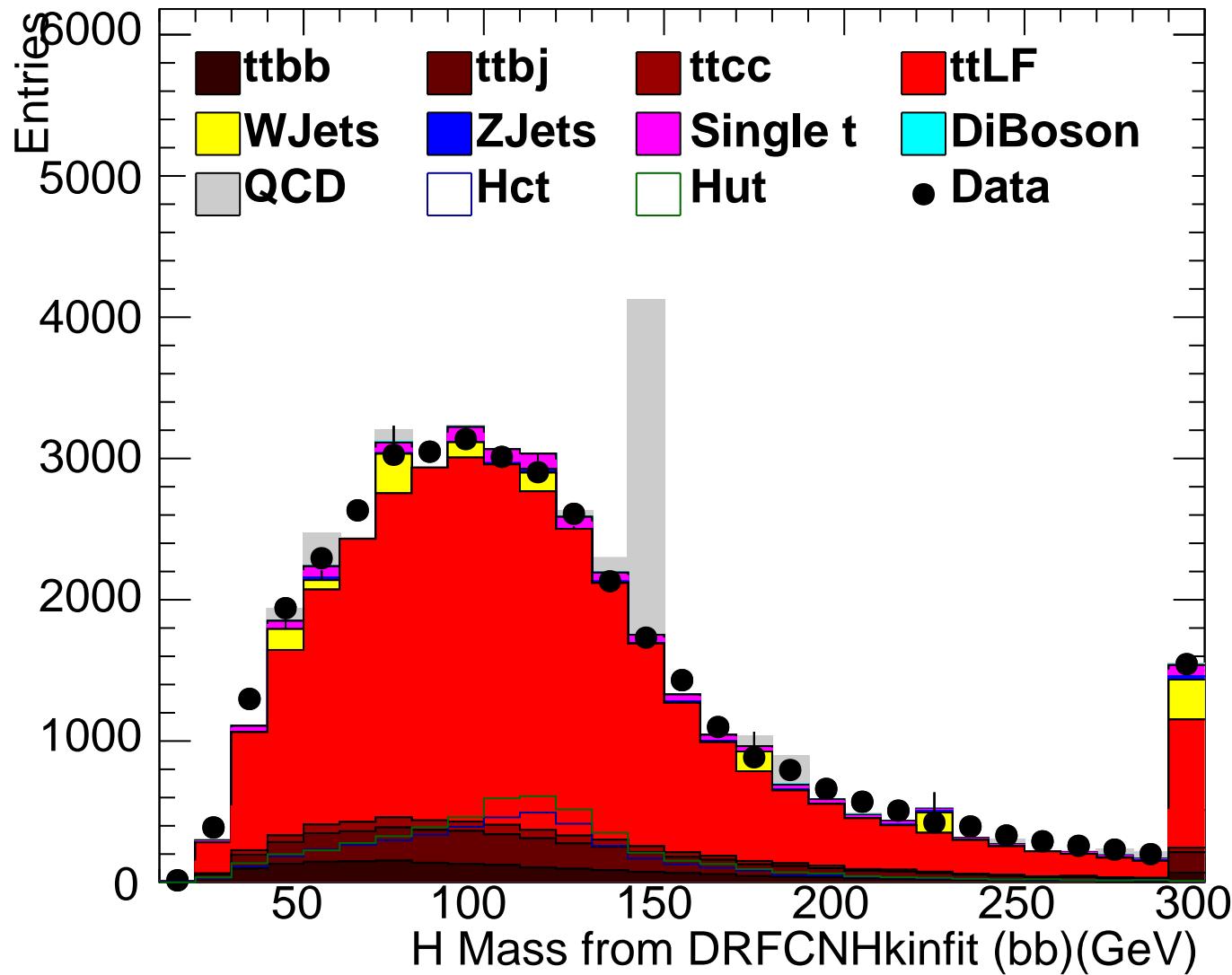
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

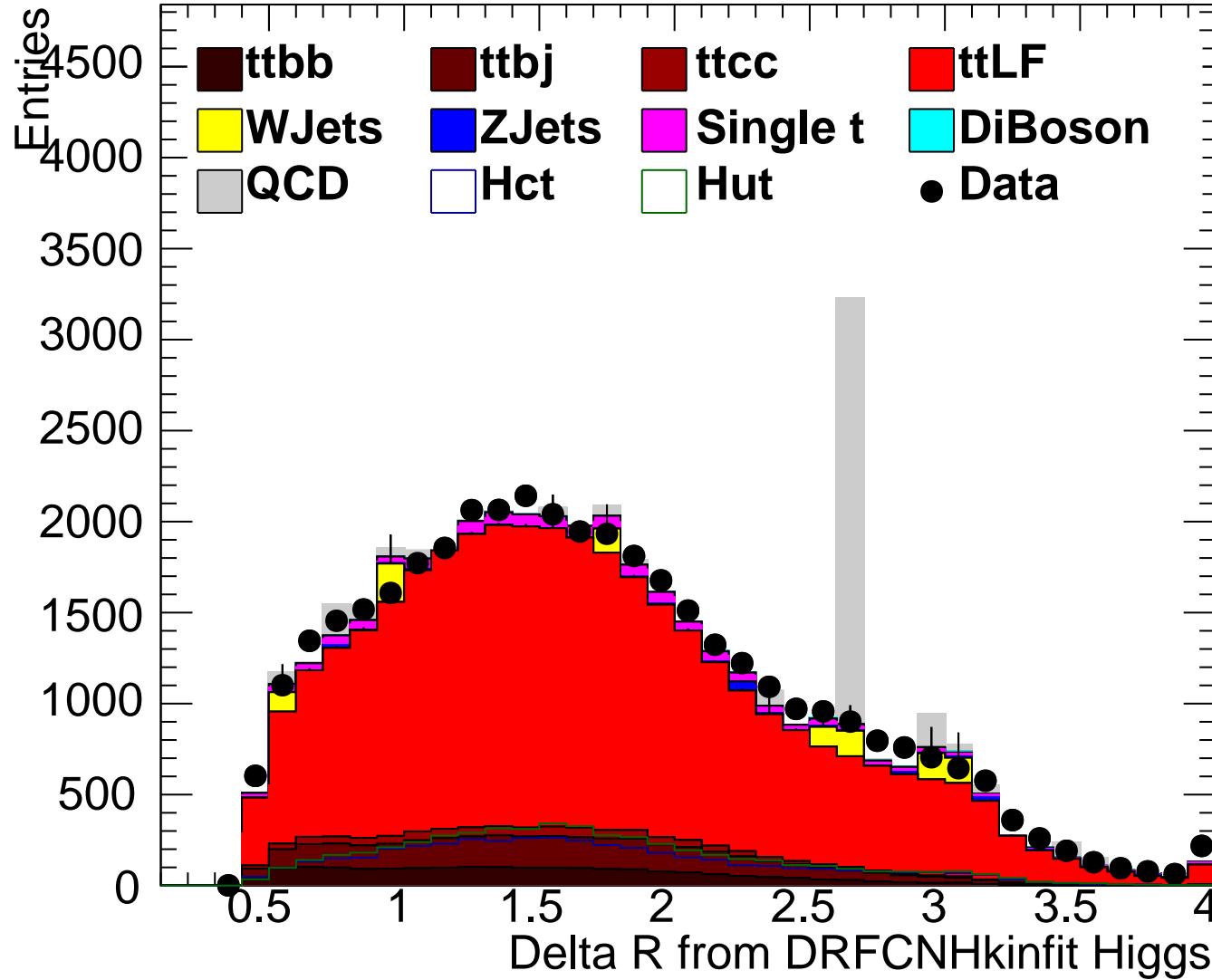


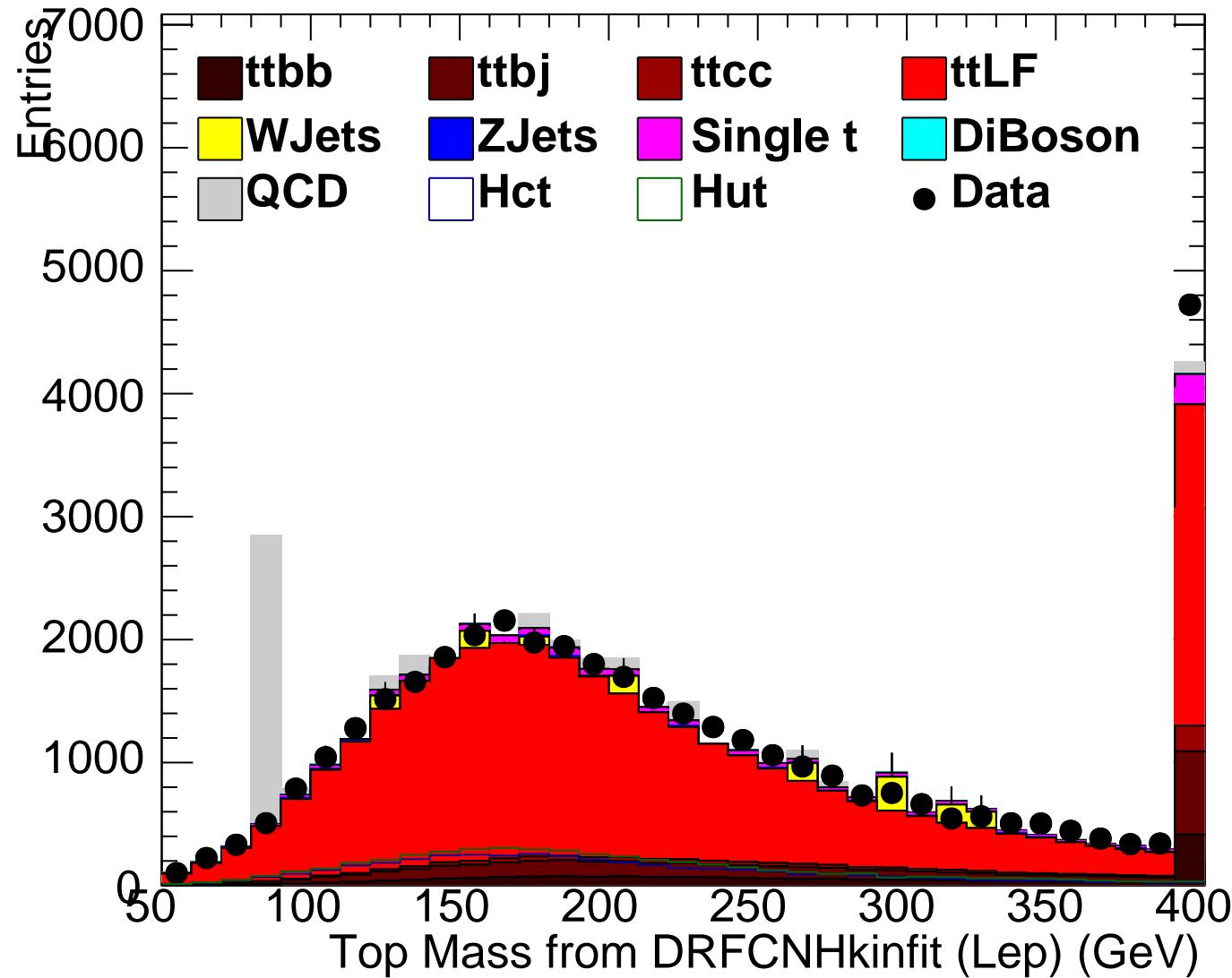


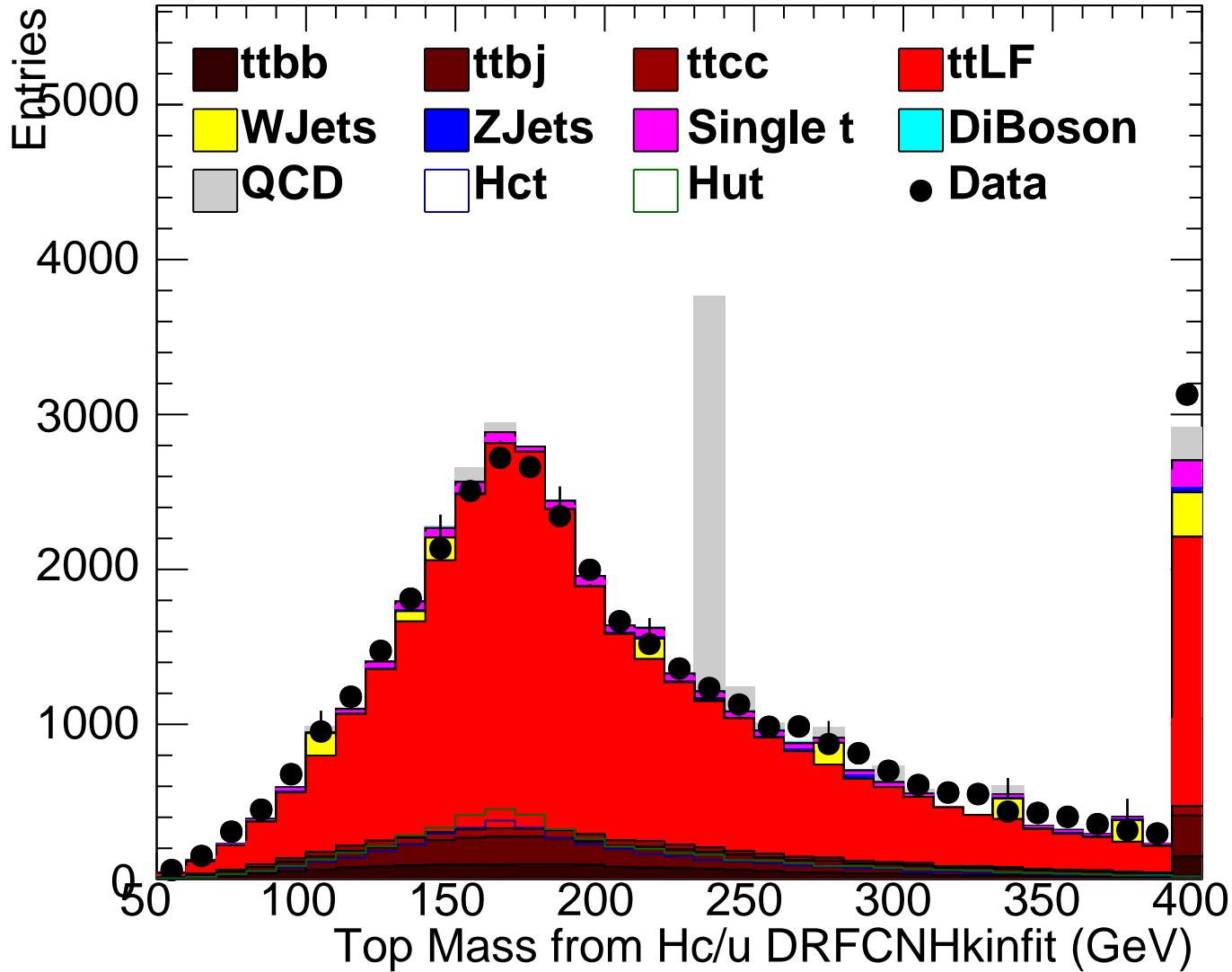


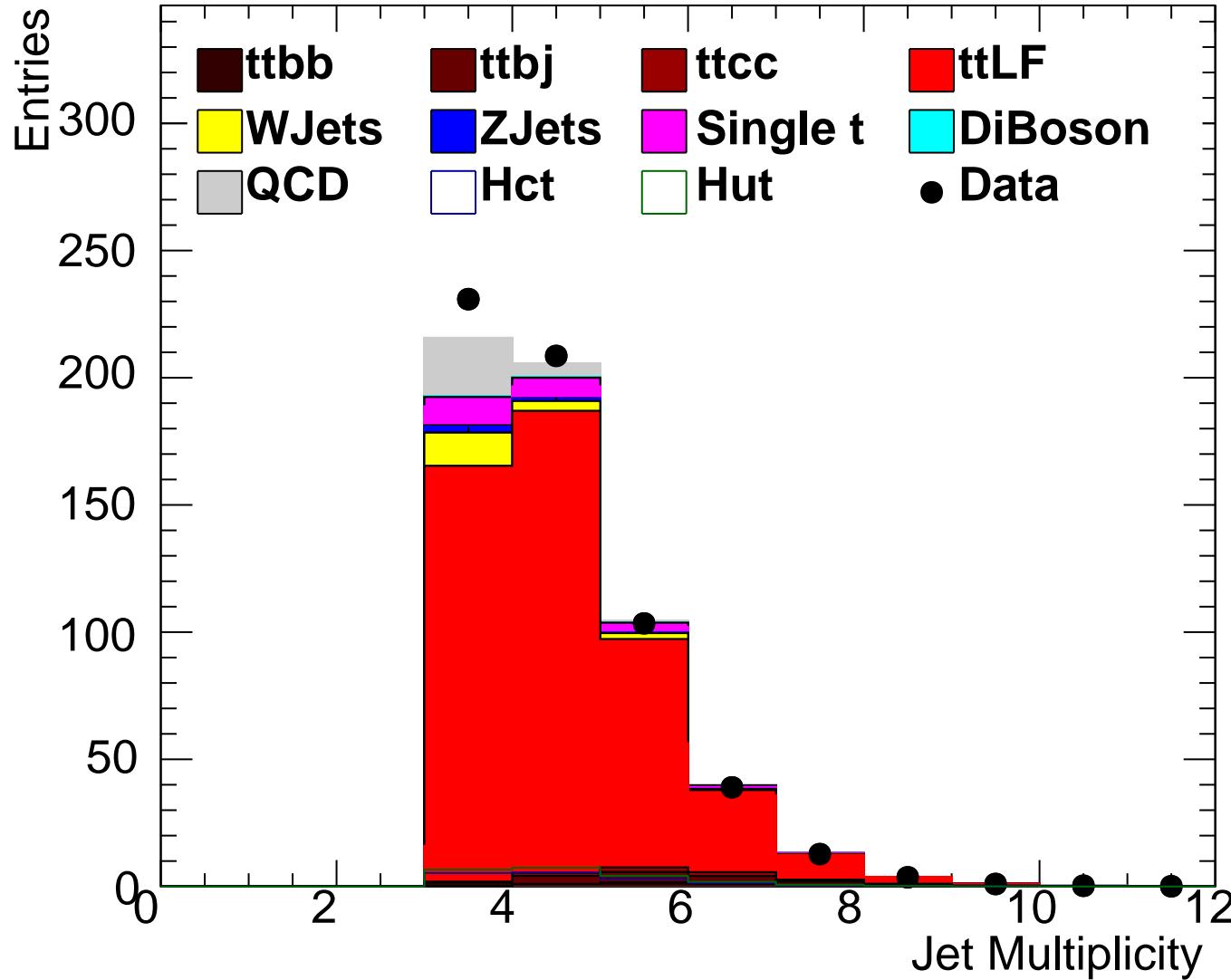
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

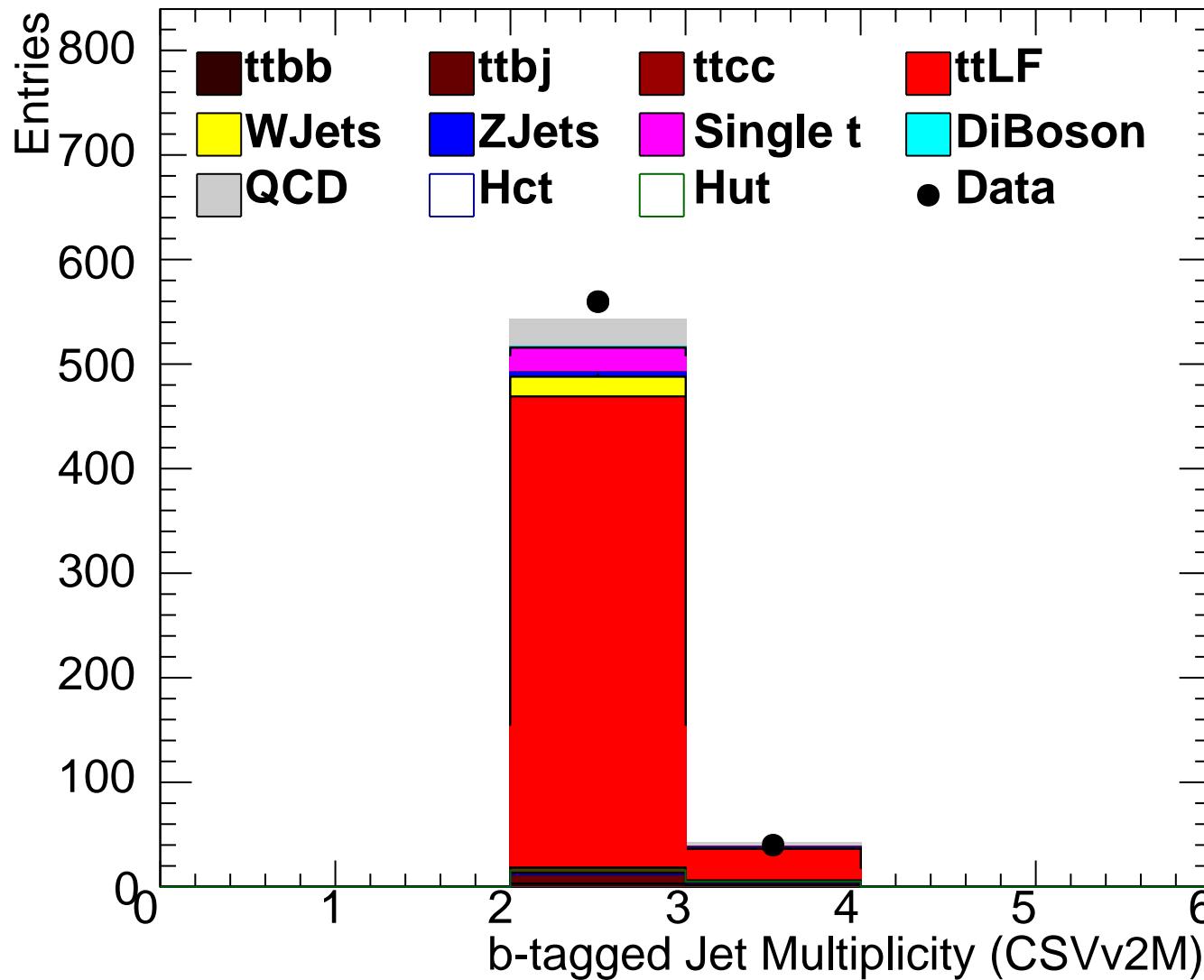
Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

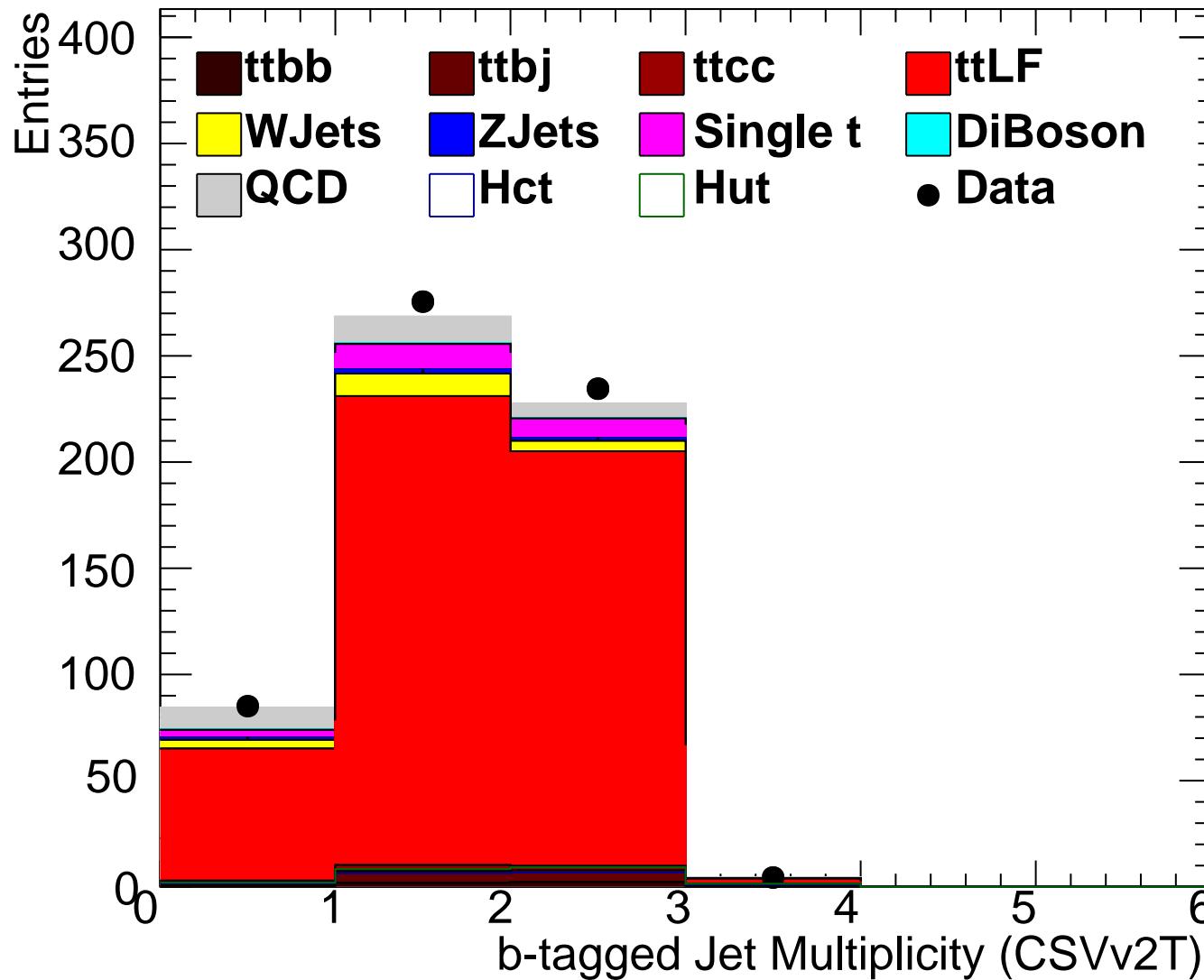
Ch0_S4

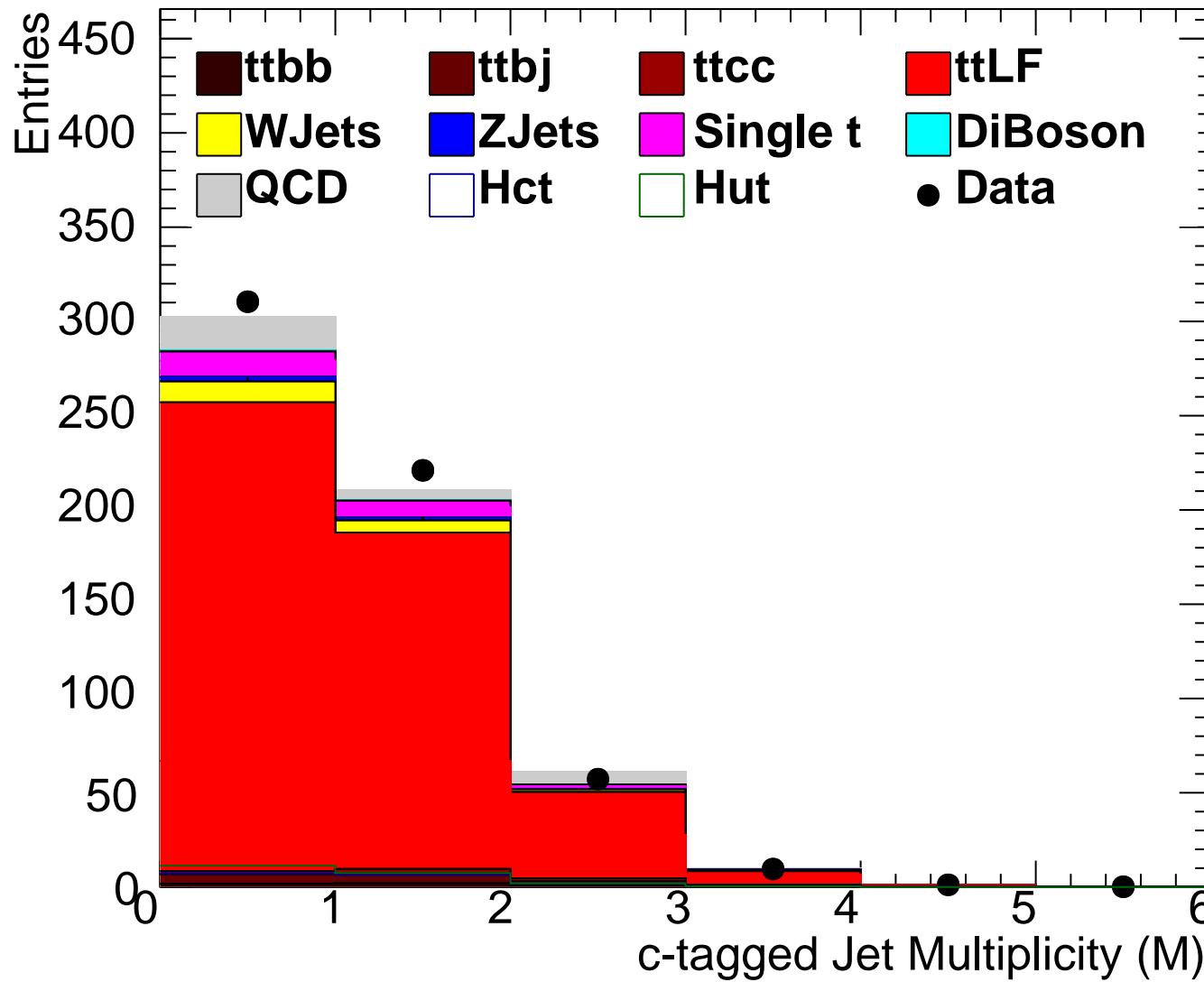
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

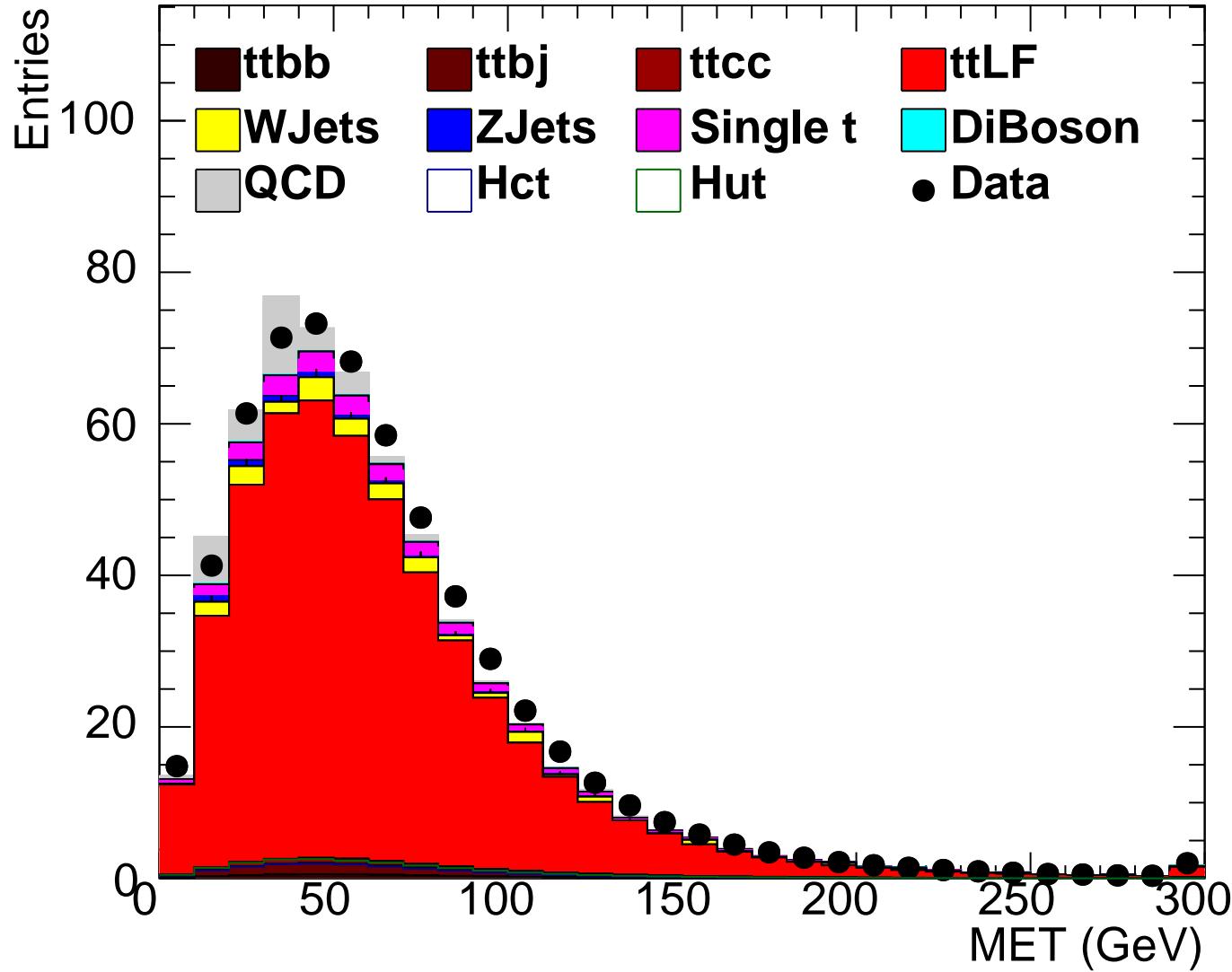


Ch0_S4

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

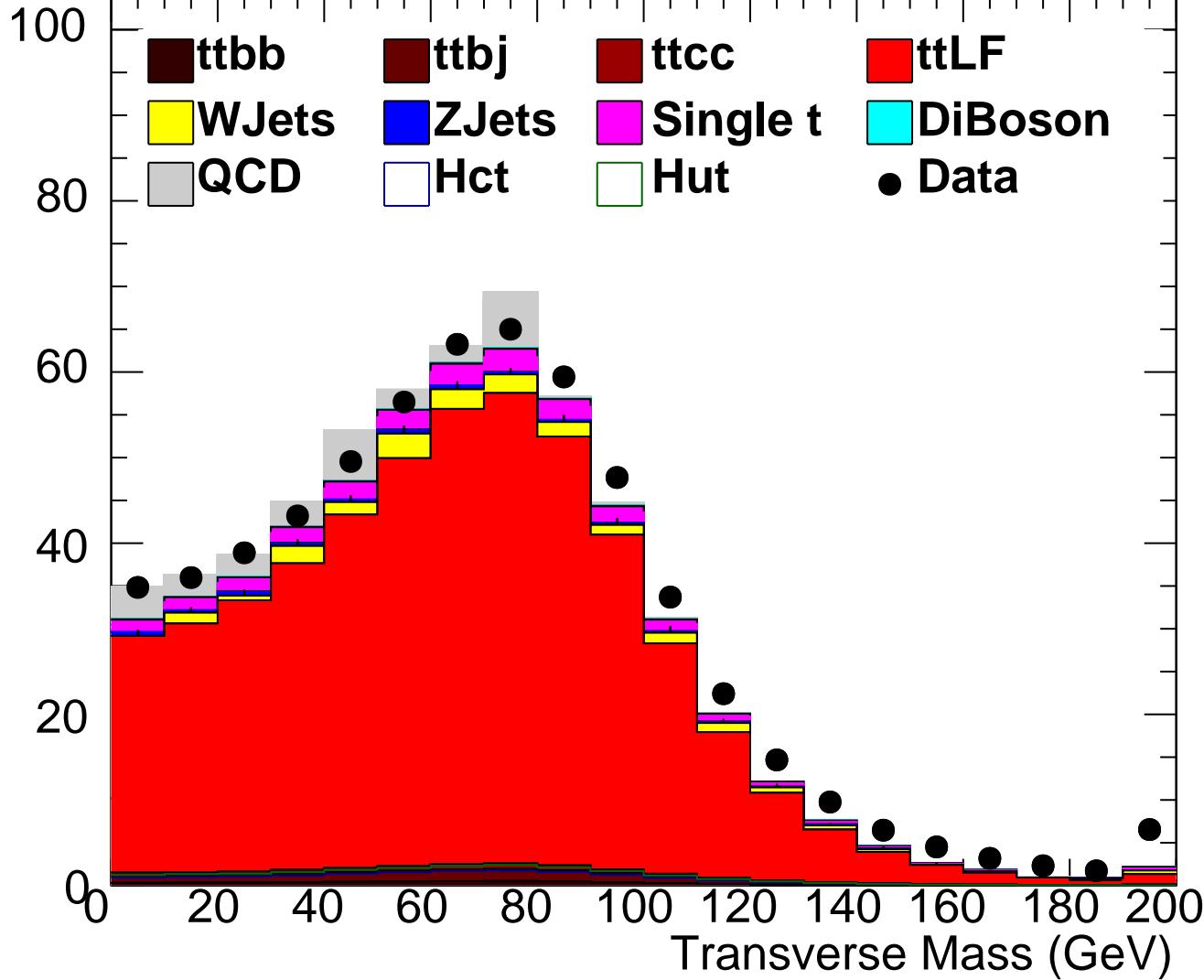


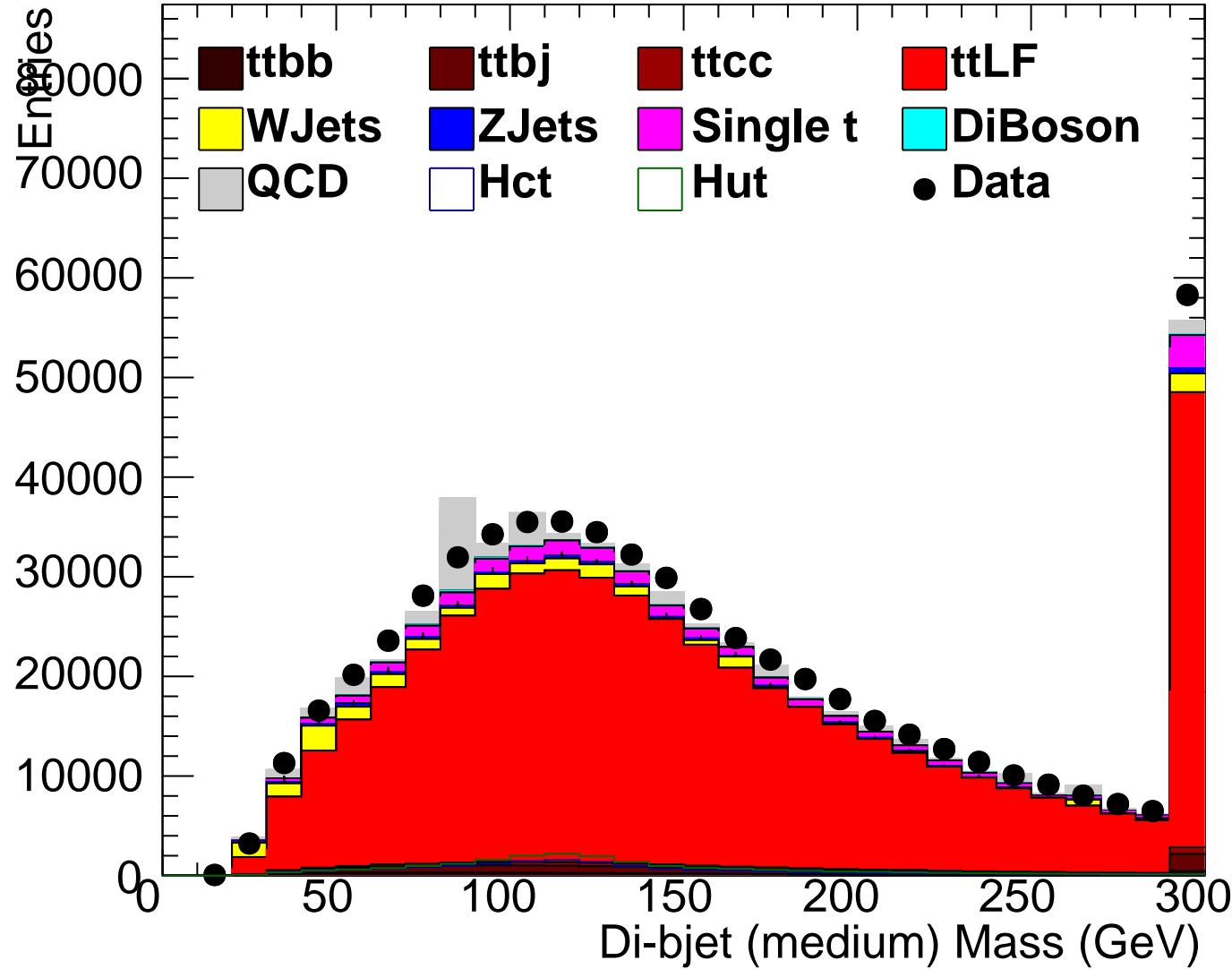


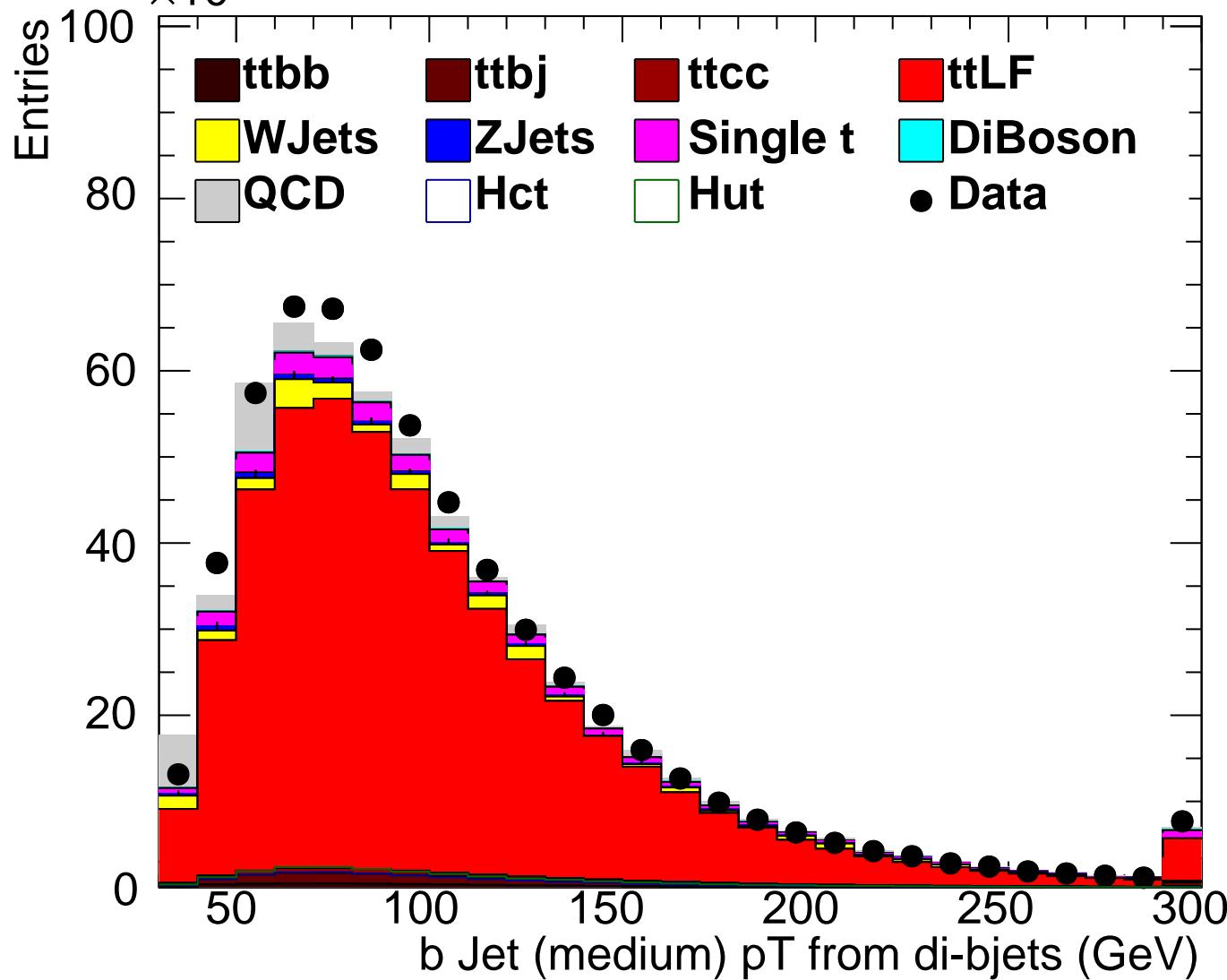


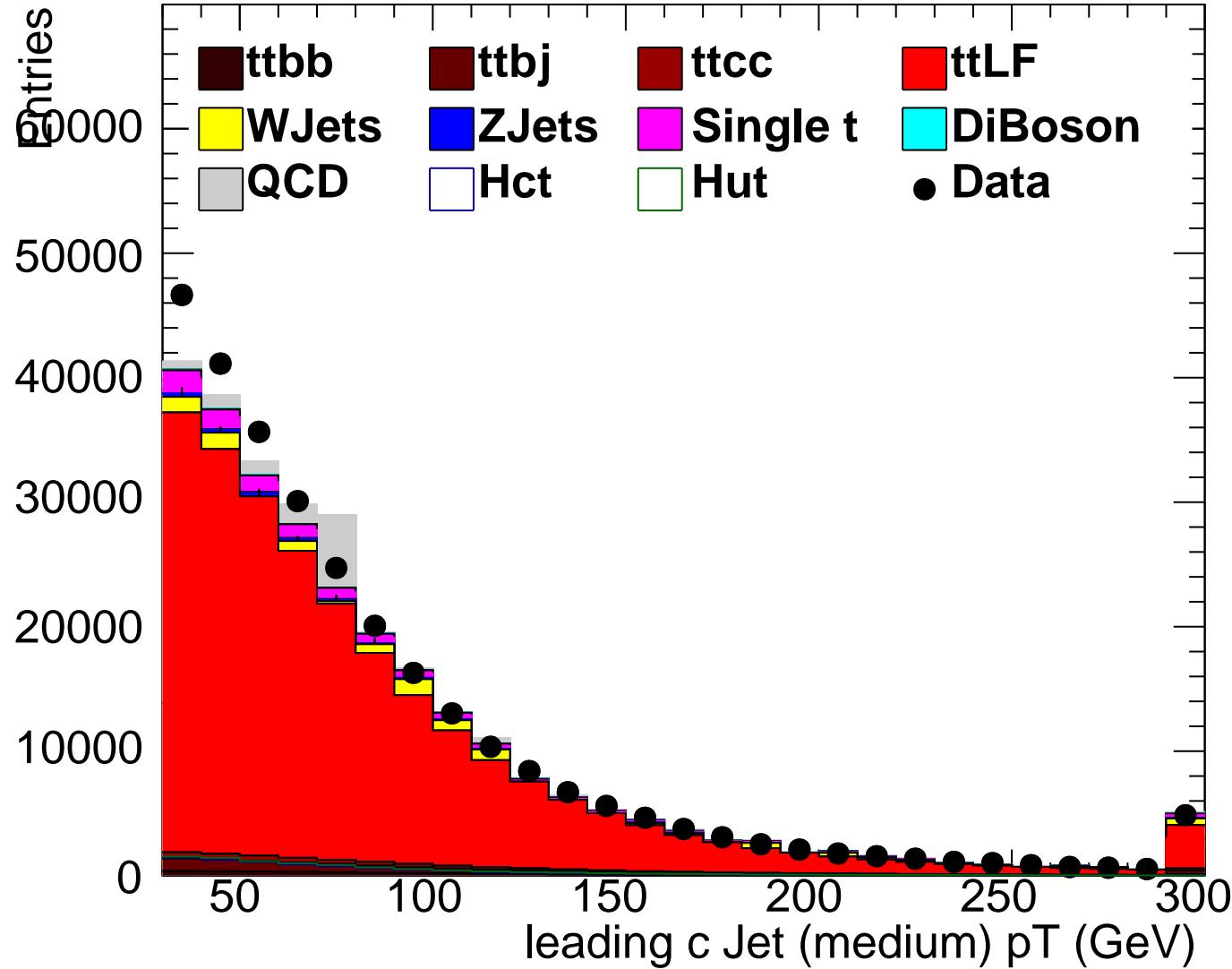
Ch0_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

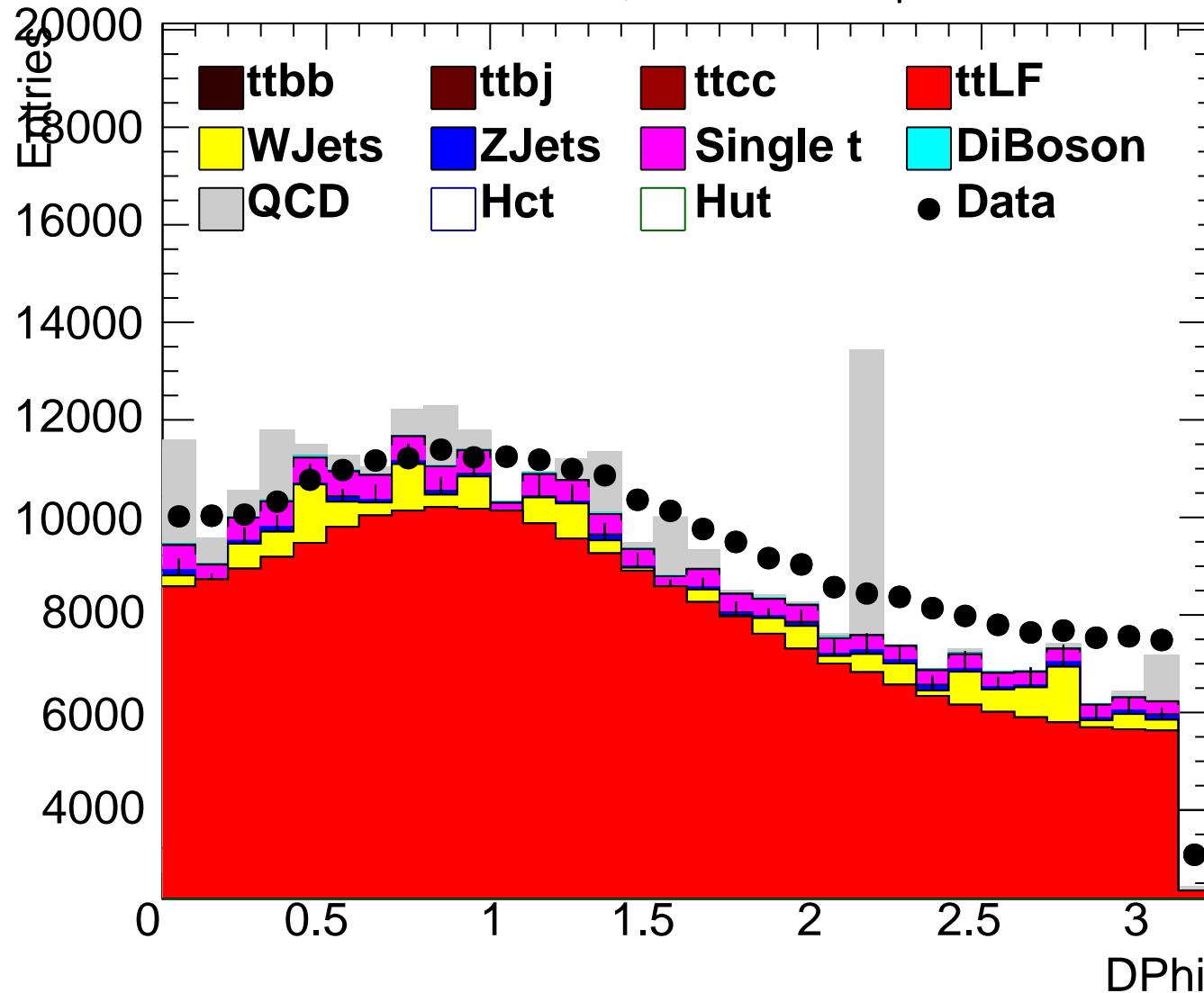
Entries

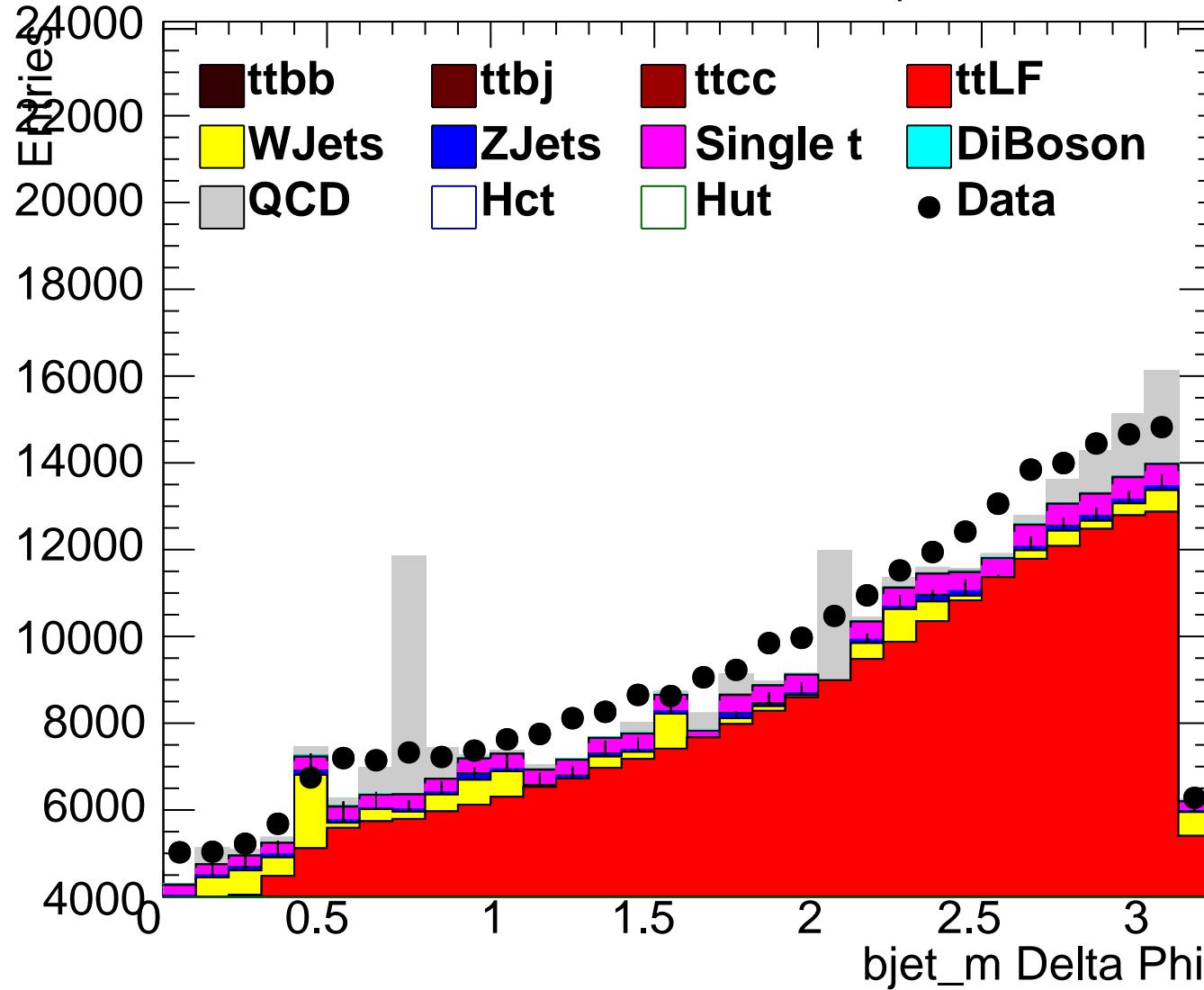


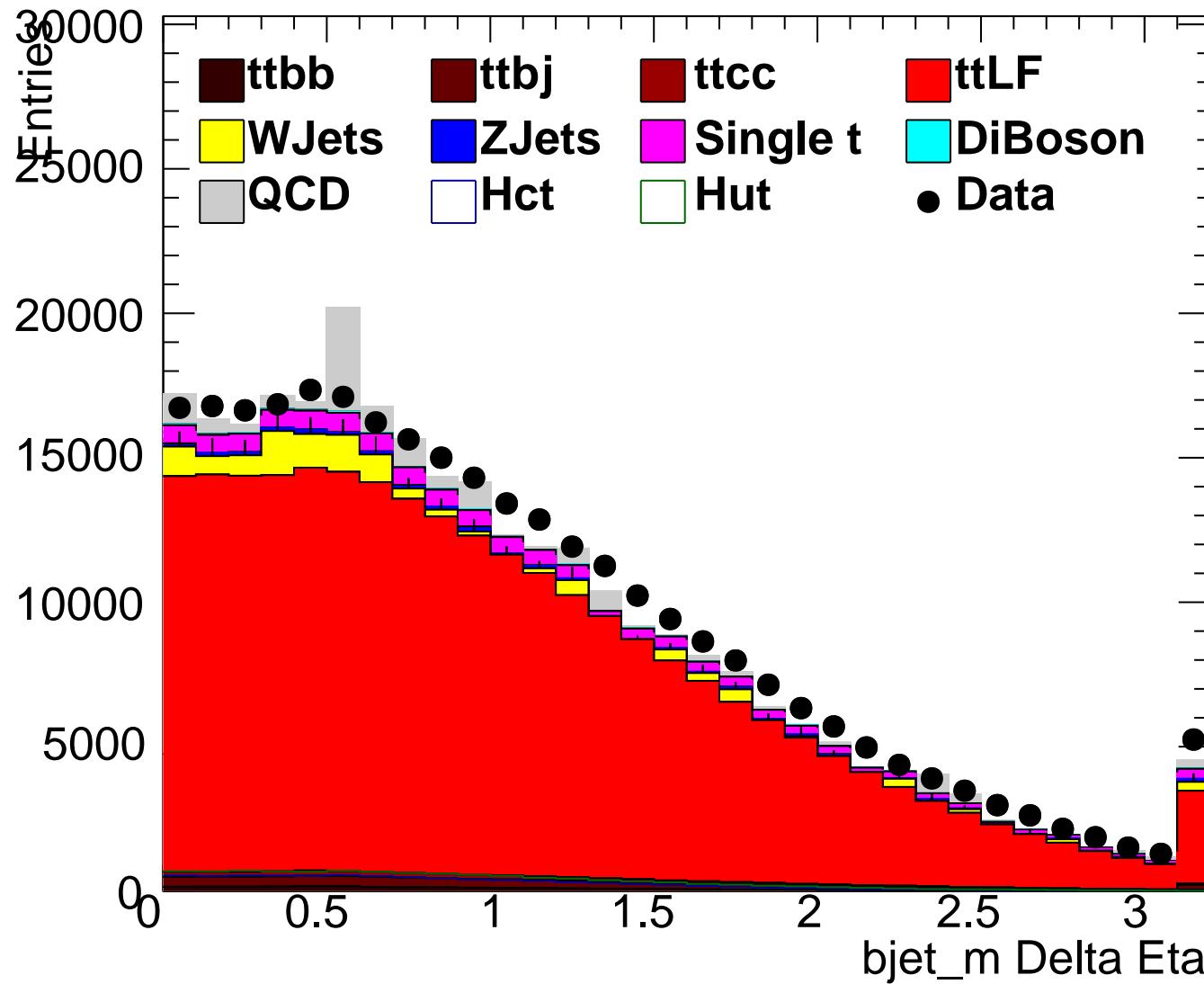
Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

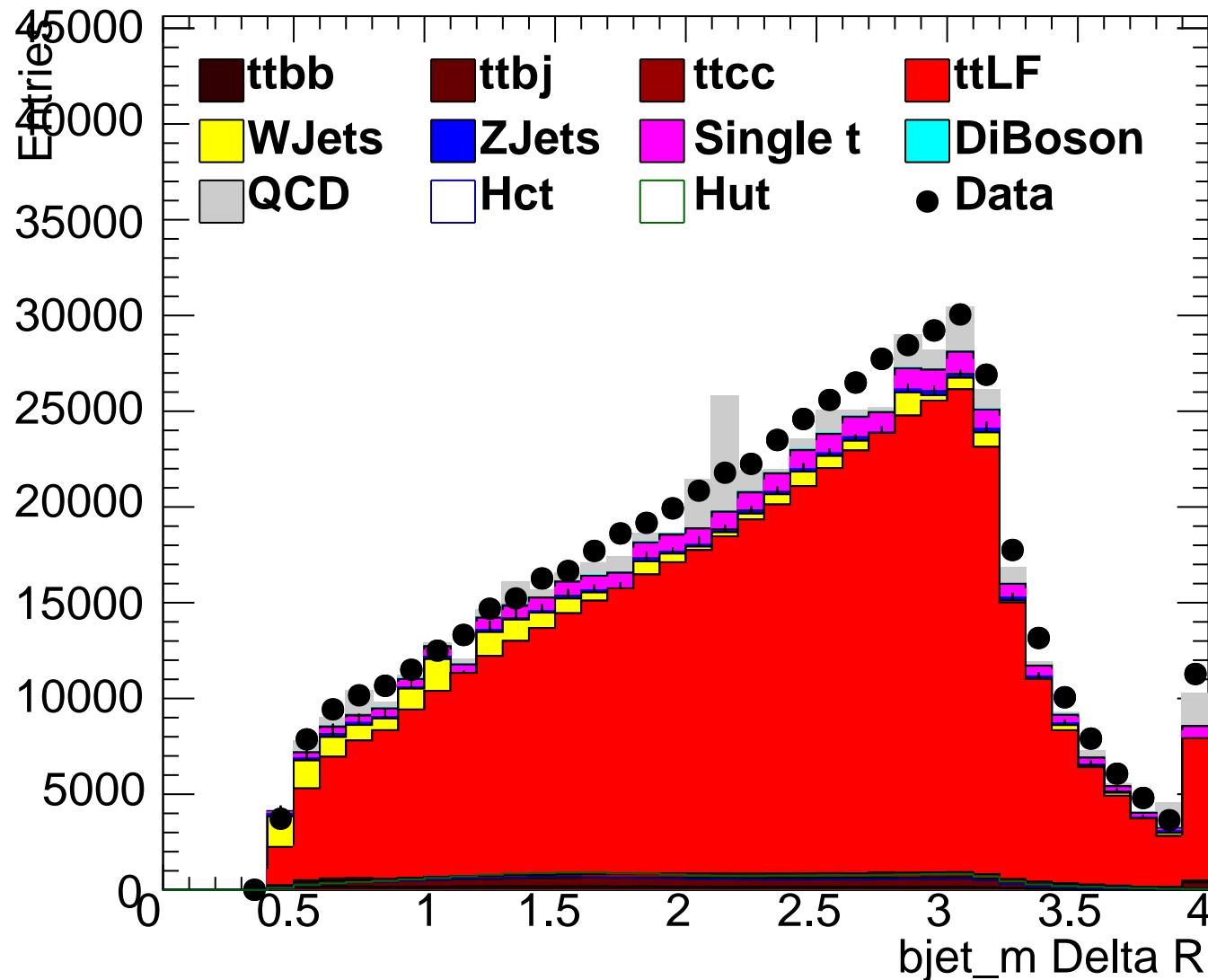
Ch0_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

350

300

250

200

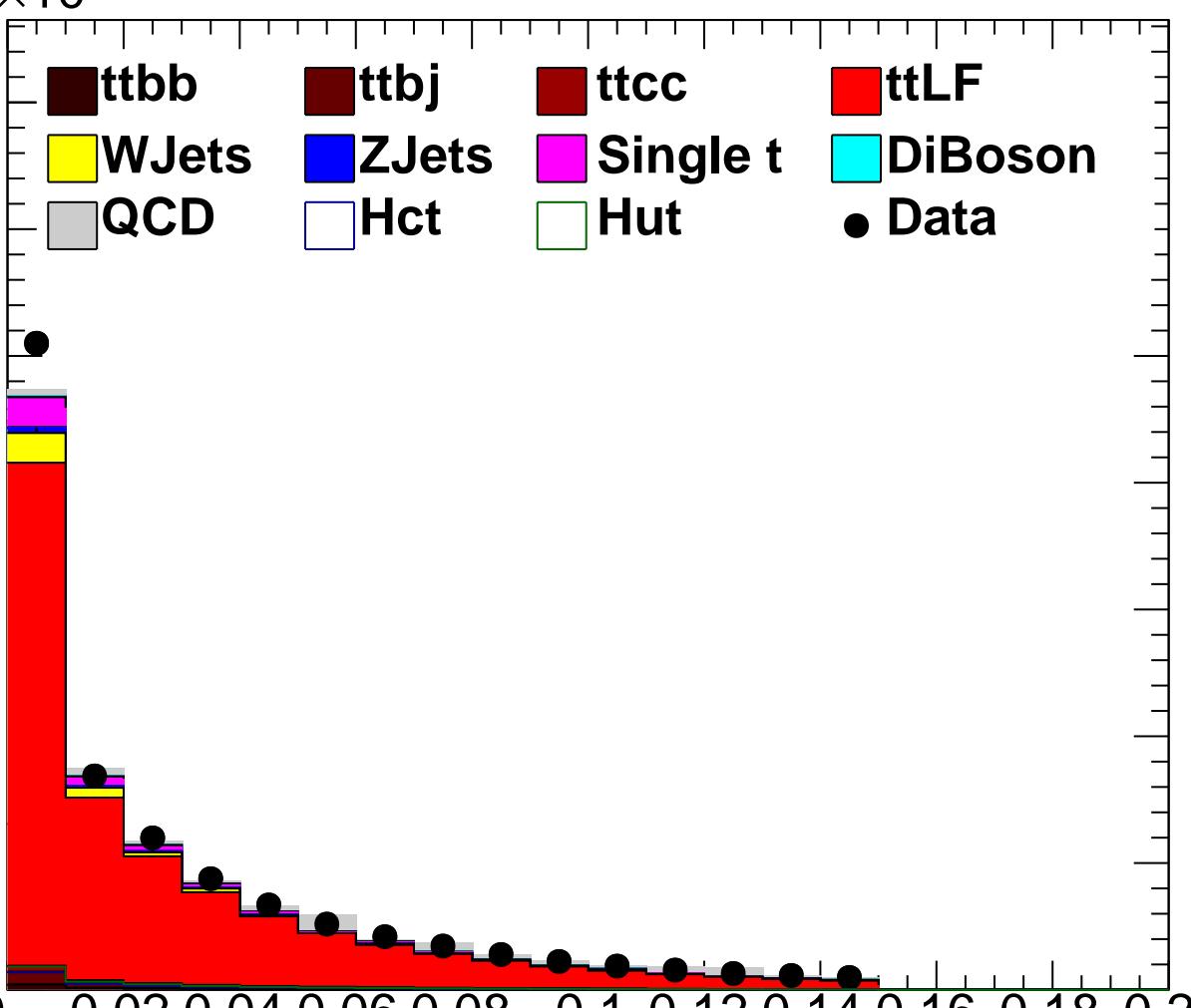
150

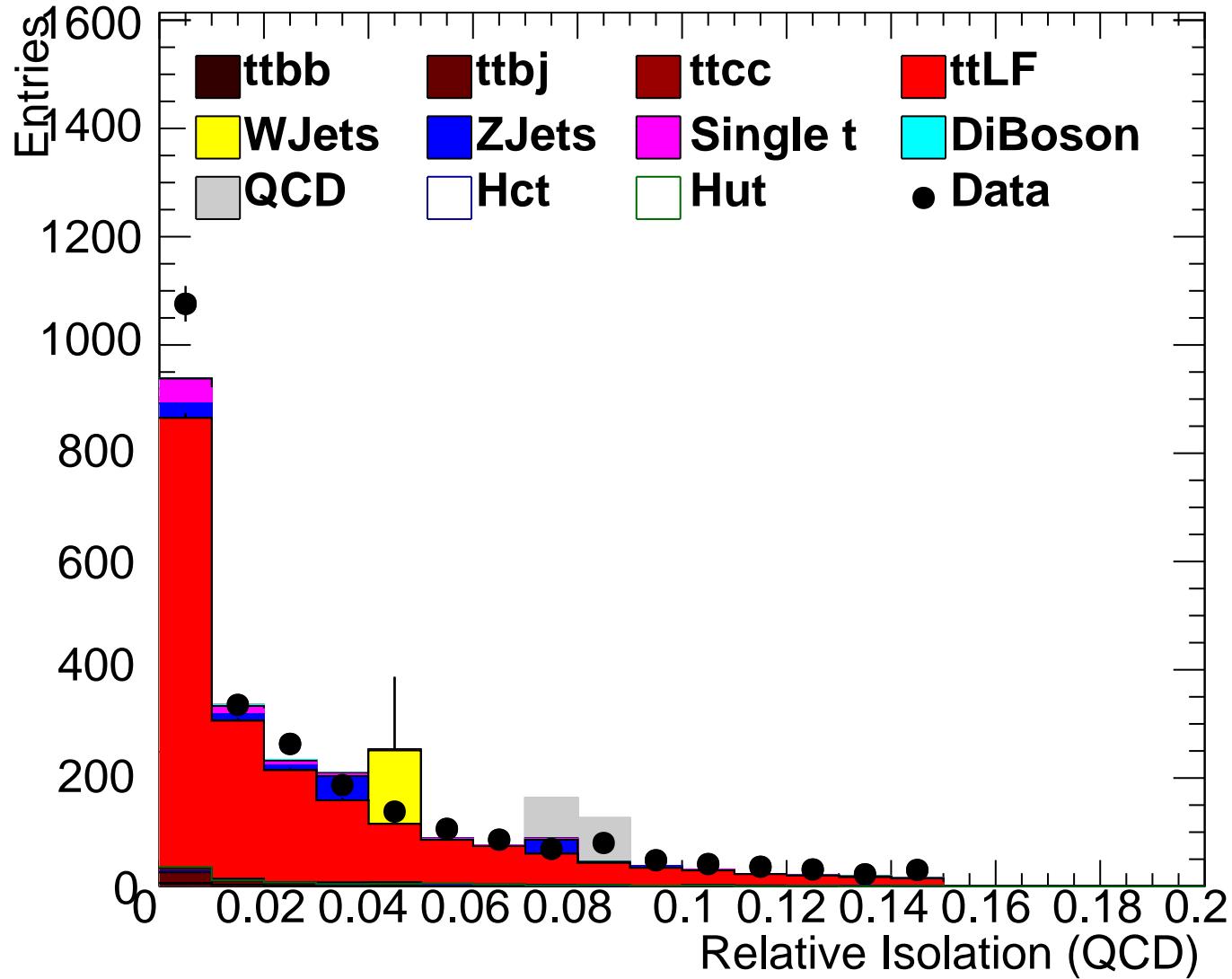
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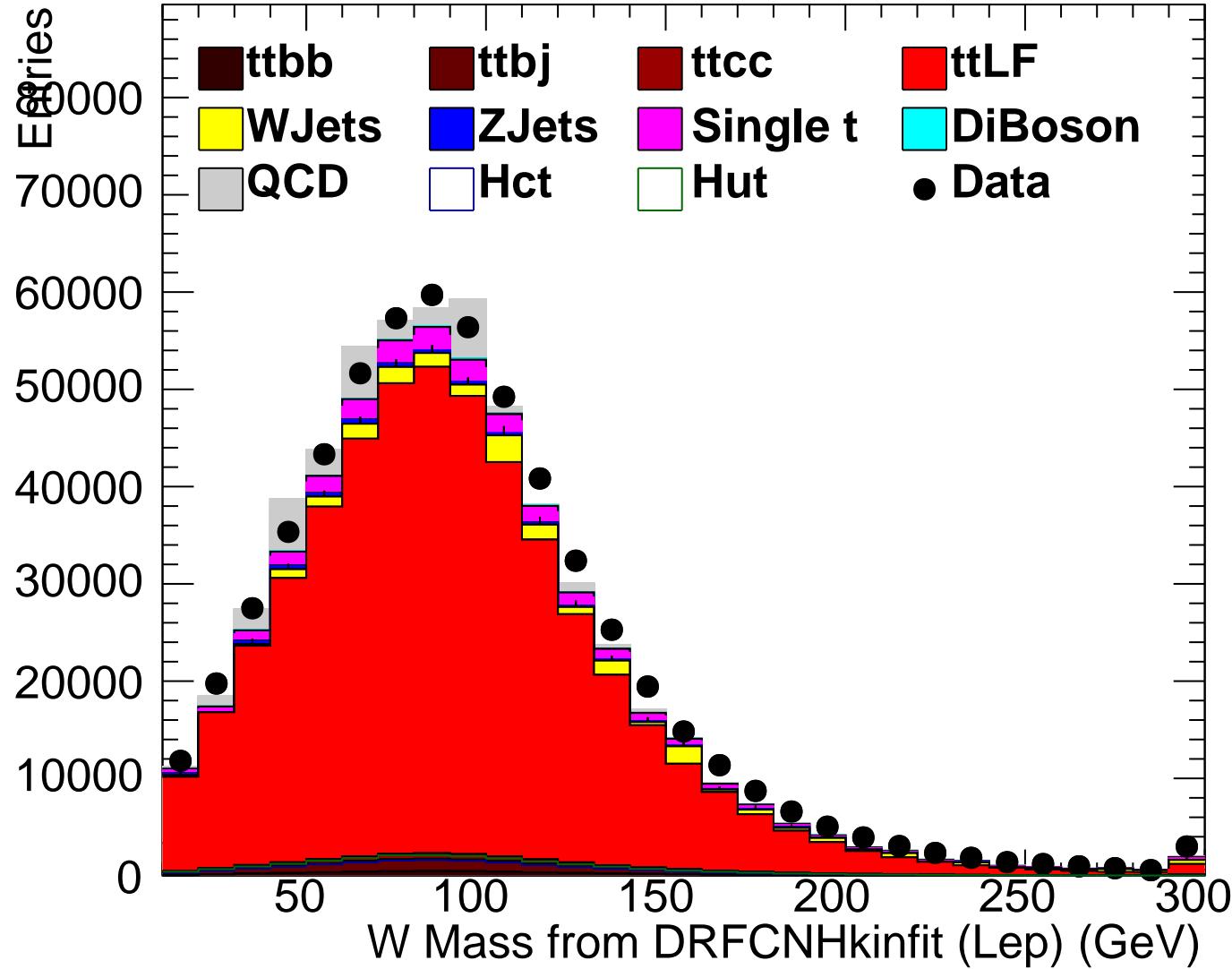
50

0

Relative Isolation

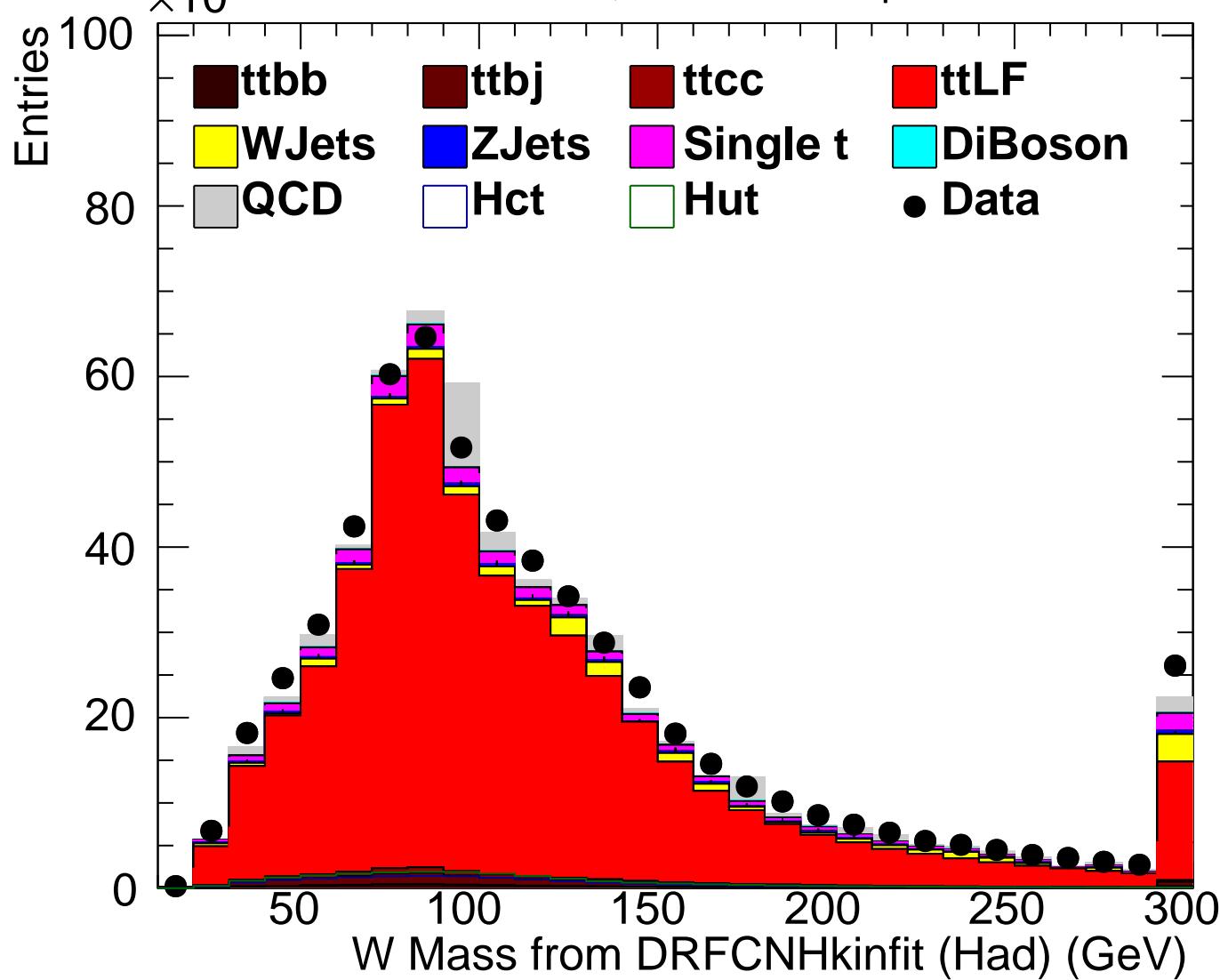
ttbb**WJets****QCD****ttbj****ZJets****Hct****ttcc****Single t****Hut****ttLF****DiBoson****Data**

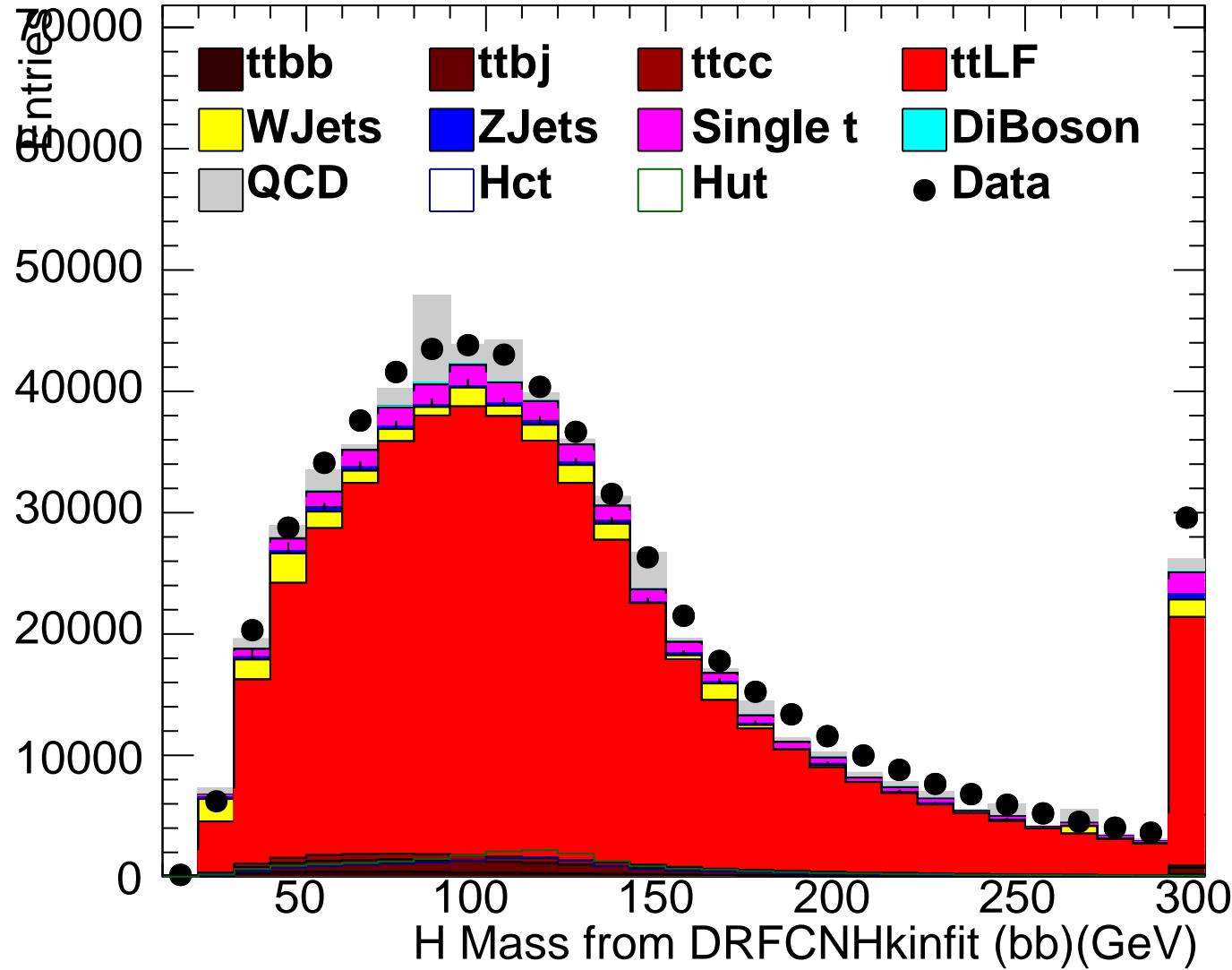


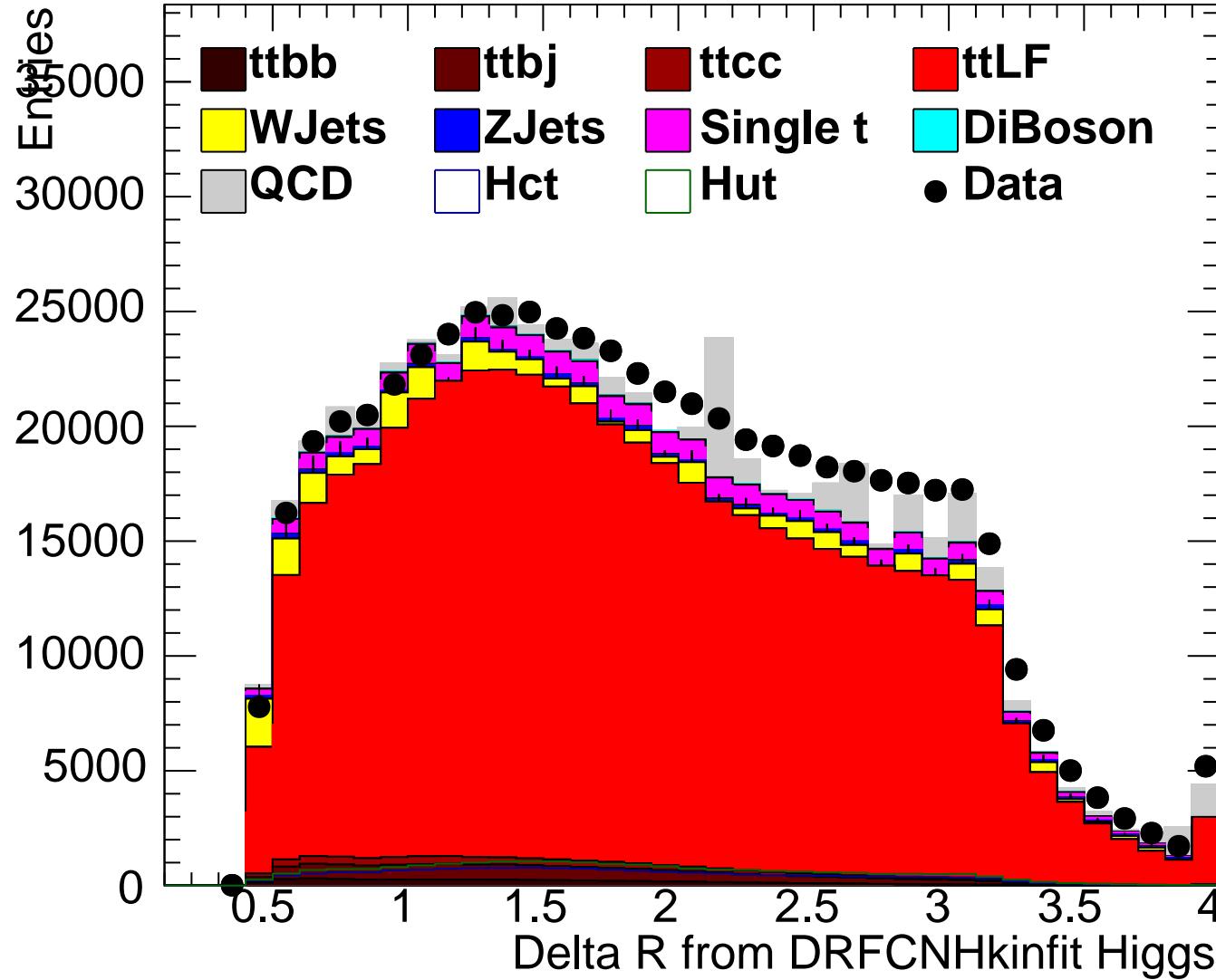
Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

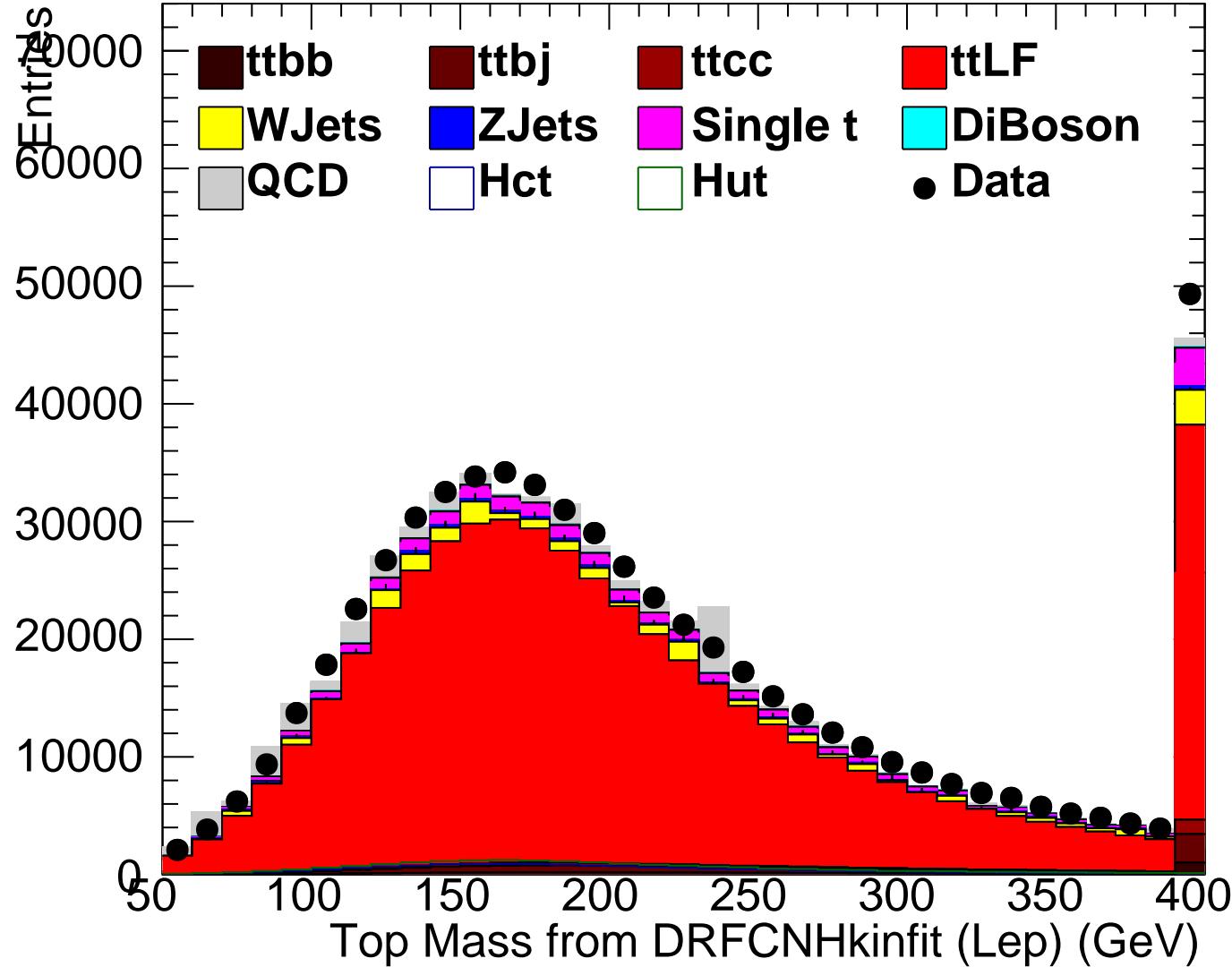
Ch0_S4

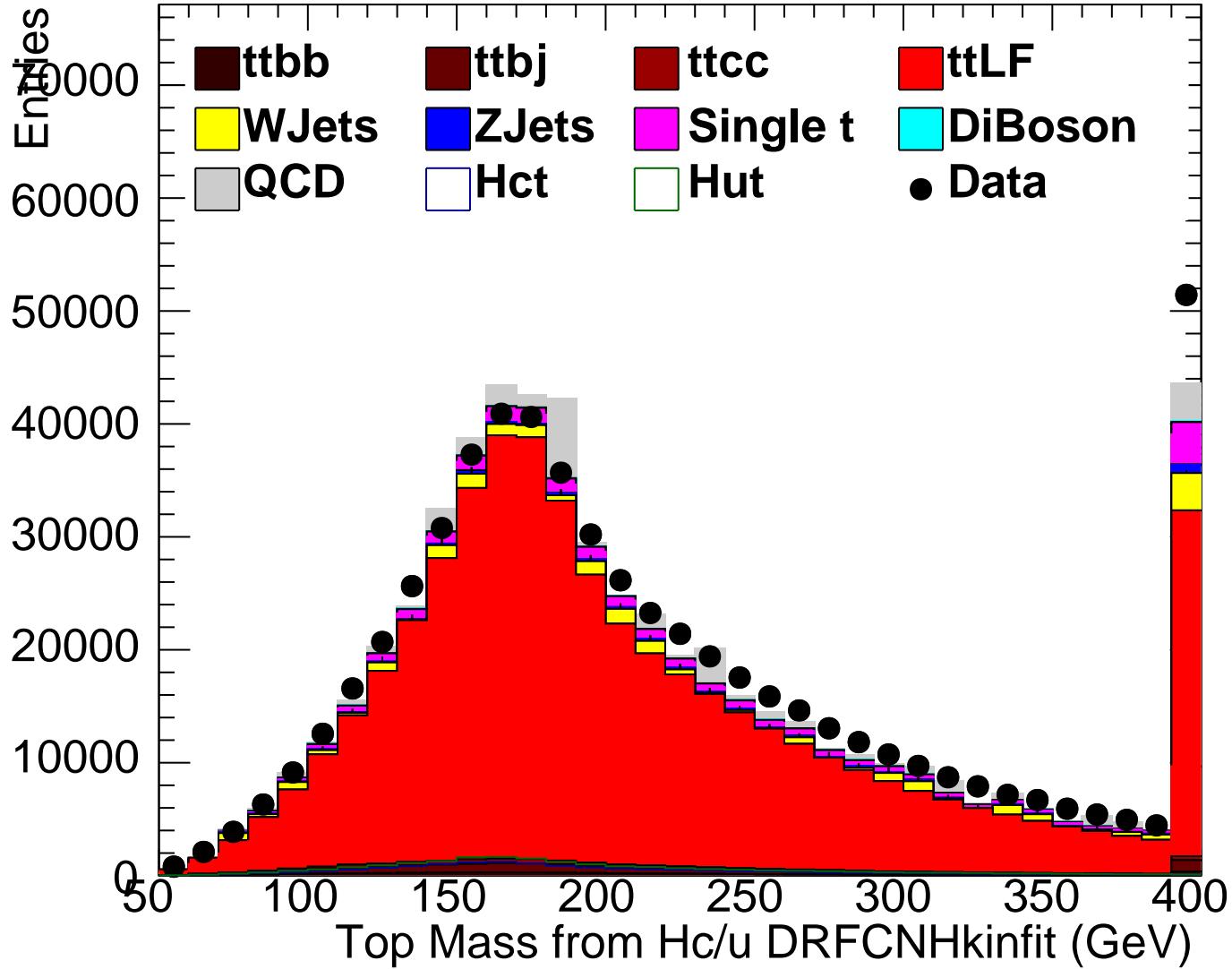
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

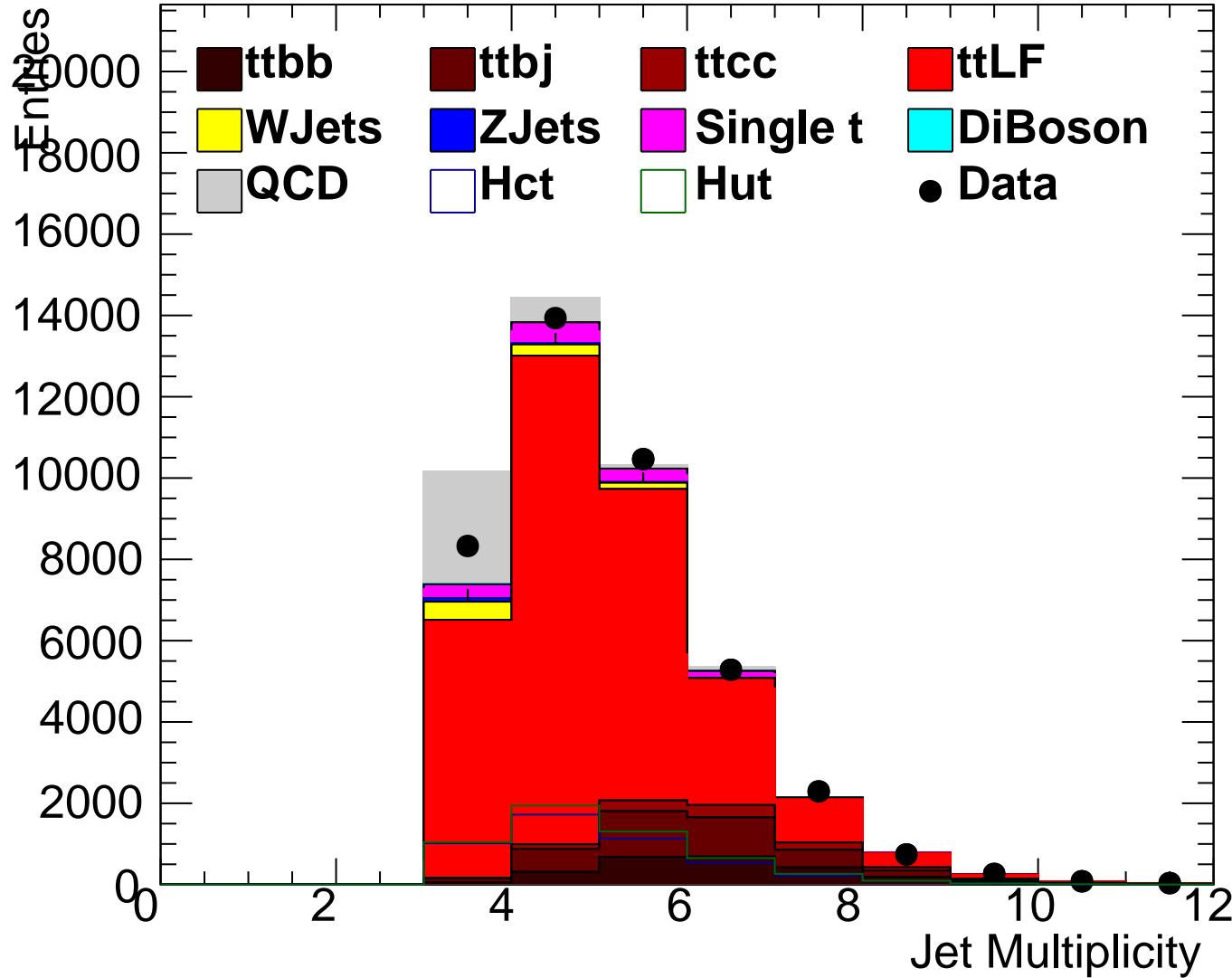


Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

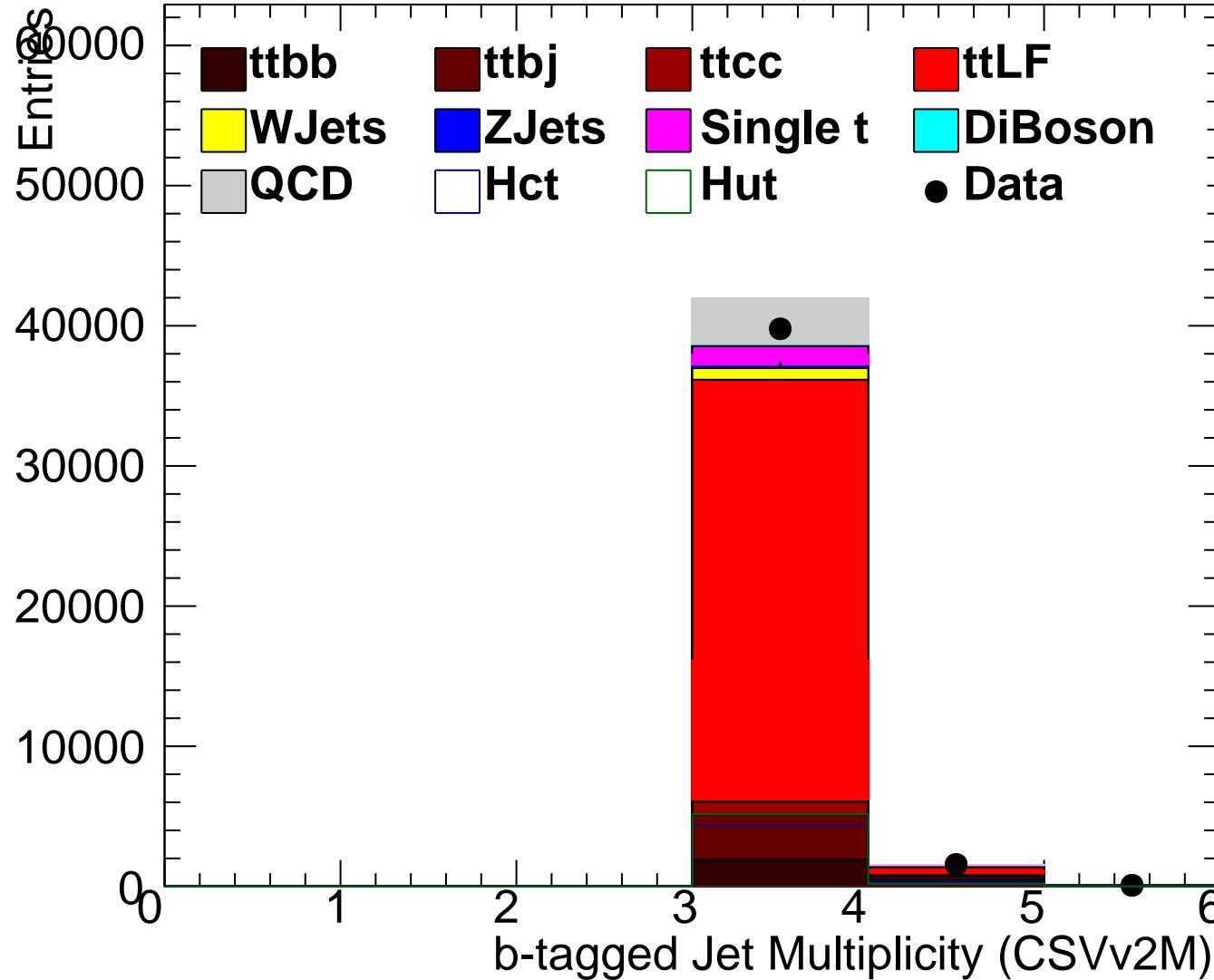
Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

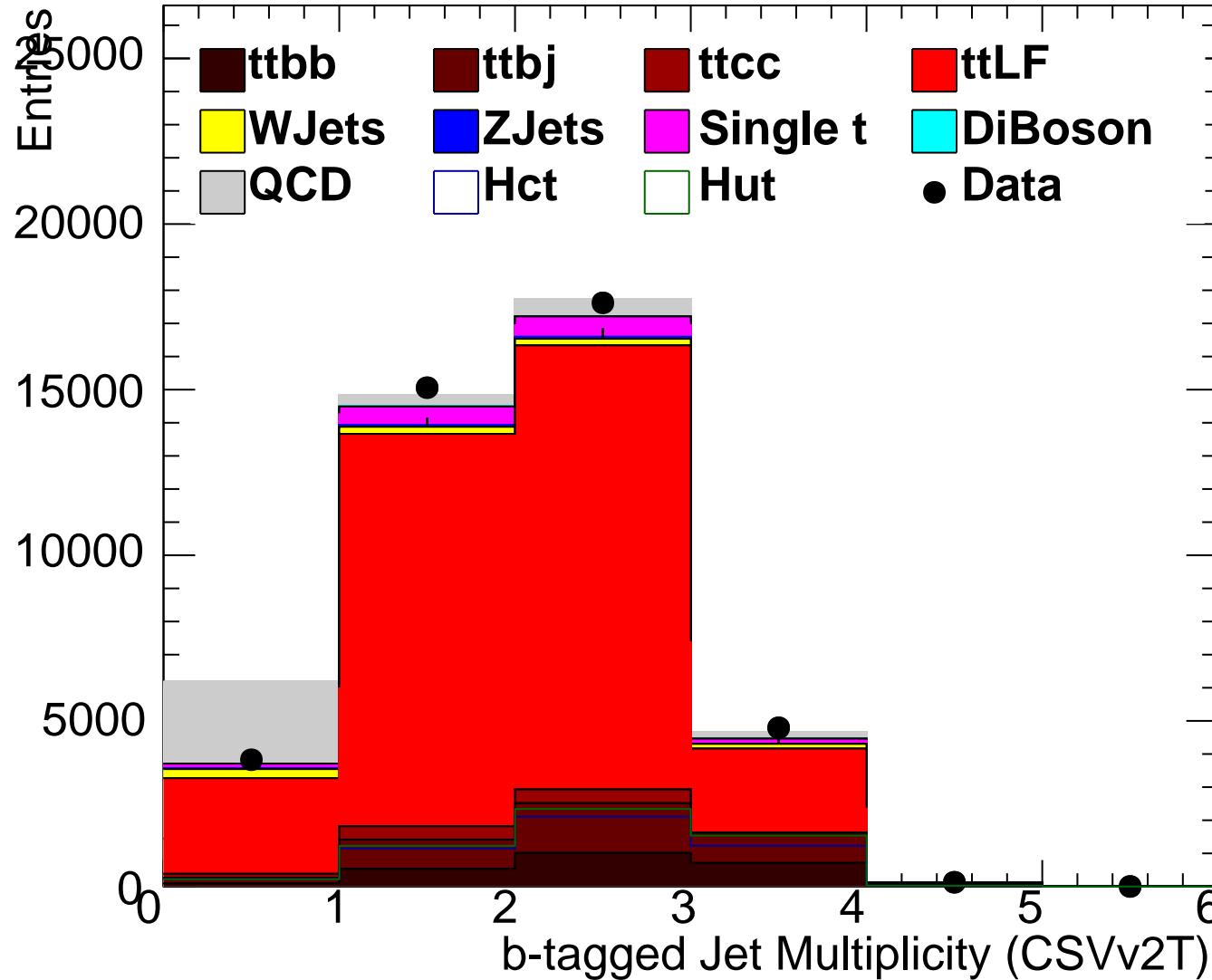
Ch0_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S5

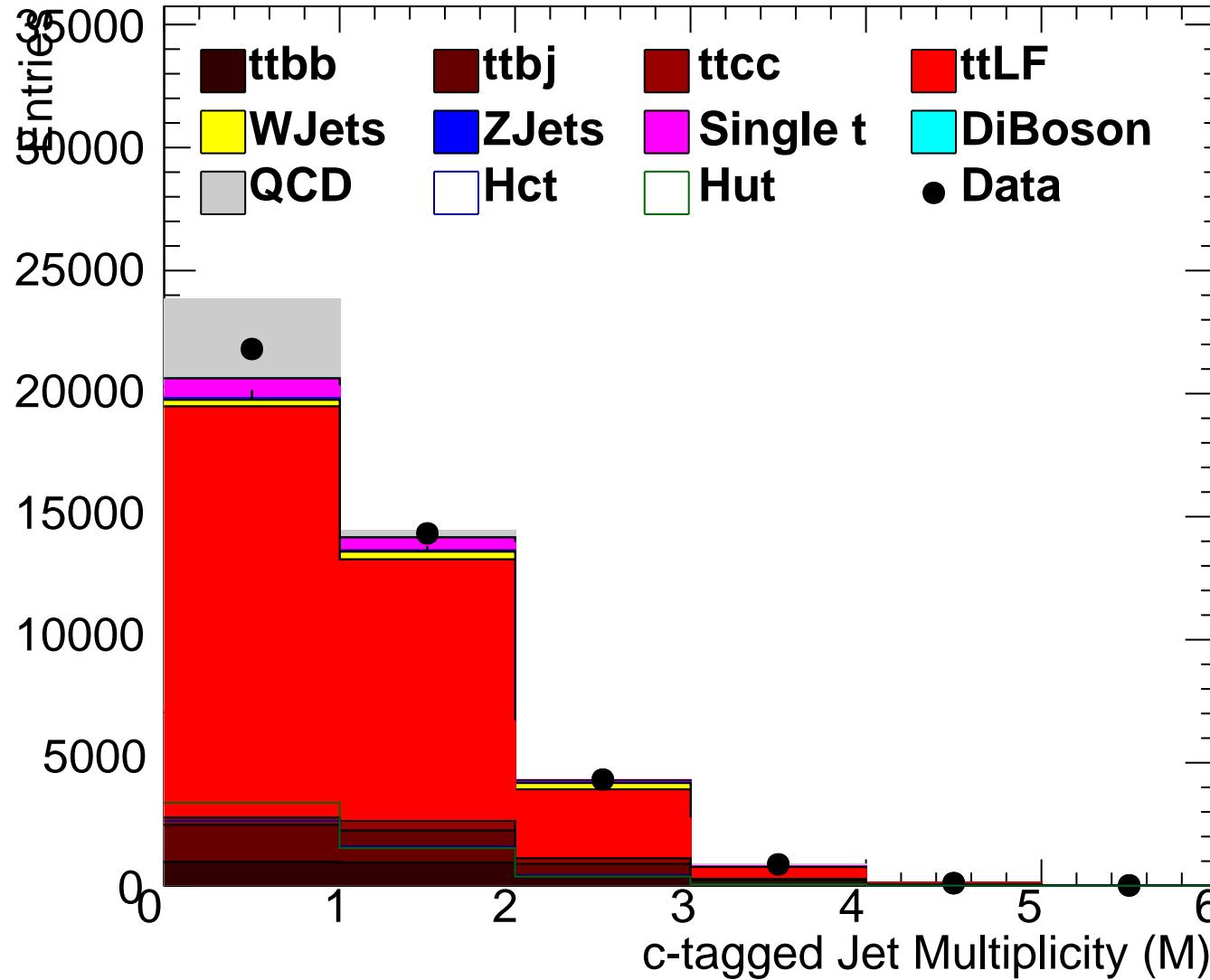
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

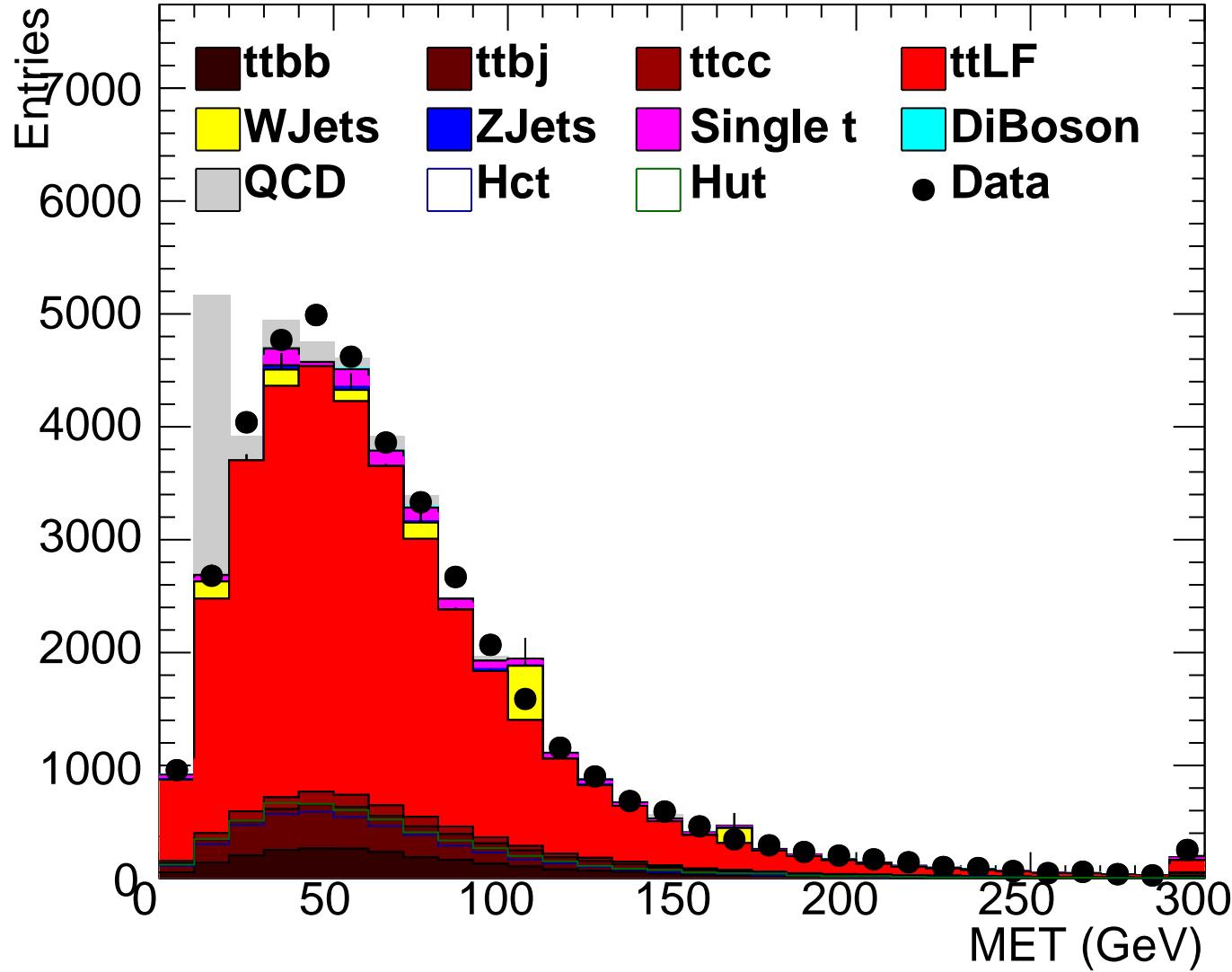


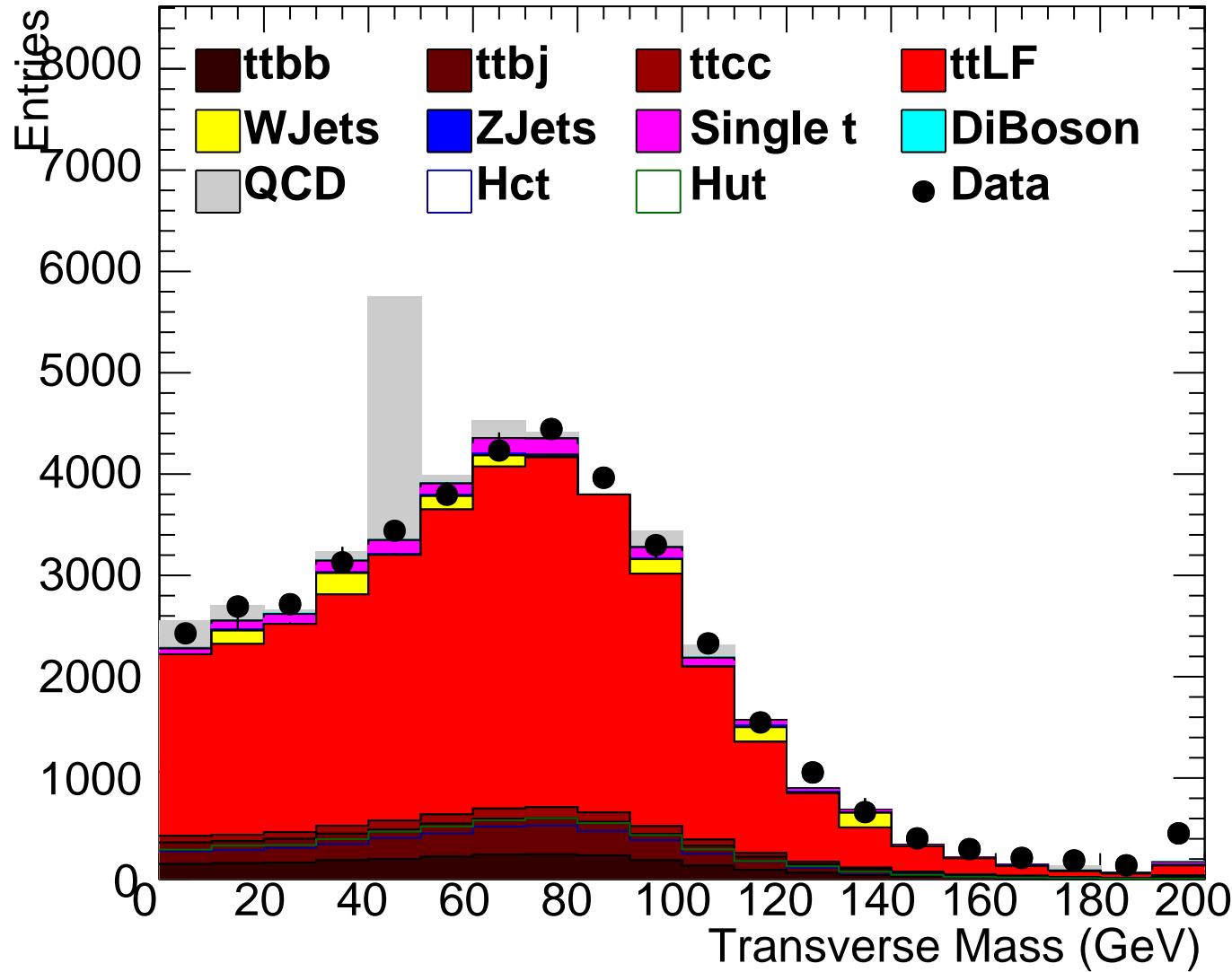


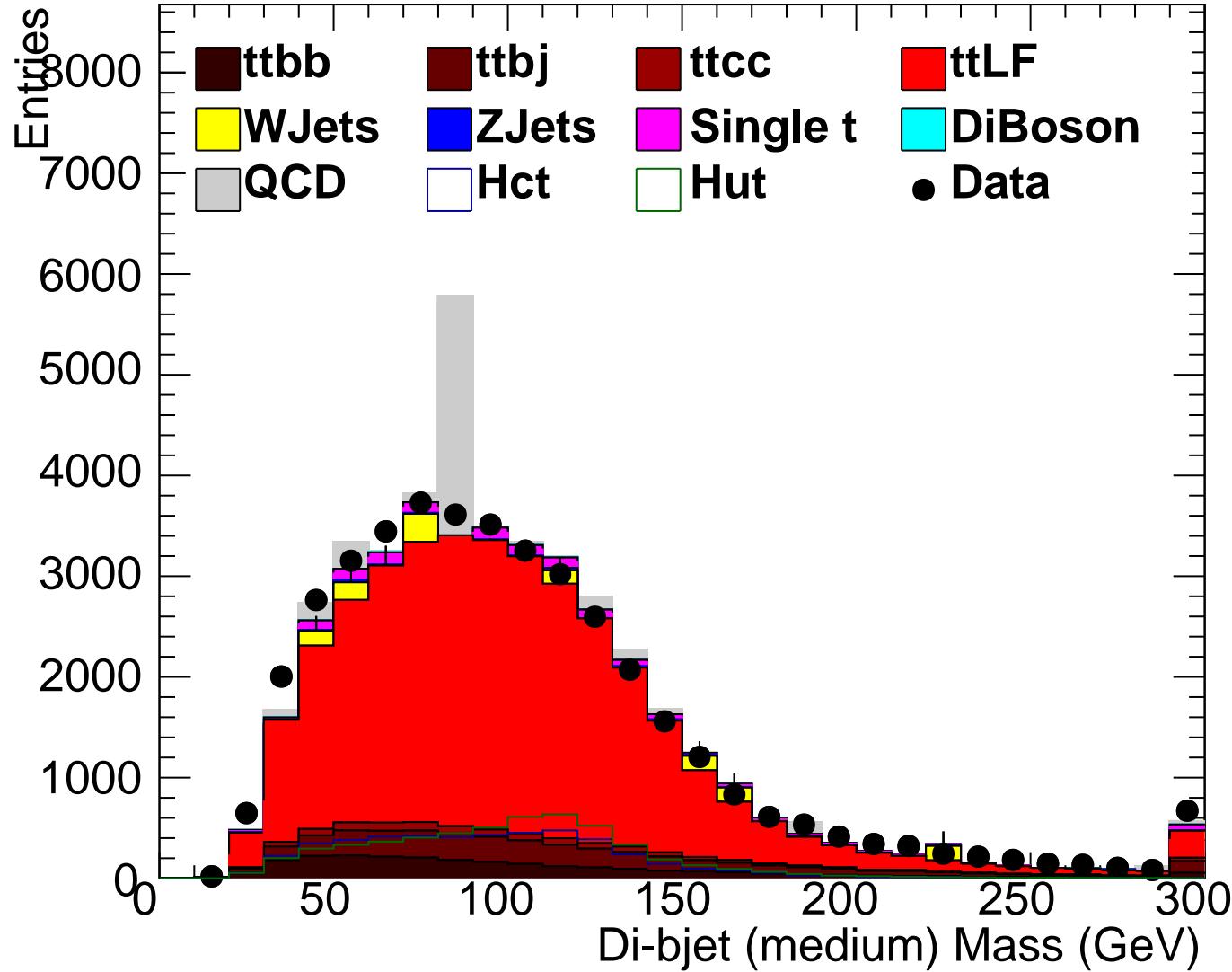
Ch0_S5

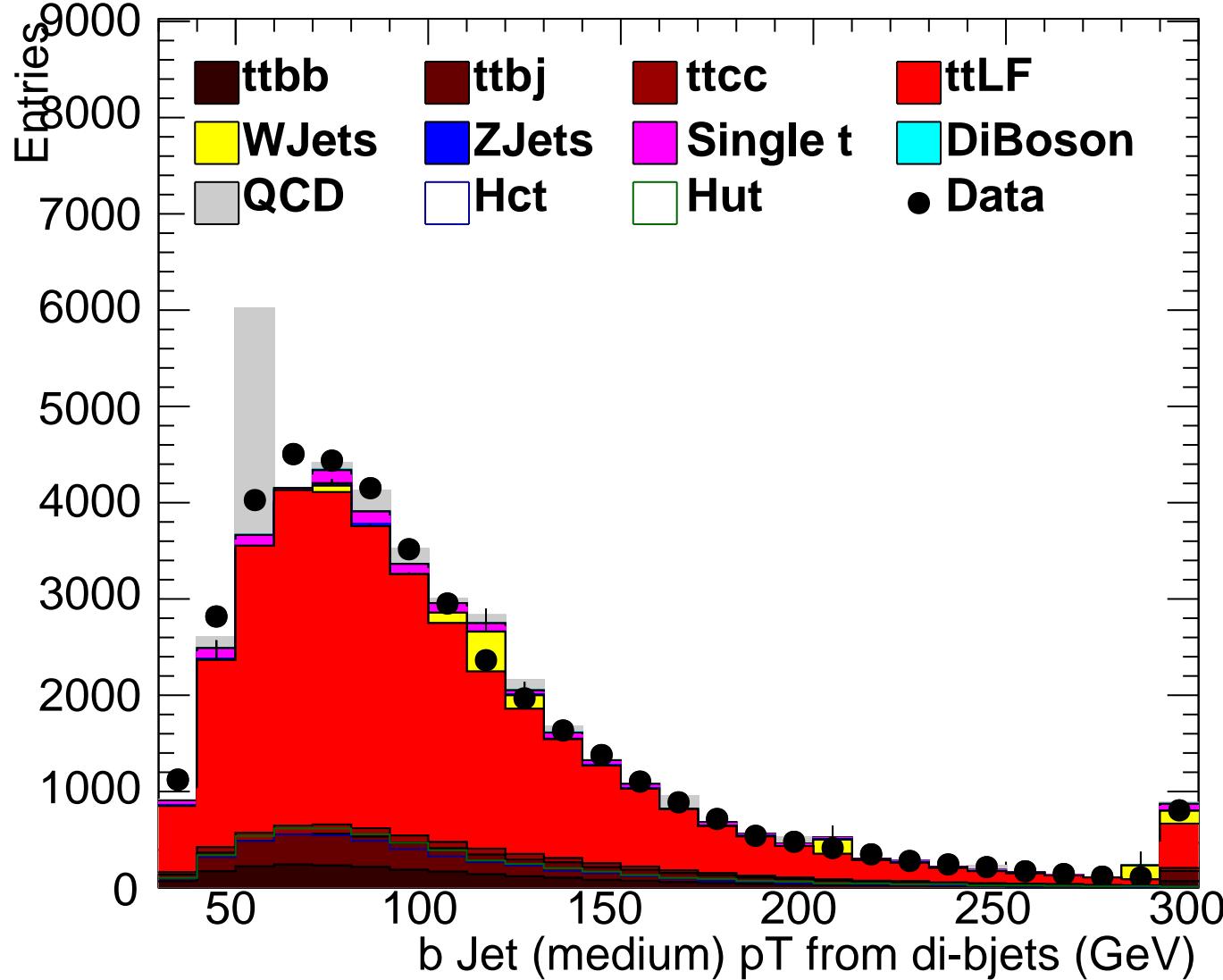
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

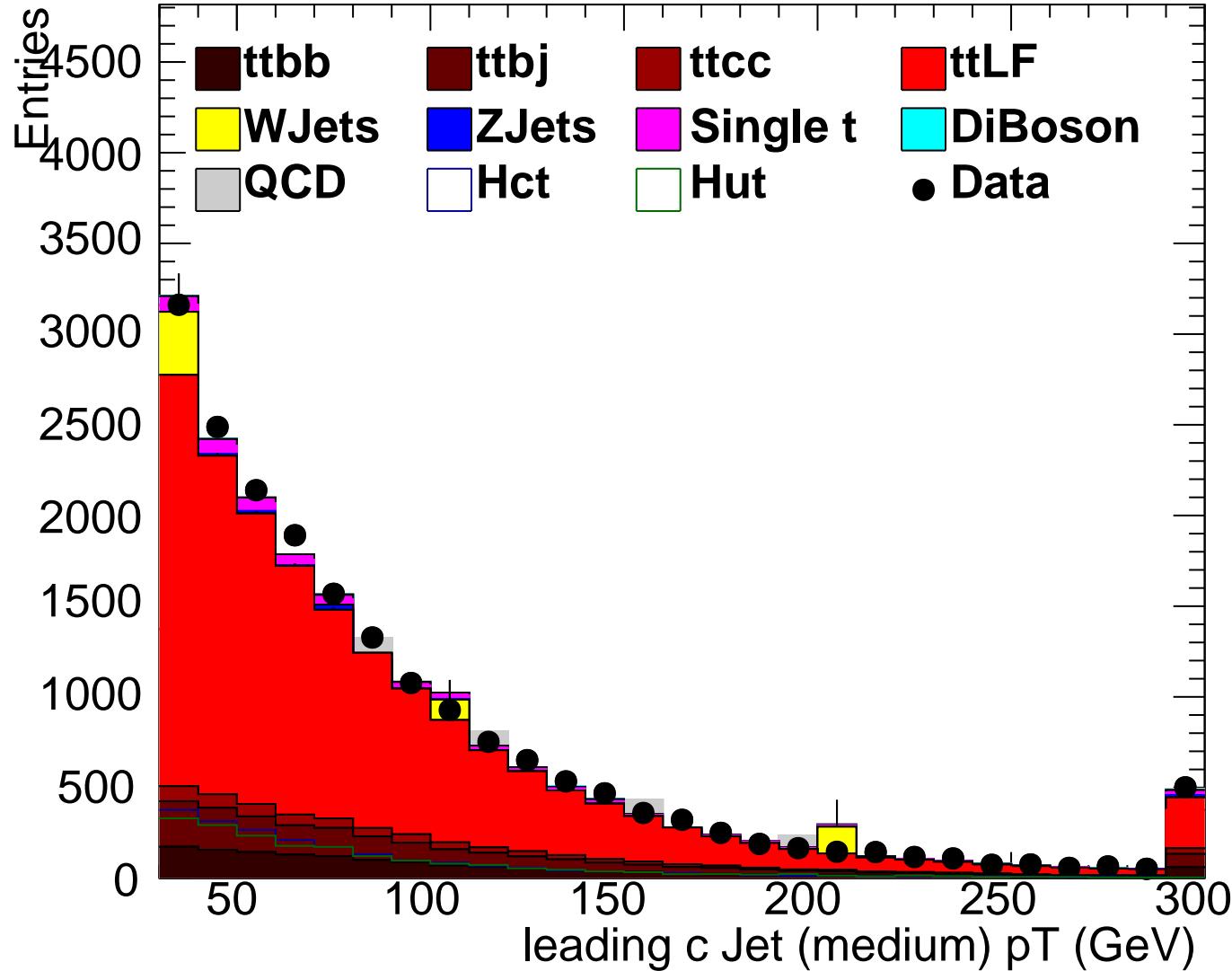


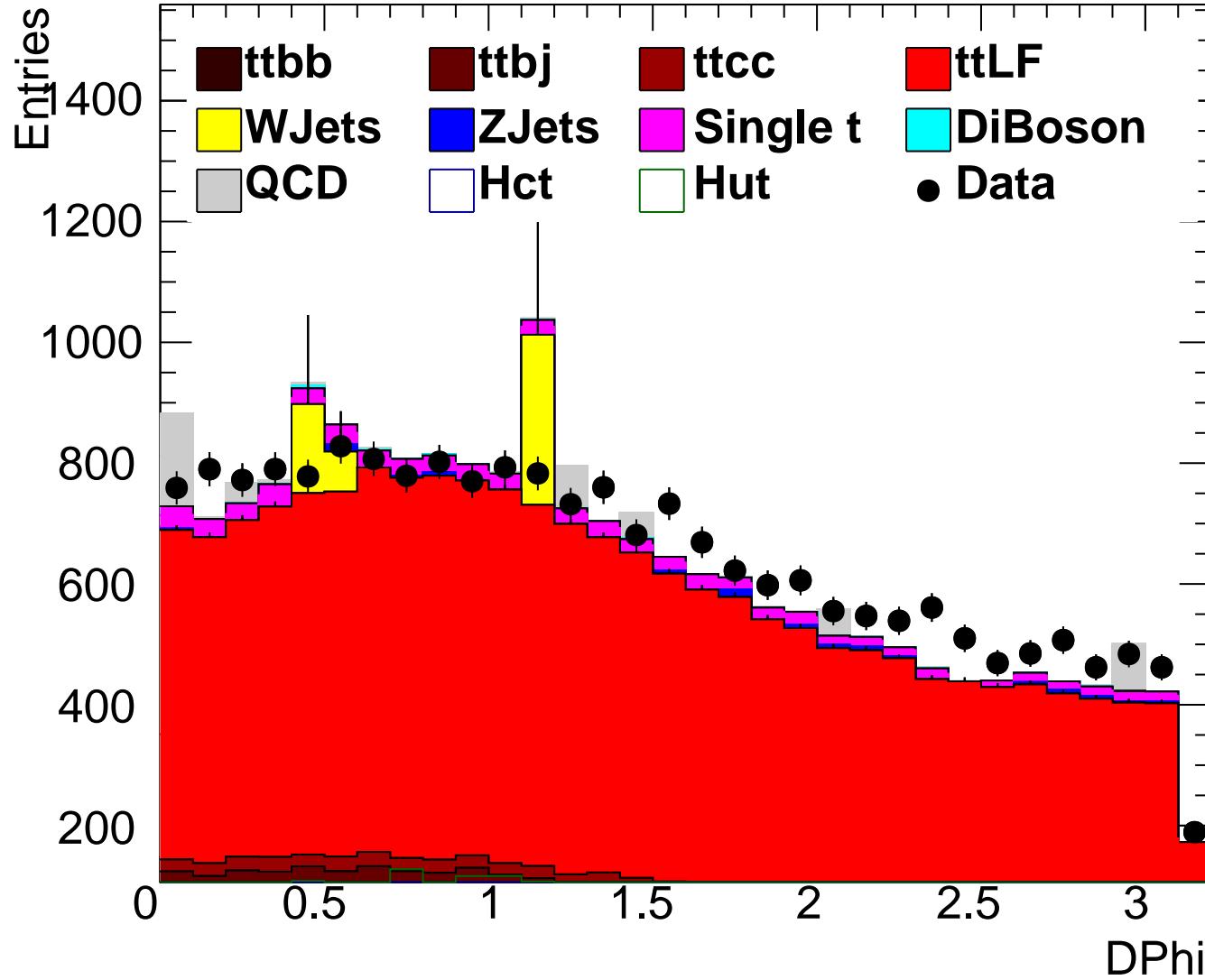
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

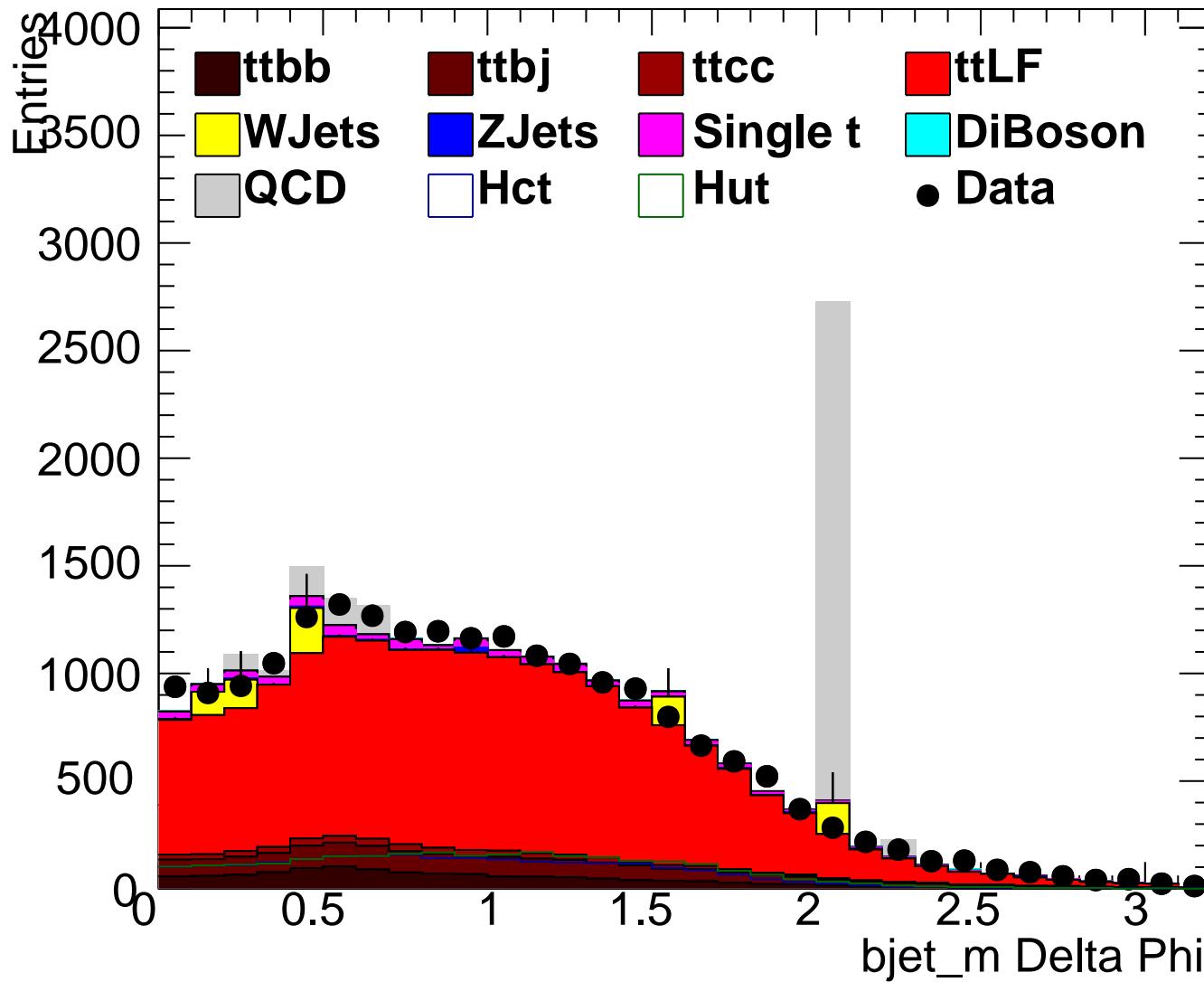


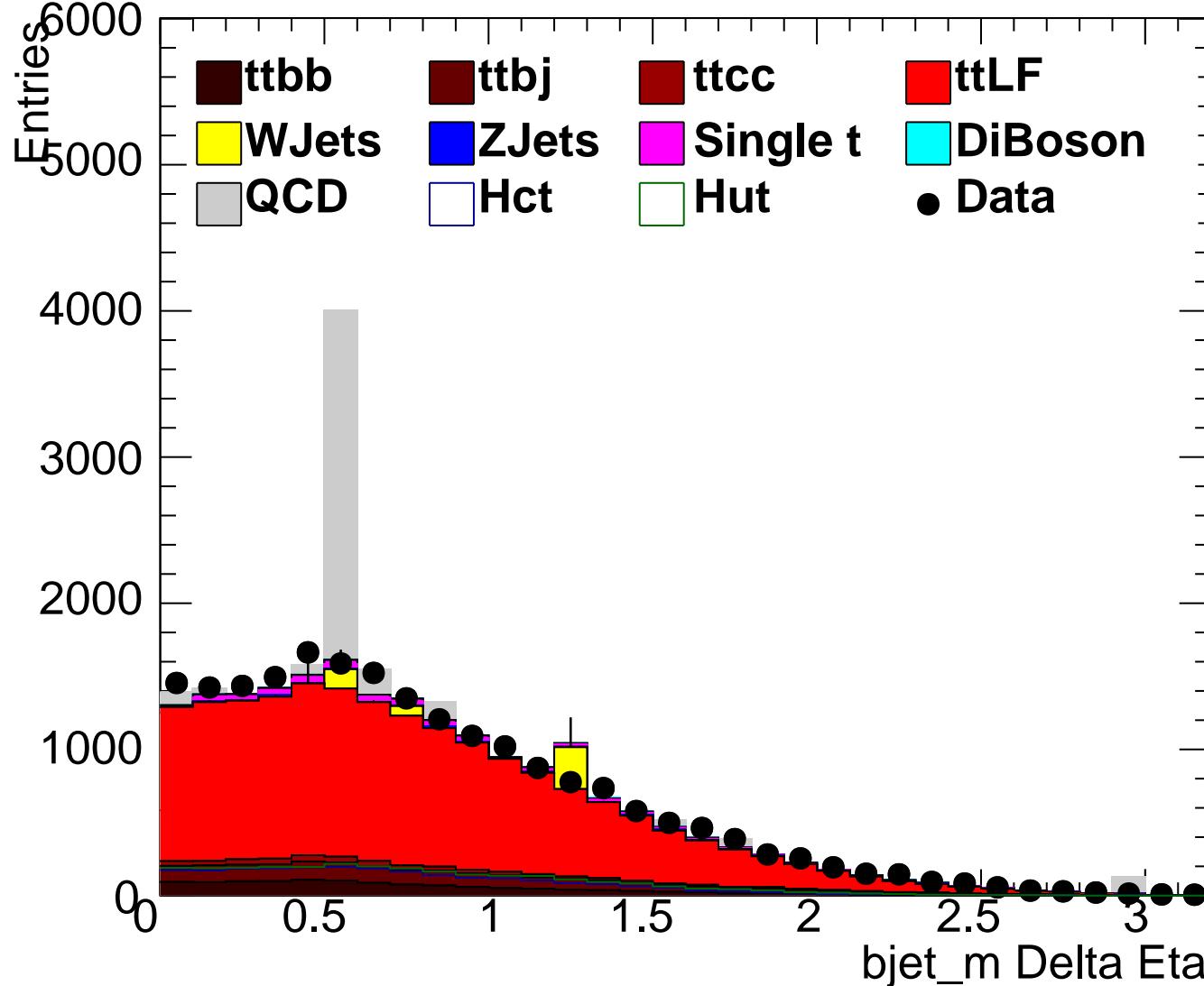
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

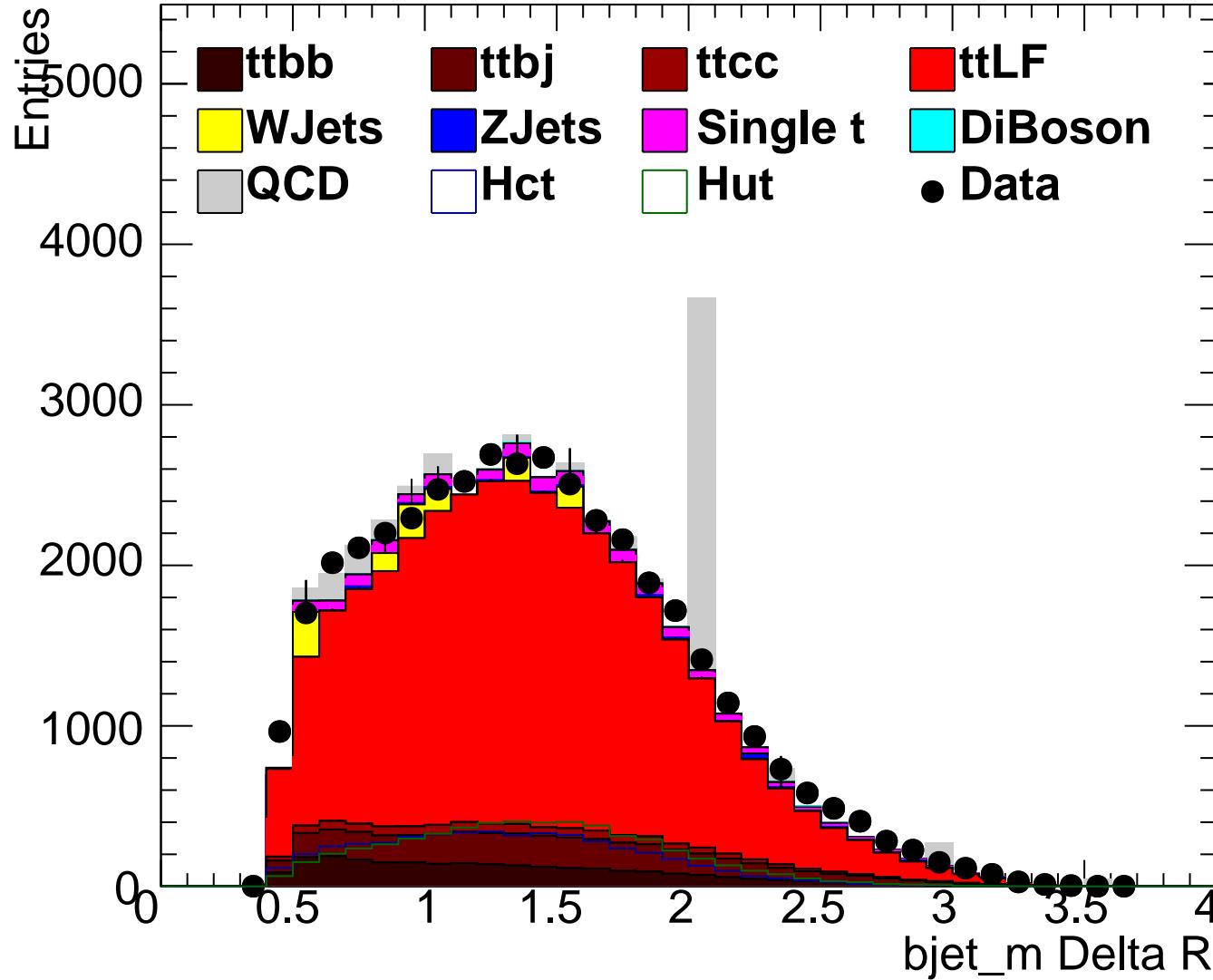
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

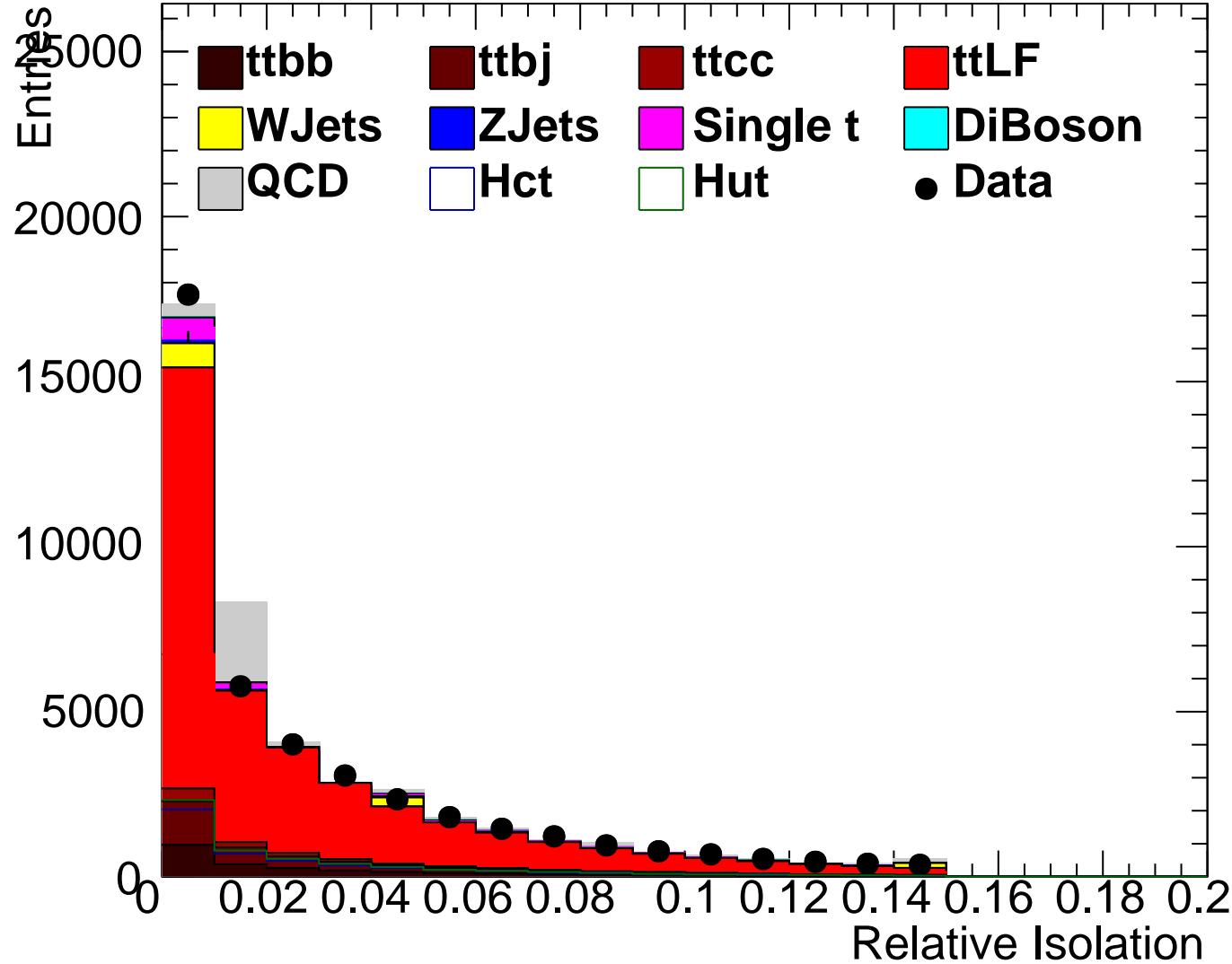
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

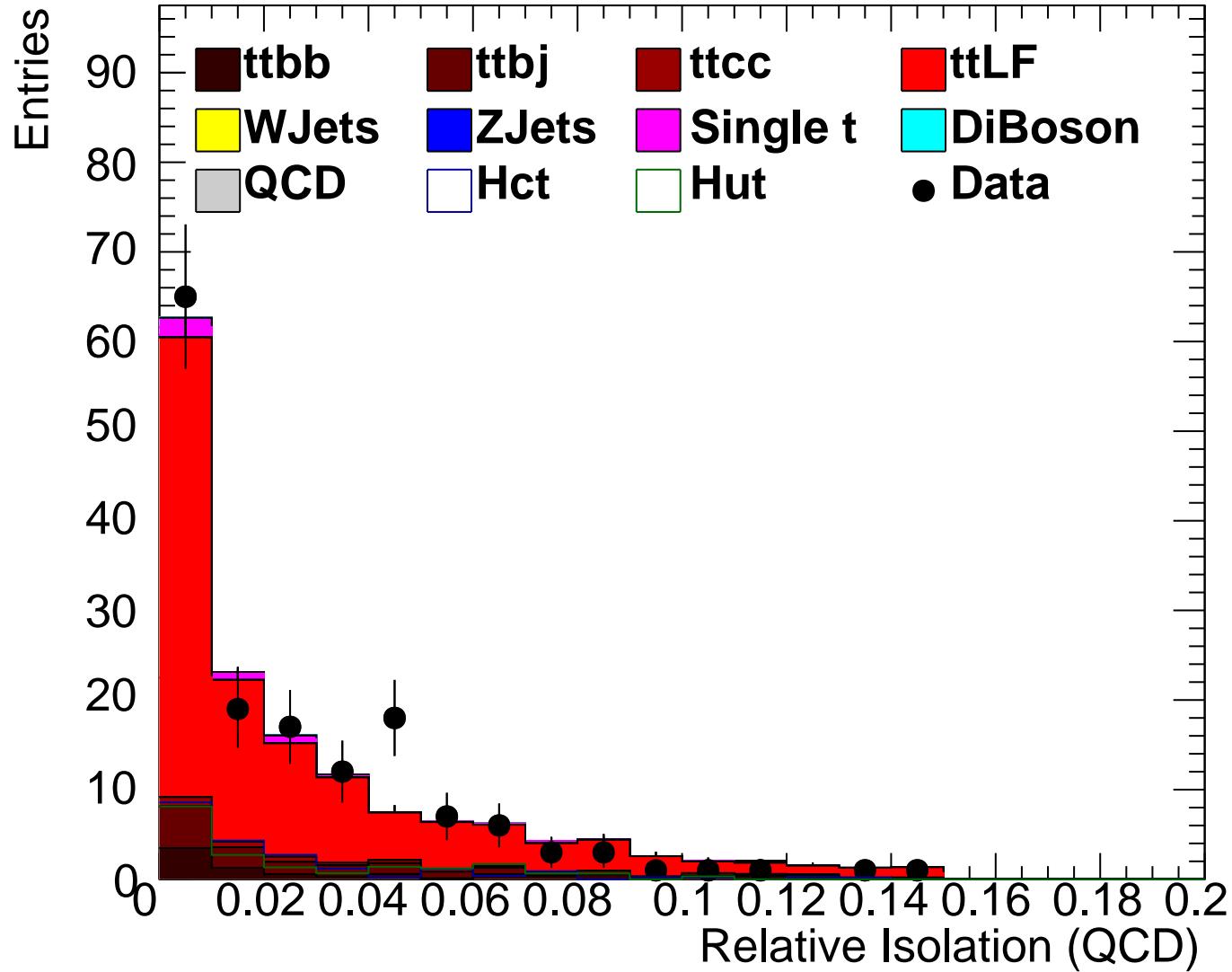
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

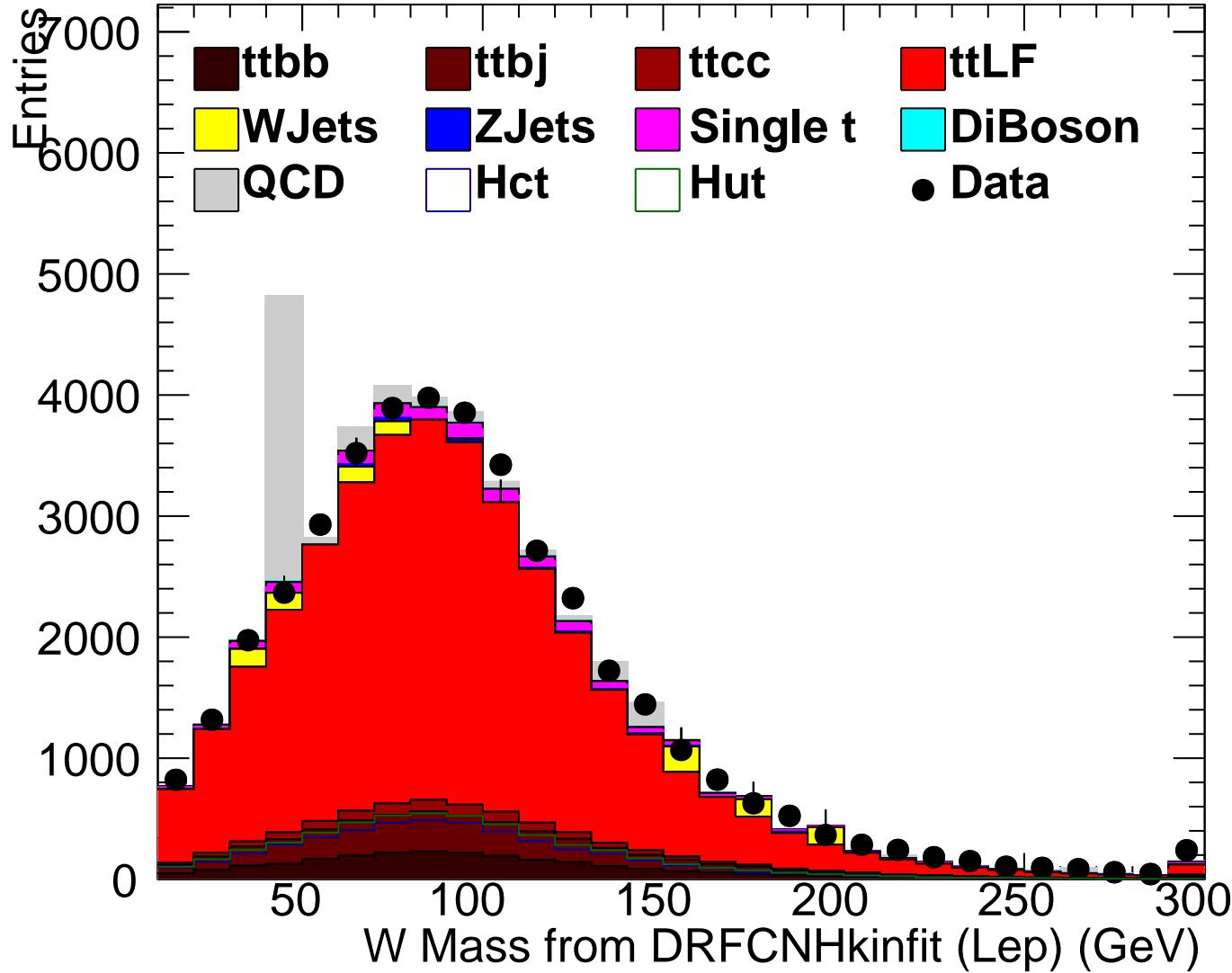


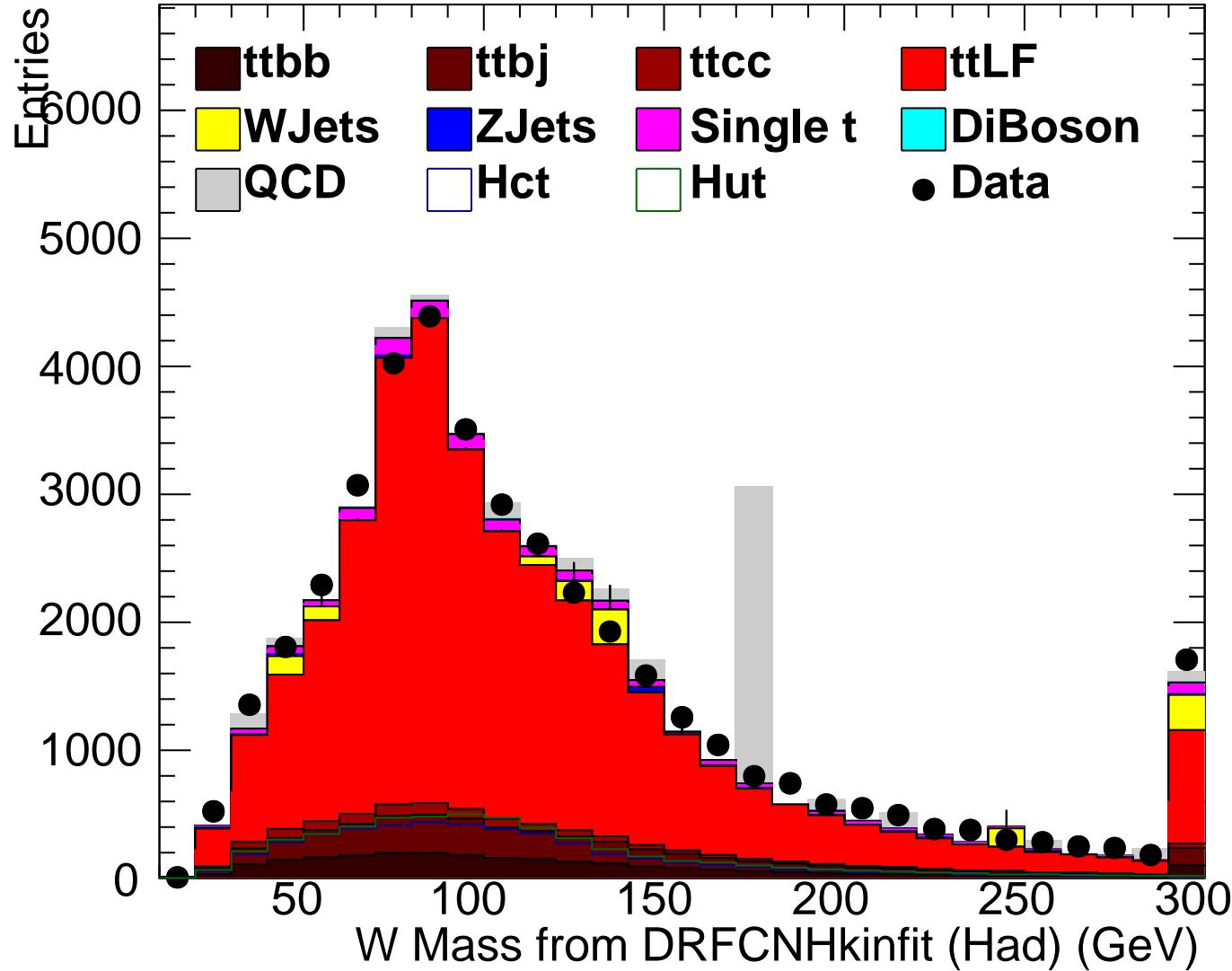
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

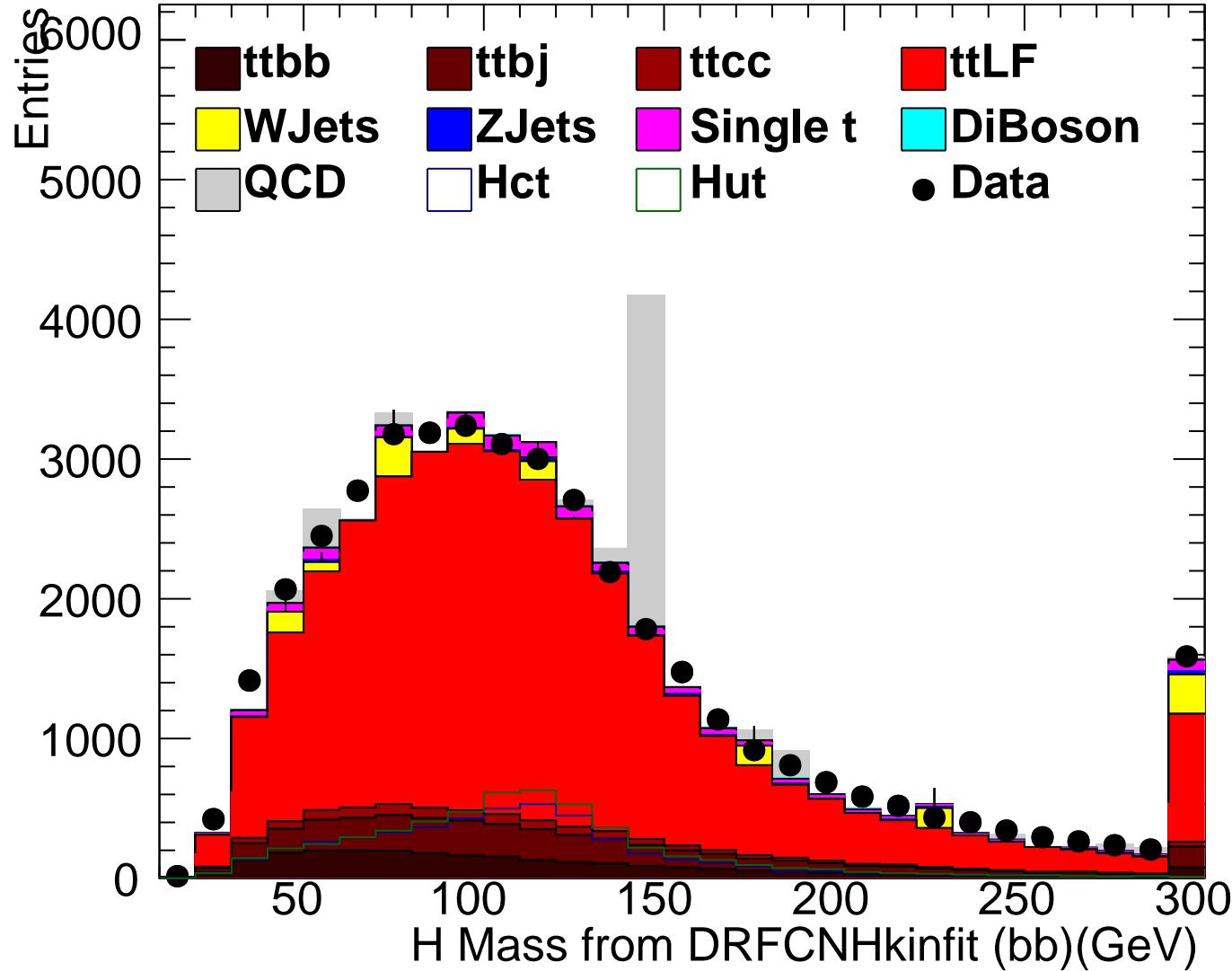


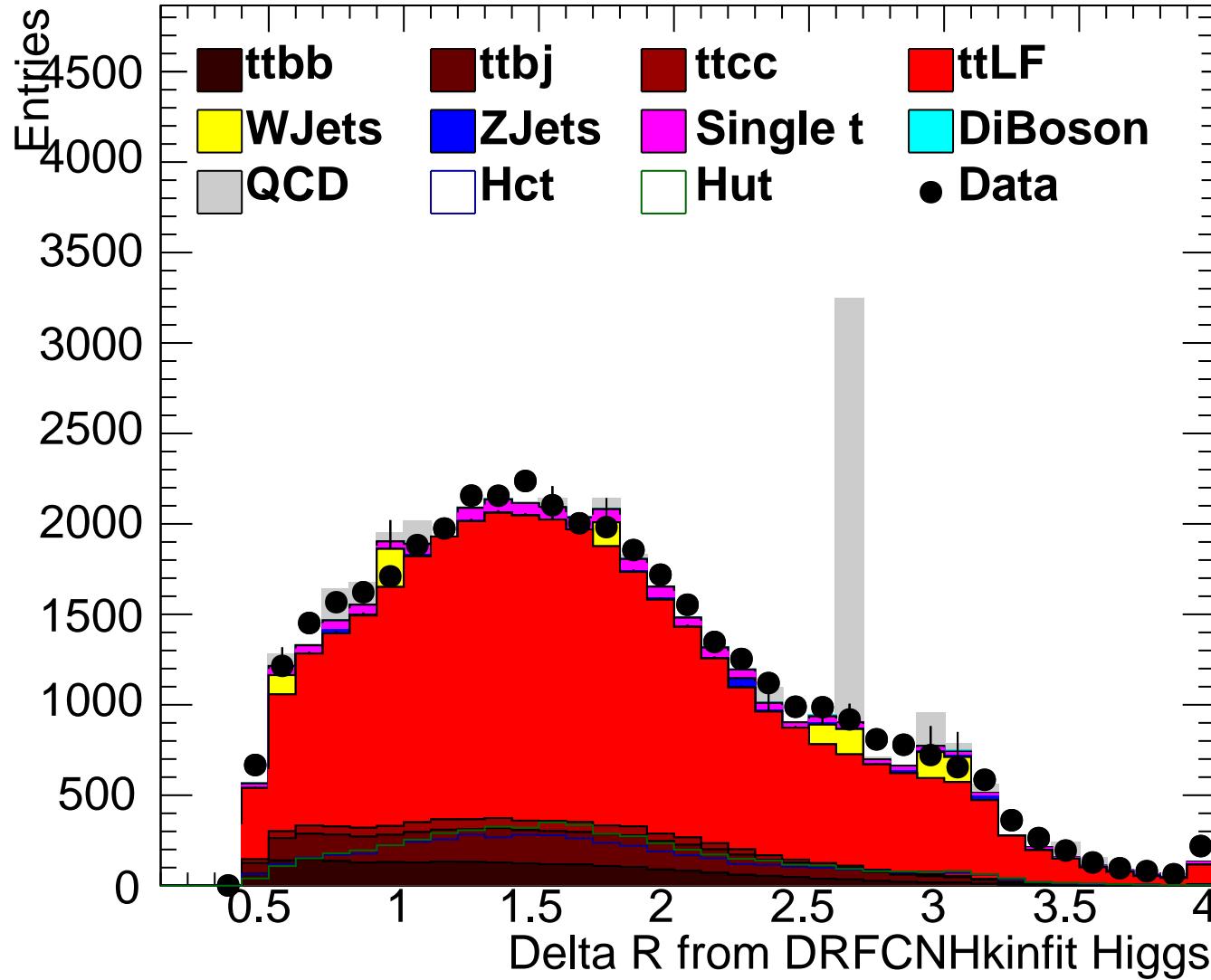
Ch0_S5

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



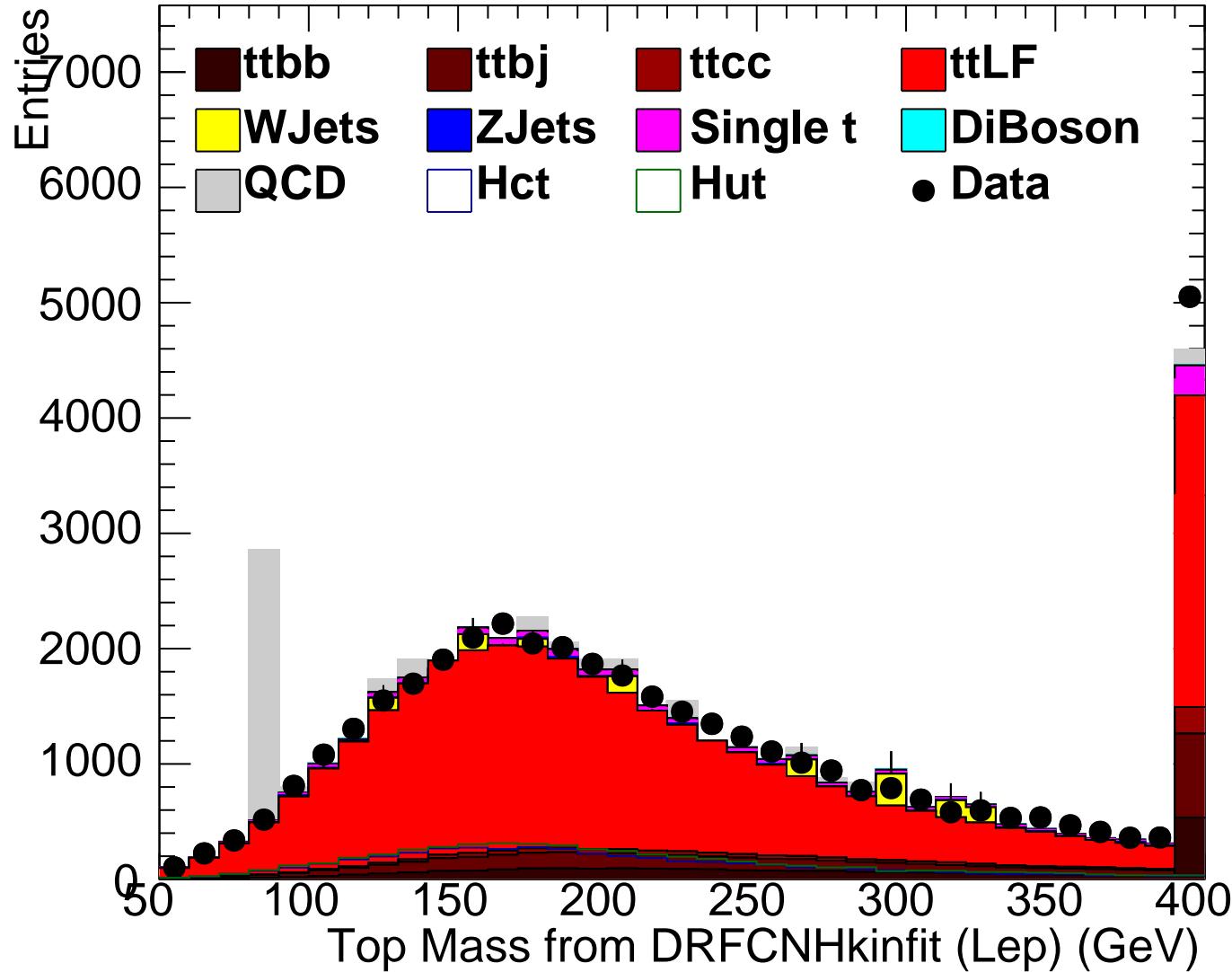
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

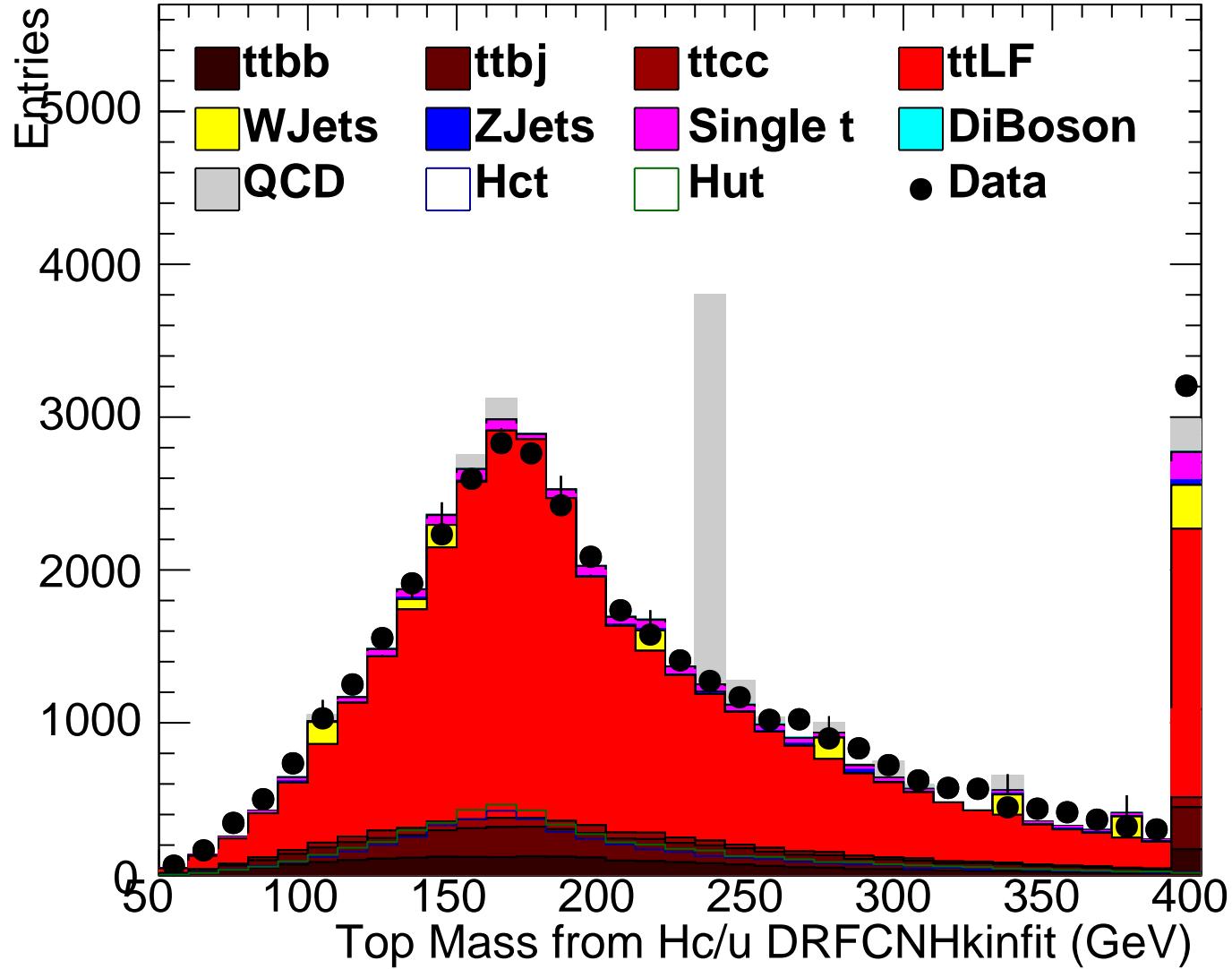
Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S5

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

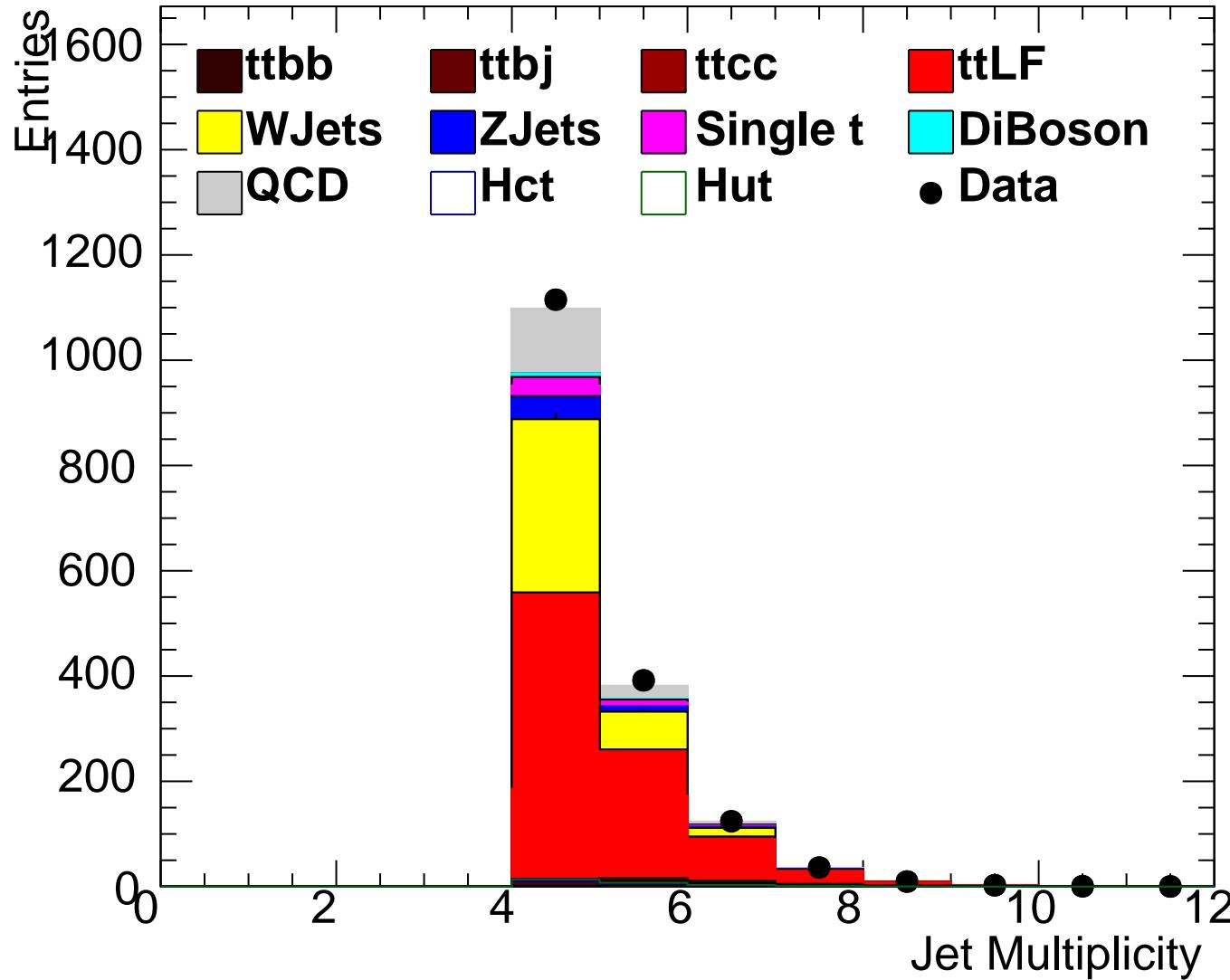


Ch0_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S6

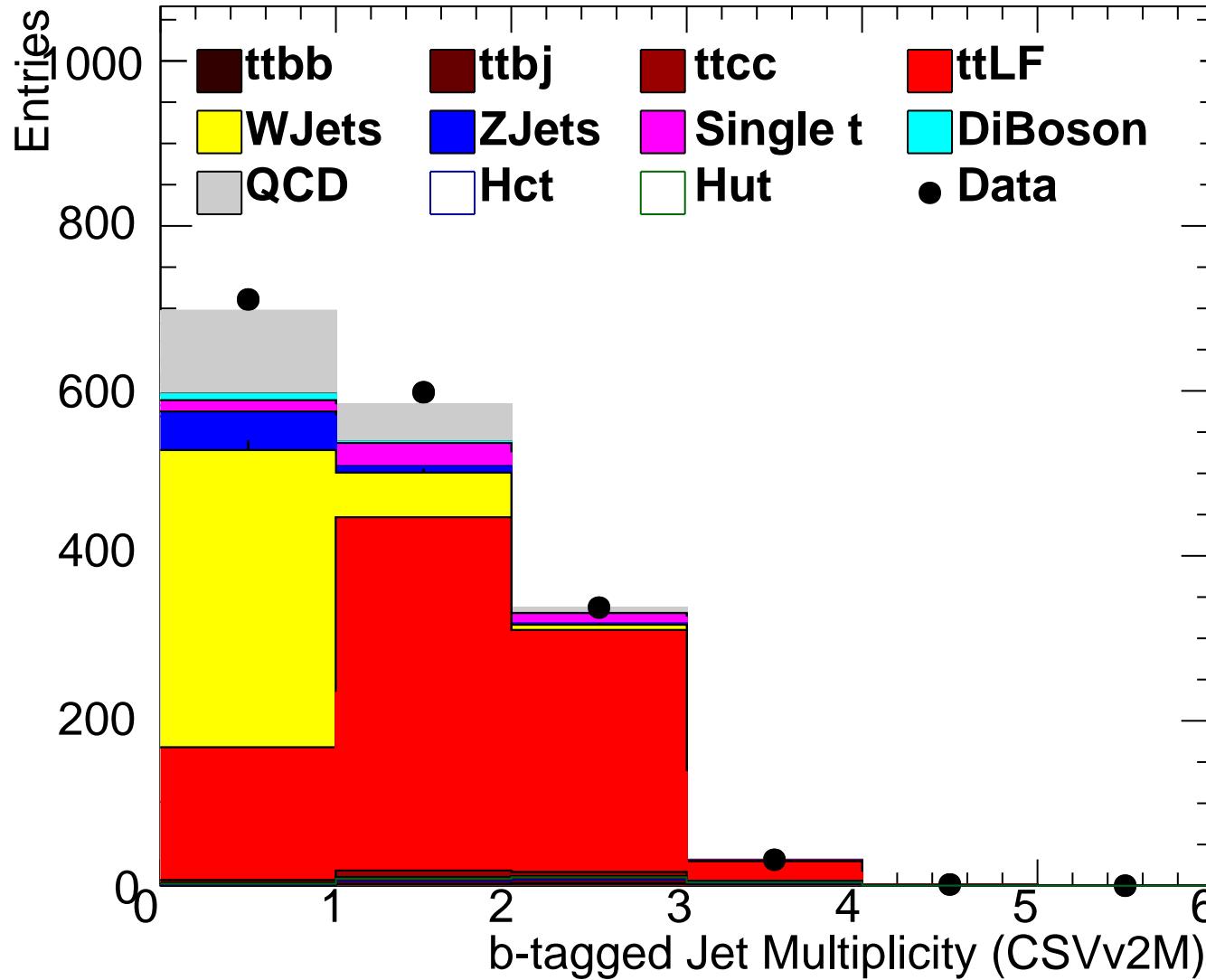
0 | 3

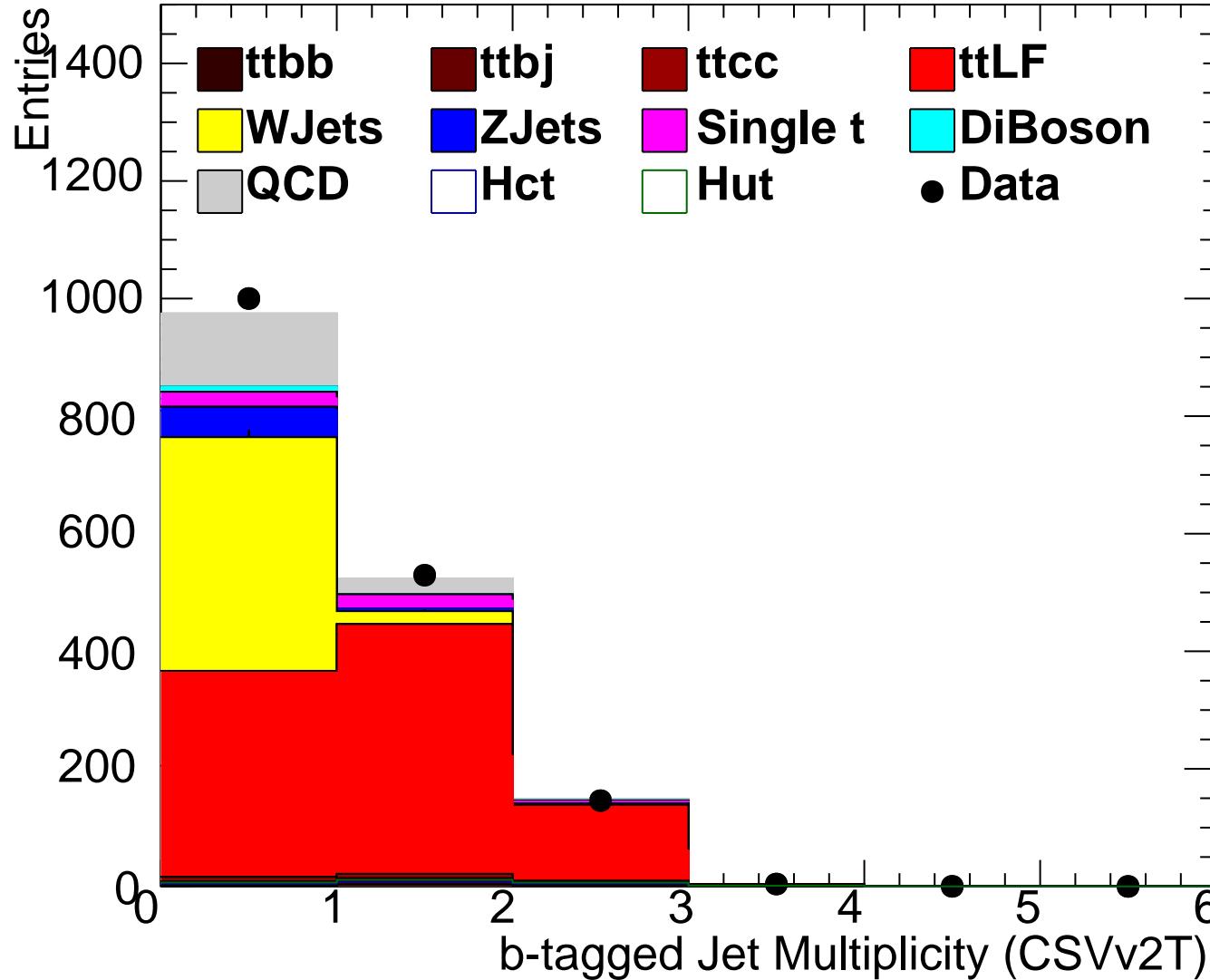
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

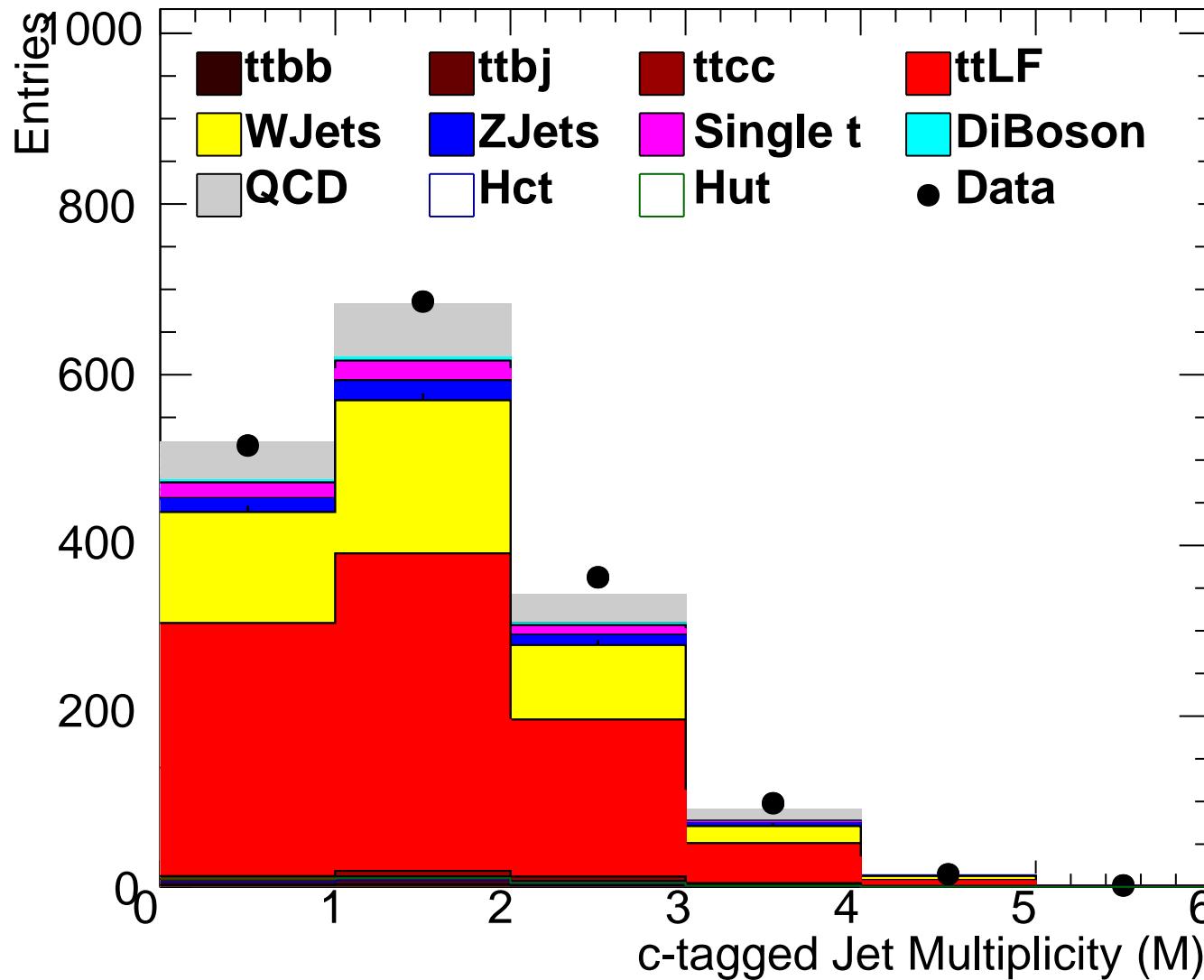


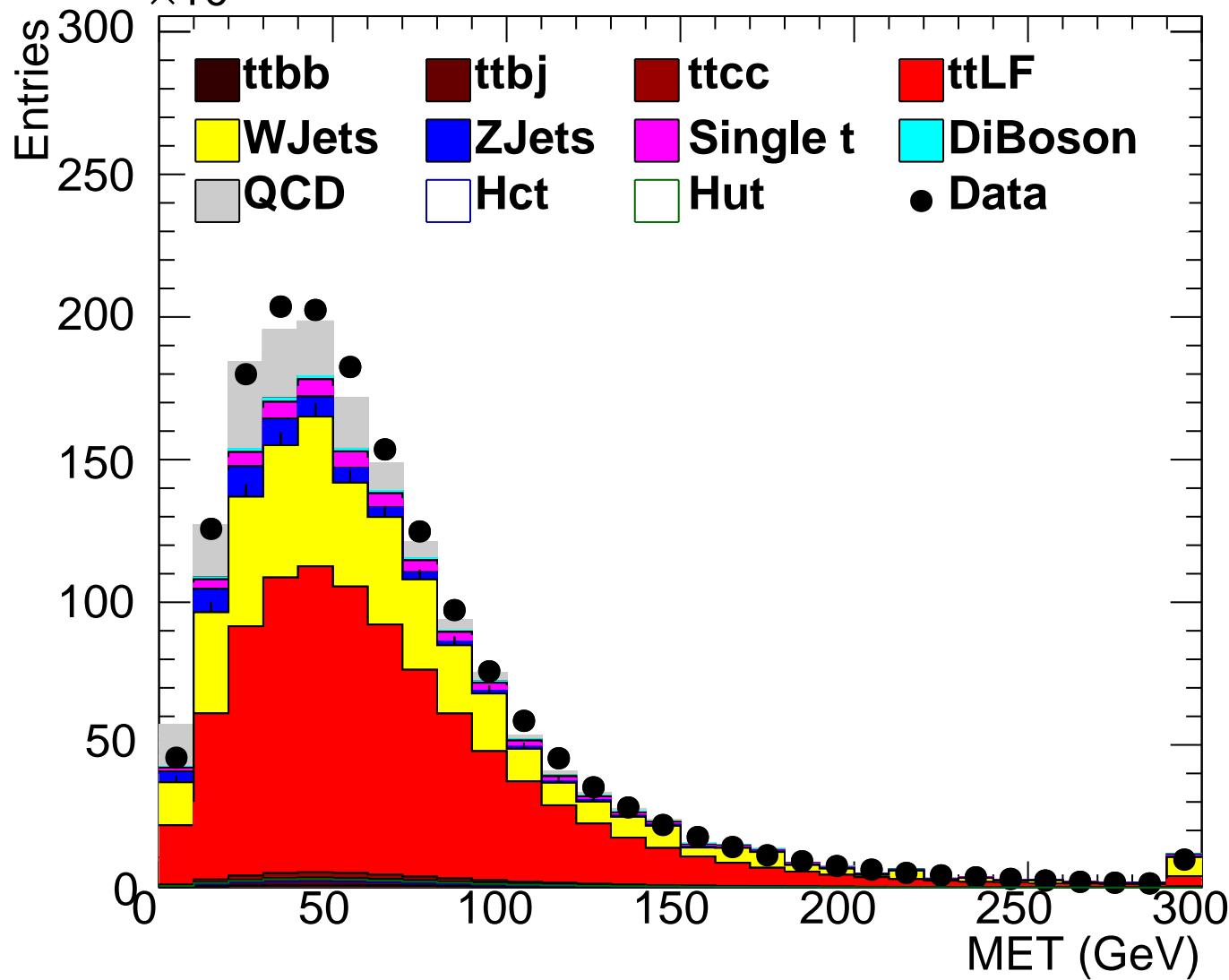
Ch0_S6

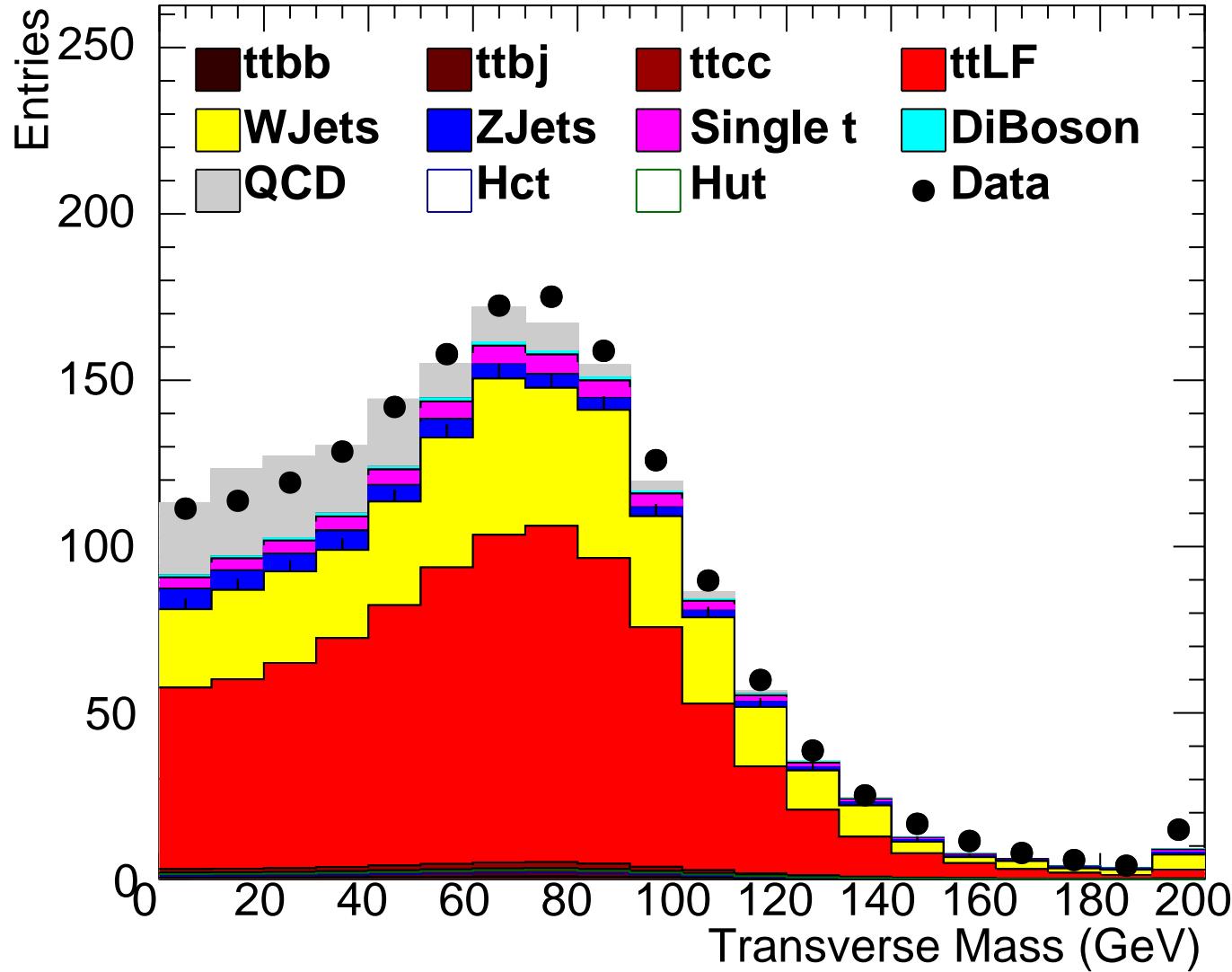
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

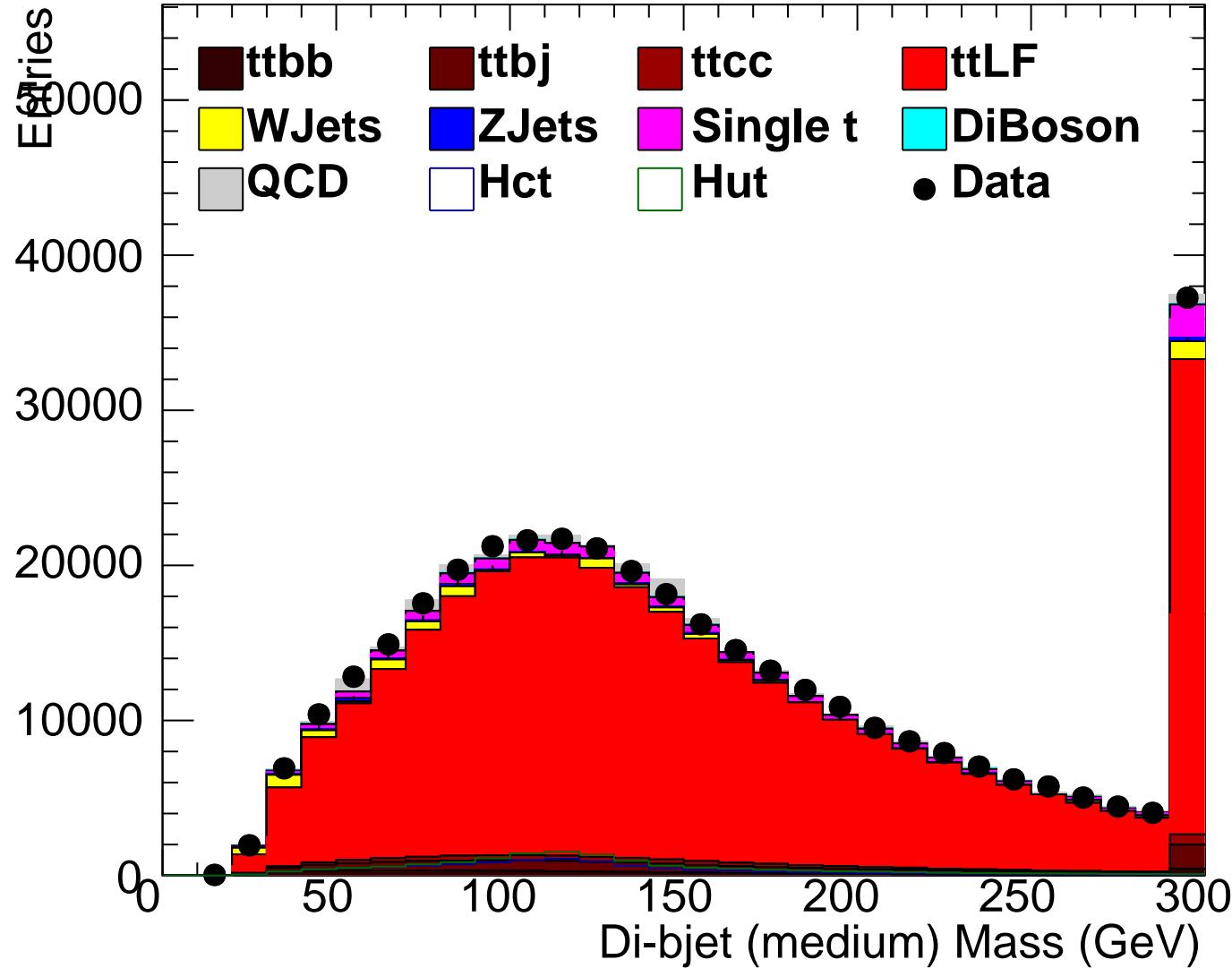


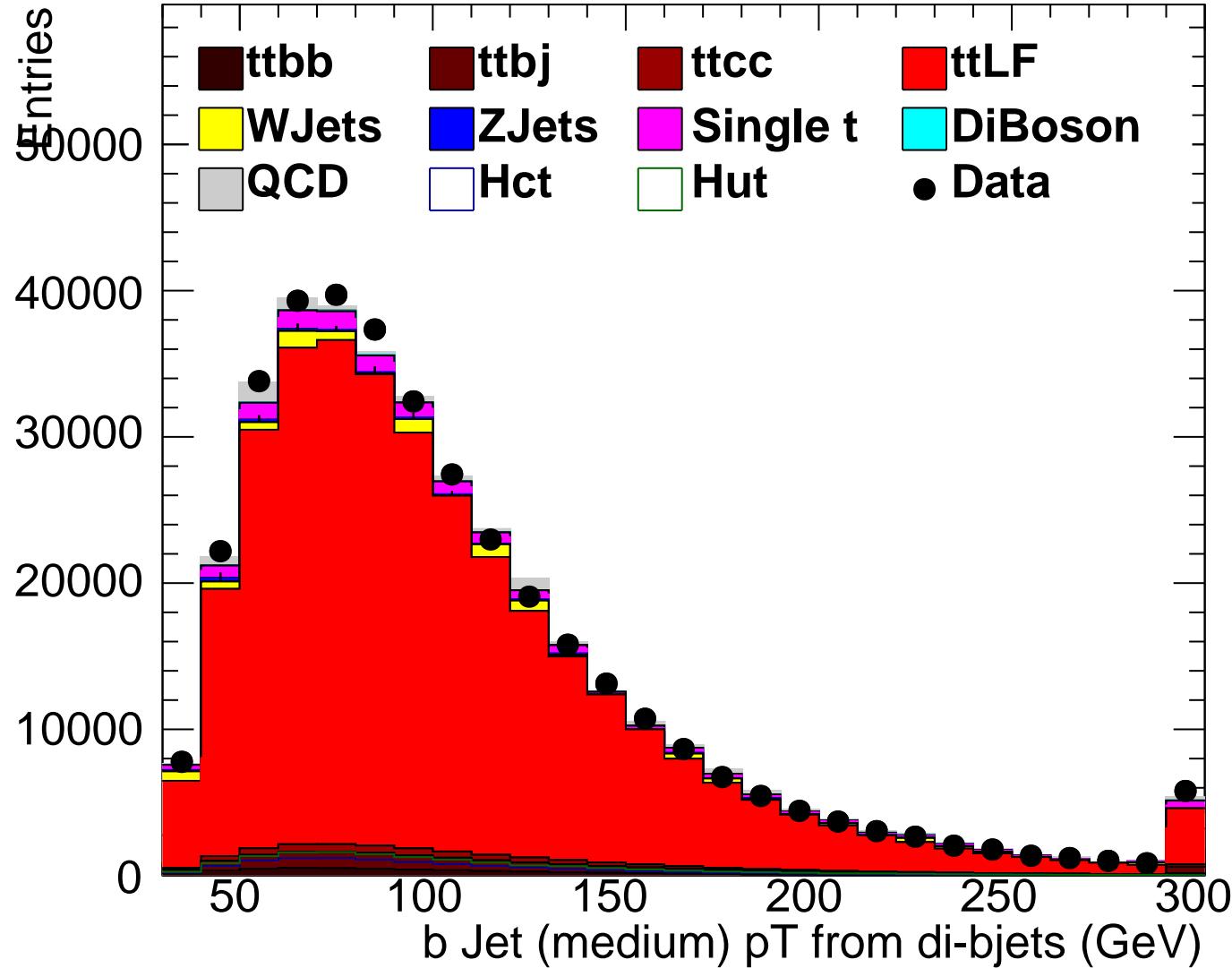
Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

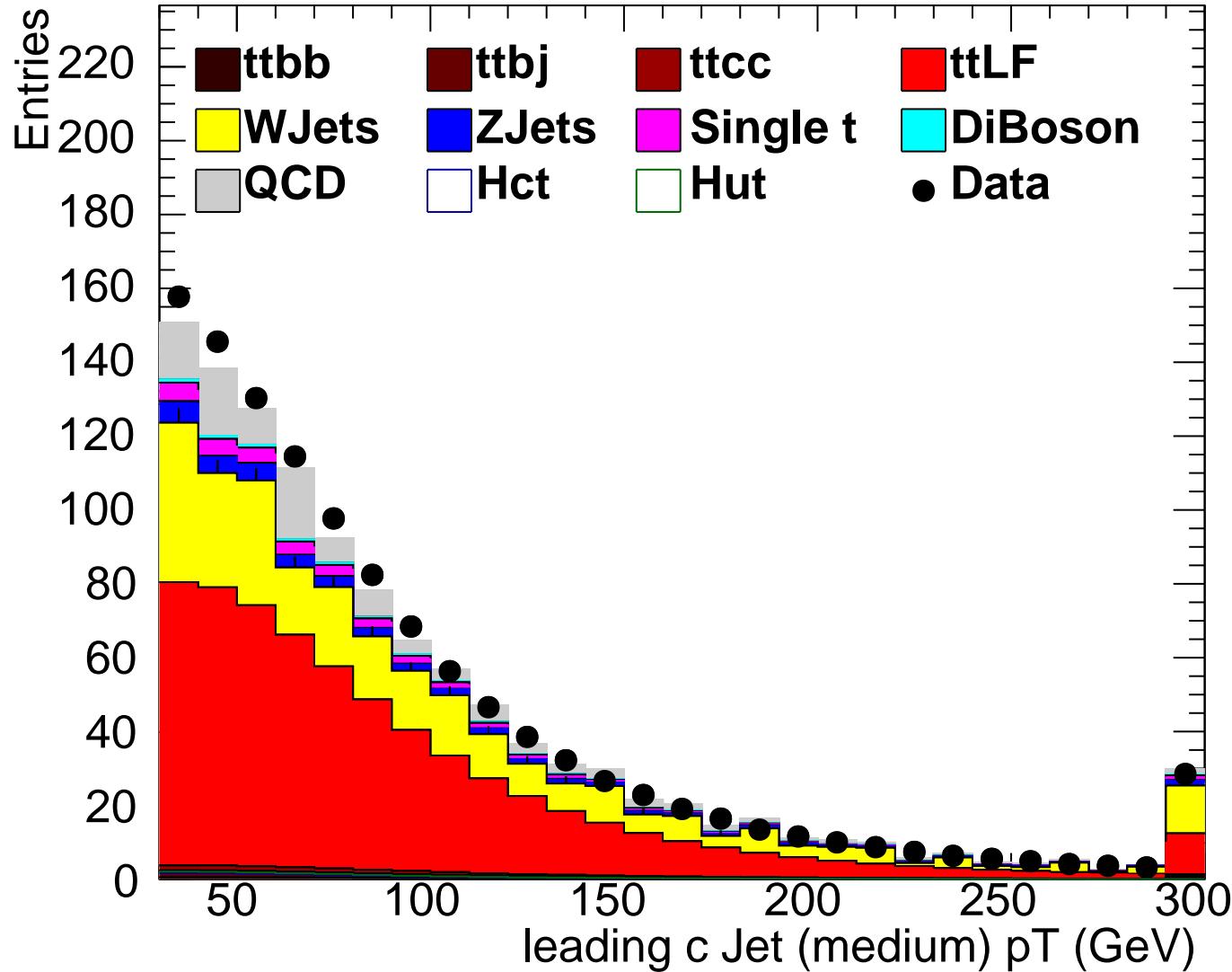
Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

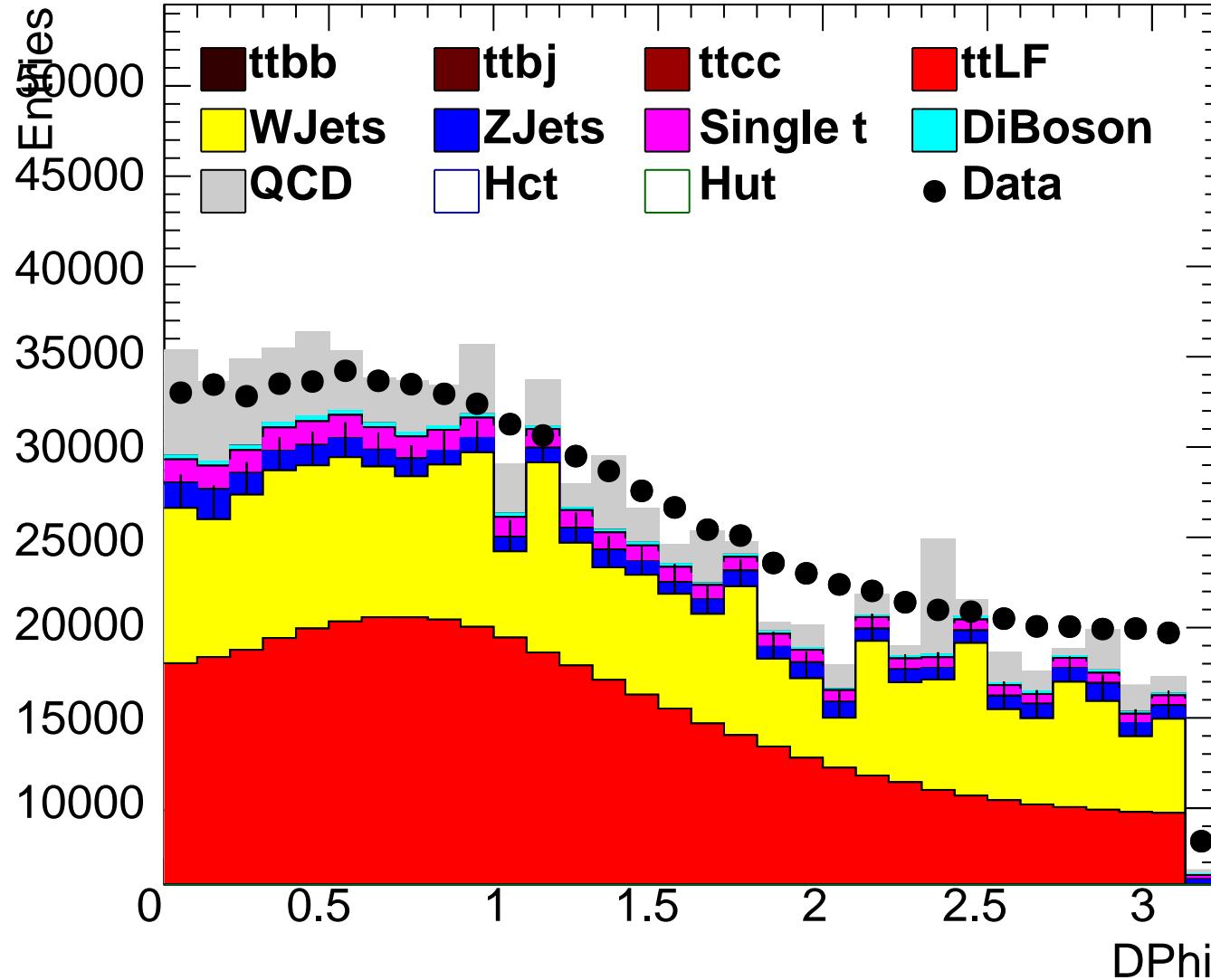
Ch0_S63
 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

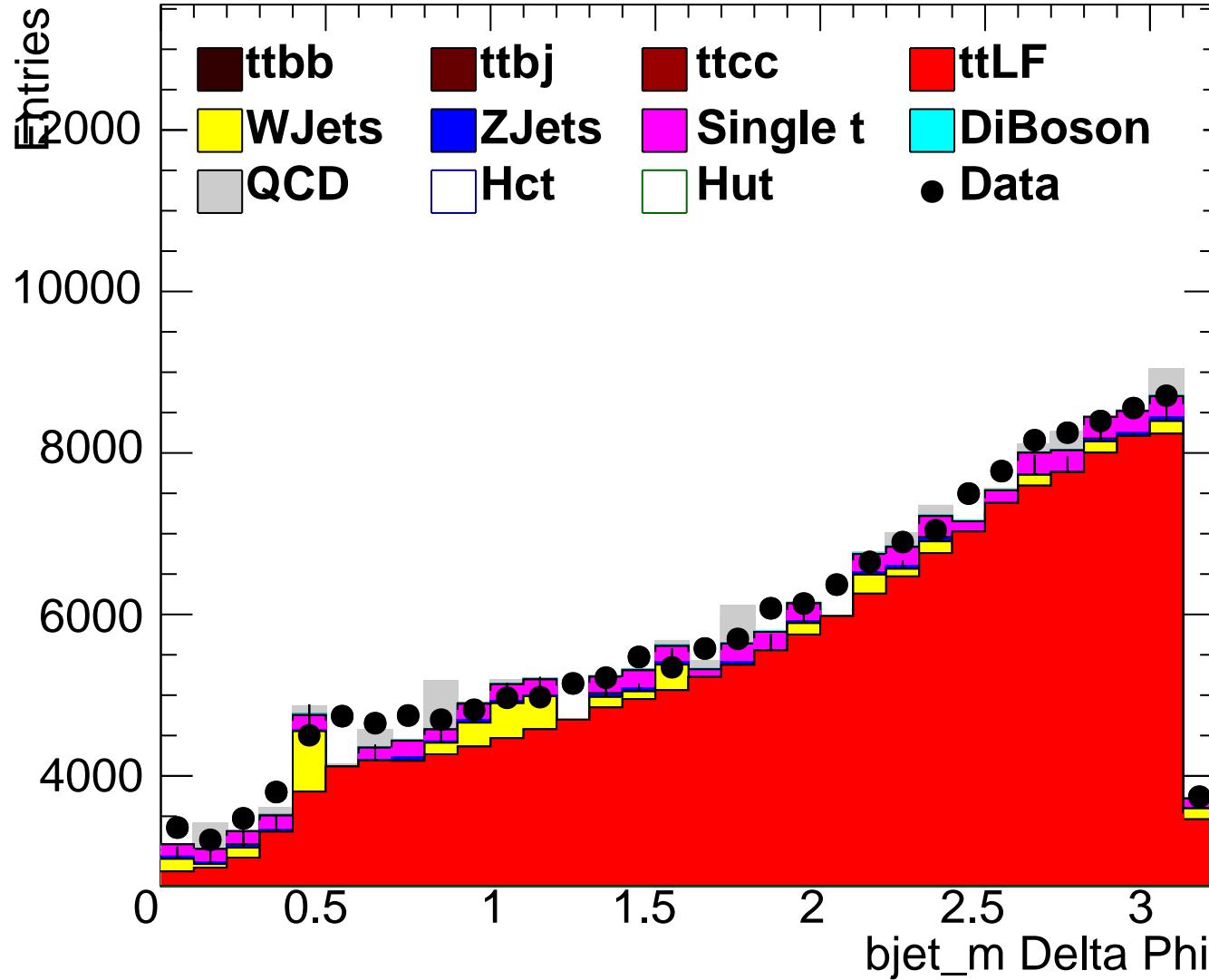
Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

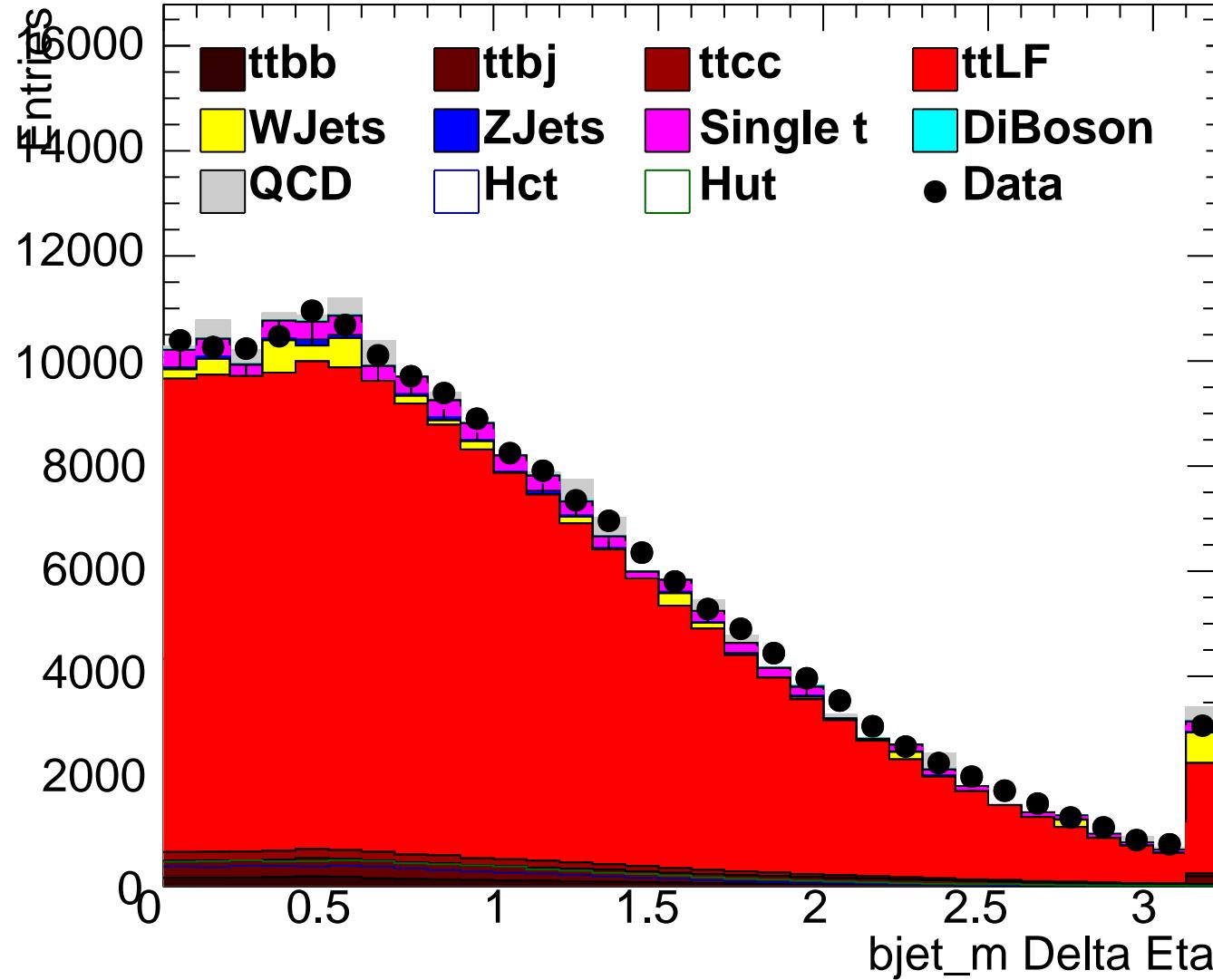
Ch0_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

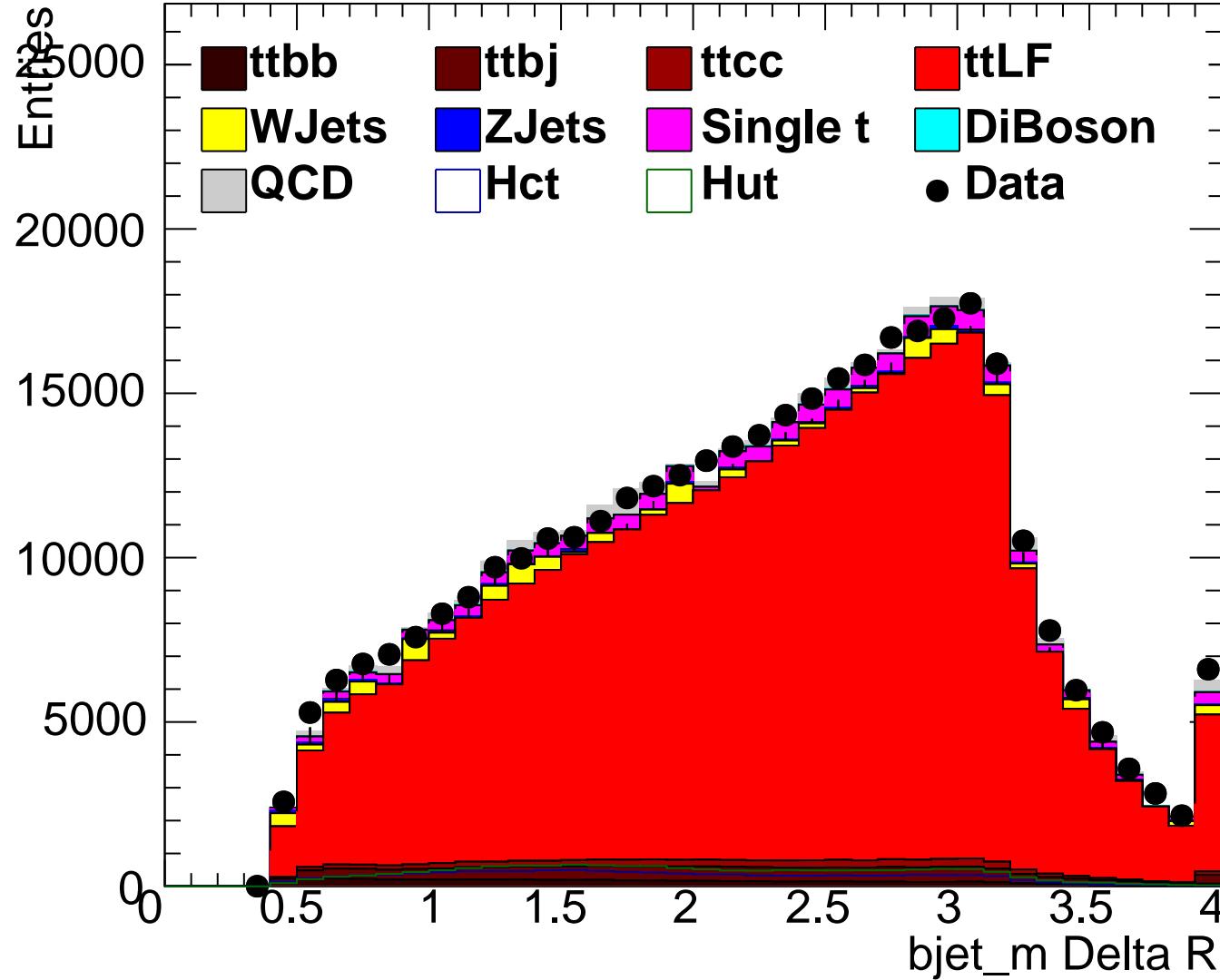
Ch0_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch0_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S6x 10⁻³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

1000

800

600

400

200

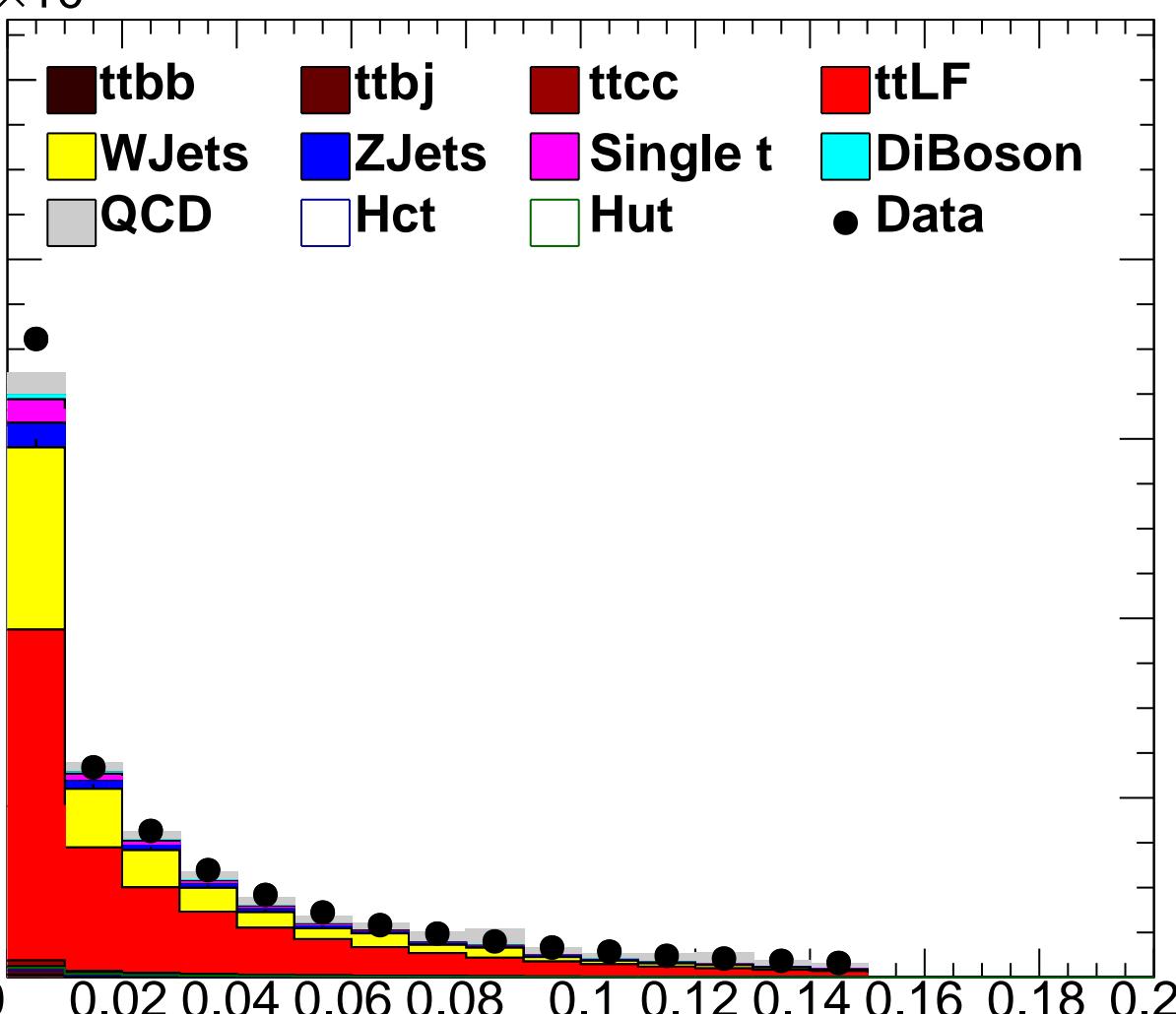
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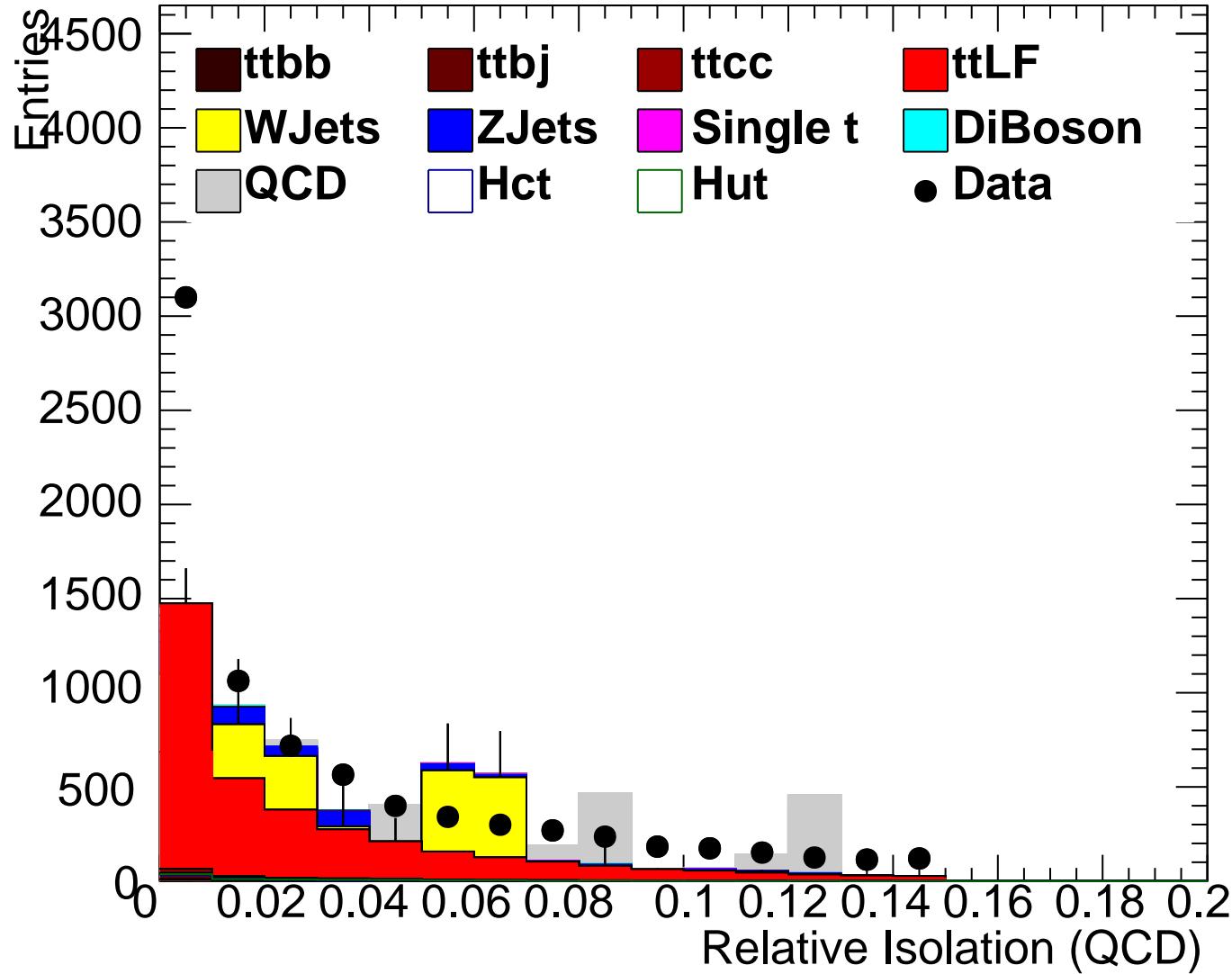
0 0.02 0.04 0.06 0.08 0.1 0.12 0.14 0.16 0.18 0.2

Relative Isolation

ttbb	ttbj	ttcc	ttLF
WJets	ZJets	Single t	DiBoson
QCD	Hct	Hut	

Data

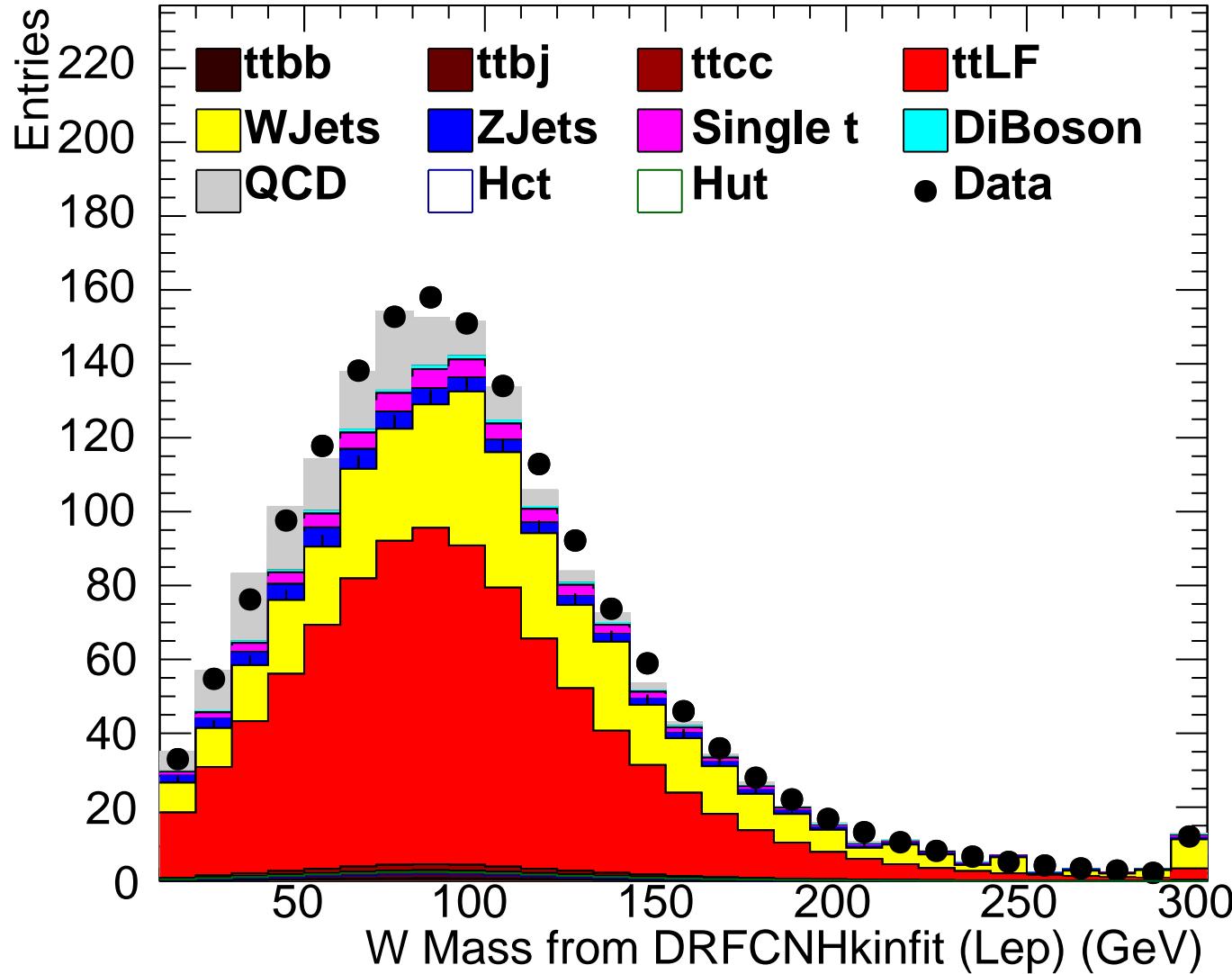




Ch0_S6

3

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

250

200

150

100

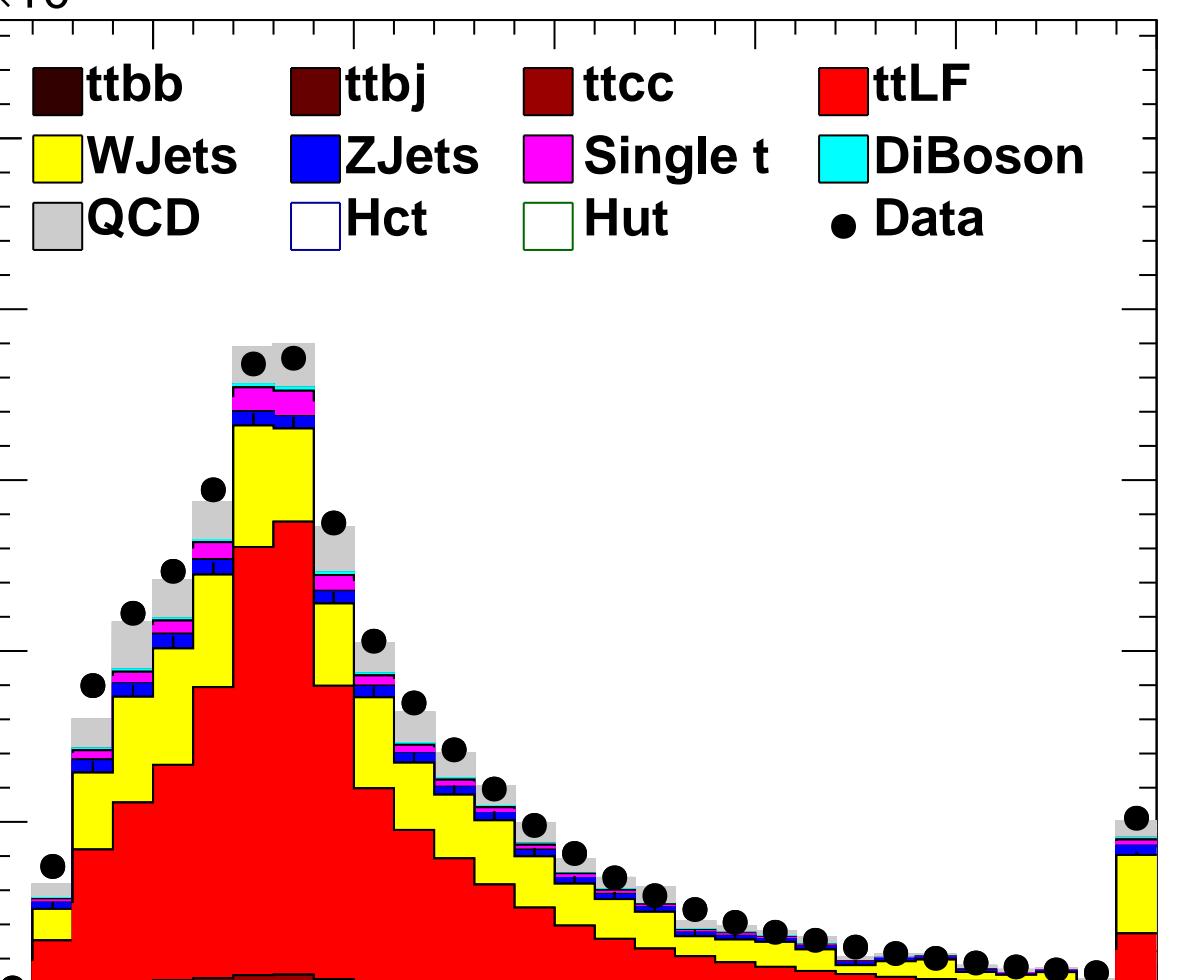
50

0

W Mass from DRFCN_Hkinfit (Had) (GeV)

ttbb	ttbj	ttcc	ttLF
WJets	ZJets	Single t	DiBoson
QCD	Hct	Hut	

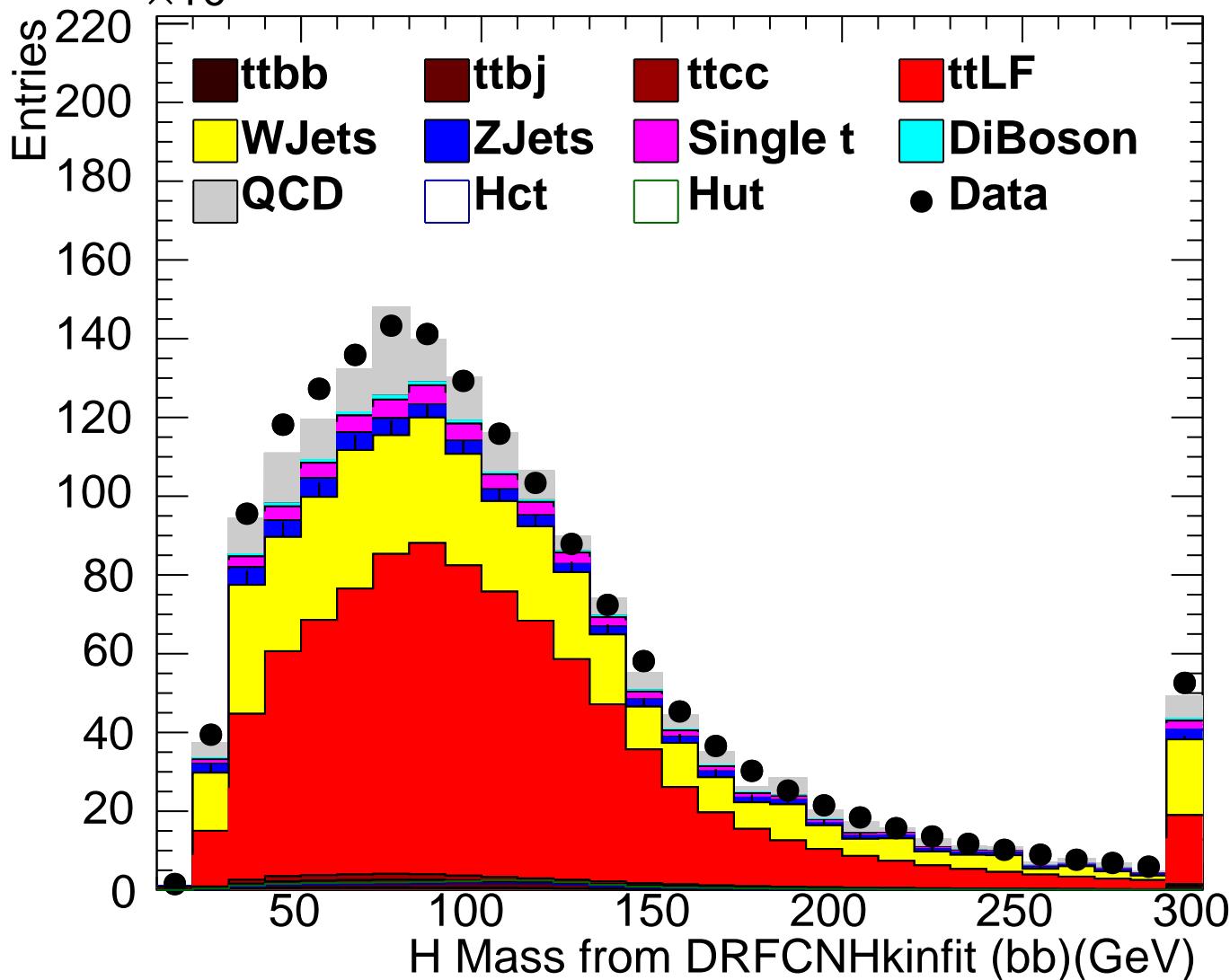
● Data



Ch0_S6

$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch0_S6

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

120

100

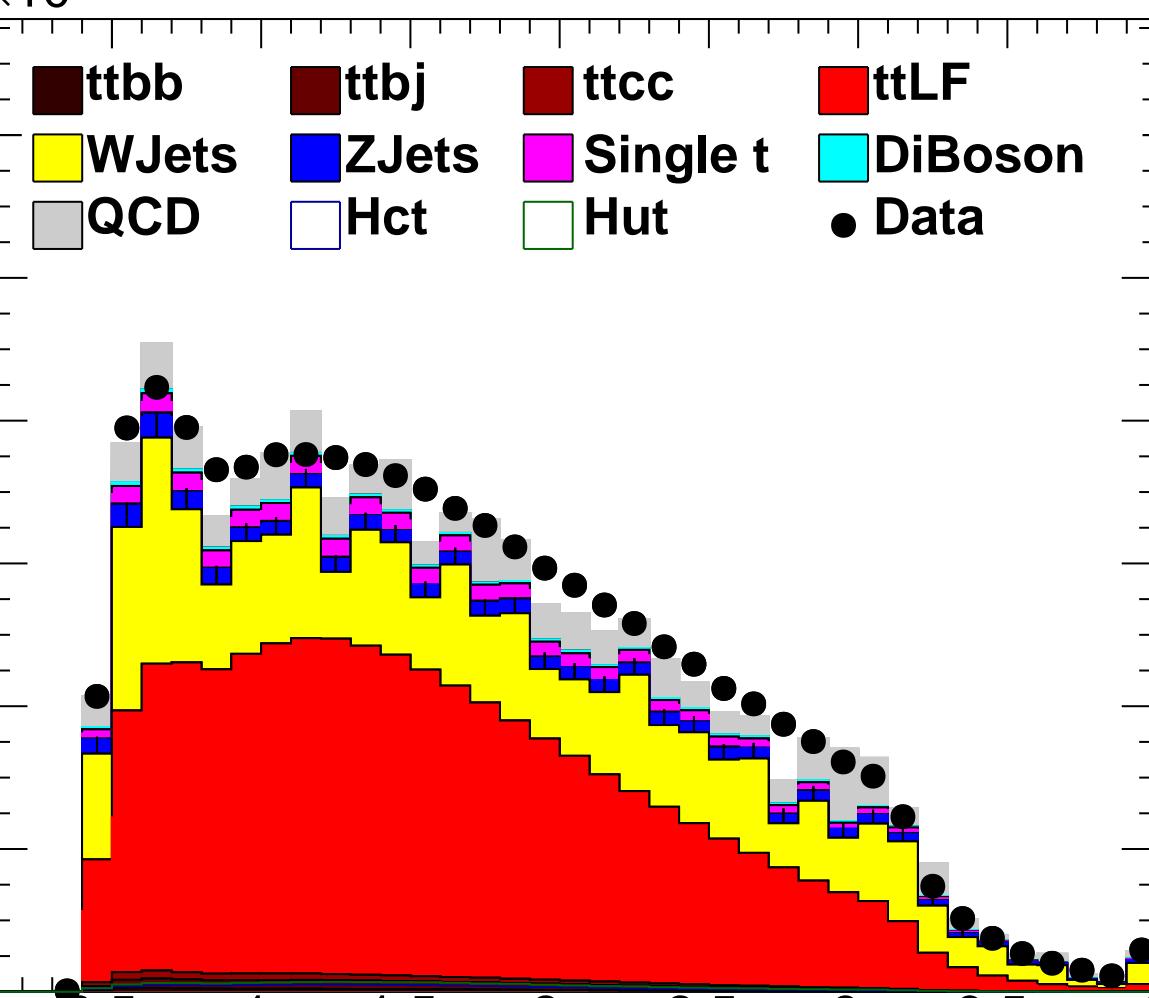
80

60

40

20

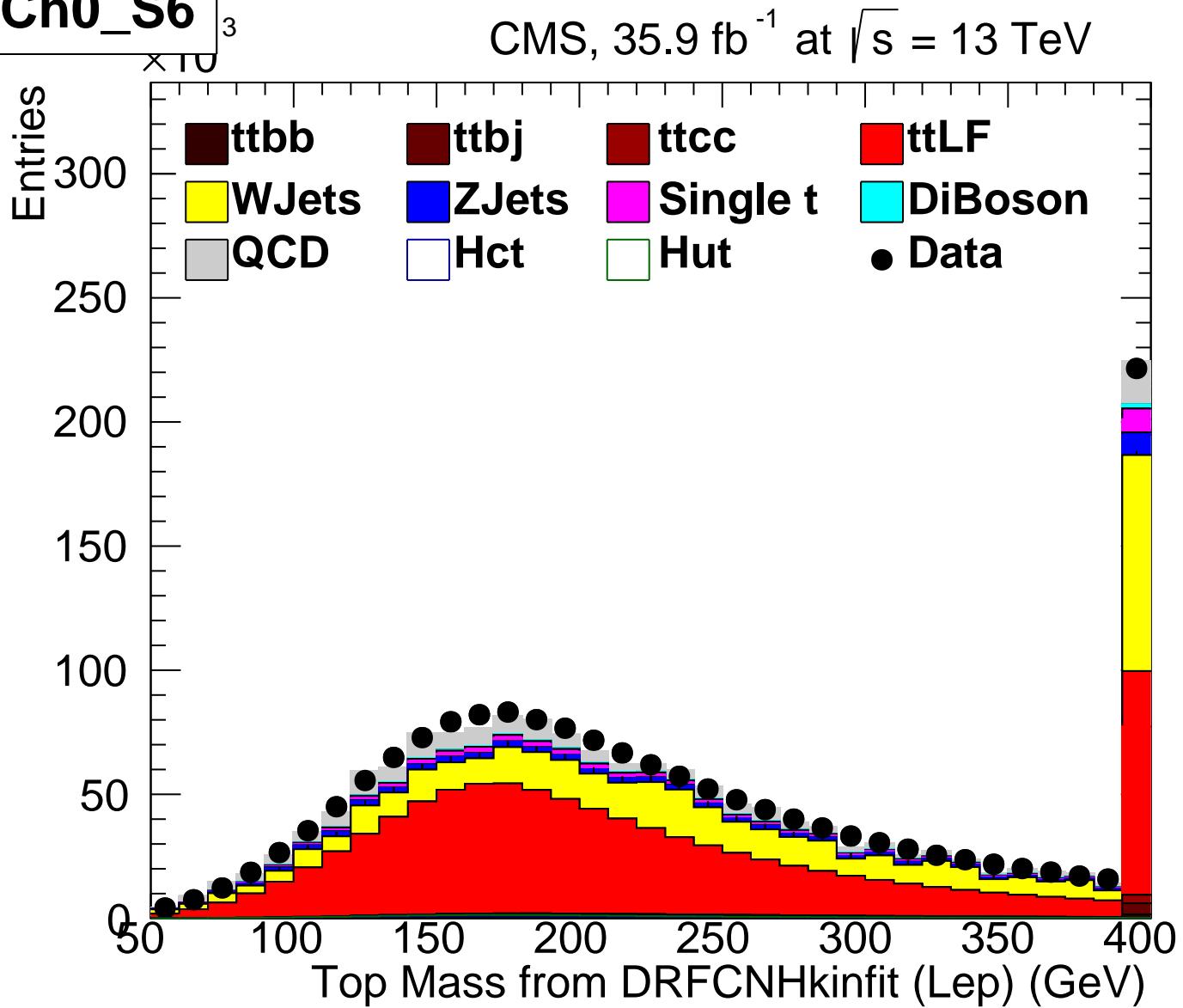
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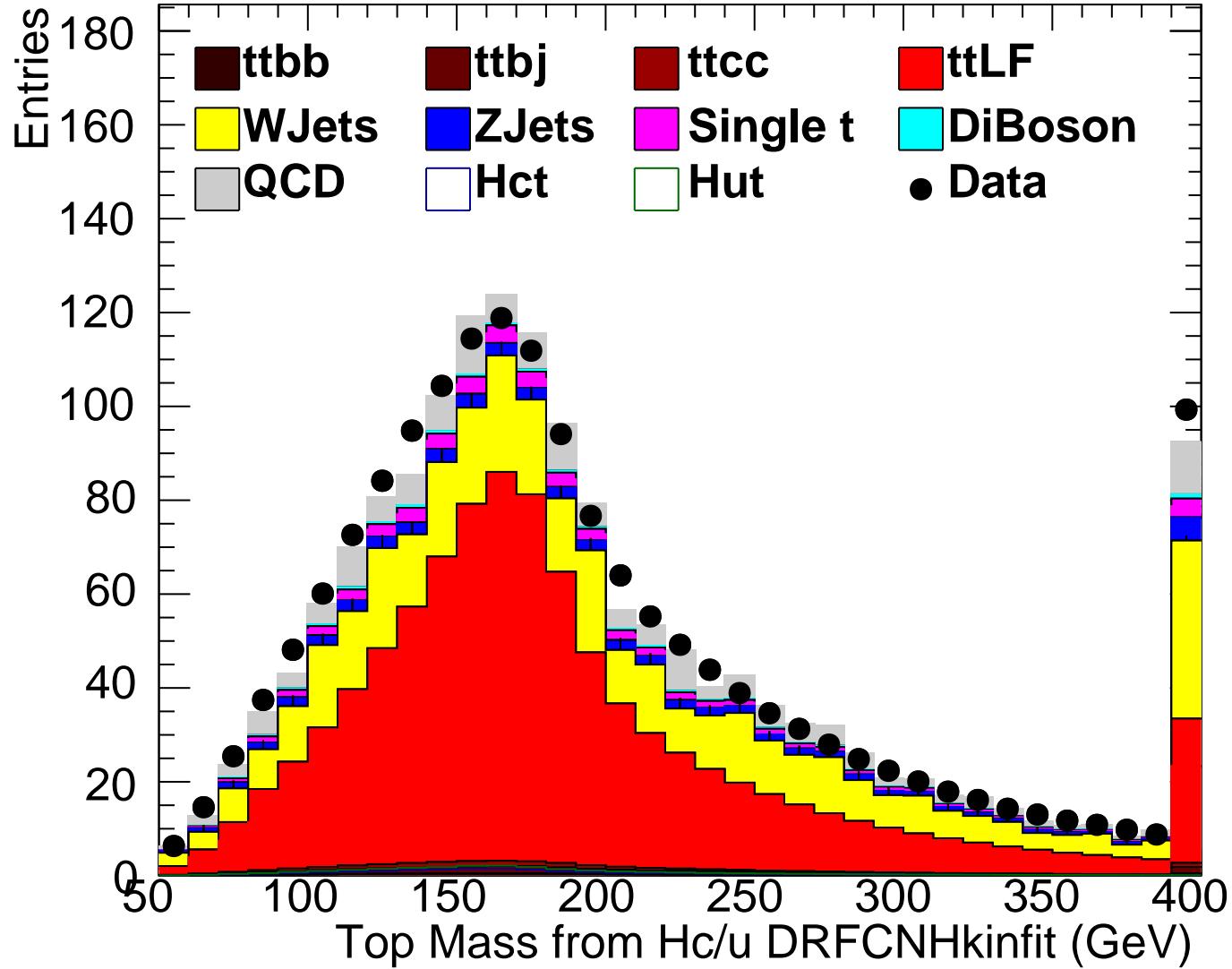


Delta R from DRFCN Higgs
vs DRFCN Hkinfit Higgs

Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

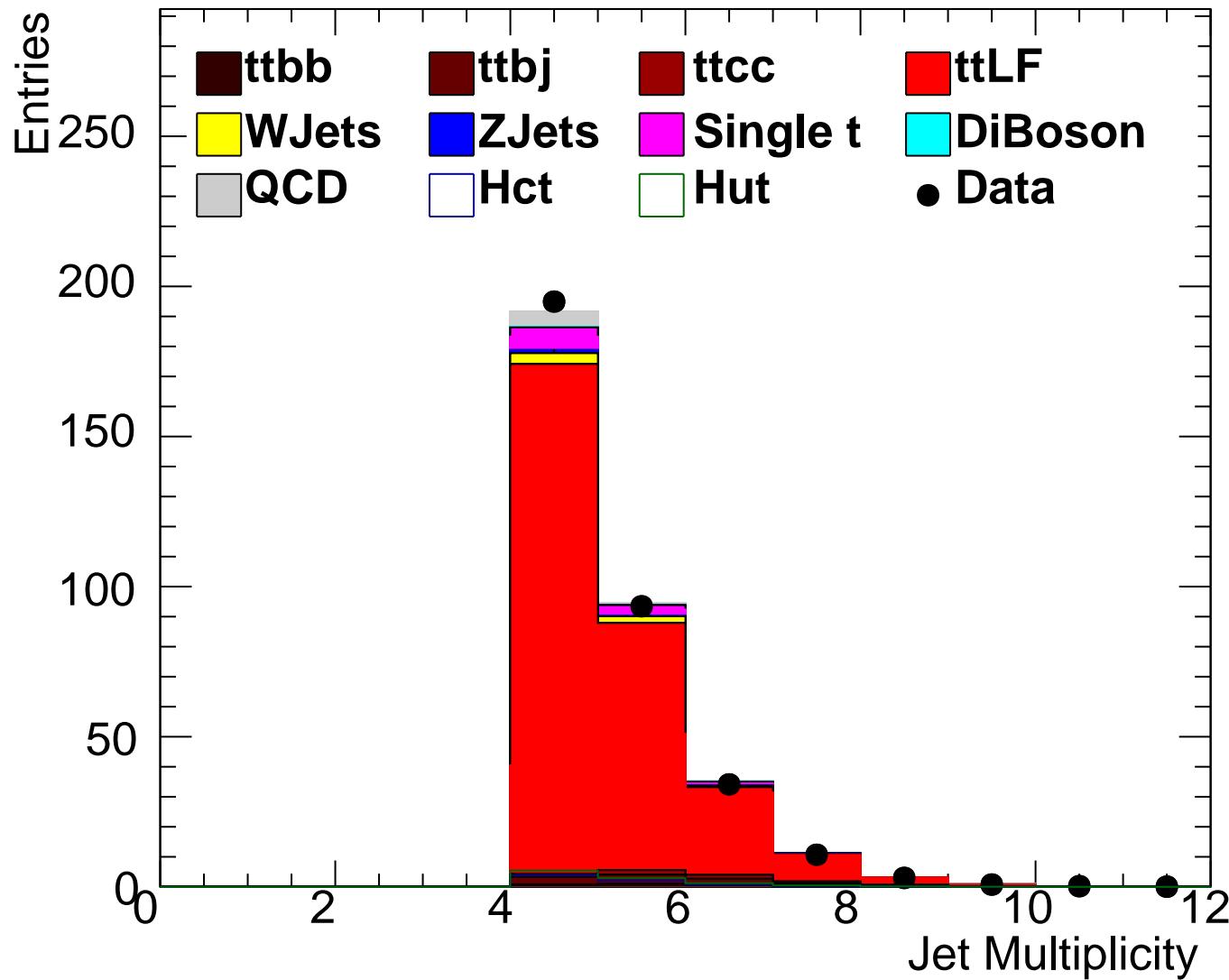
Entries



Ch0_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

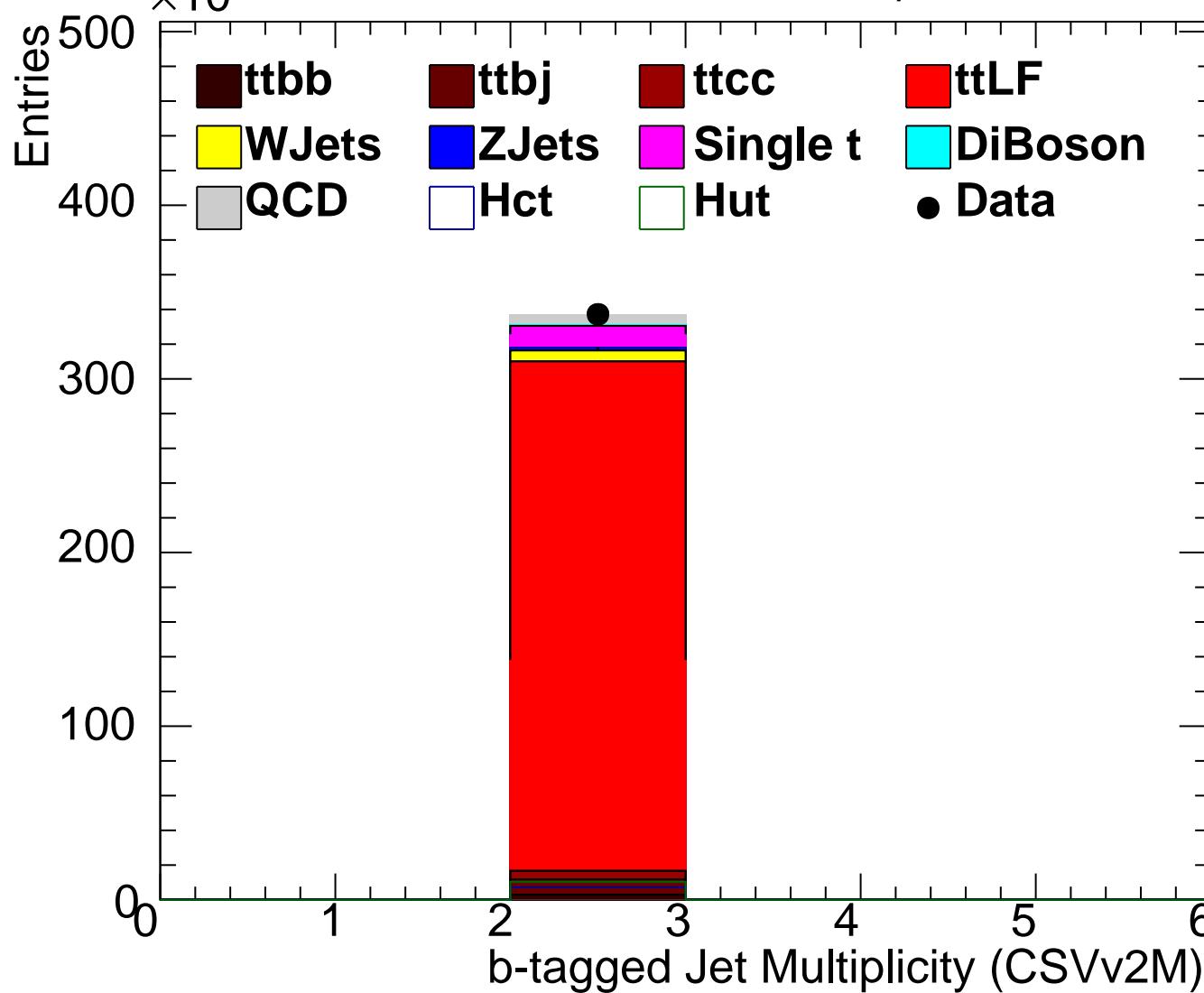
Ch0_S7

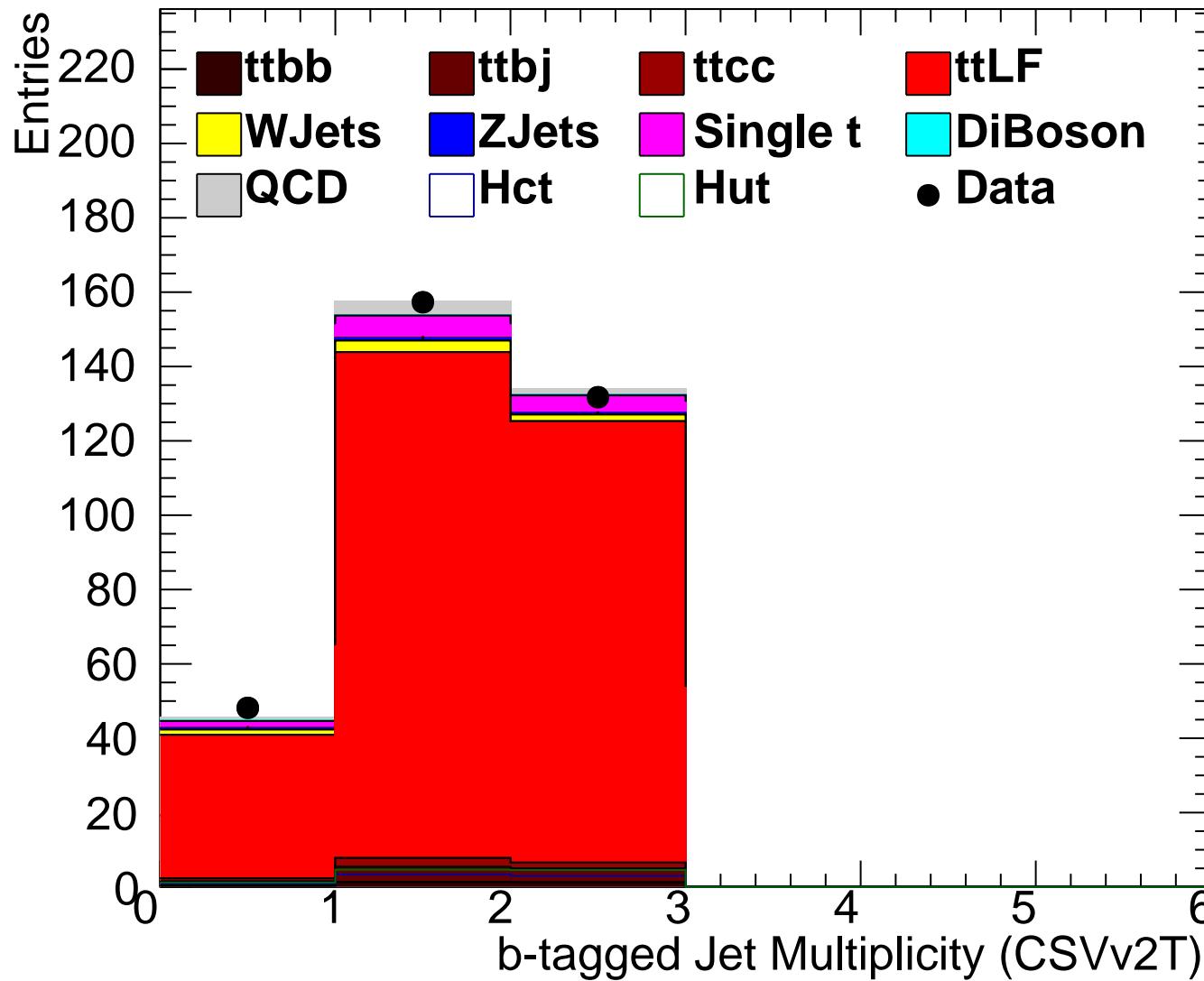
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

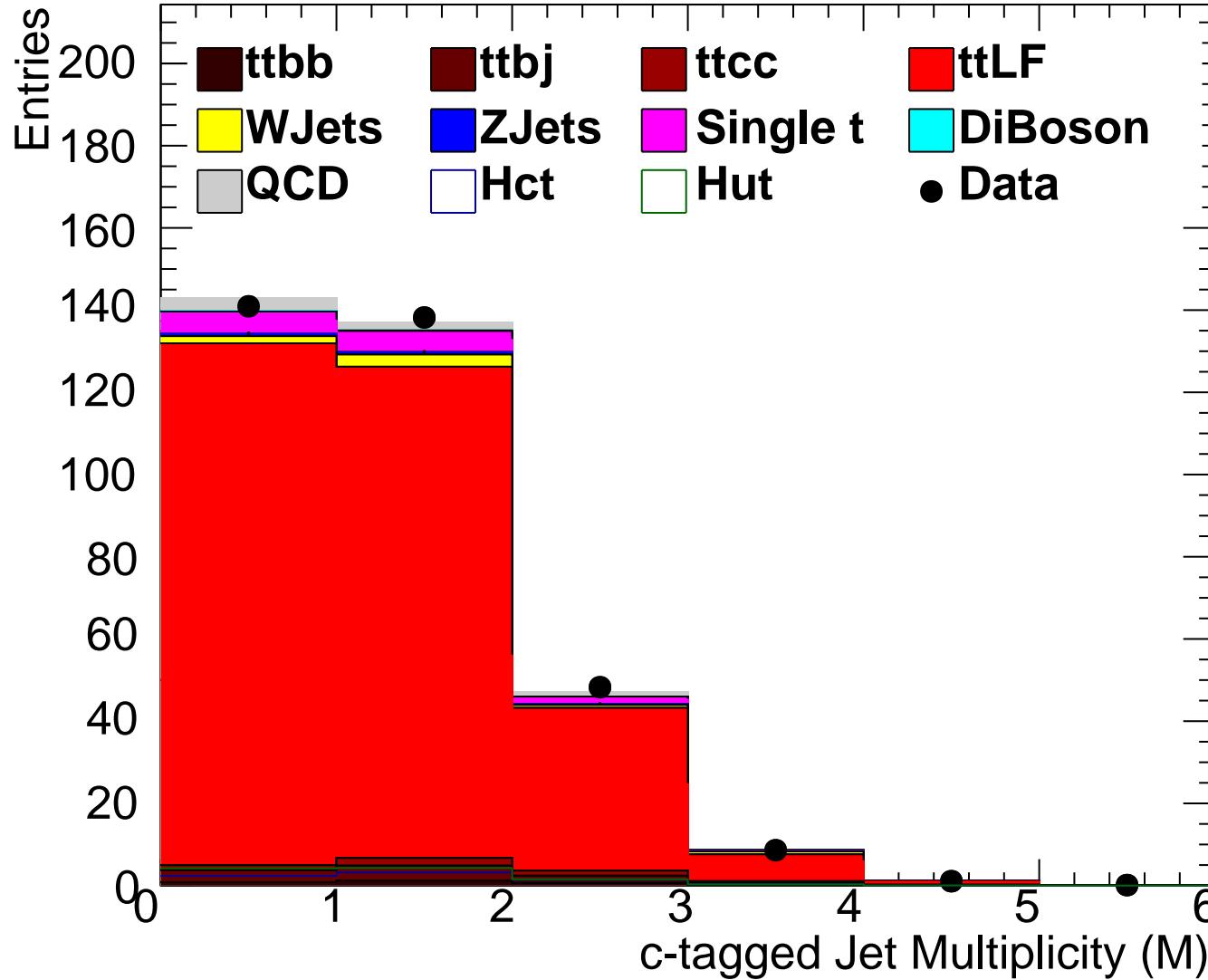


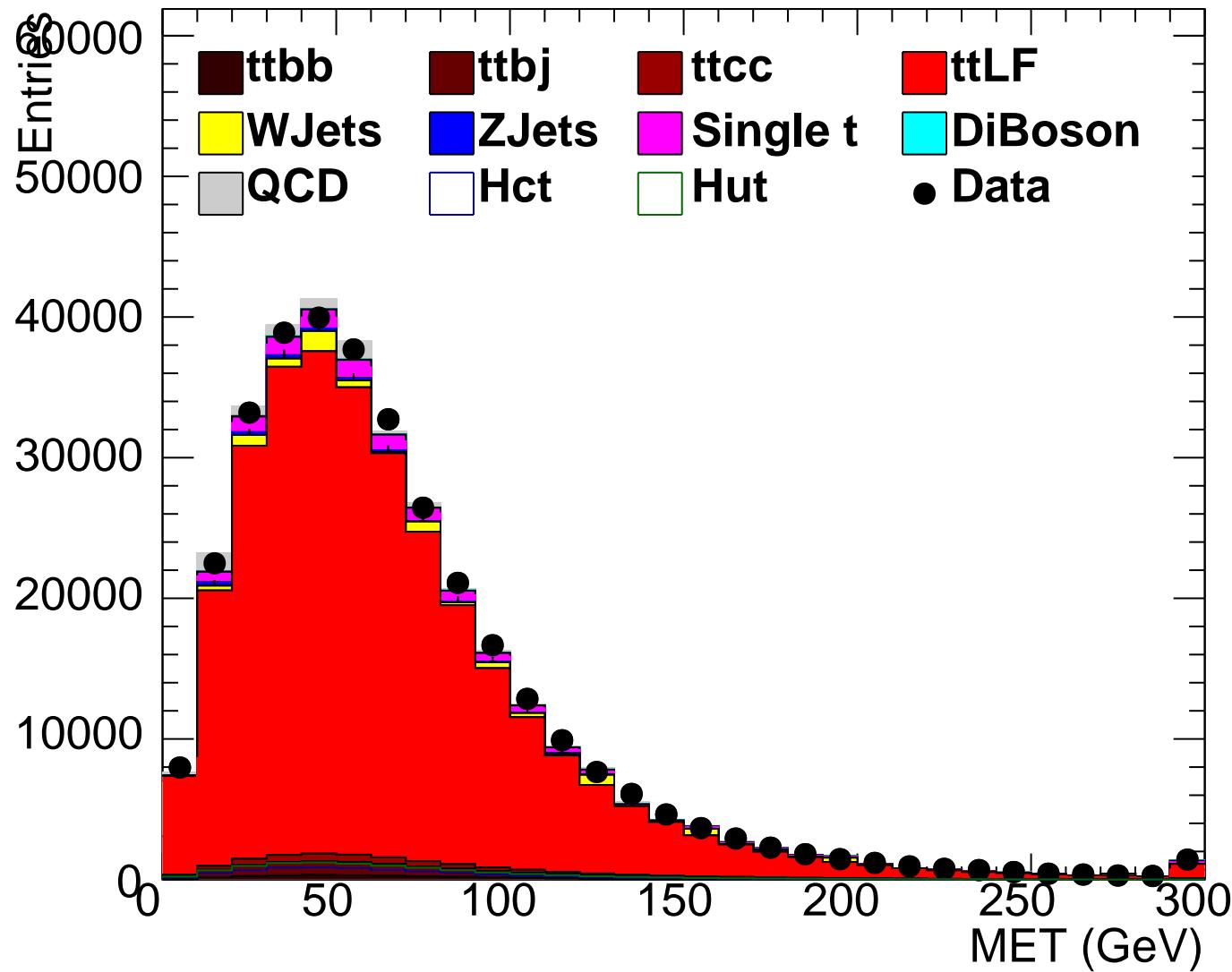
Ch0_S7

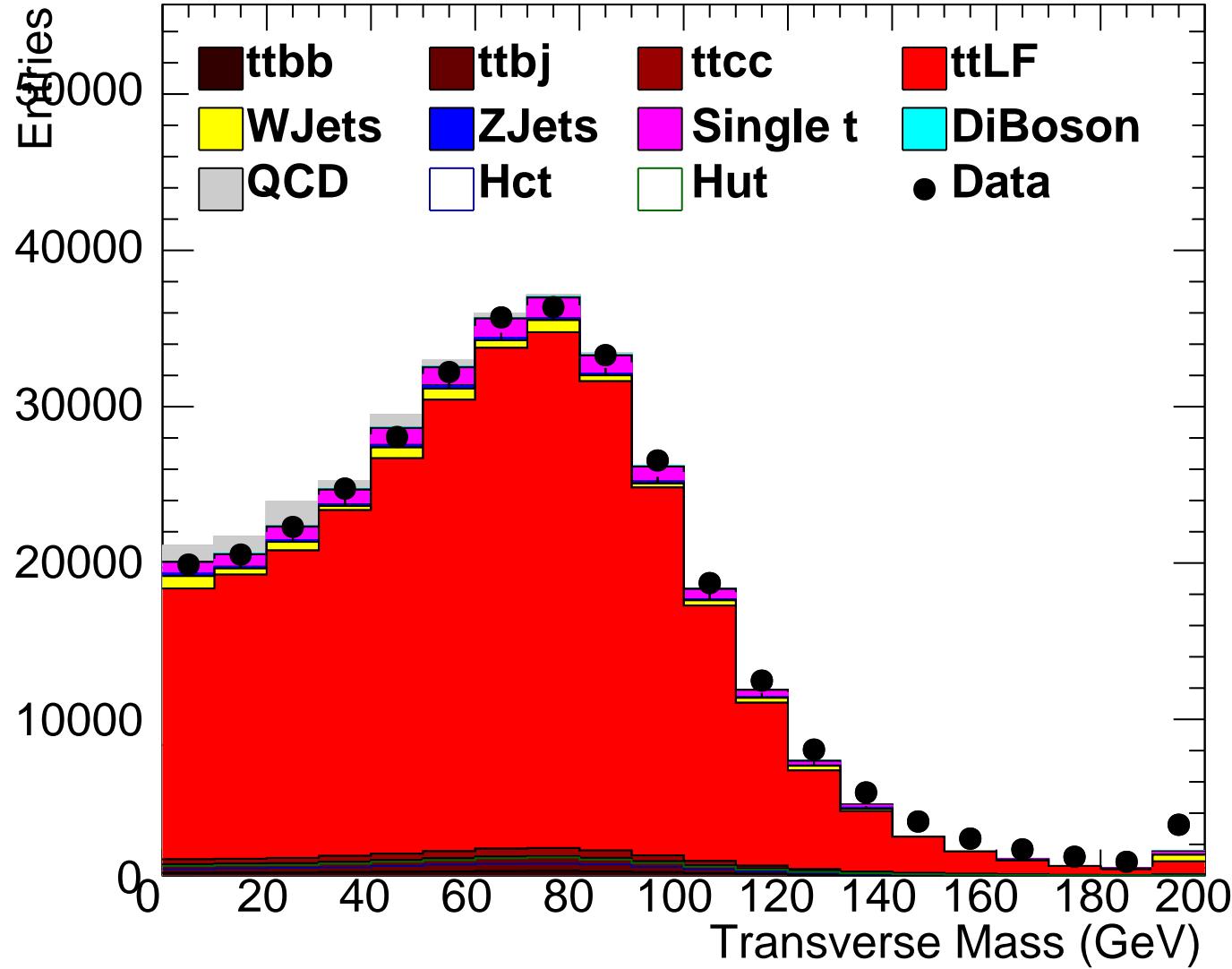
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

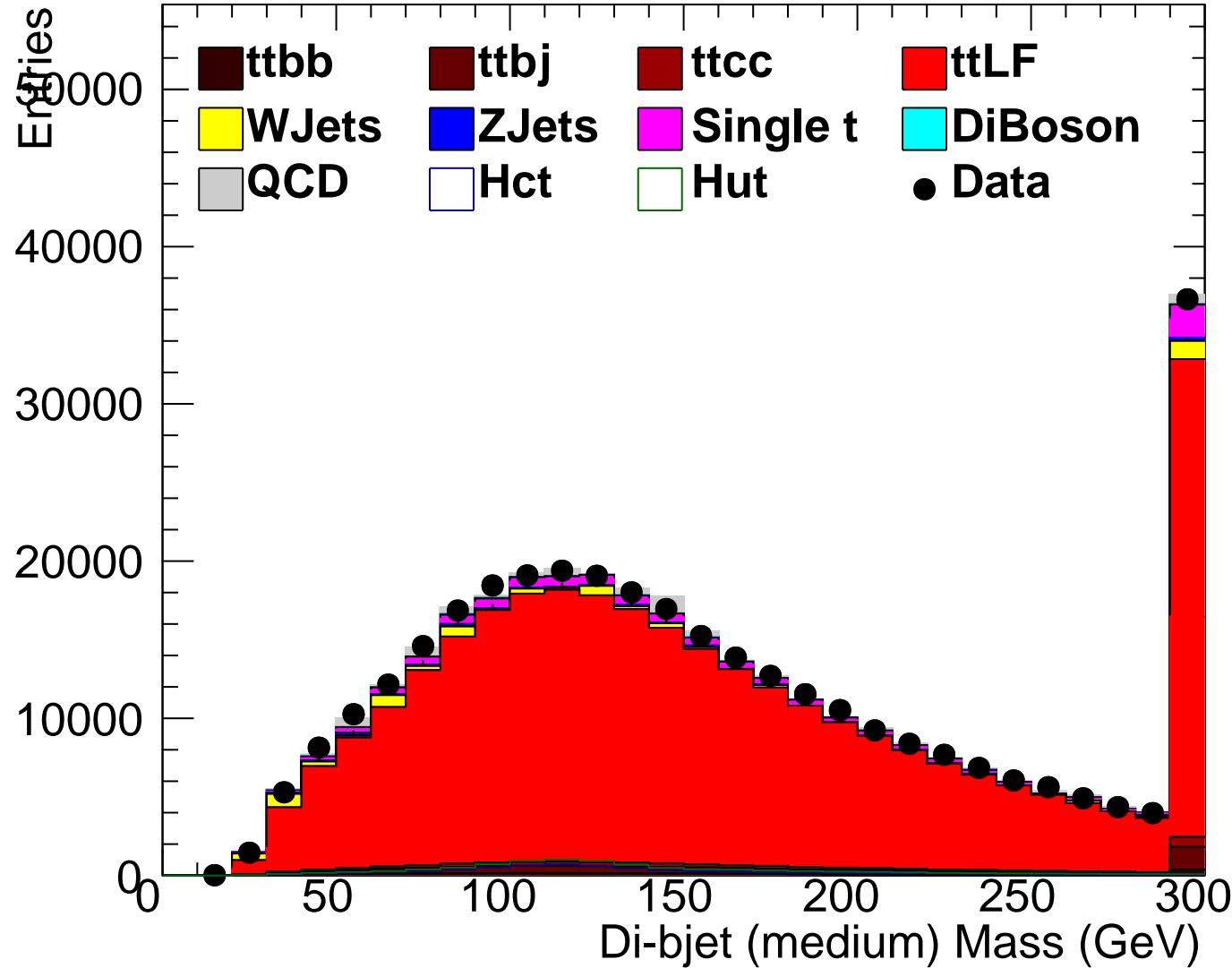


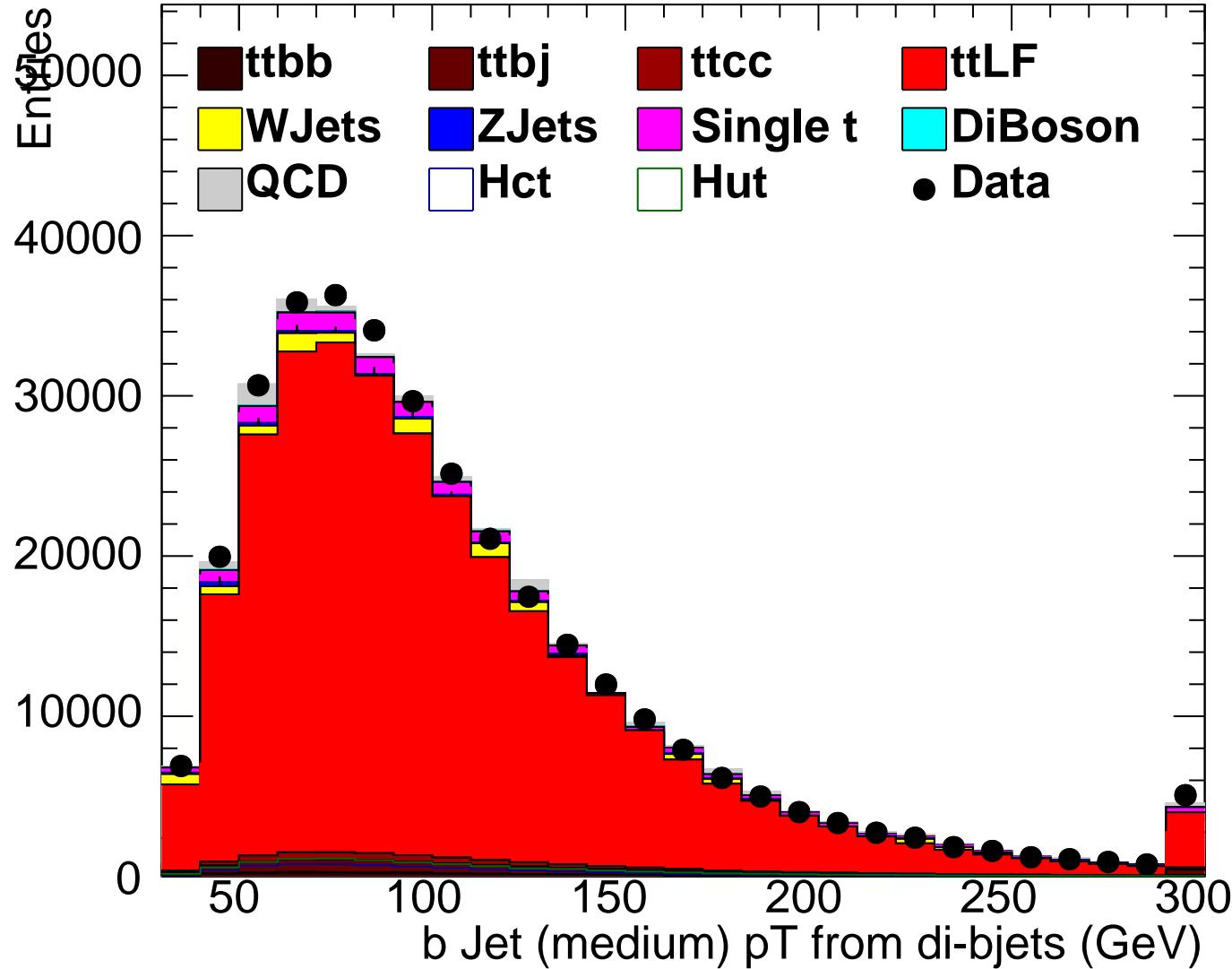


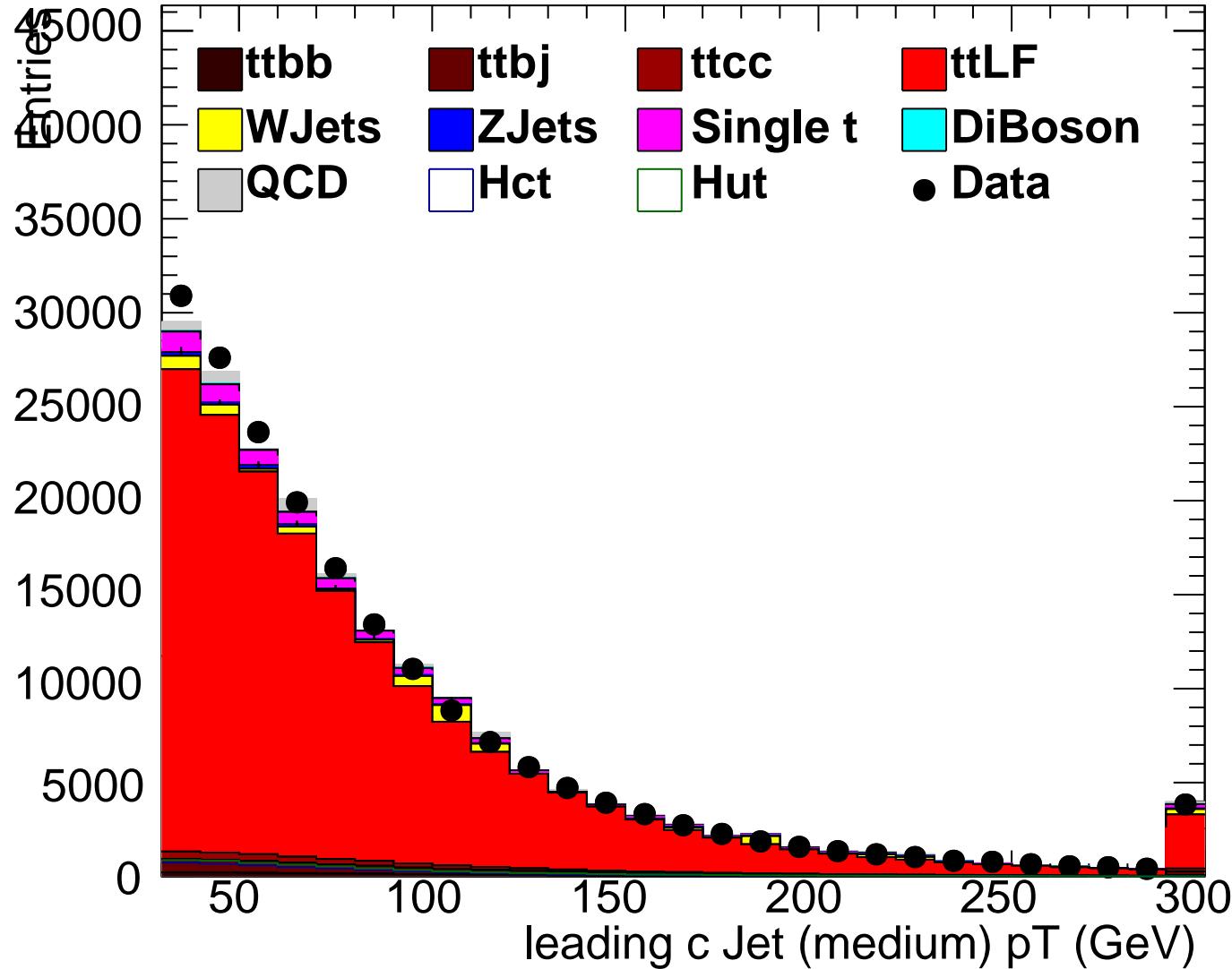
Ch0_S7x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

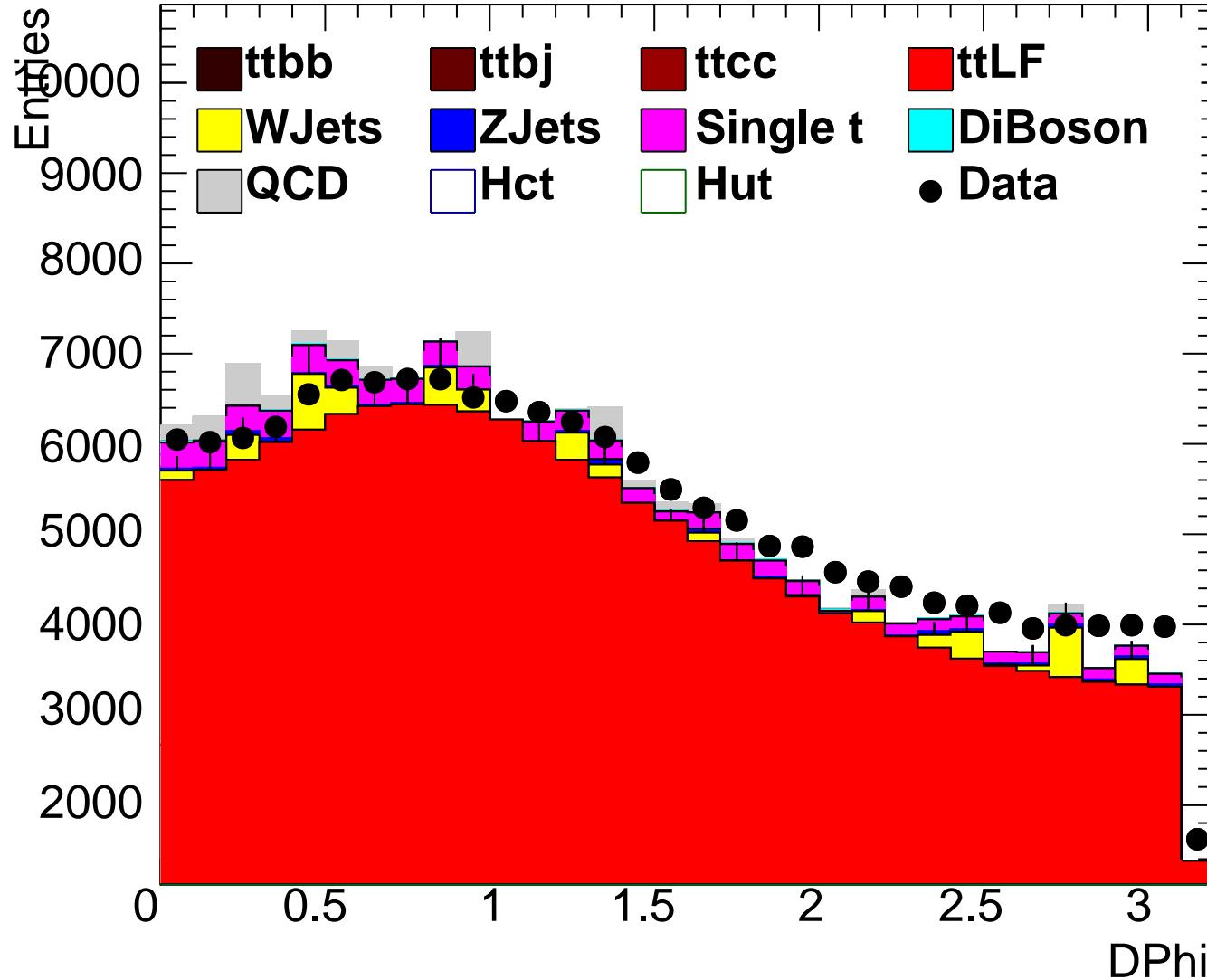


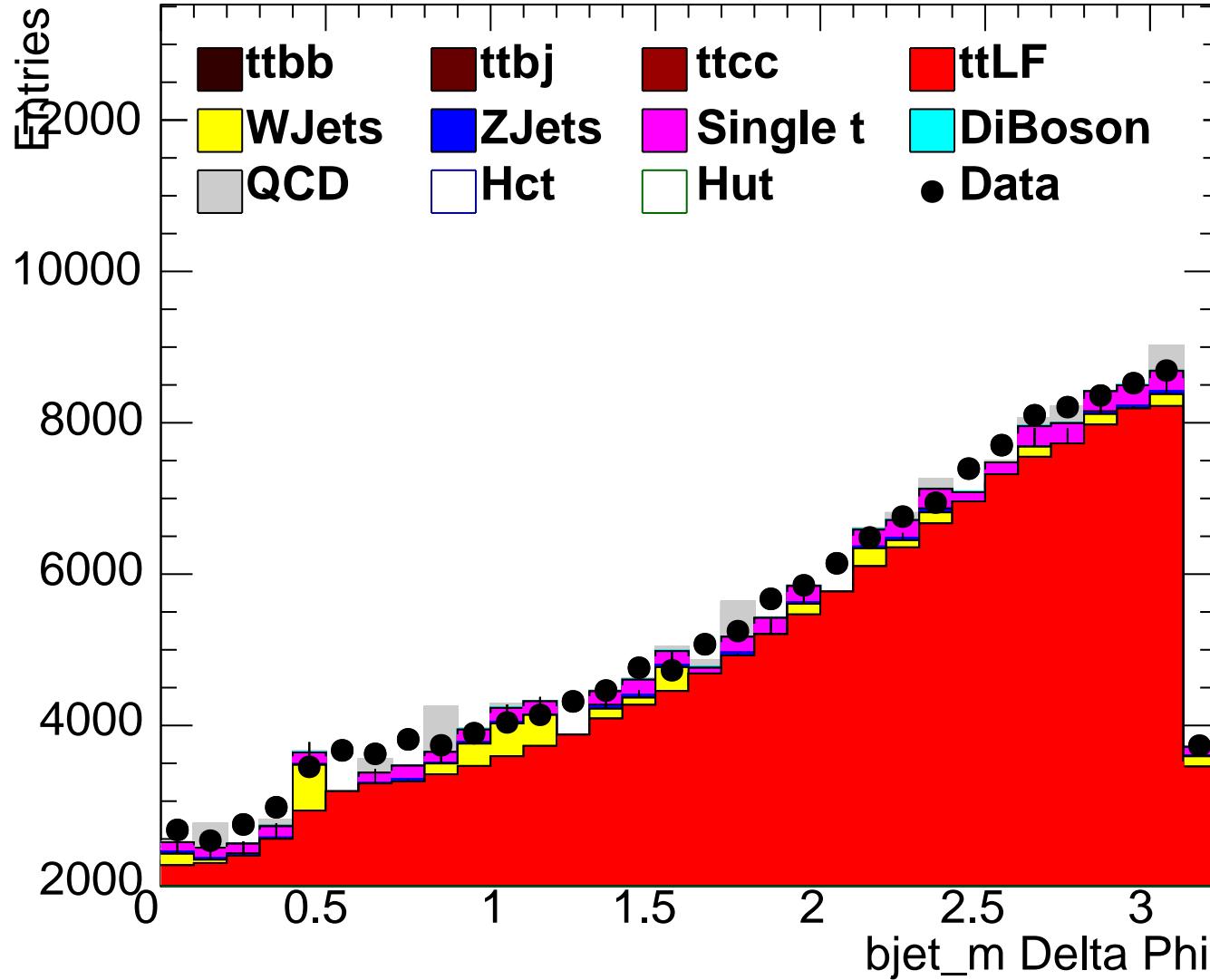
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

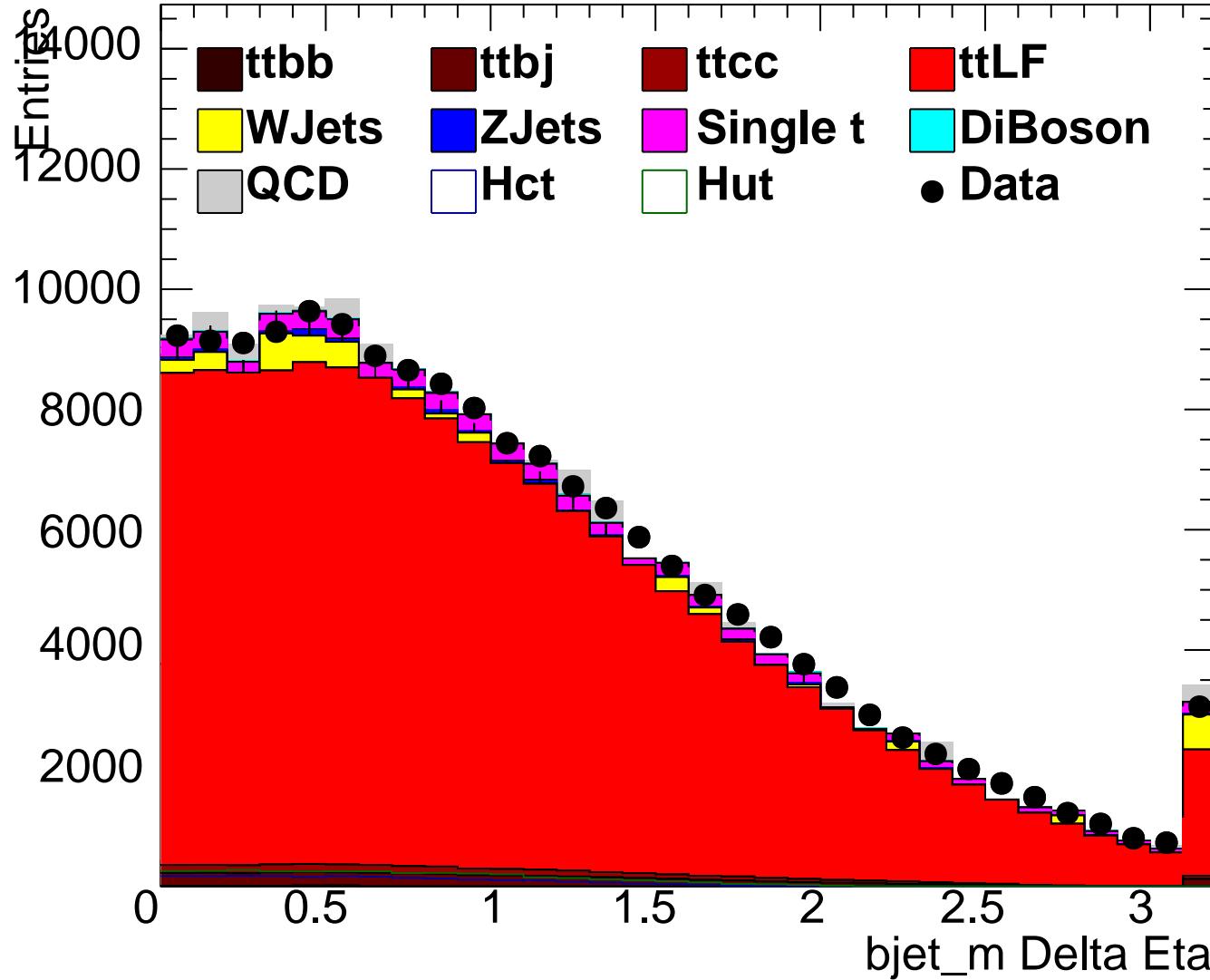
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

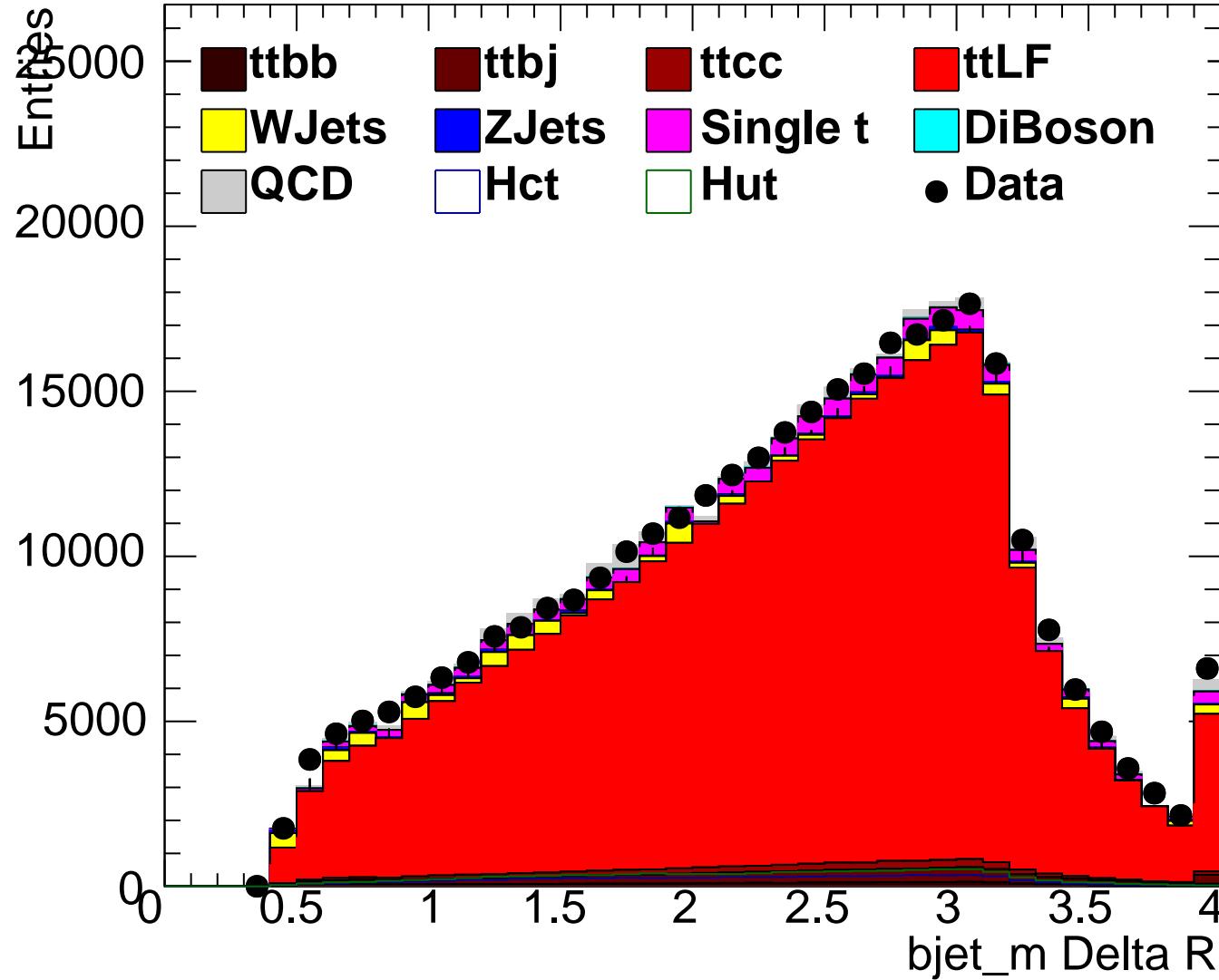
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

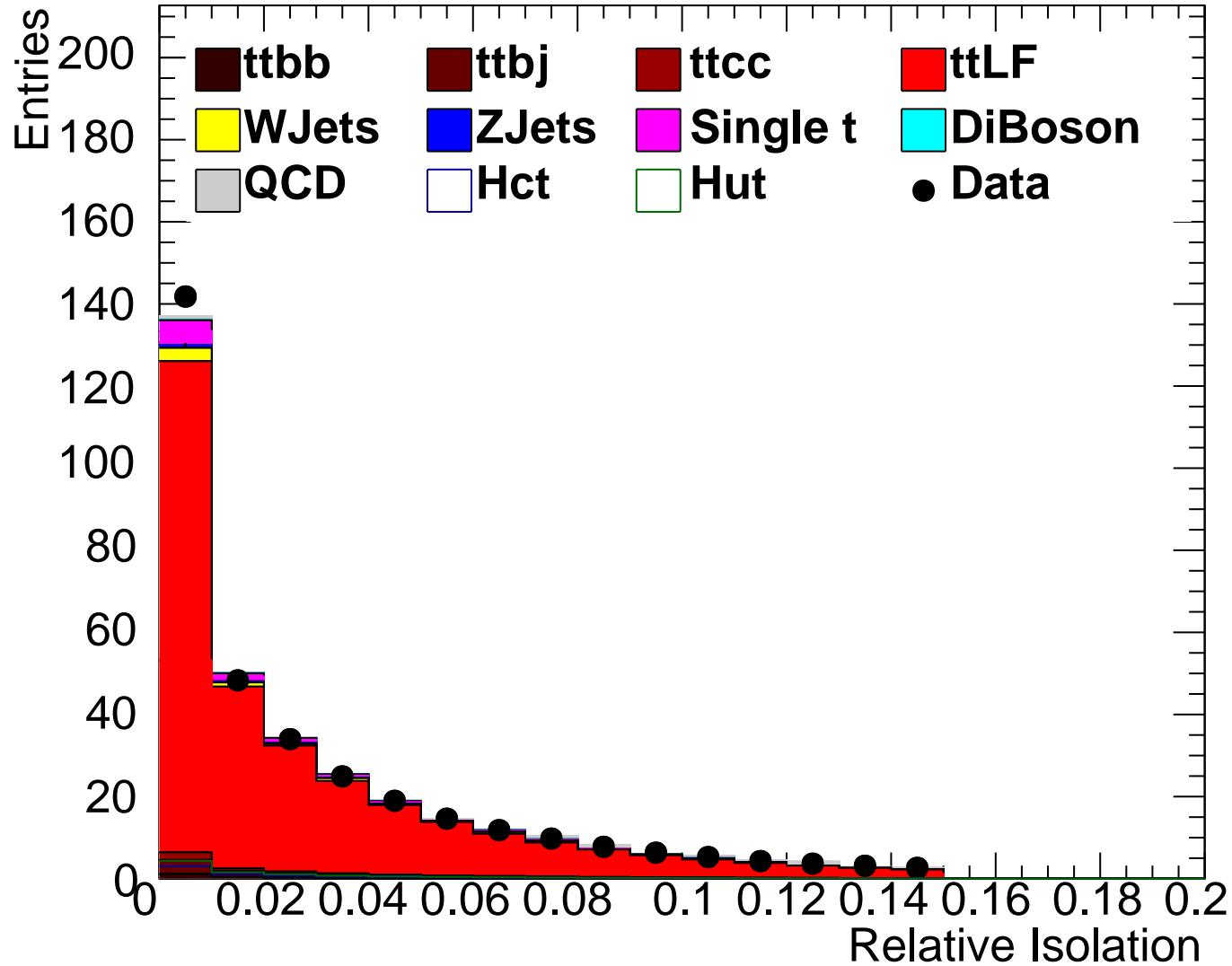
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

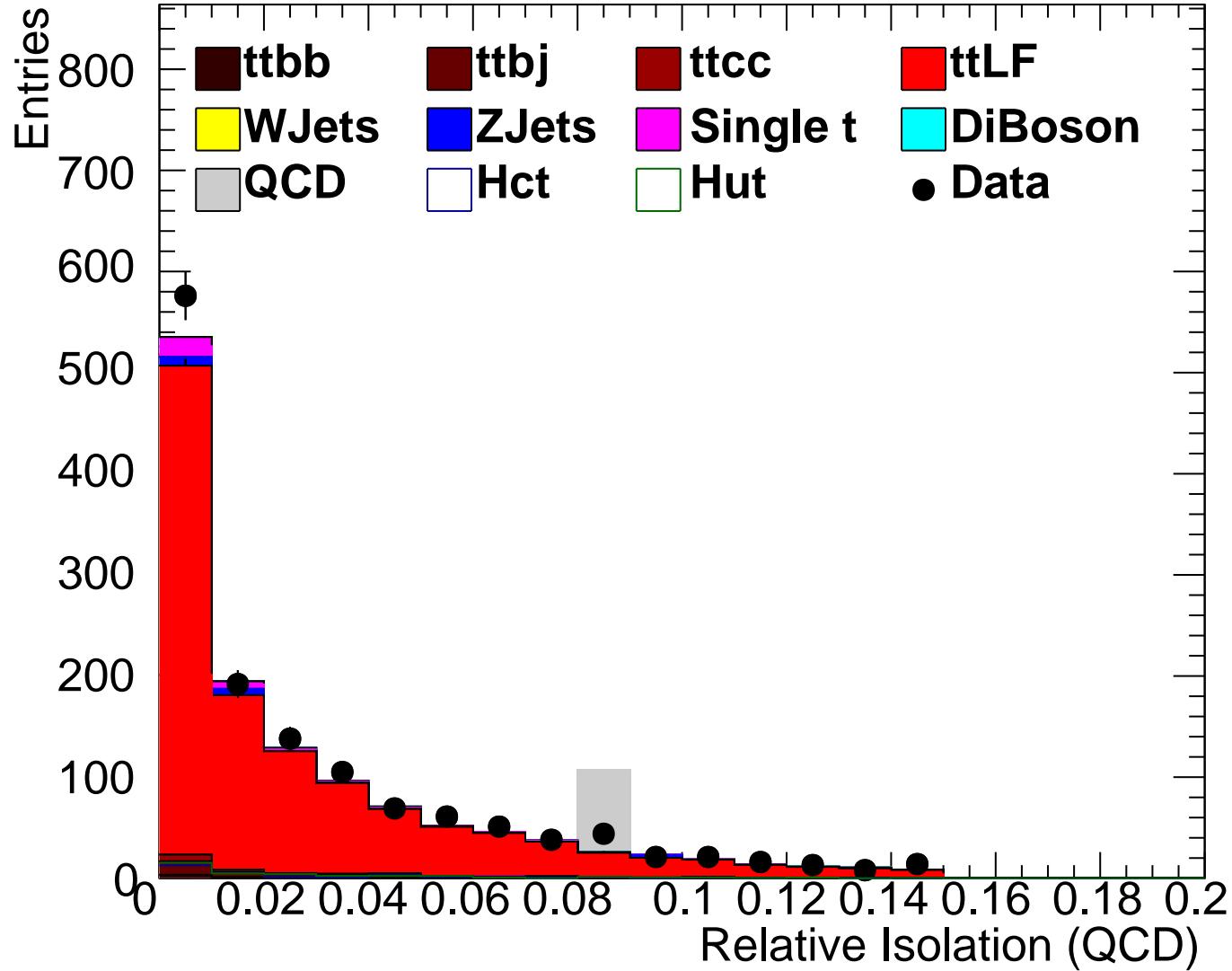


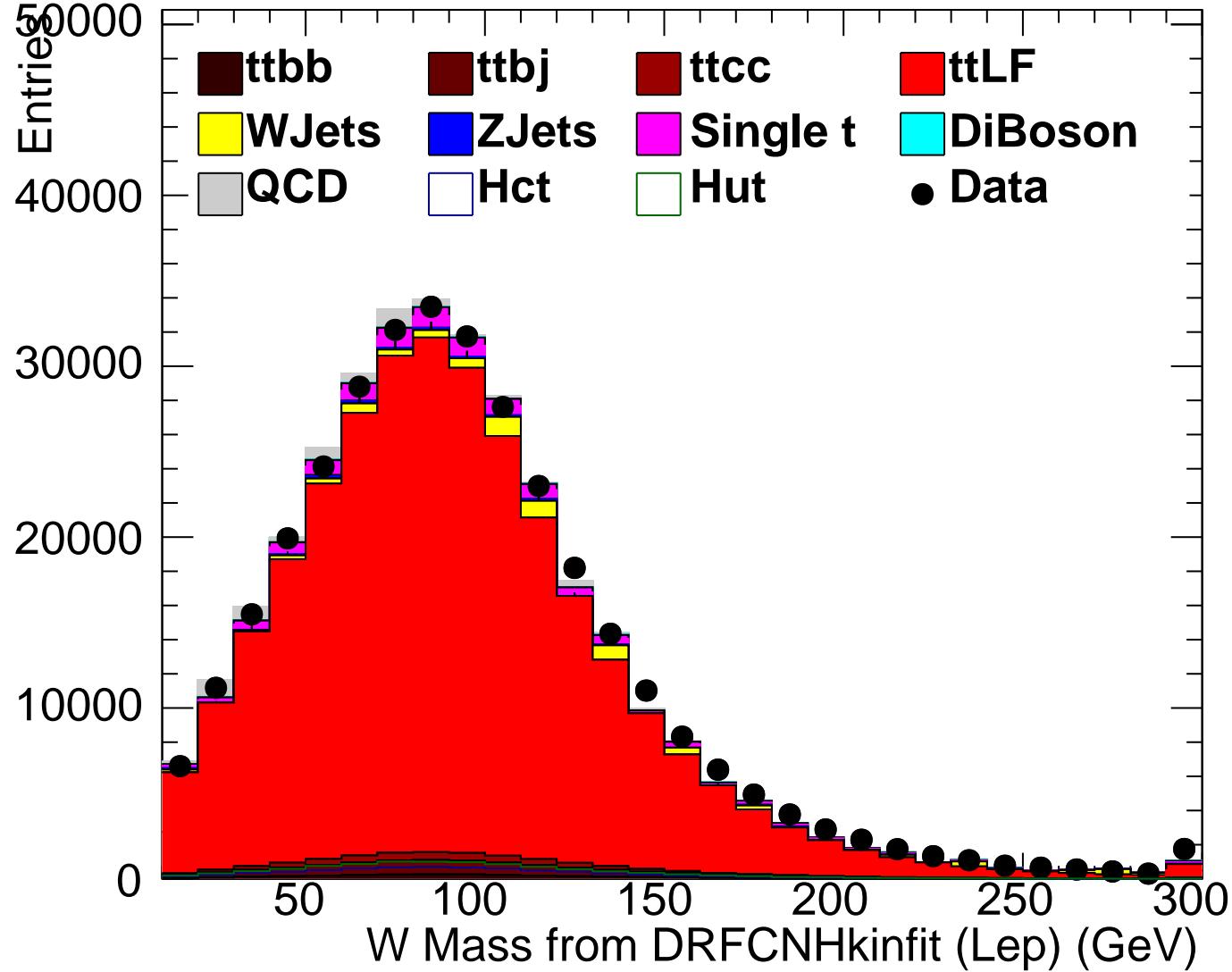
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

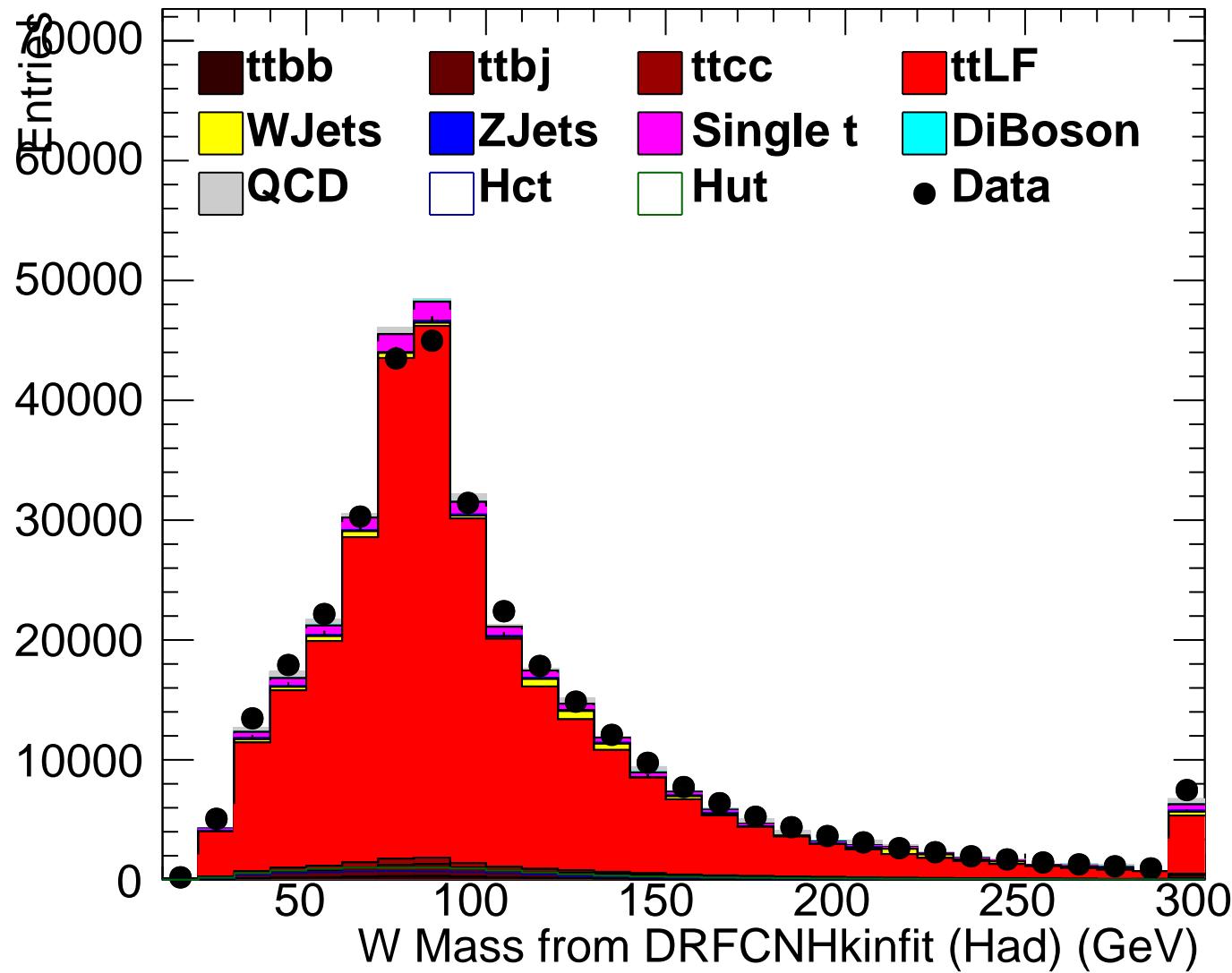


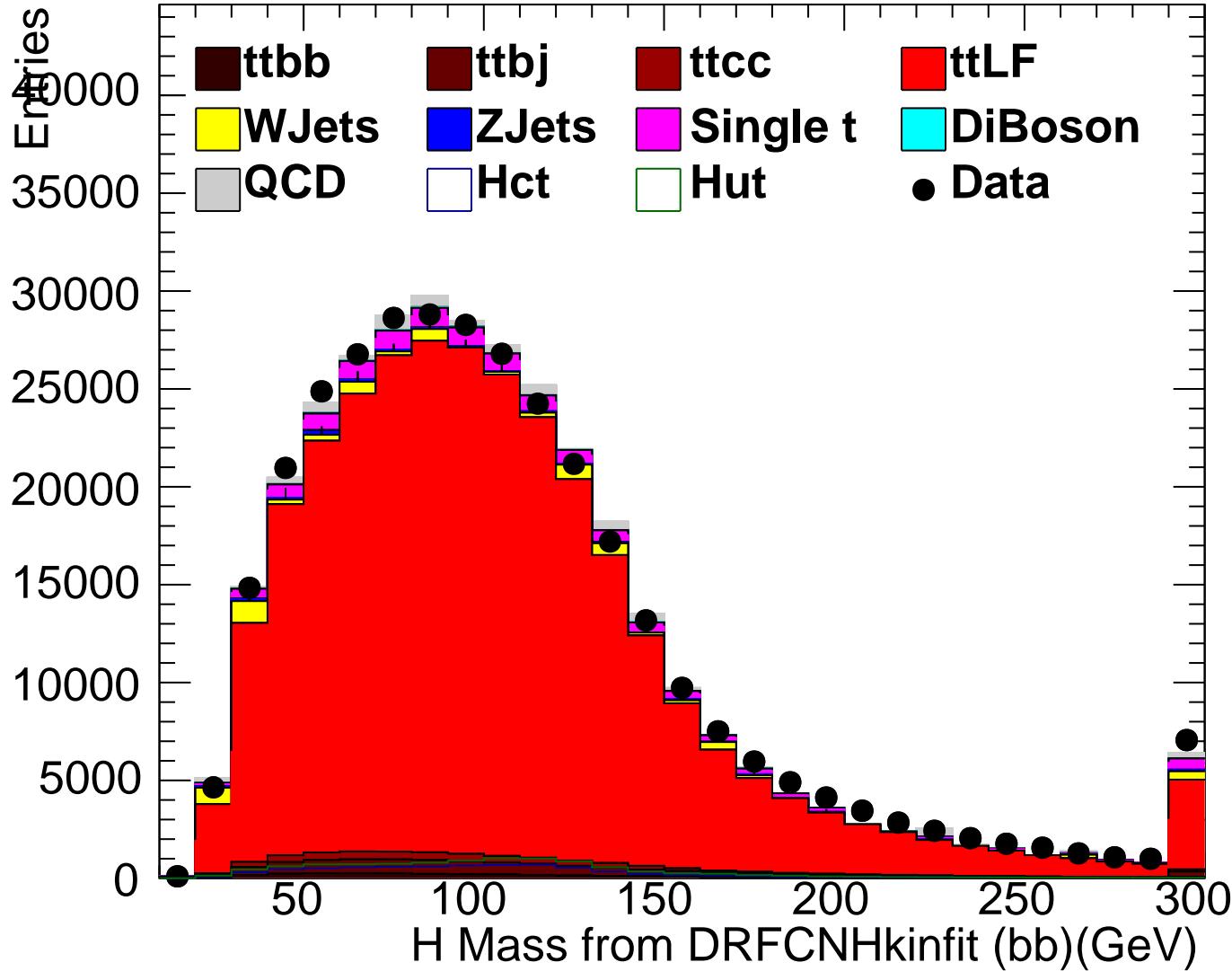
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

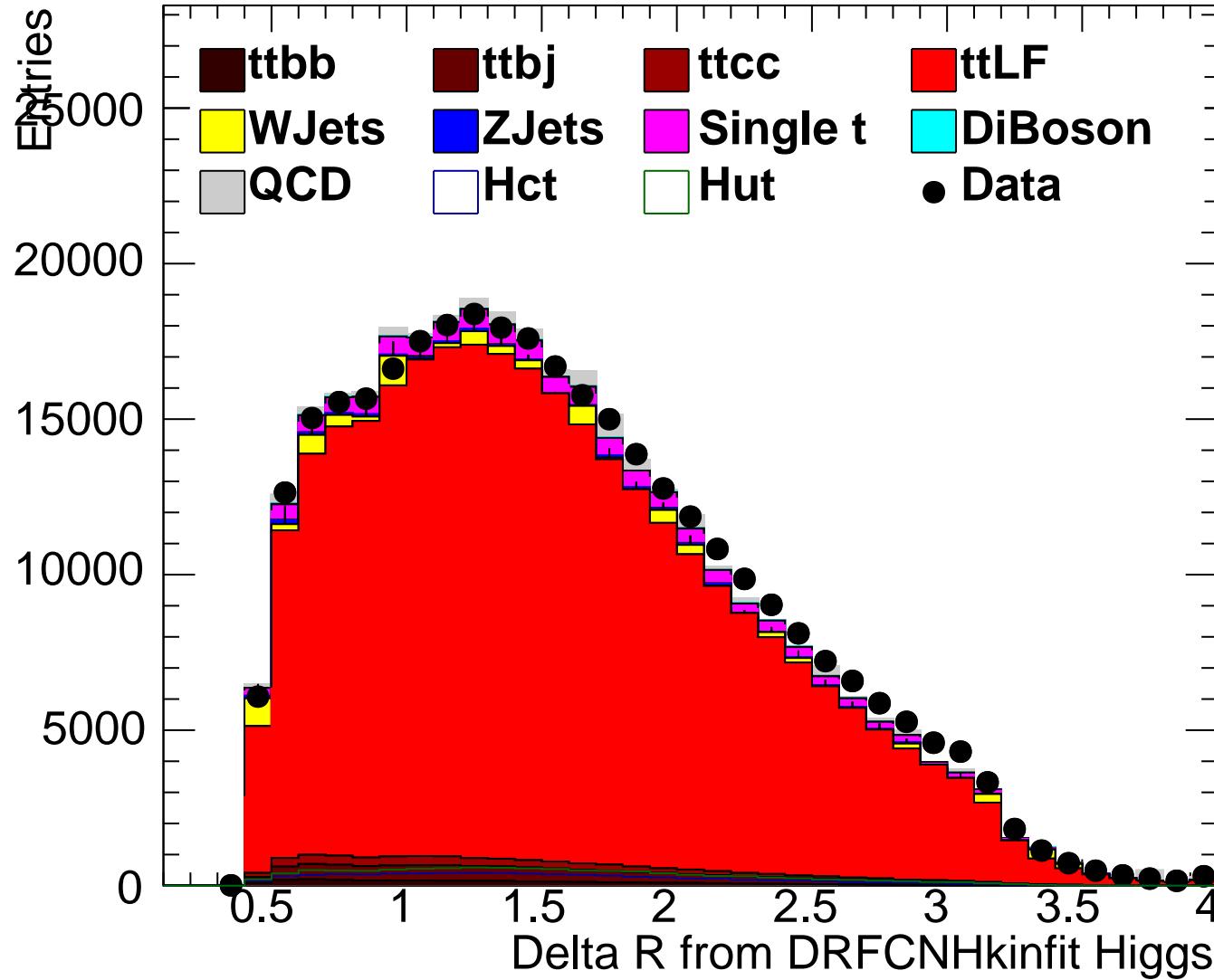
Ch0_S7x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

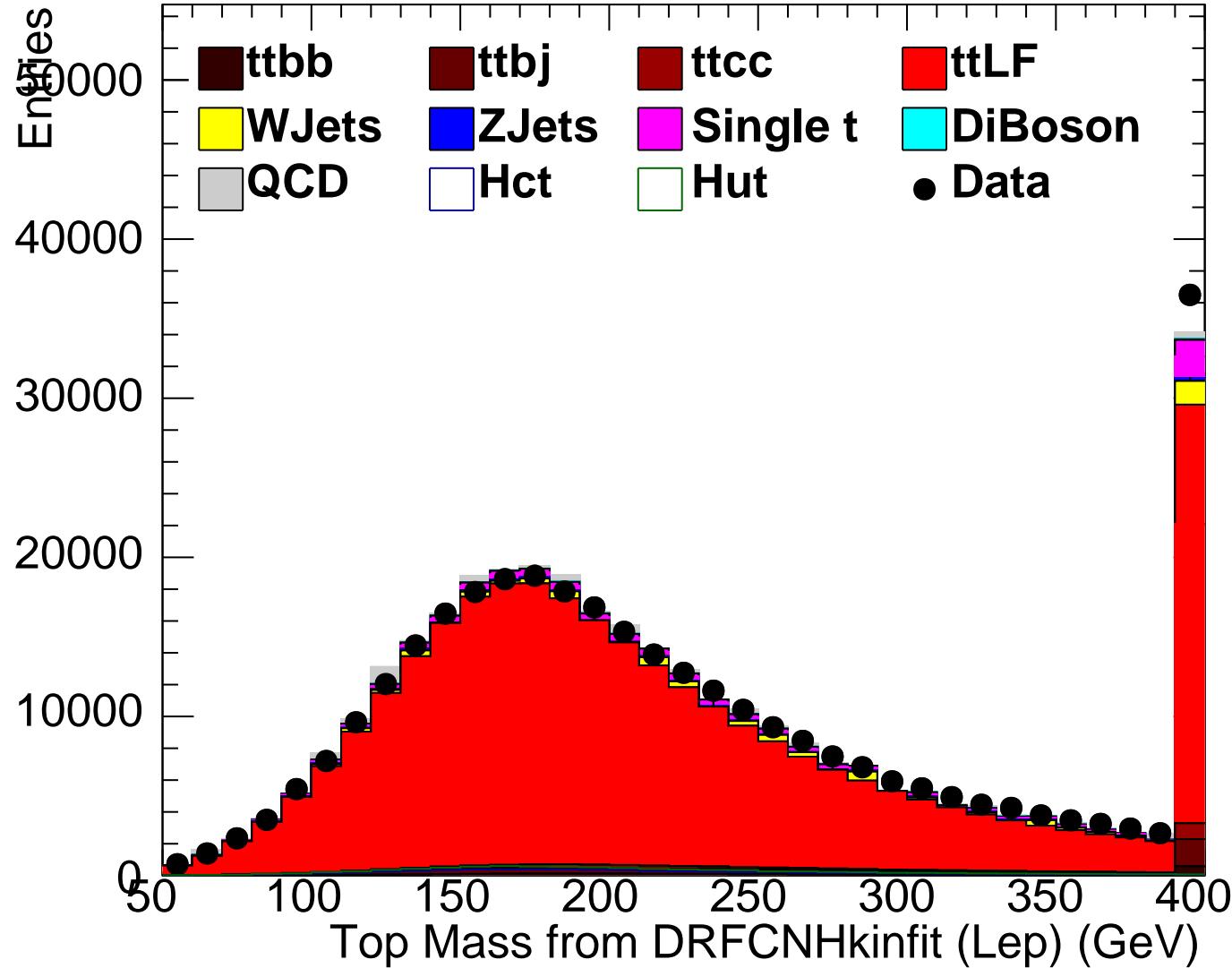


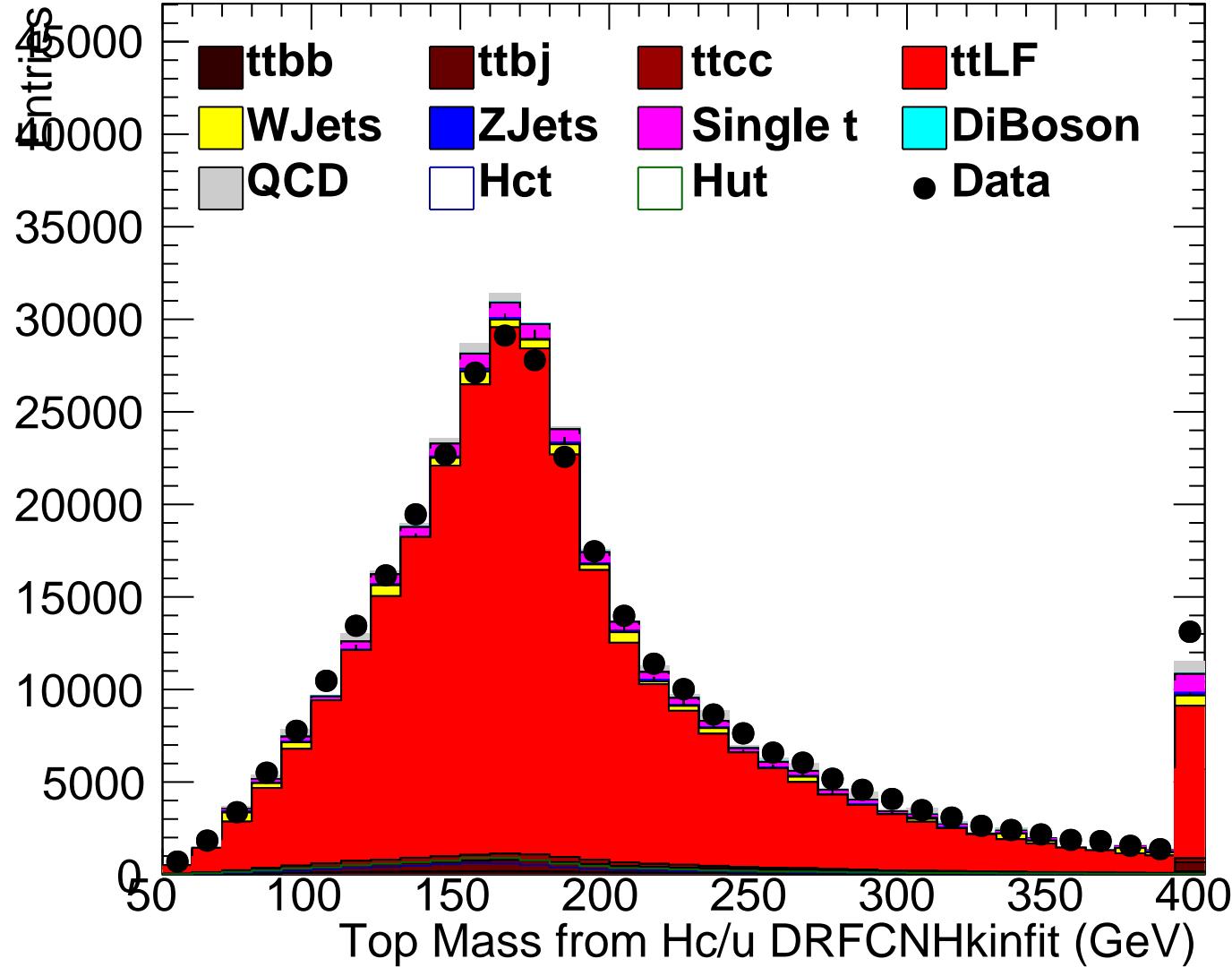
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

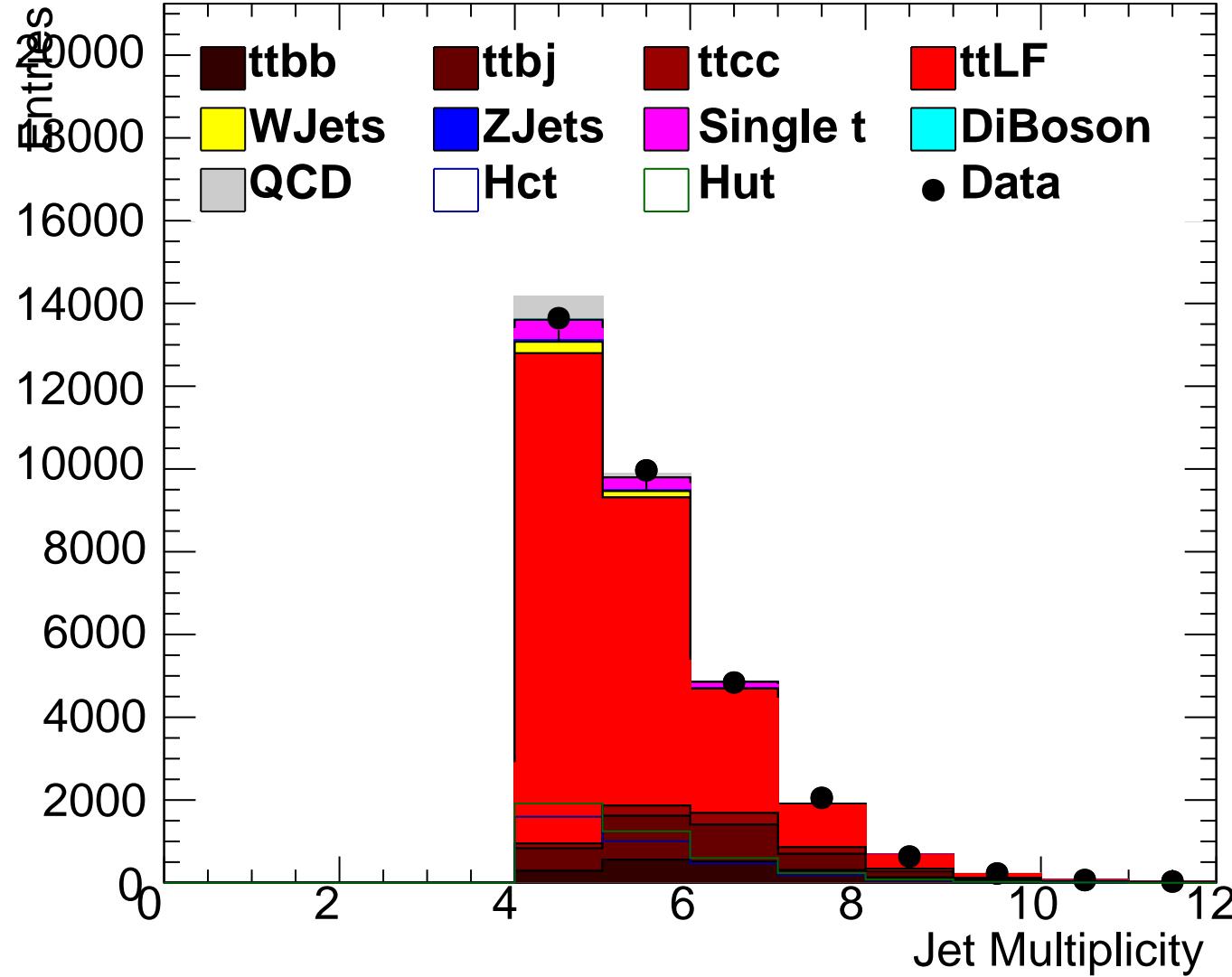
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

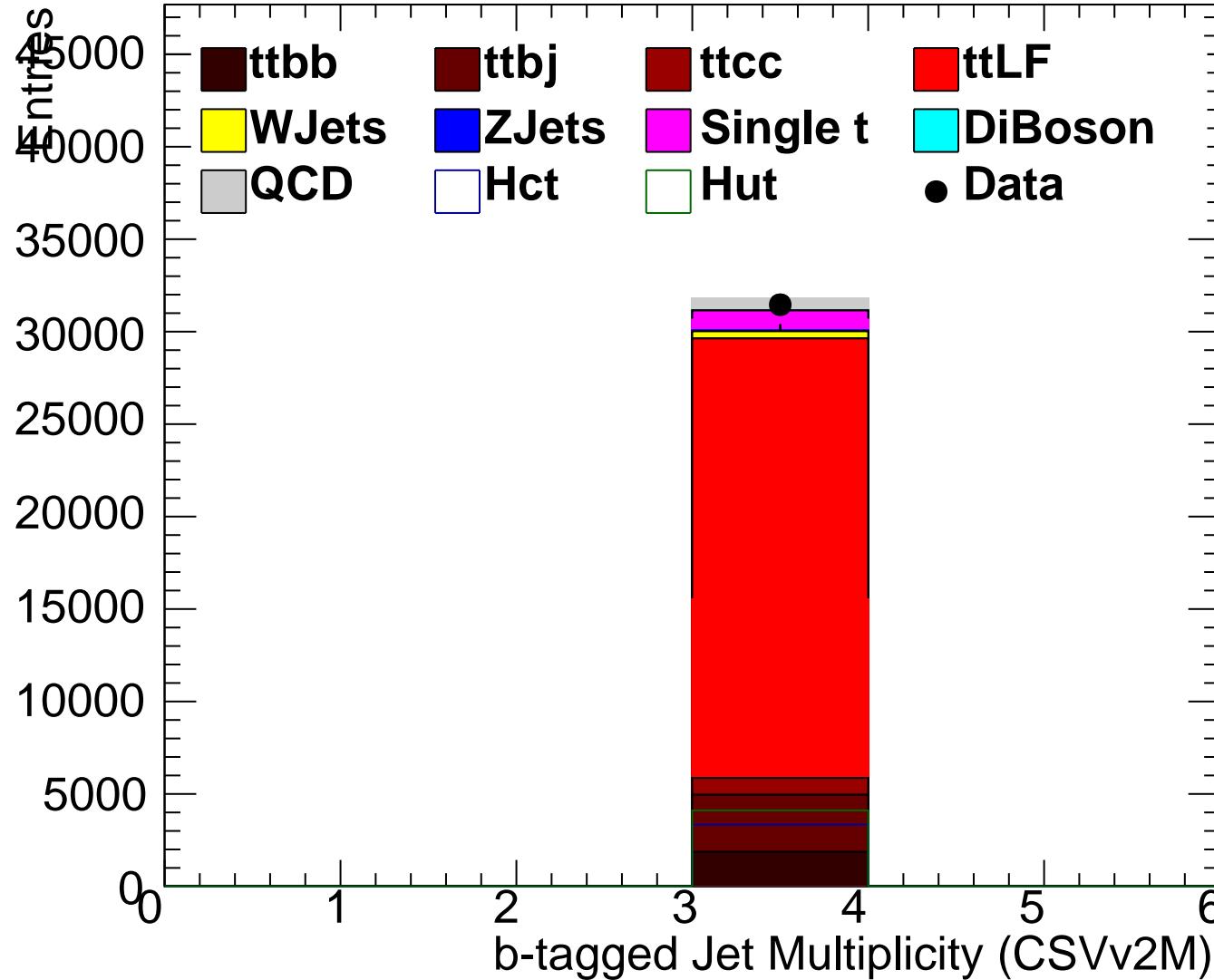
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

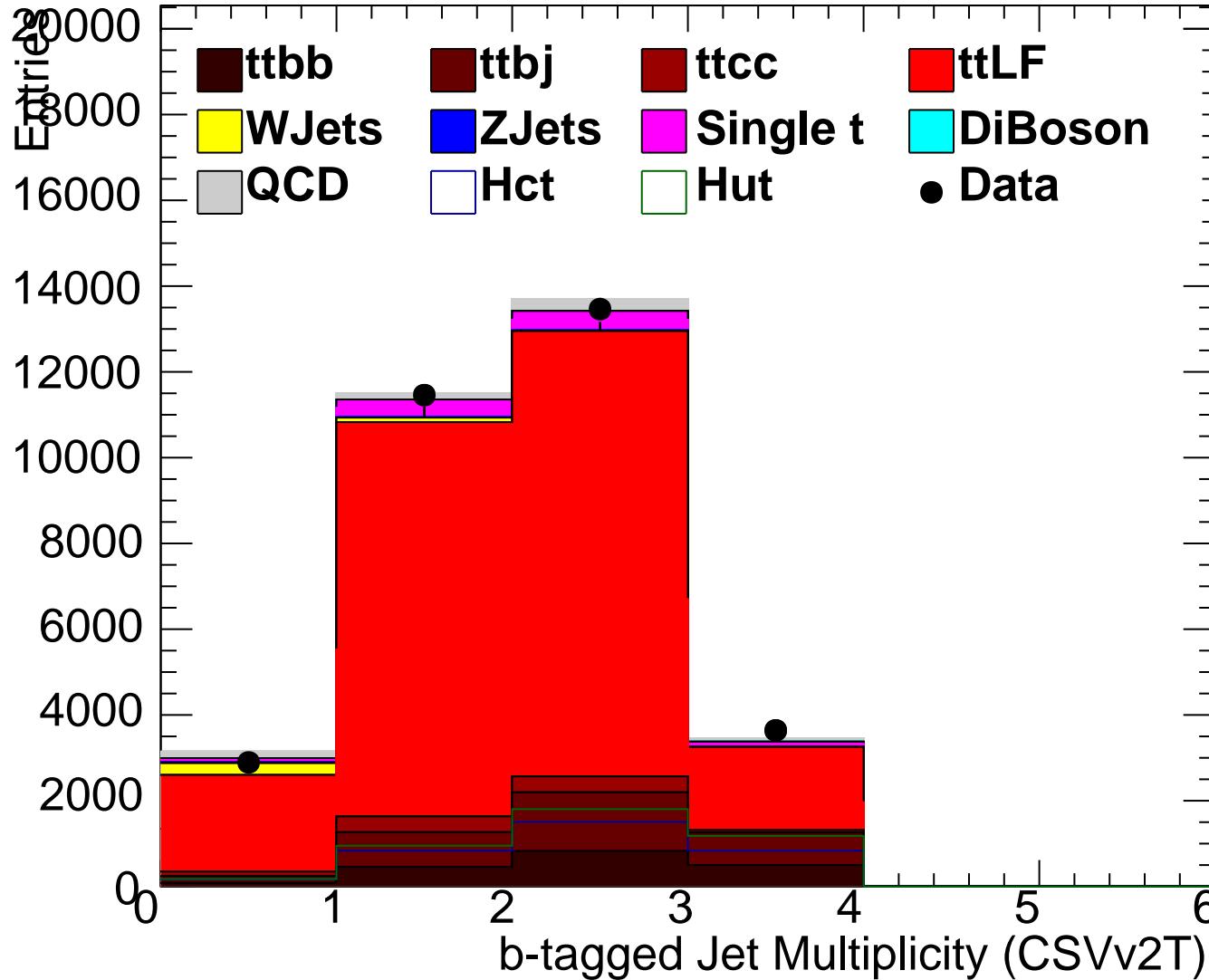
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

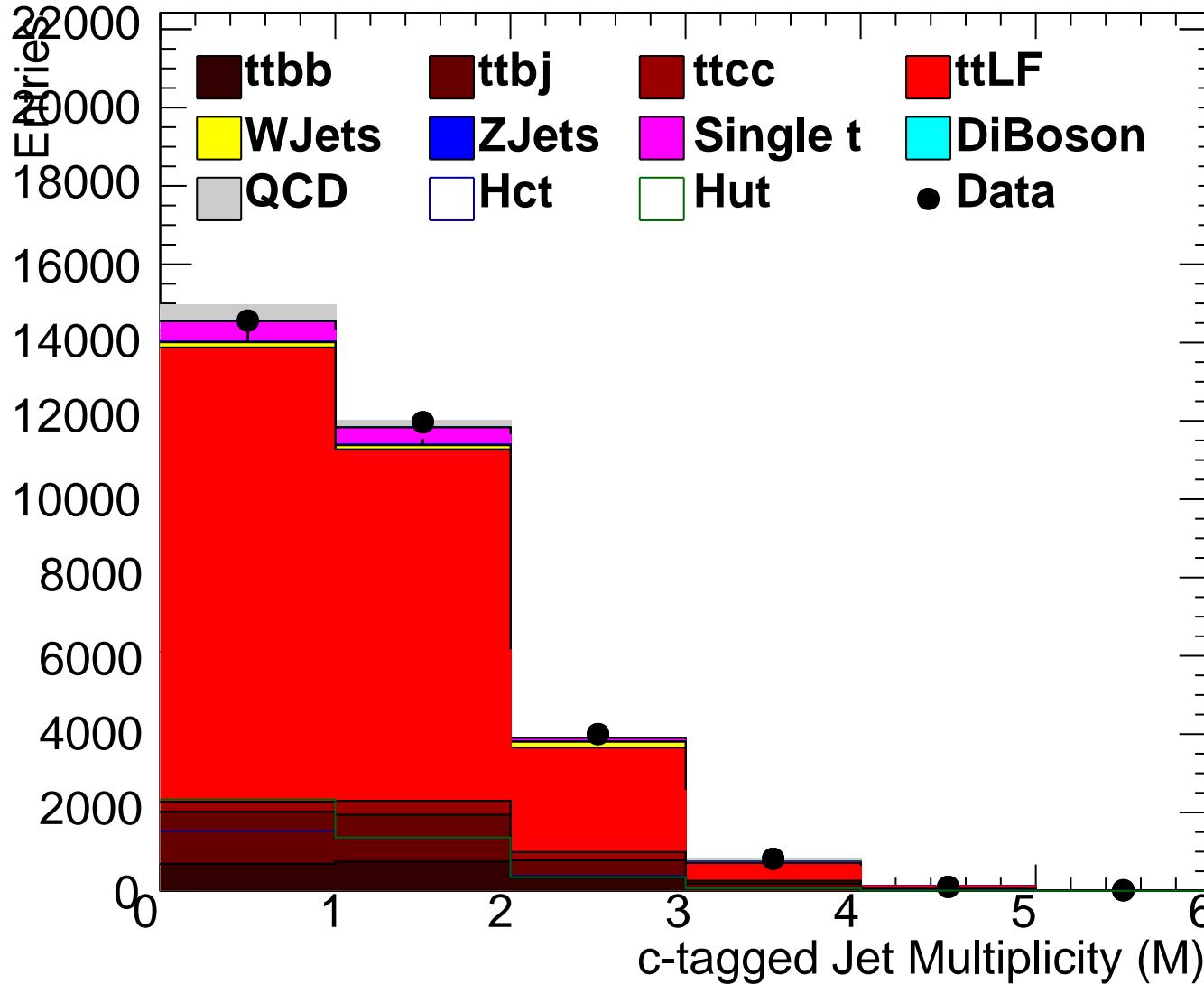
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

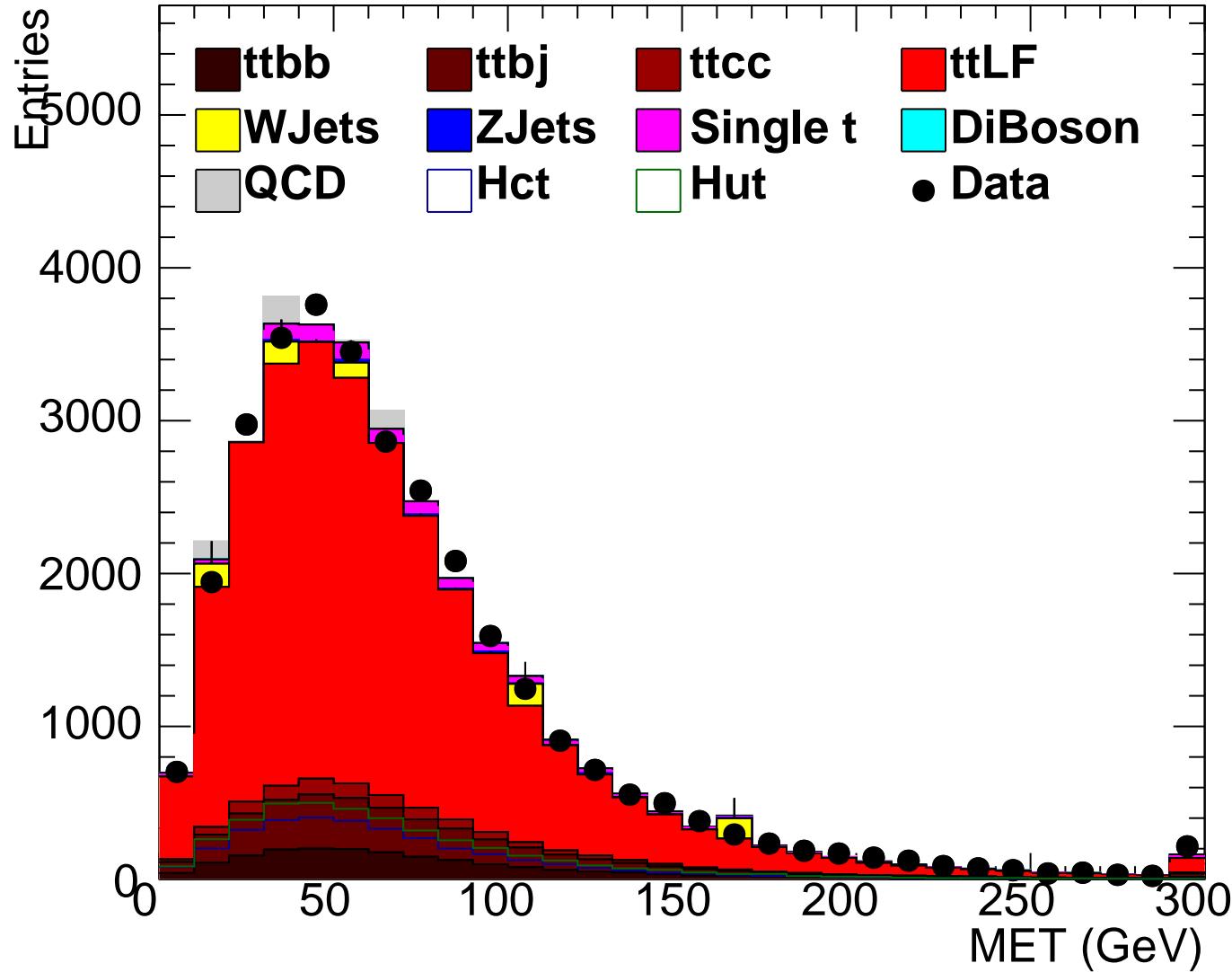
Ch0_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

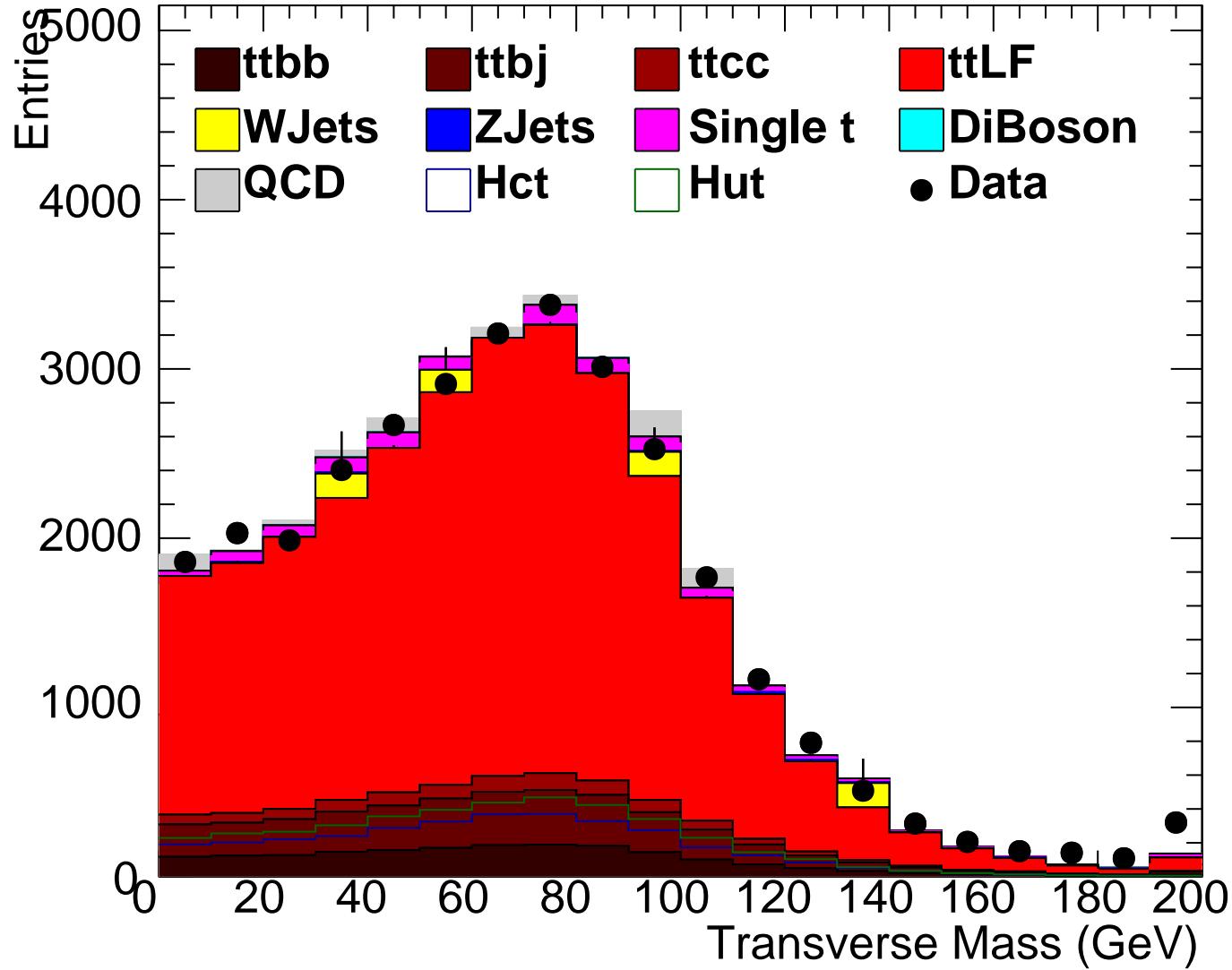


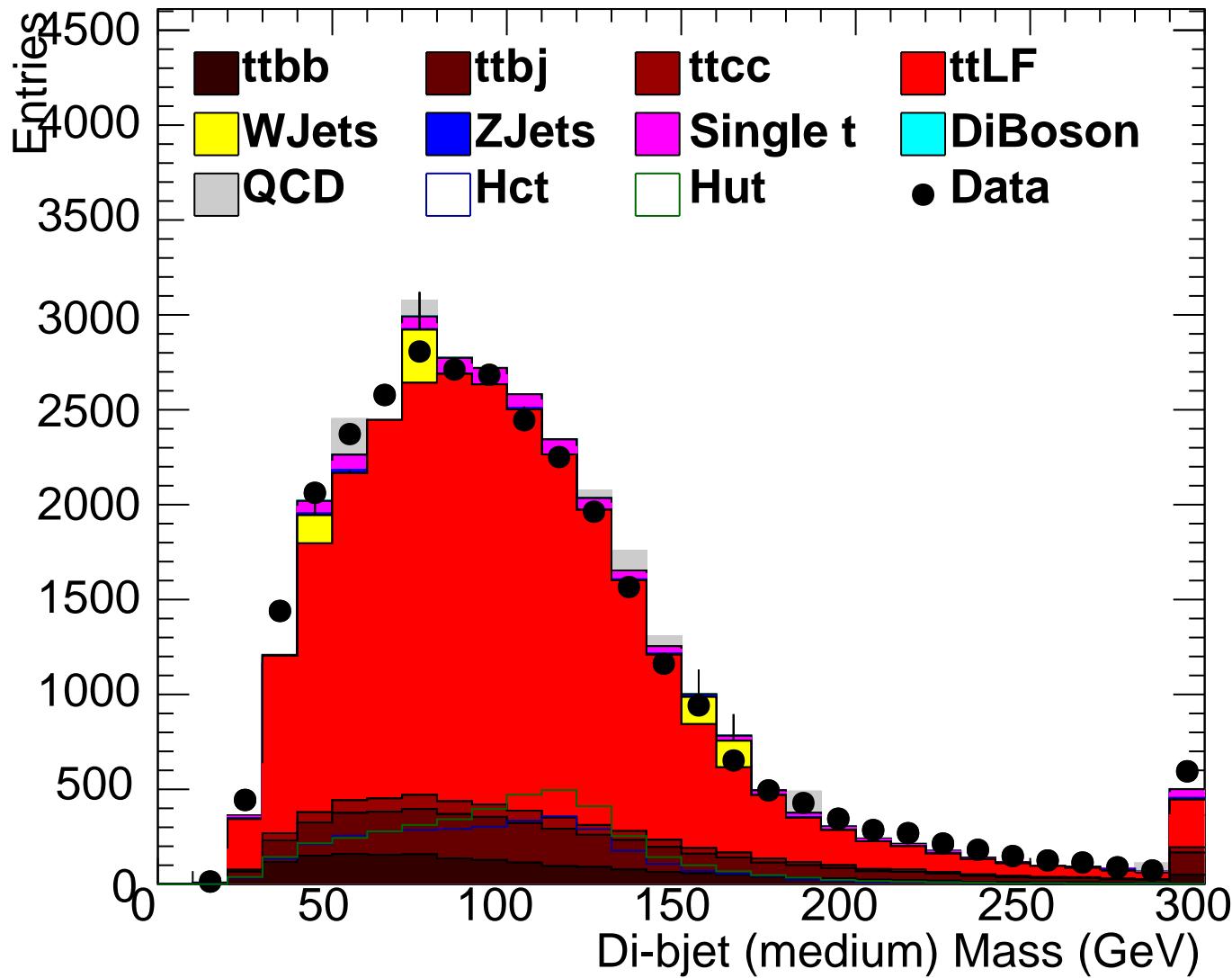


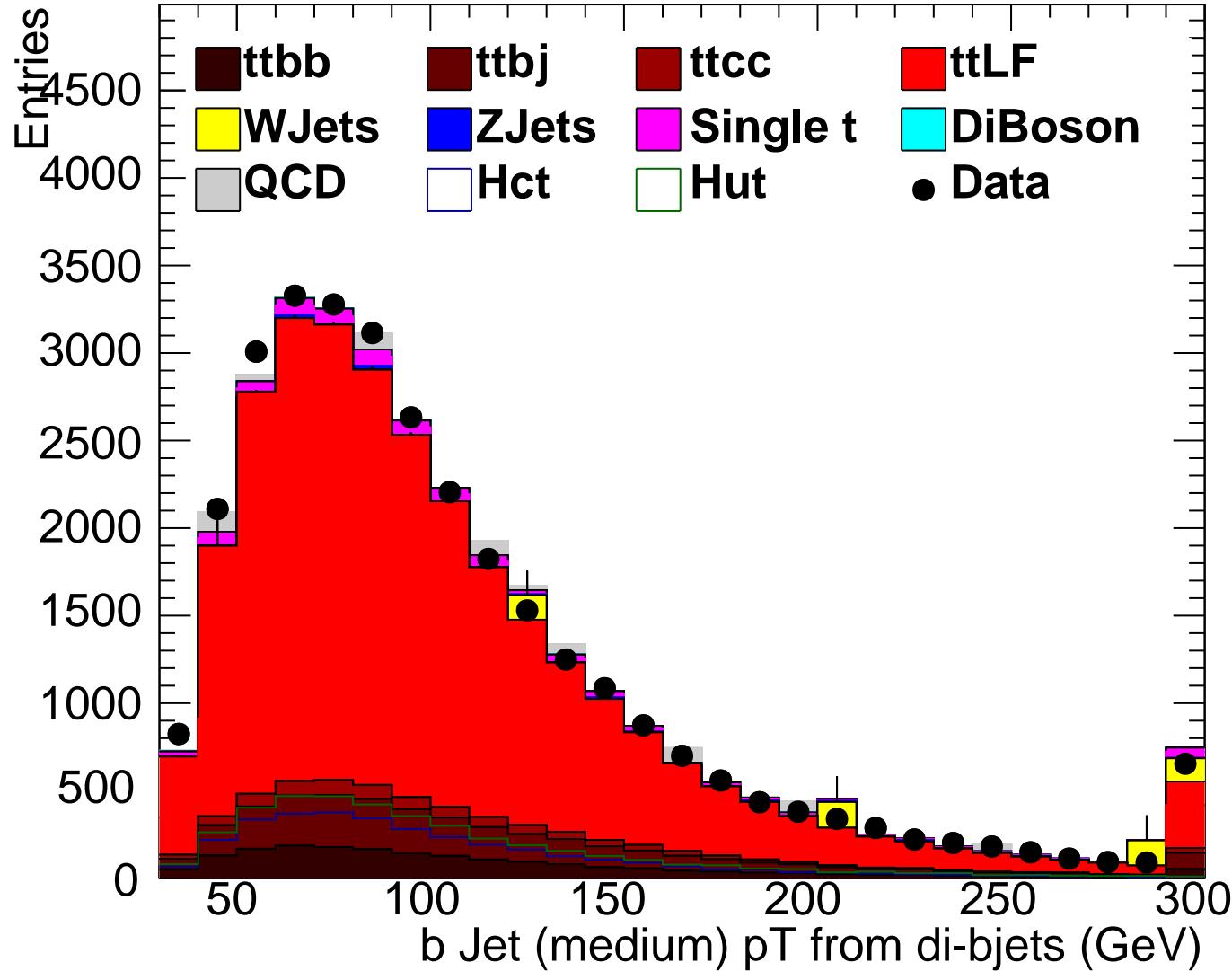


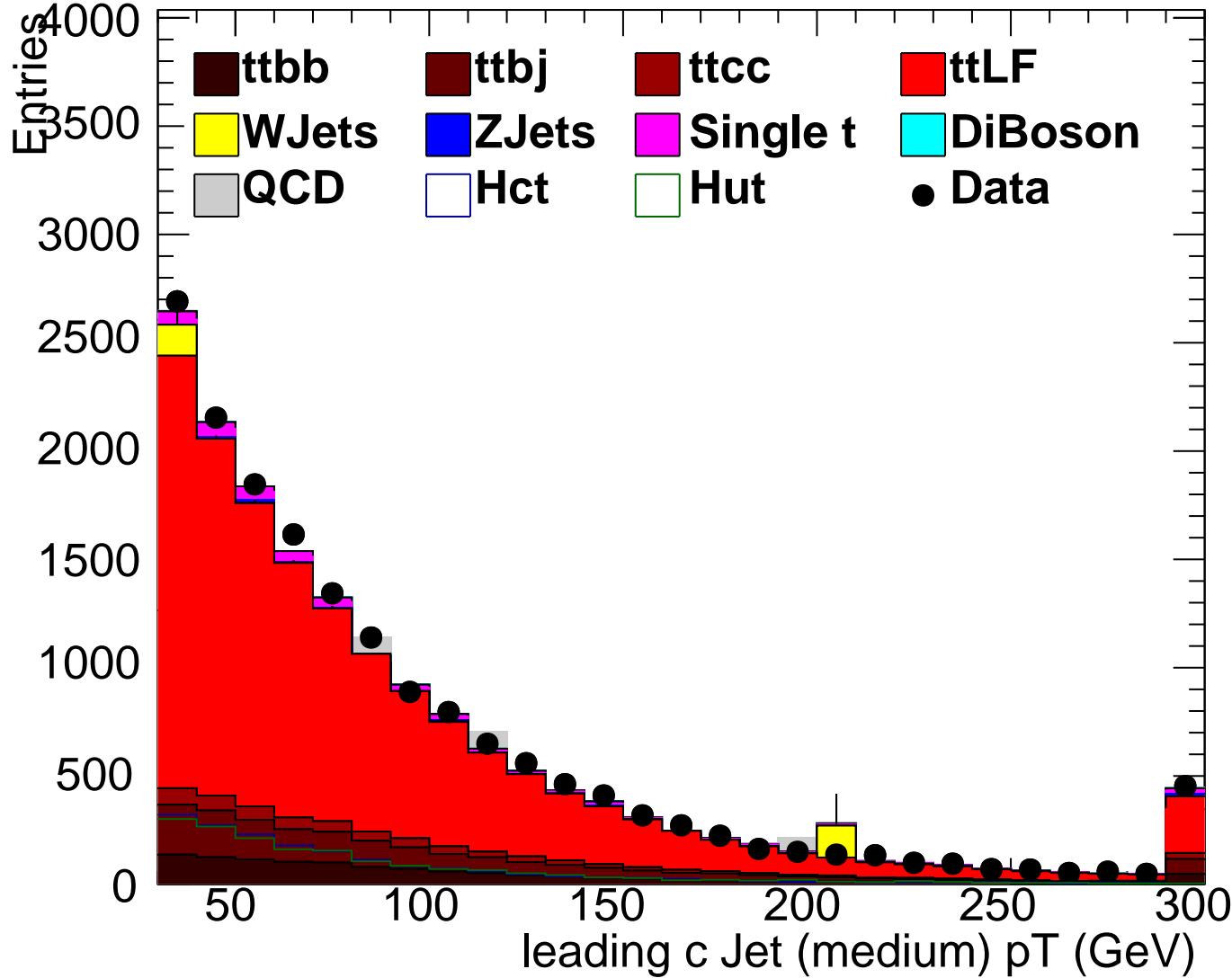


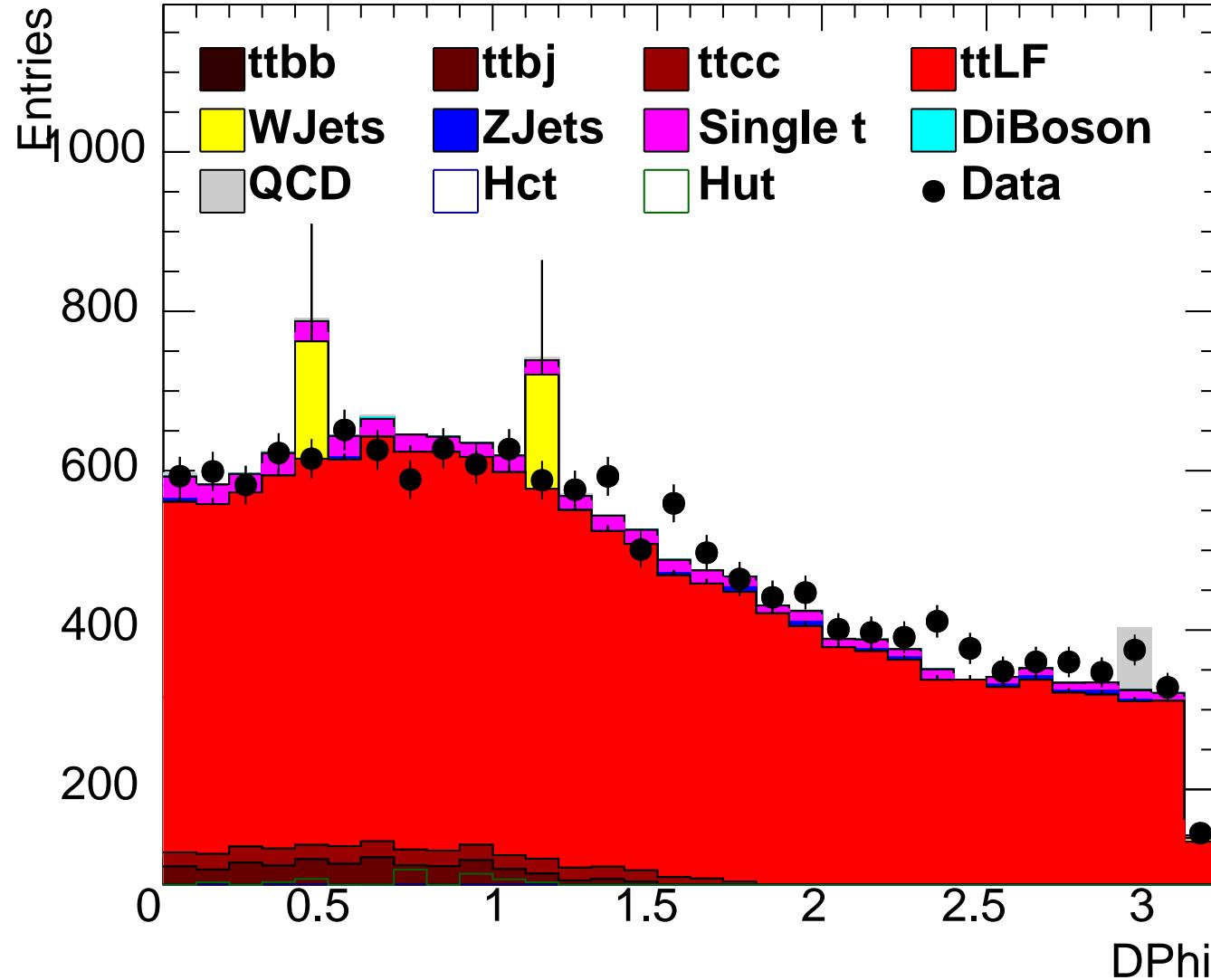
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

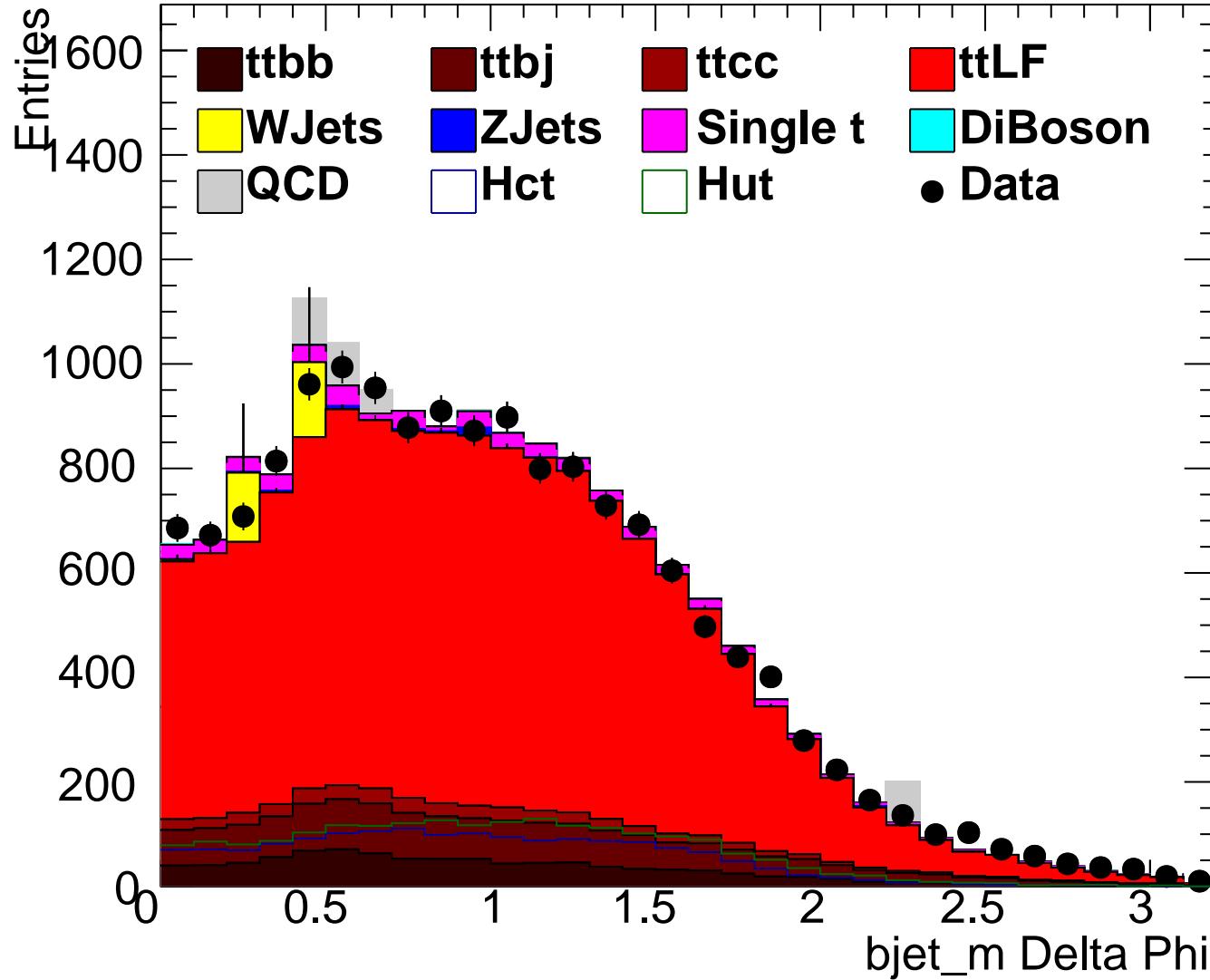
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

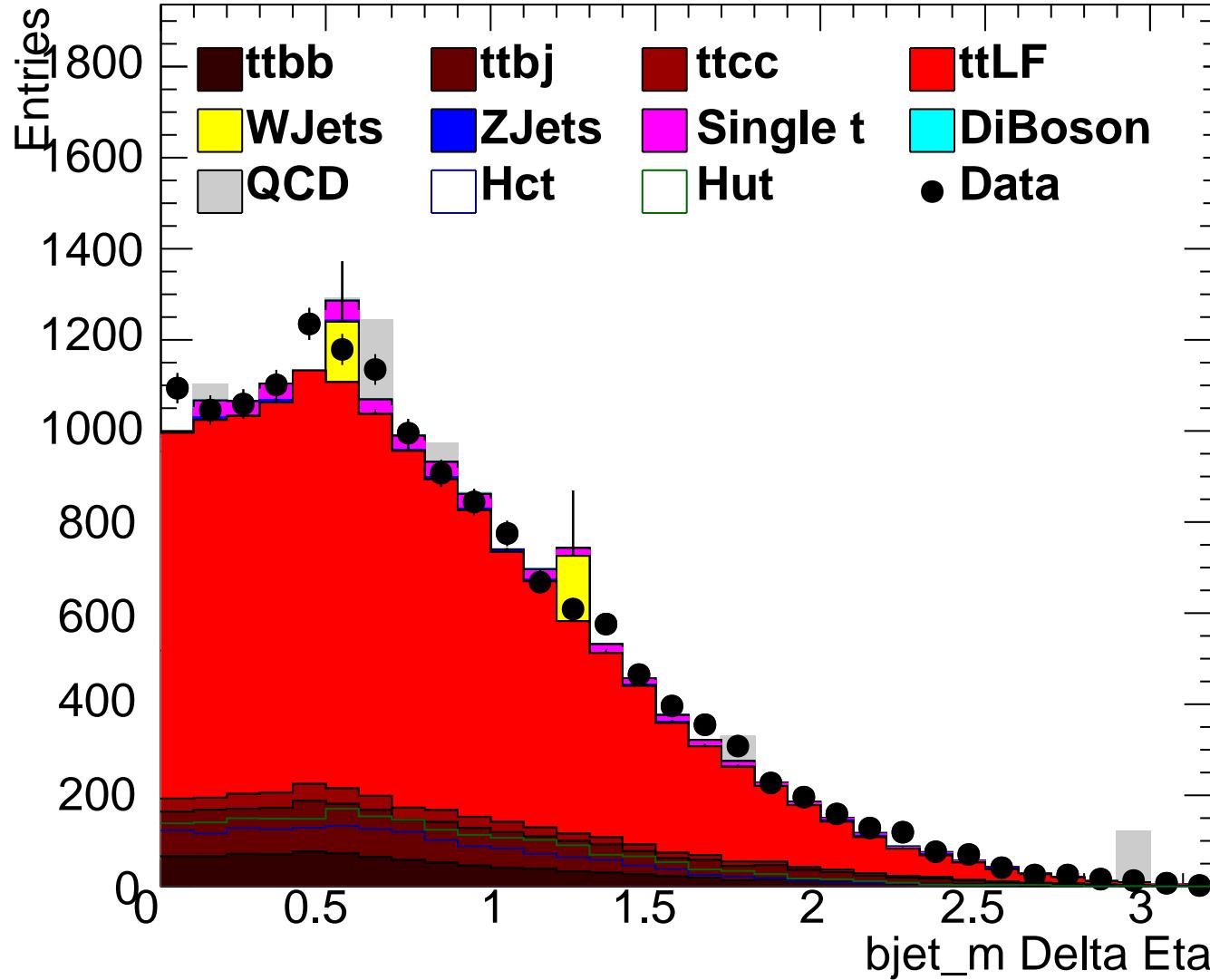


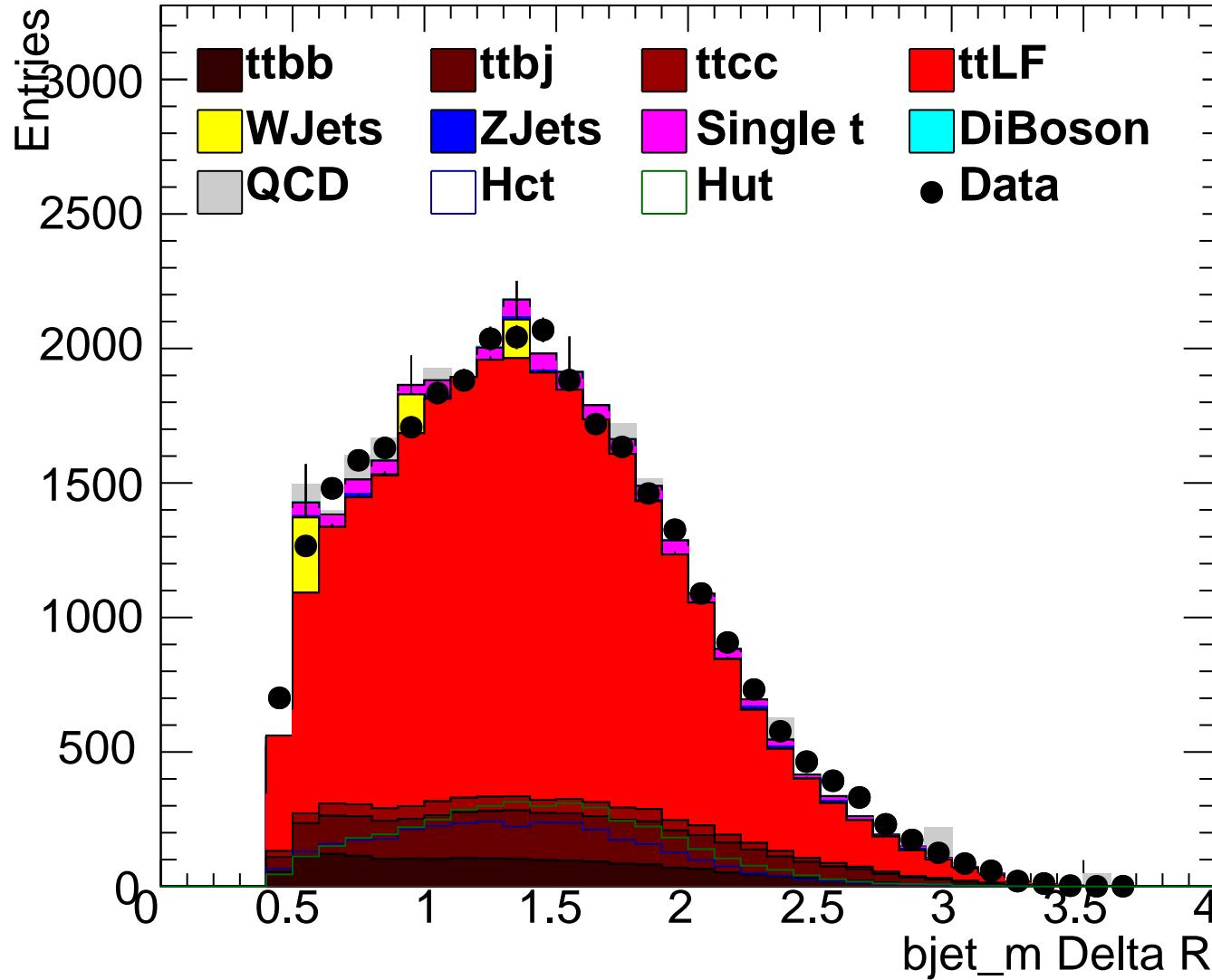


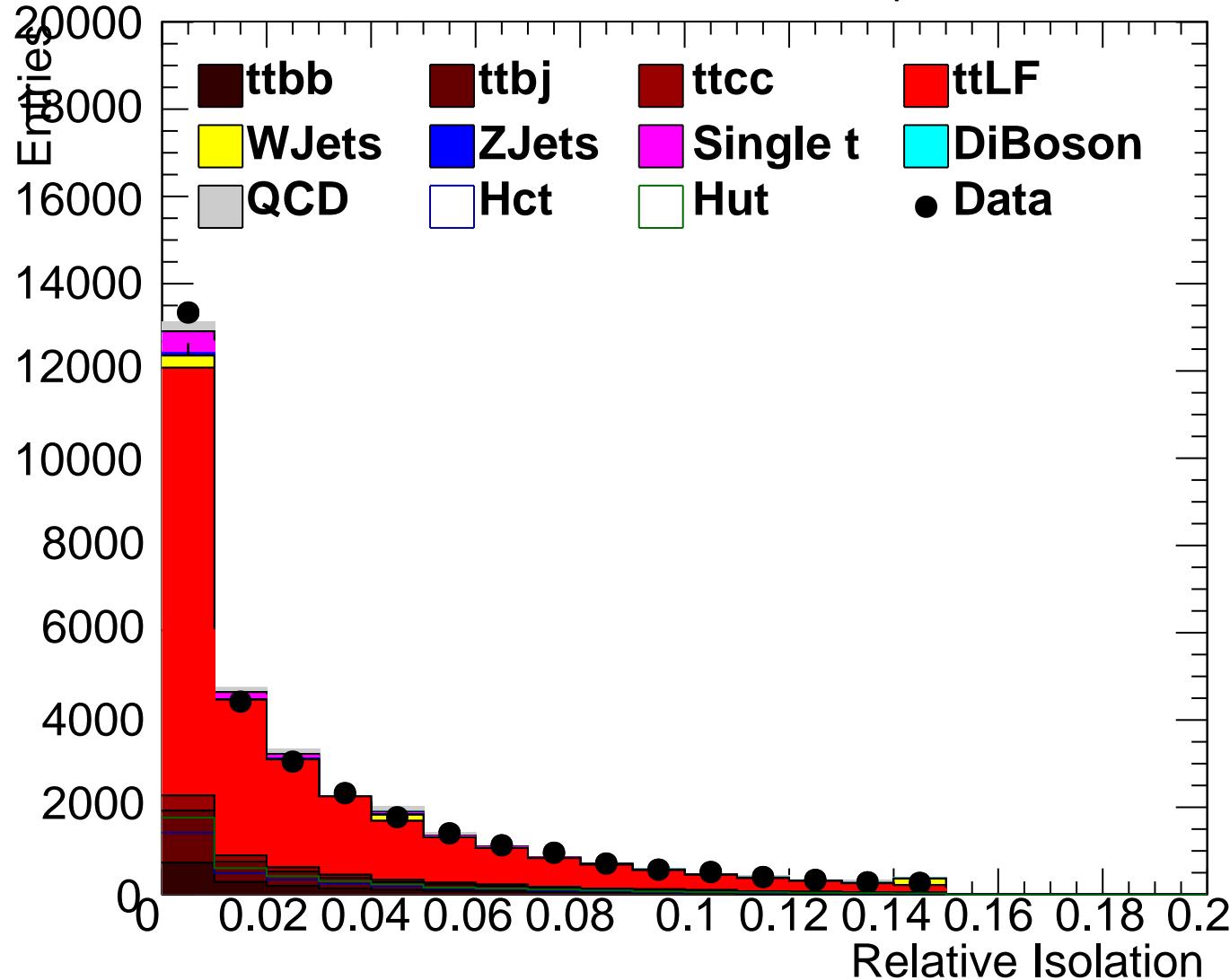


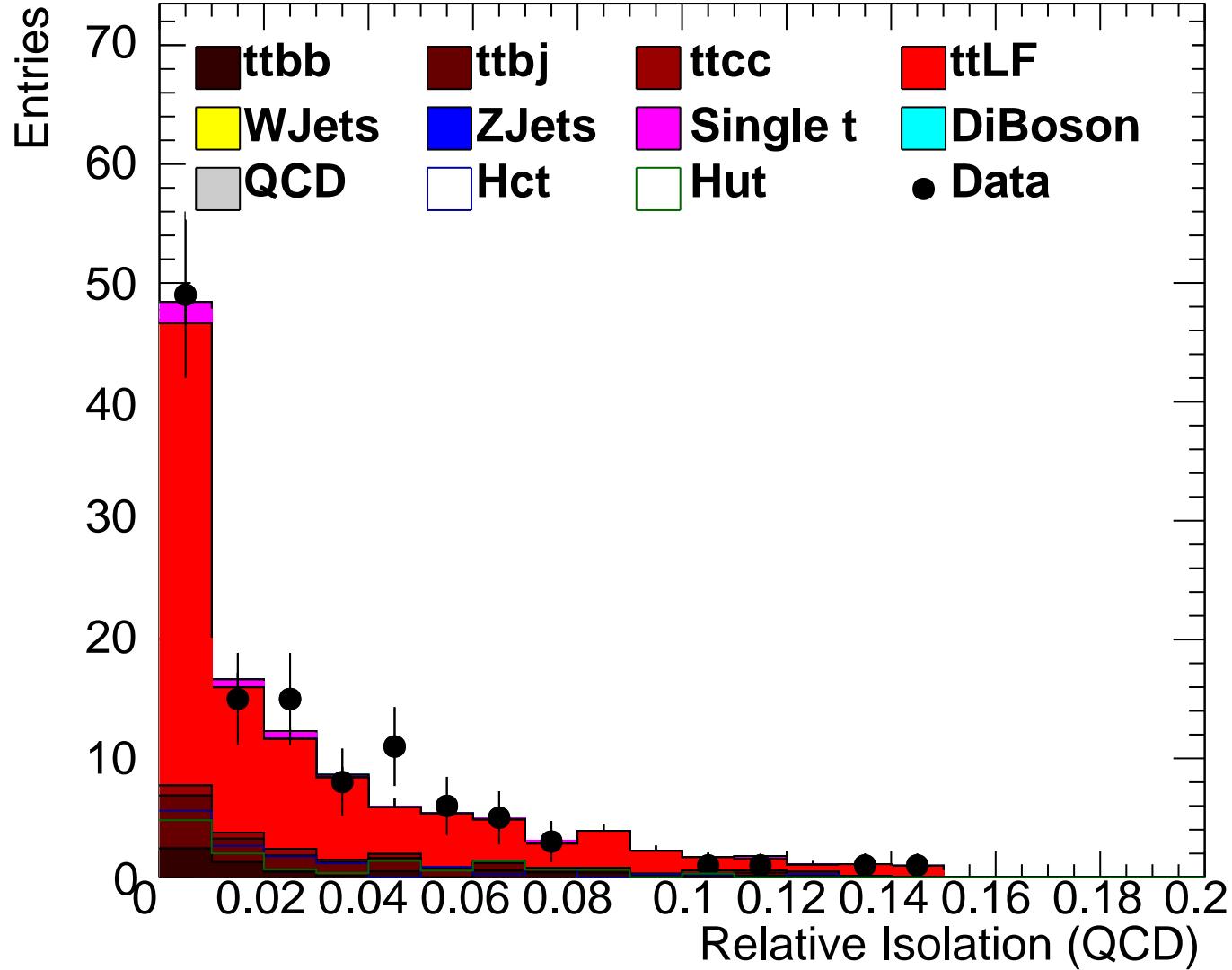


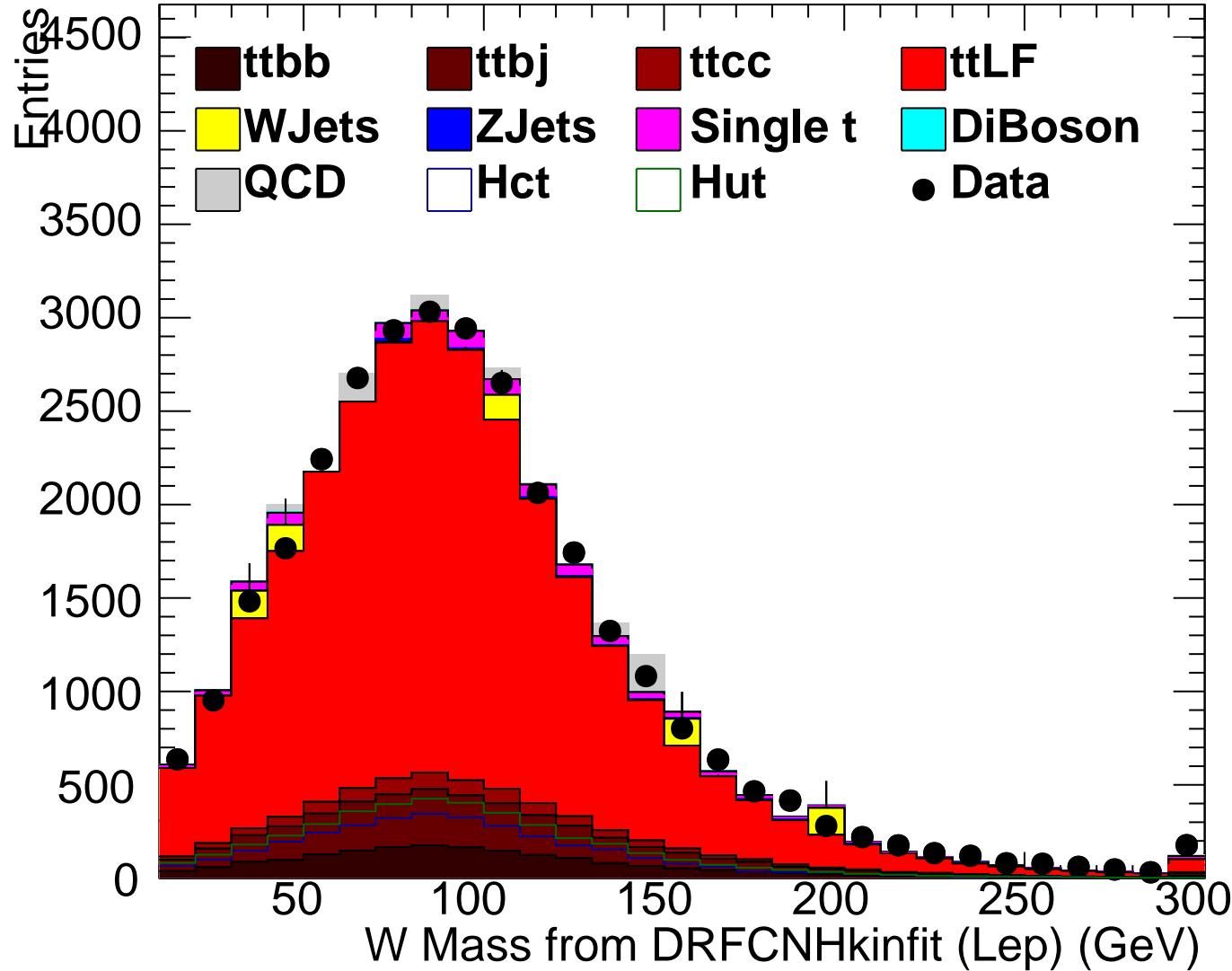
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

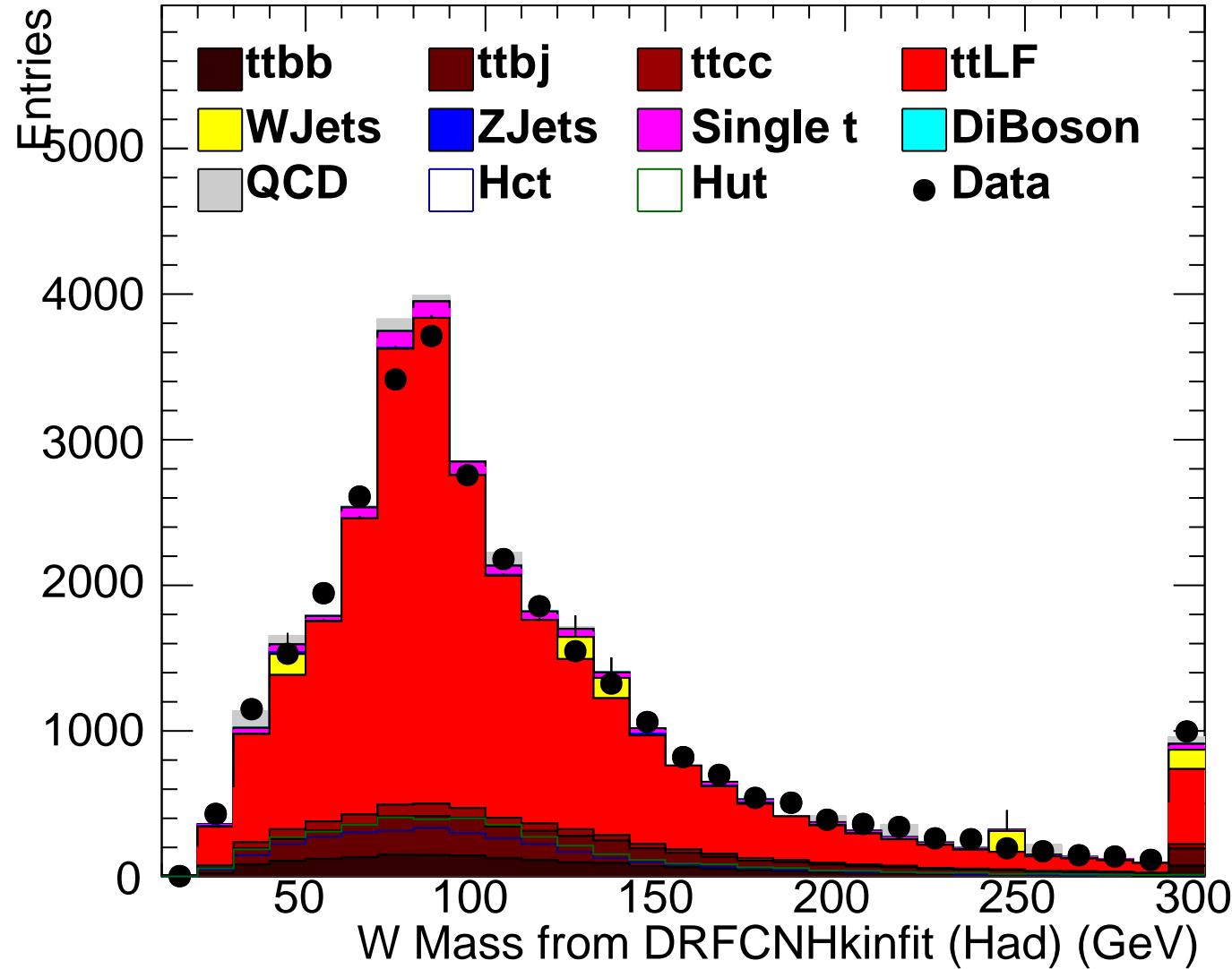


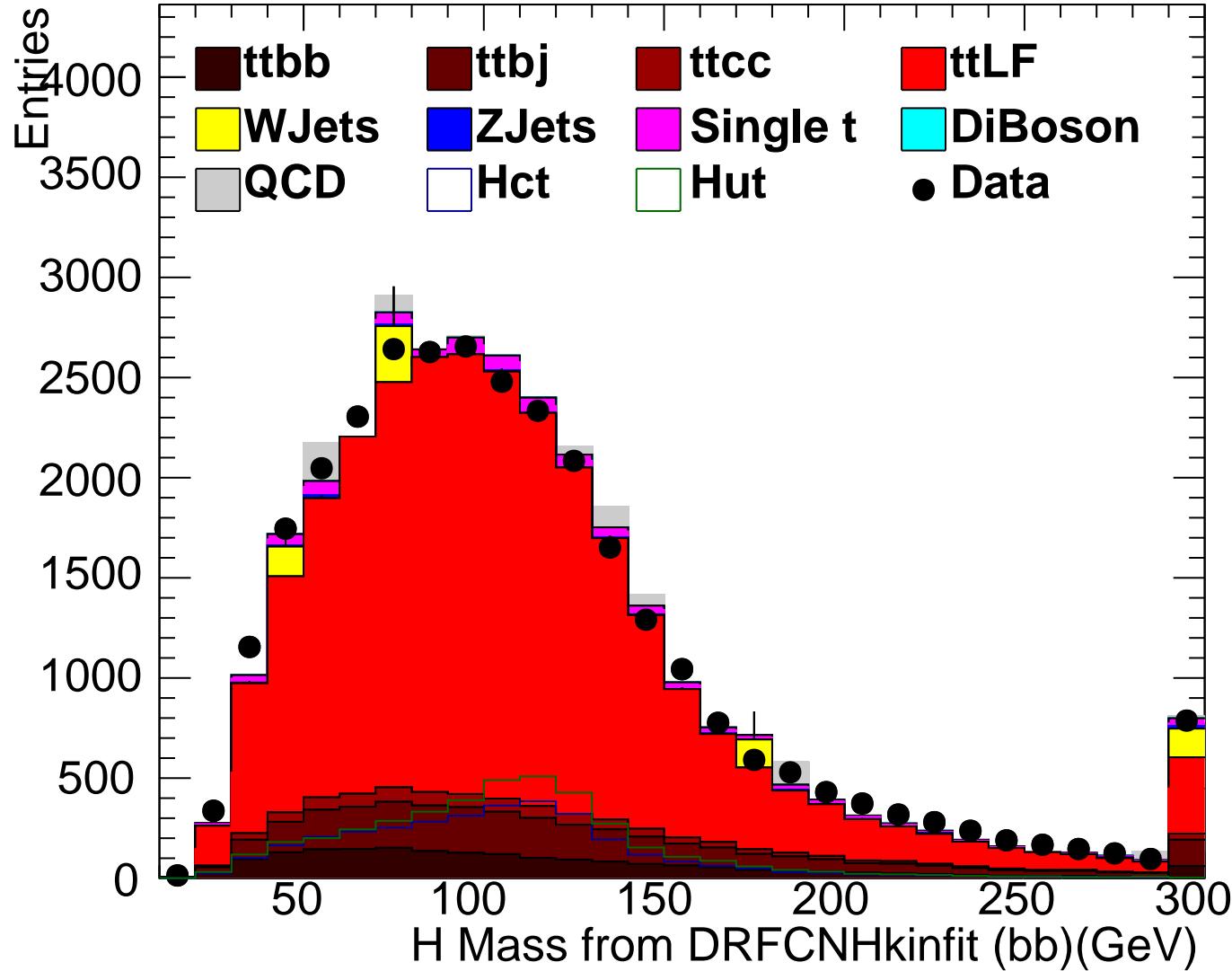


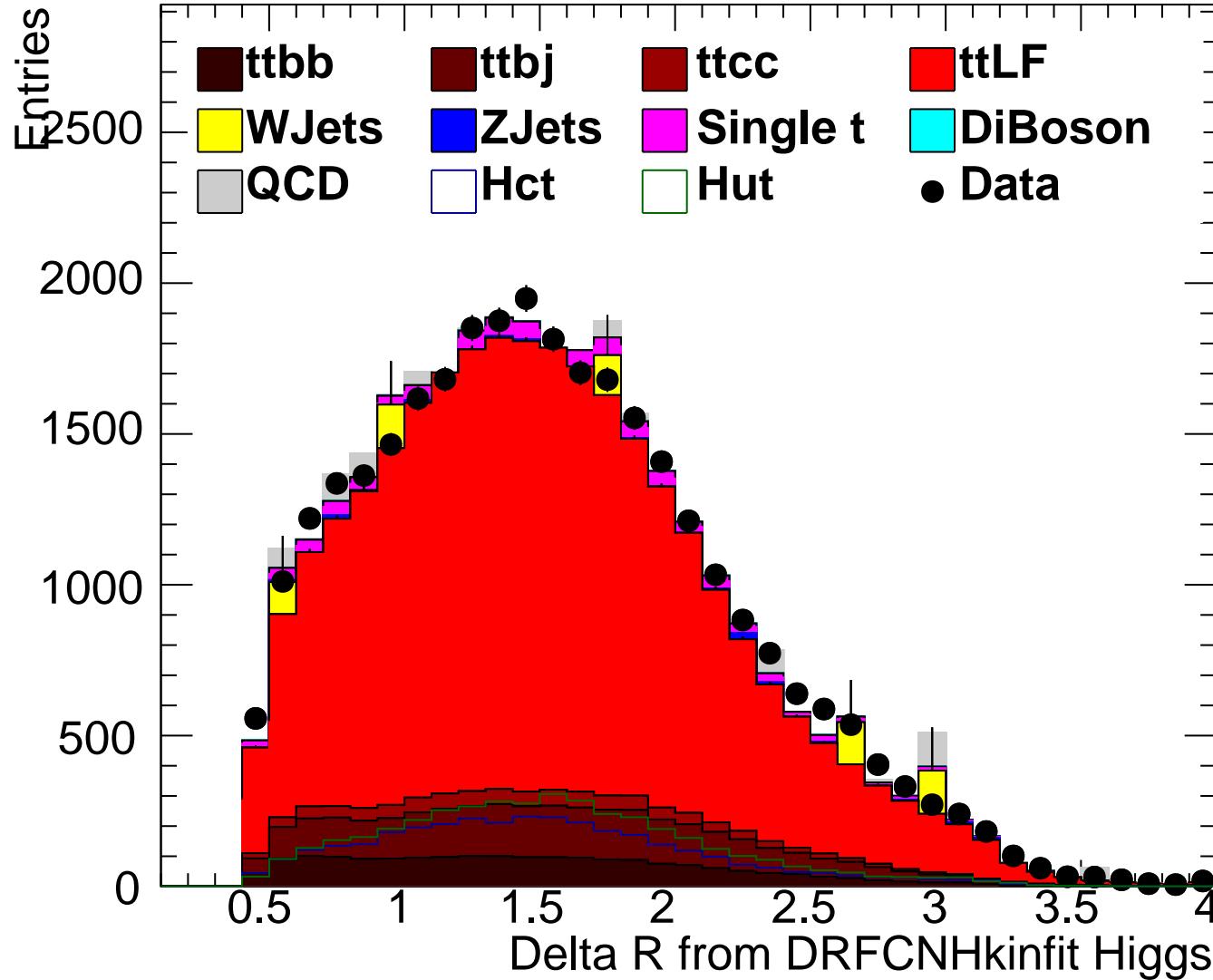
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

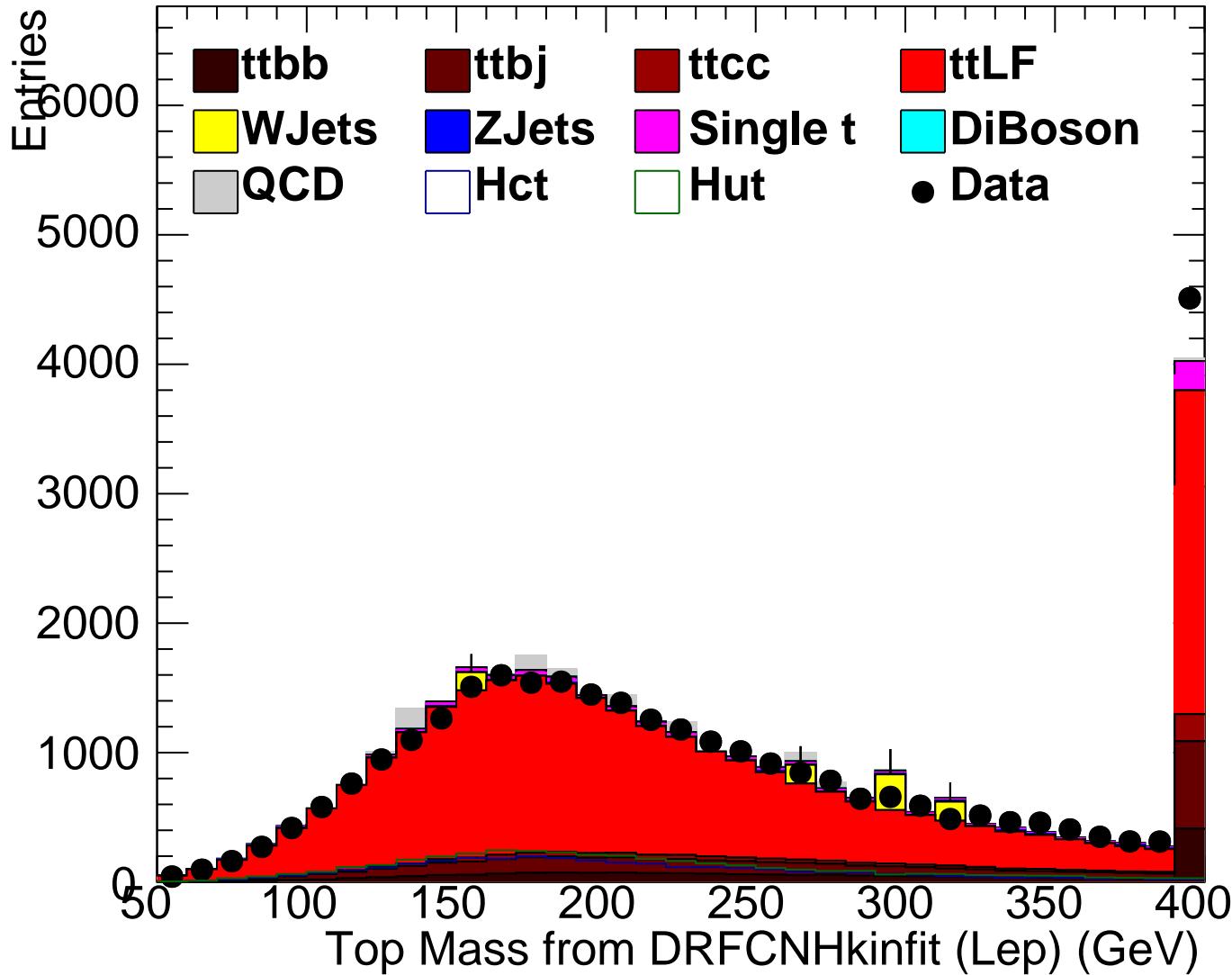


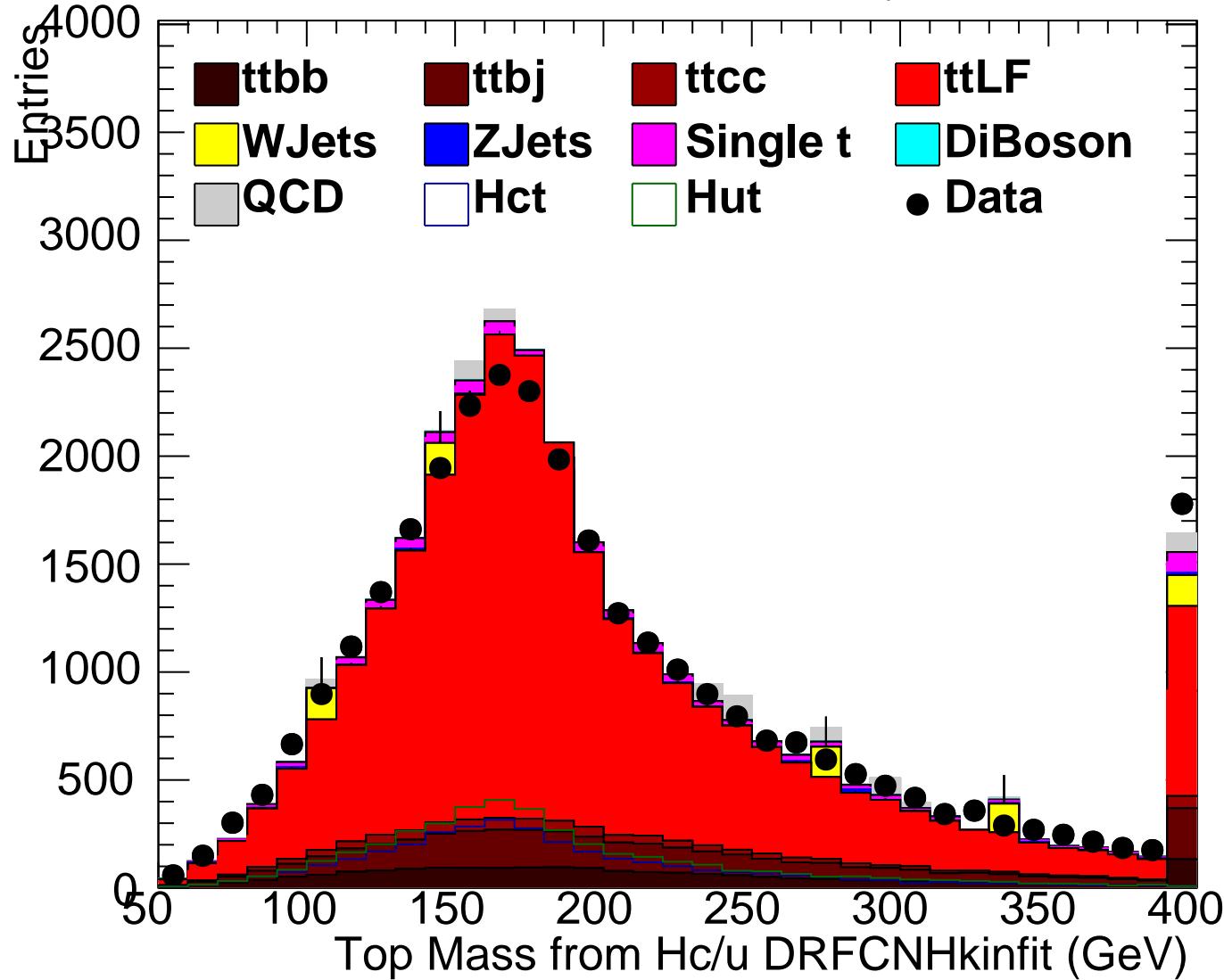


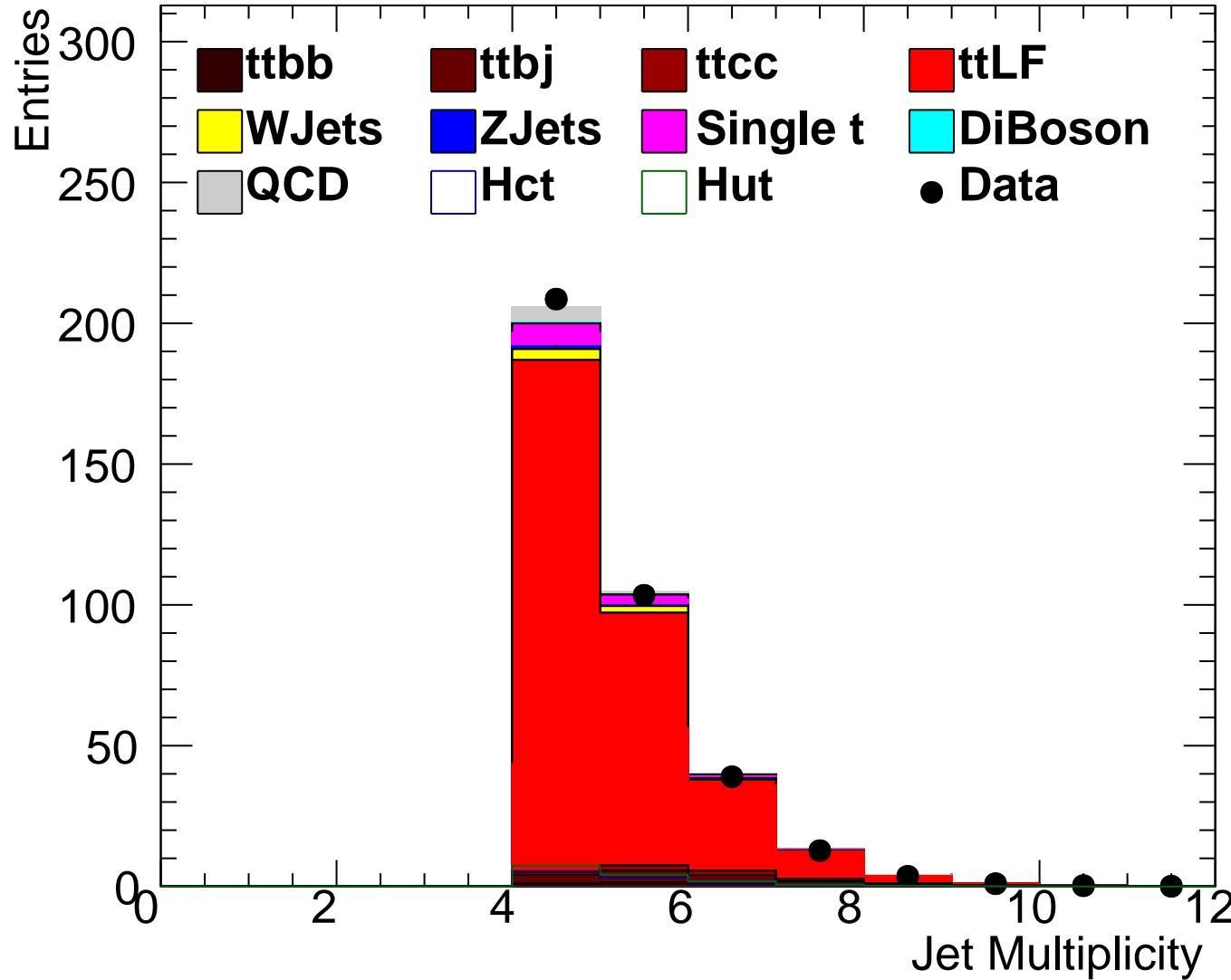
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

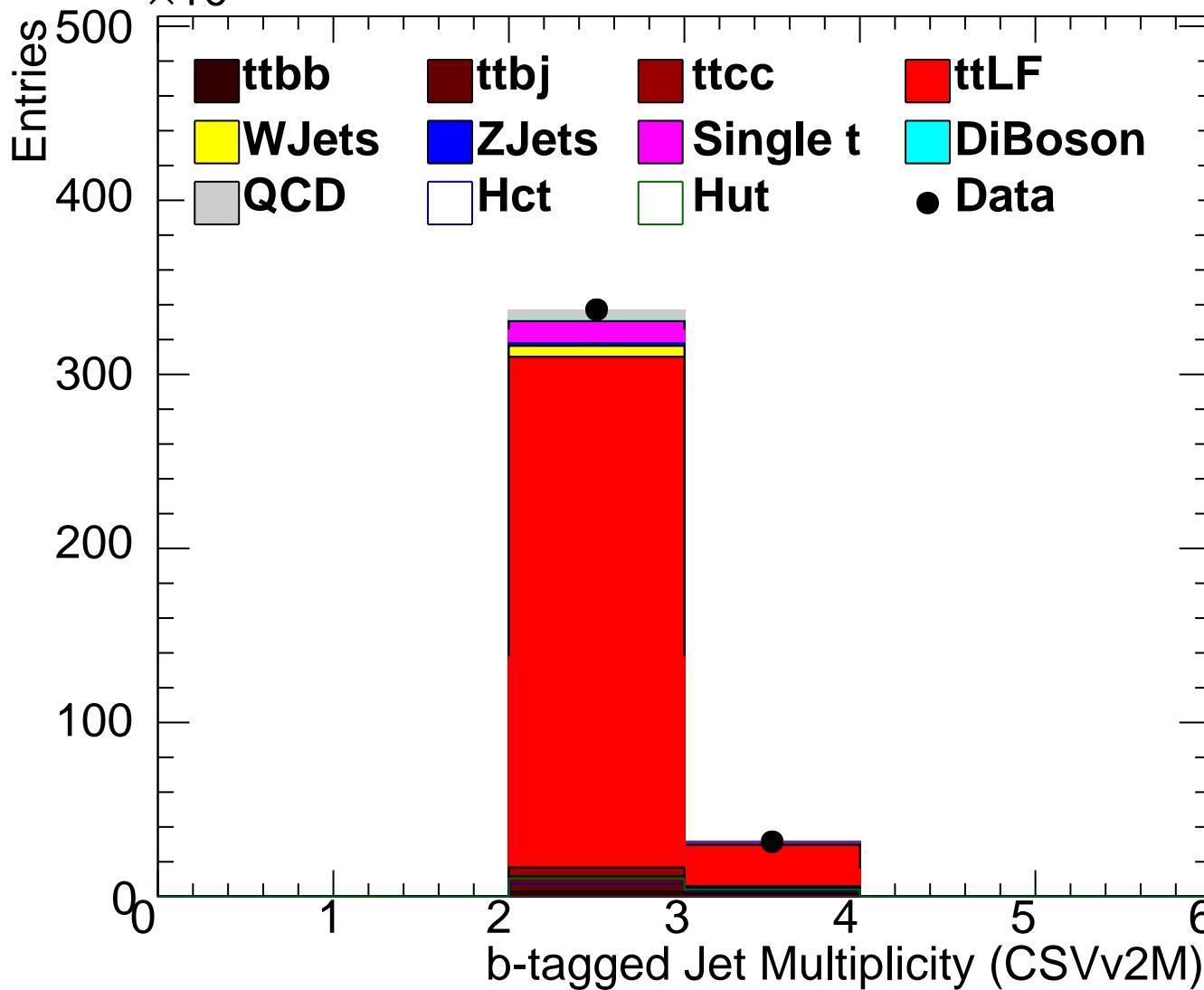


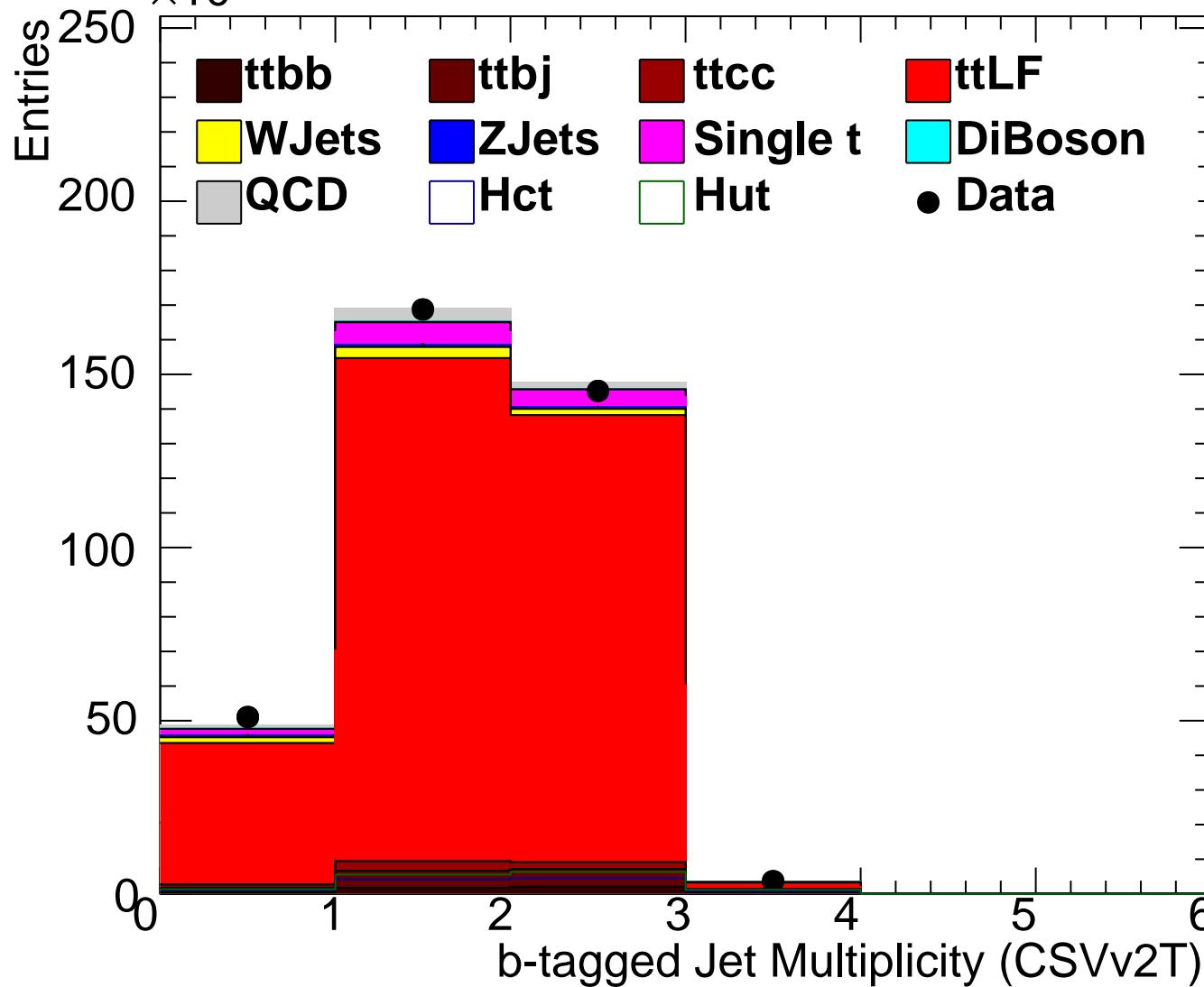


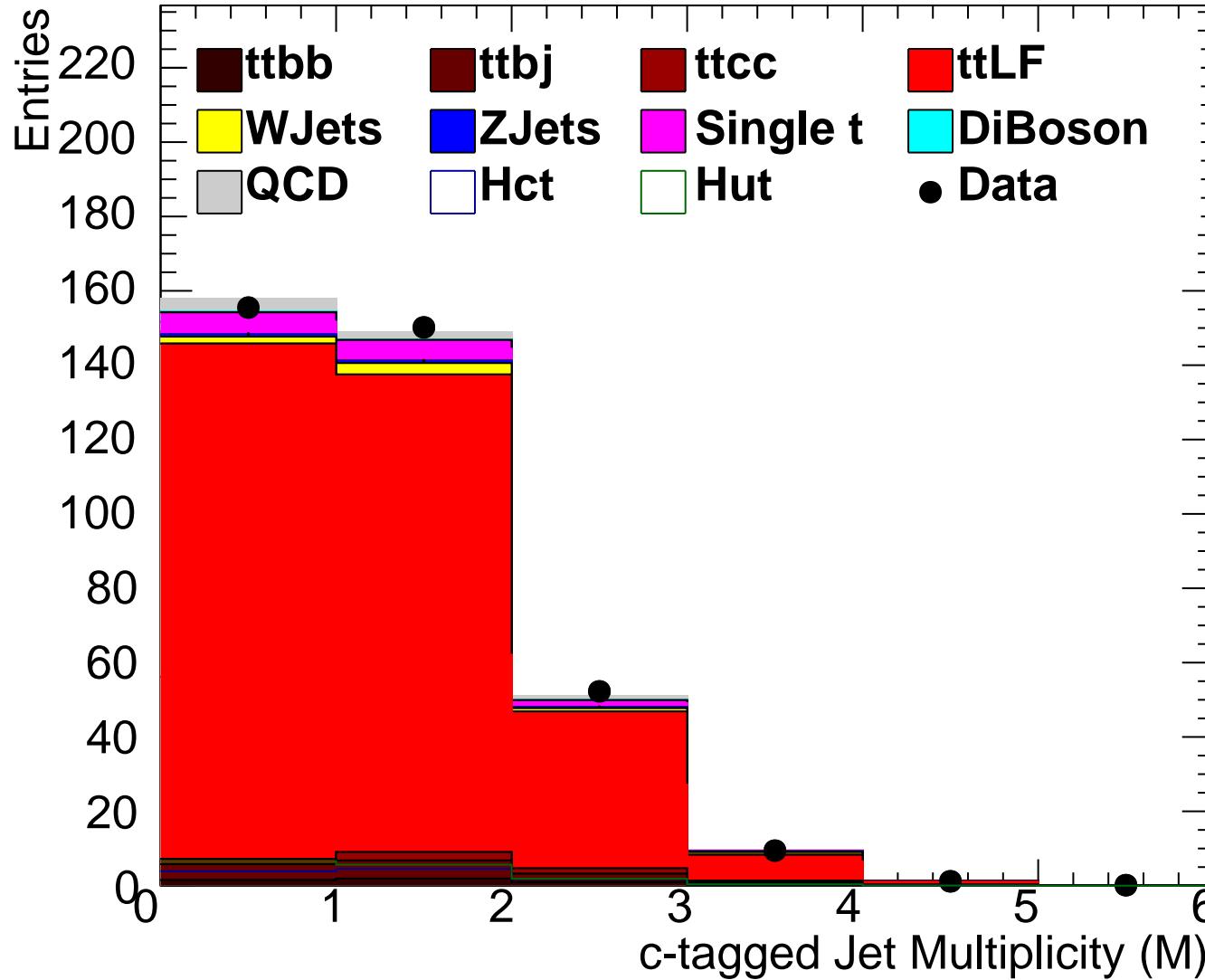


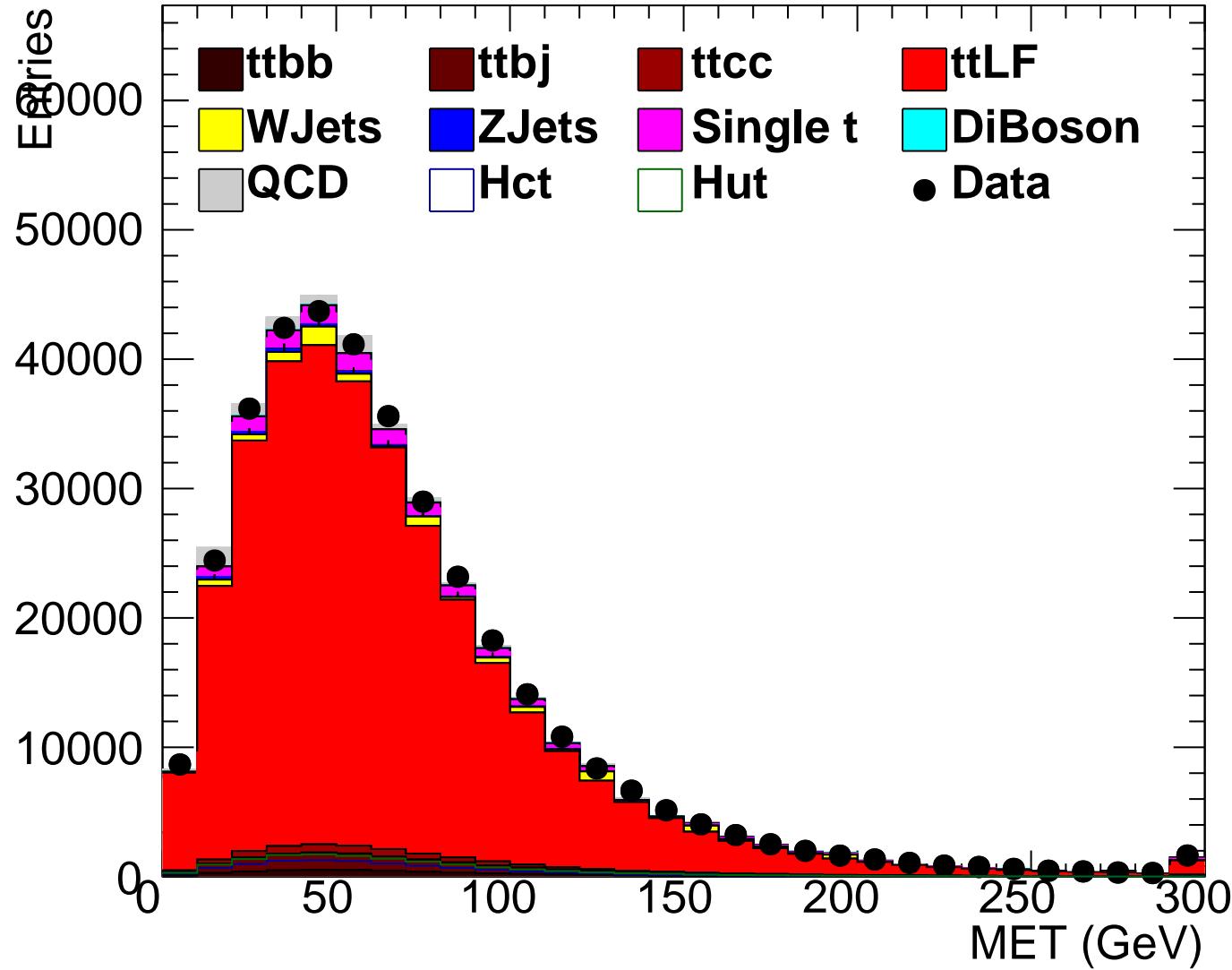
Ch0_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

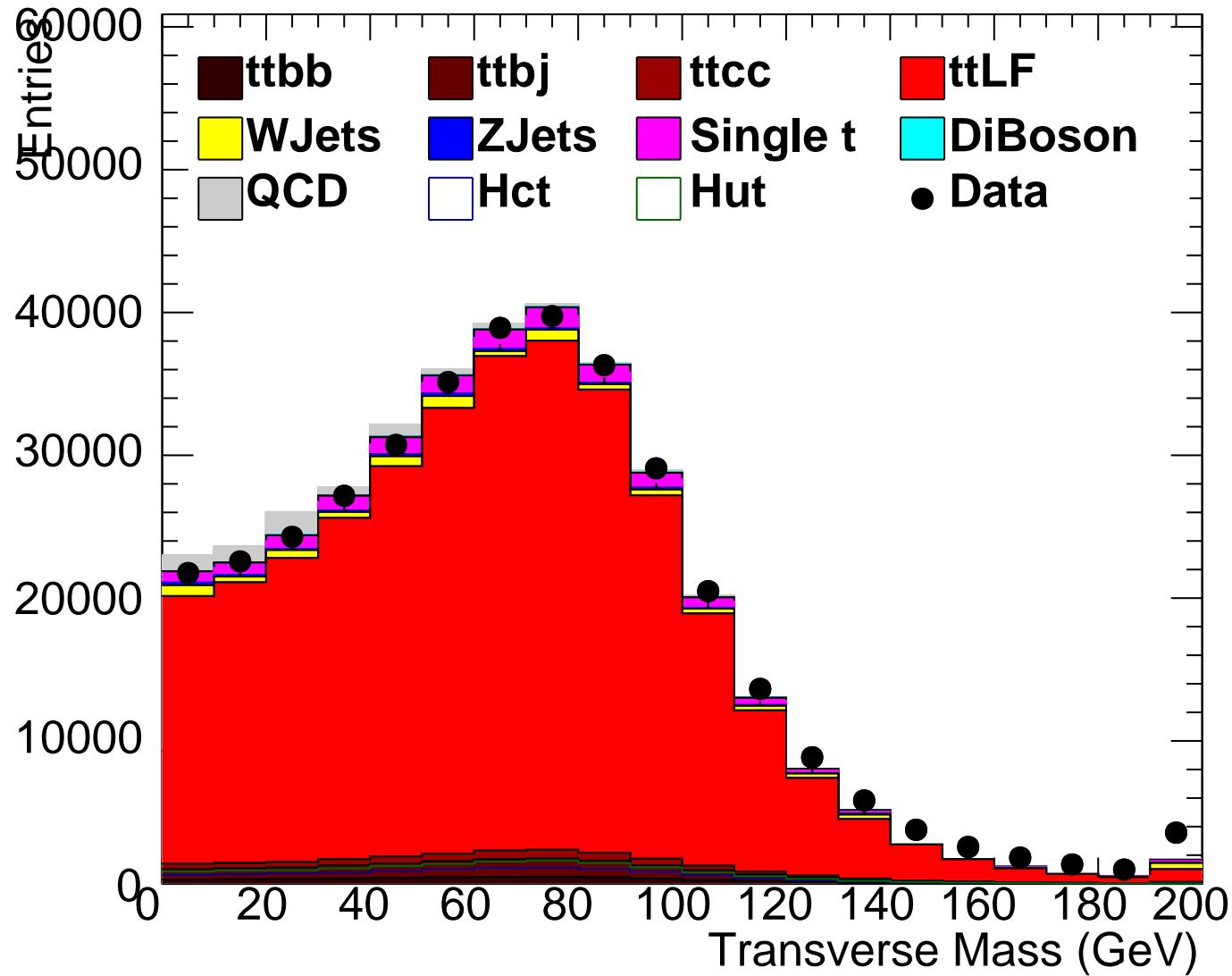
Ch0_S9x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

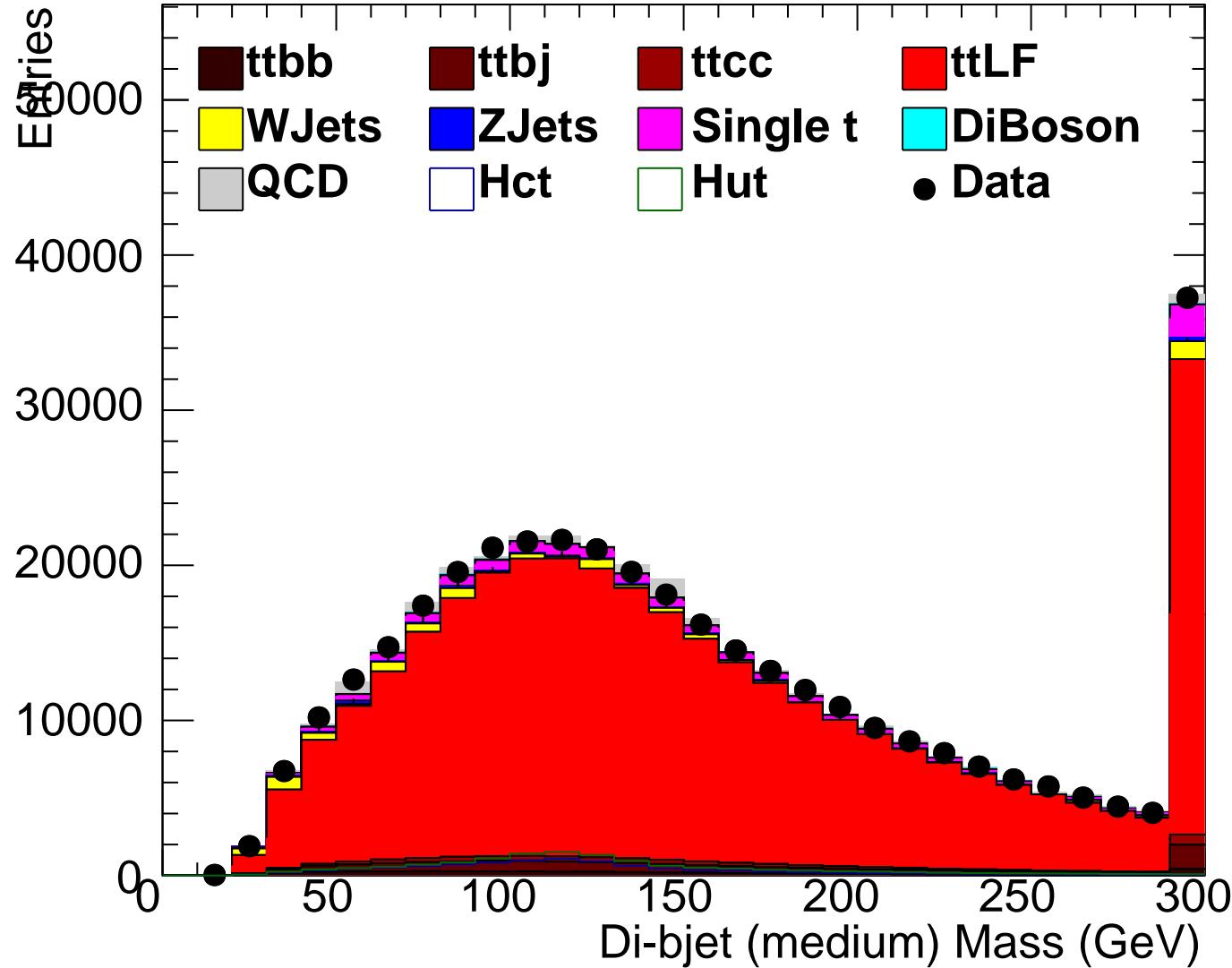
Ch0_S93
 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

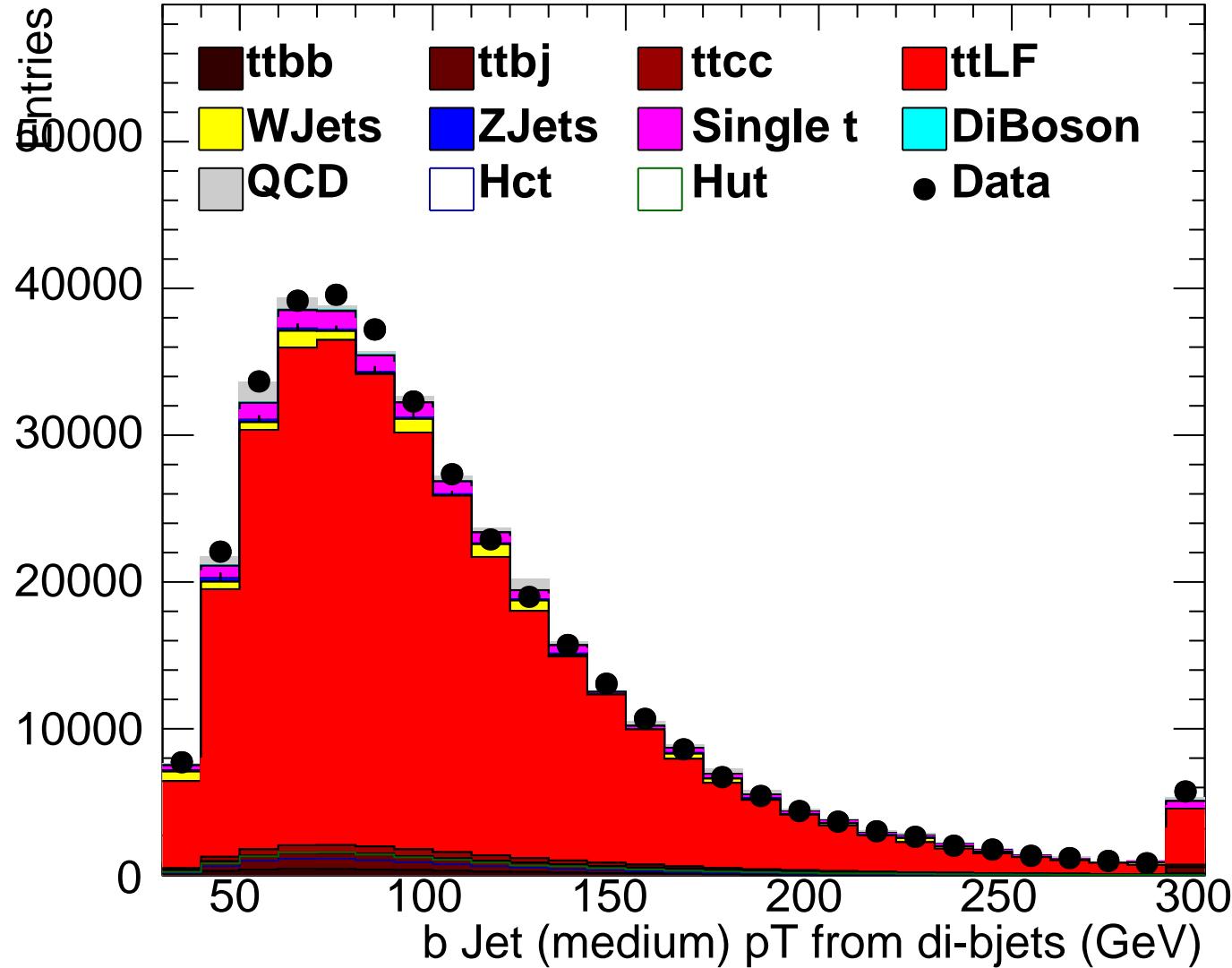


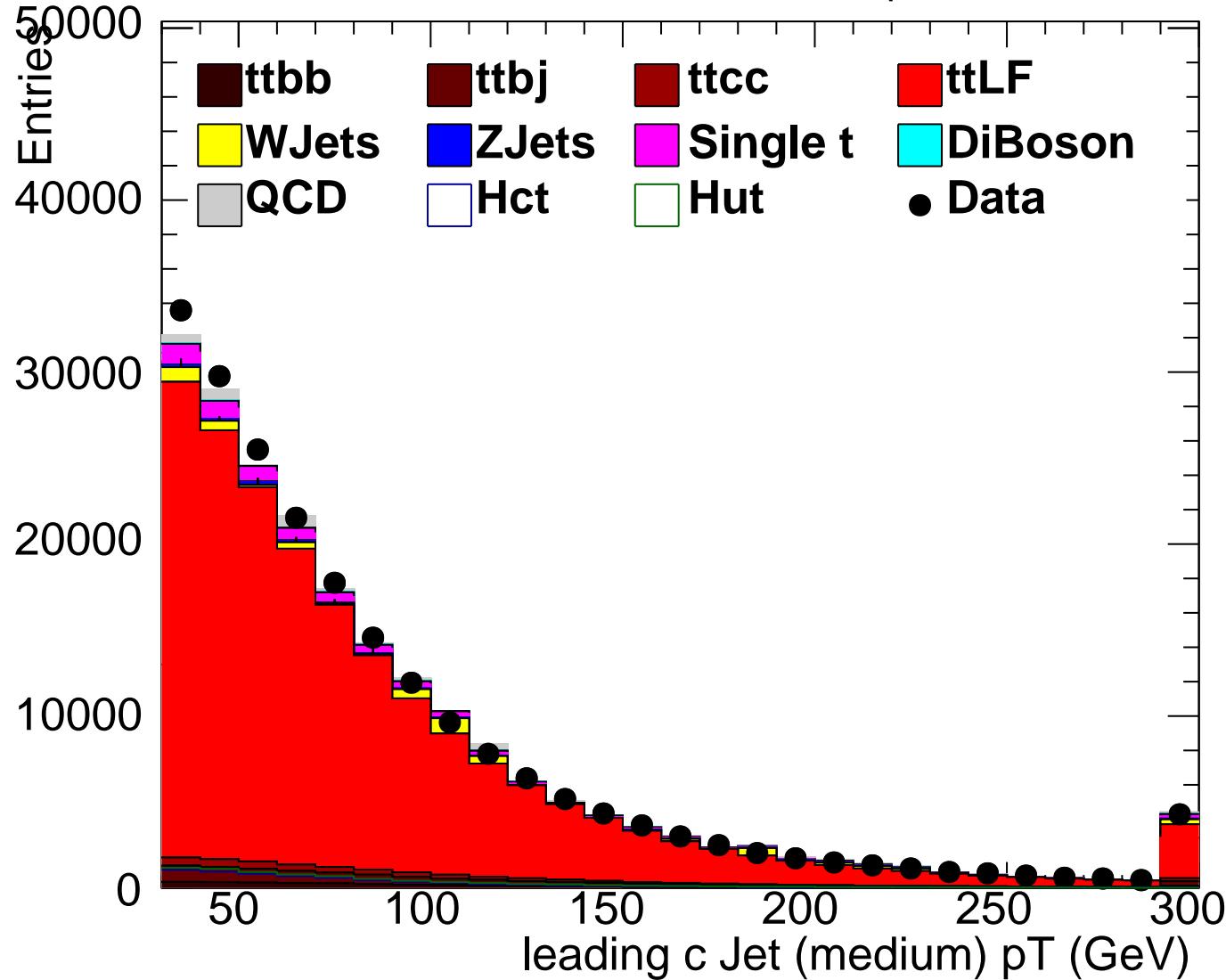


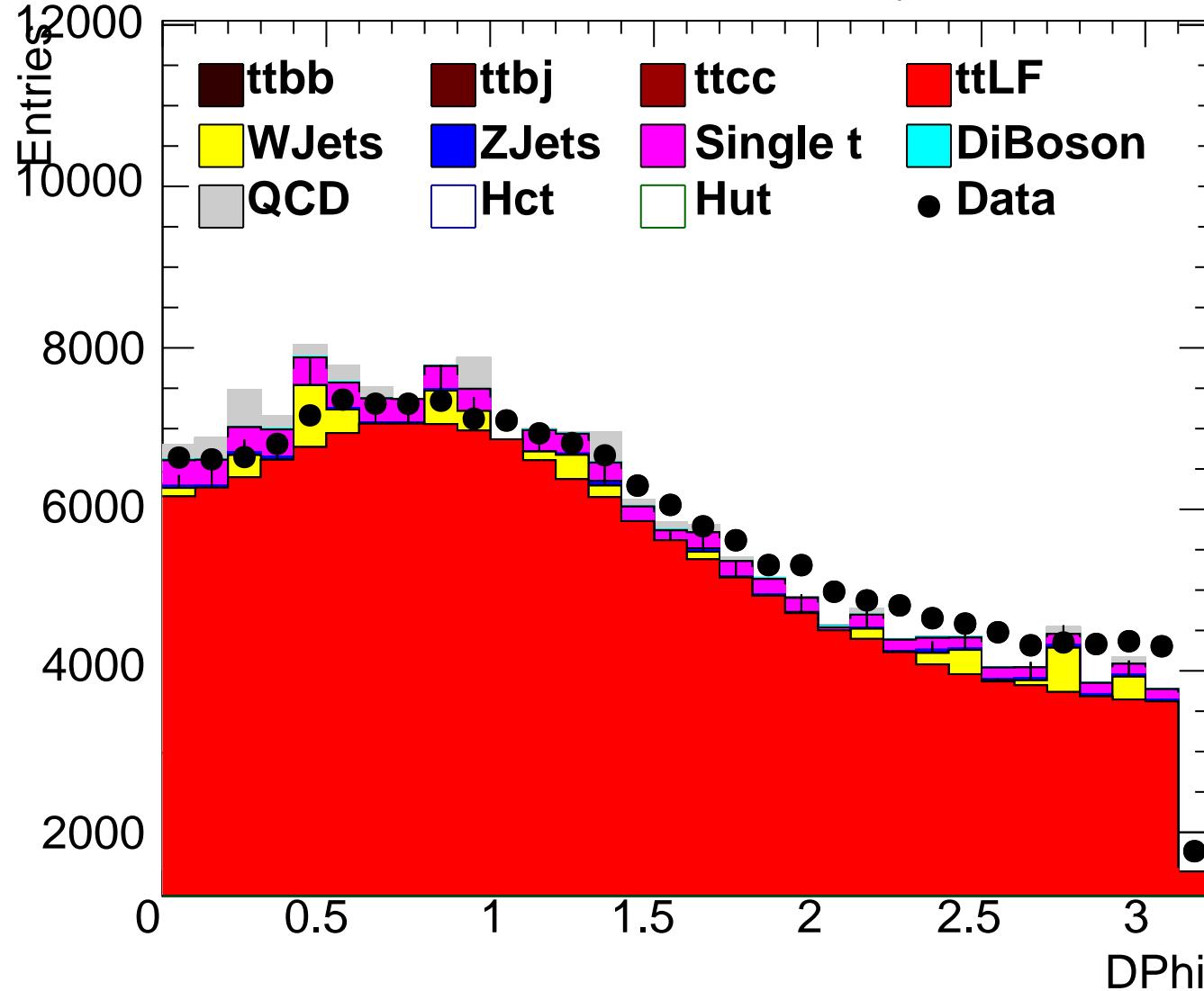
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

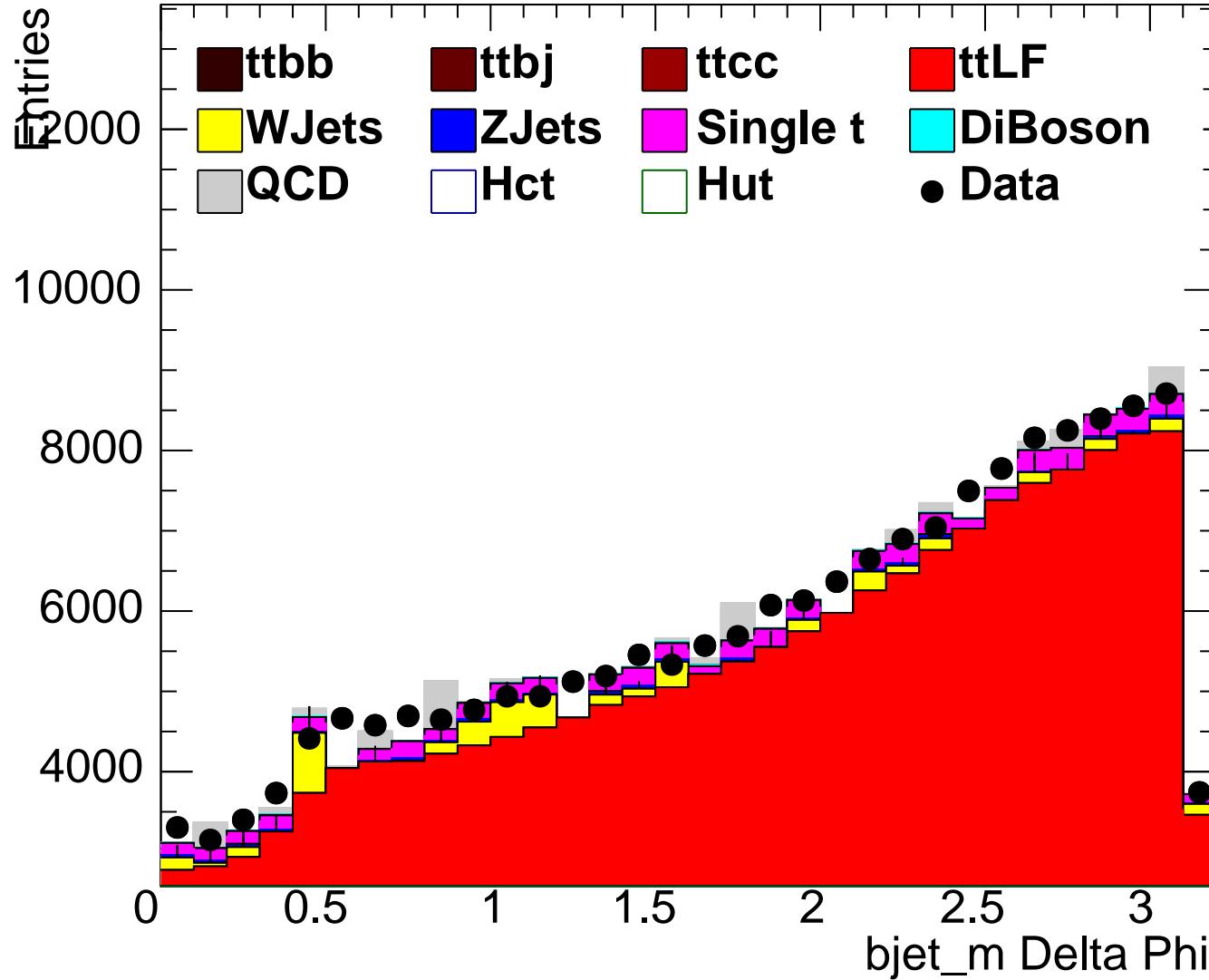


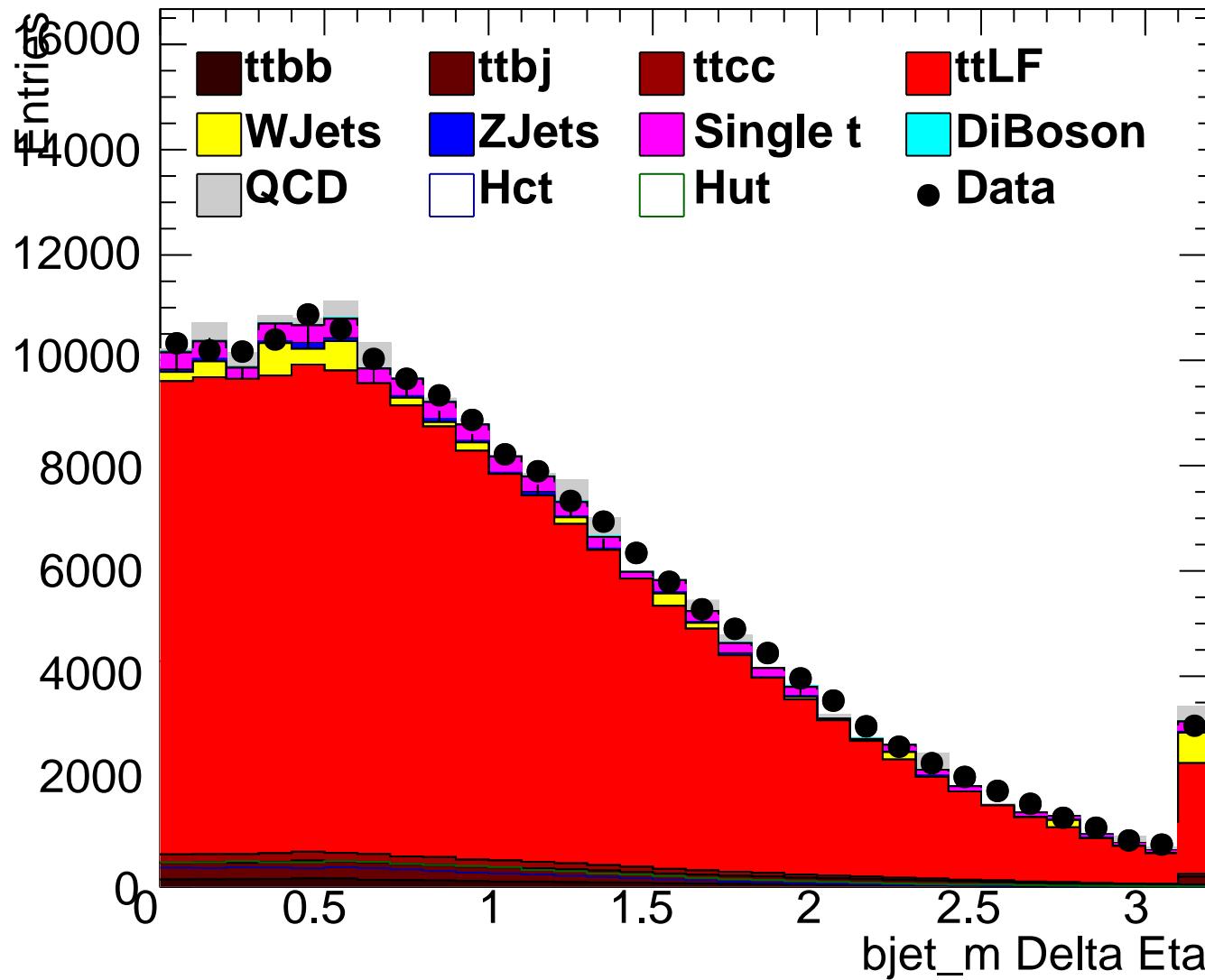
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

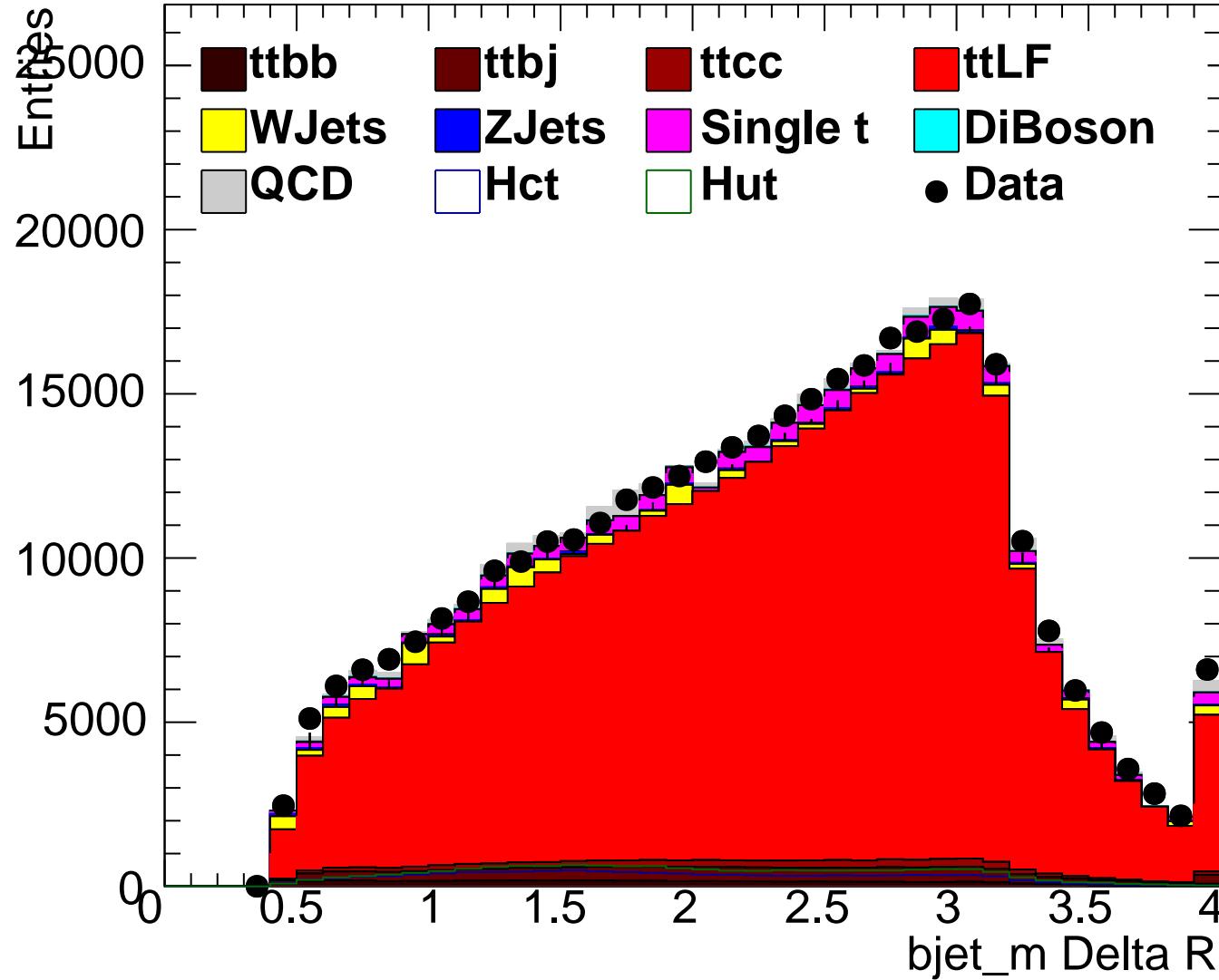
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

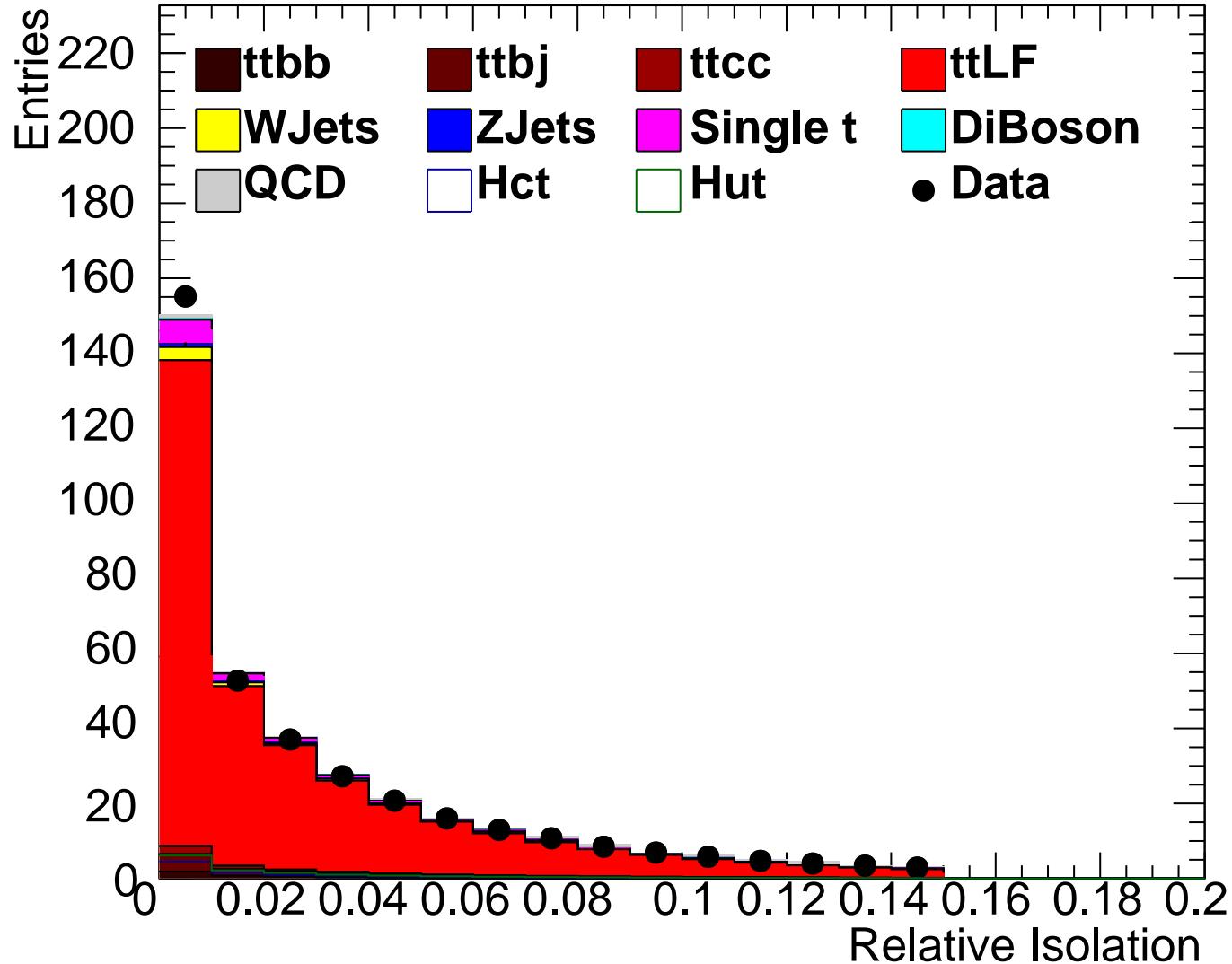
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

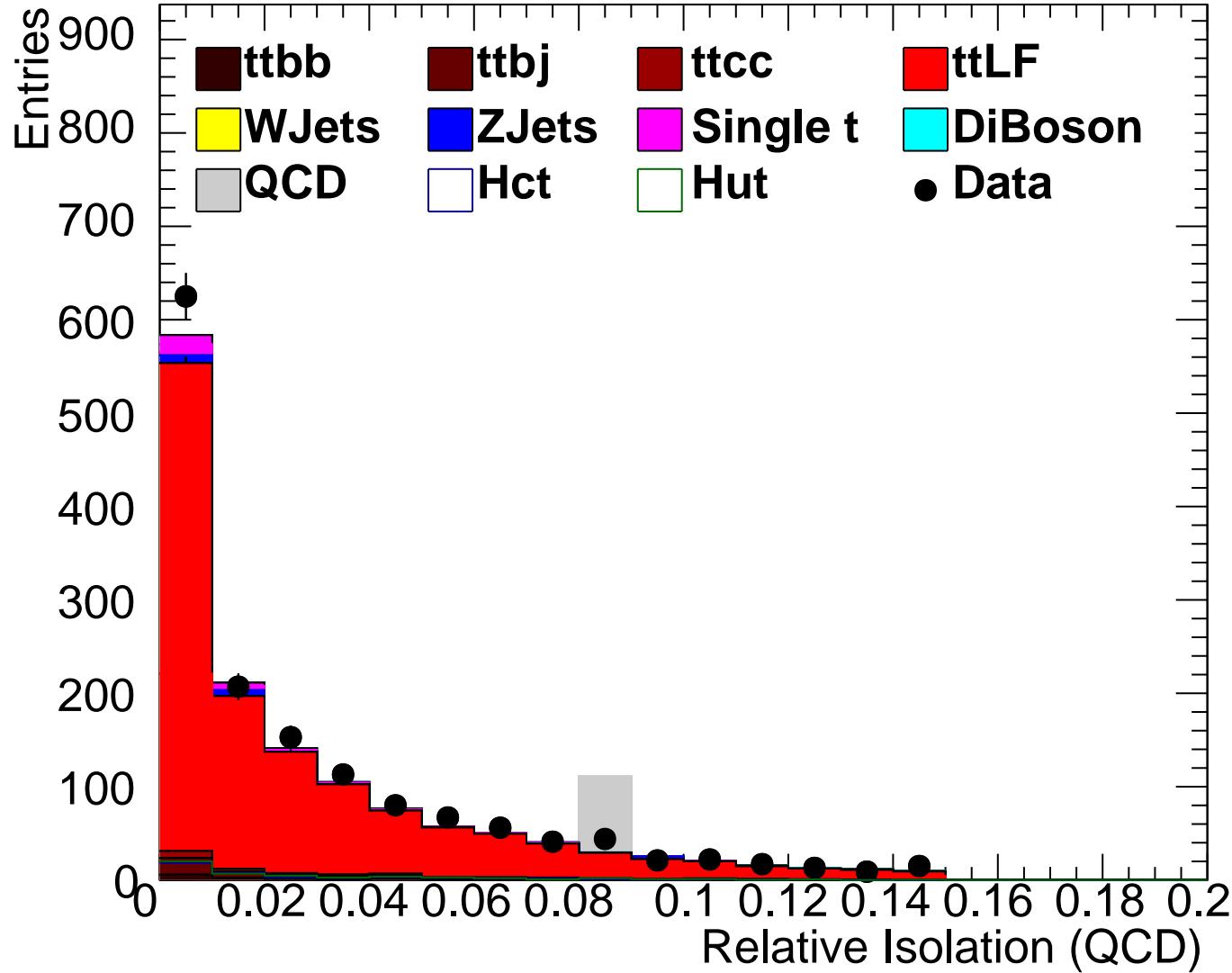
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 





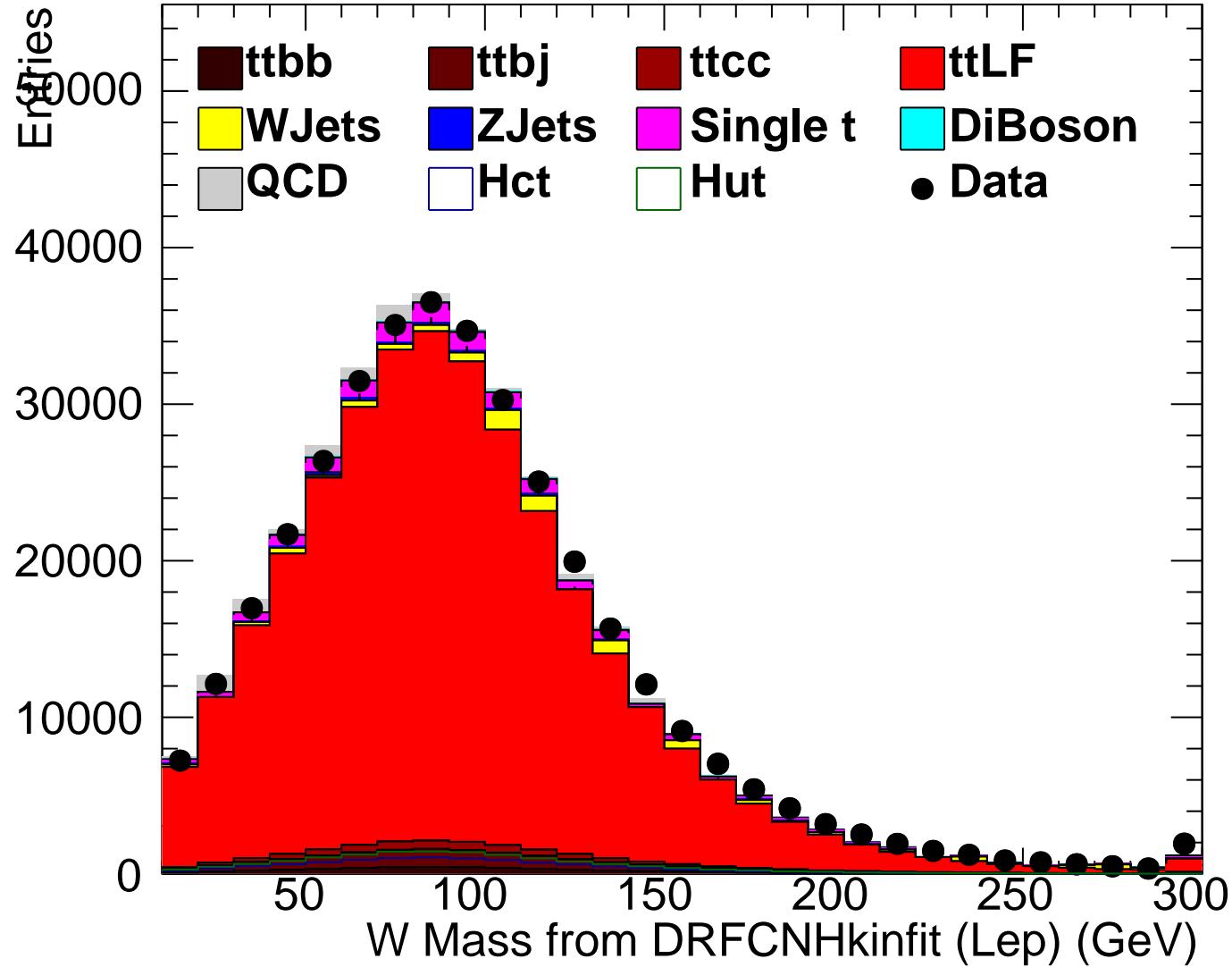
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

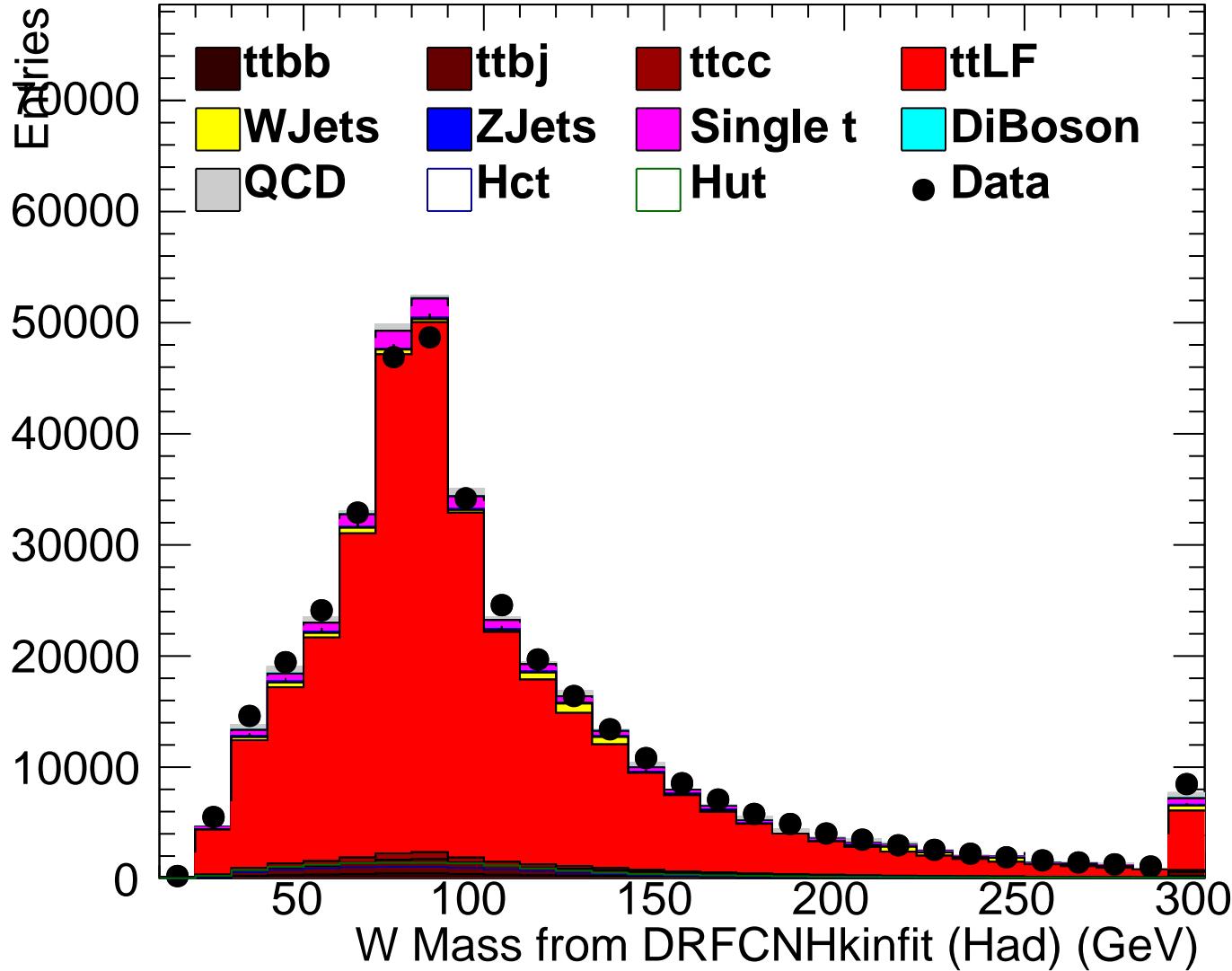
Ch0_S9x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch0_S9

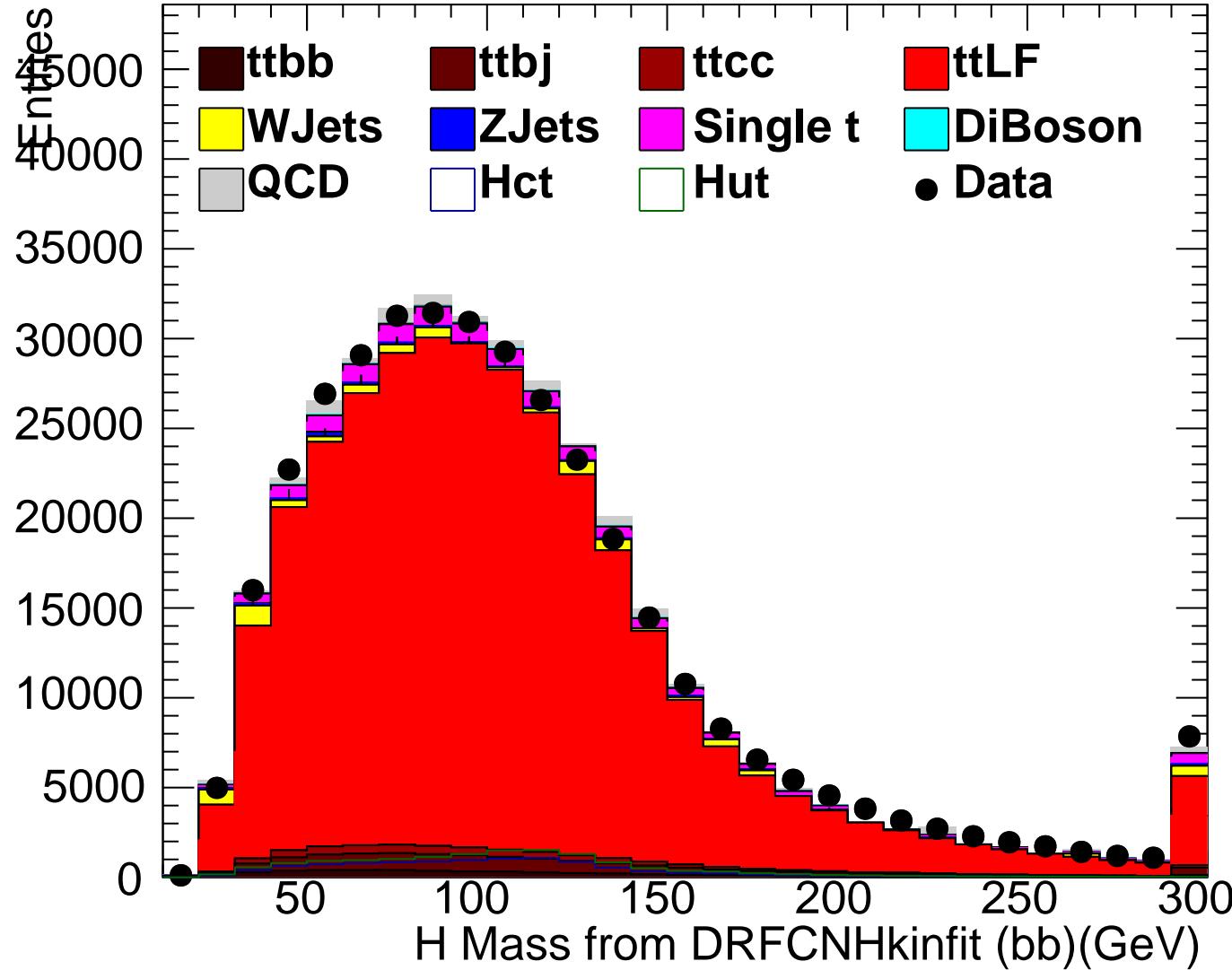
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

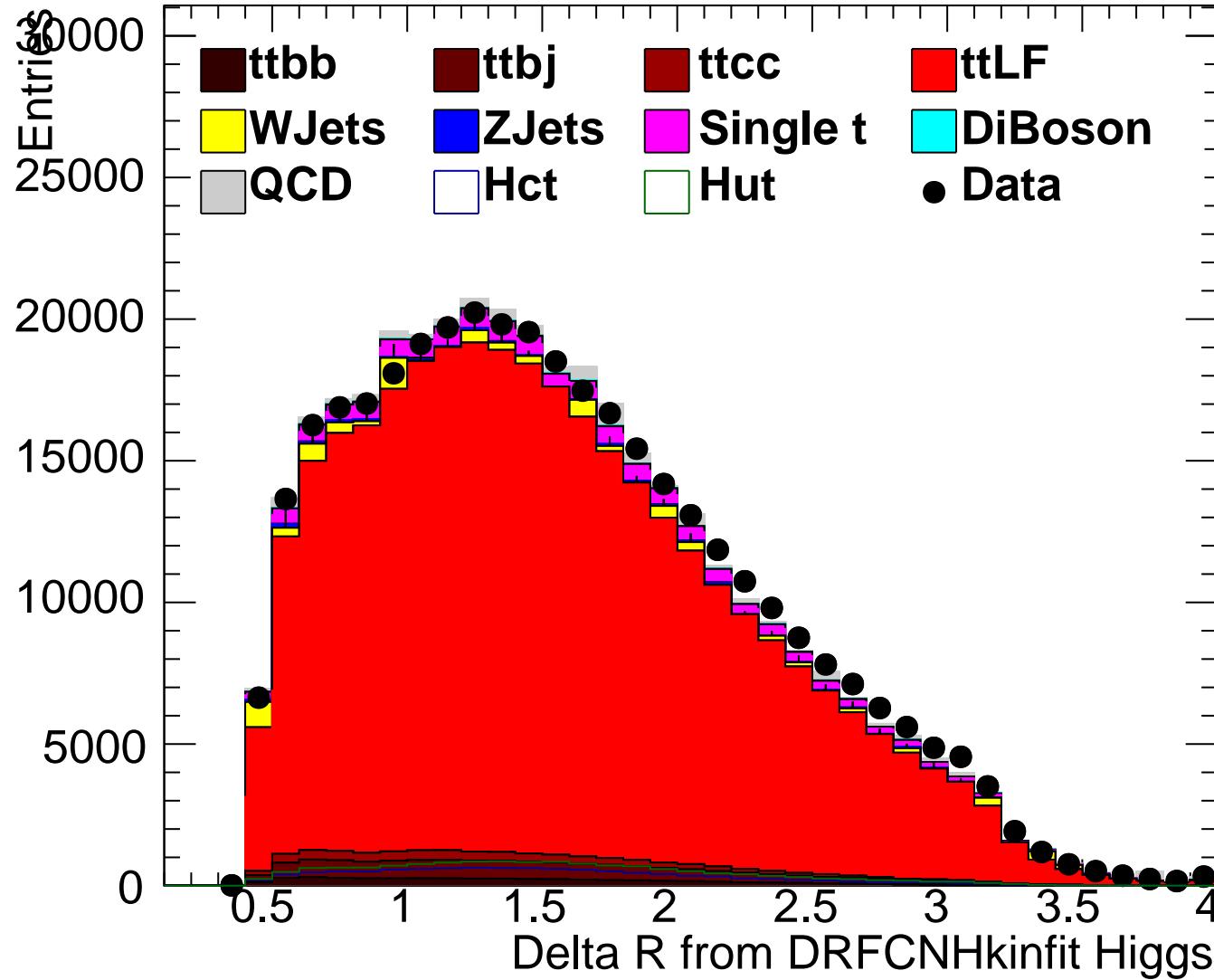


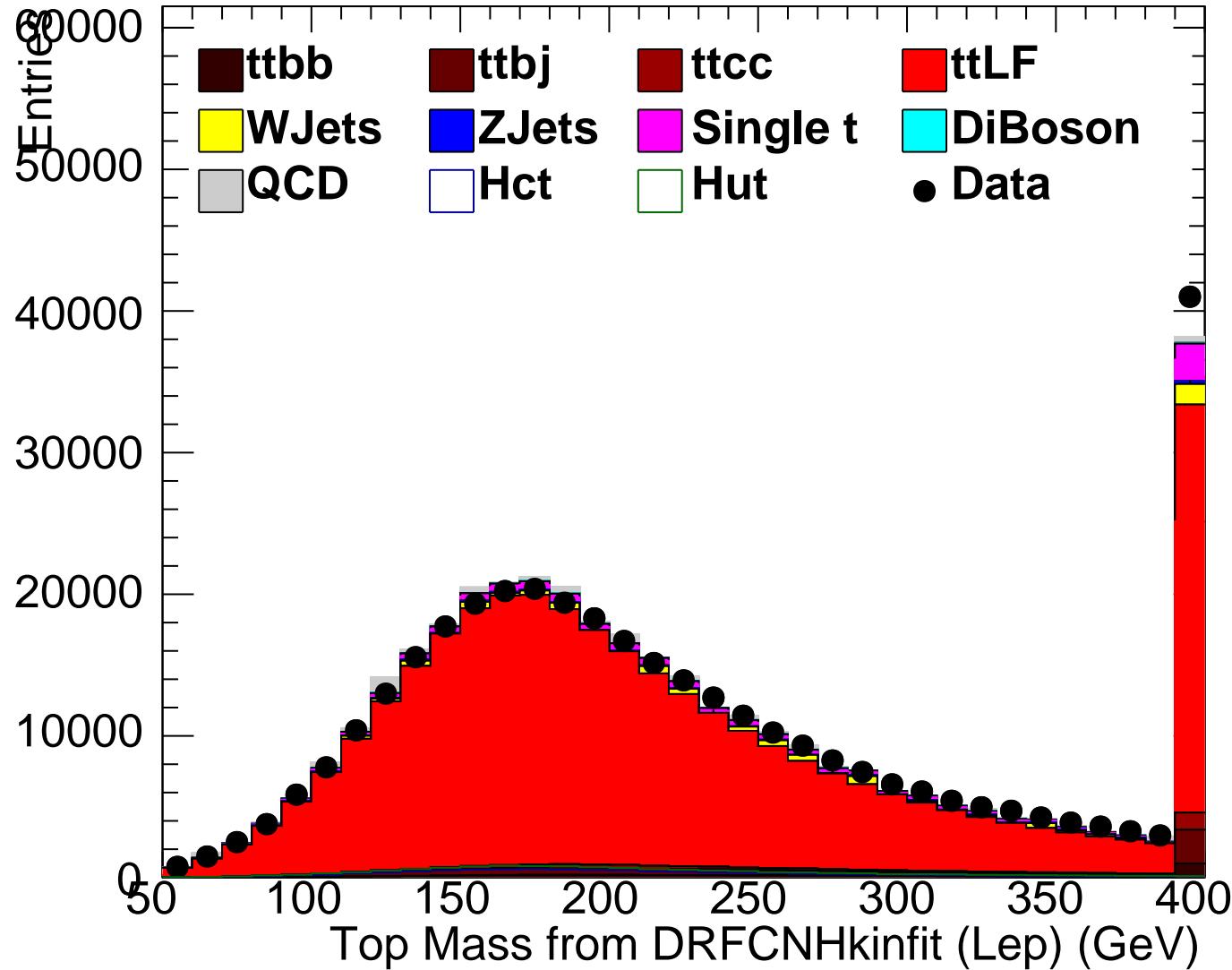
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

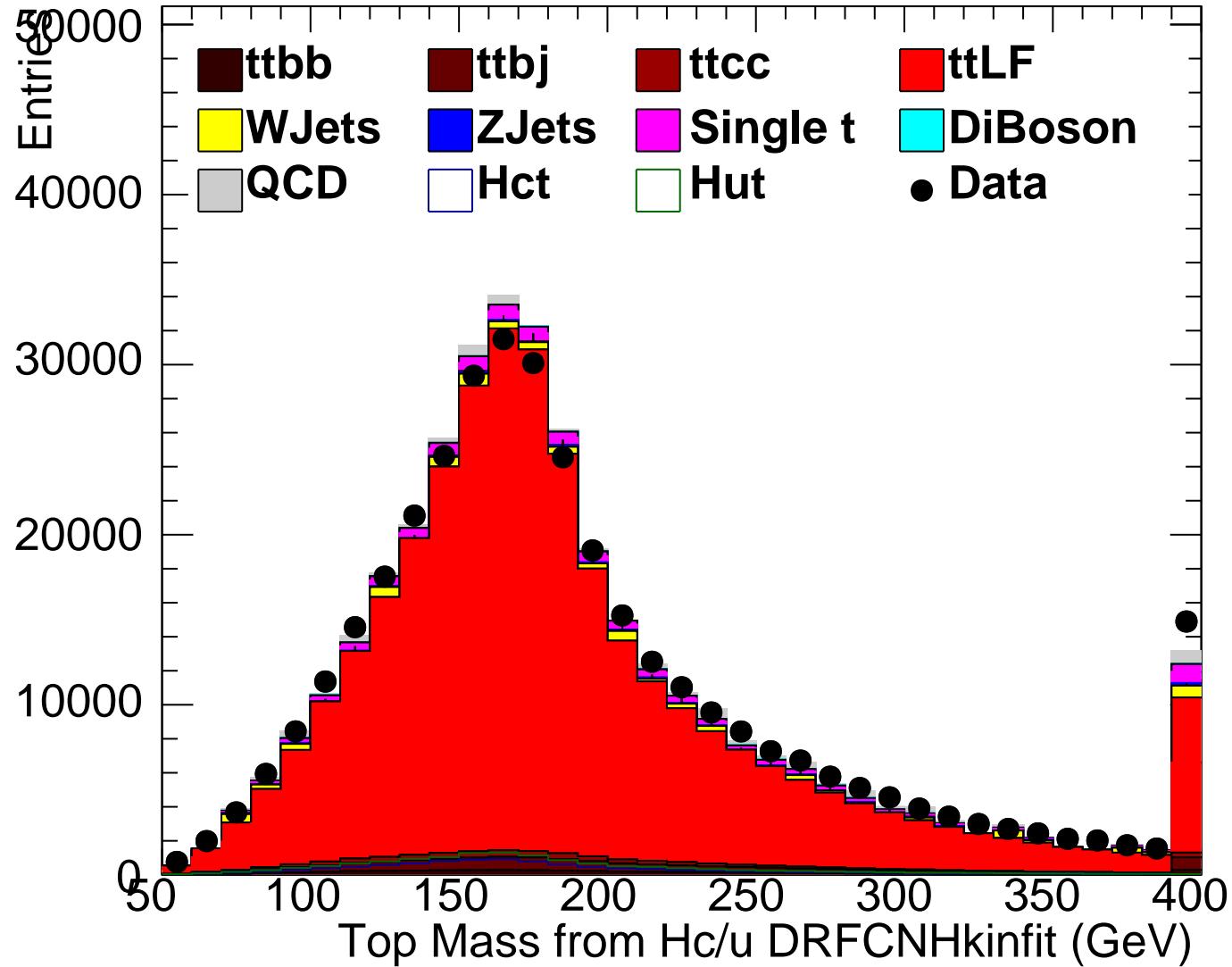
Ch0_S9

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



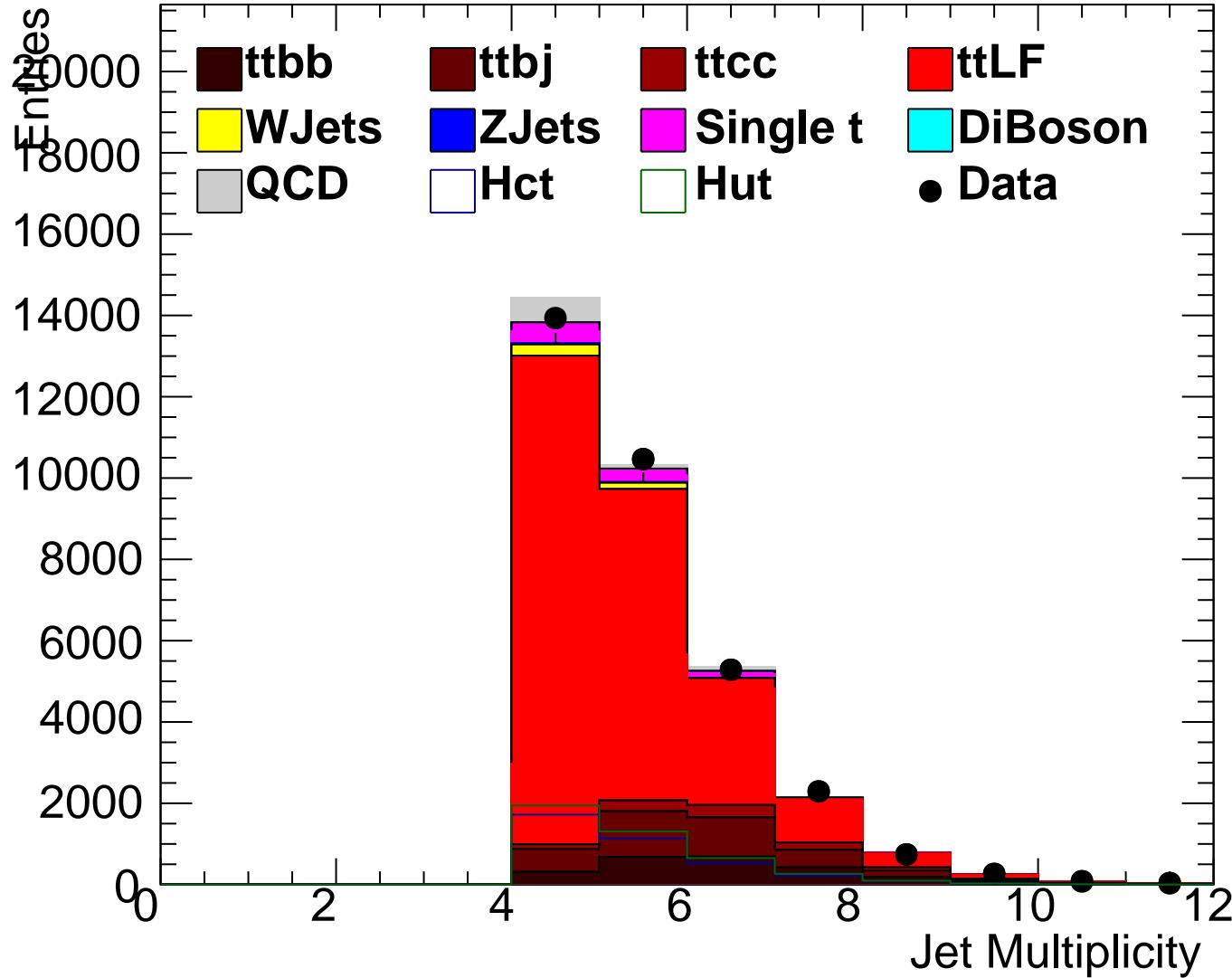
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

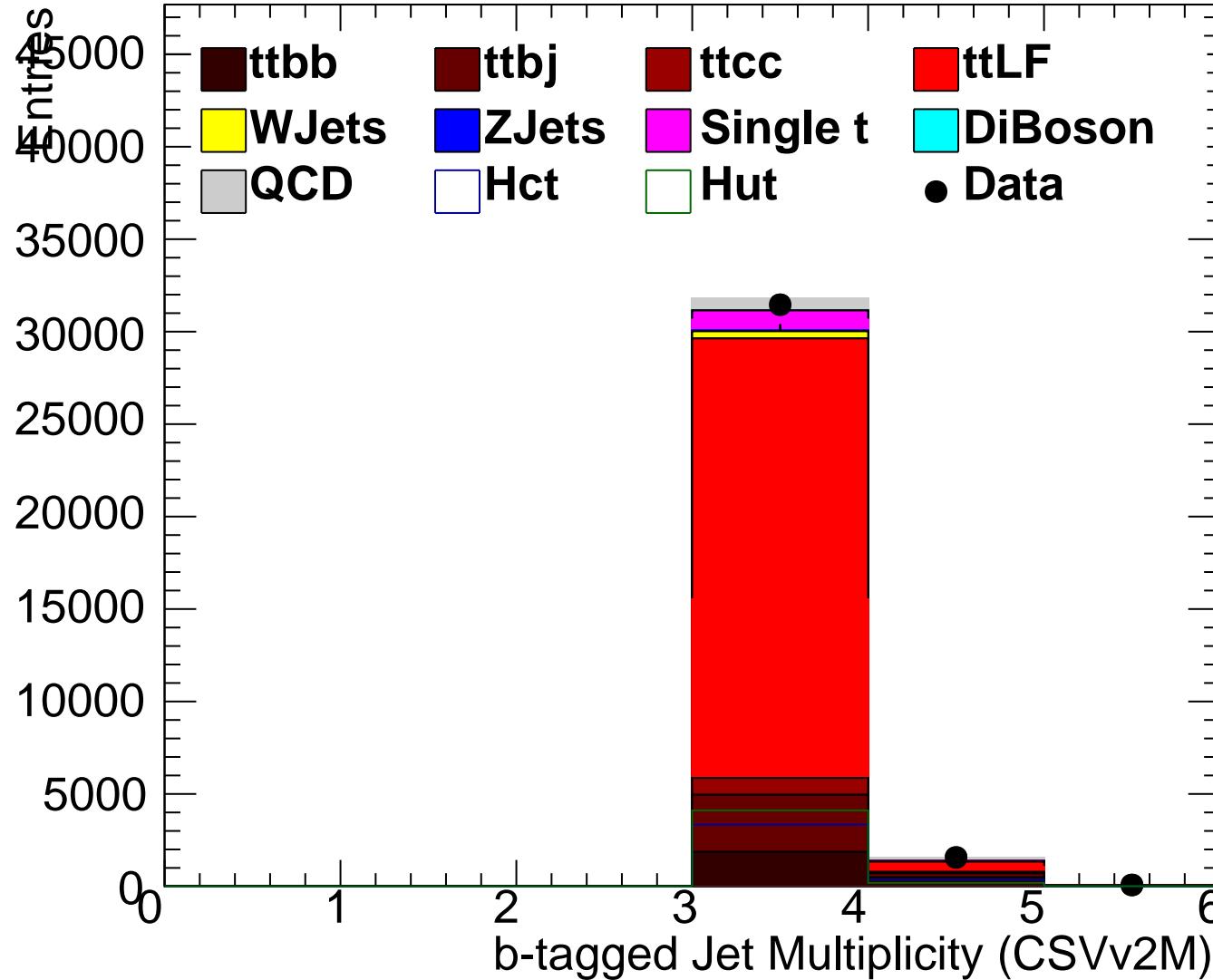
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

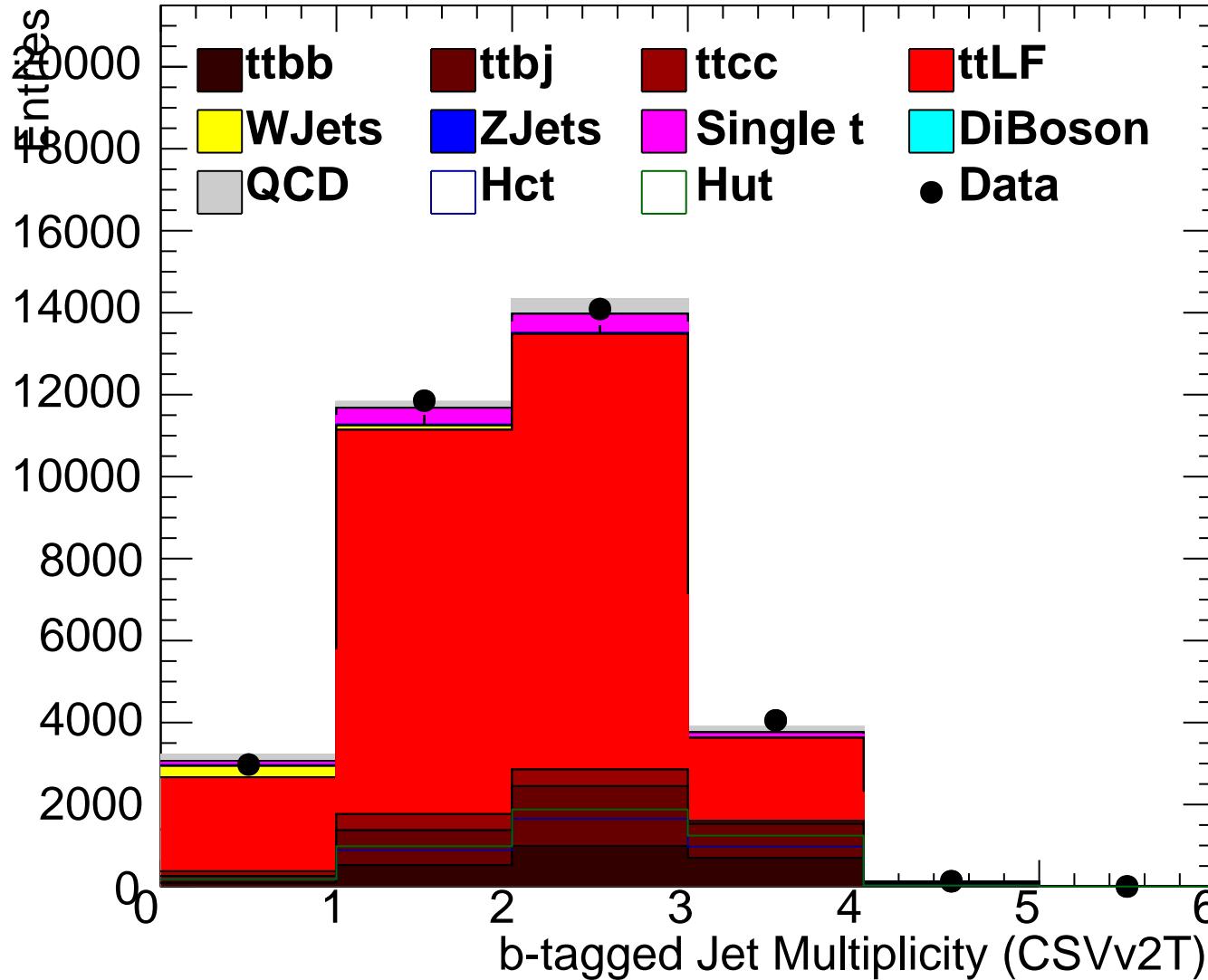
Ch0_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

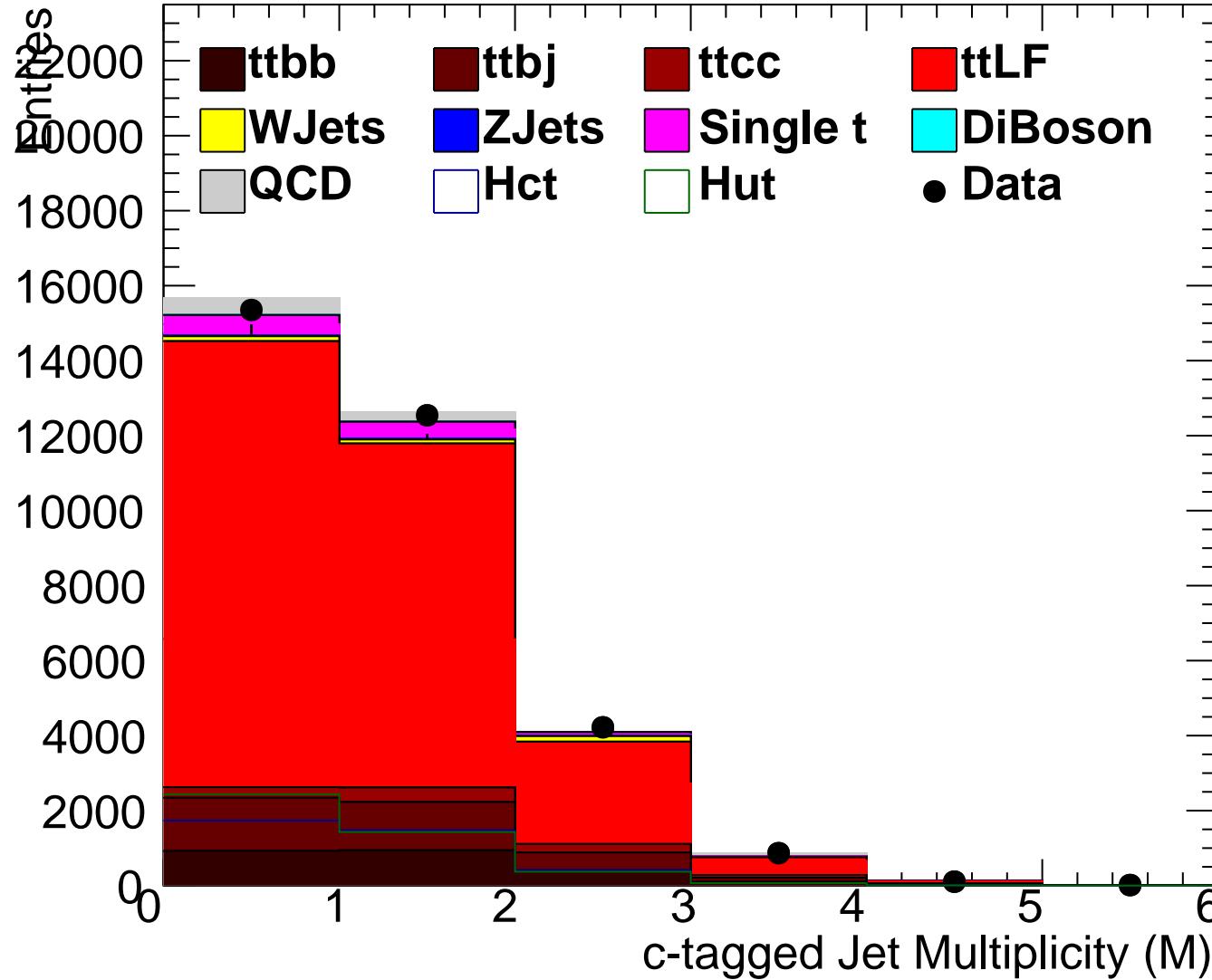
Ch0_S10

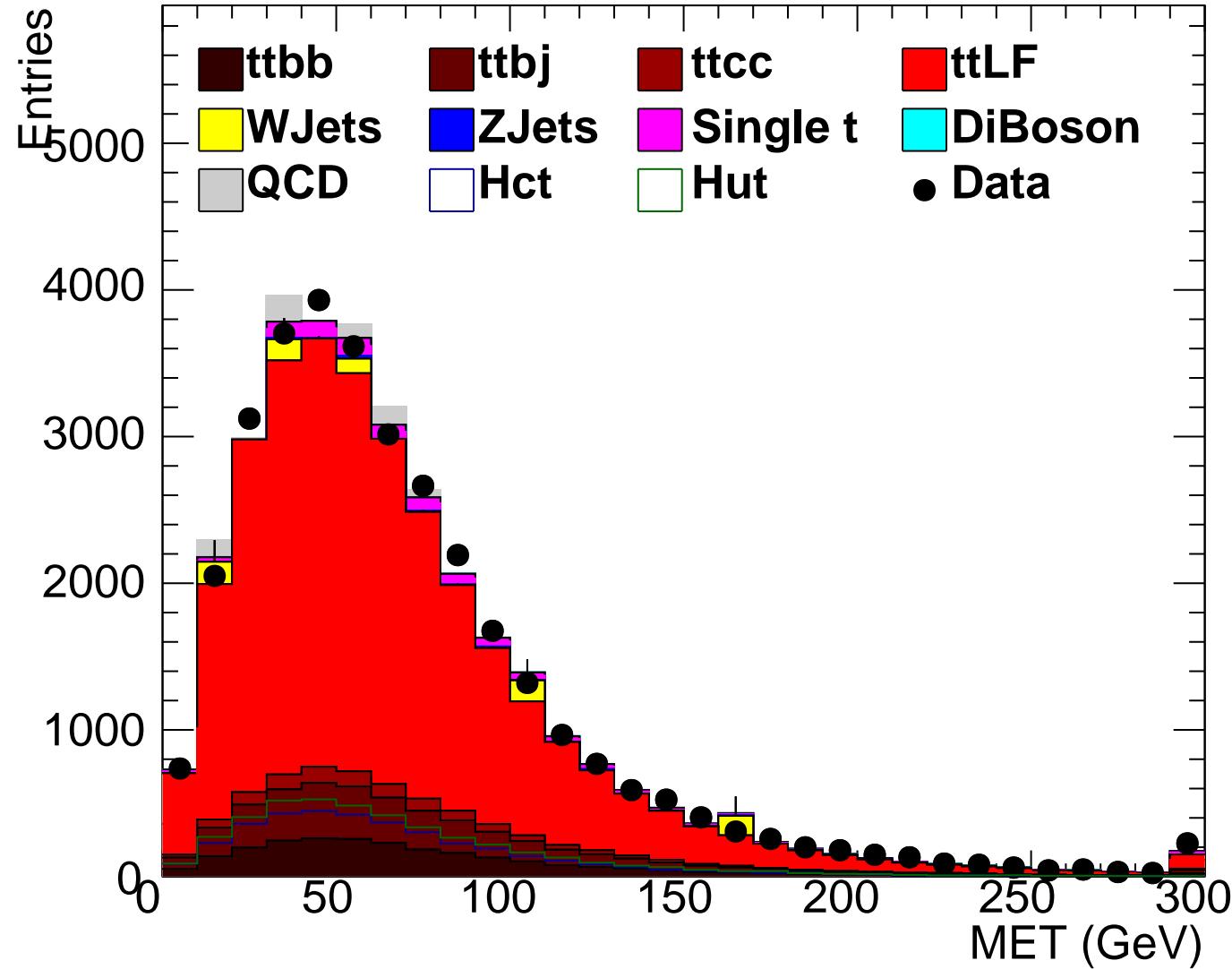
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

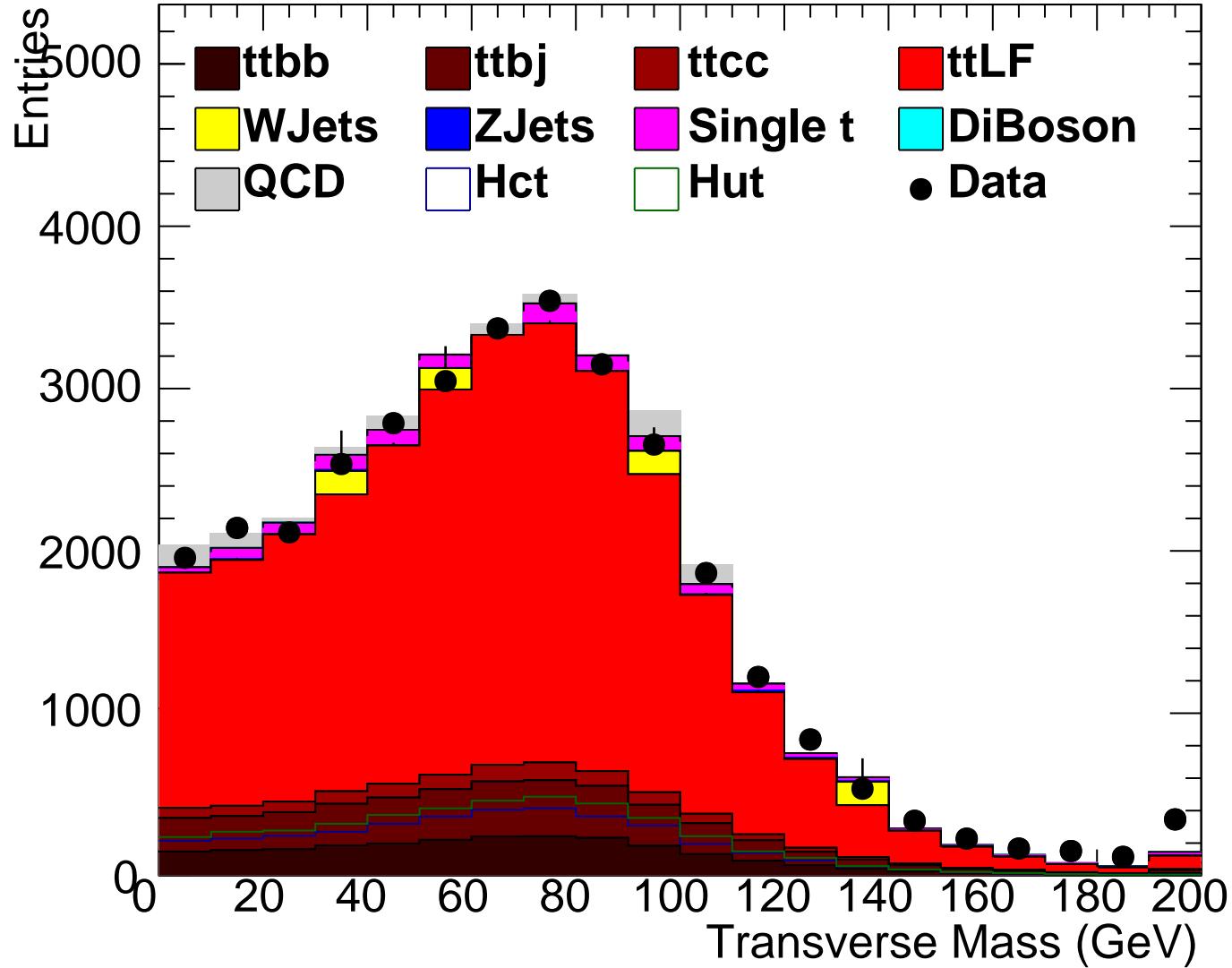


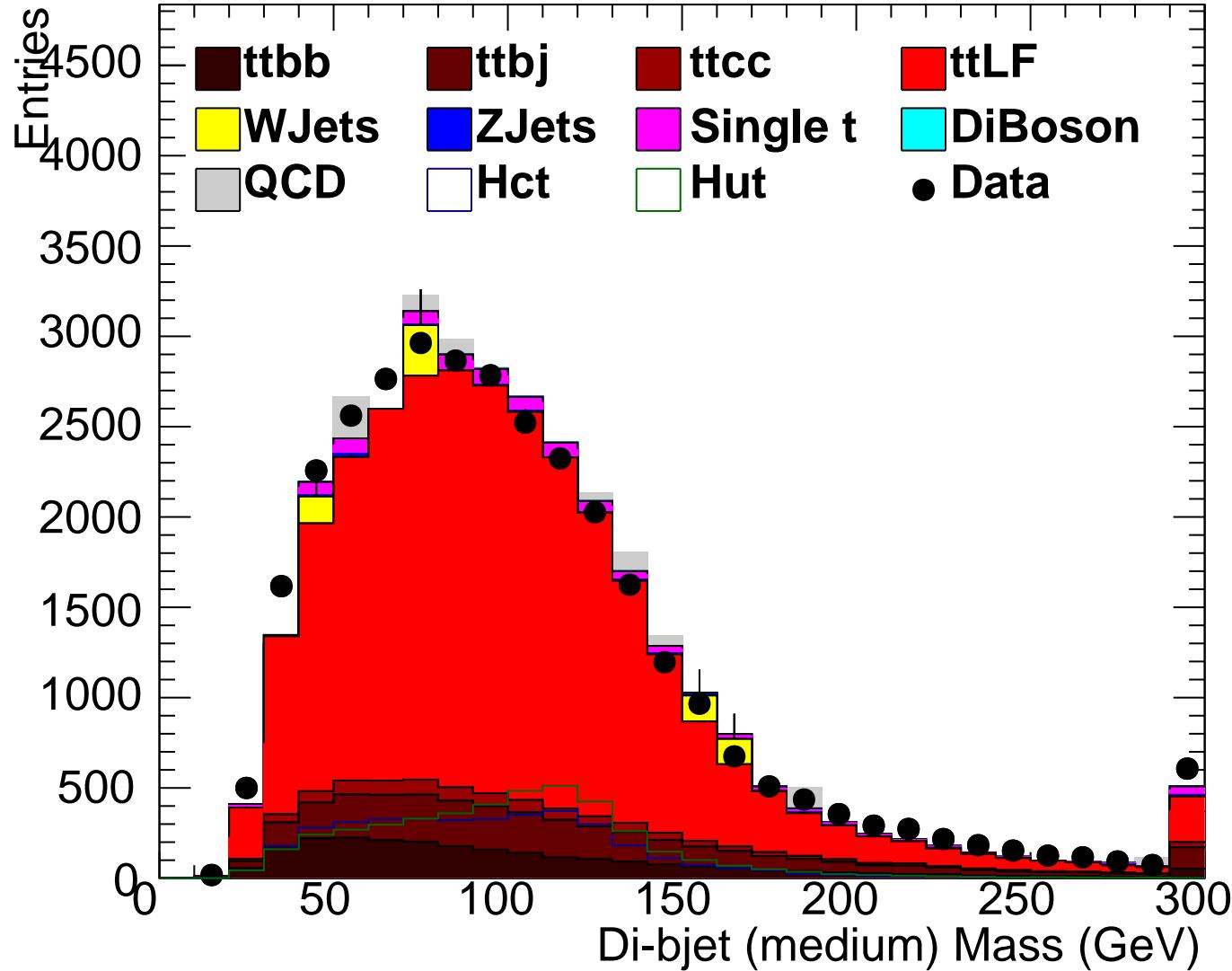


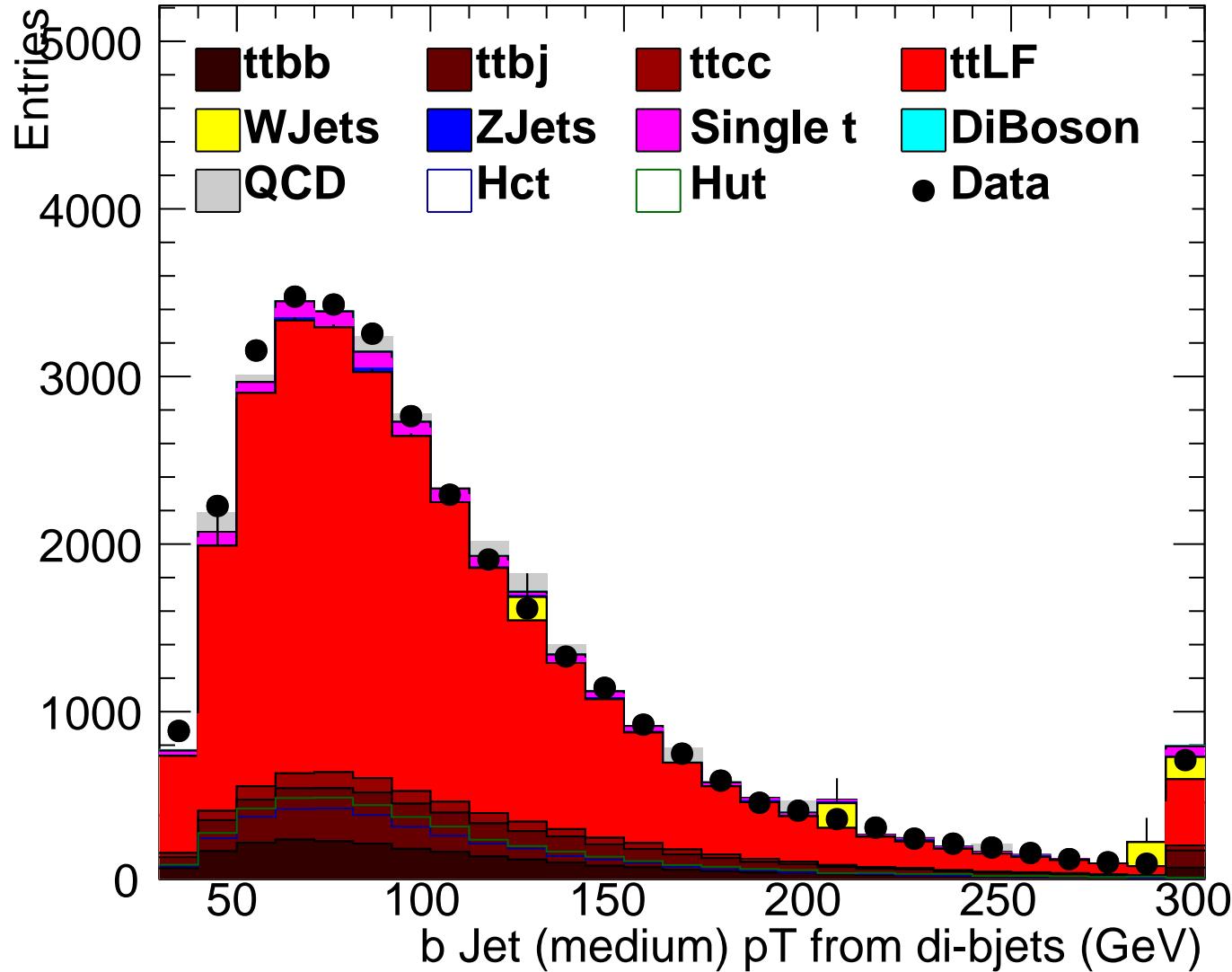


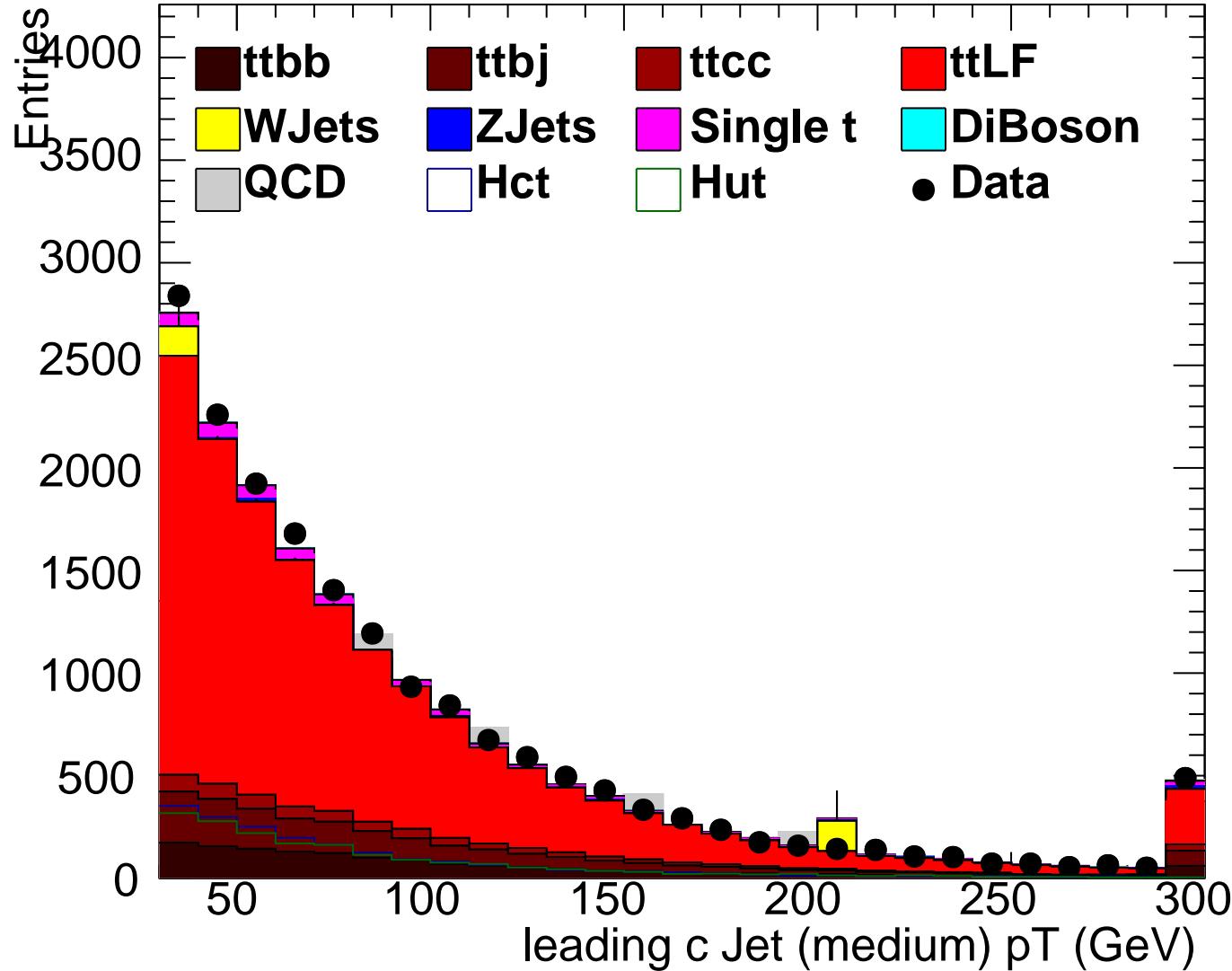


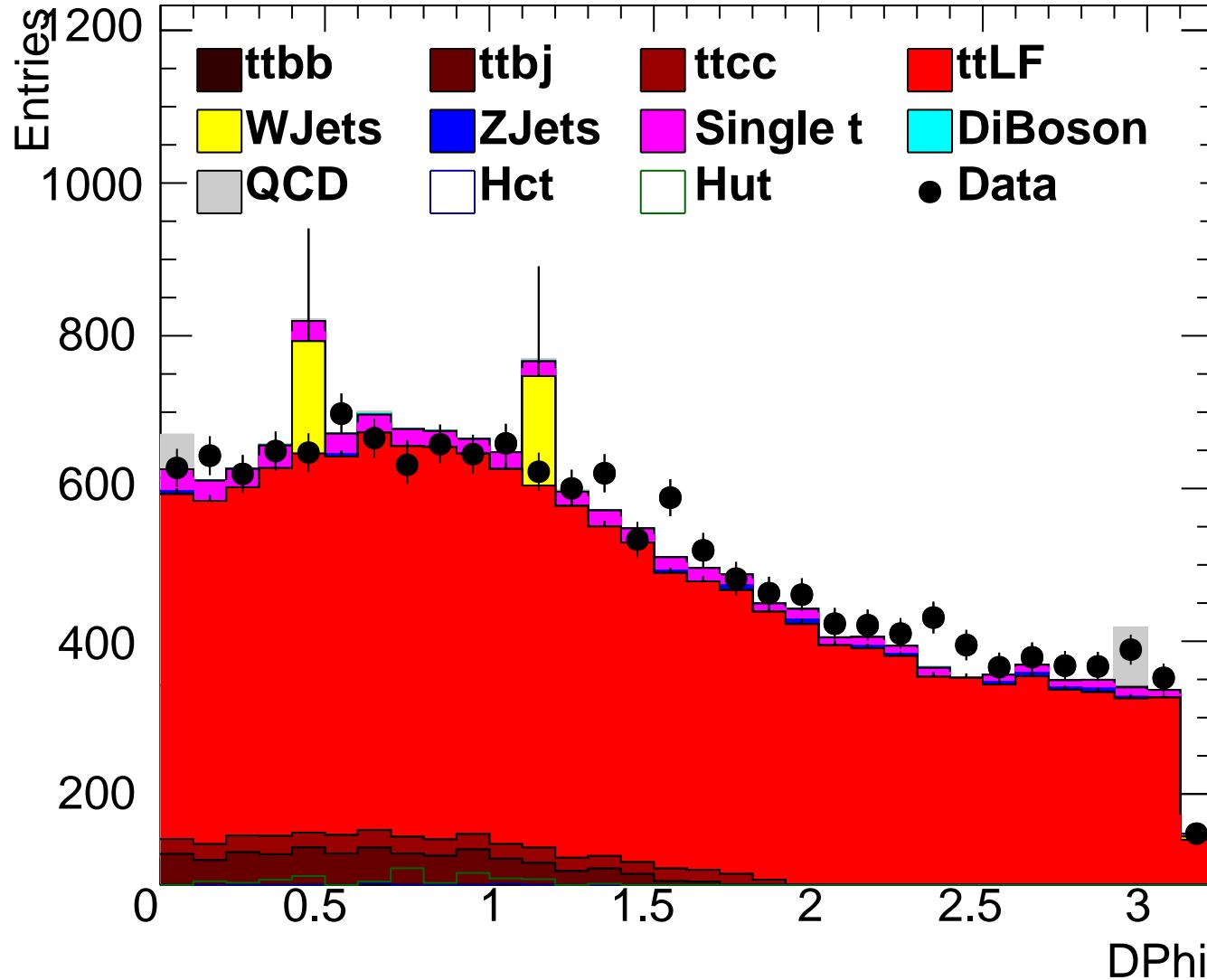


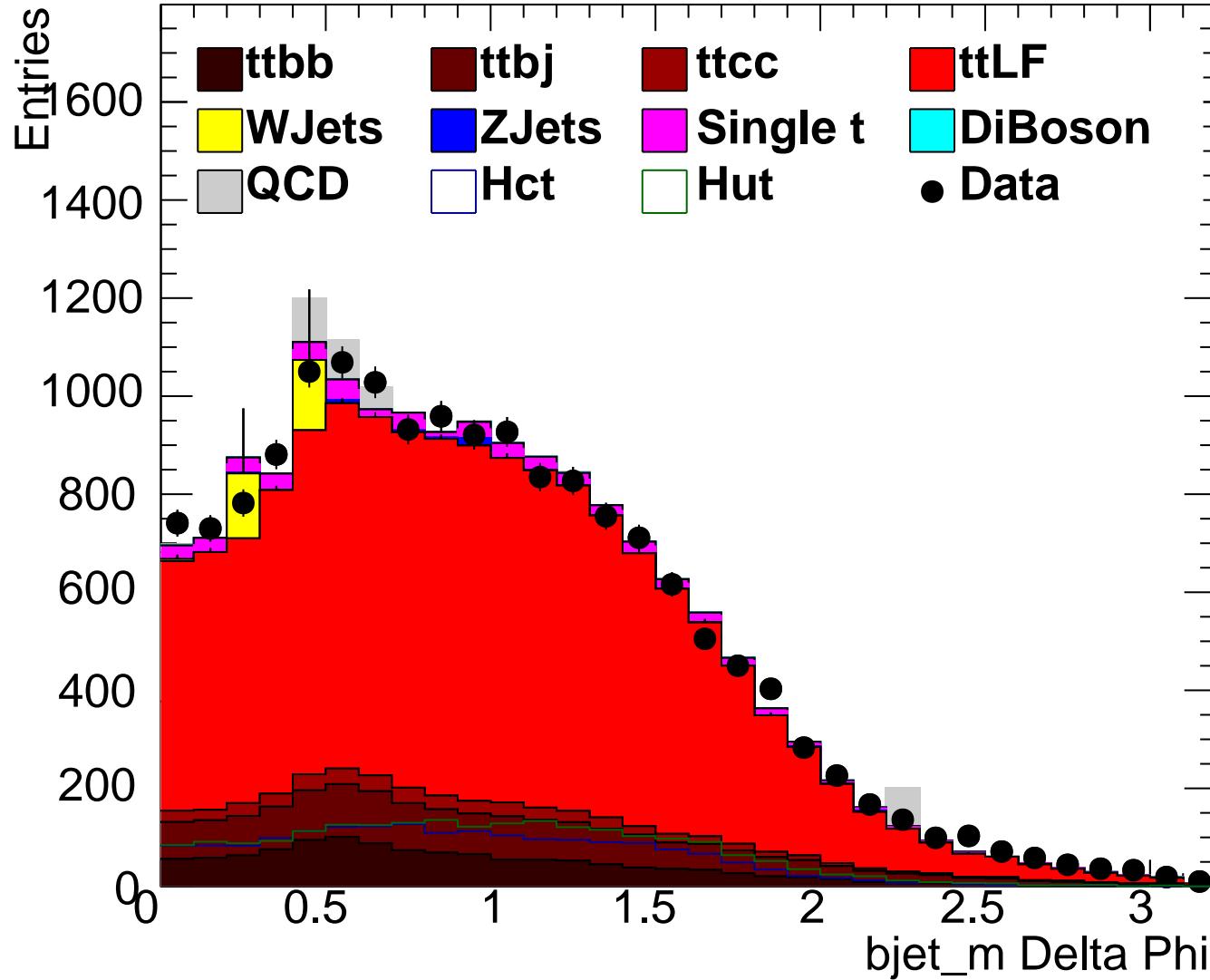




Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

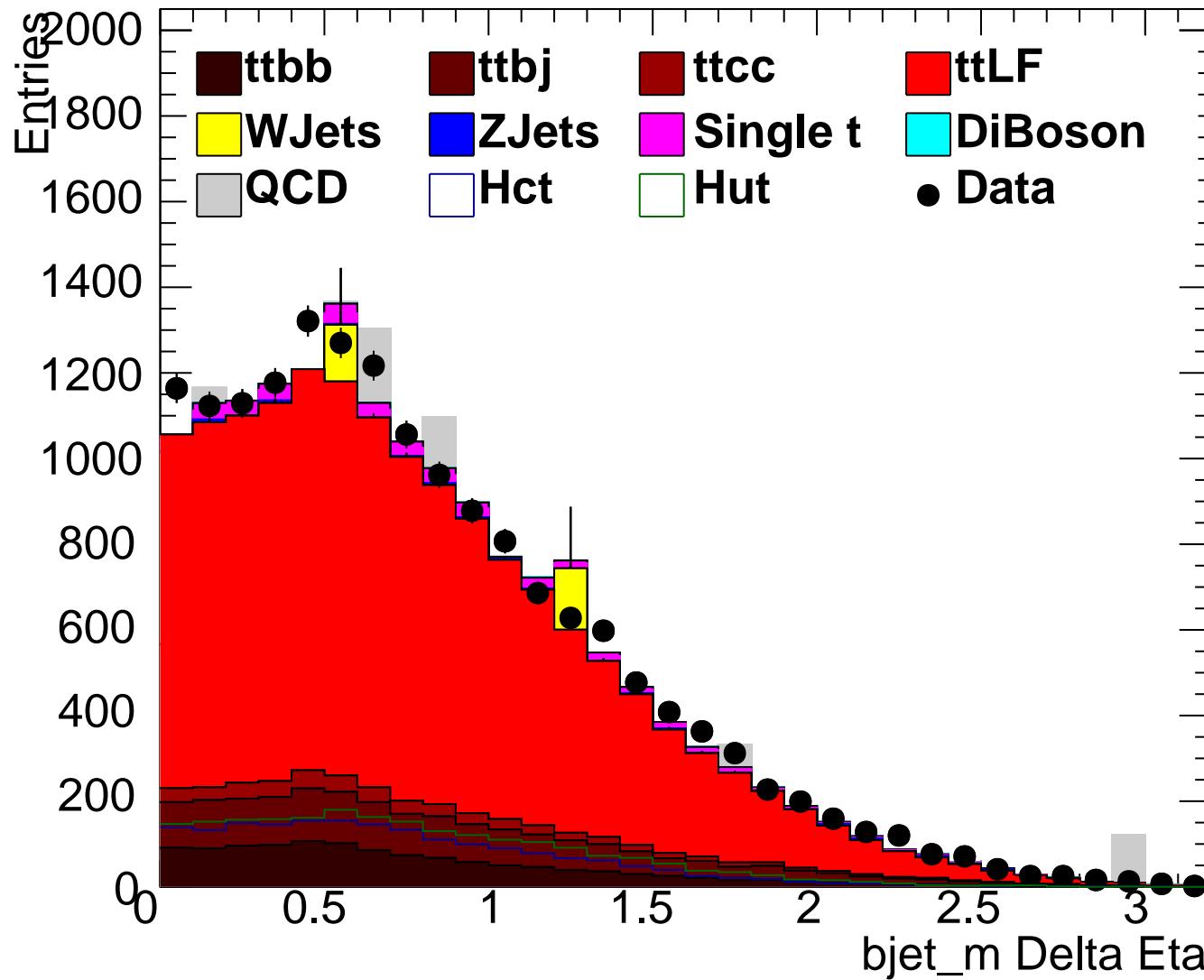
Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

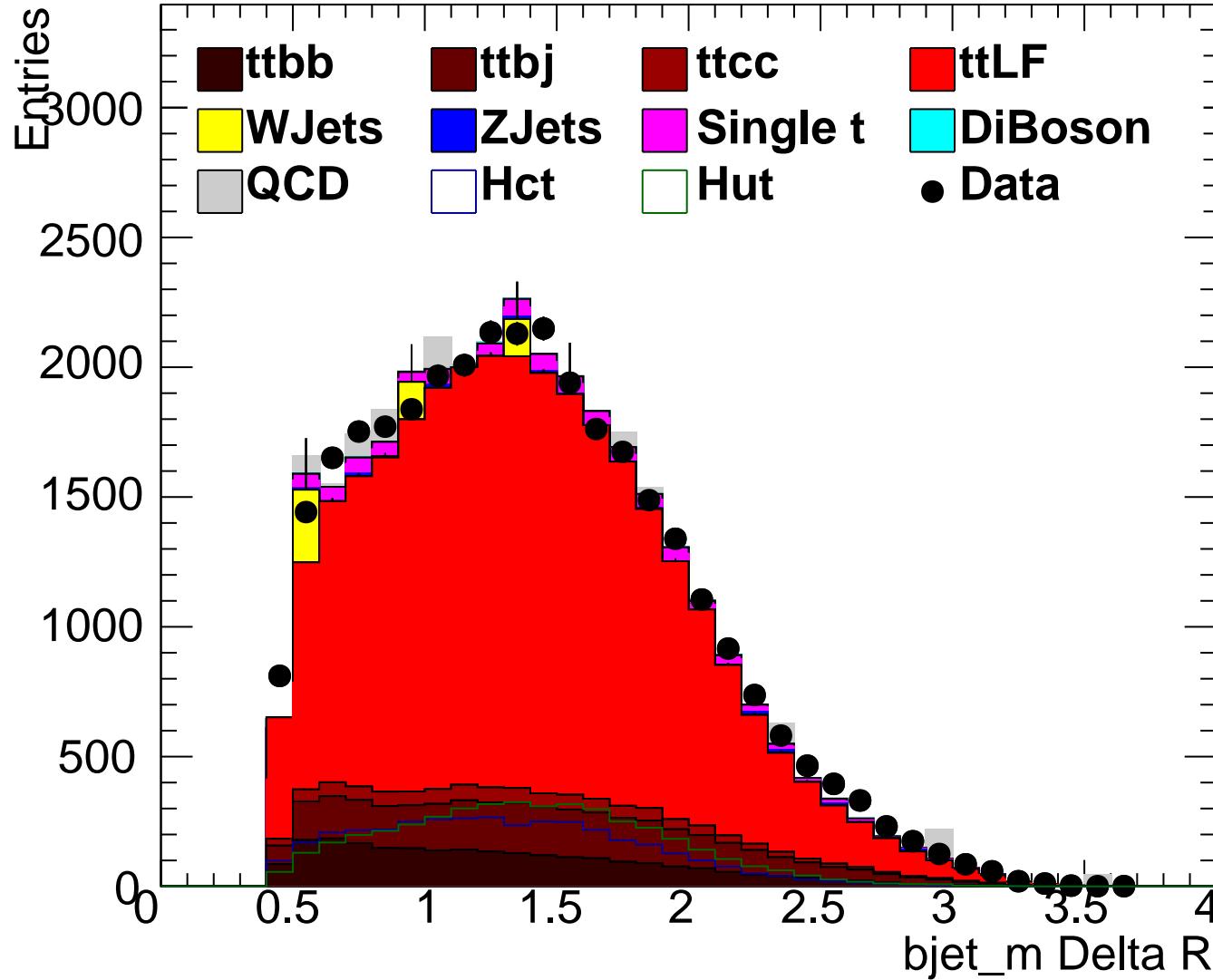


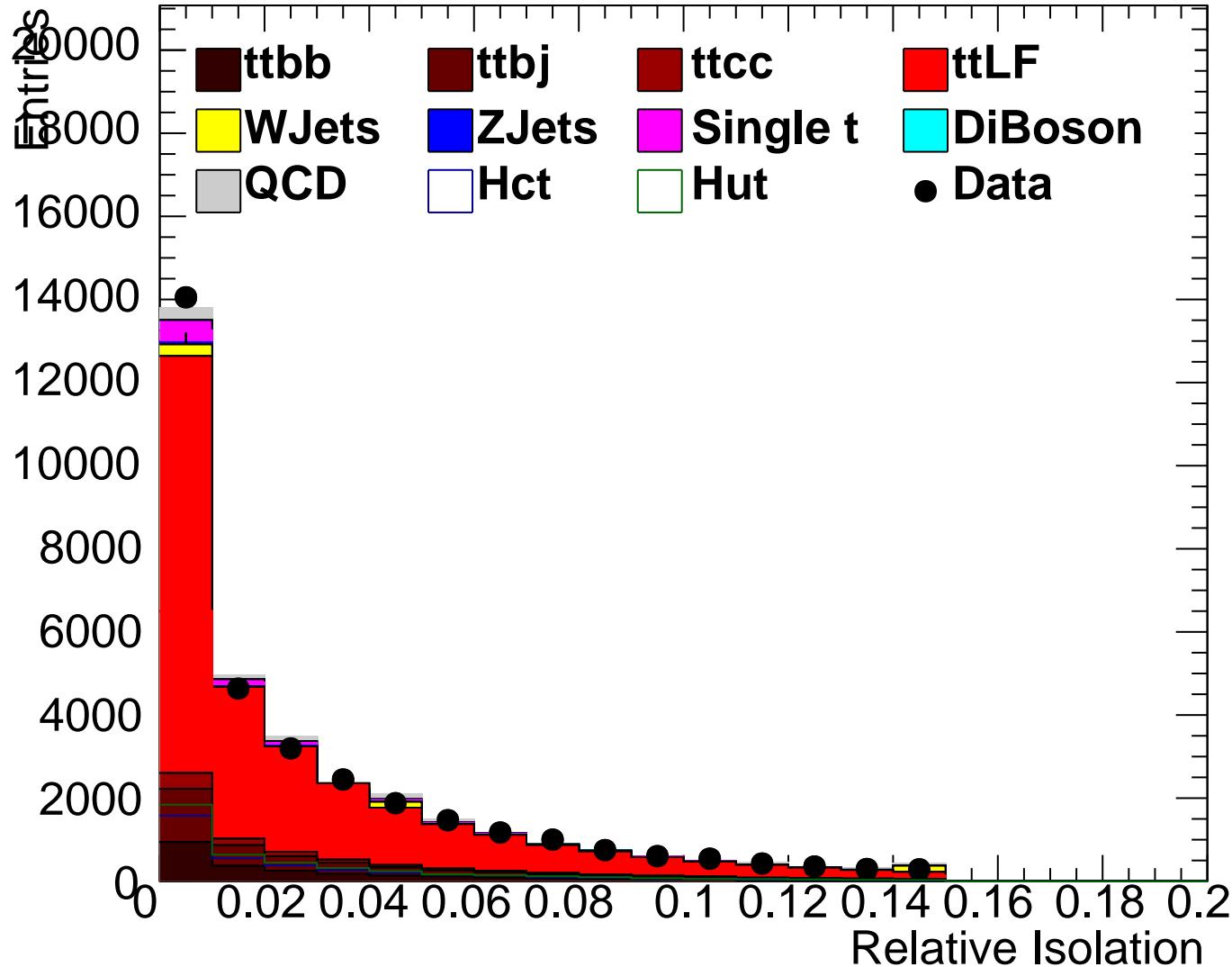
Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

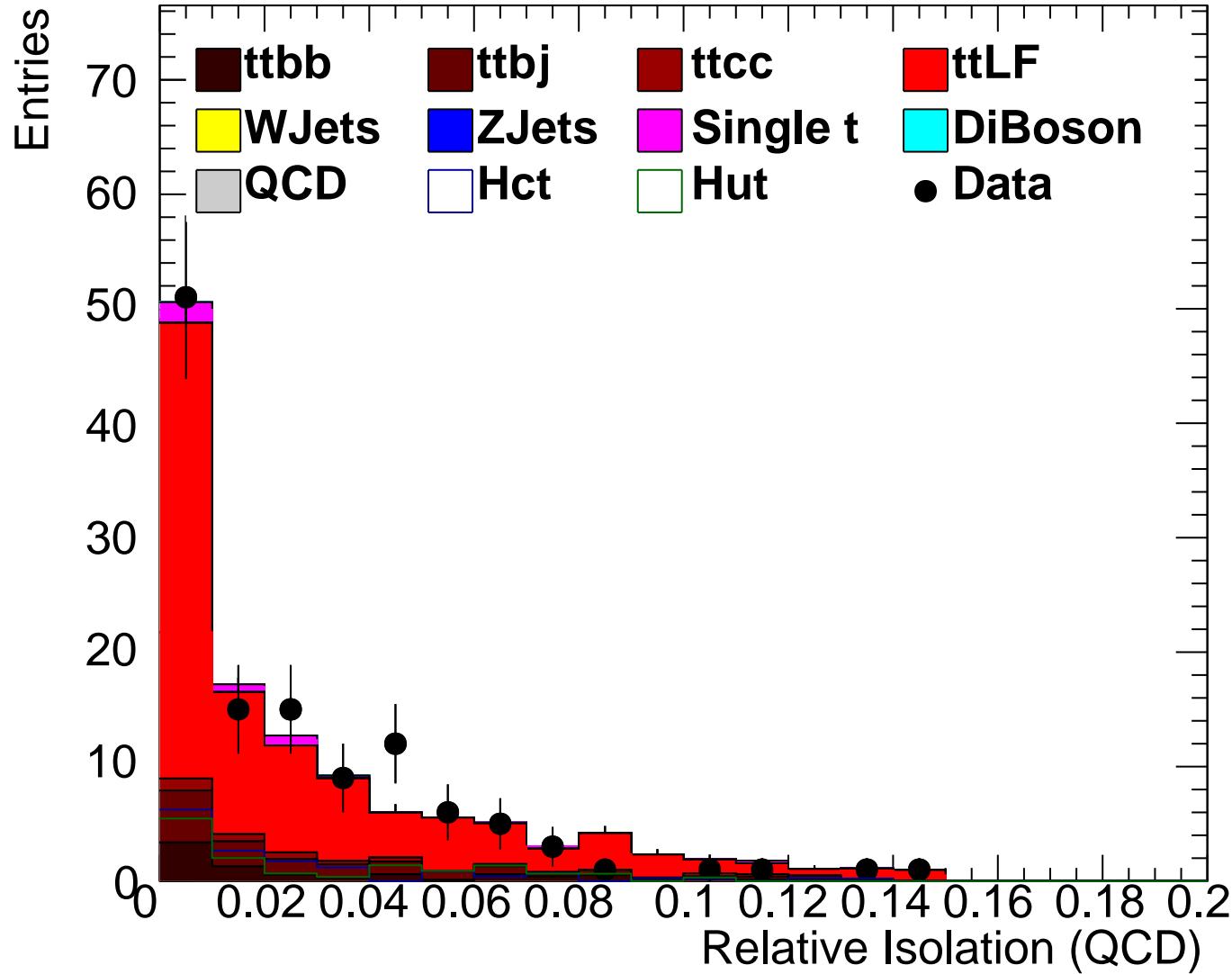
Ch0_S10

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



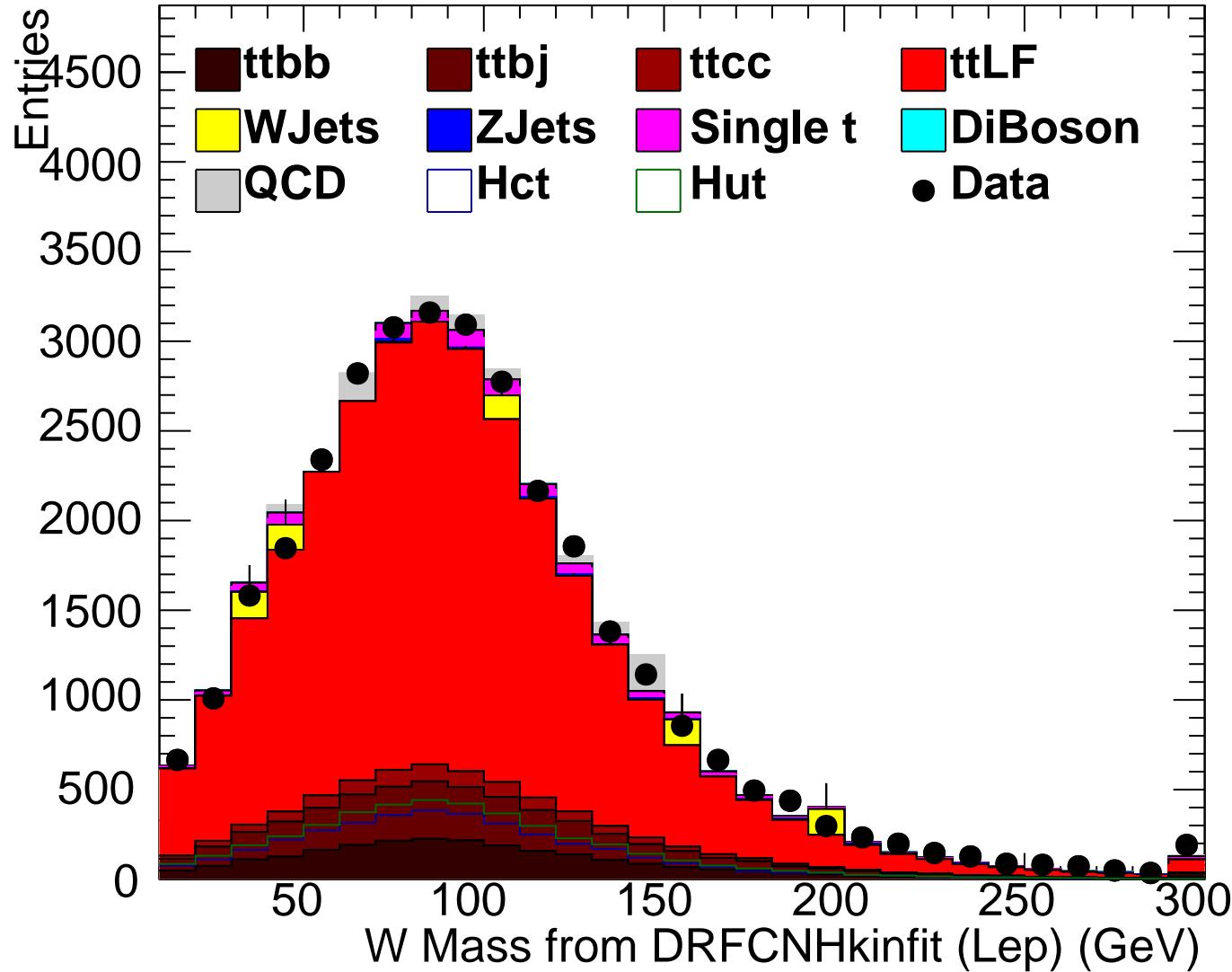
Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

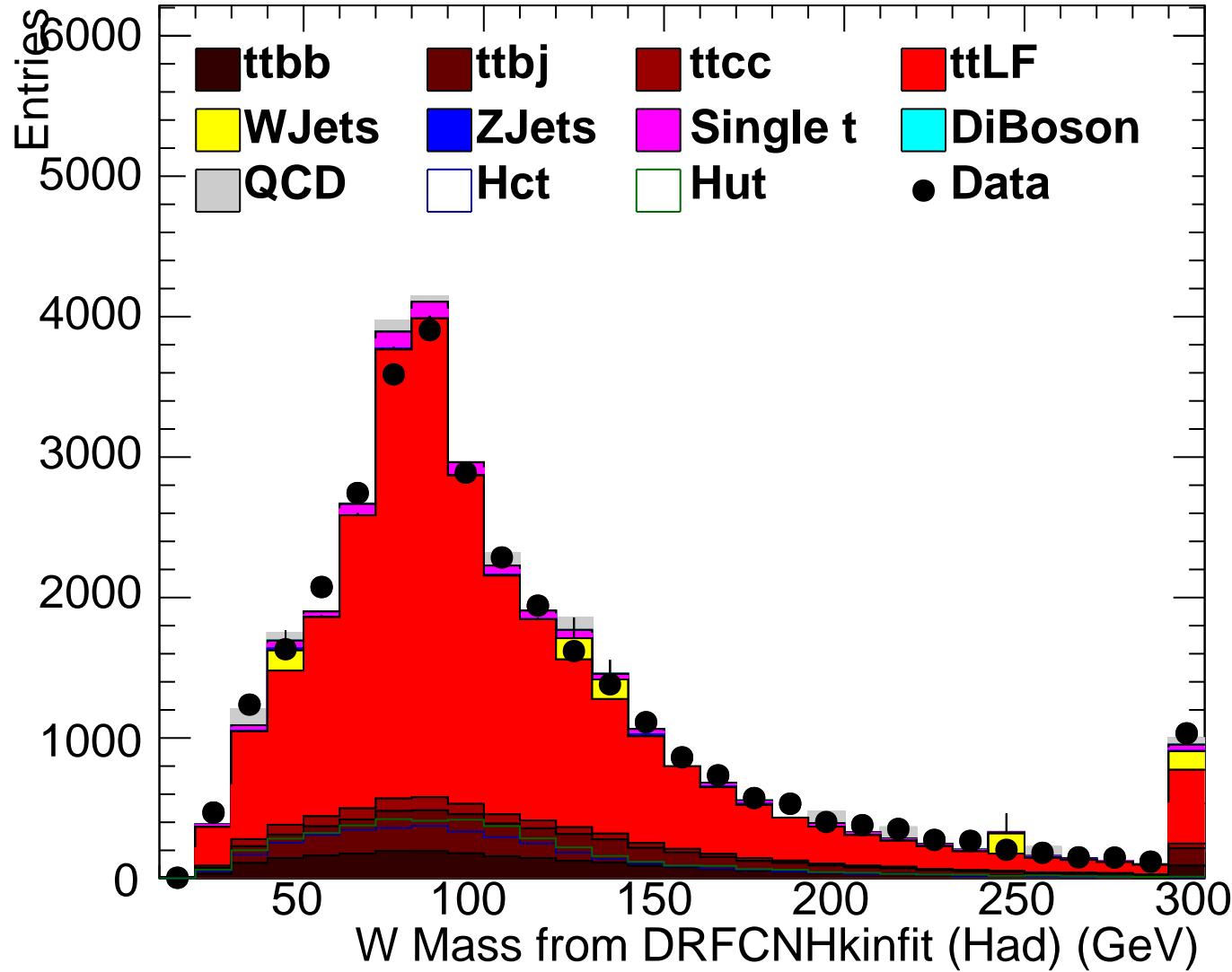


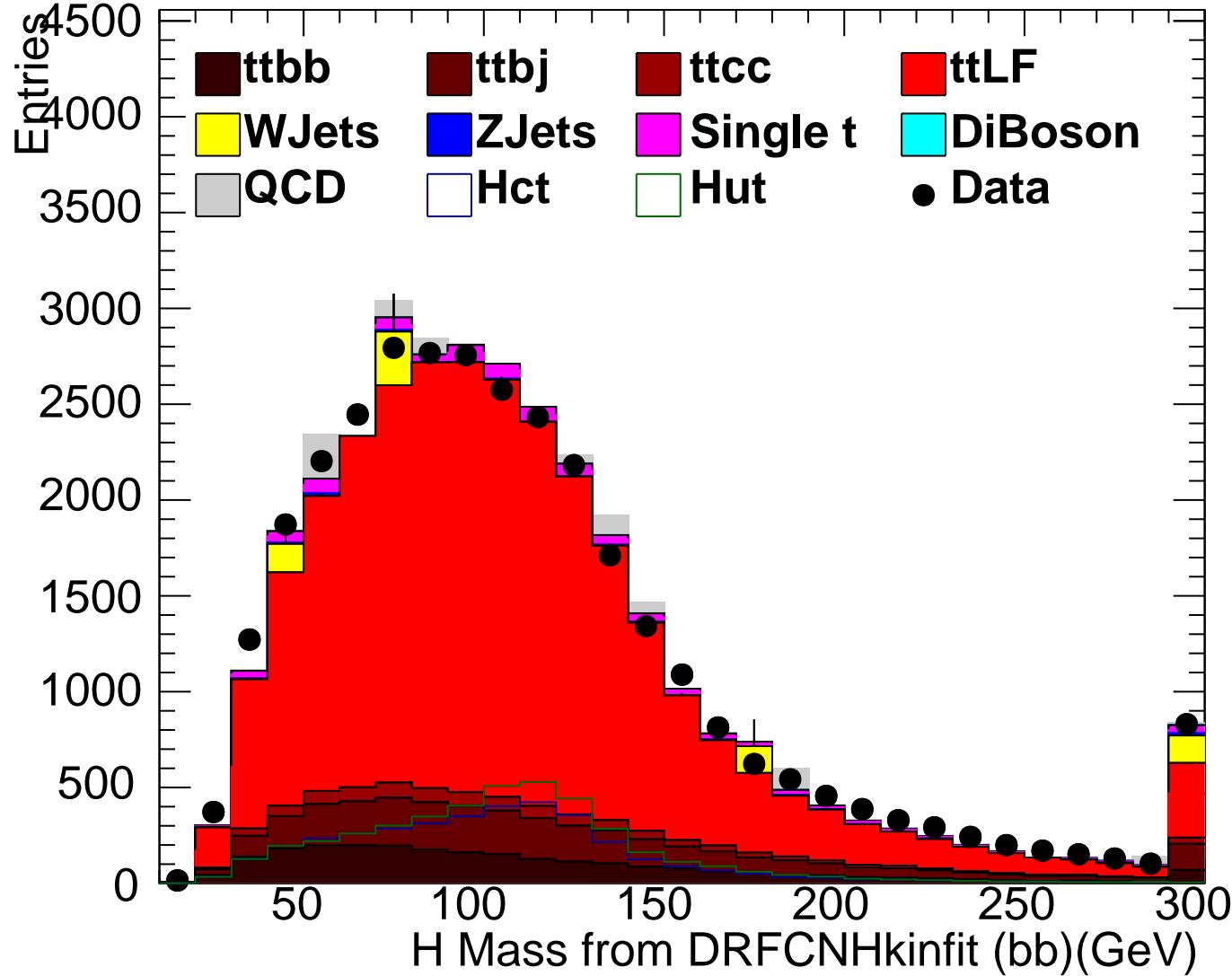


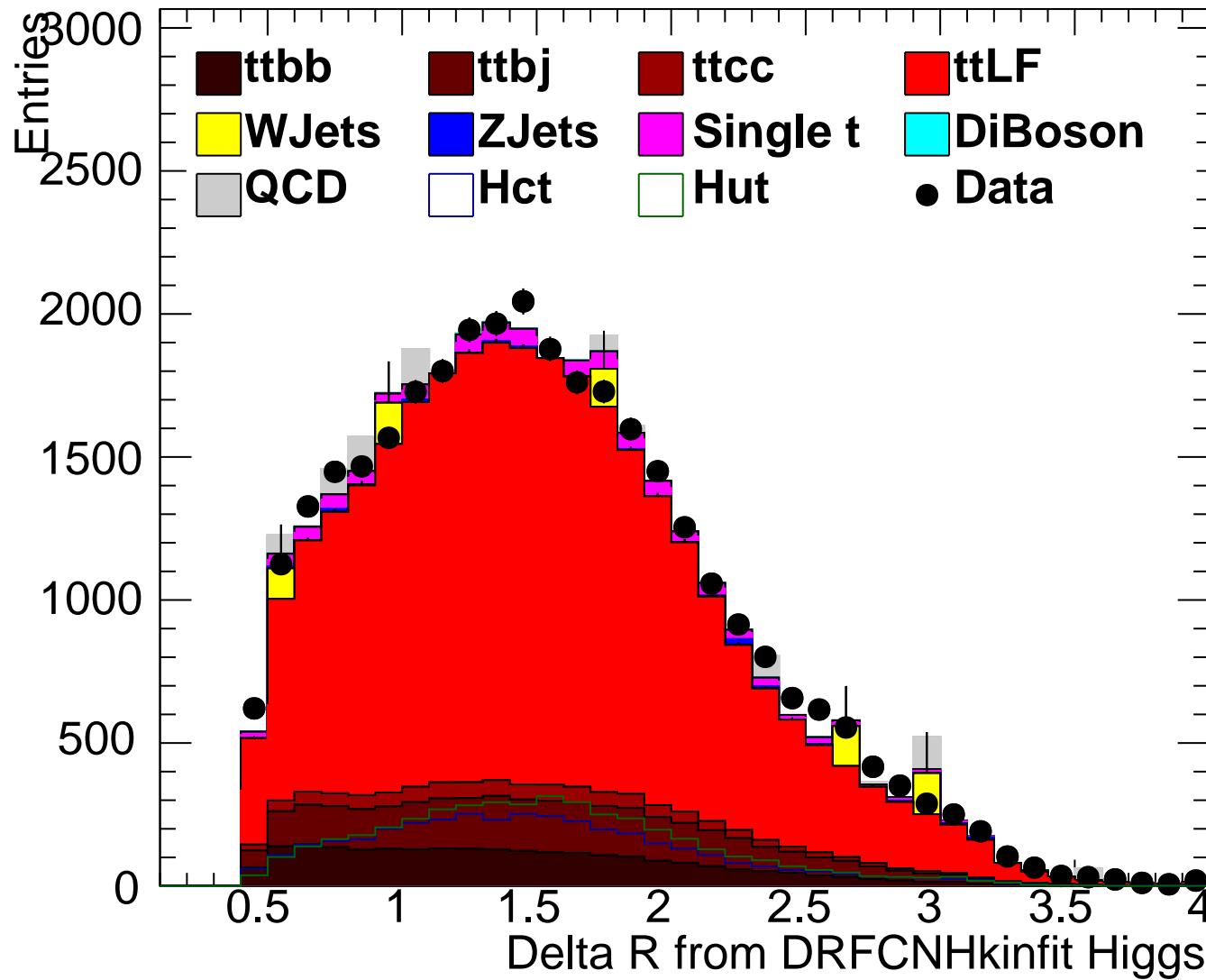
Ch0_S10

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



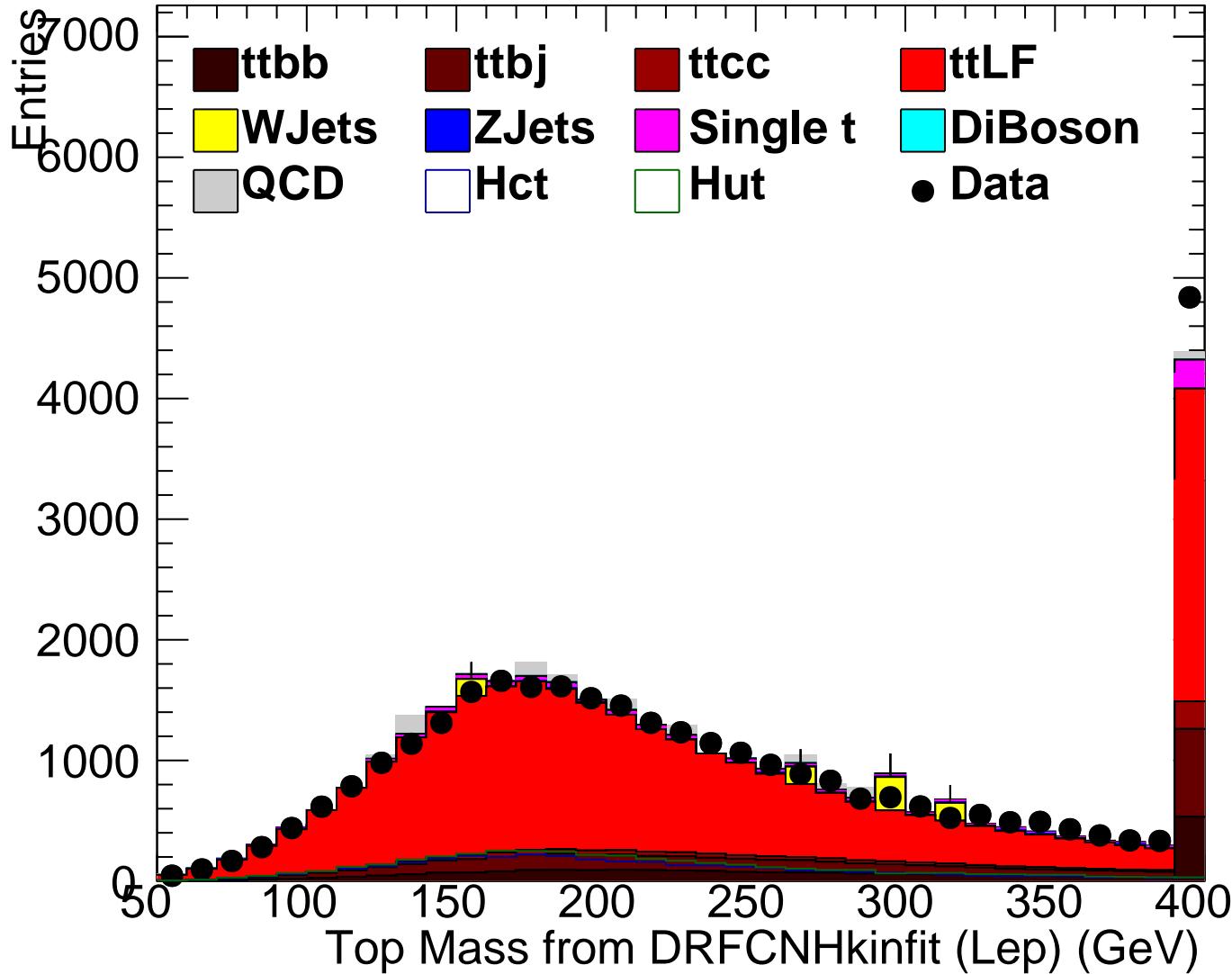


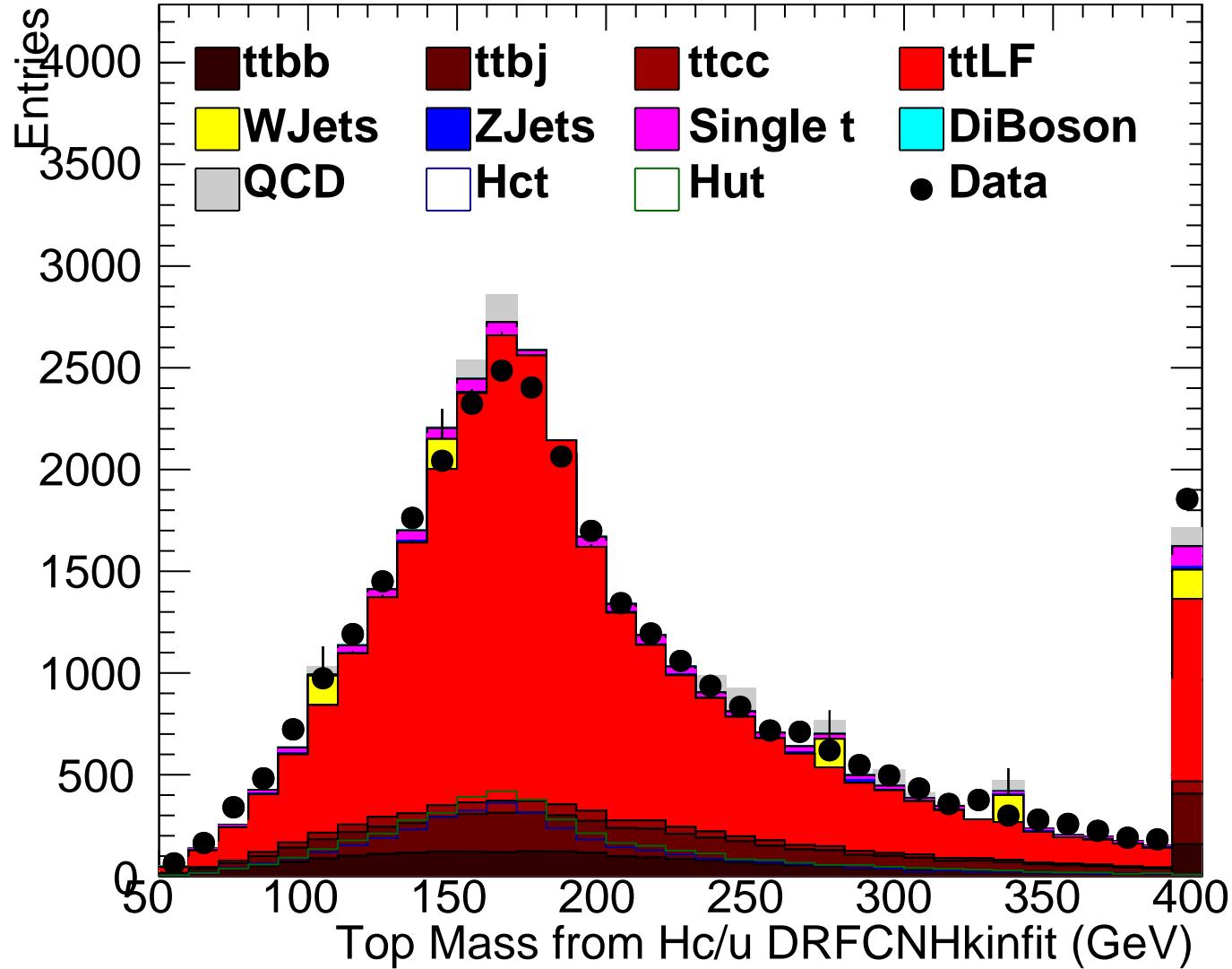
Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

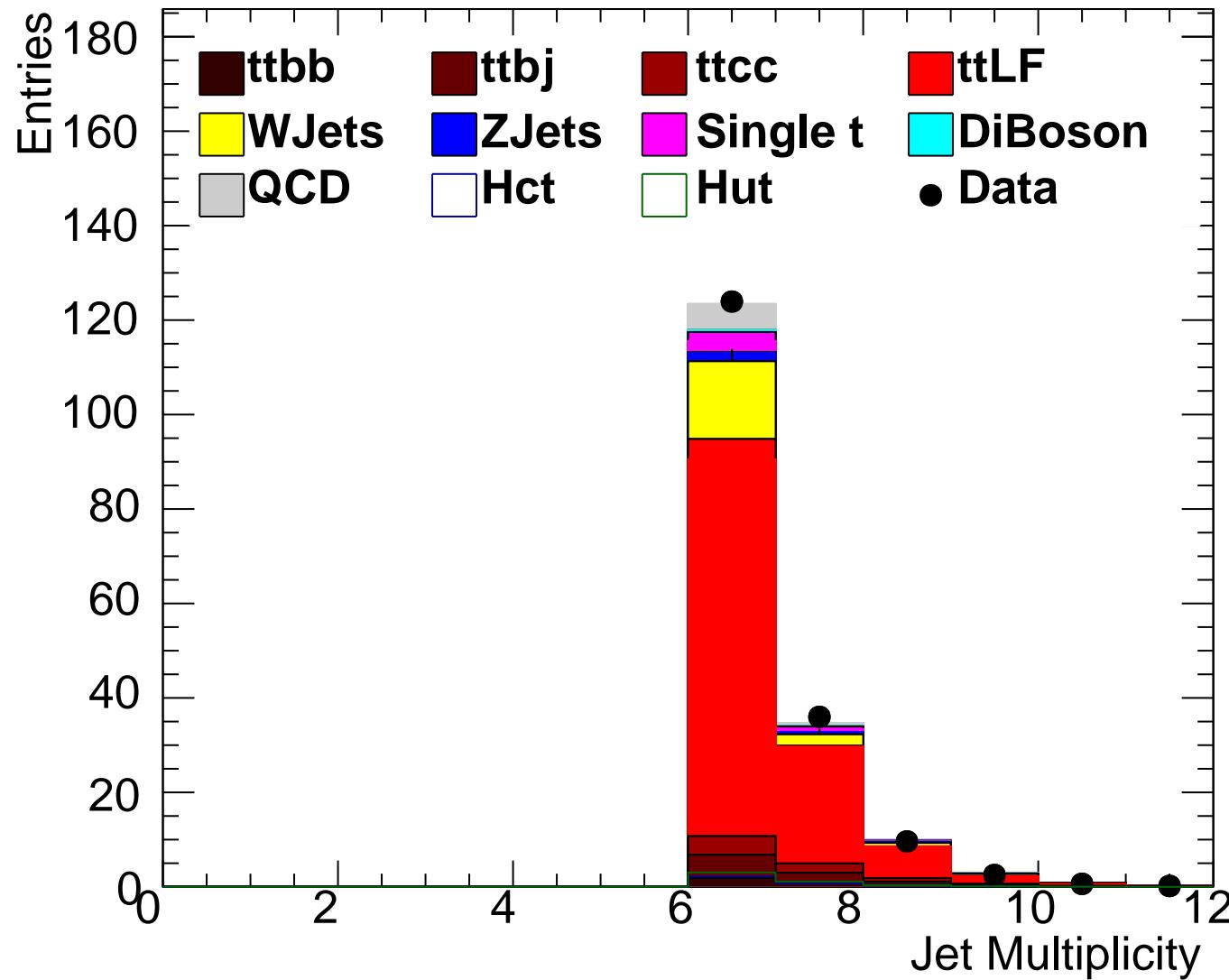
Ch0_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

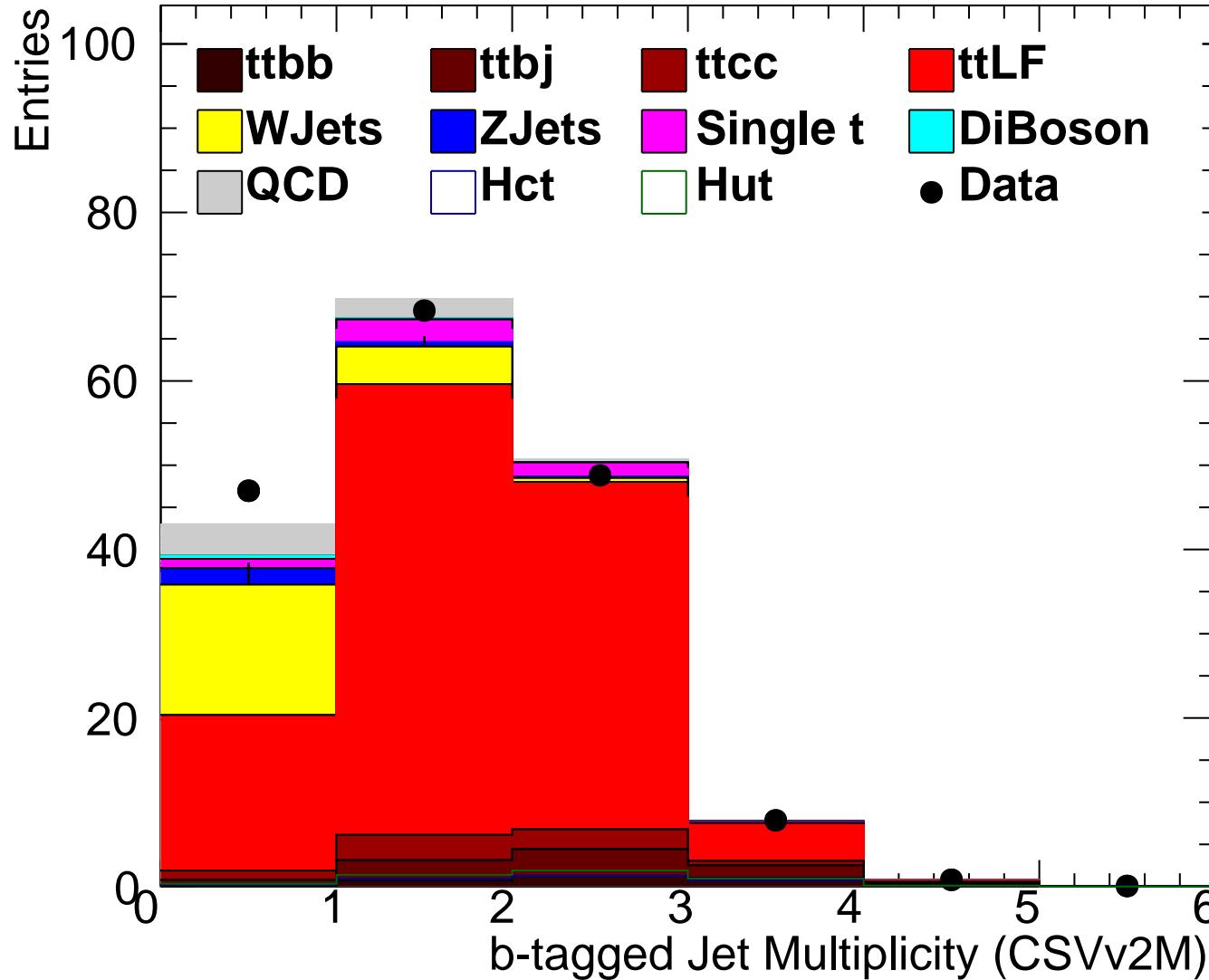
Ch0 S10

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



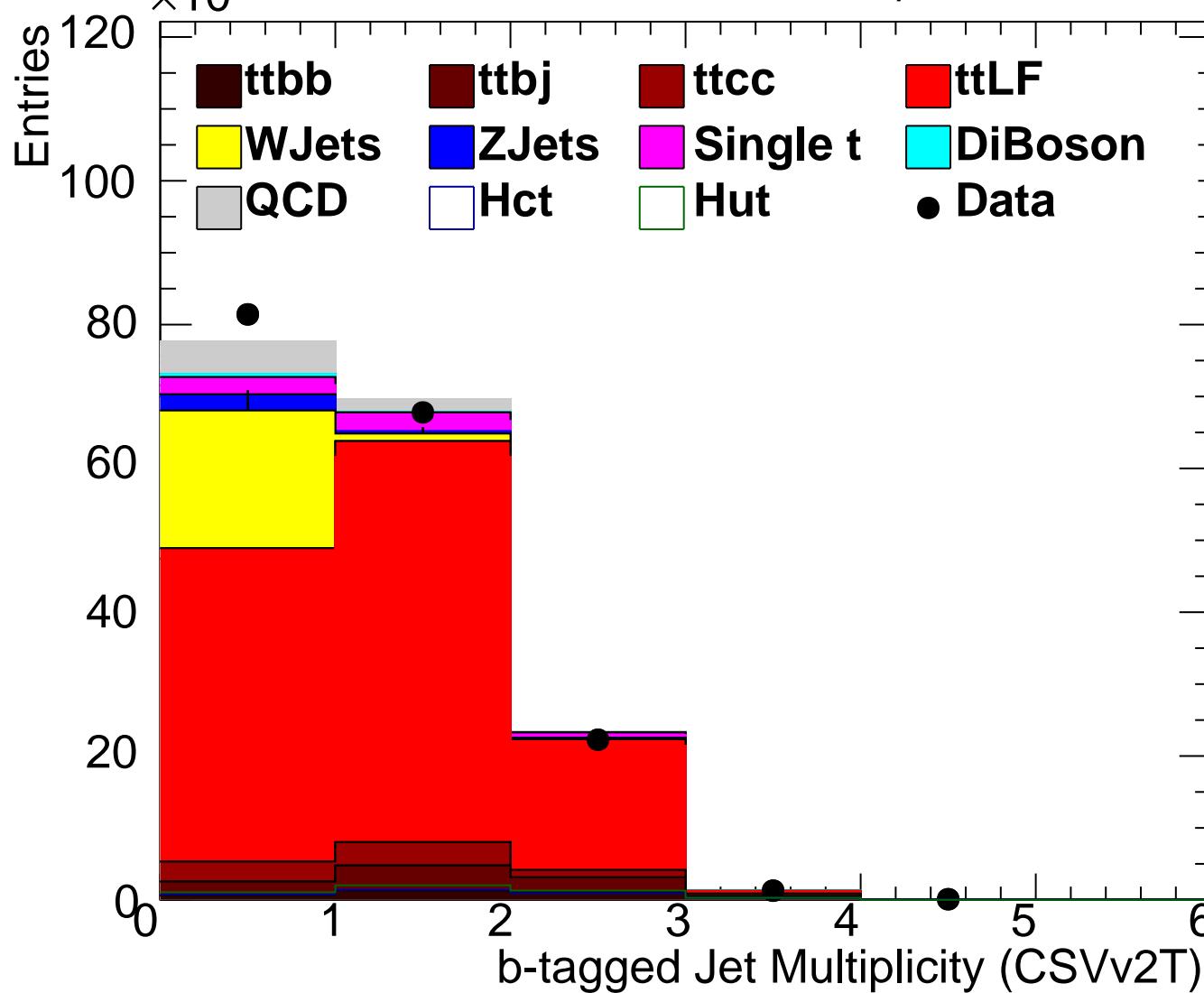


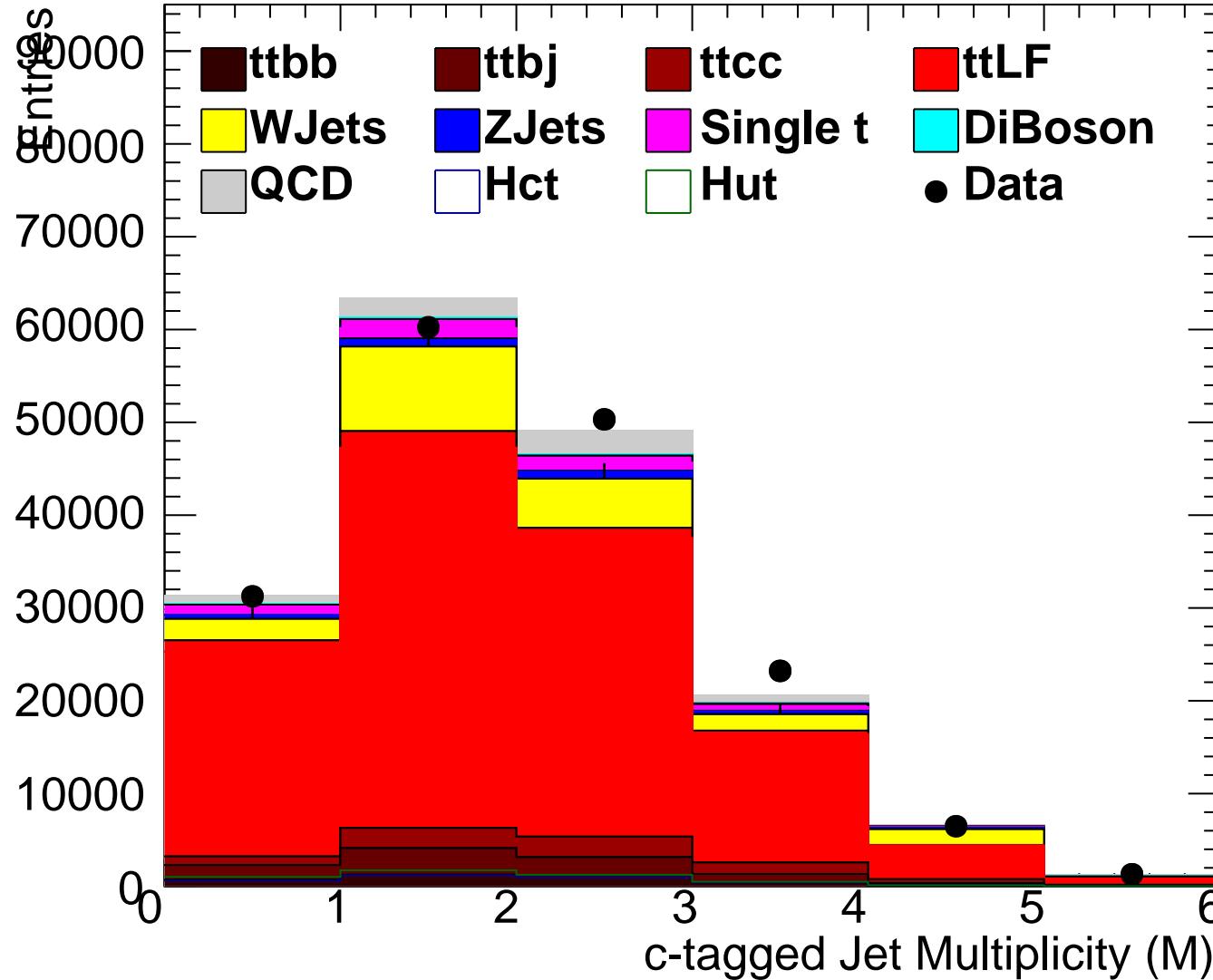
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

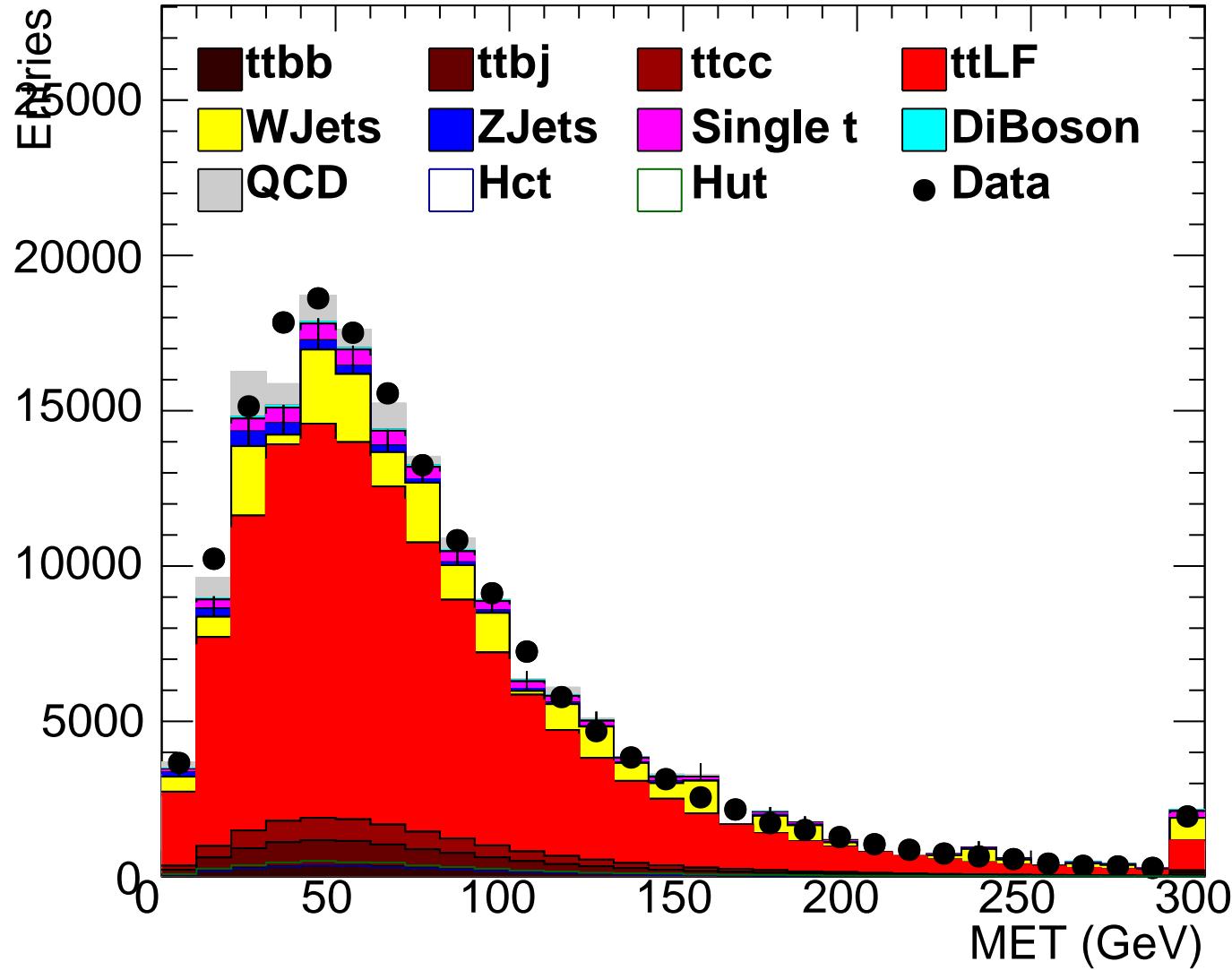
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

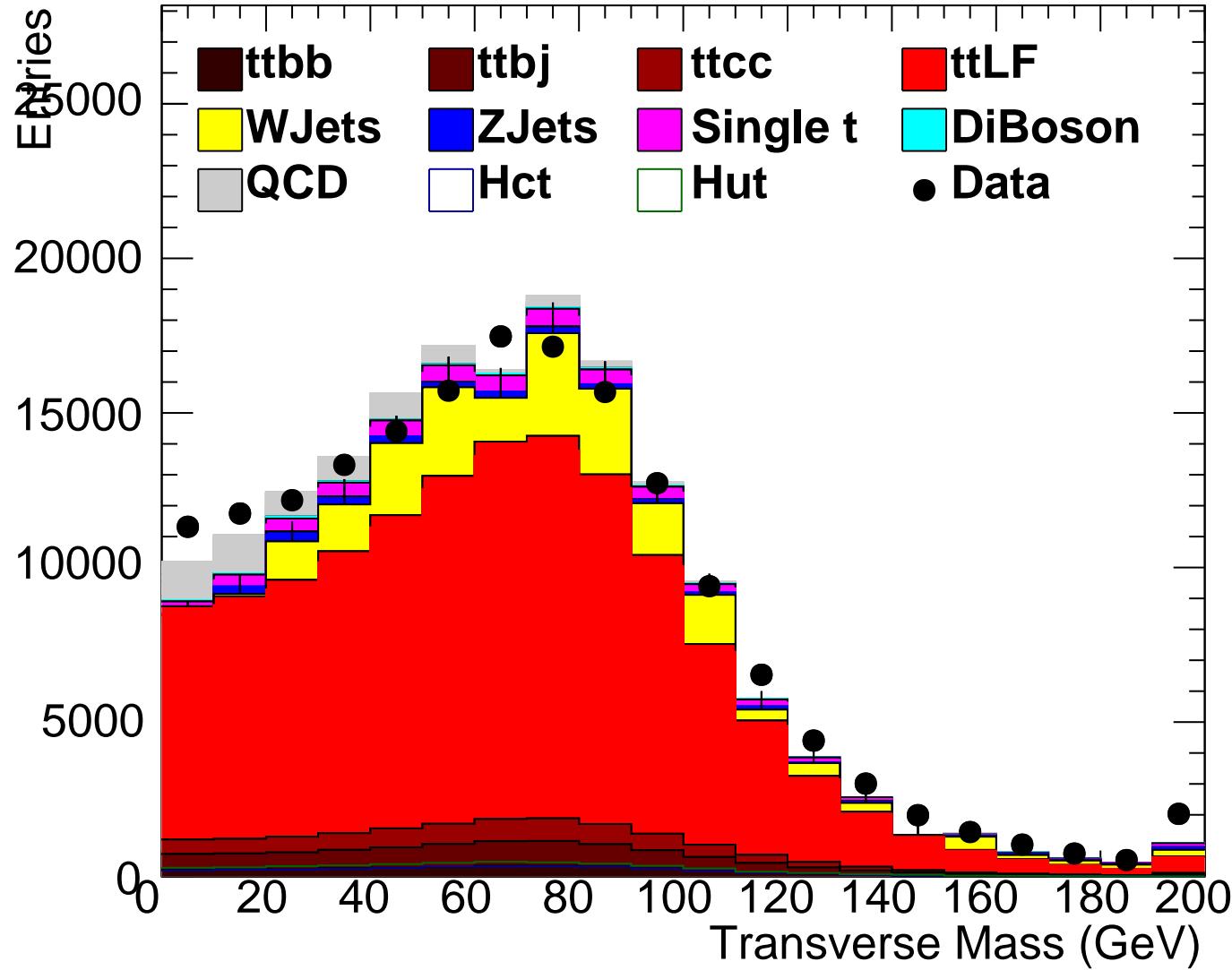
Ch0_S11

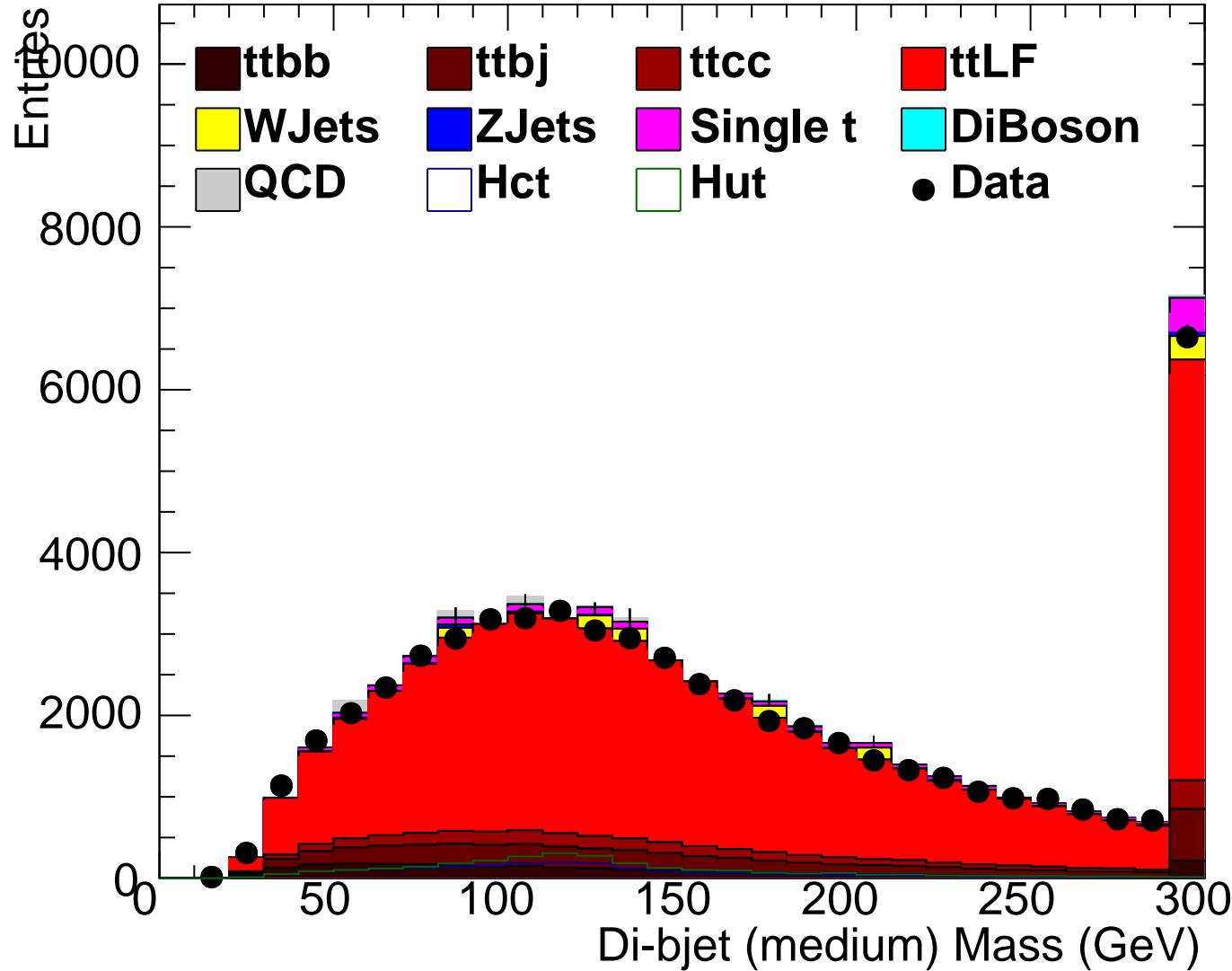
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

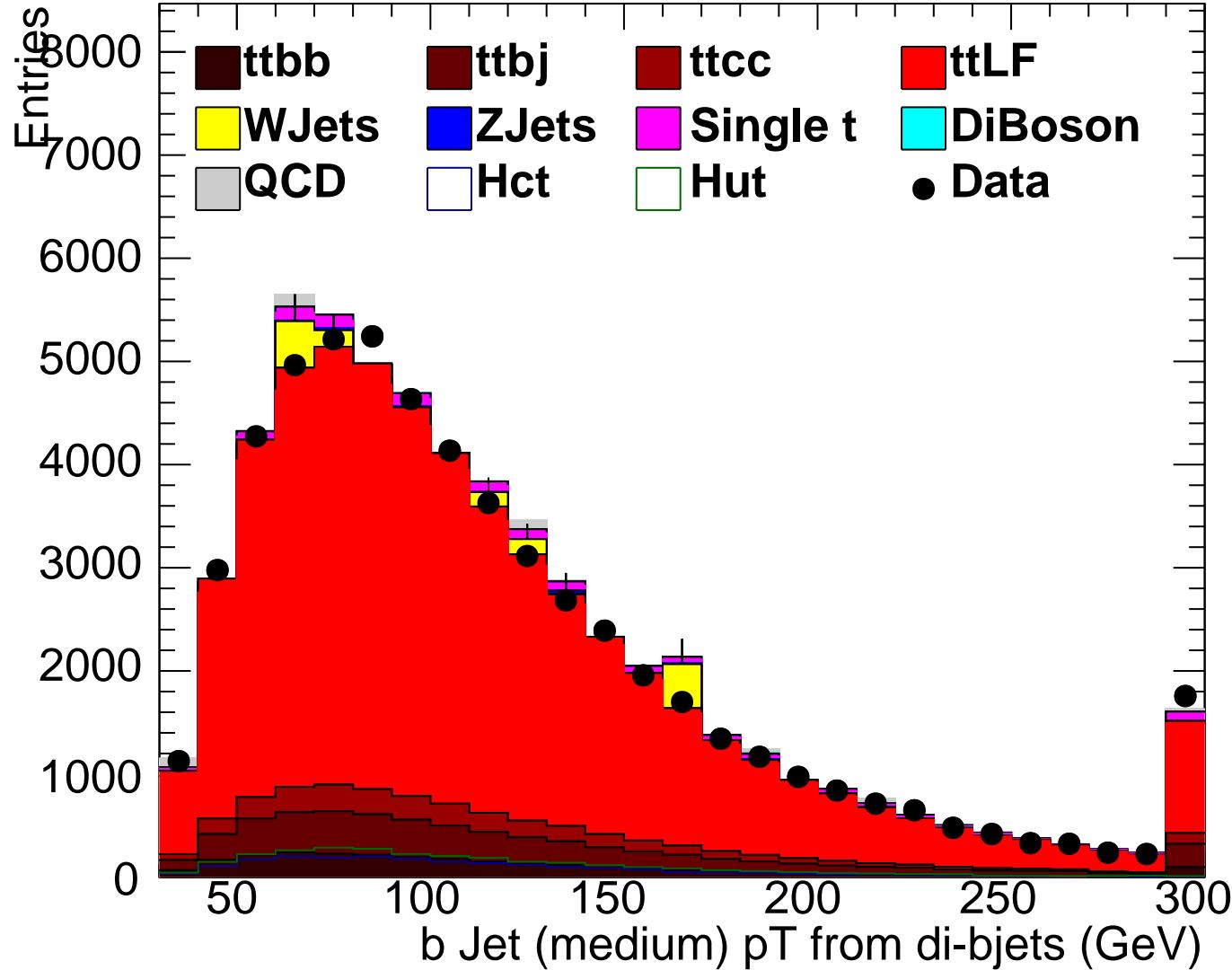


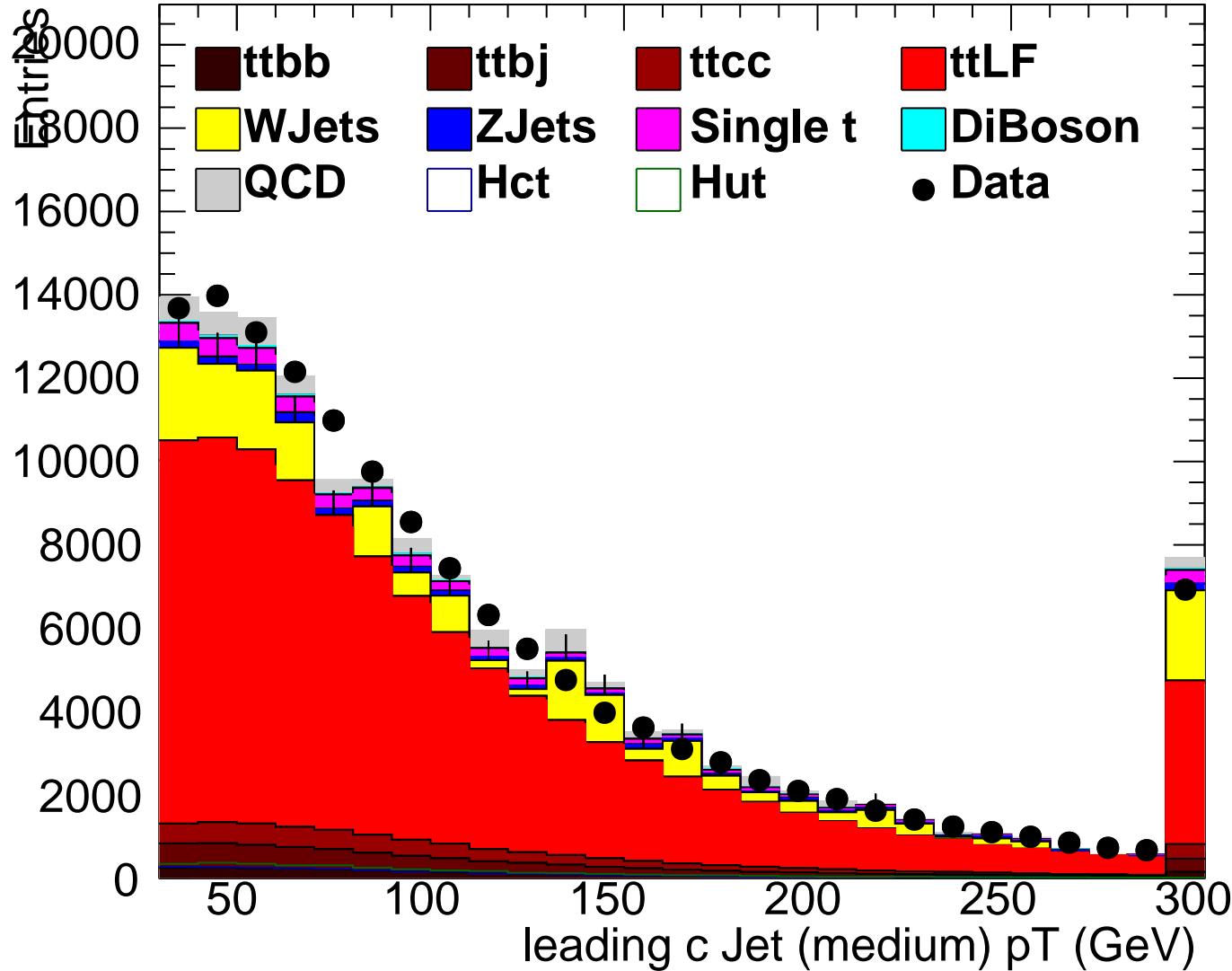


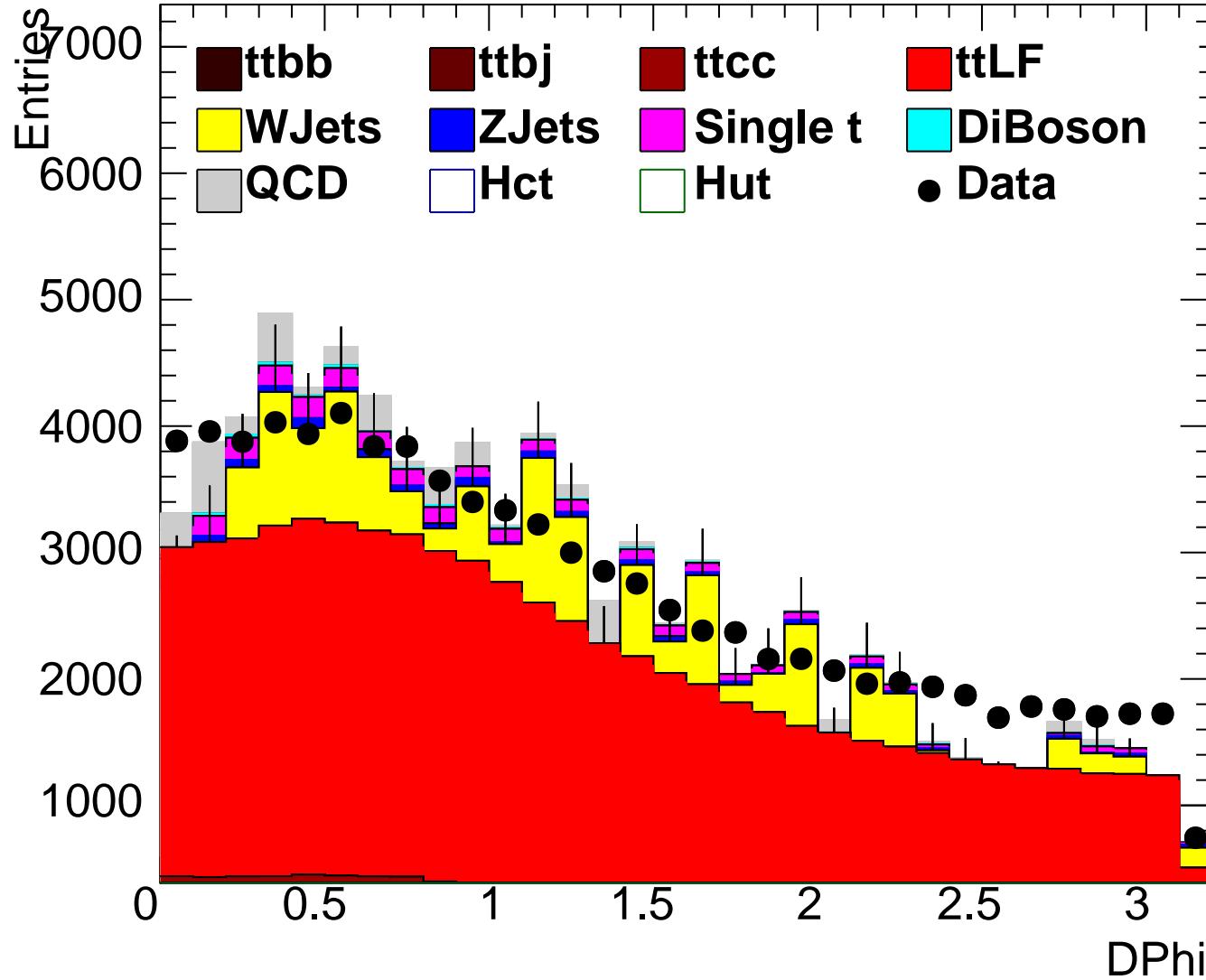
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

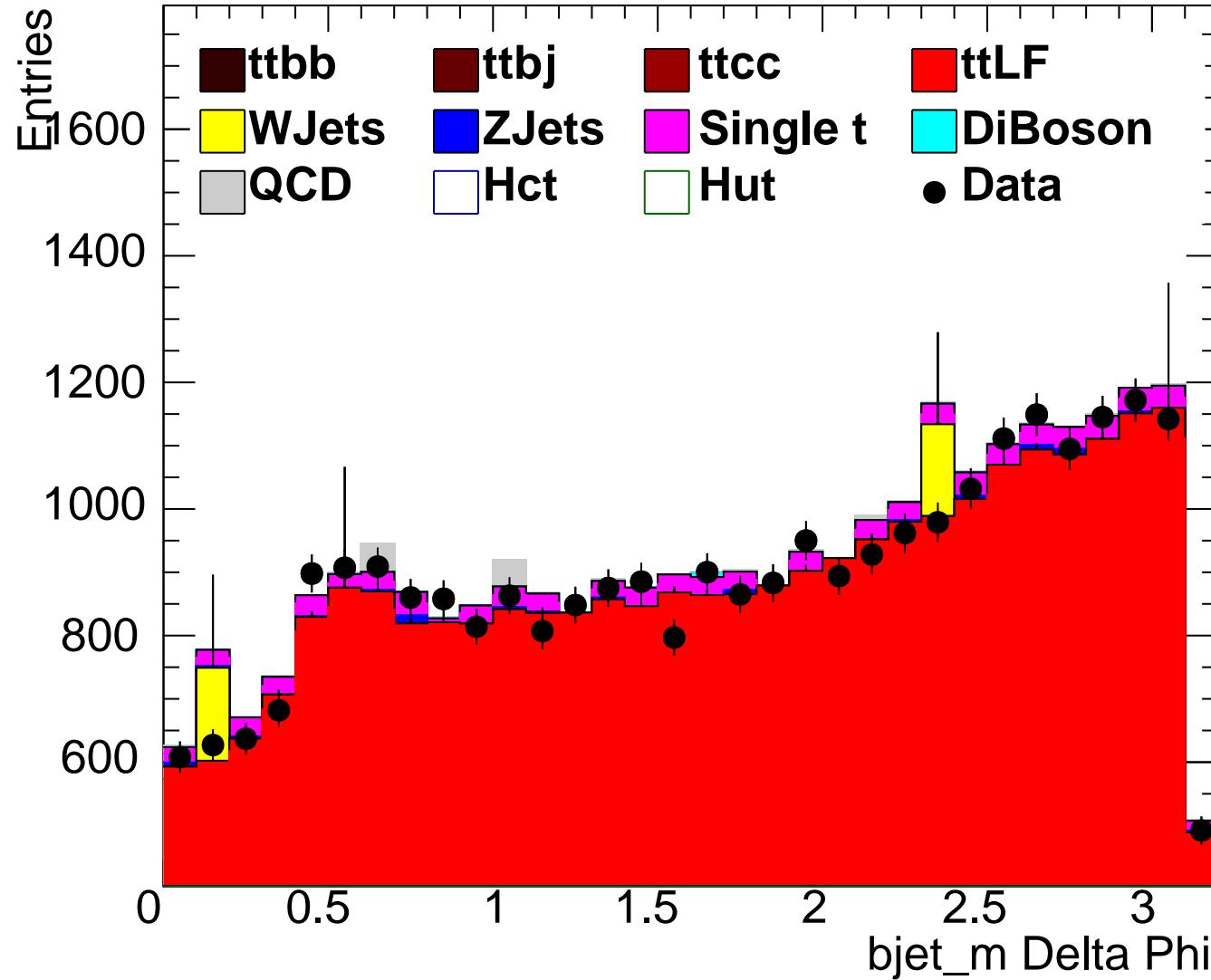
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

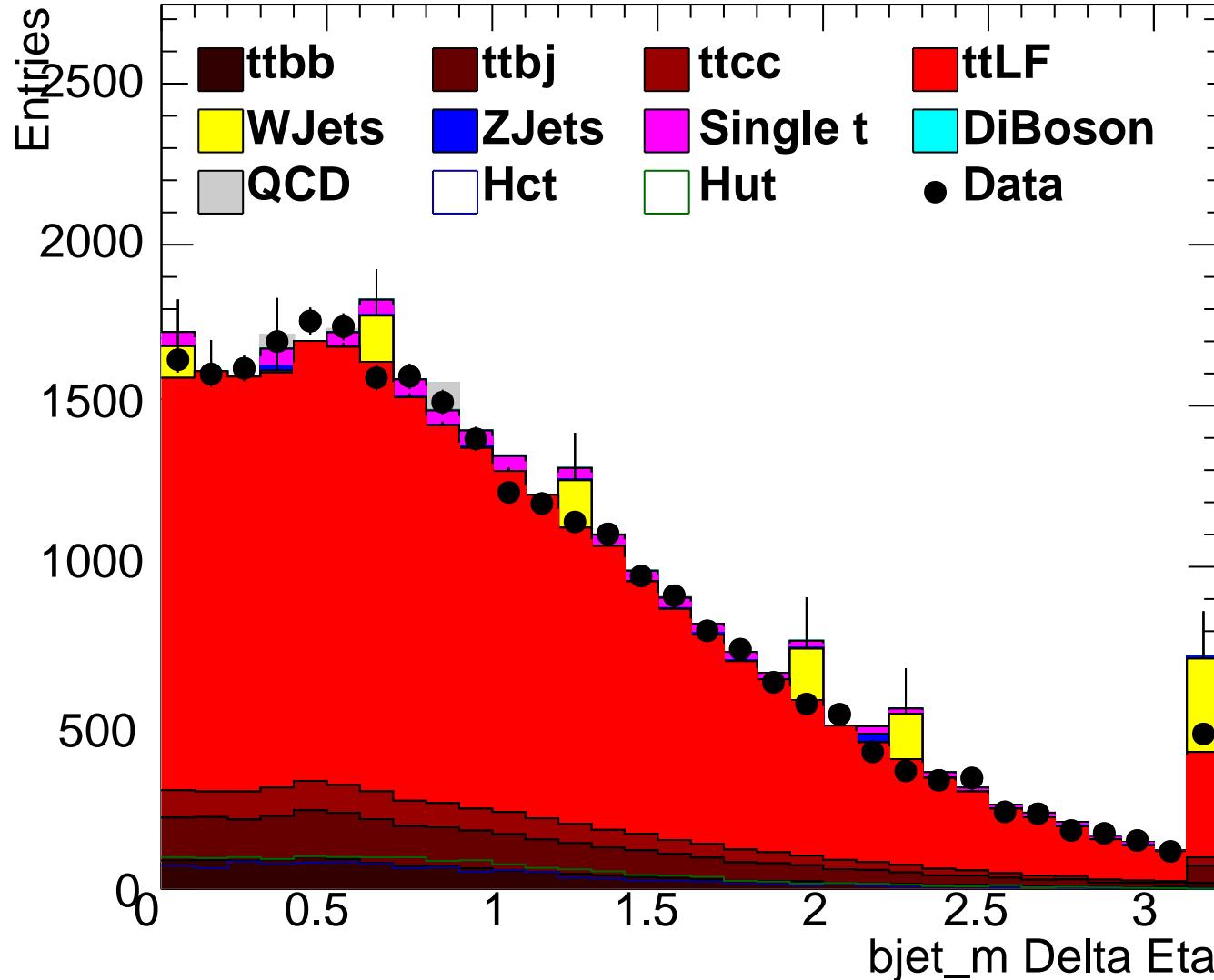
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

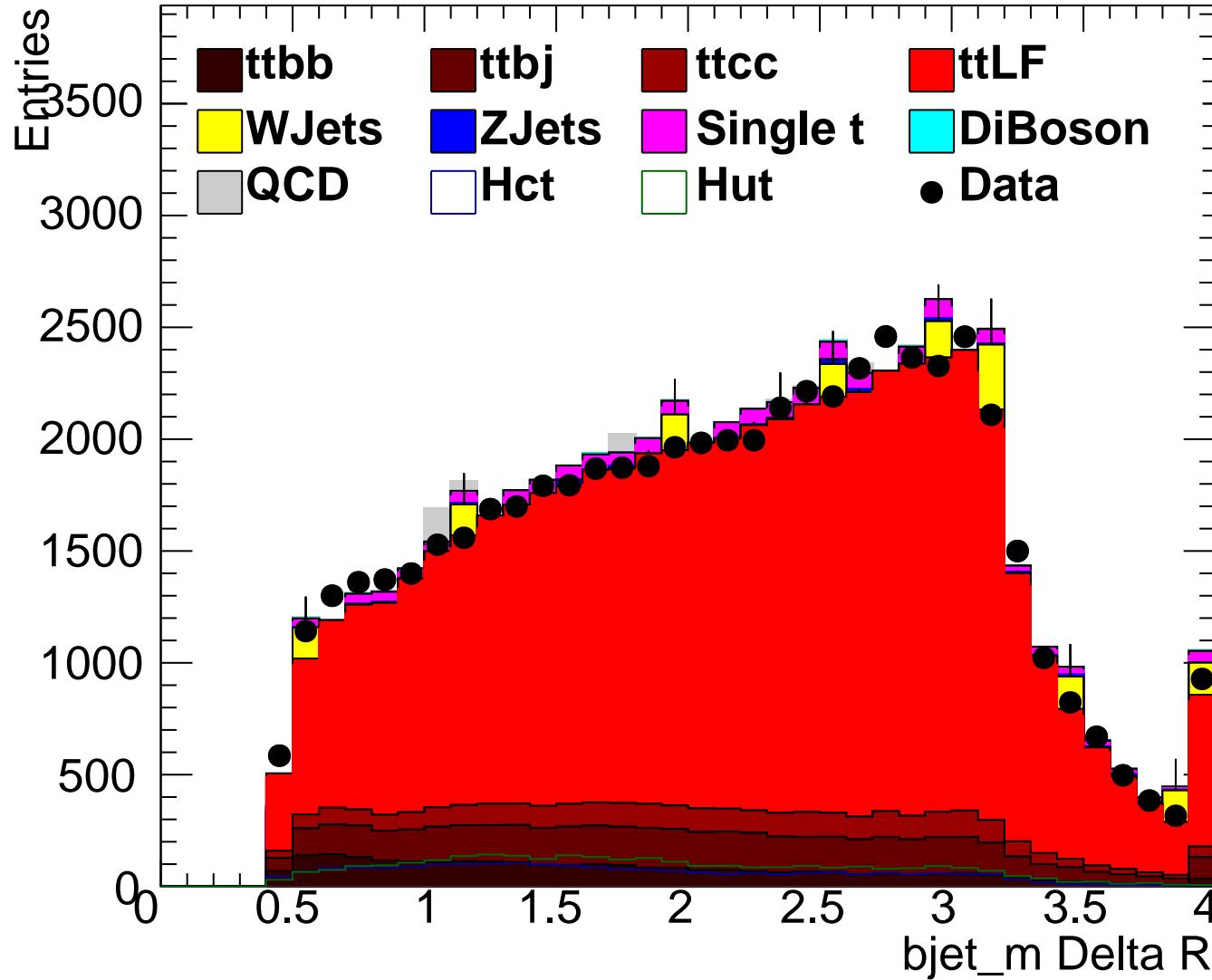
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



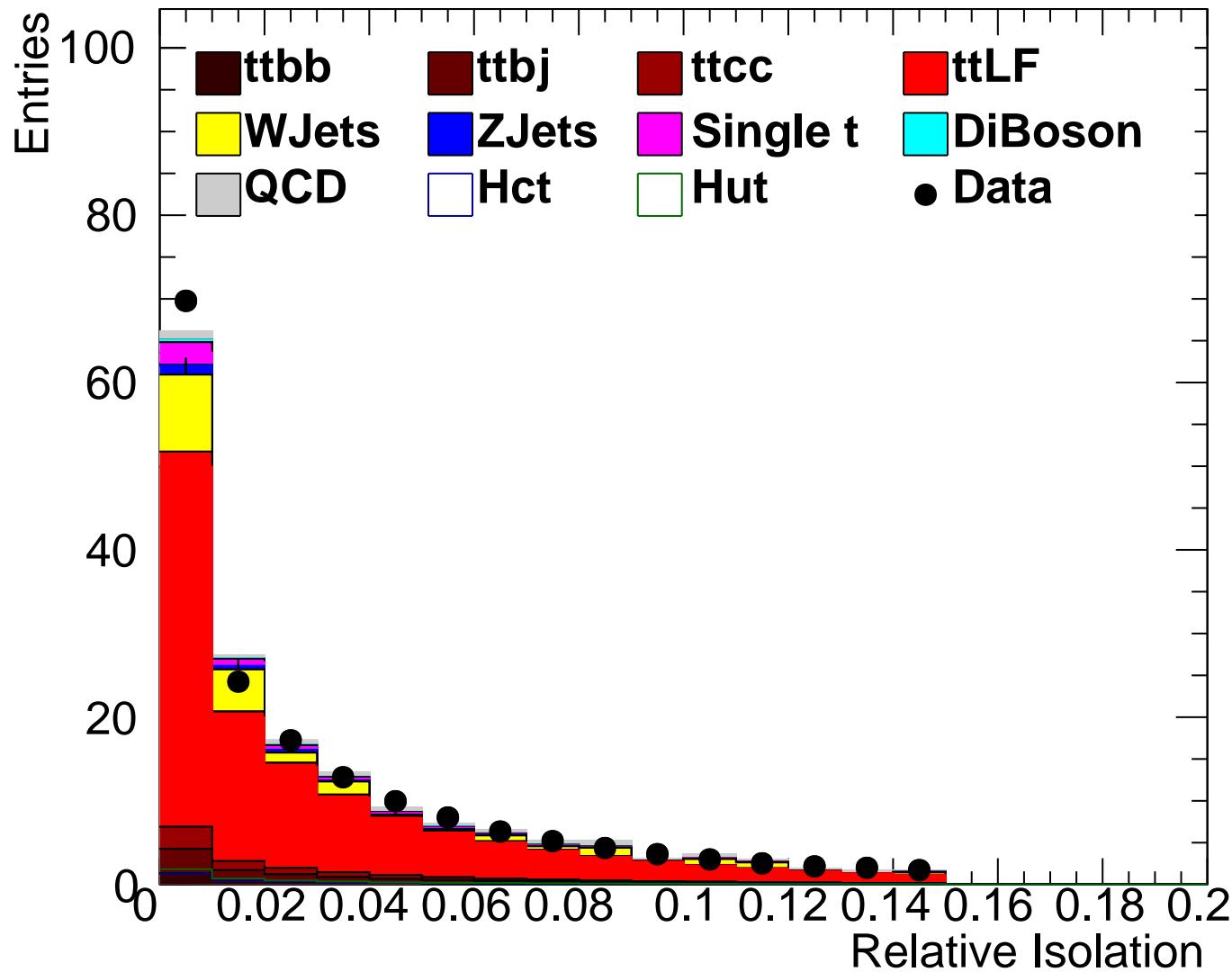


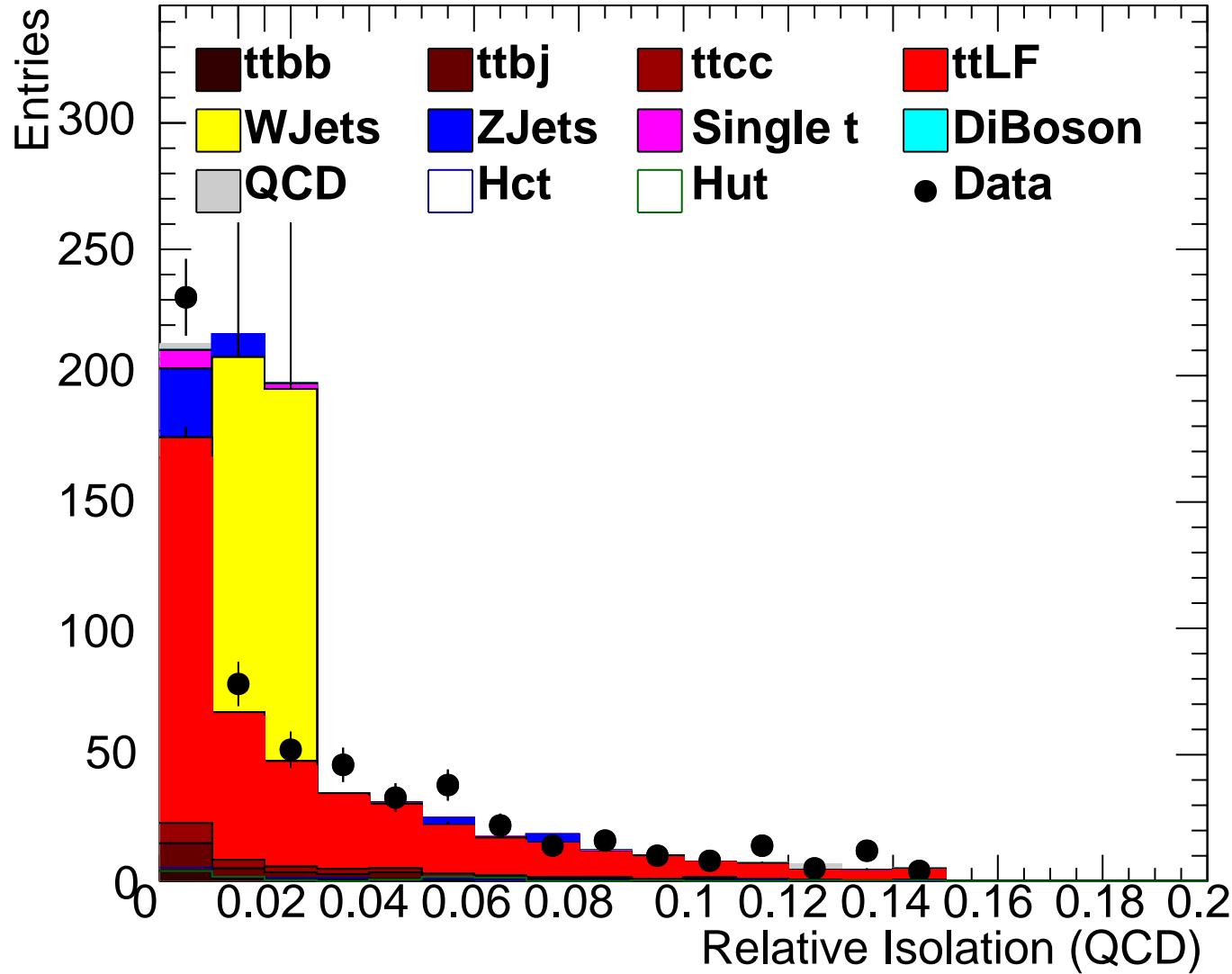
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

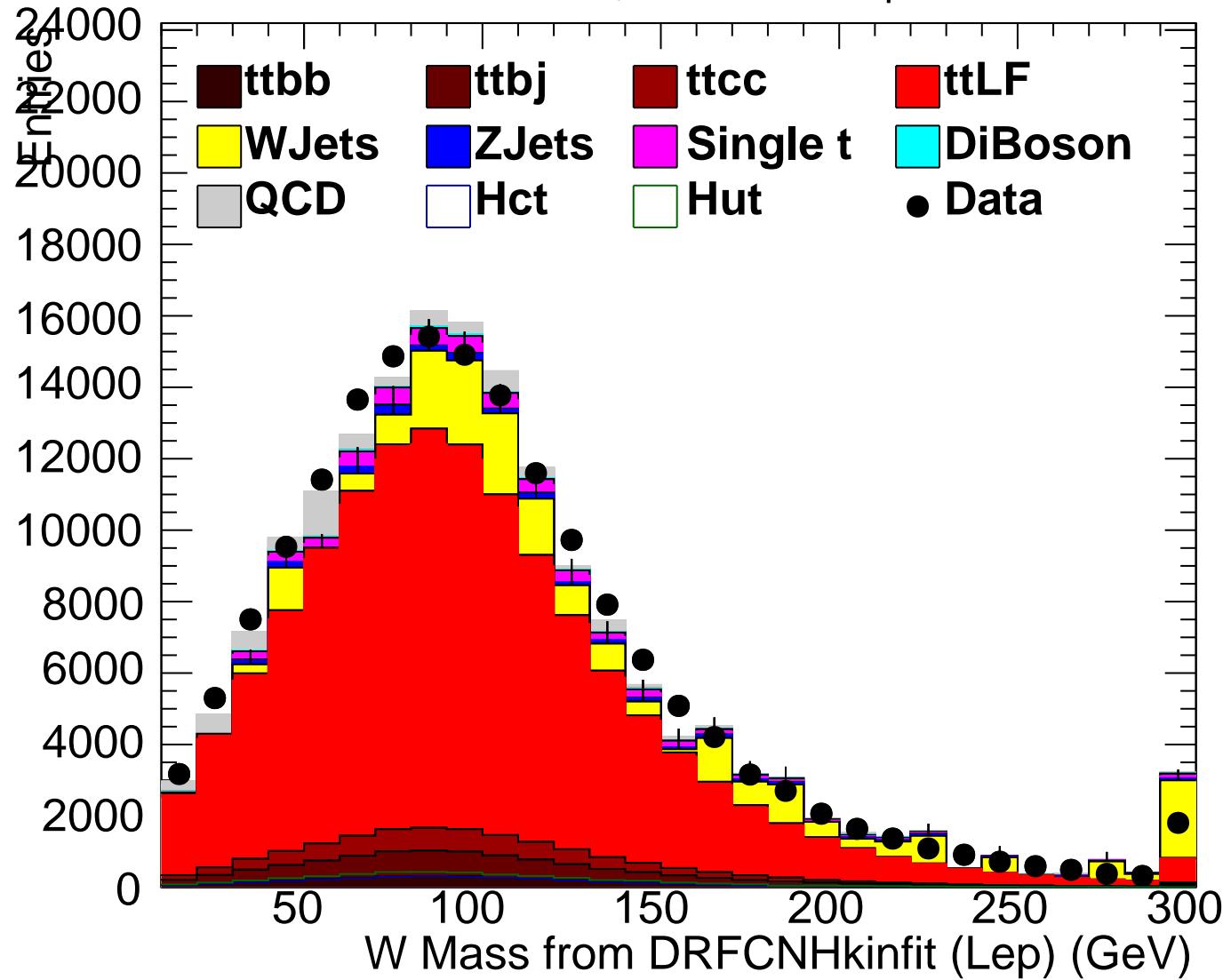


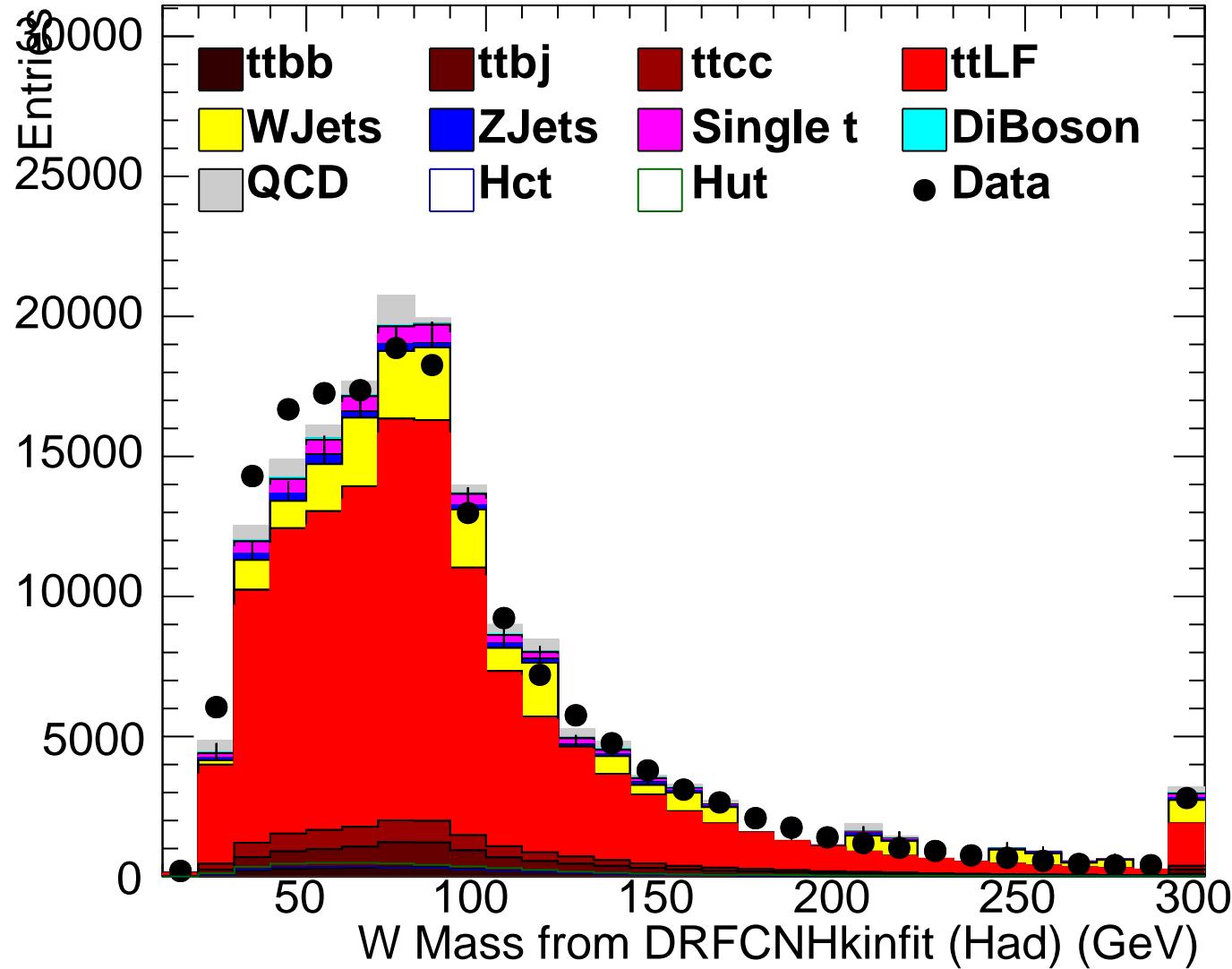
Ch0_S11

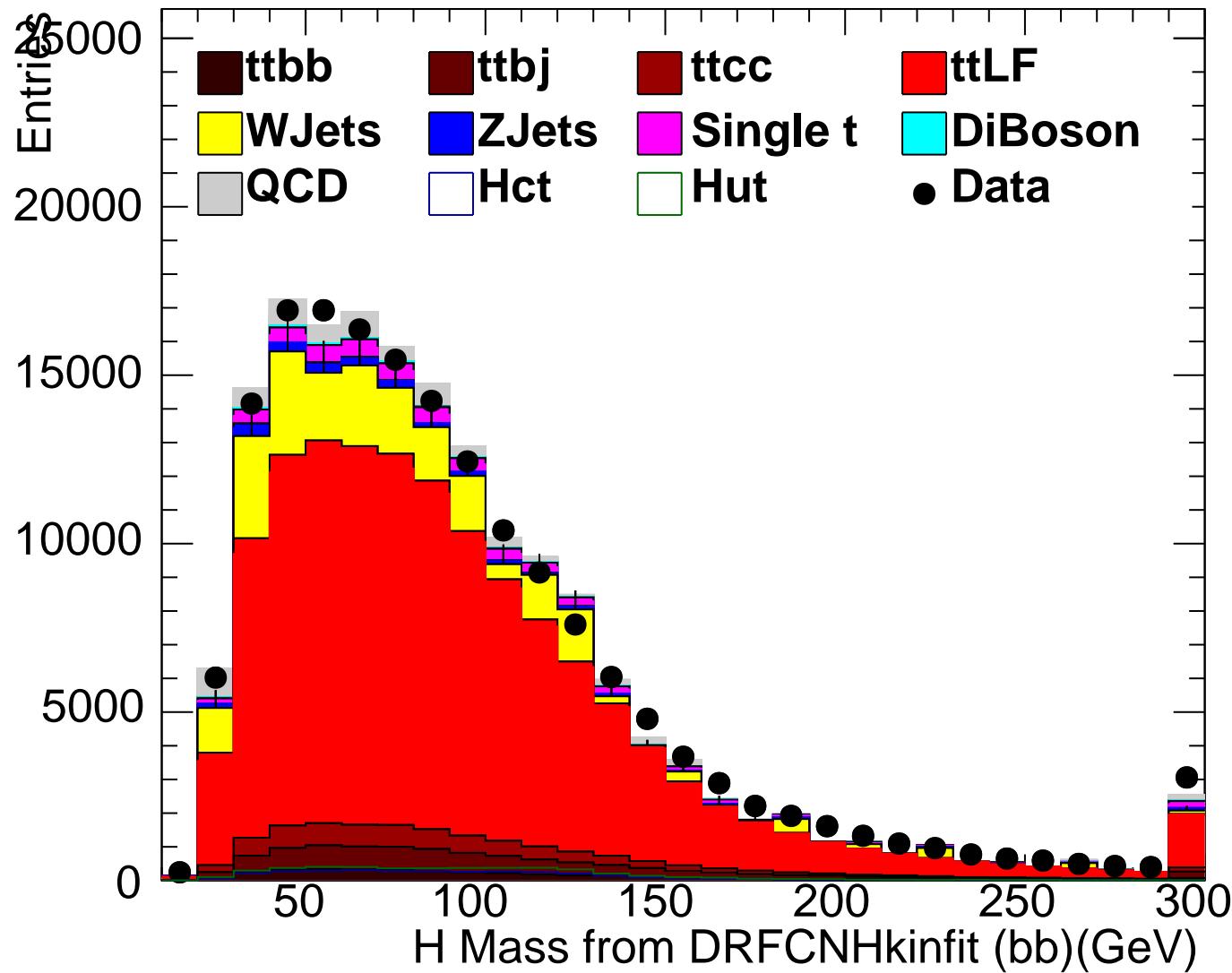
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

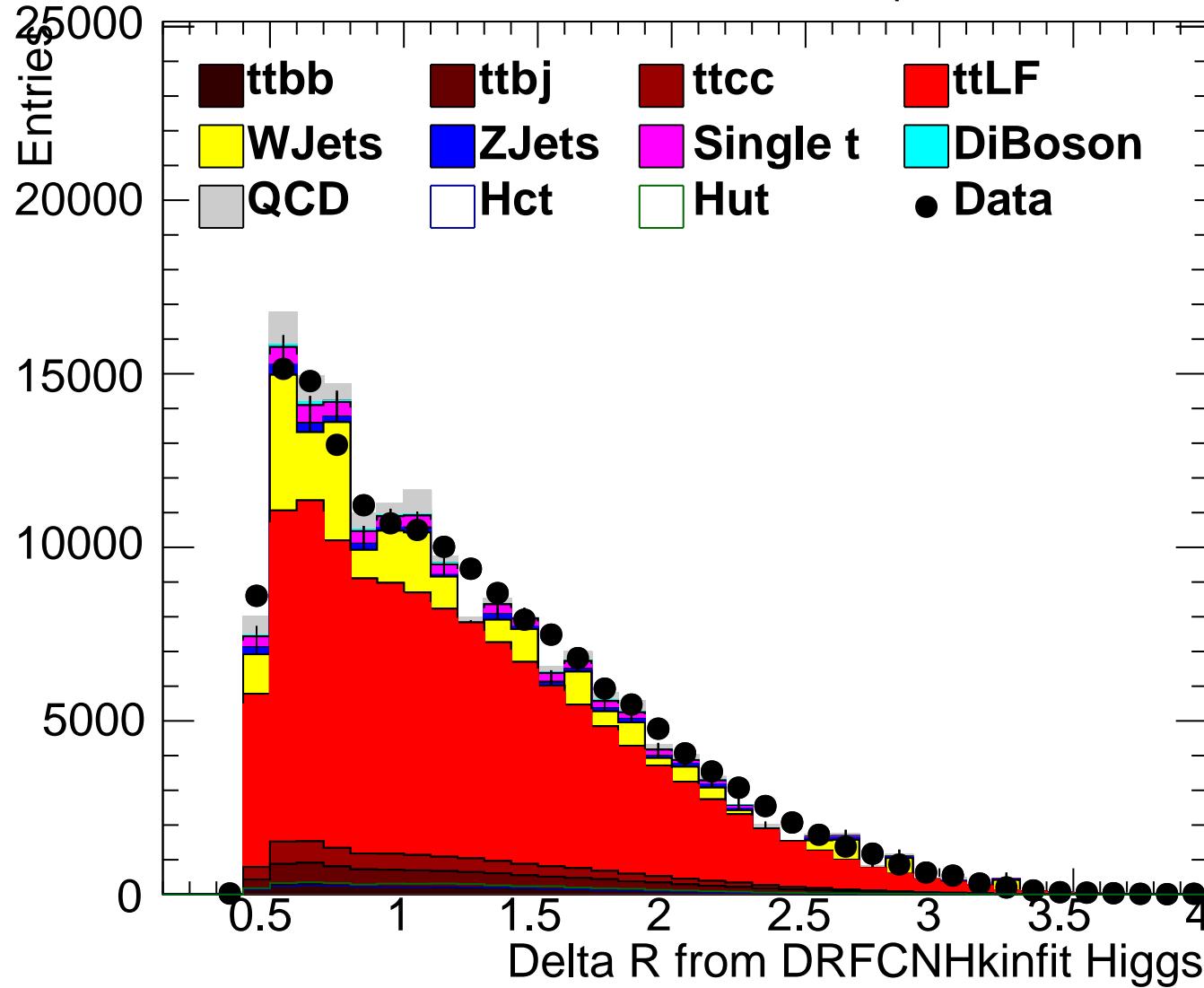


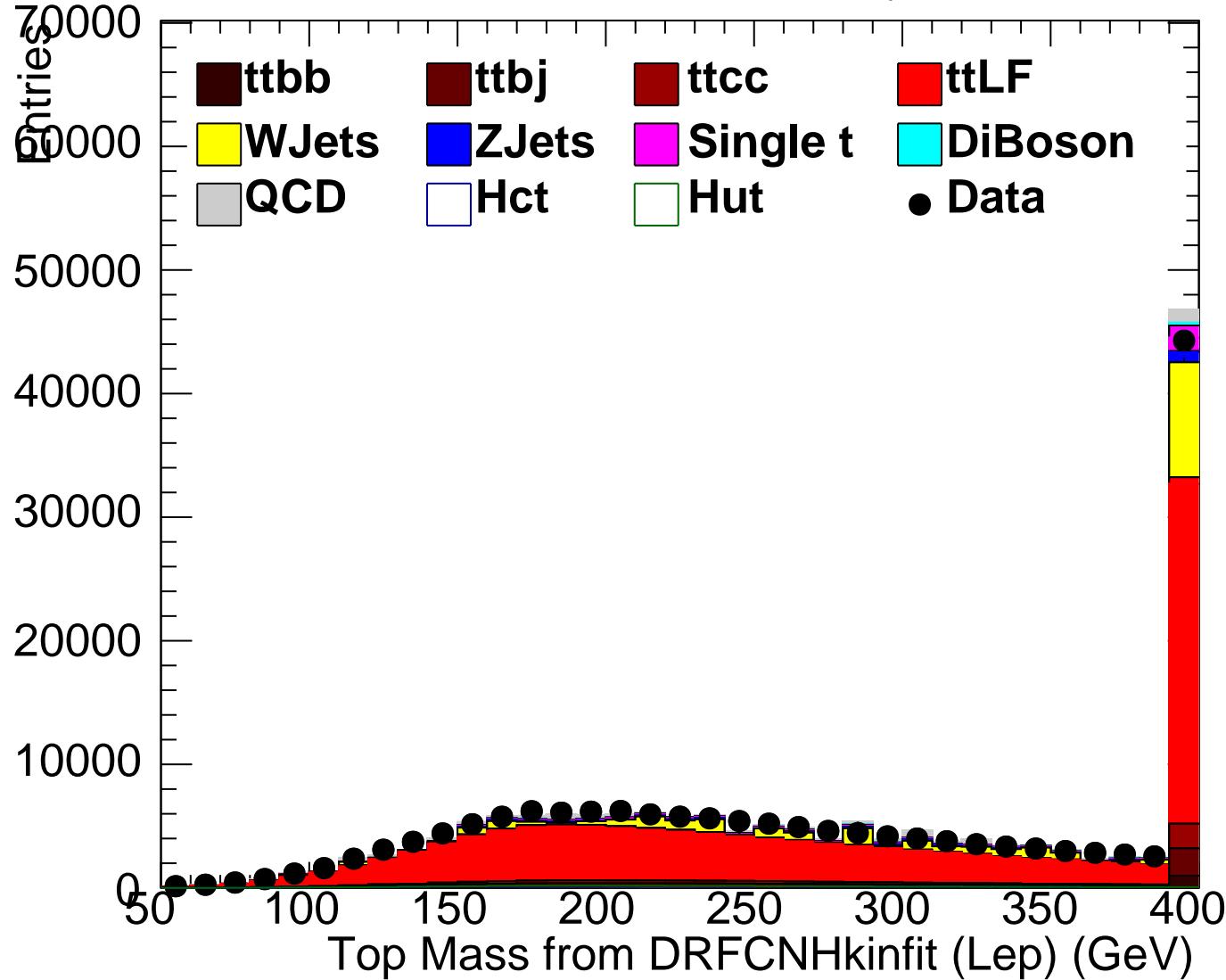


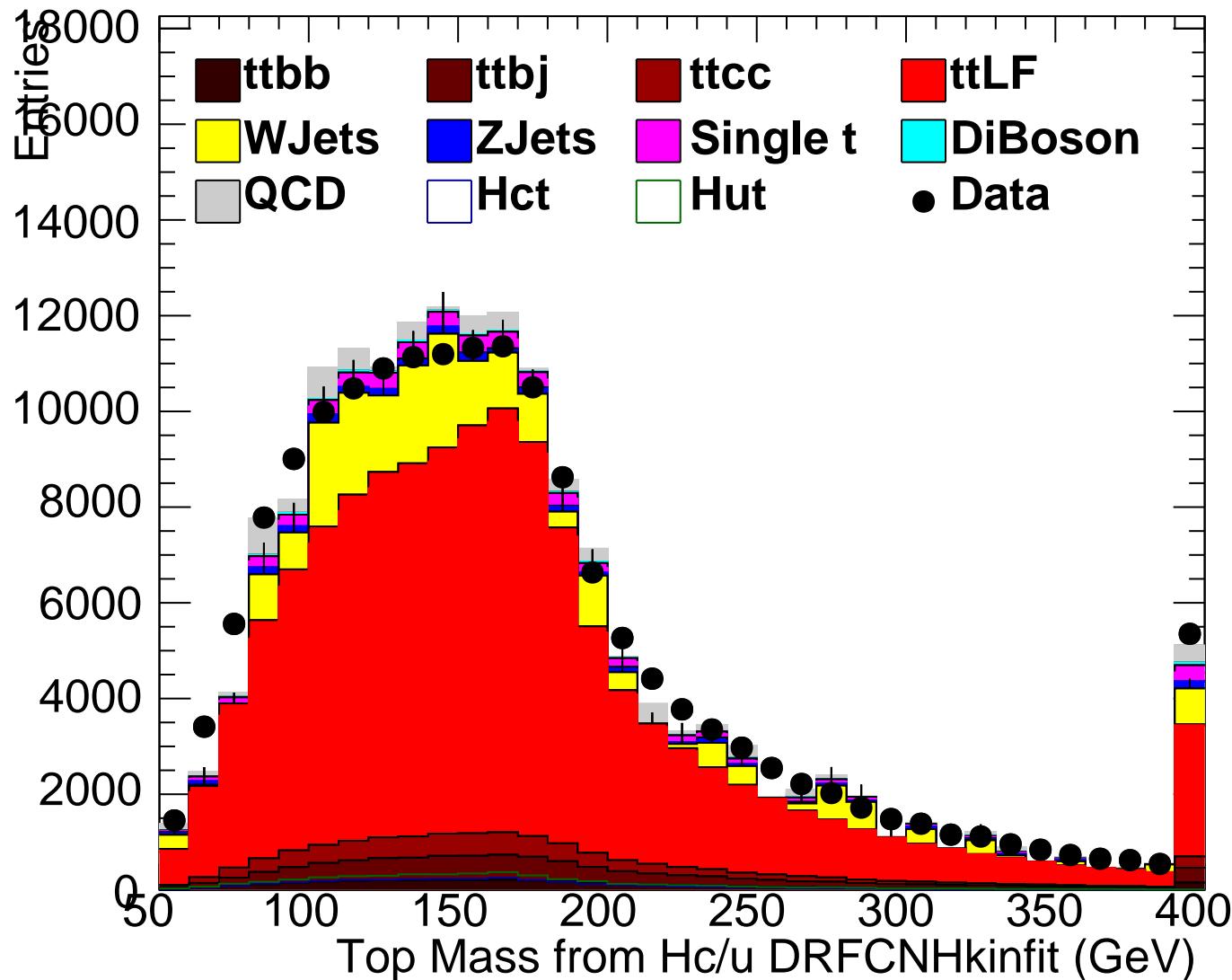
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

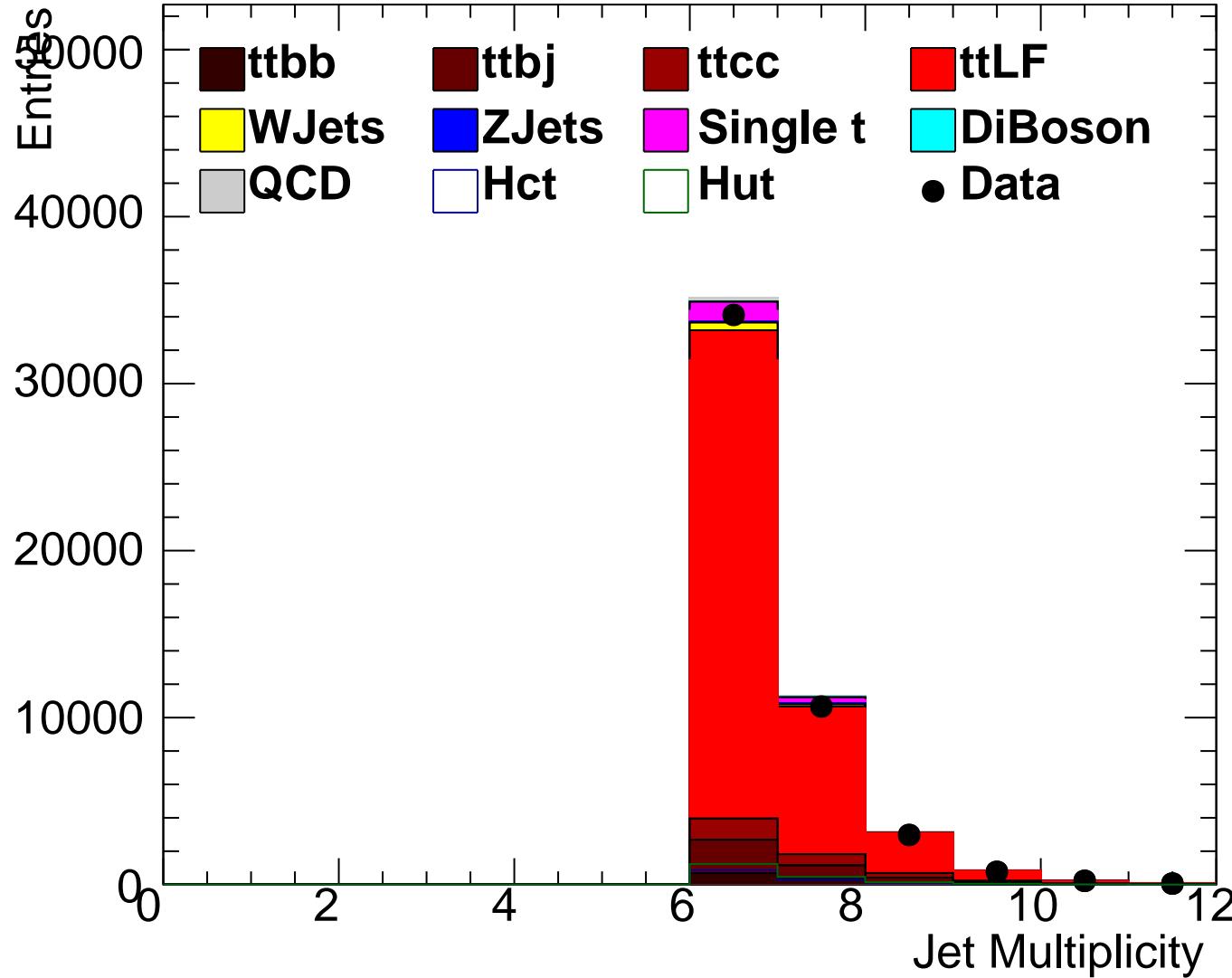
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

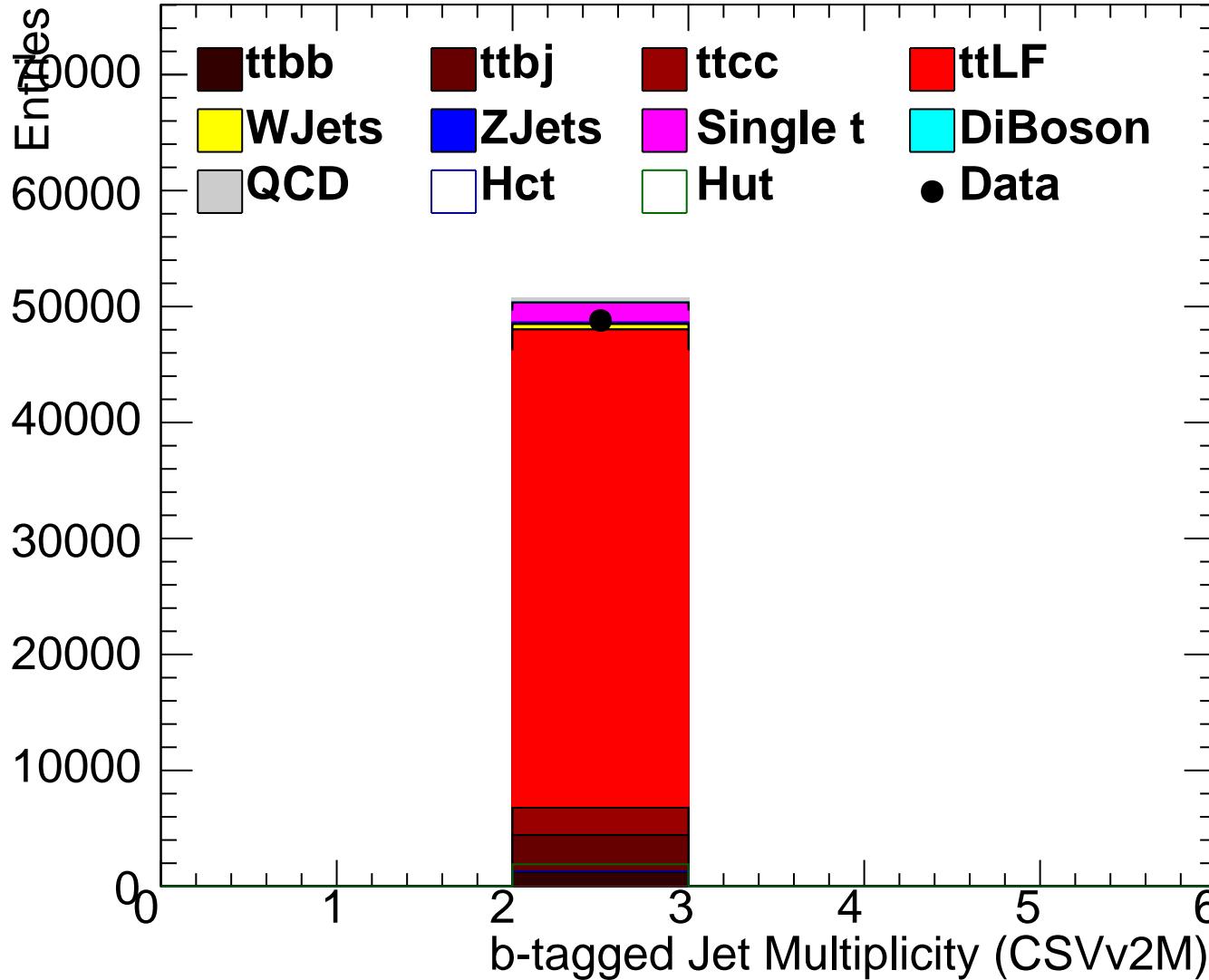
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

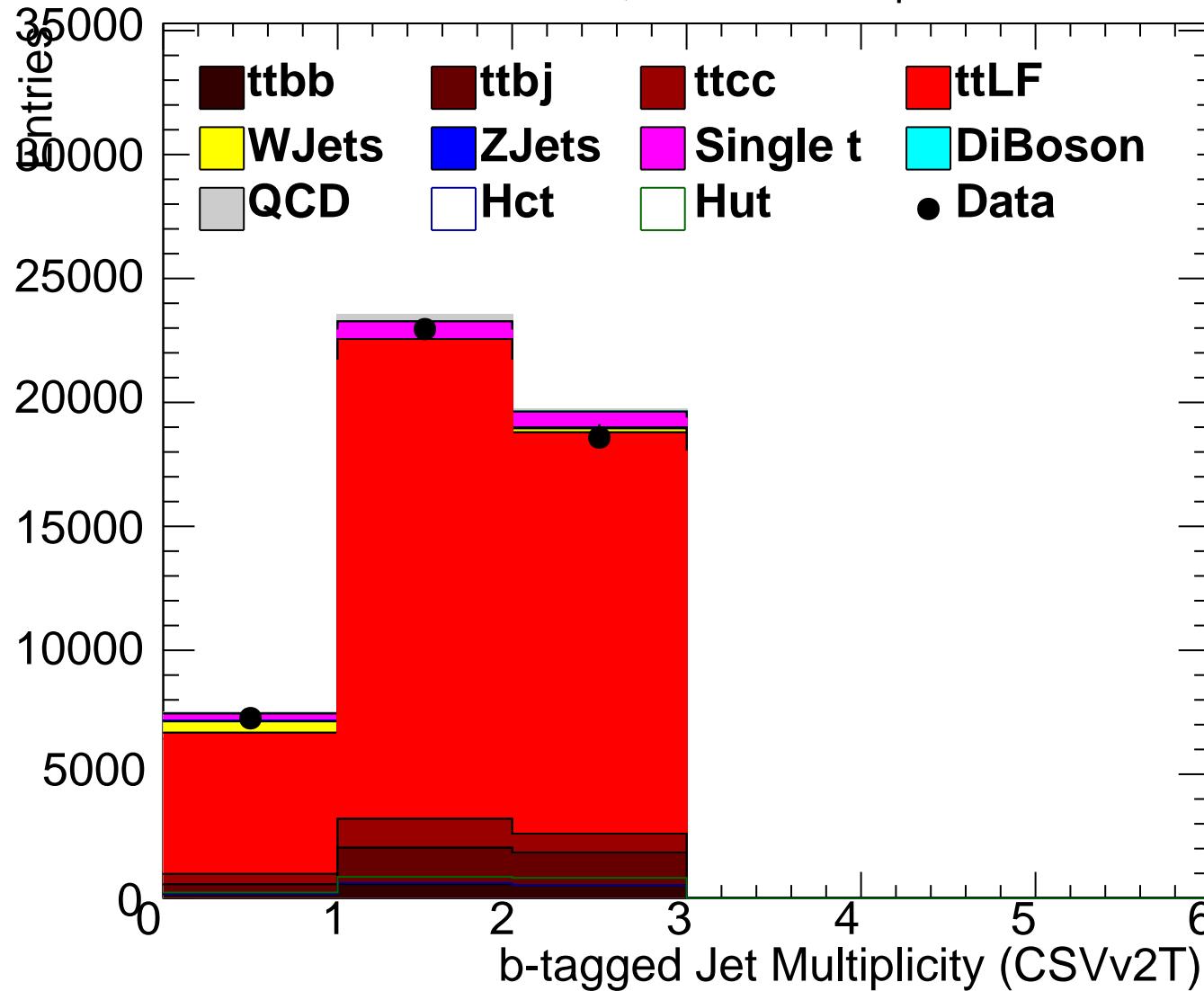
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

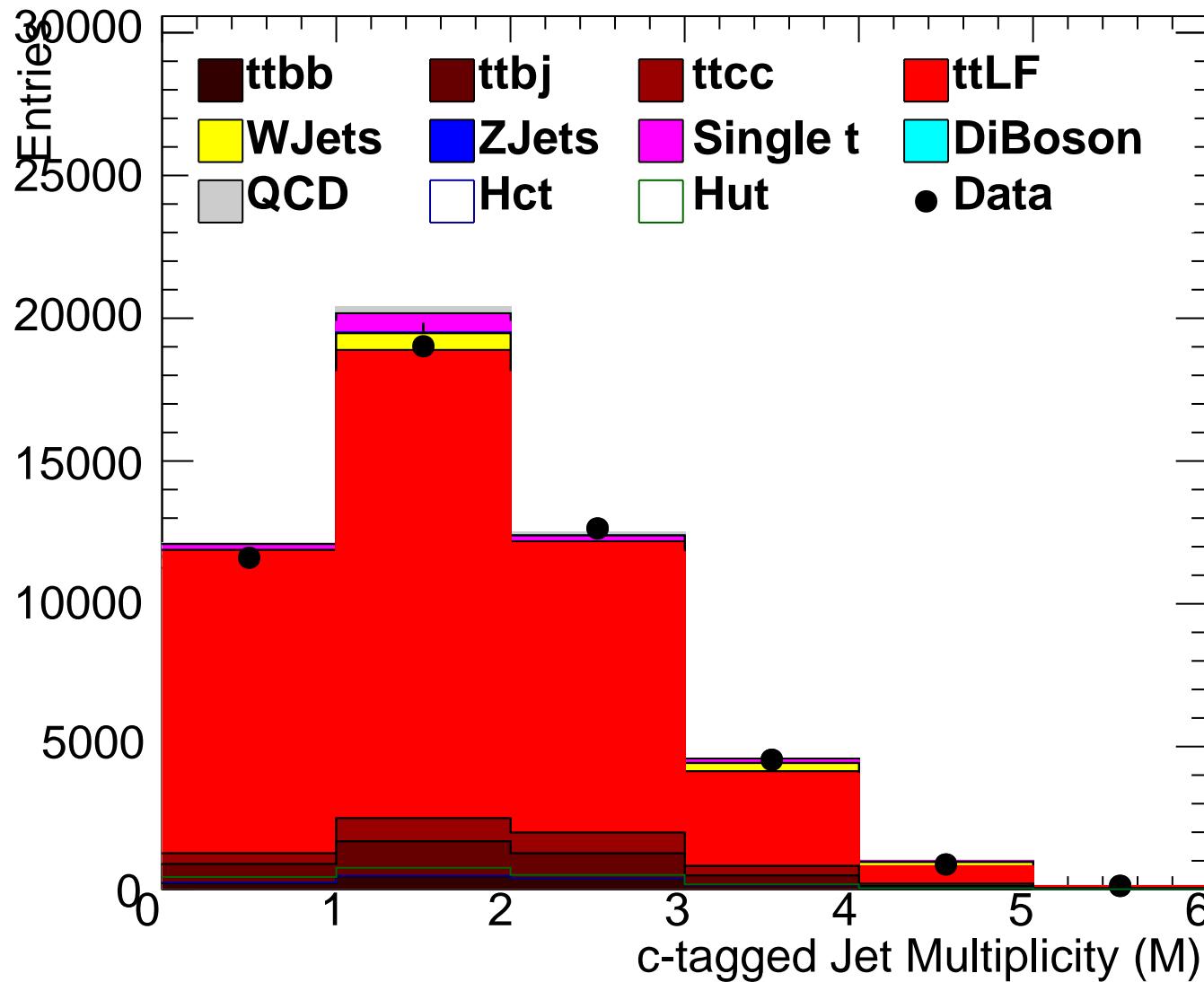
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

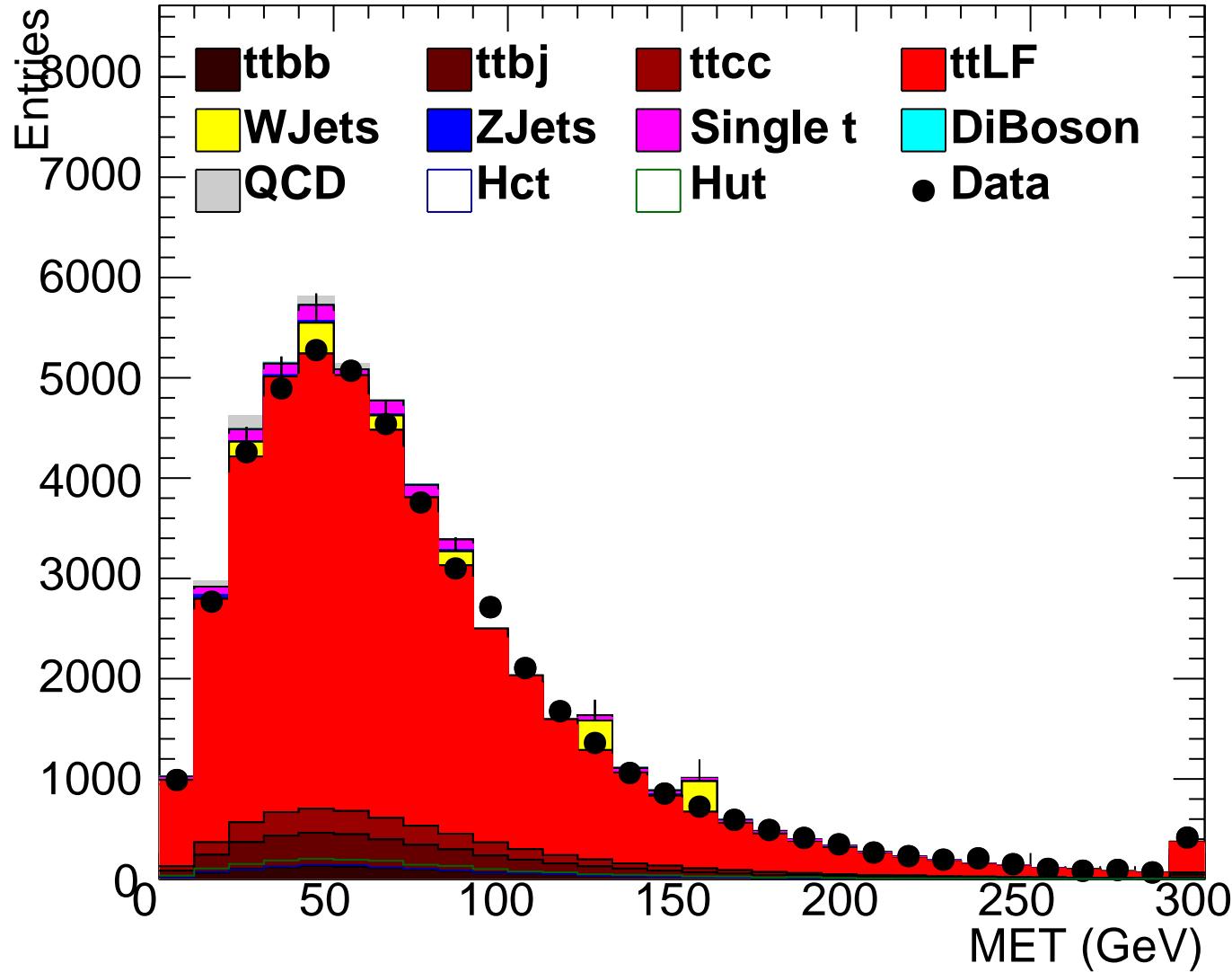
Ch0_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

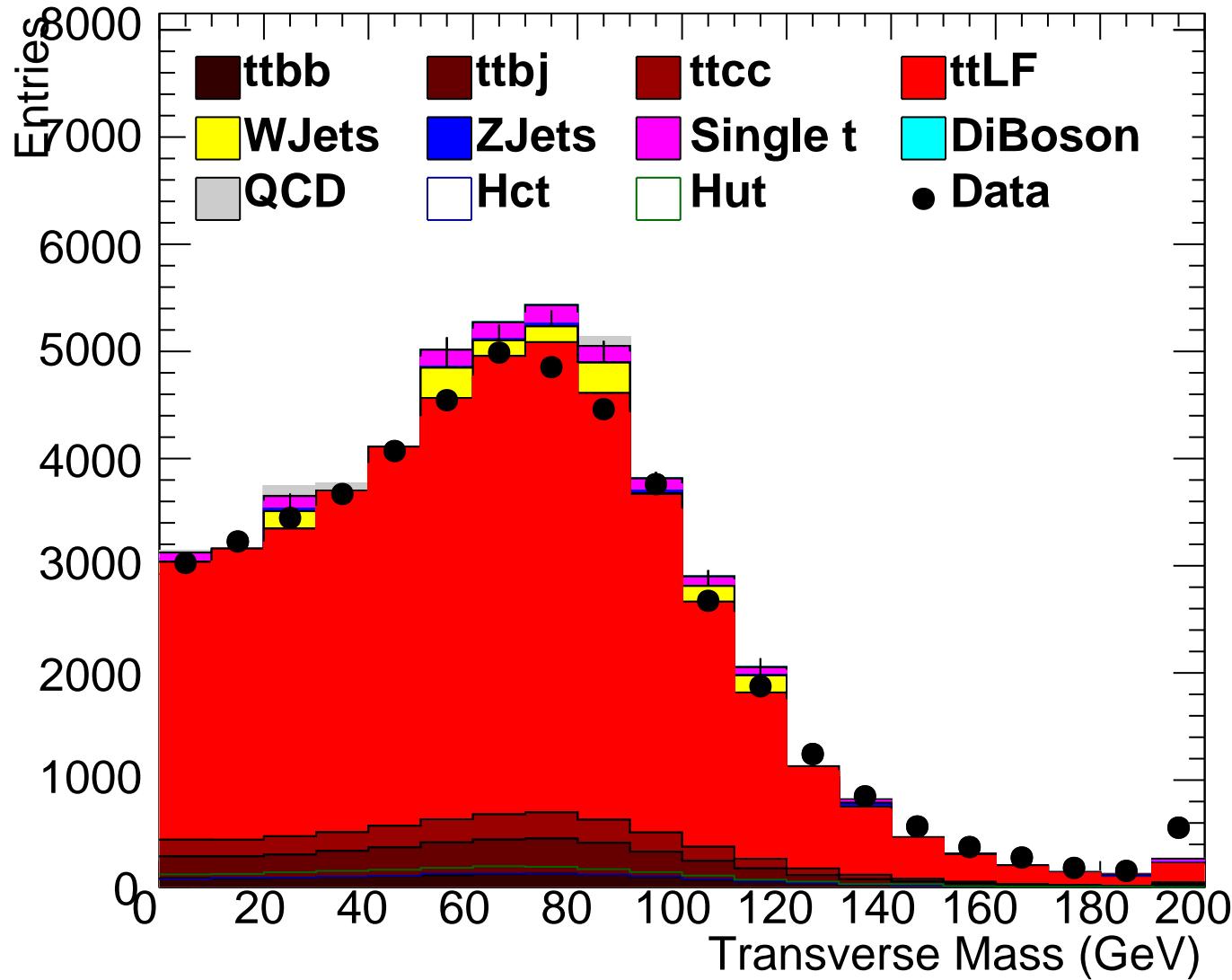


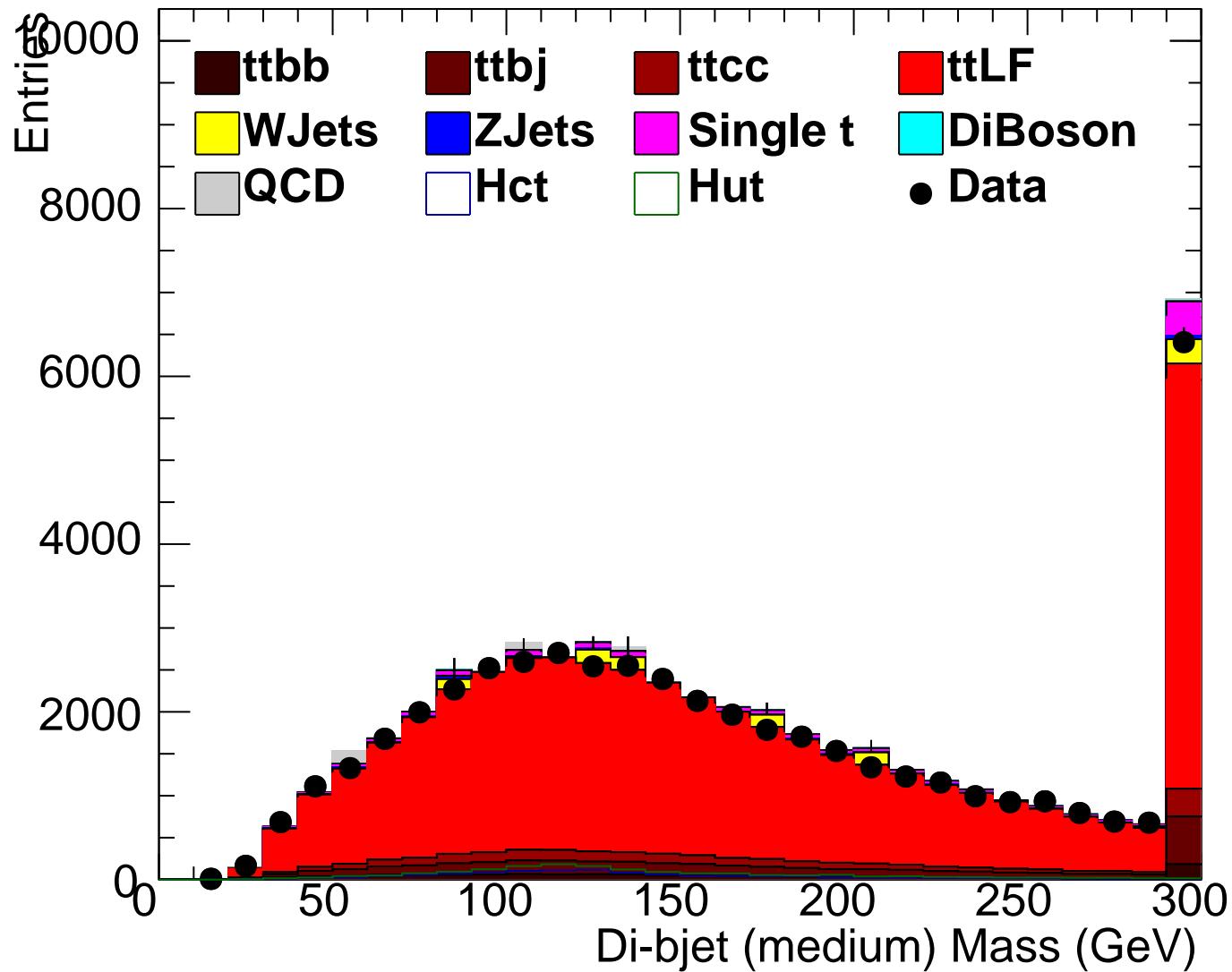
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

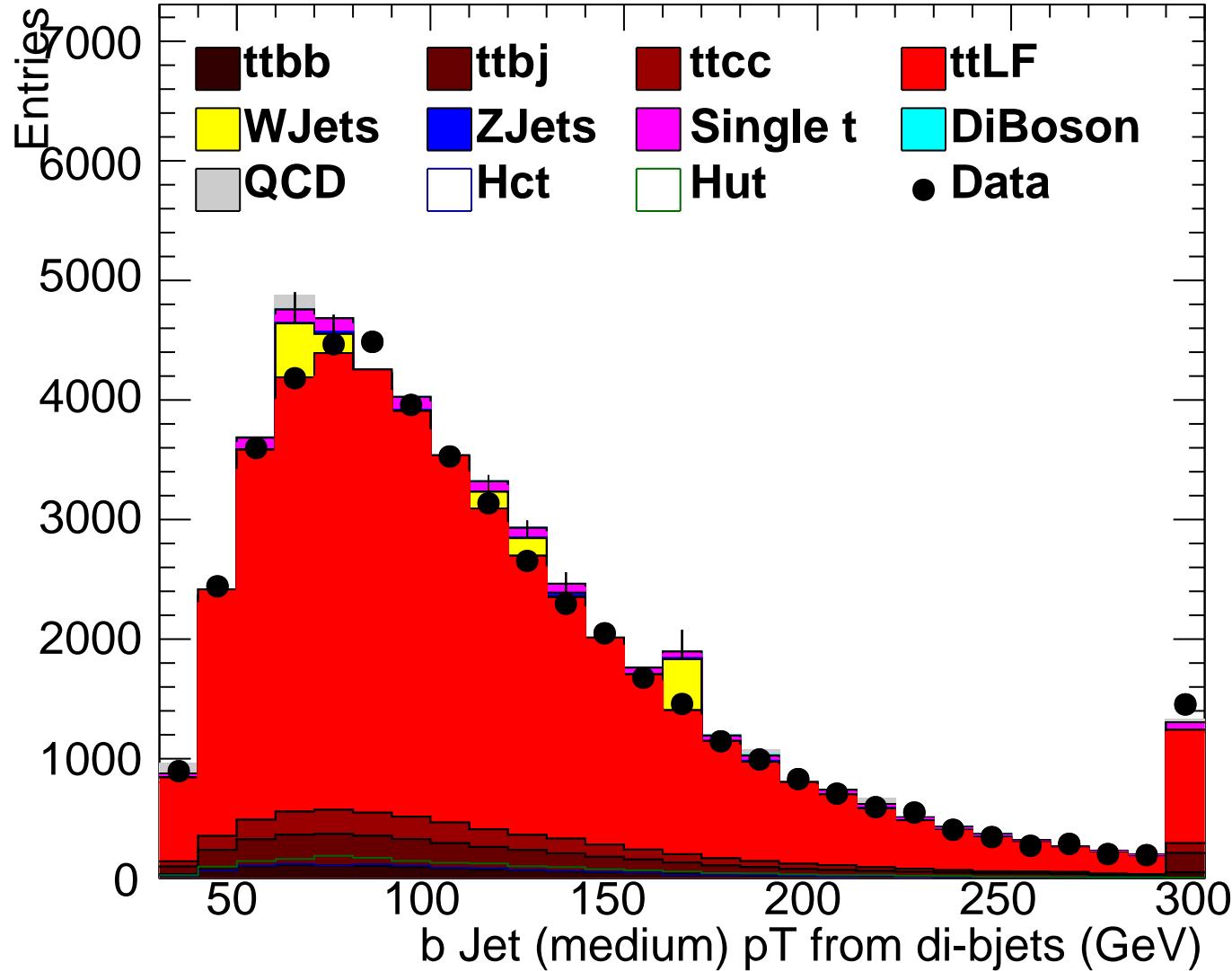
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



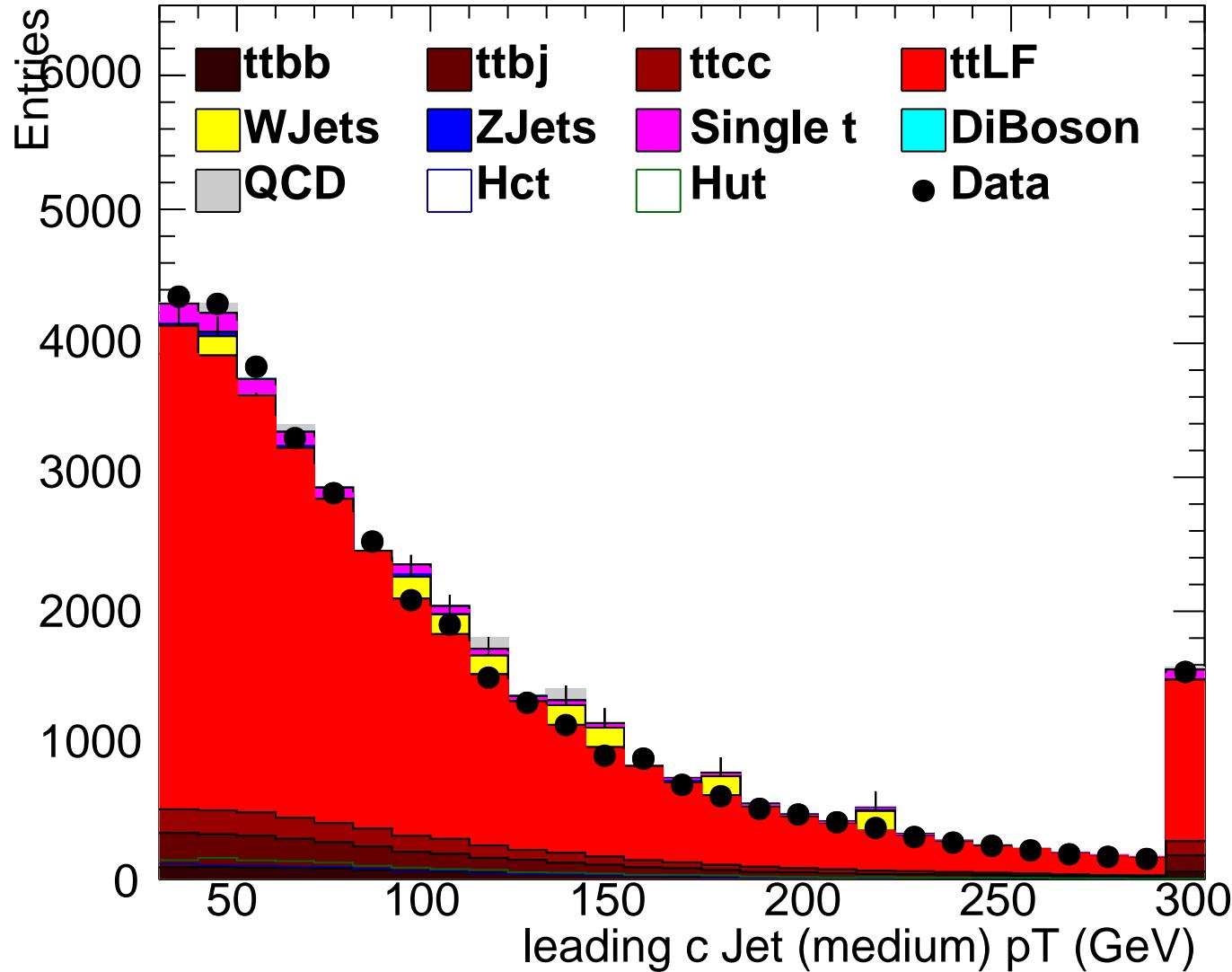
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

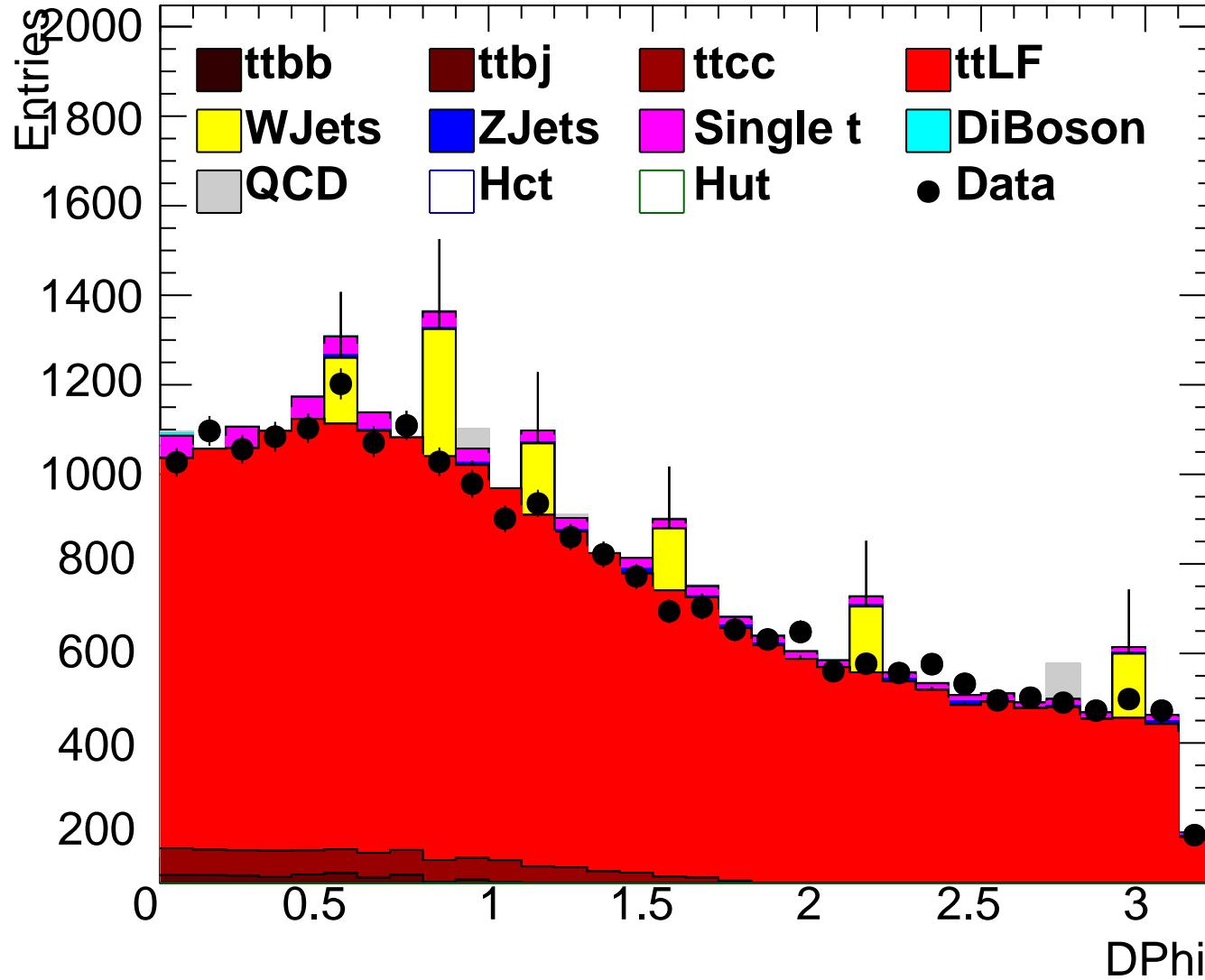


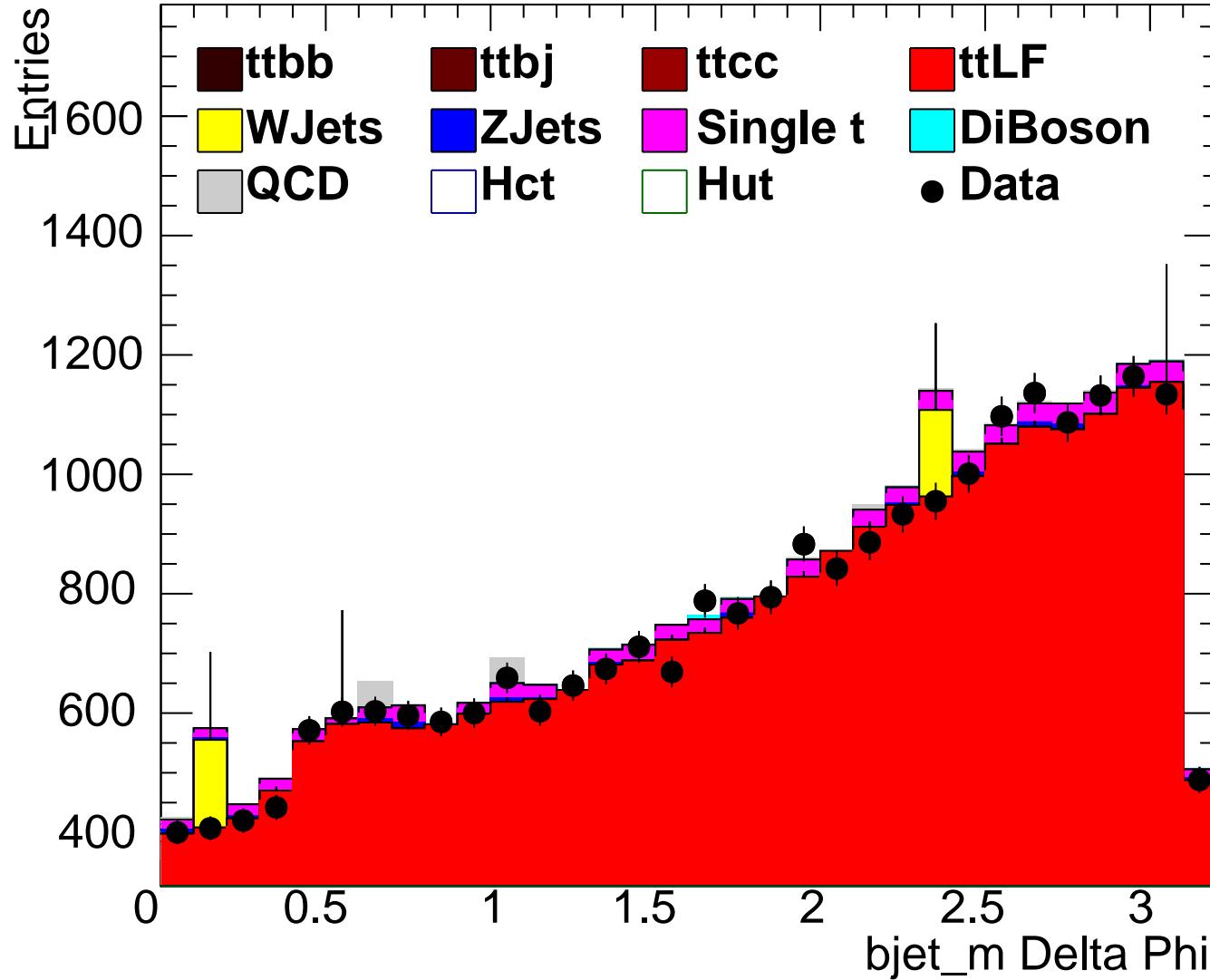
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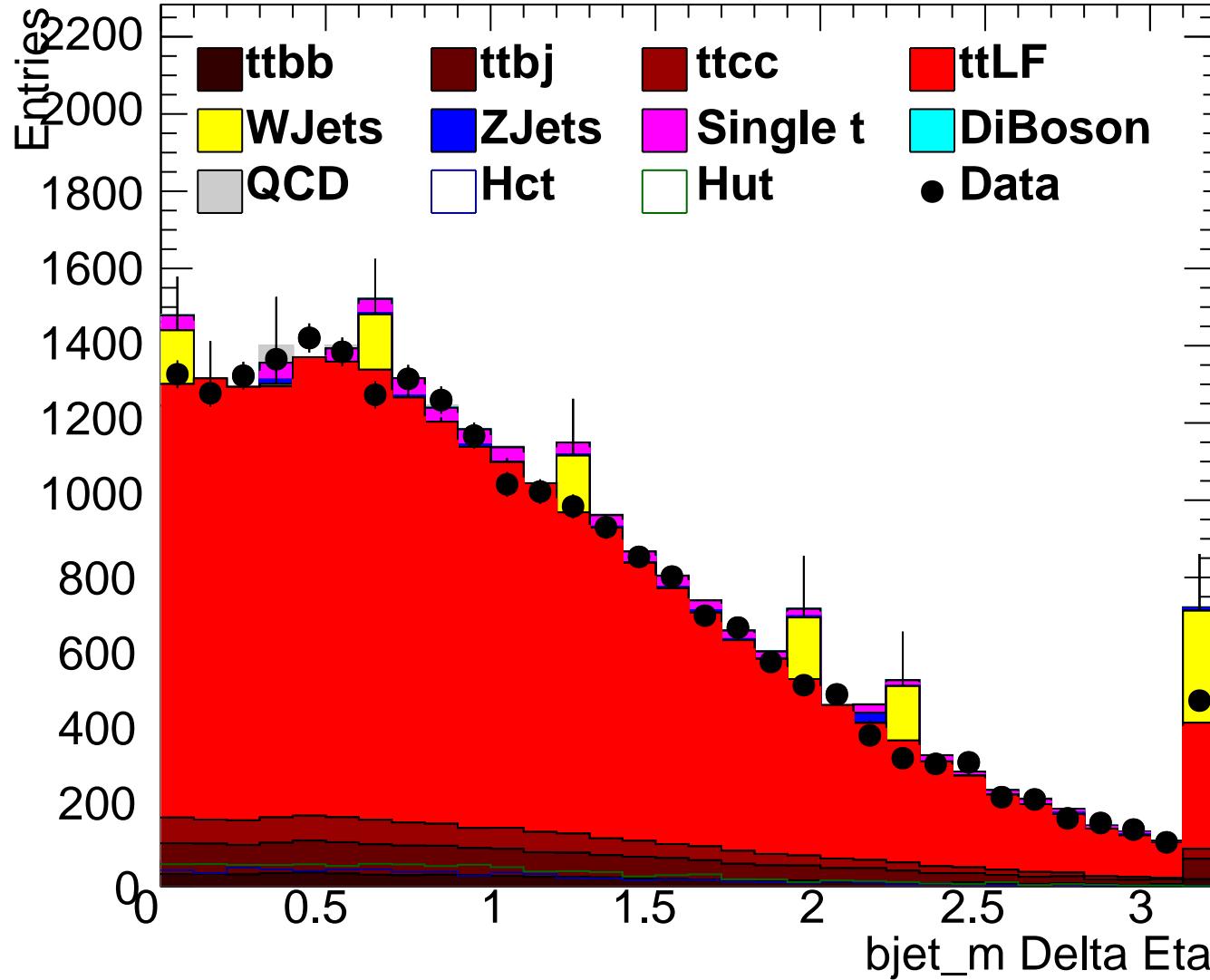
Ch0 S12

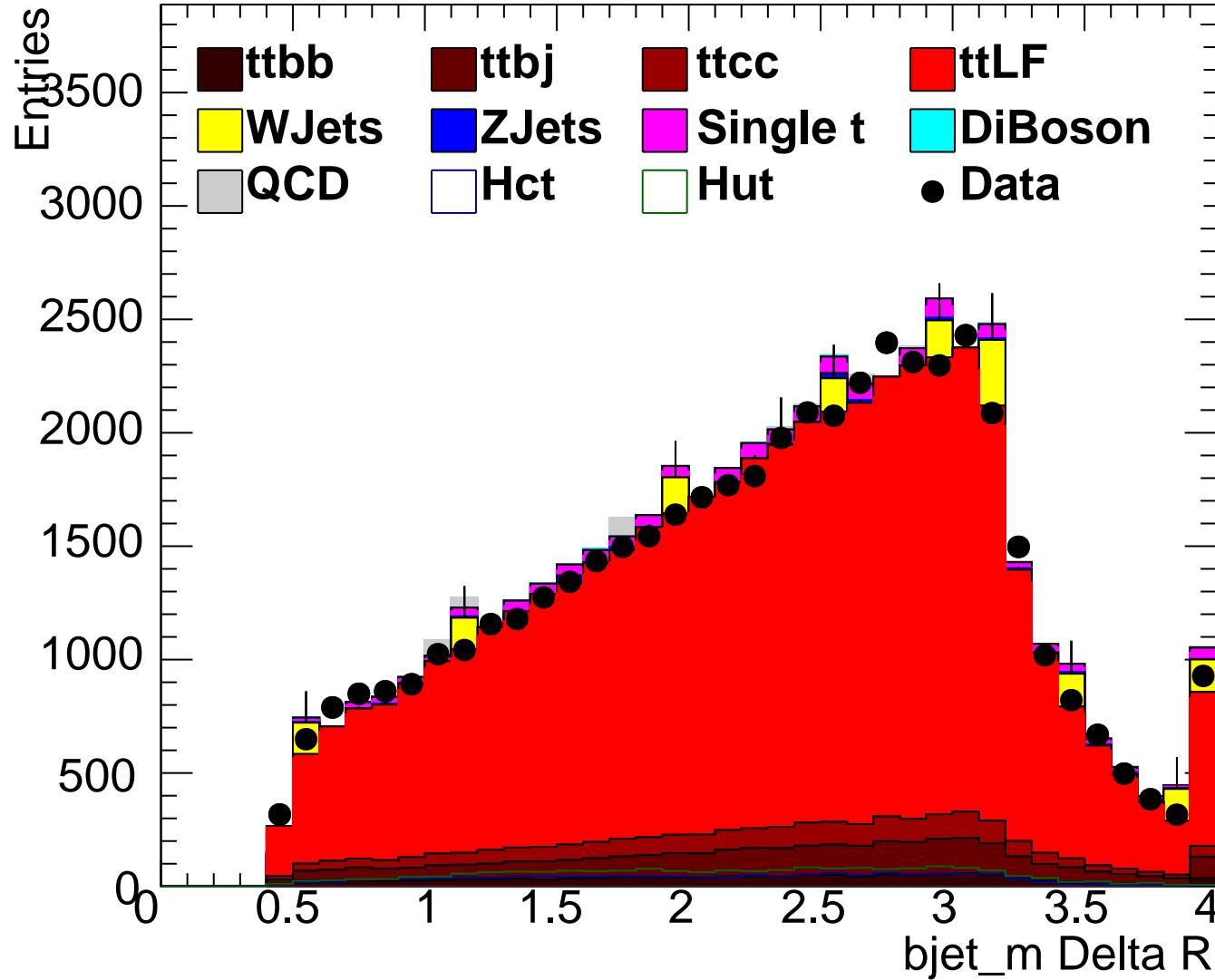
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

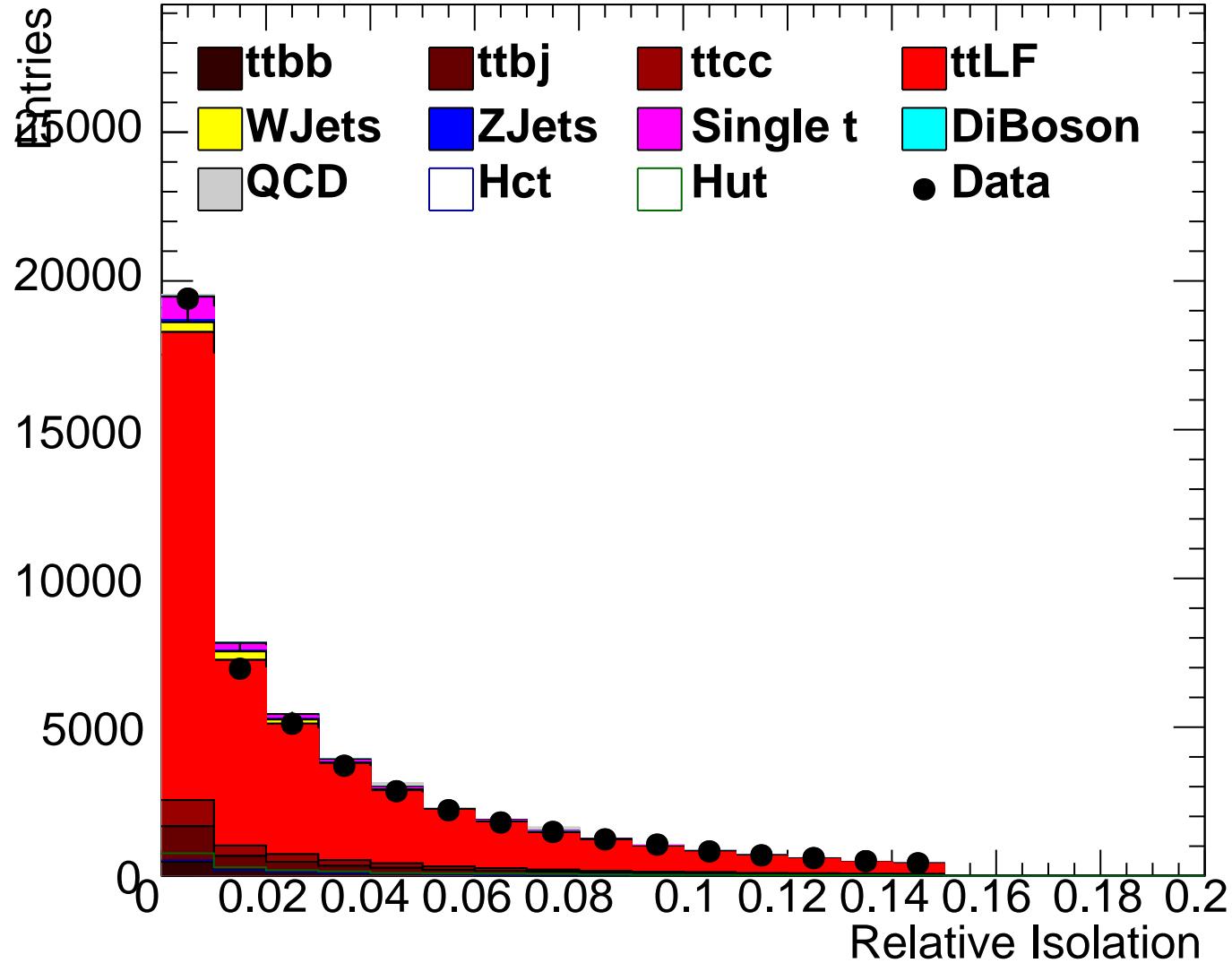


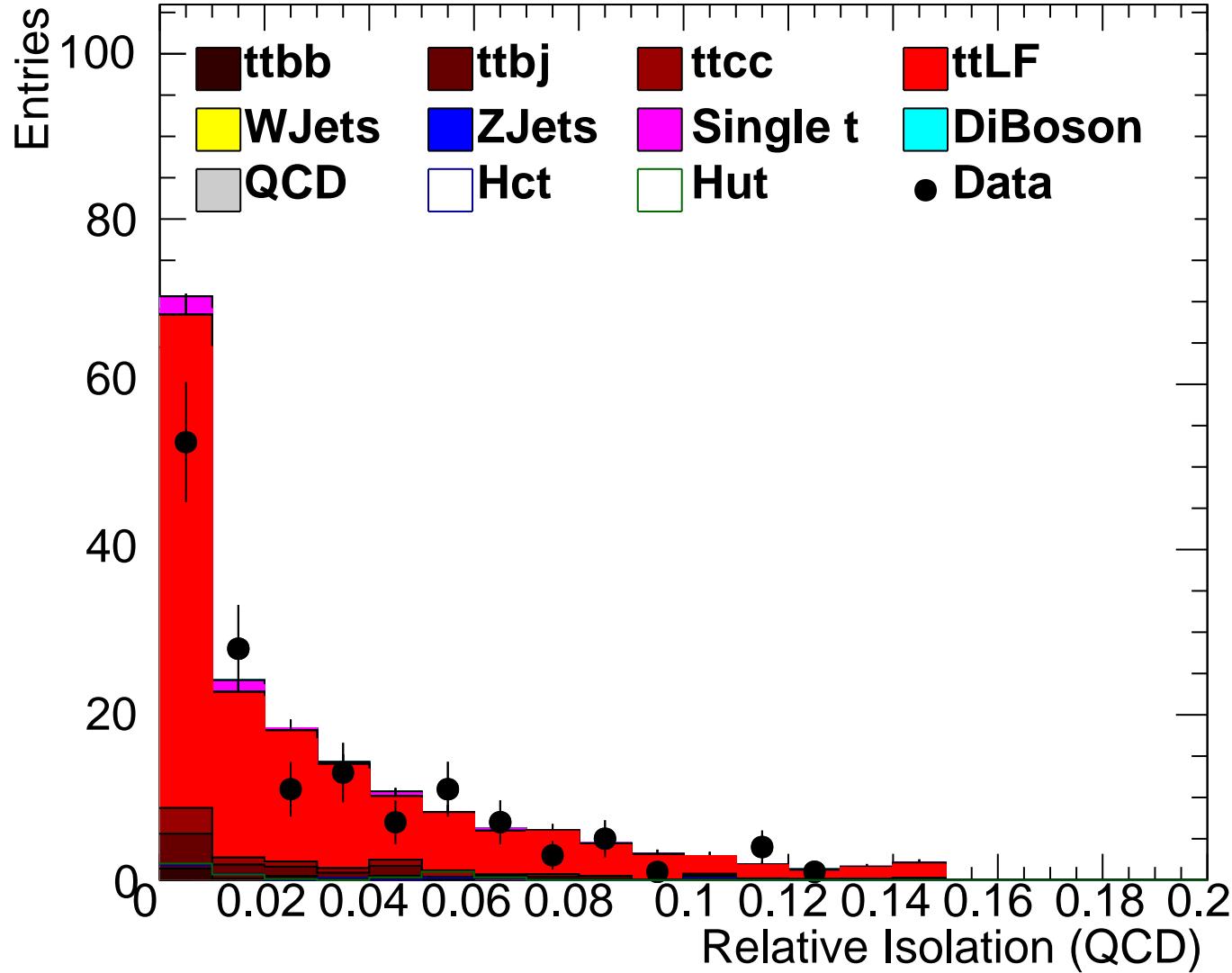


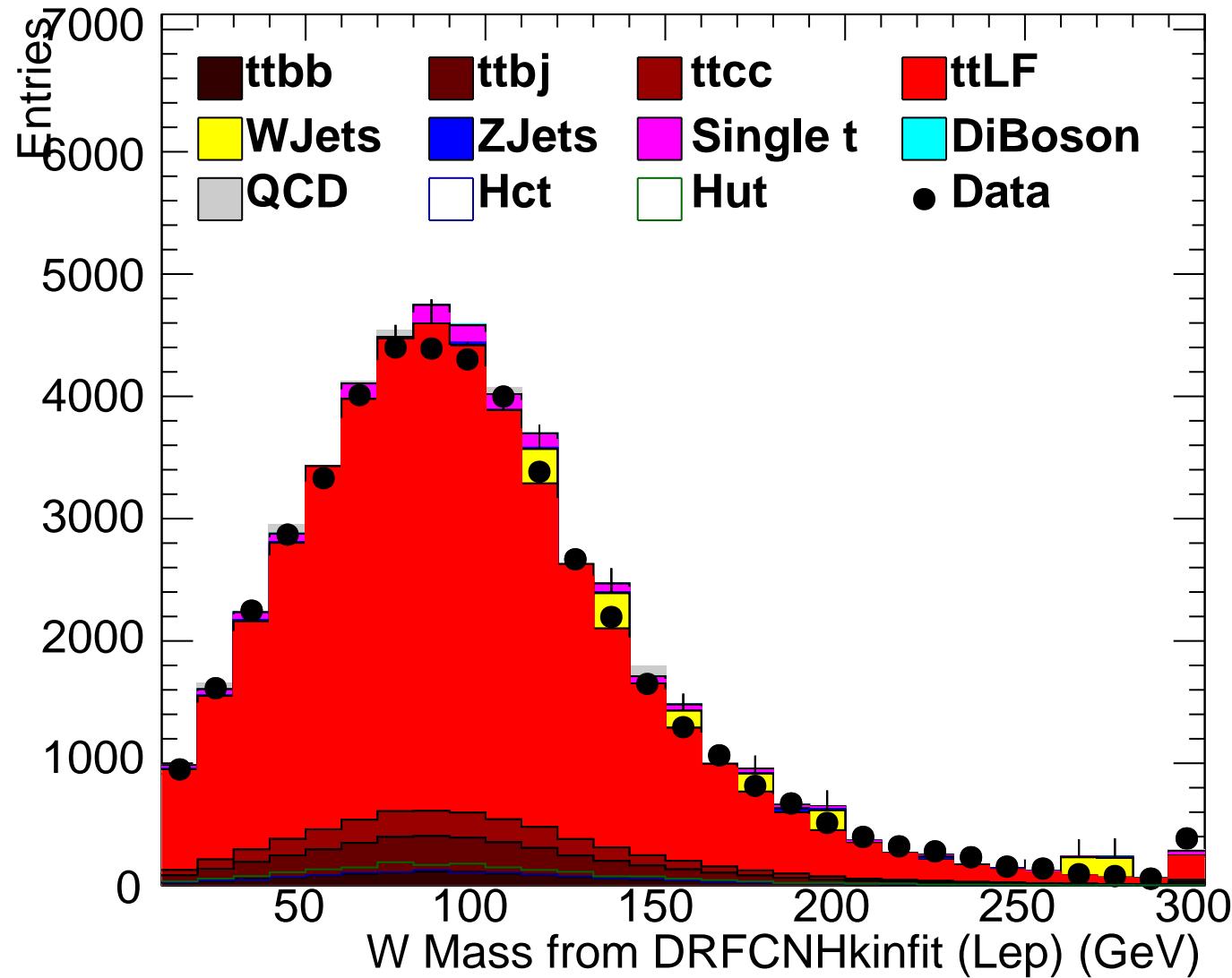


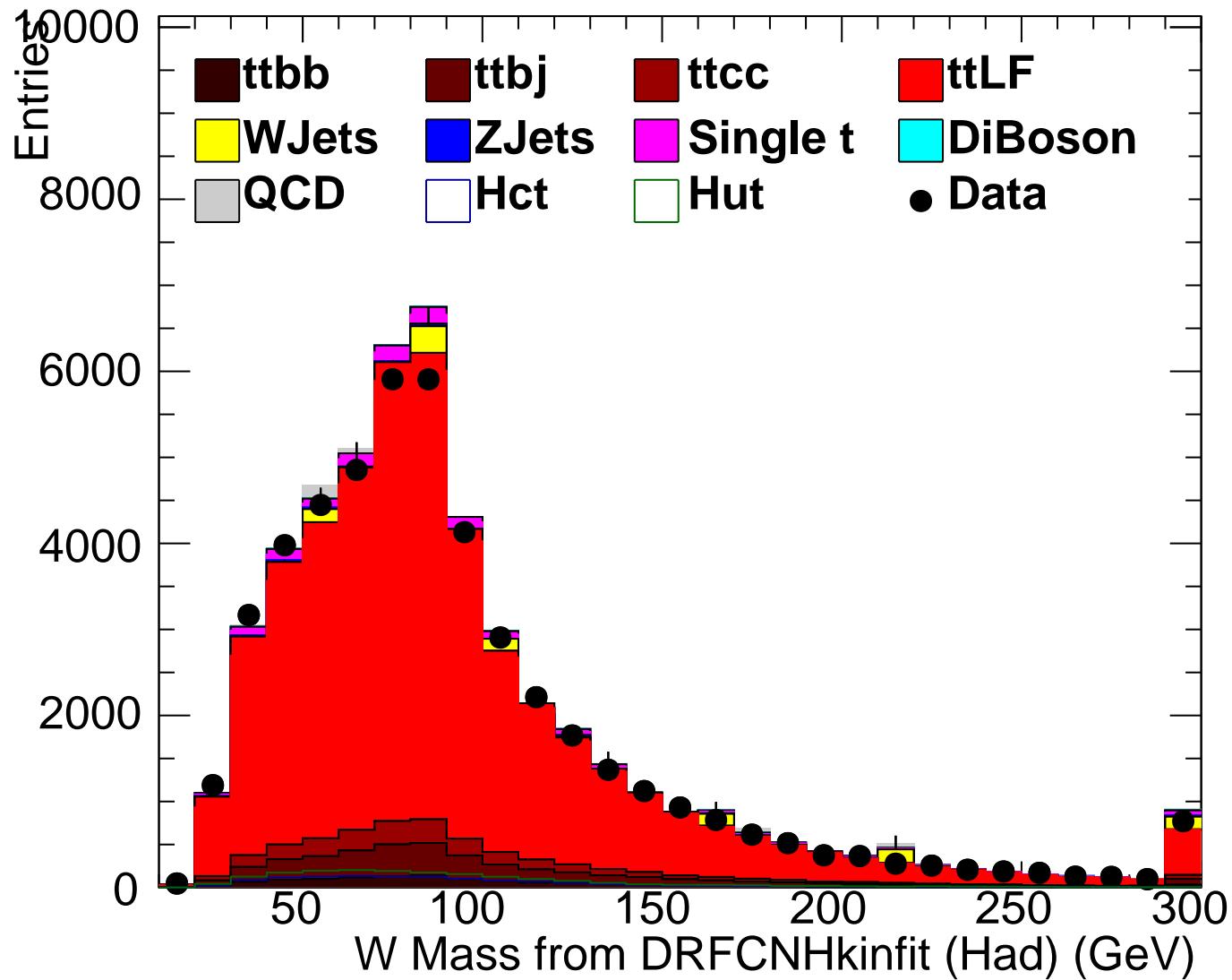


Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

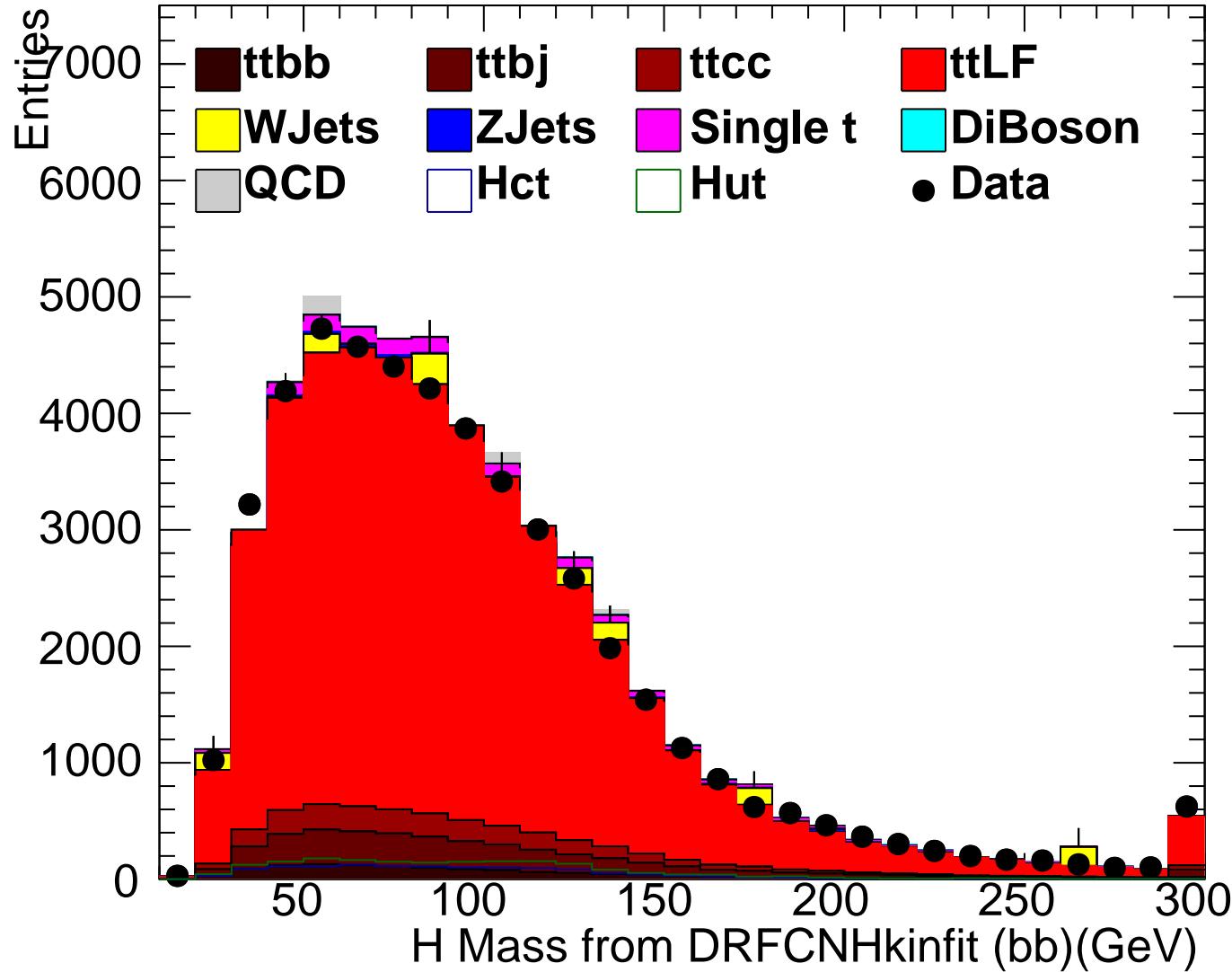


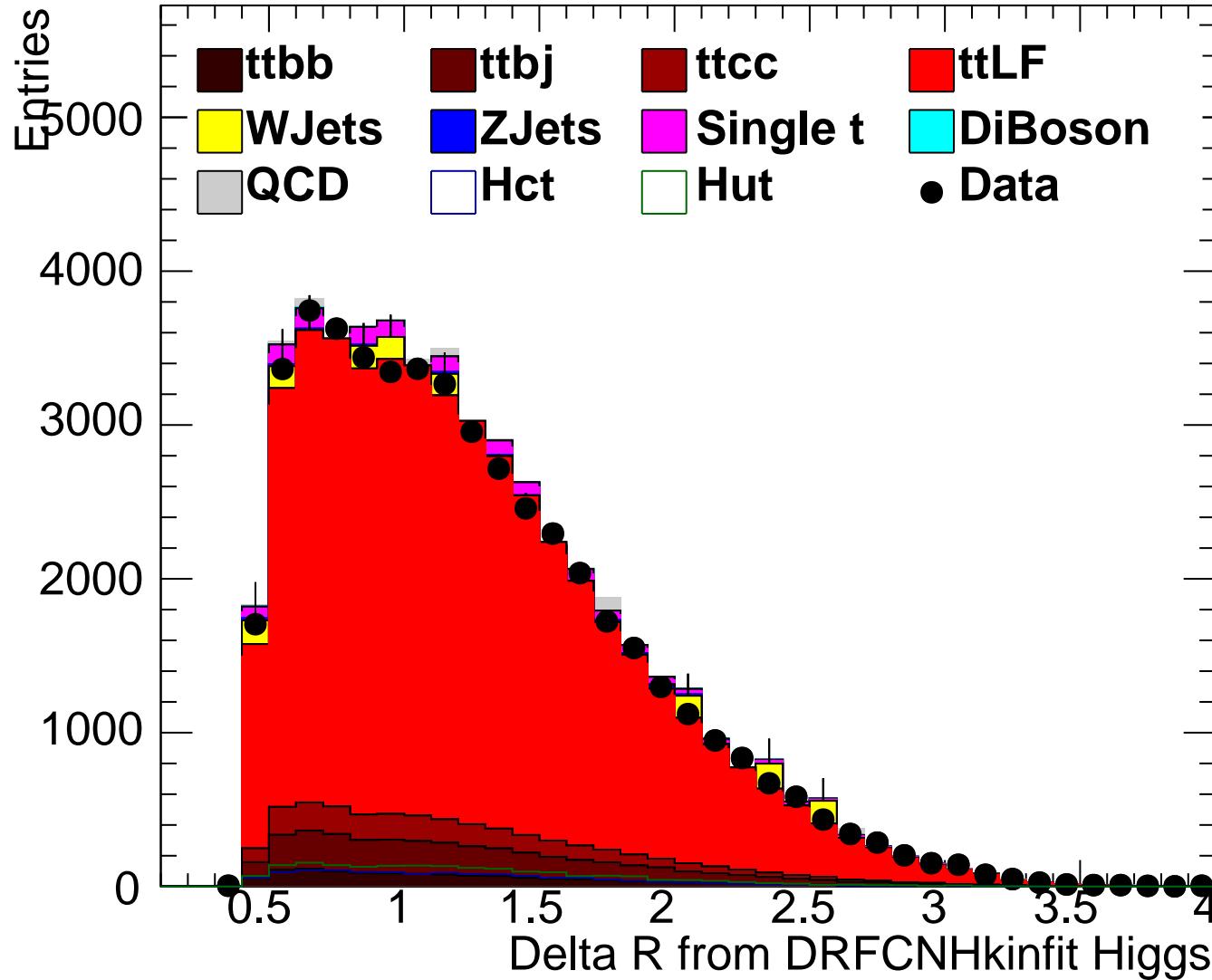
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

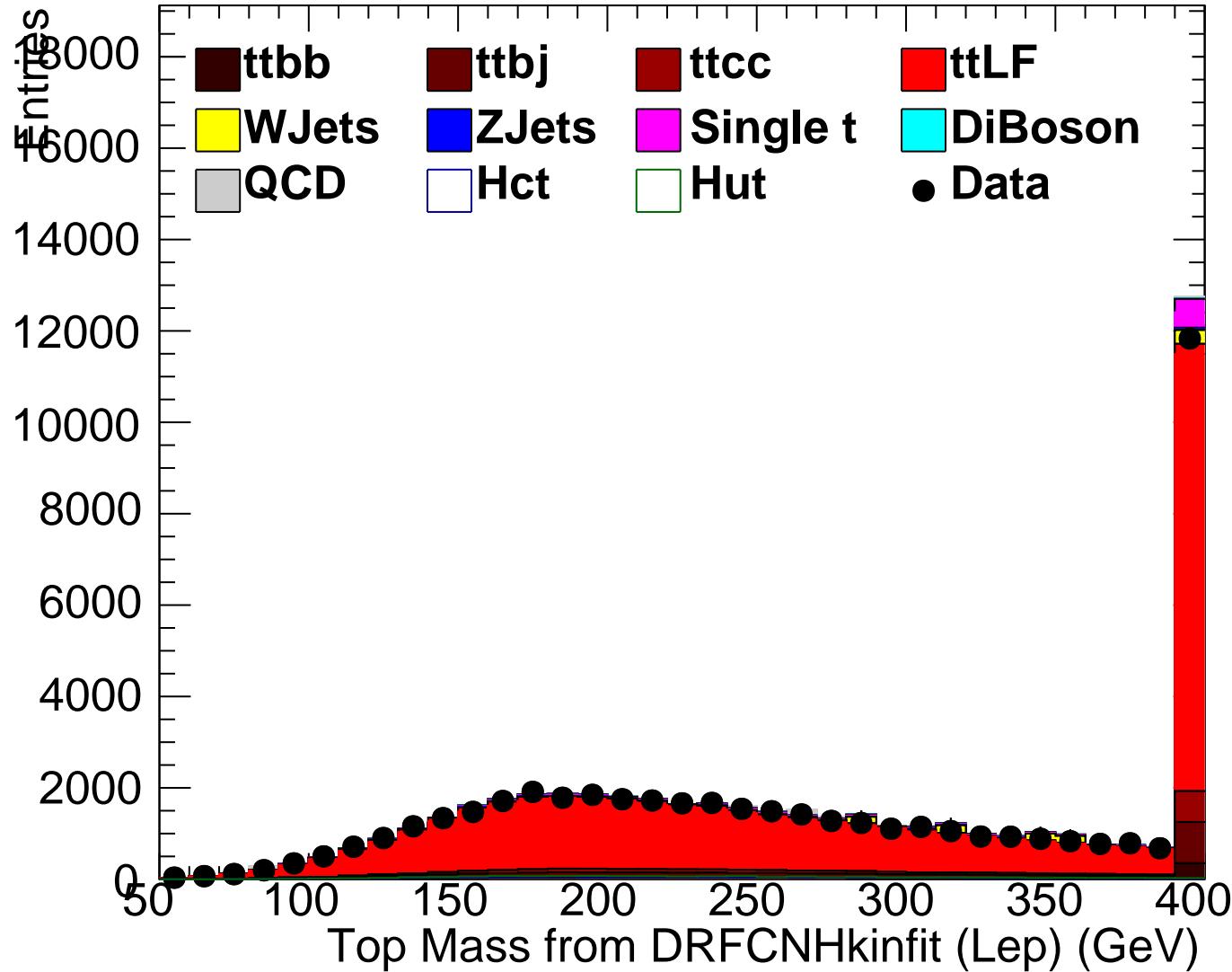
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0 S12

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

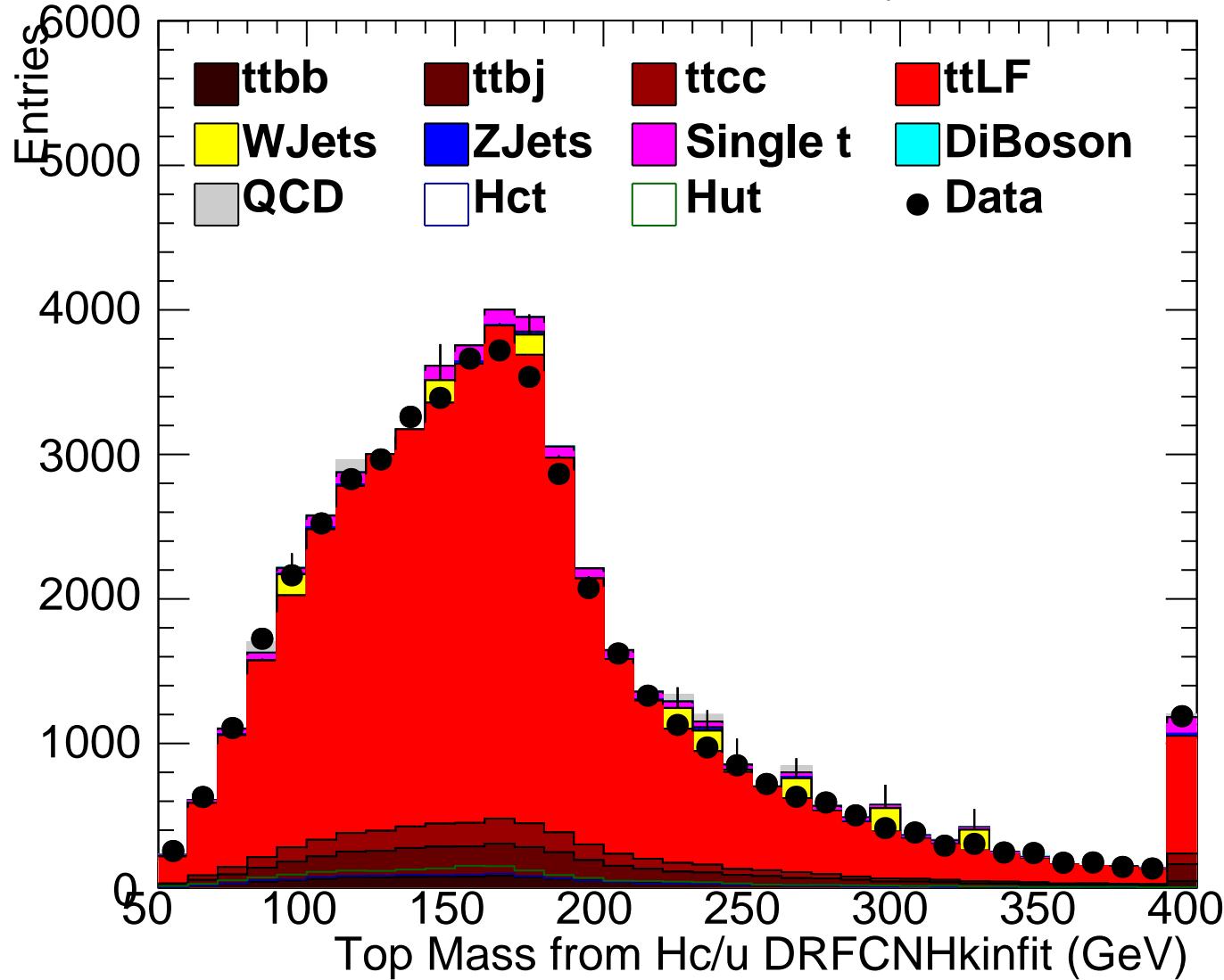


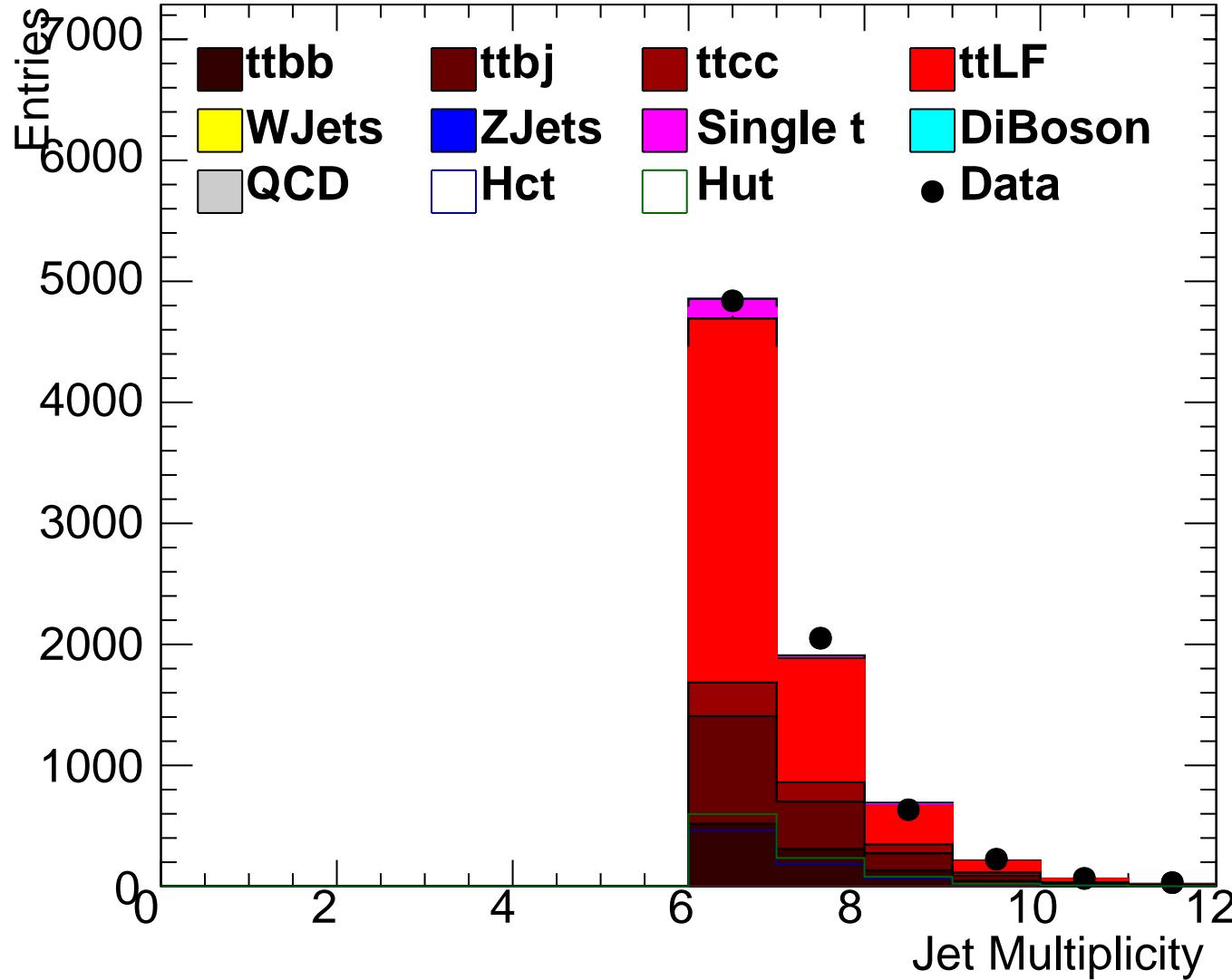
Ch0_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S12

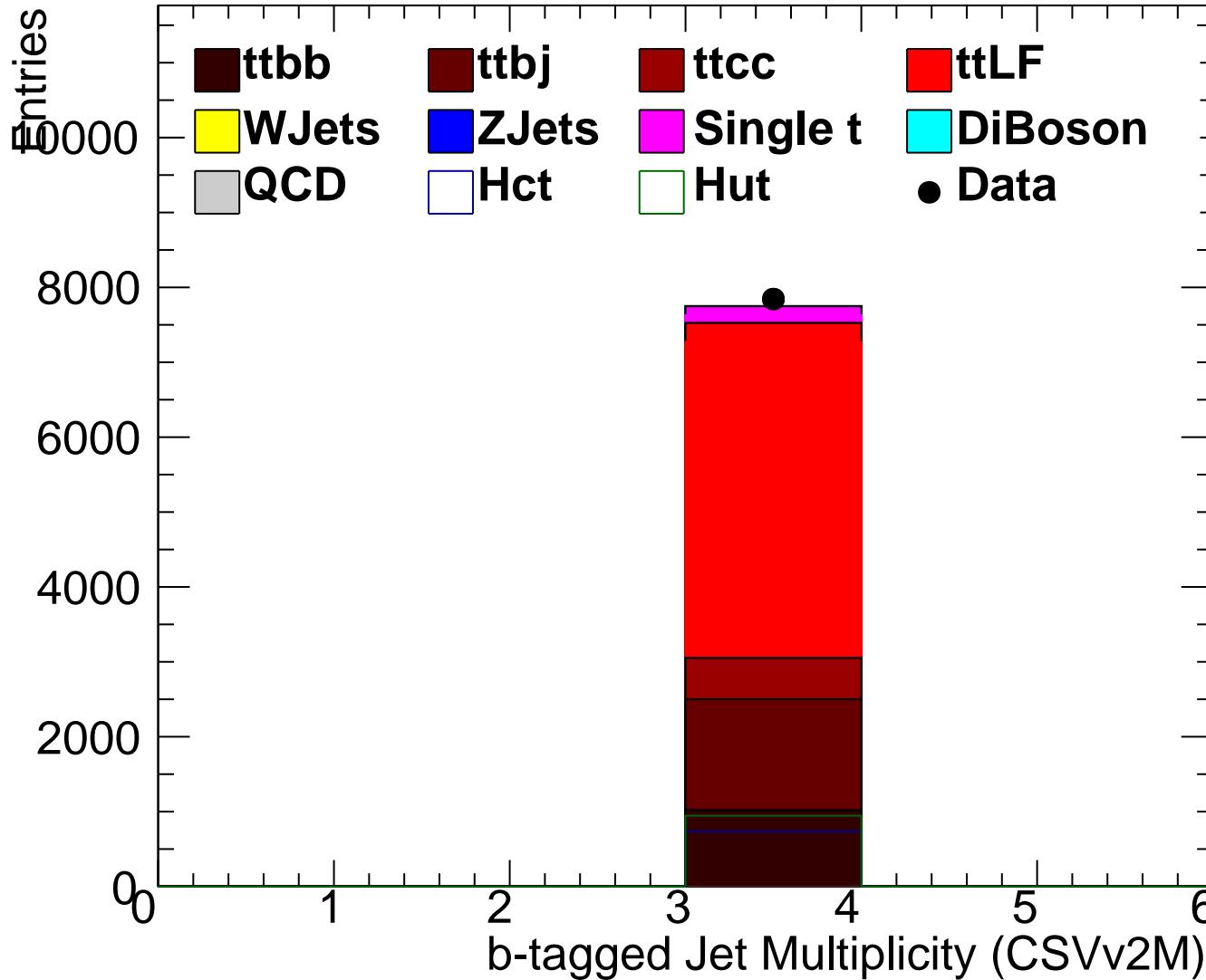
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$





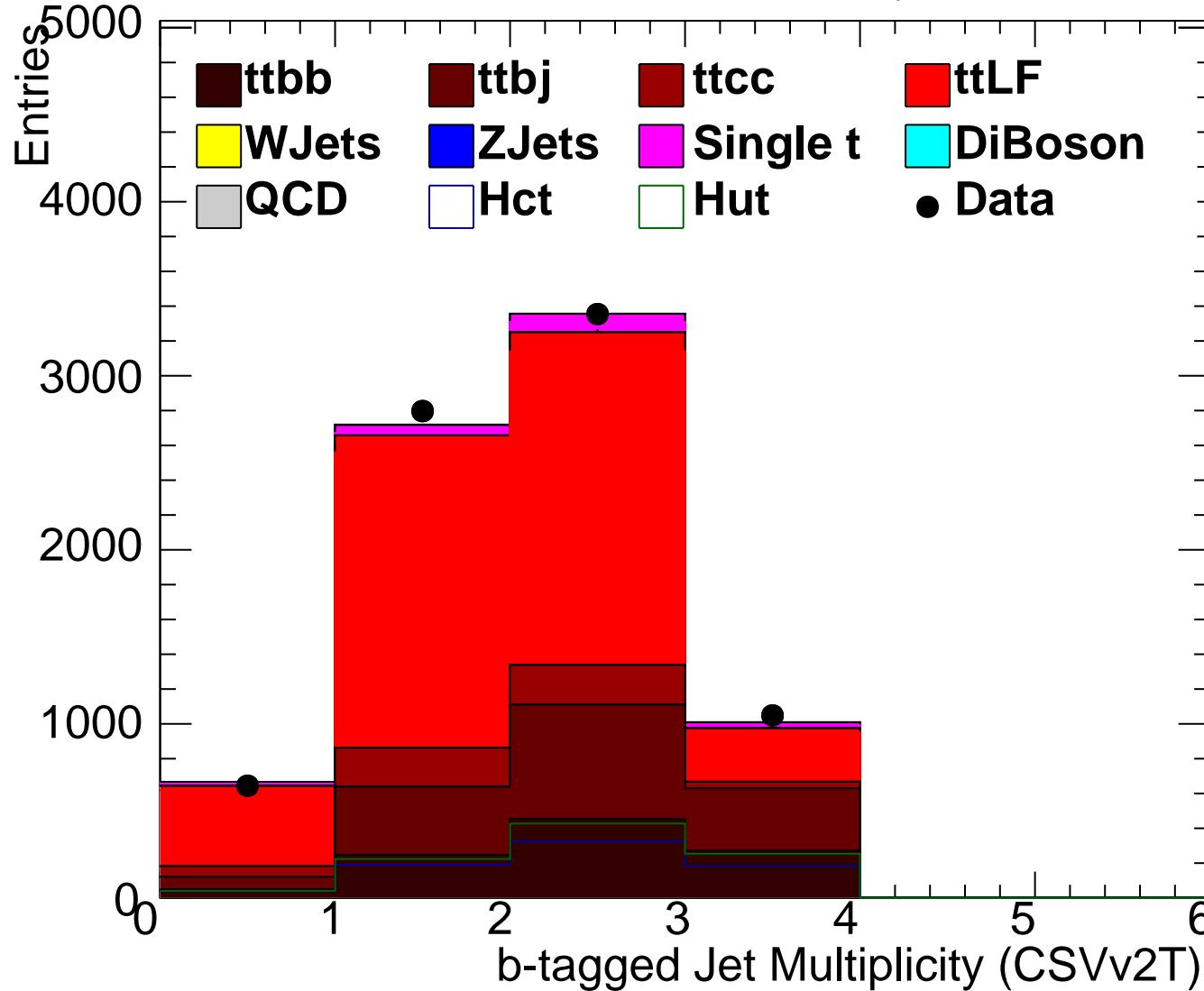
Ch0 S13

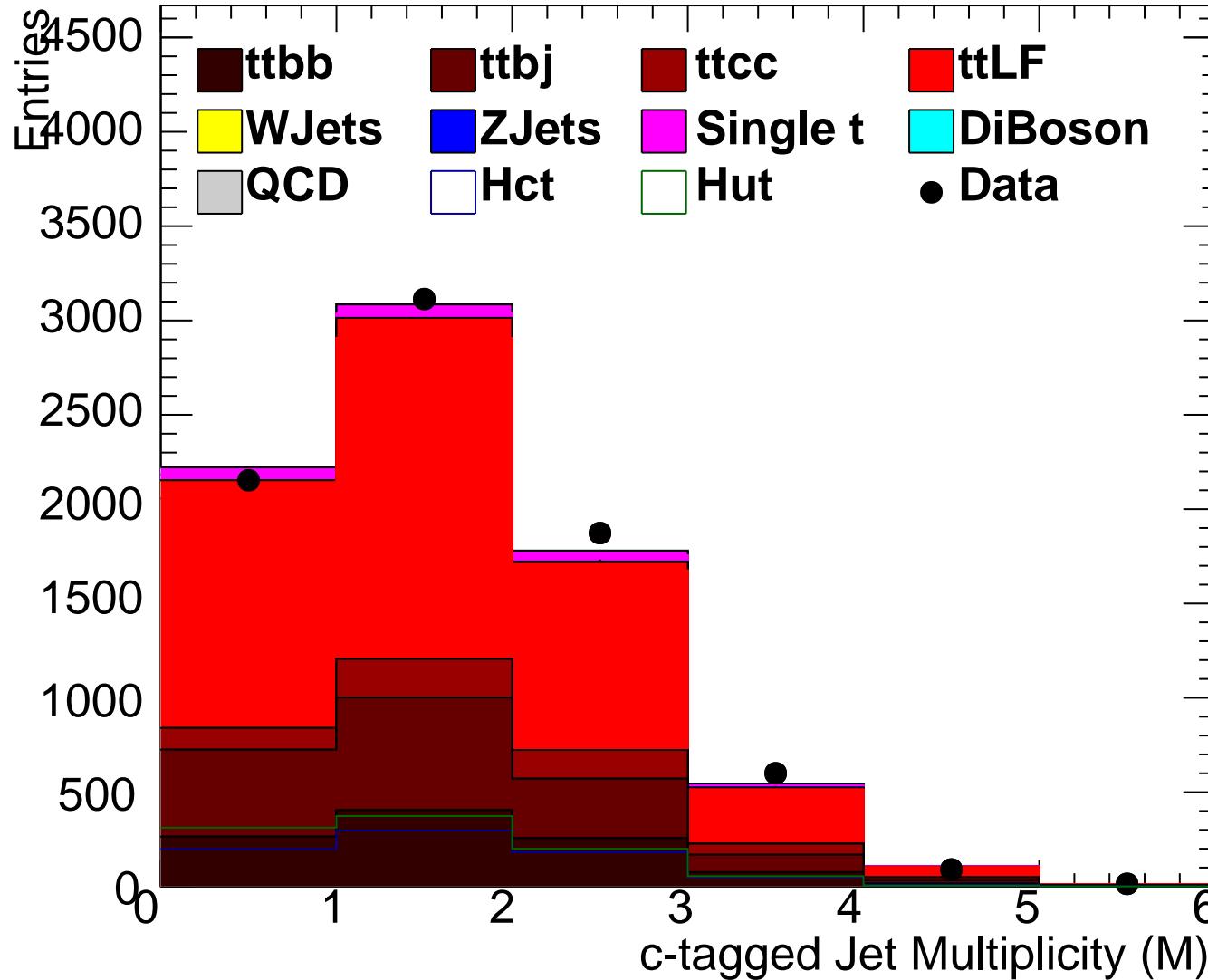
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

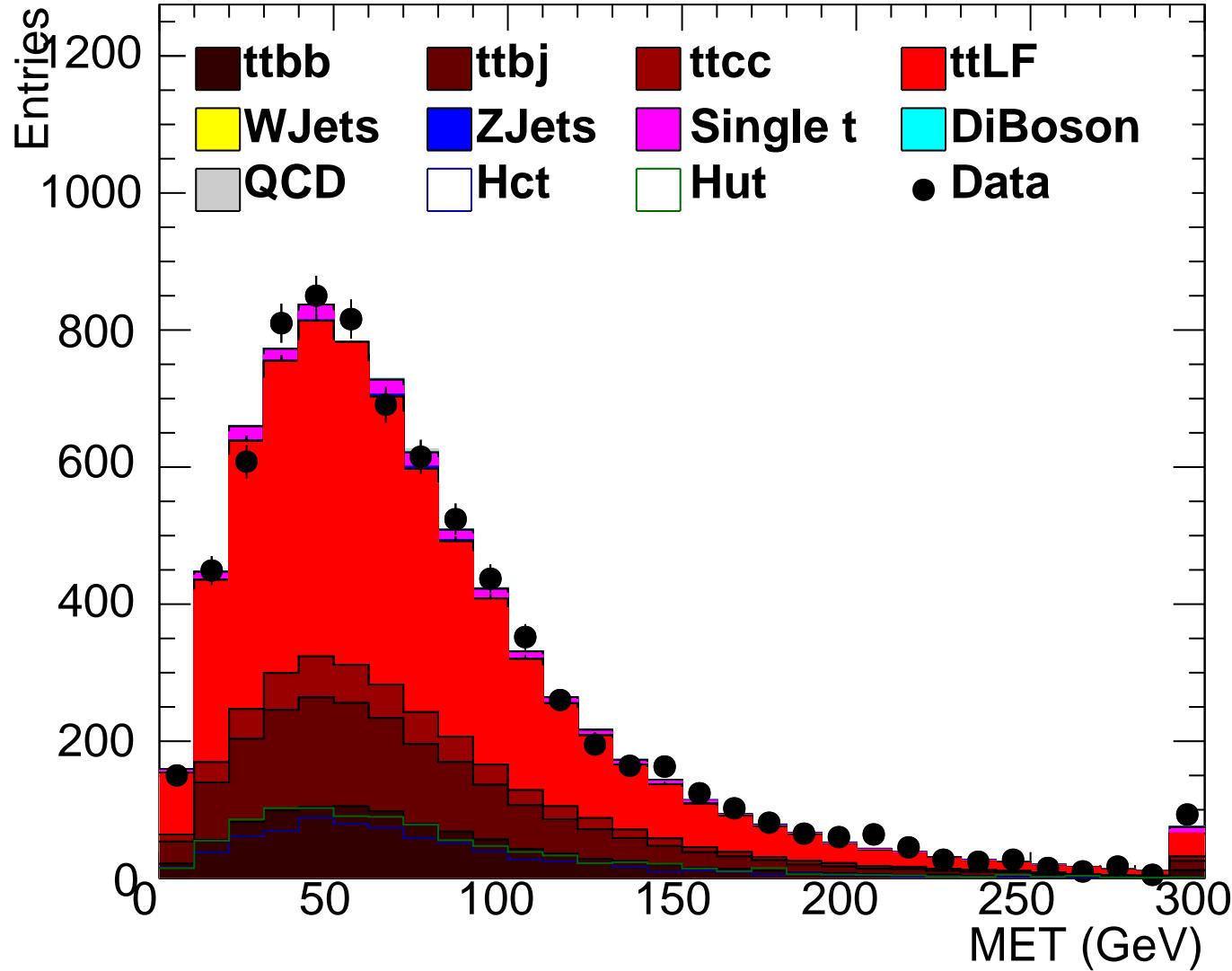


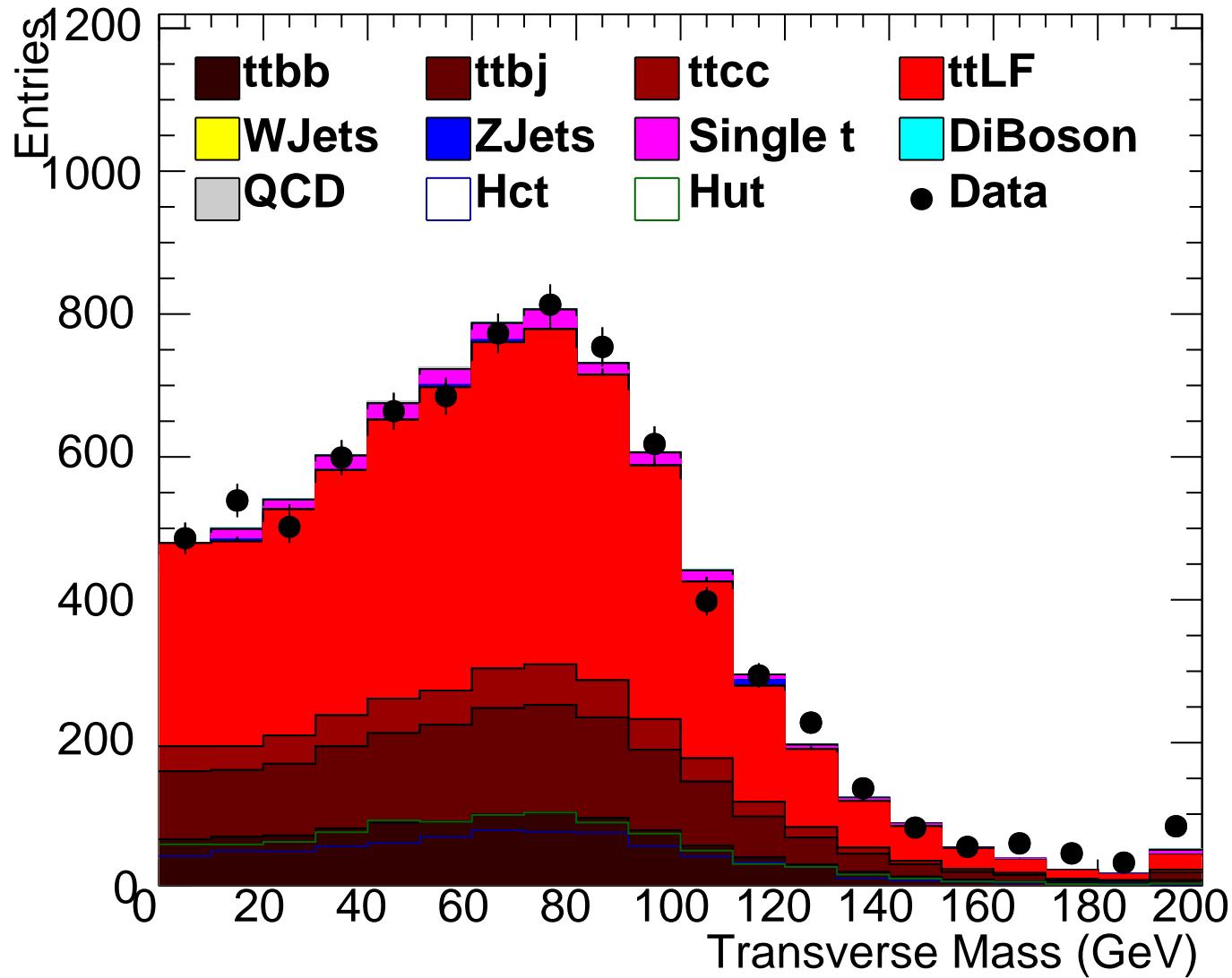
Ch0_S13

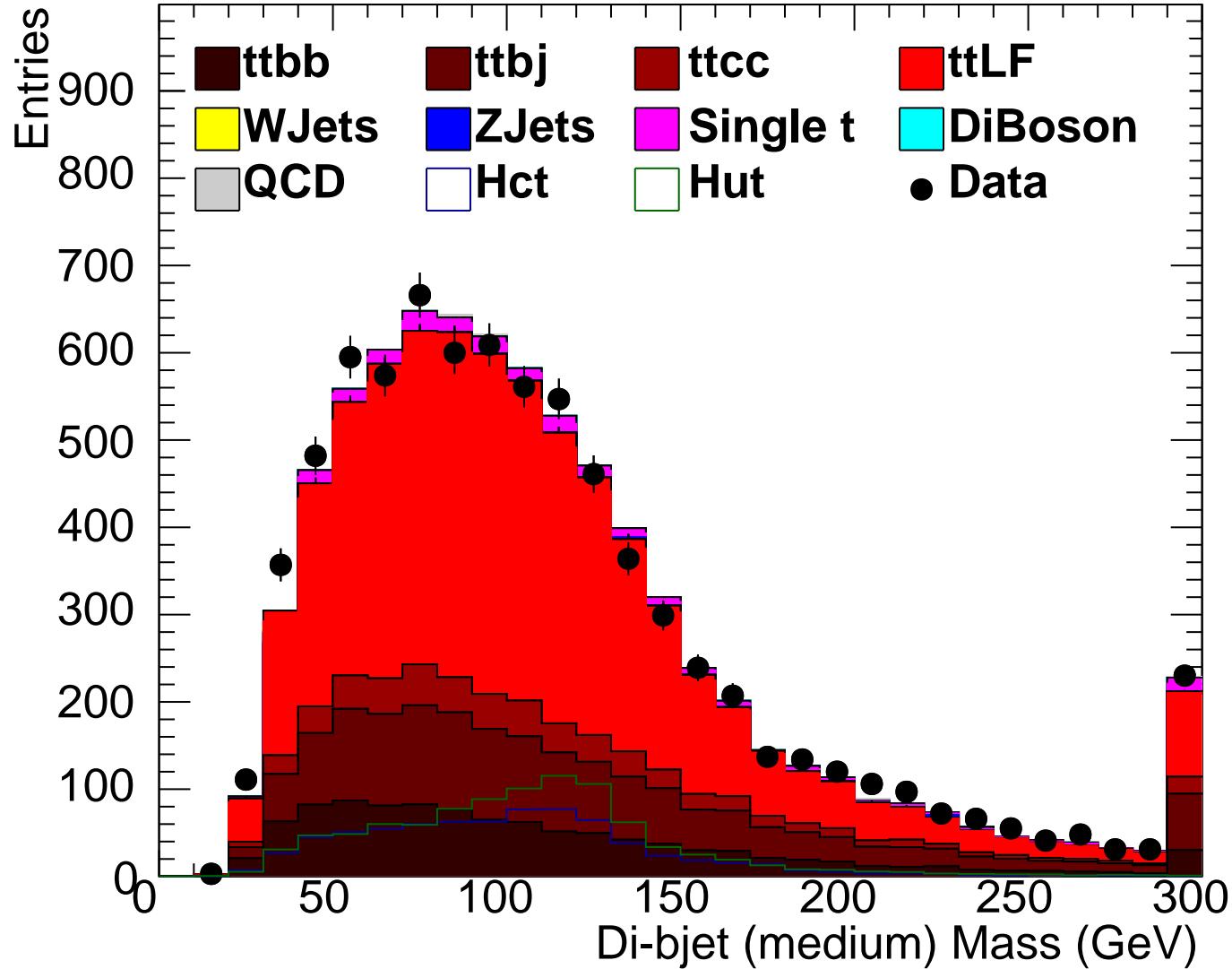
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

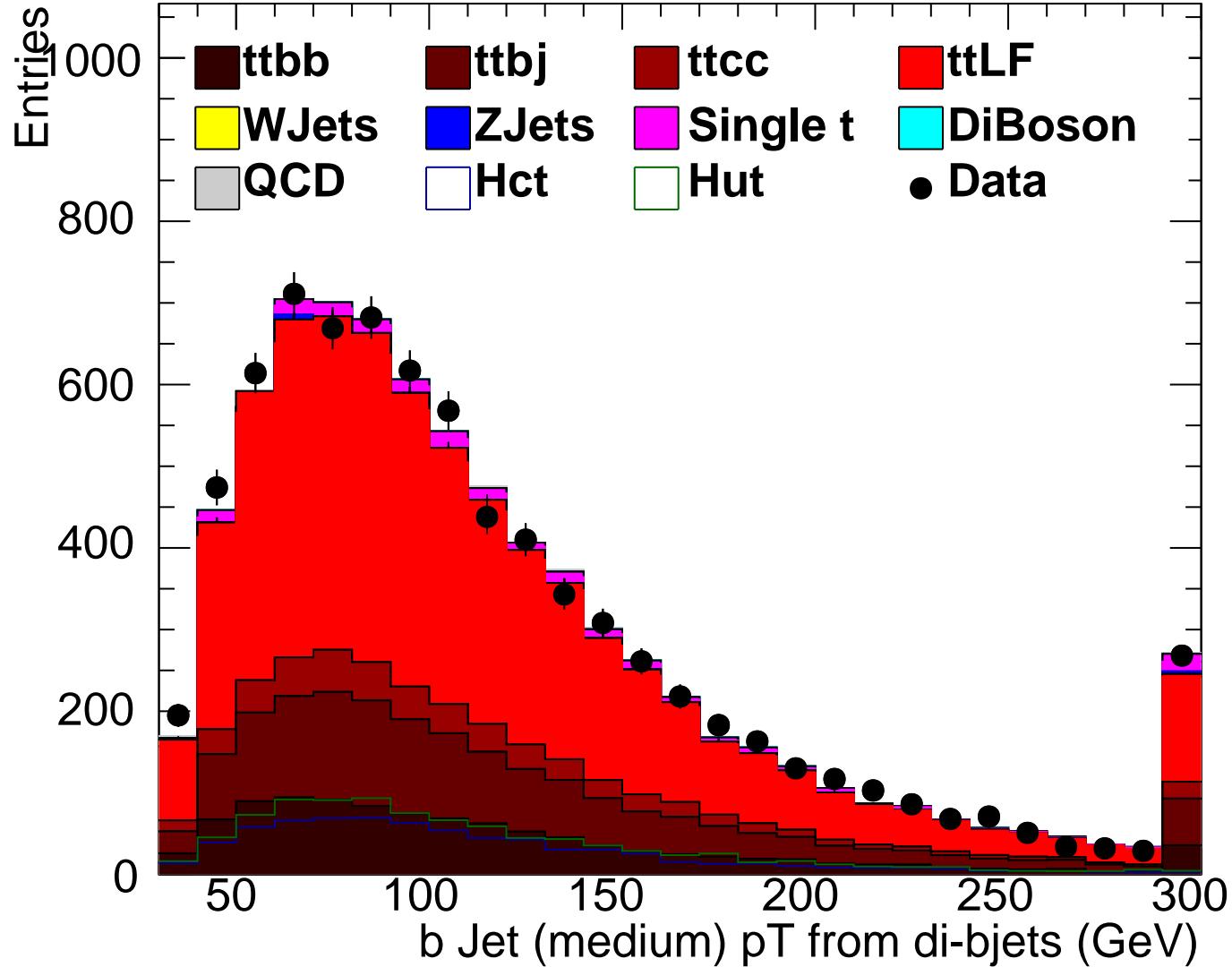


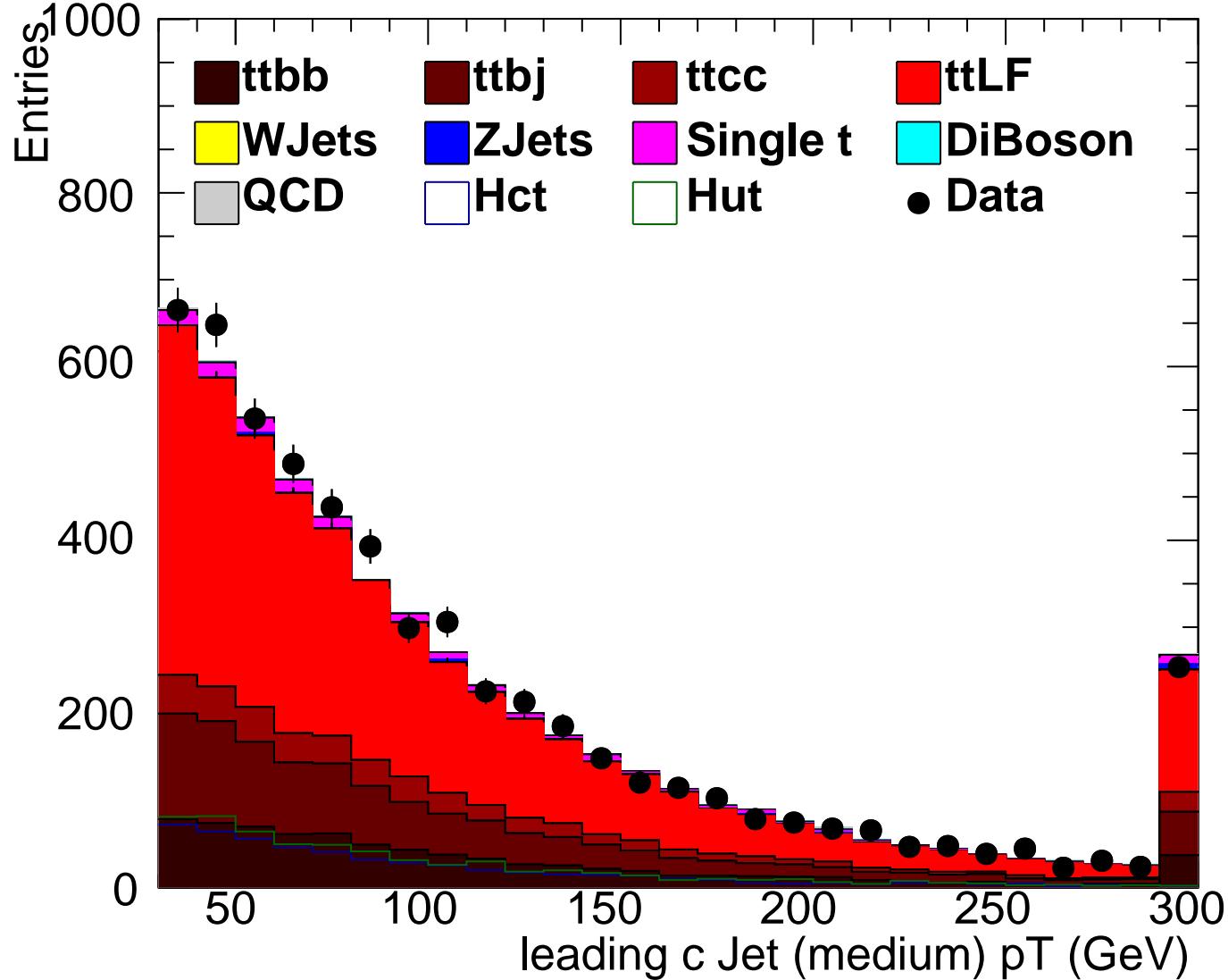


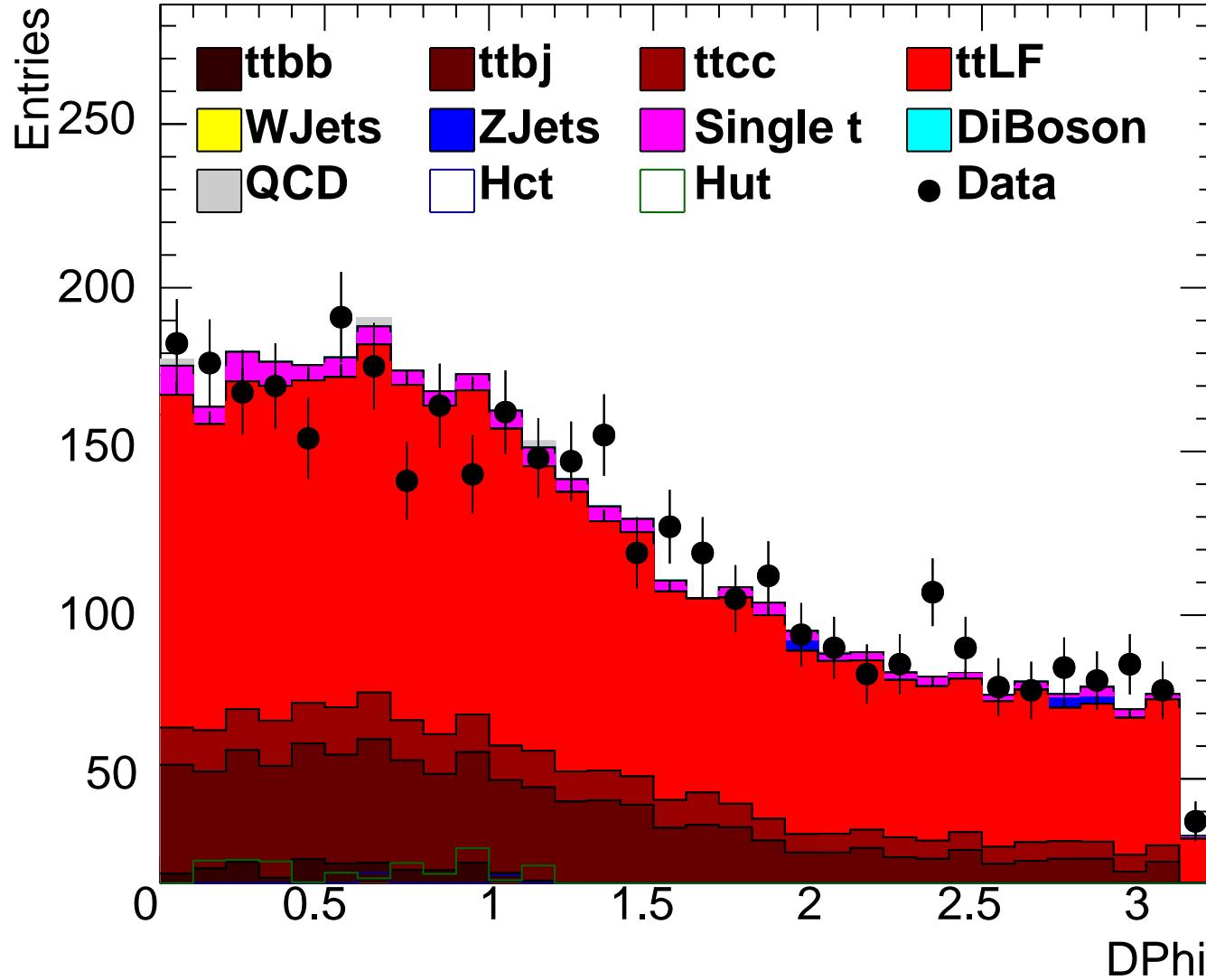
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

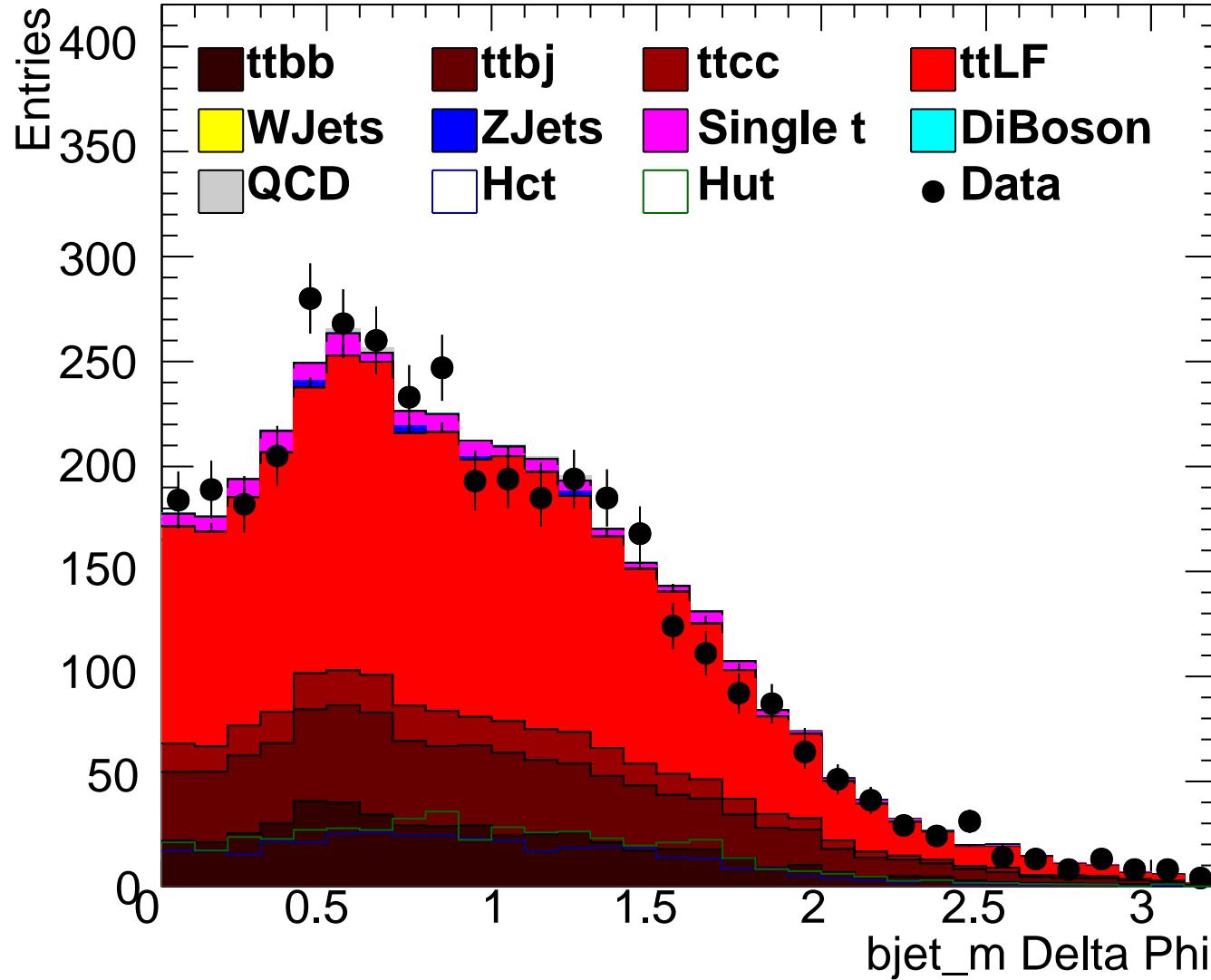


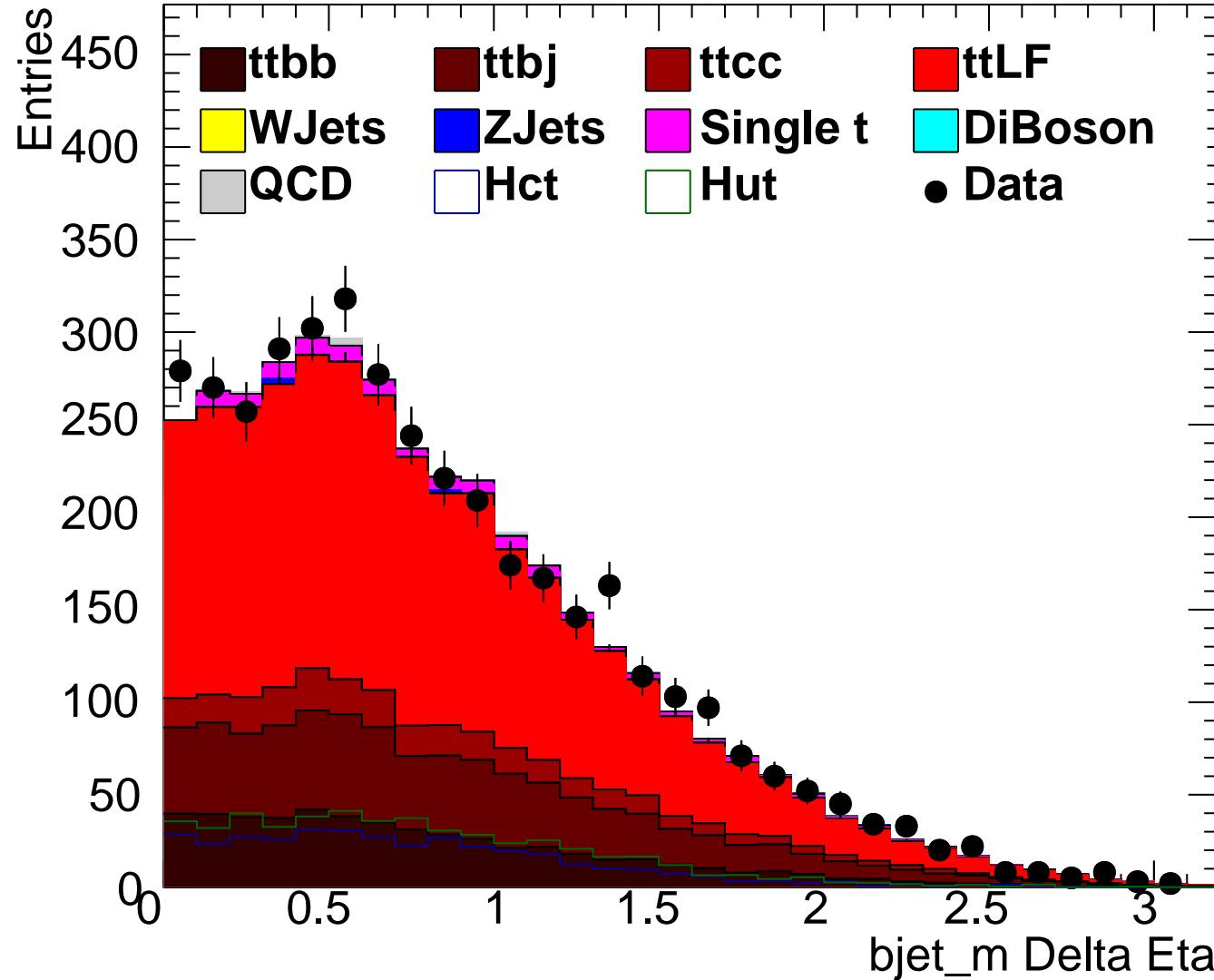
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

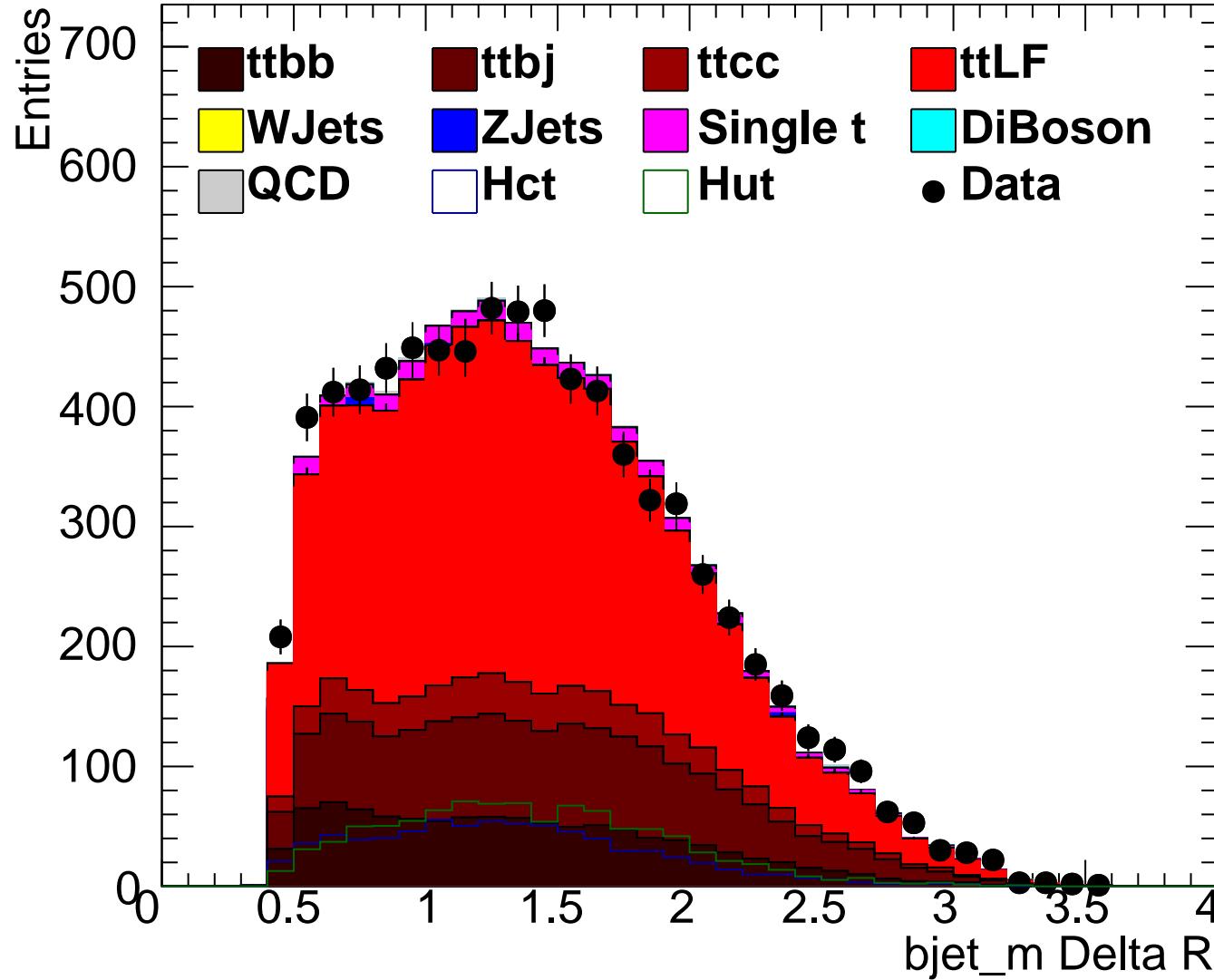
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

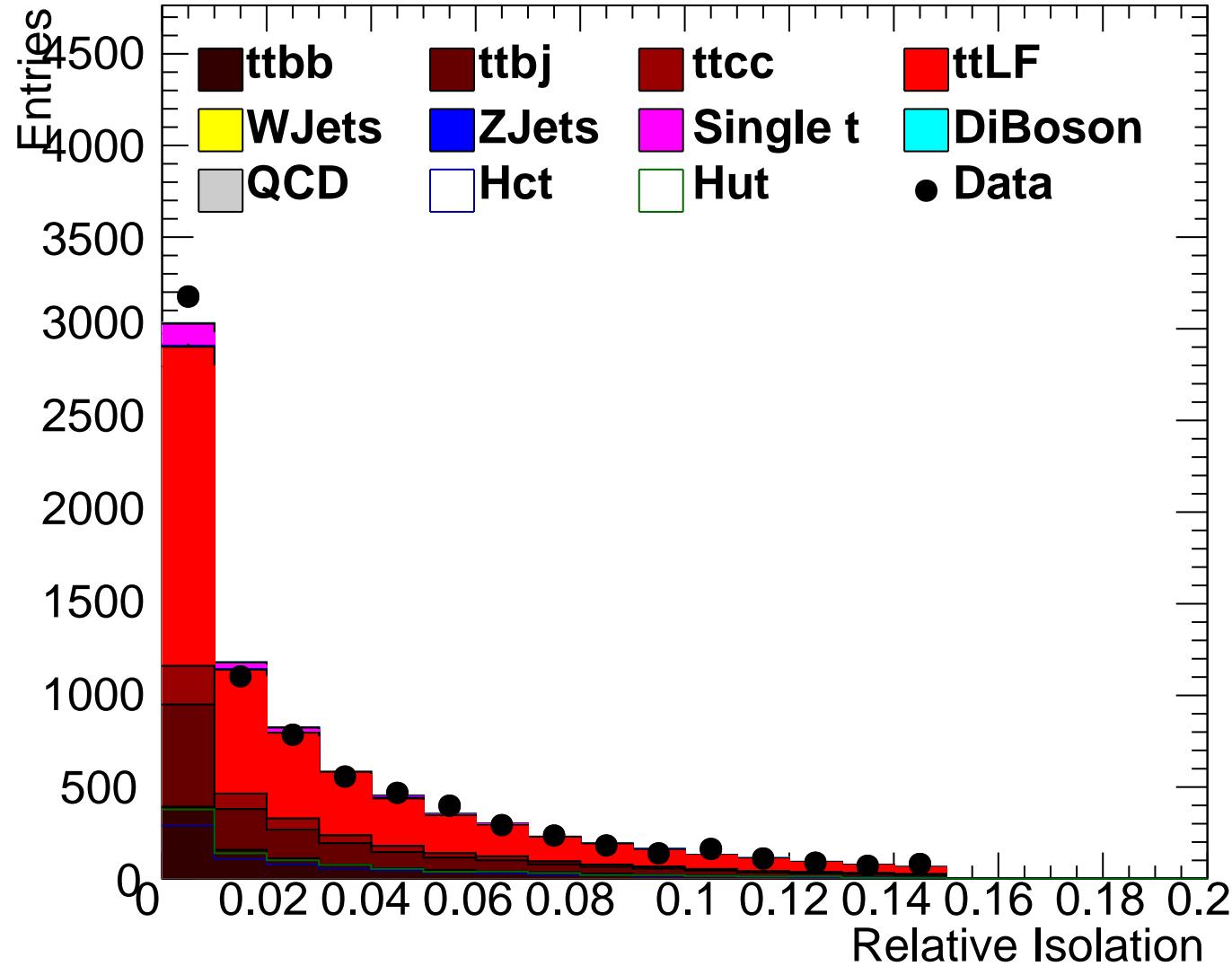
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

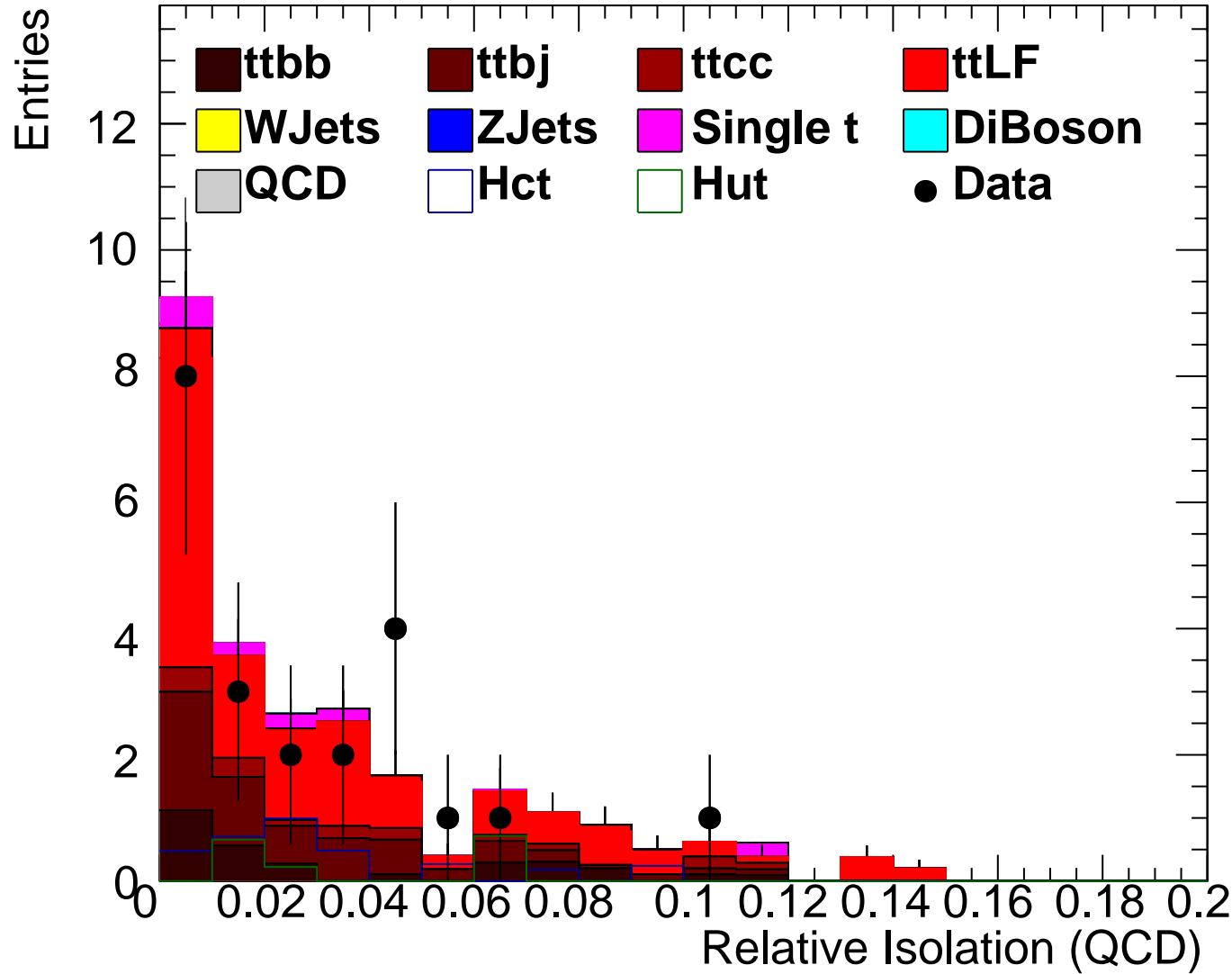
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



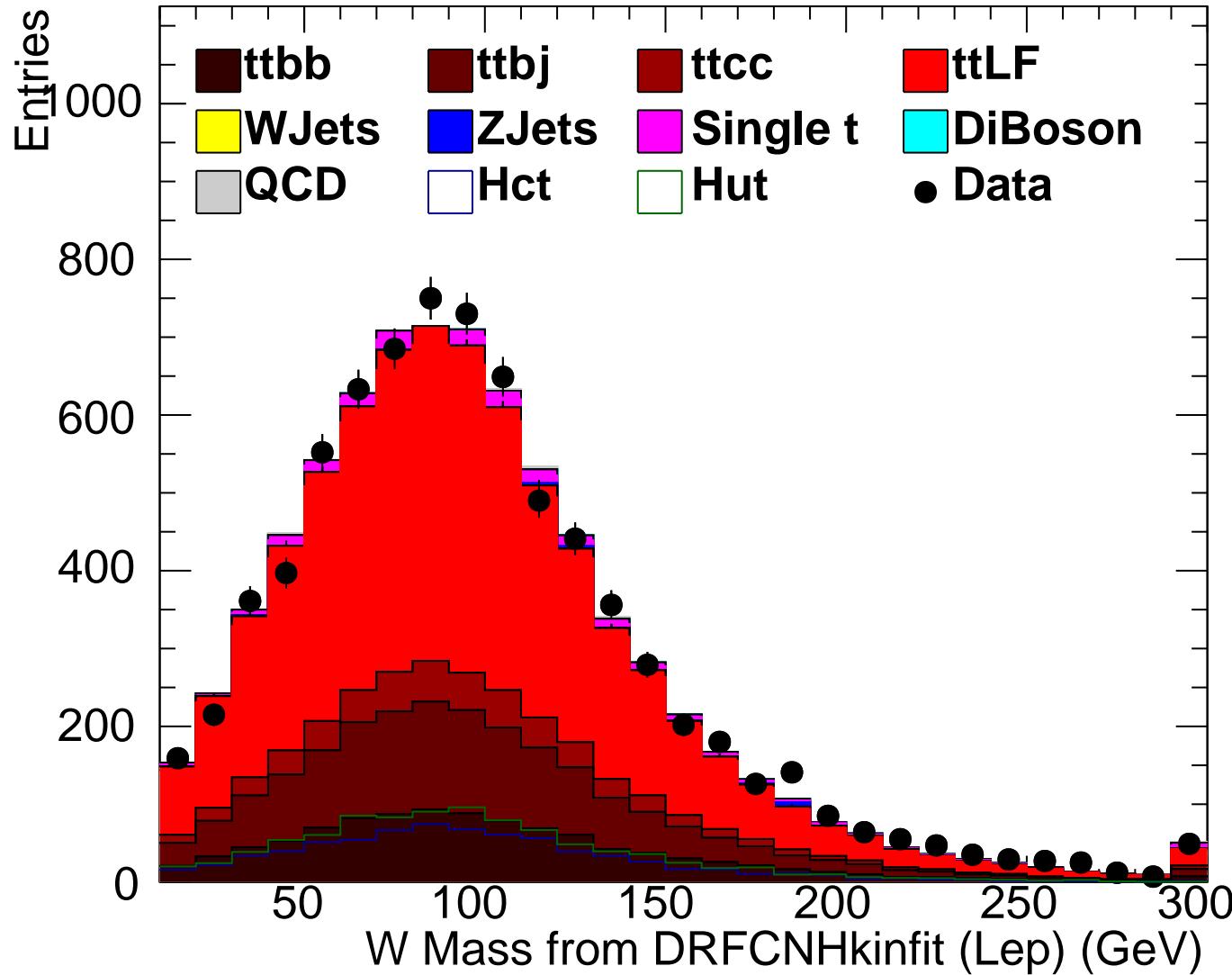






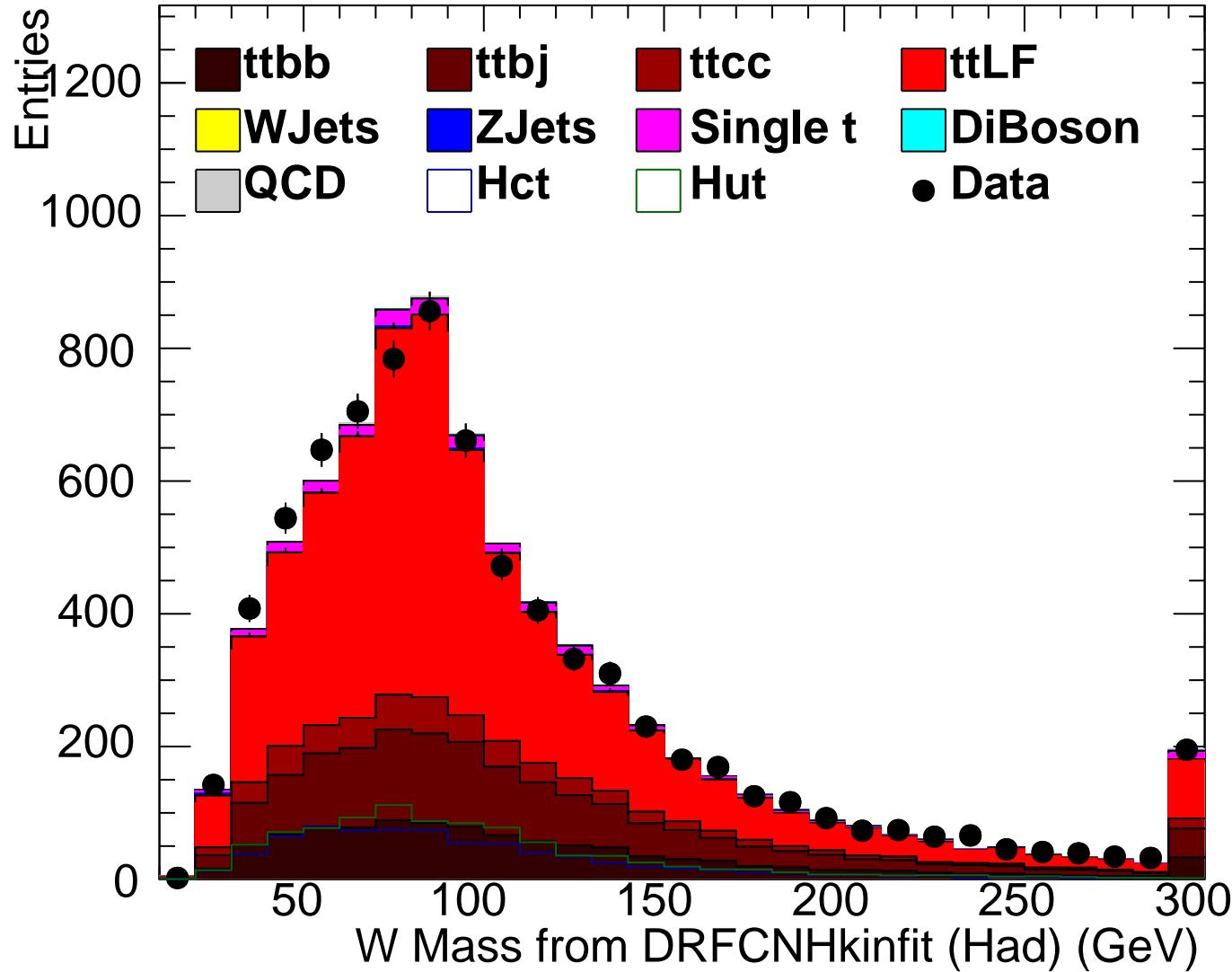
Ch0 S13

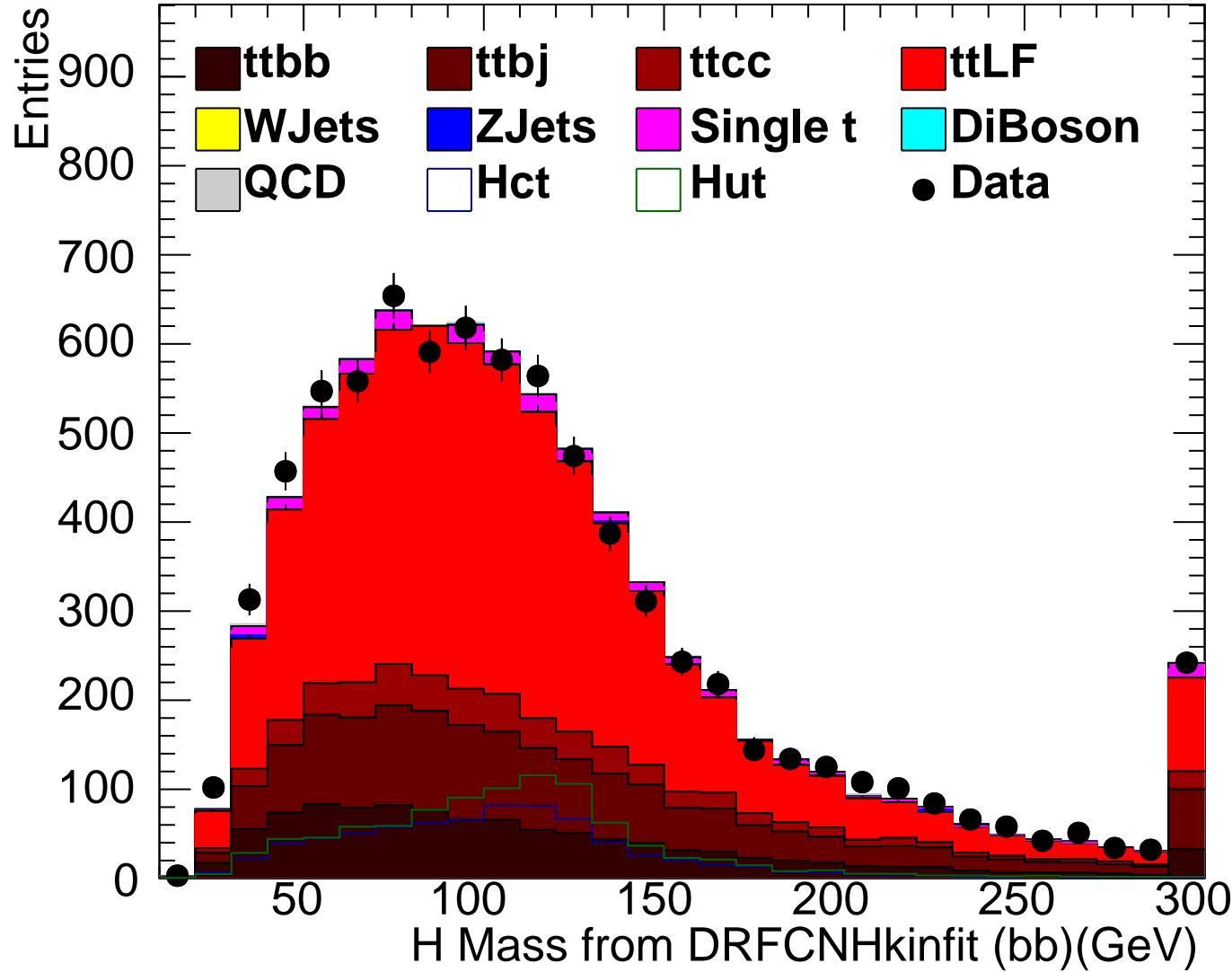
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

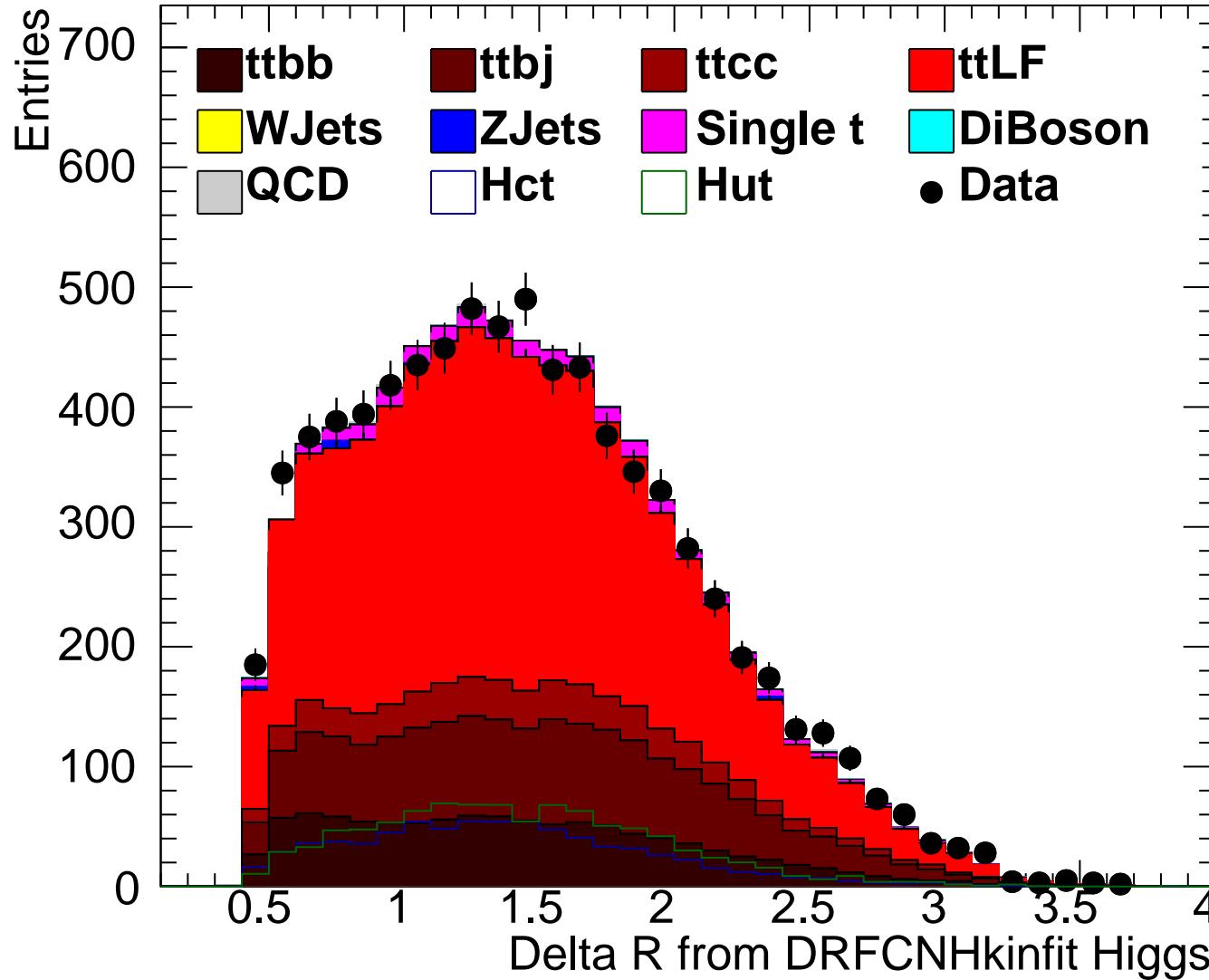


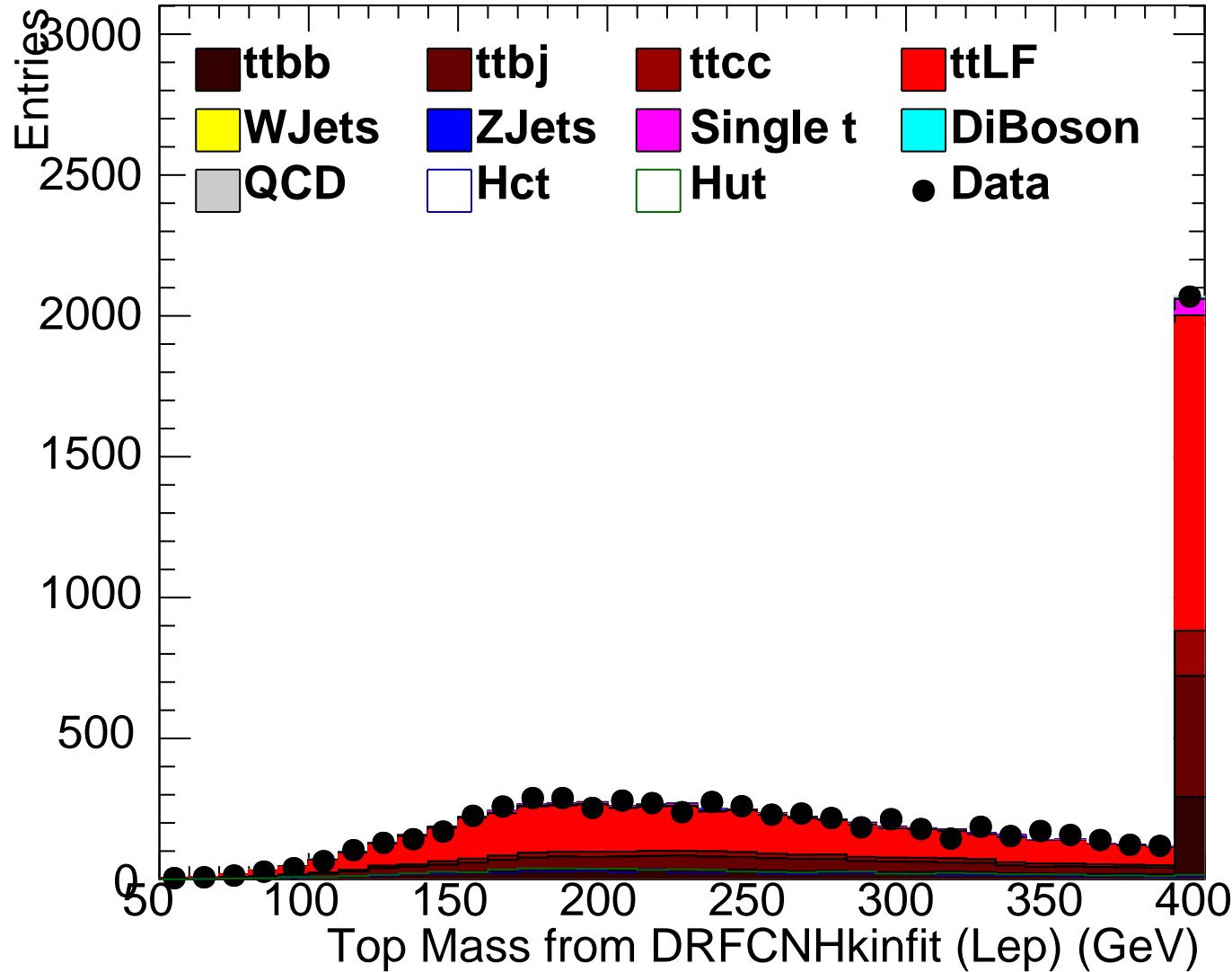
Ch0 S13

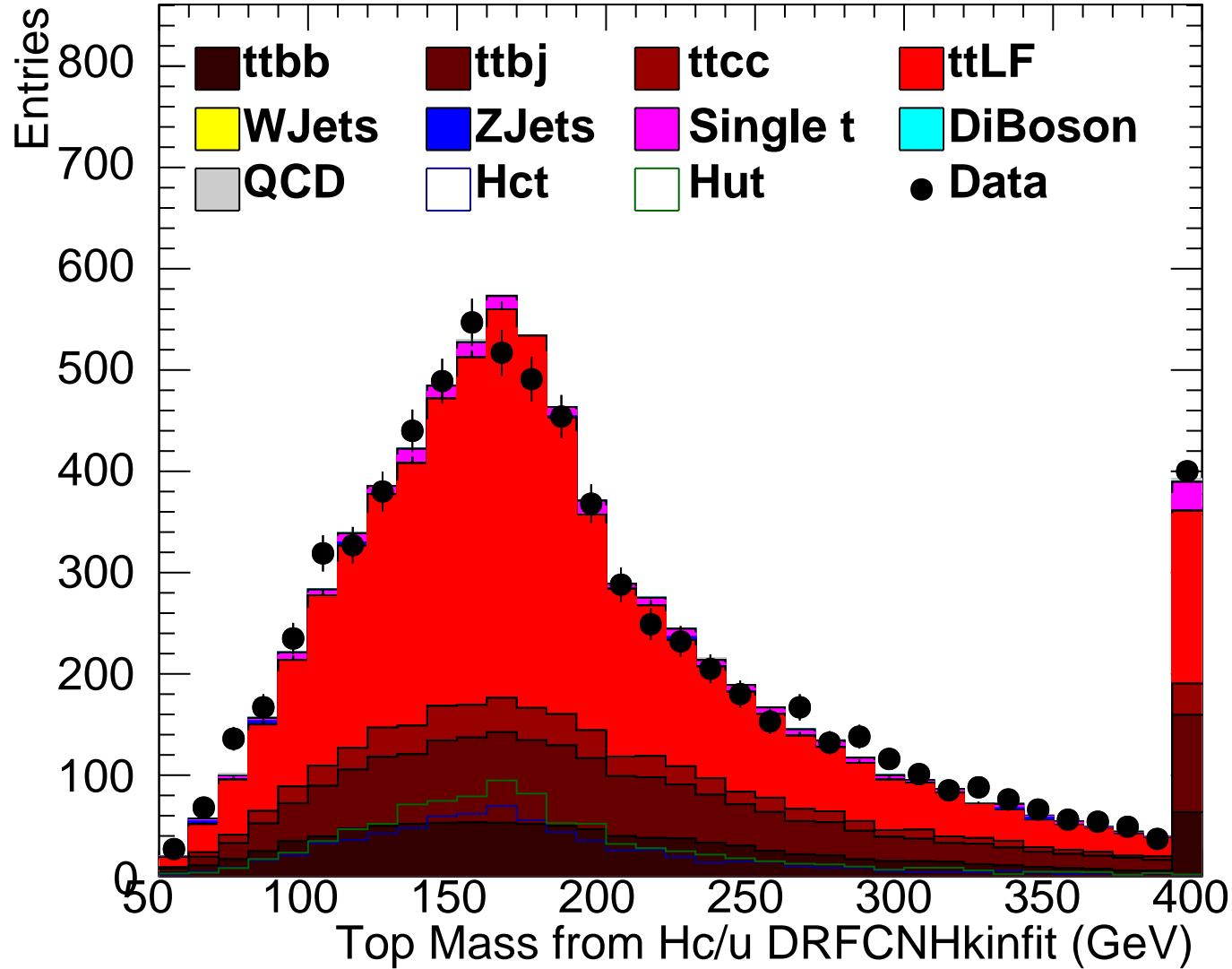
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

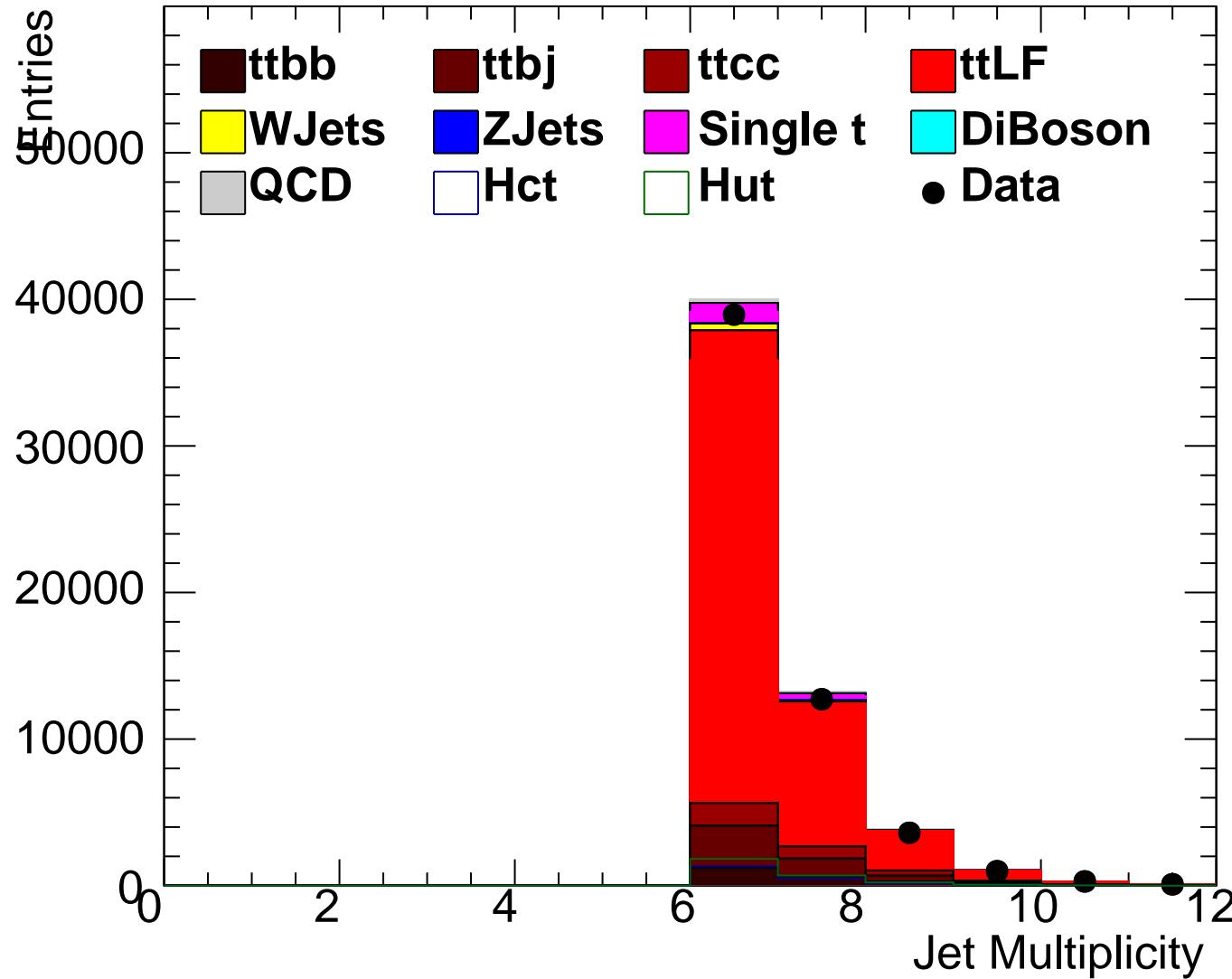


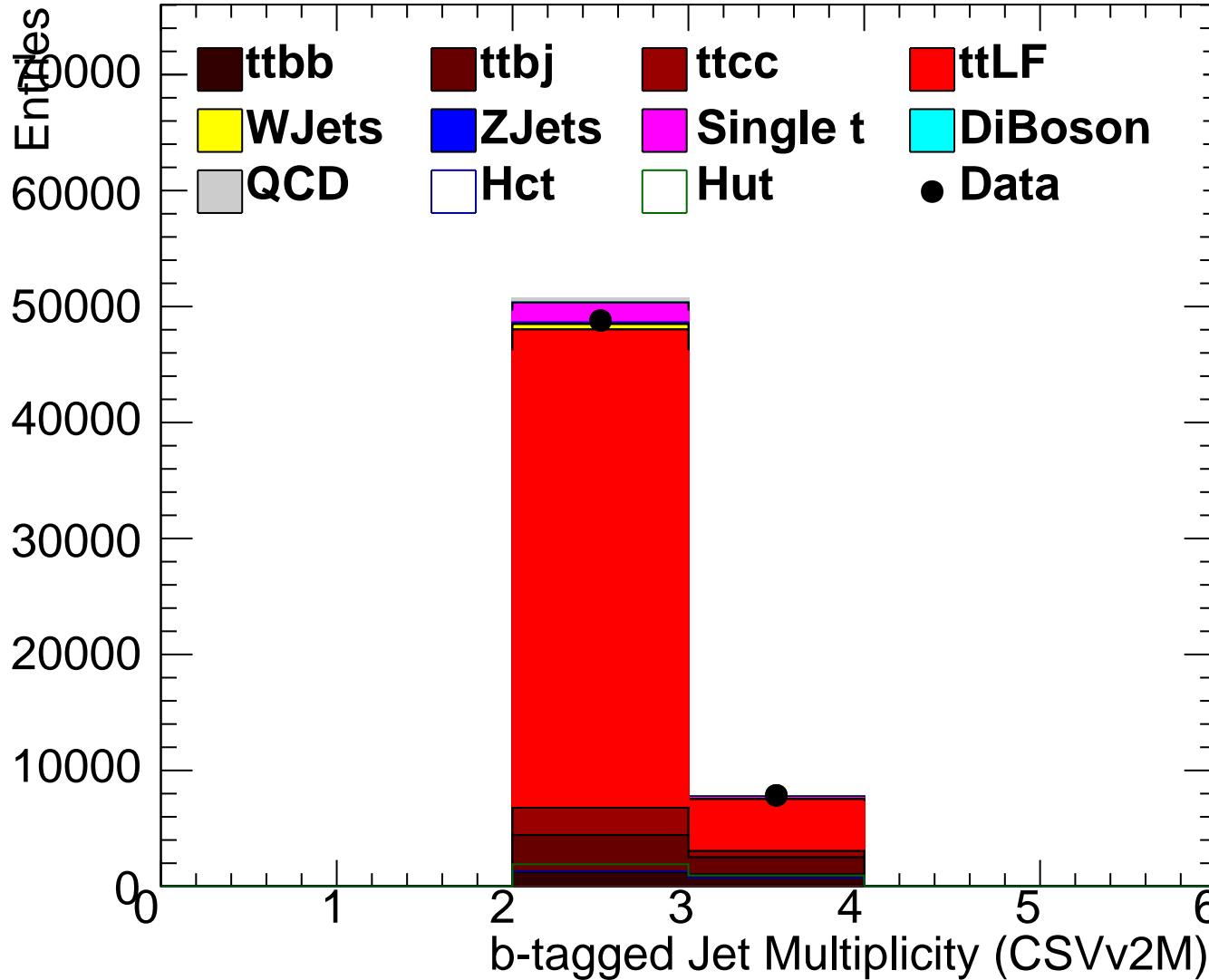
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

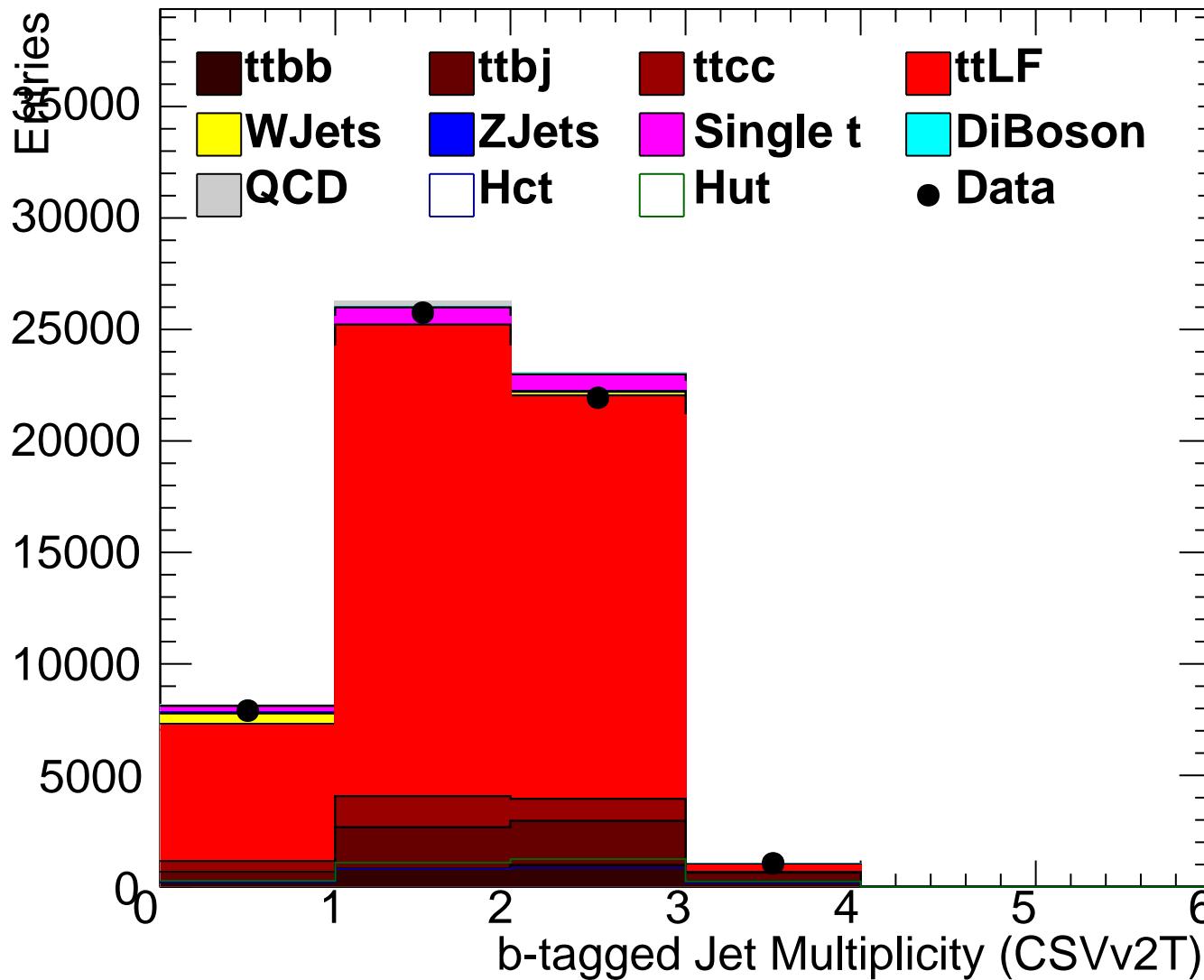


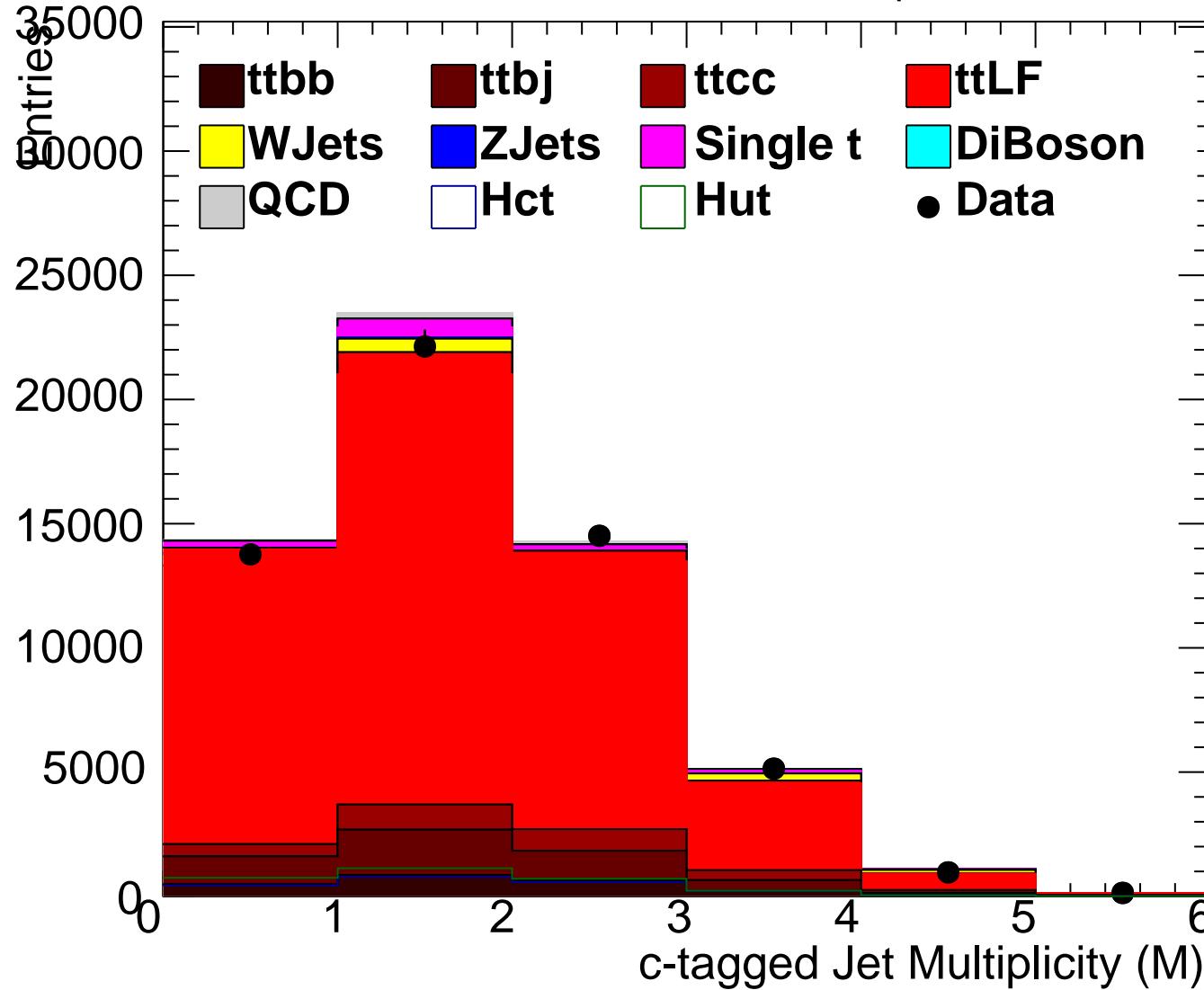


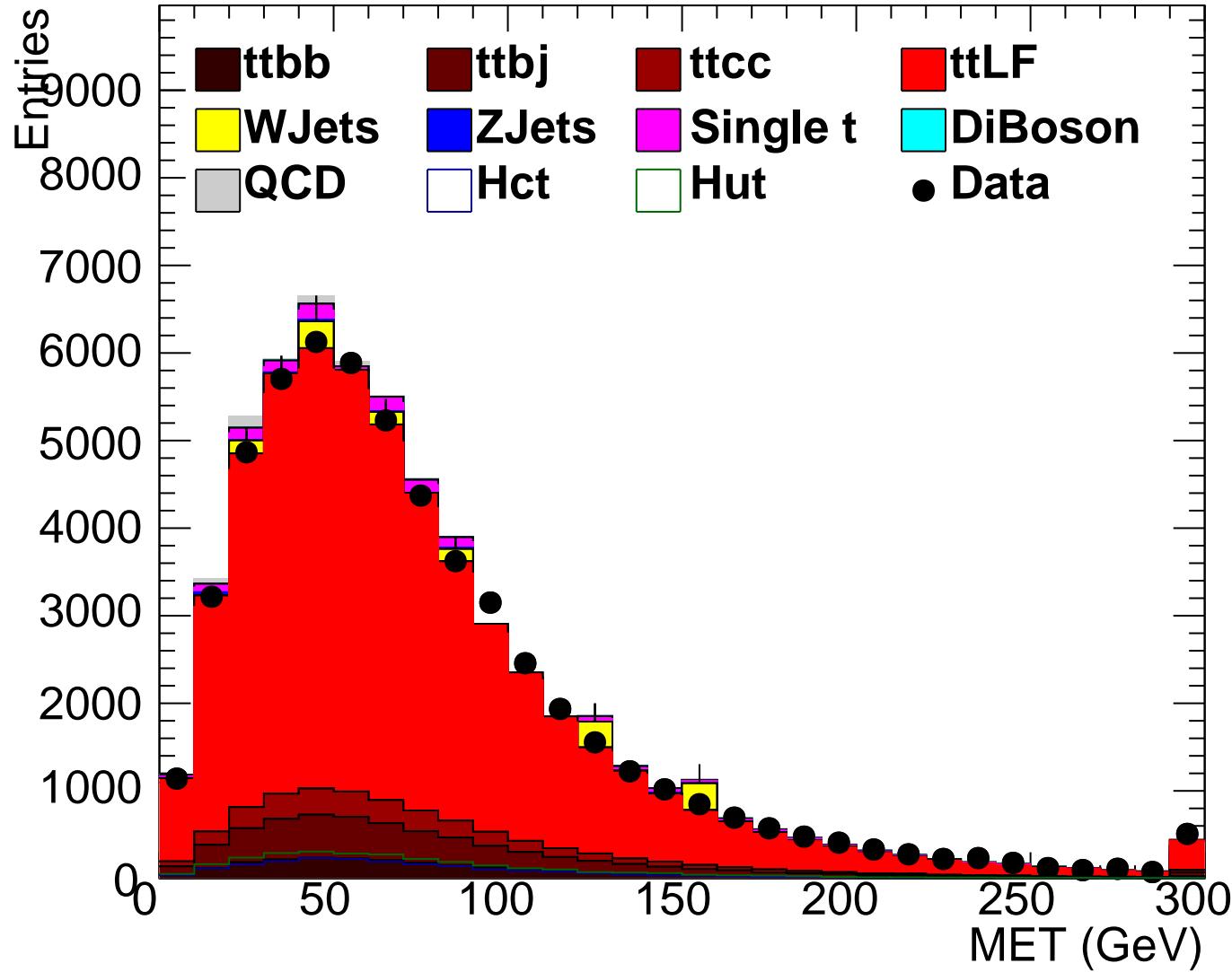
Ch0_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

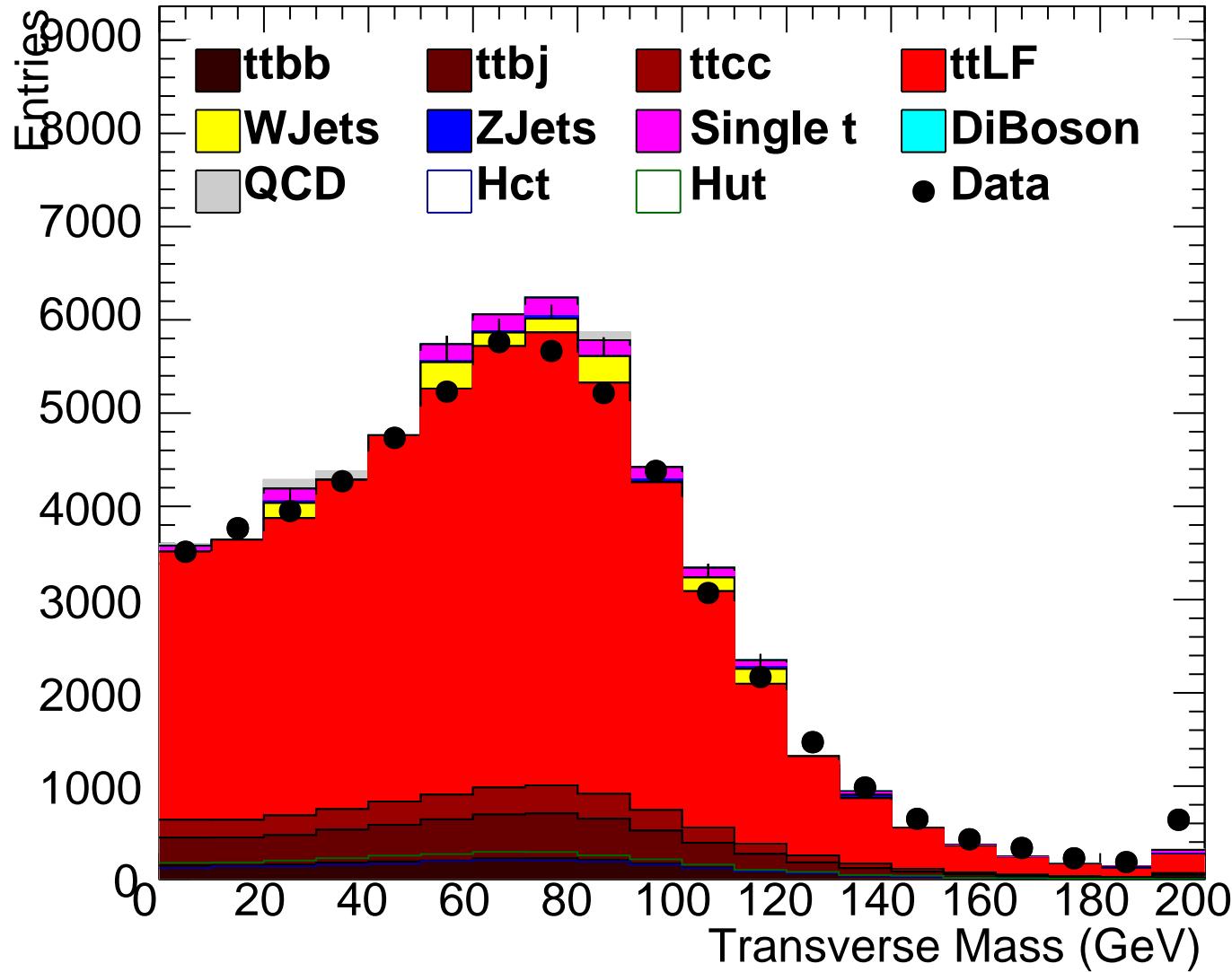


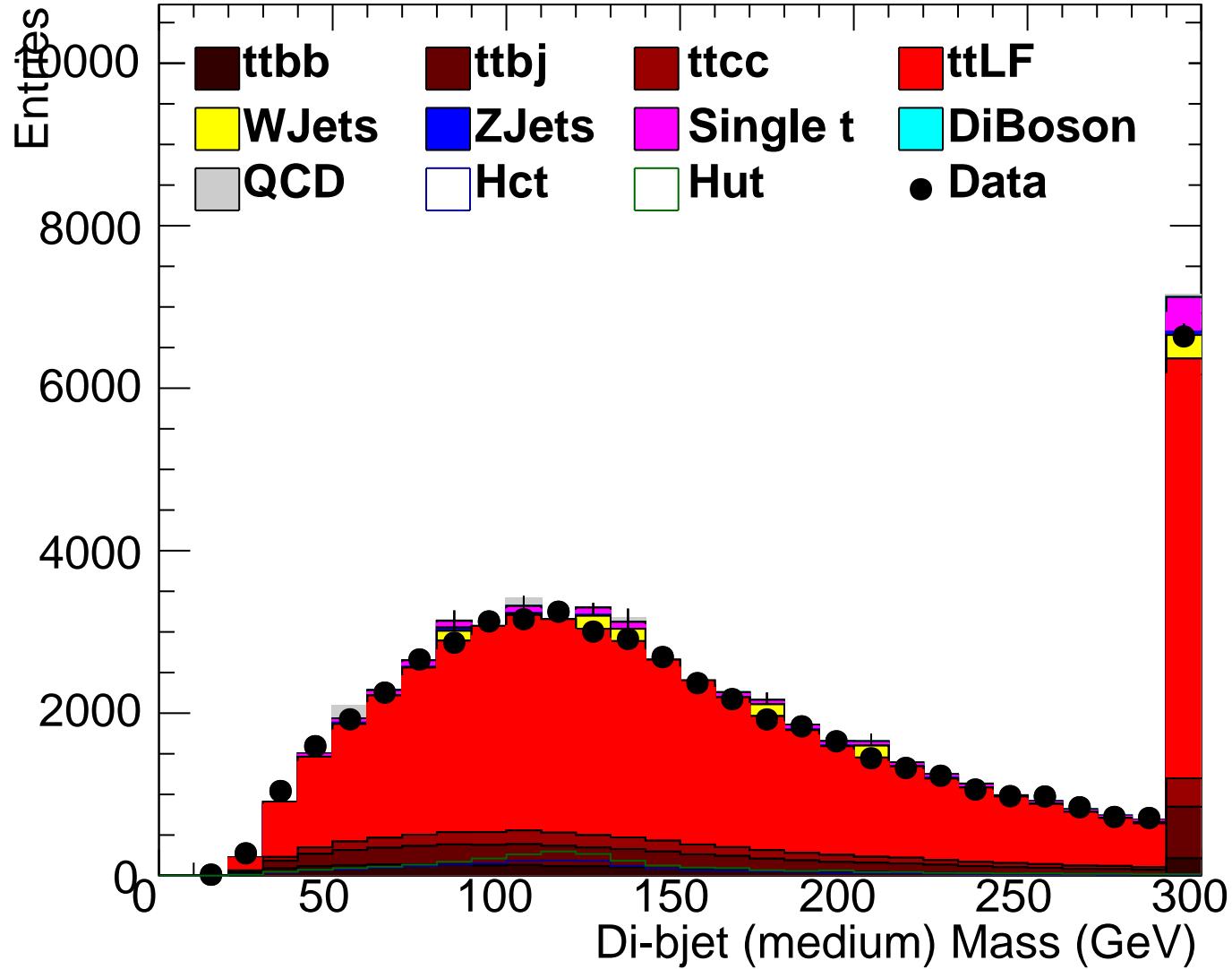
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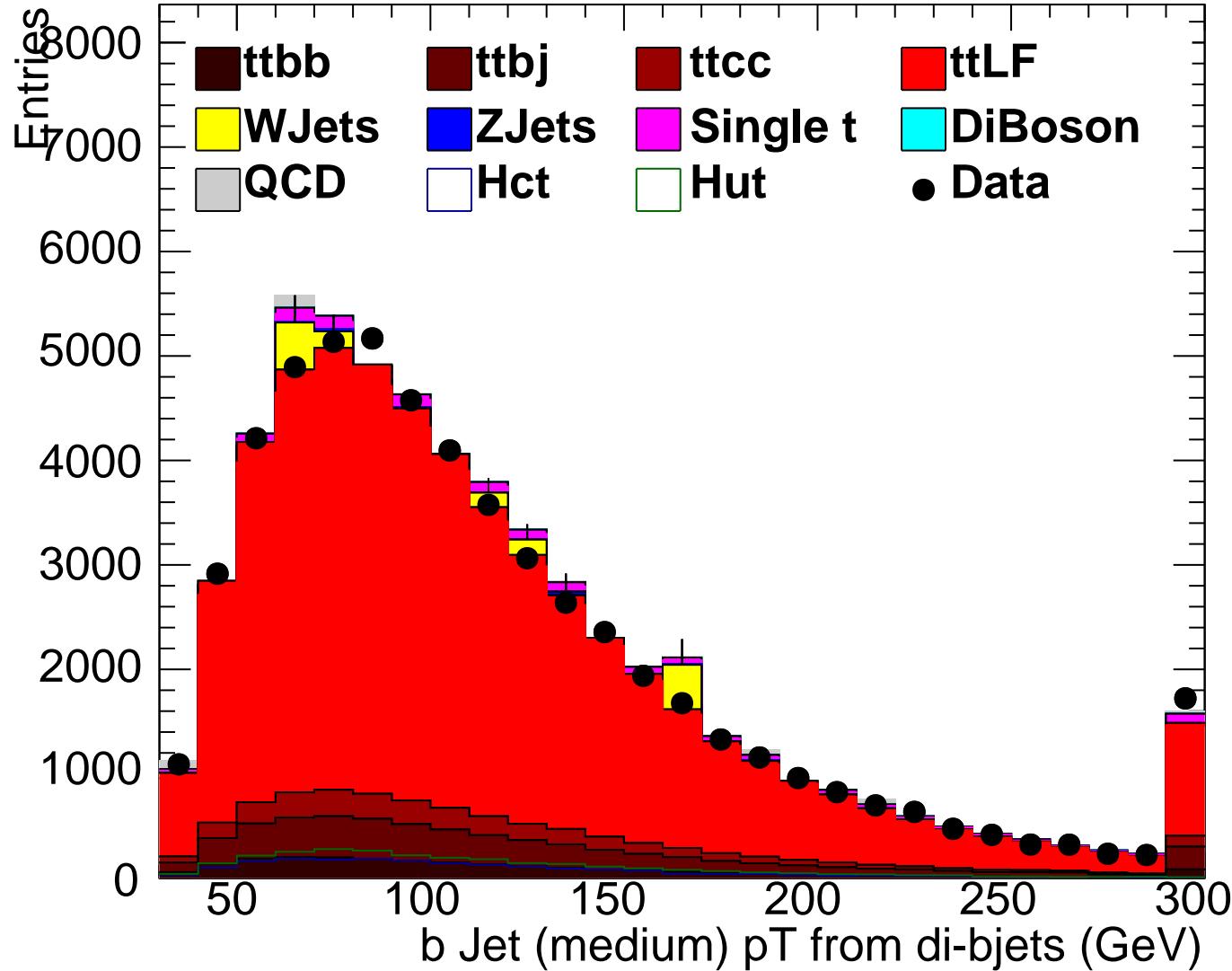


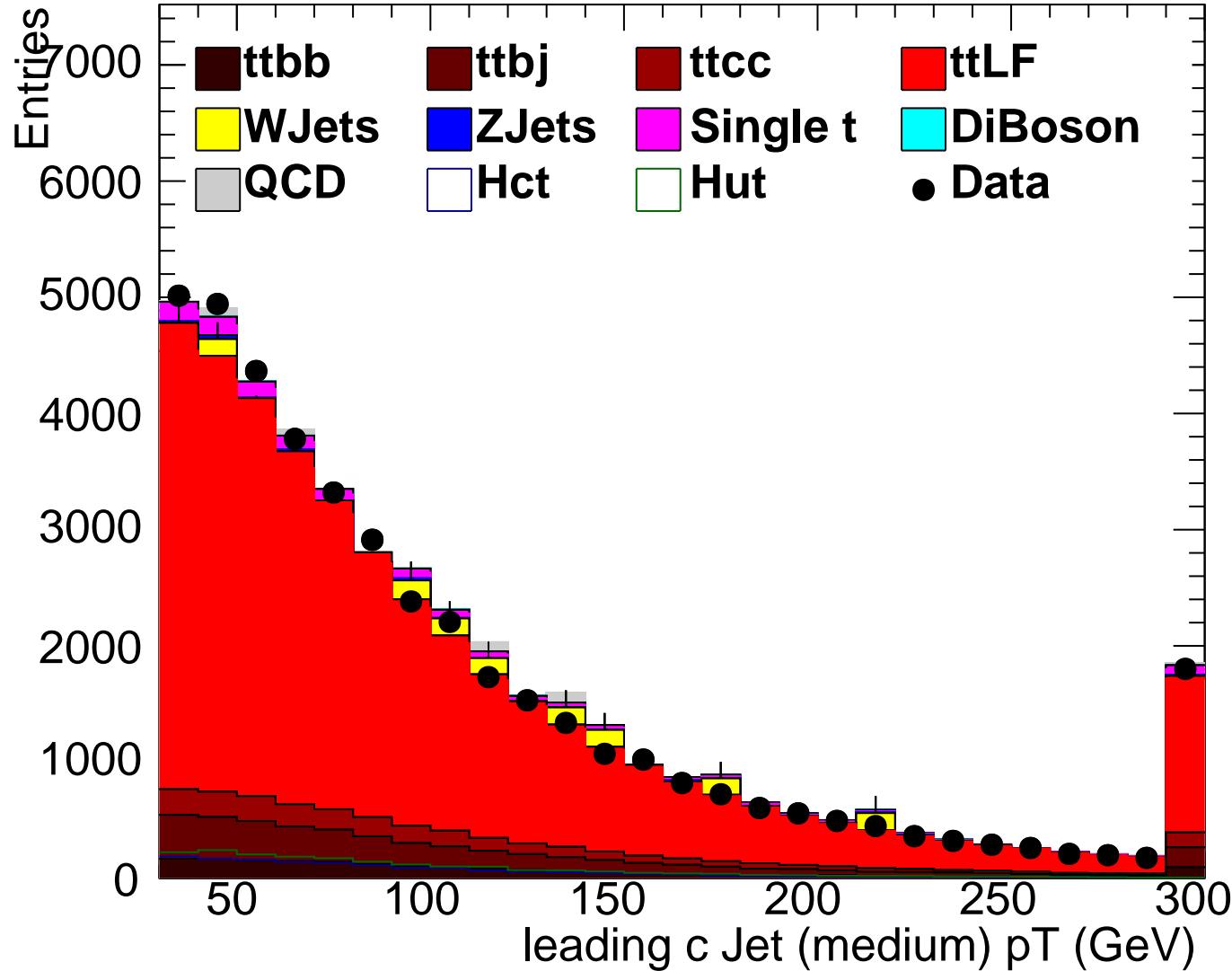
Ch0_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

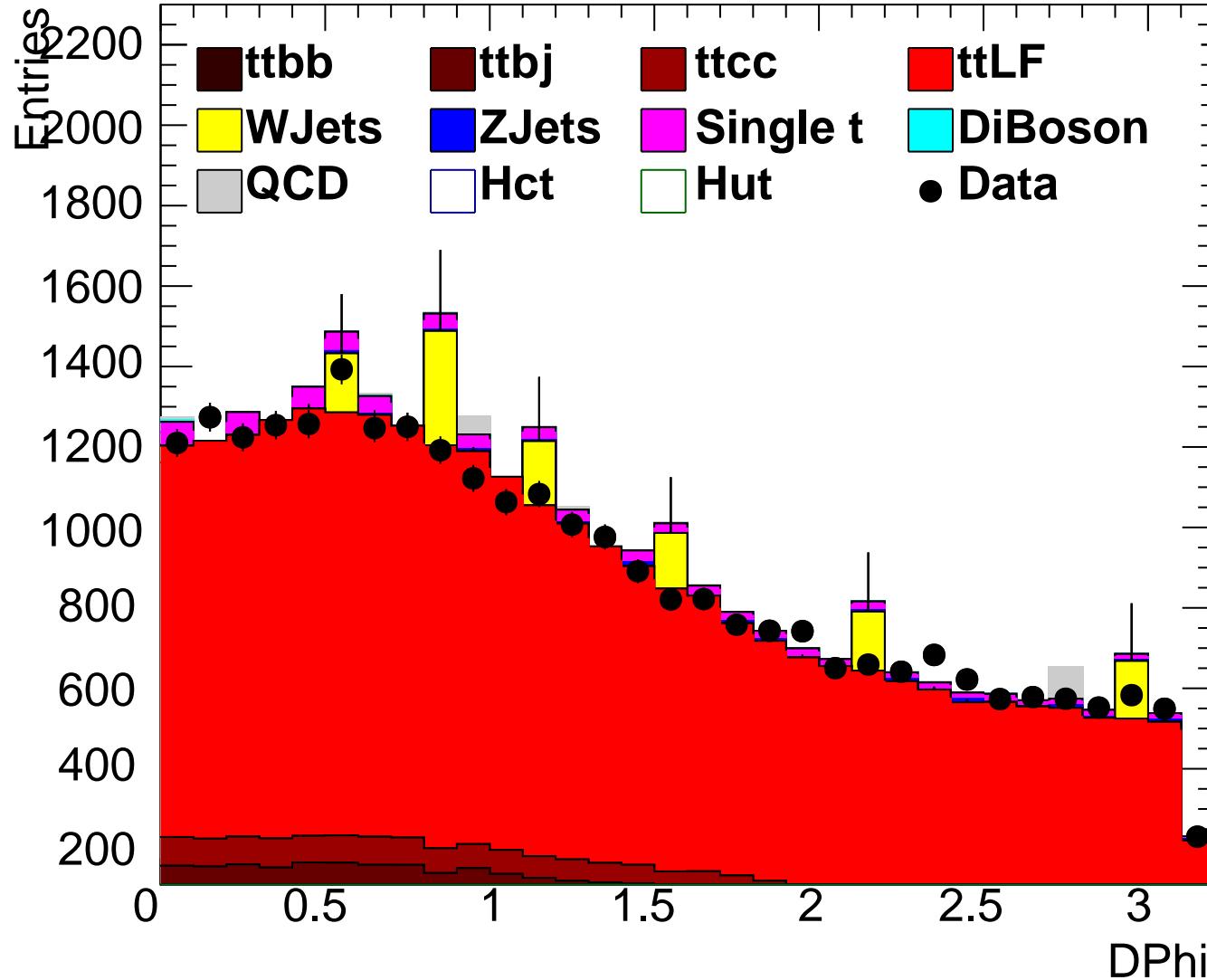


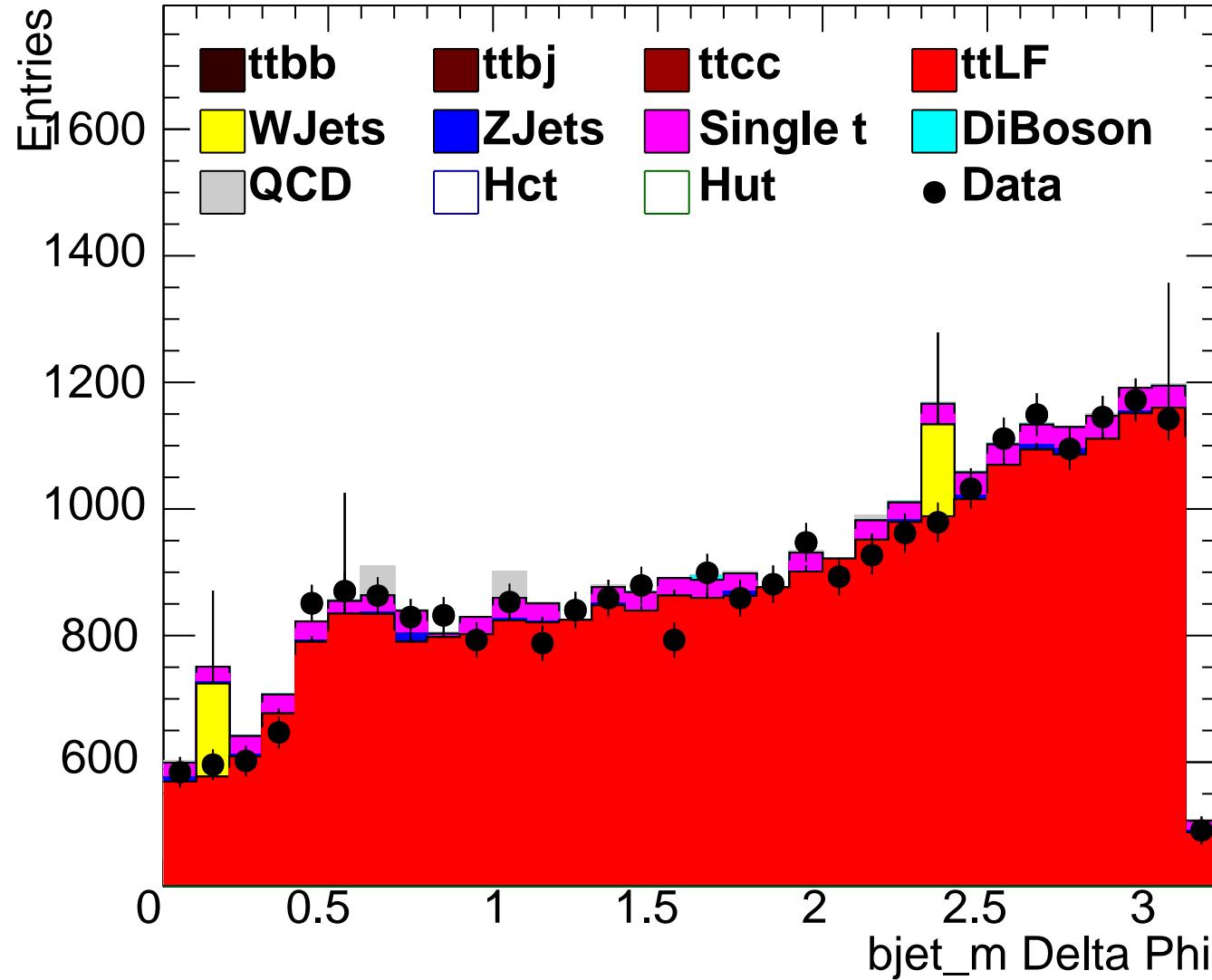


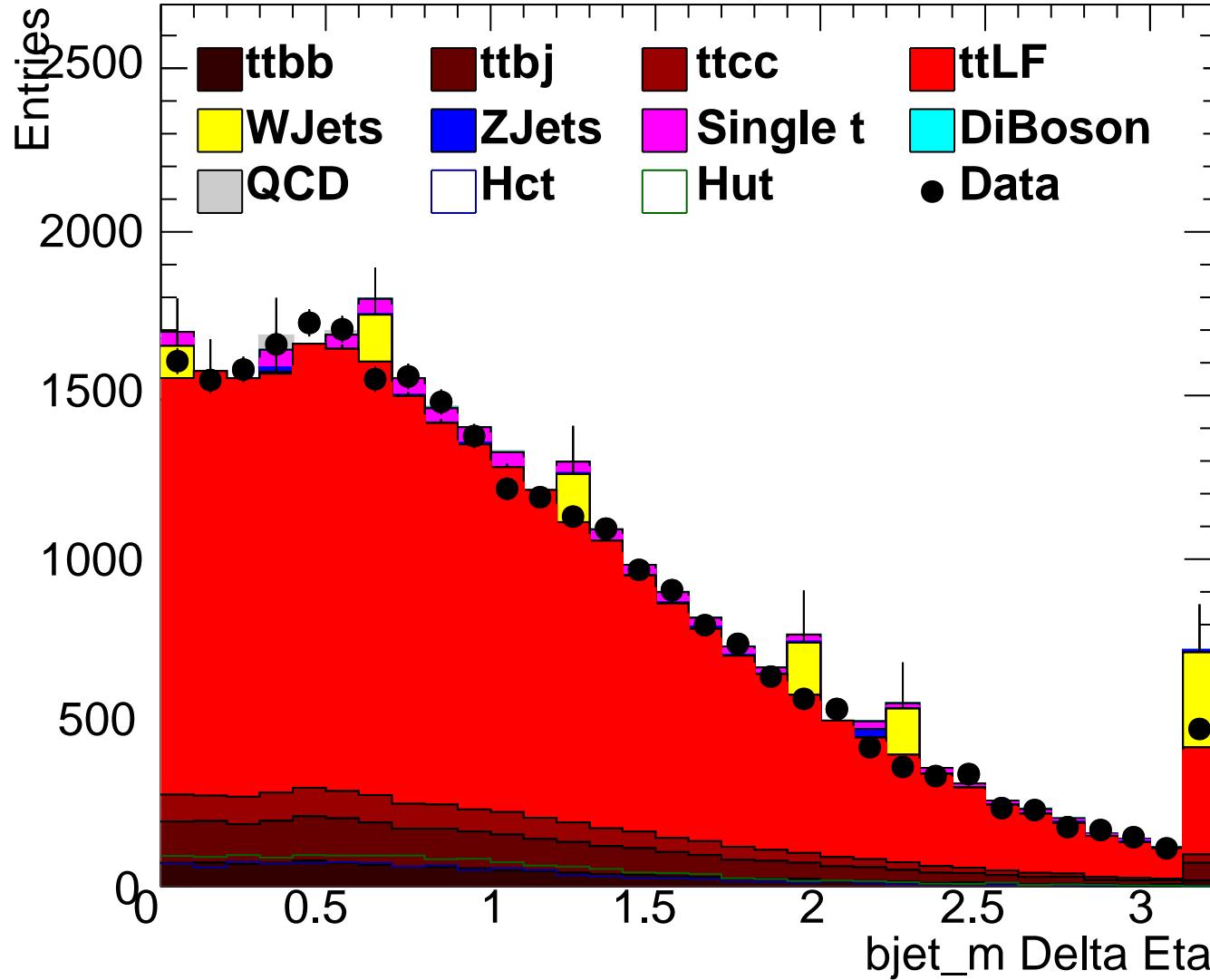


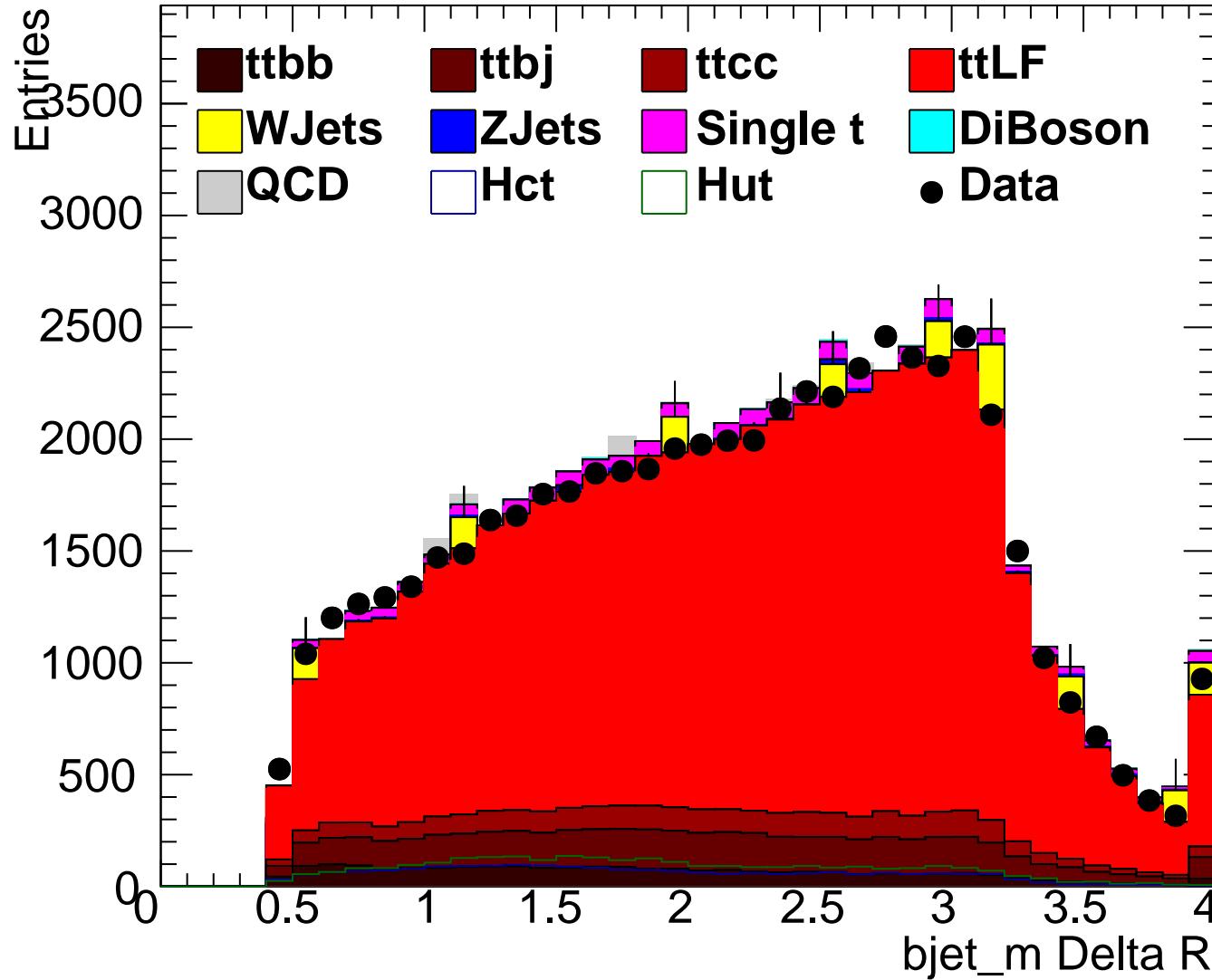


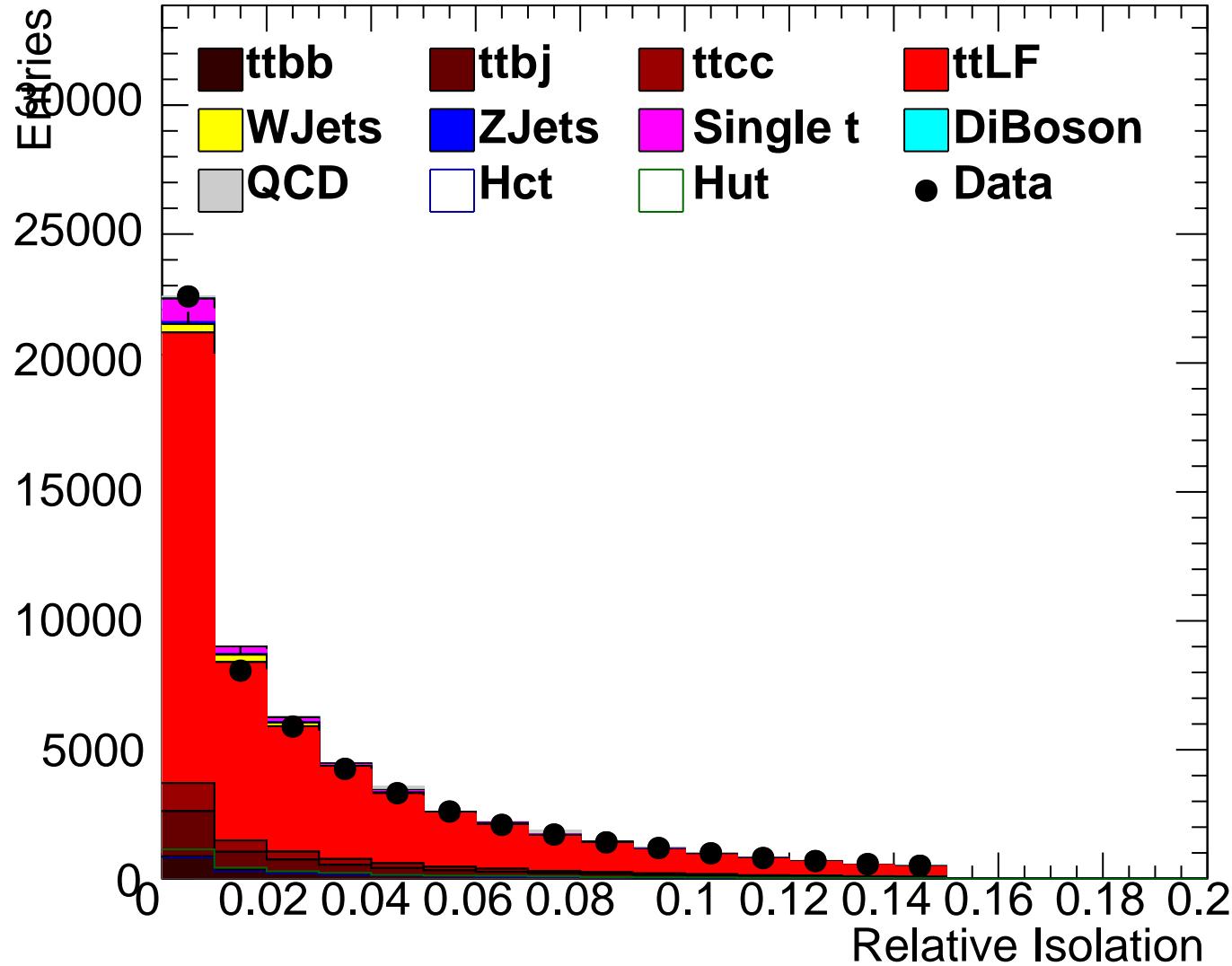
Ch0_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

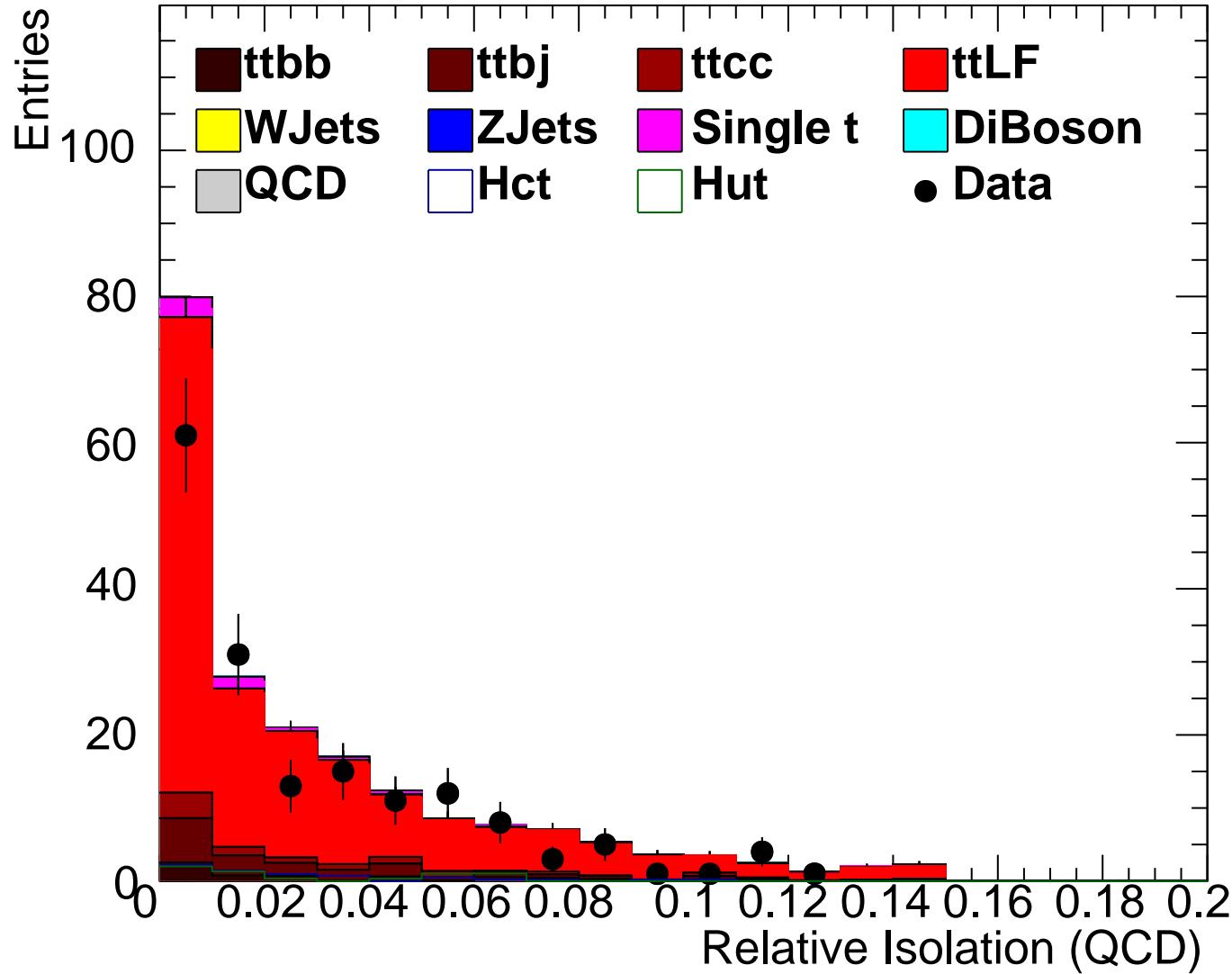


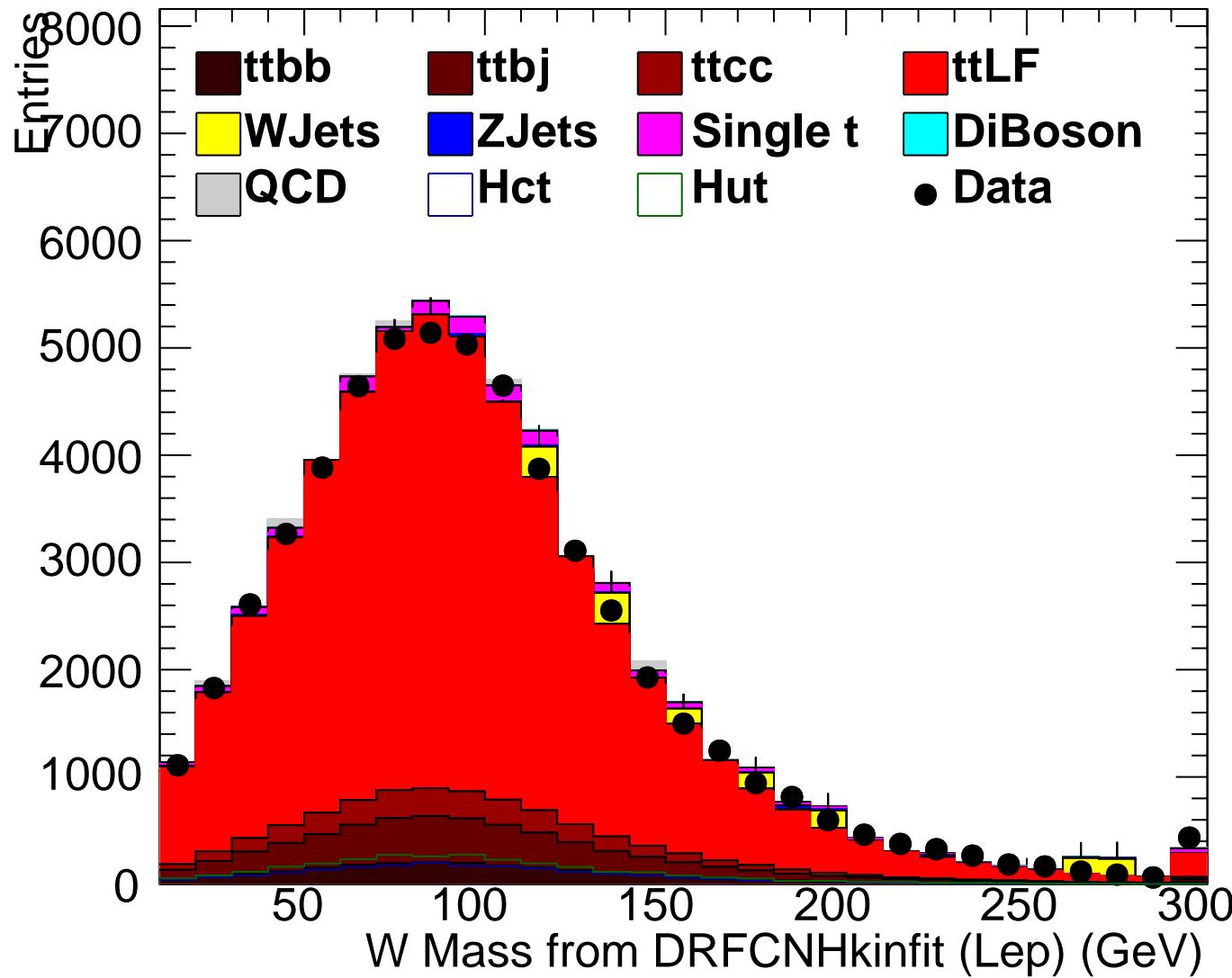


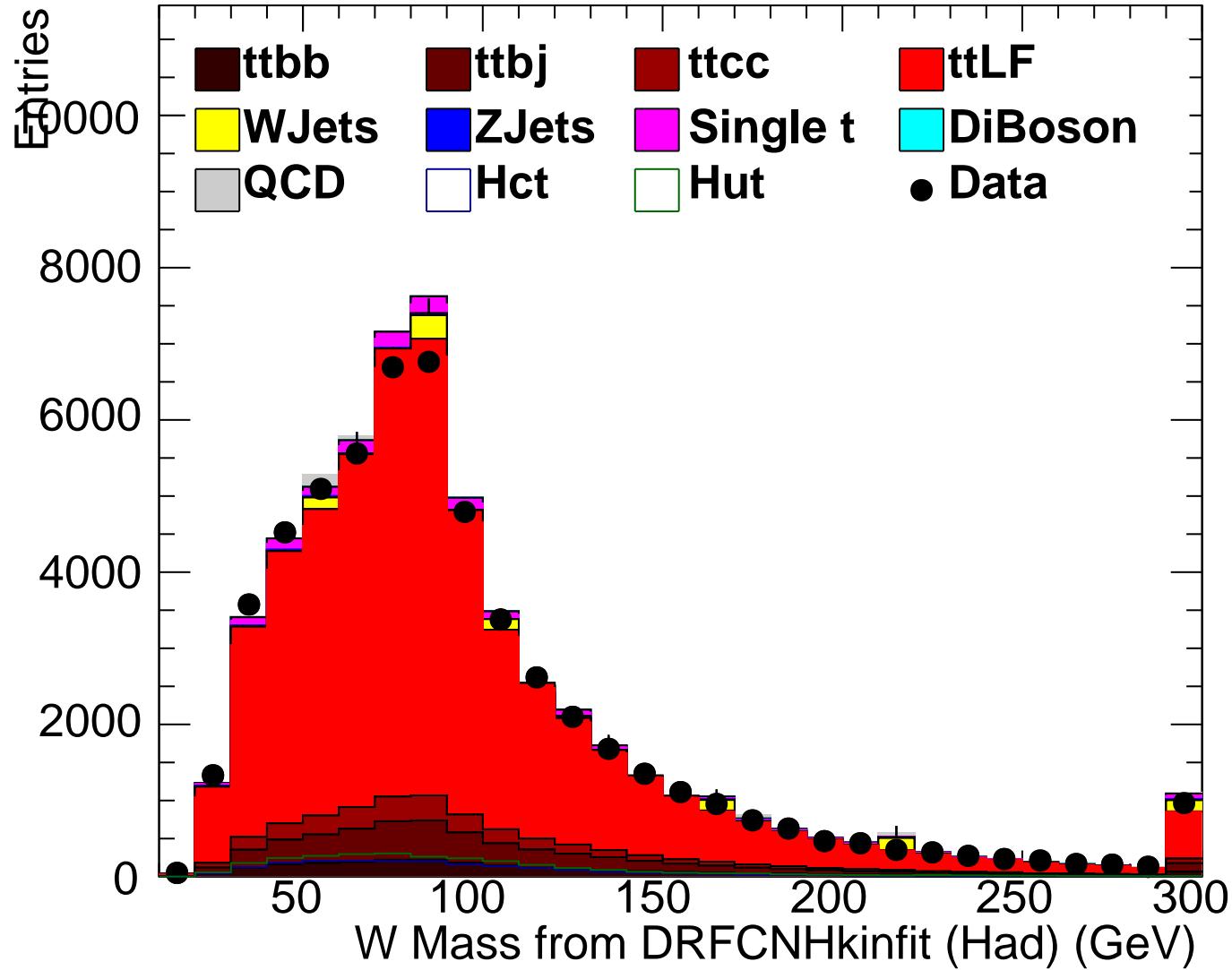


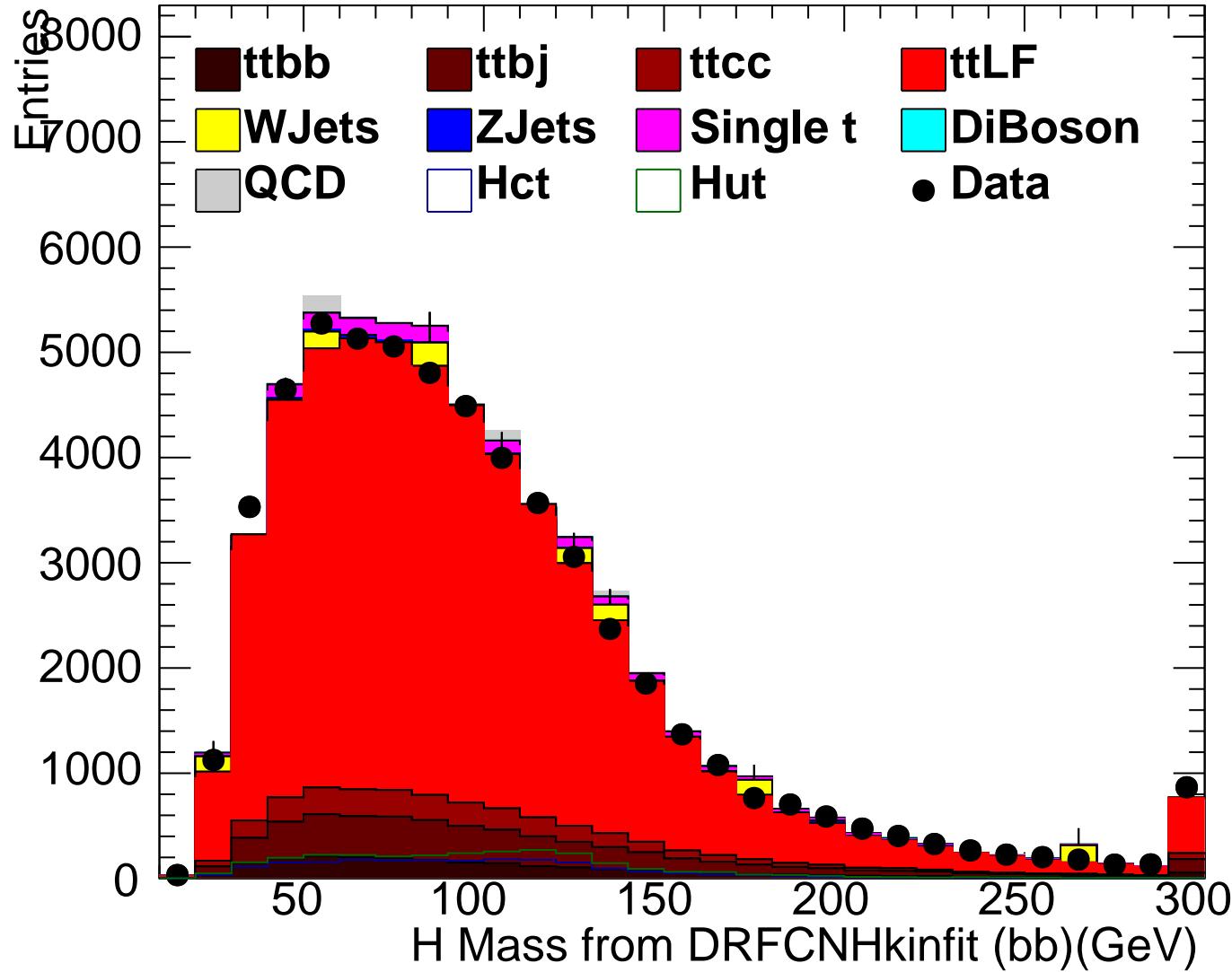


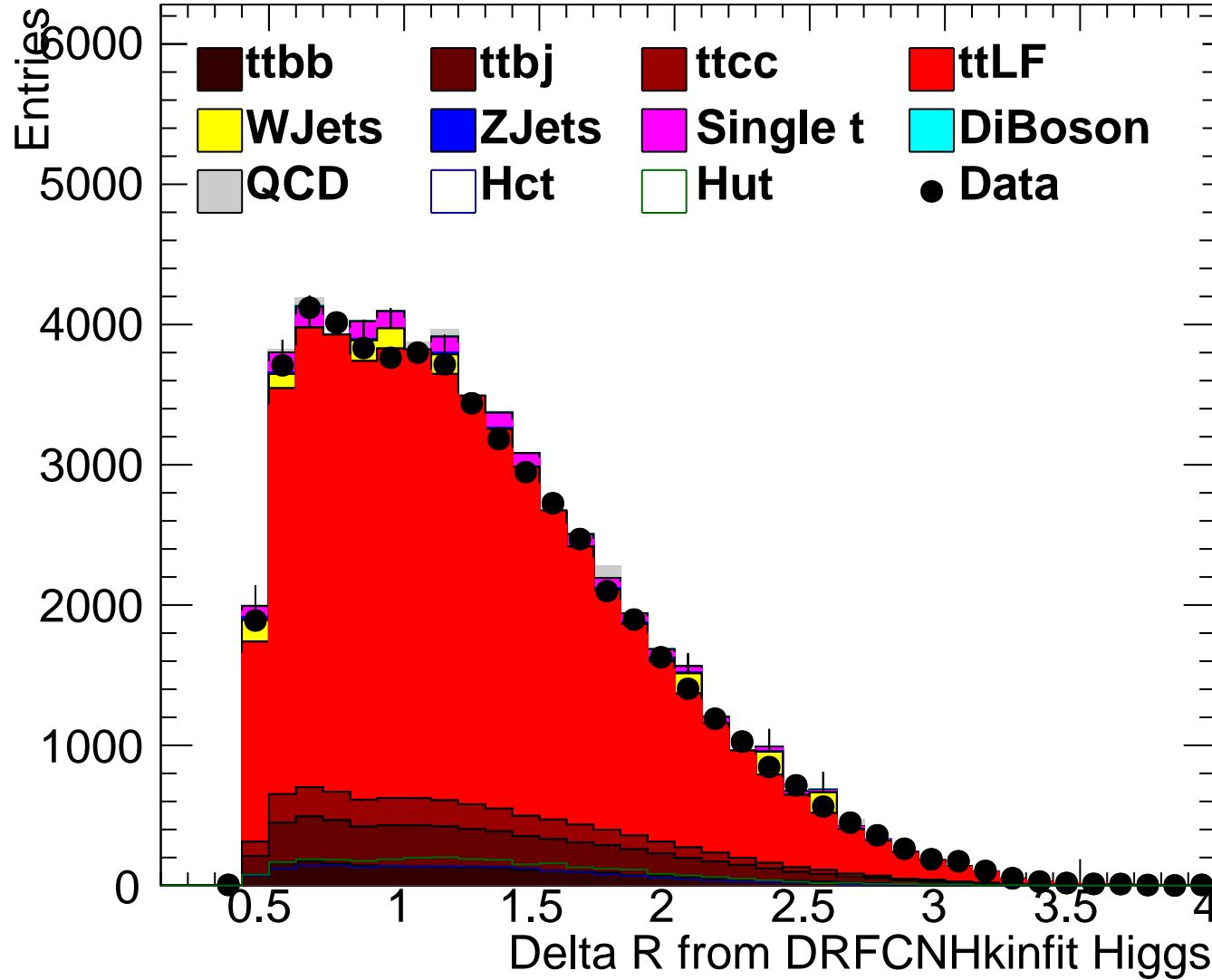


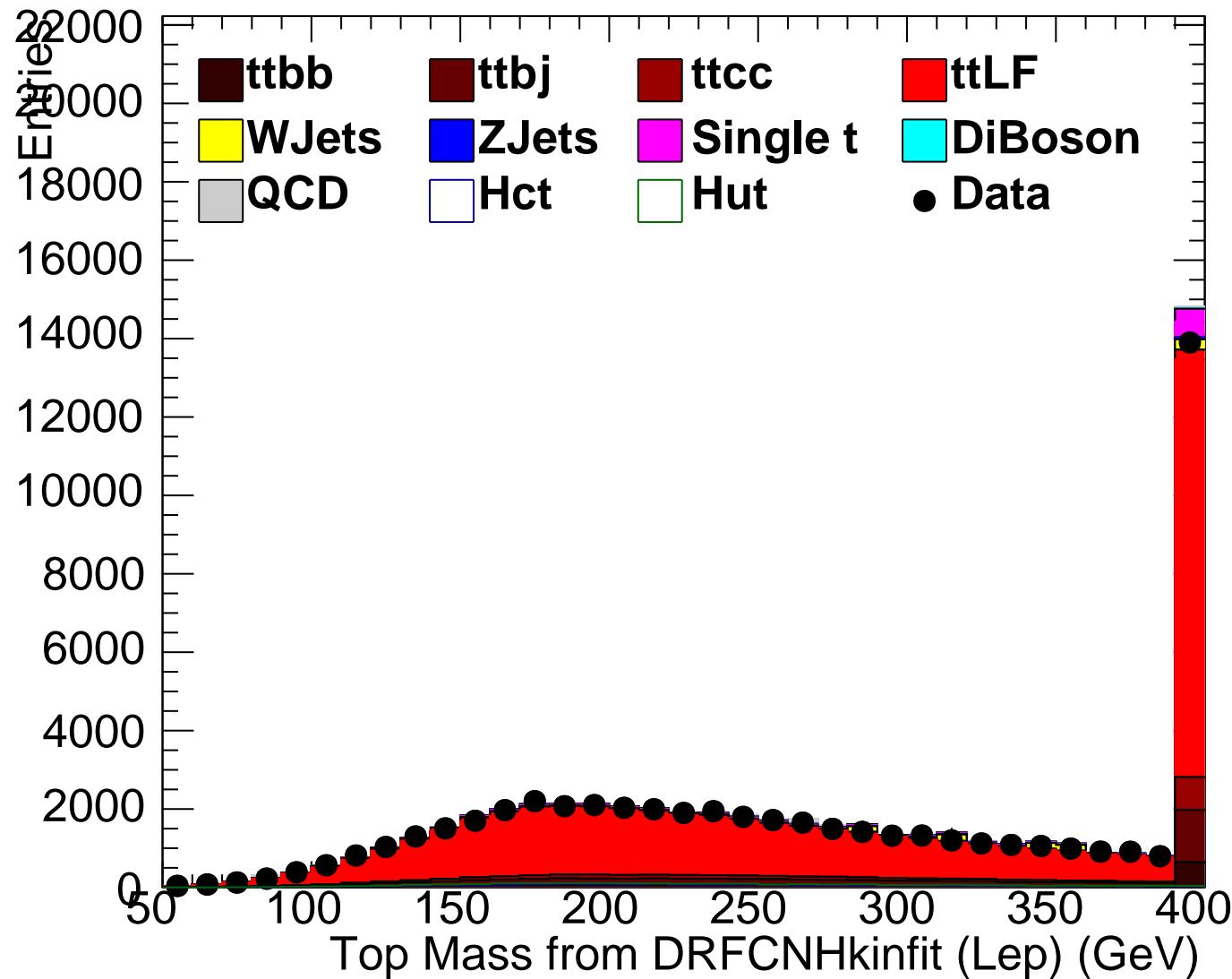


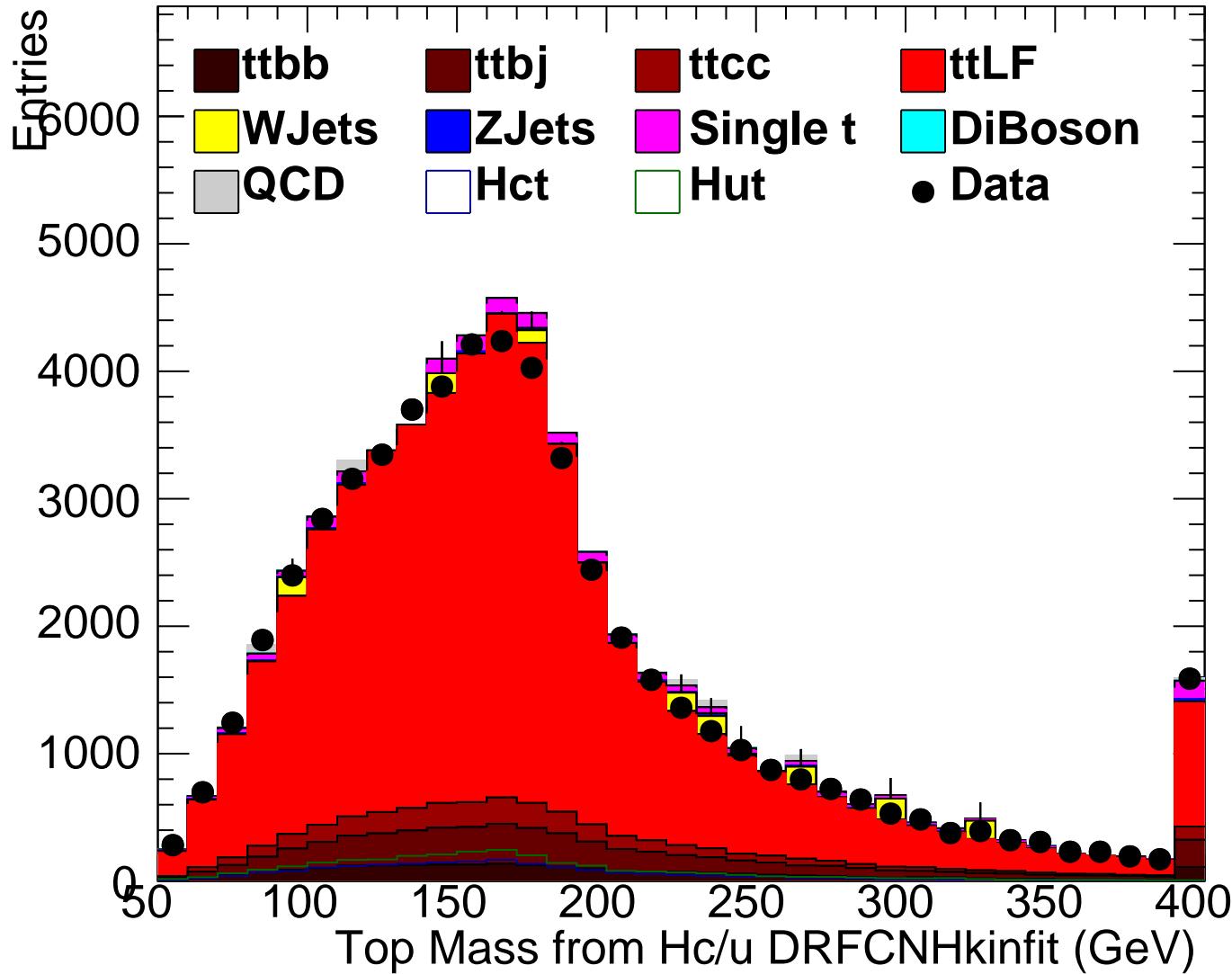
Ch0_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch0_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

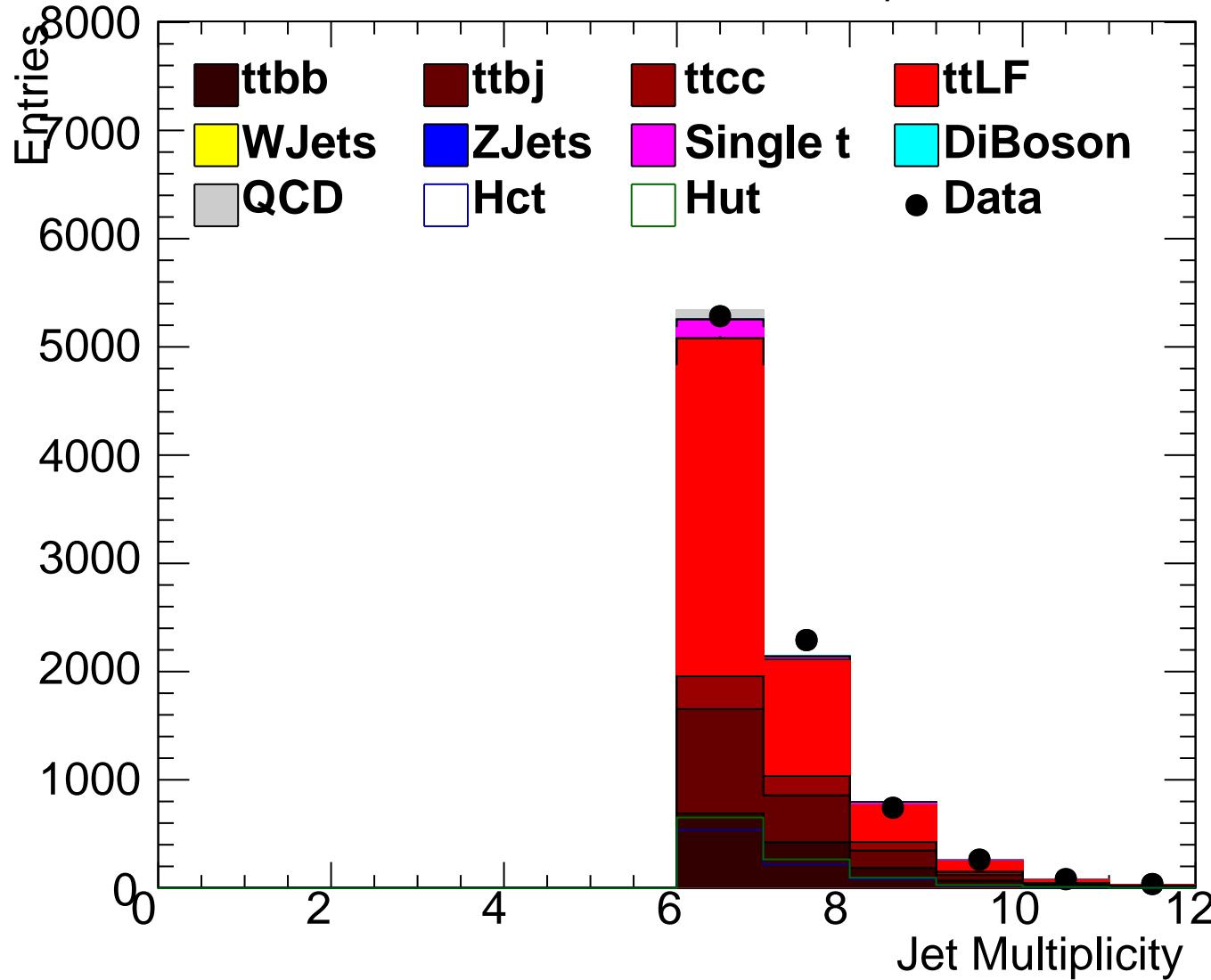
Ch0_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 





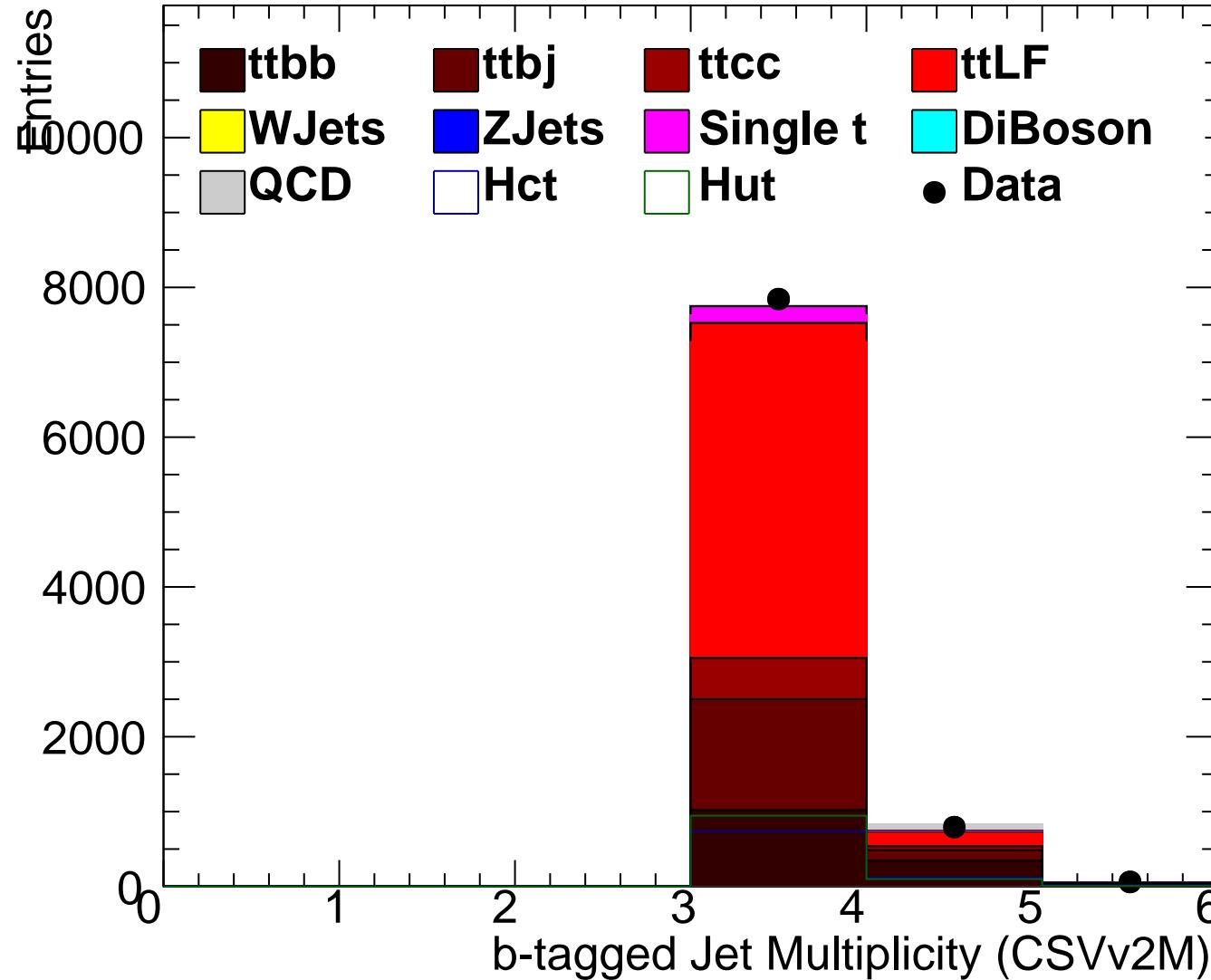
Ch0 S15

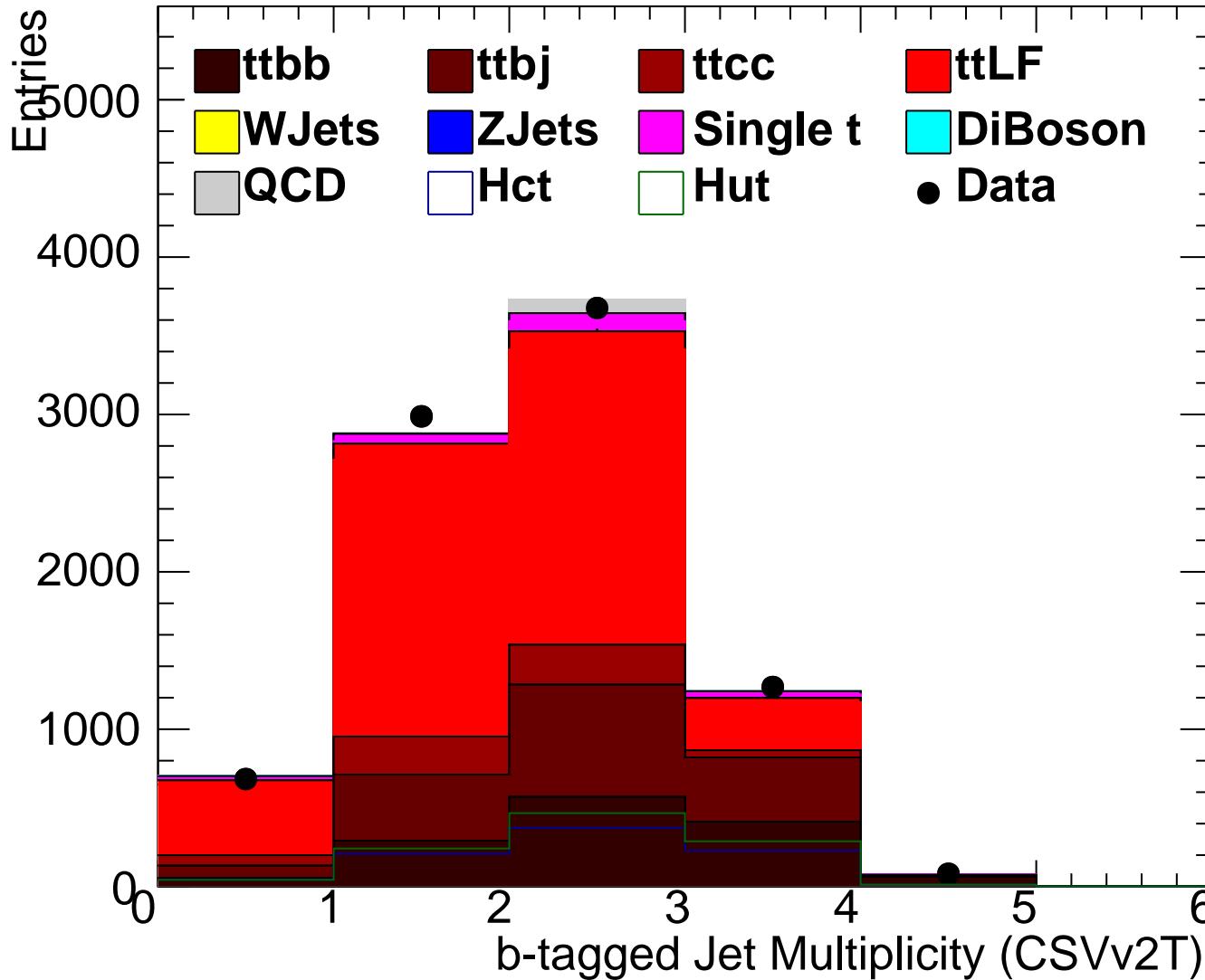
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

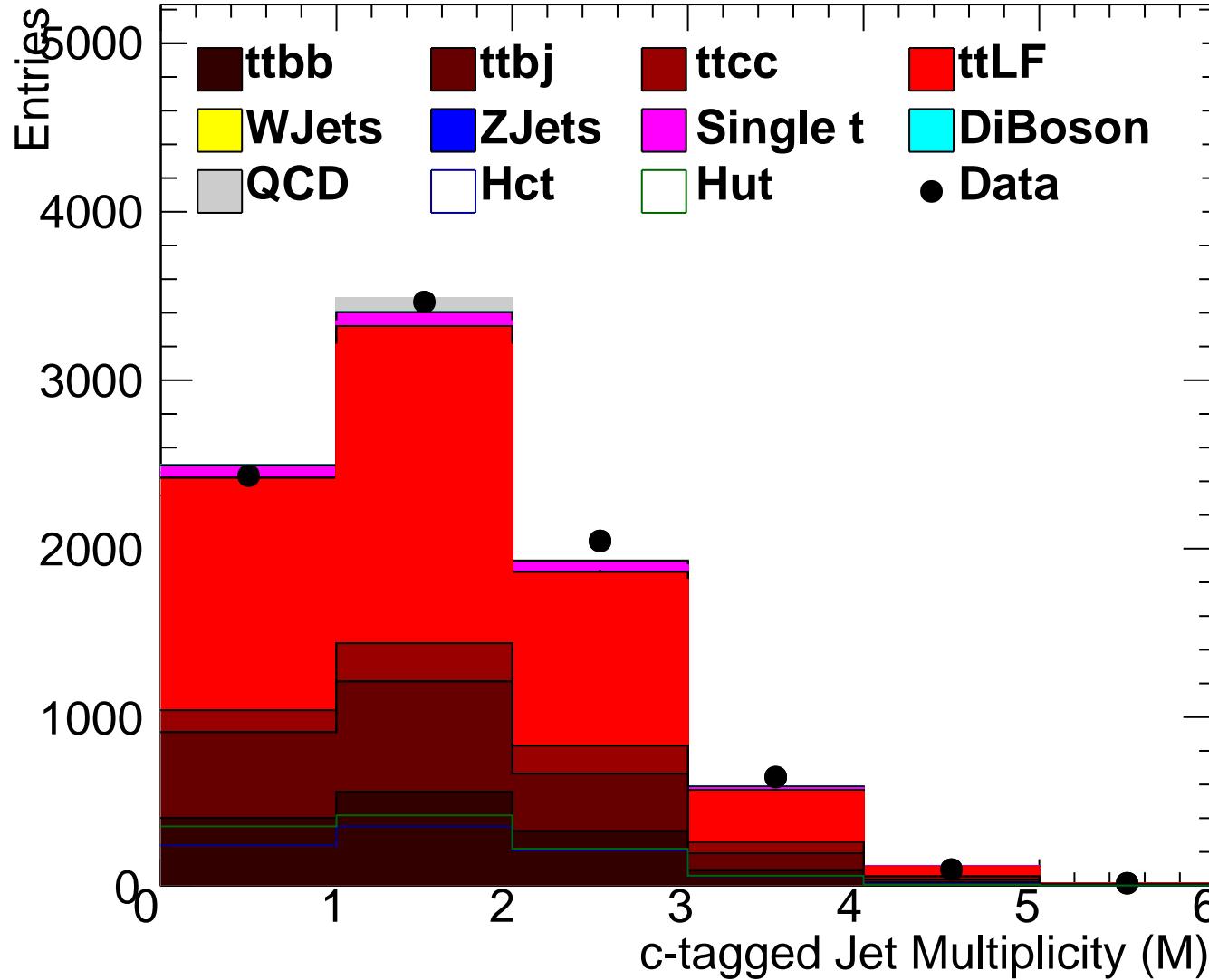


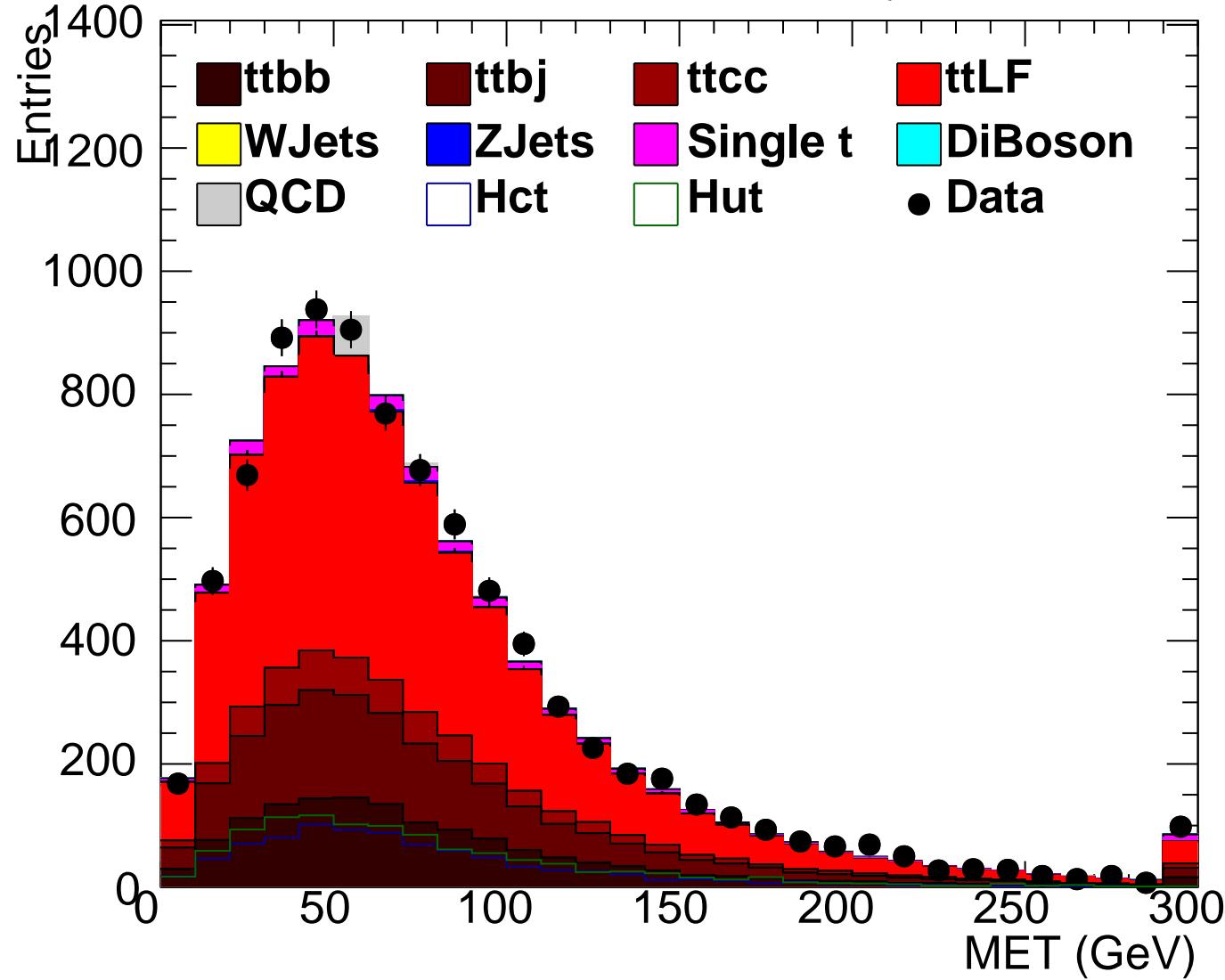
Ch0 S15

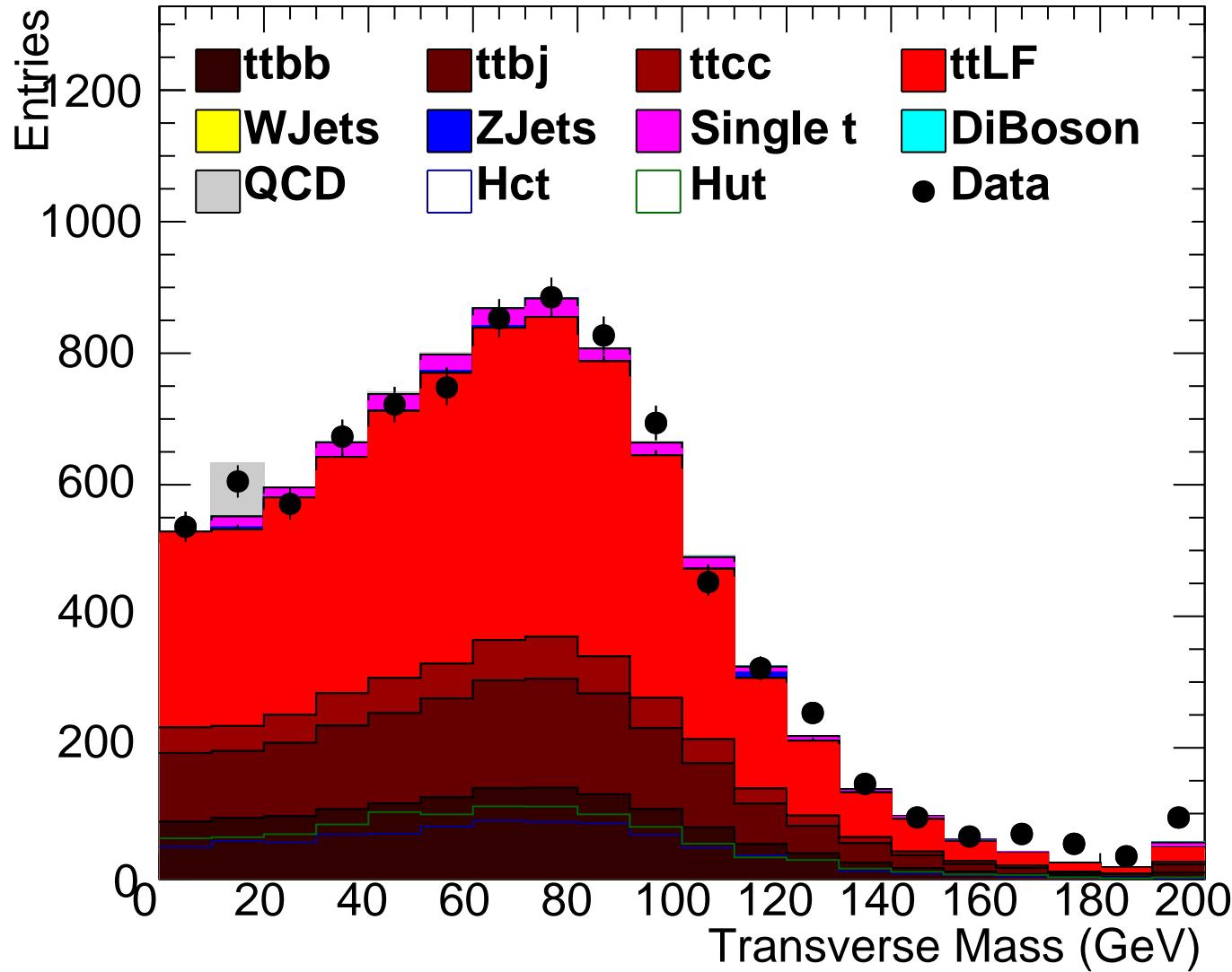
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

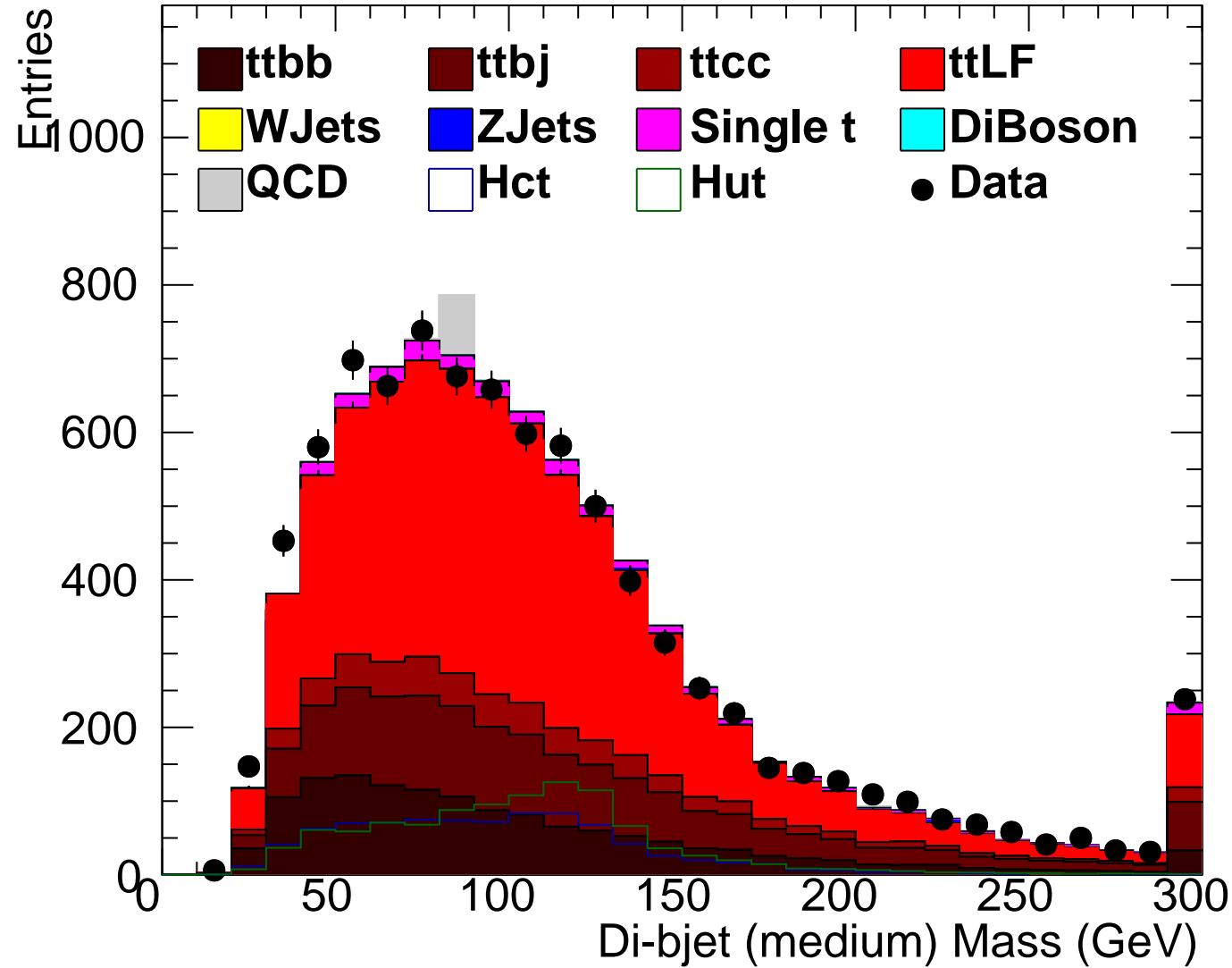


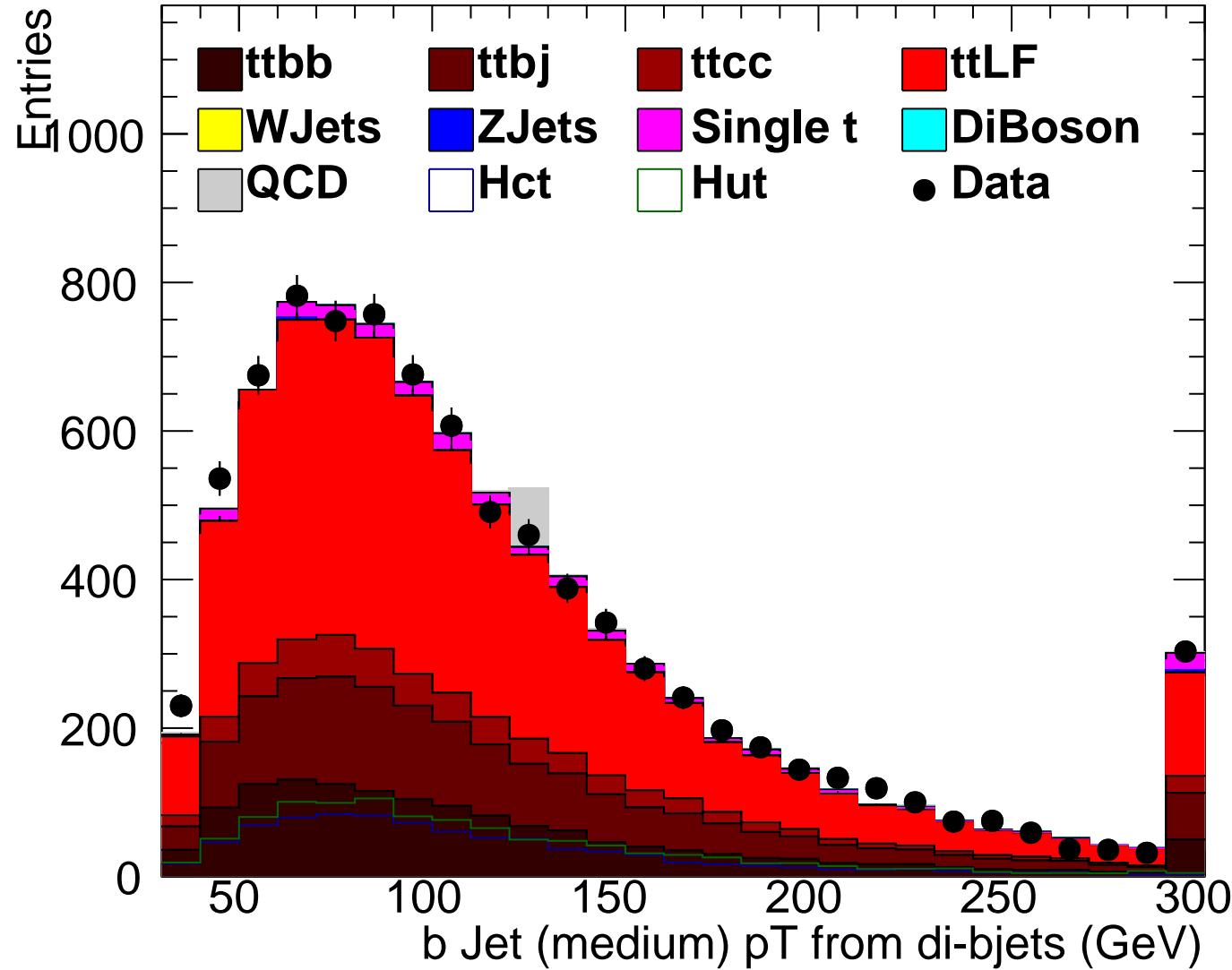


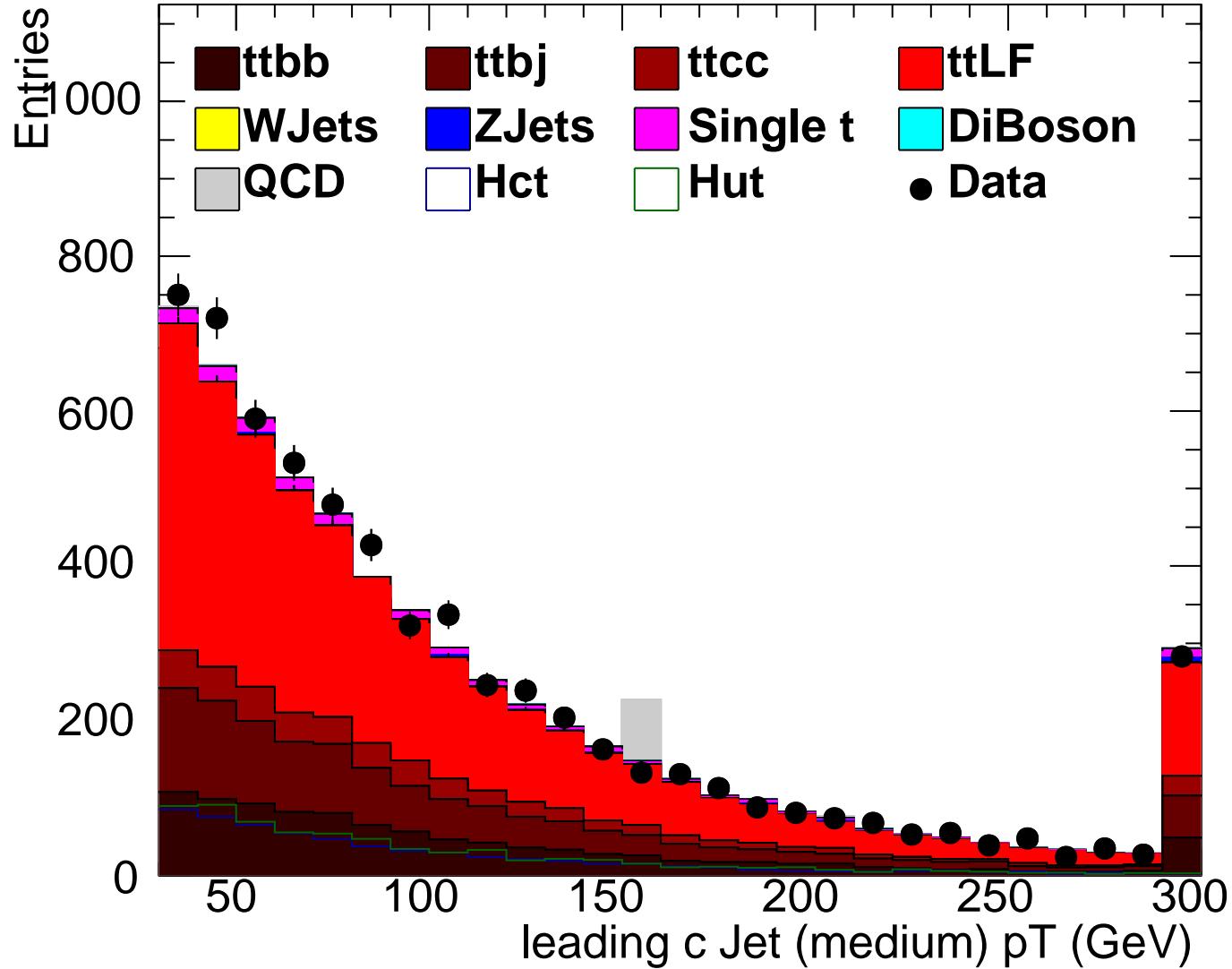


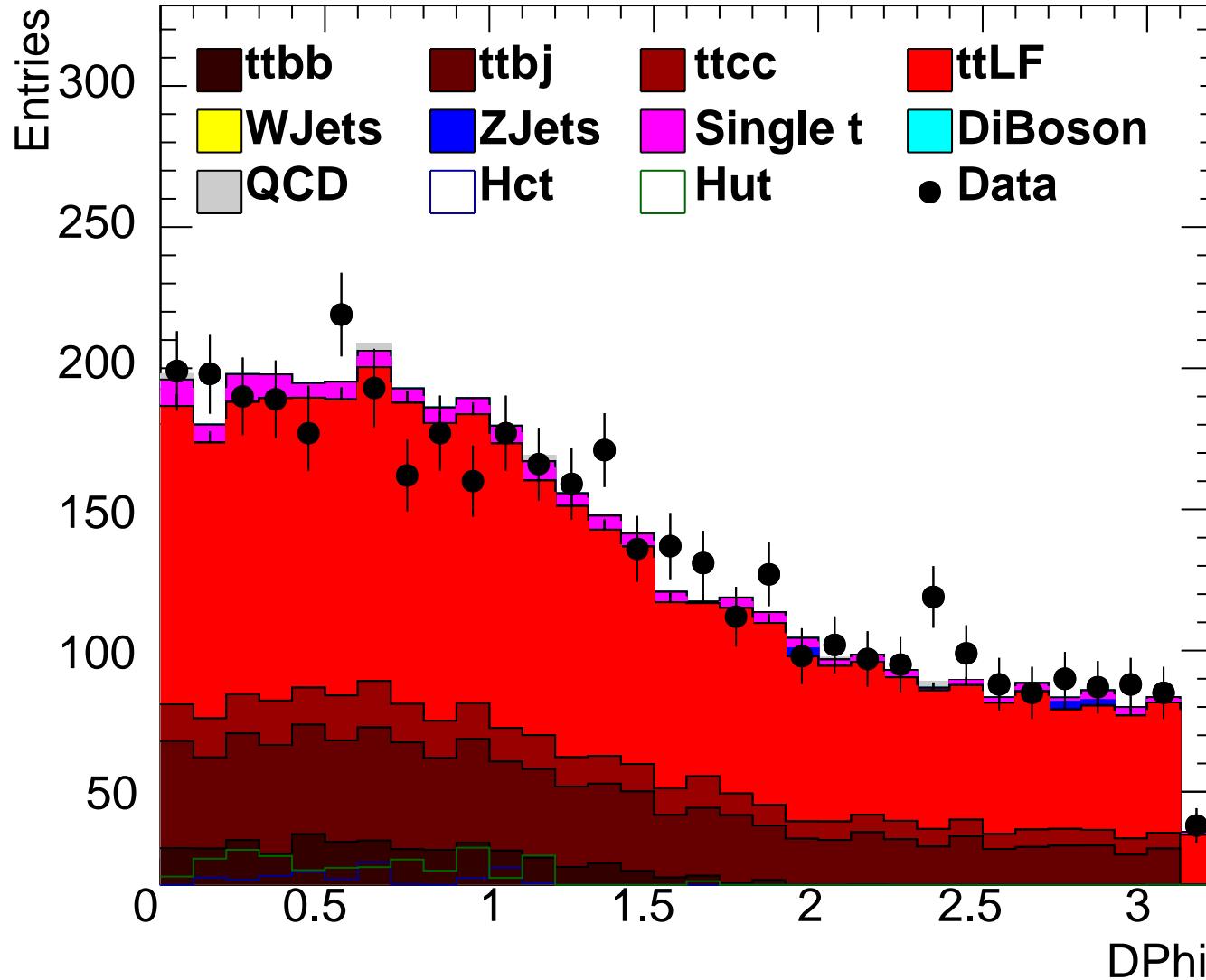
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

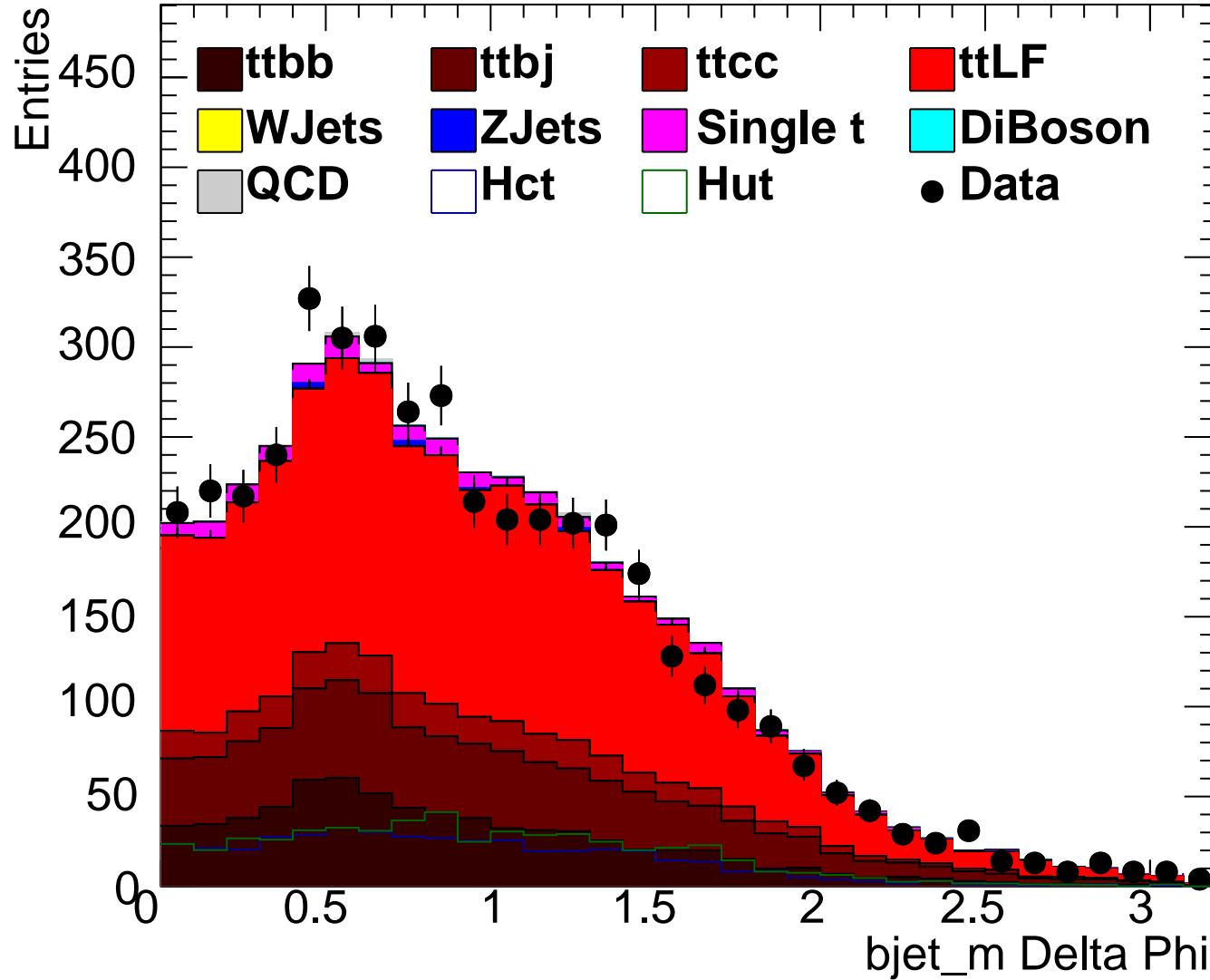


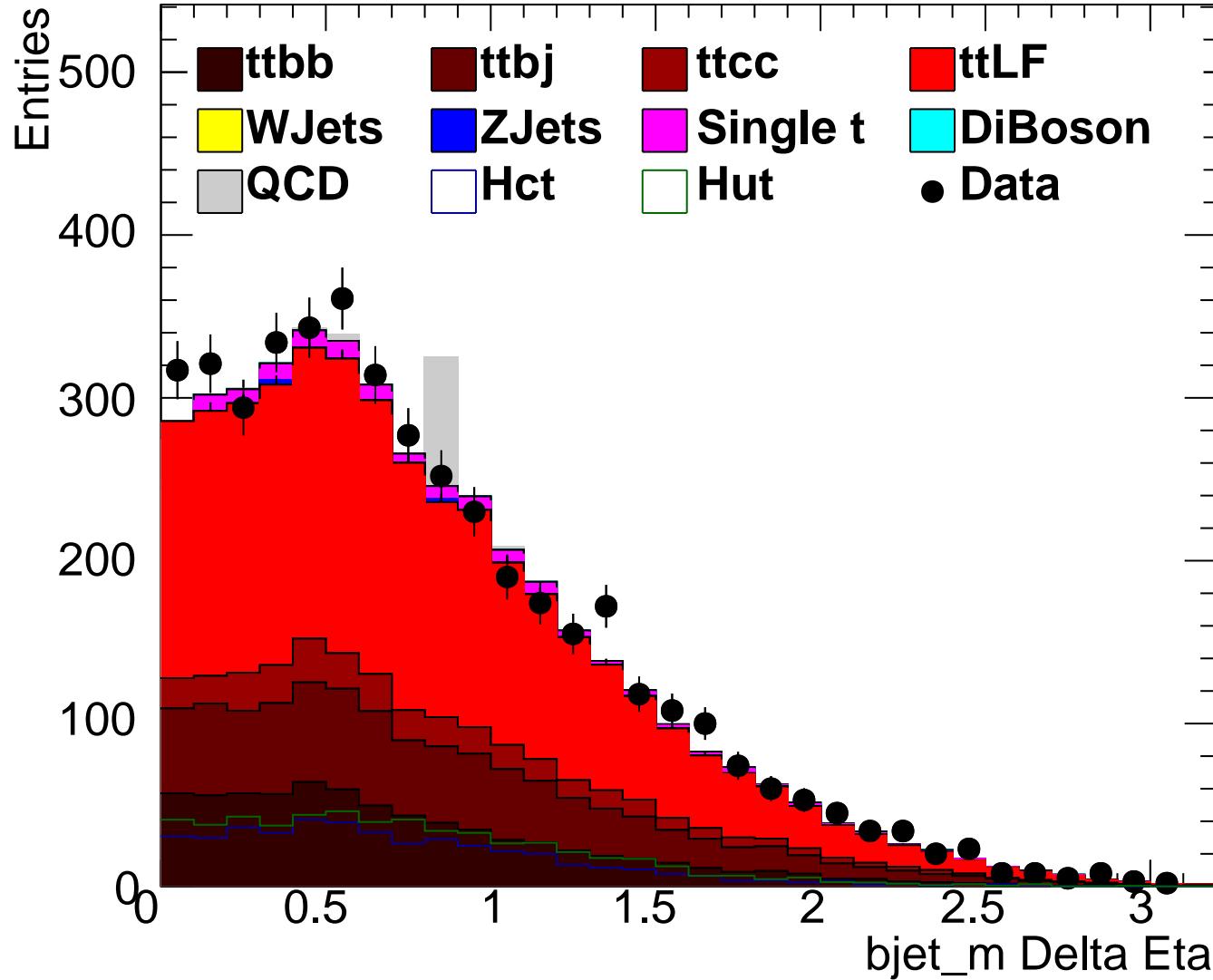
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

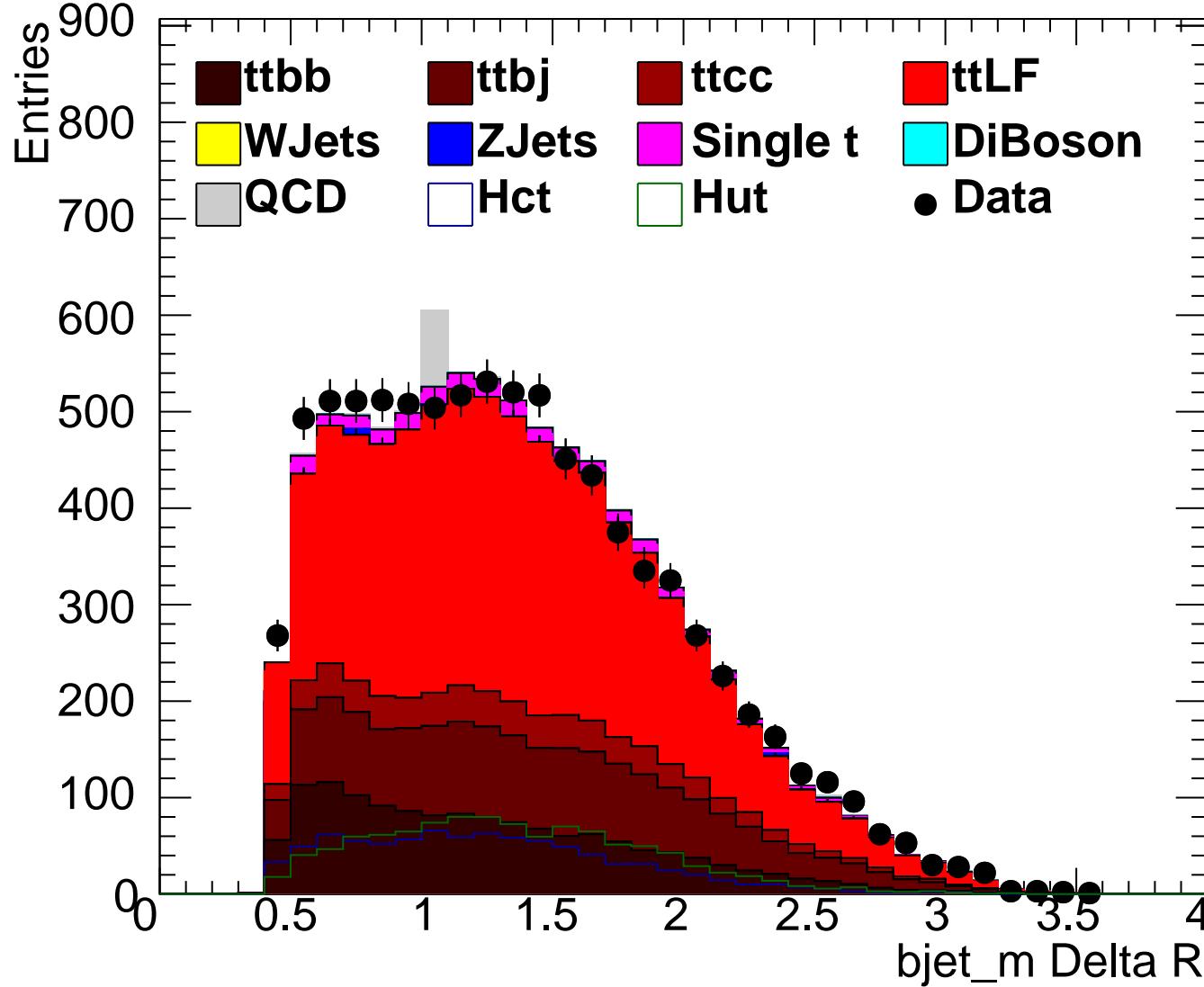


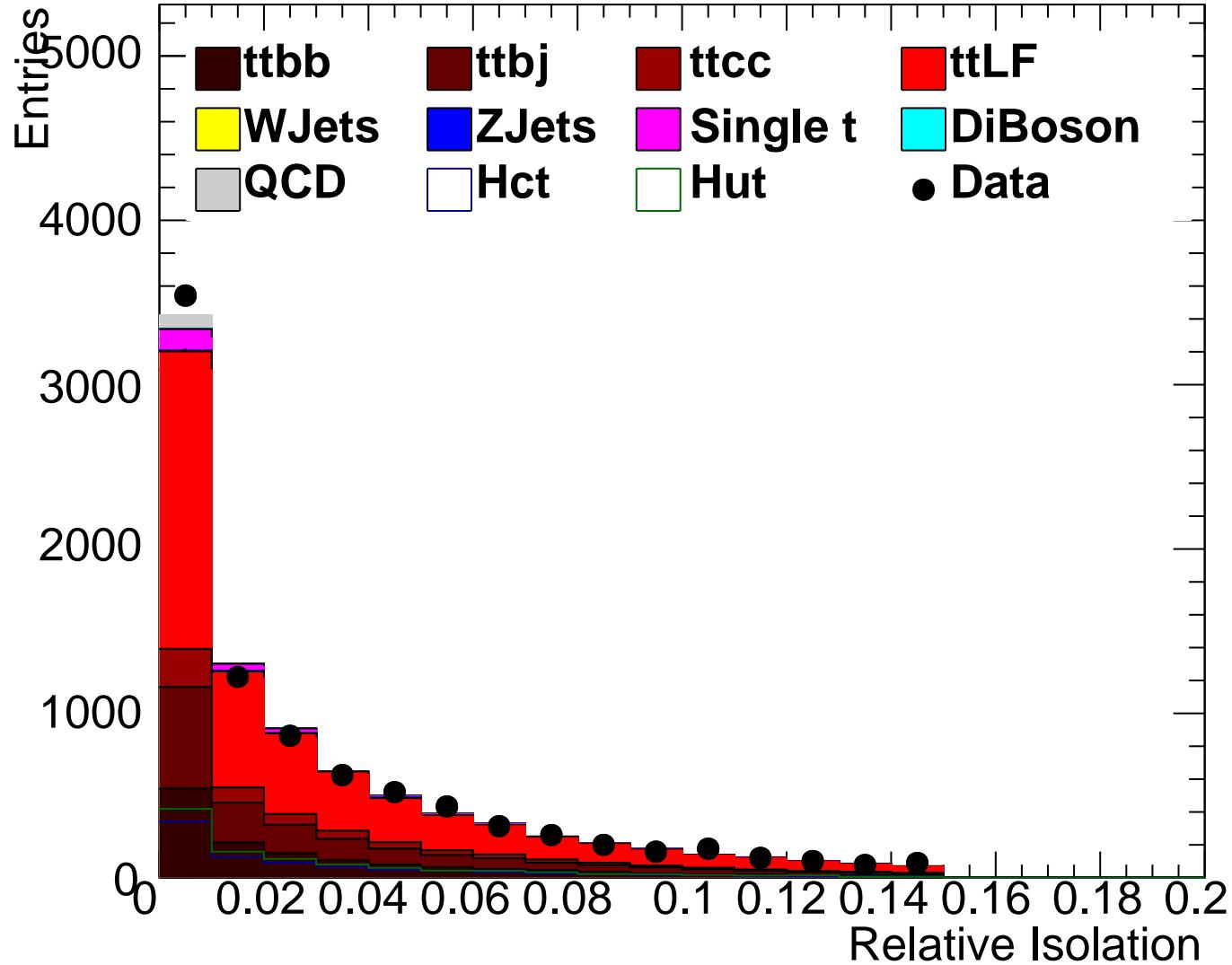
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

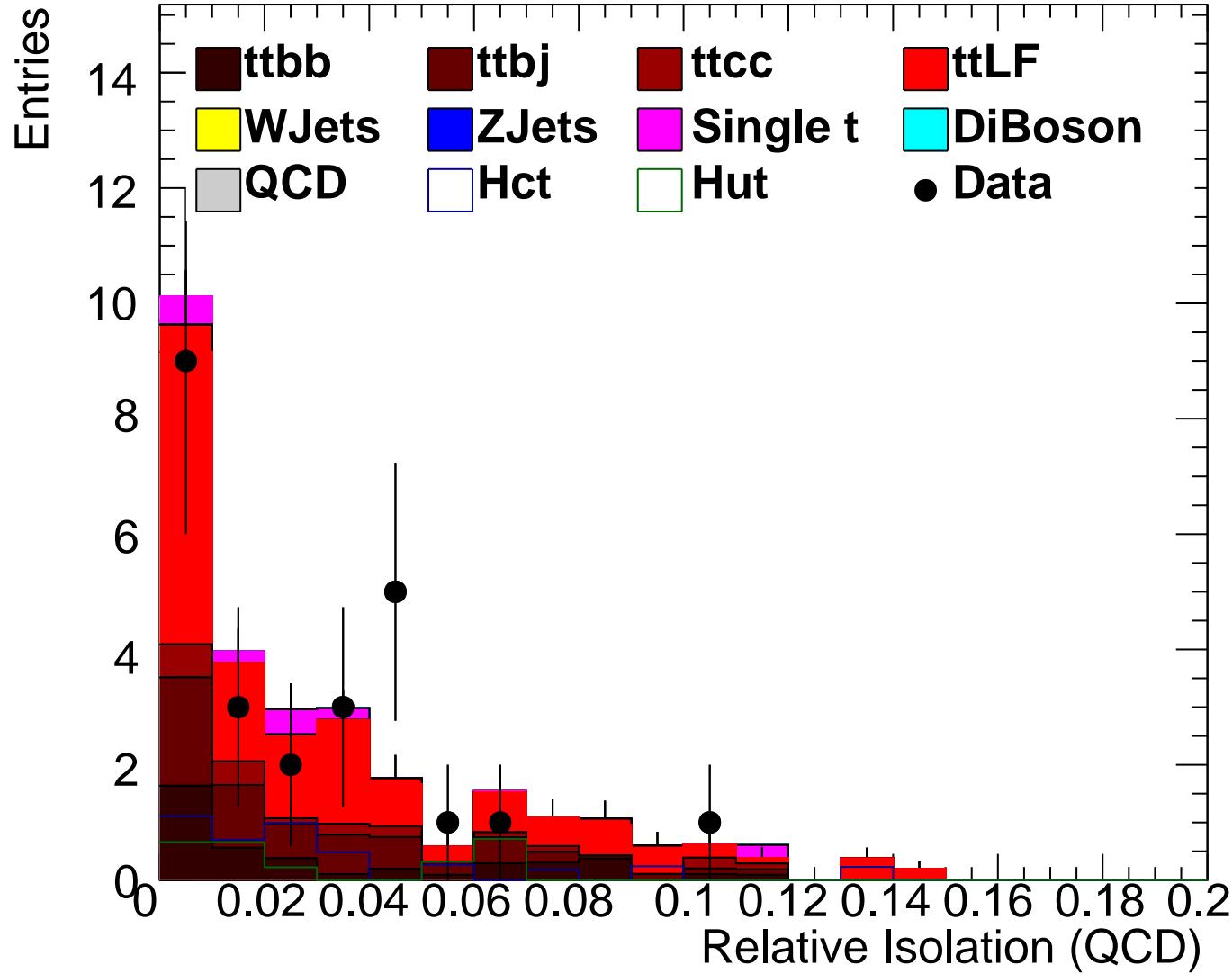


Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

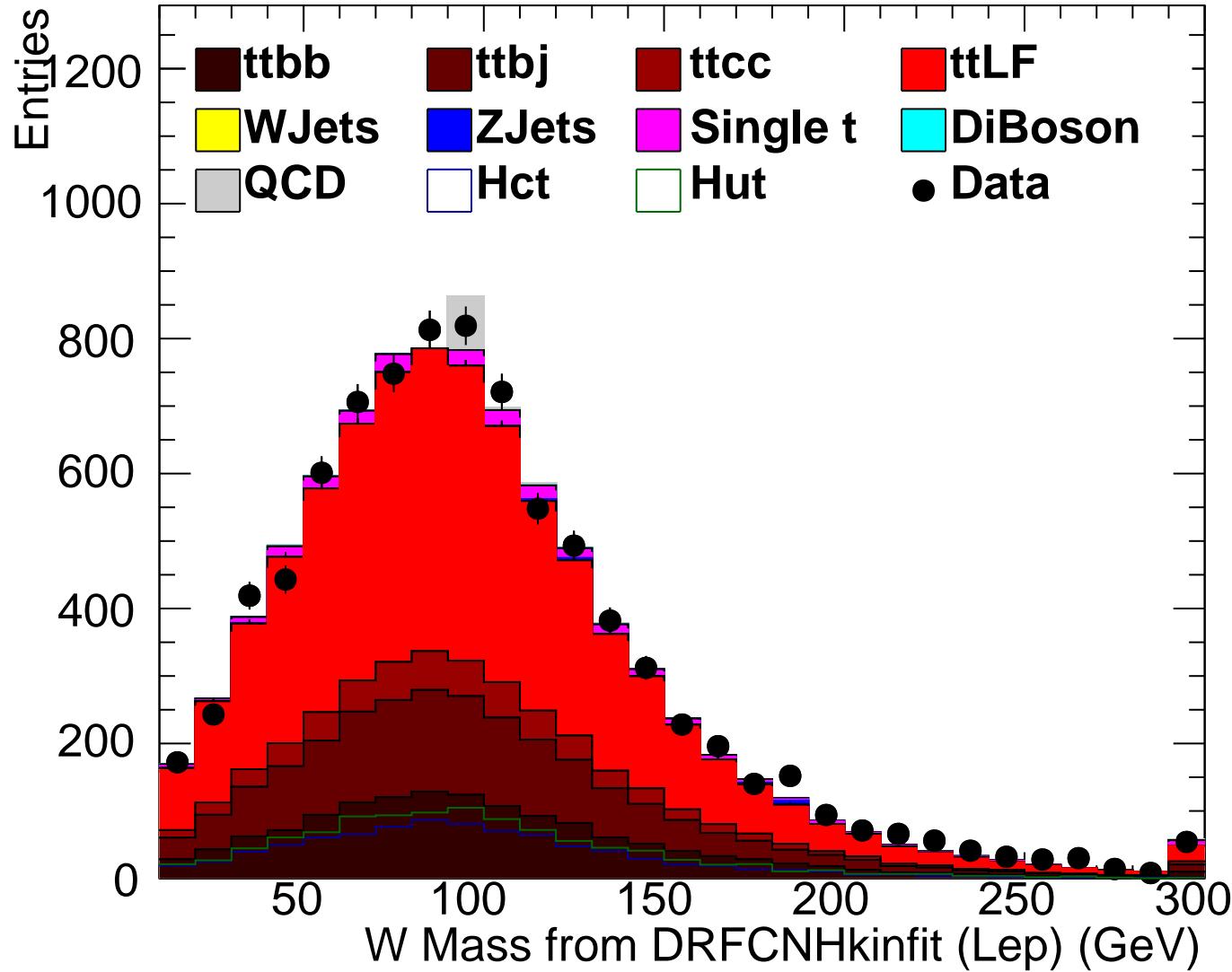
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

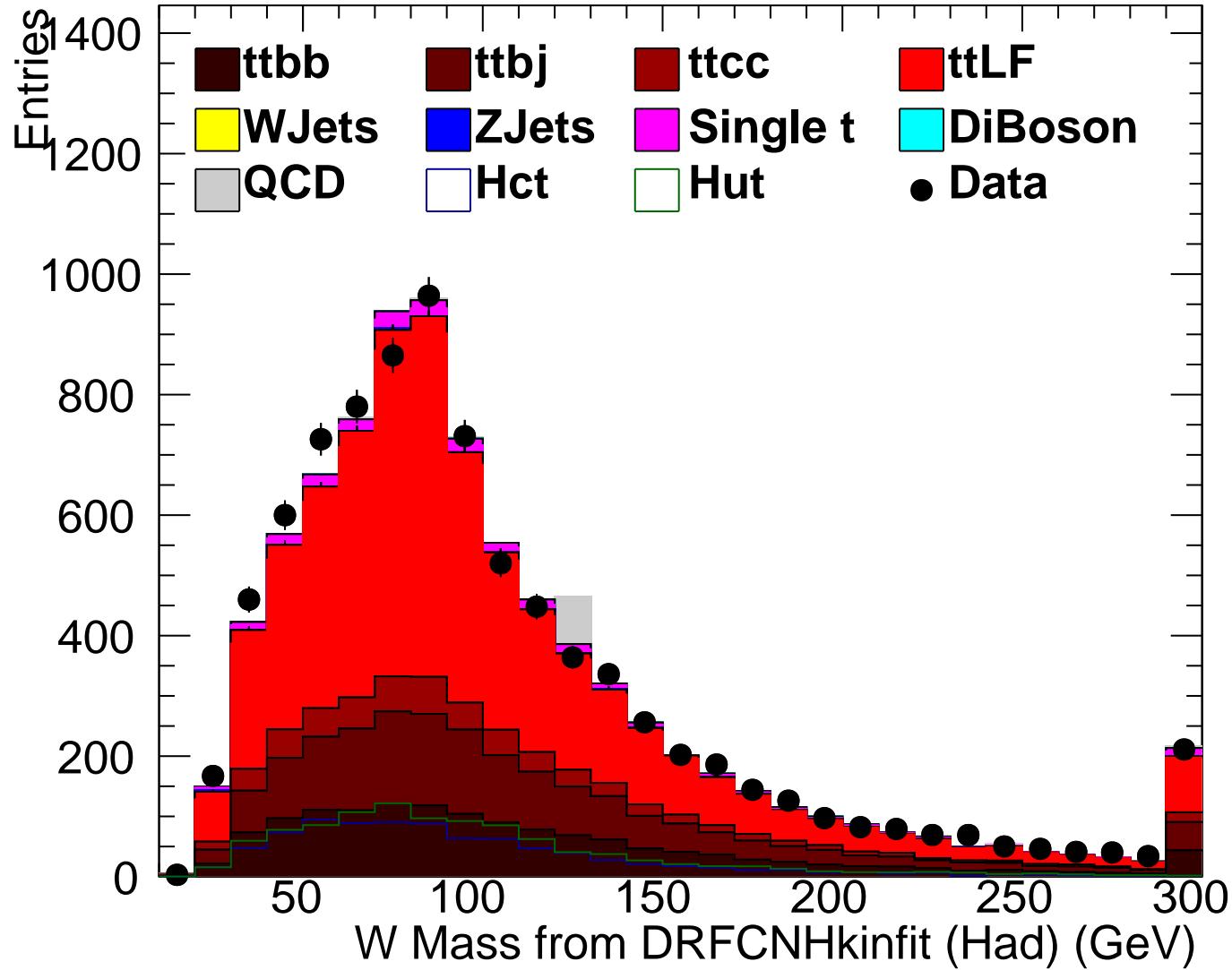
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

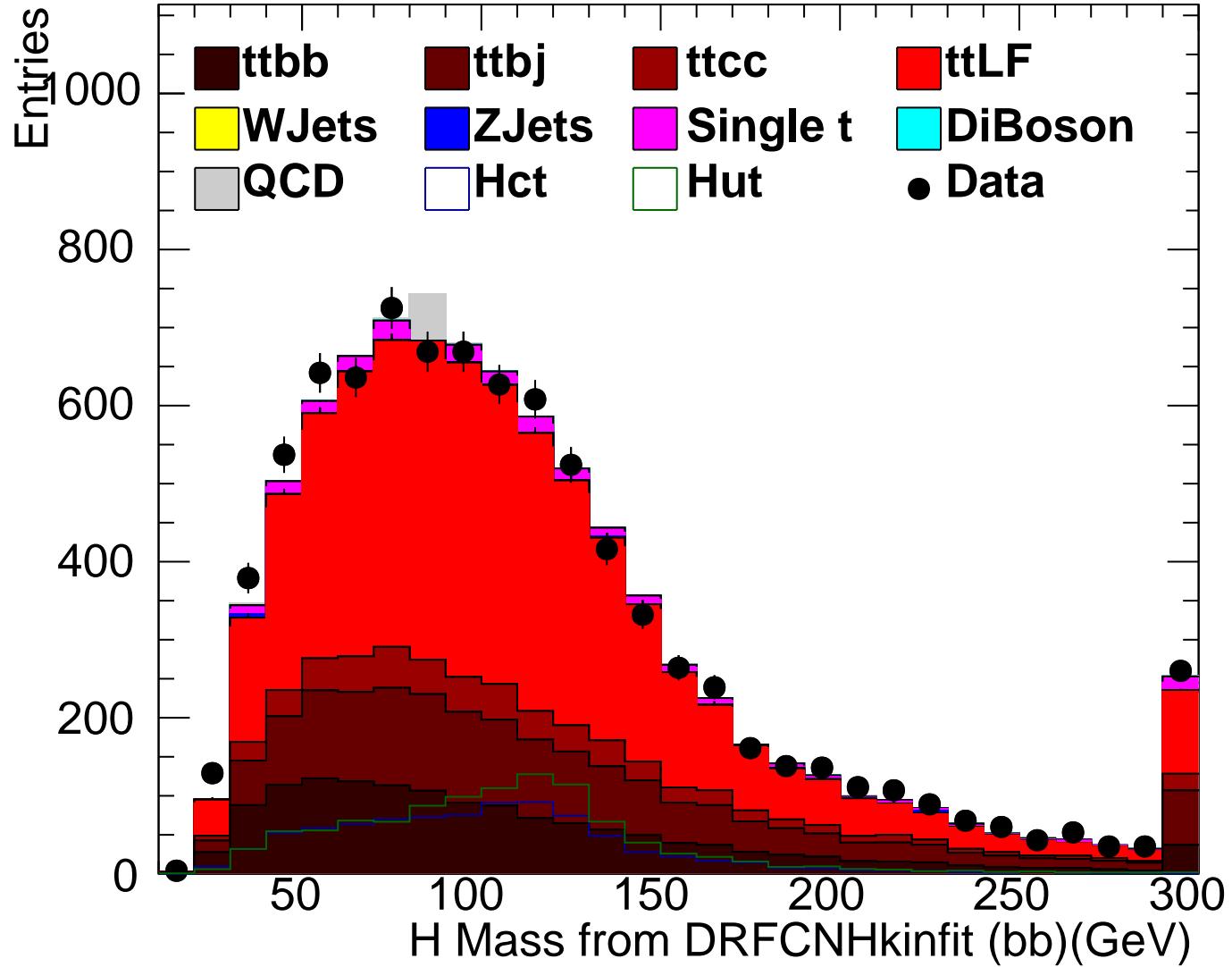


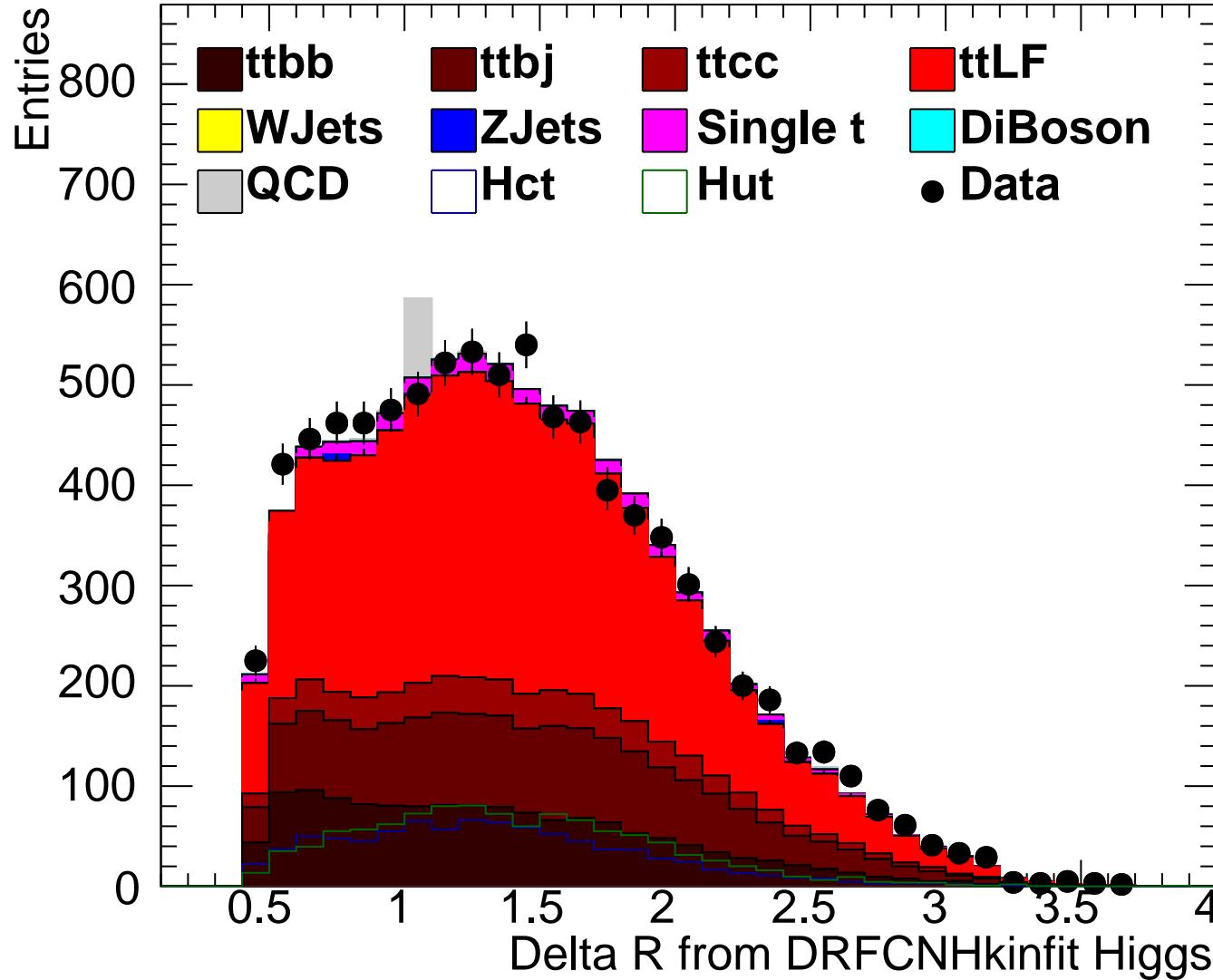
Ch0 S15

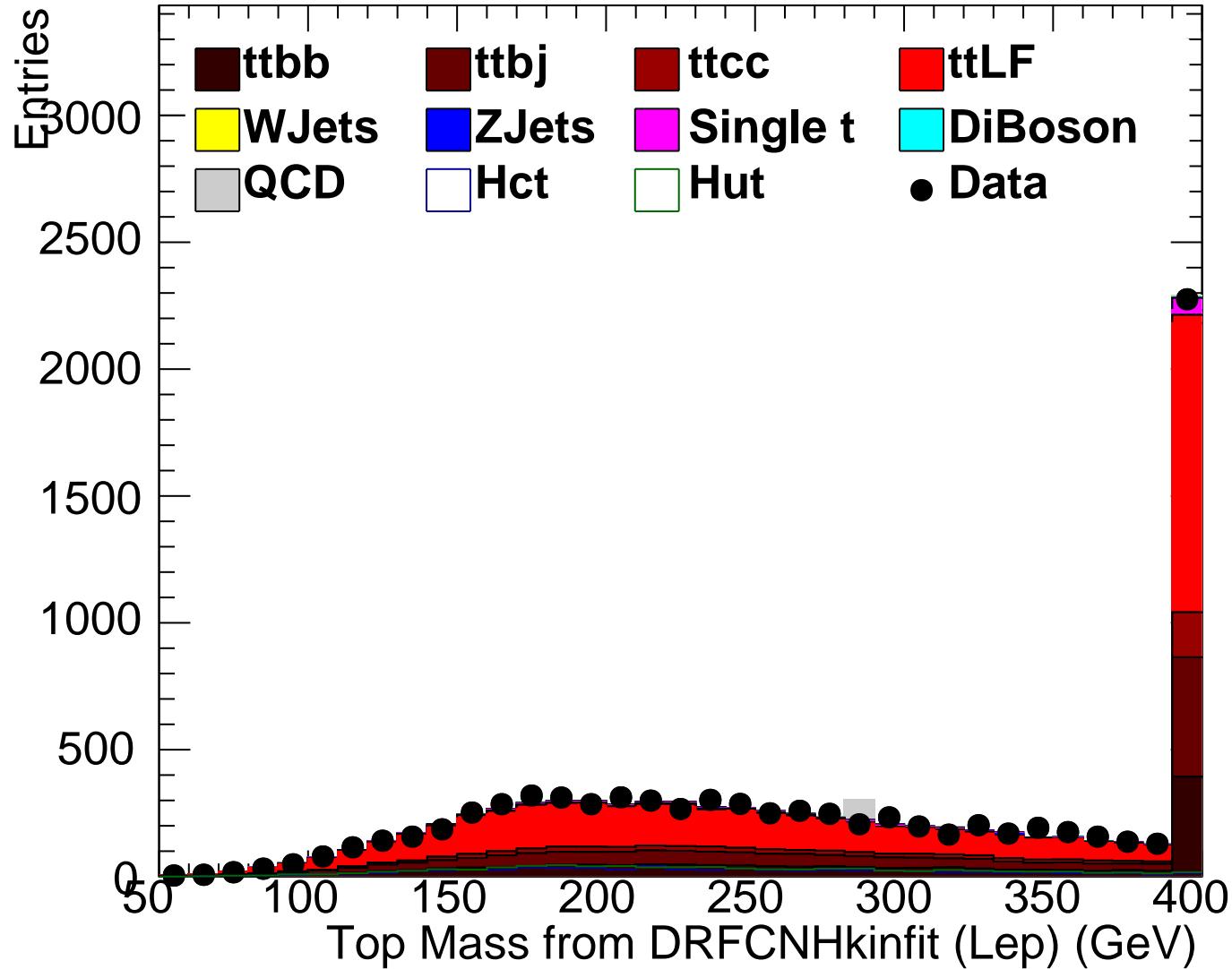
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

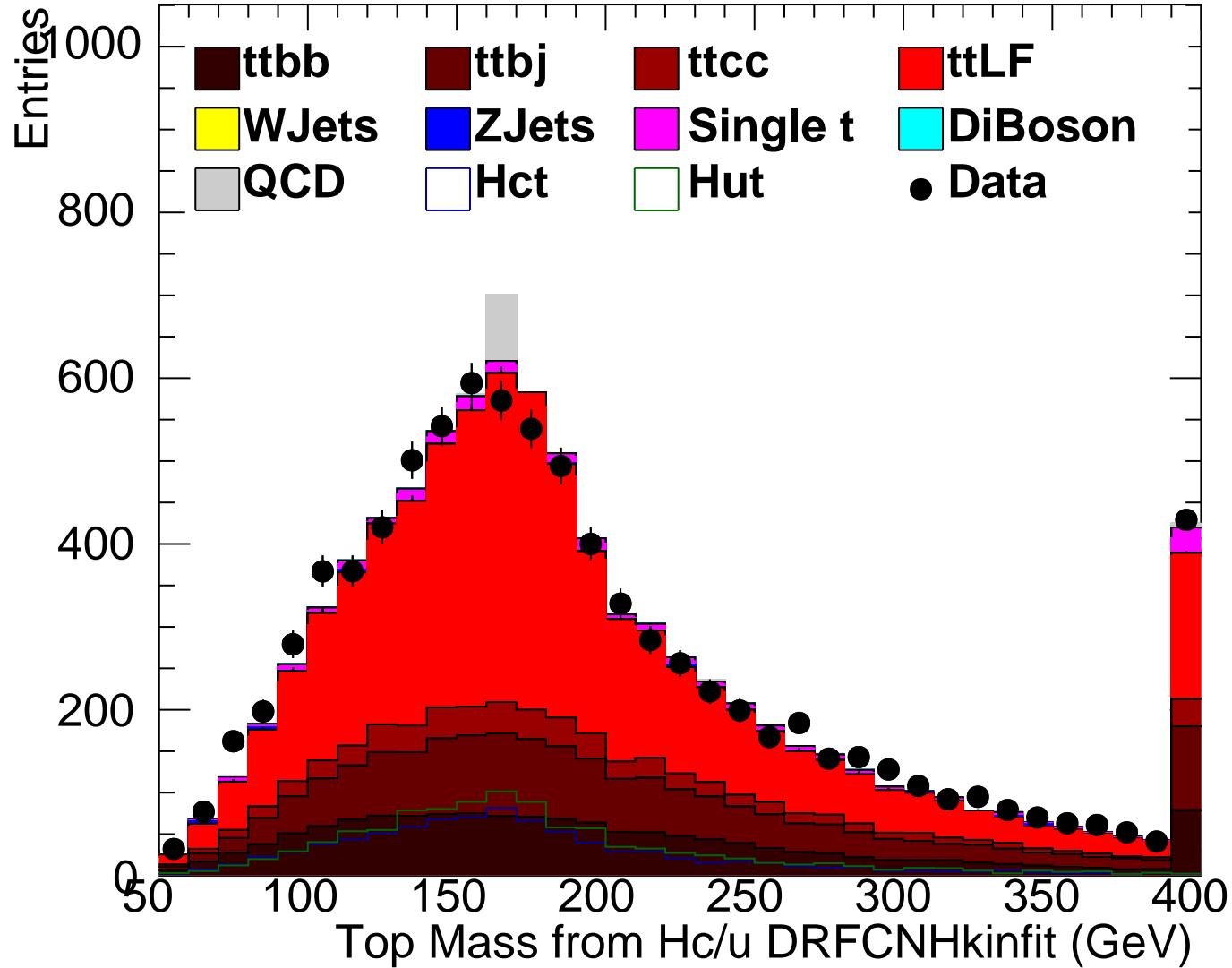


Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

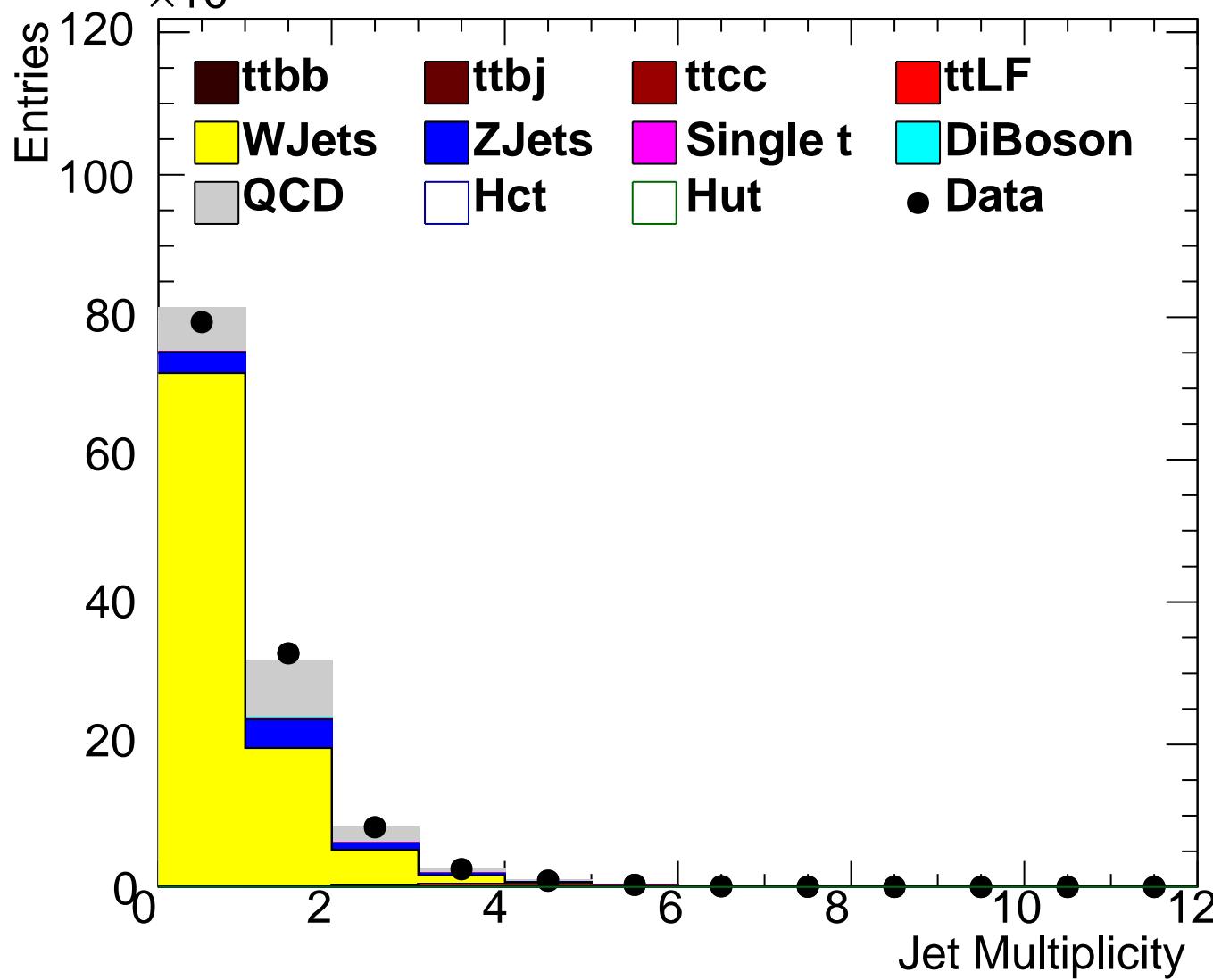
Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch0_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

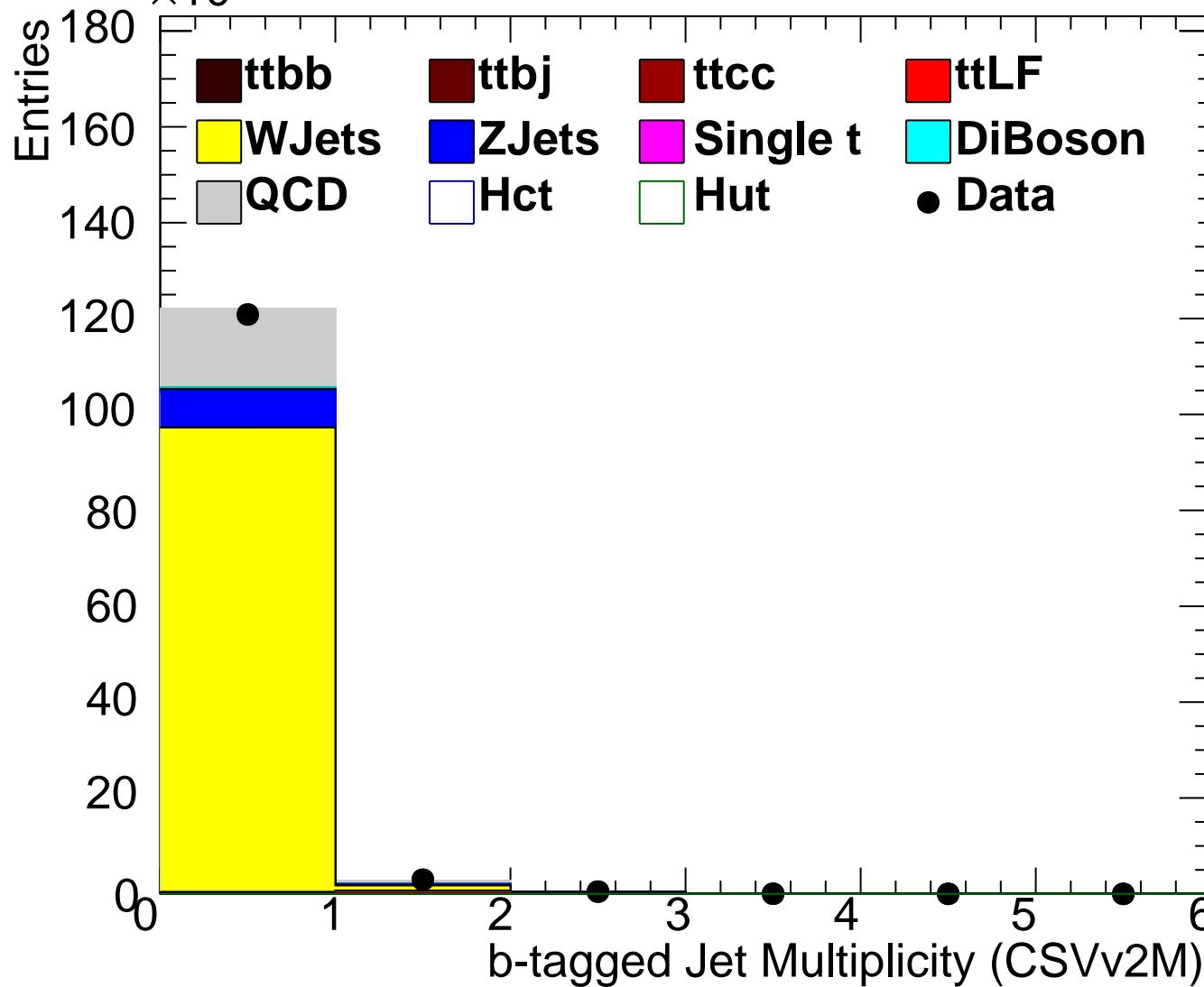
Ch1_S0

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



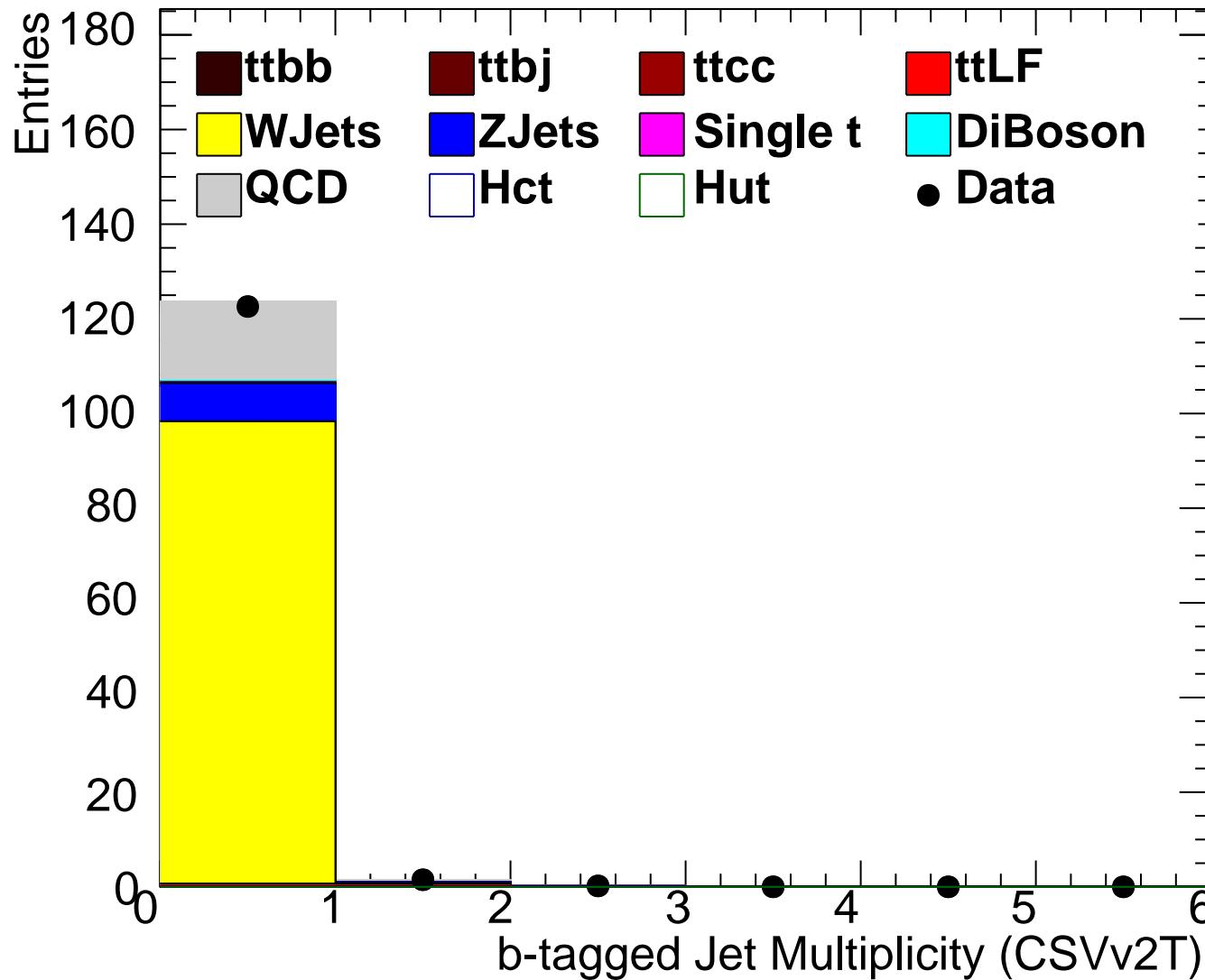
Ch1_S0

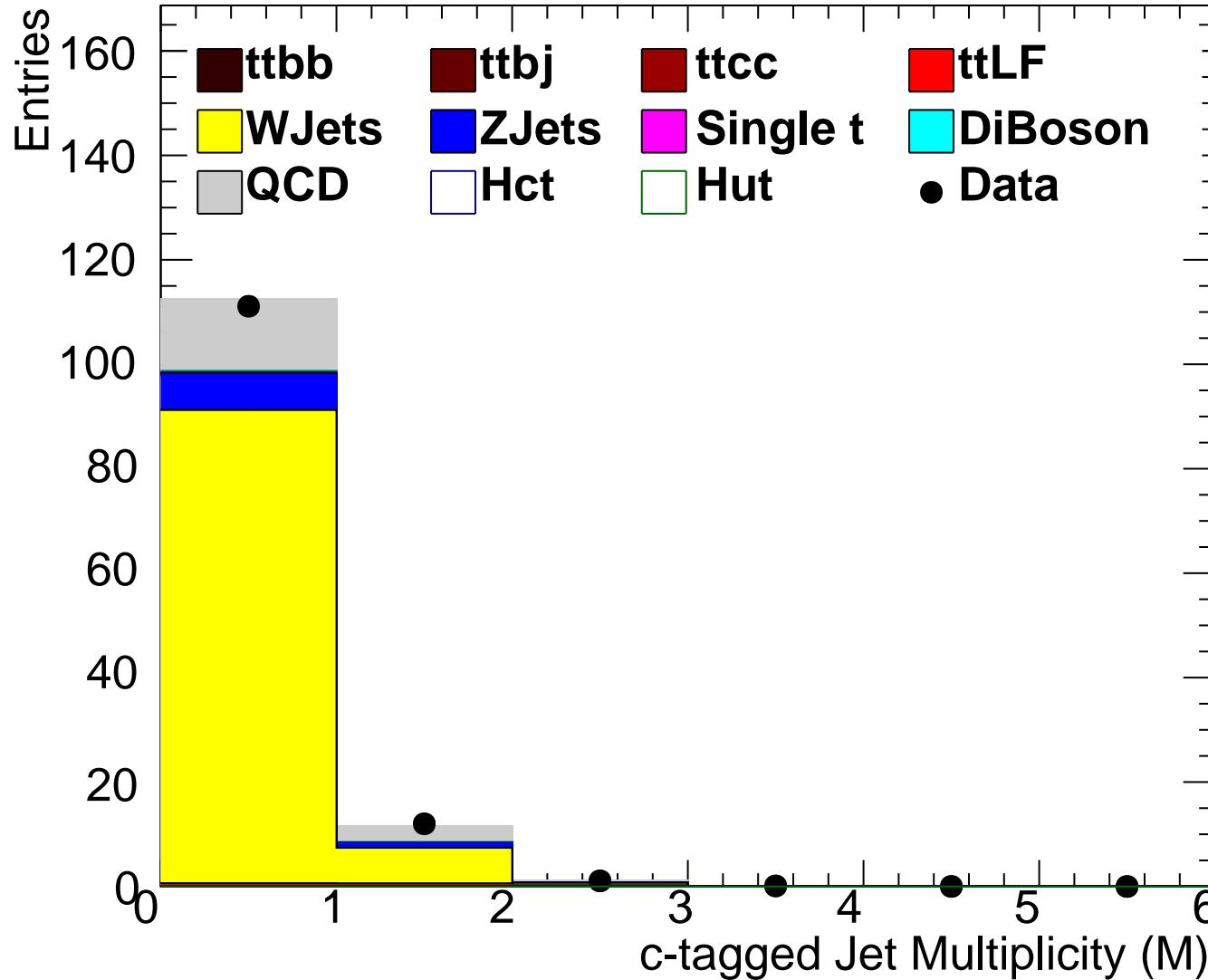
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S0

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch1_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch1_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

35

30

25

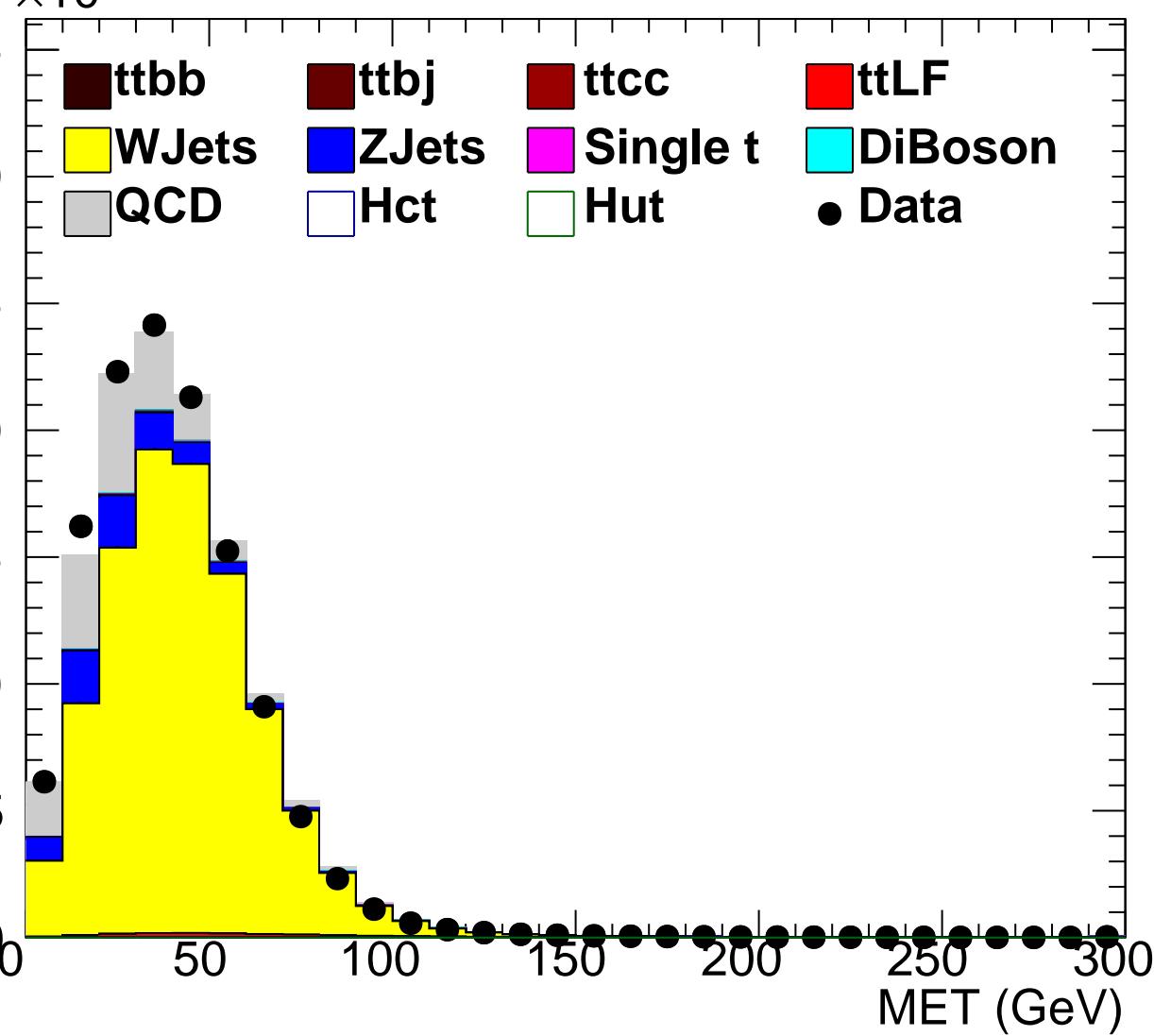
20

15

10

5

0

ttbb
WJets
QCD**ttbj**
ZJets
Hct**ttcc**
Single t
Hut**ttLF**
DiBoson
Data

Ch1_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

25

20

15

10

5

0

0

20

40

60

80

100

120

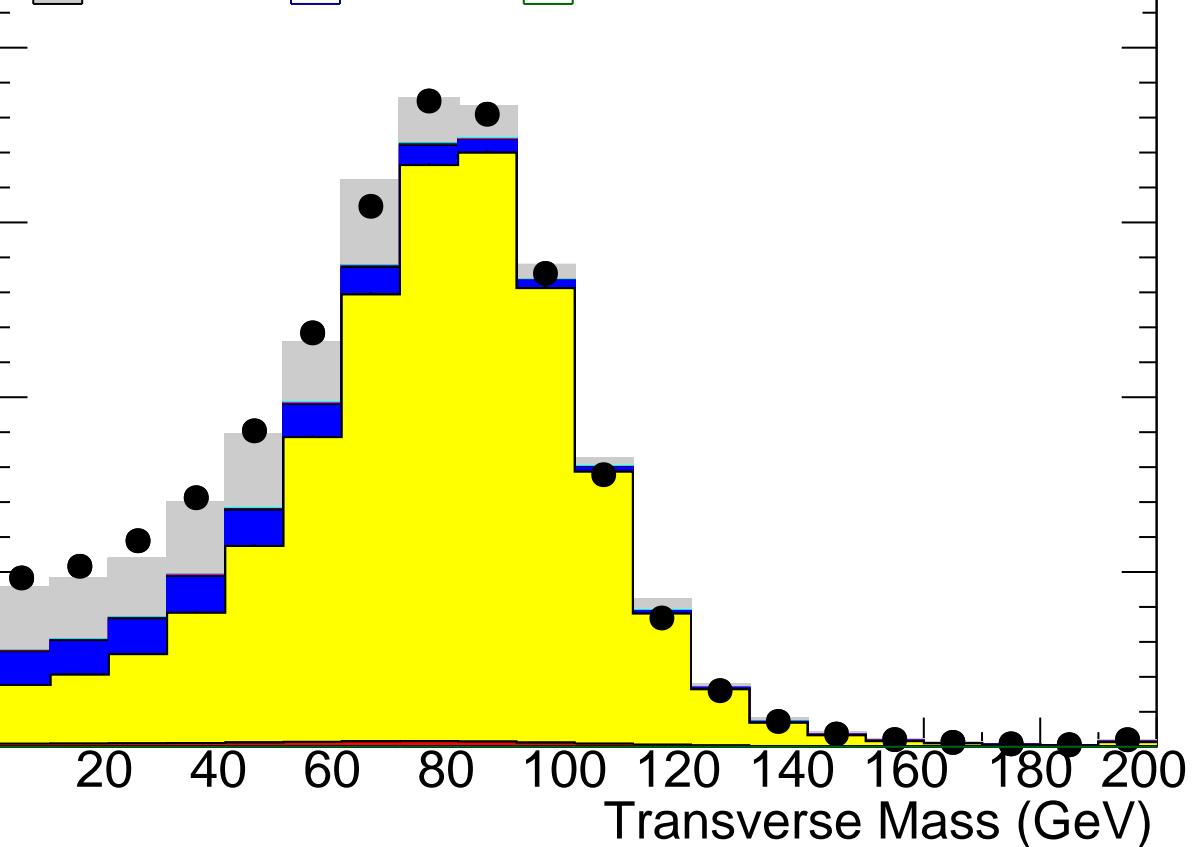
140

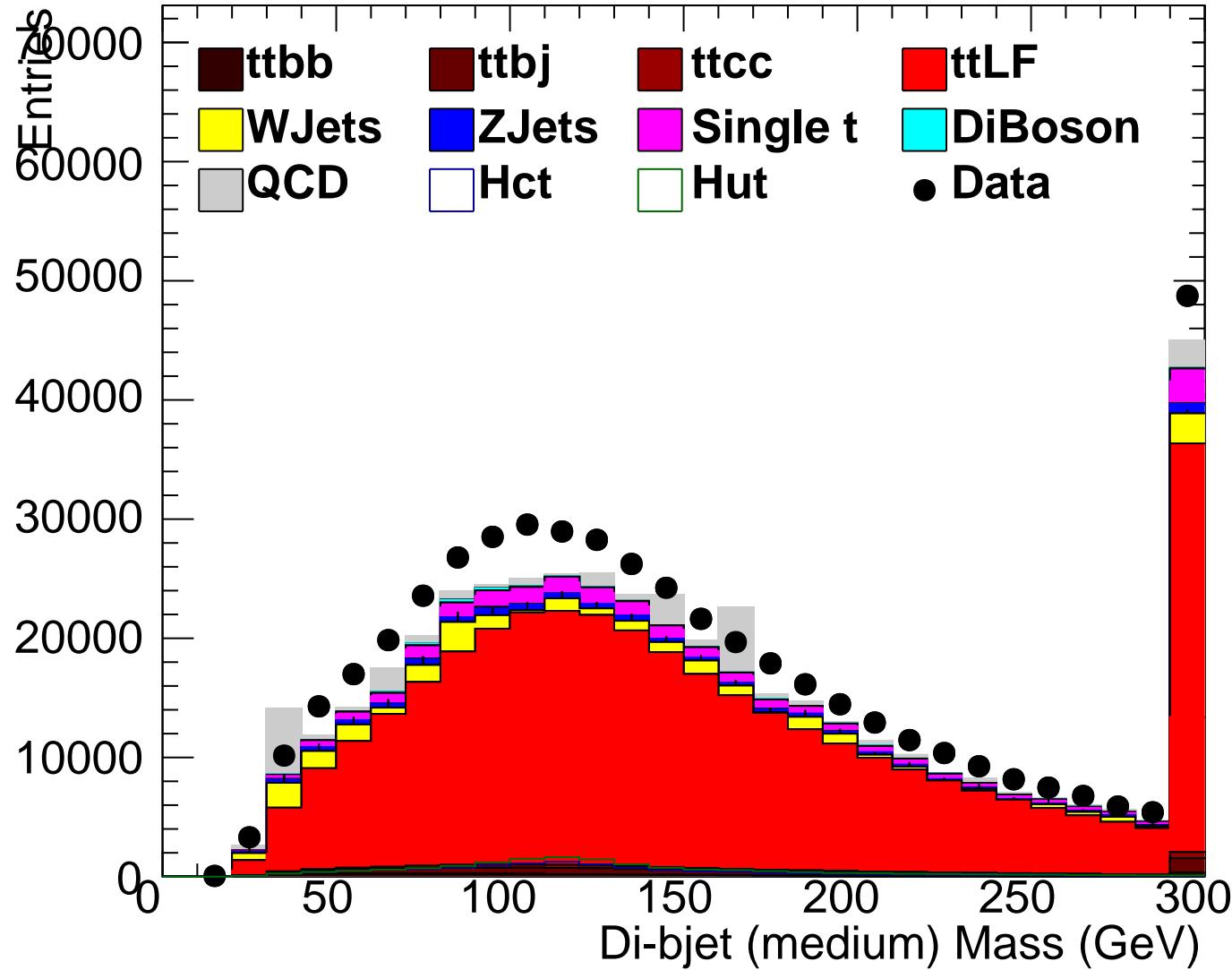
160

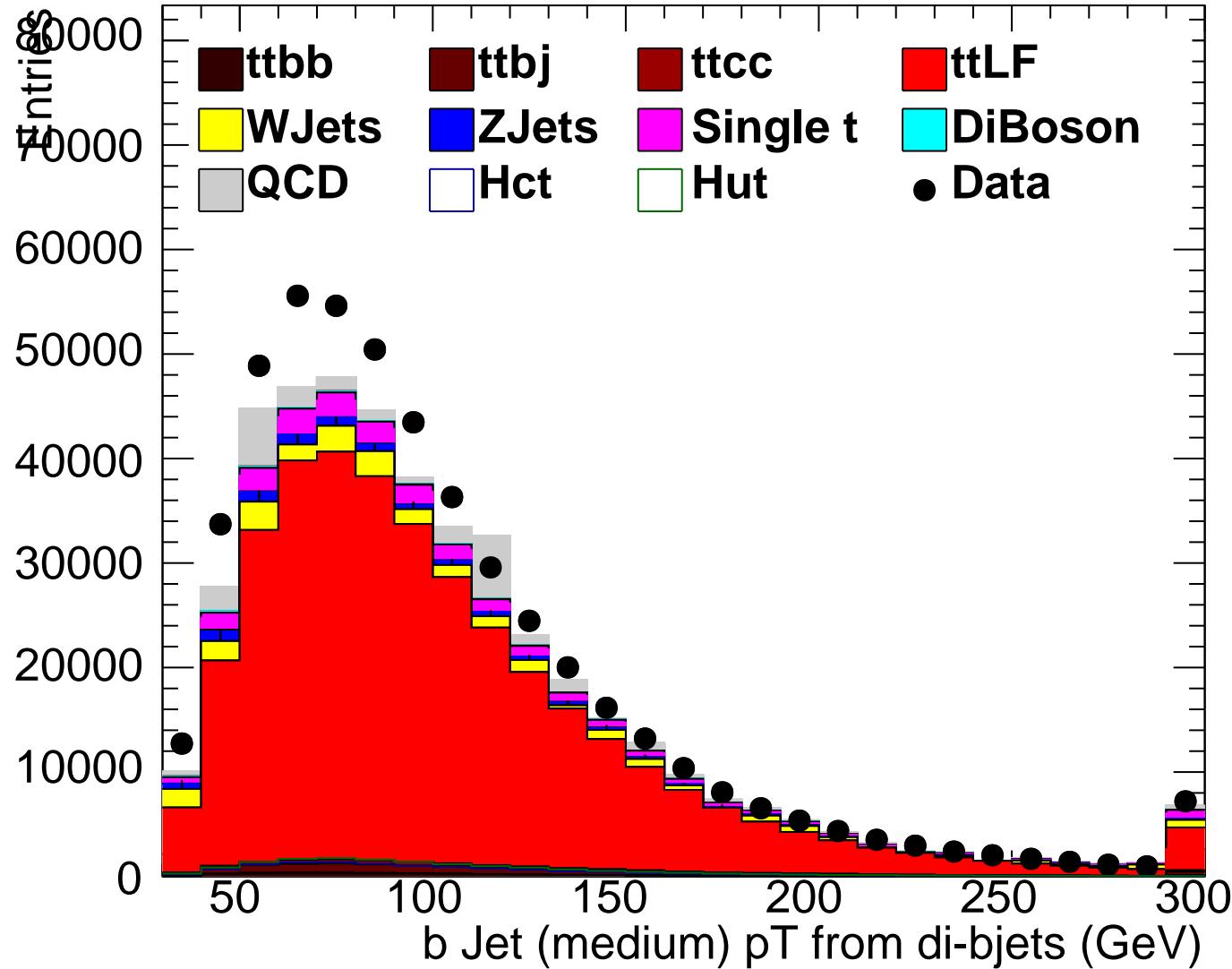
180

200

Transverse Mass (GeV)

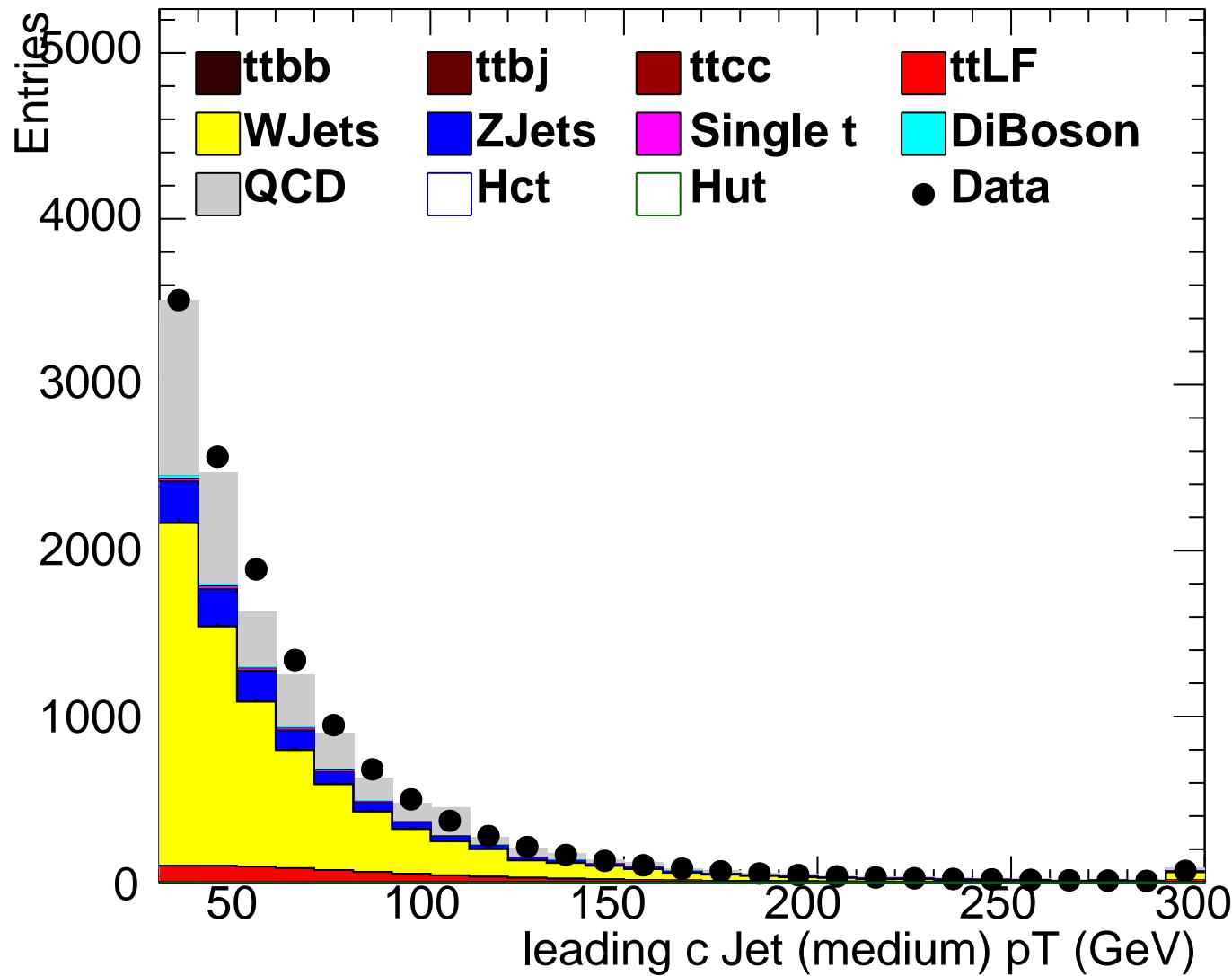
ttbb**ttbj****ttcc****ttLF****WJets****ZJets****Single t****DiBoson****QCD****Hct****Hut****Data**

Ch1_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

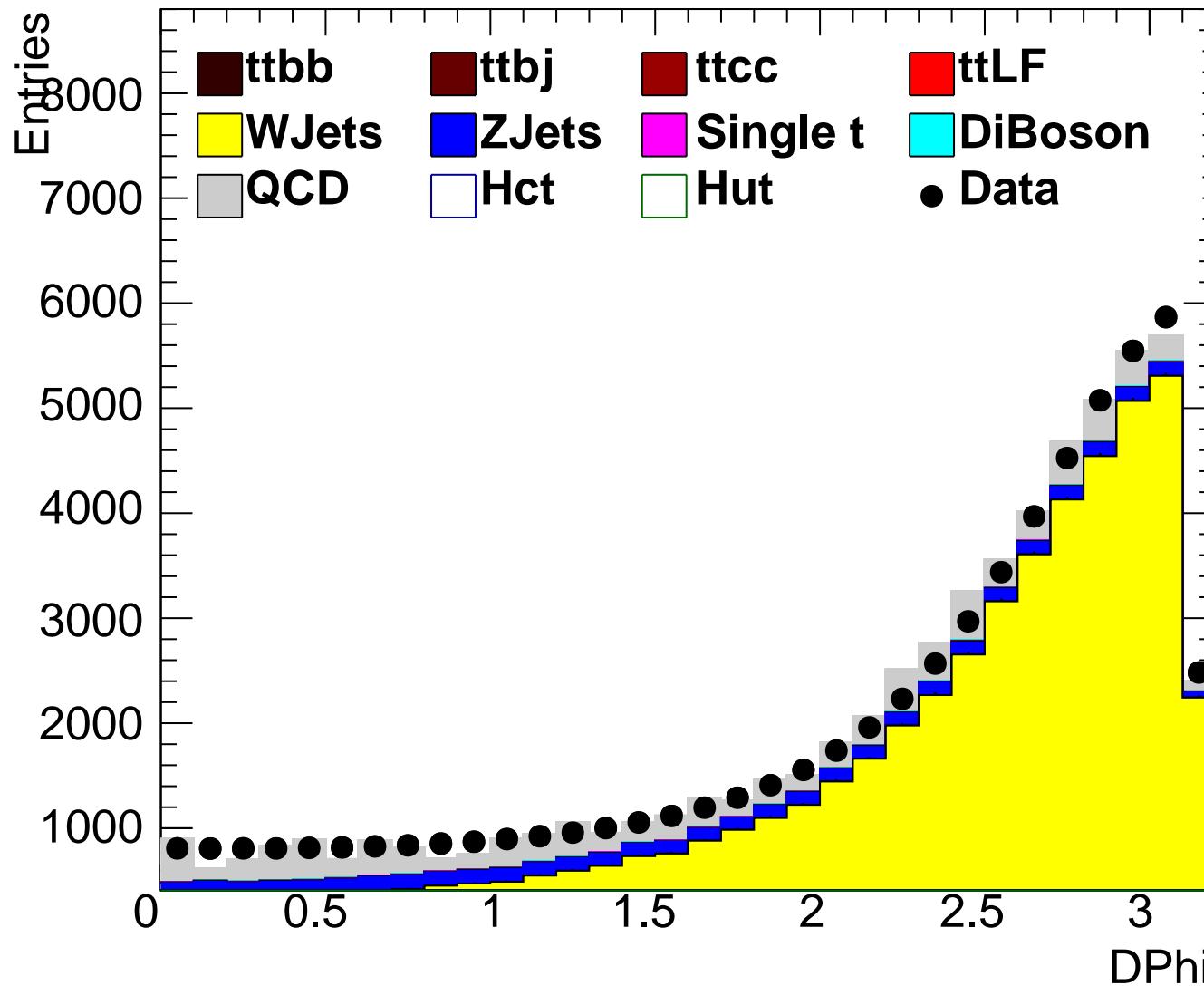
Ch1_S0

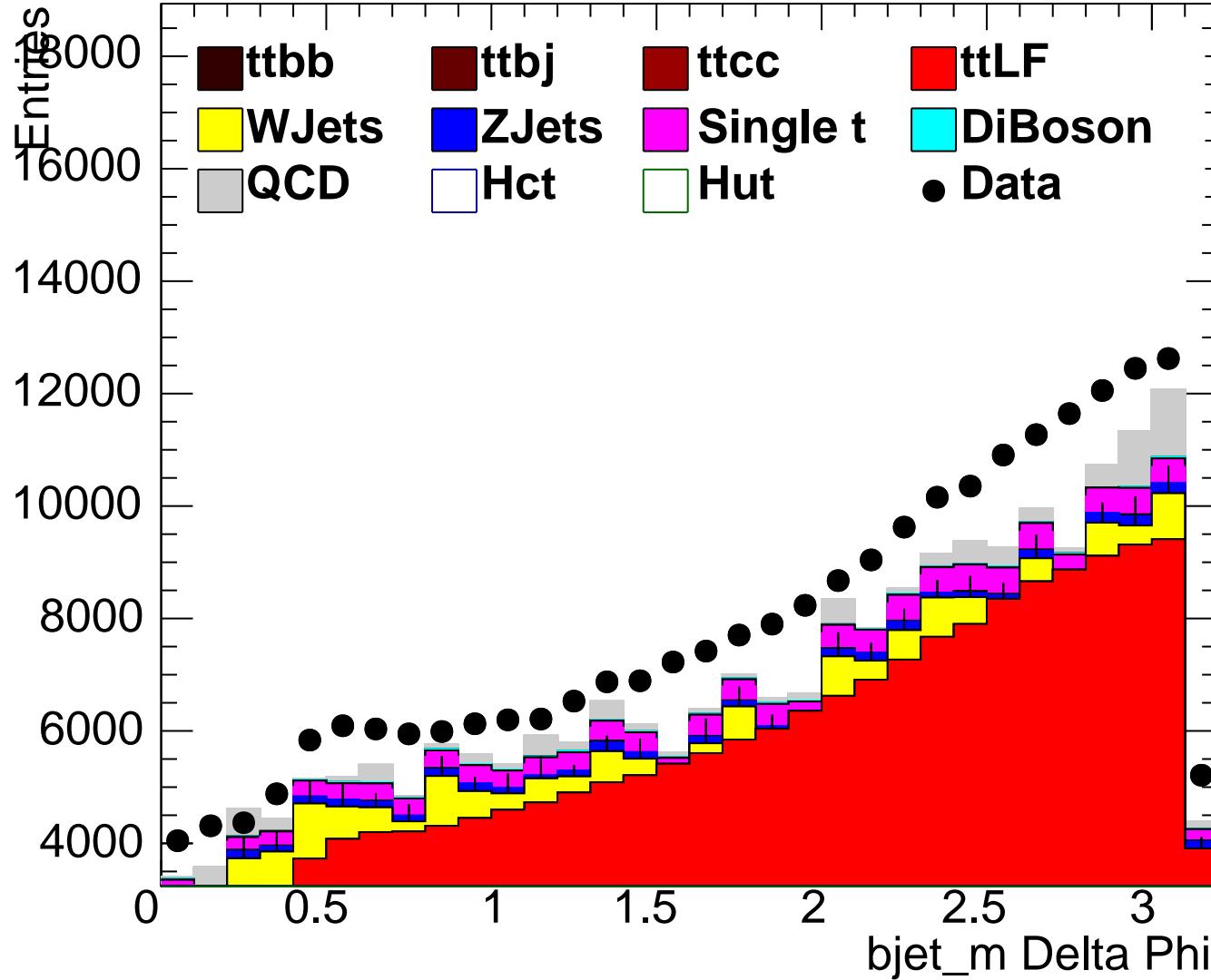
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

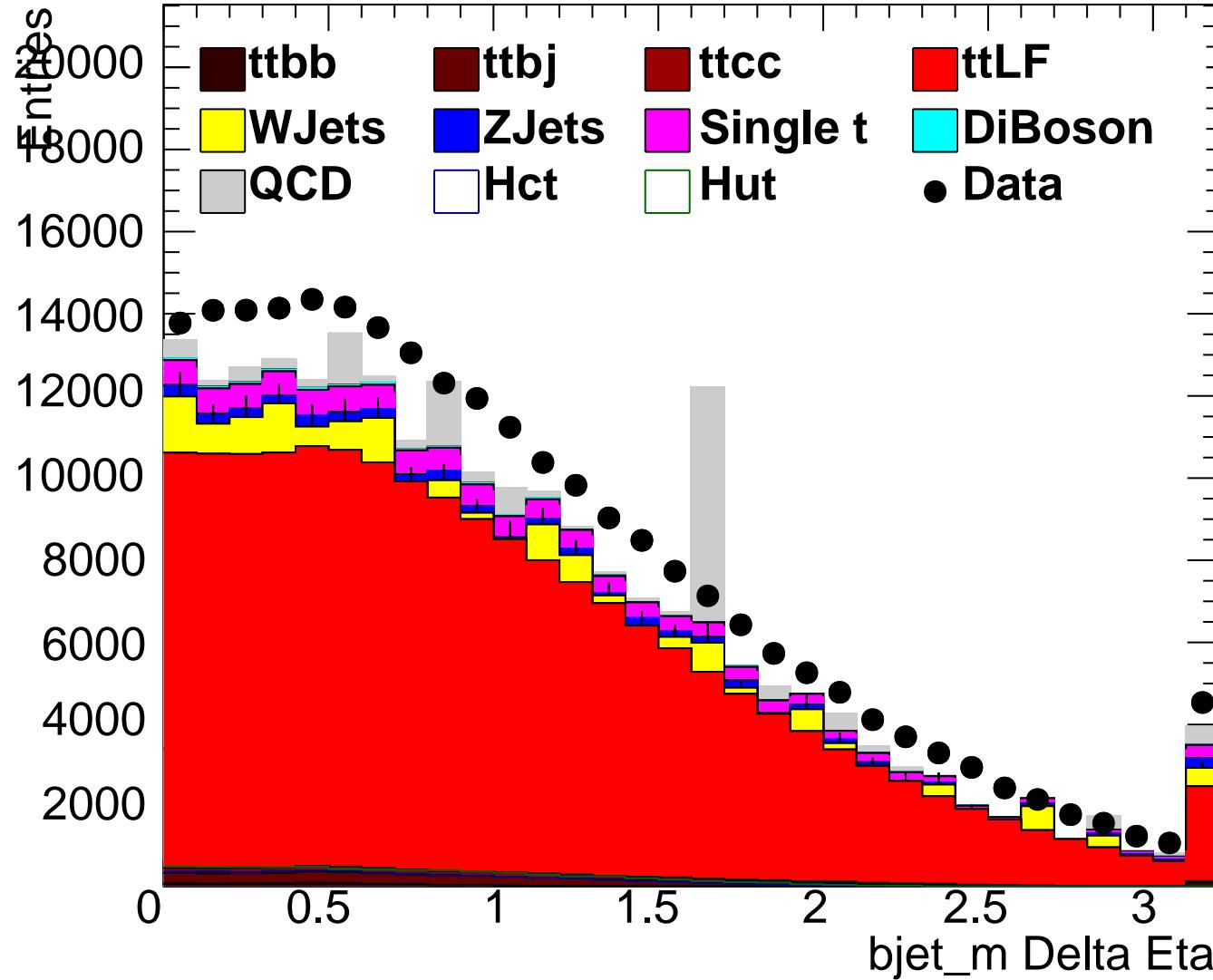


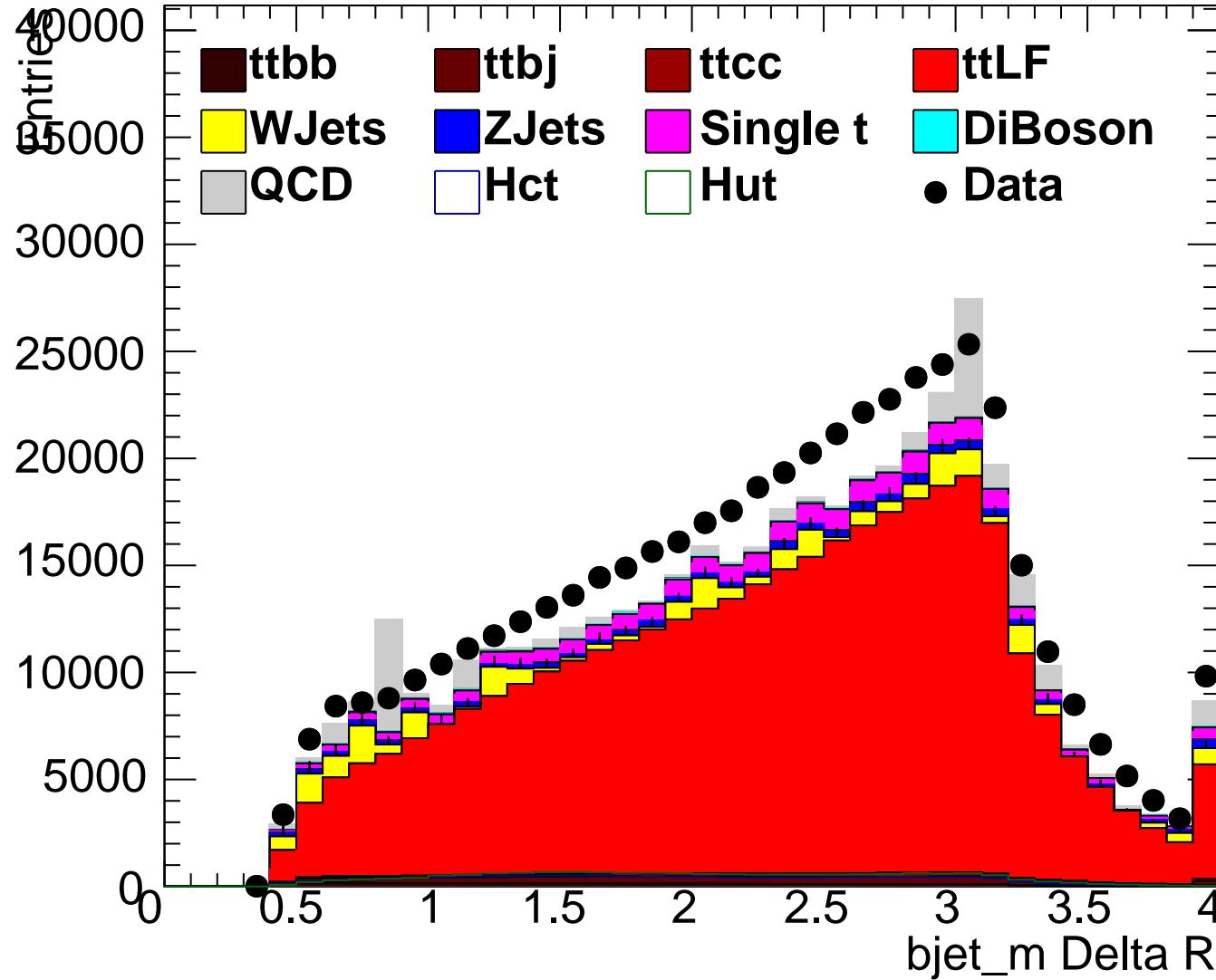
Ch1_S0

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch1_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

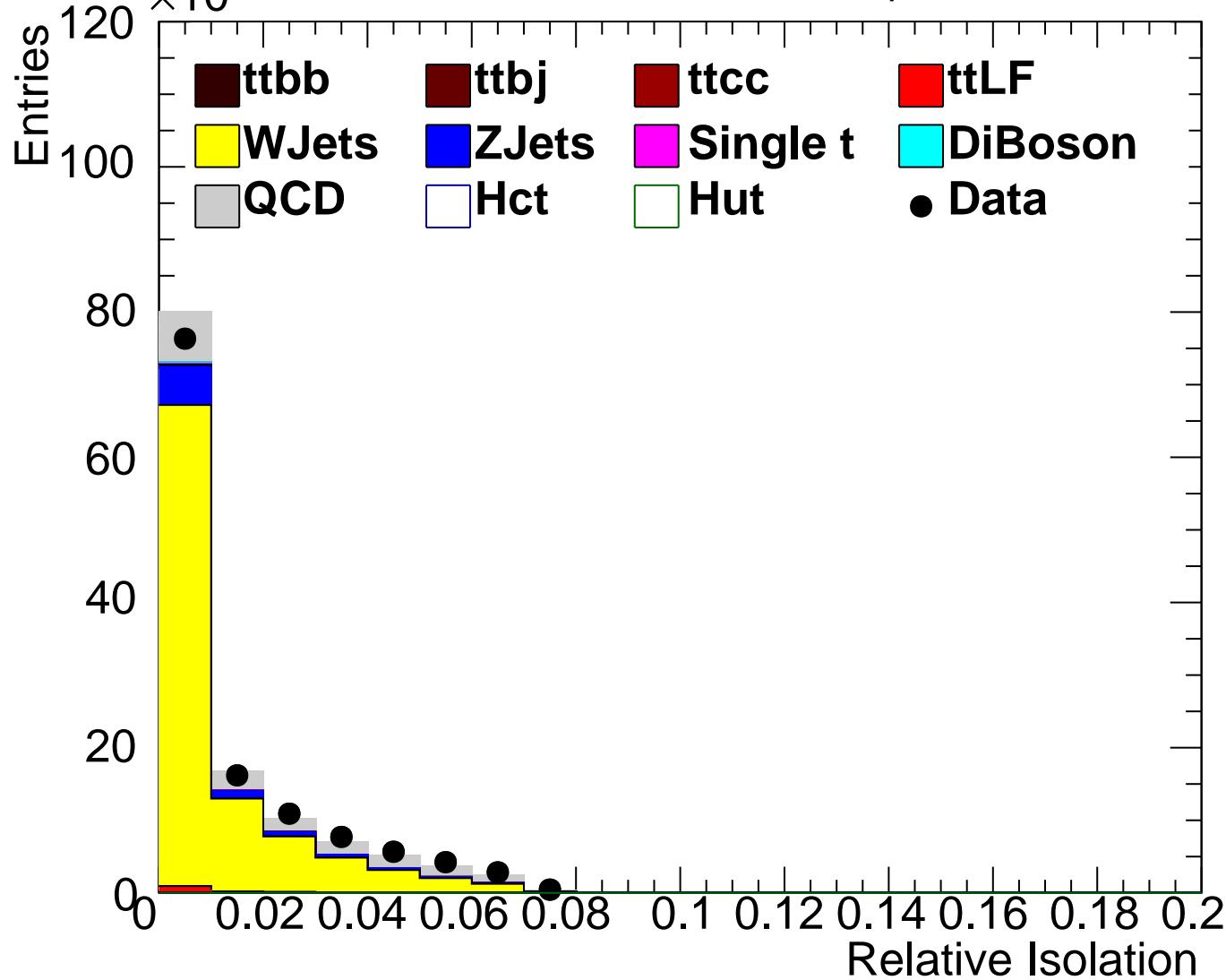
Ch1_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

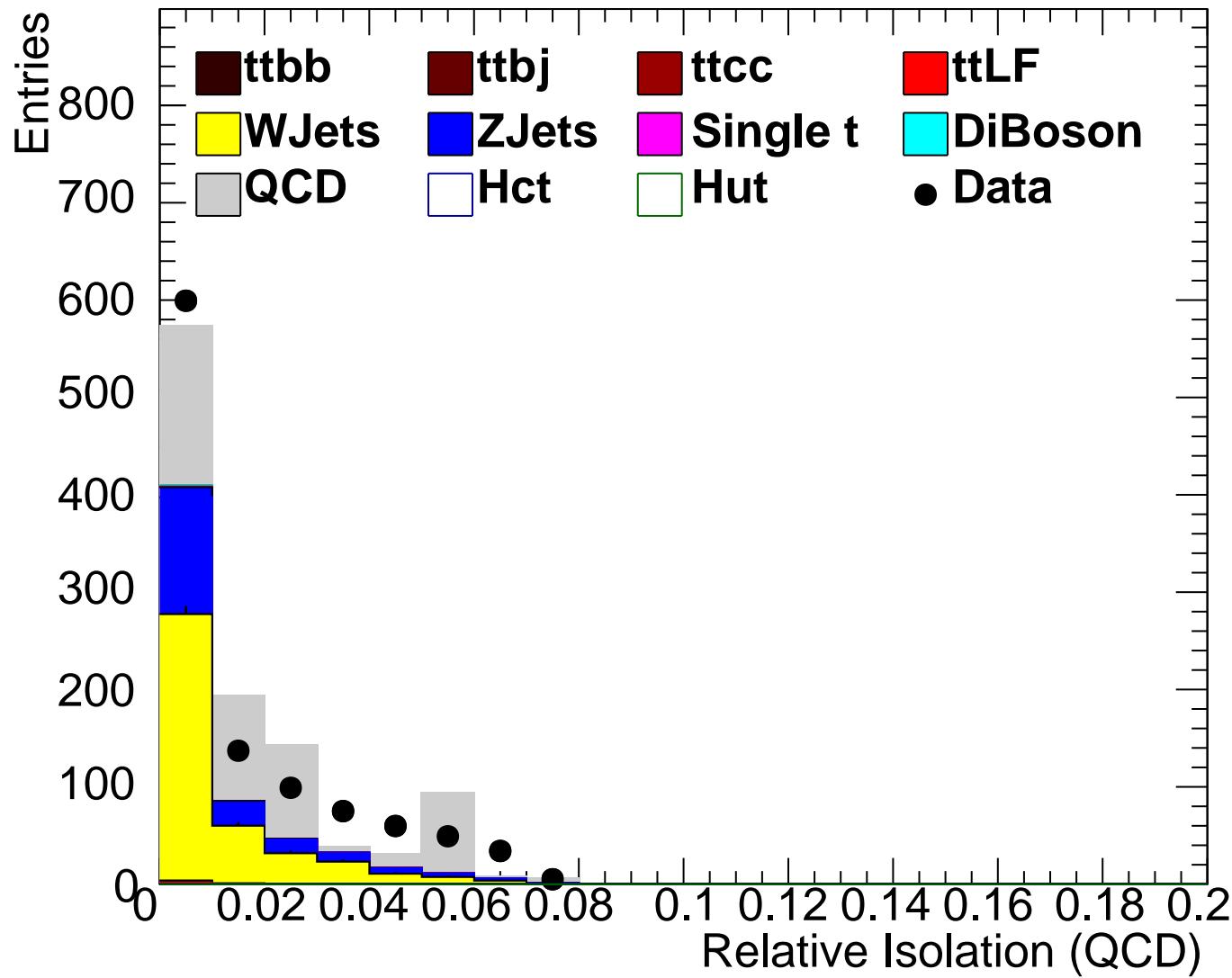
Ch1_S0CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S0

$\times 10^6$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$





Ch1_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

24
22
20
18
16
14
12
10
8
6
4
2
0

ttbb	ttbj	ttcc	ttLF
WJets	ZJets	Single t	DiBoson
QCD	Hct	Hut	● Data

W Mass from DRFCN_Hkinfit (Lep) (GeV)

50 100 150 200 250 300

Ch1_S0

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

500

400

300

200

100

0

ttbb **ttbj** **ttcc** **ttLF**
WJets **ZJets** **Single t** **DiBoson**
QCD **Hct** **Hut** ● **Data**

W Mass from DRFCN H_{kinfit} (Had) (GeV)

50

100

150

200

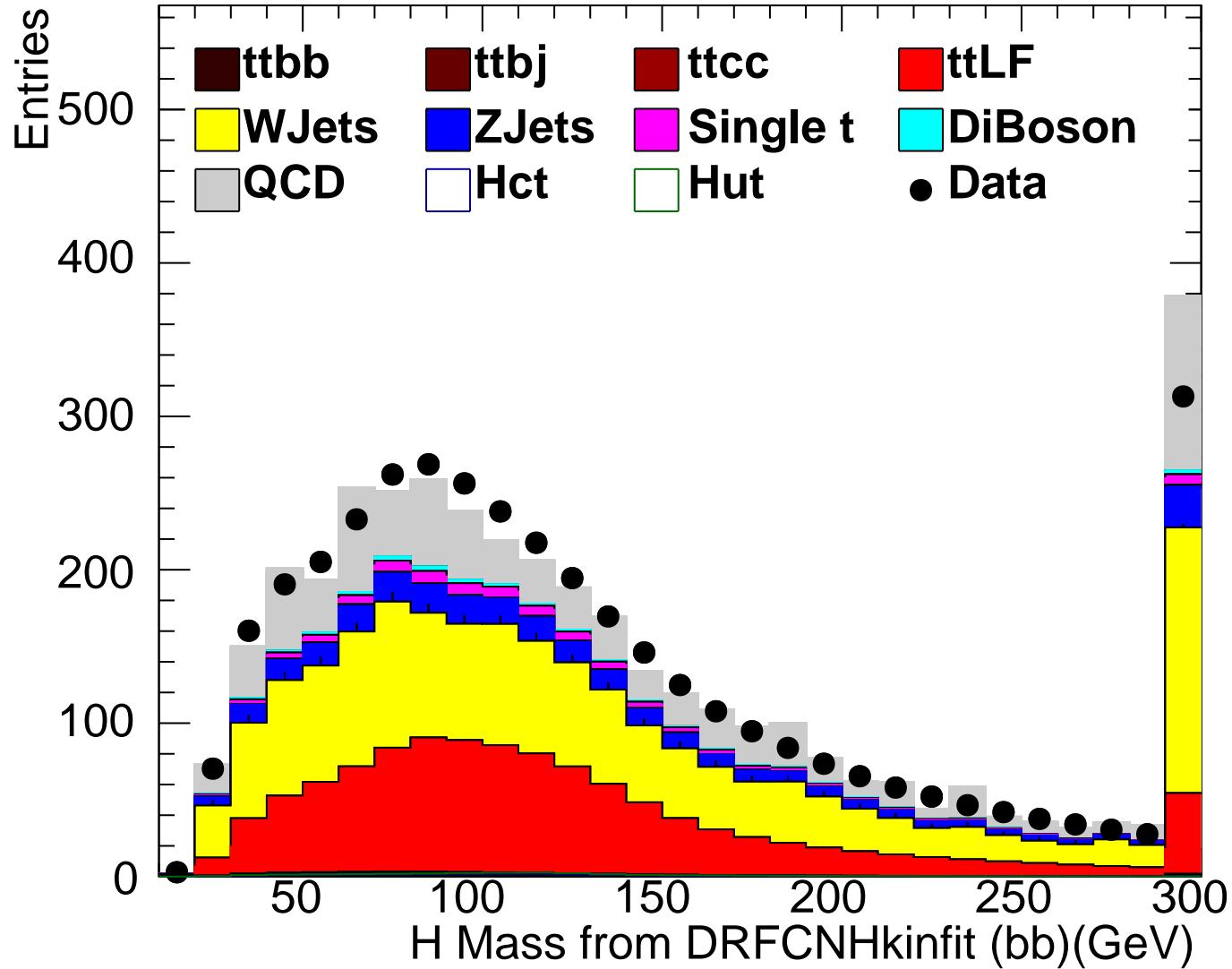
250

300

Ch1_S0

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S0

$\times 10^{-3}$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

250

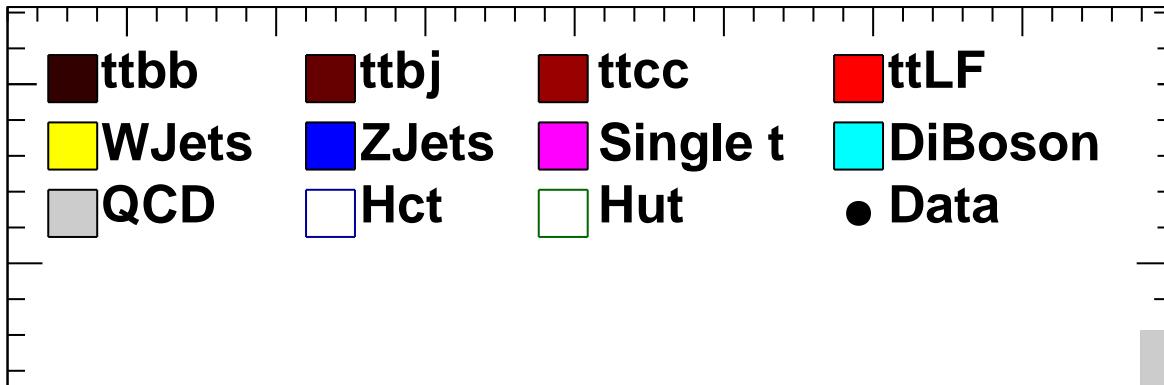
200

150

100

50

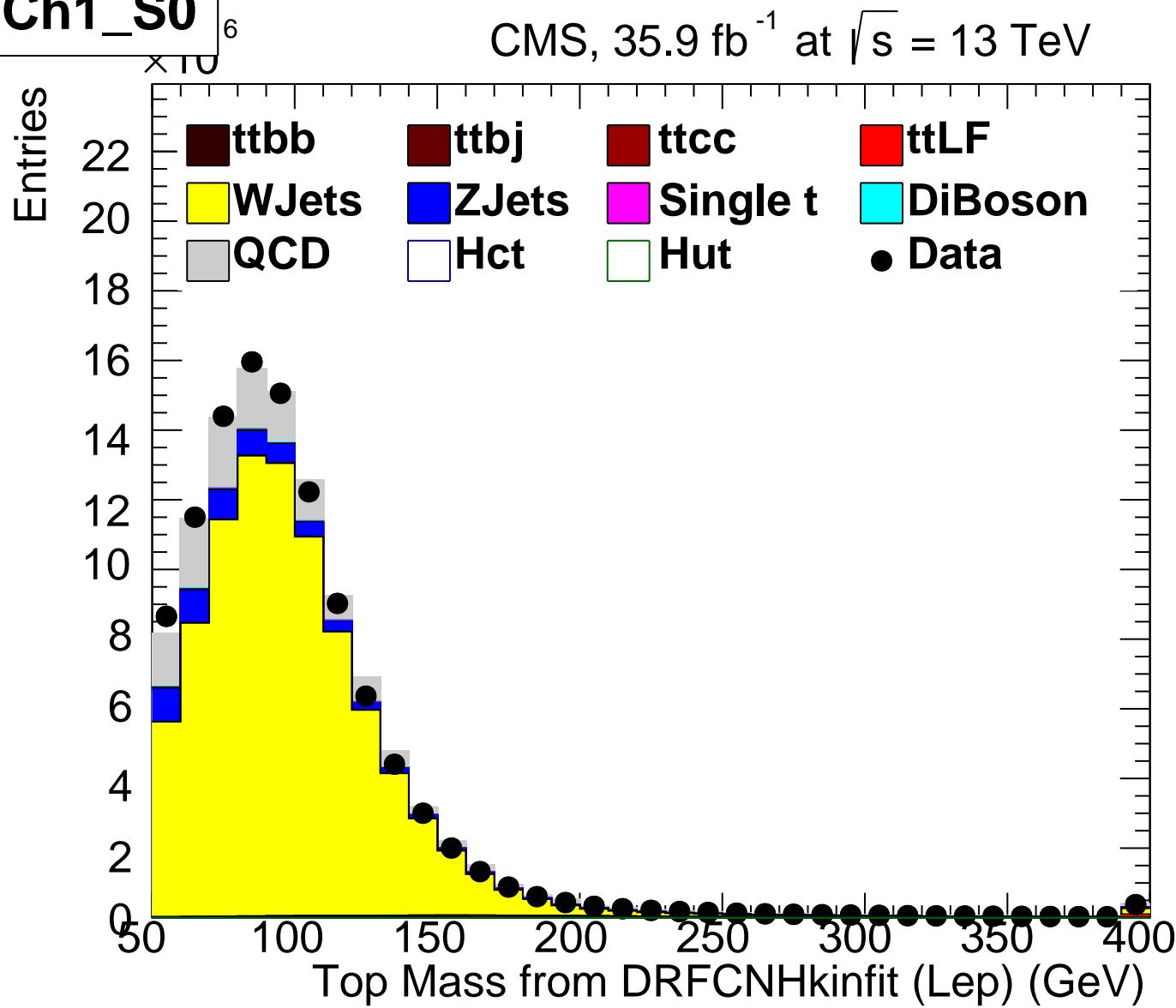
0



Delta R from DRFCN_Hkinfit Higgs

Ch1_S0x 10⁶CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

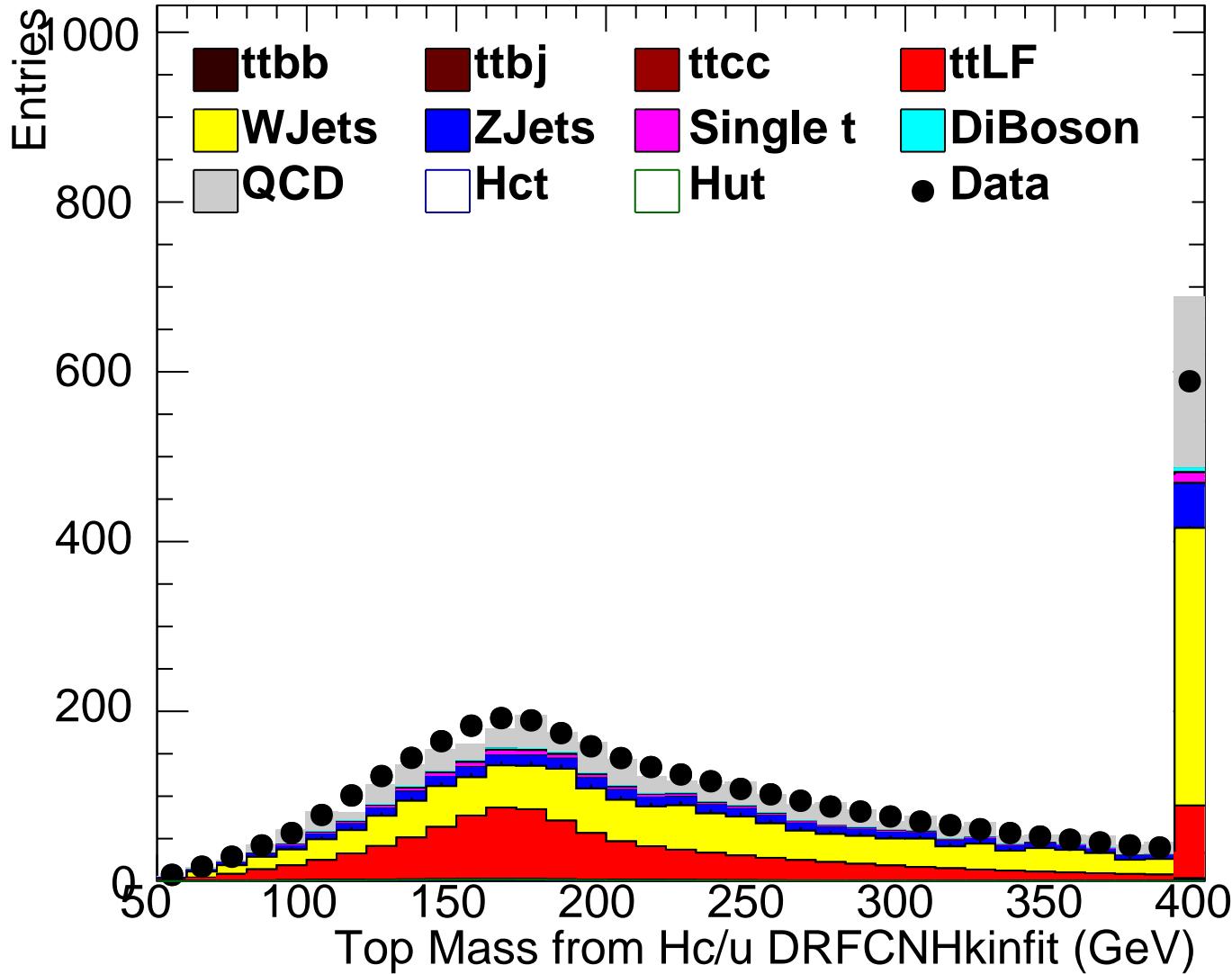
Entries



Ch1_S0

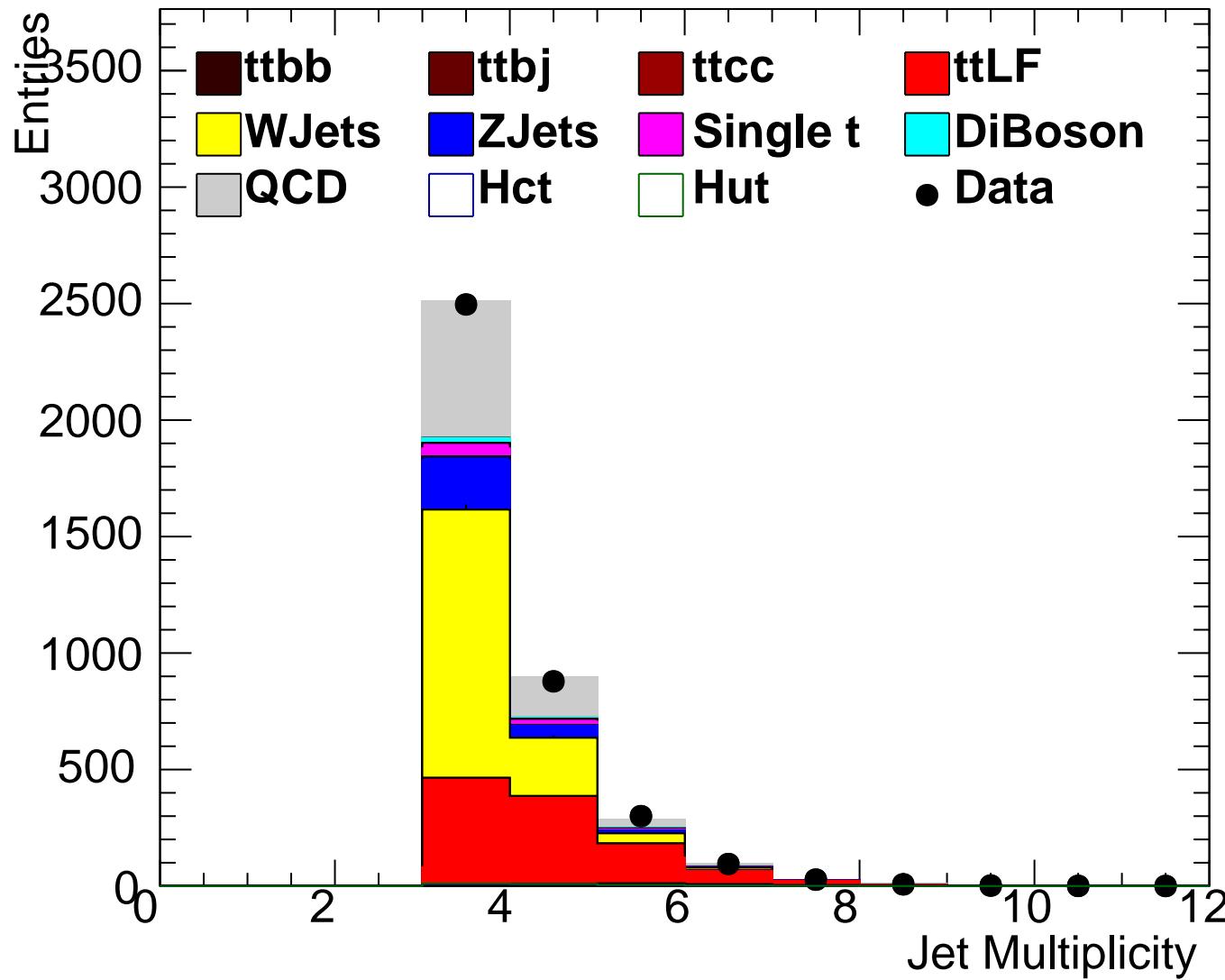
$\times 10^{-3}$

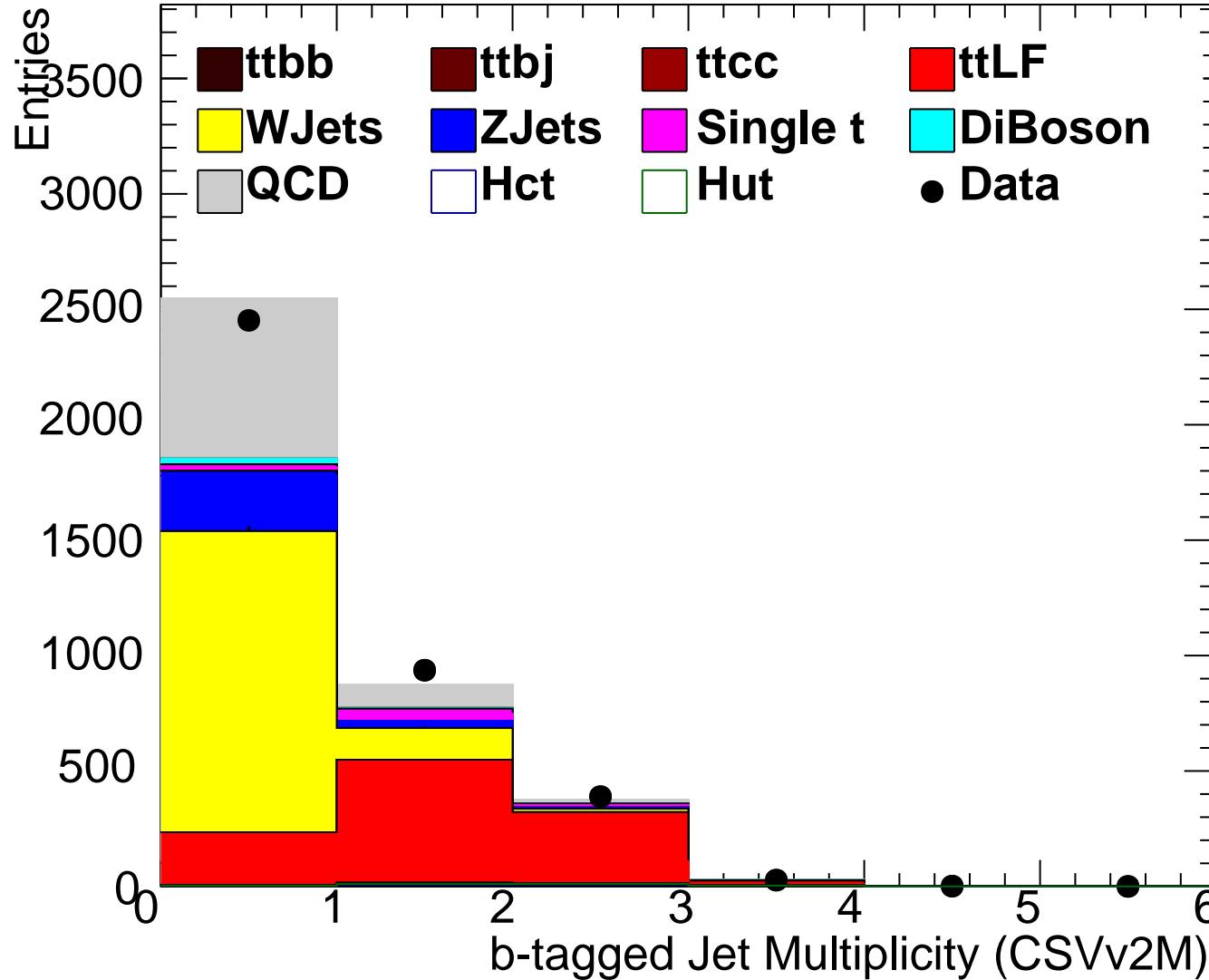
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S1

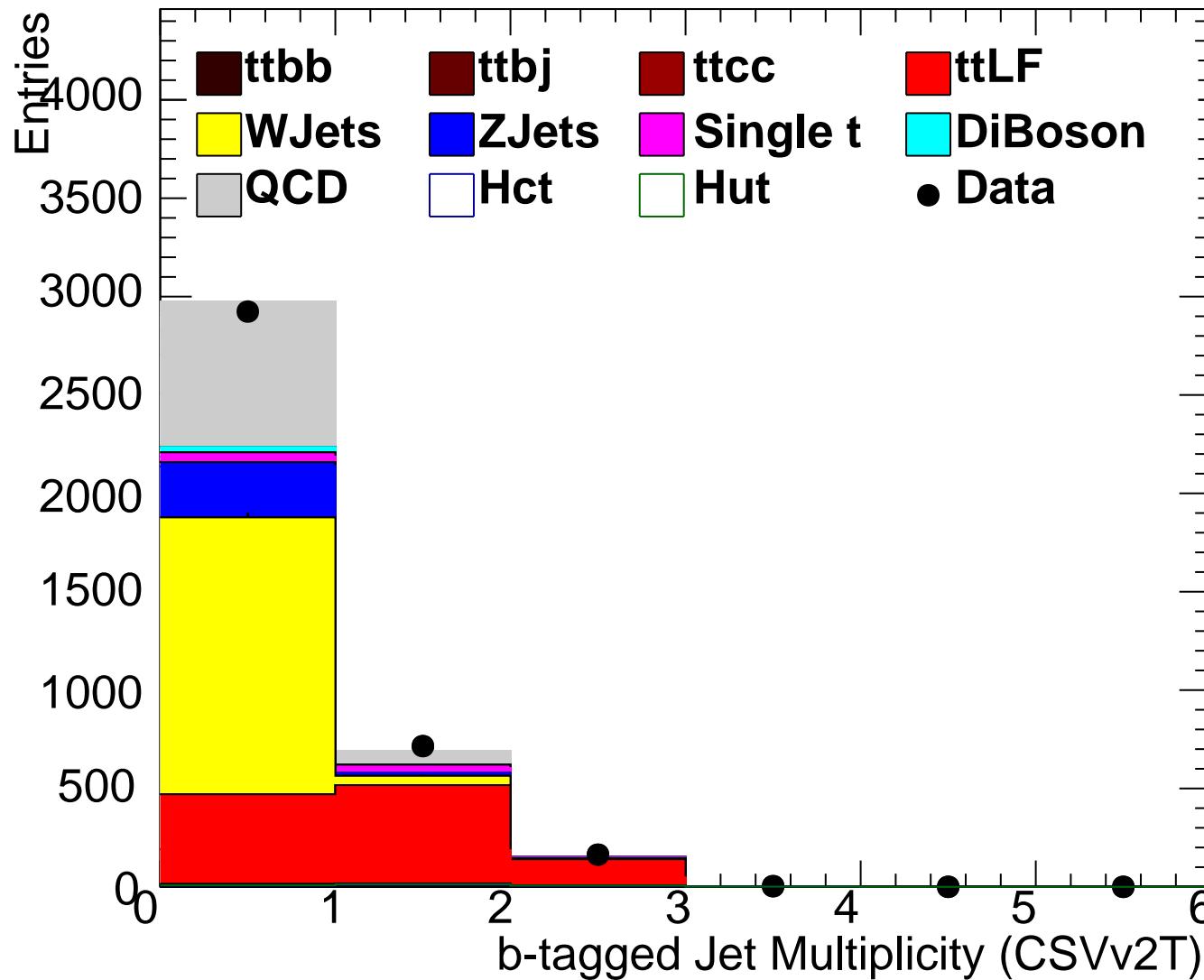
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

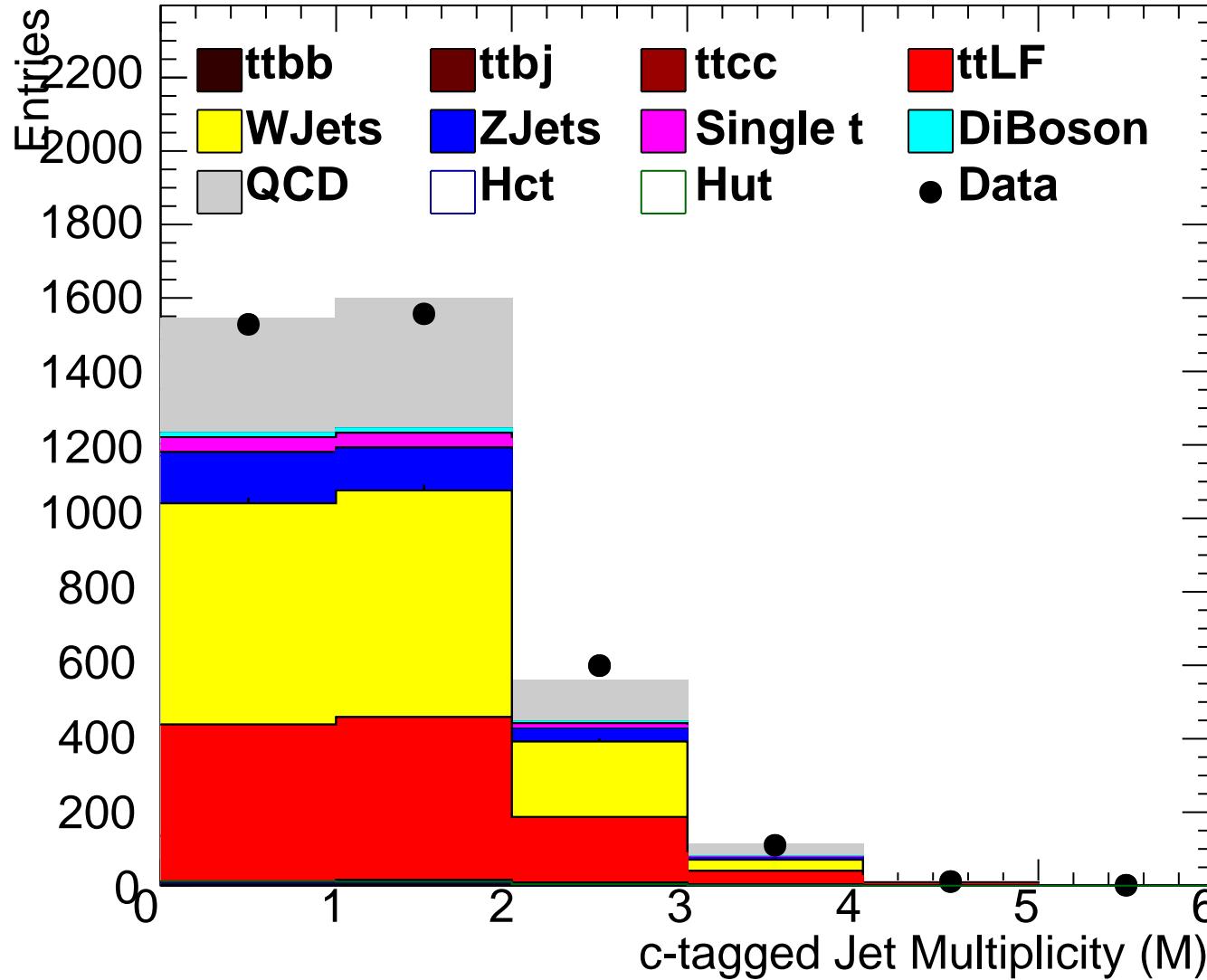


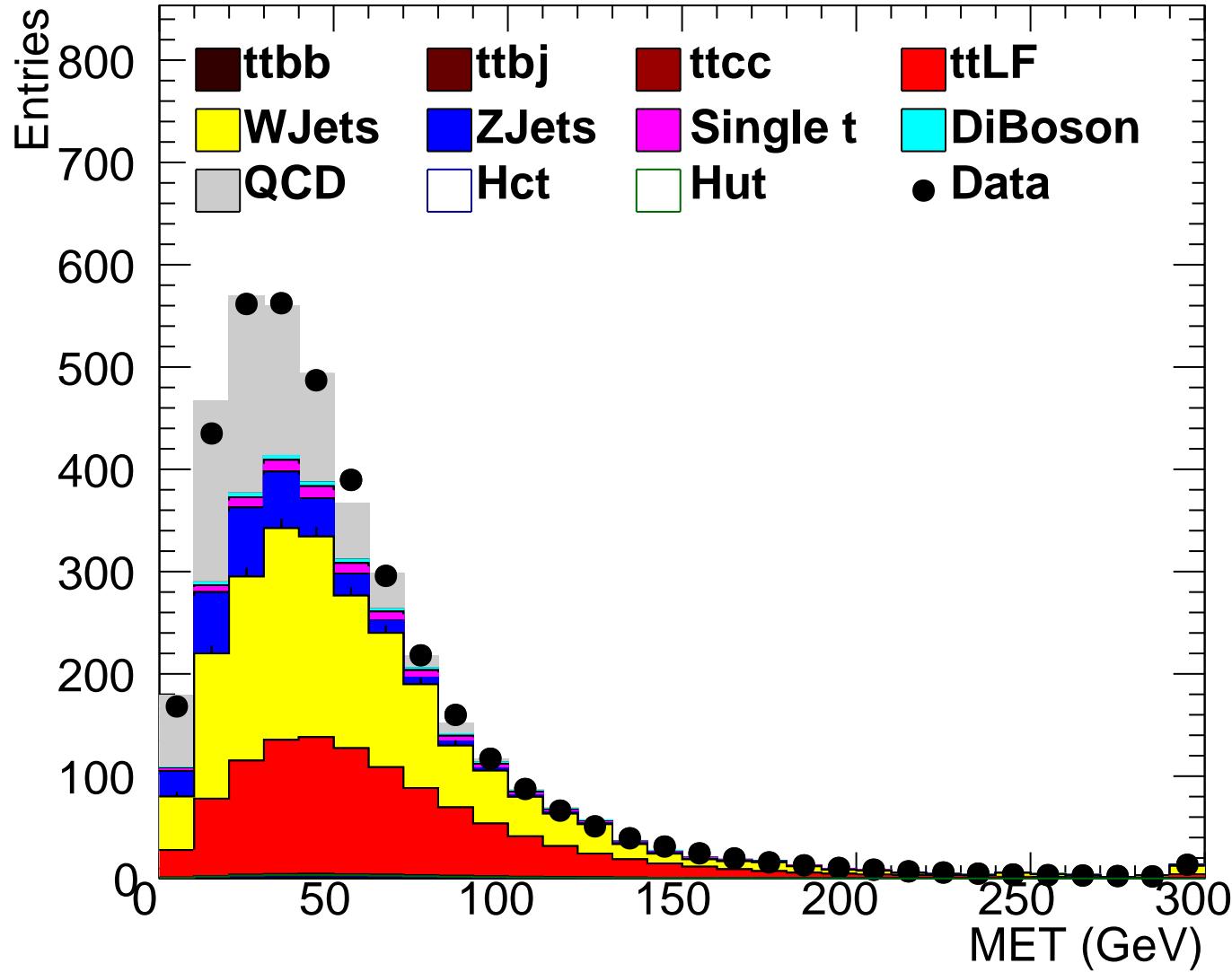
Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

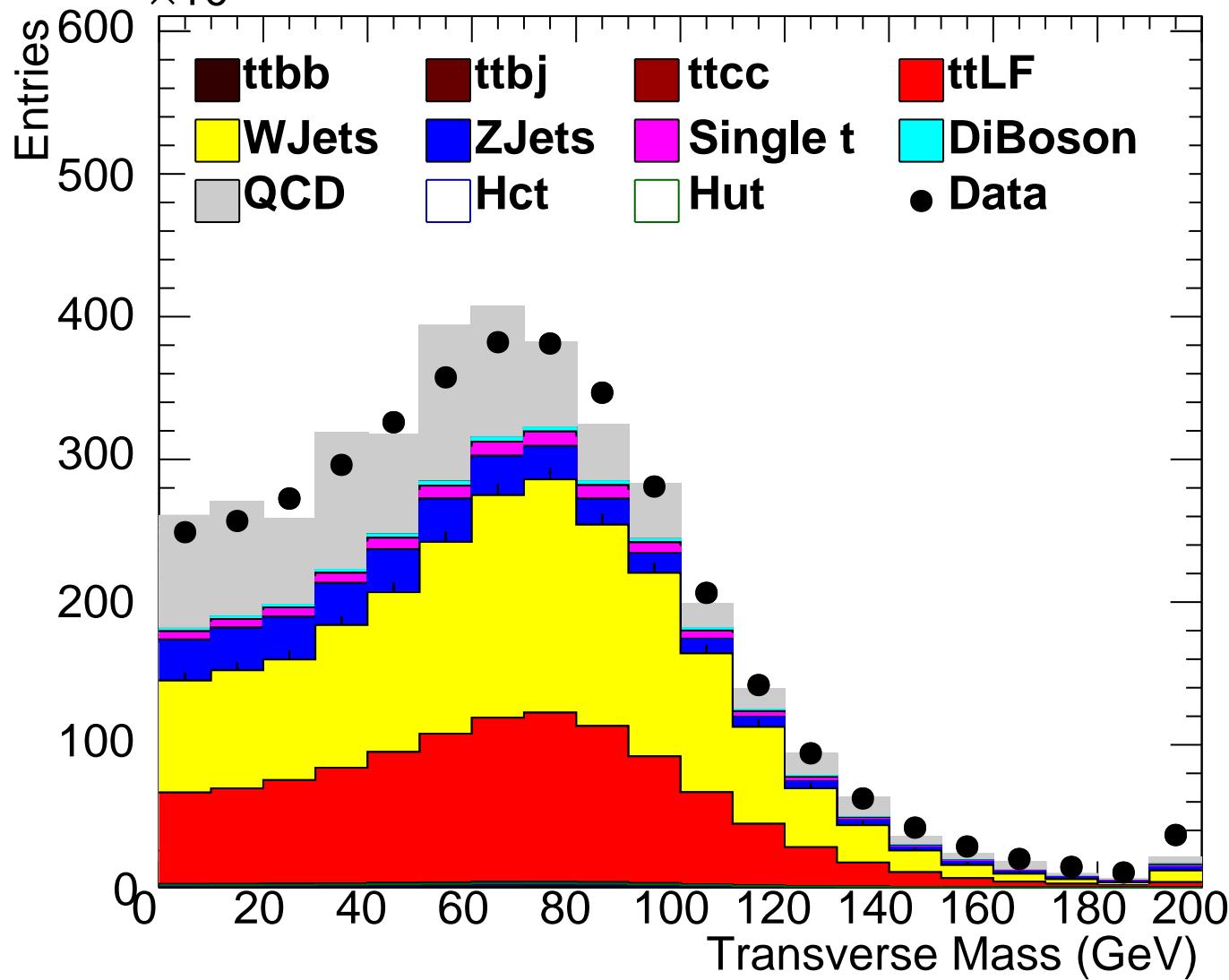
Ch1_S1

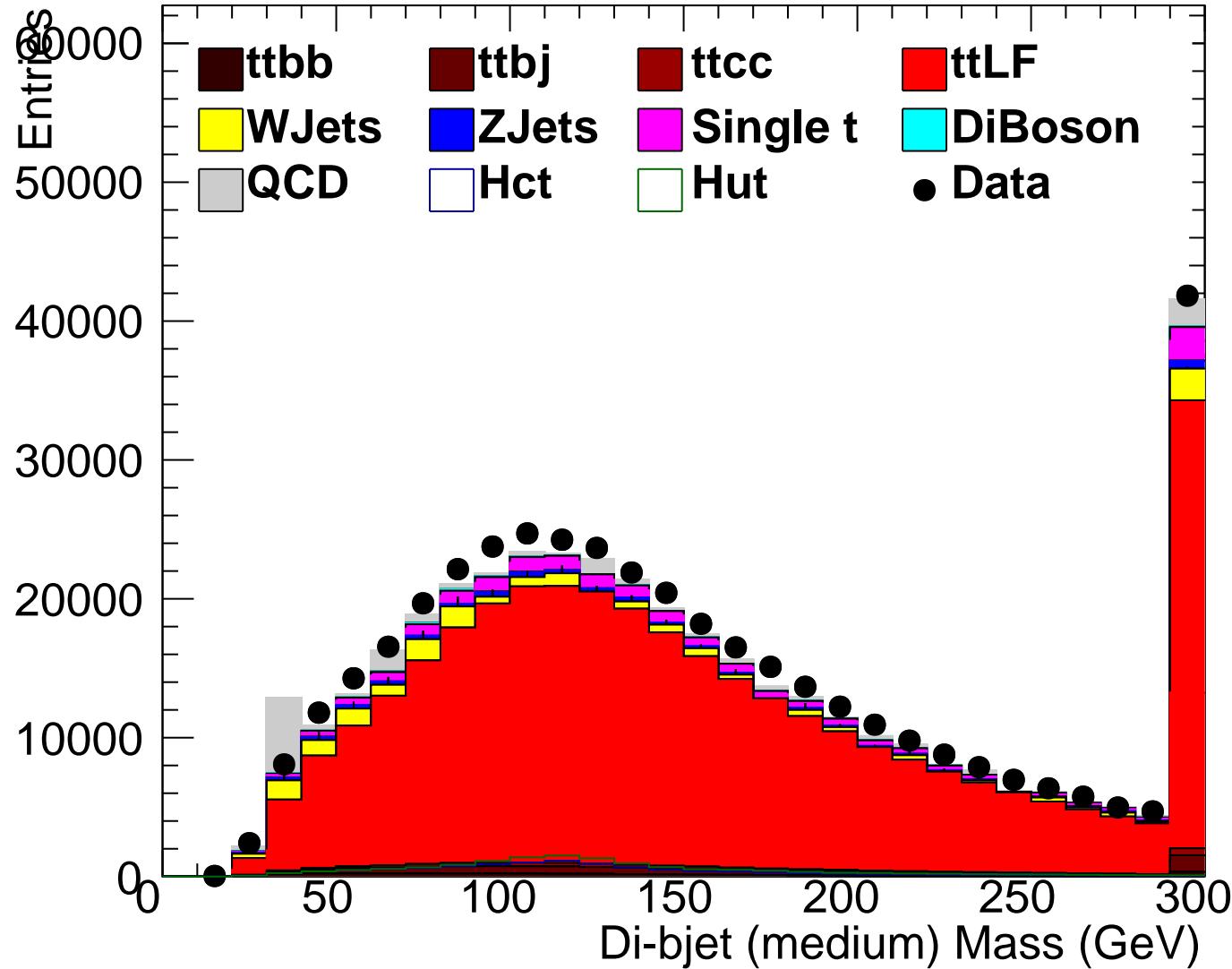
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

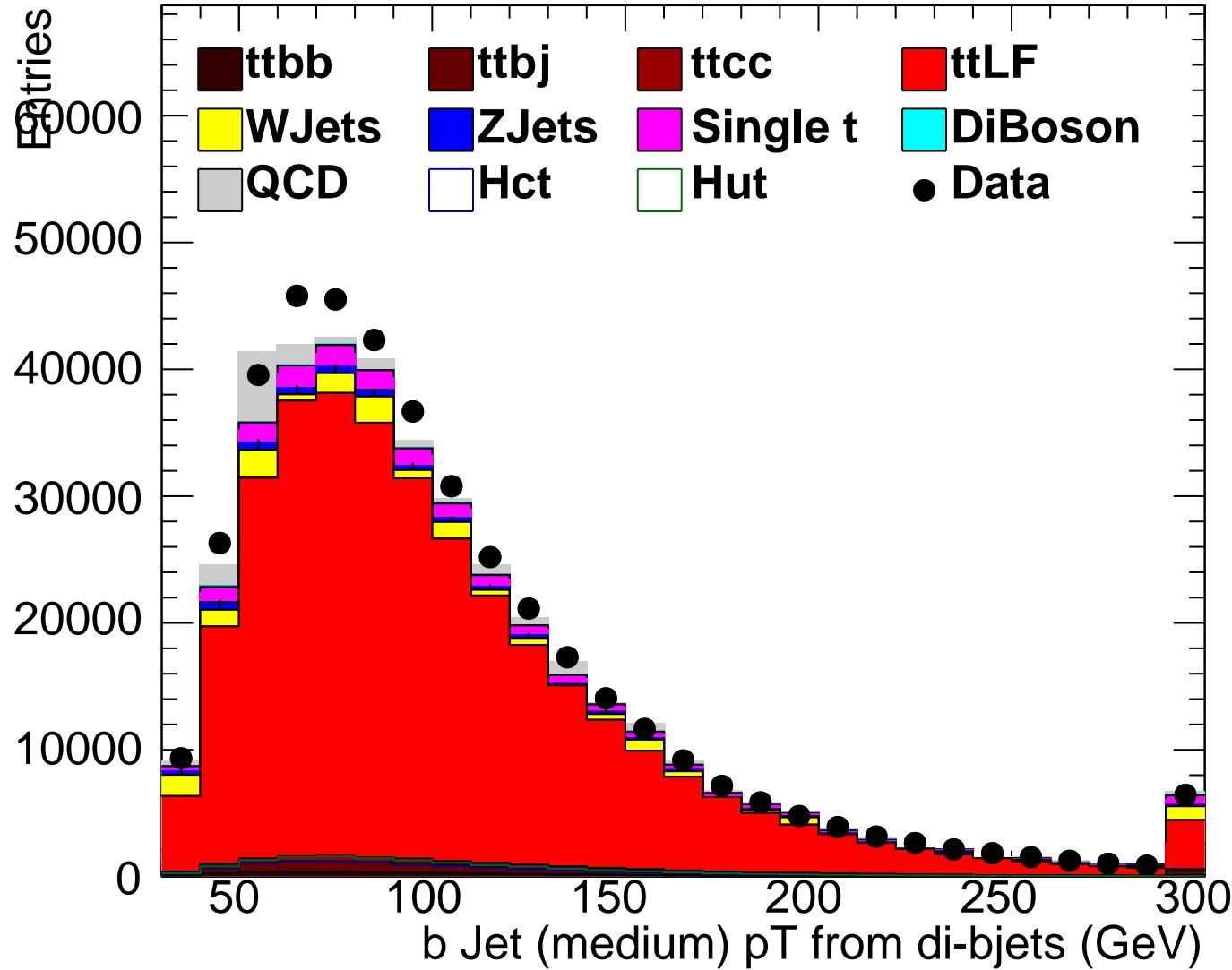


Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

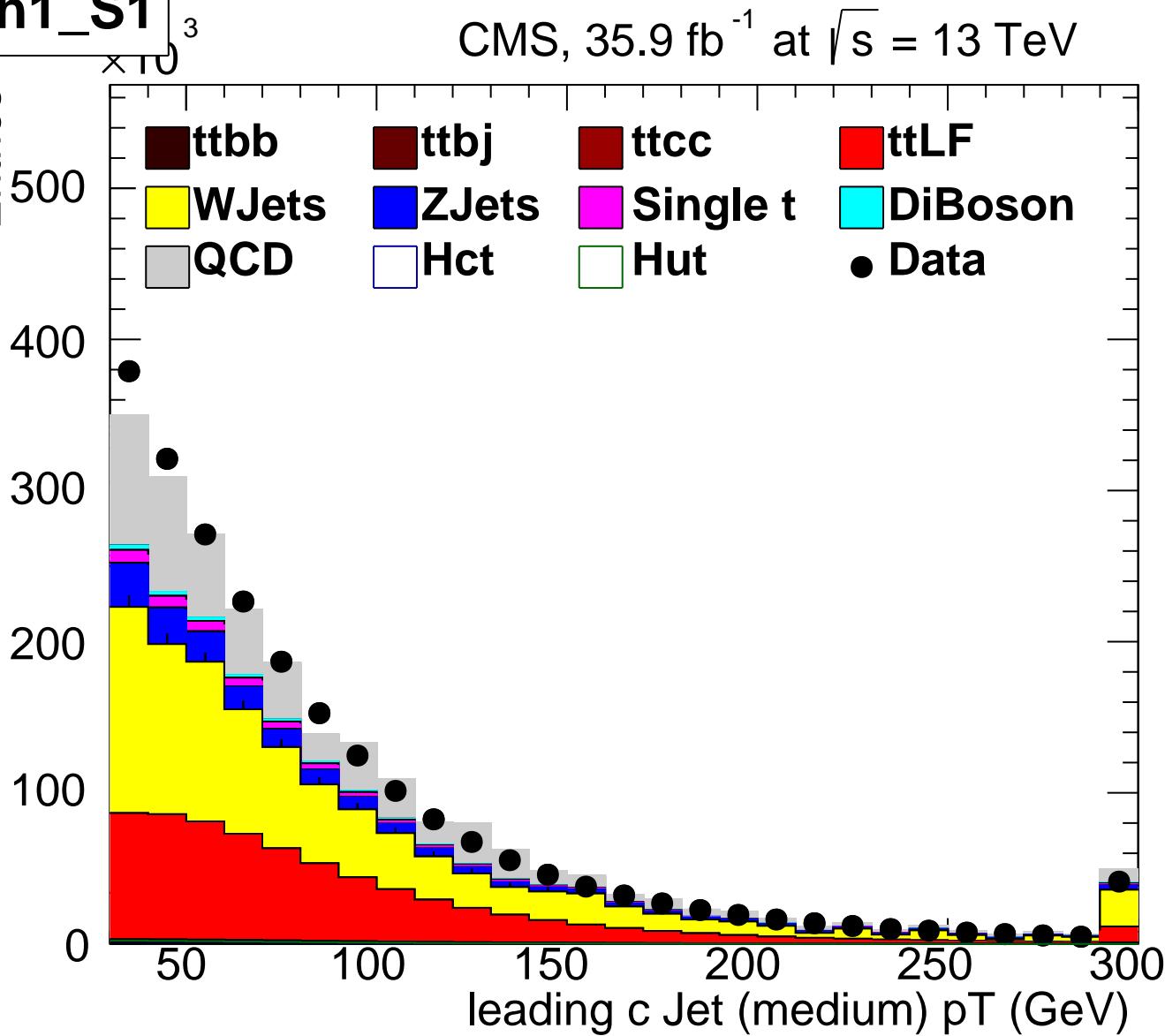
Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

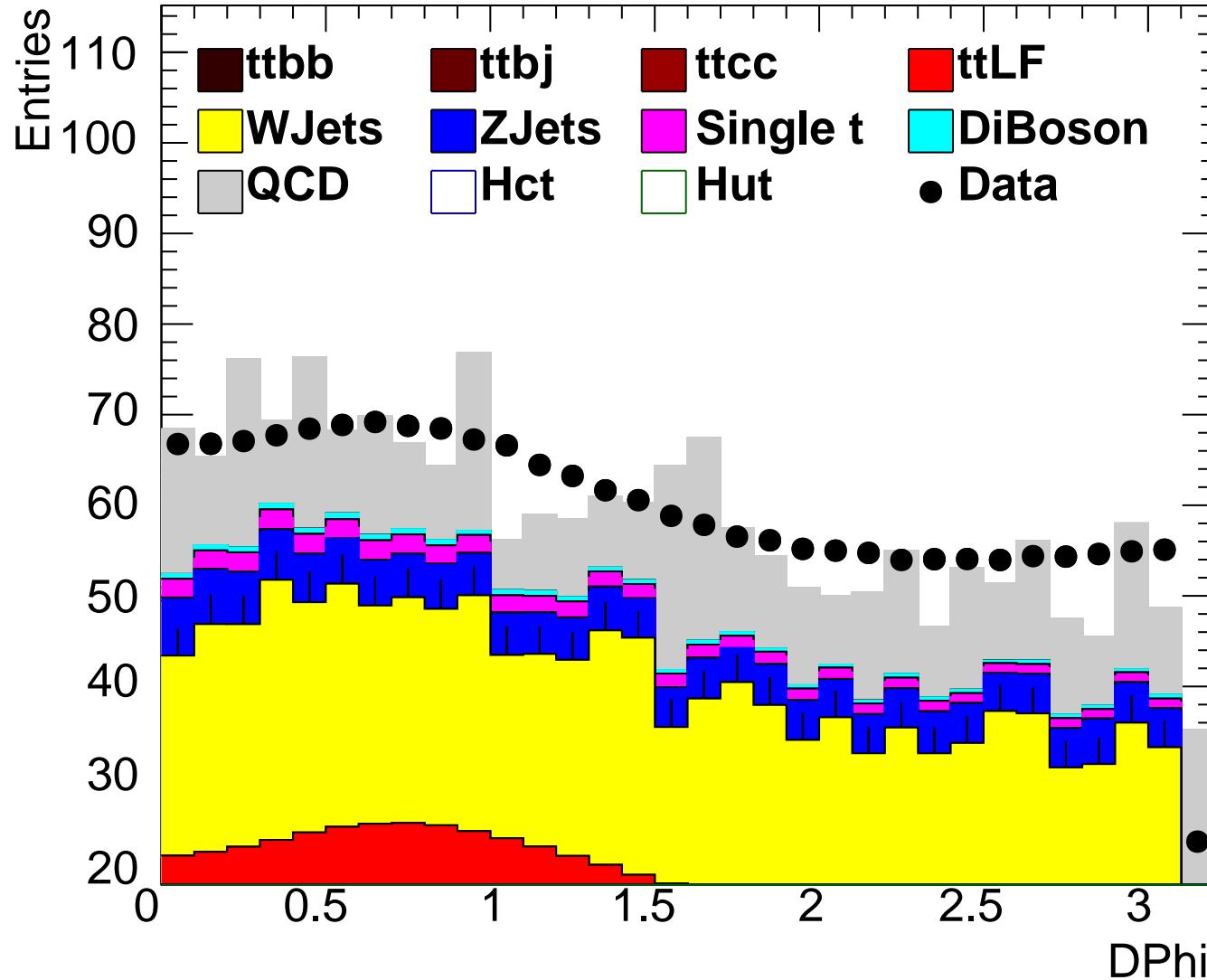
Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

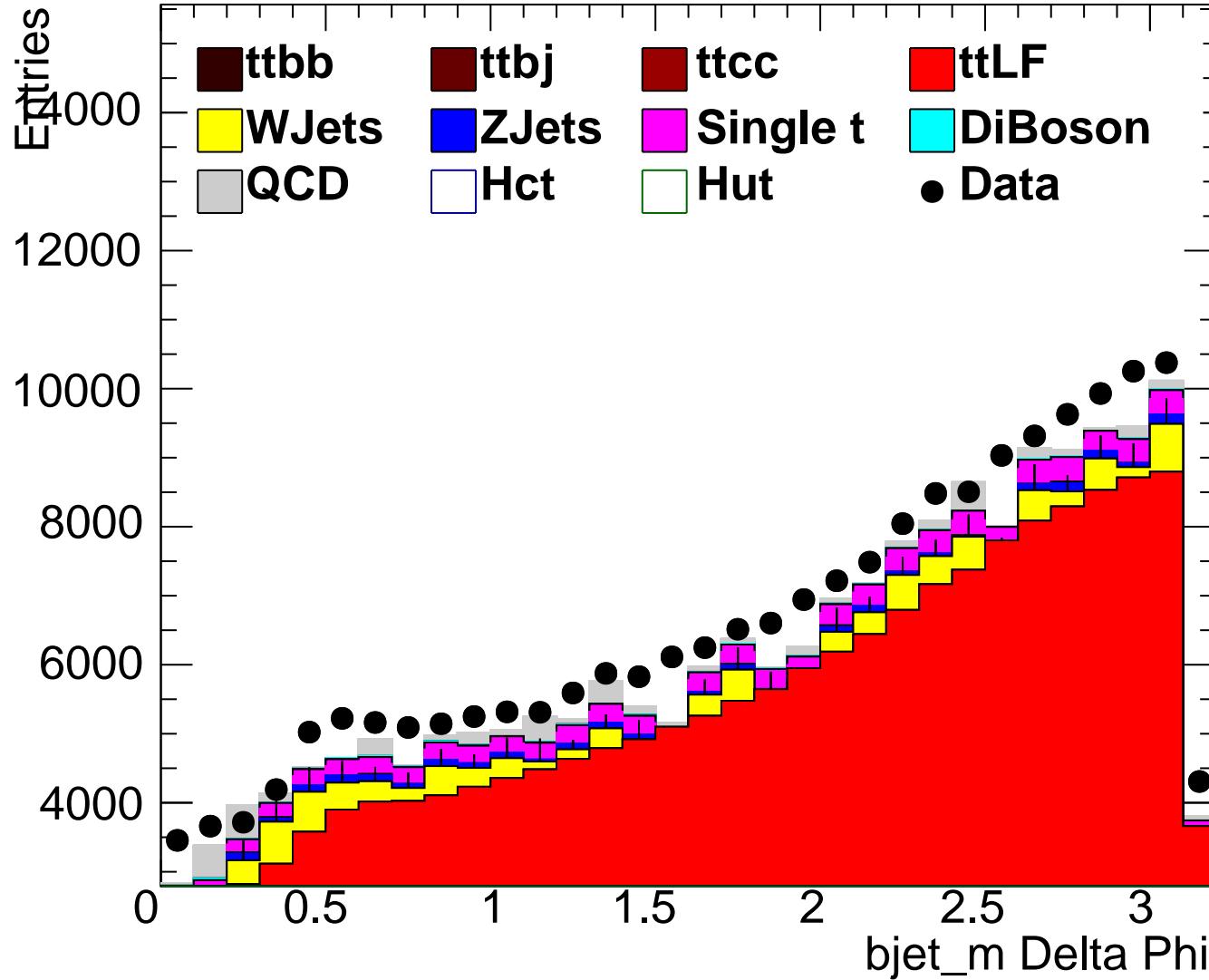
Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

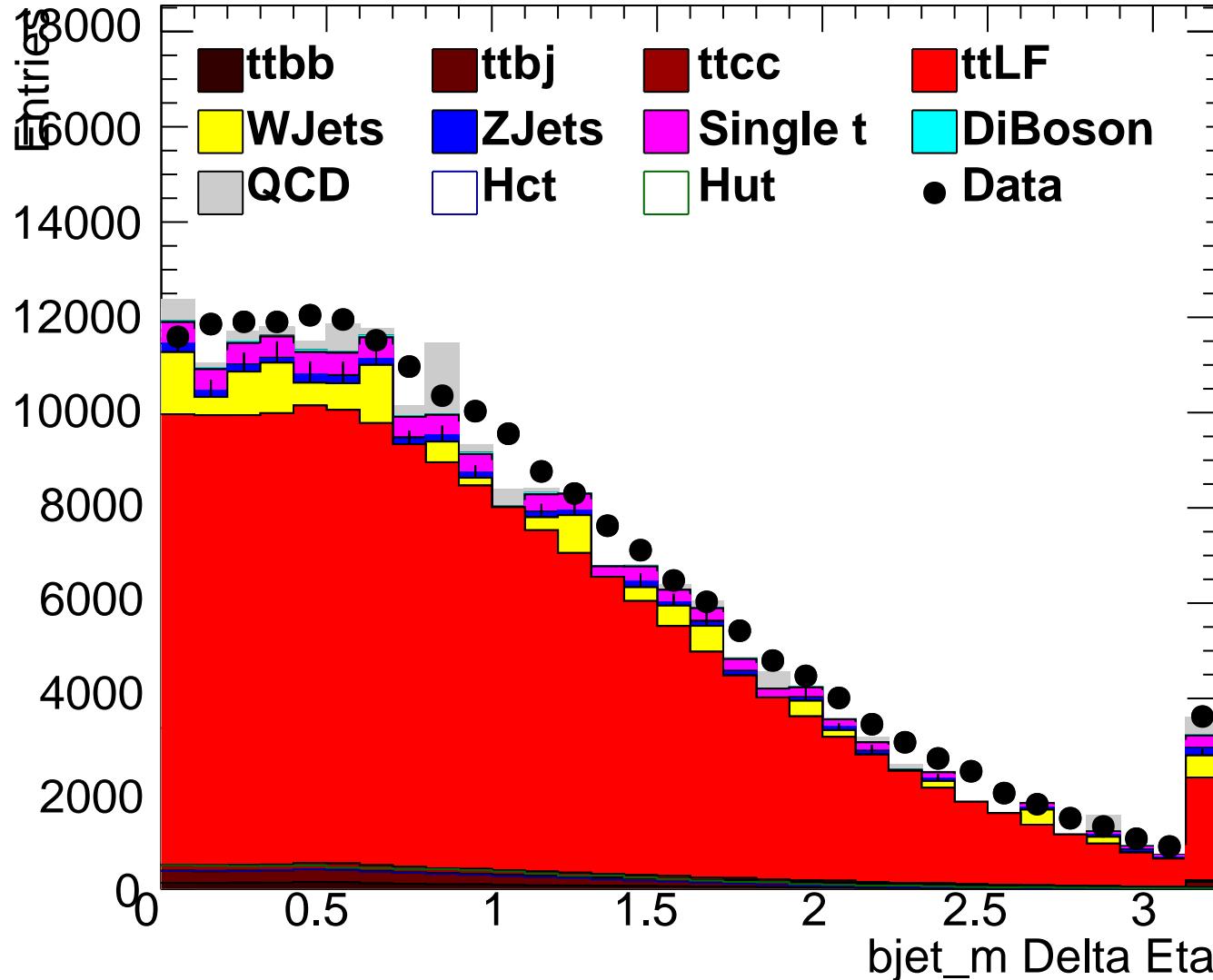
Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

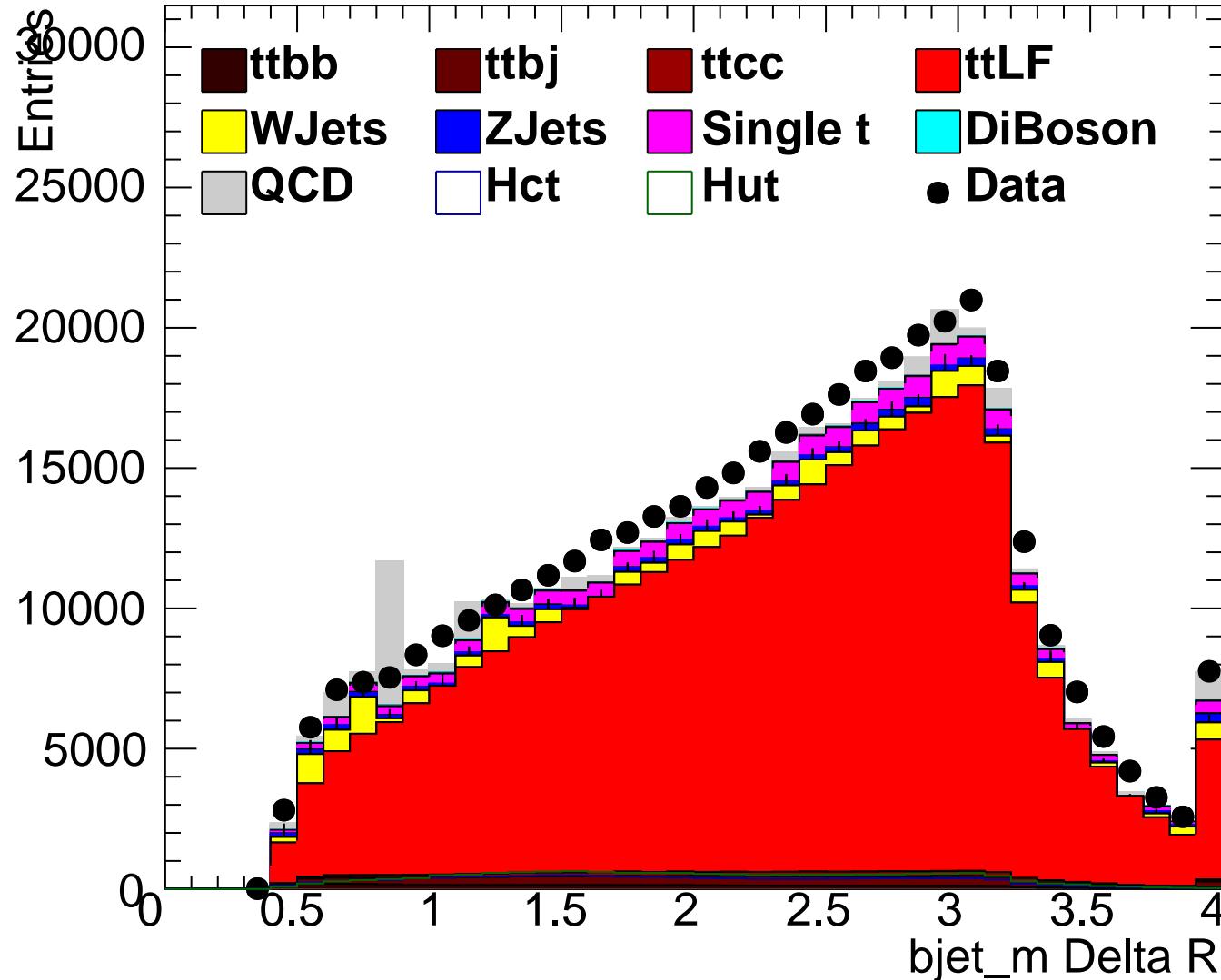
Entries



Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

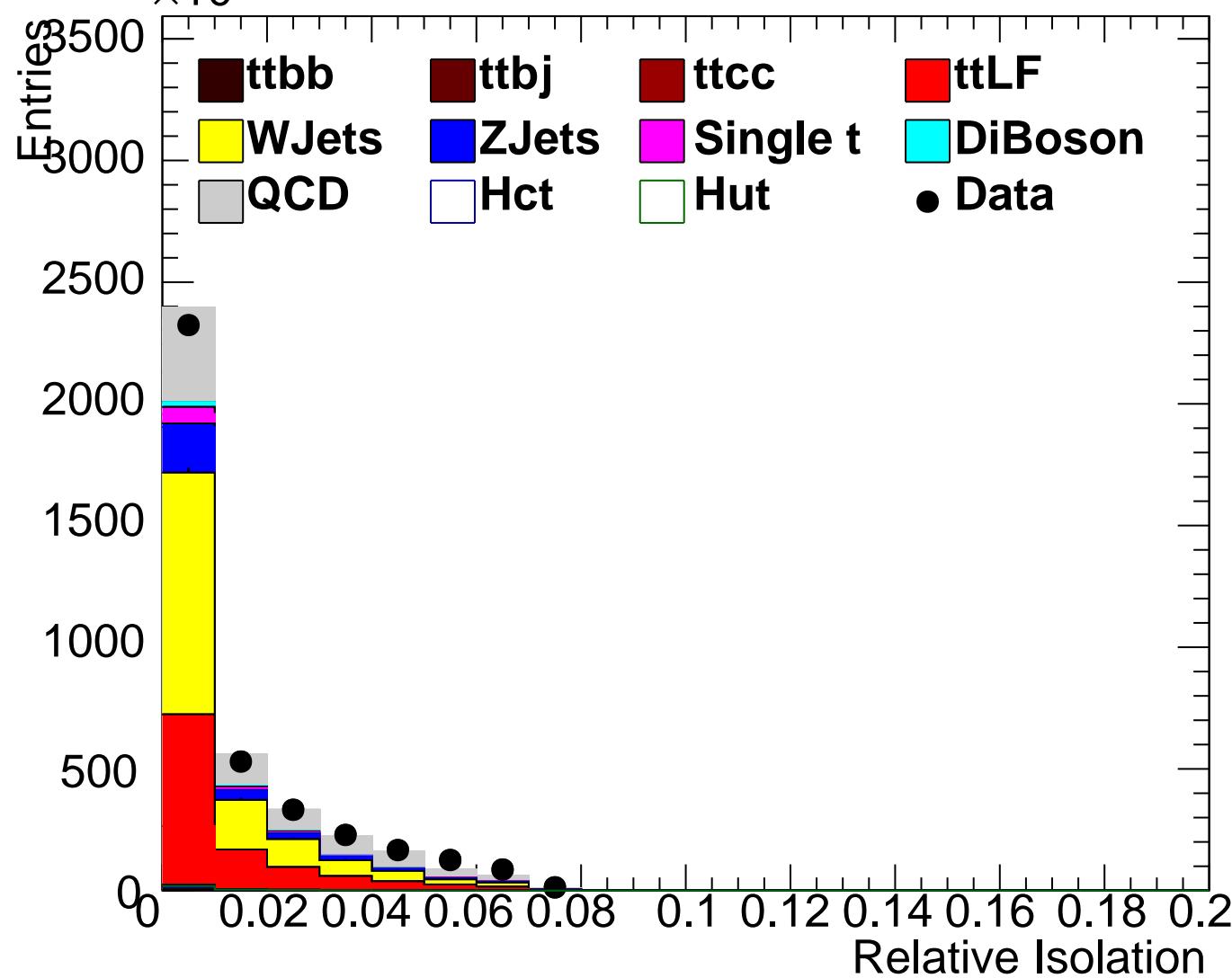
Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

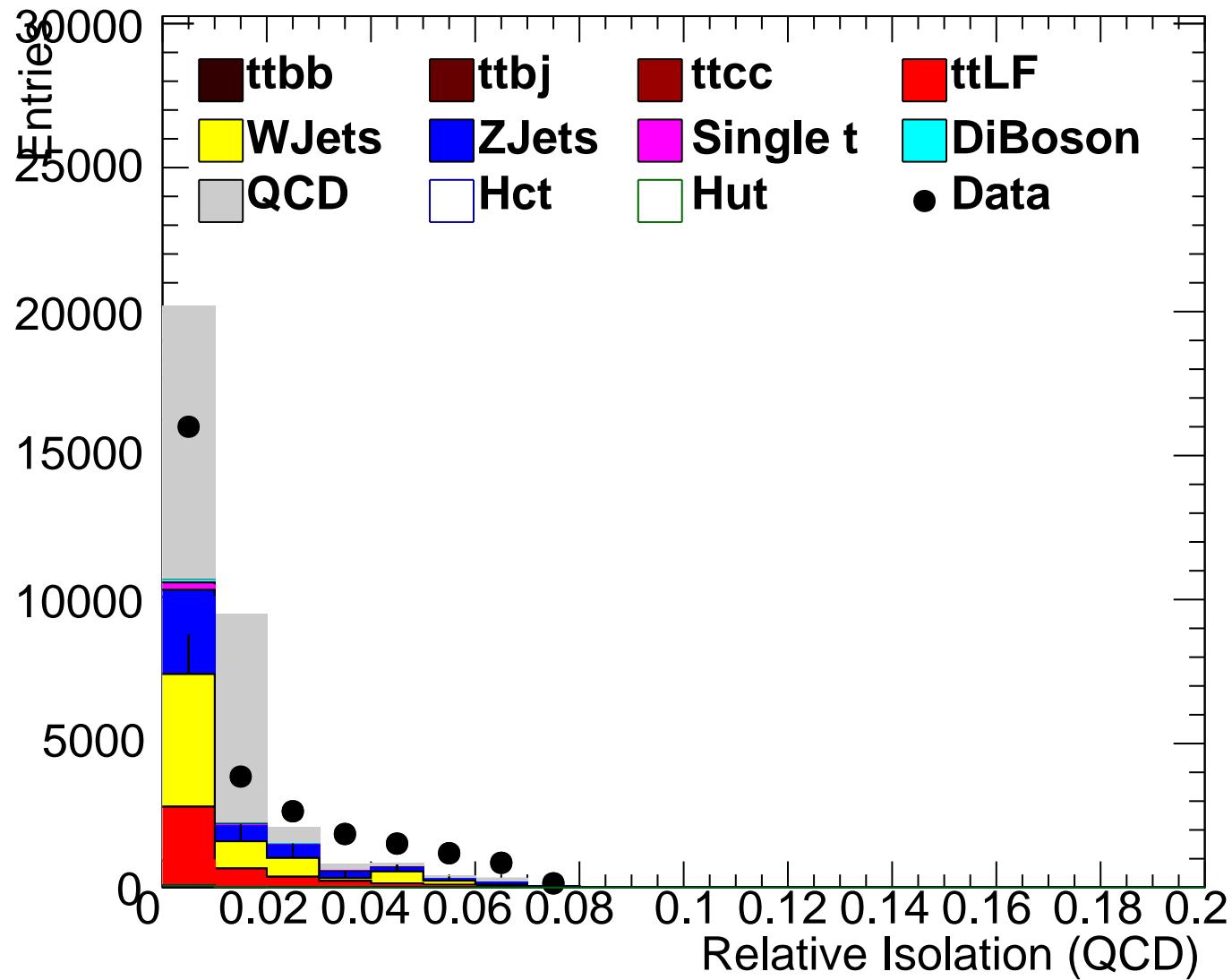
Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S1

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S1CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

500

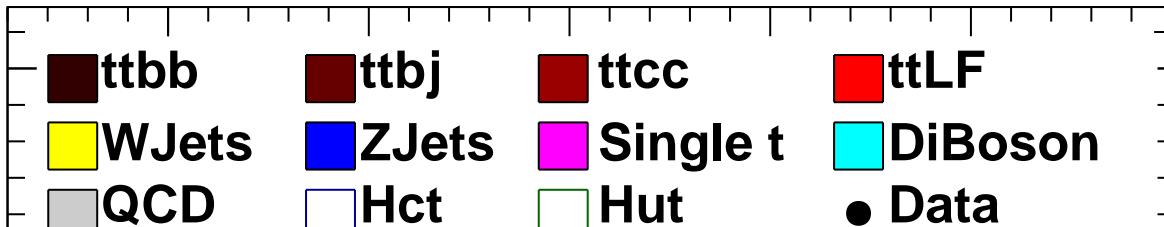
400

300

200

100

0

W Mass from DRFCN_Hkinfit (Lep) (GeV)

Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

500

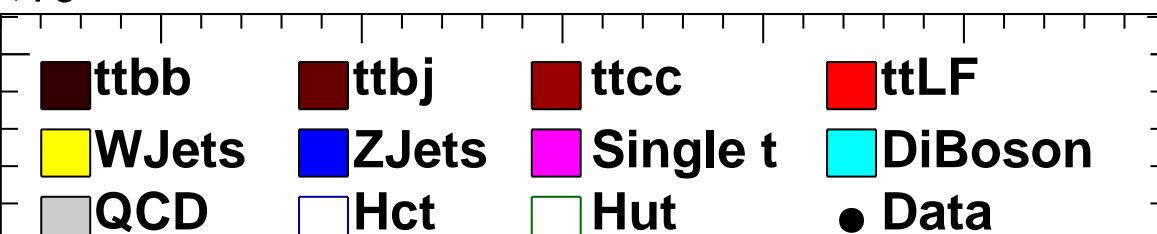
400

300

200

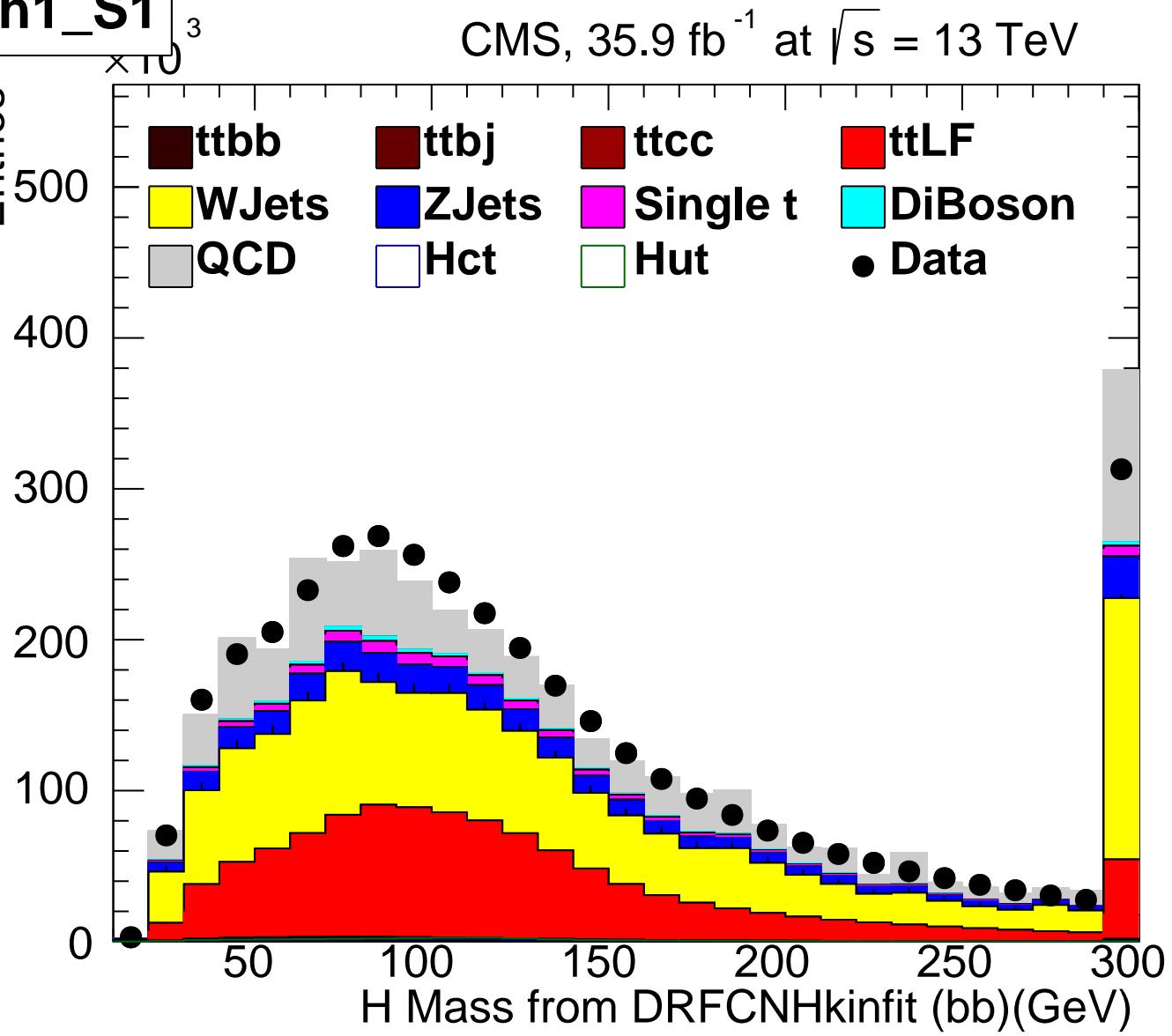
100

0

W Mass from DRFCN H_{kinfit} (Had) (GeV)

Ch1_S1 $\times 10^{-3}$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries



Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

250

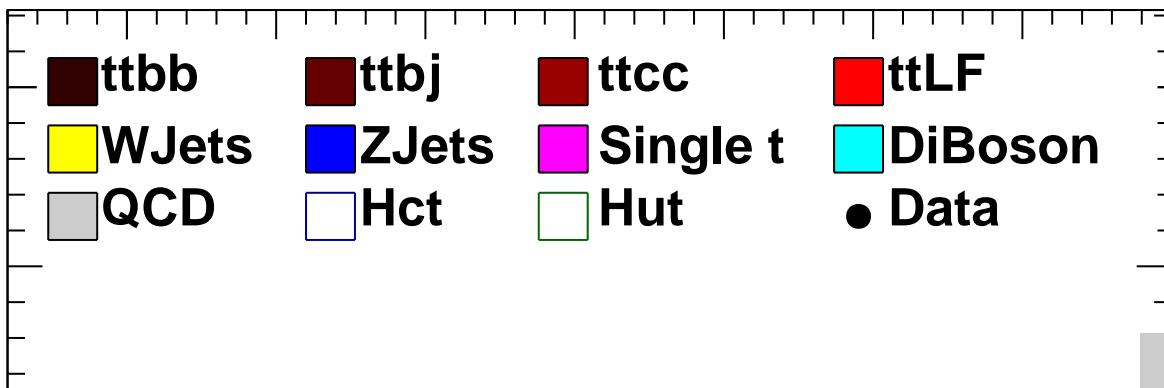
200

150

100

50

0

Delta R from DRFCN_Hkinfit Higgs

0.5 1 1.5 2 2.5 3 3.5 4

Ch1_S1 $\times 10^3$ CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

Entries

500

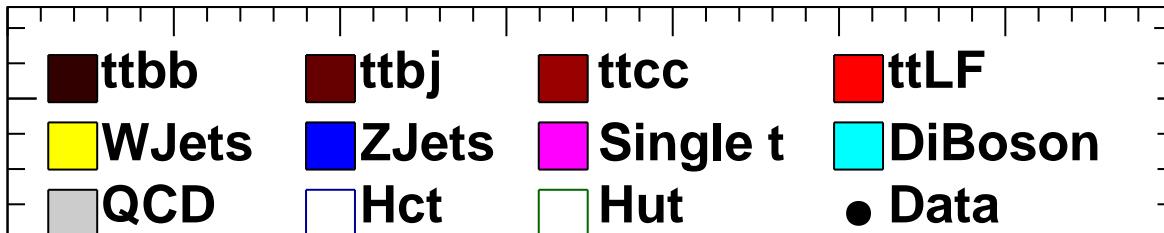
400

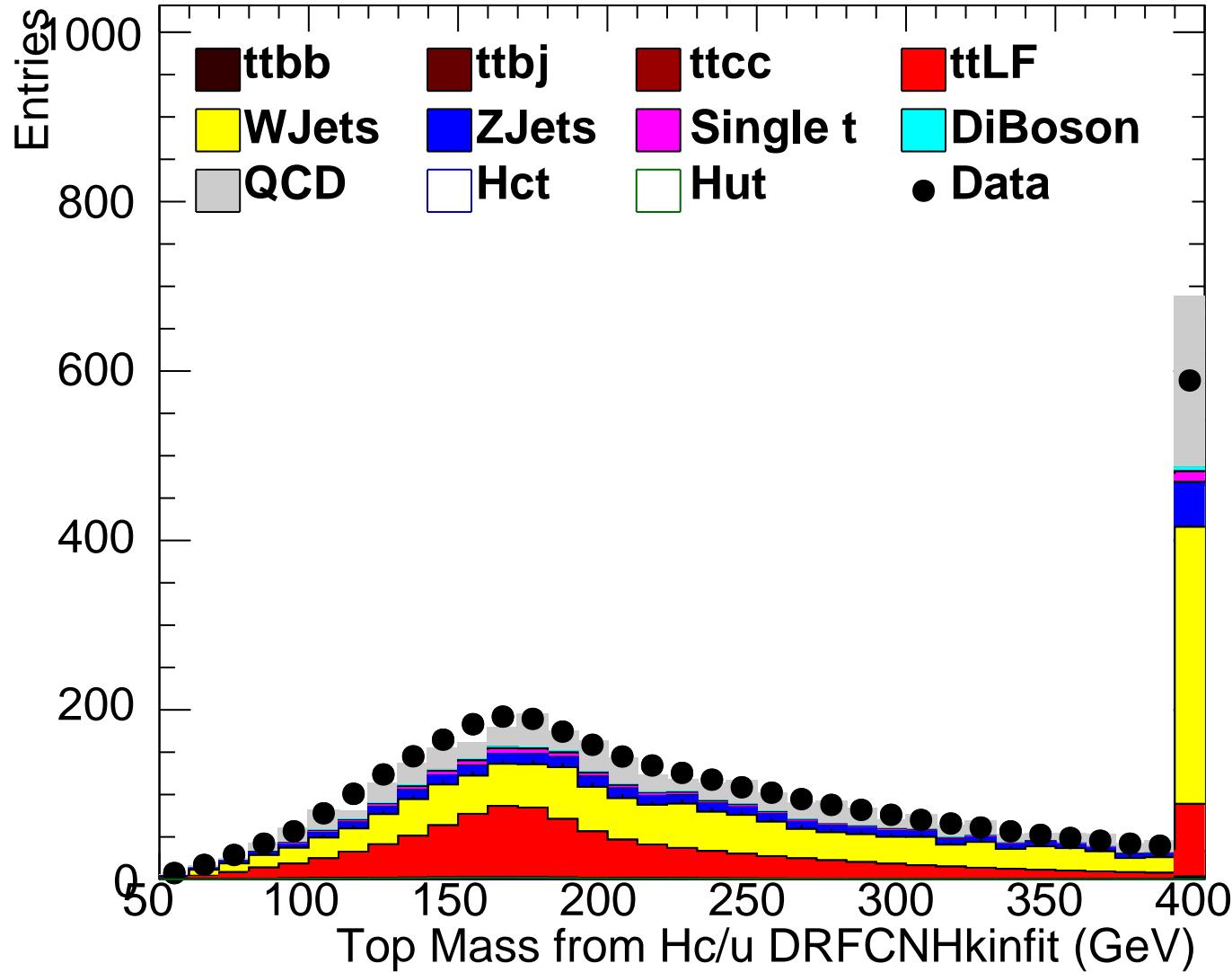
300

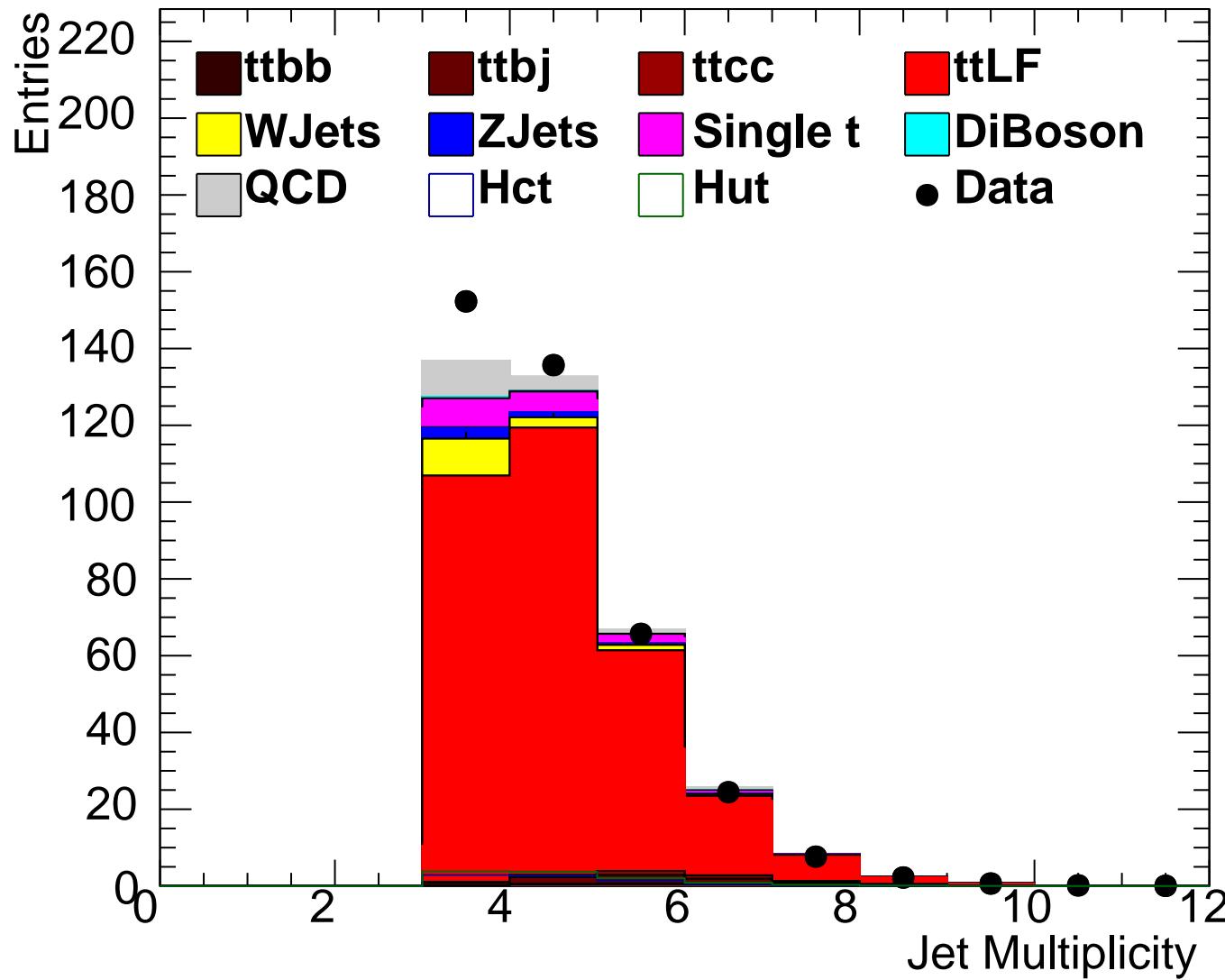
200

100

0



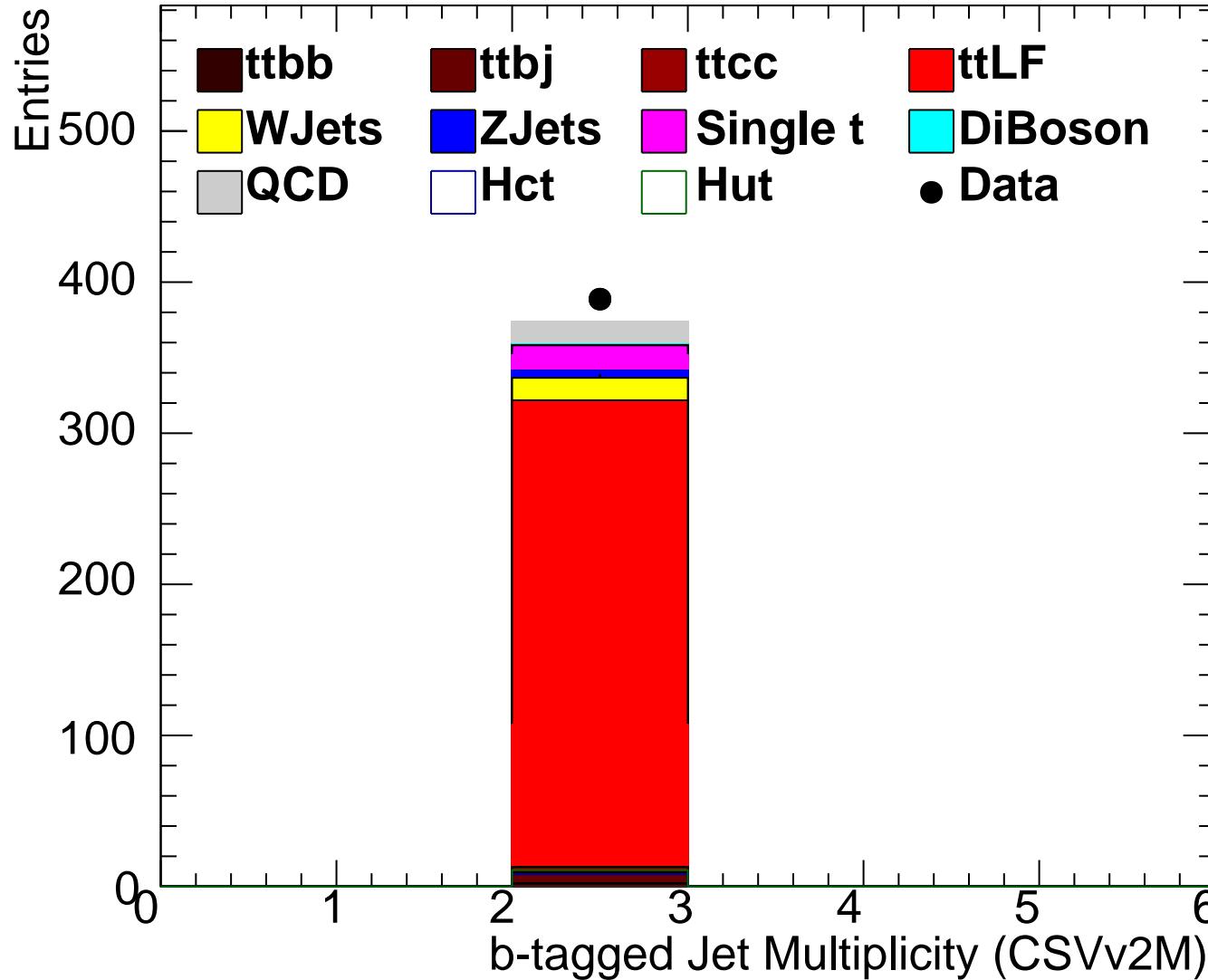
Ch1_S1x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch1_S2

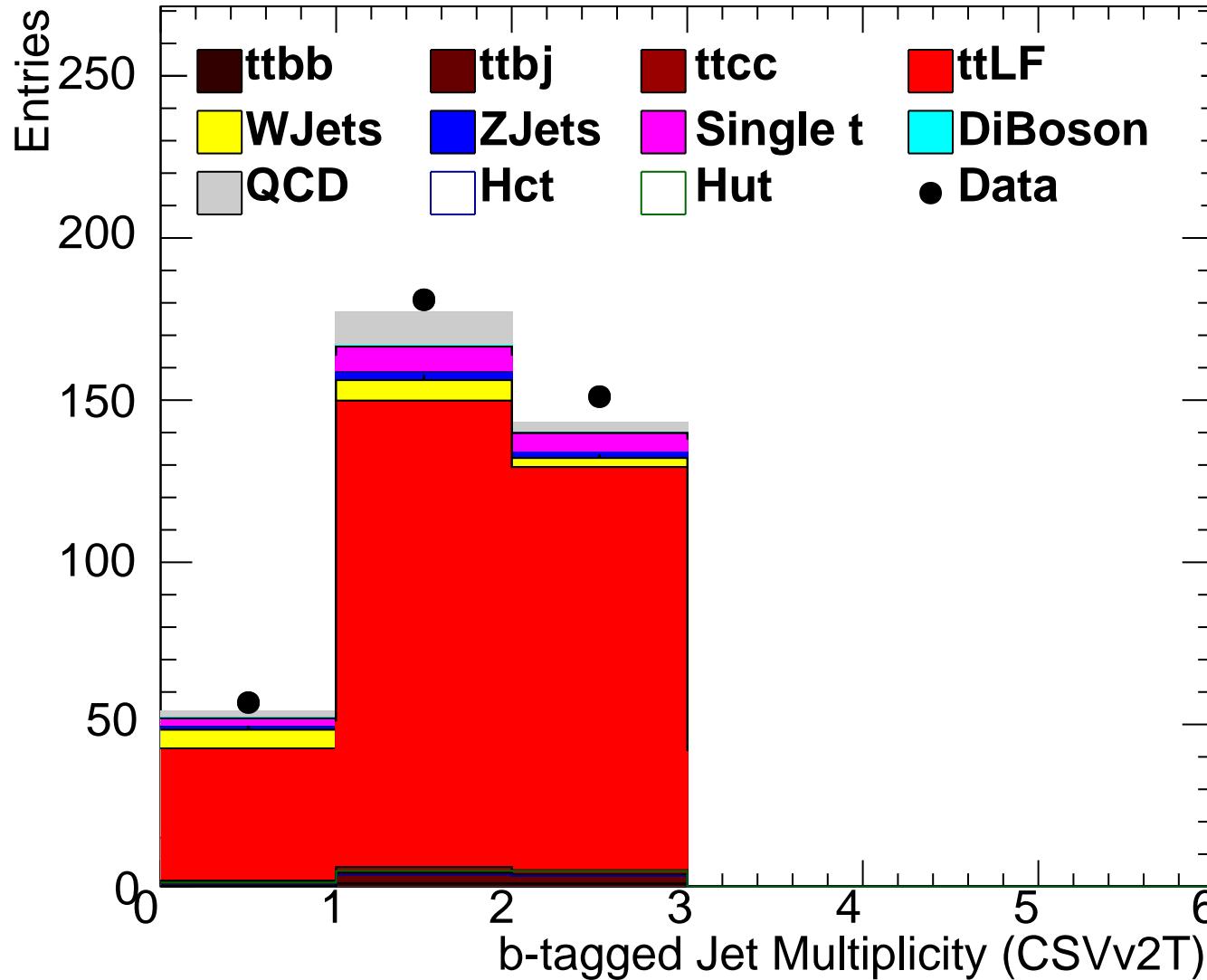
$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



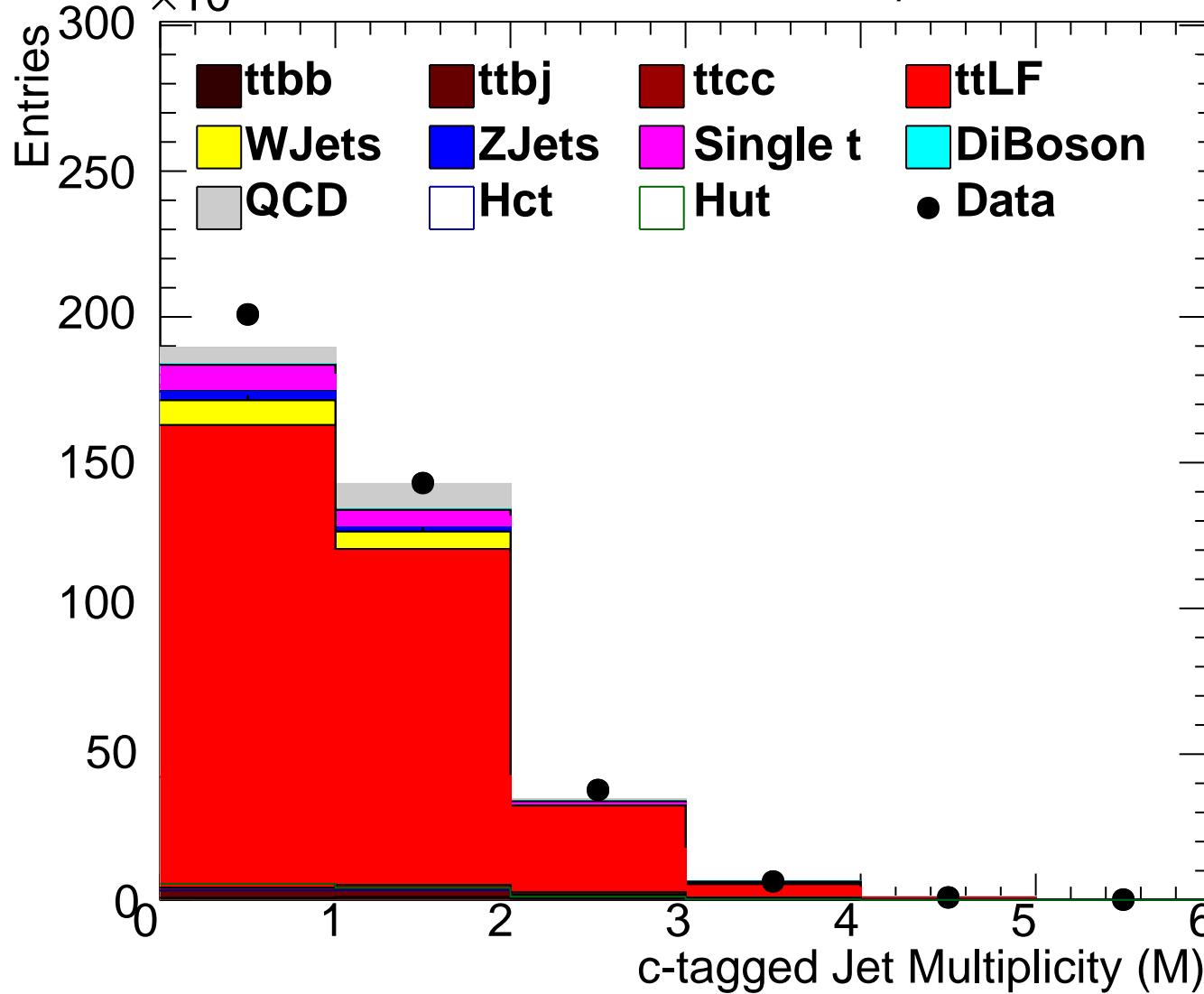
Ch1_S2

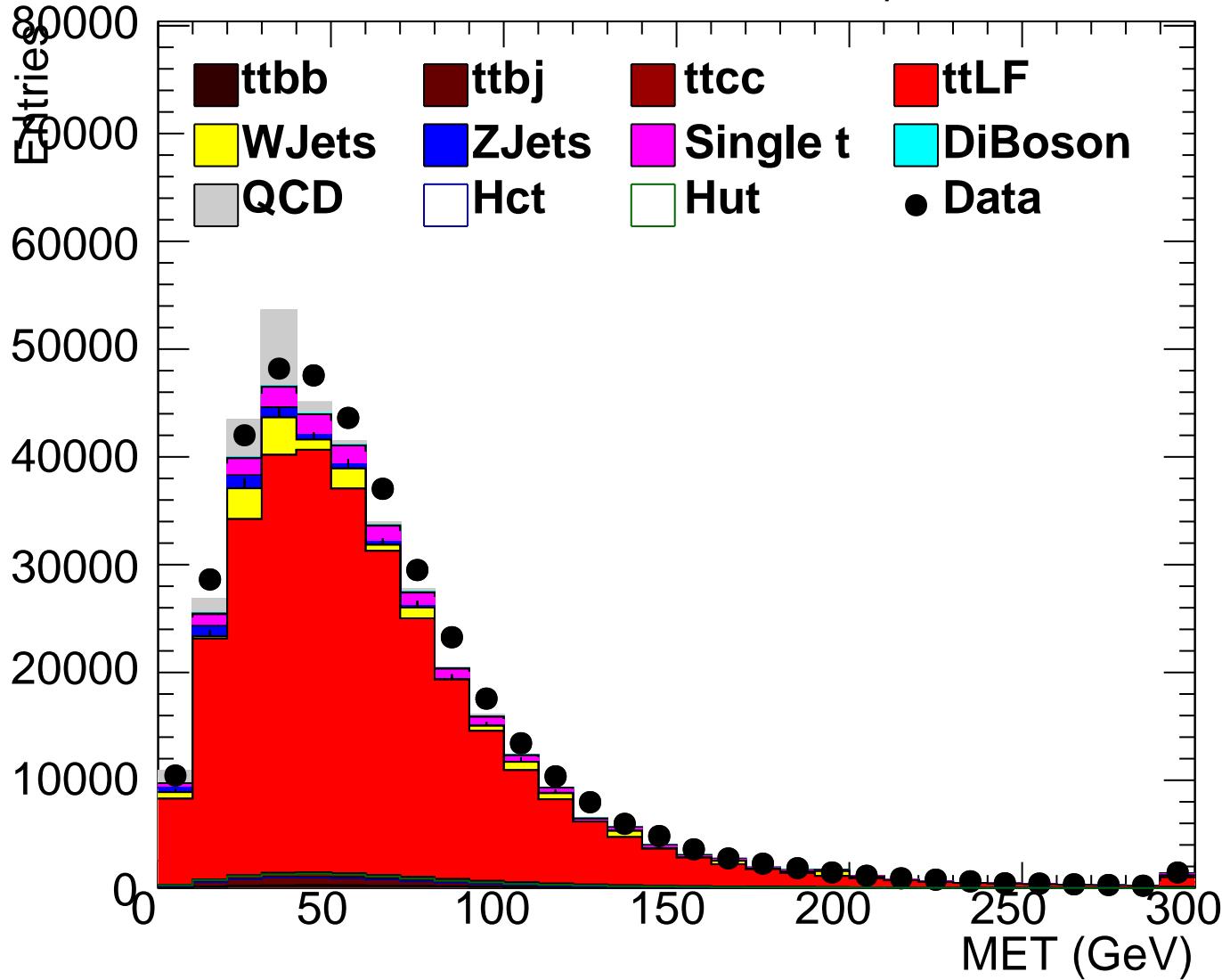
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

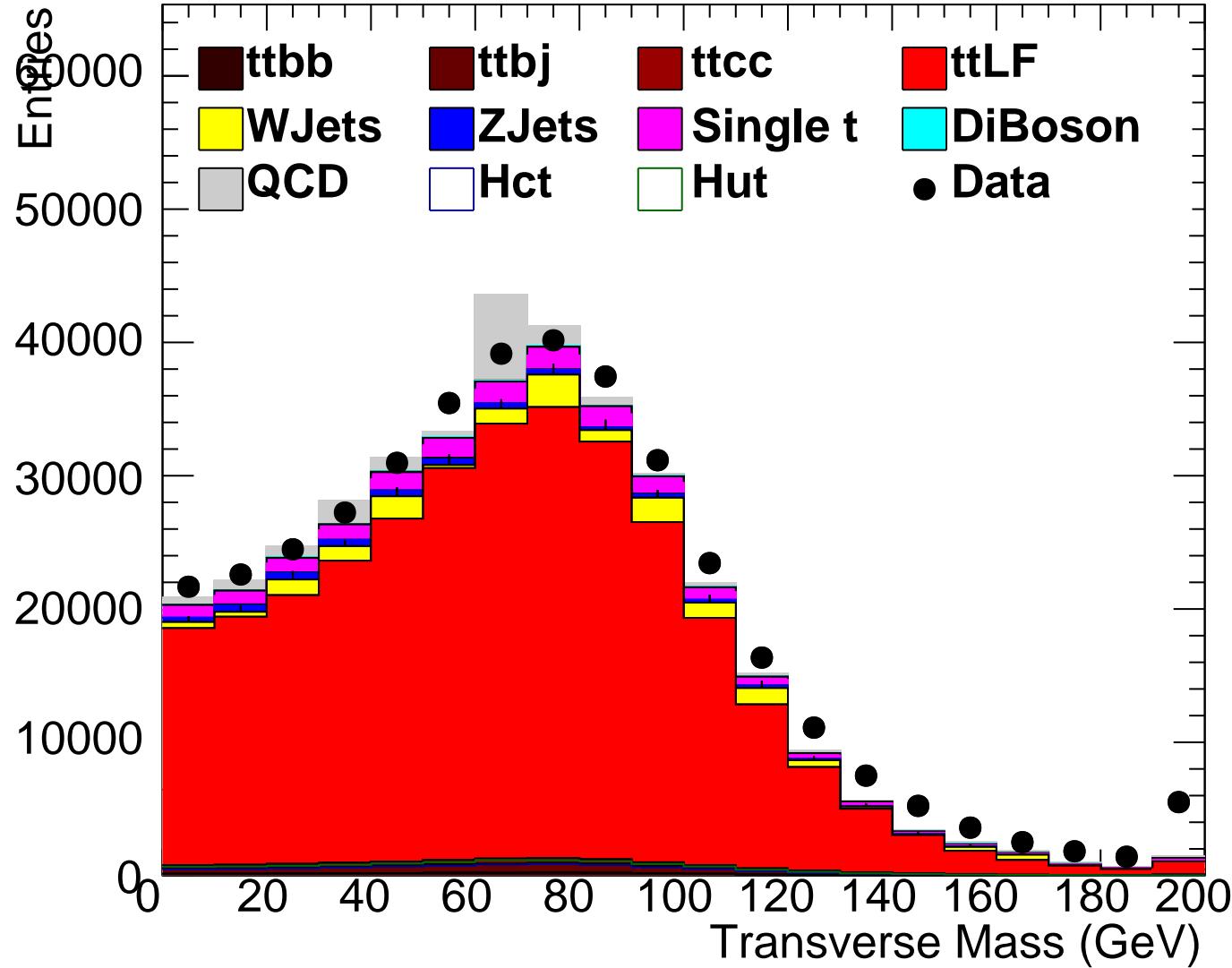


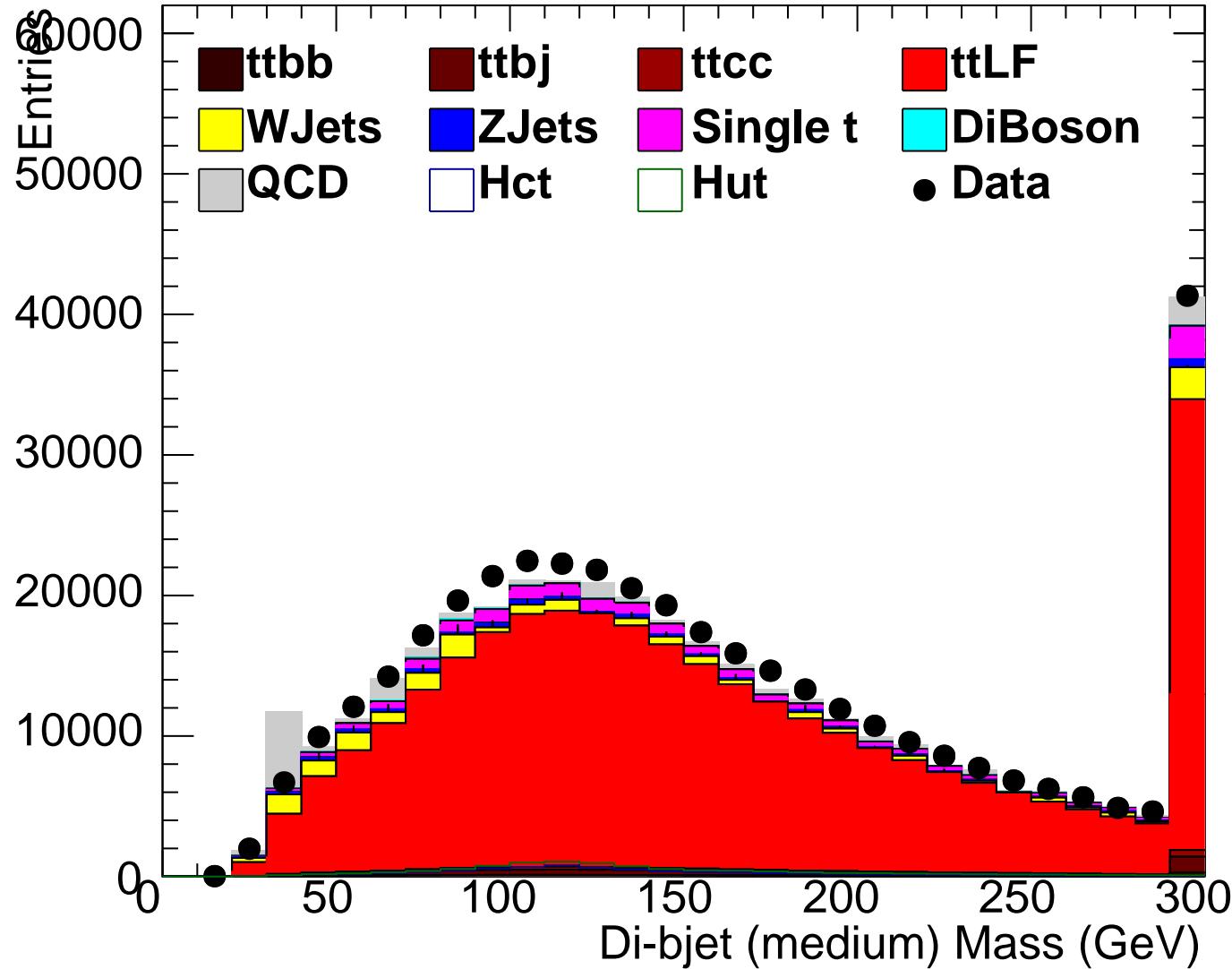
Ch1_S2

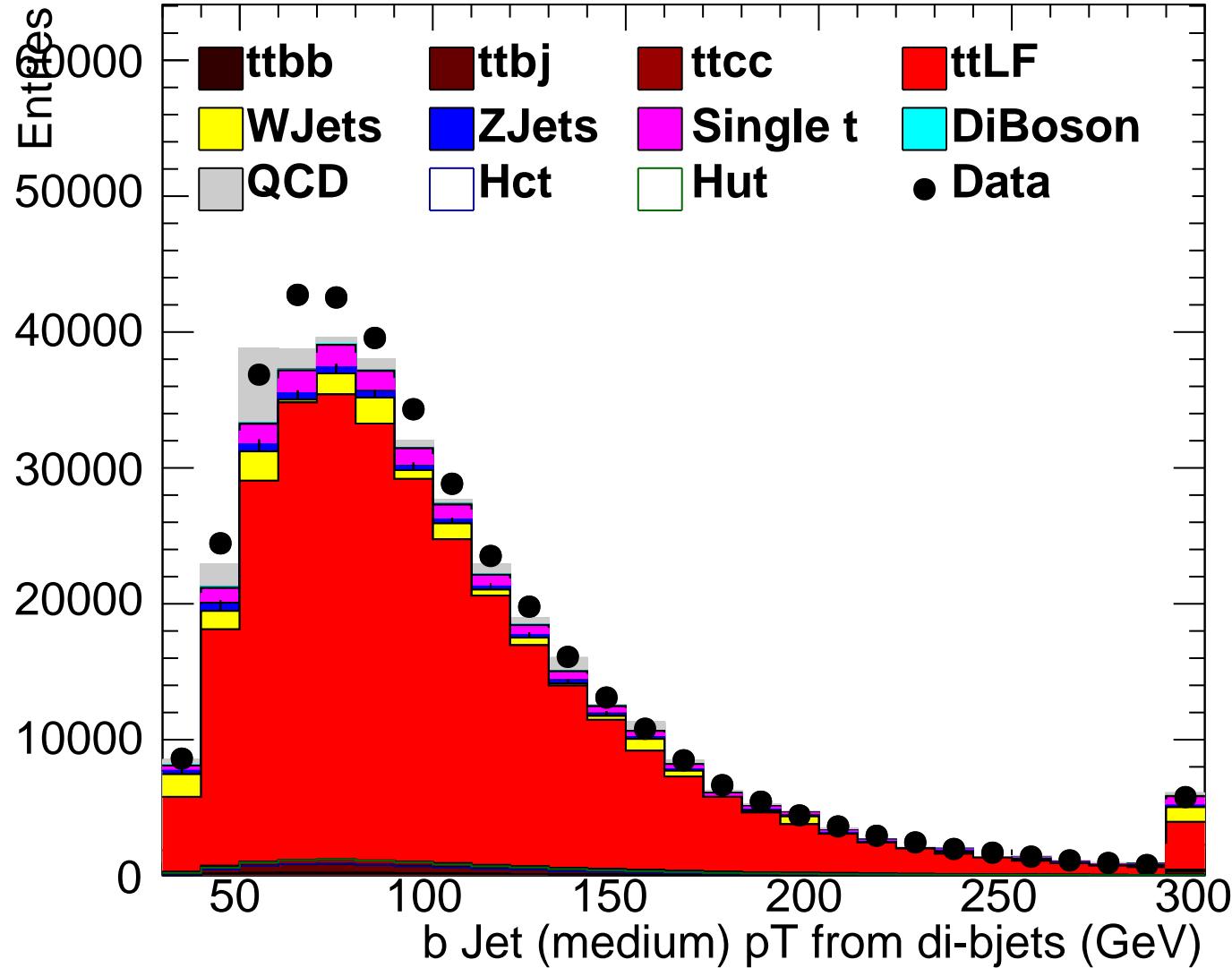
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

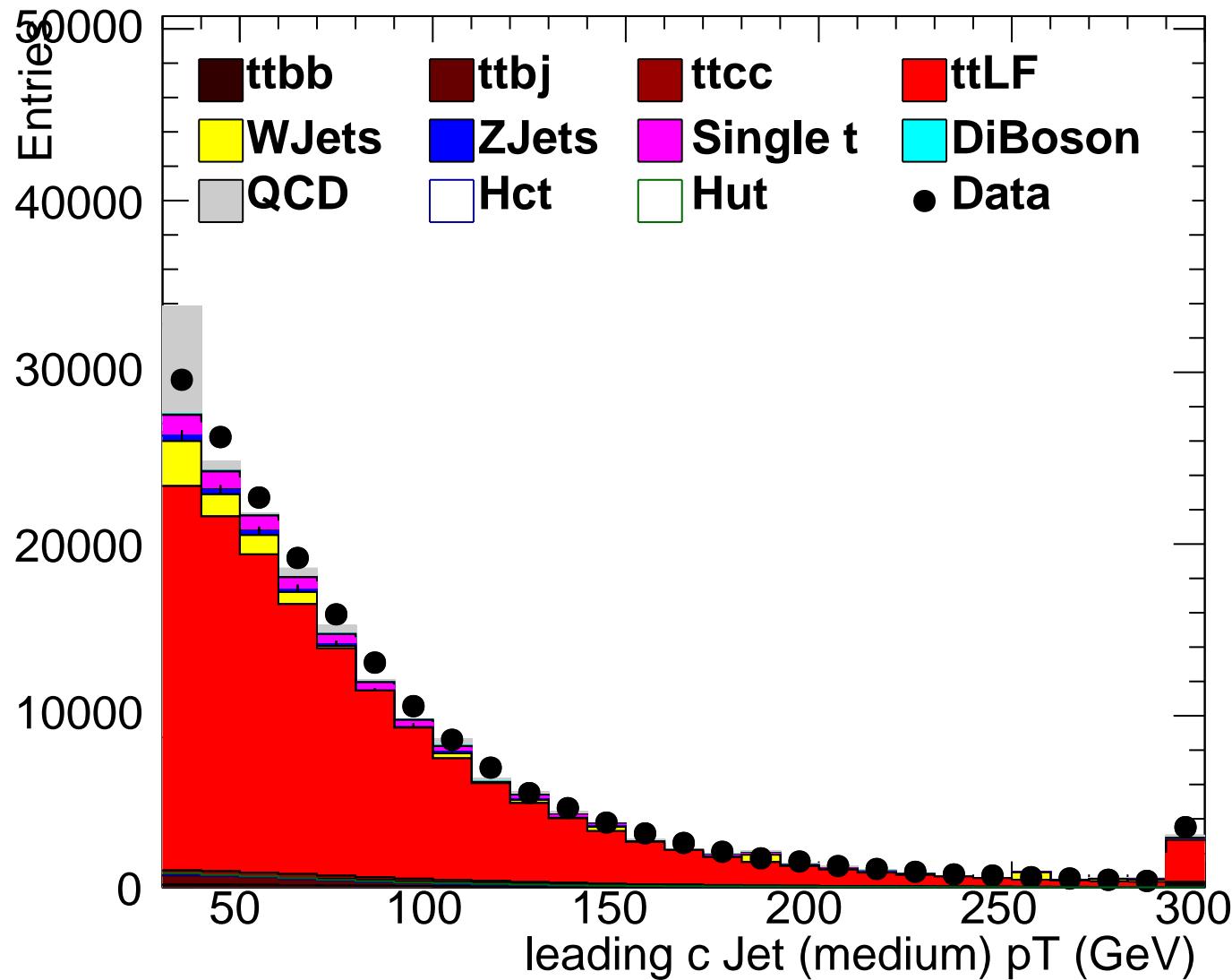
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

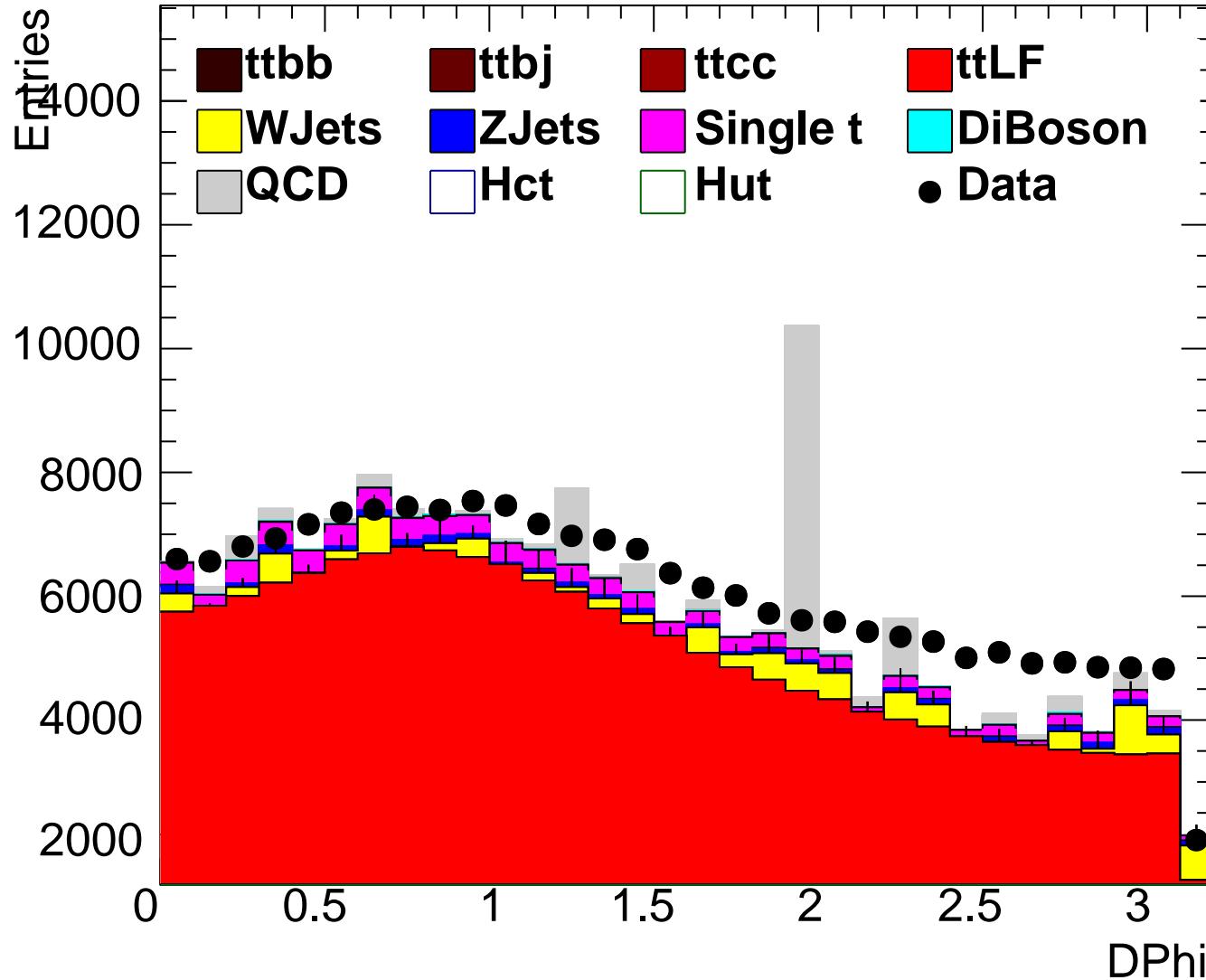


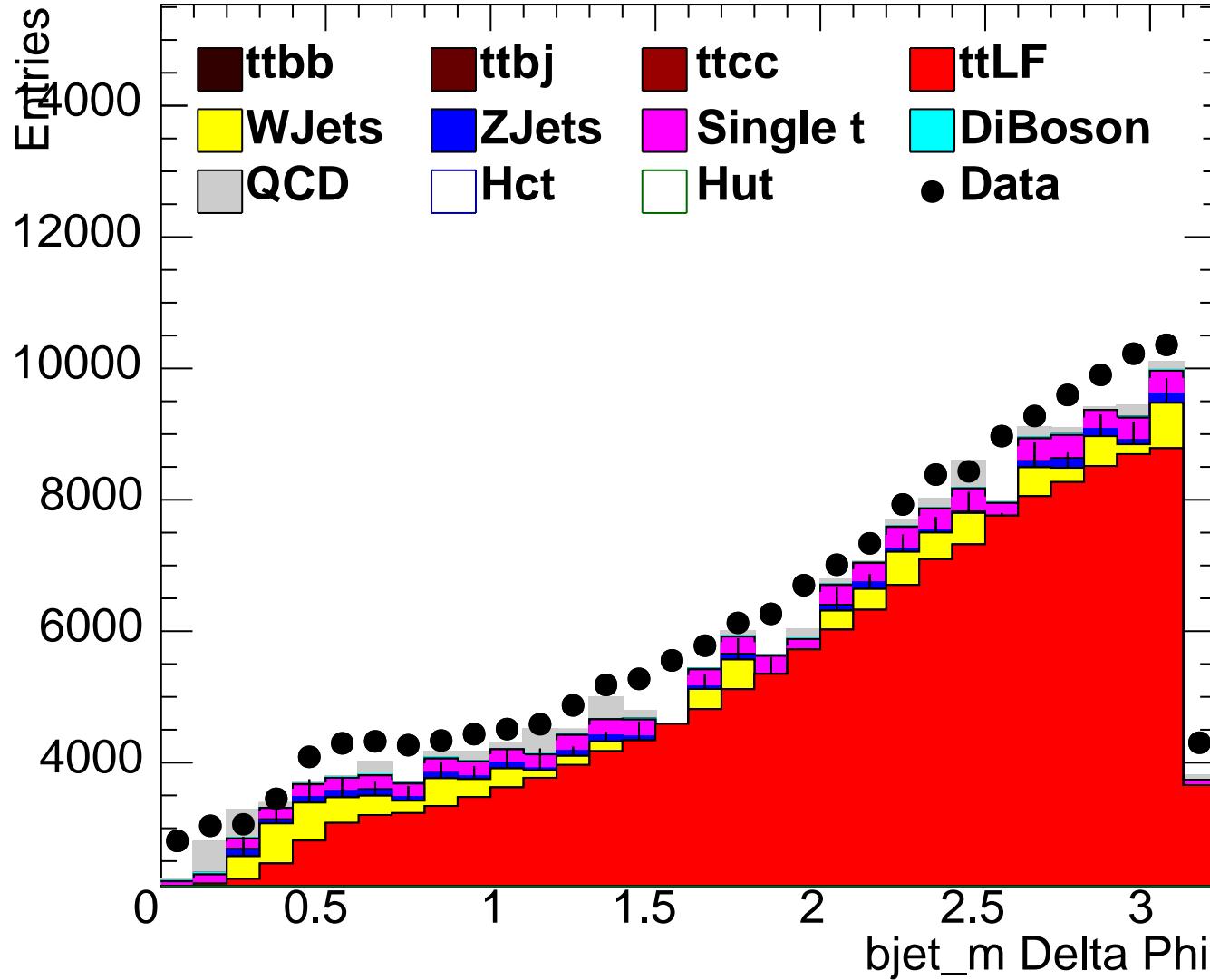
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

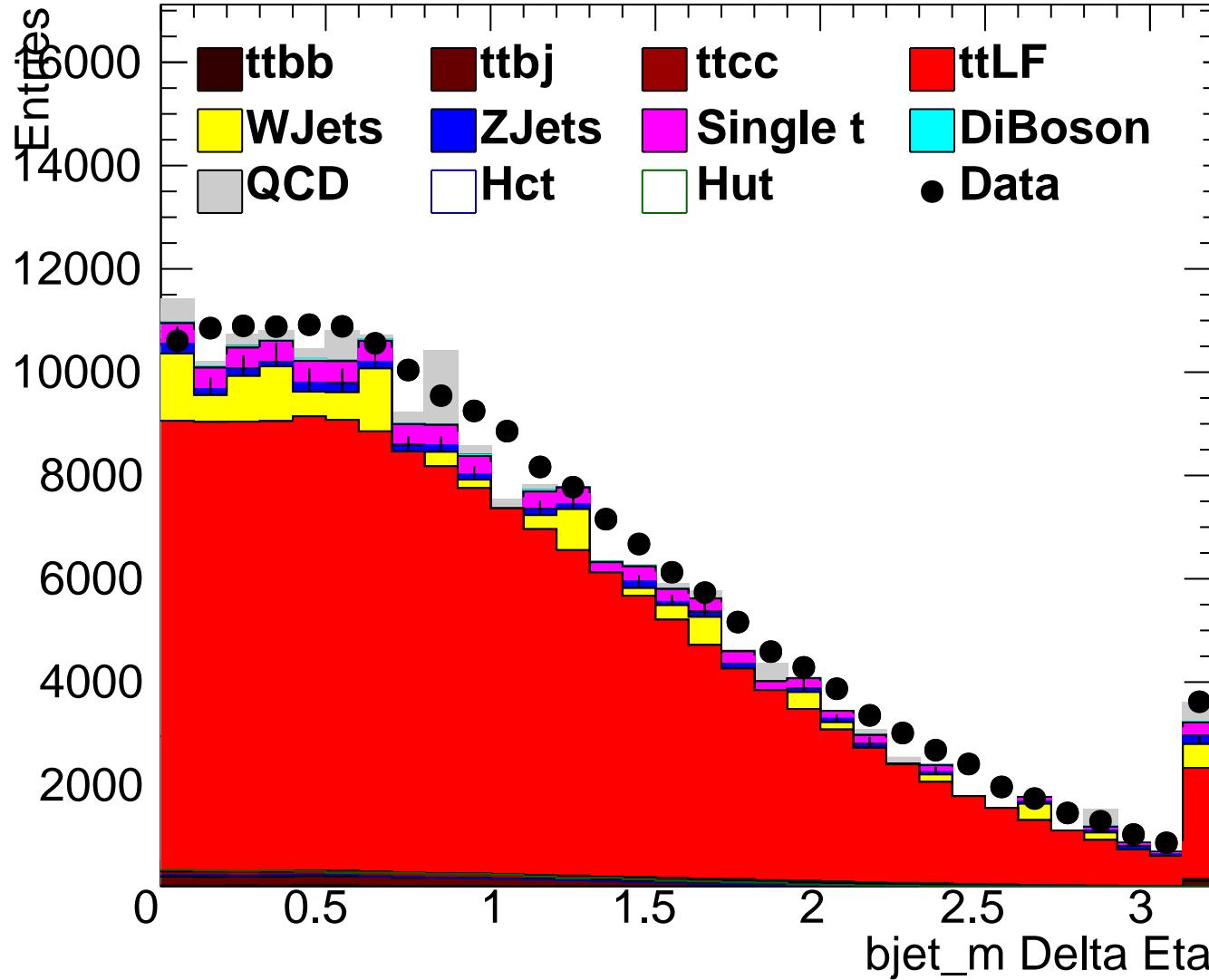
Ch1_S2

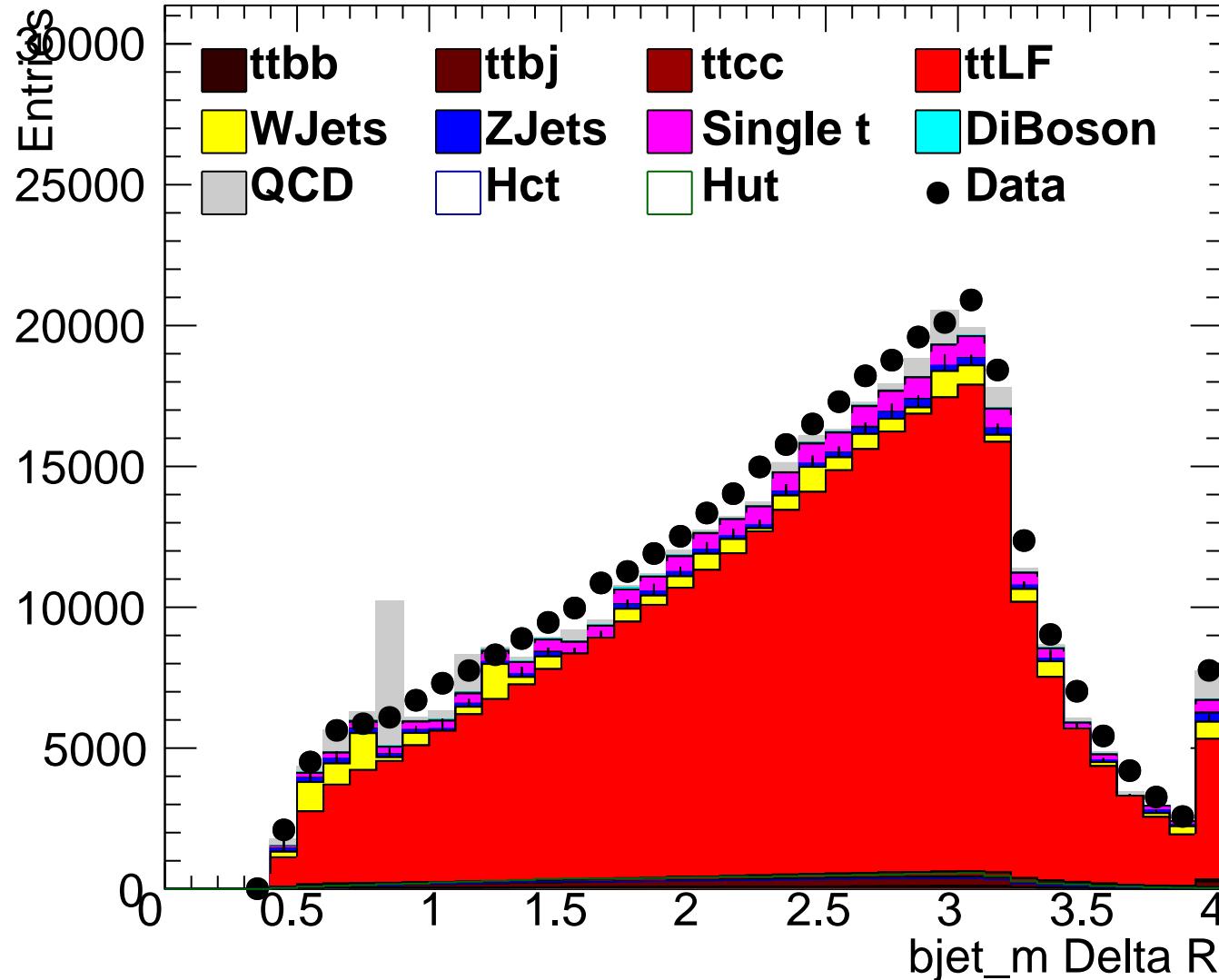
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

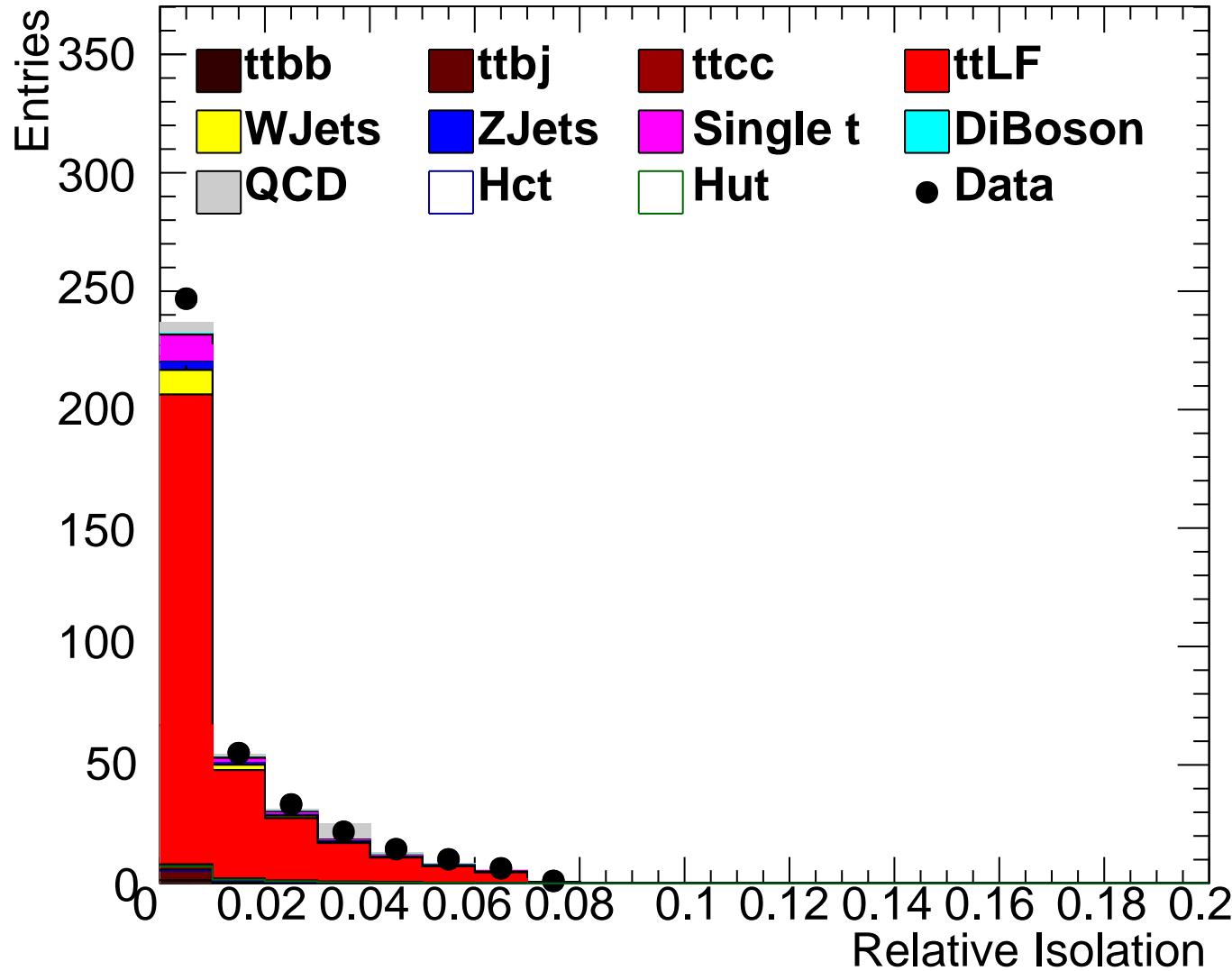


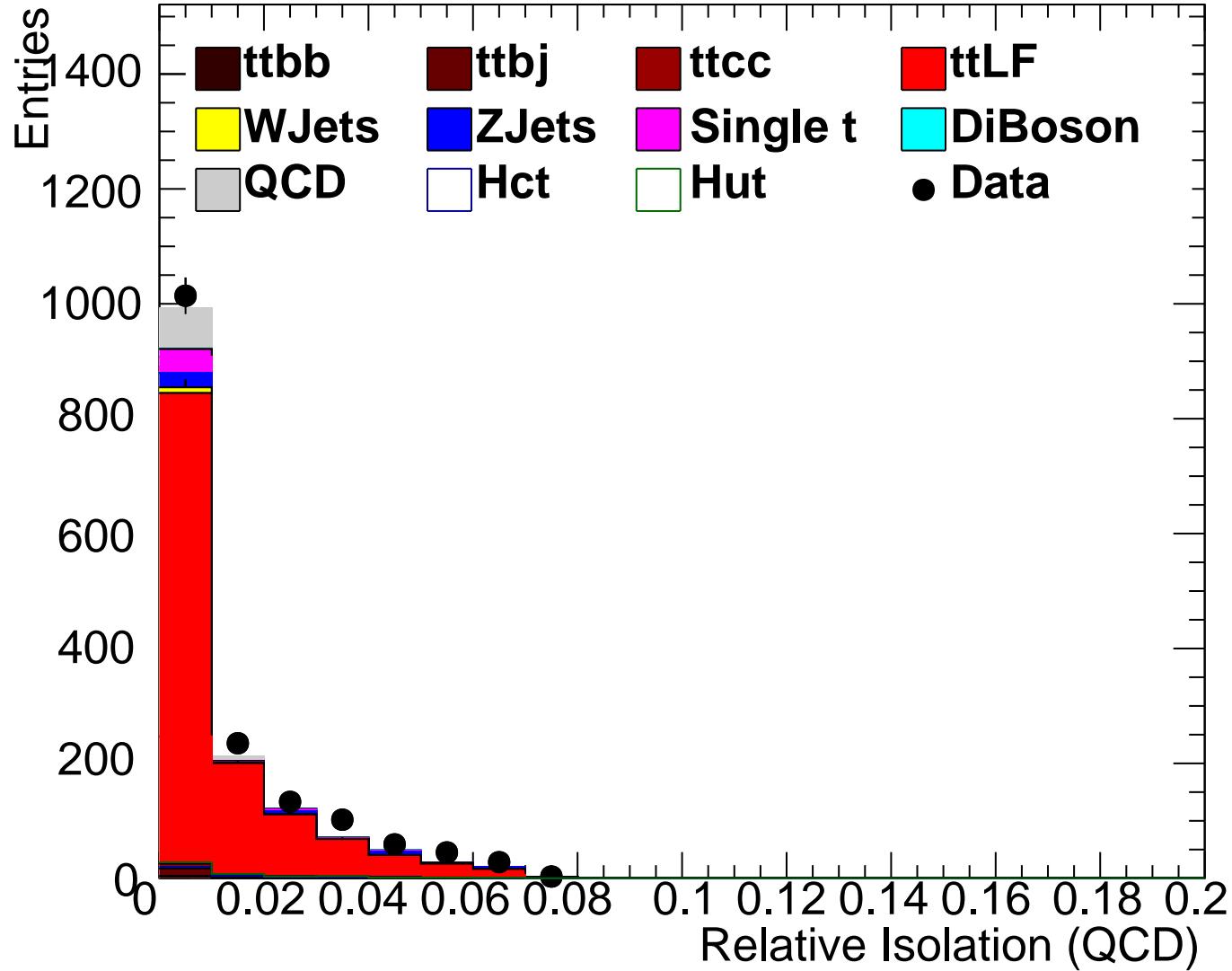


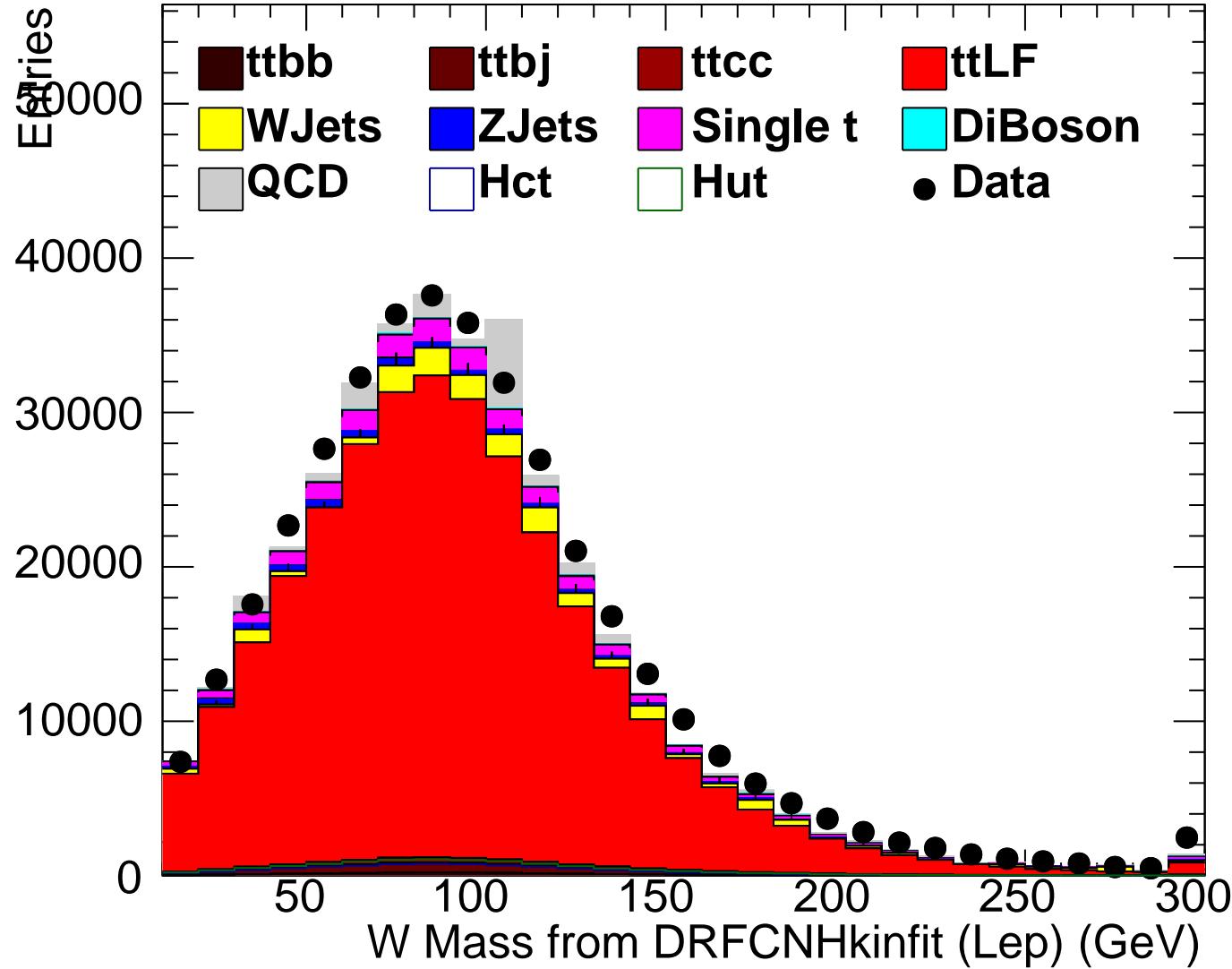
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

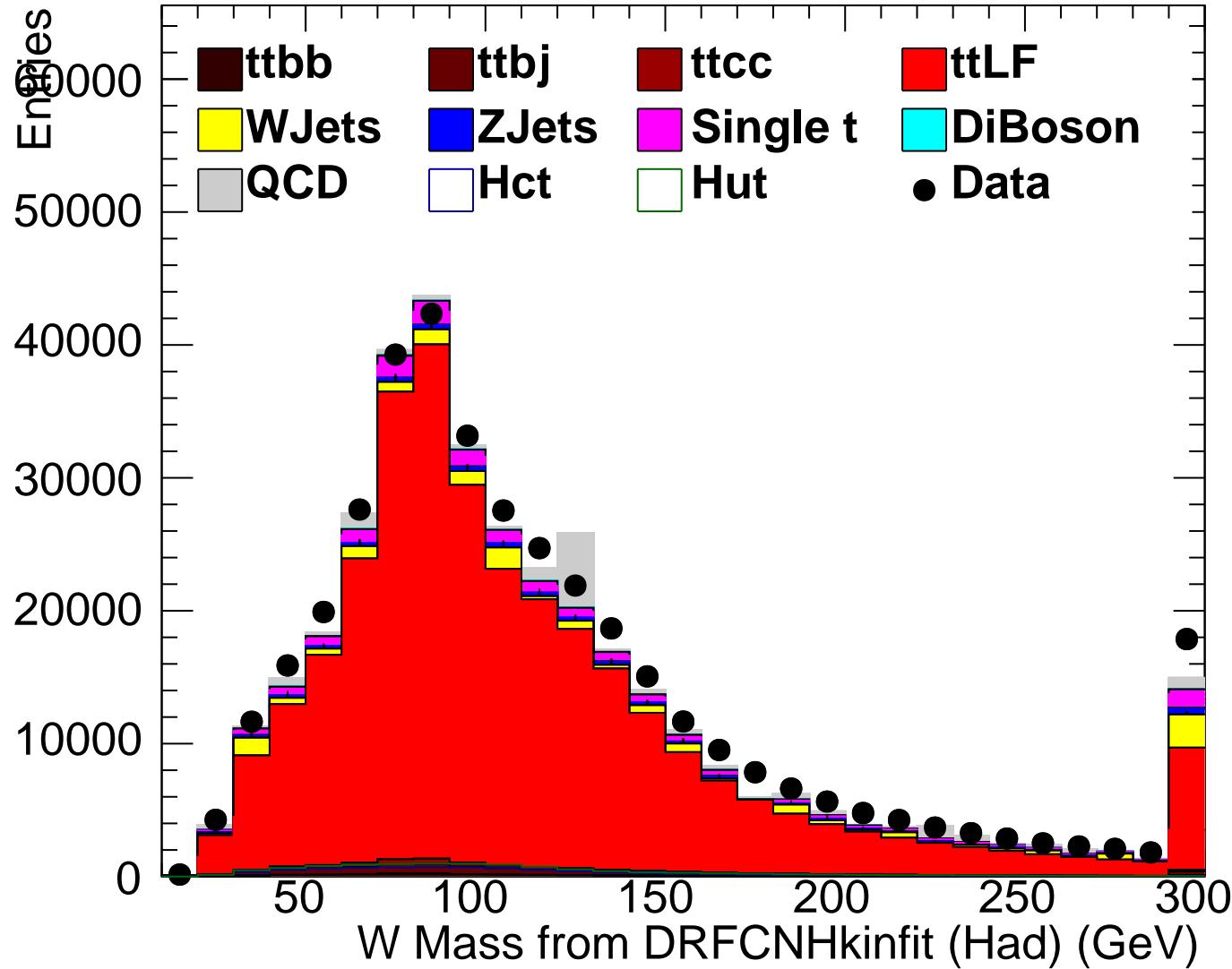


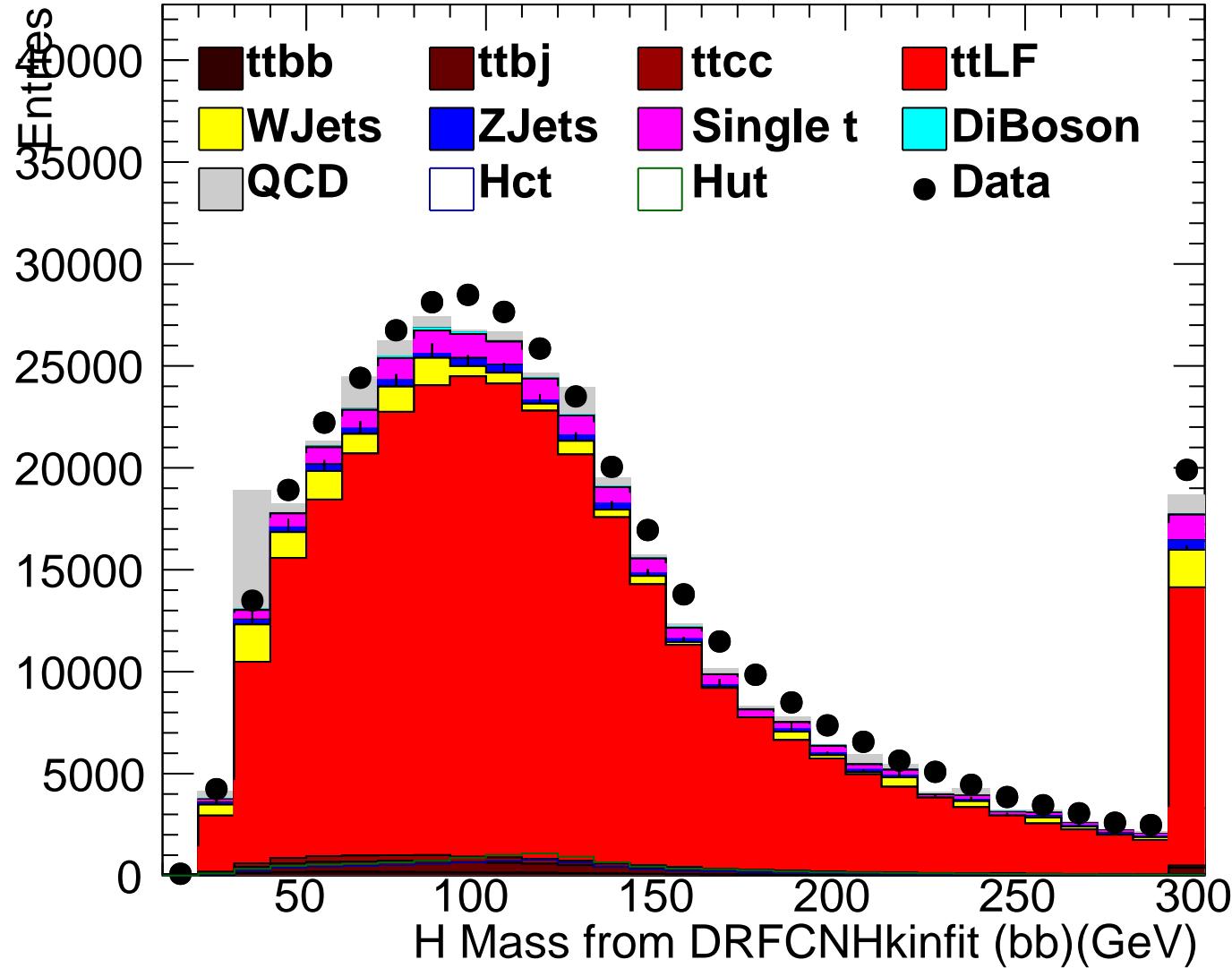


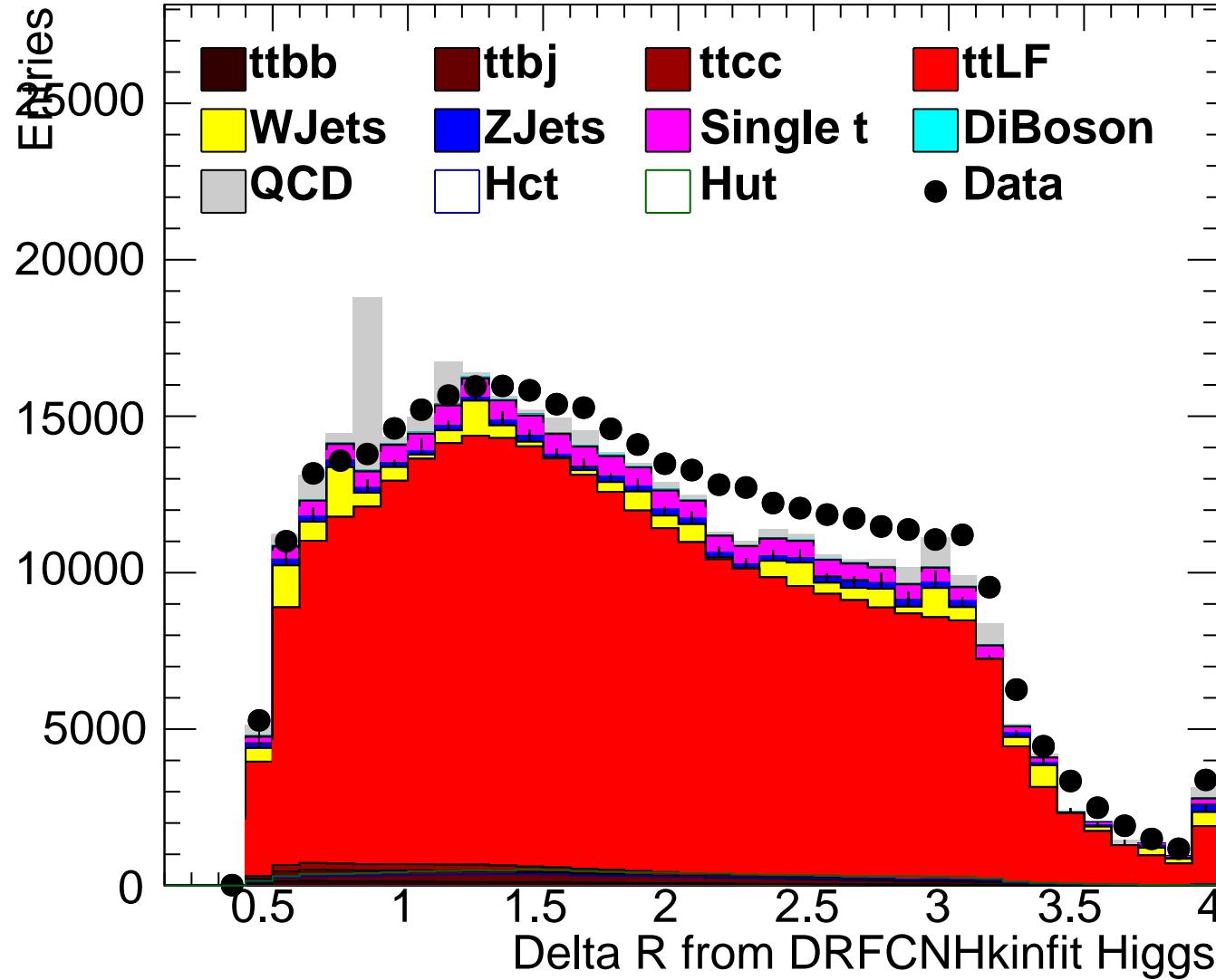


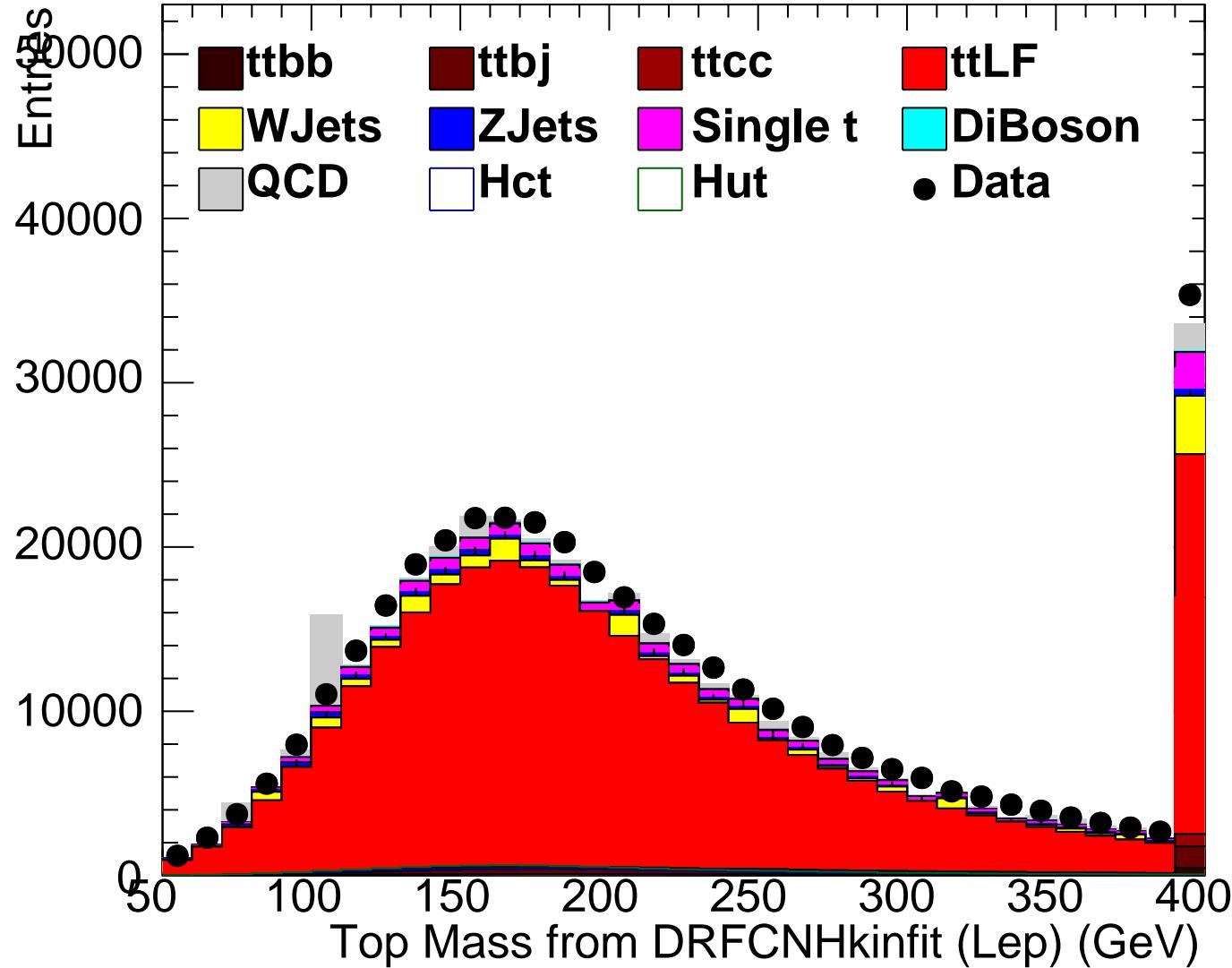


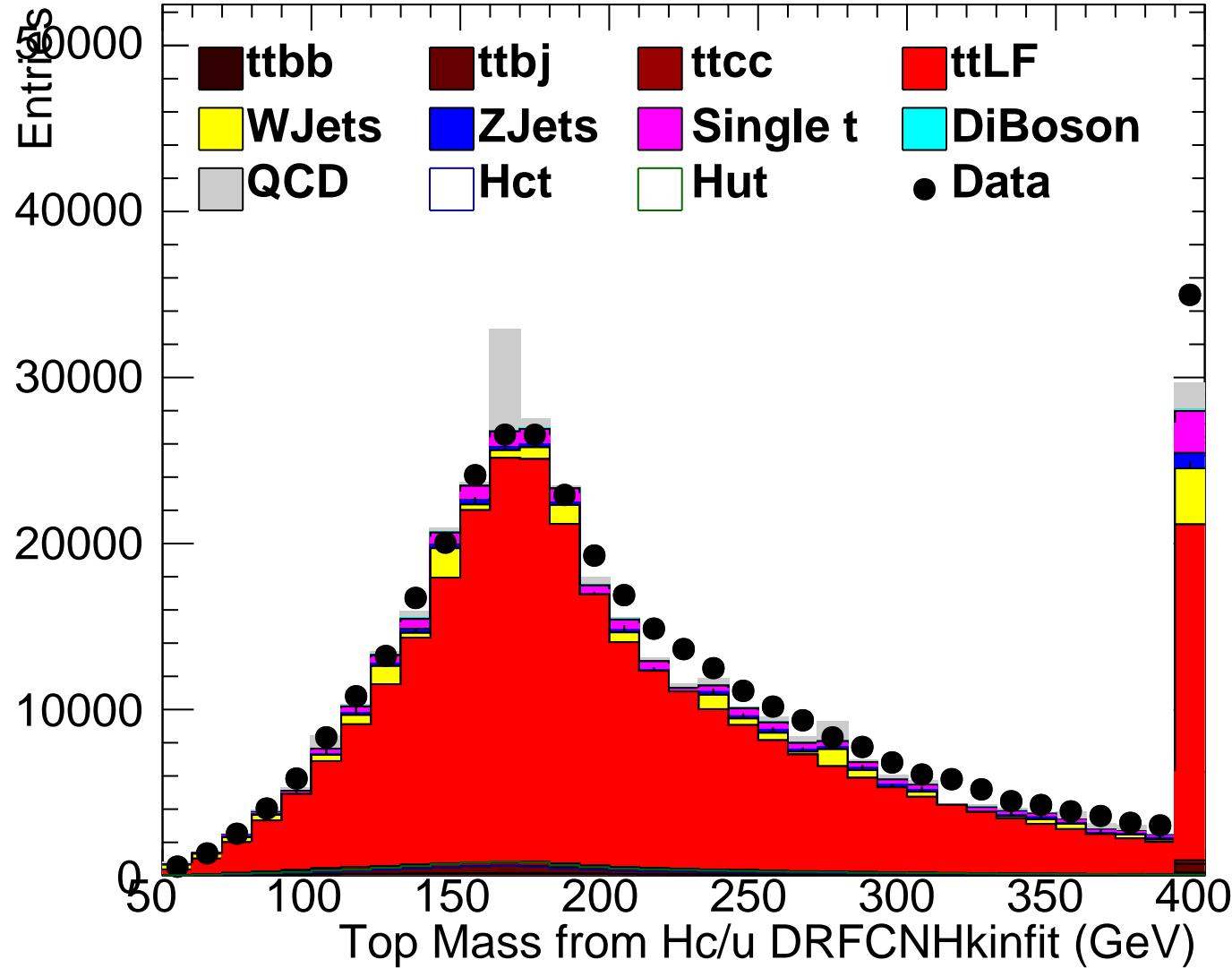
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

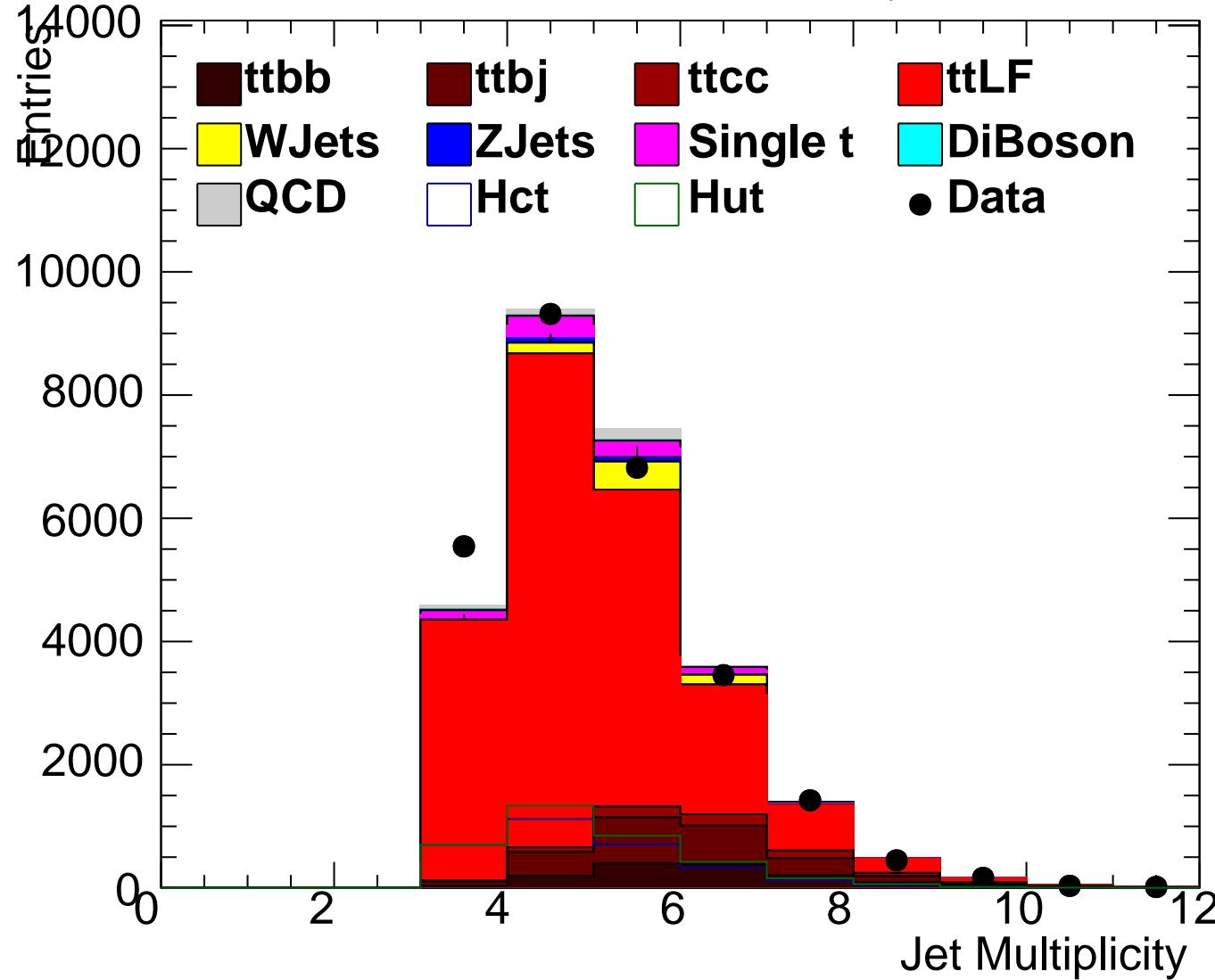
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

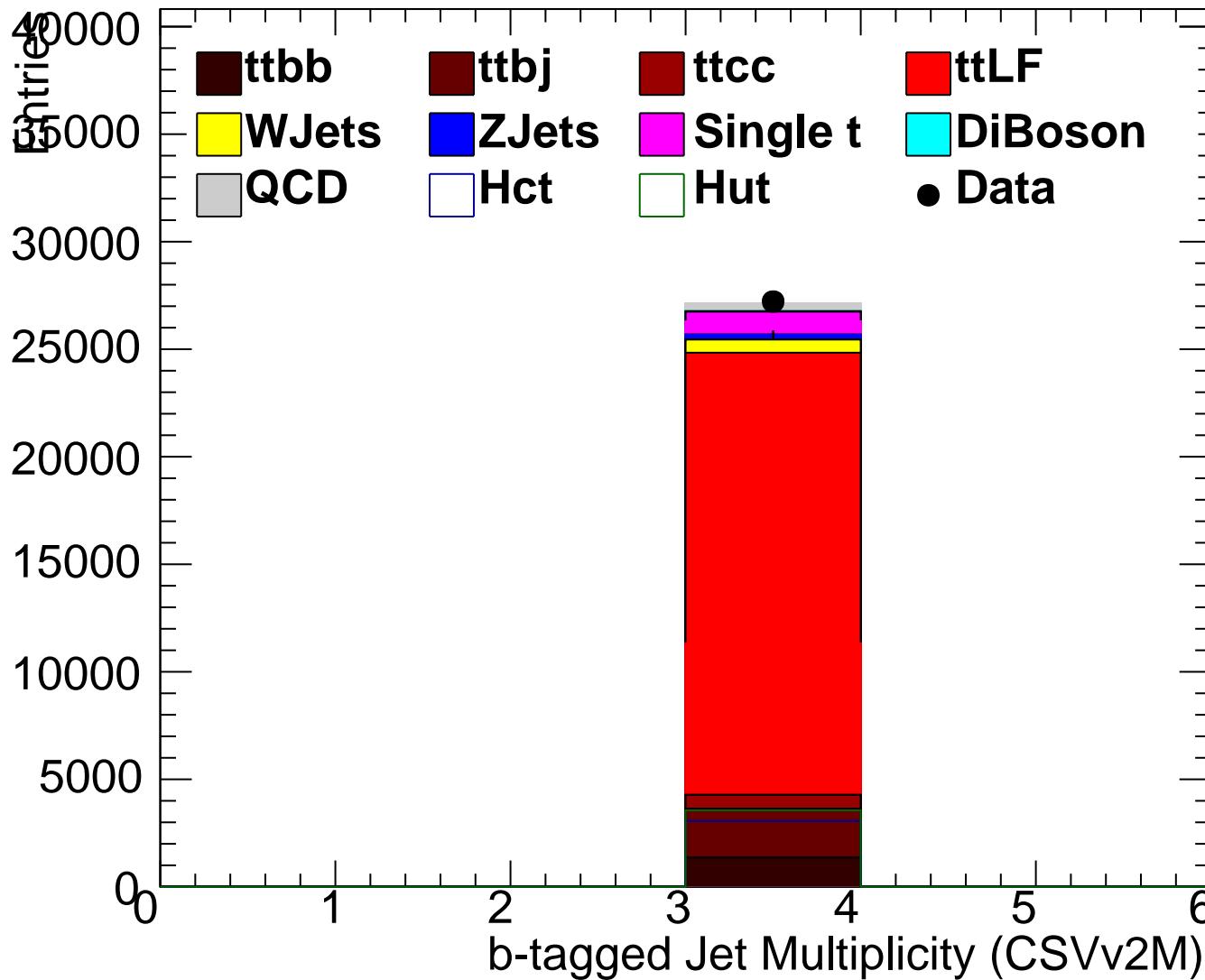
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

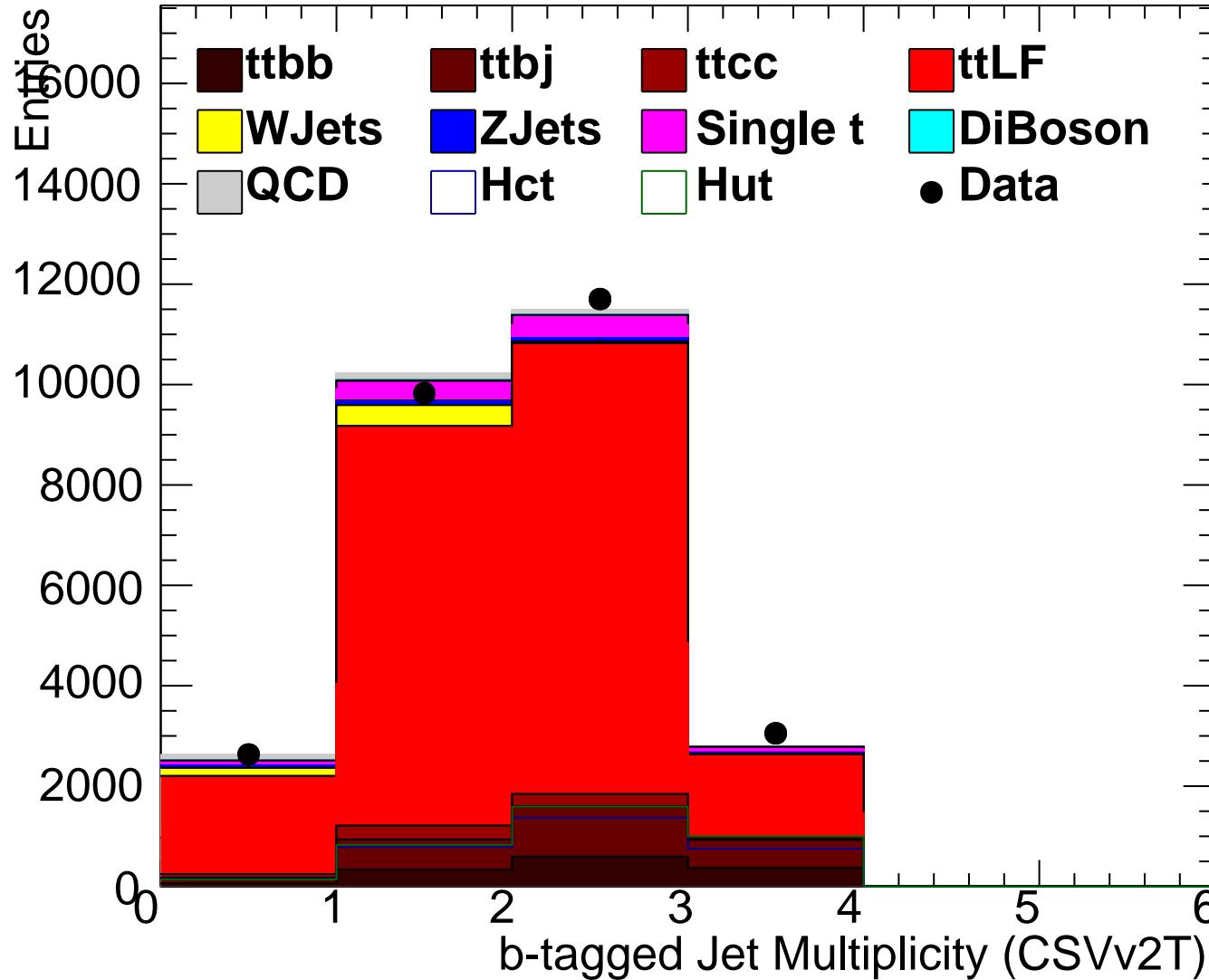
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

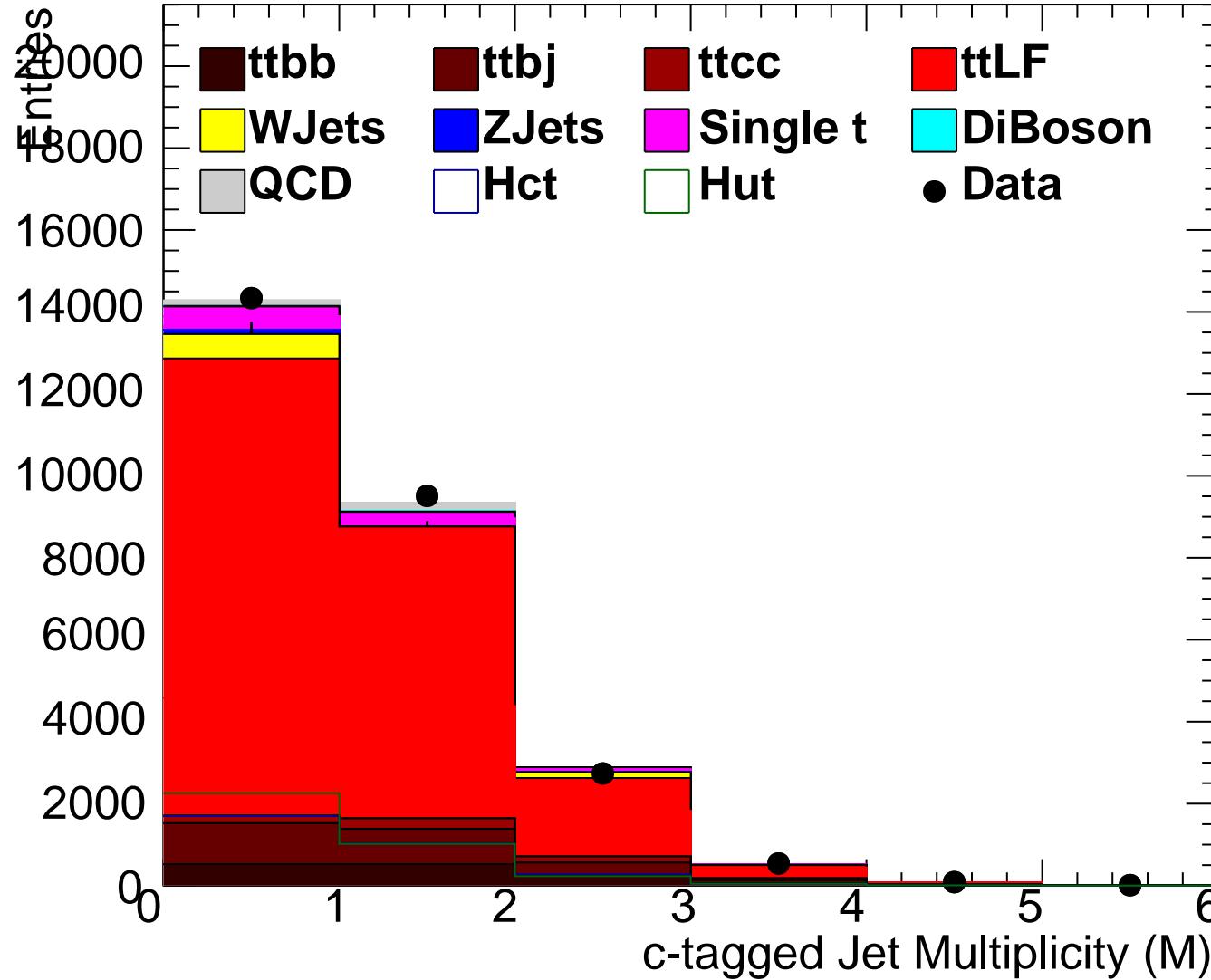
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

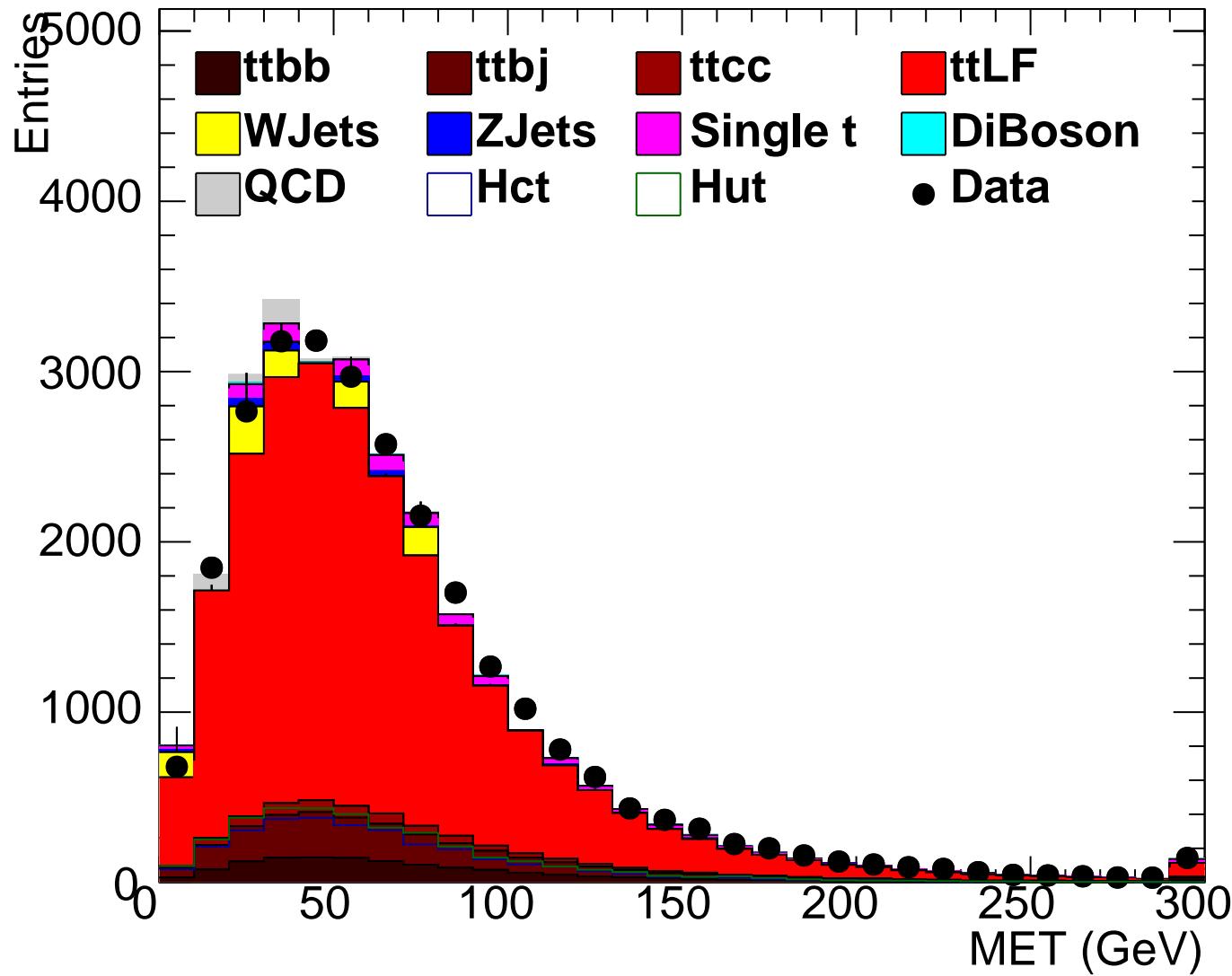
Ch1_S2CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

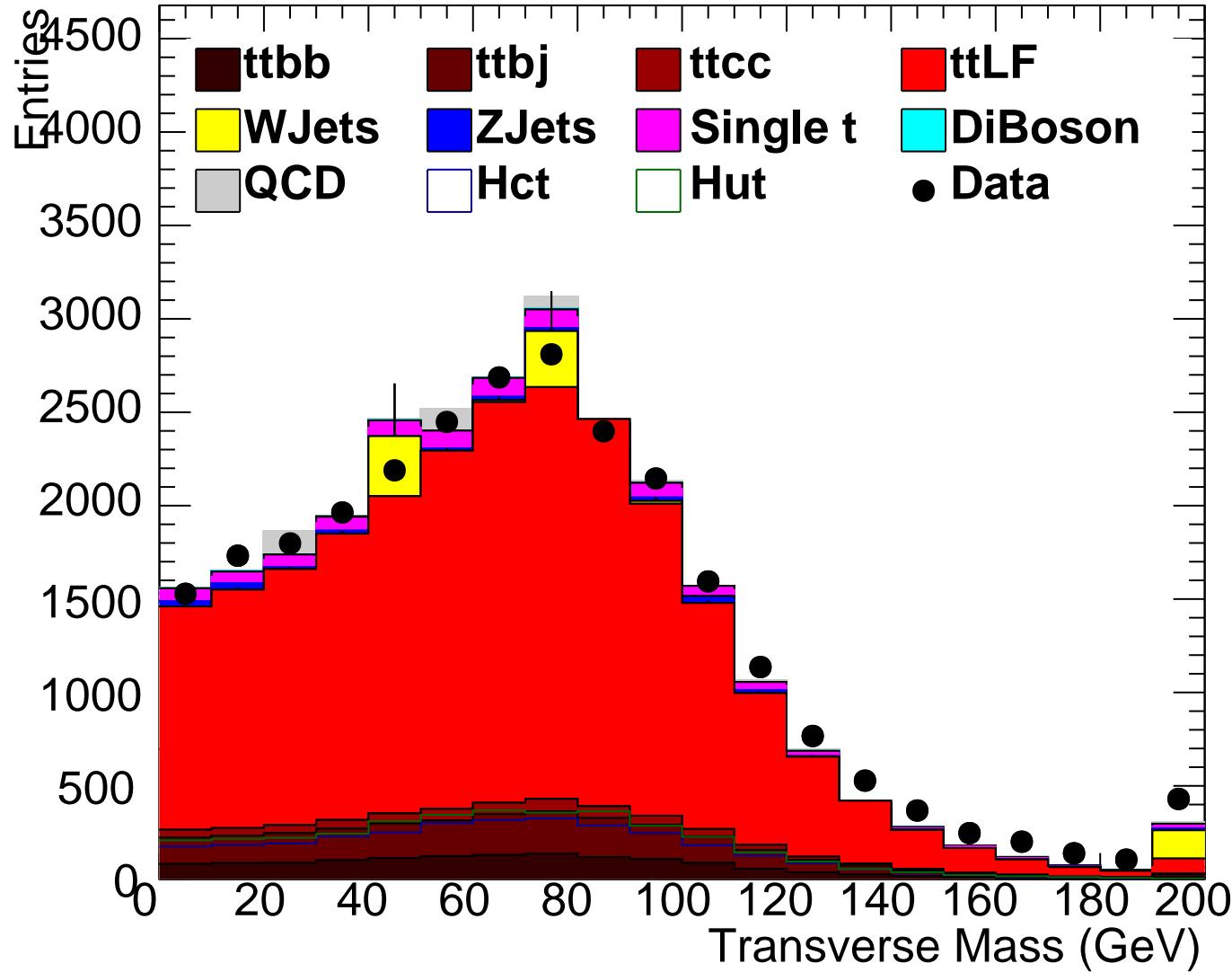


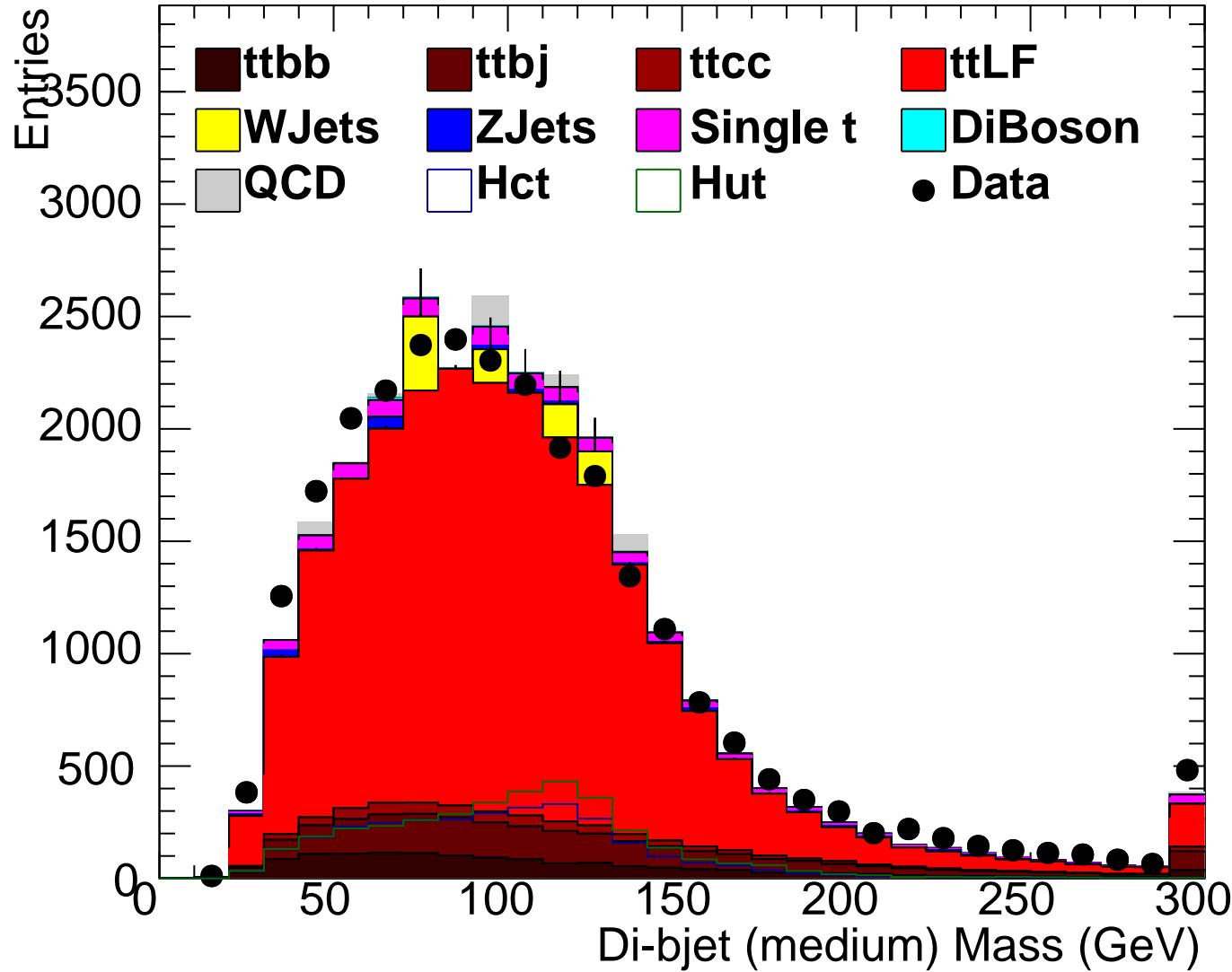


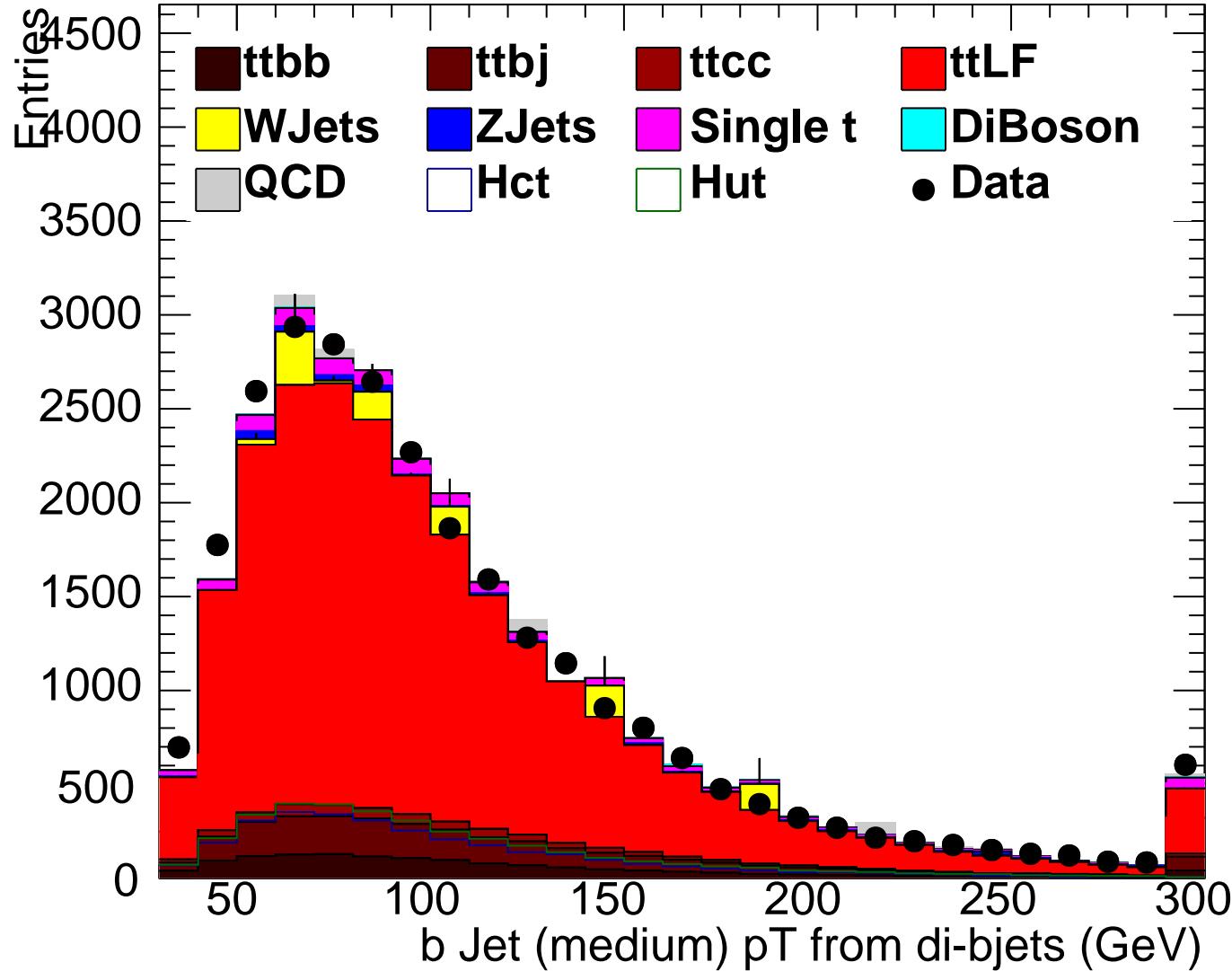


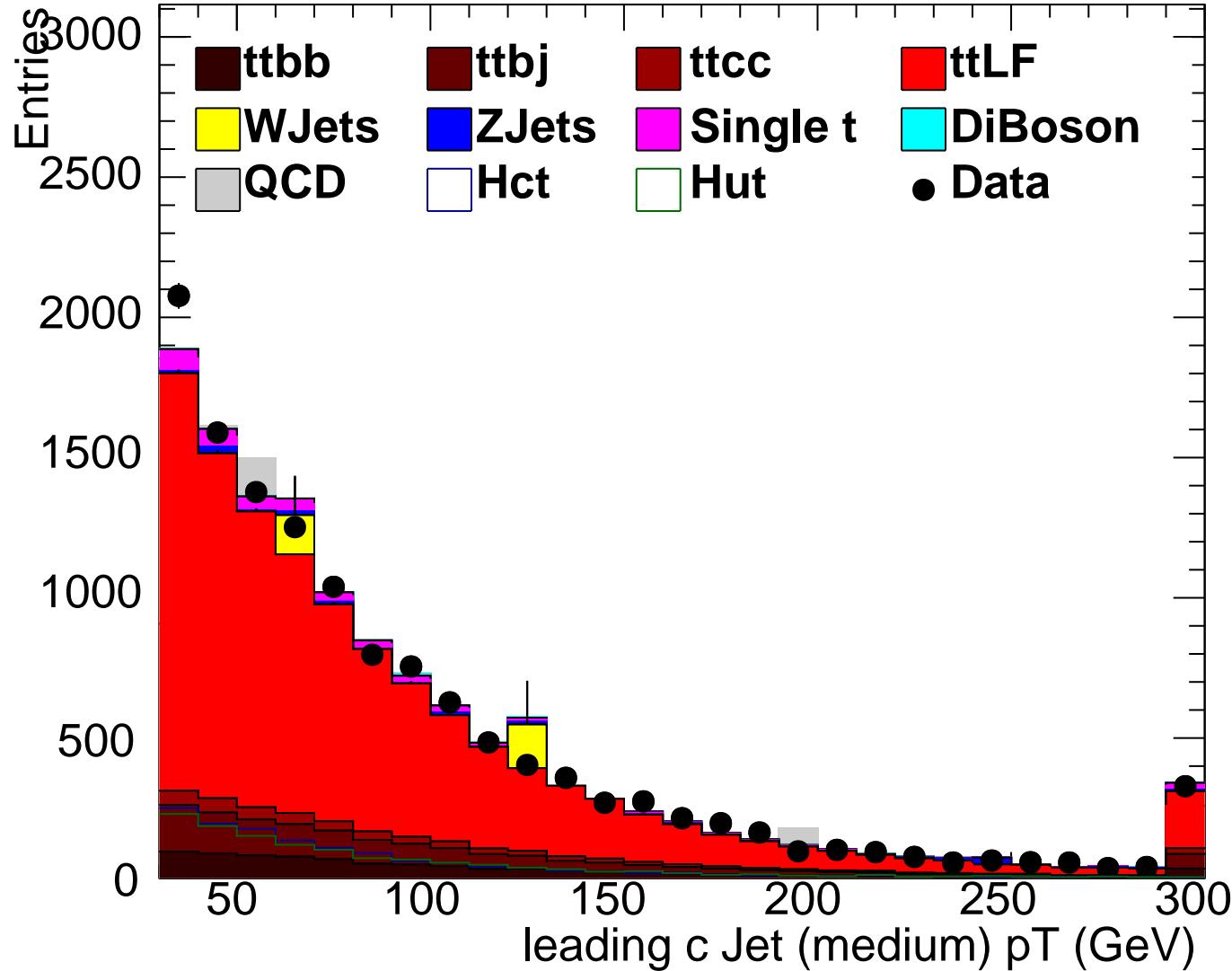


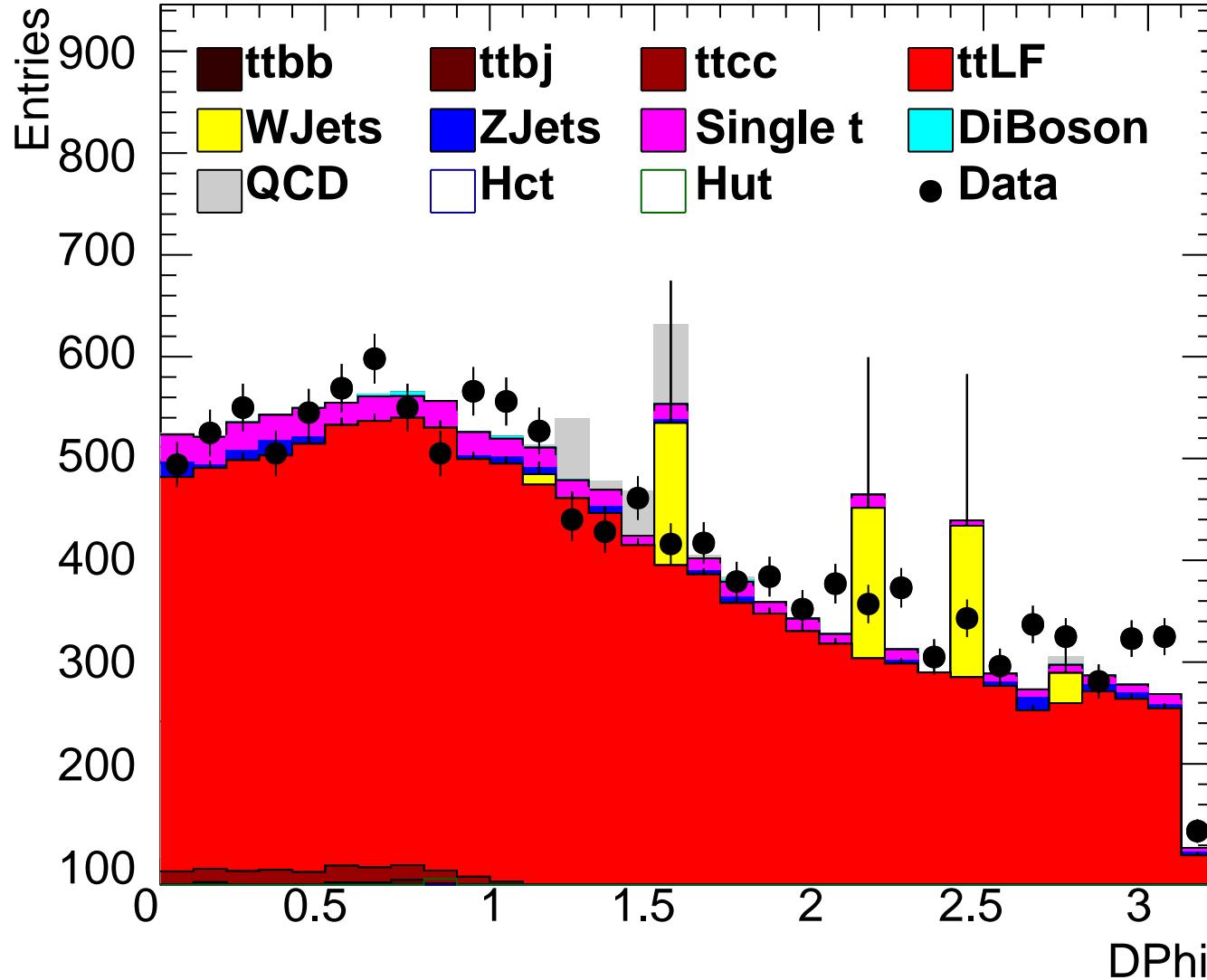
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

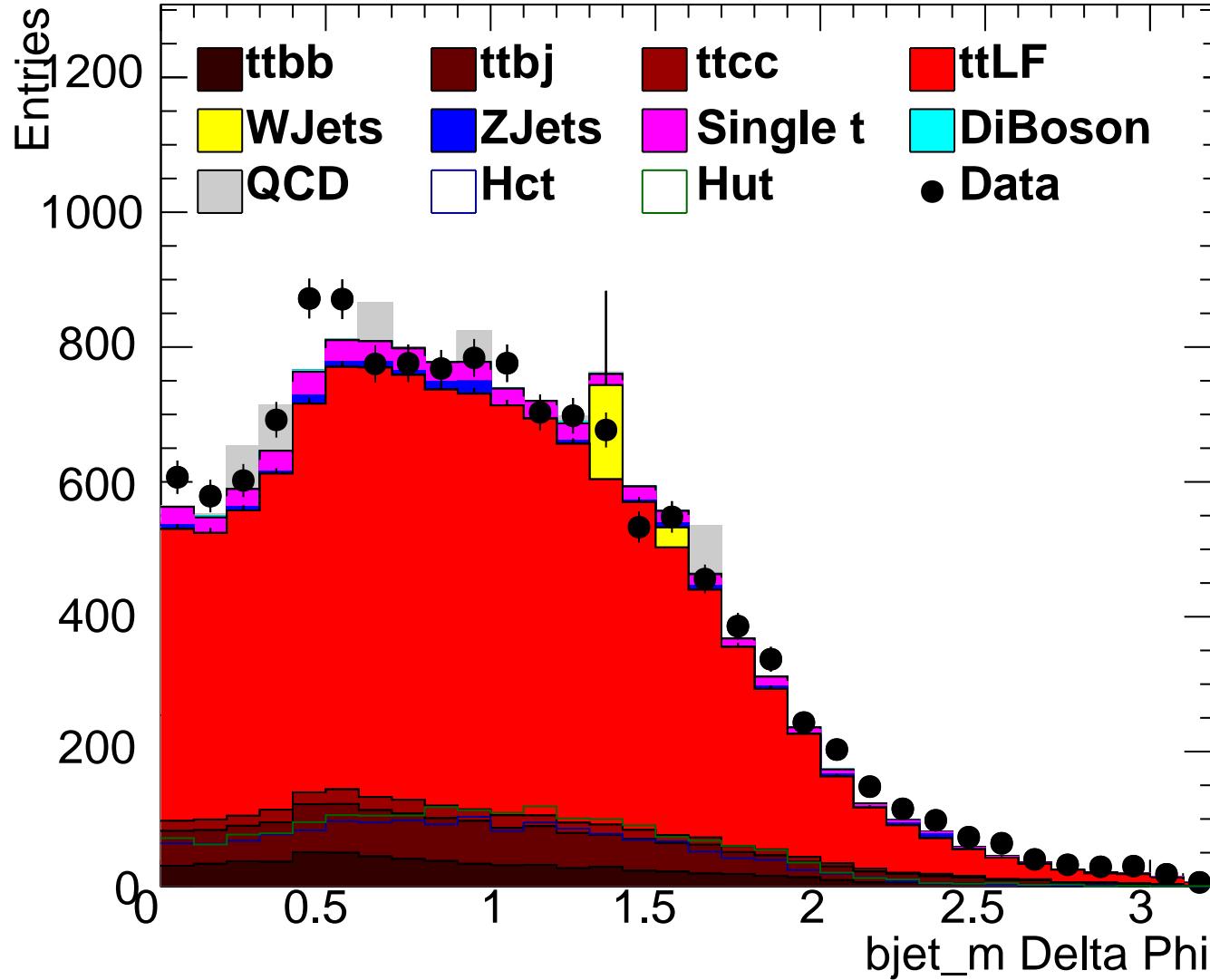


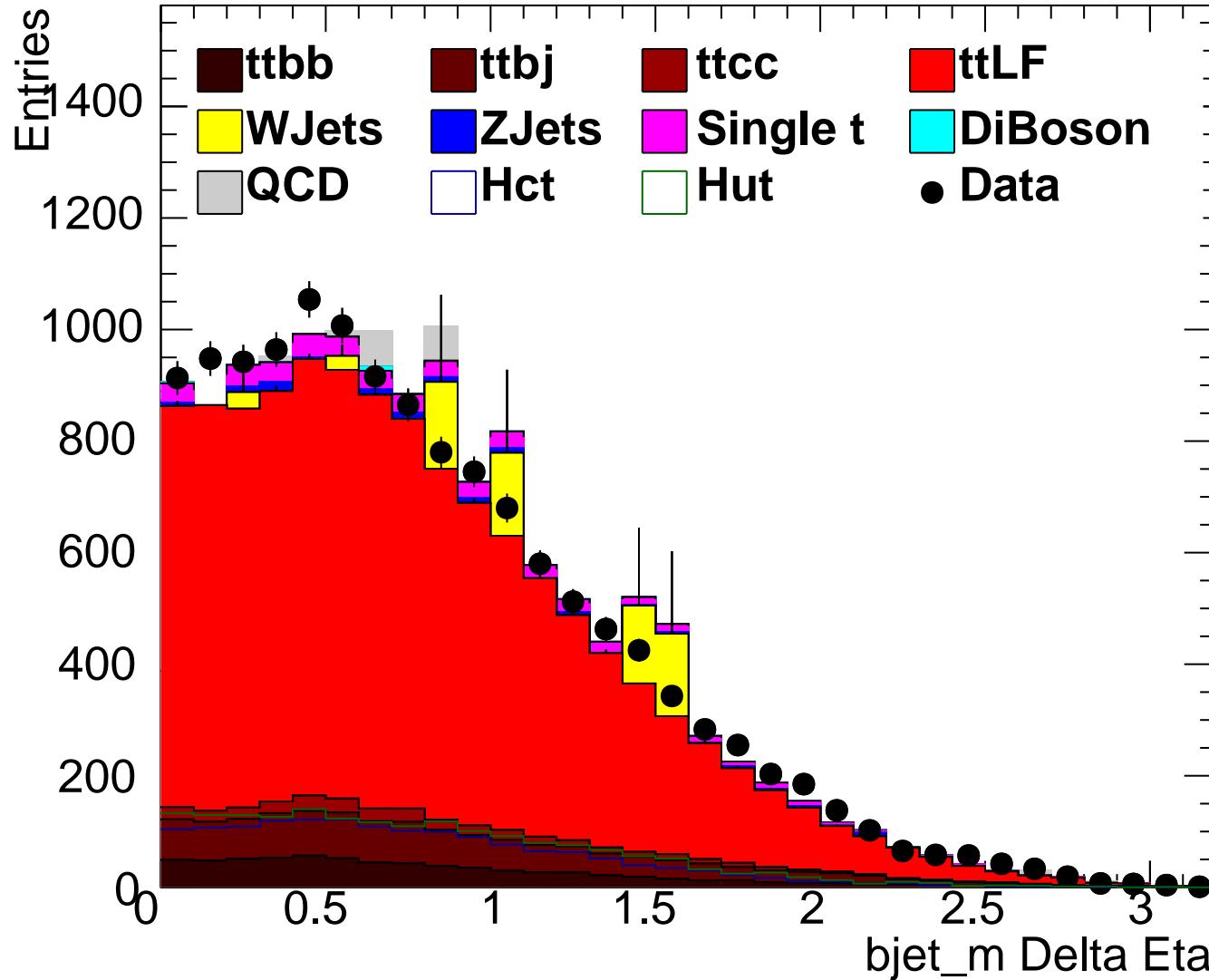
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

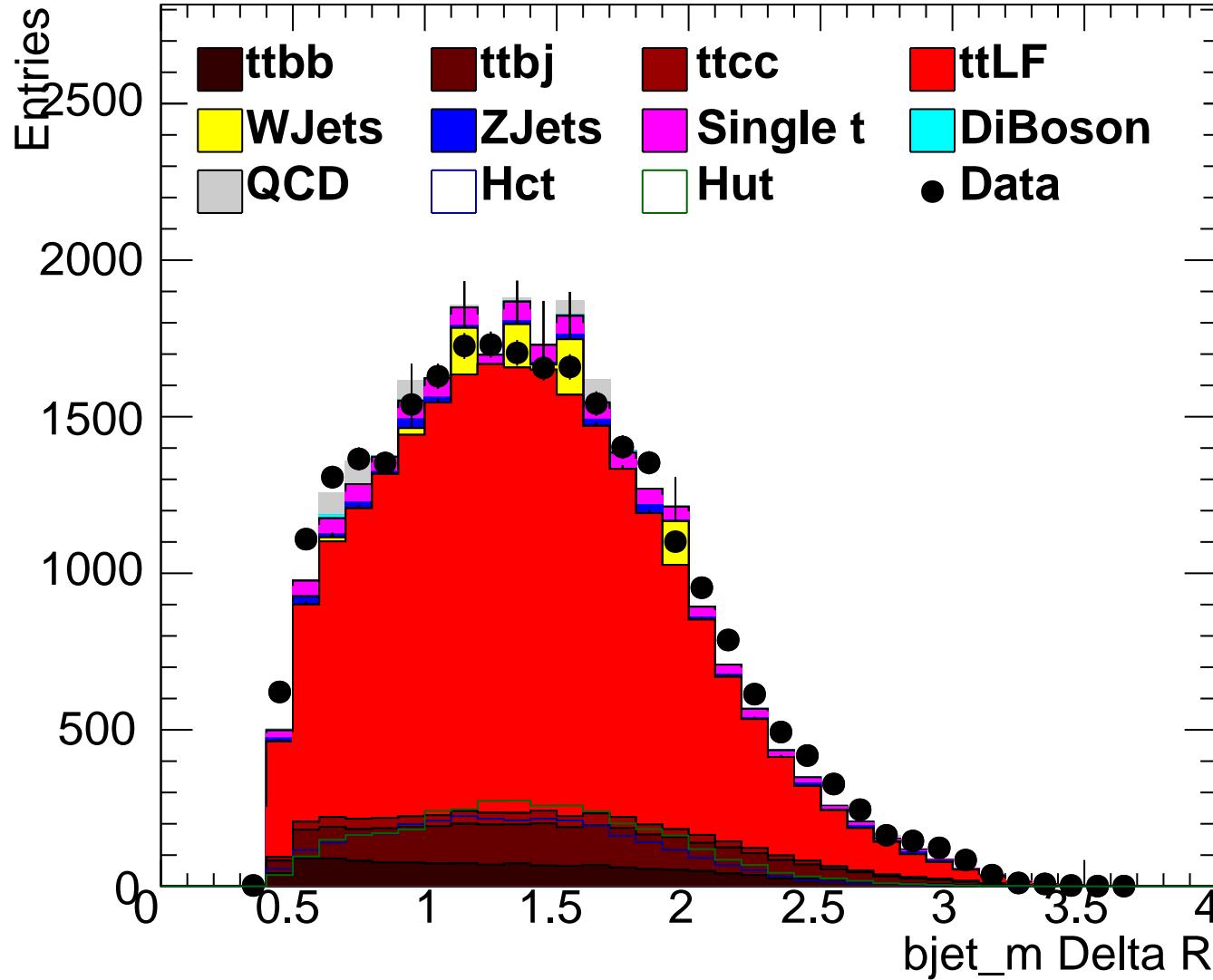


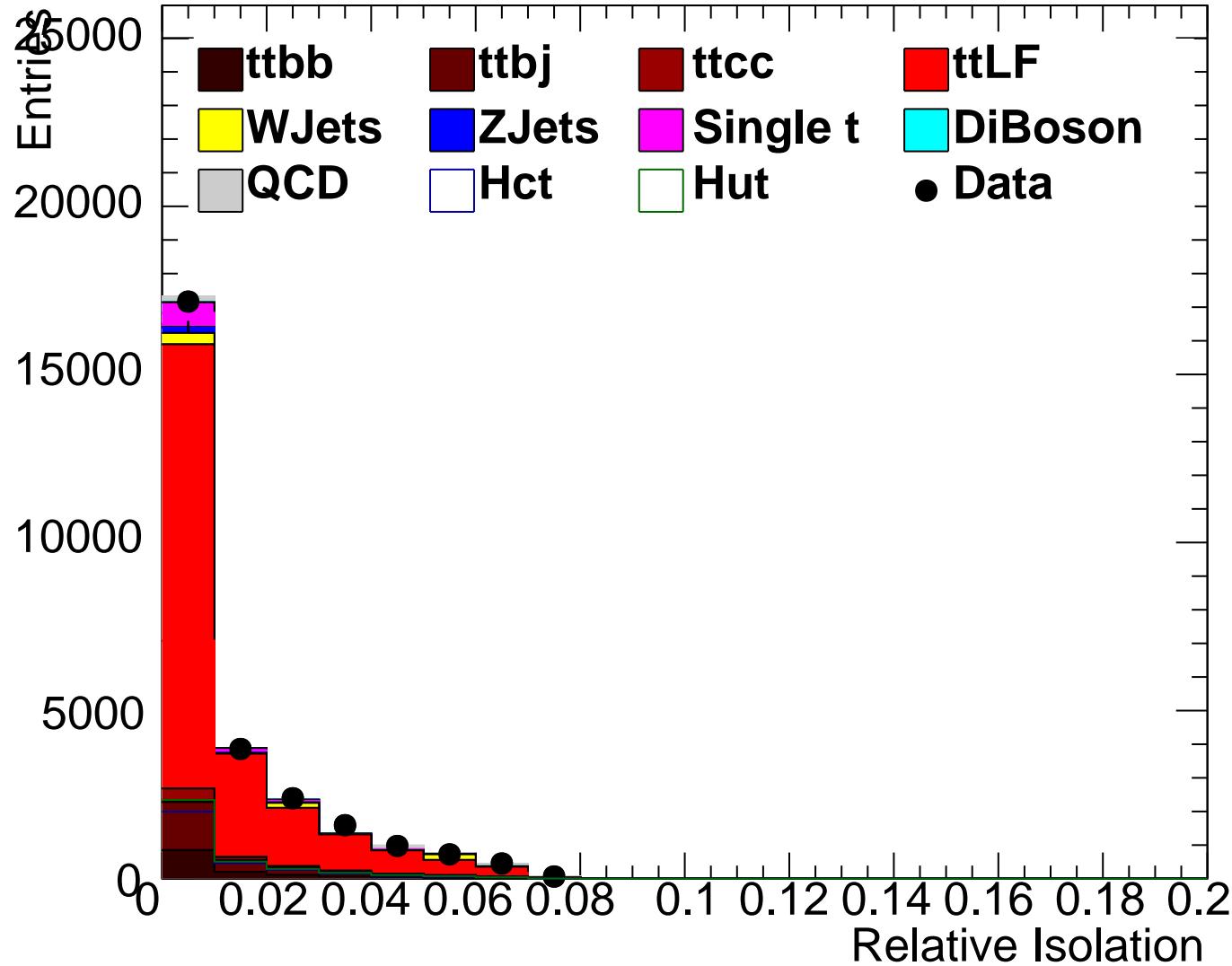
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

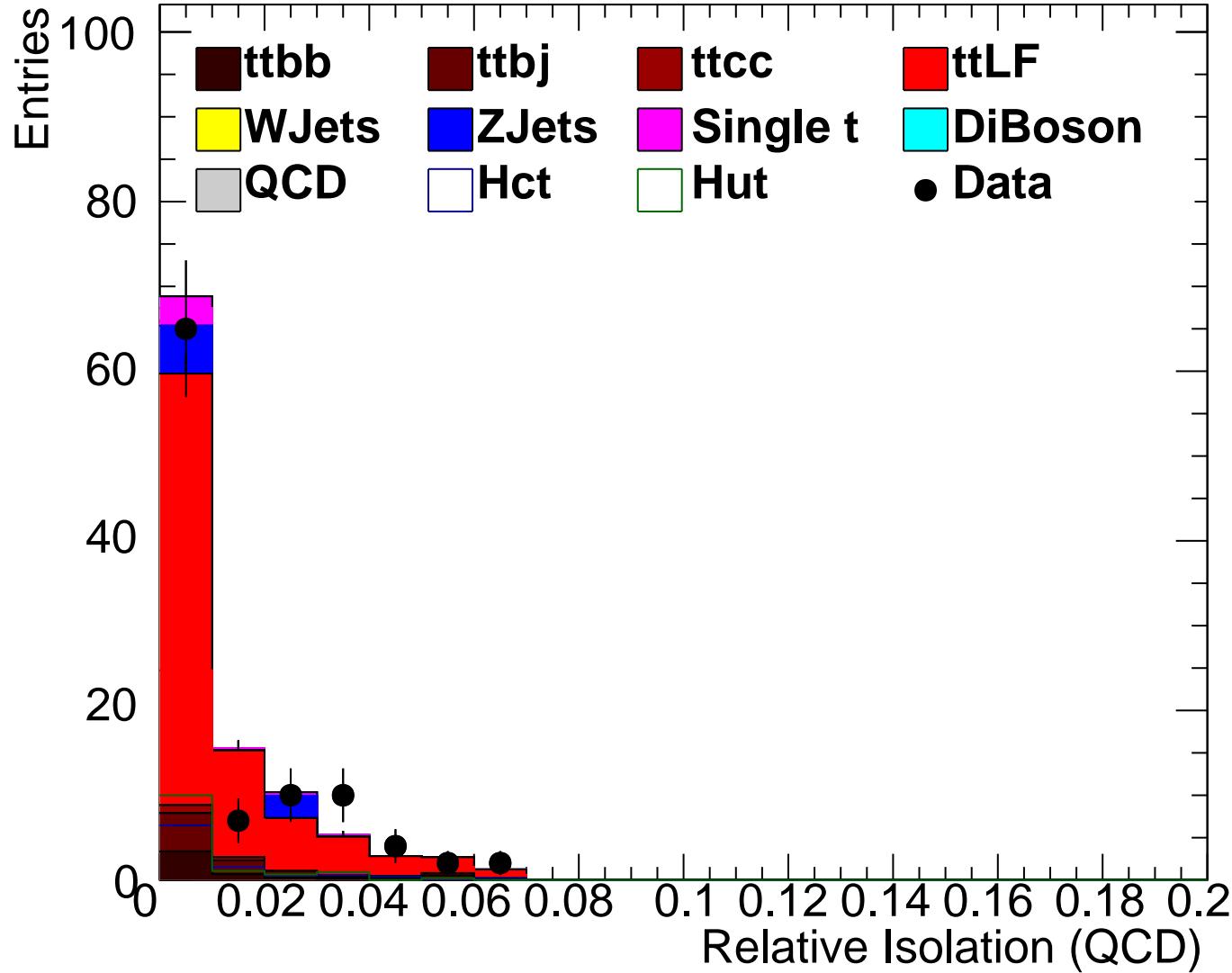


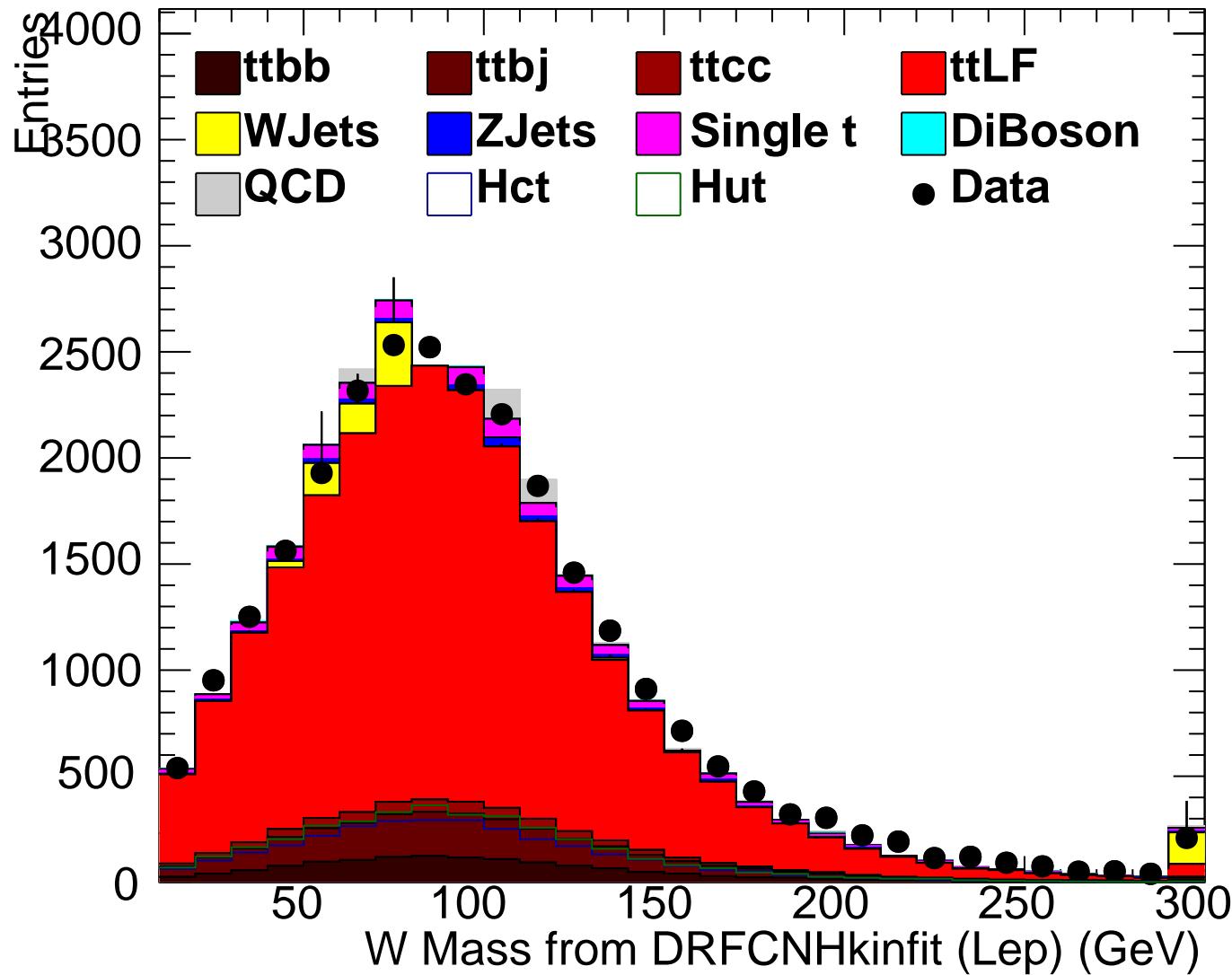


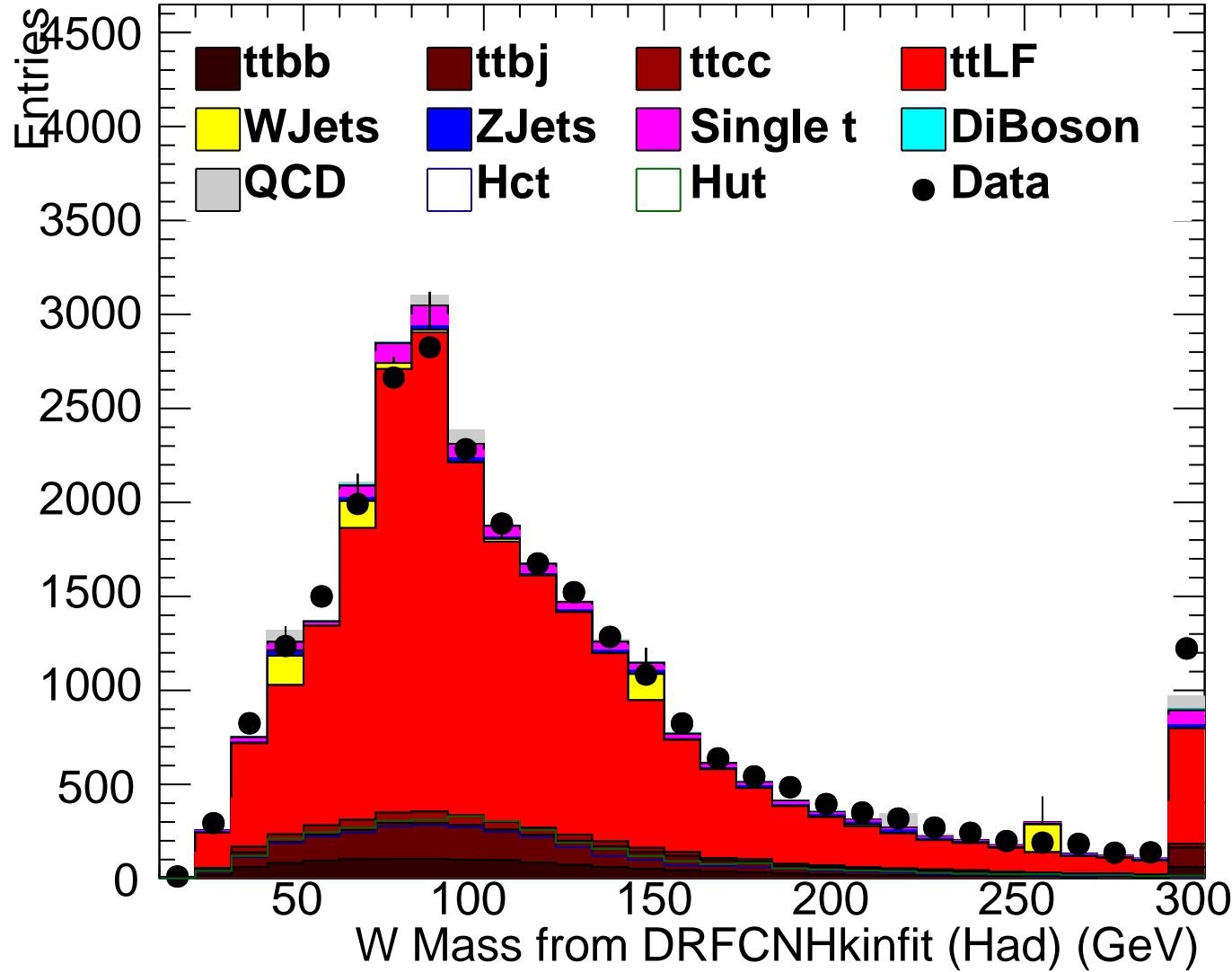


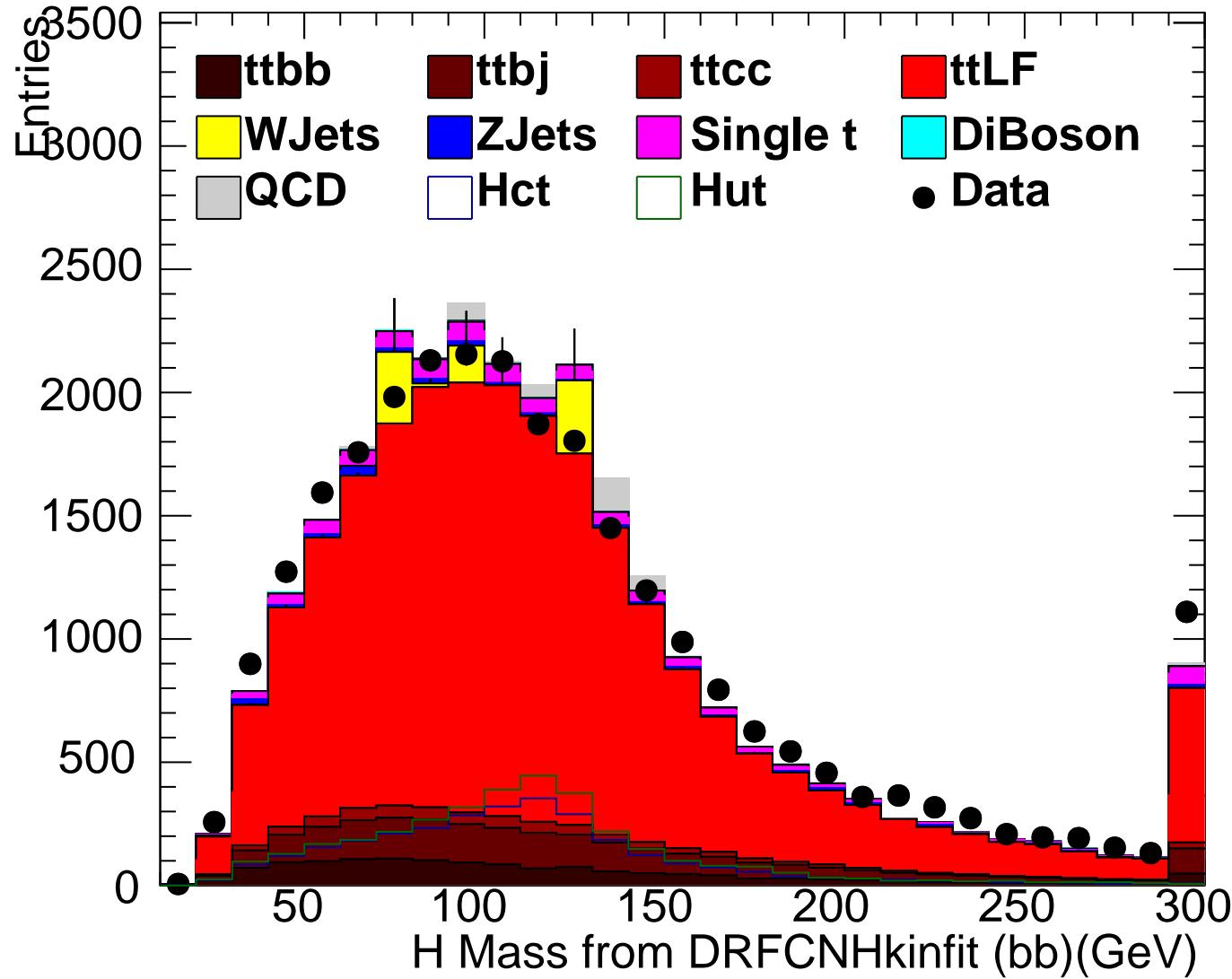


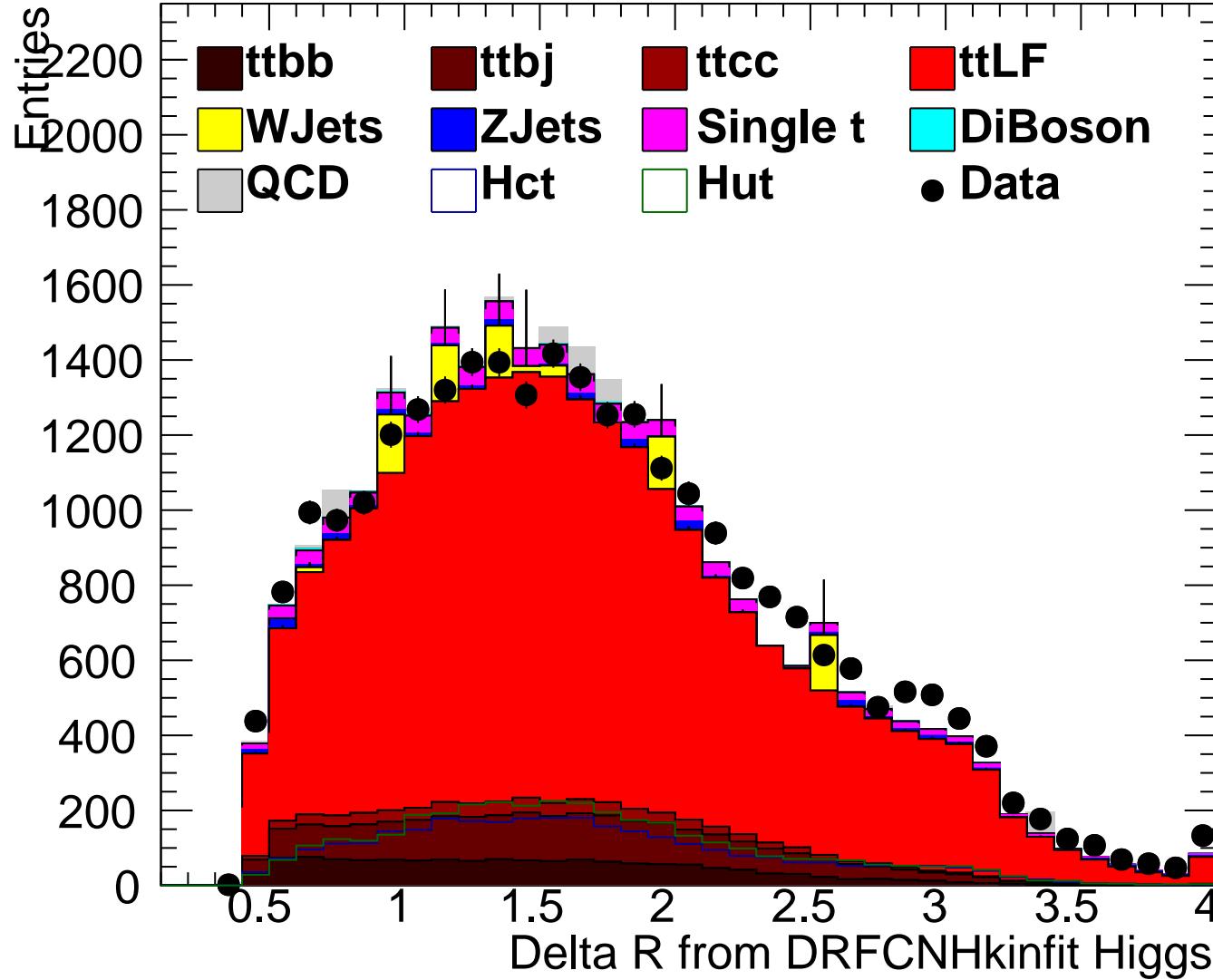


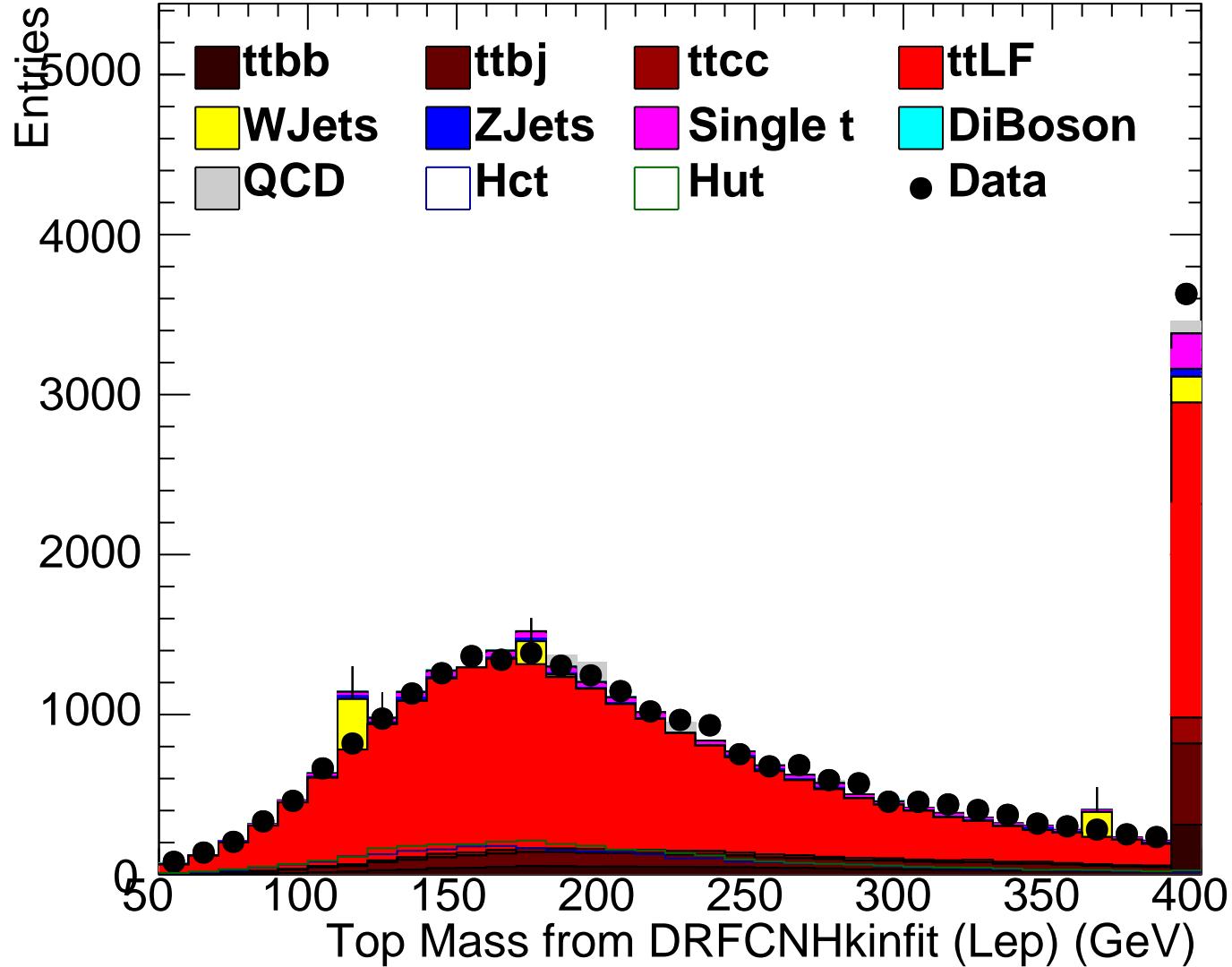


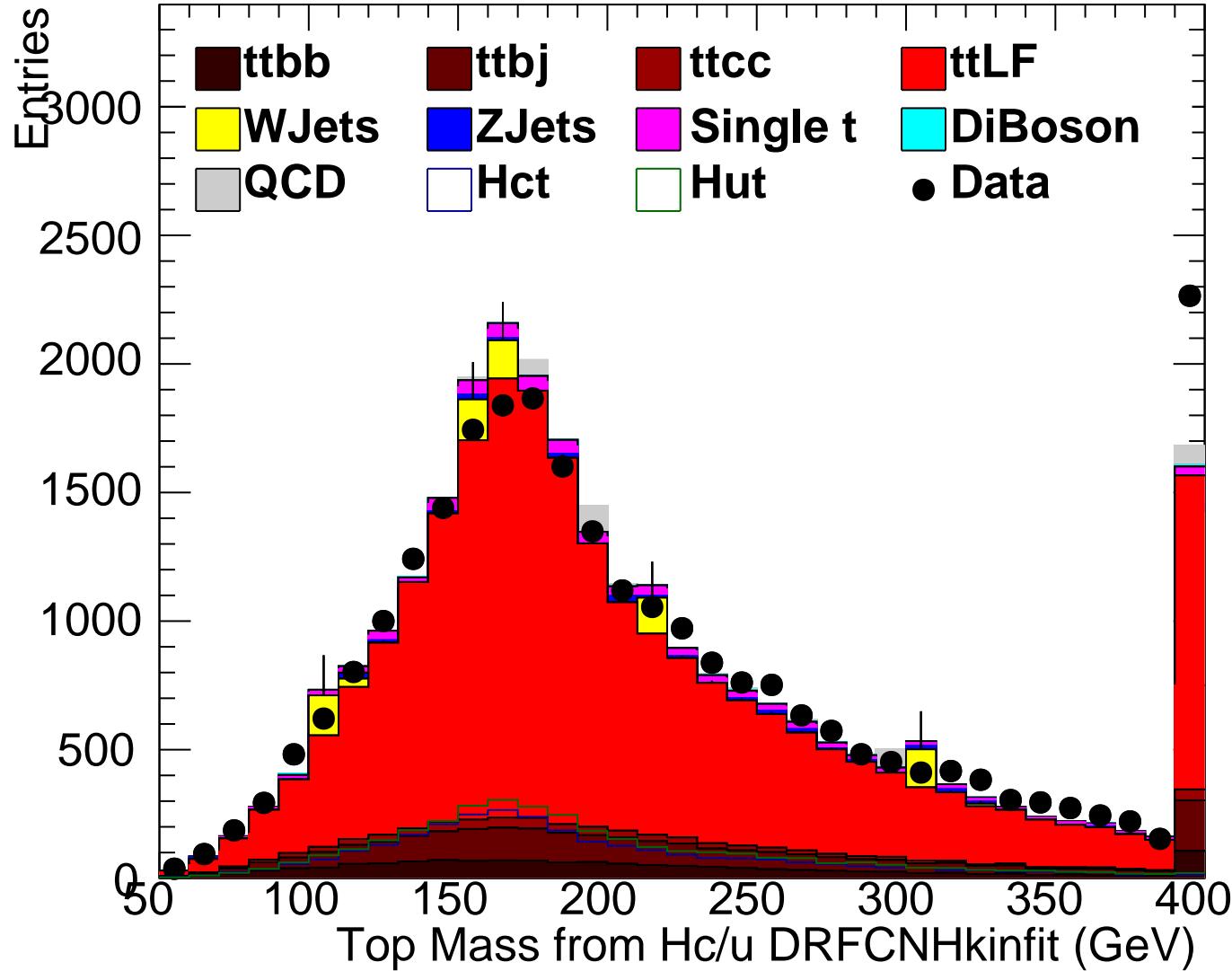
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 





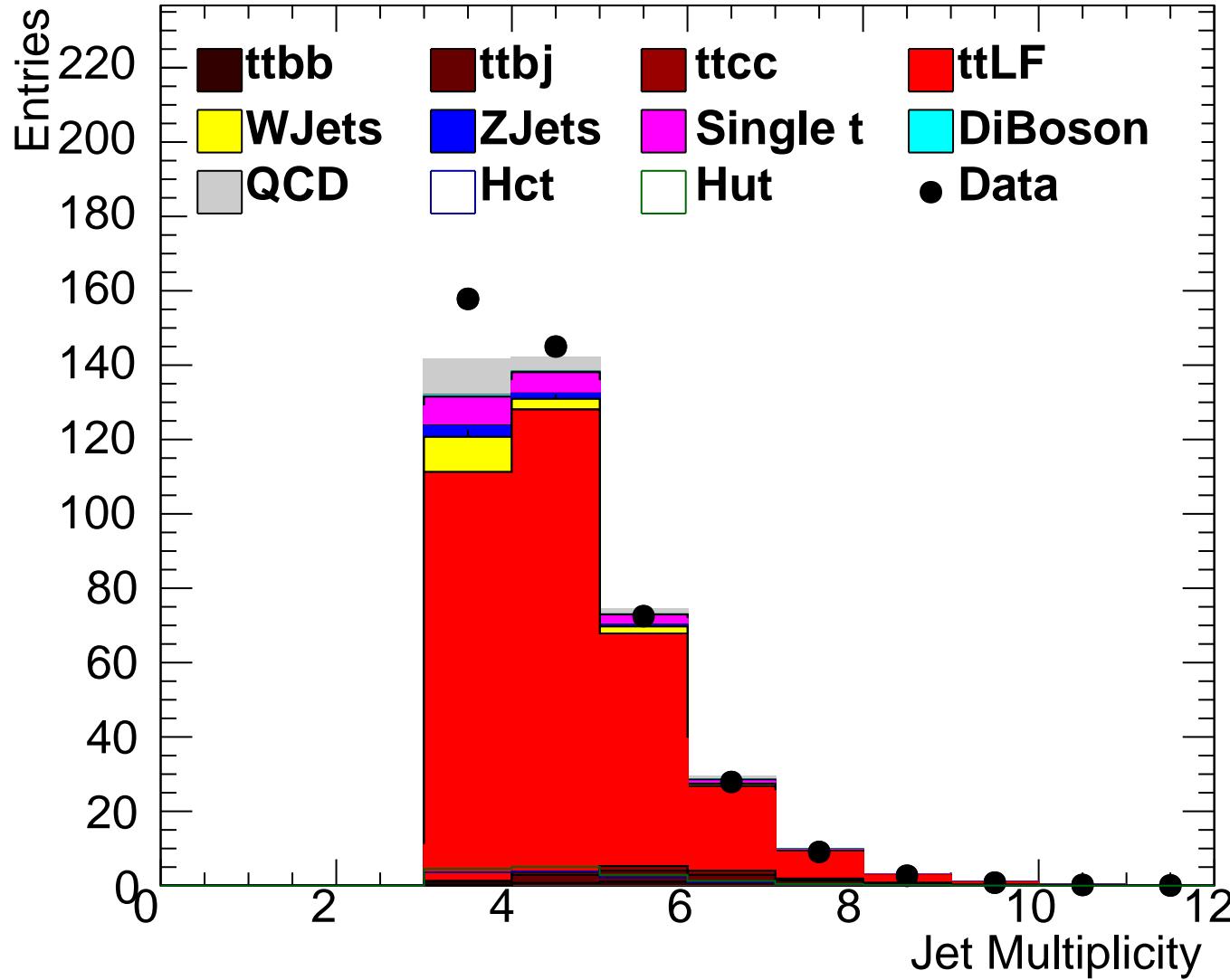
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

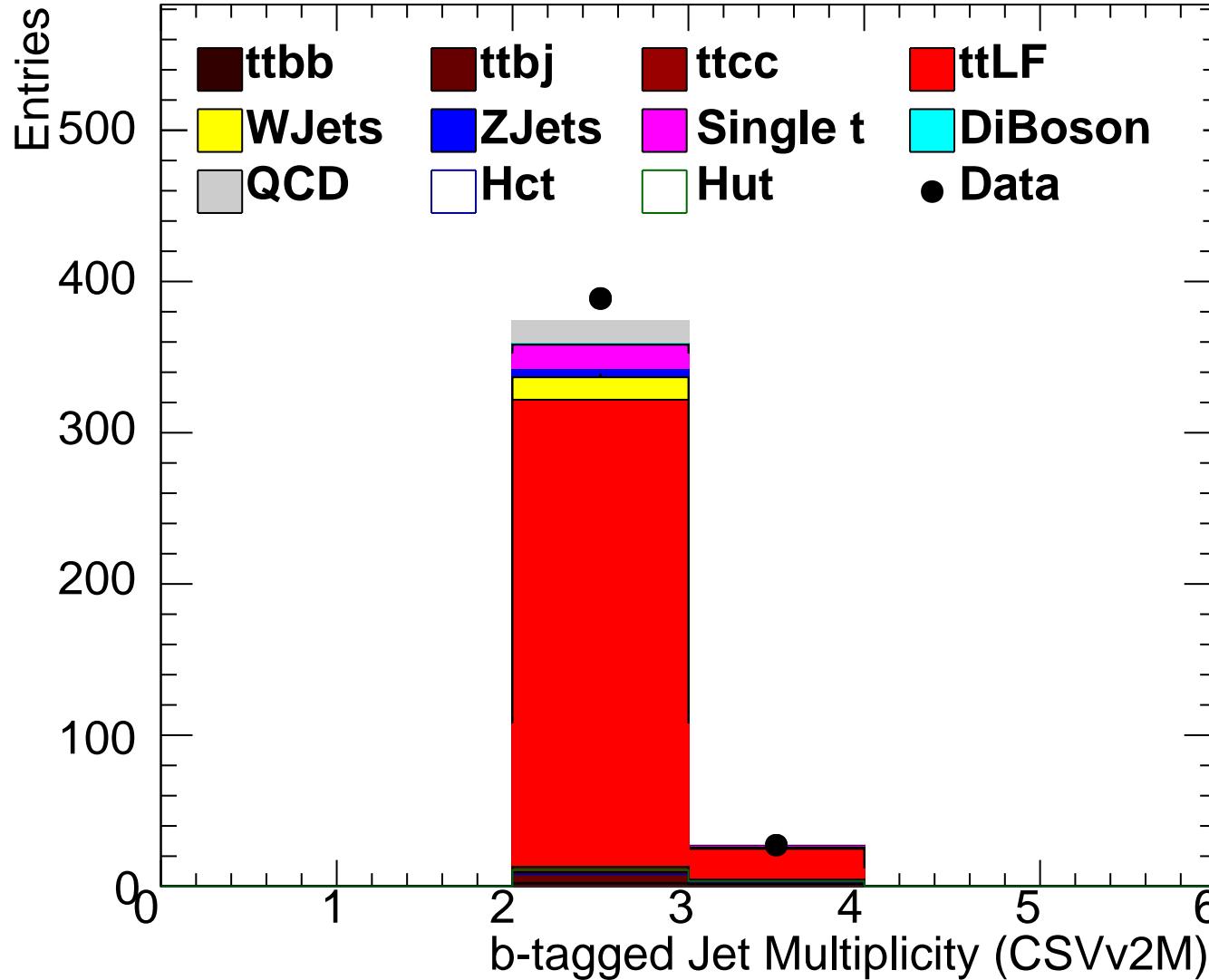
Ch1_S3CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S4

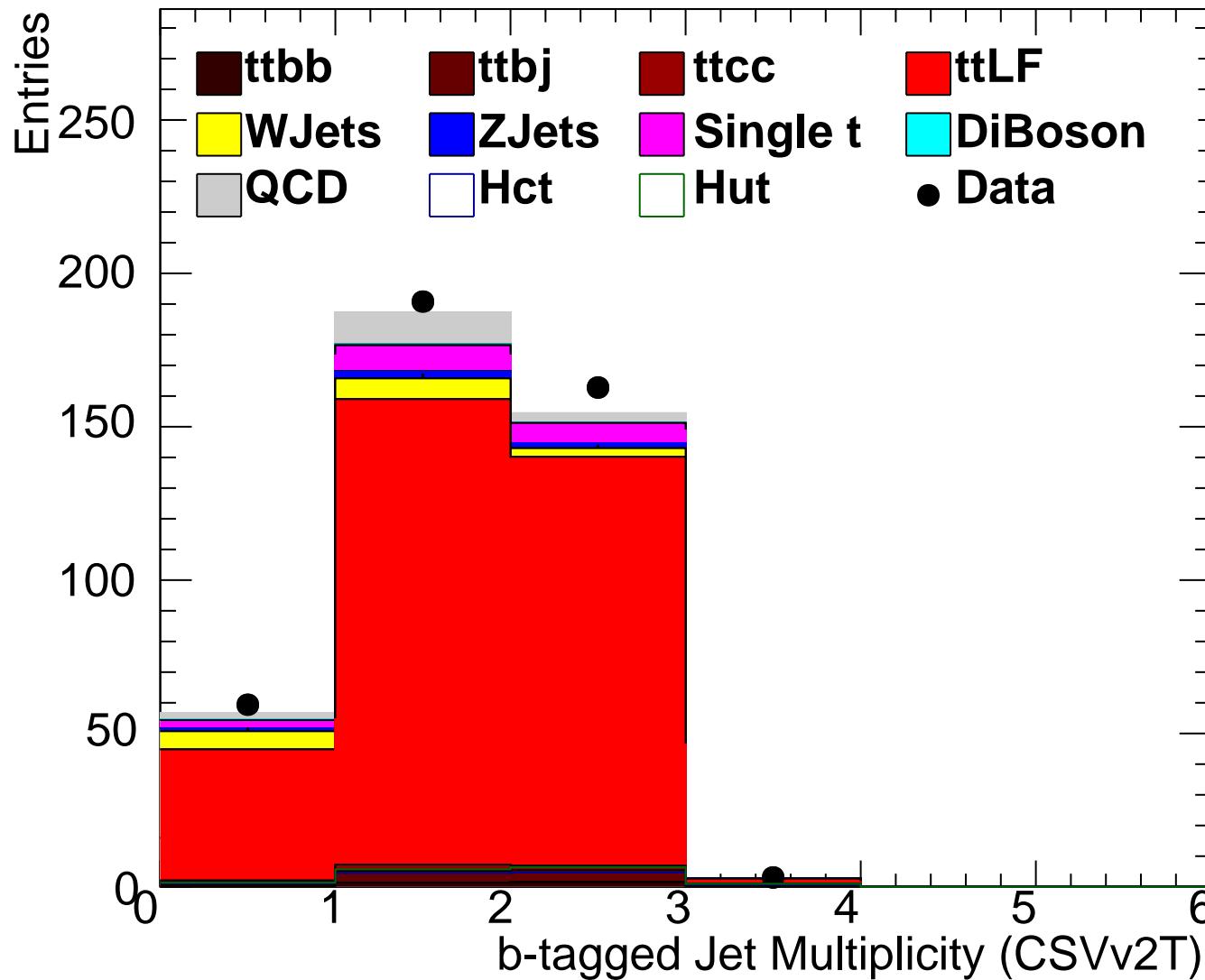
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

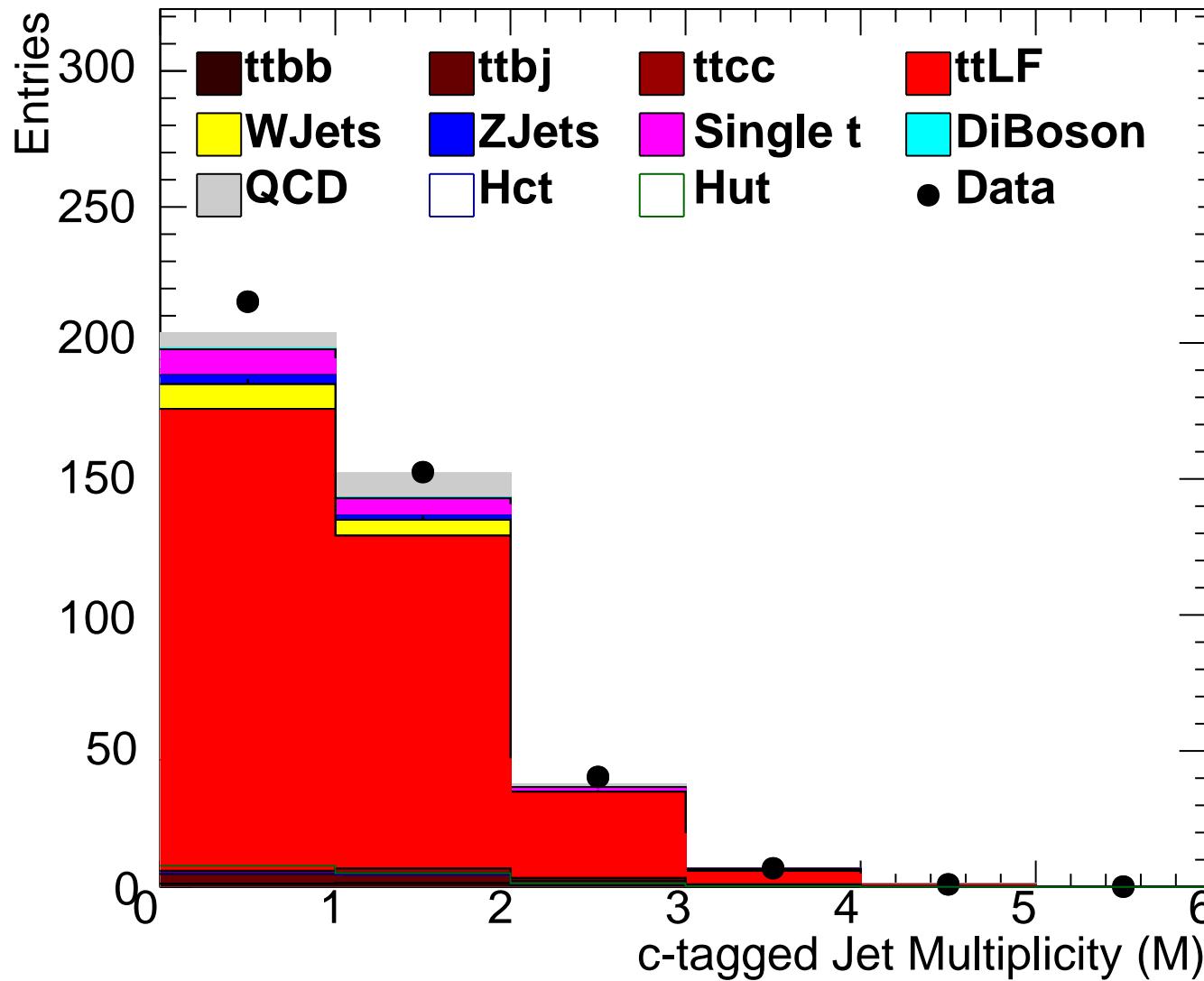
Ch1_S4

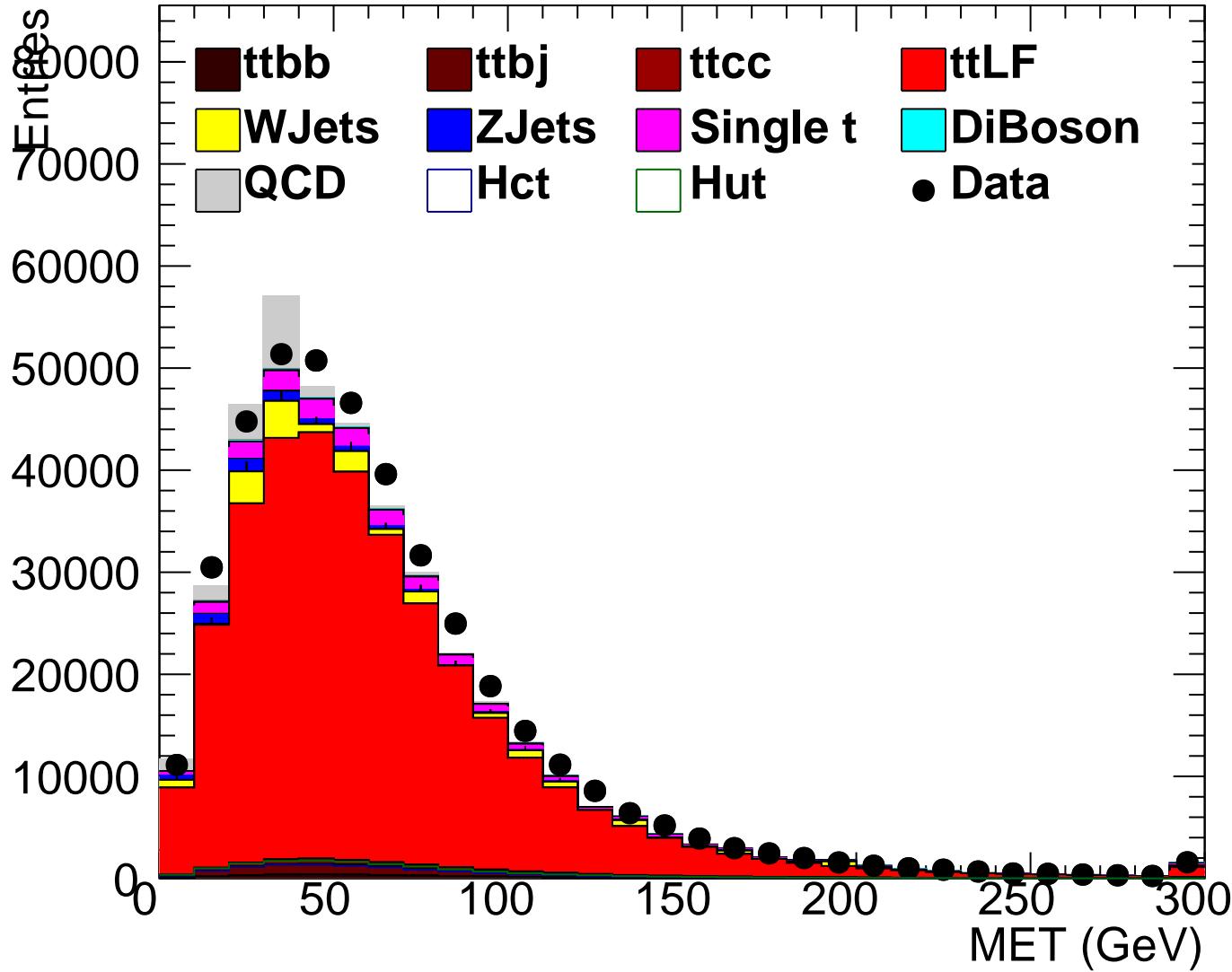
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

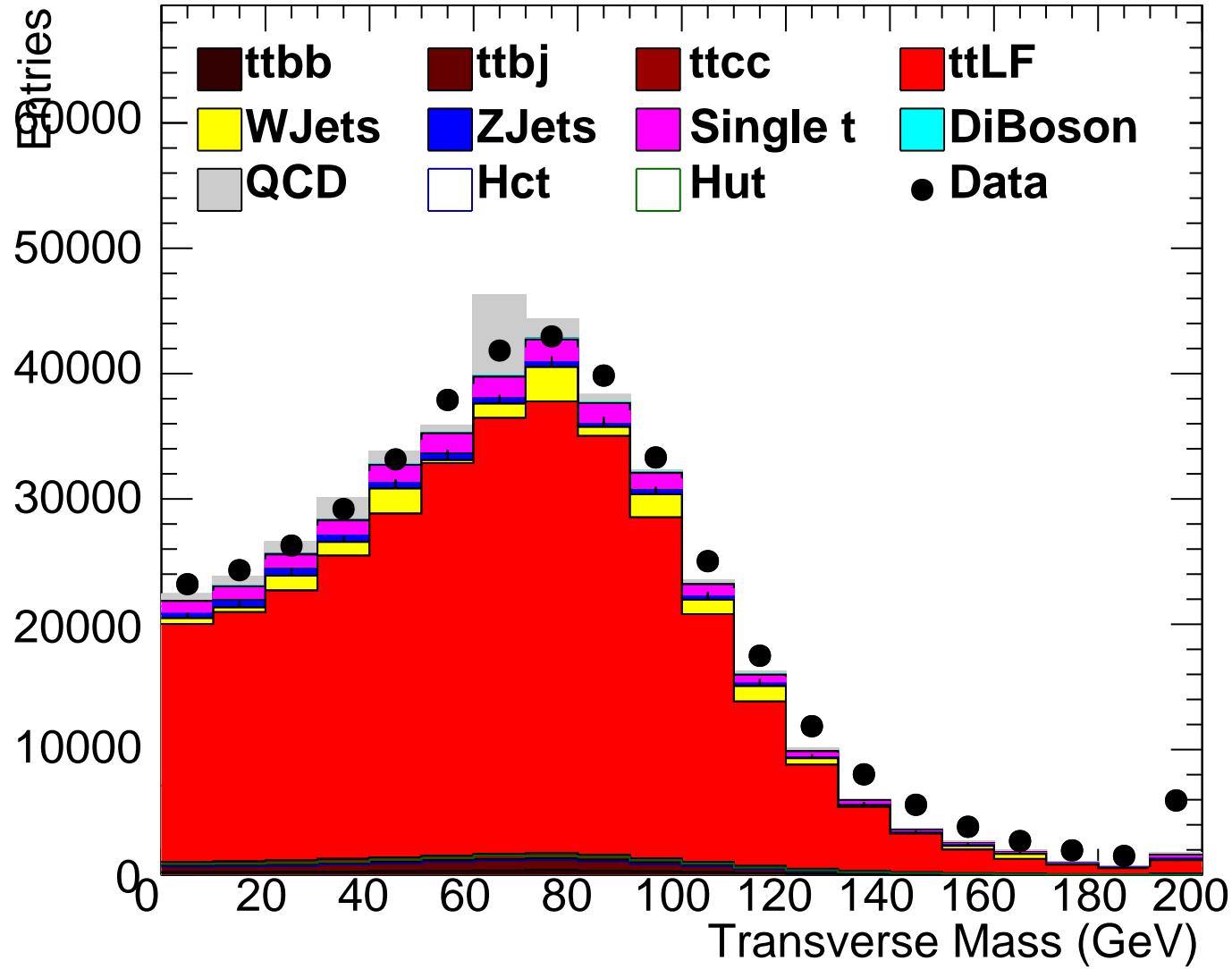


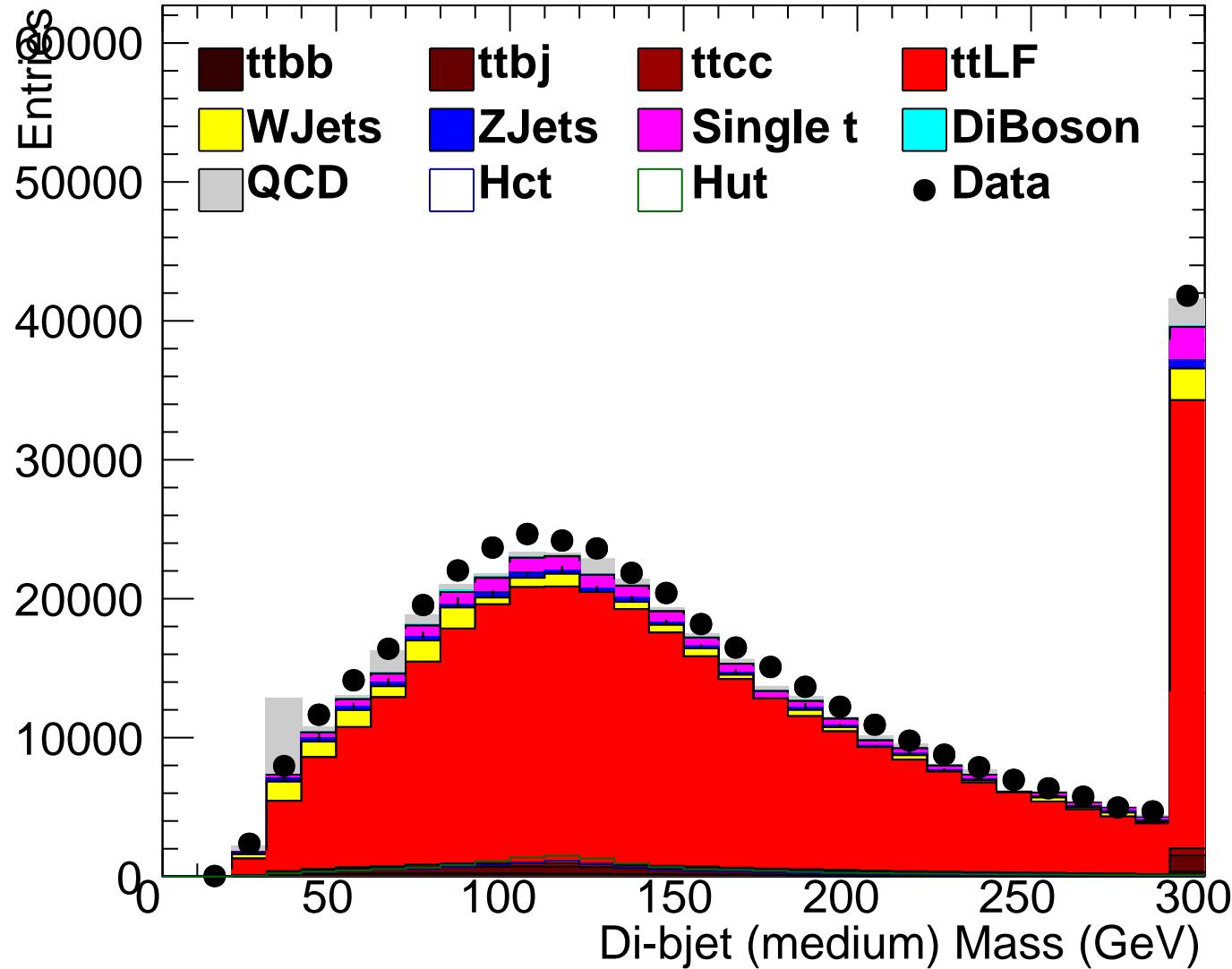
Ch1_S4

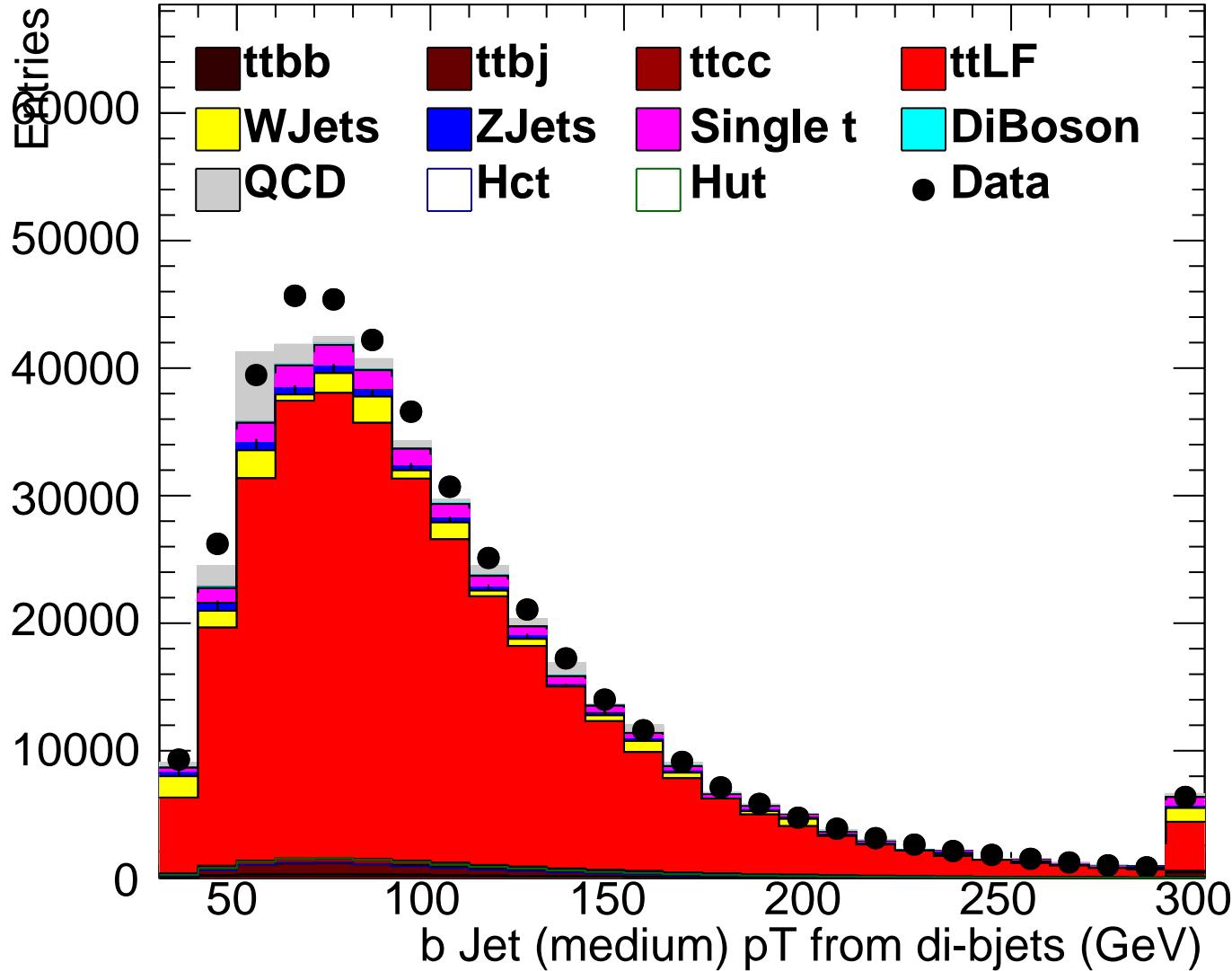
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

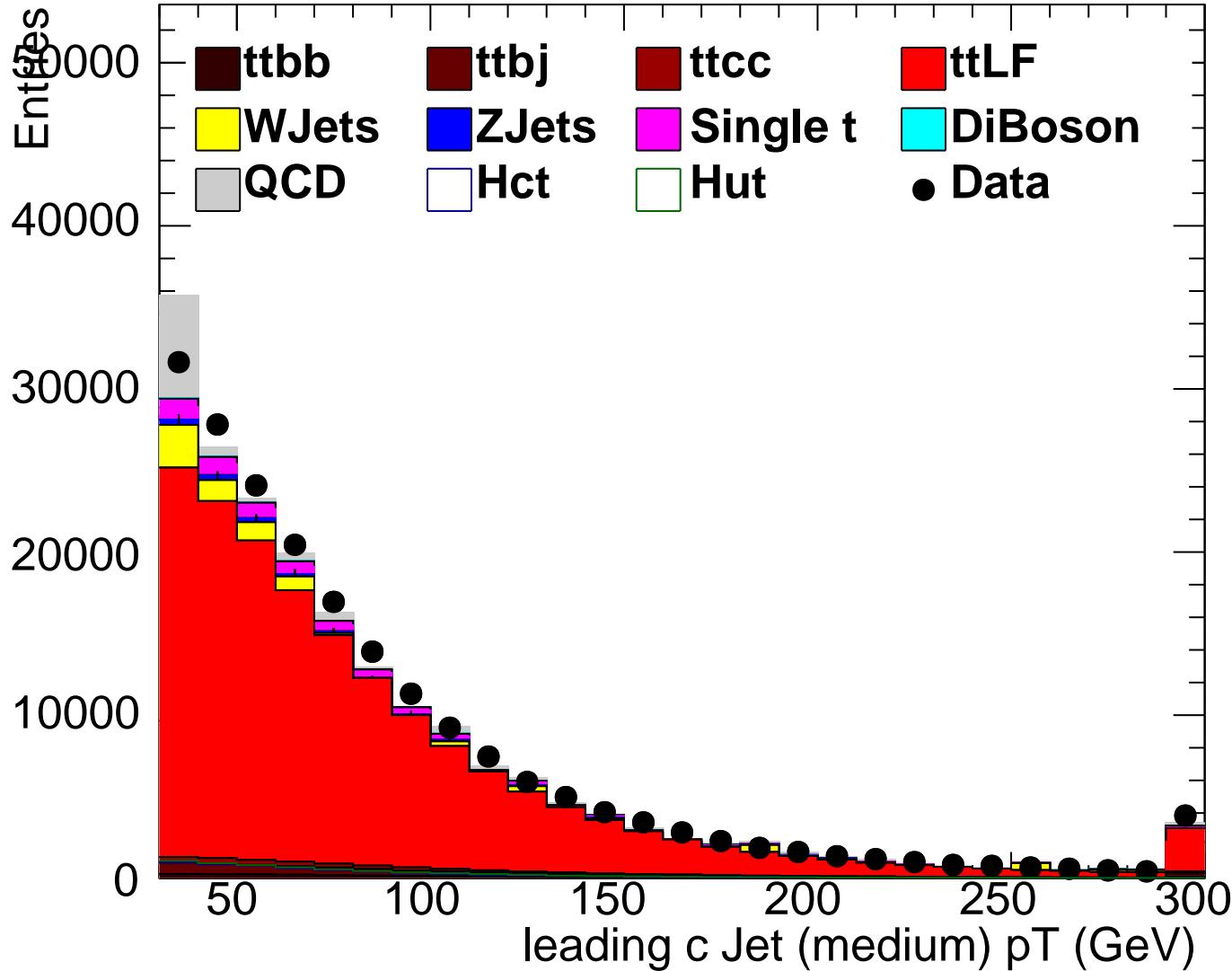


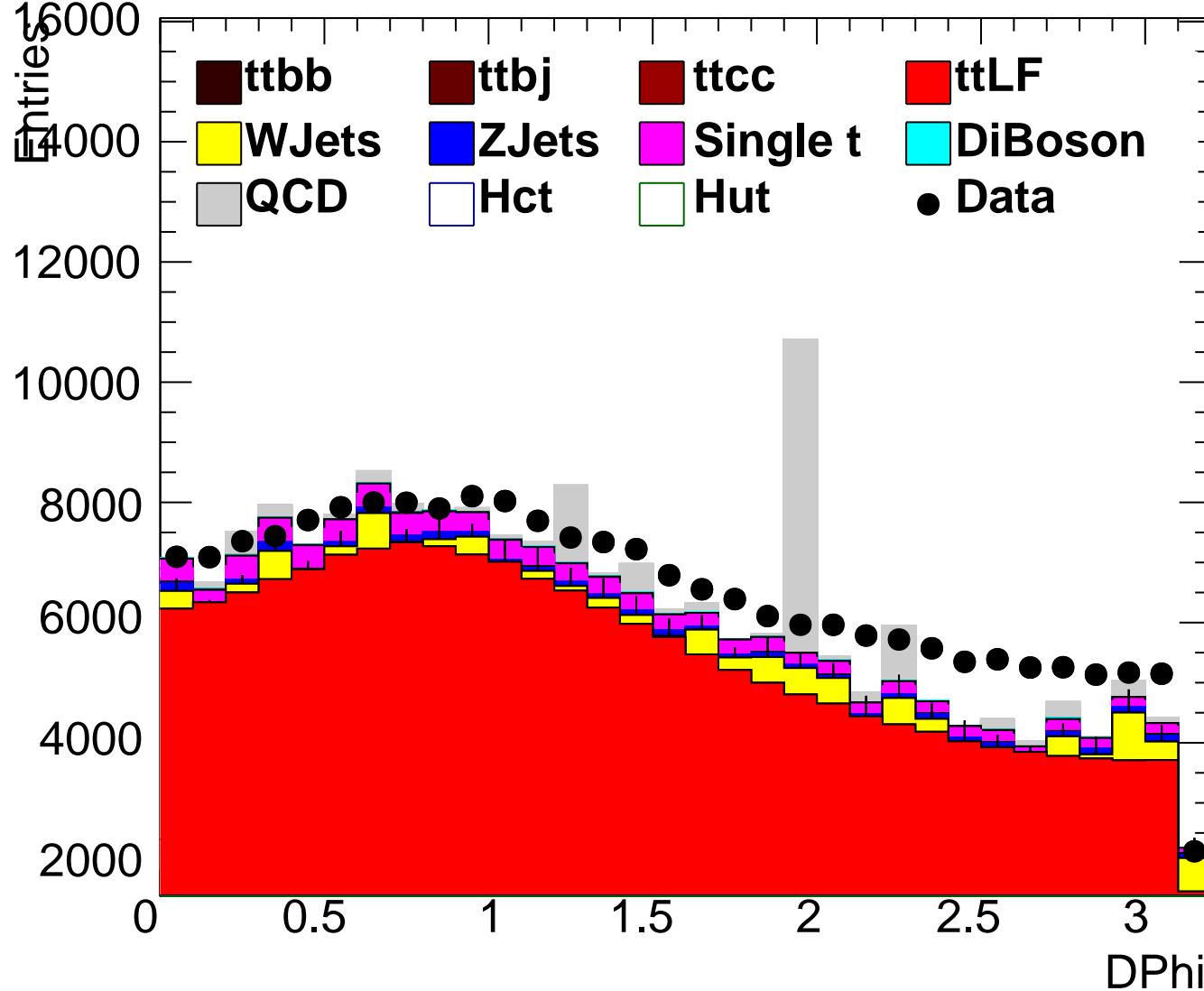


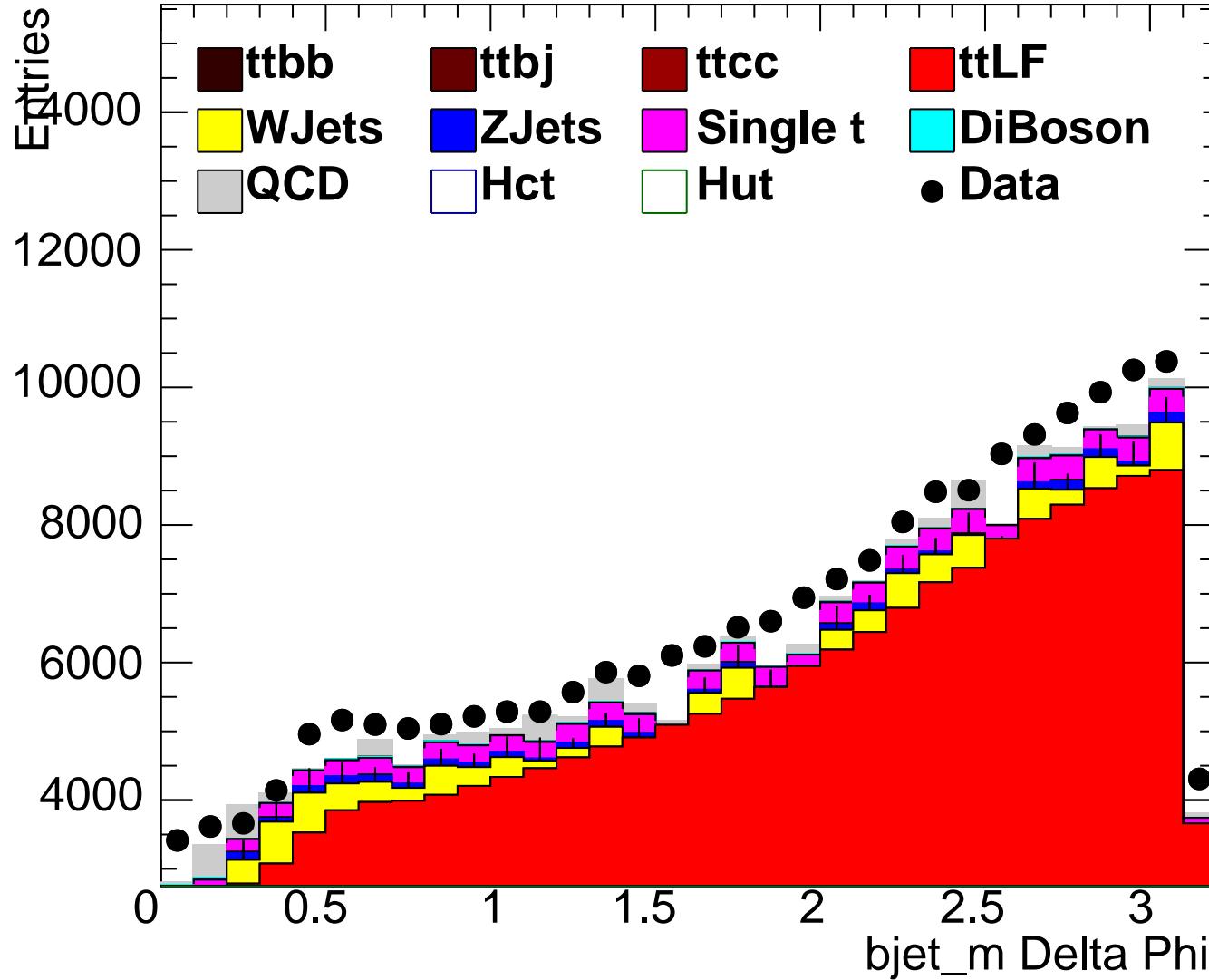


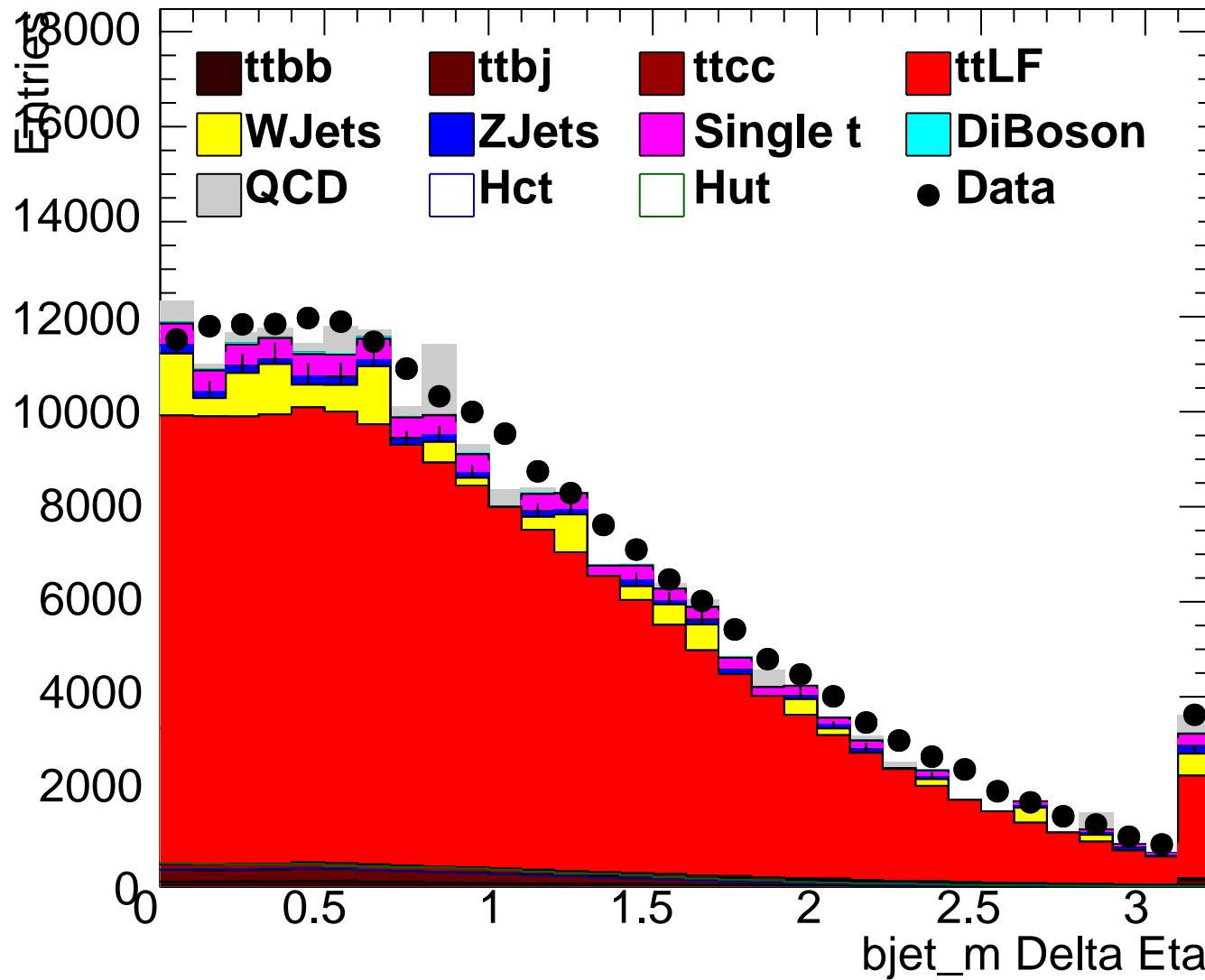
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

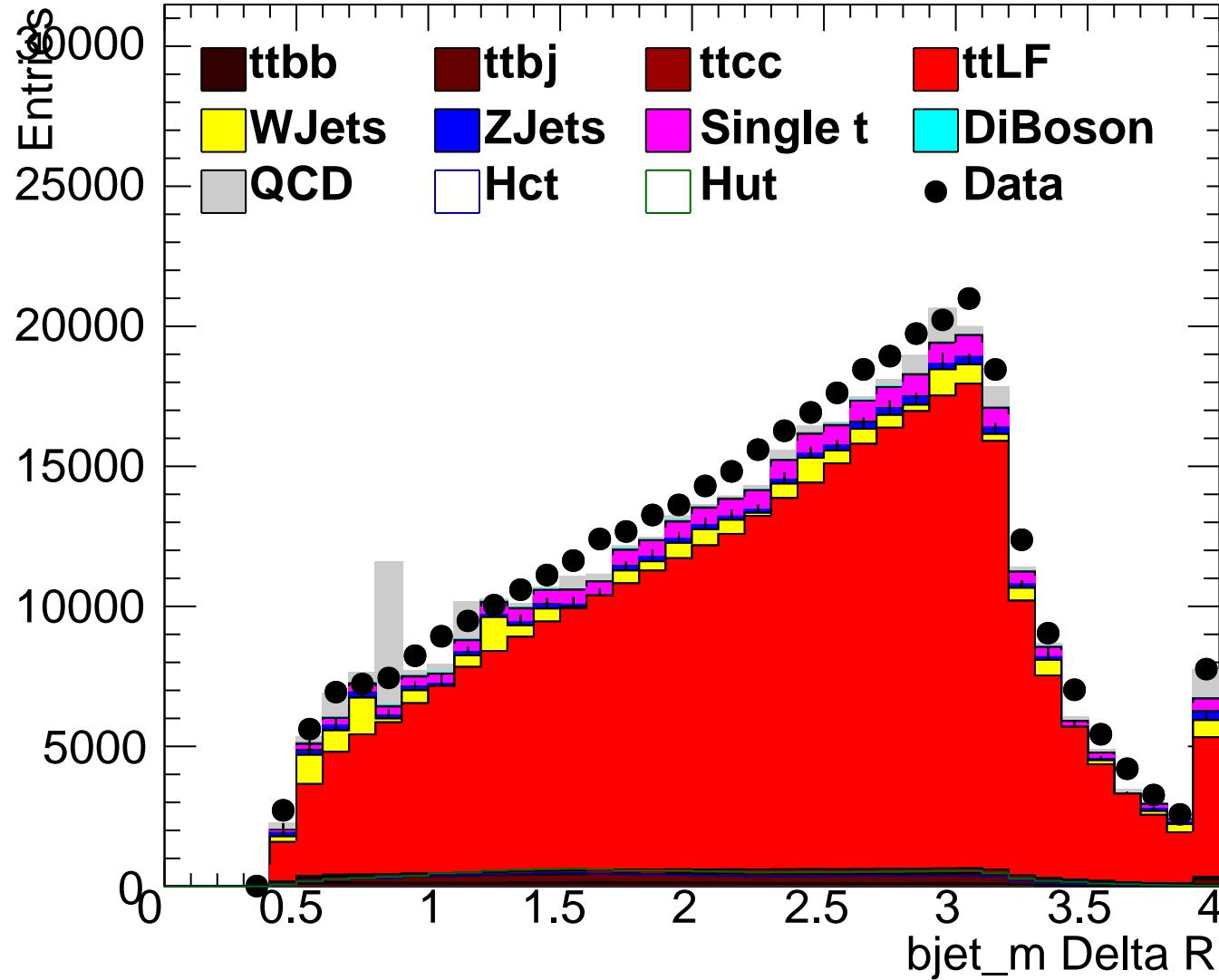


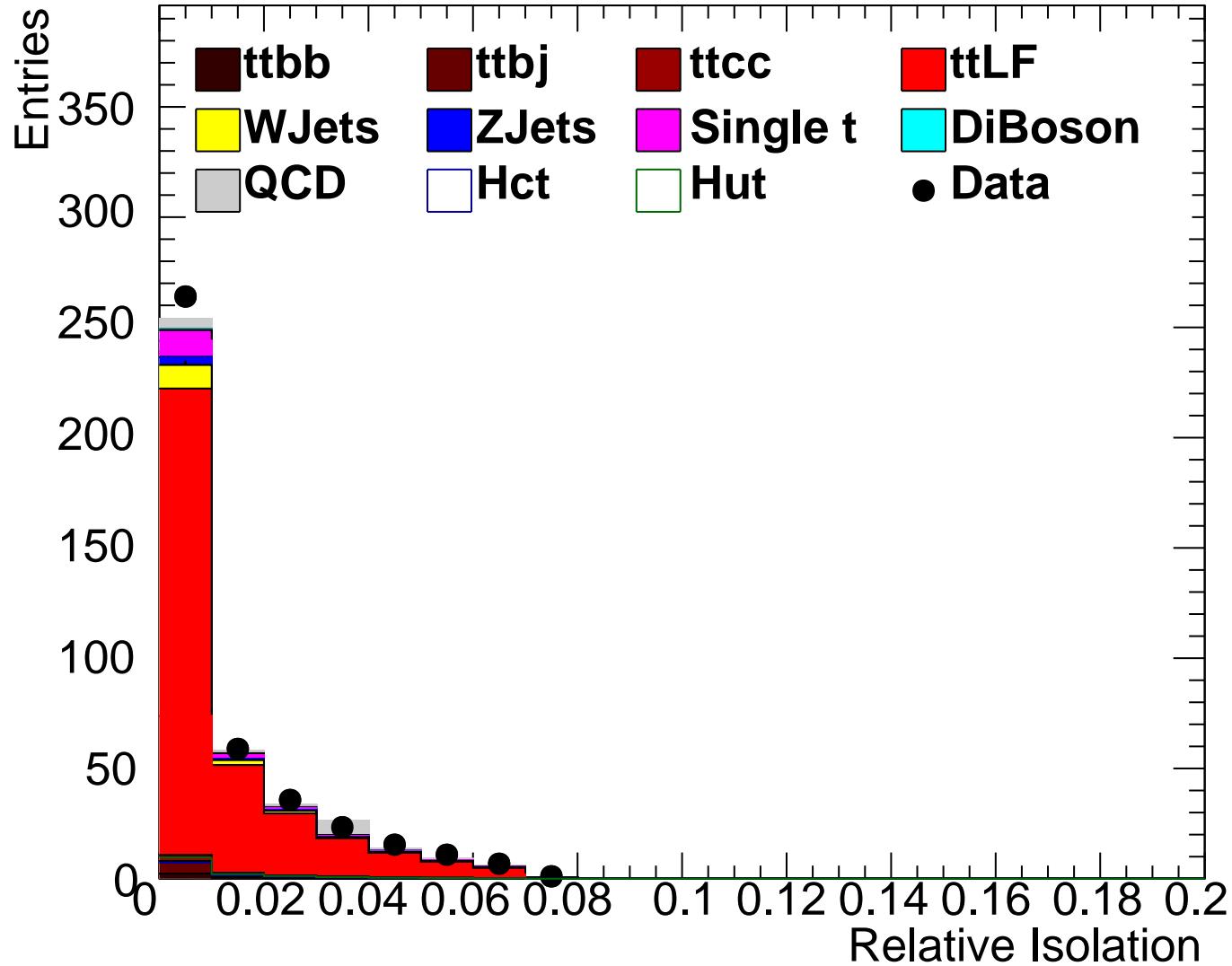
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

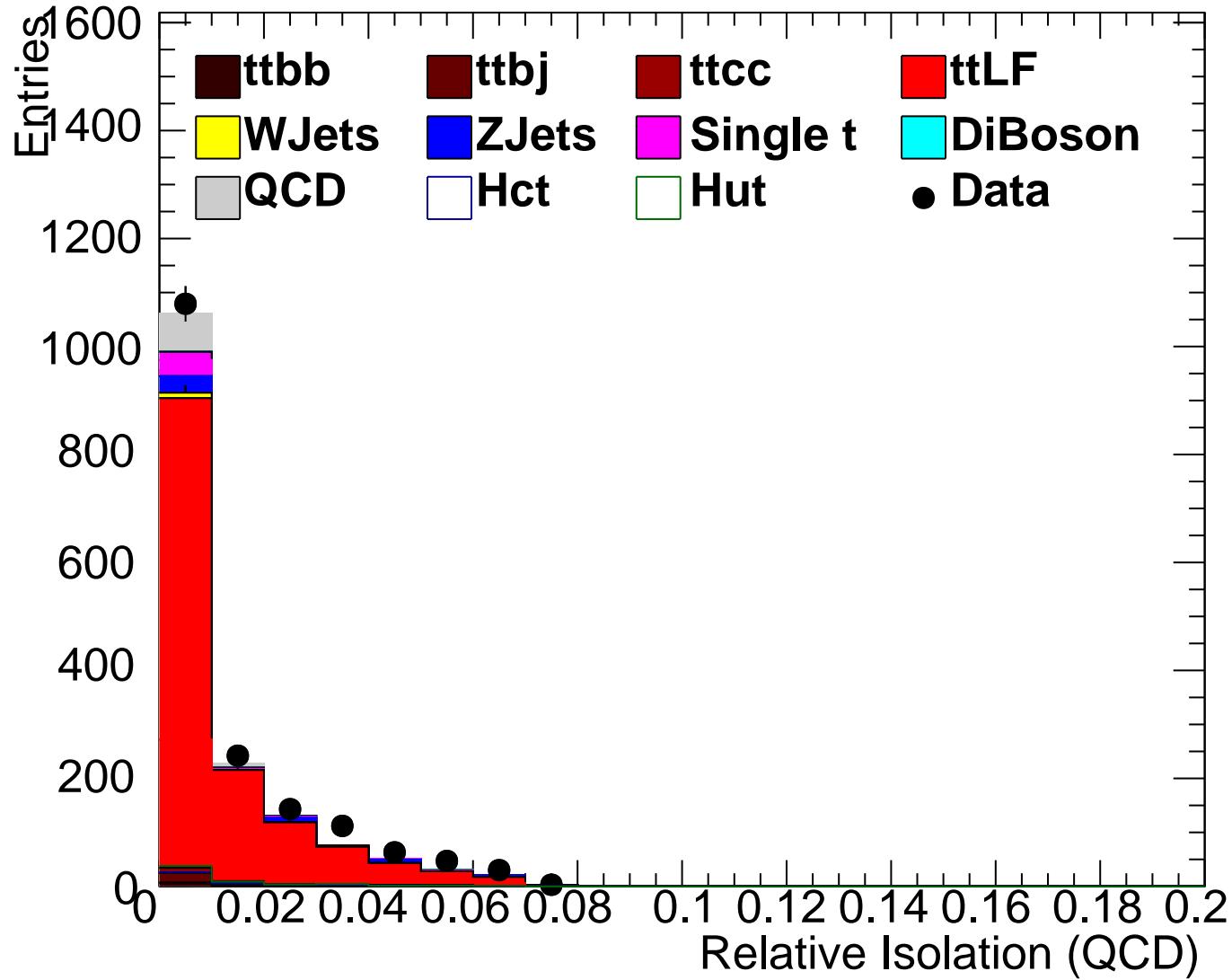
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

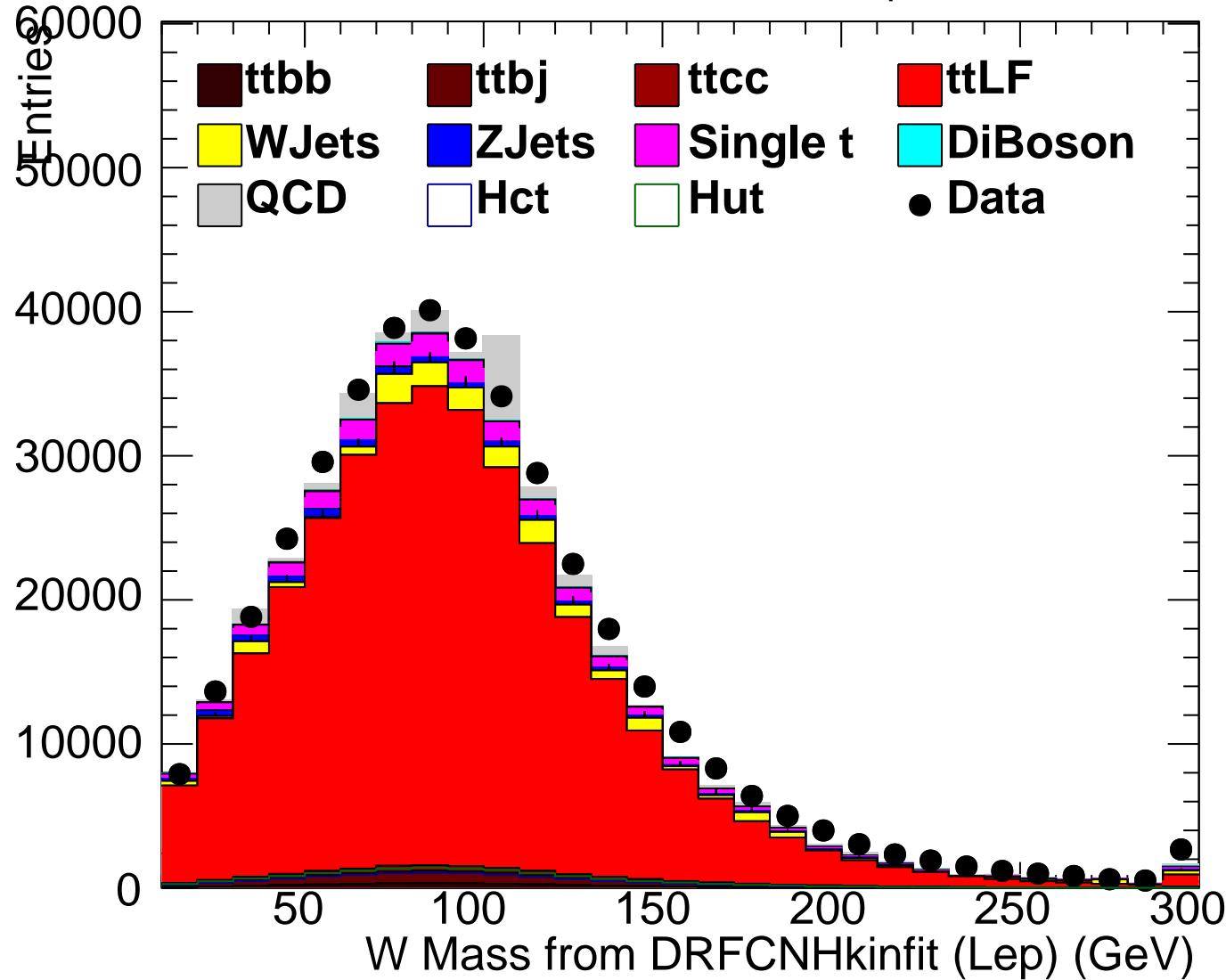


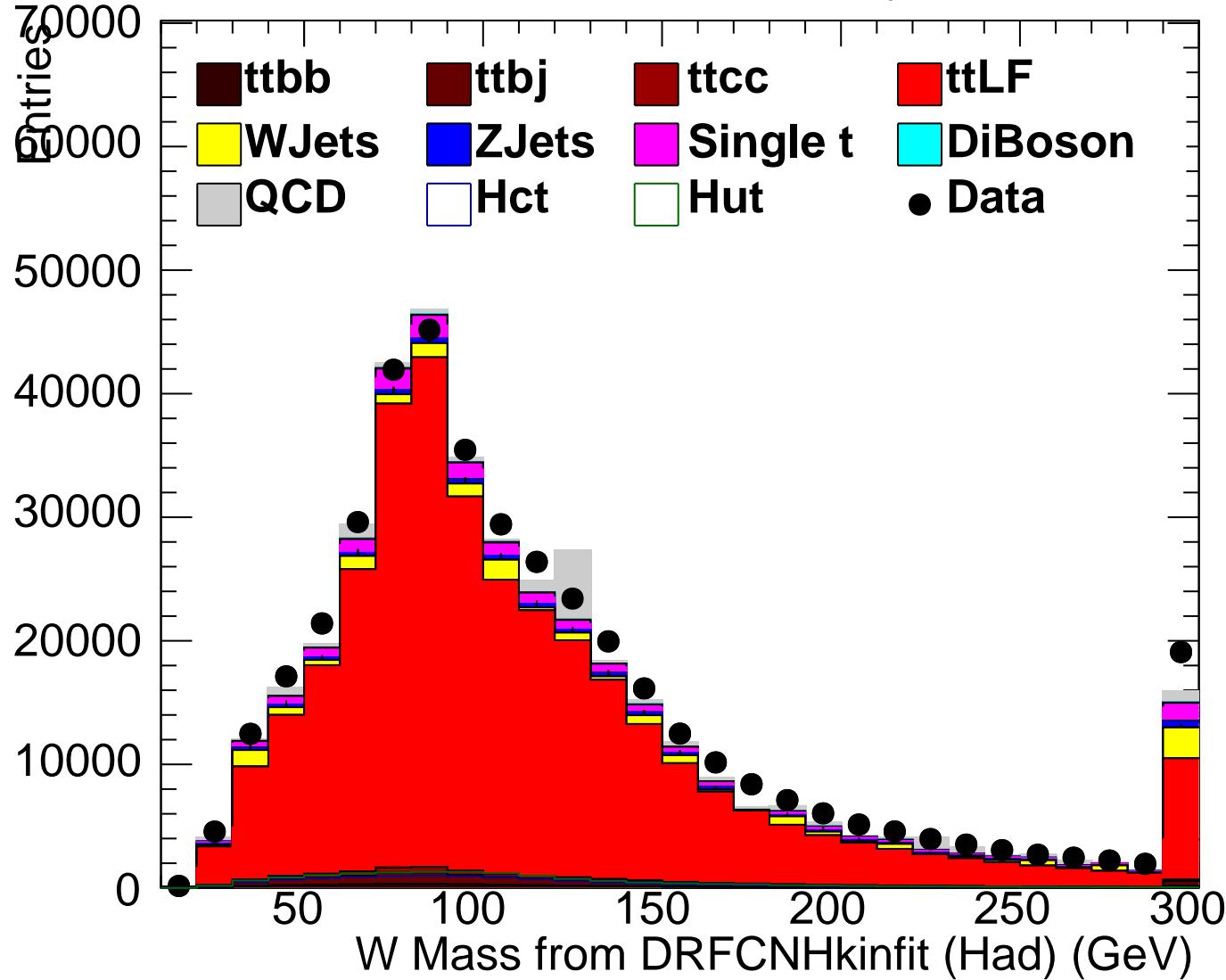


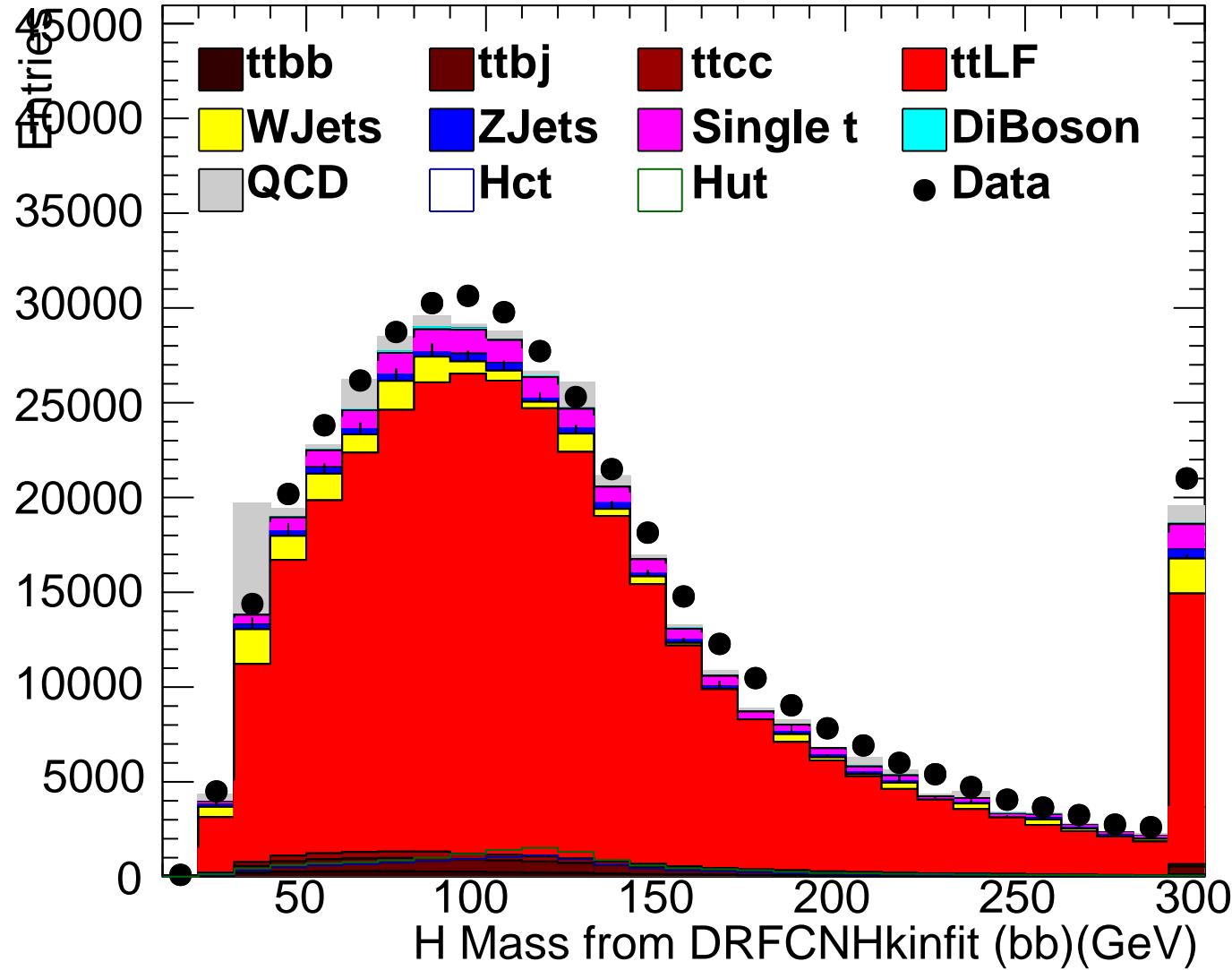


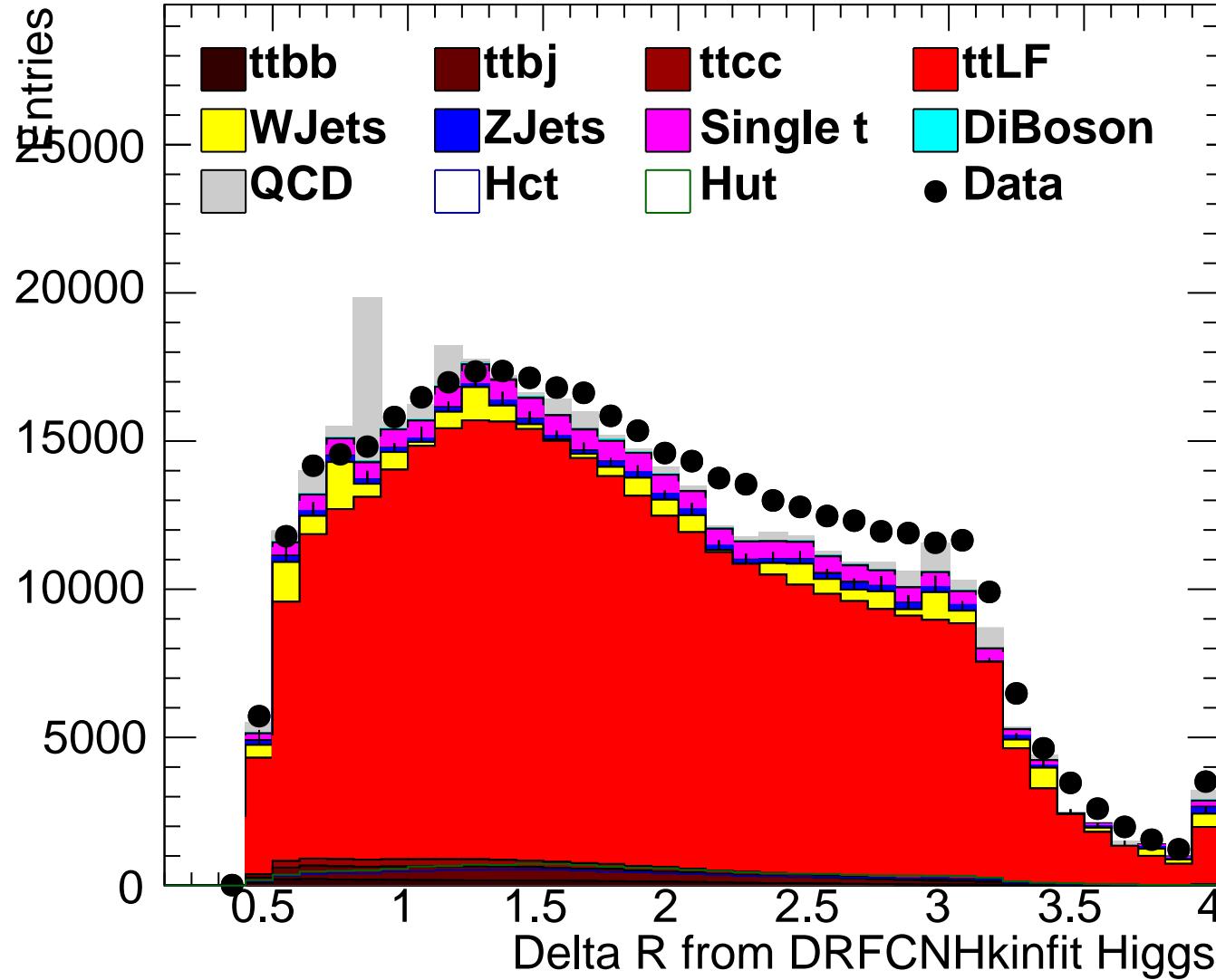
Ch1_S4x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

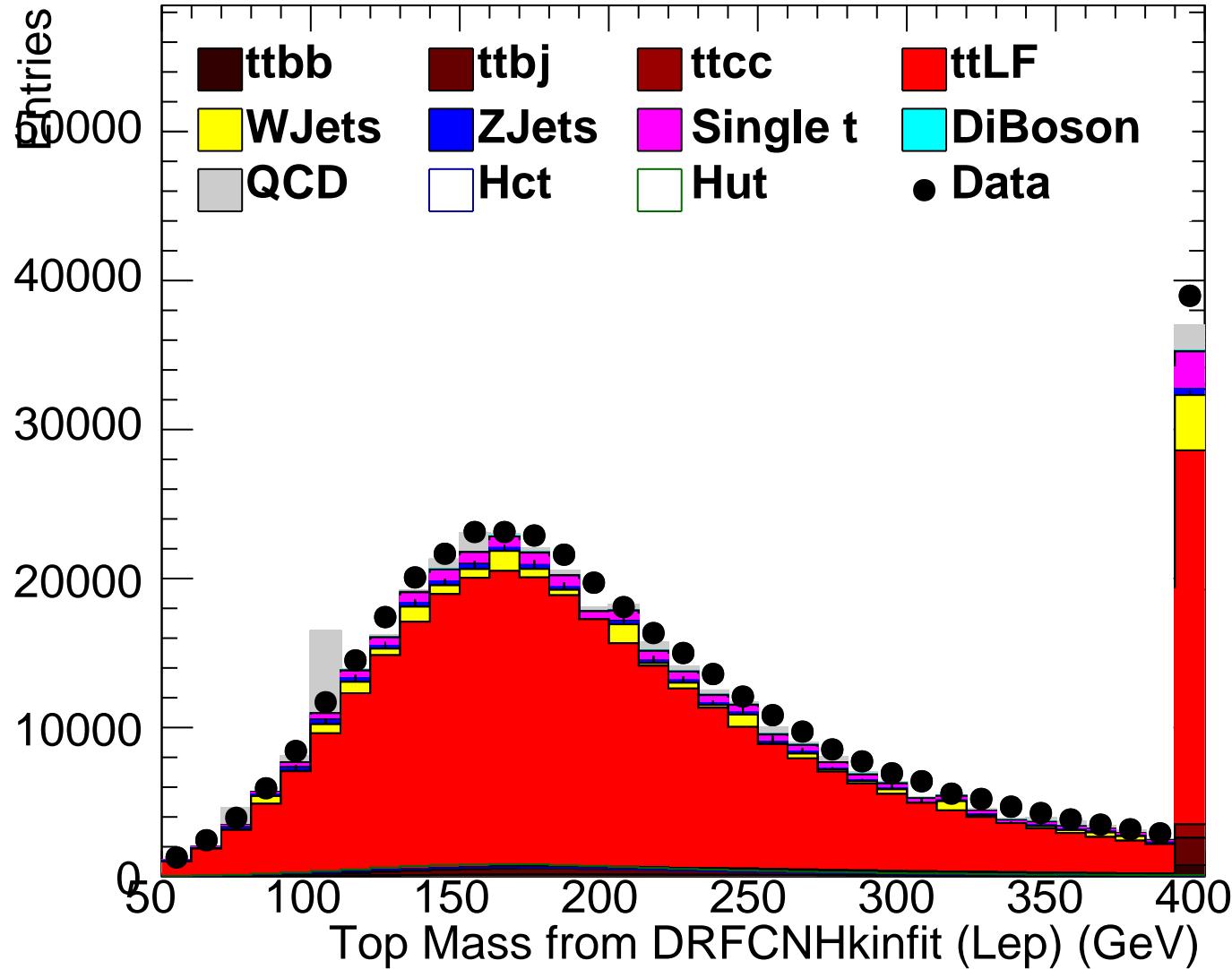


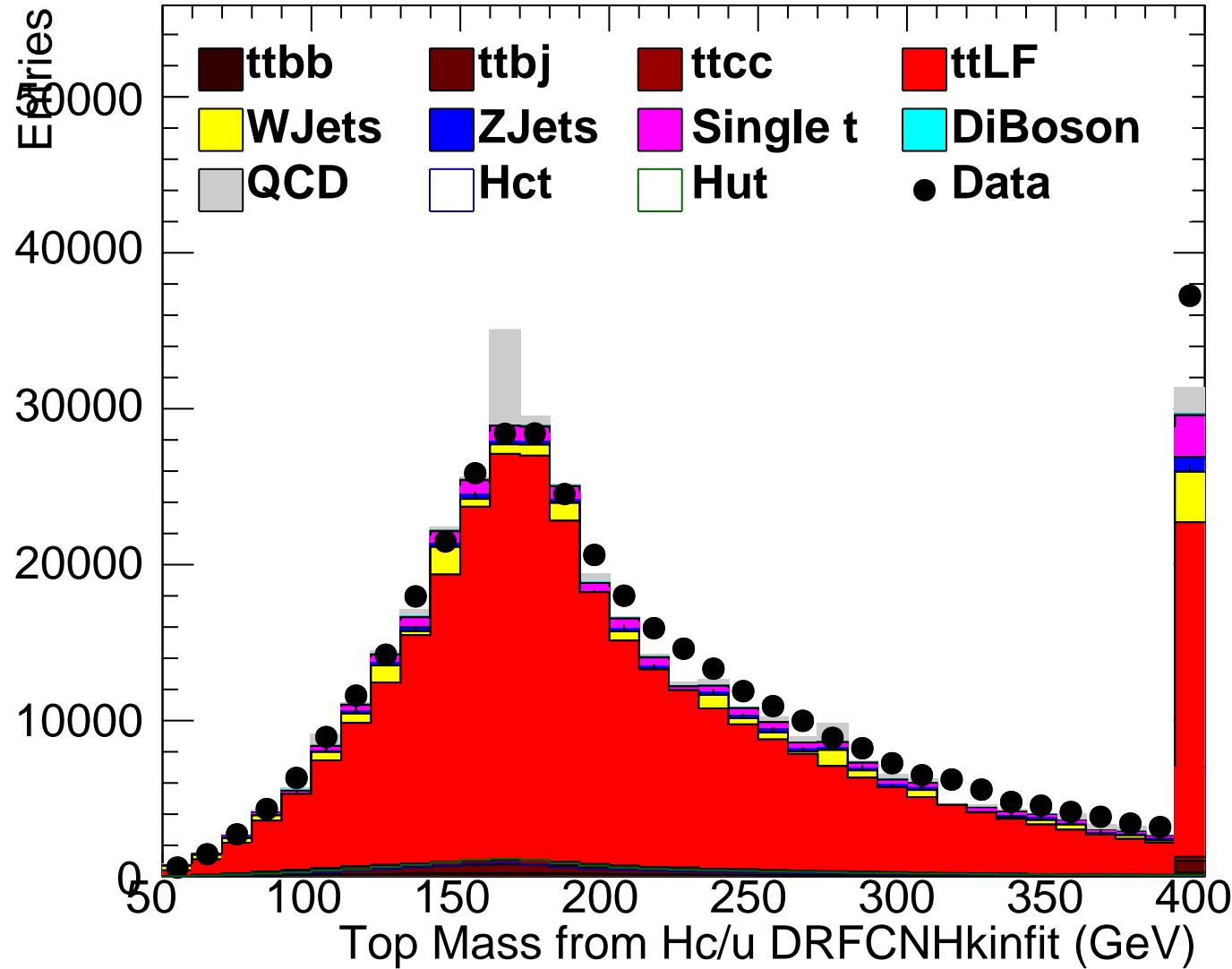
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

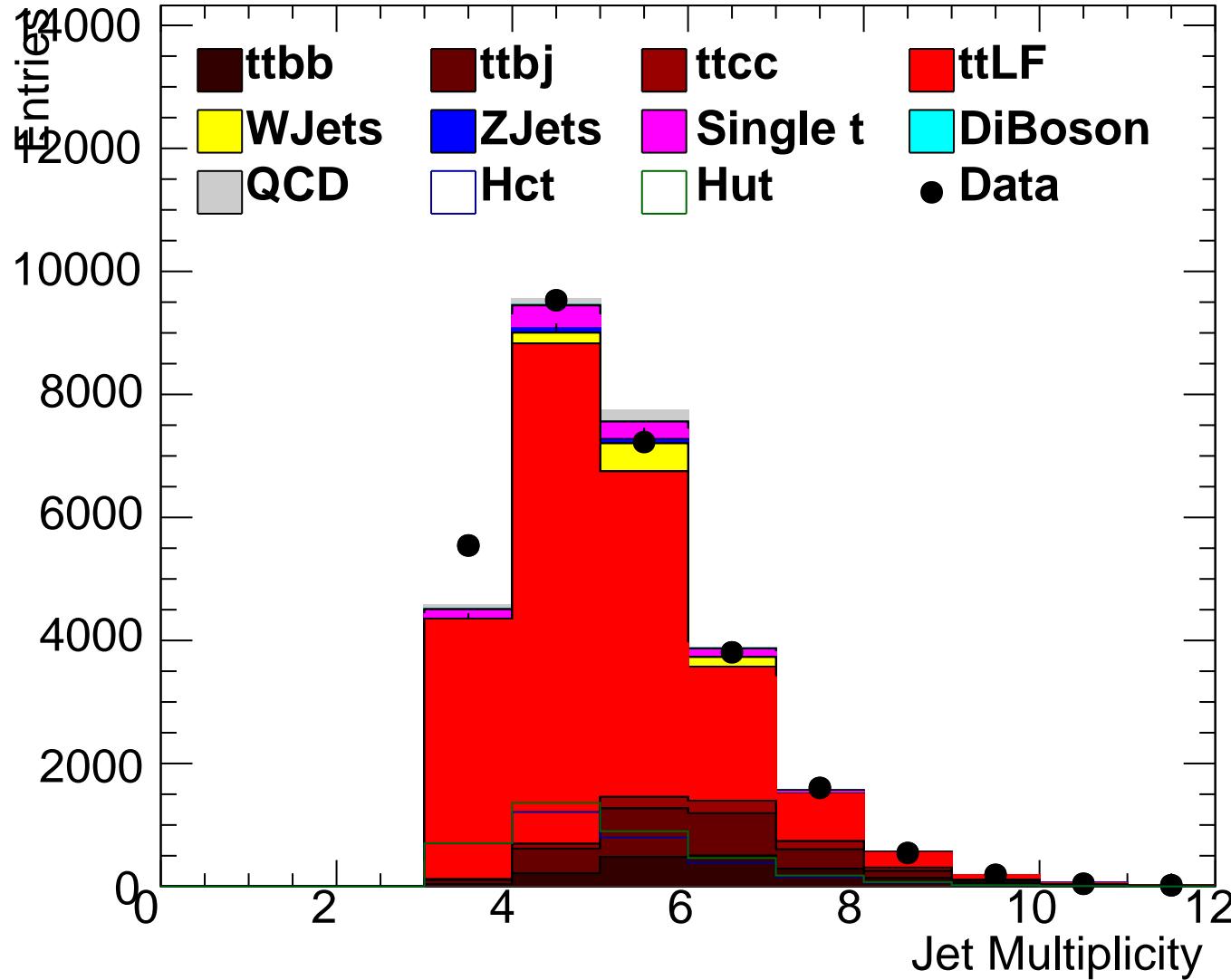
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

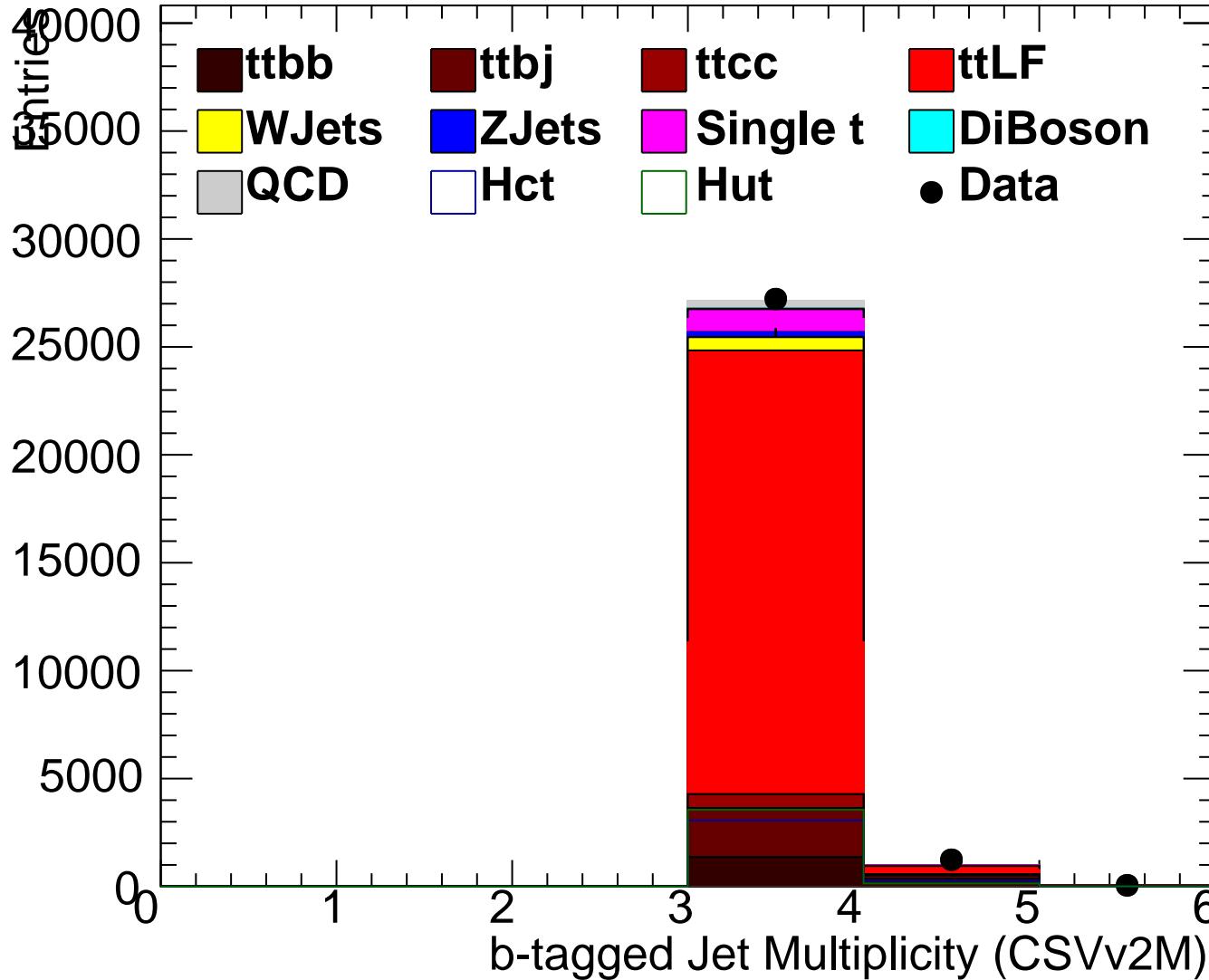
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

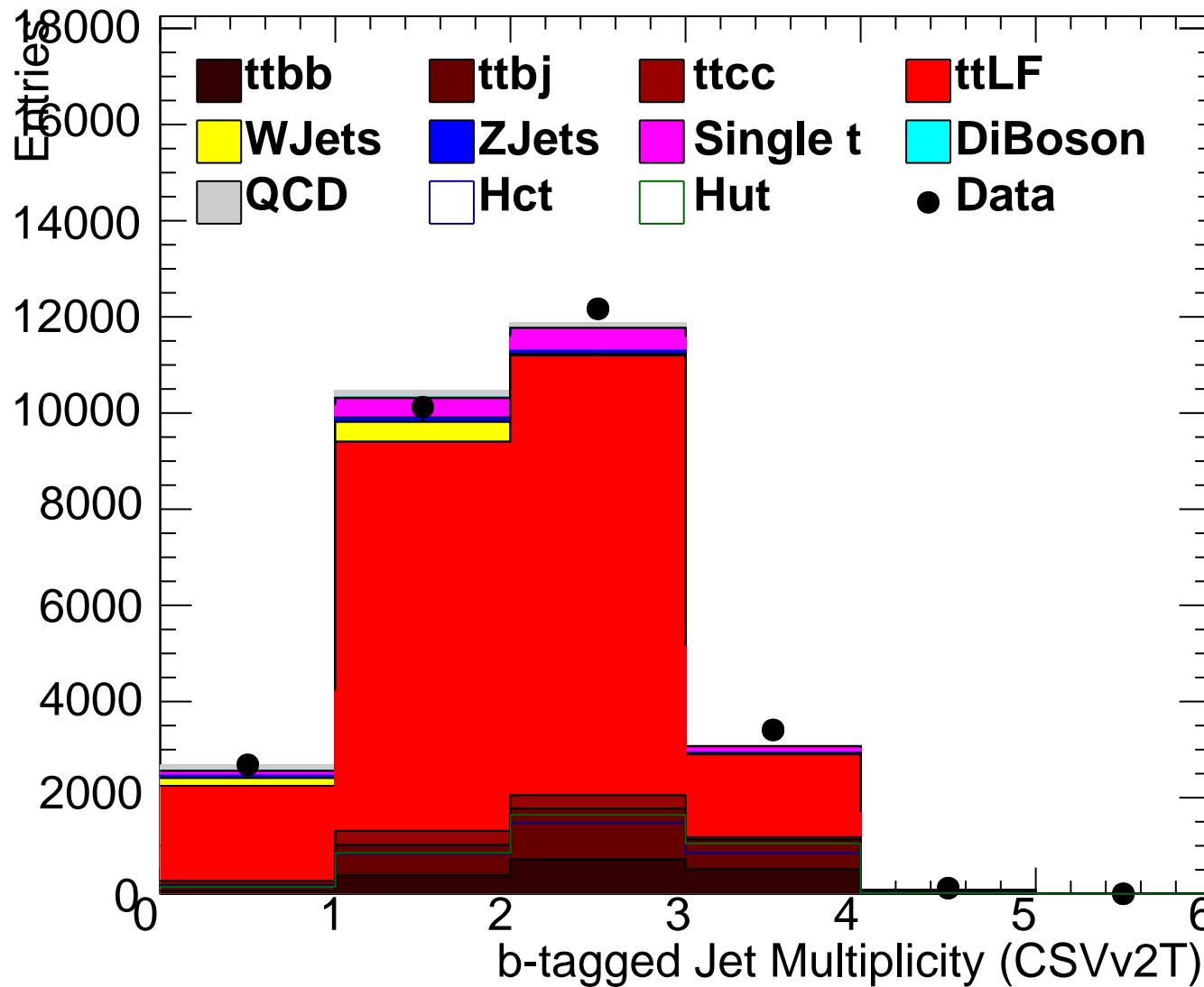
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

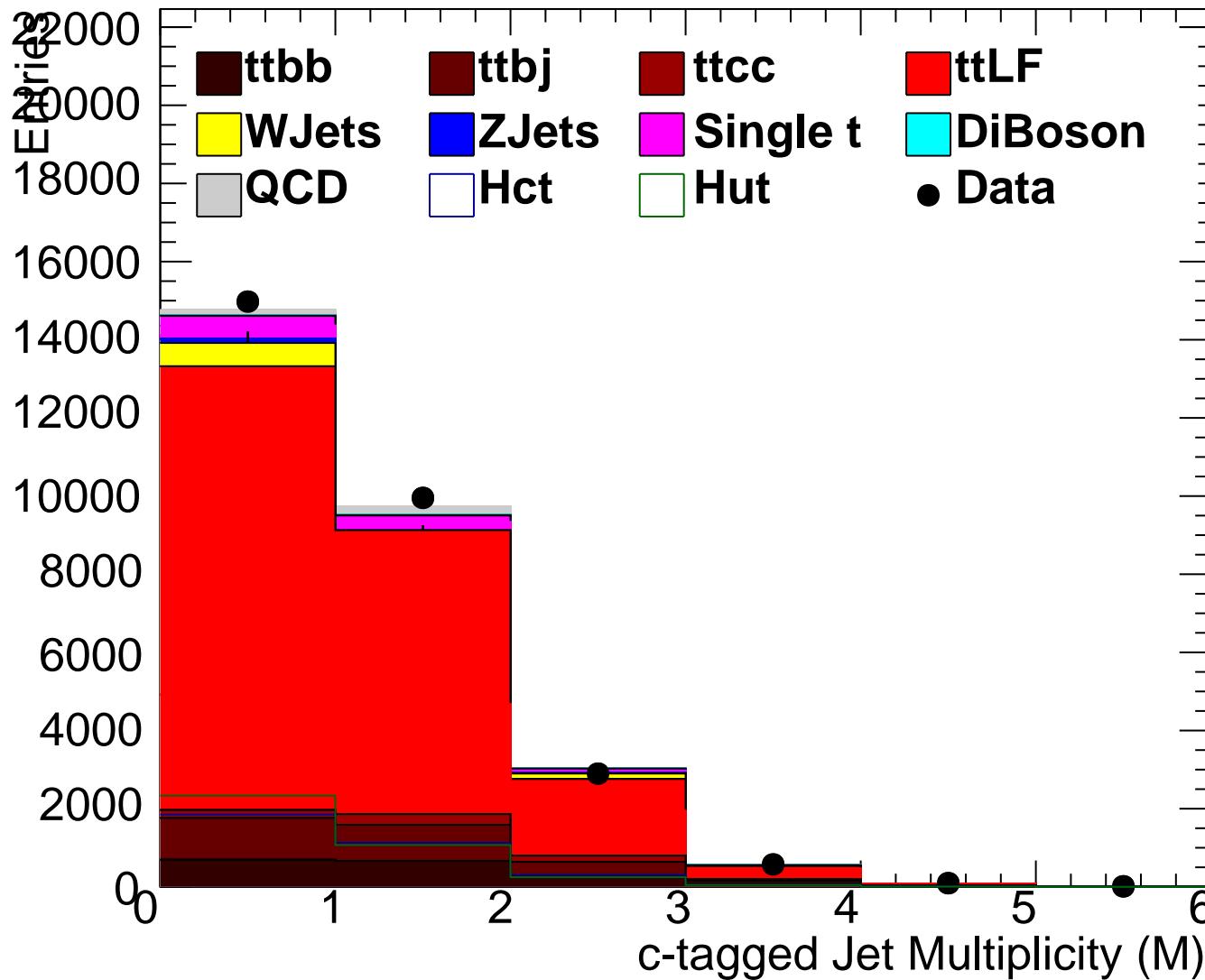


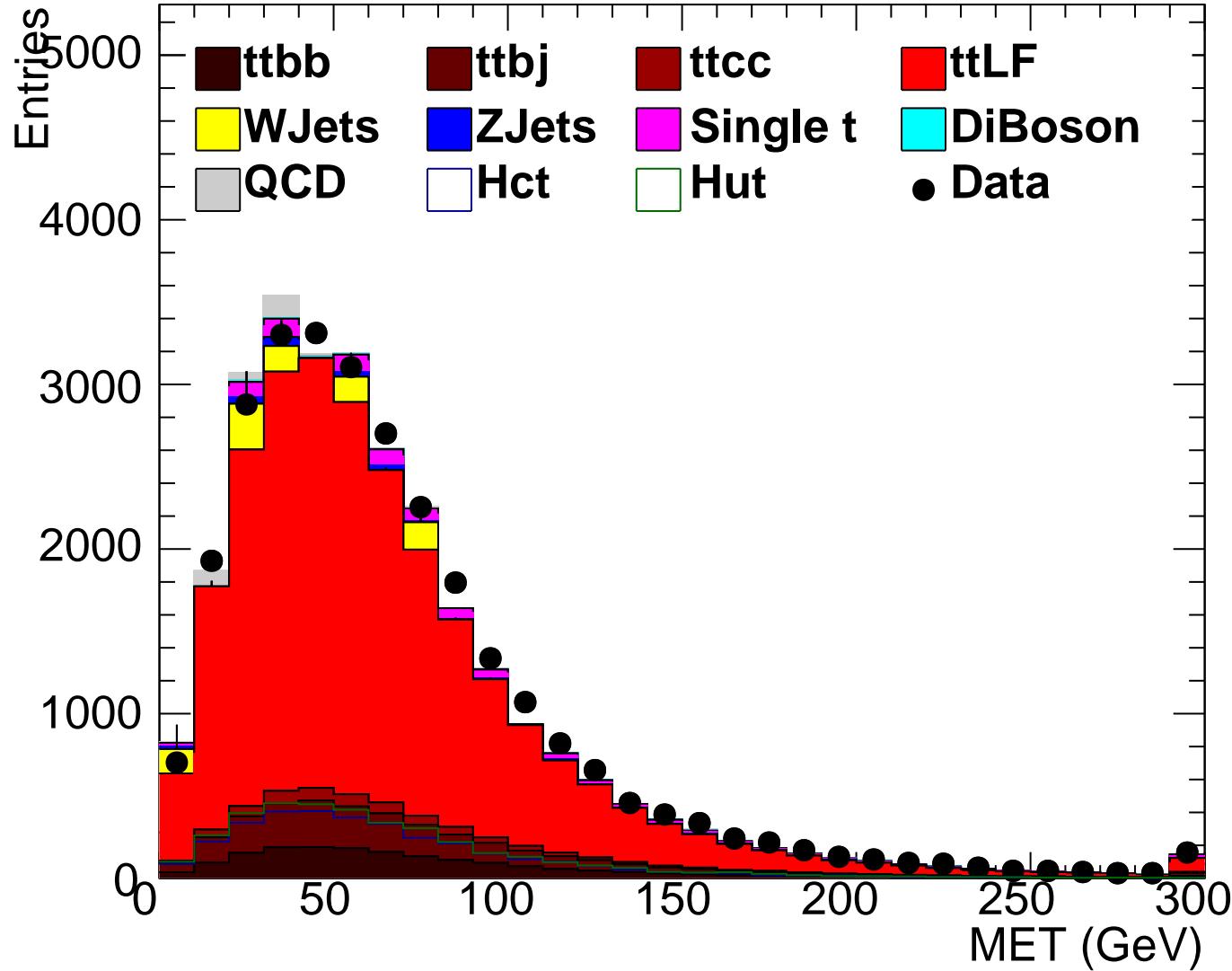
Ch1_S4CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

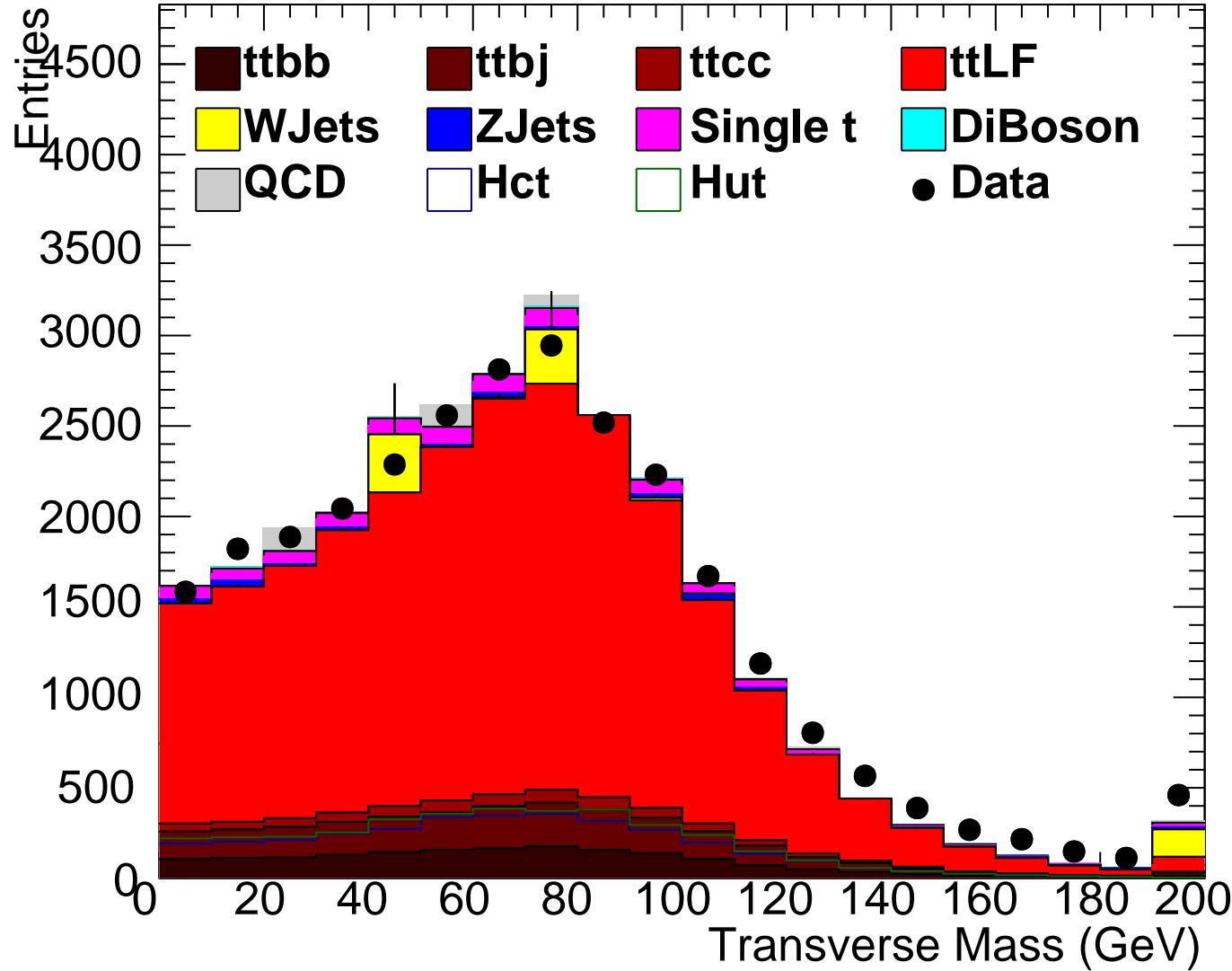


Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



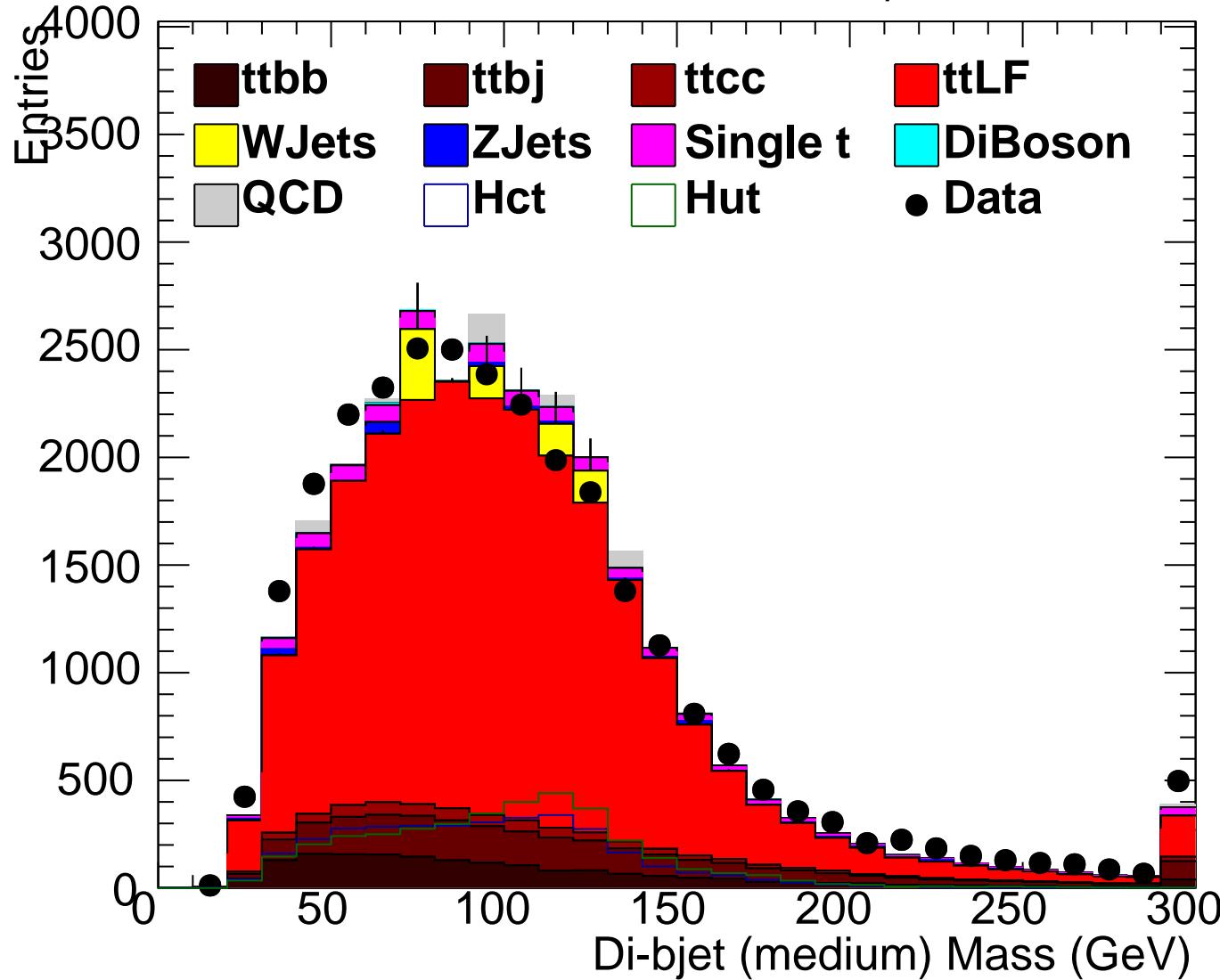


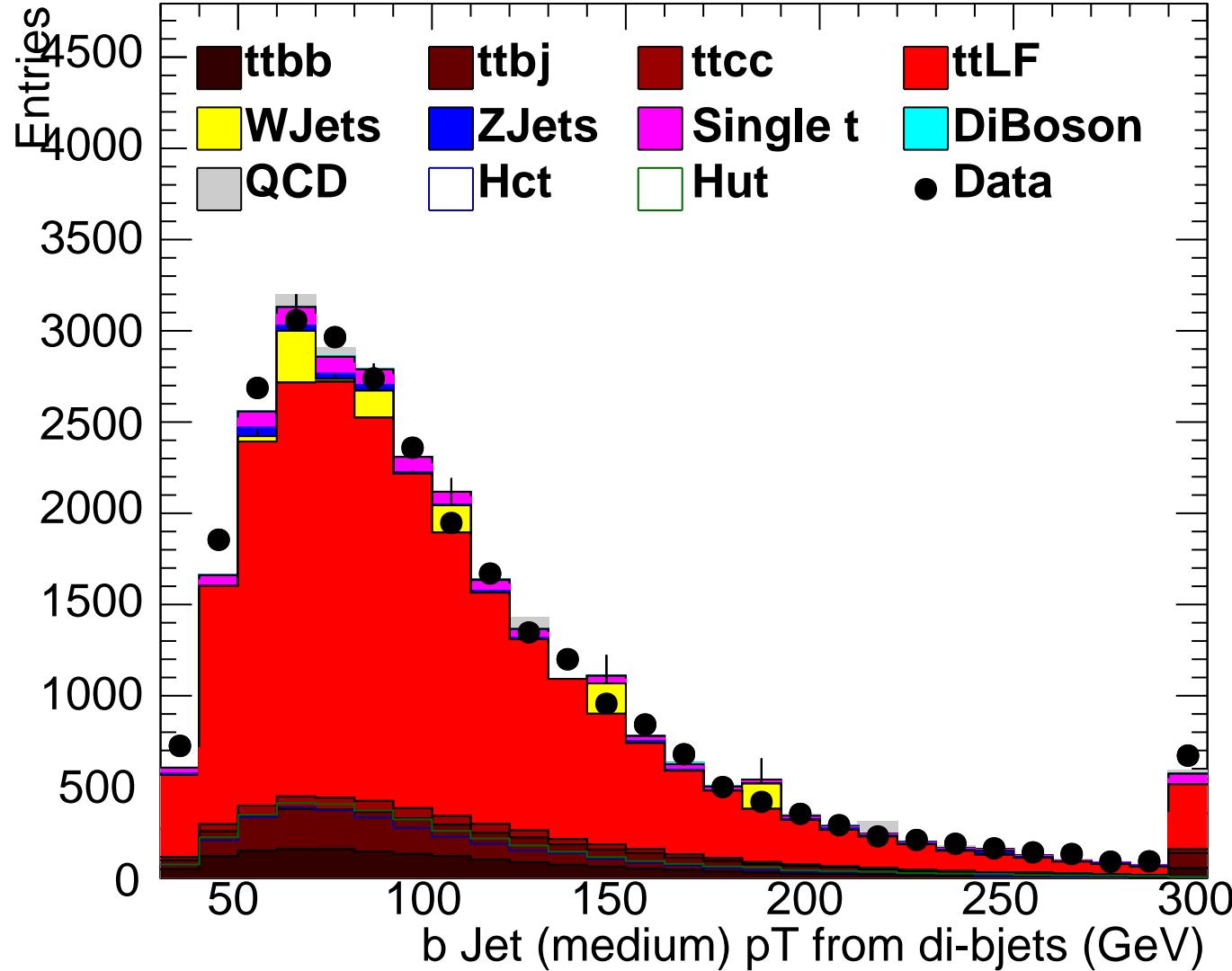




Ch1_S5

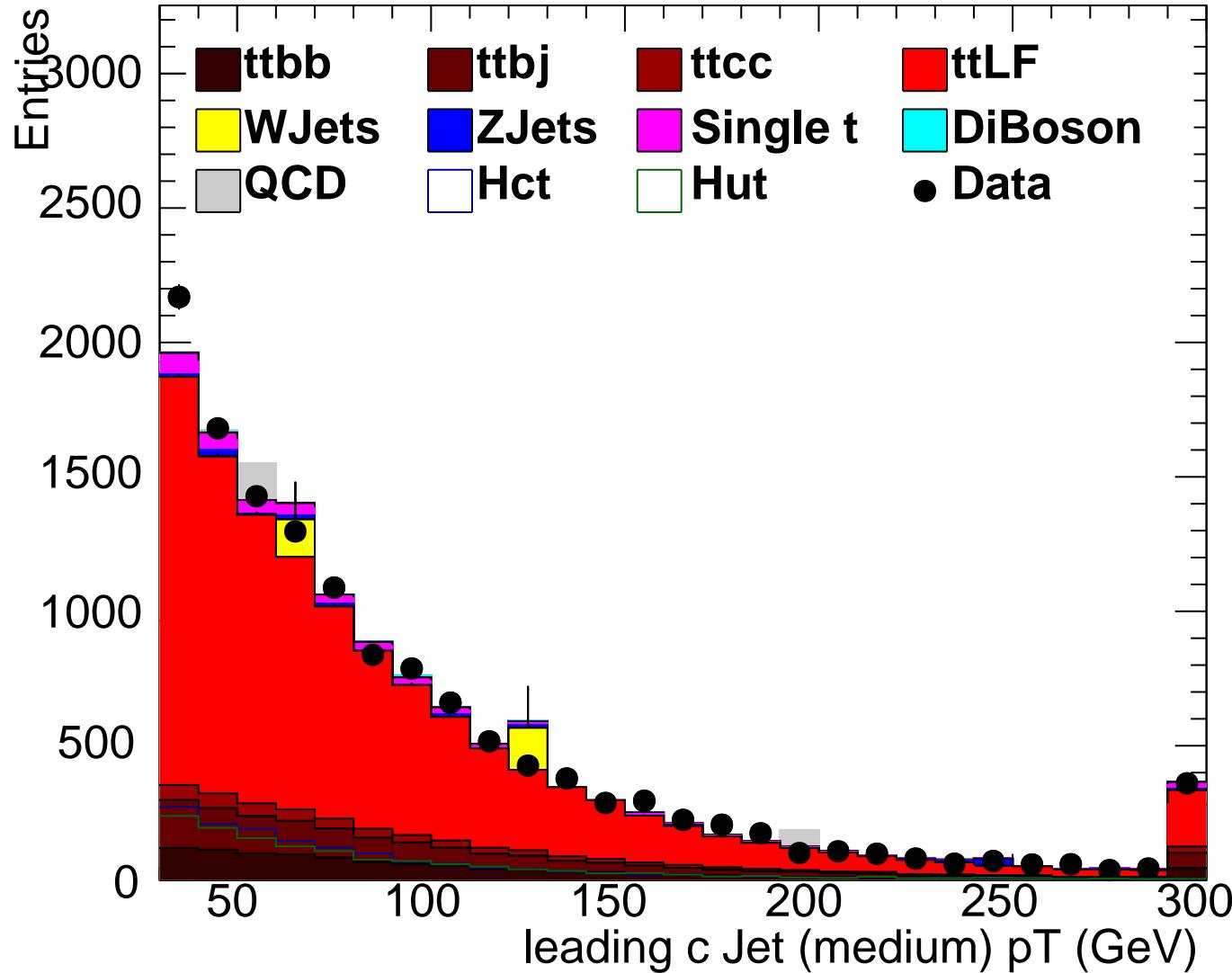
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

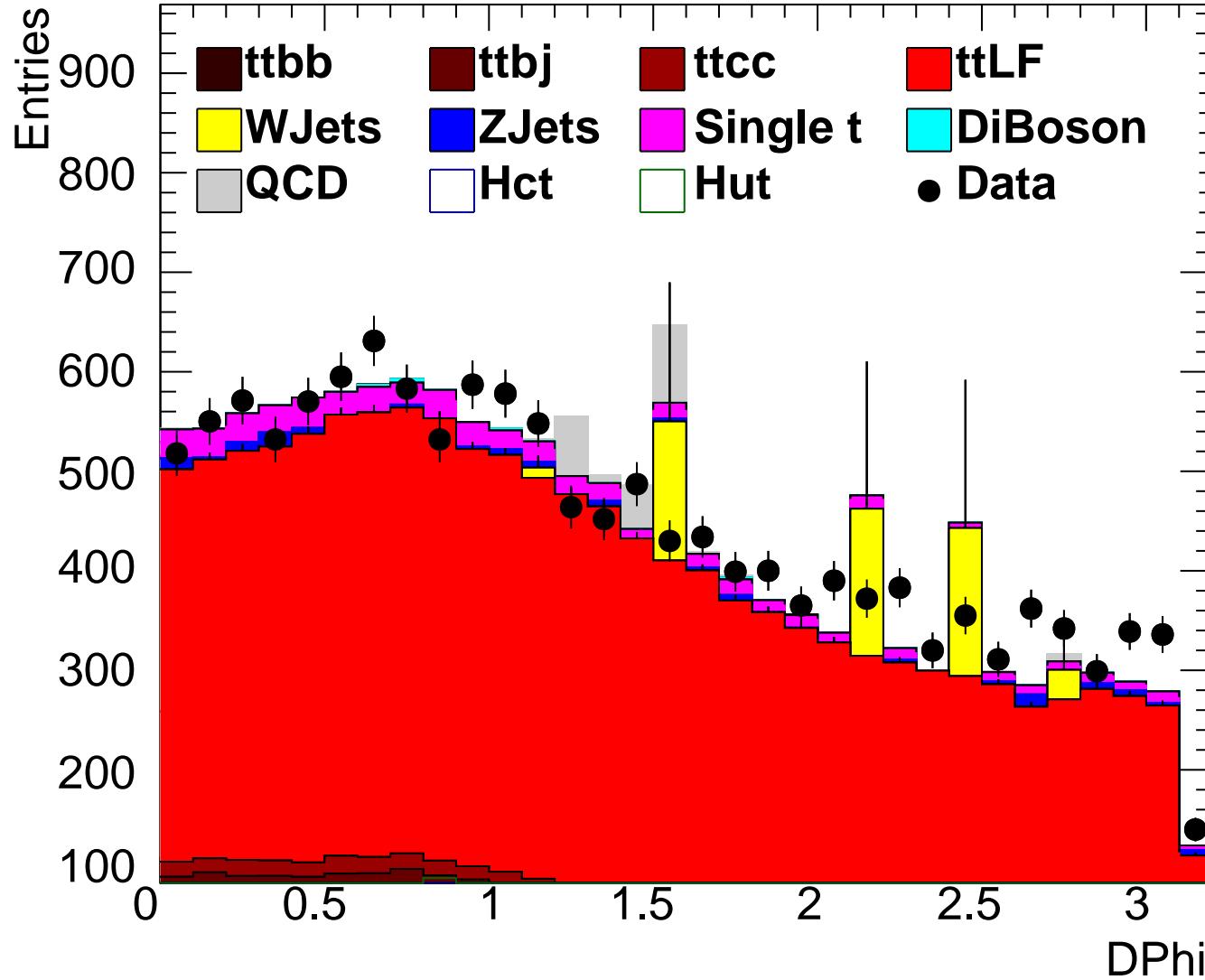


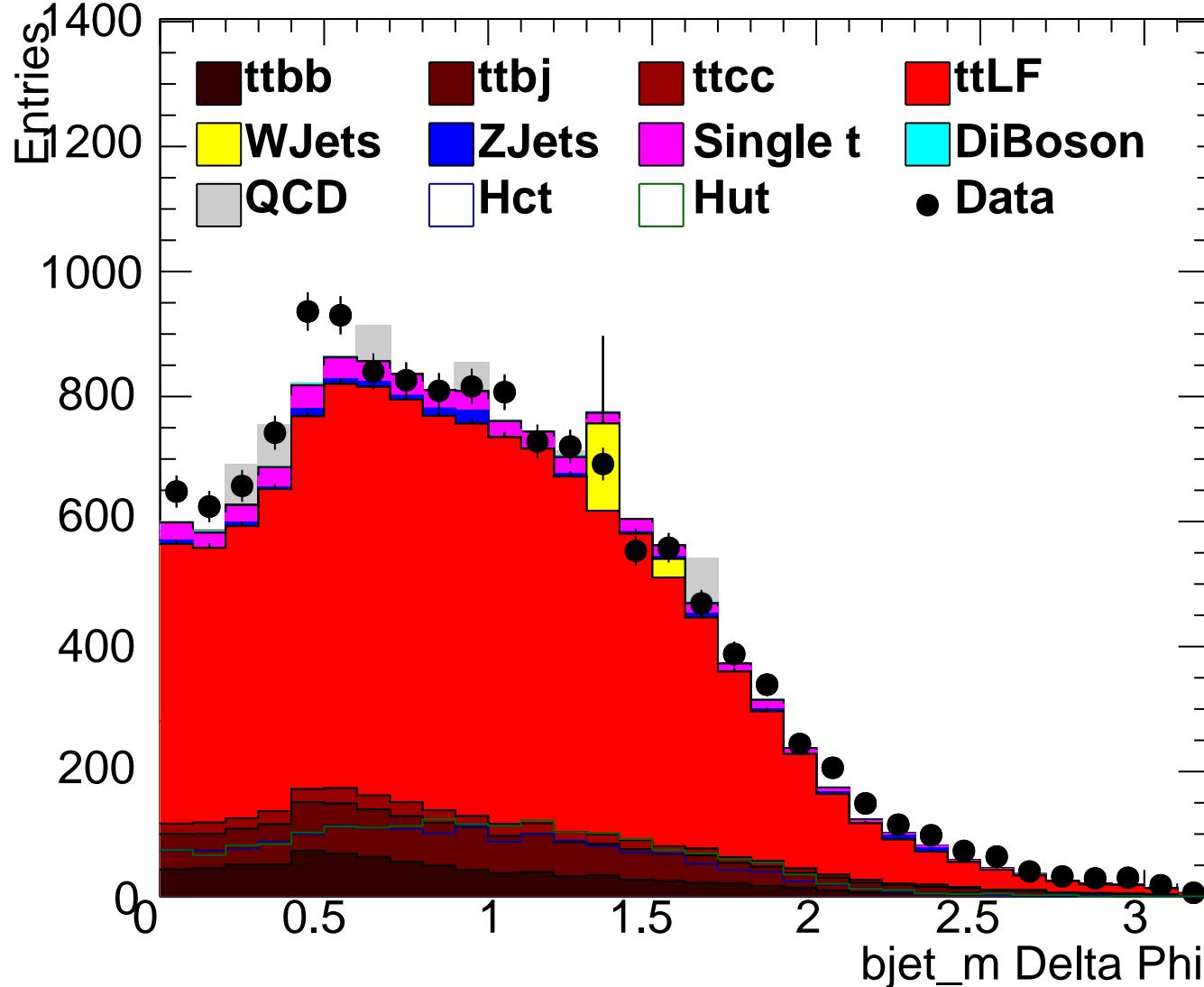
Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

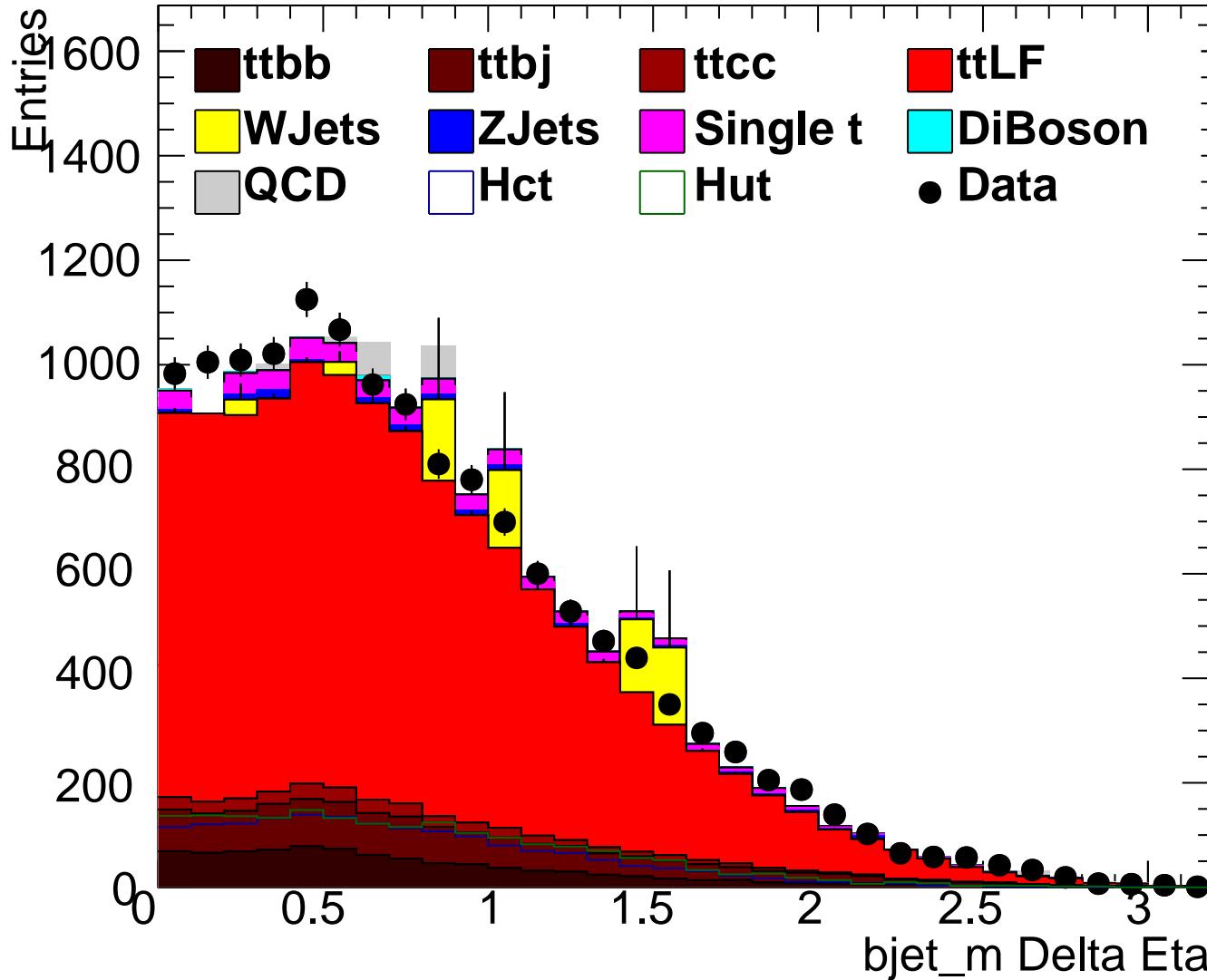
Ch1_S5

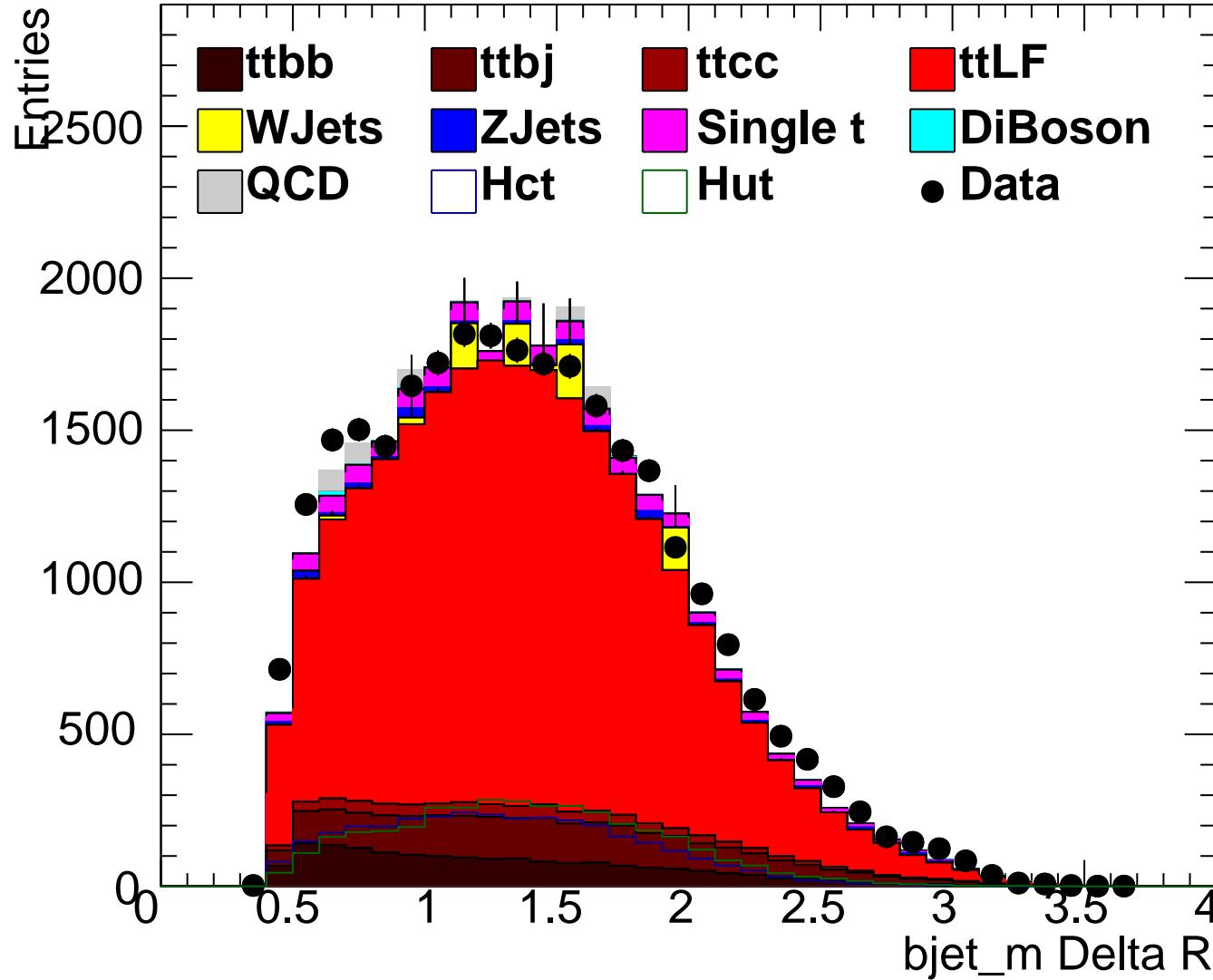
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

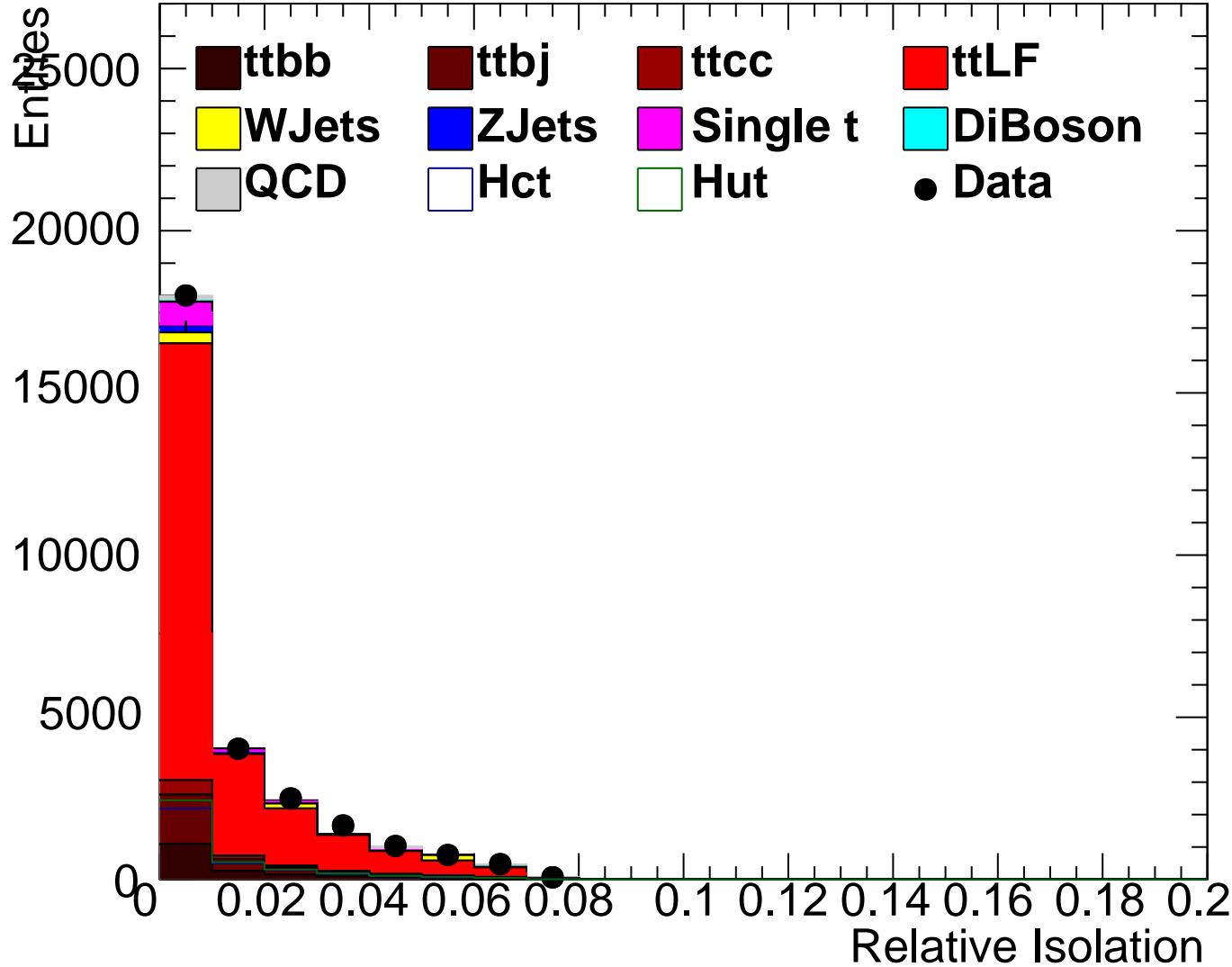


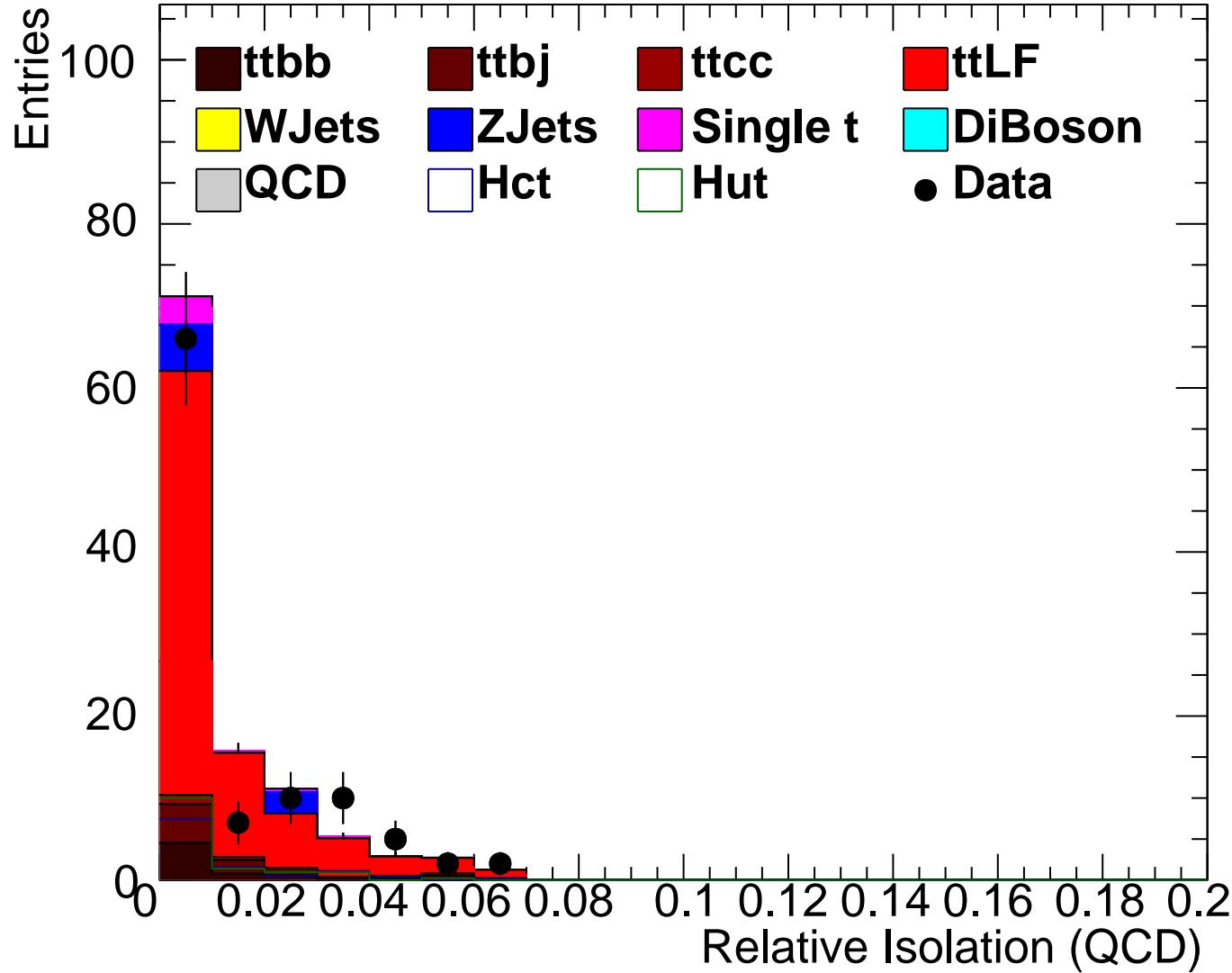


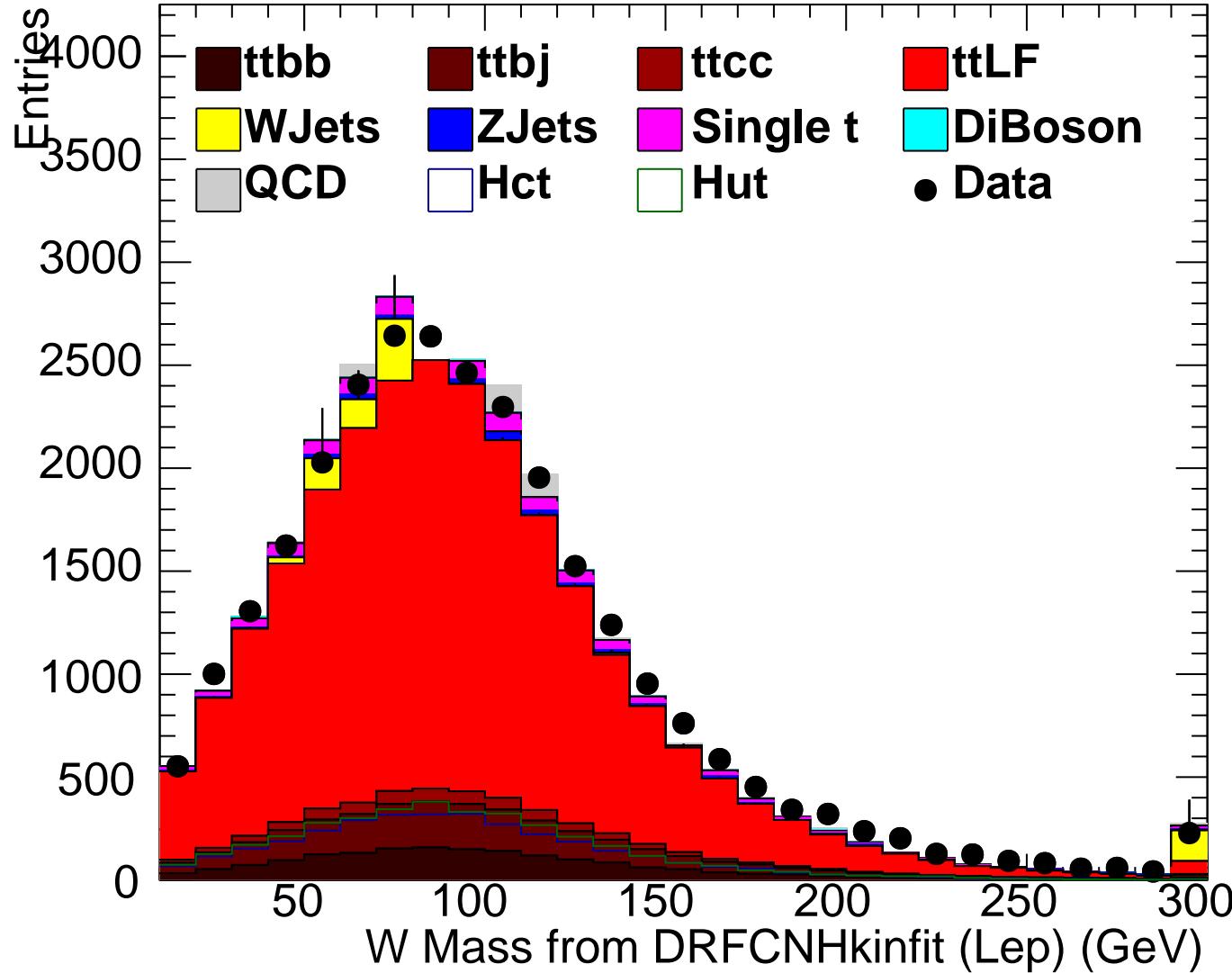
Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

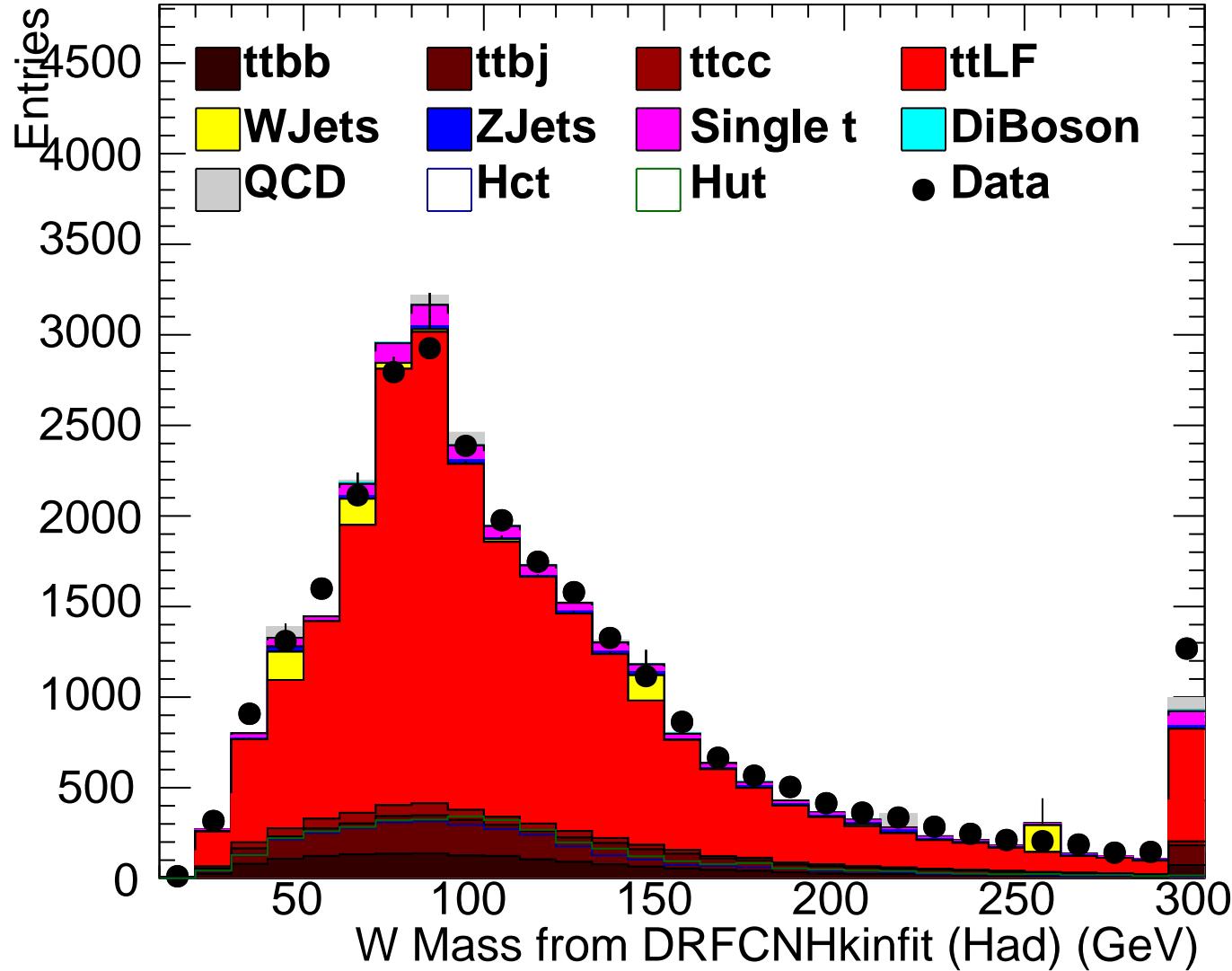


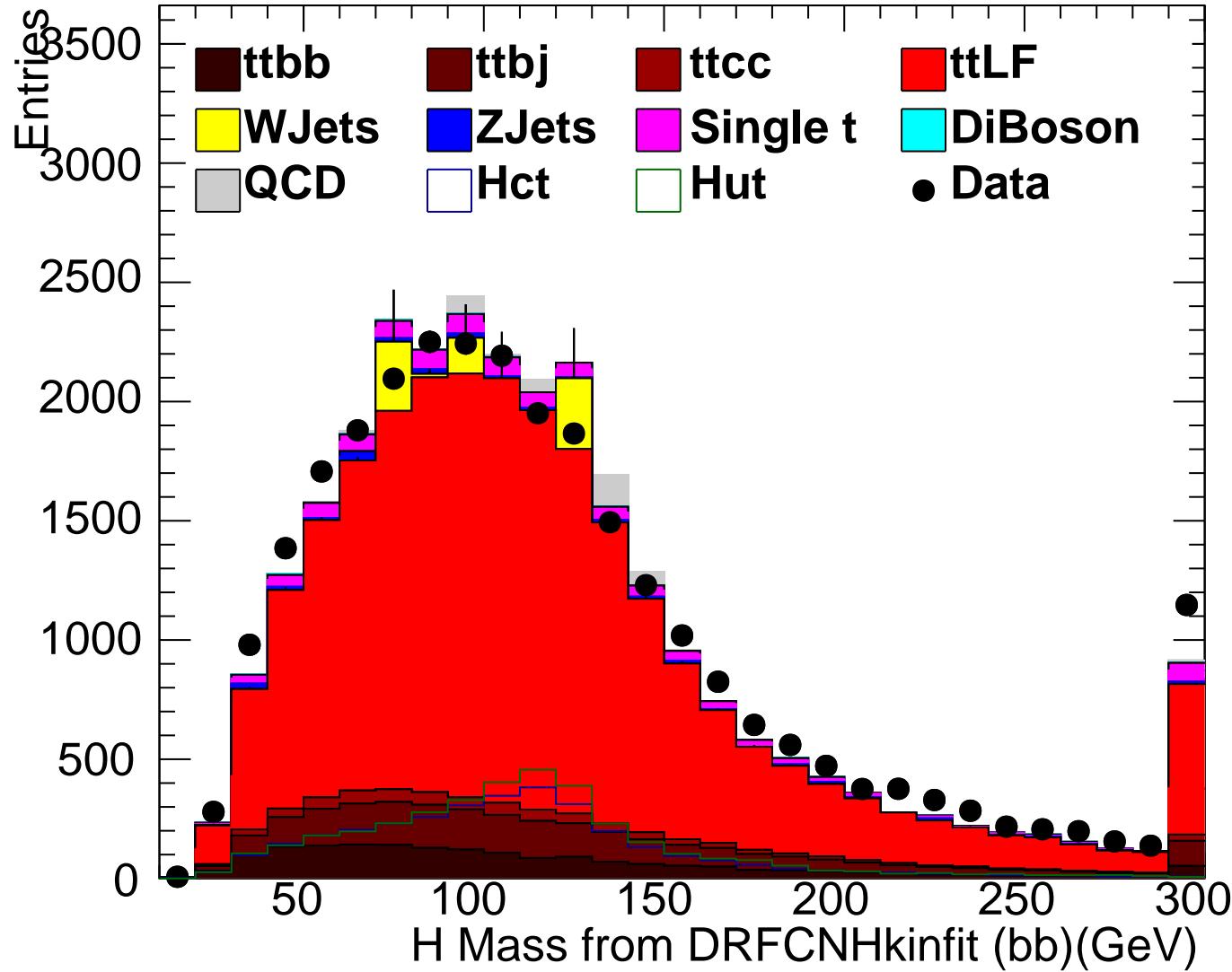


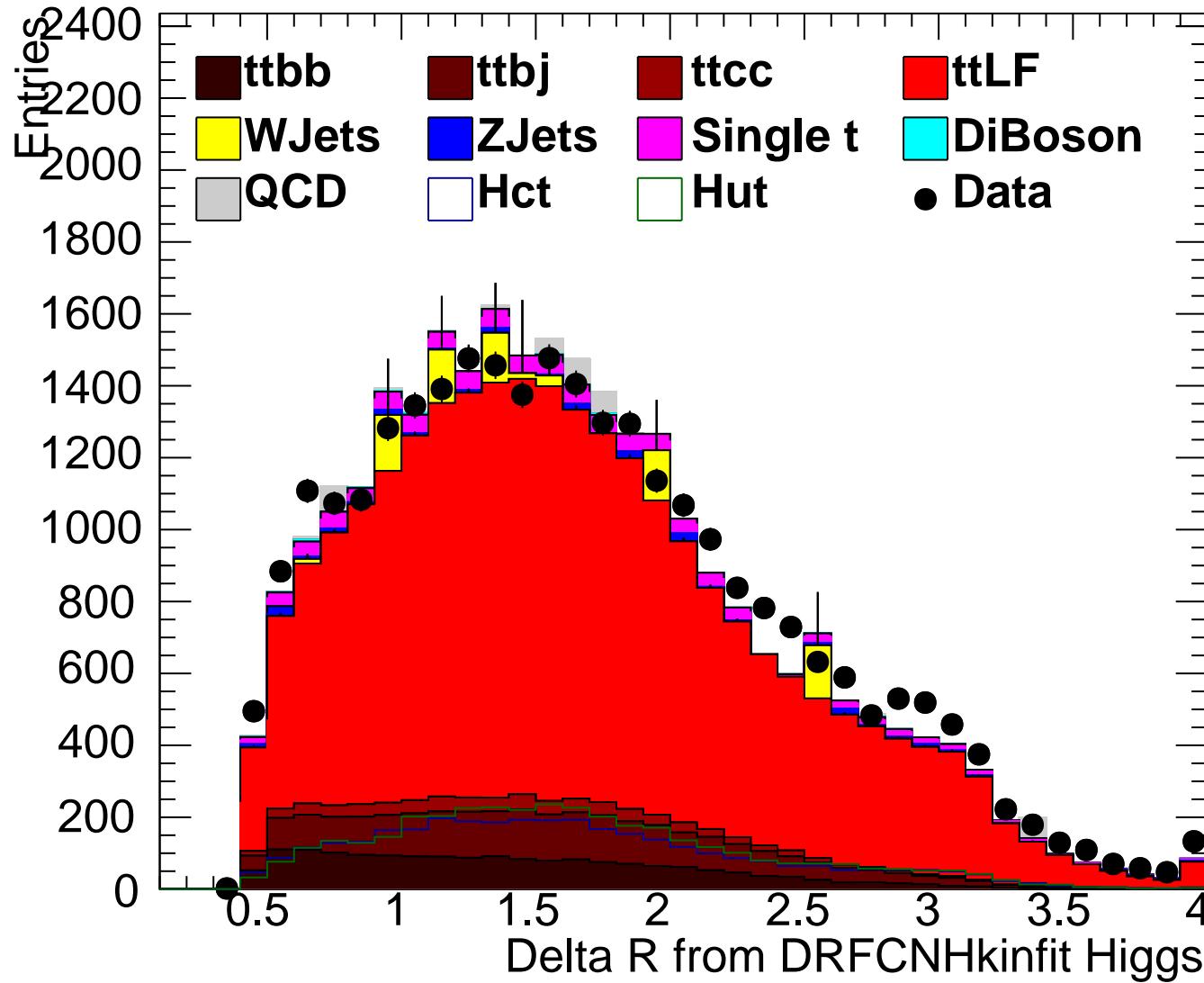


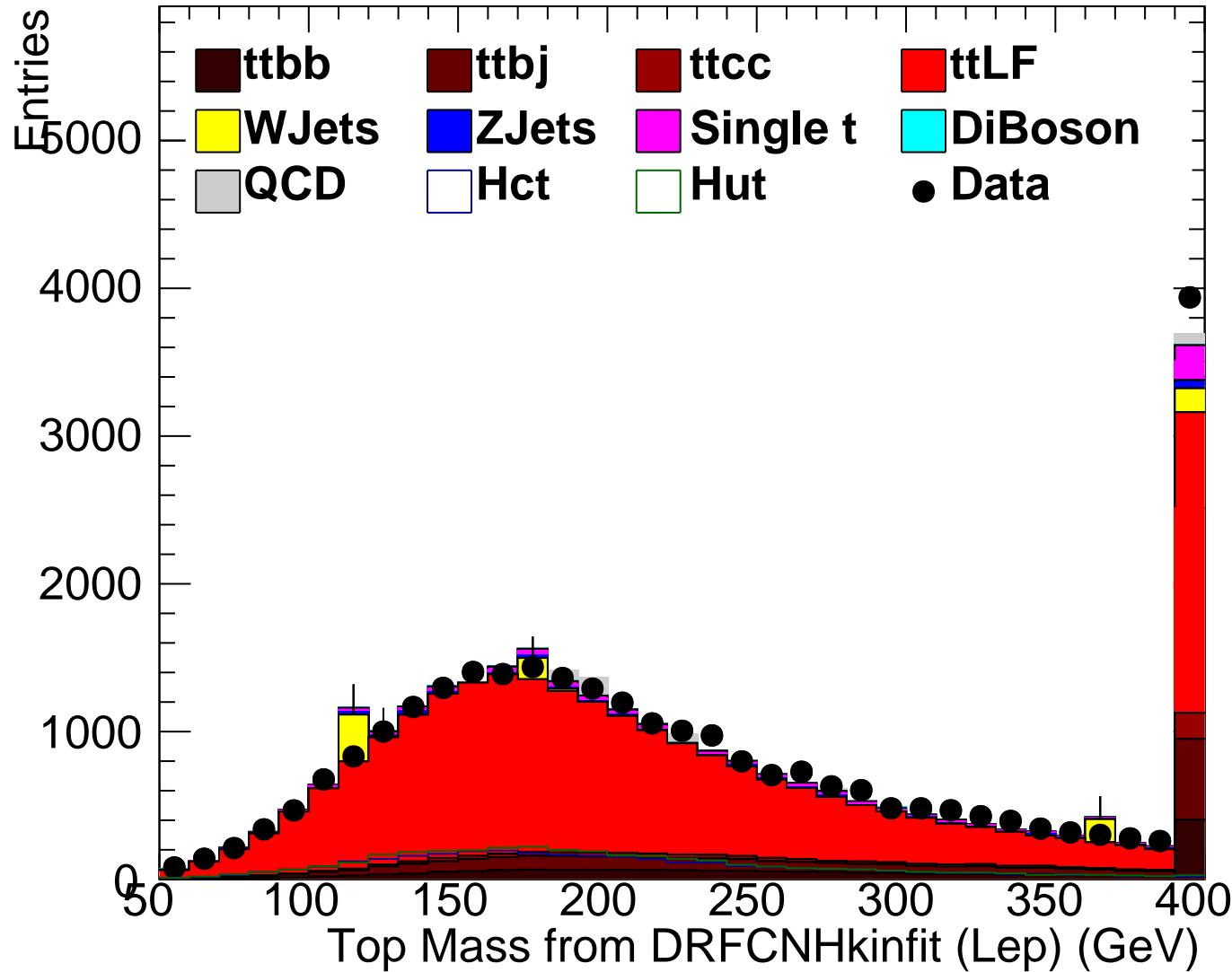


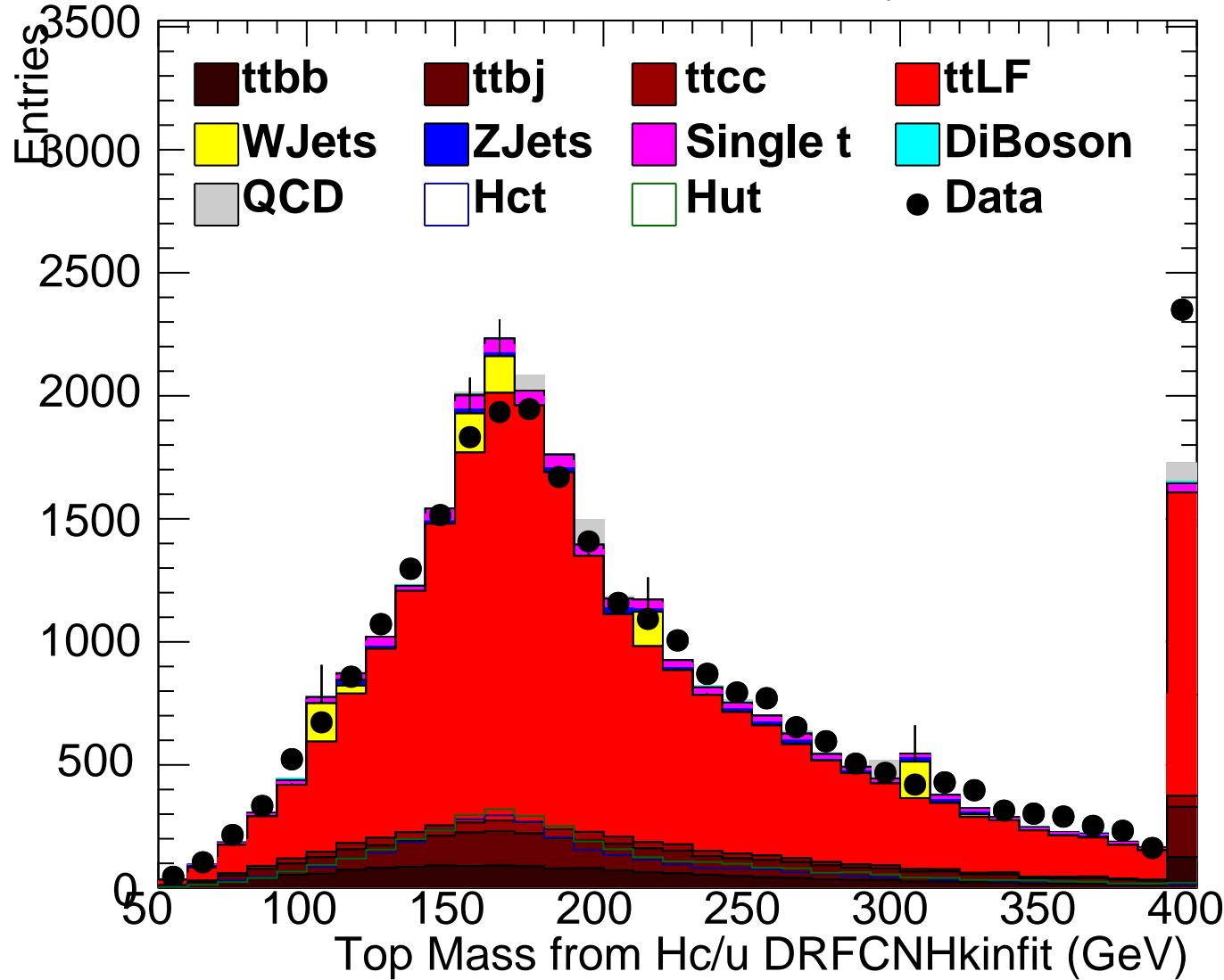




Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

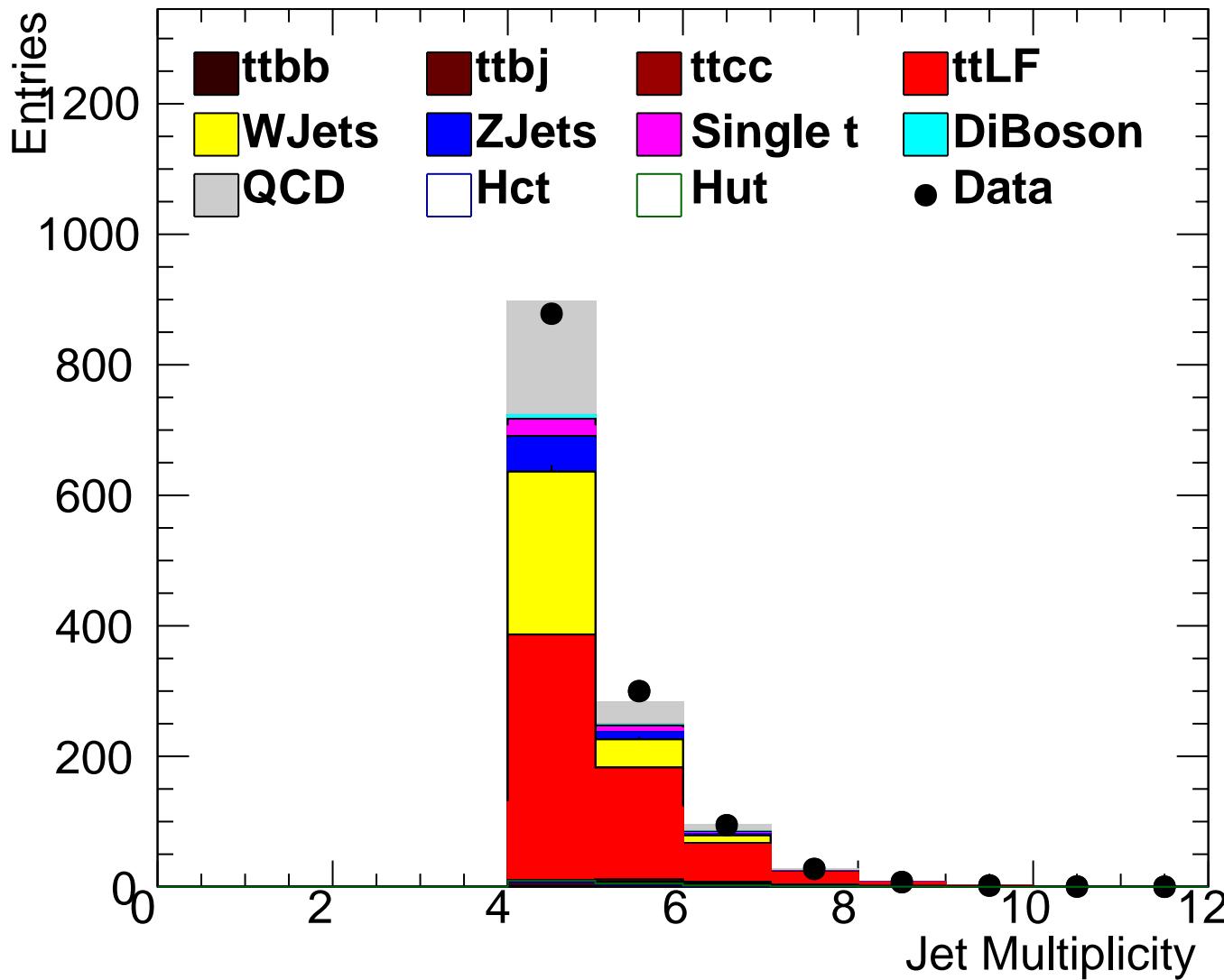


Ch1_S5CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S6

3

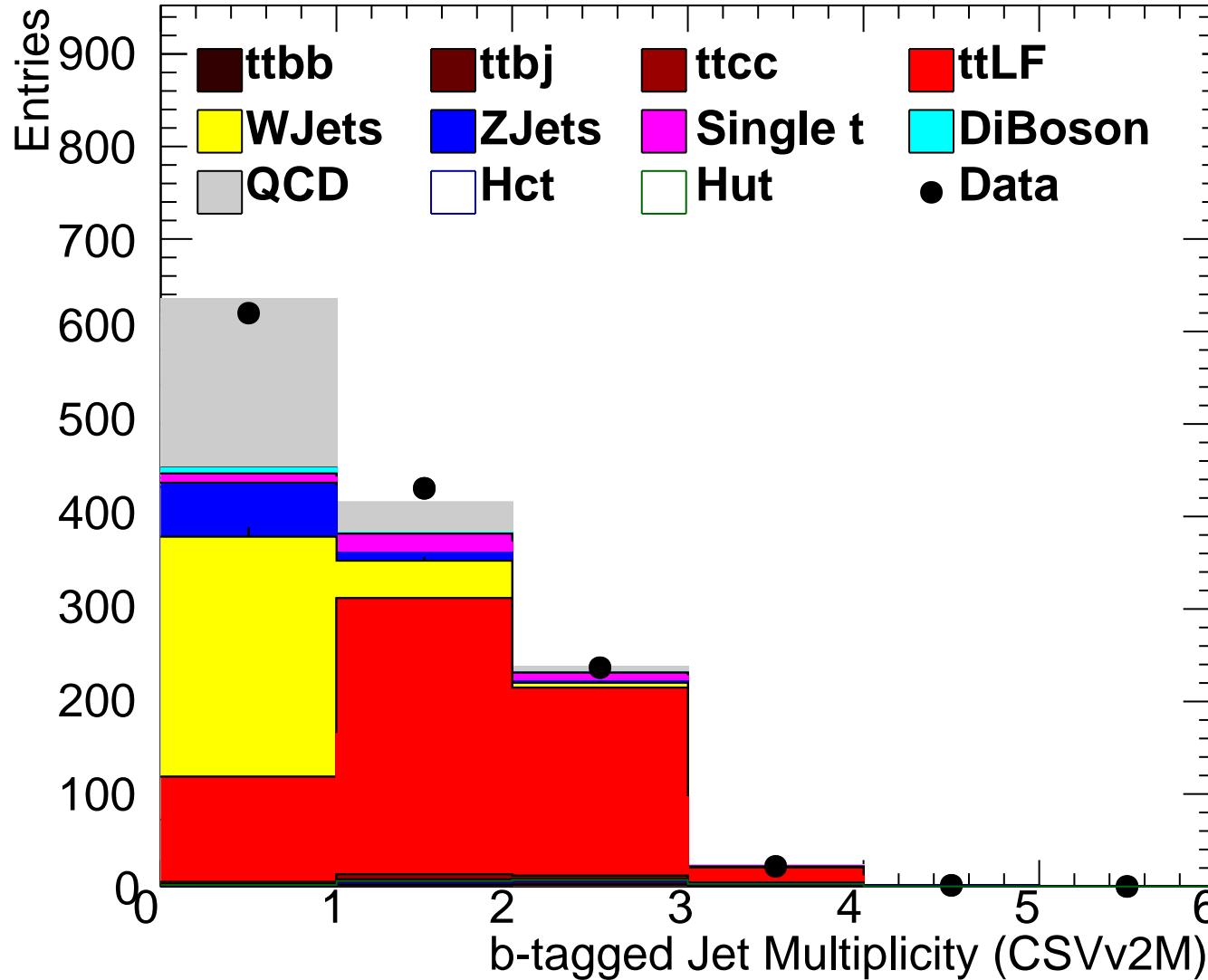
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



Ch1_S6

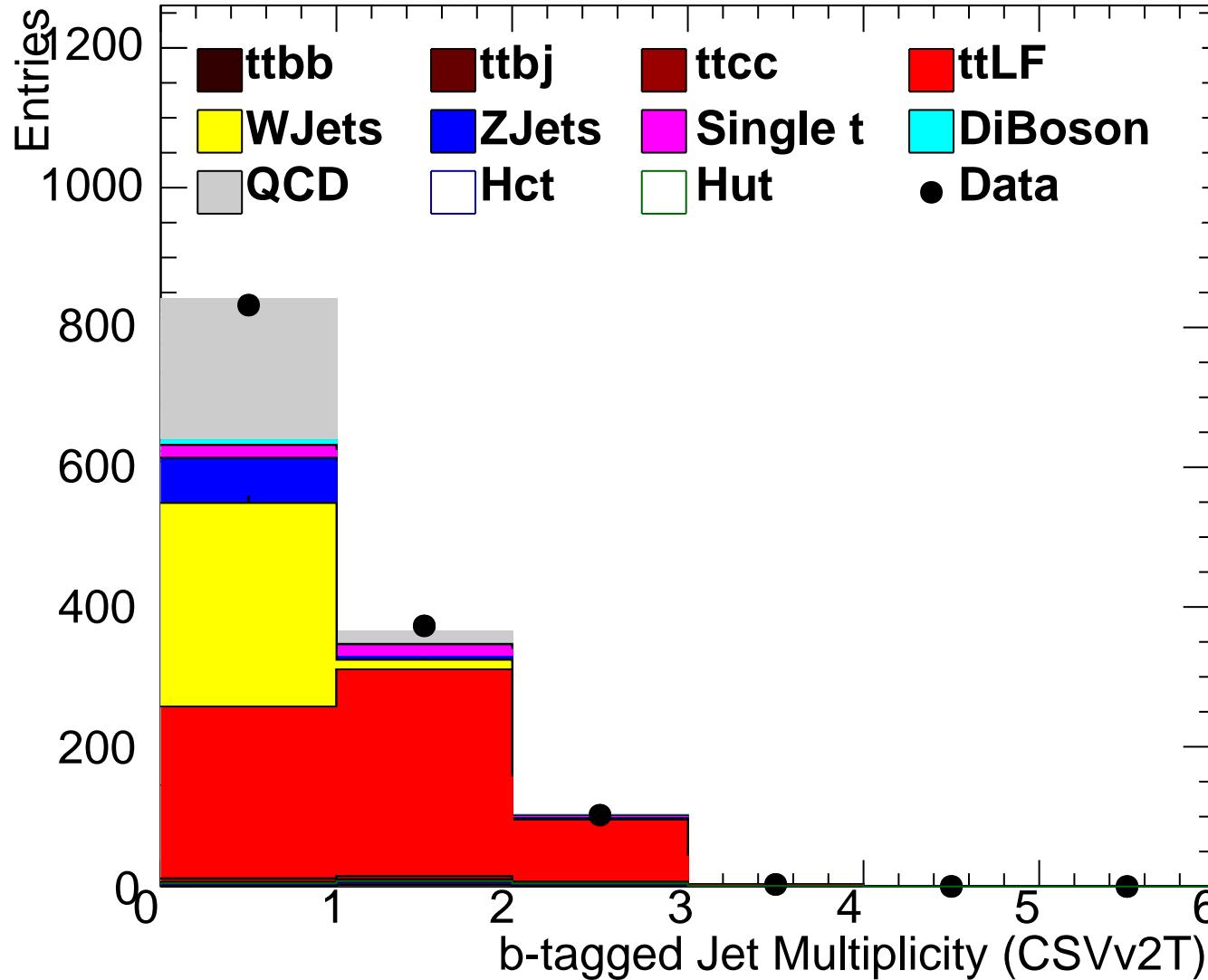
$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



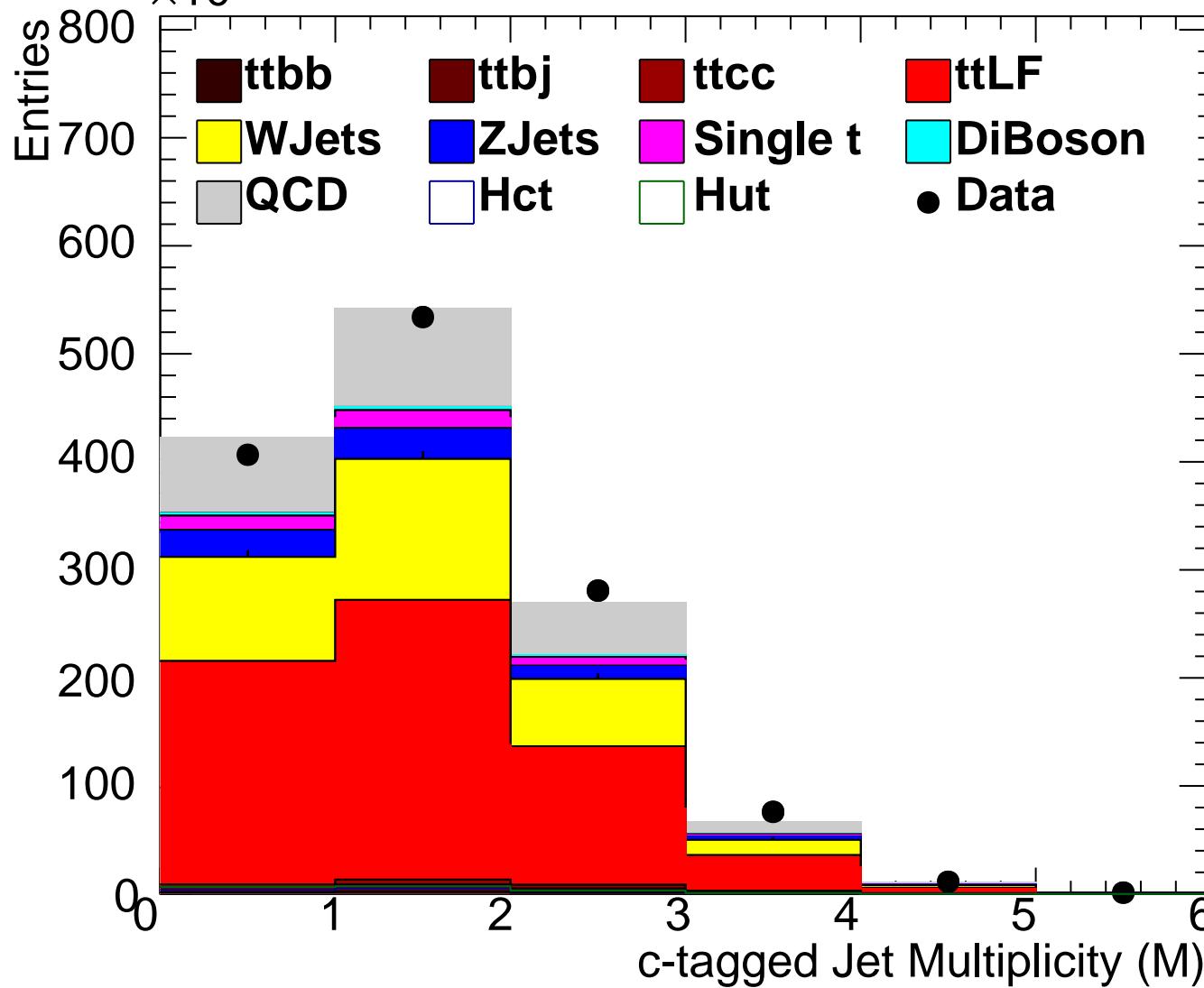
Ch1_S6

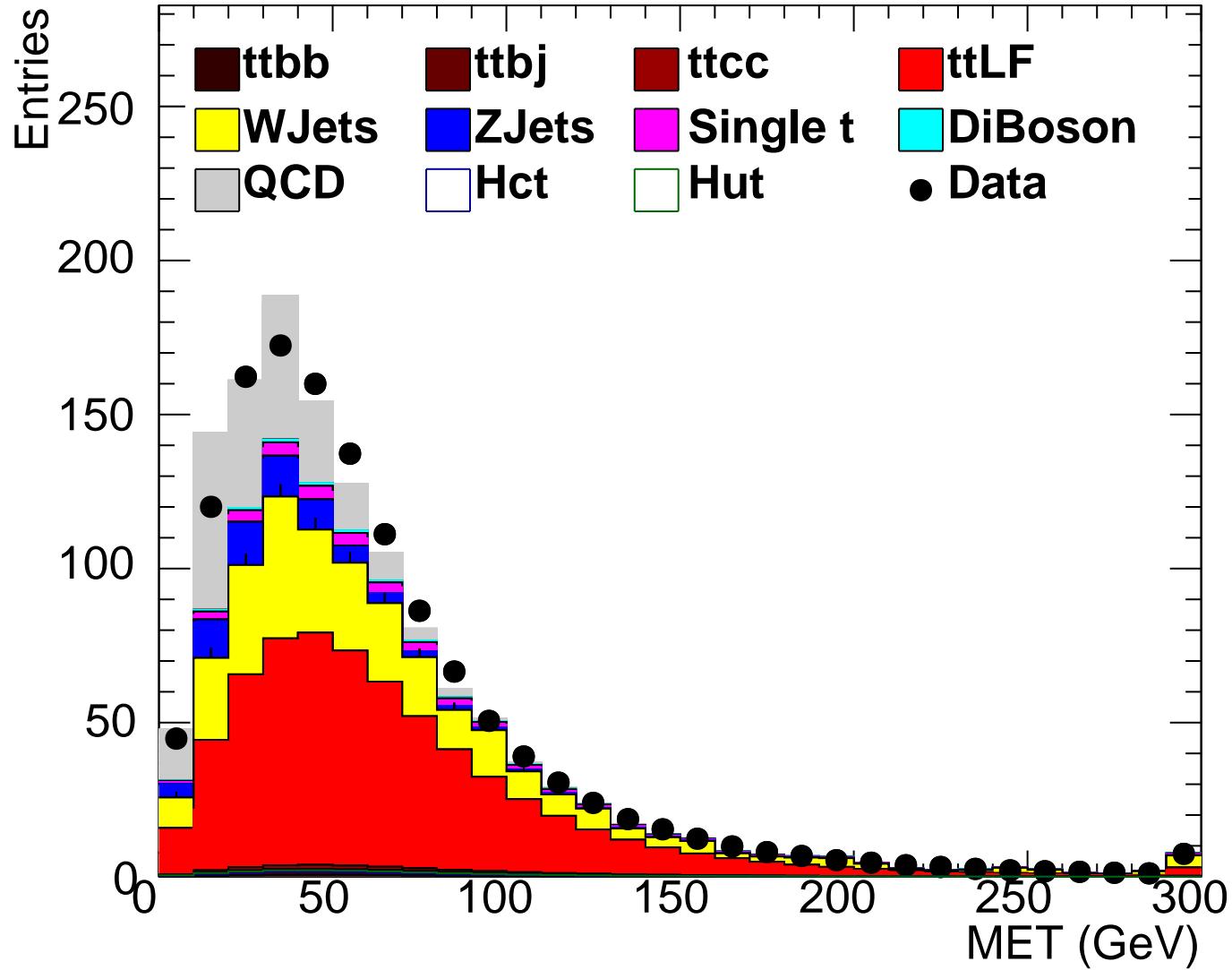
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

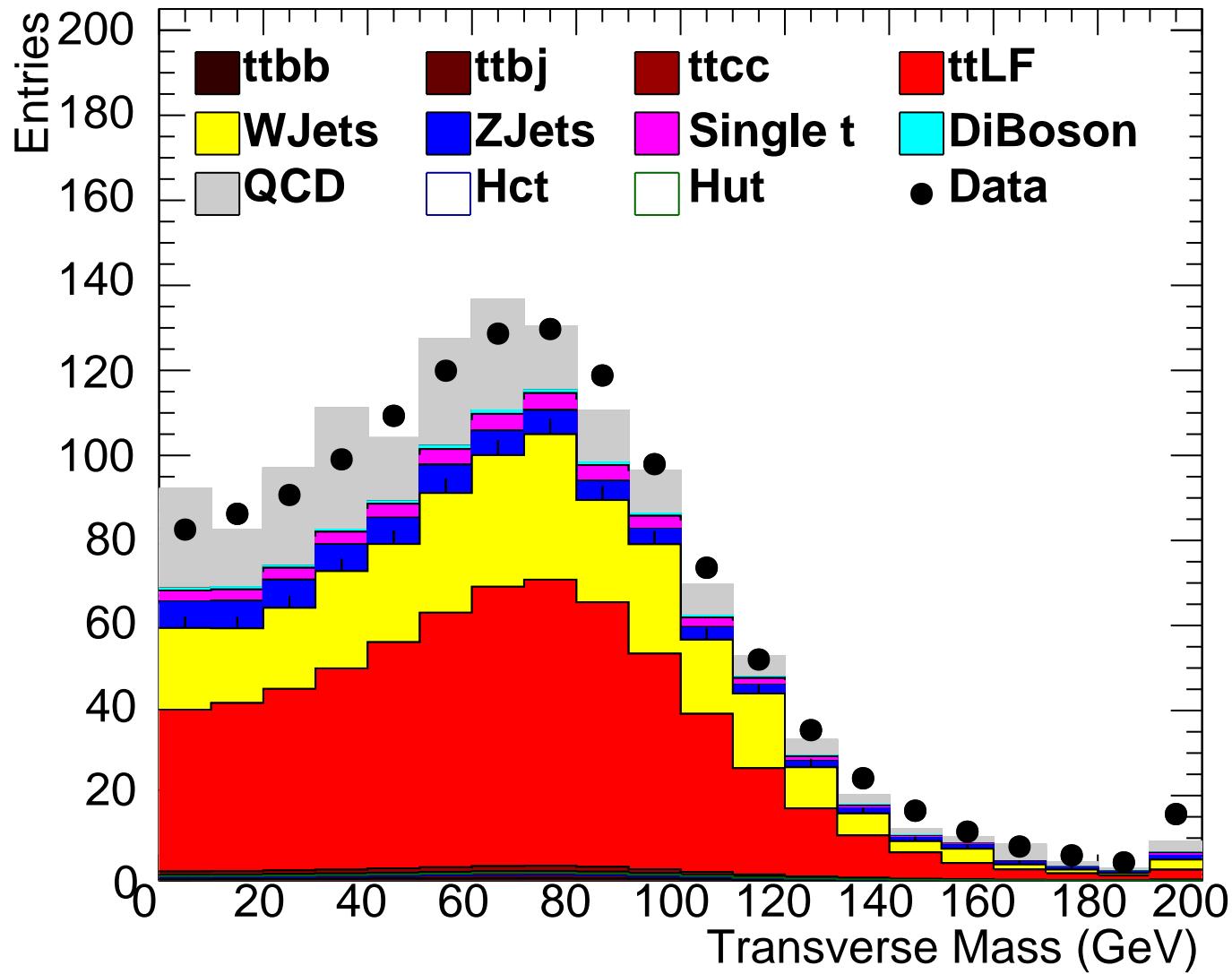


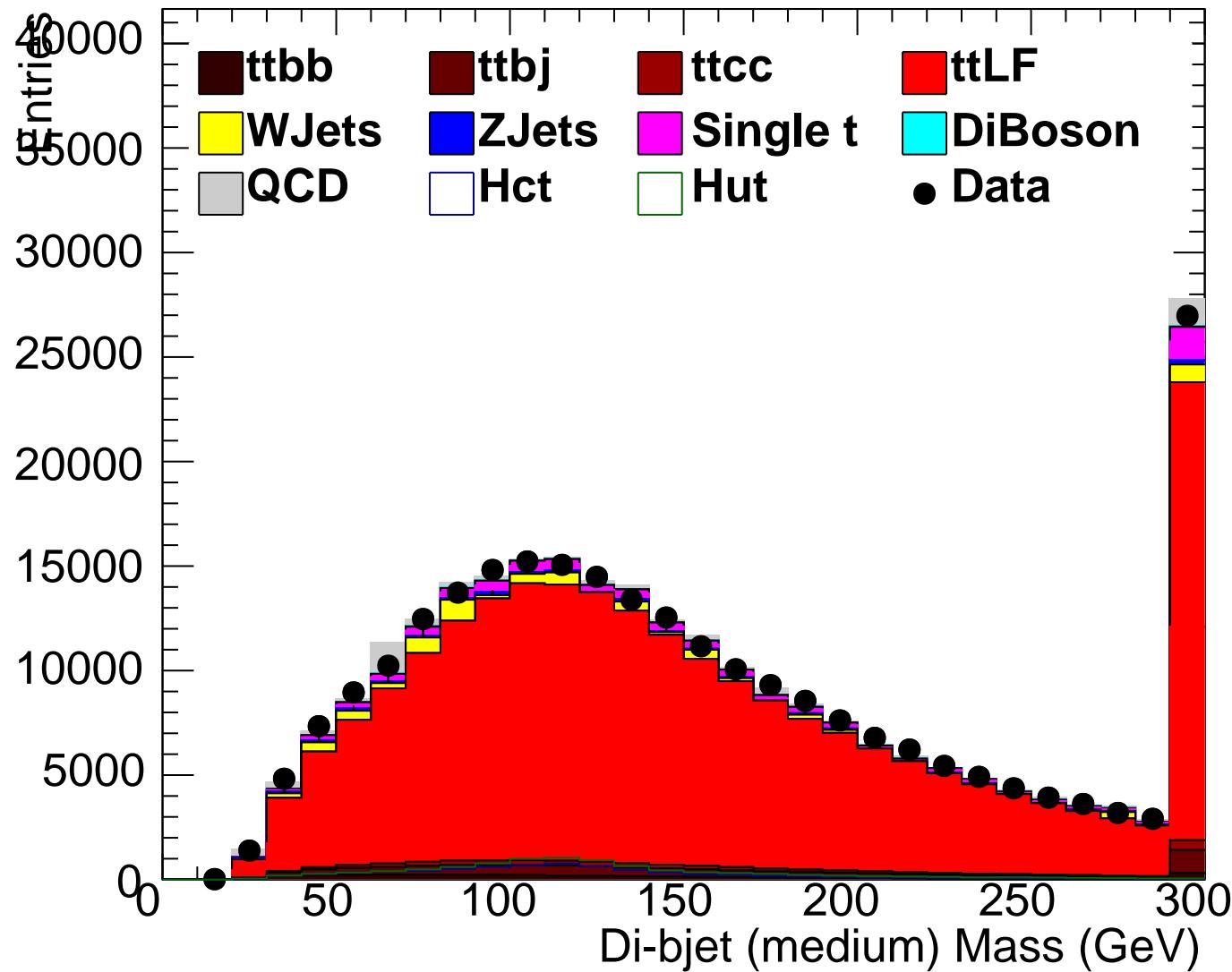
Ch1_S6

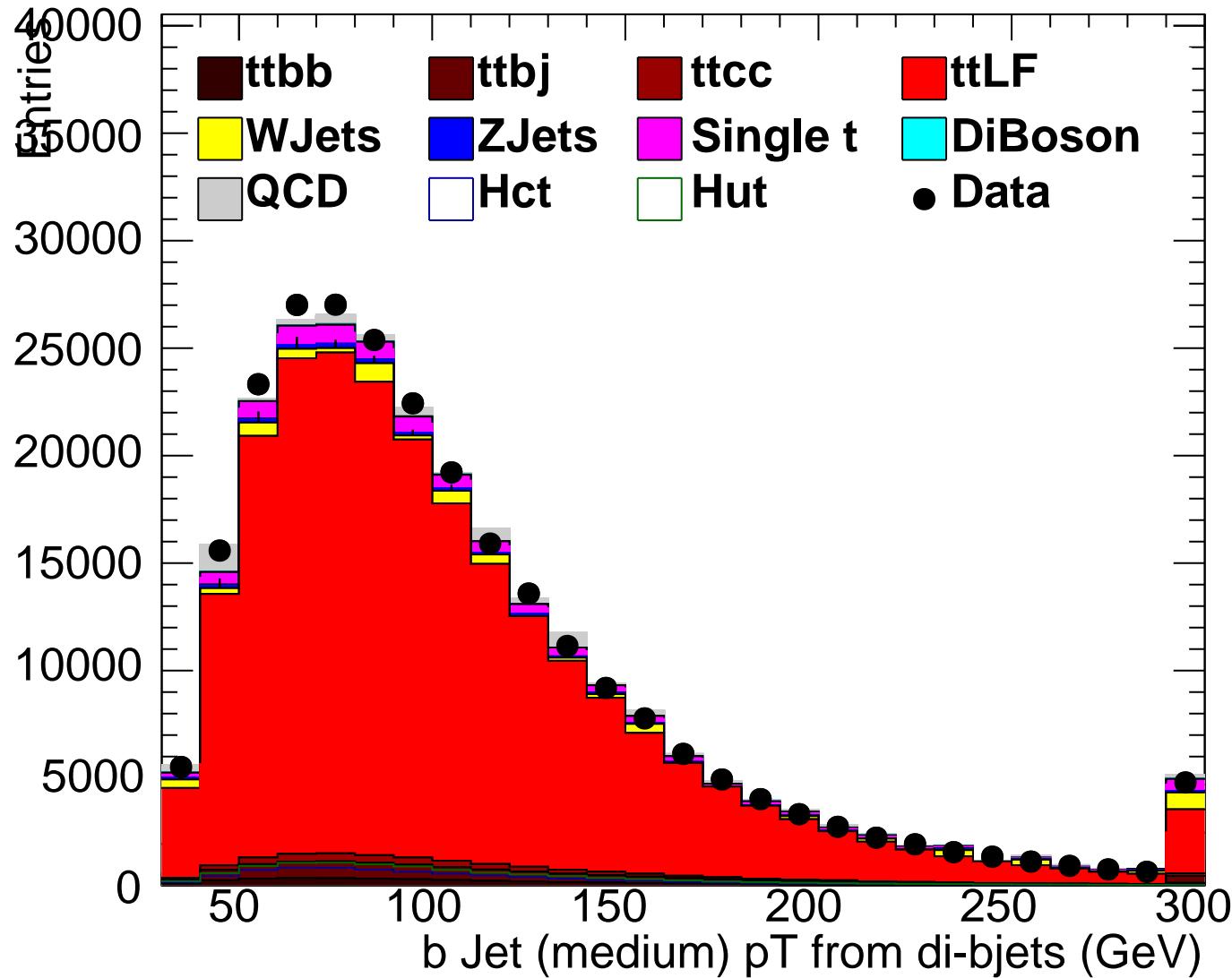
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

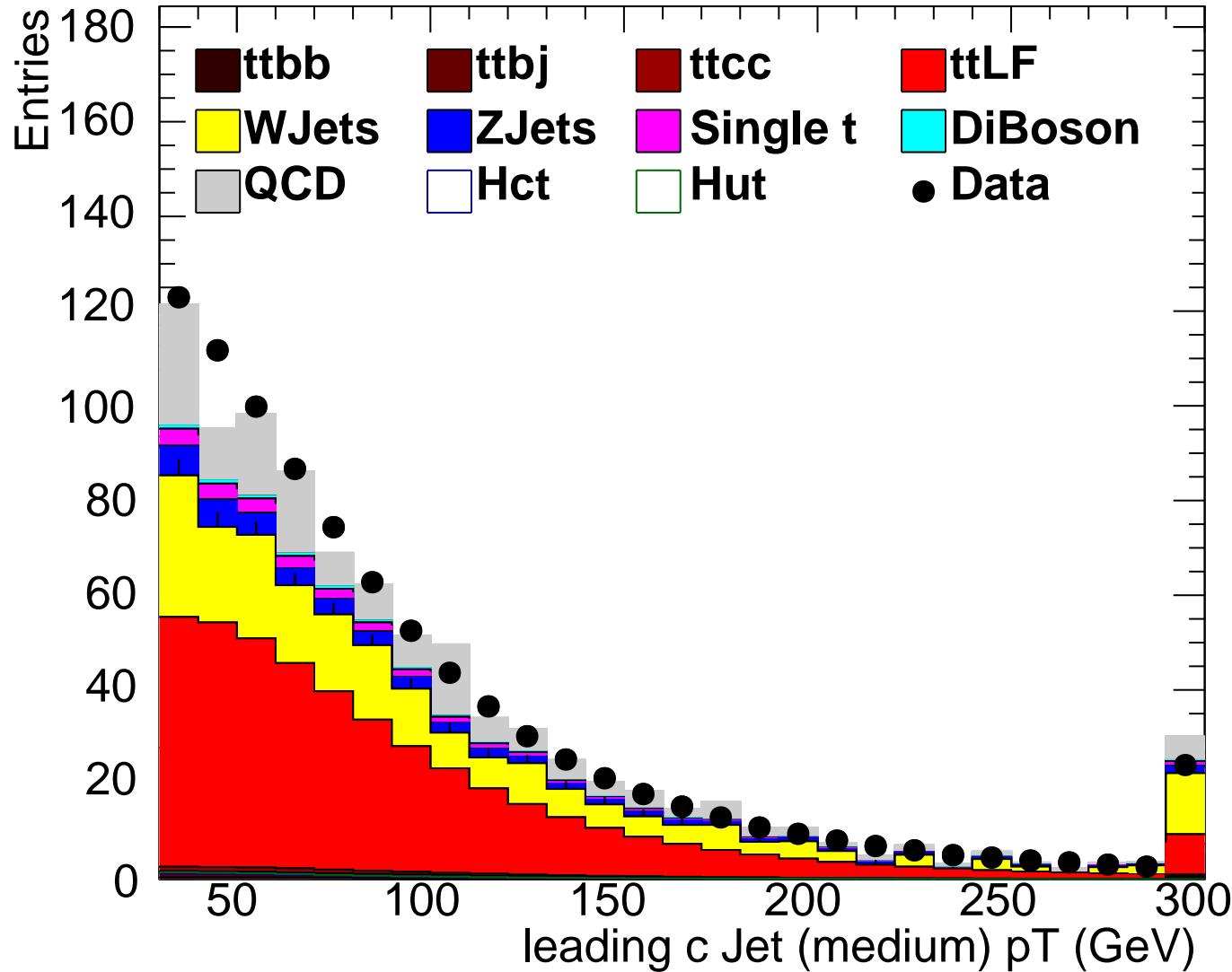


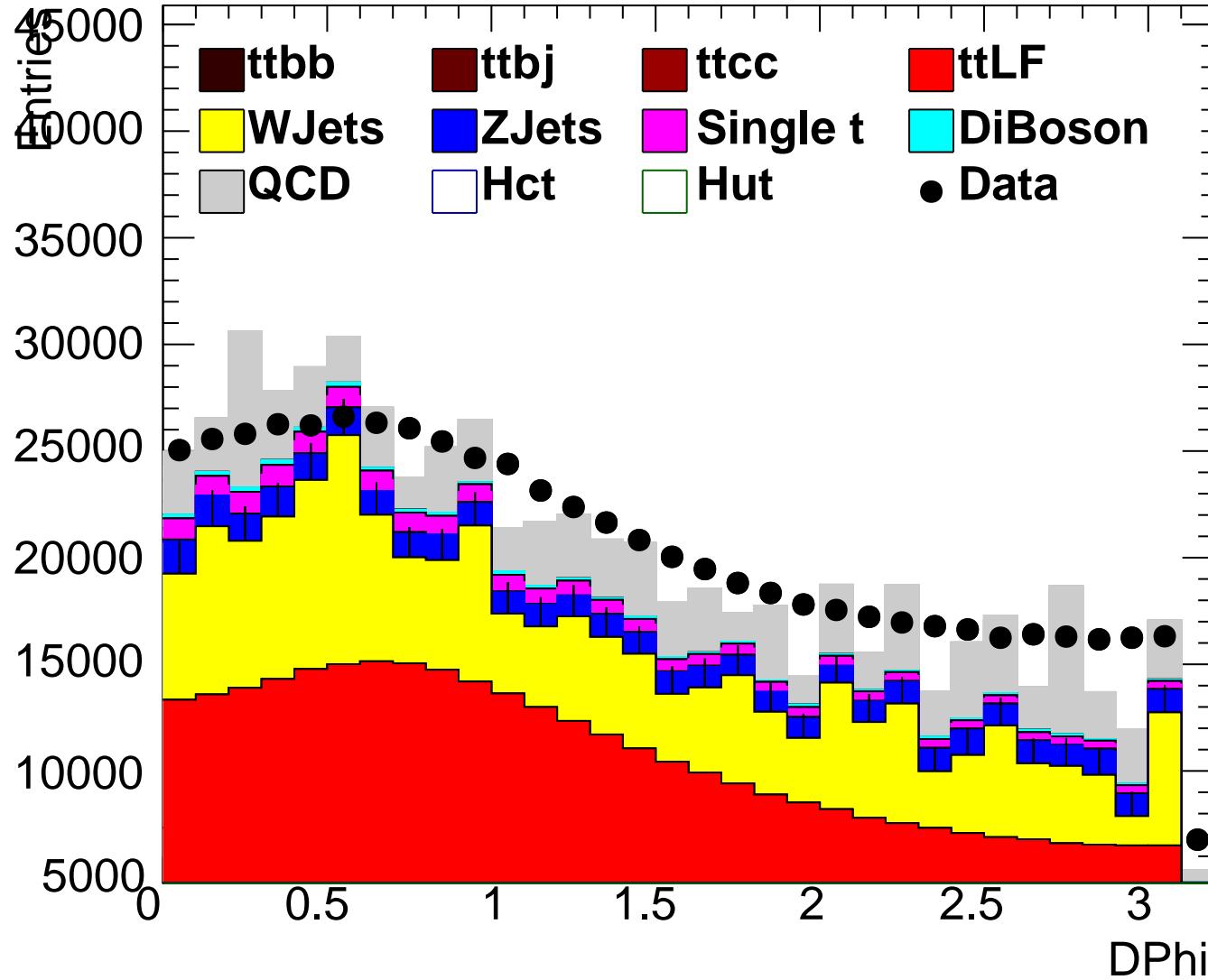
Ch1_S6x 10⁻³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

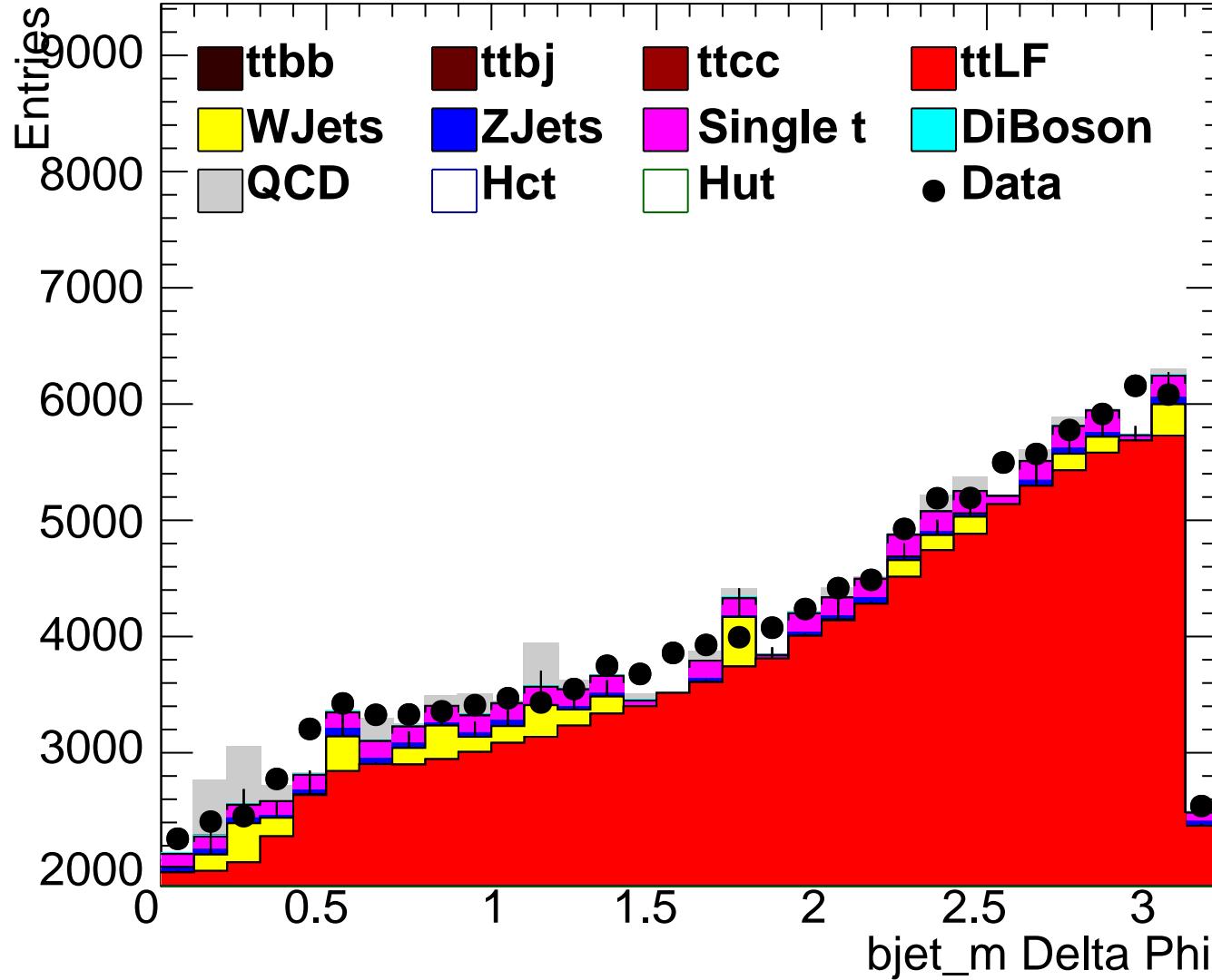
Ch1_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

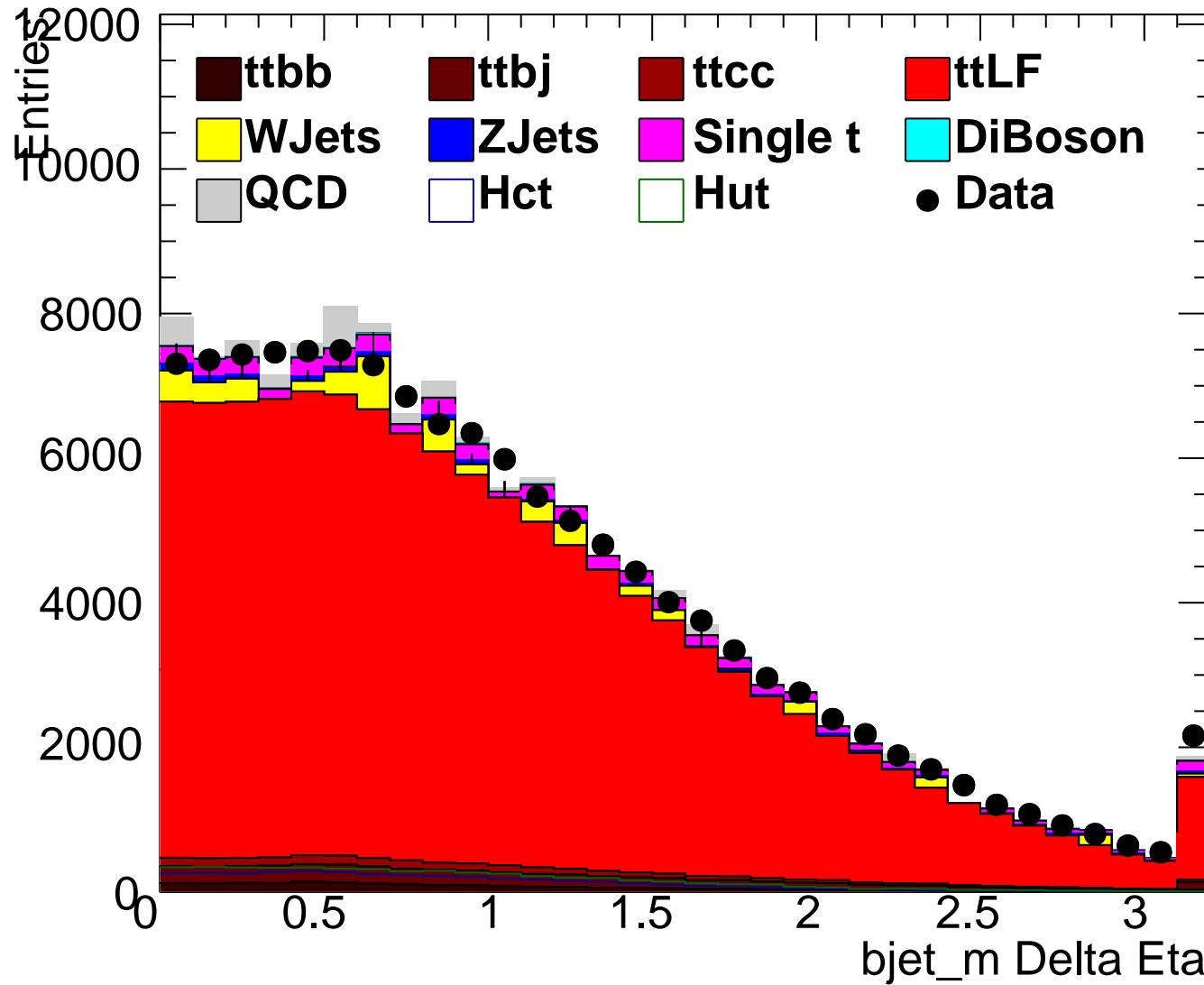
Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

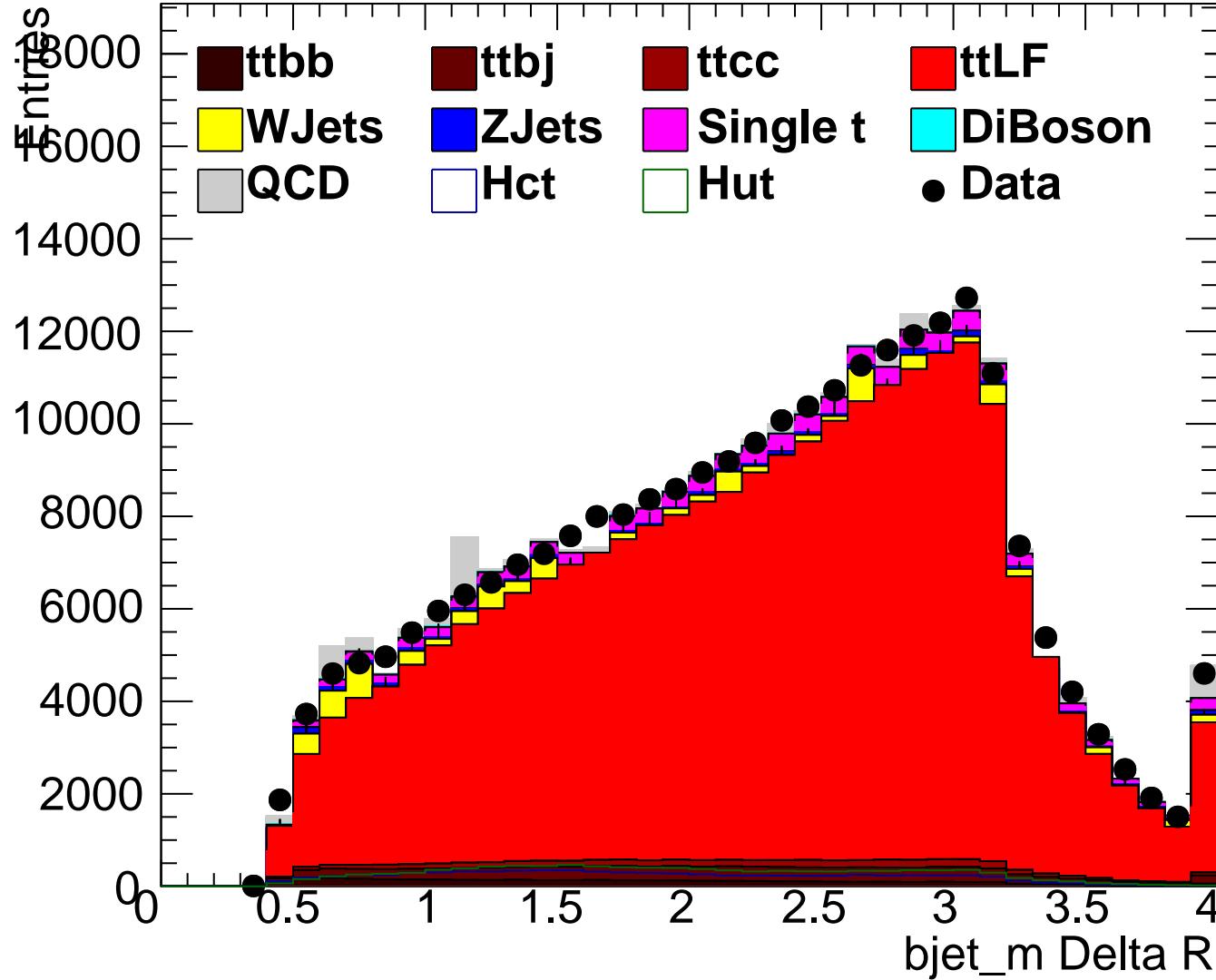
Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S6x 10⁻³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

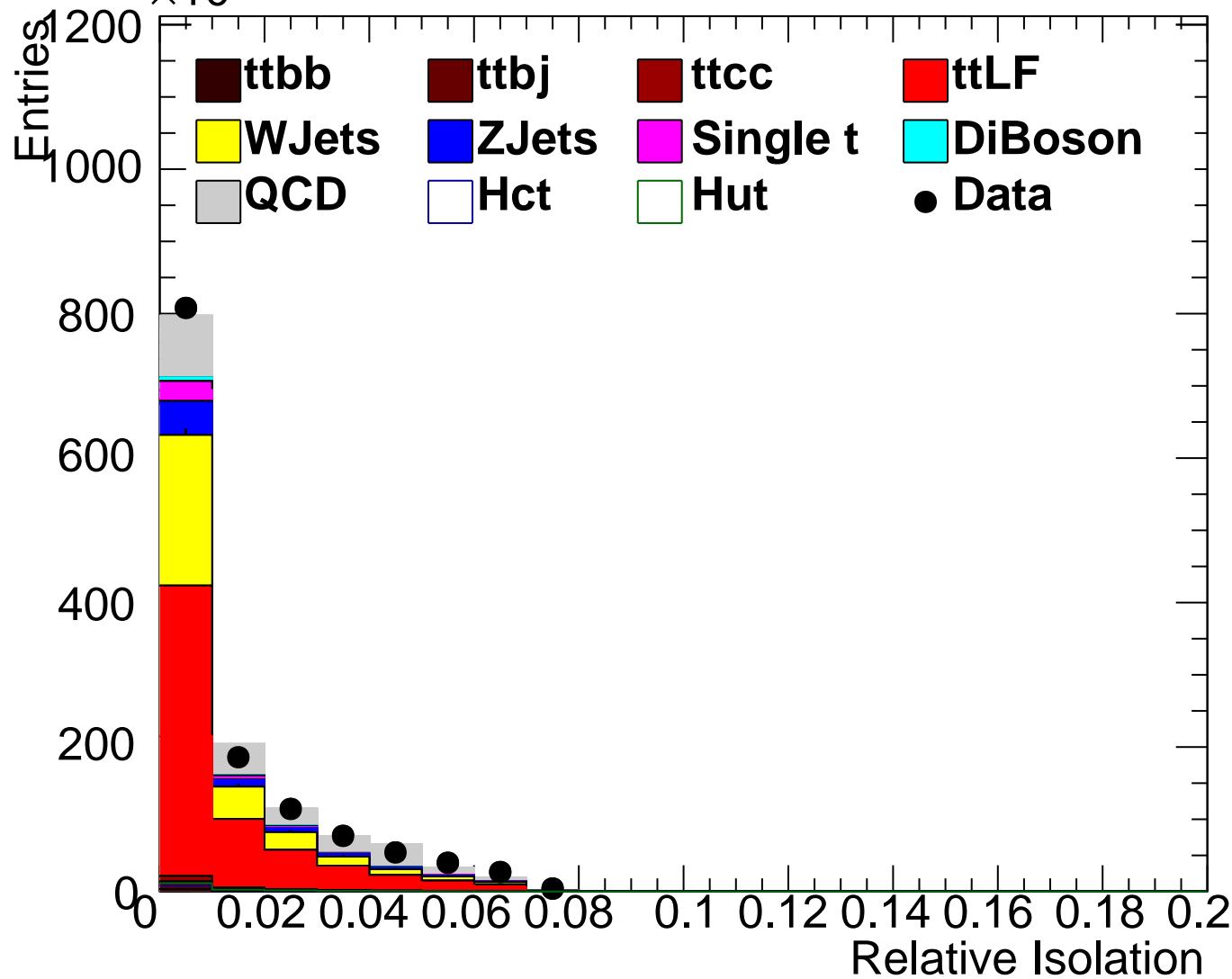


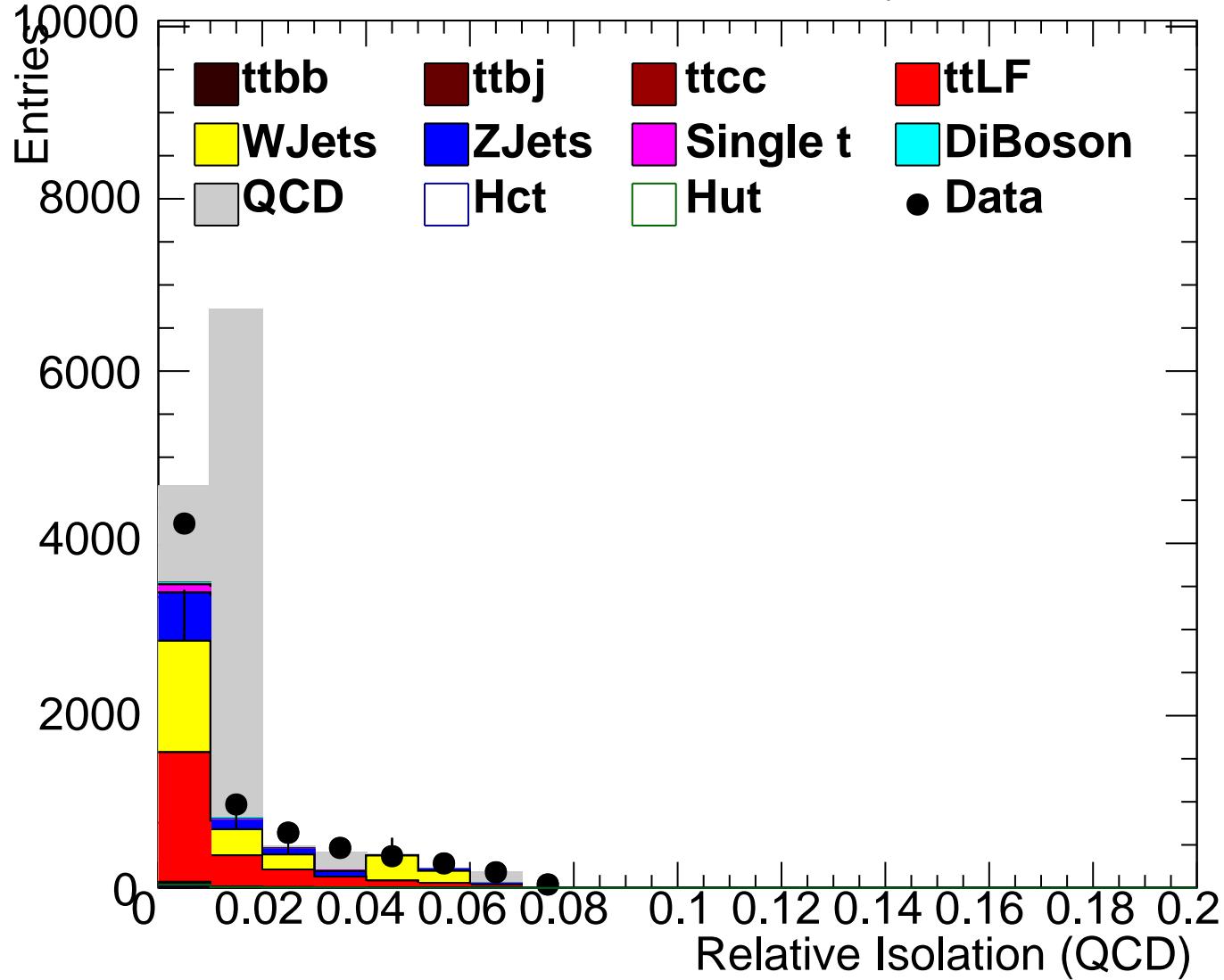
Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S6

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

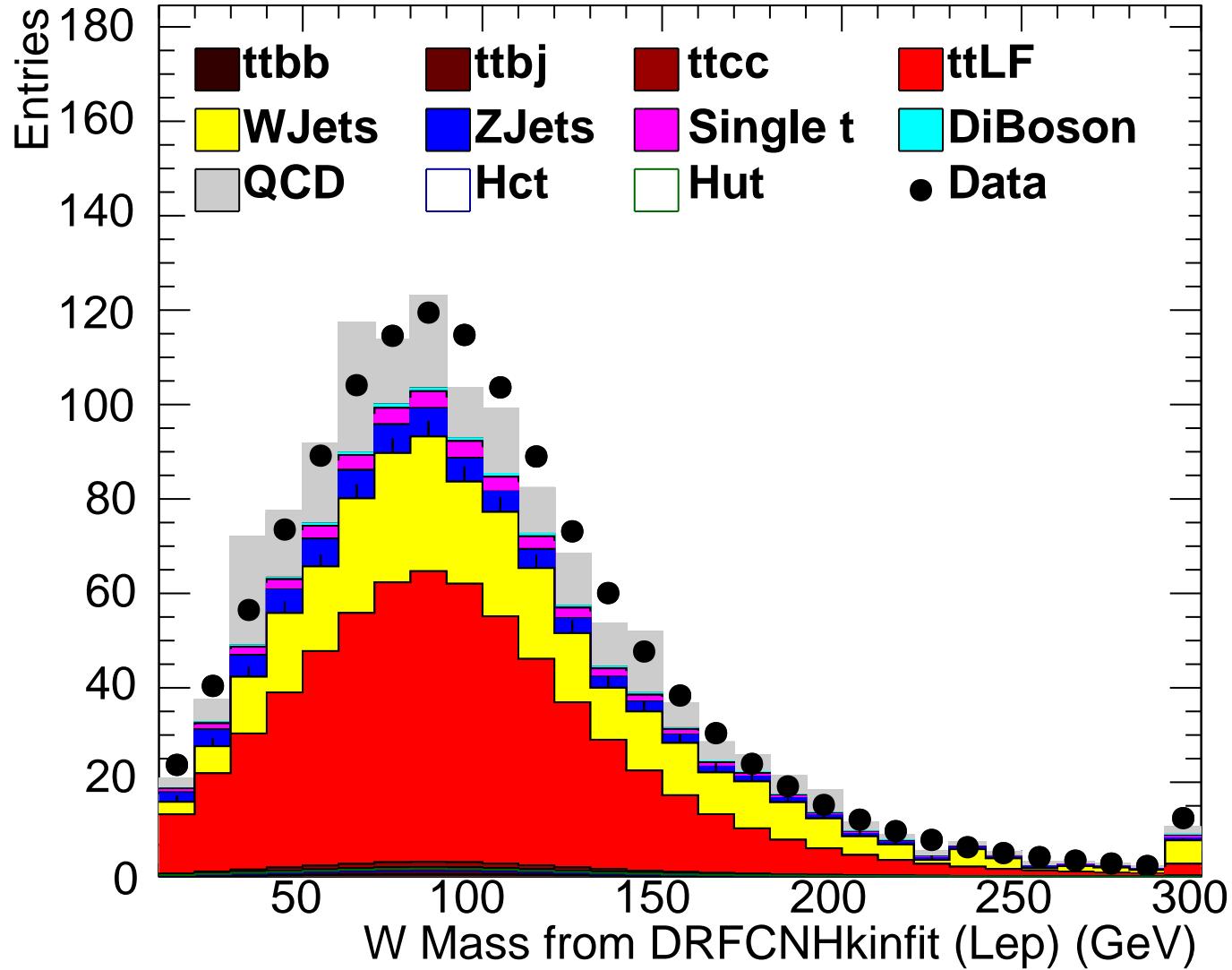


Ch1_S6CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S6

$\times 10^{-3}$

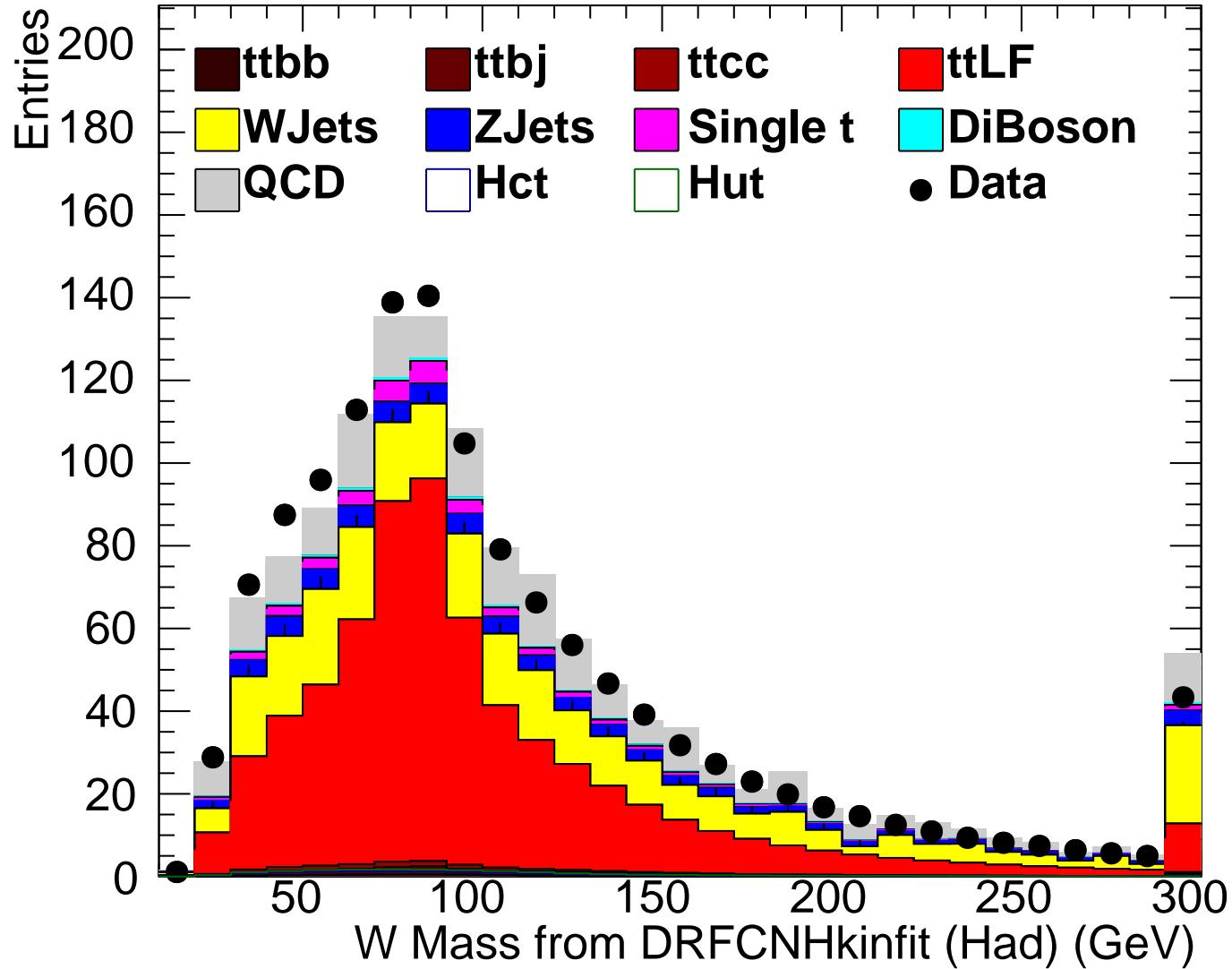
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S6

$\times 10^{-3}$

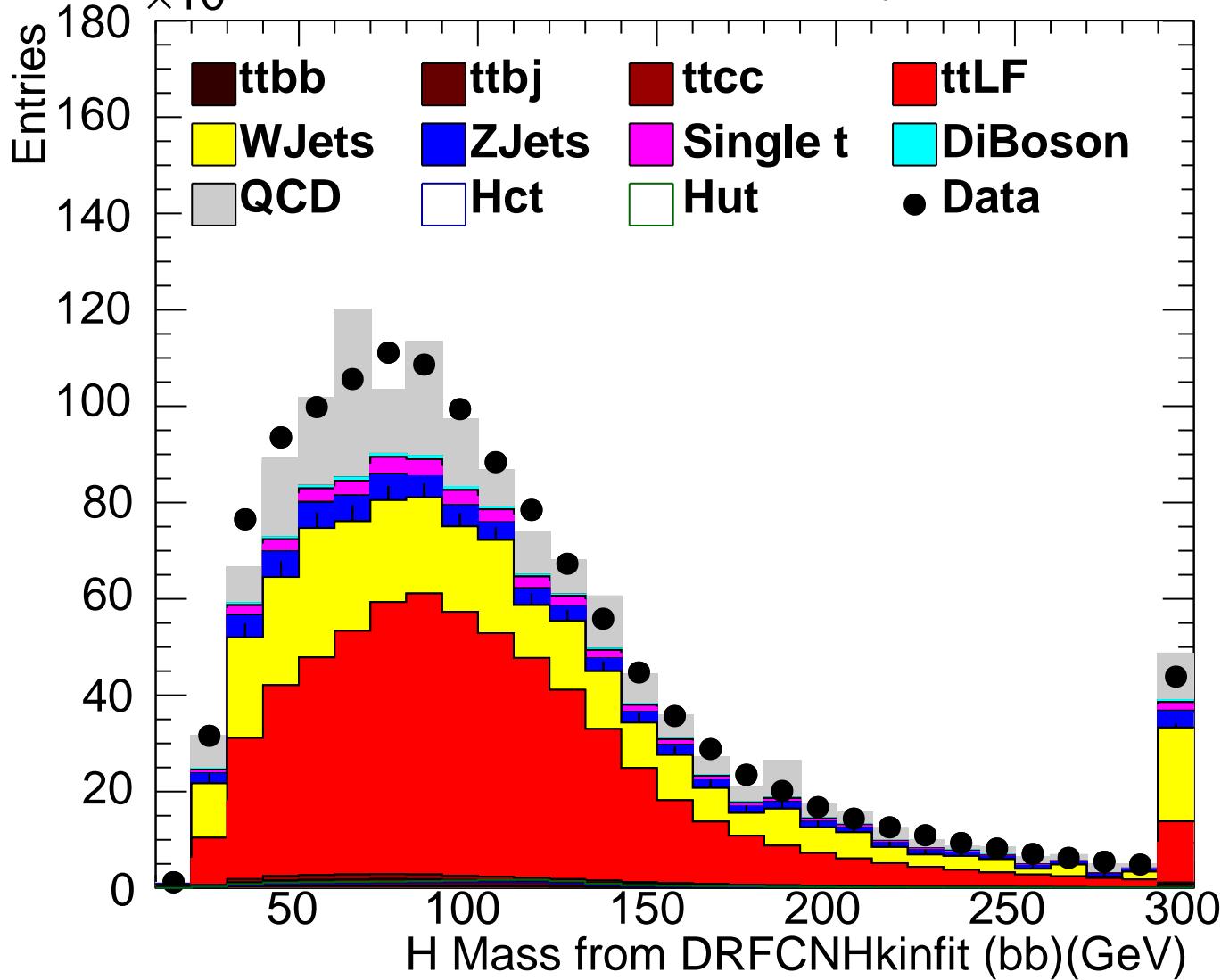
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

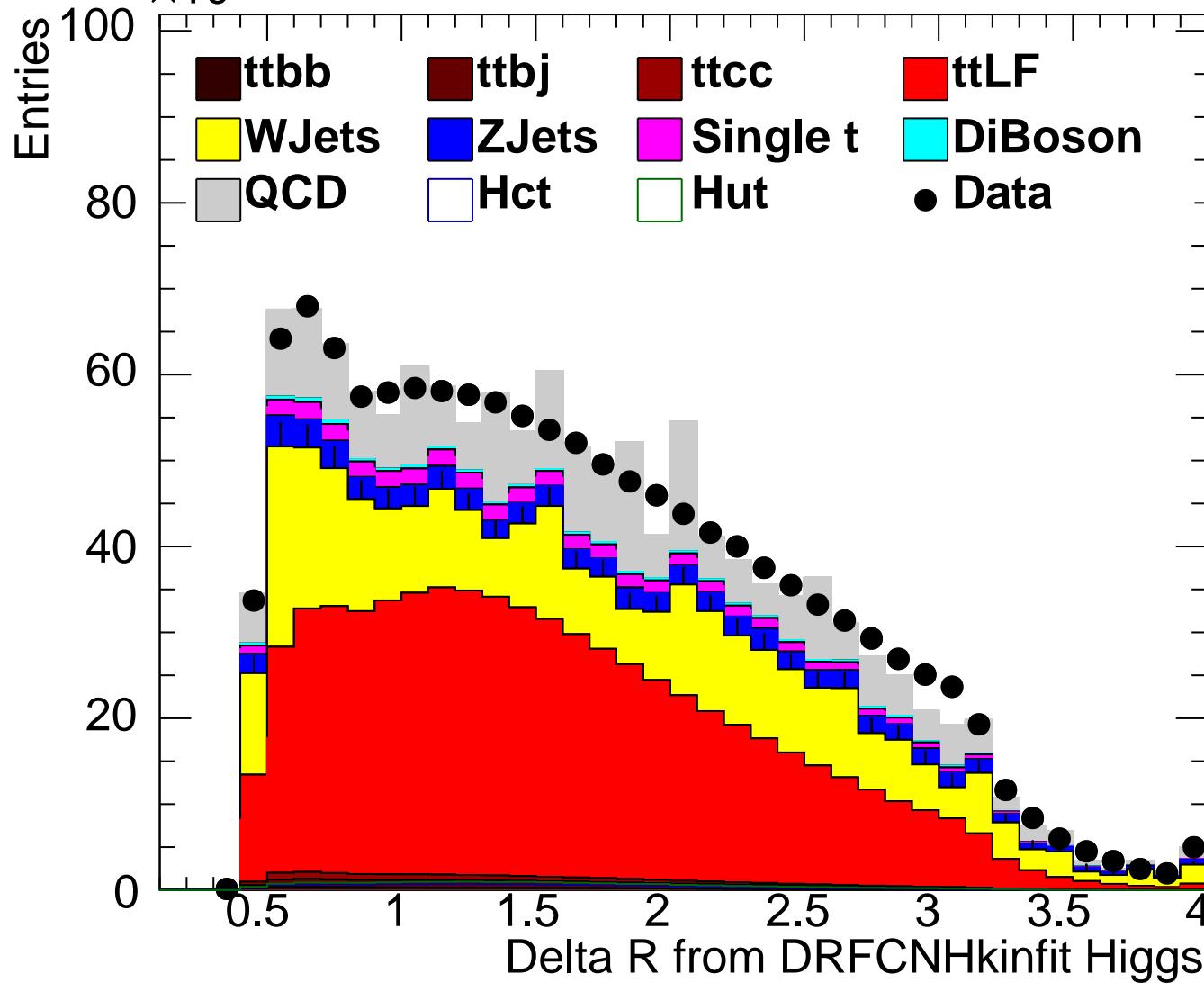


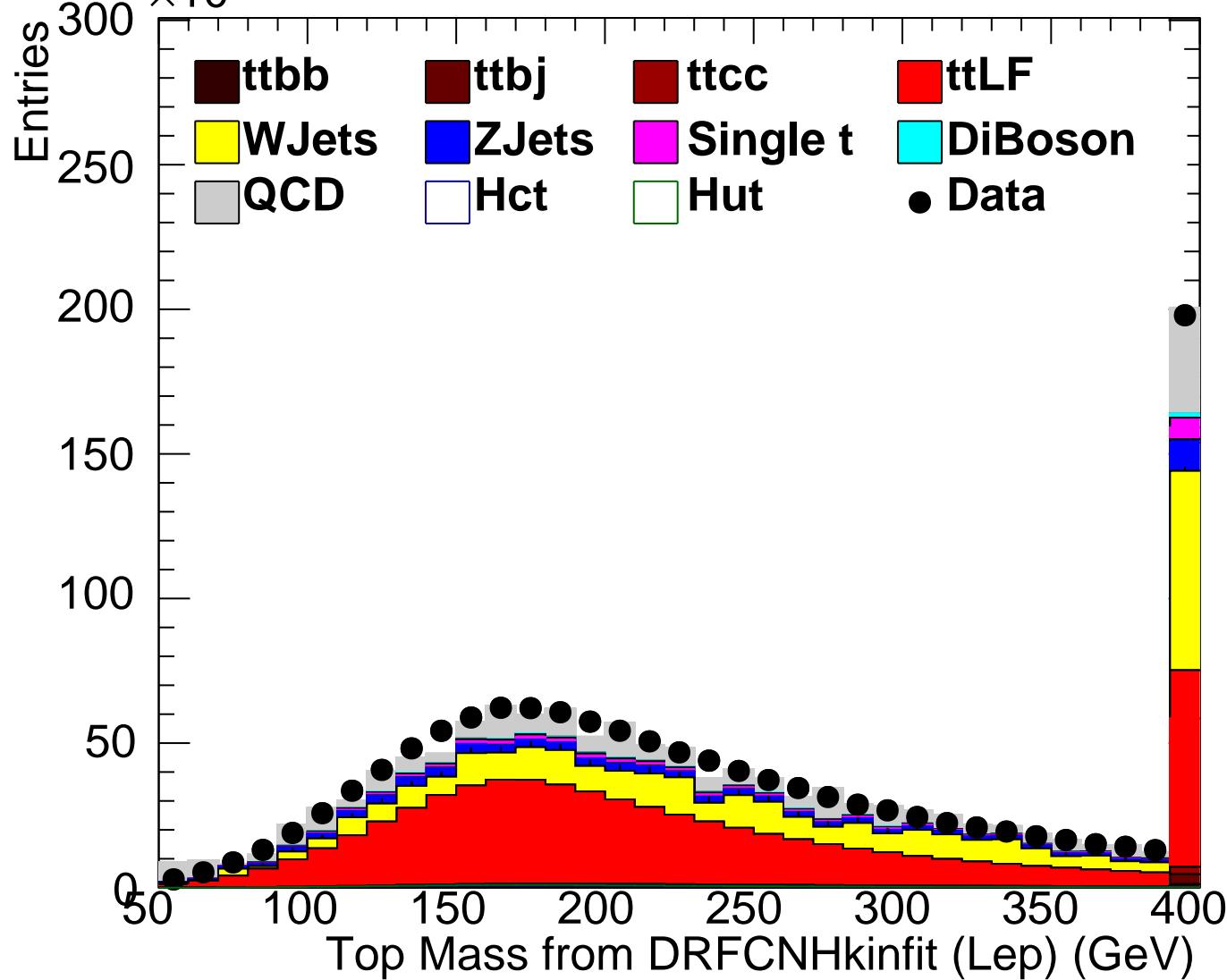
Ch1_S6

$\times 10^3$

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Ch1_S63
 $\times 10^3$ CMS, 35.9 fb $^{-1}$ at $\sqrt{s} = 13$ TeV

Ch1_S6x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

Entries

120

100

80

60

40

20

0

ttbb

WJets

QCD

ttbj

ZJets

Hct

ttcc

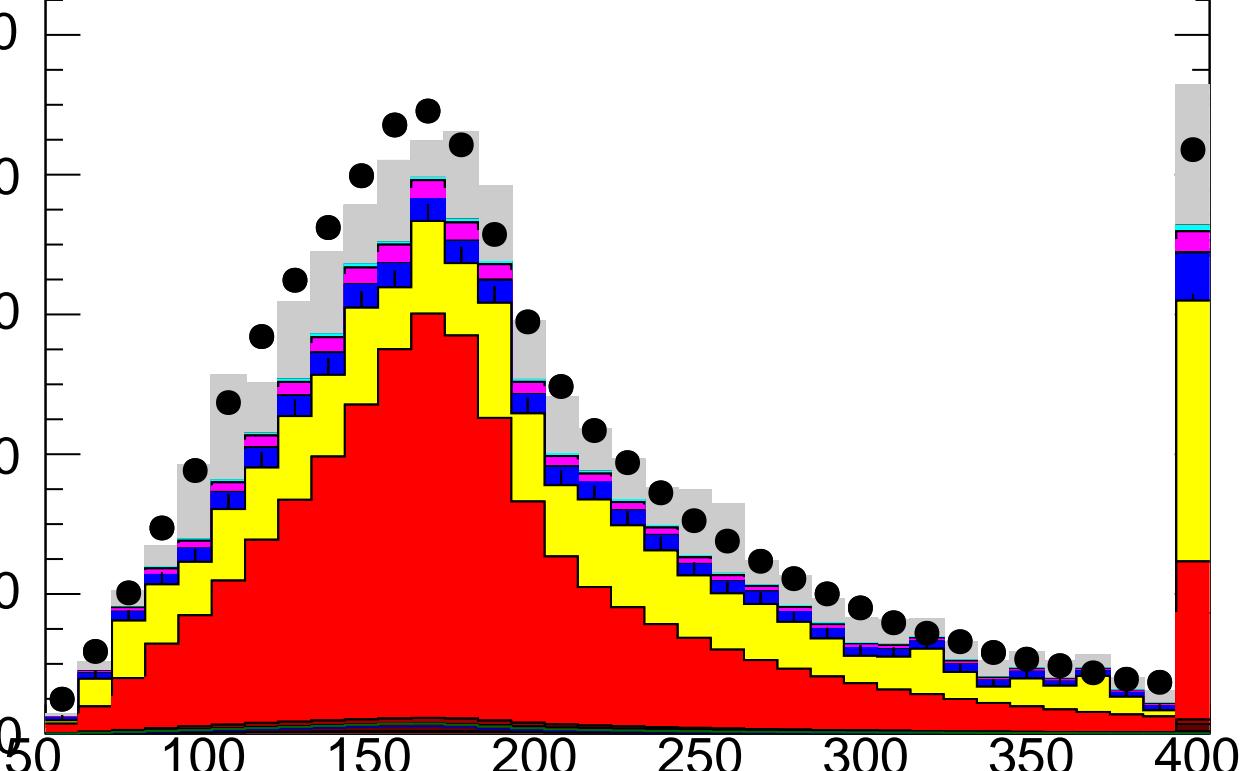
Single t

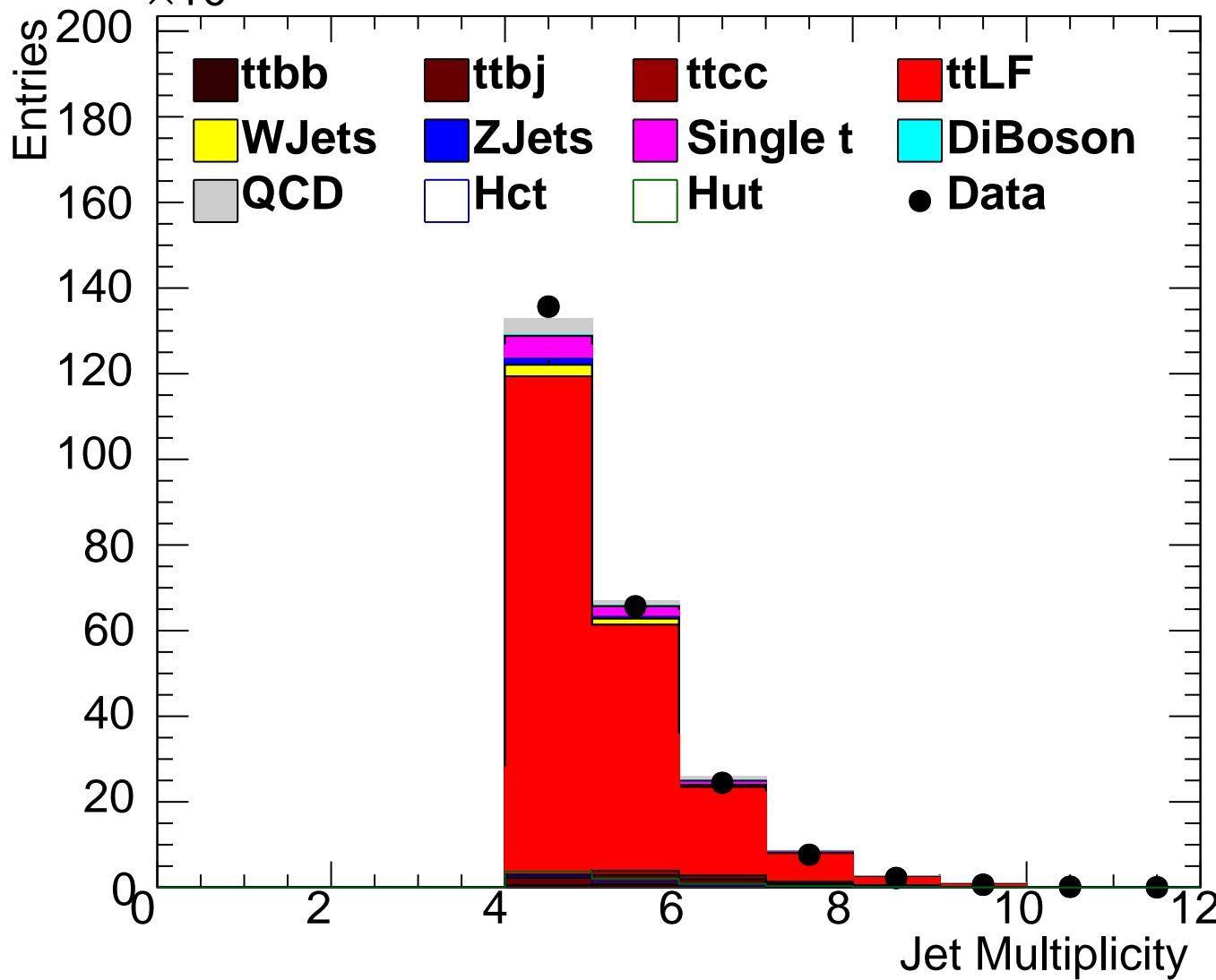
Hut

ttLF

DiBoson

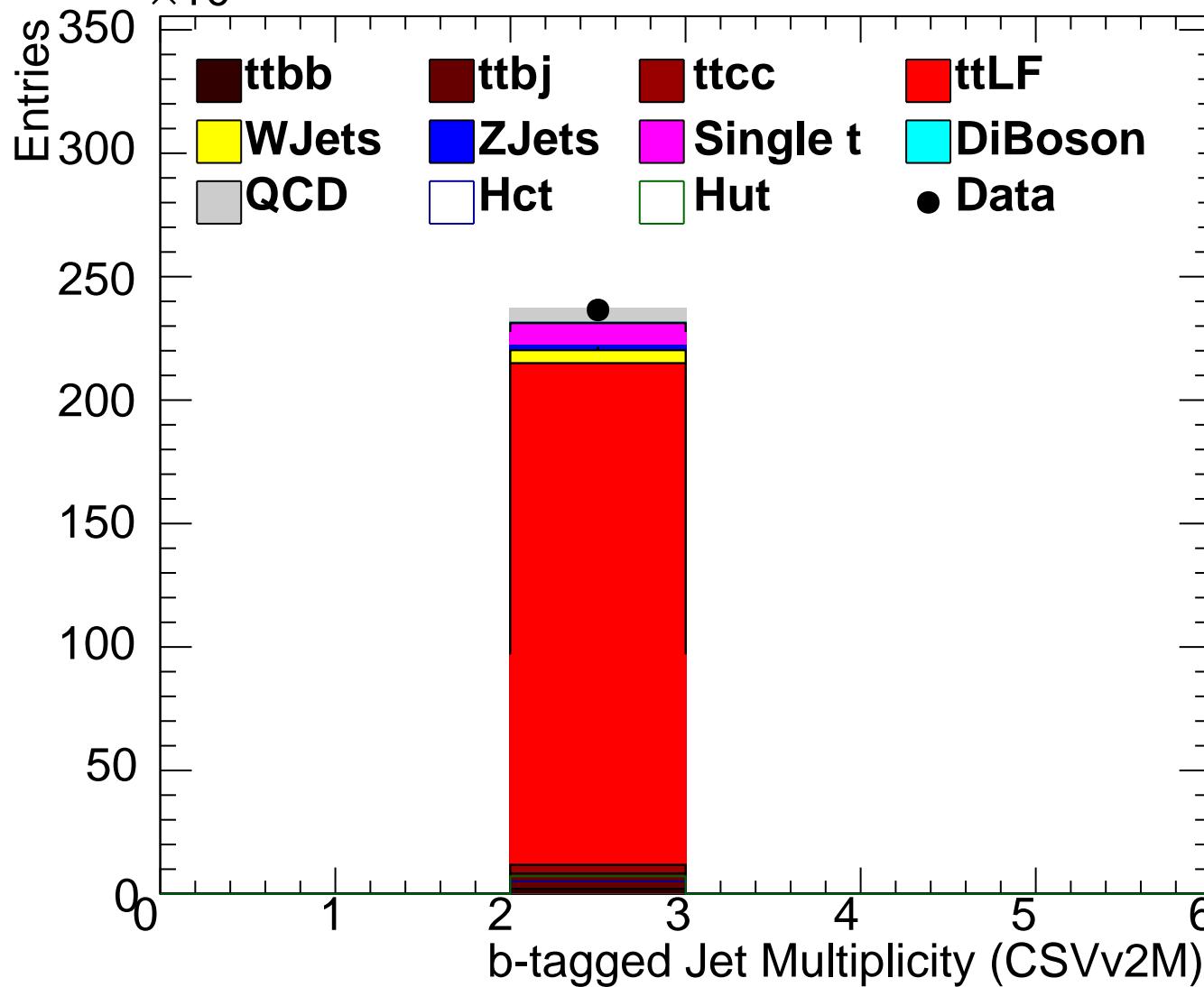
Data

Top Mass from Hc/u DRFCN_Hkinfit (GeV)



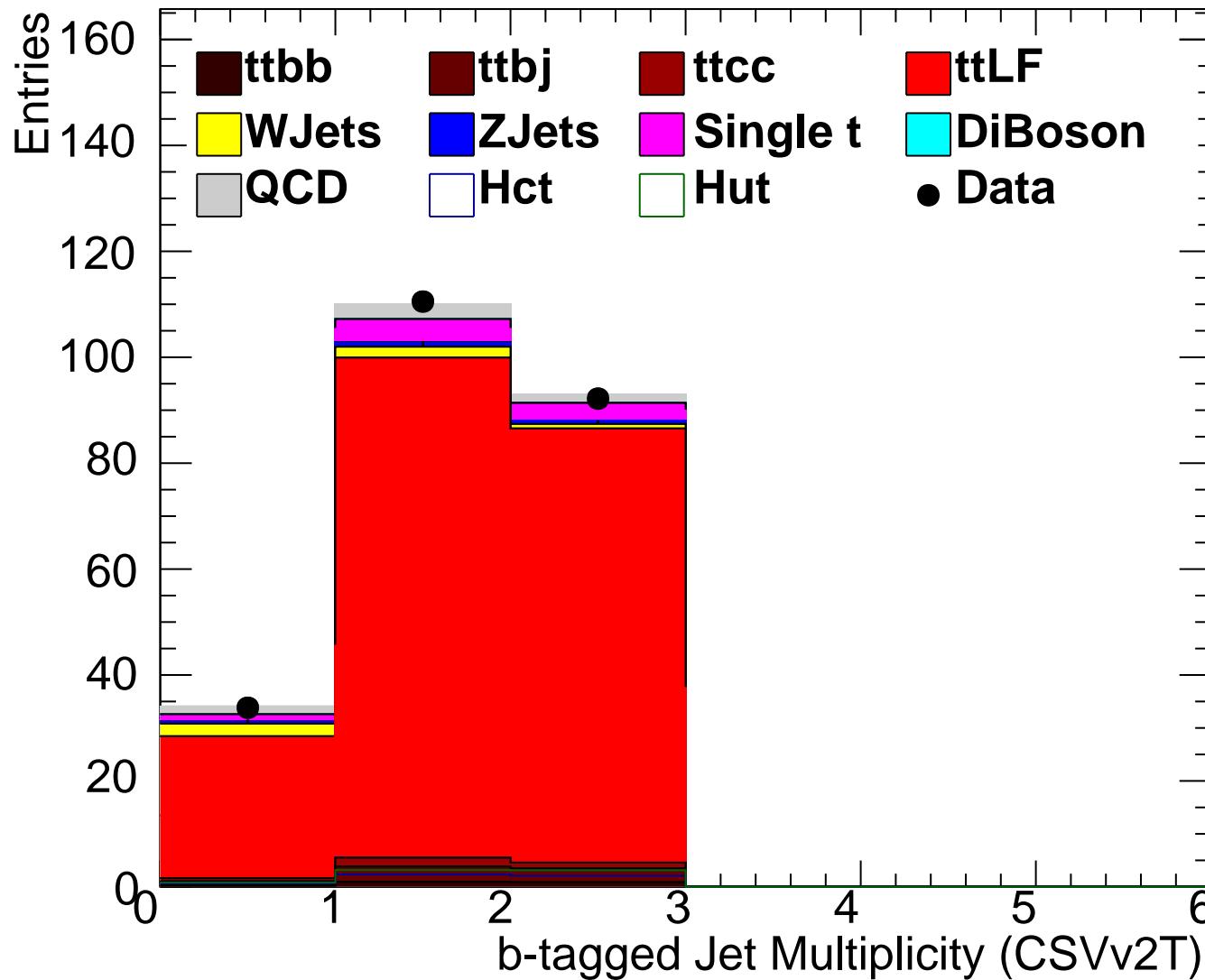
Ch1_S7

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



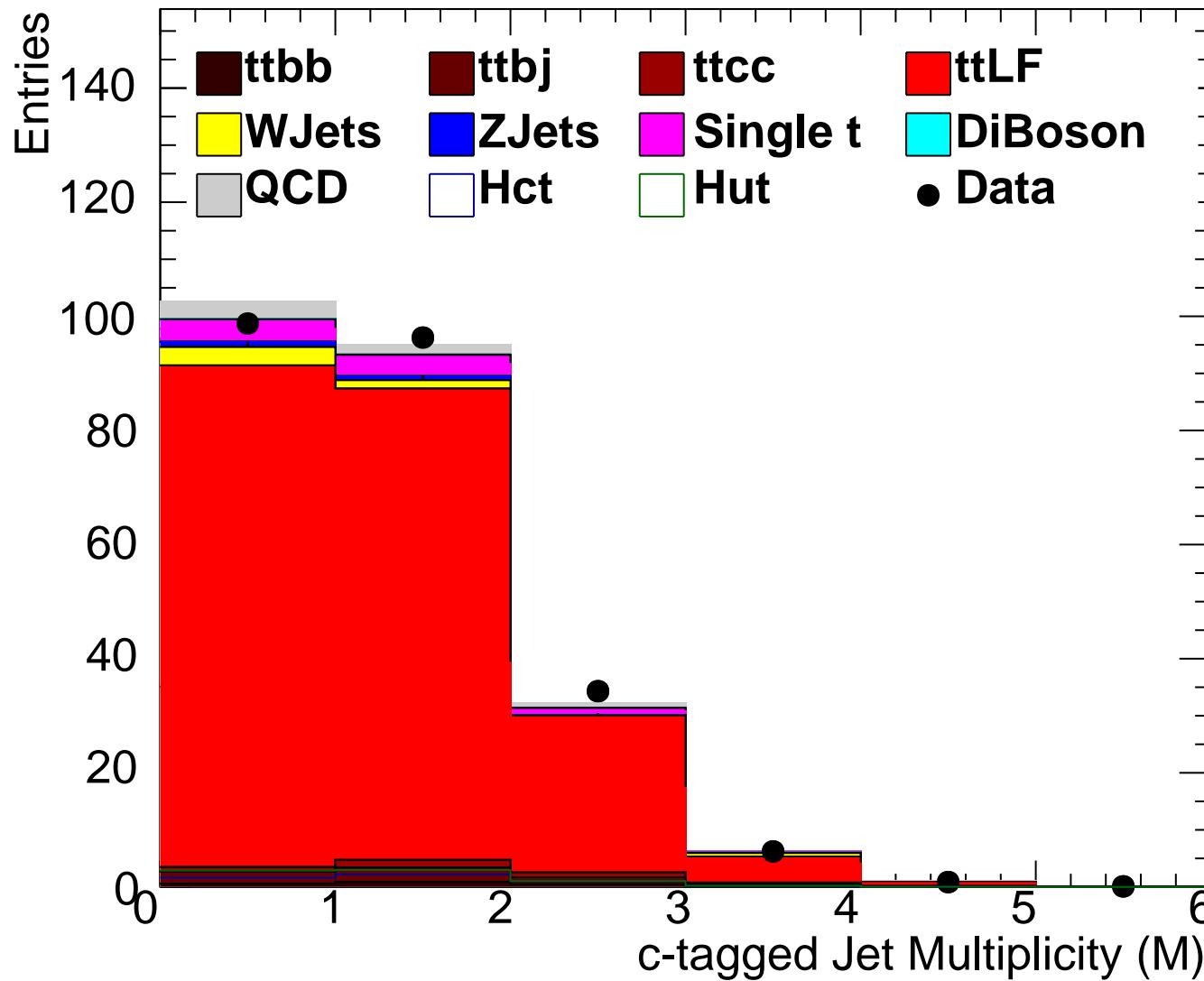
Ch1_S7 3

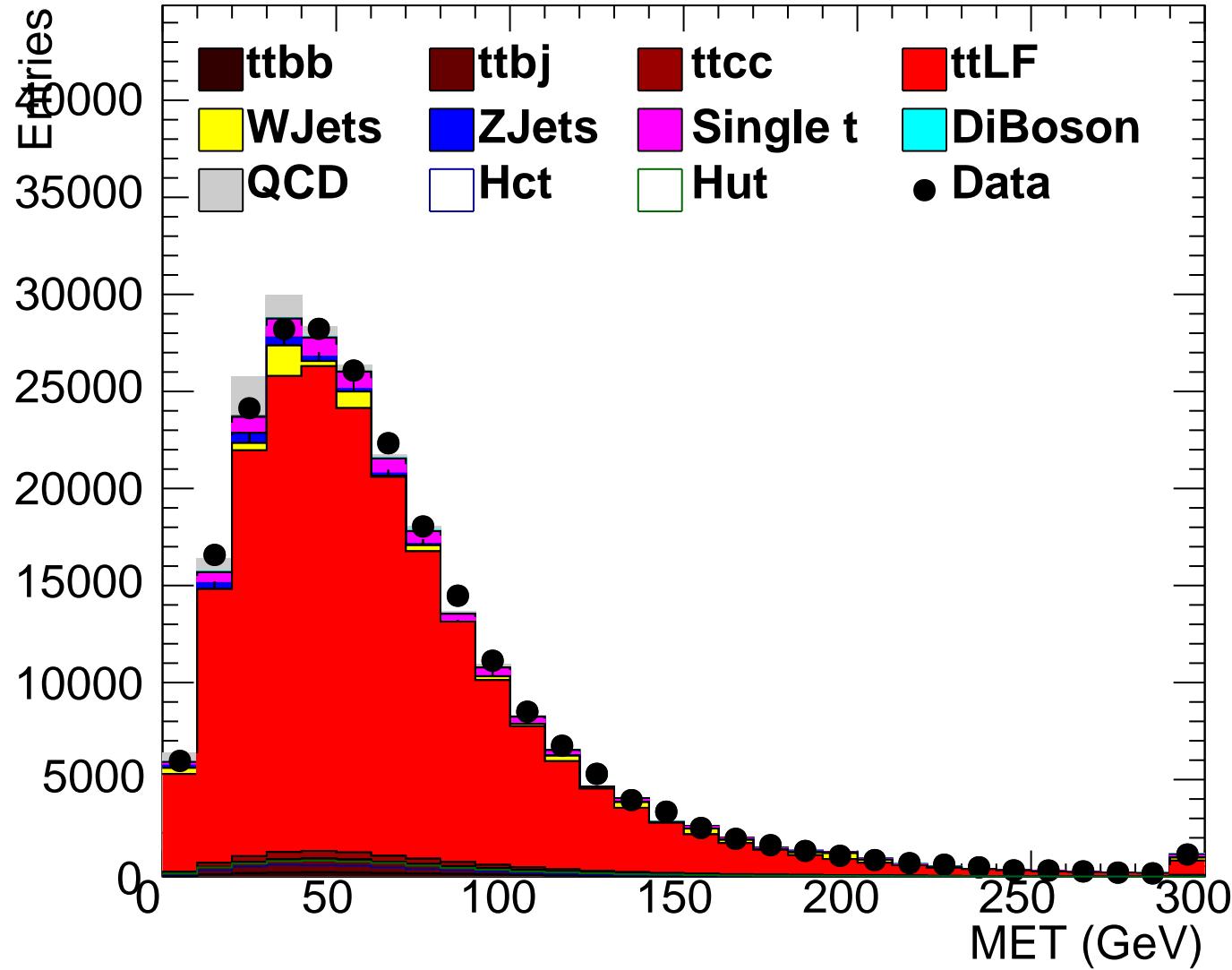
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

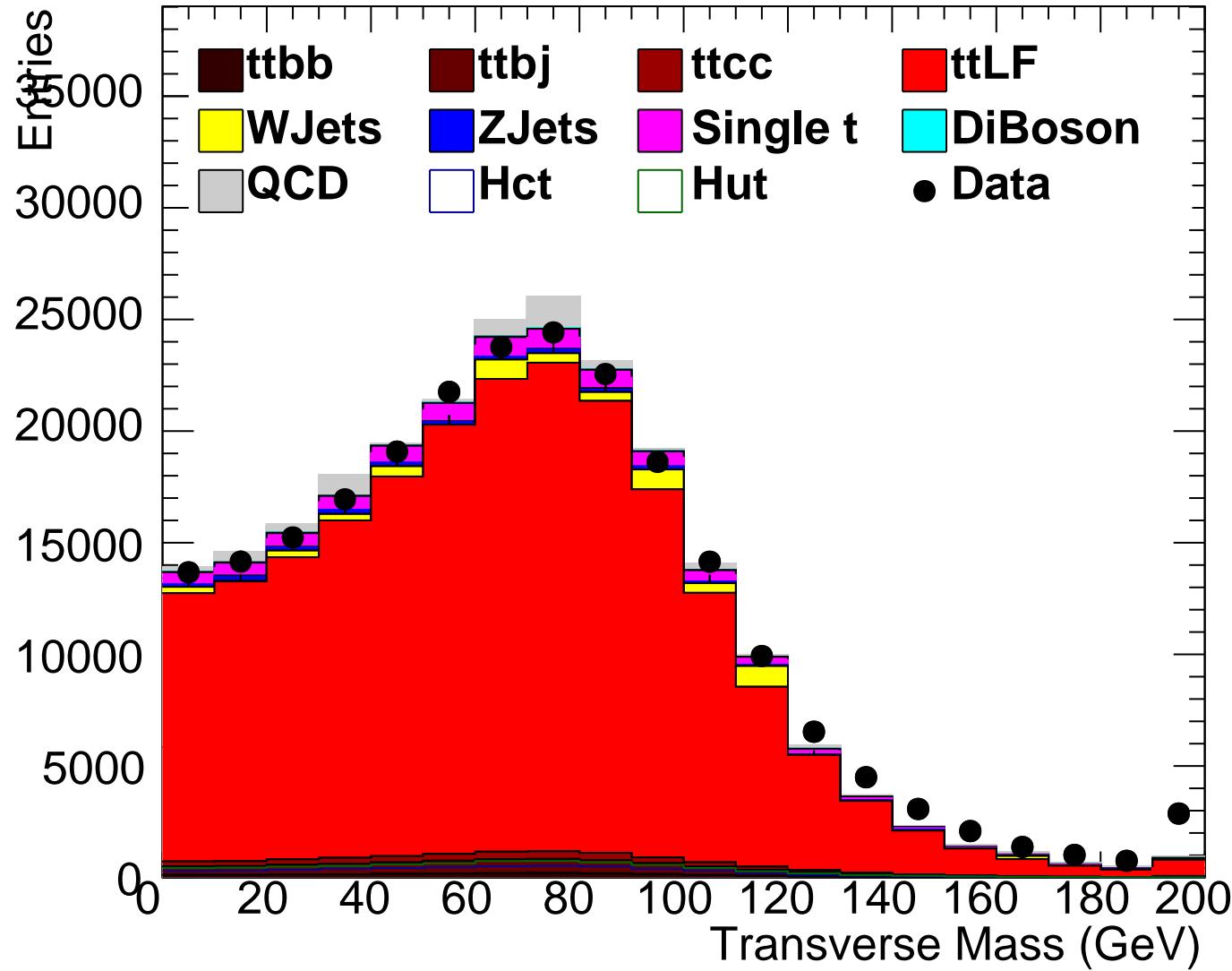


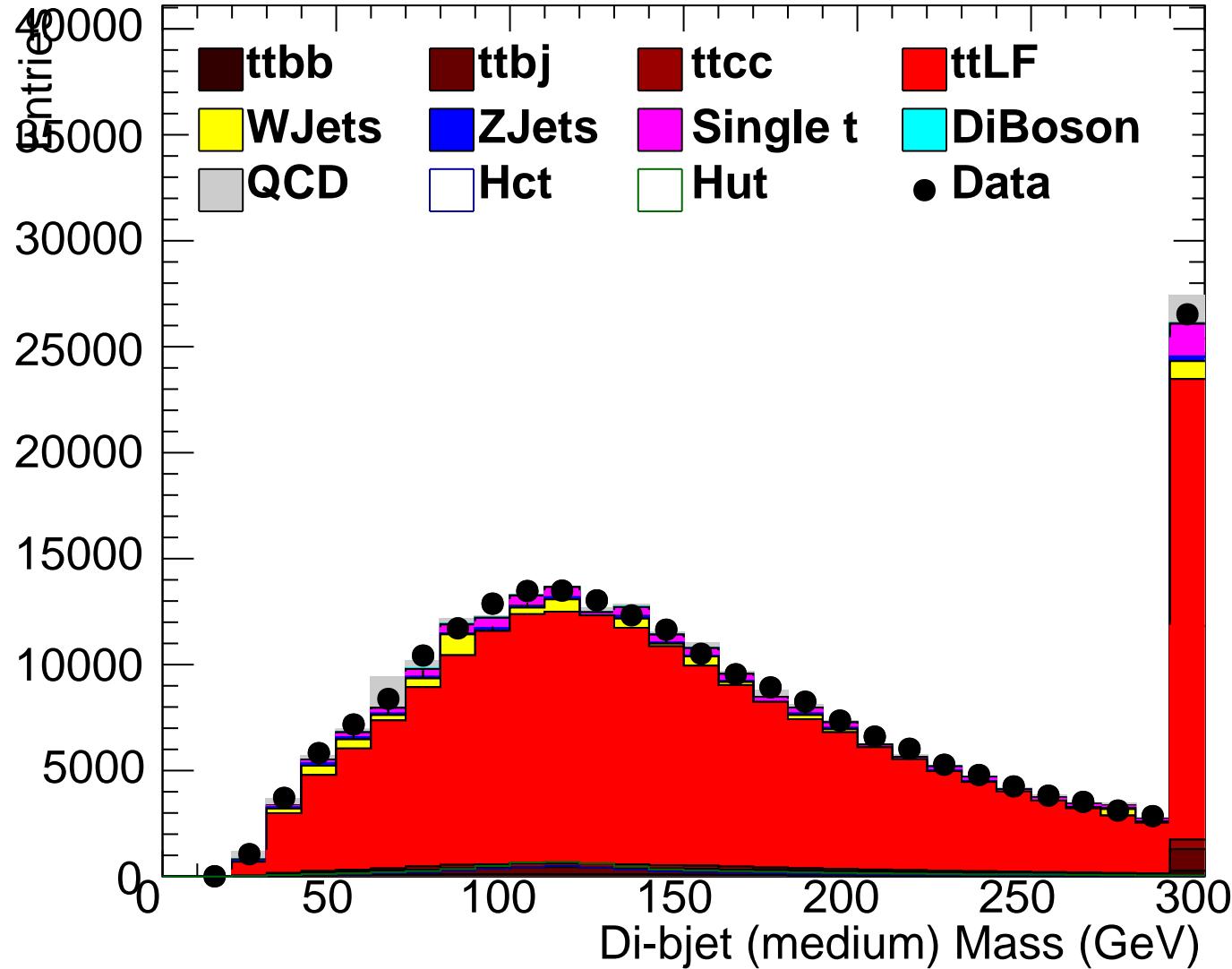
Ch1_S7

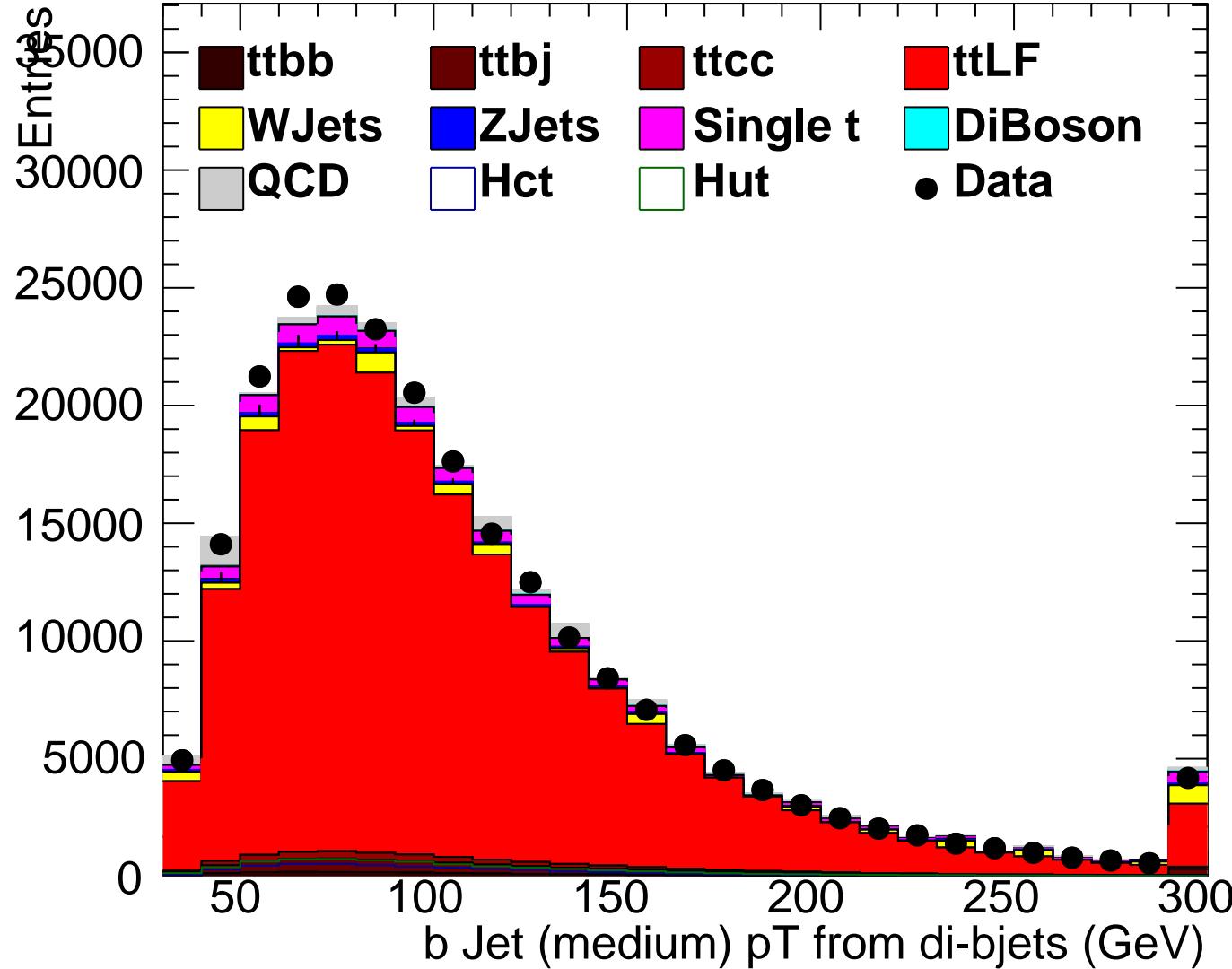
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

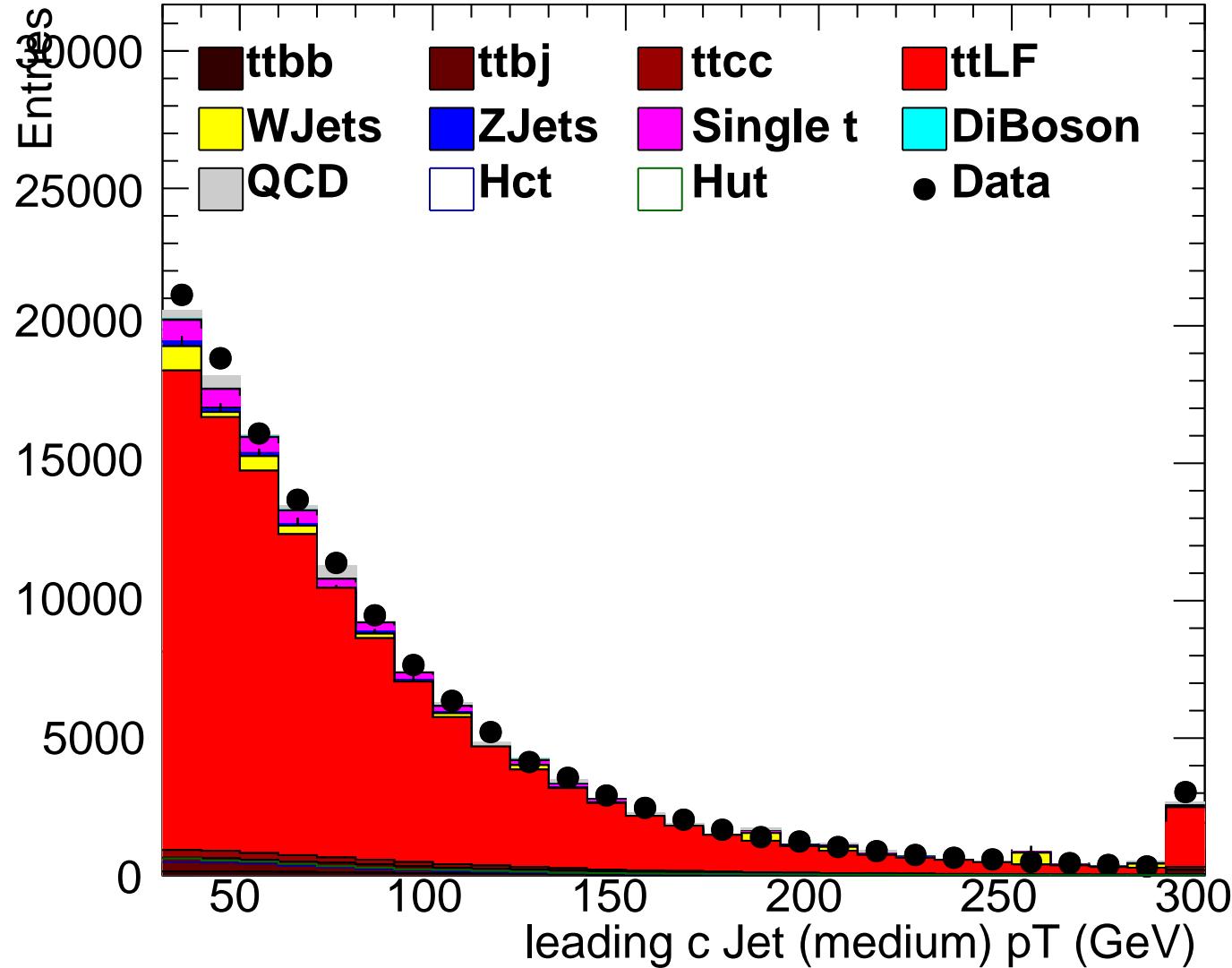


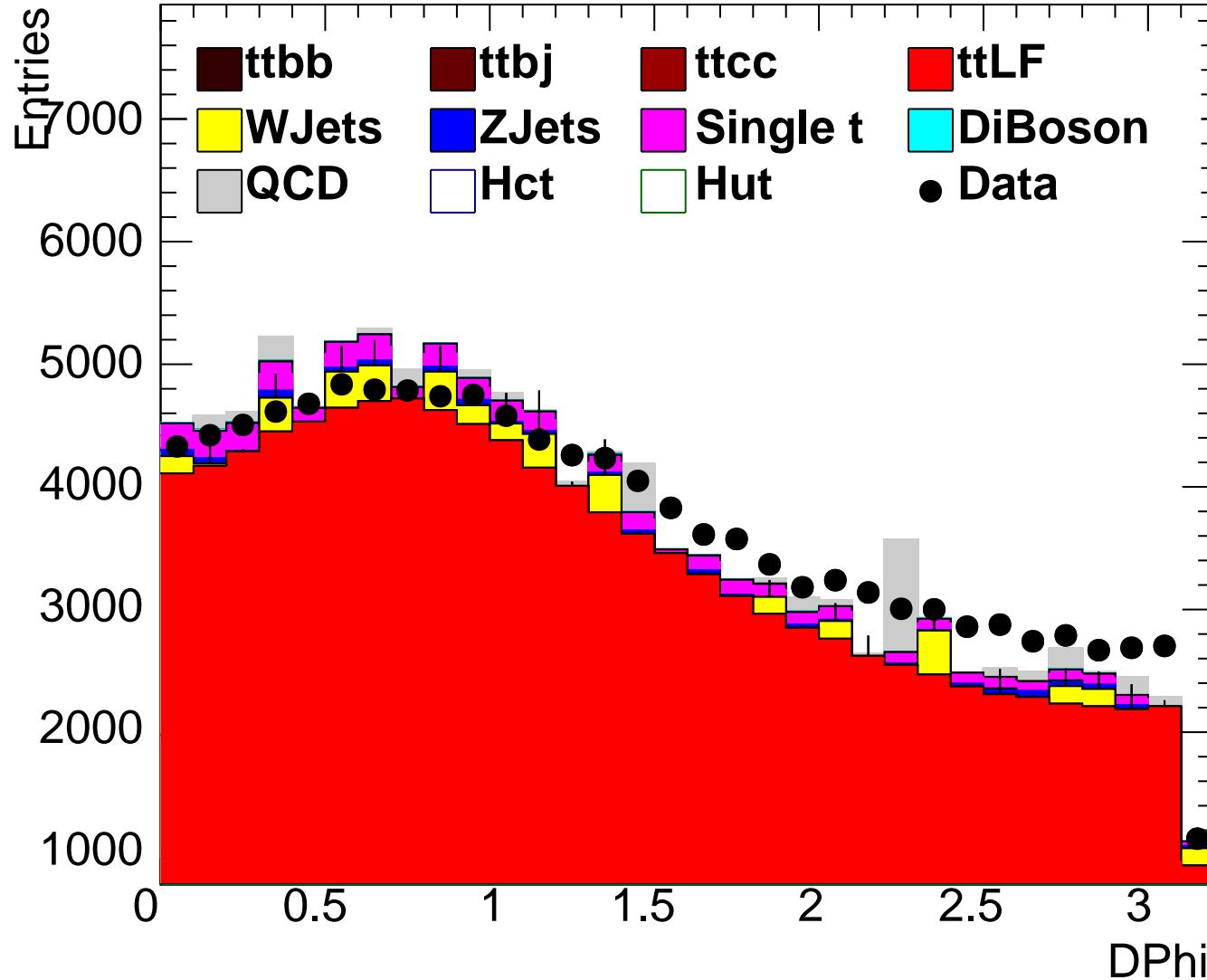
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

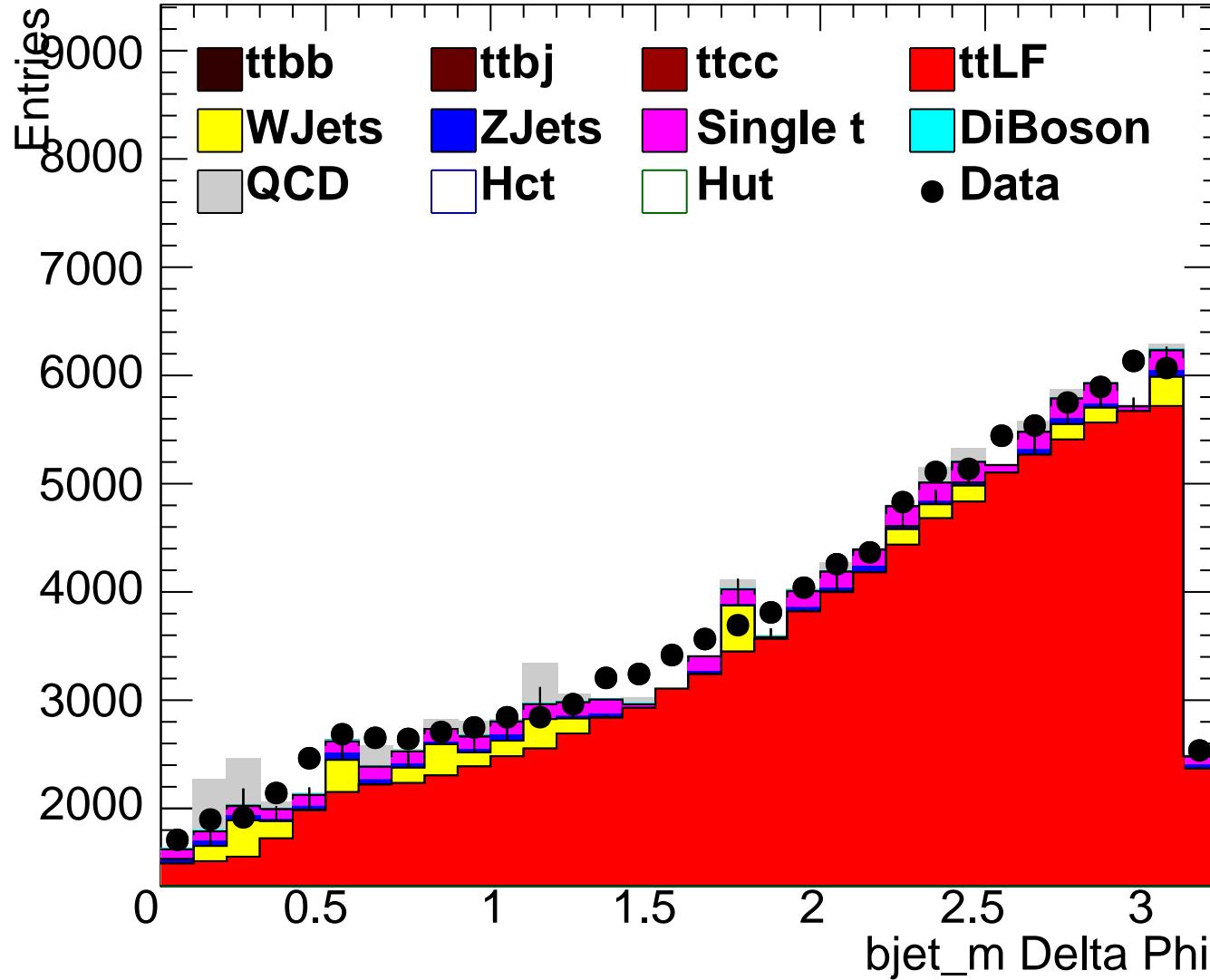


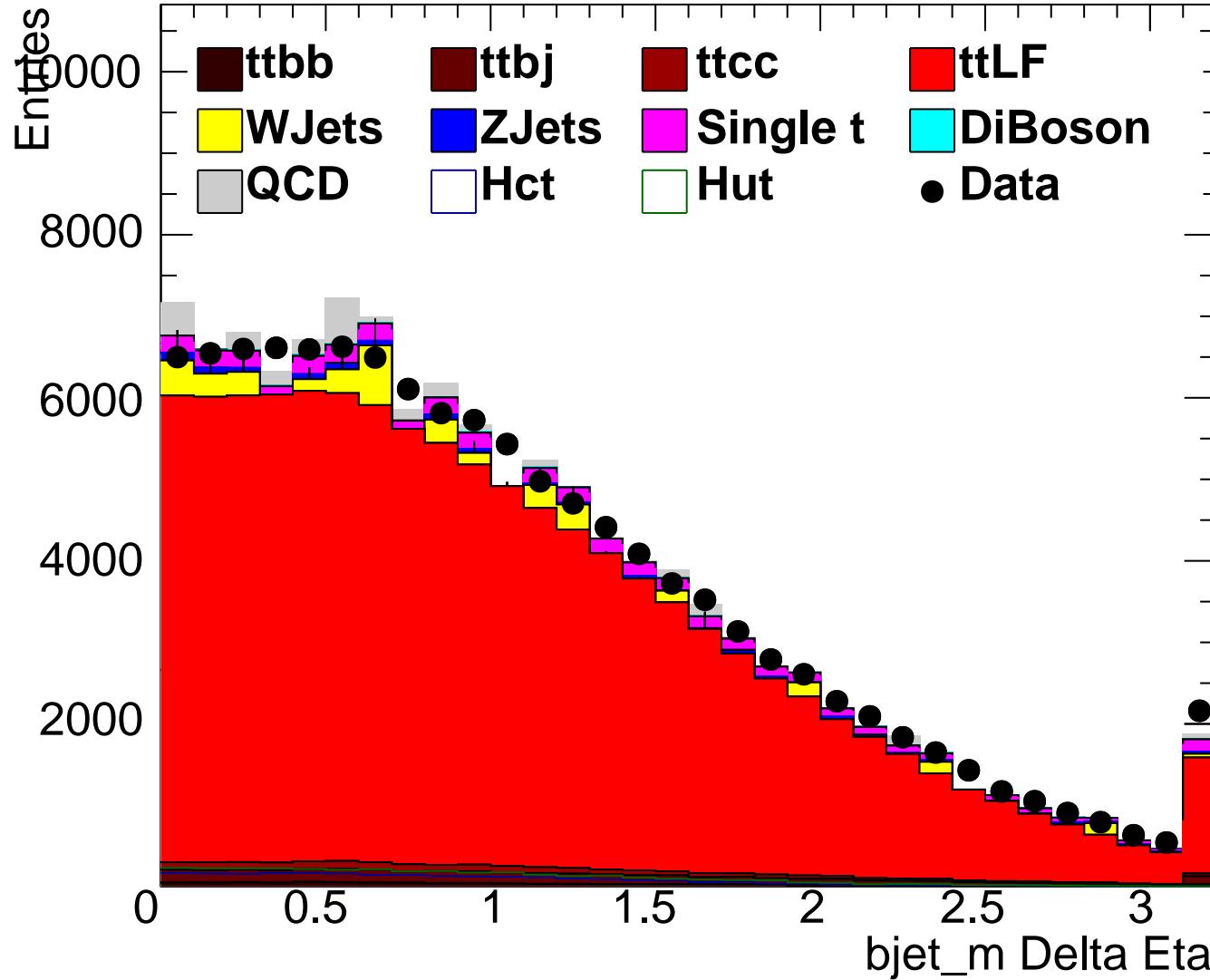
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

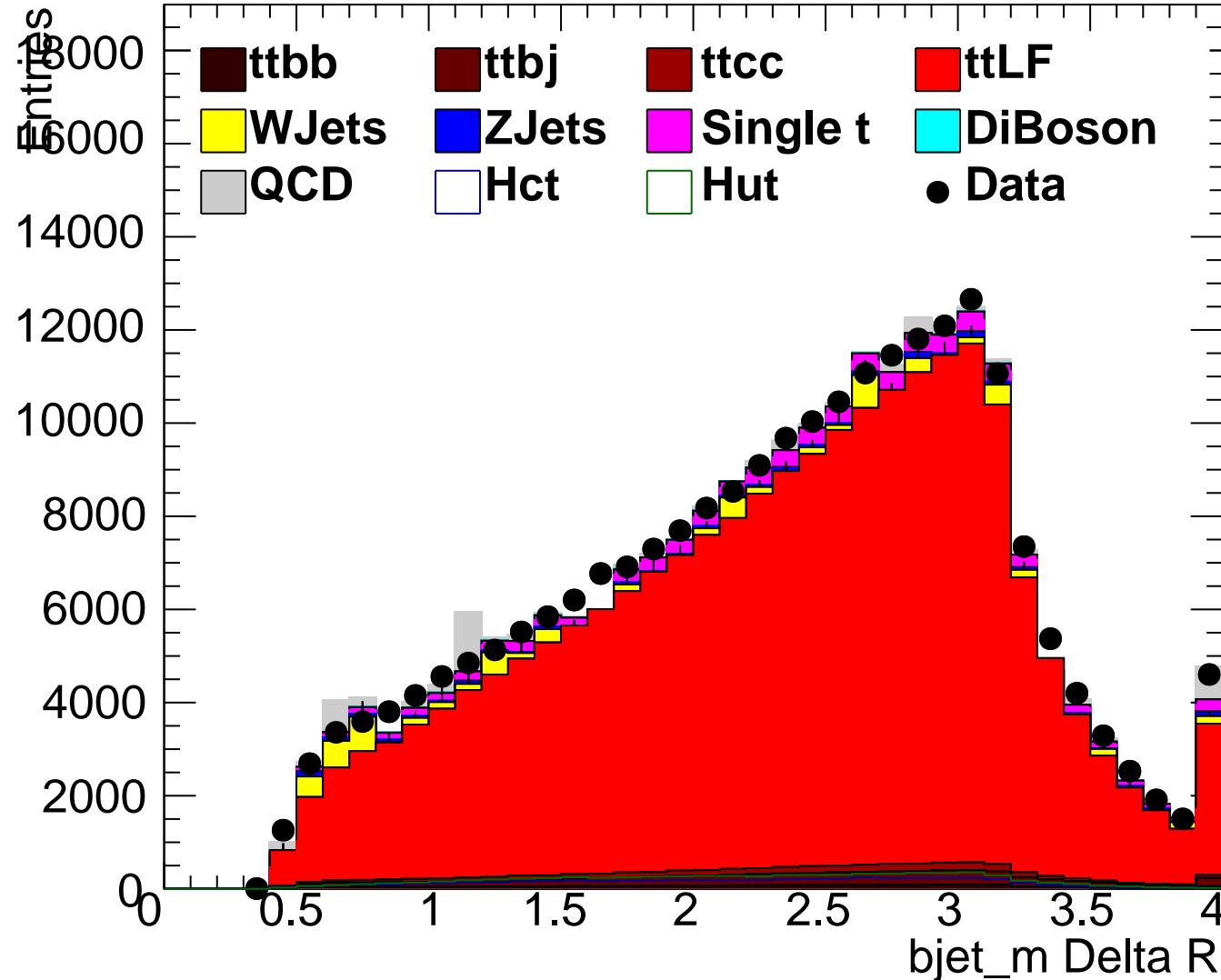
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

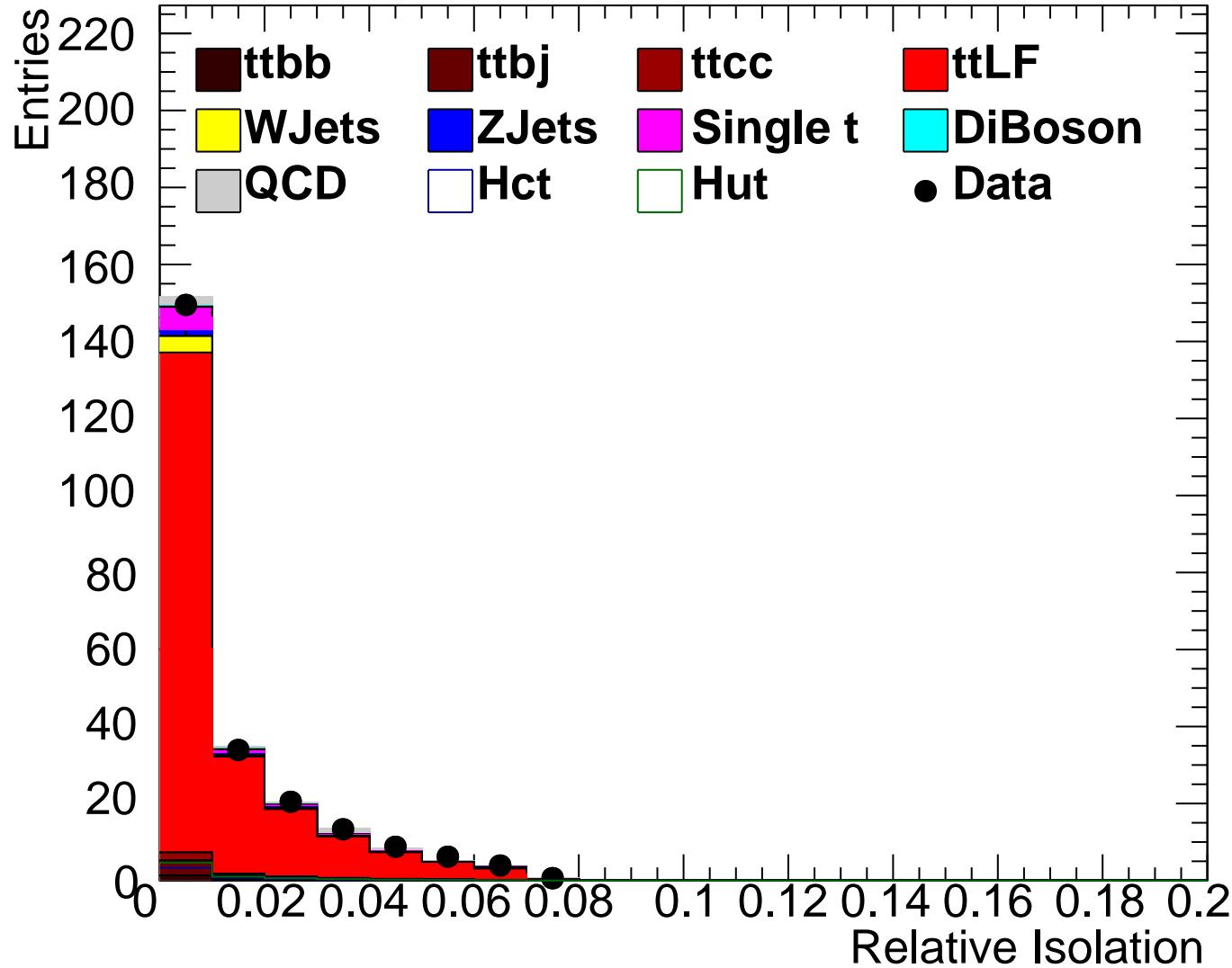
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

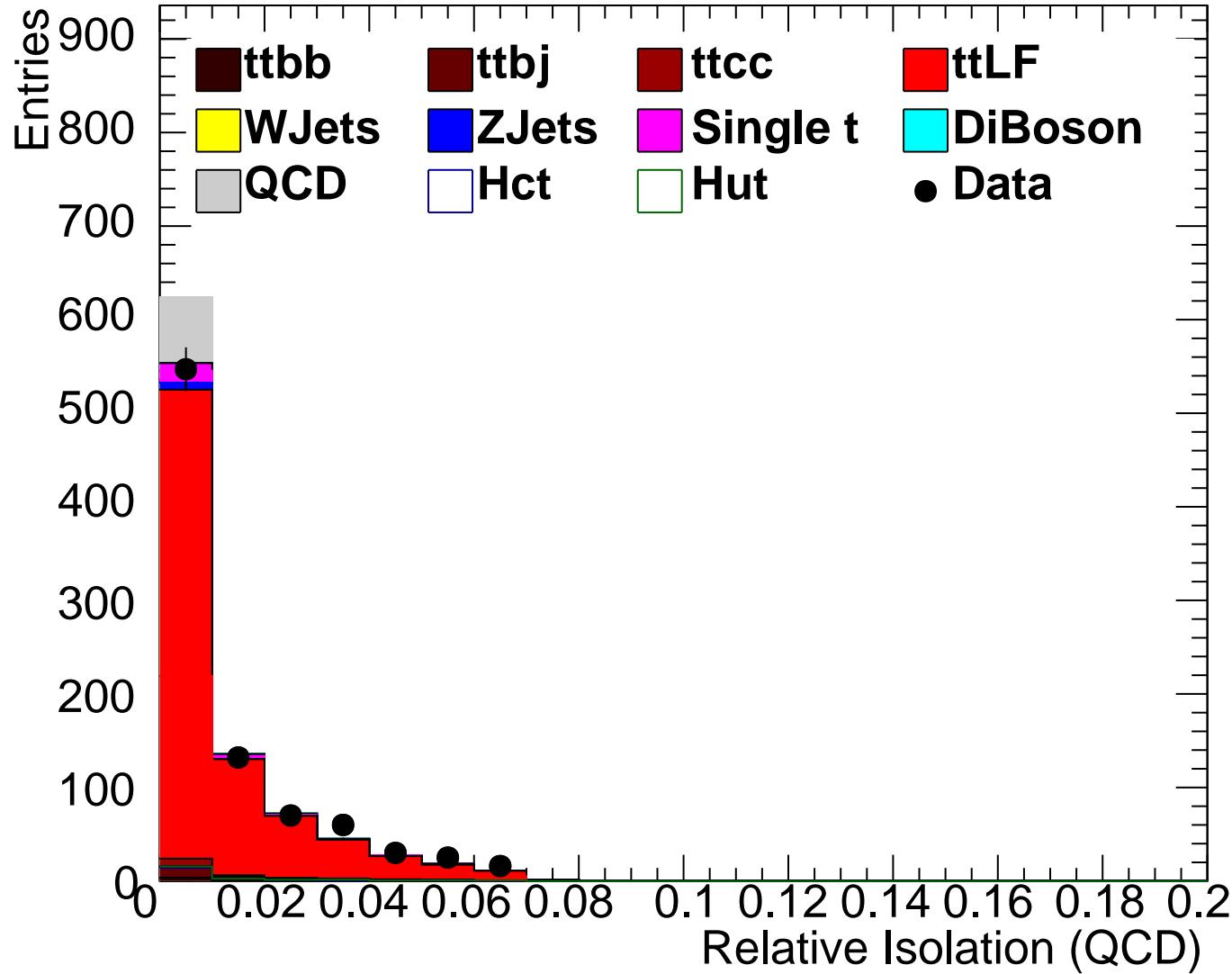


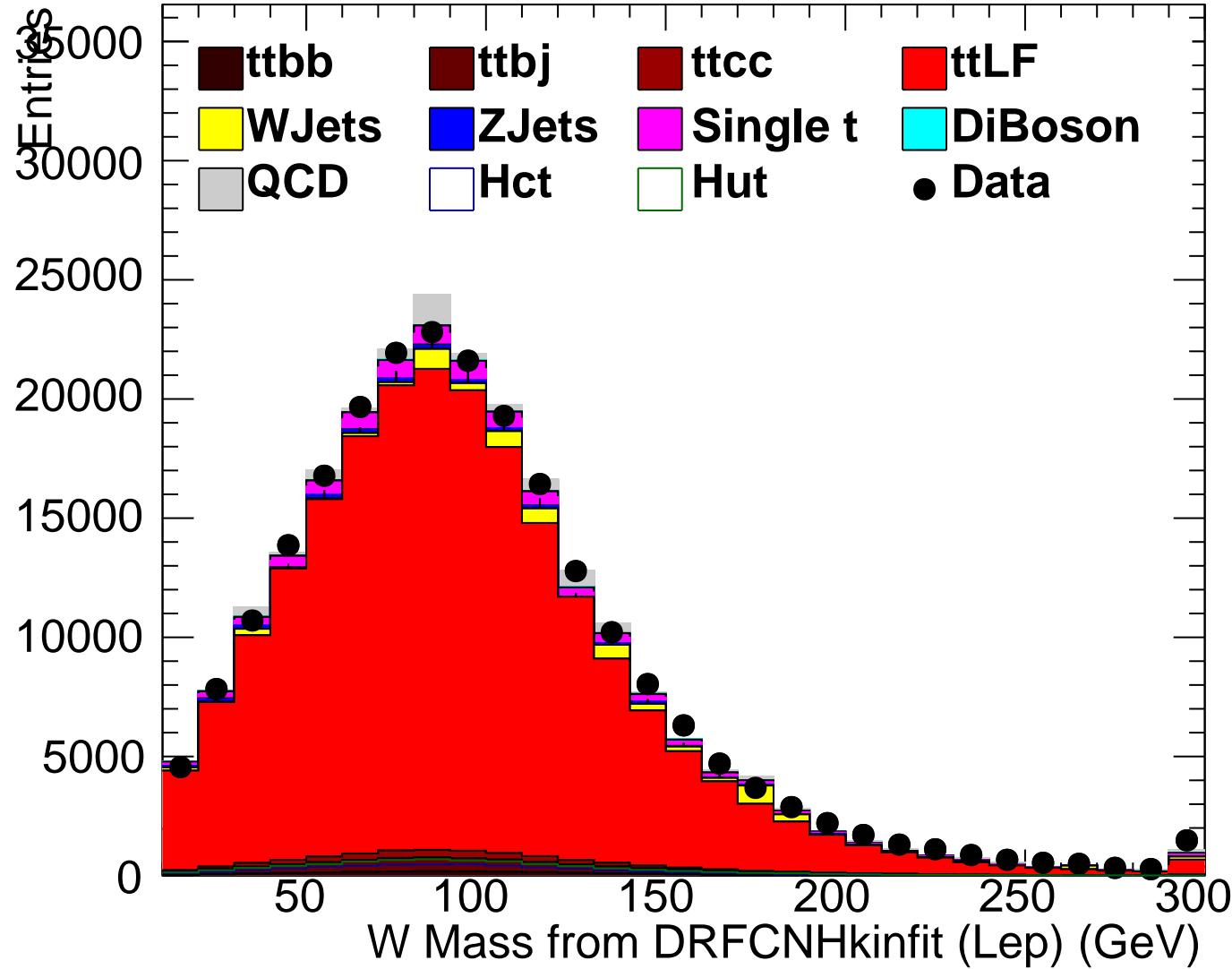


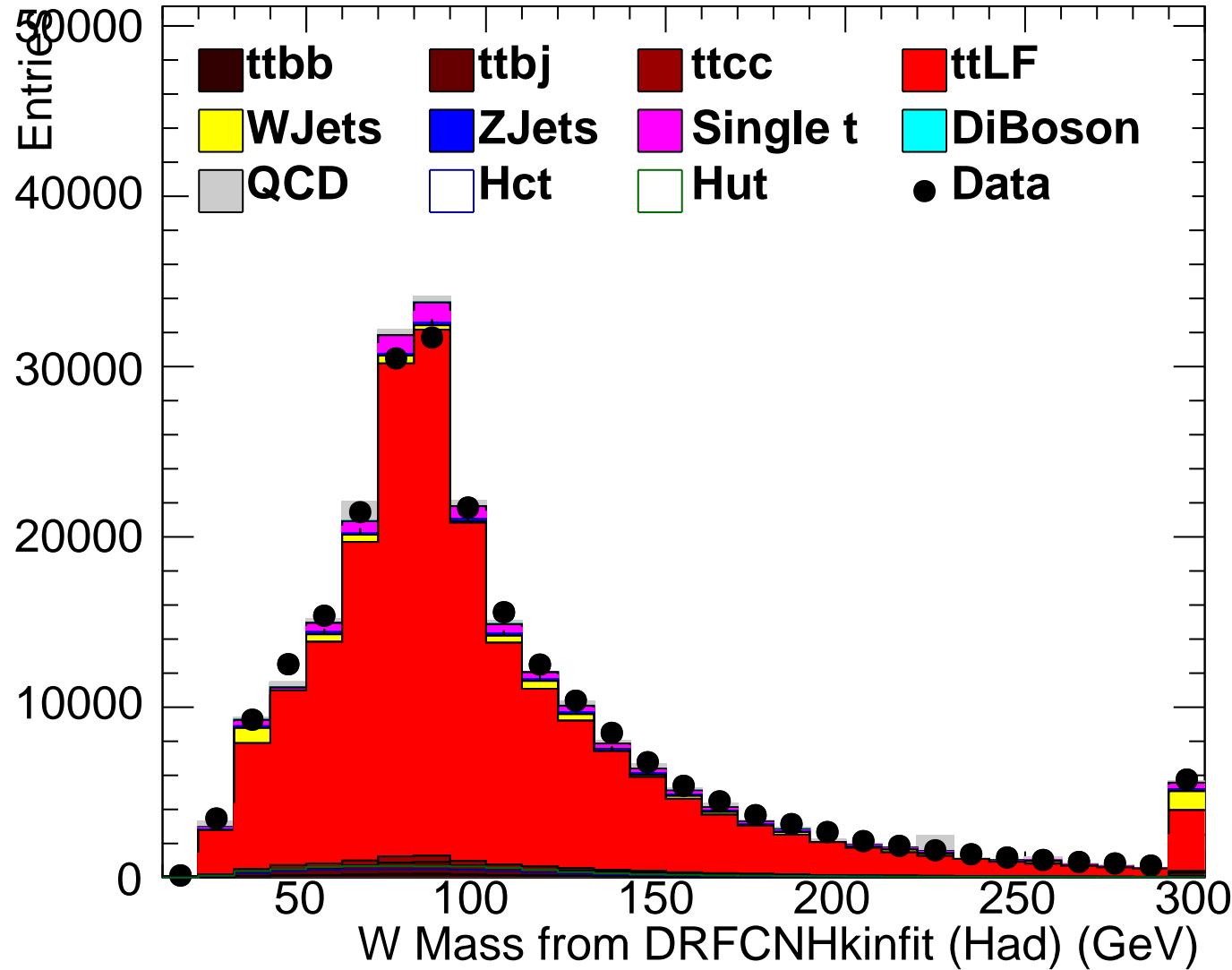
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

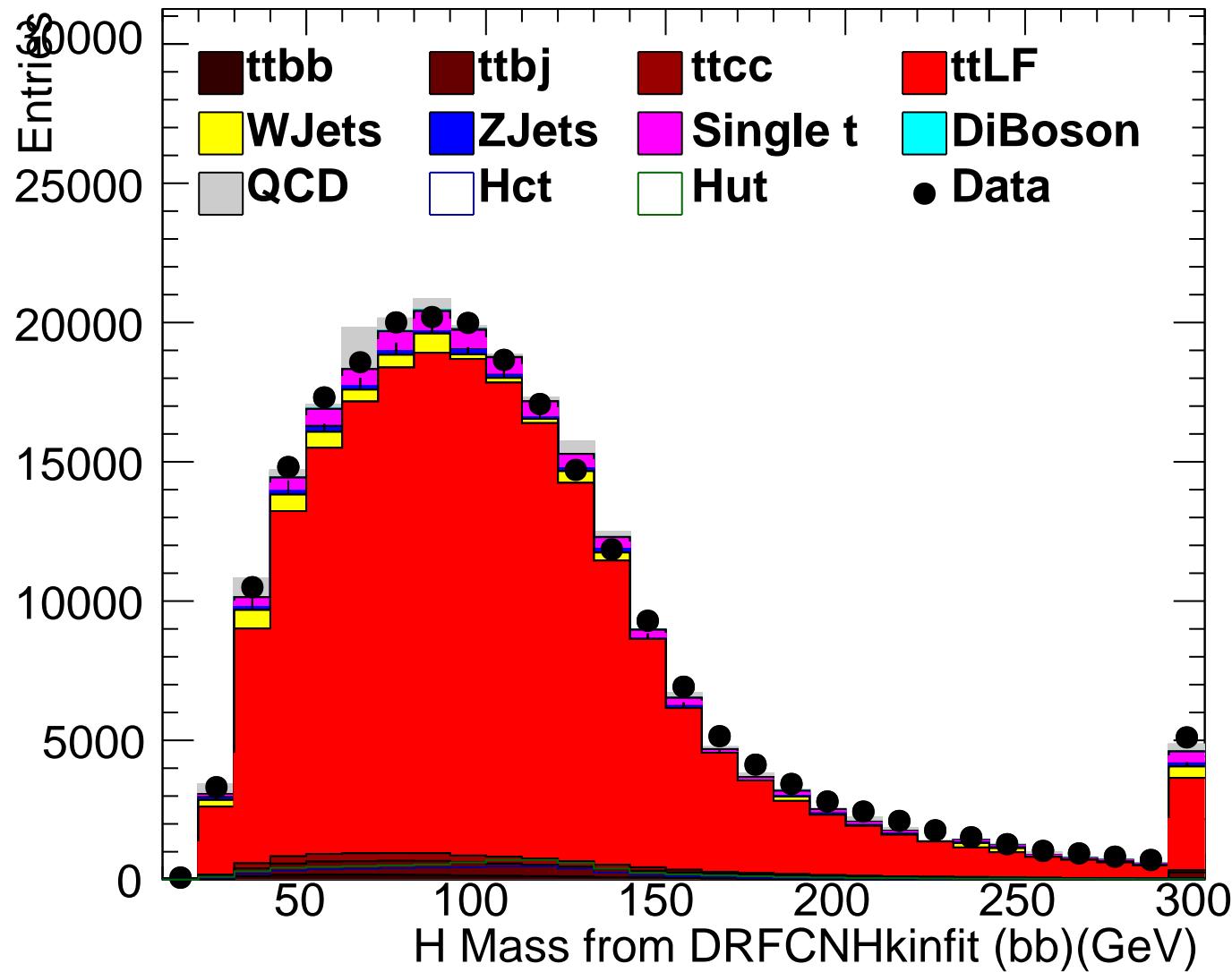
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

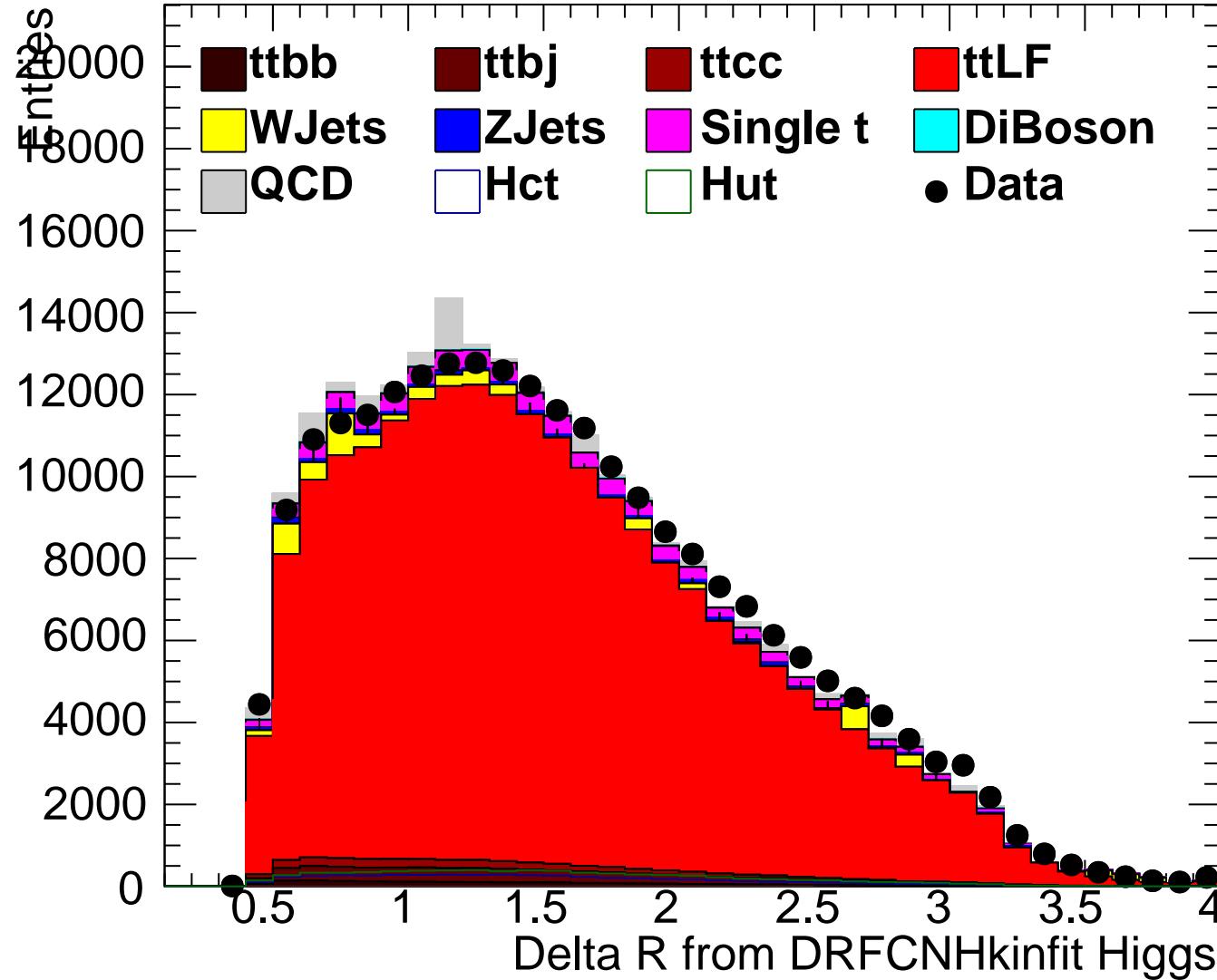
Ch1_S7x 10³CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

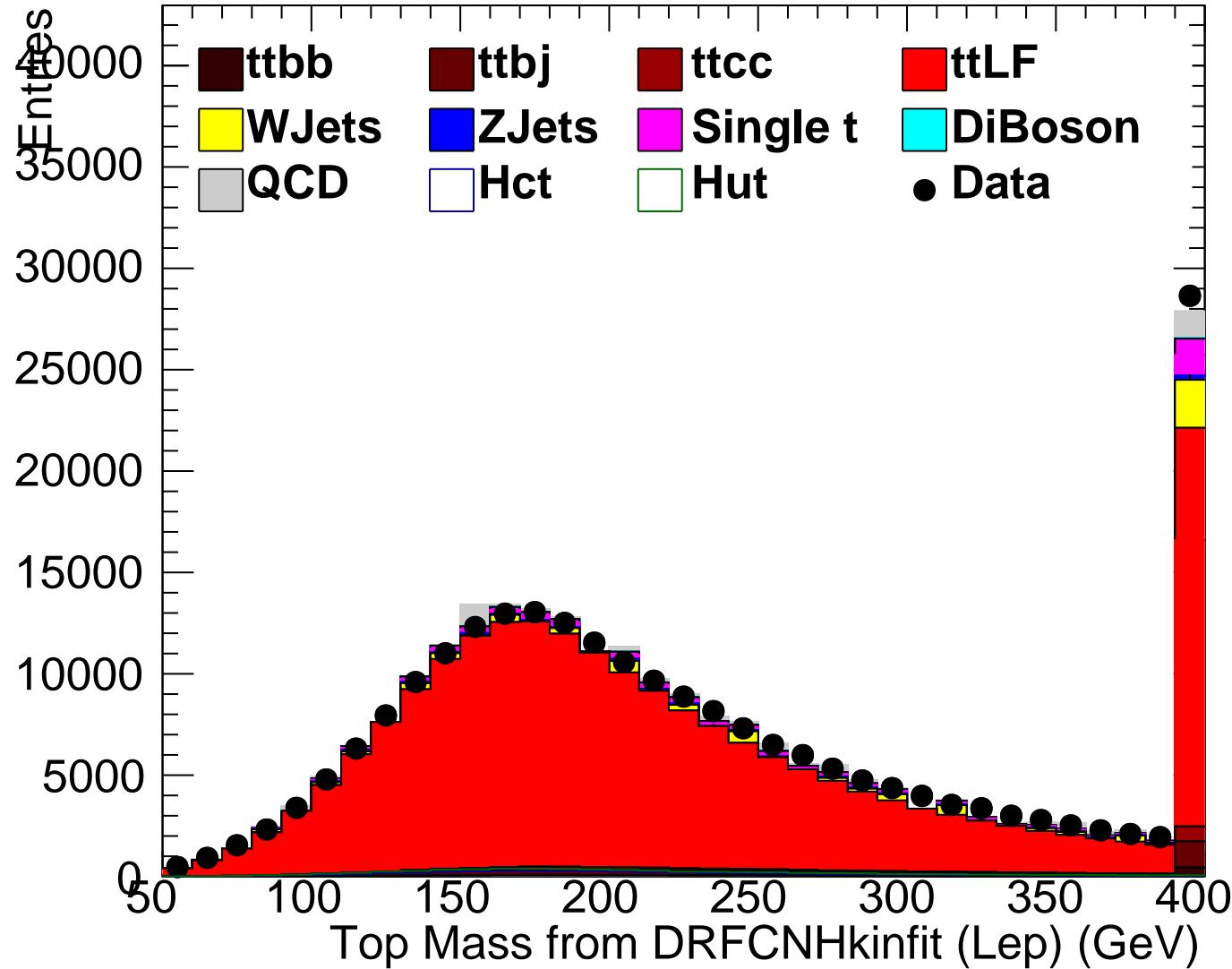


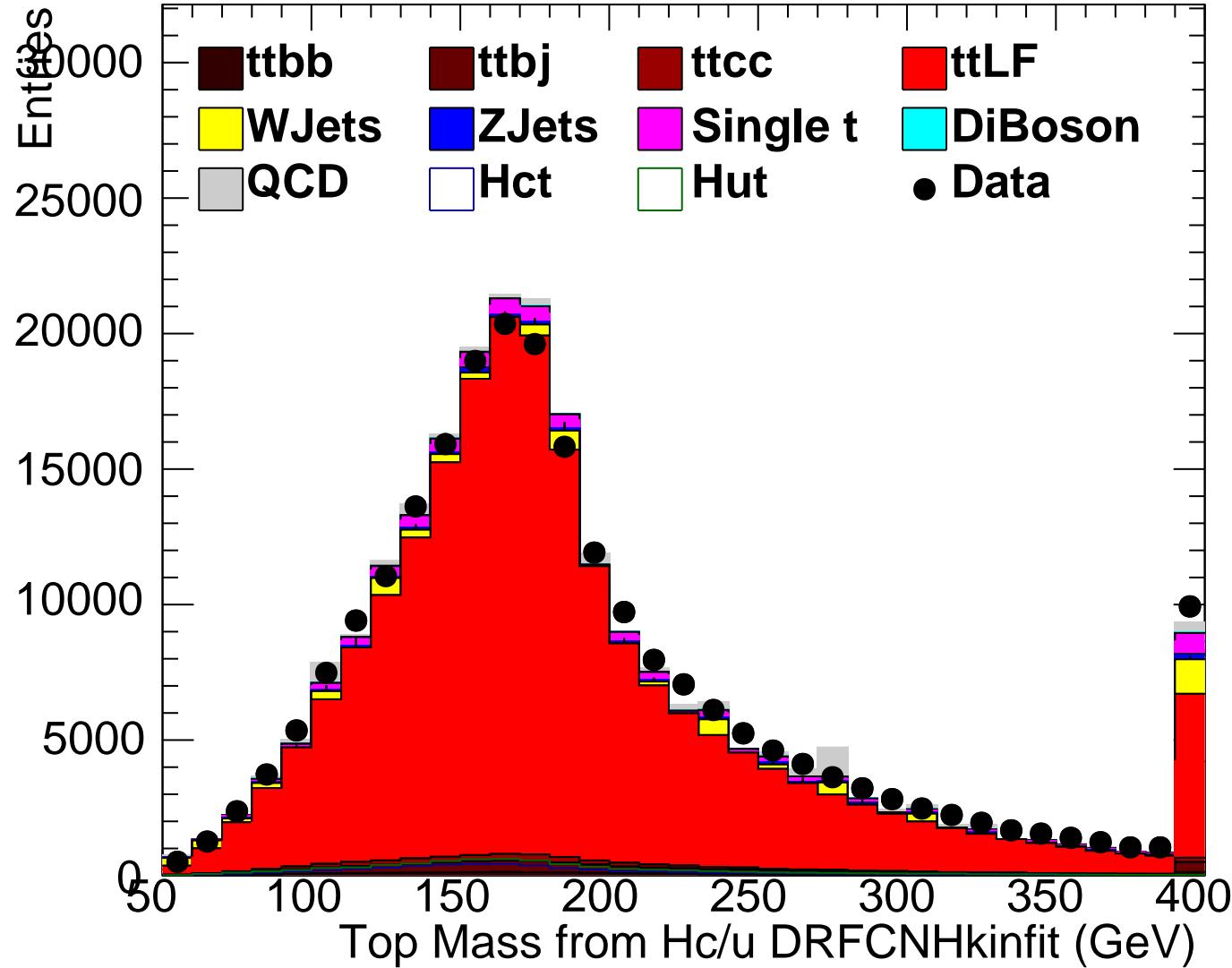
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

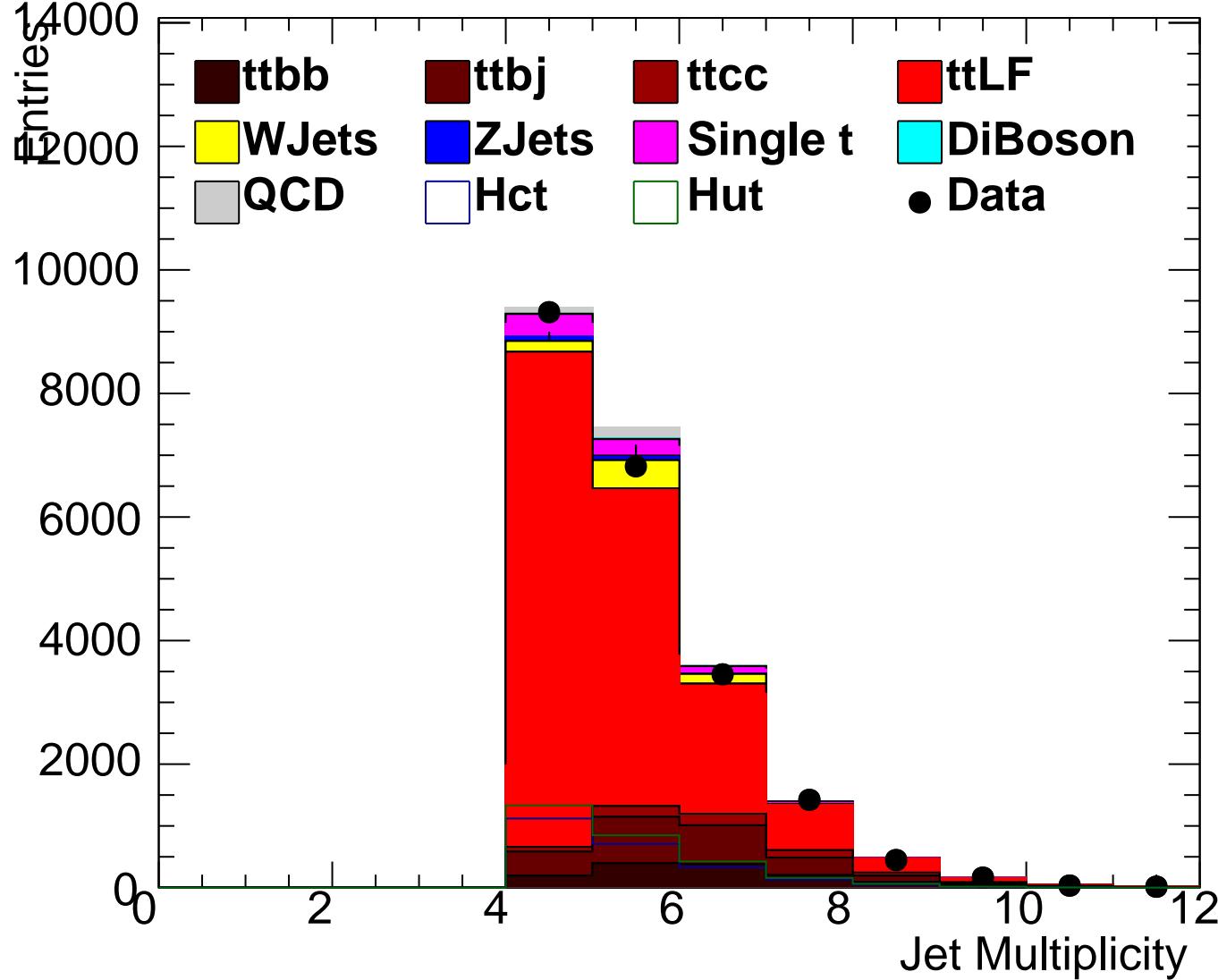
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

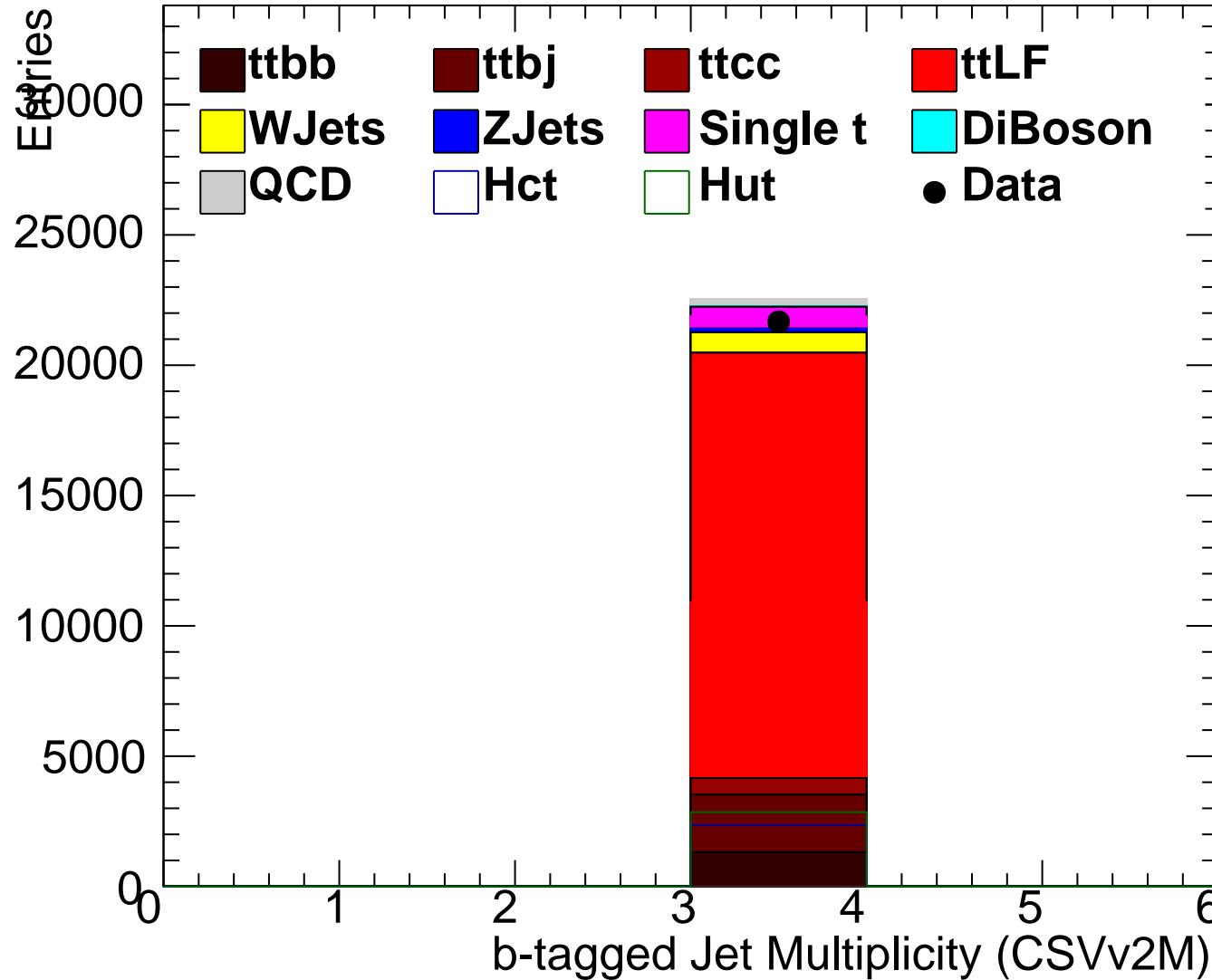
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

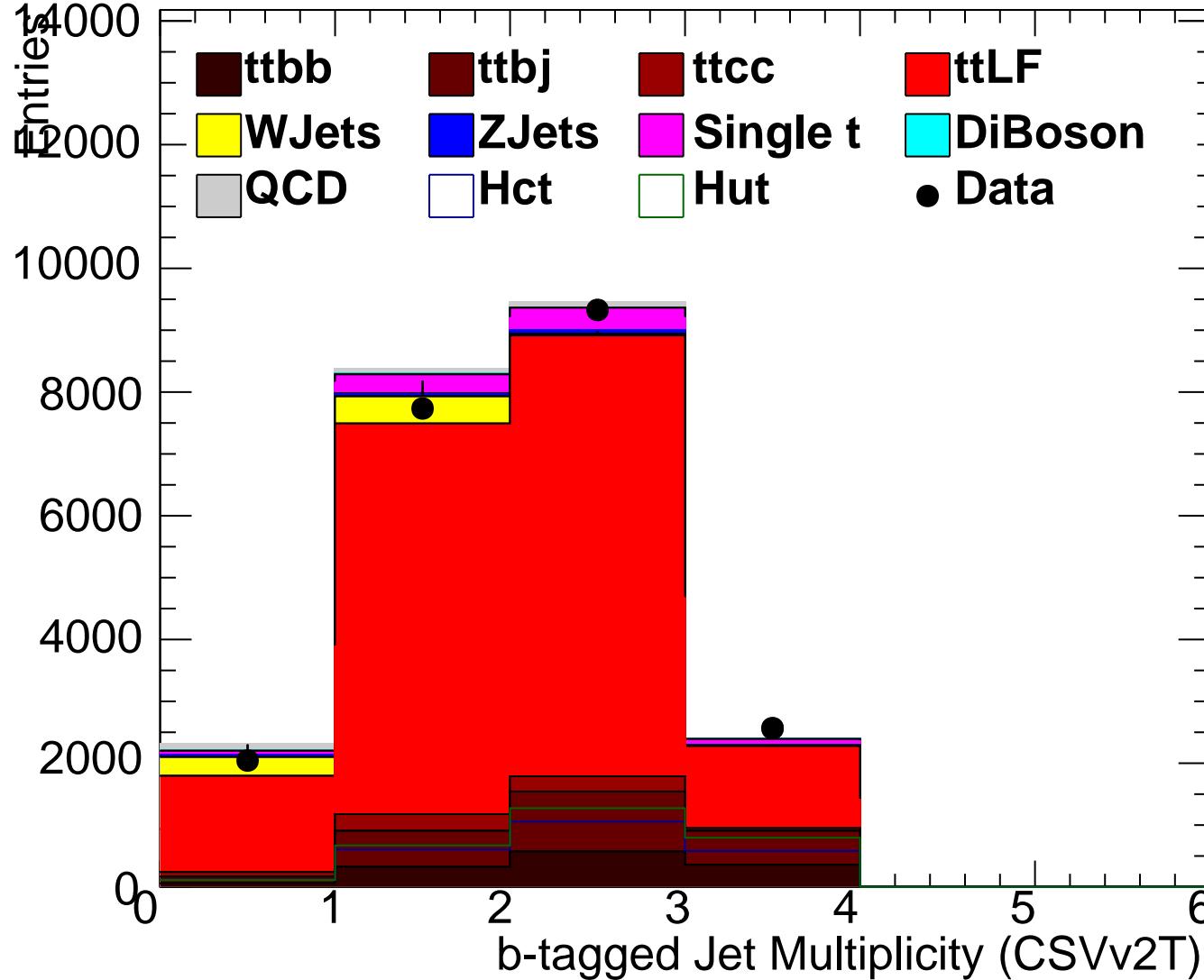
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

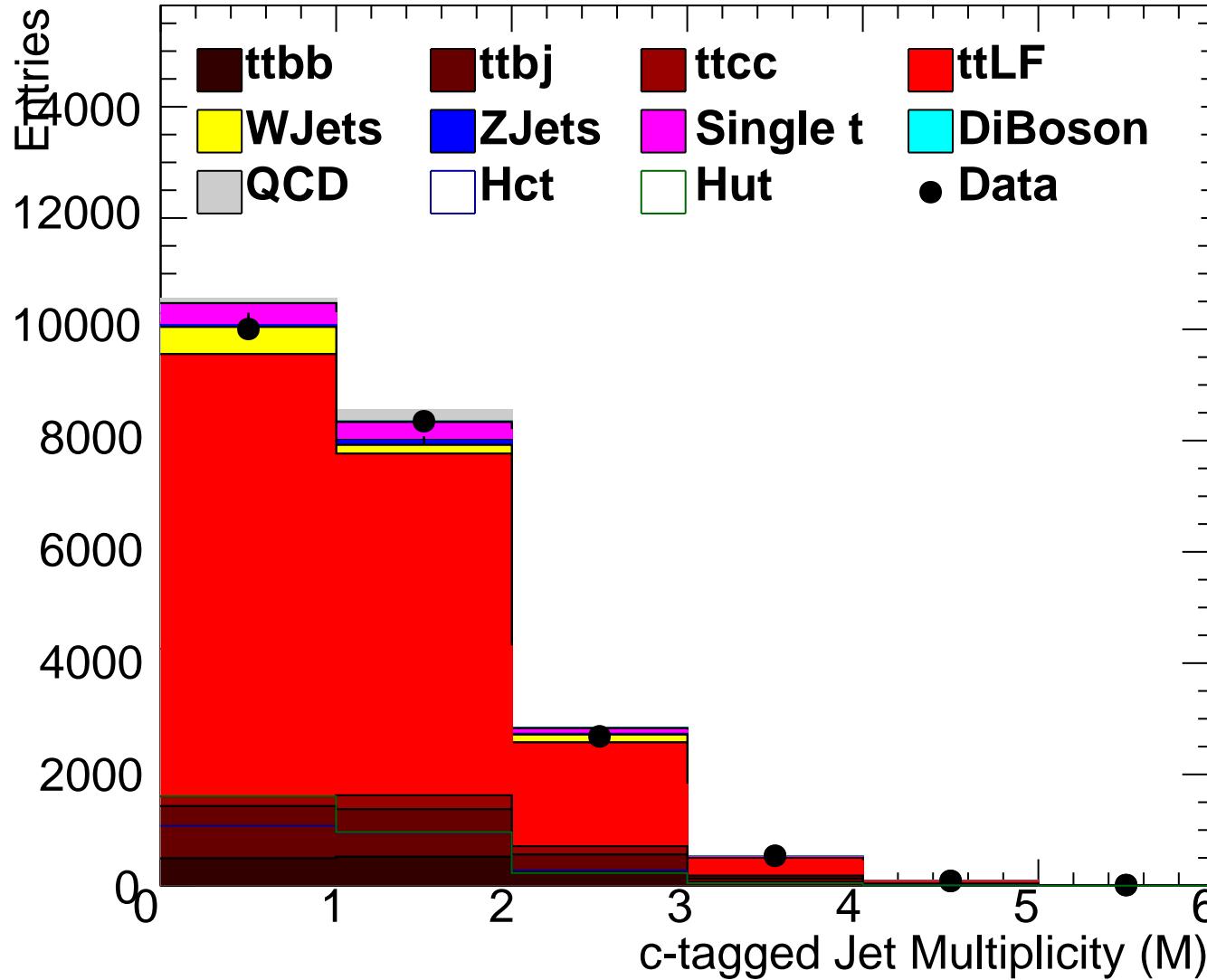
Ch1_S7CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

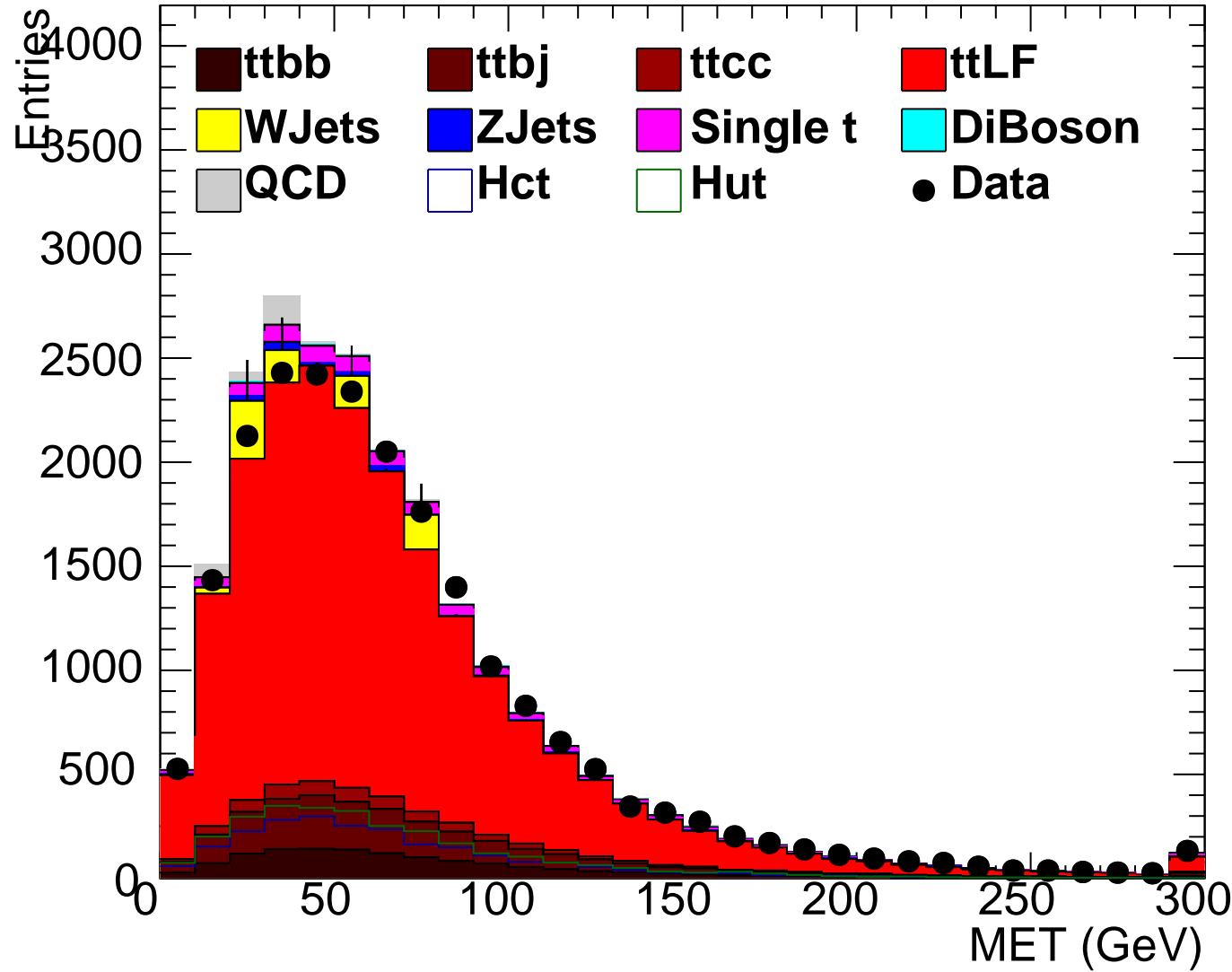


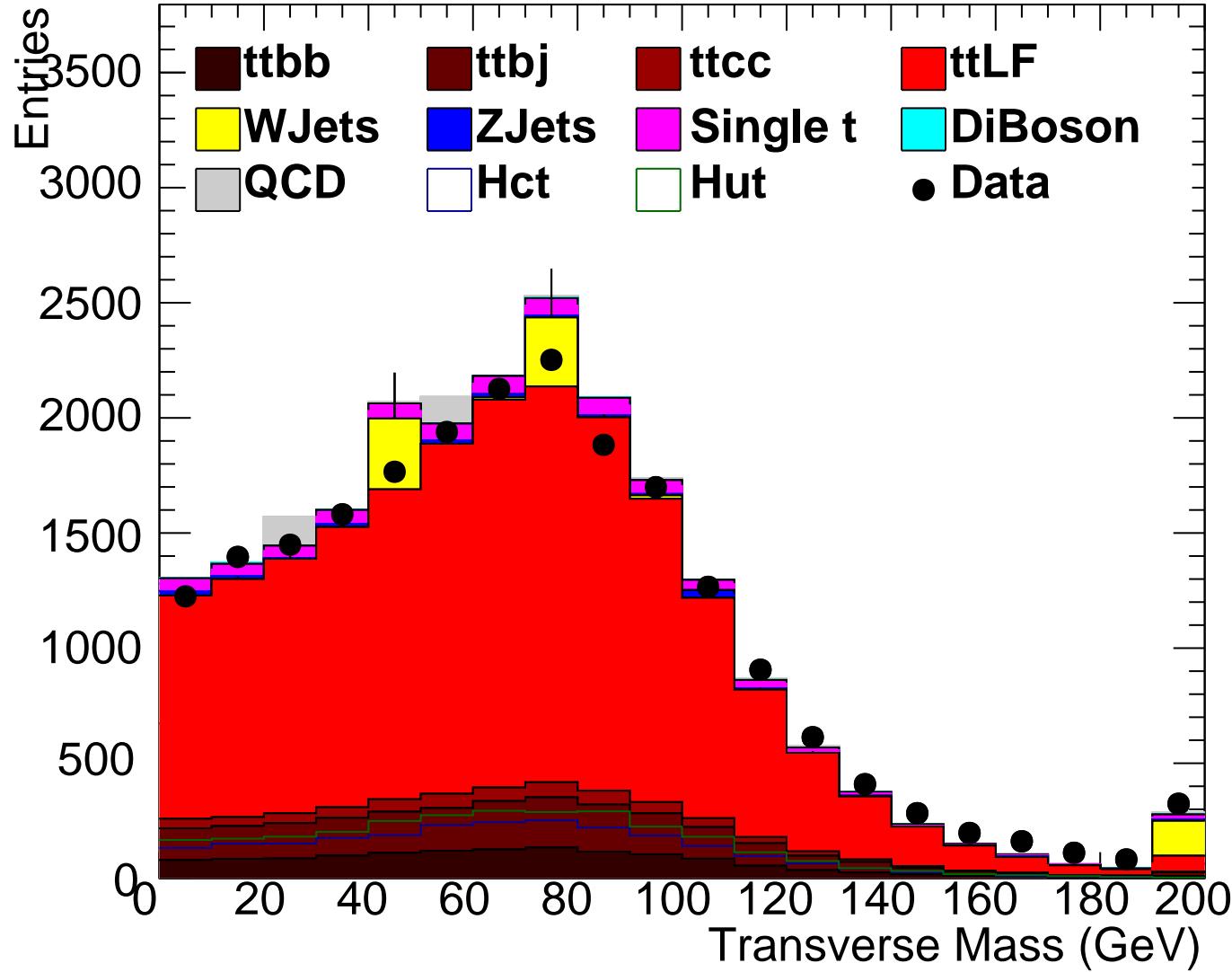
Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

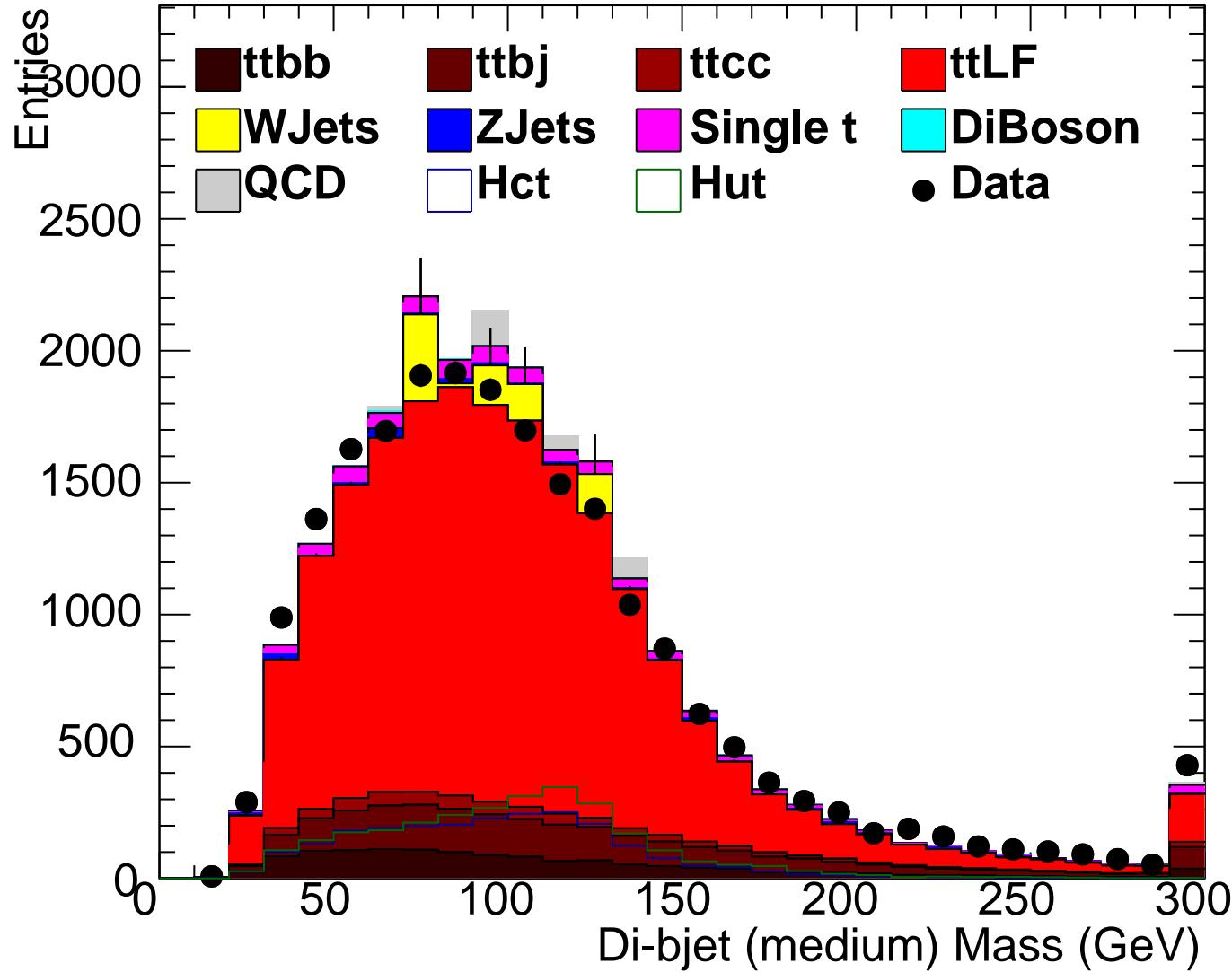


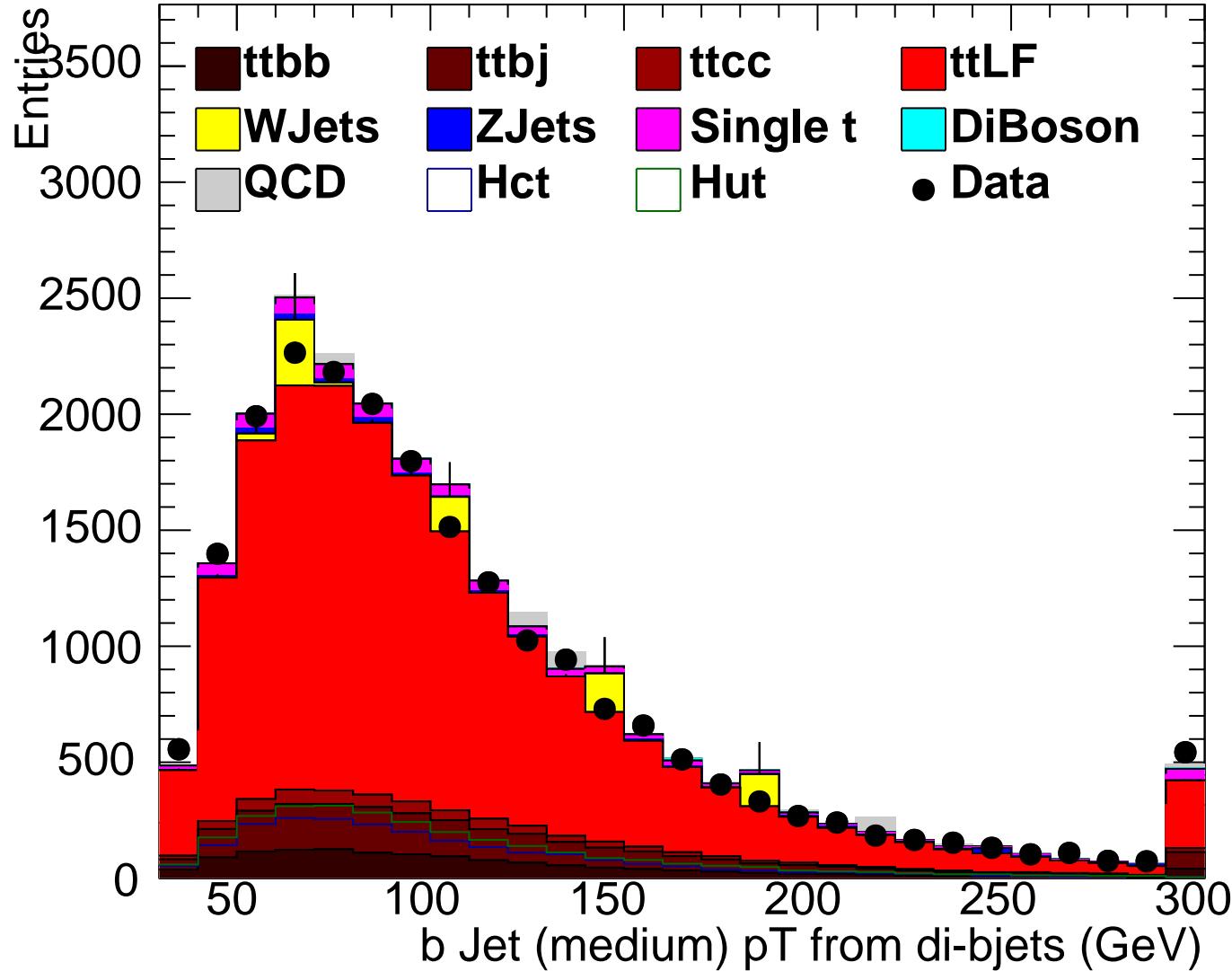






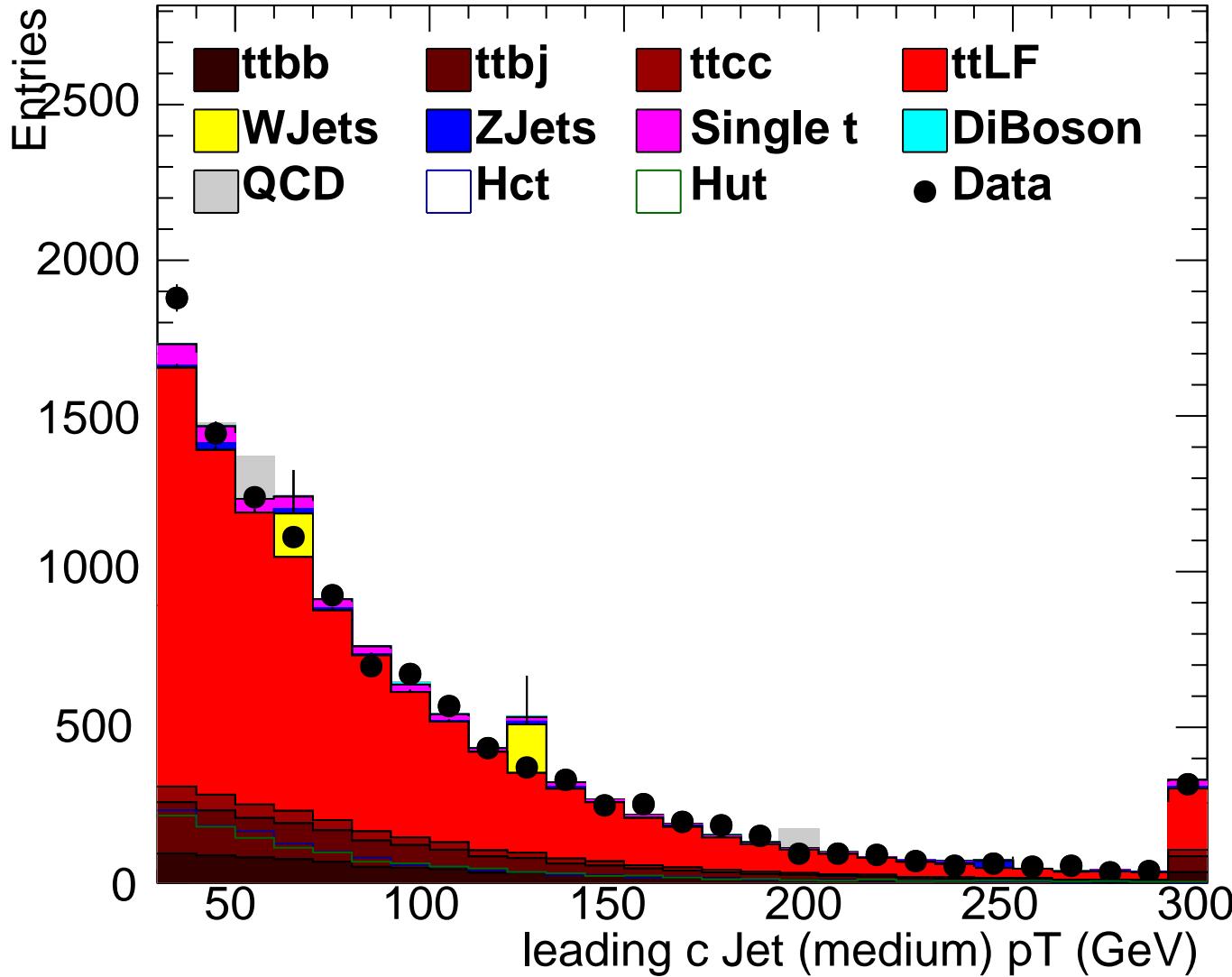


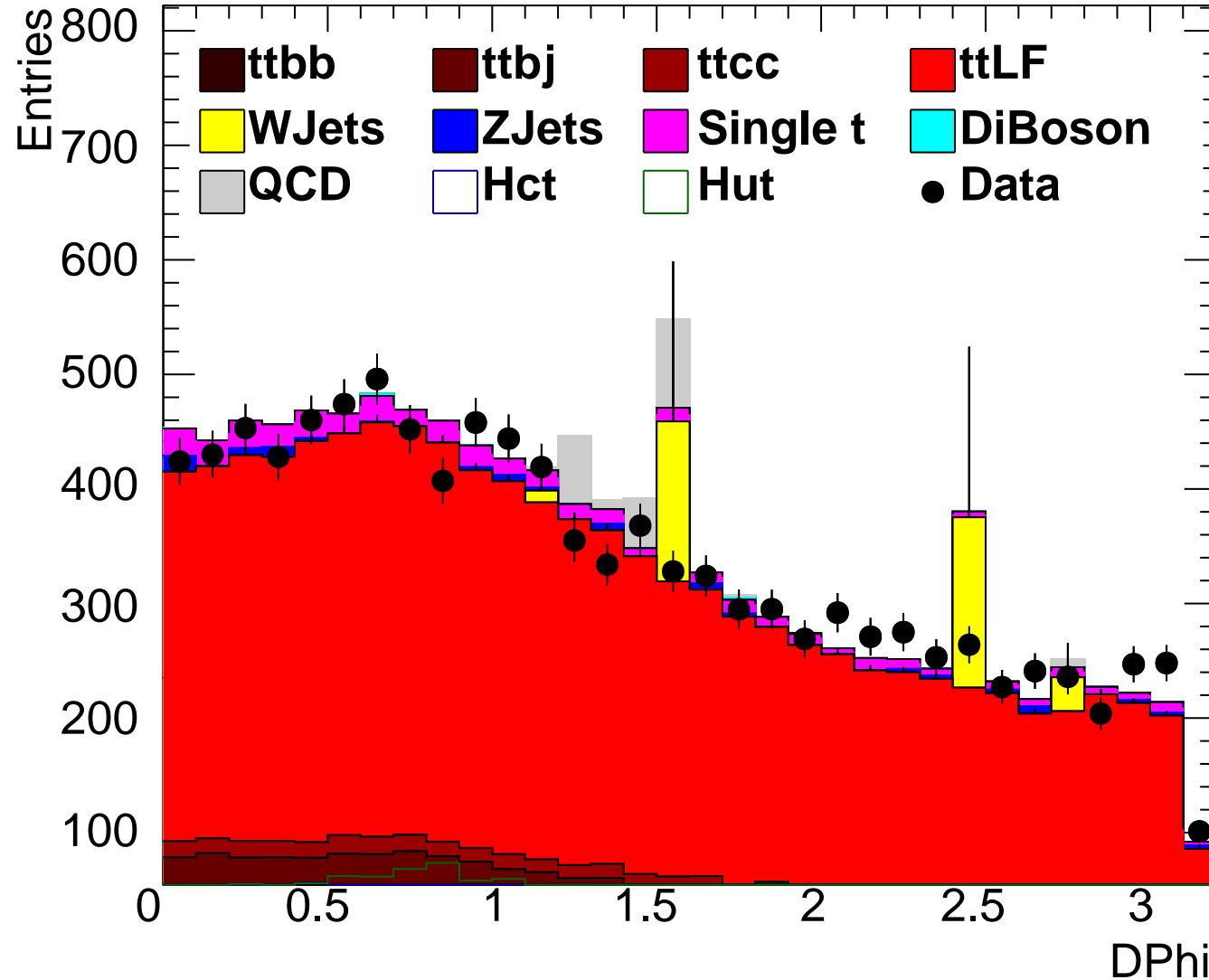


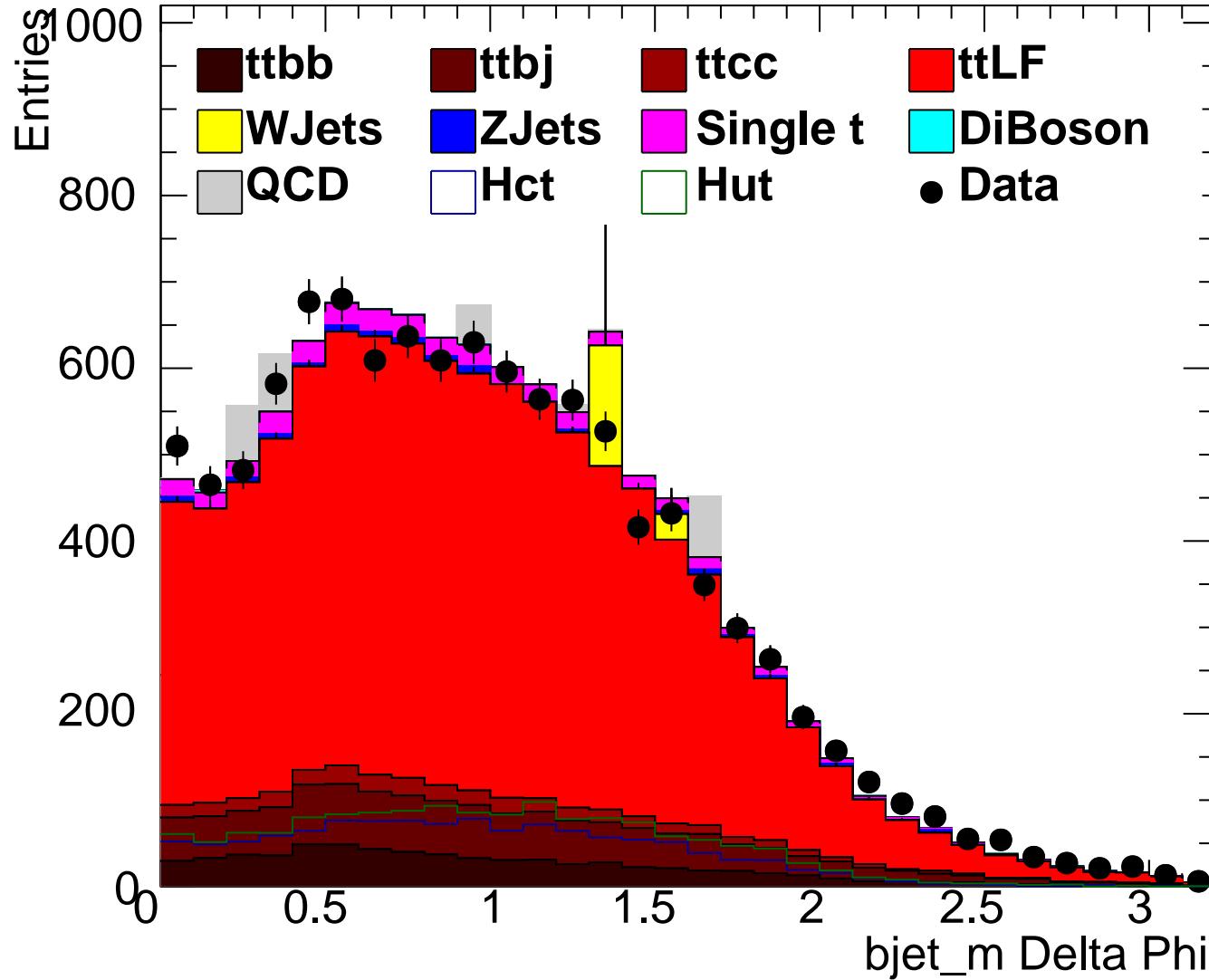


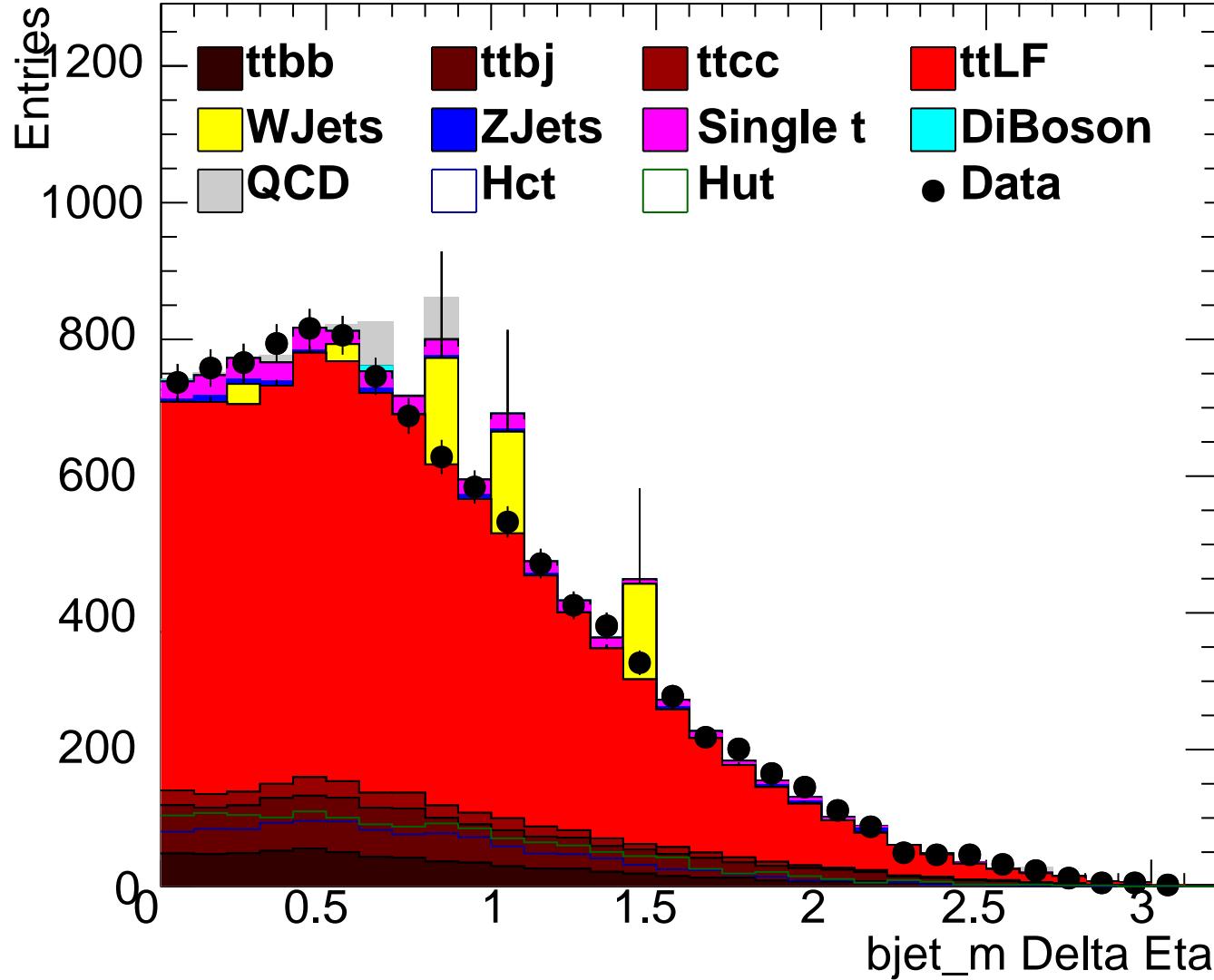
Ch1_S8

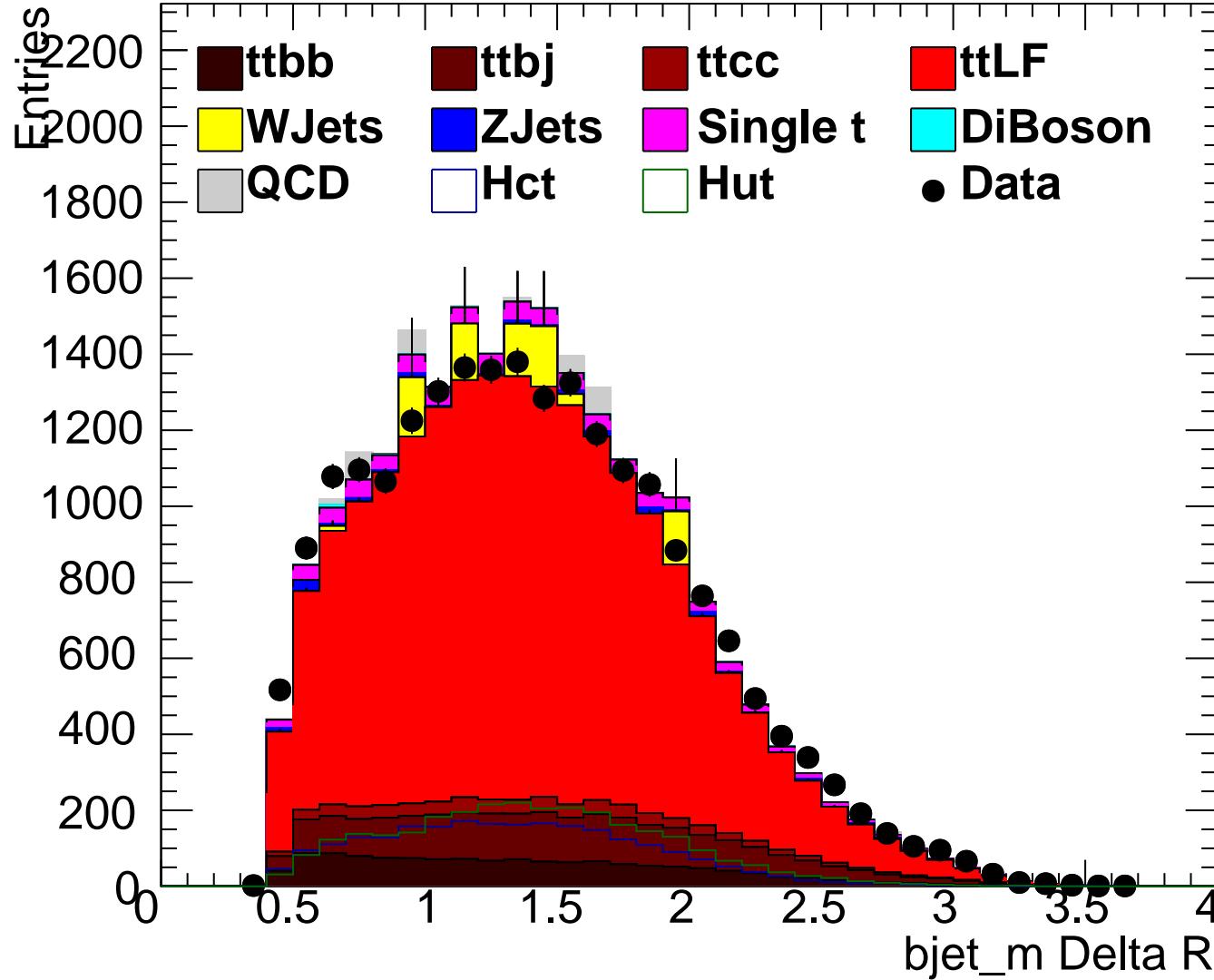
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

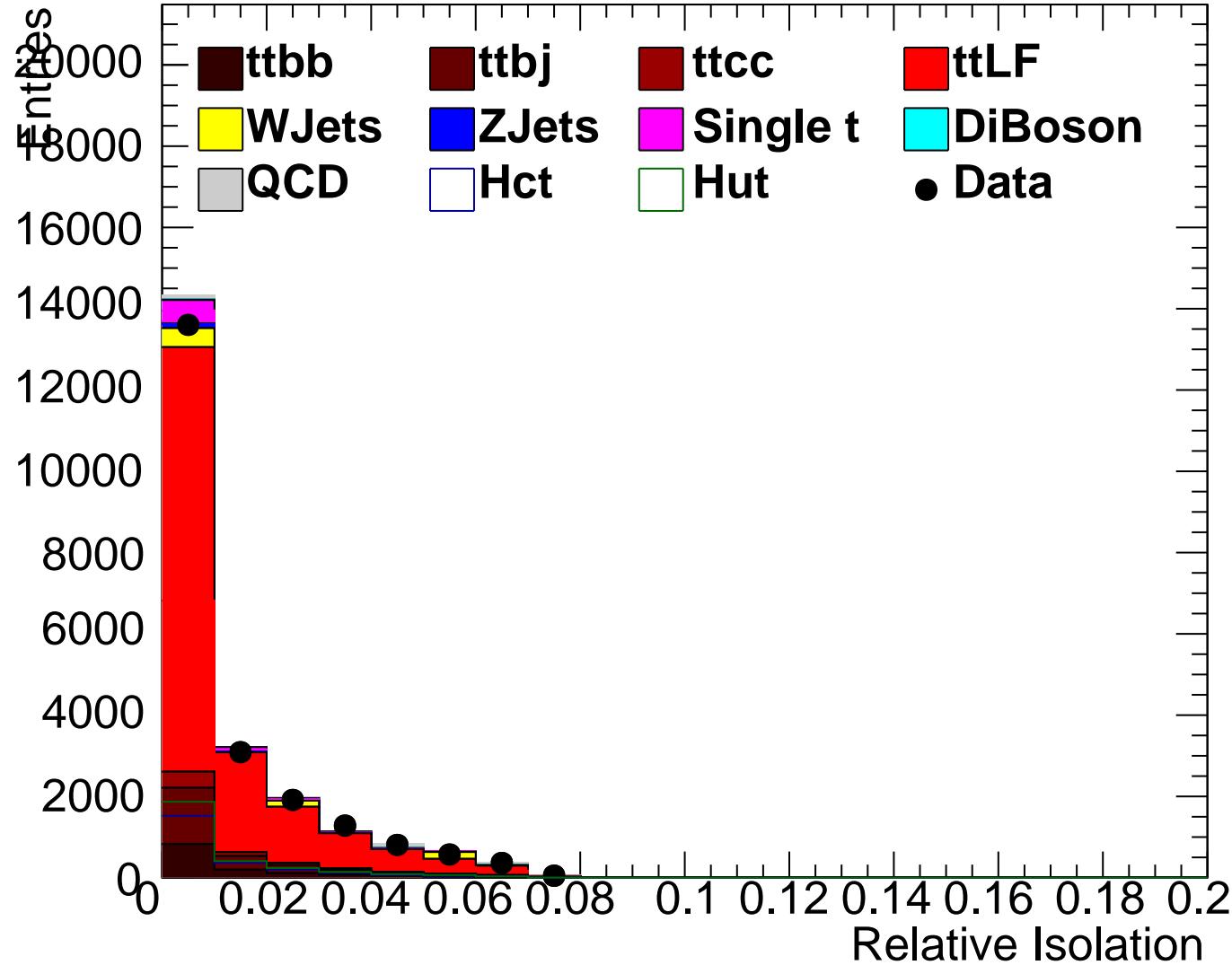


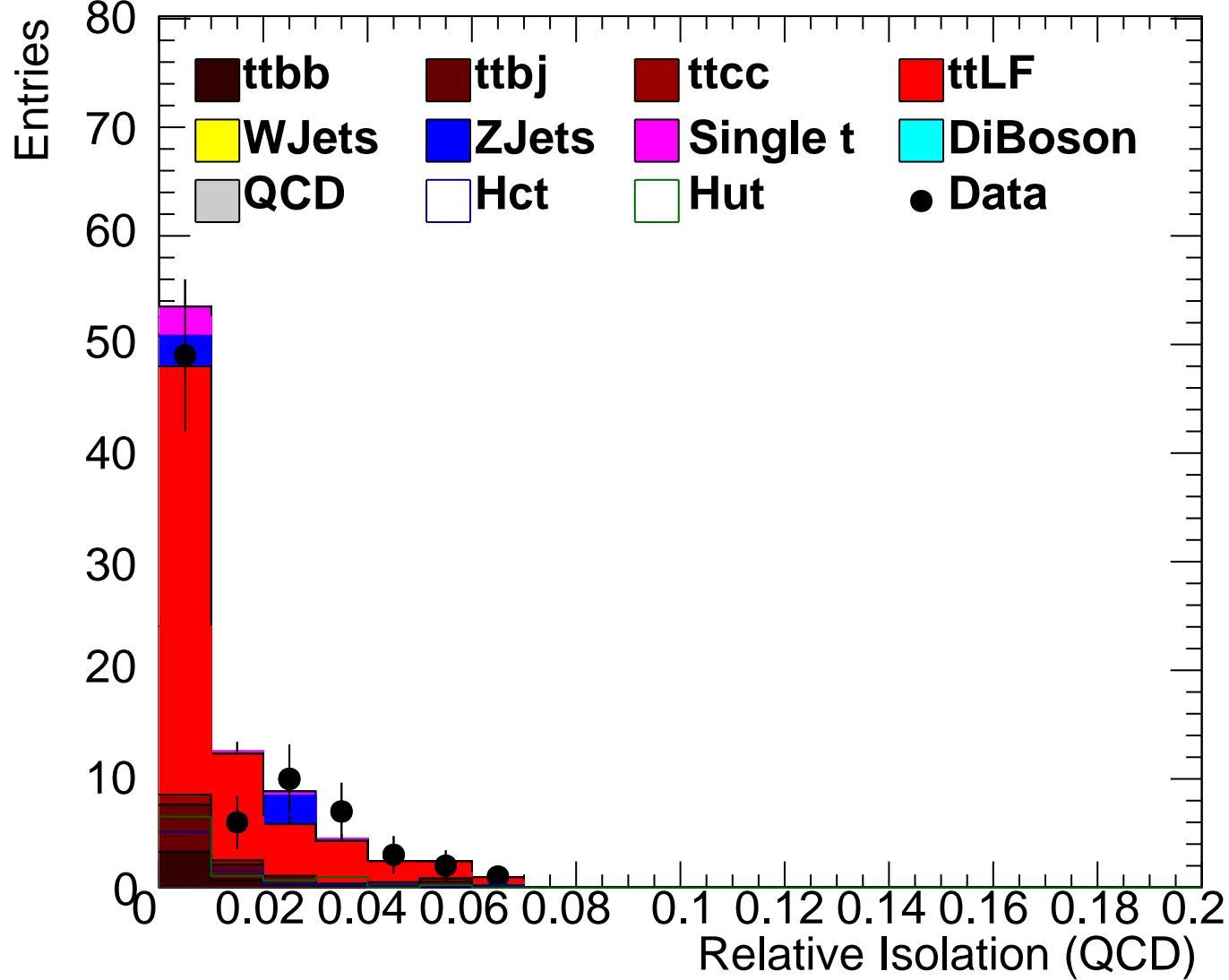
Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

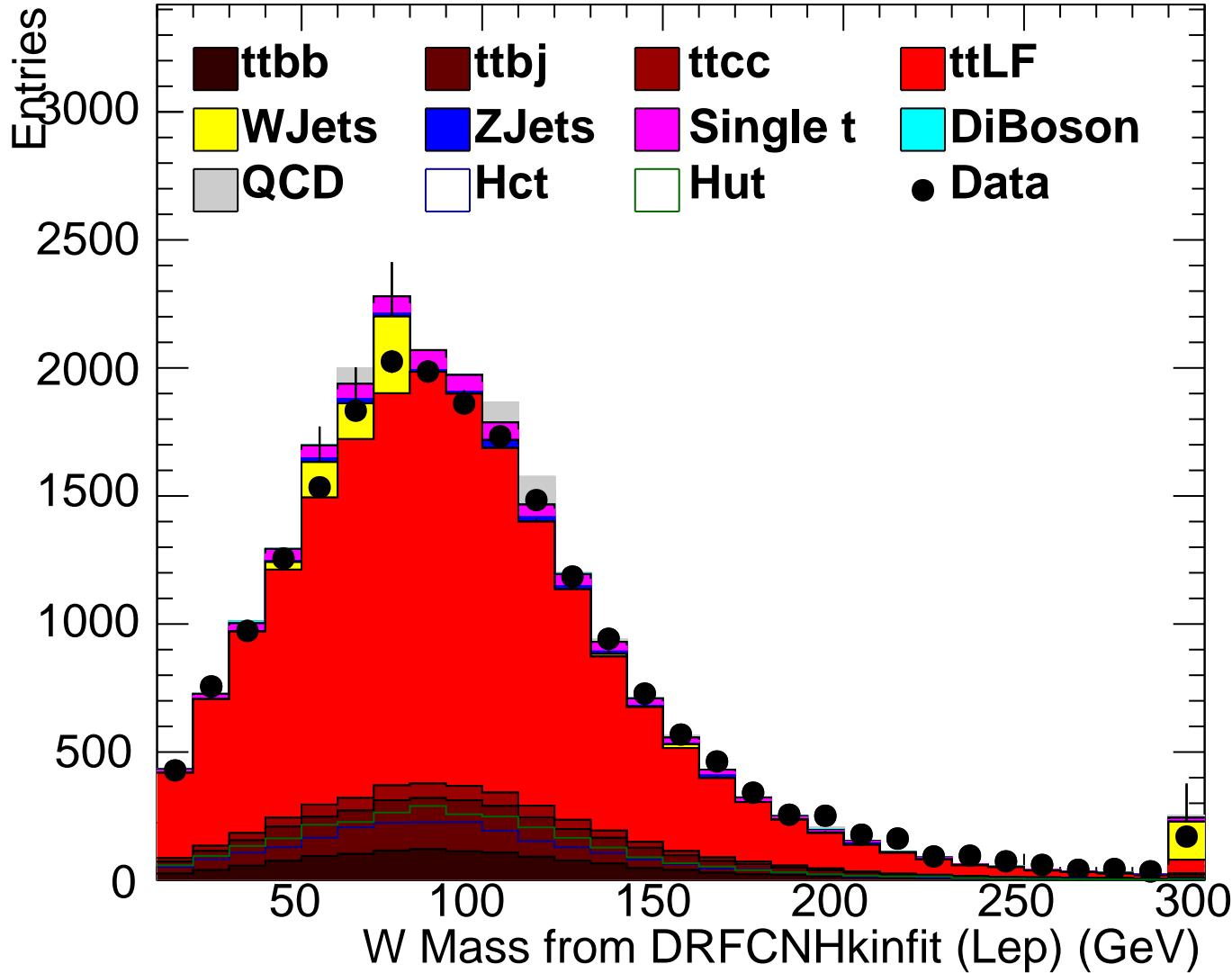
Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 





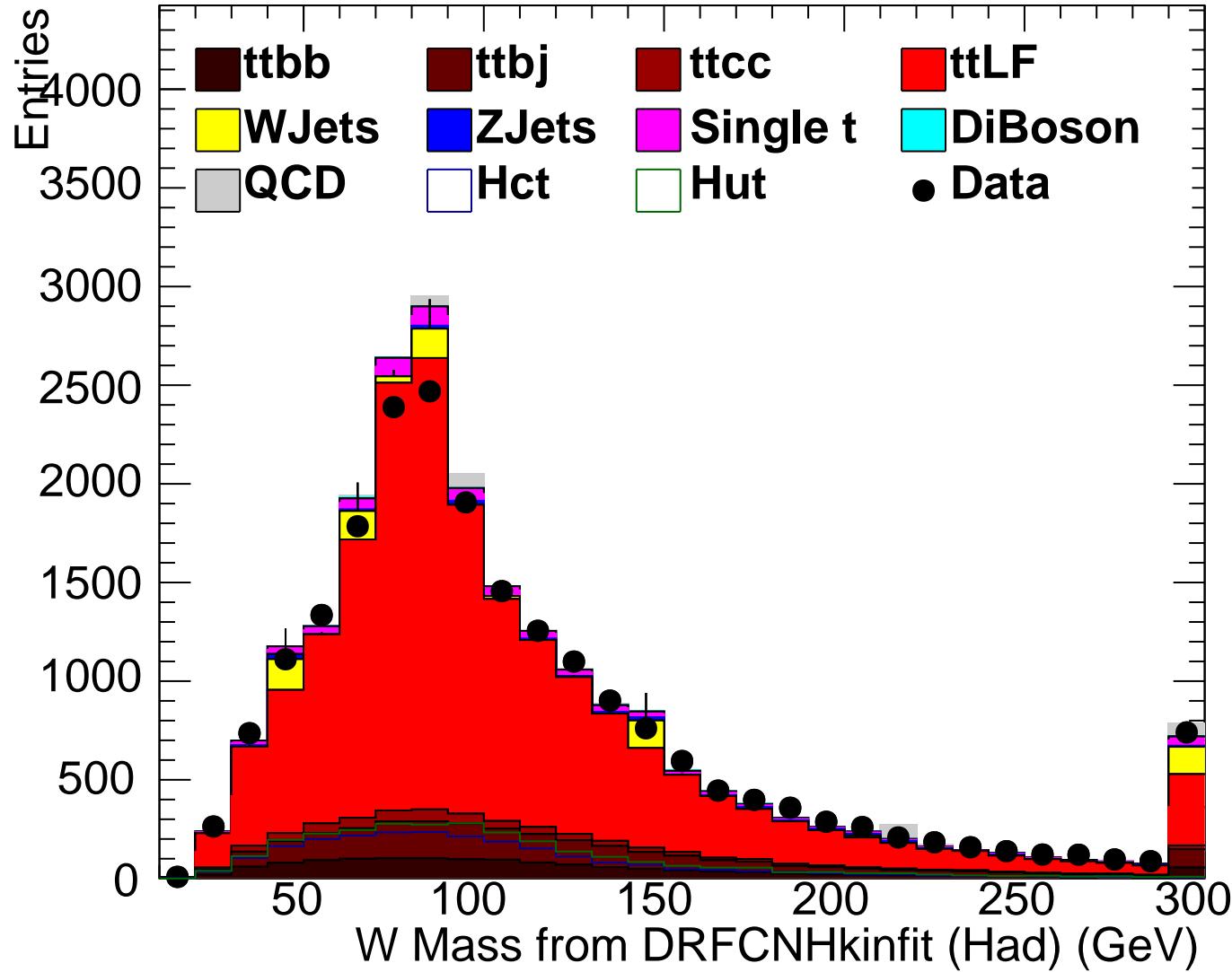


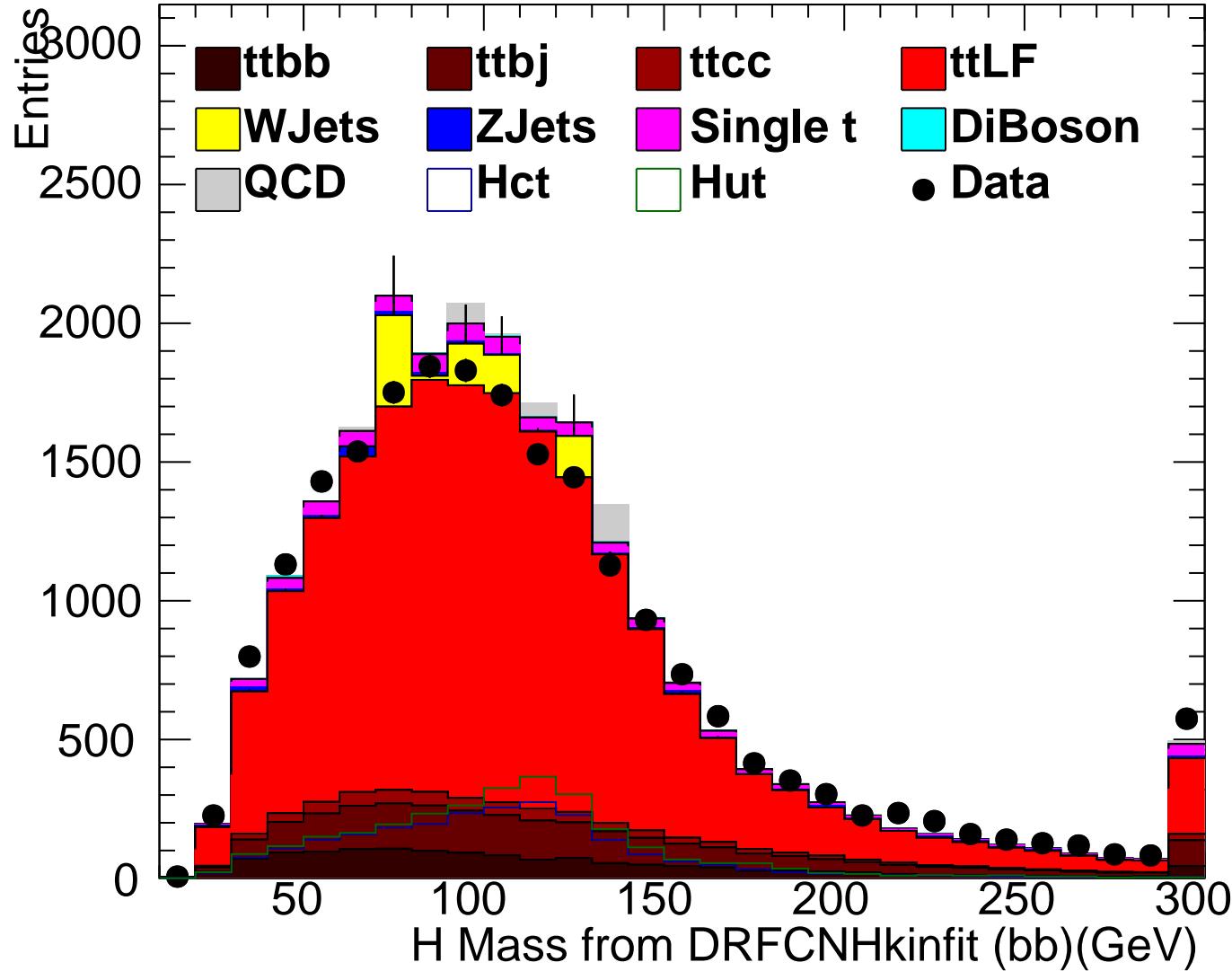


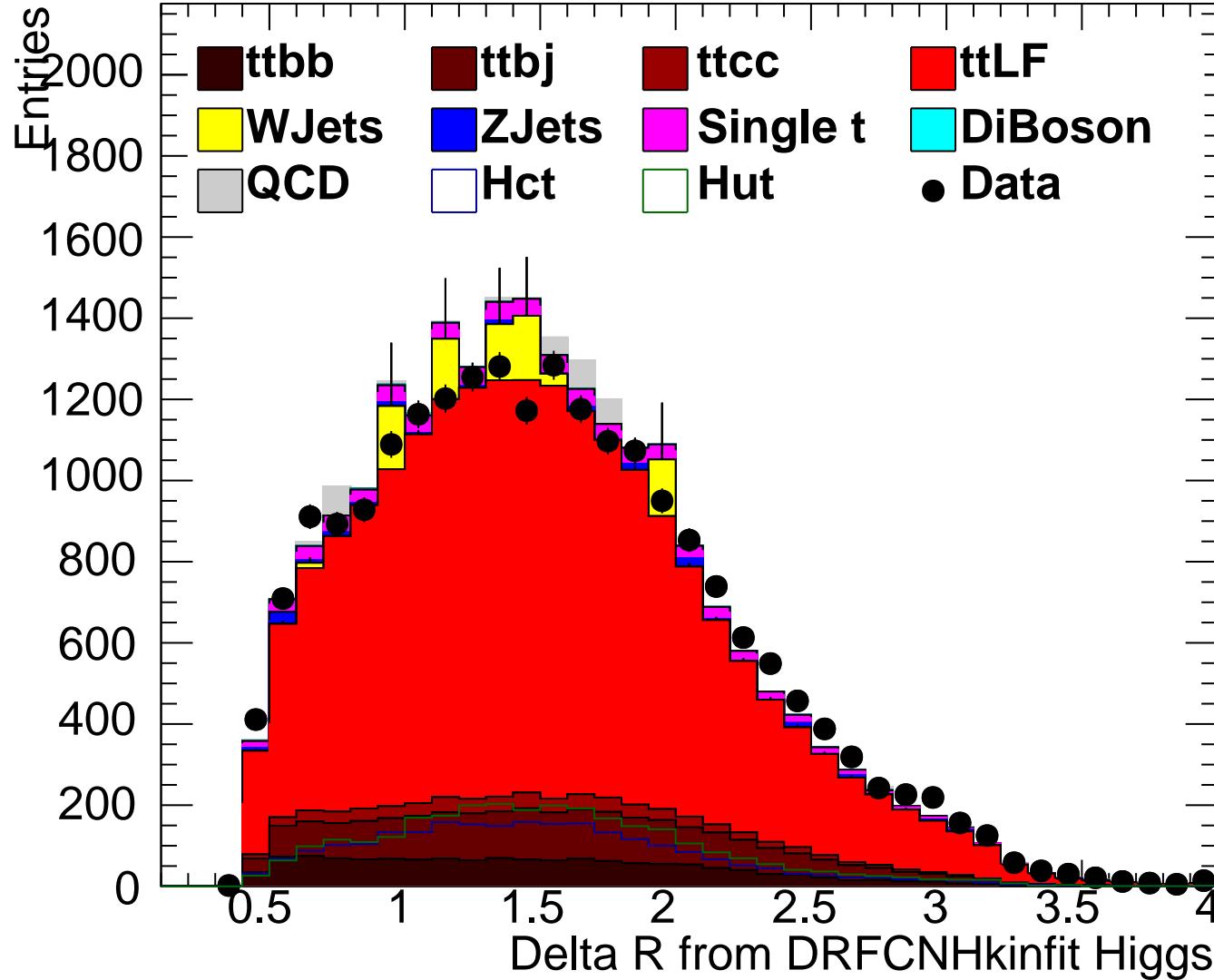
Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

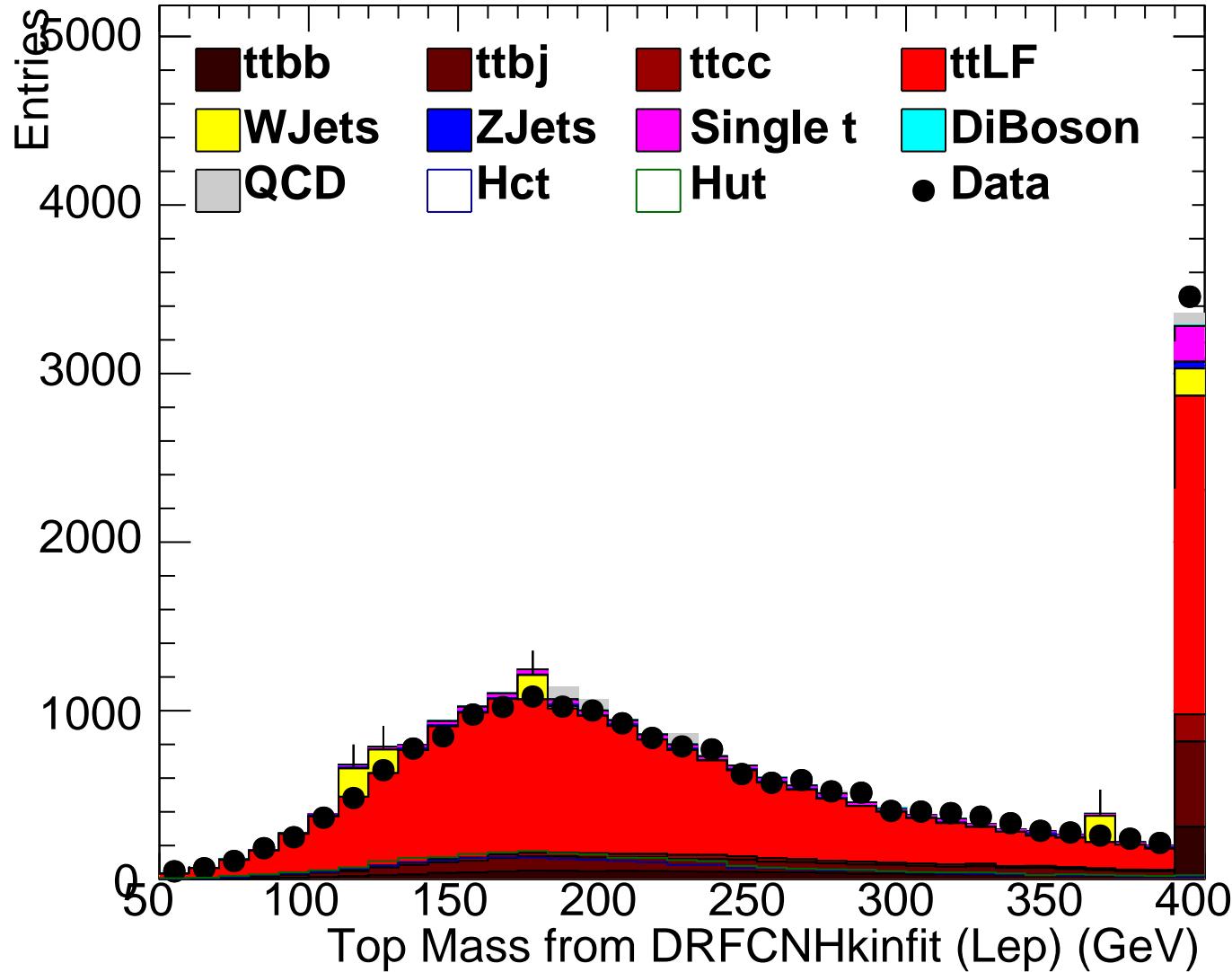
Ch1_S8

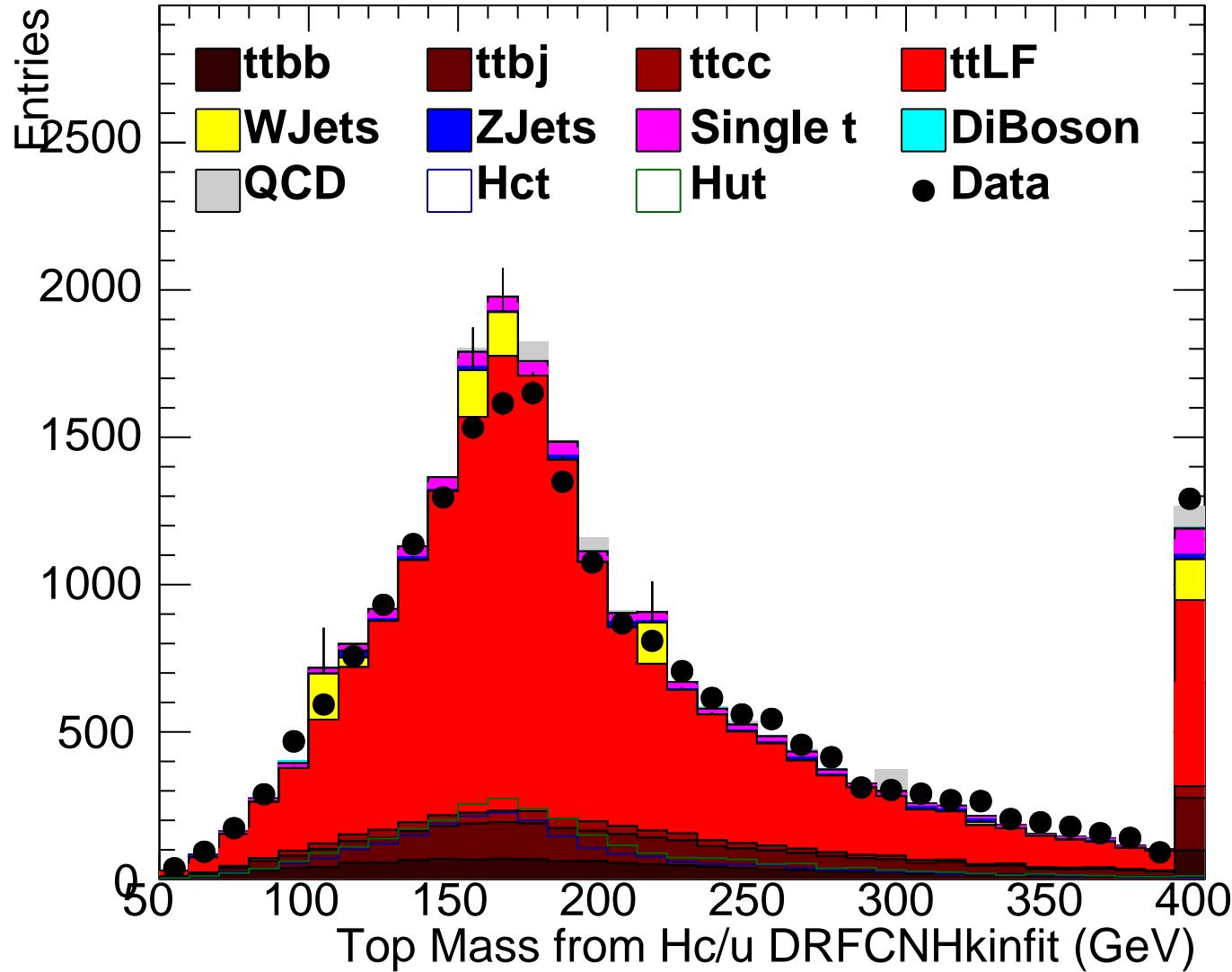
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

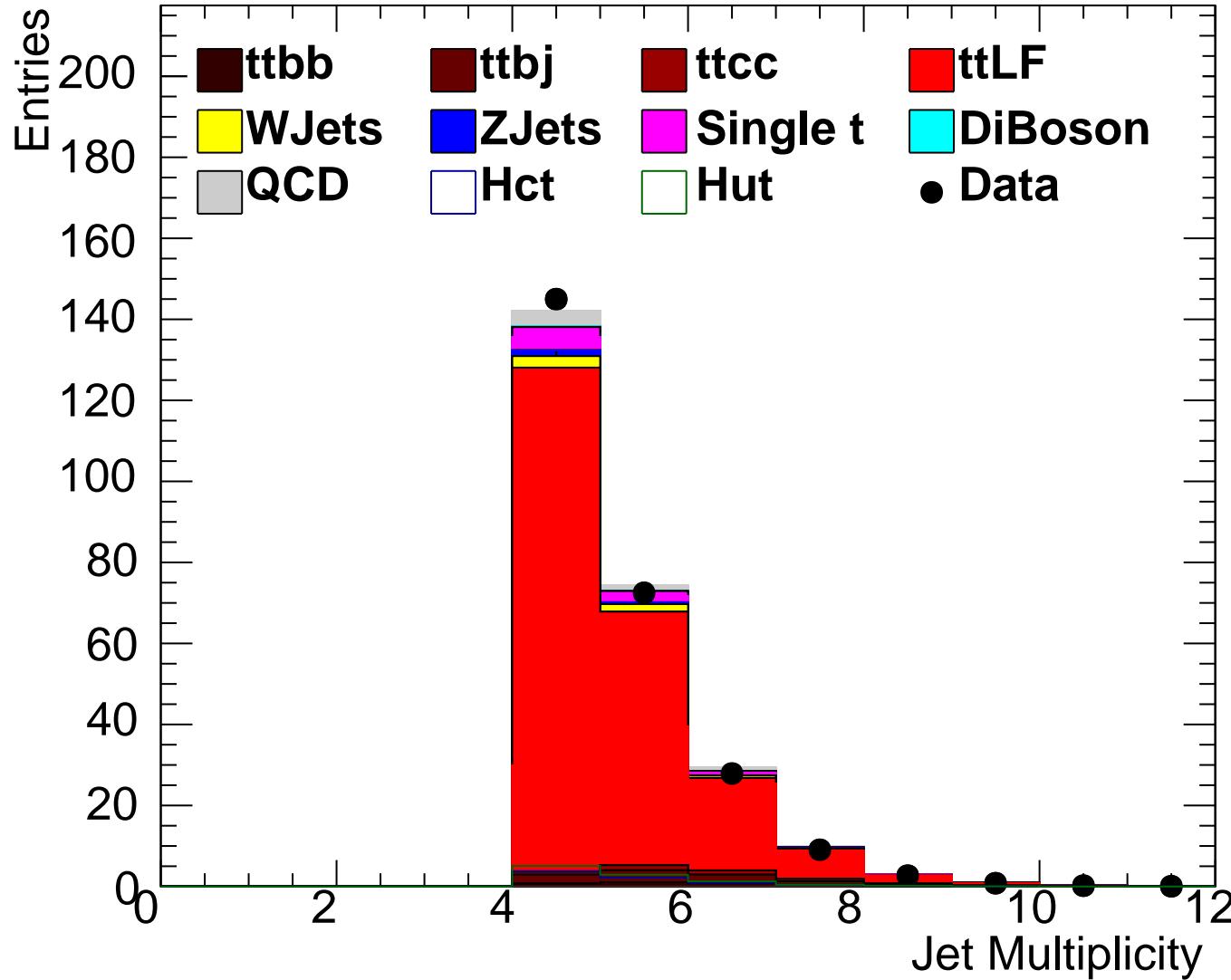
Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S8CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



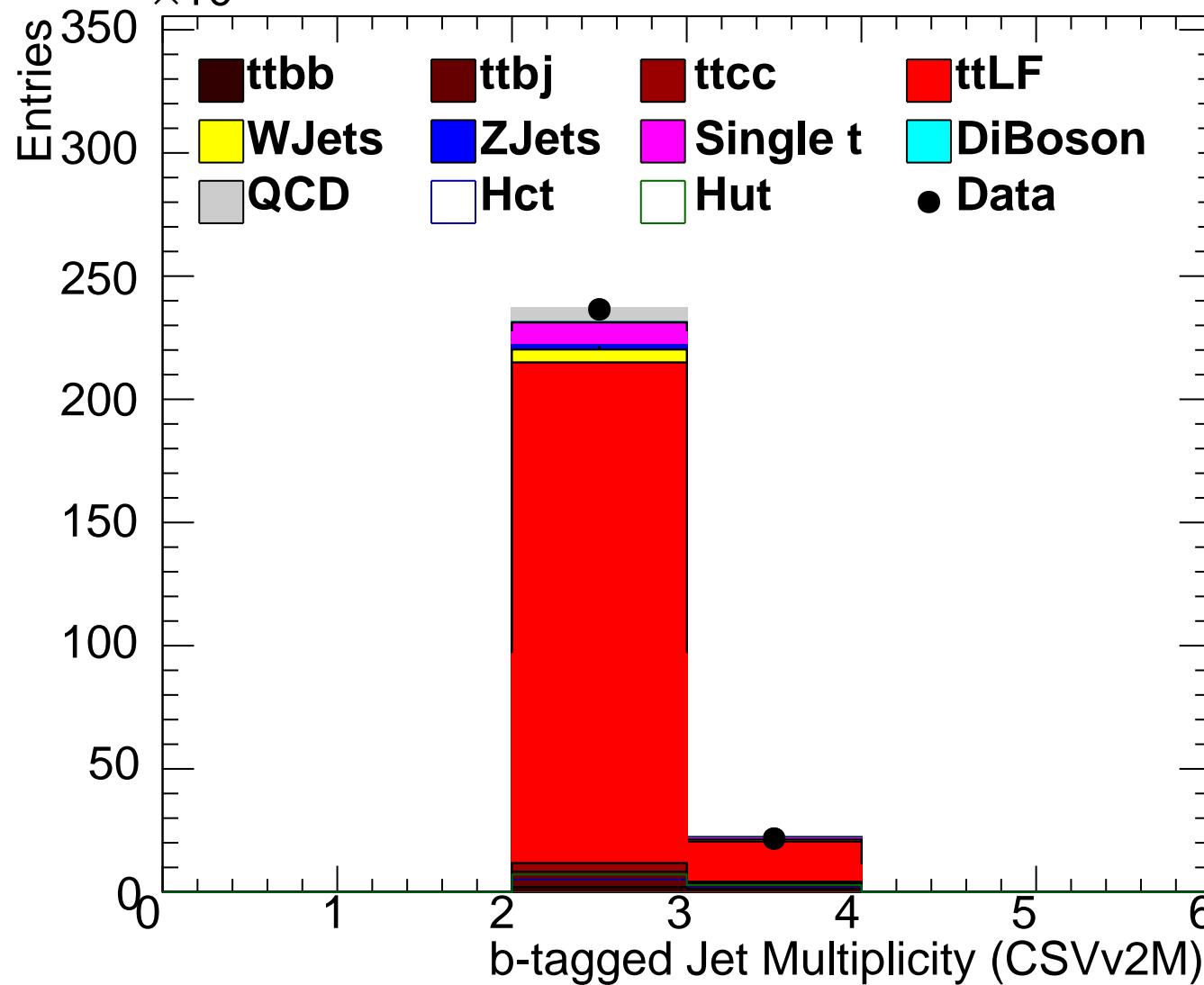
Ch1_S9

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



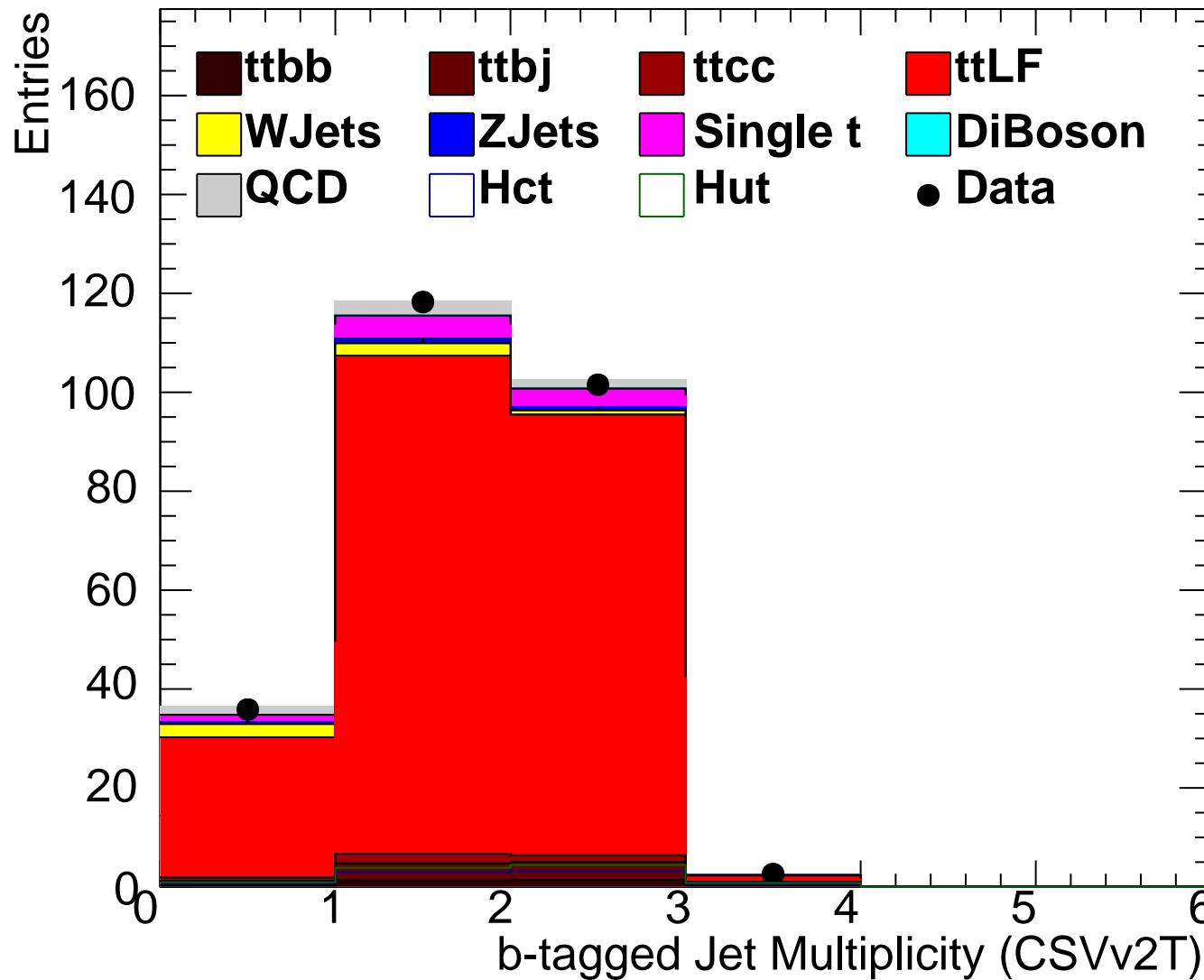
Ch1_S9

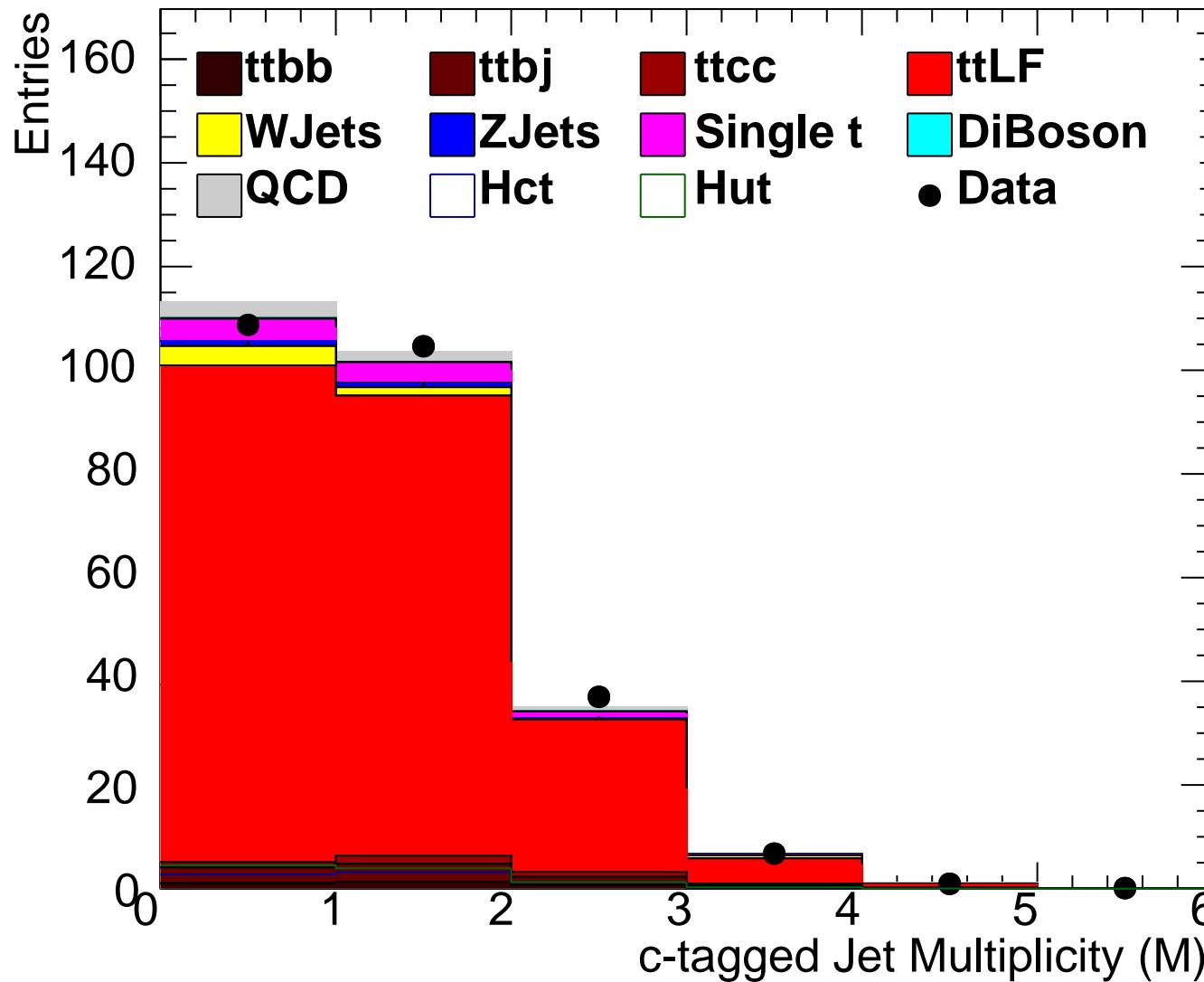
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

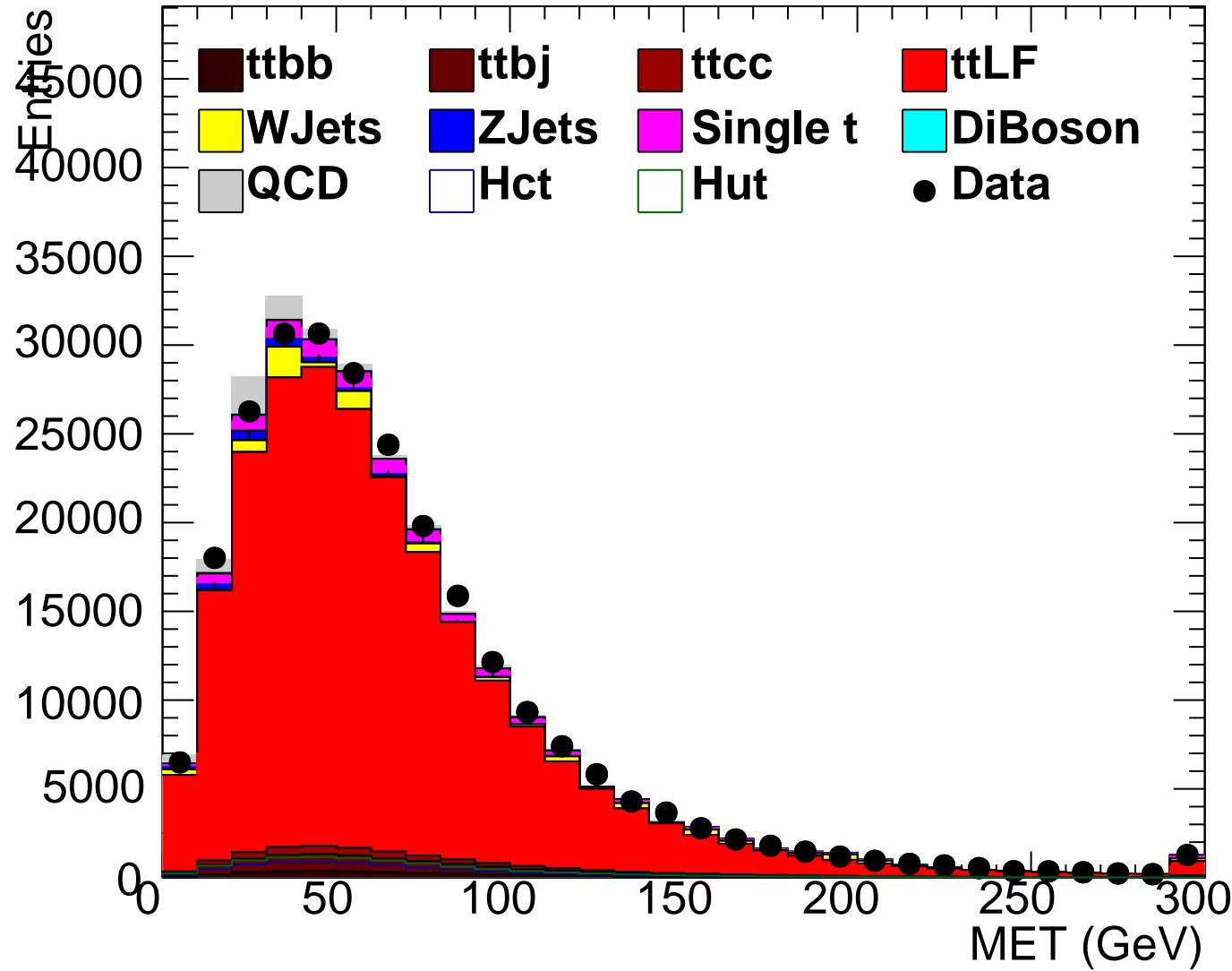


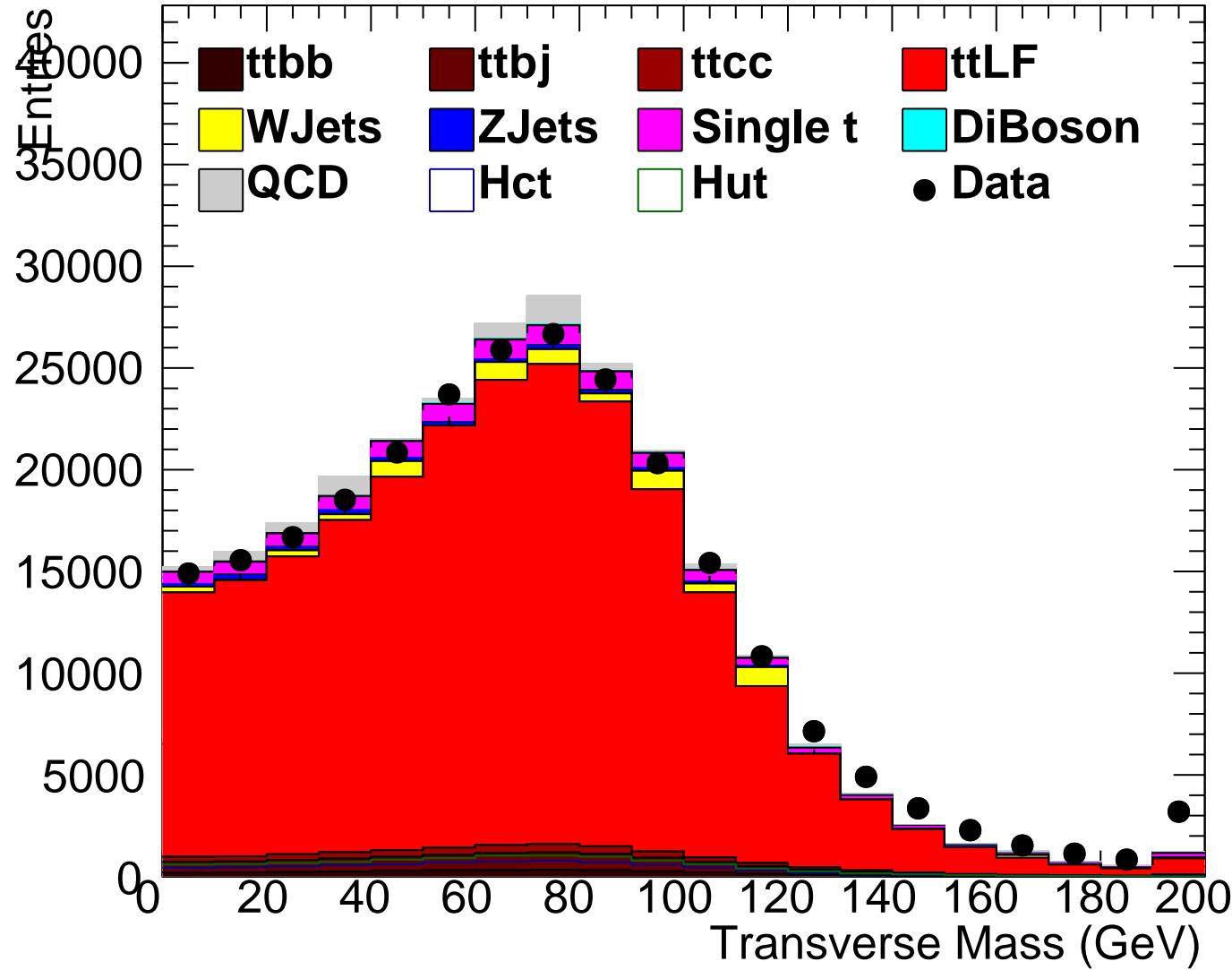
Ch1_S9

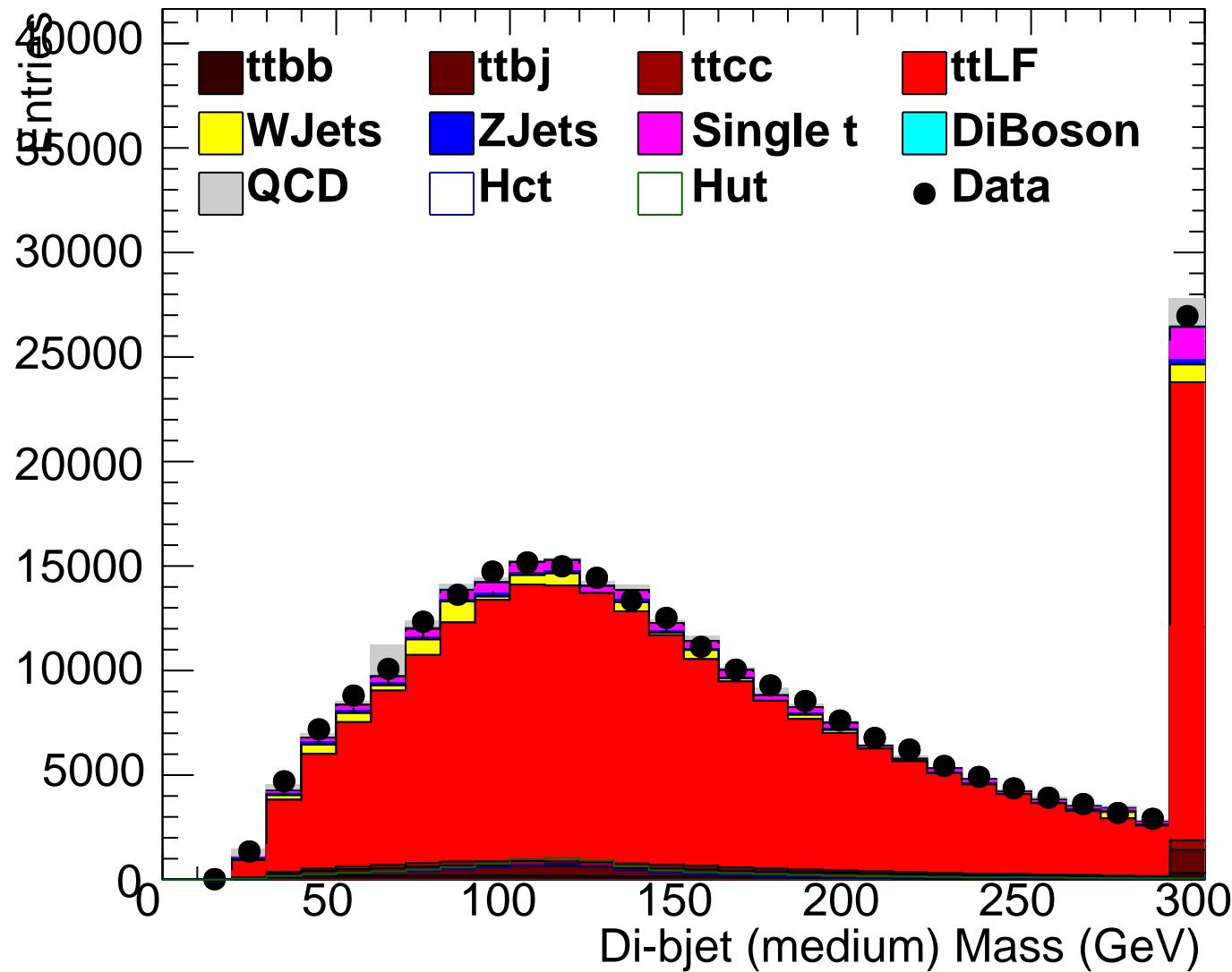
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

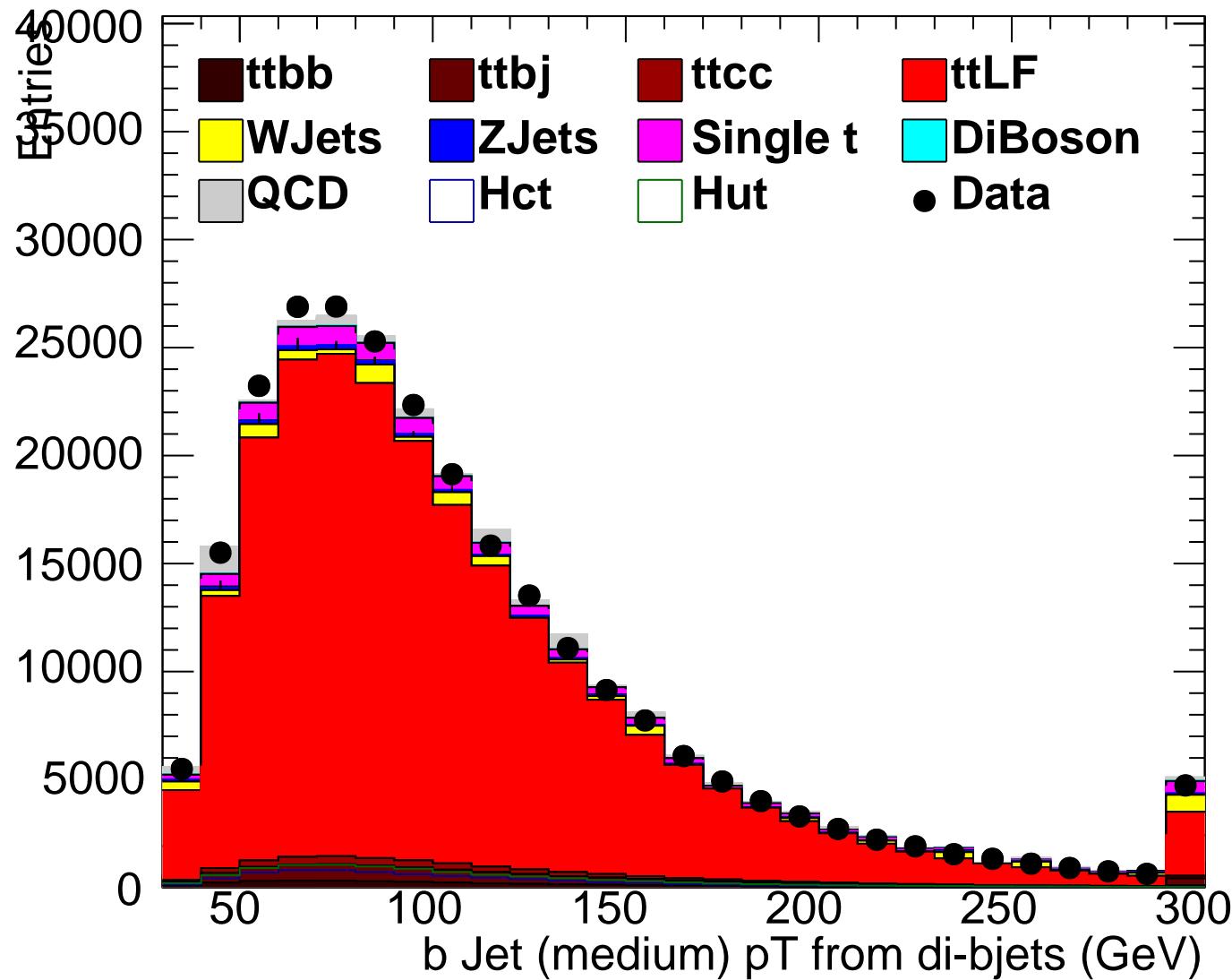




Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

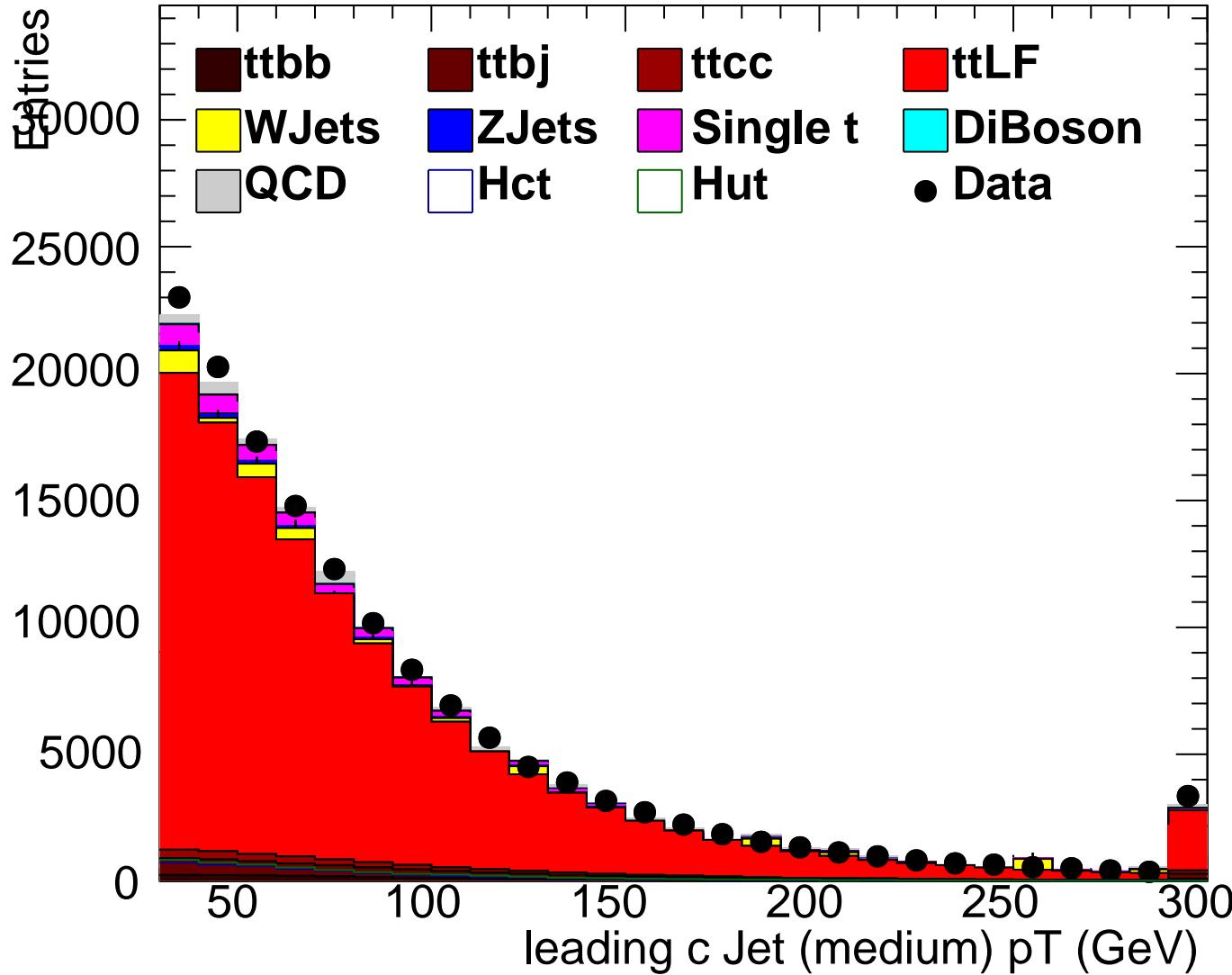
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

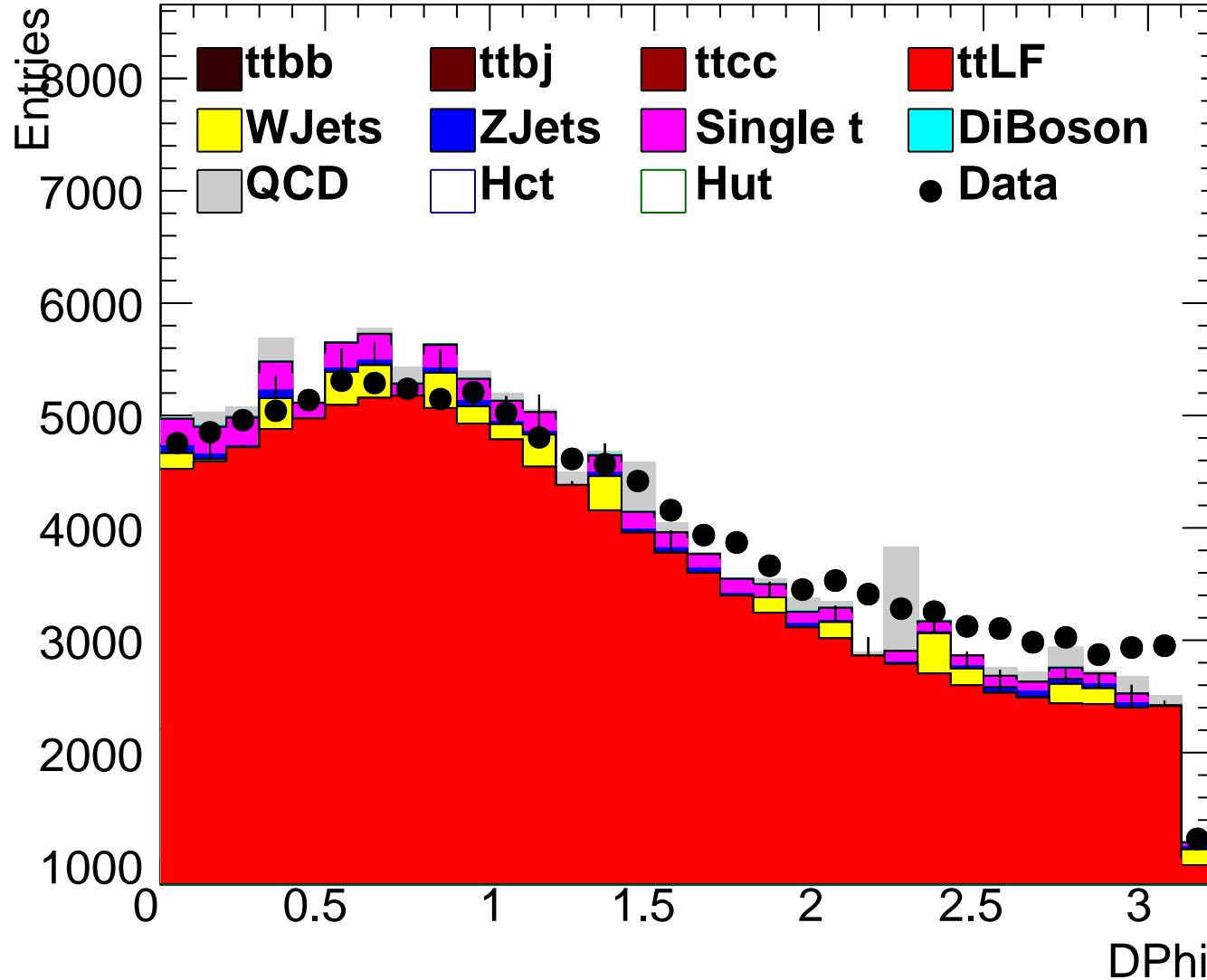
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

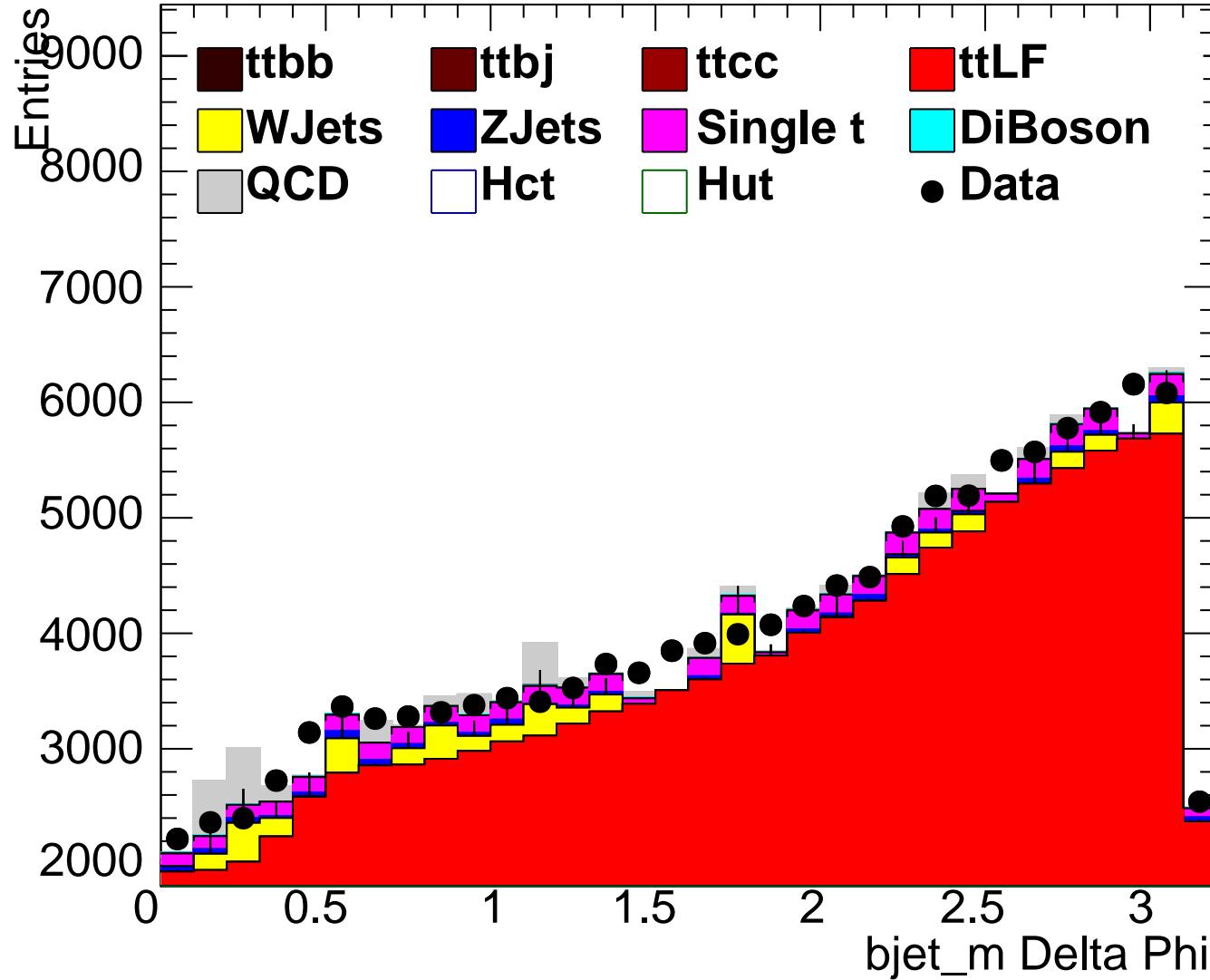
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

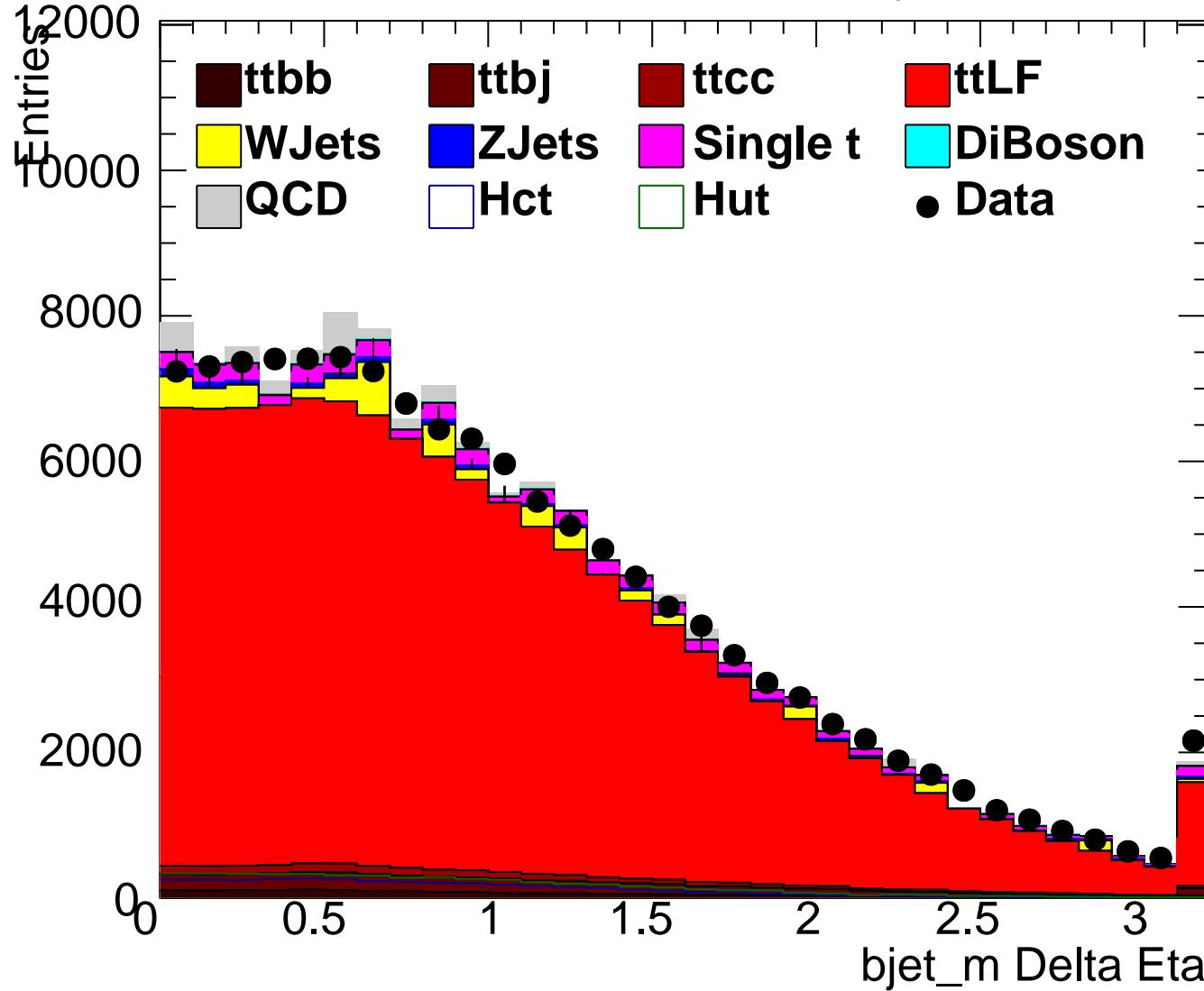
Ch1_S9

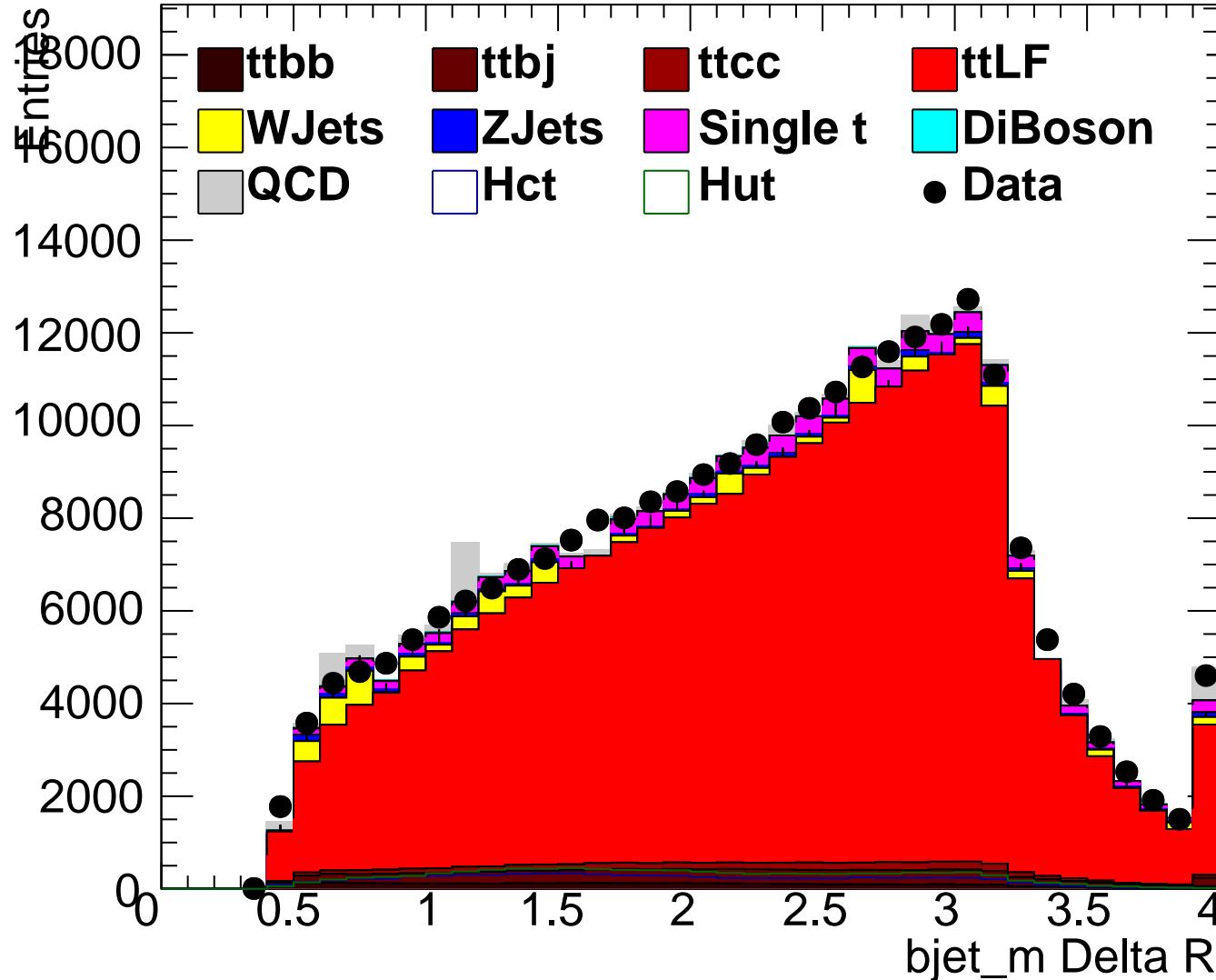
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

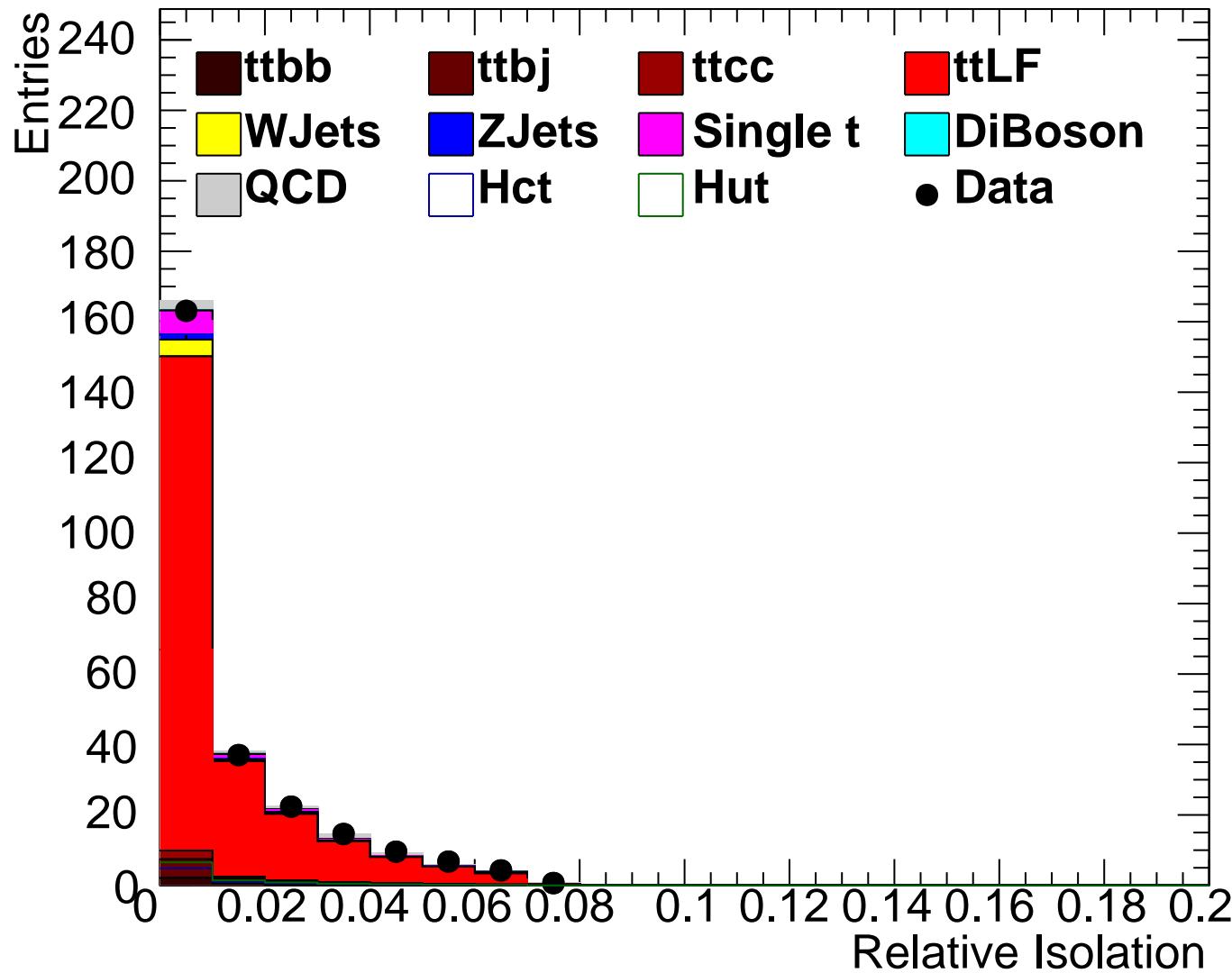


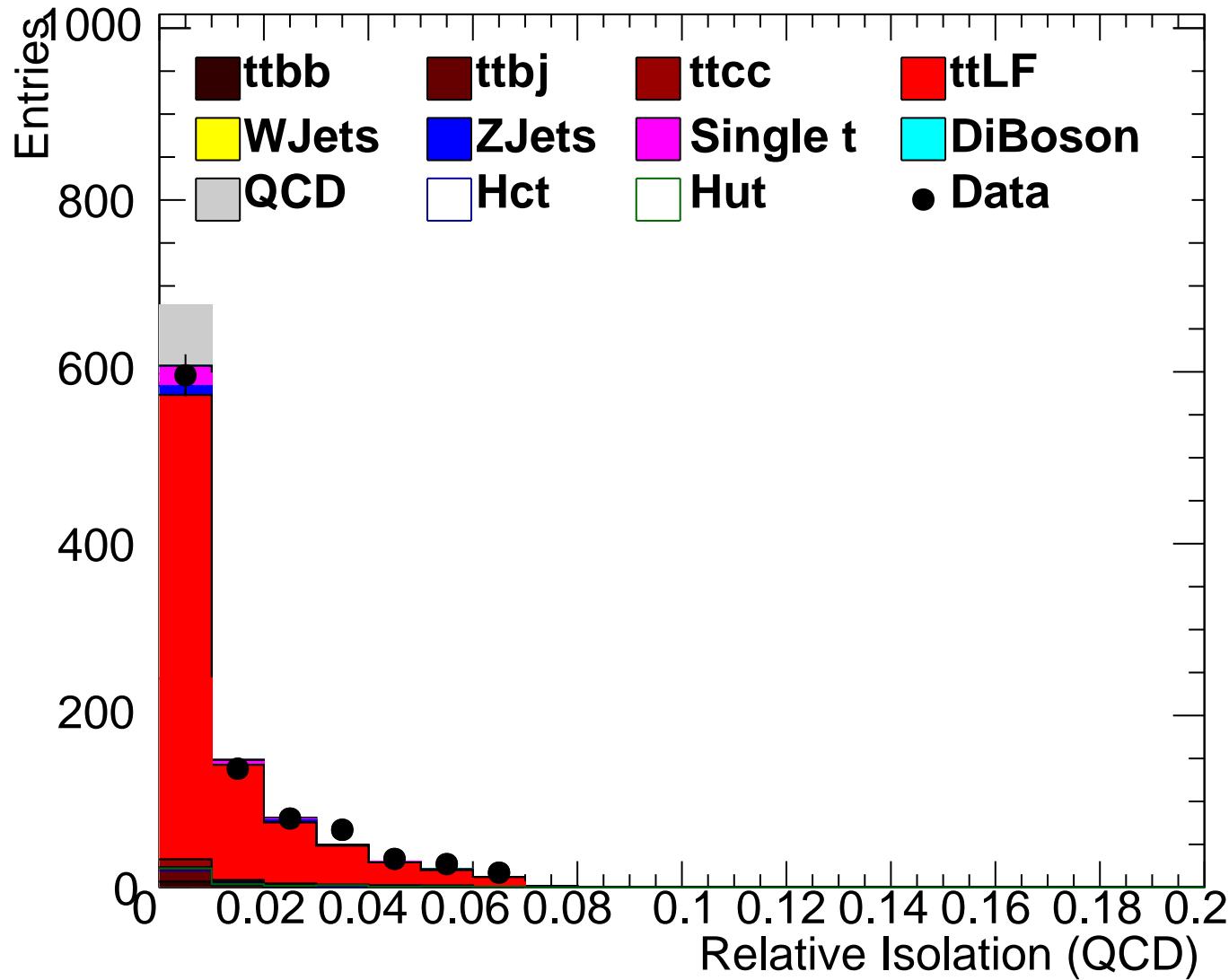
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

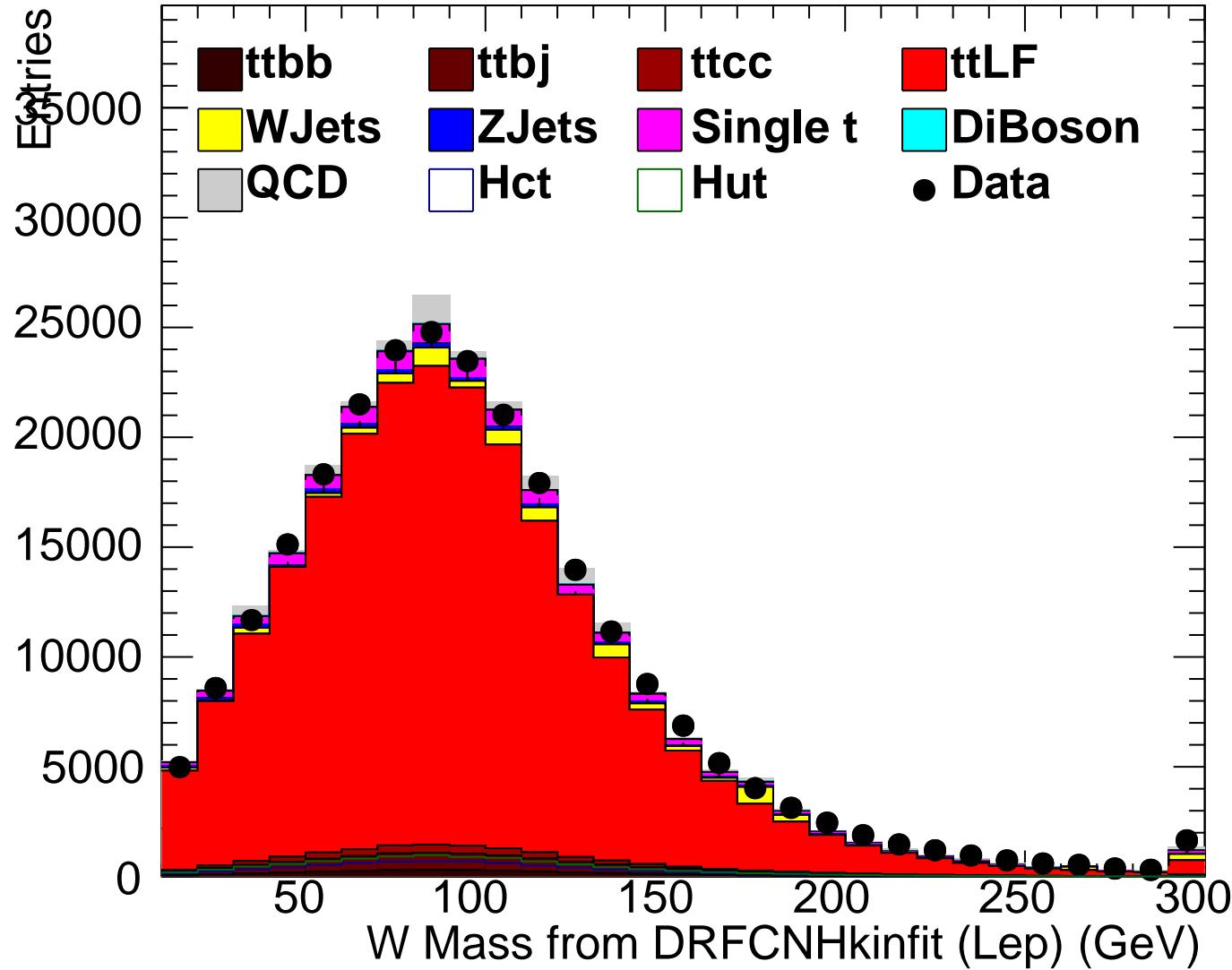


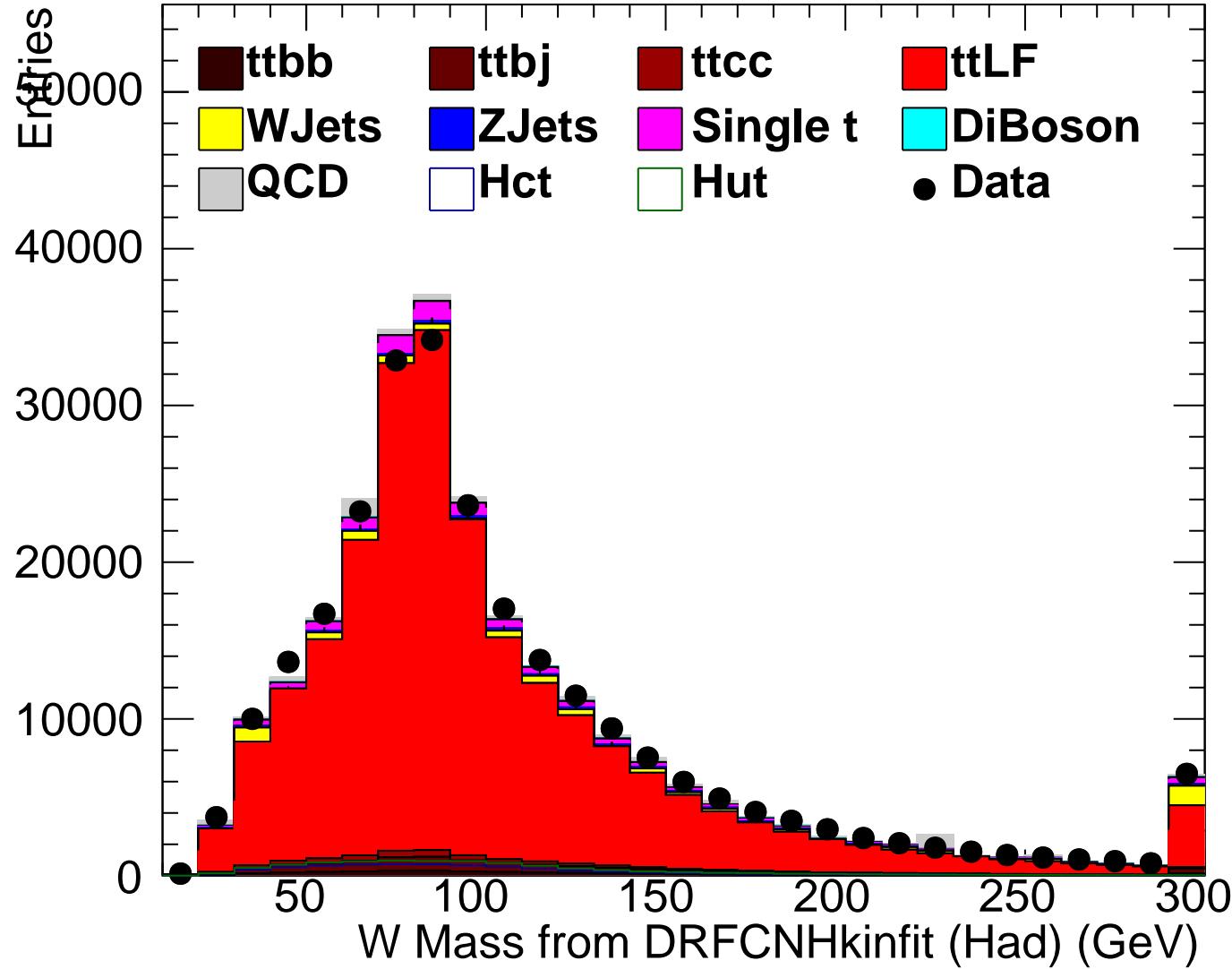
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

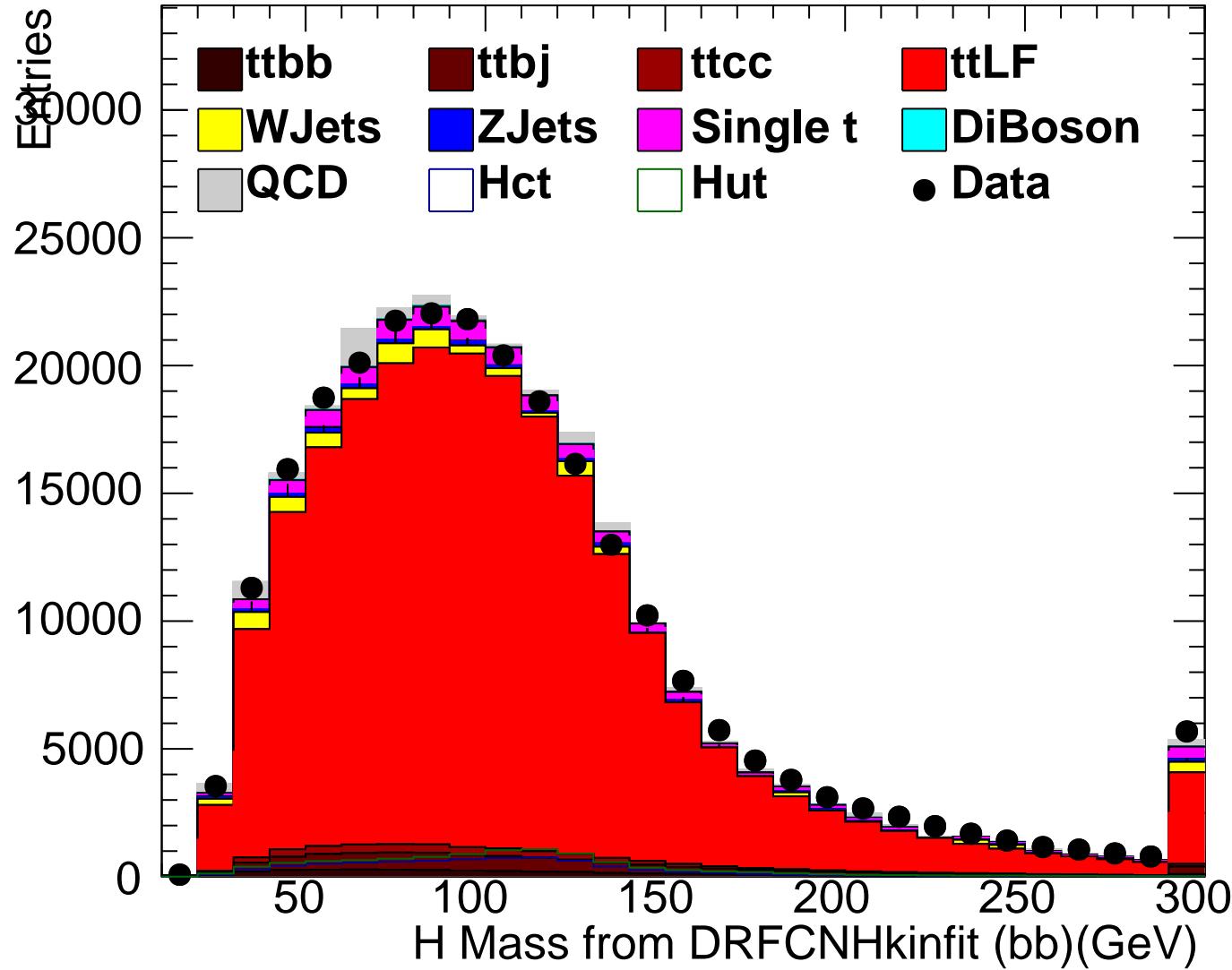
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

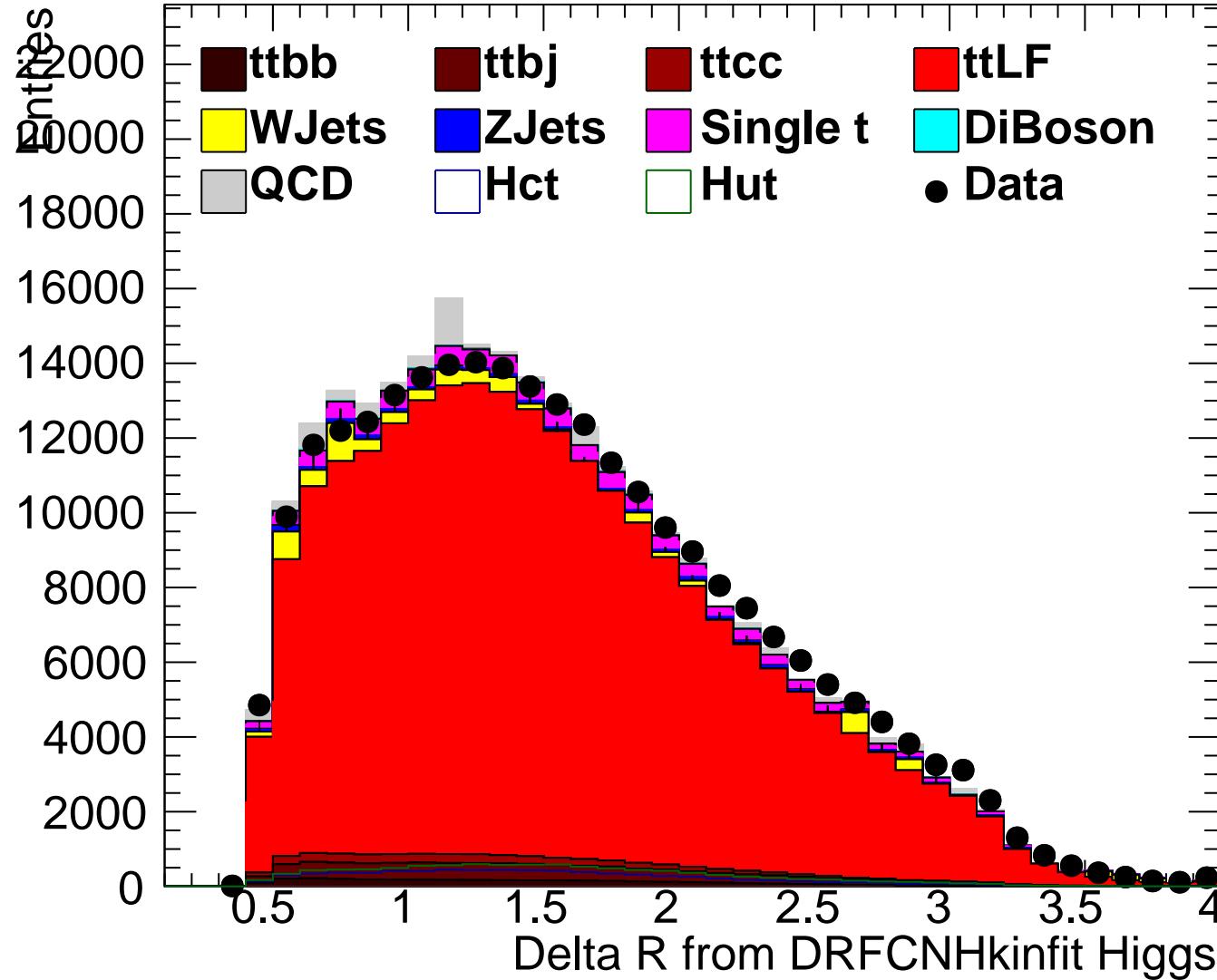


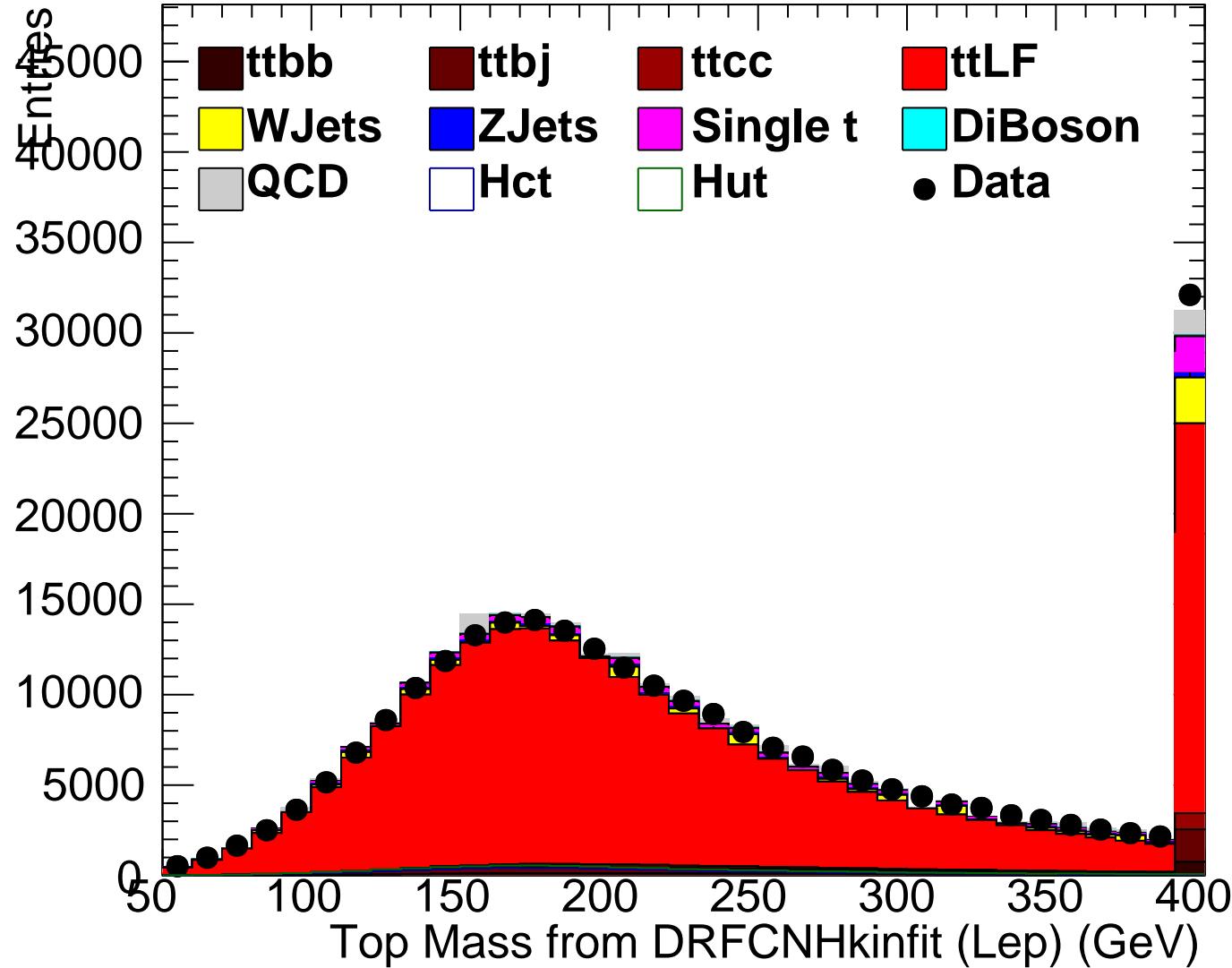




Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

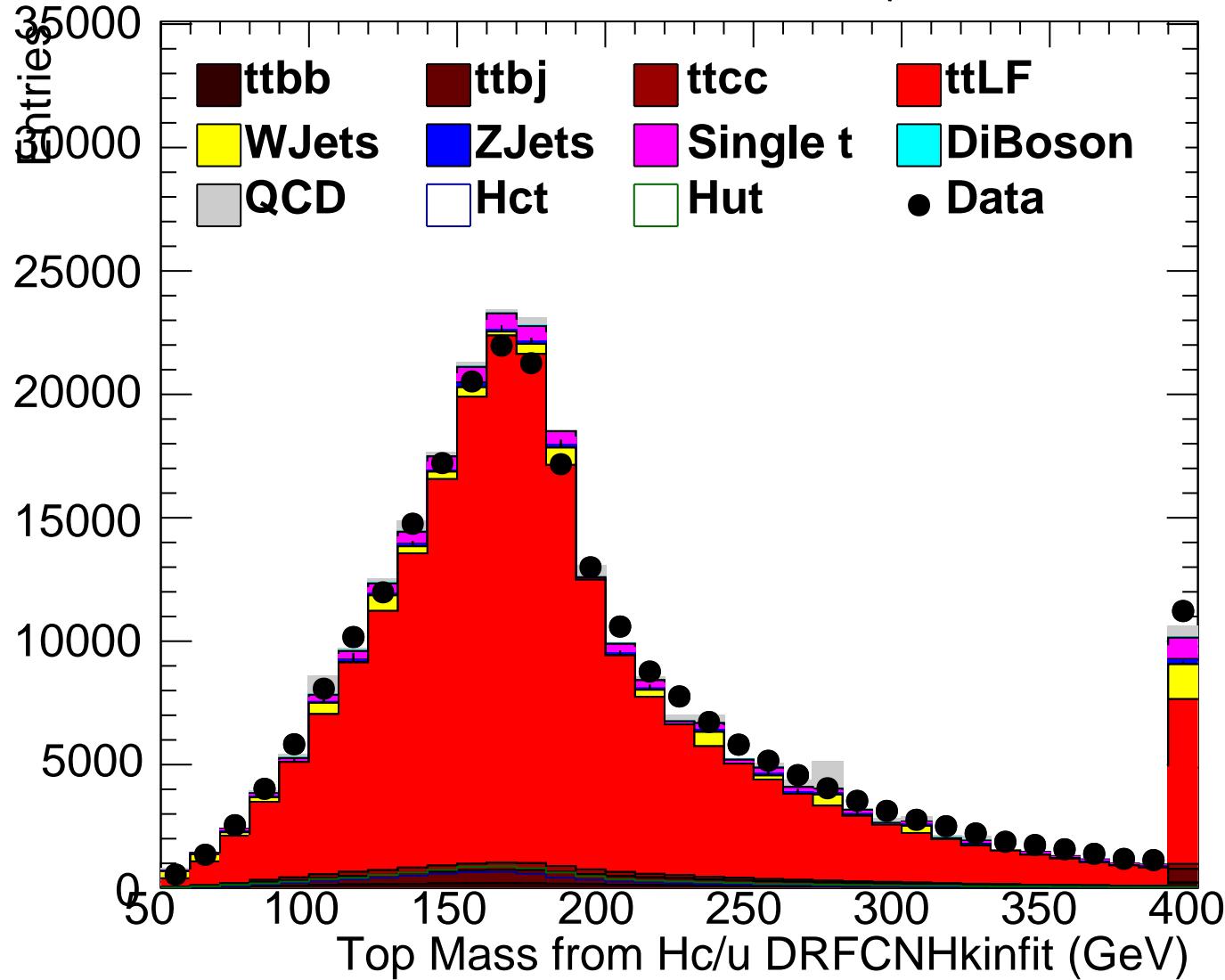


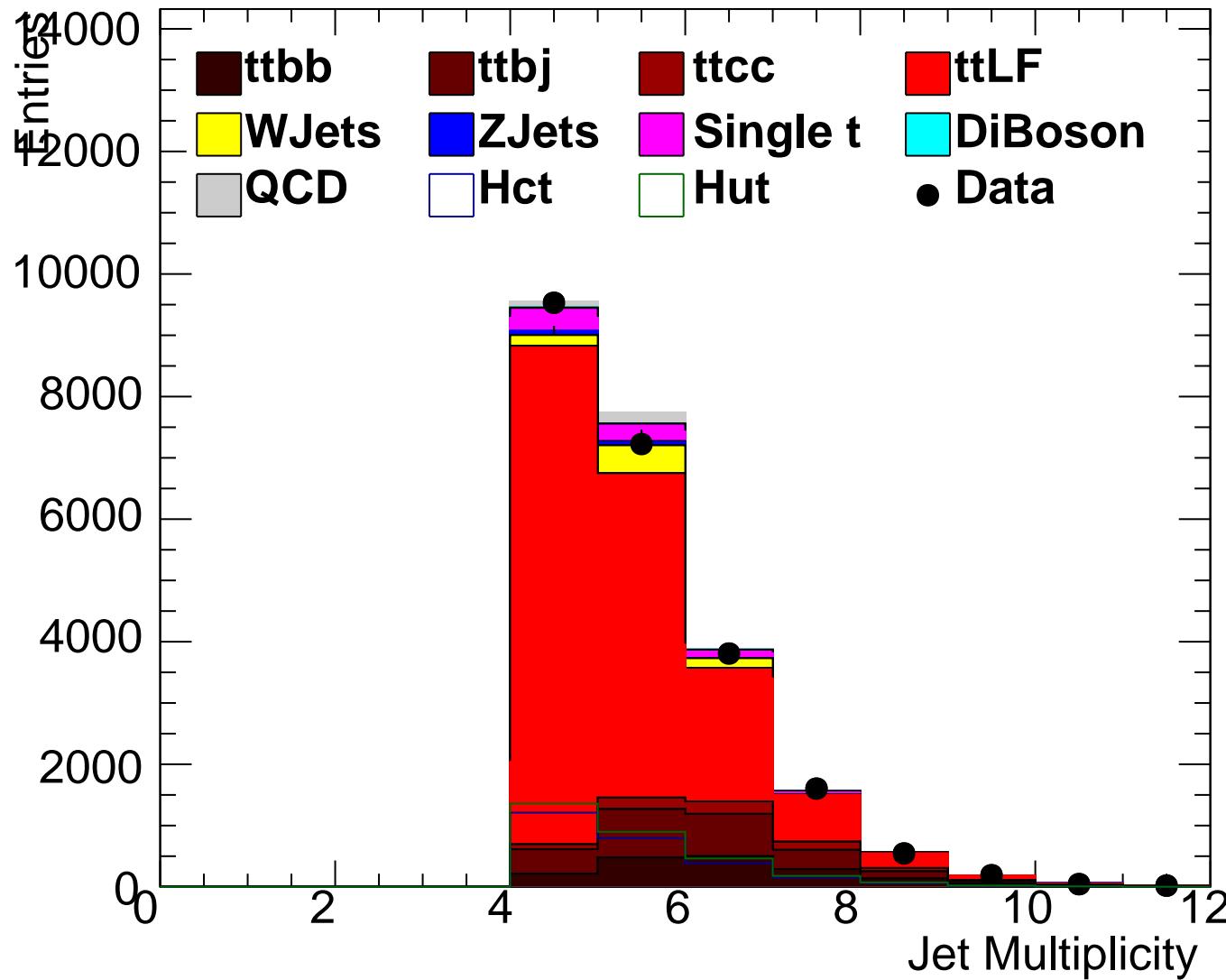
Ch1_S9CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S9

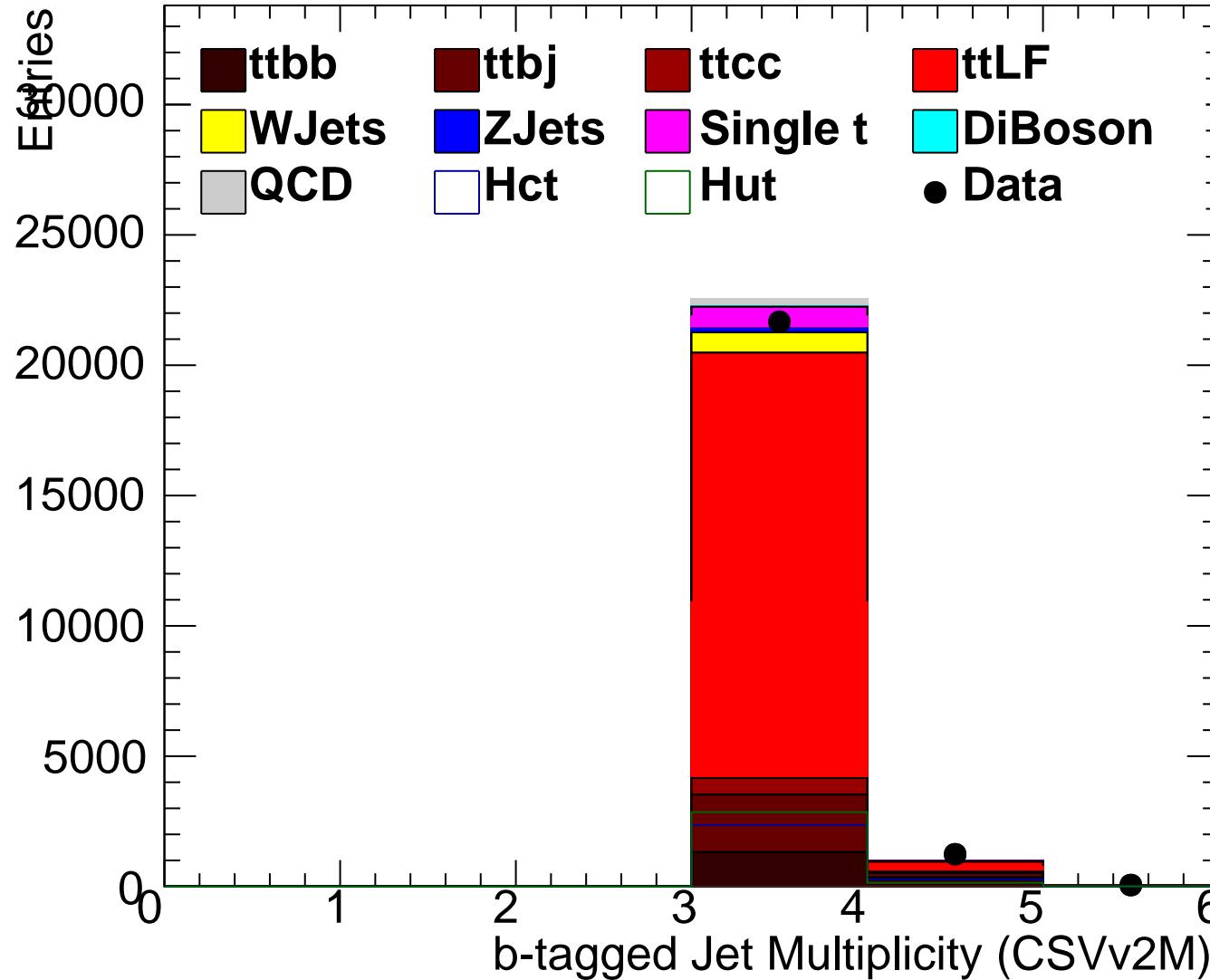
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

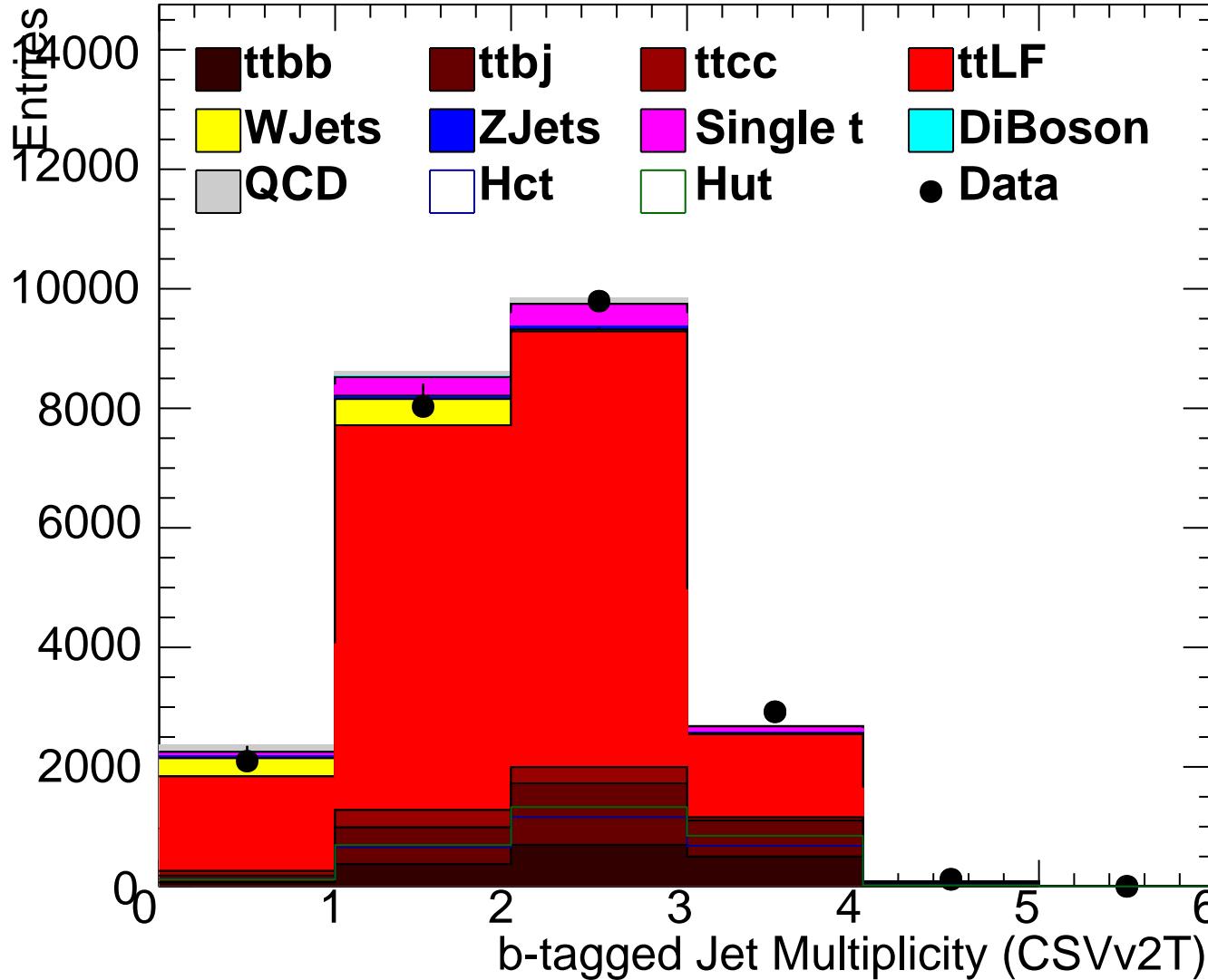


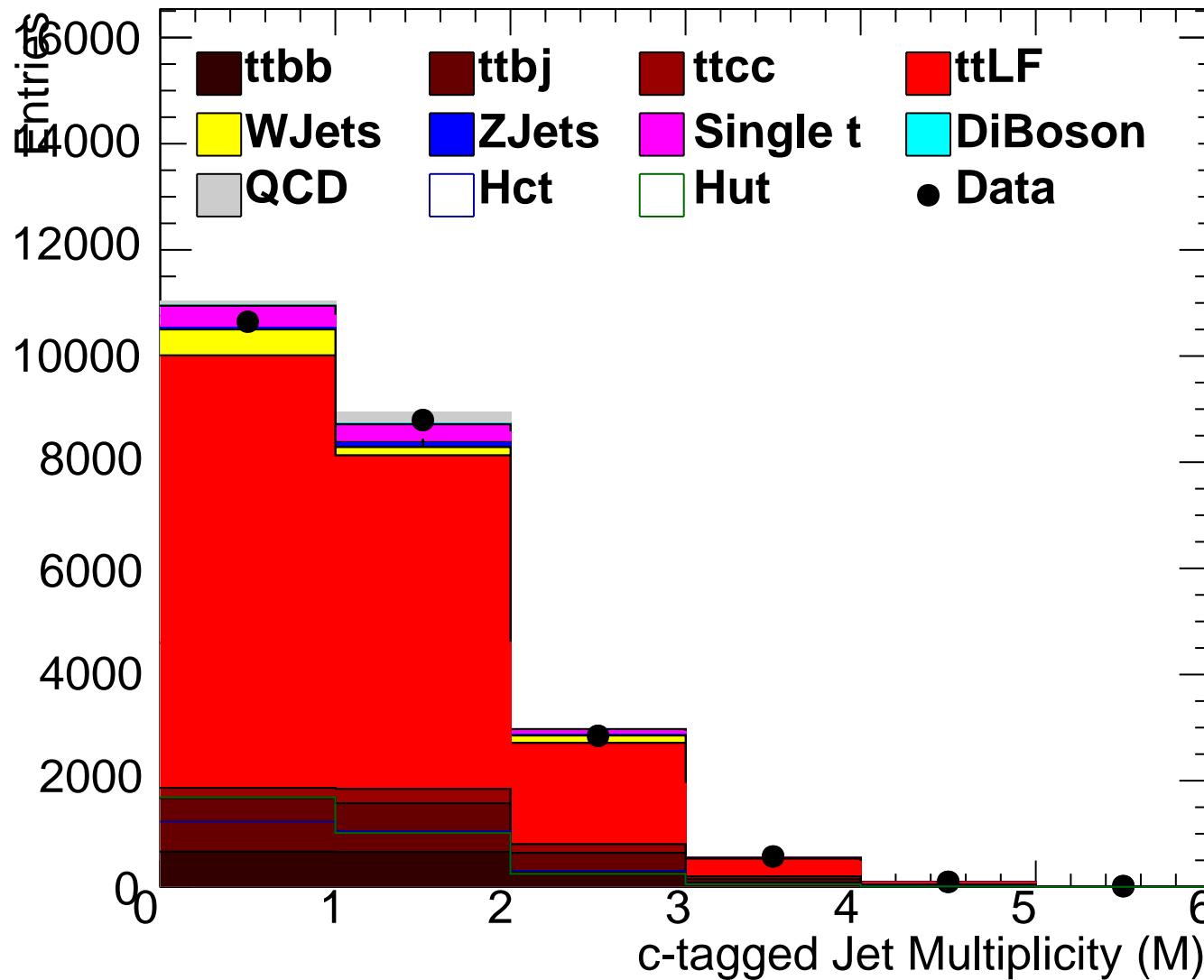


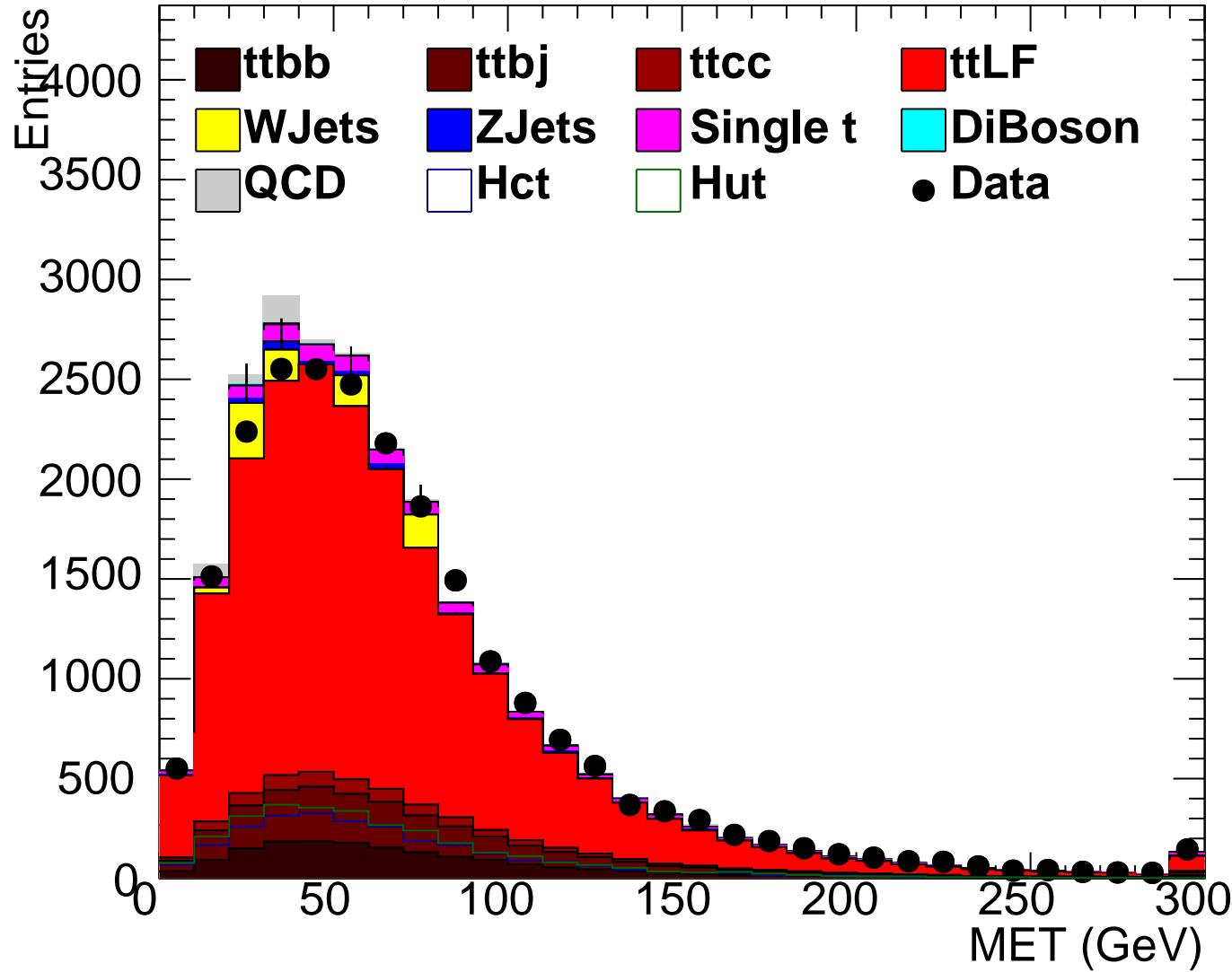
Ch1 S10

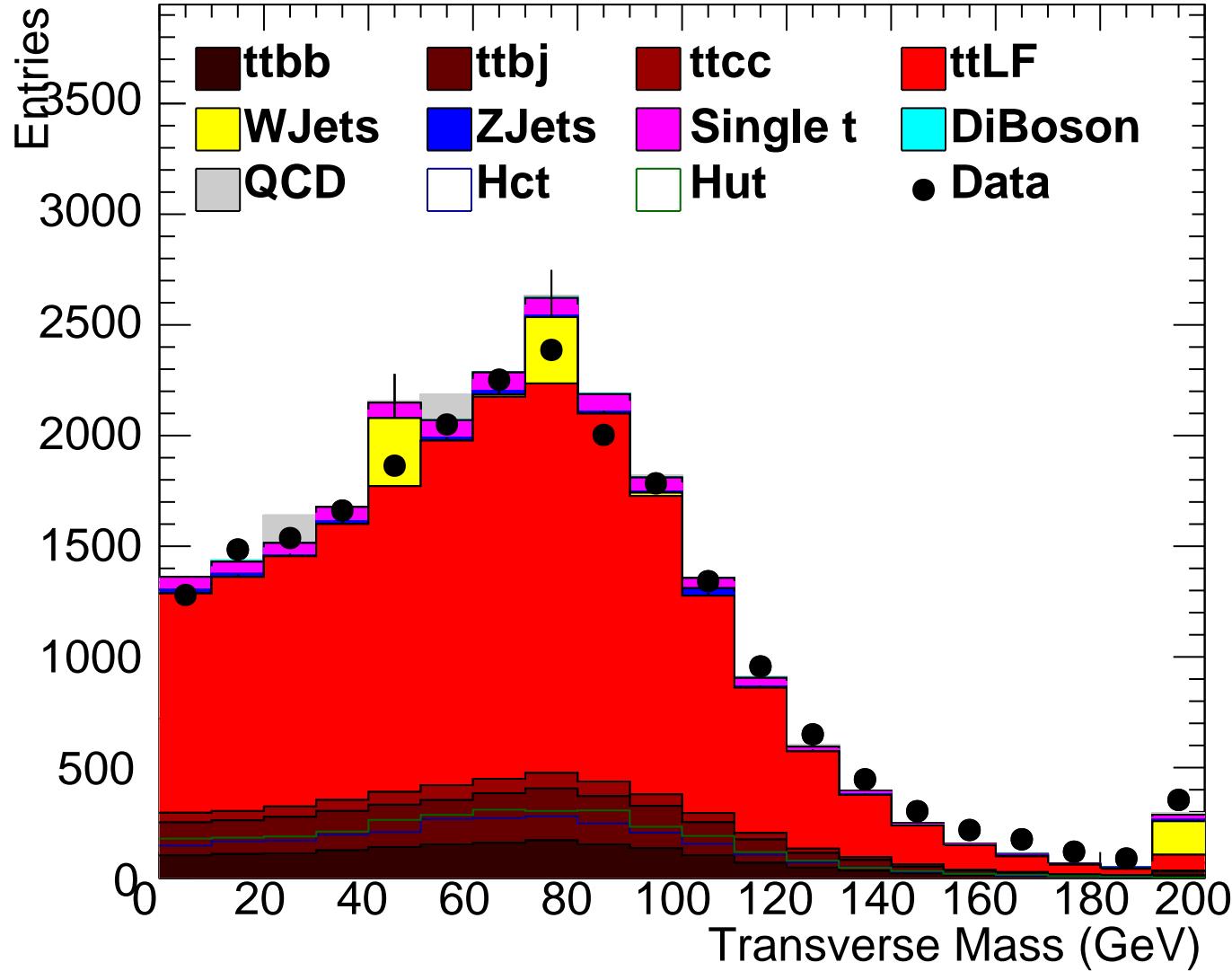
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

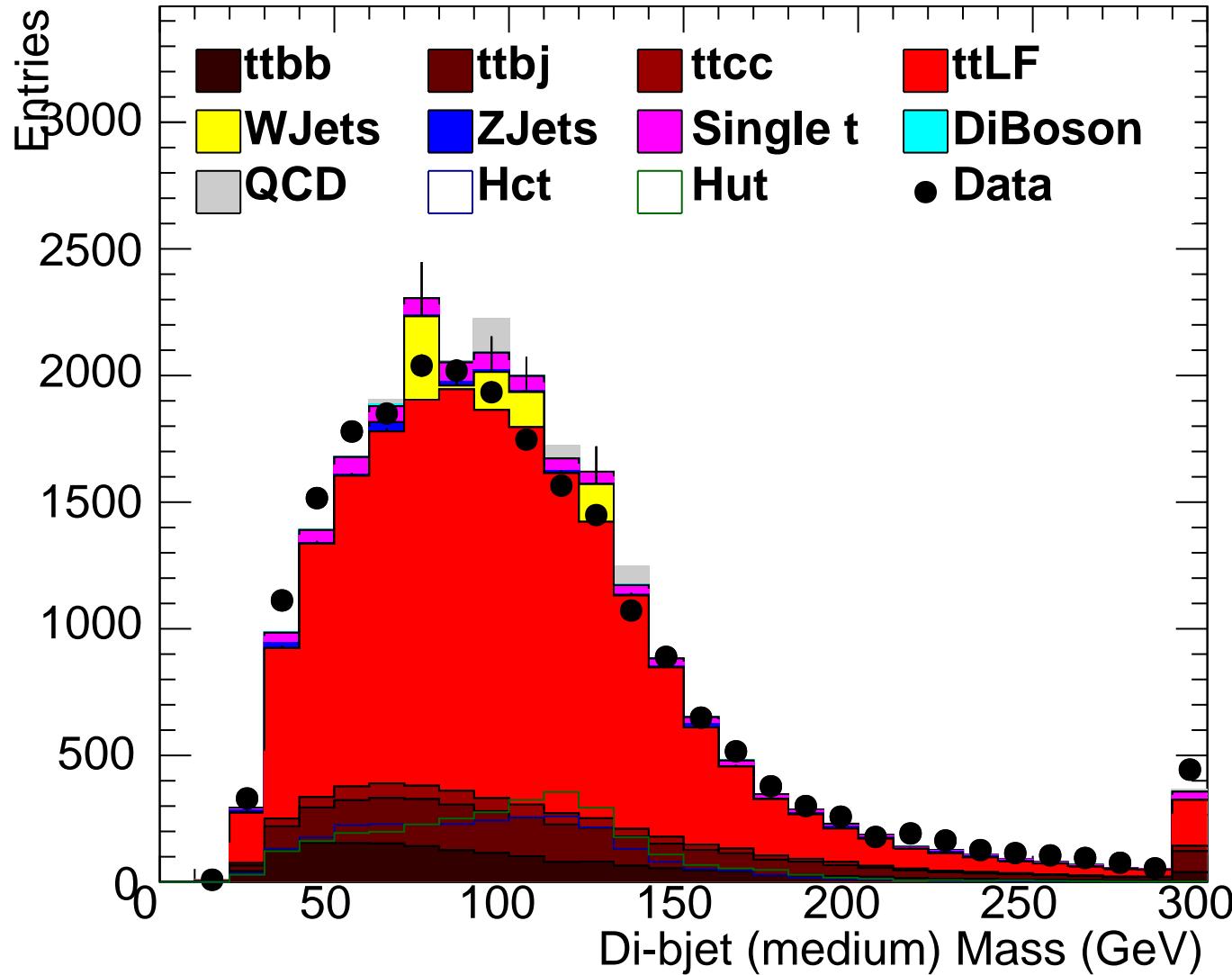


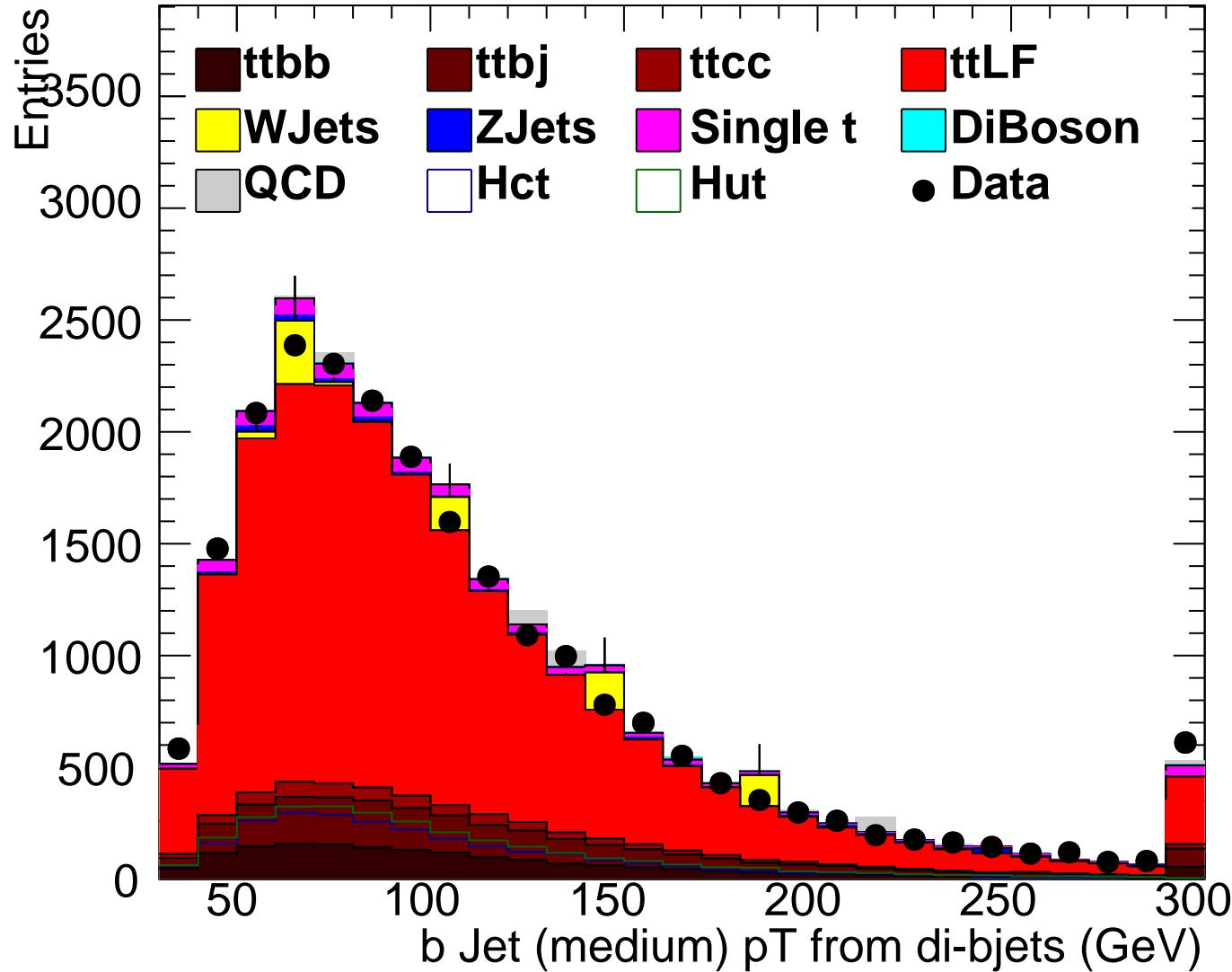


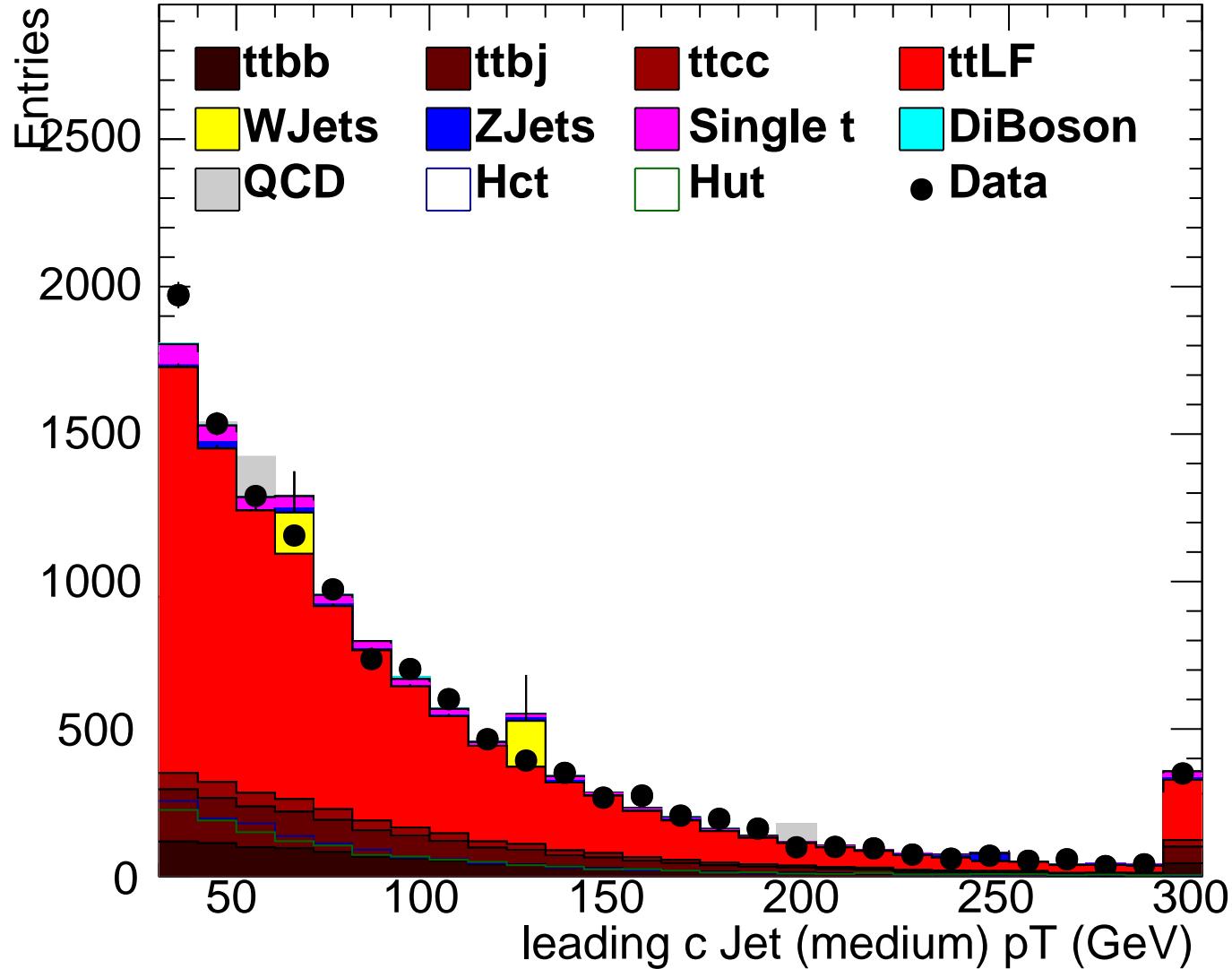


Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

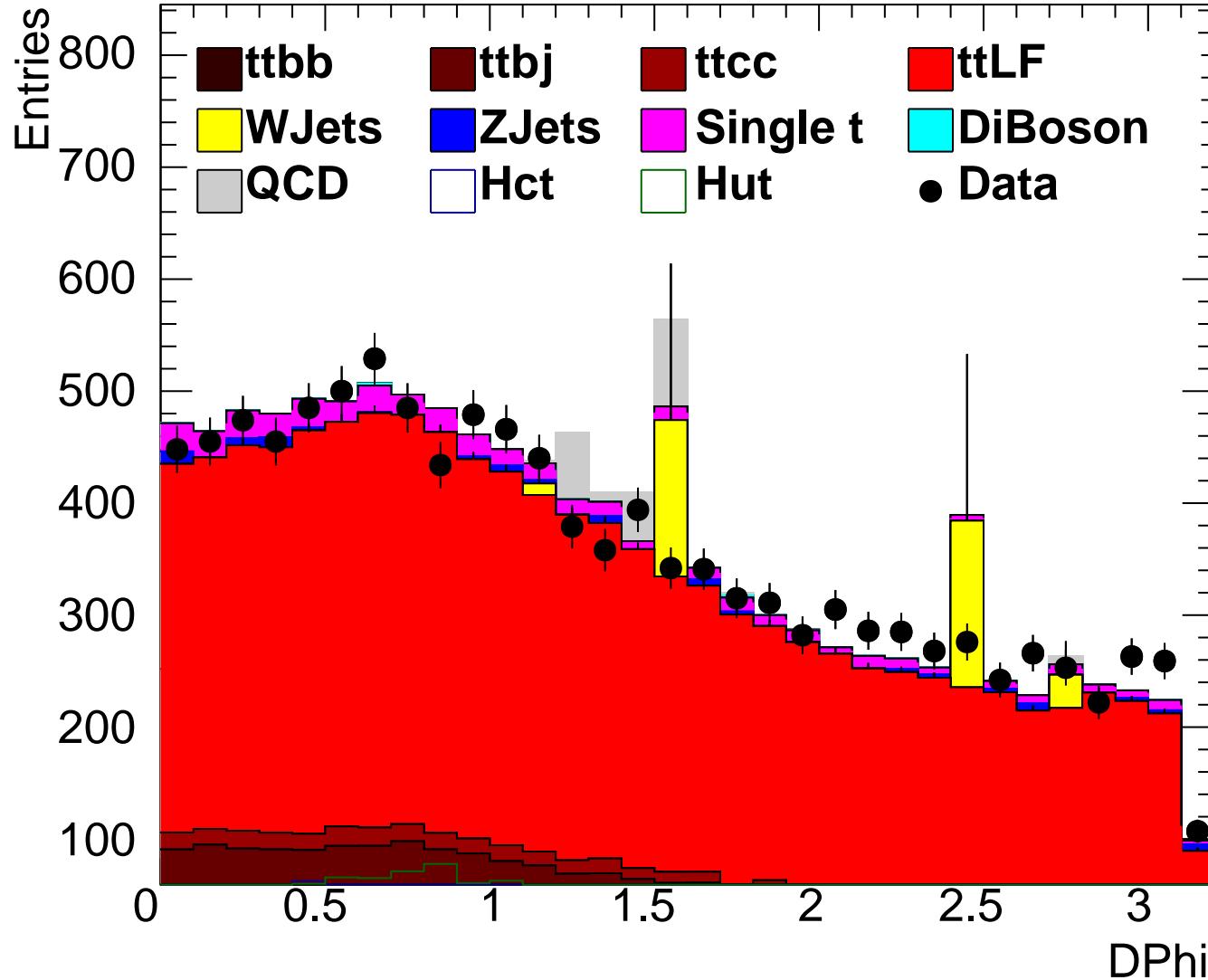


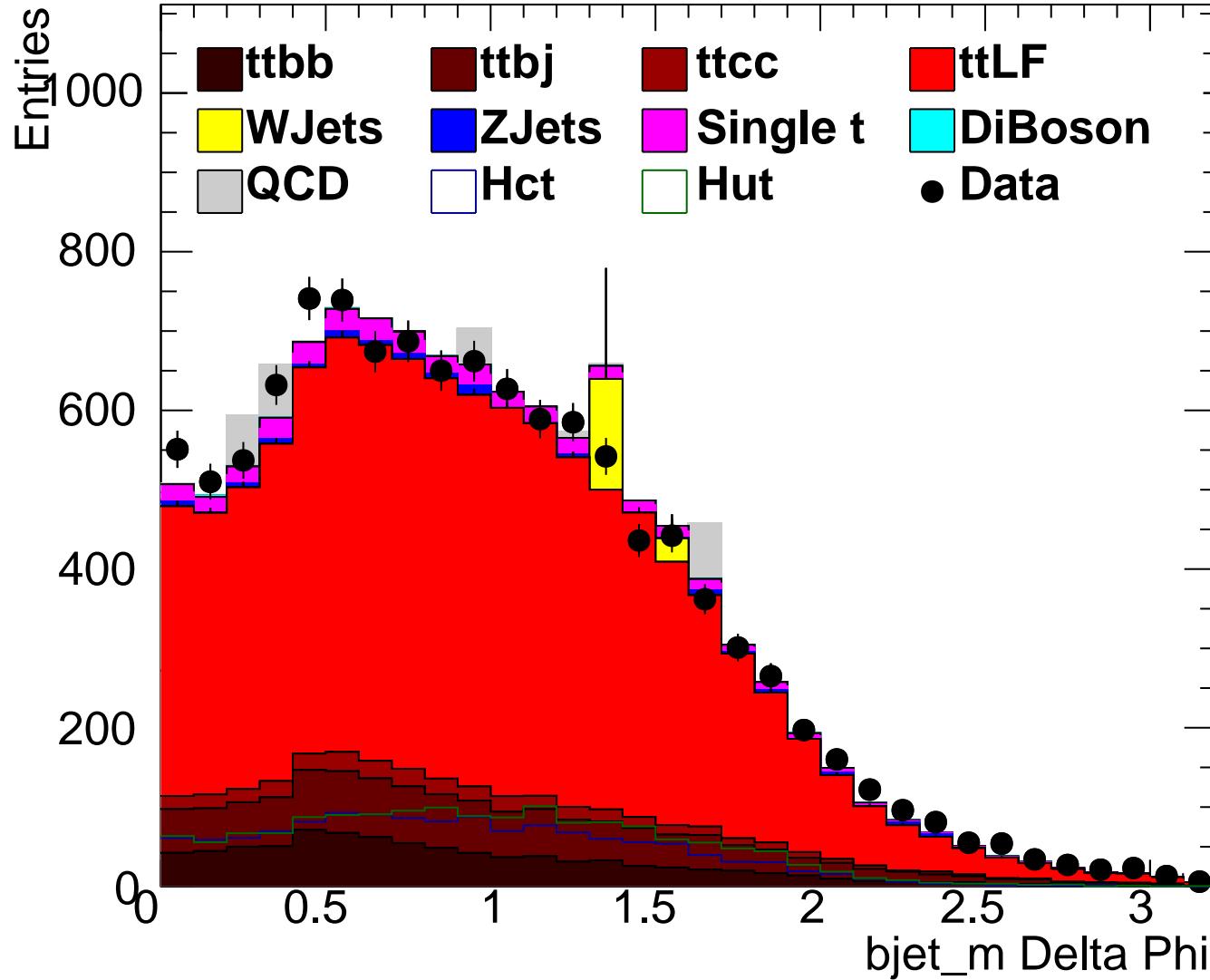


Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S10

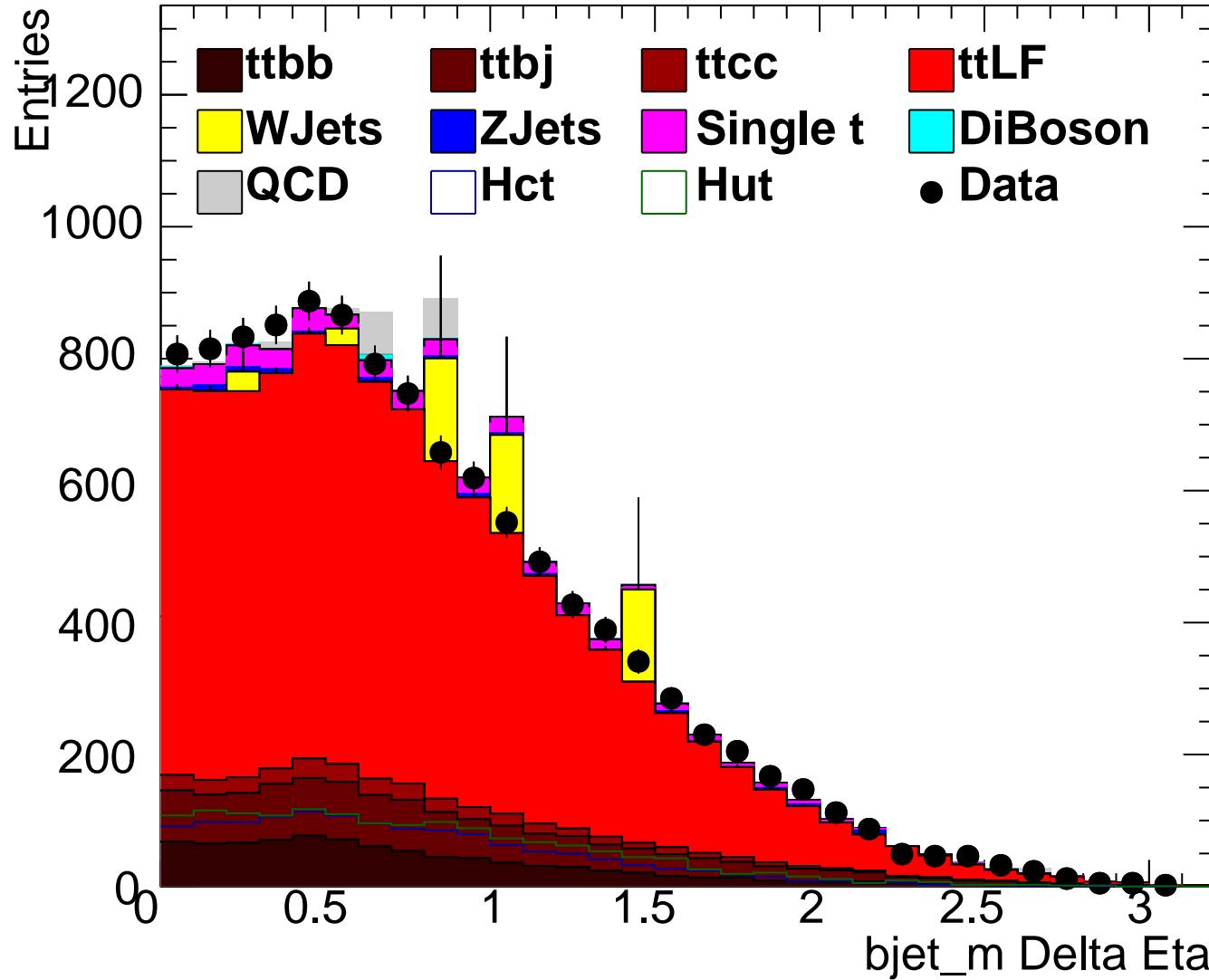
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

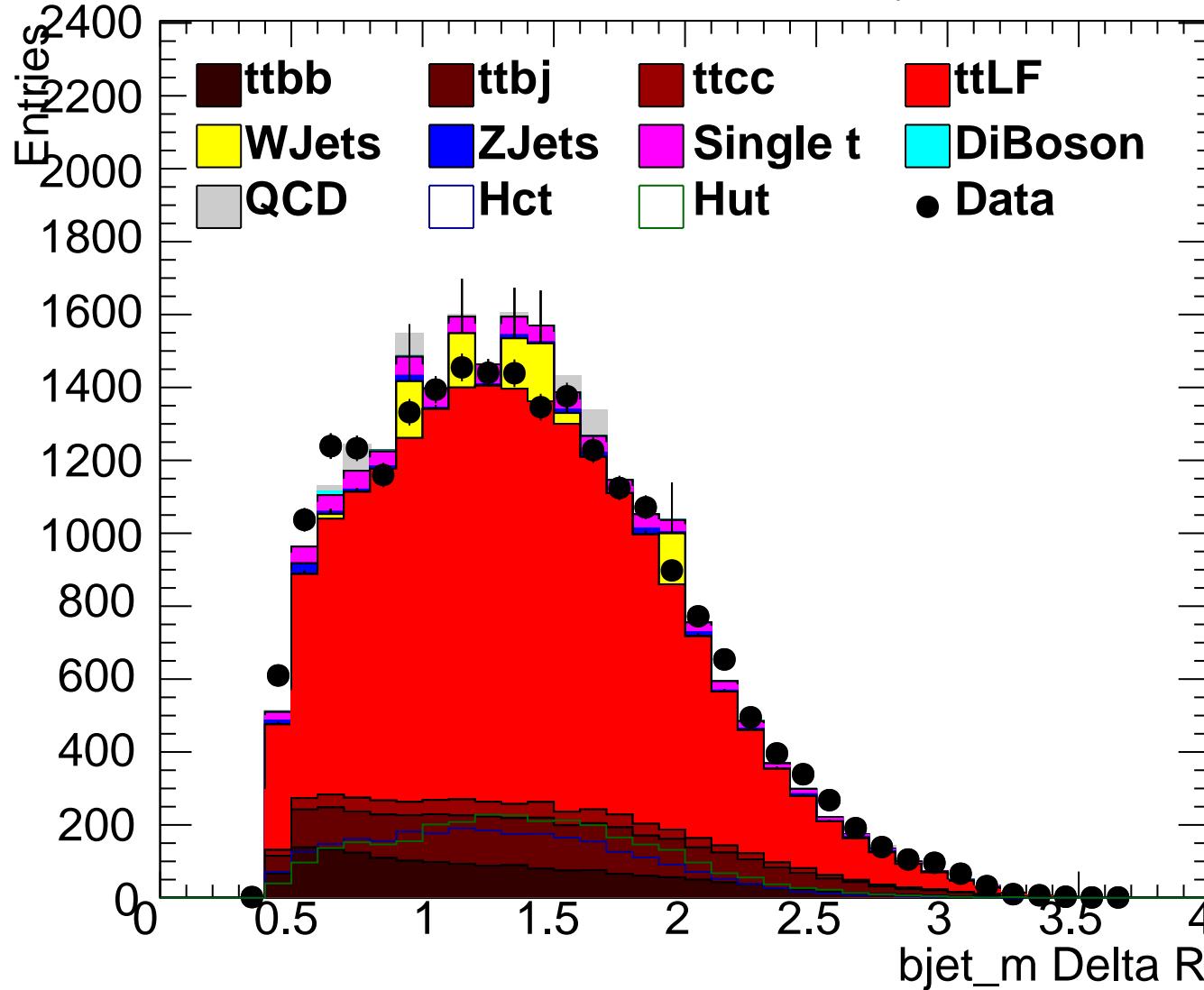
Ch1_S10

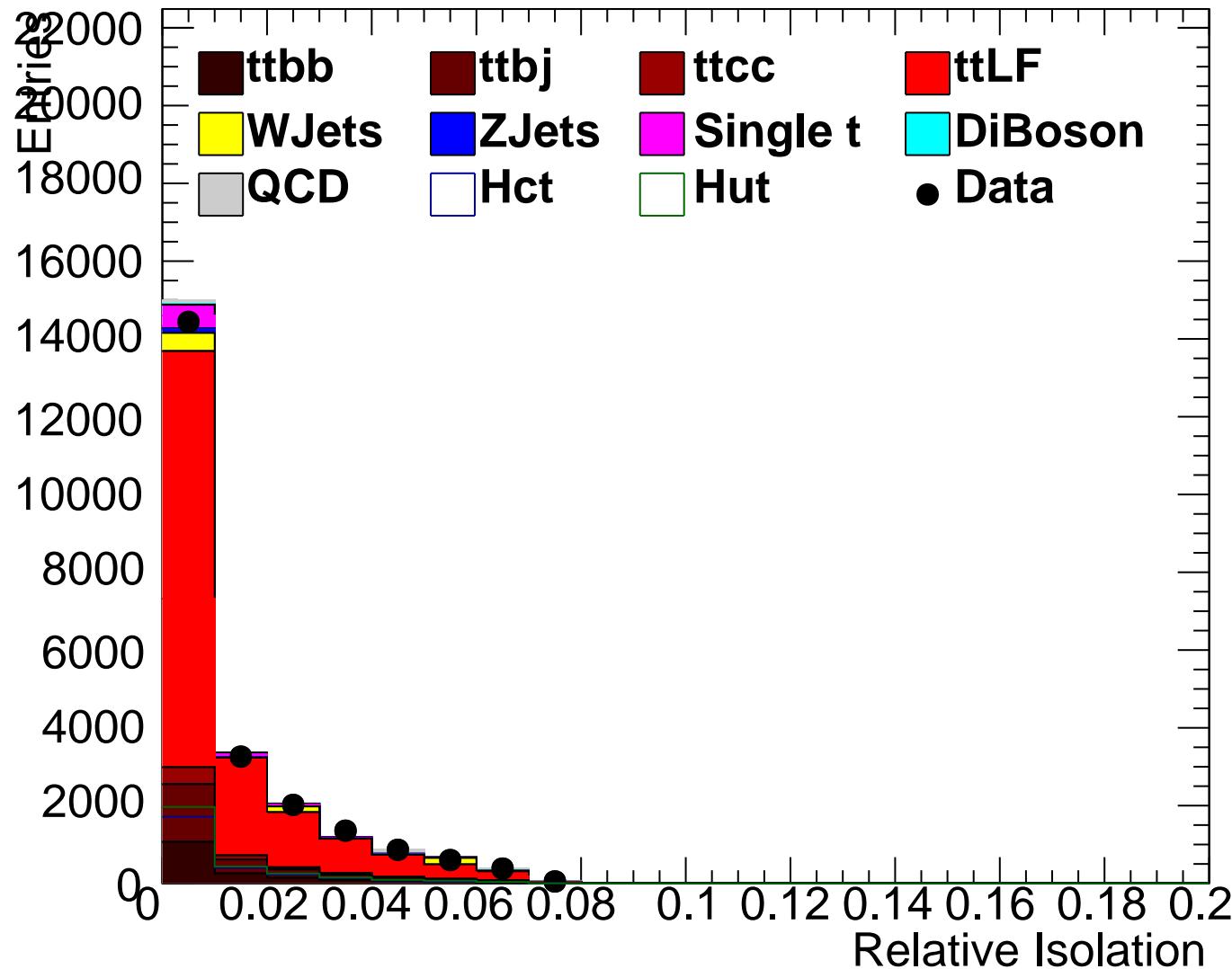
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

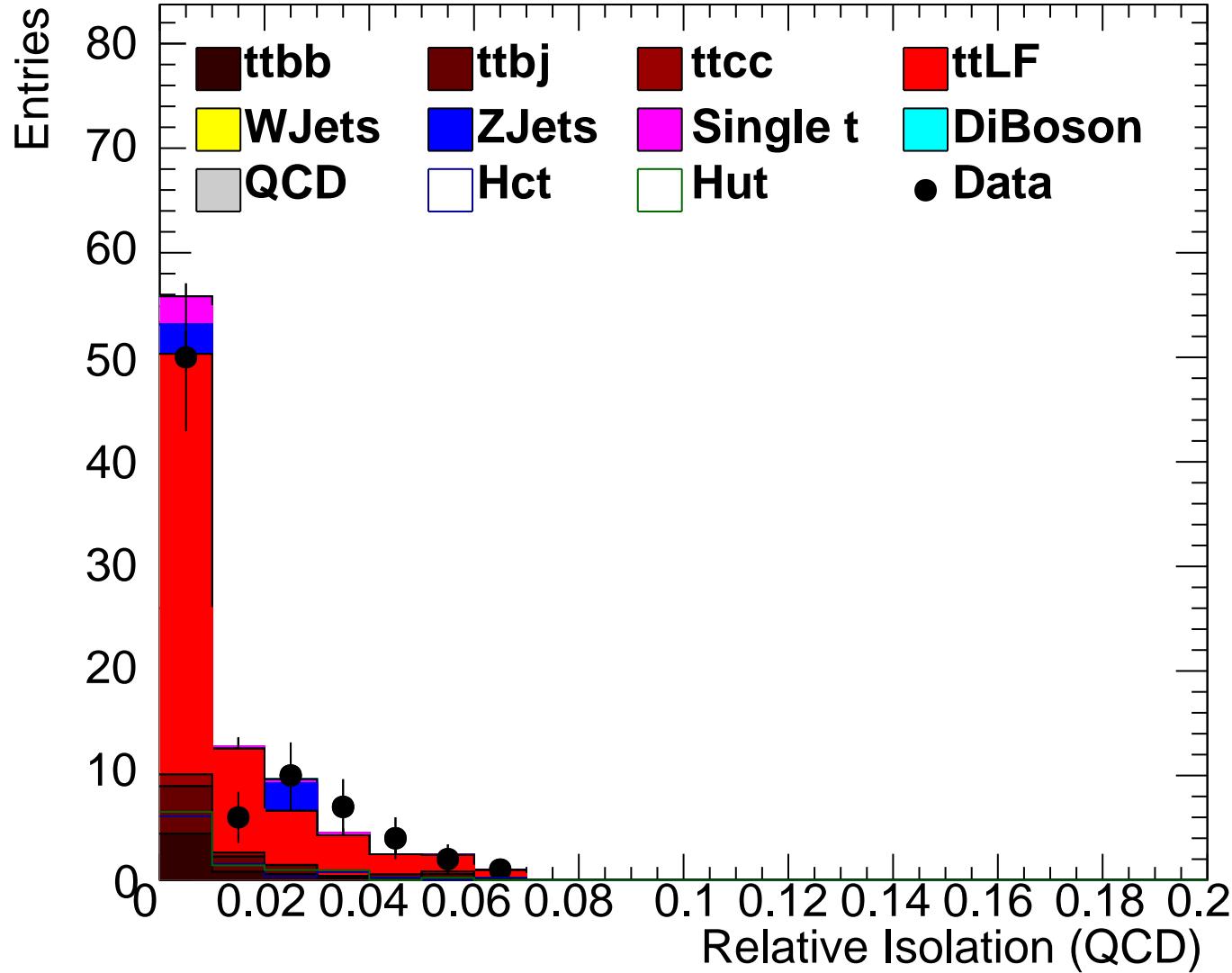


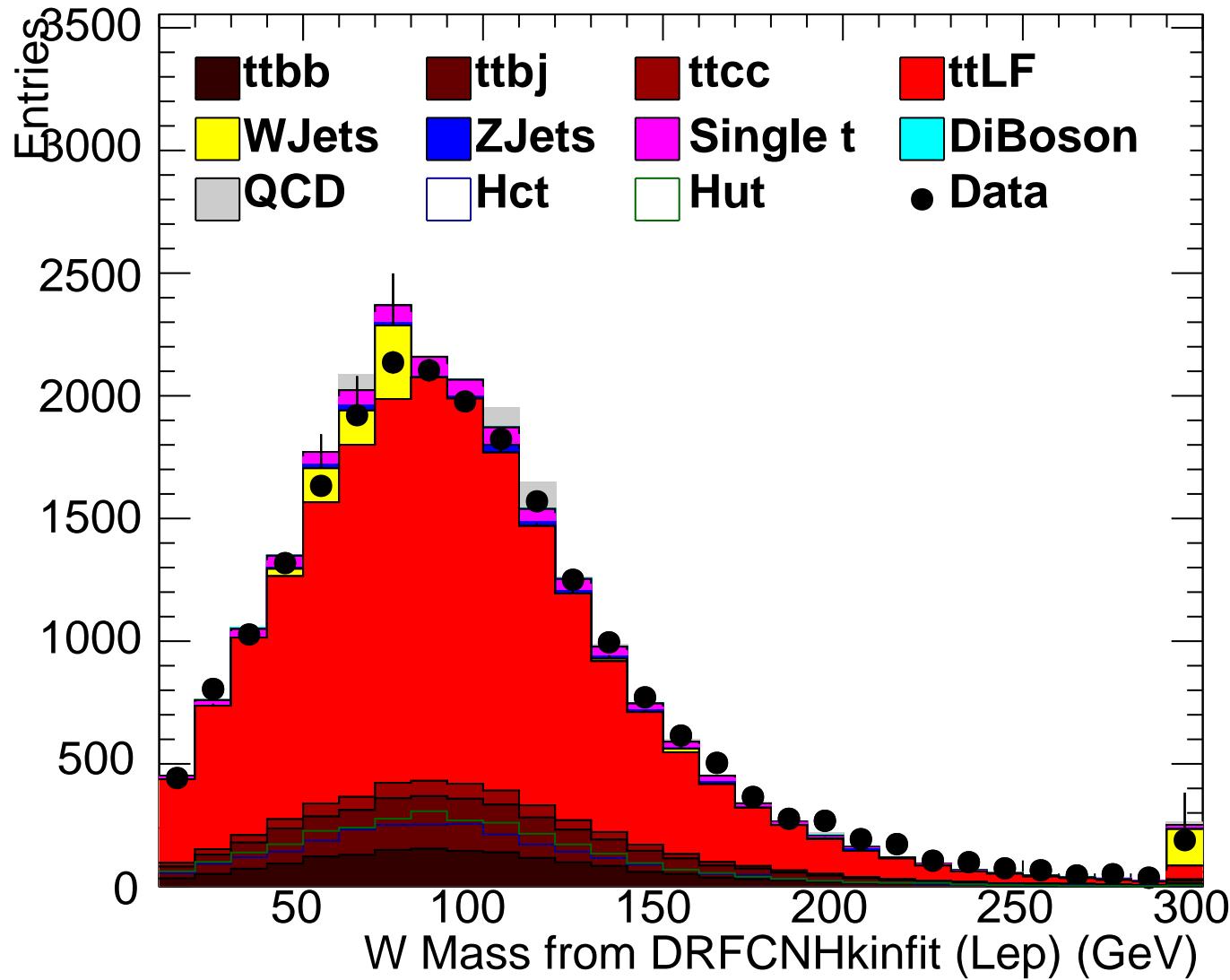
Ch1_S10

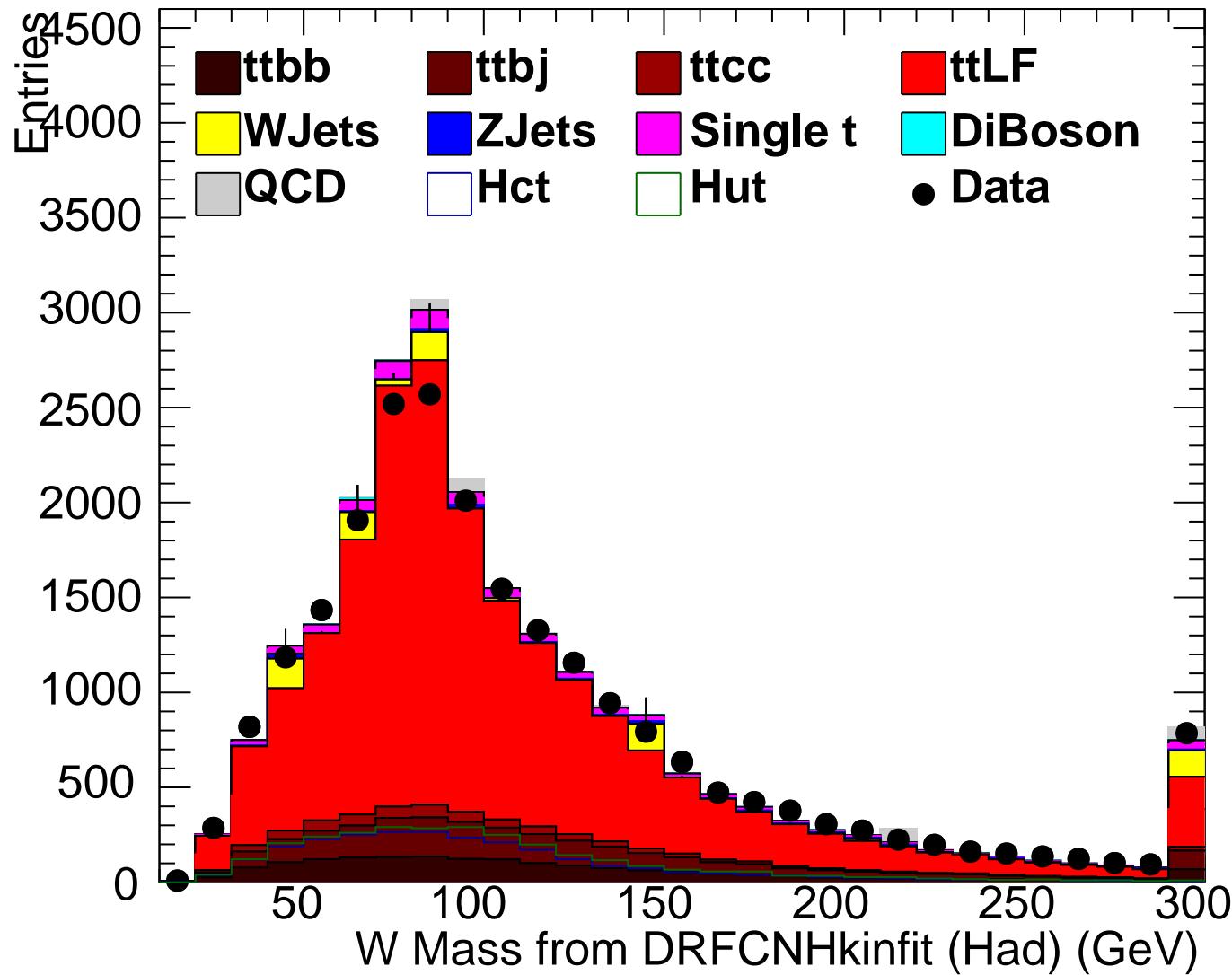
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

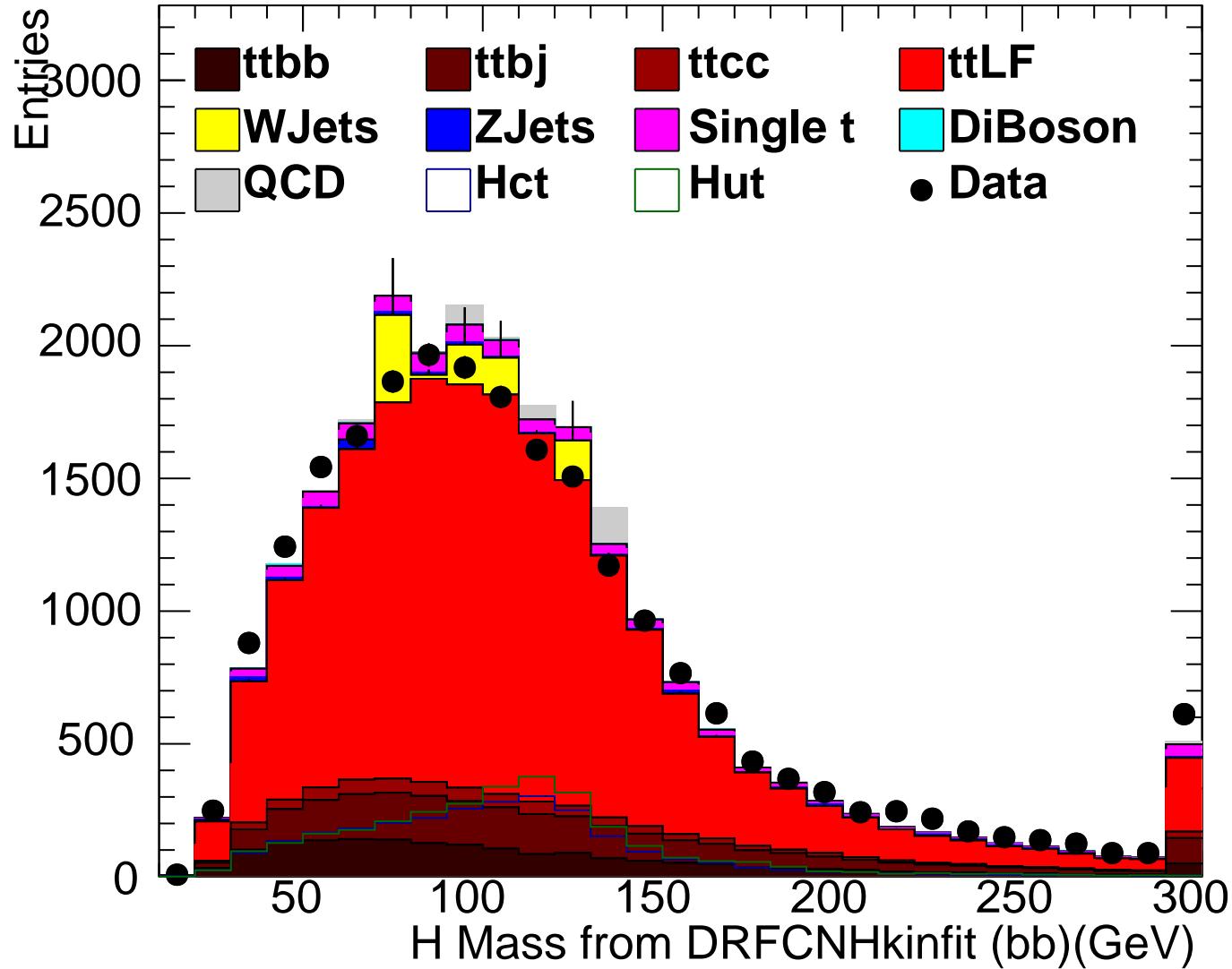


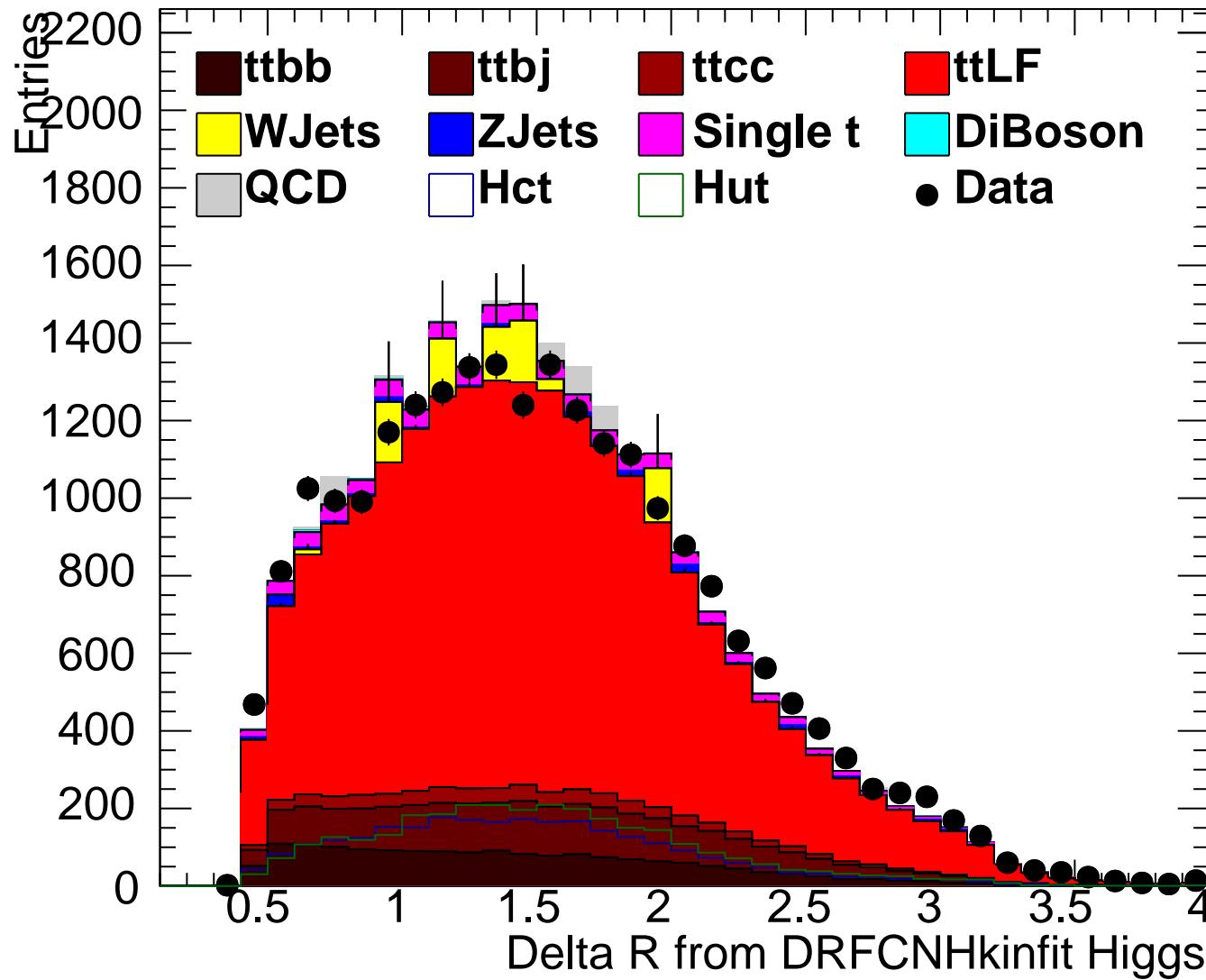


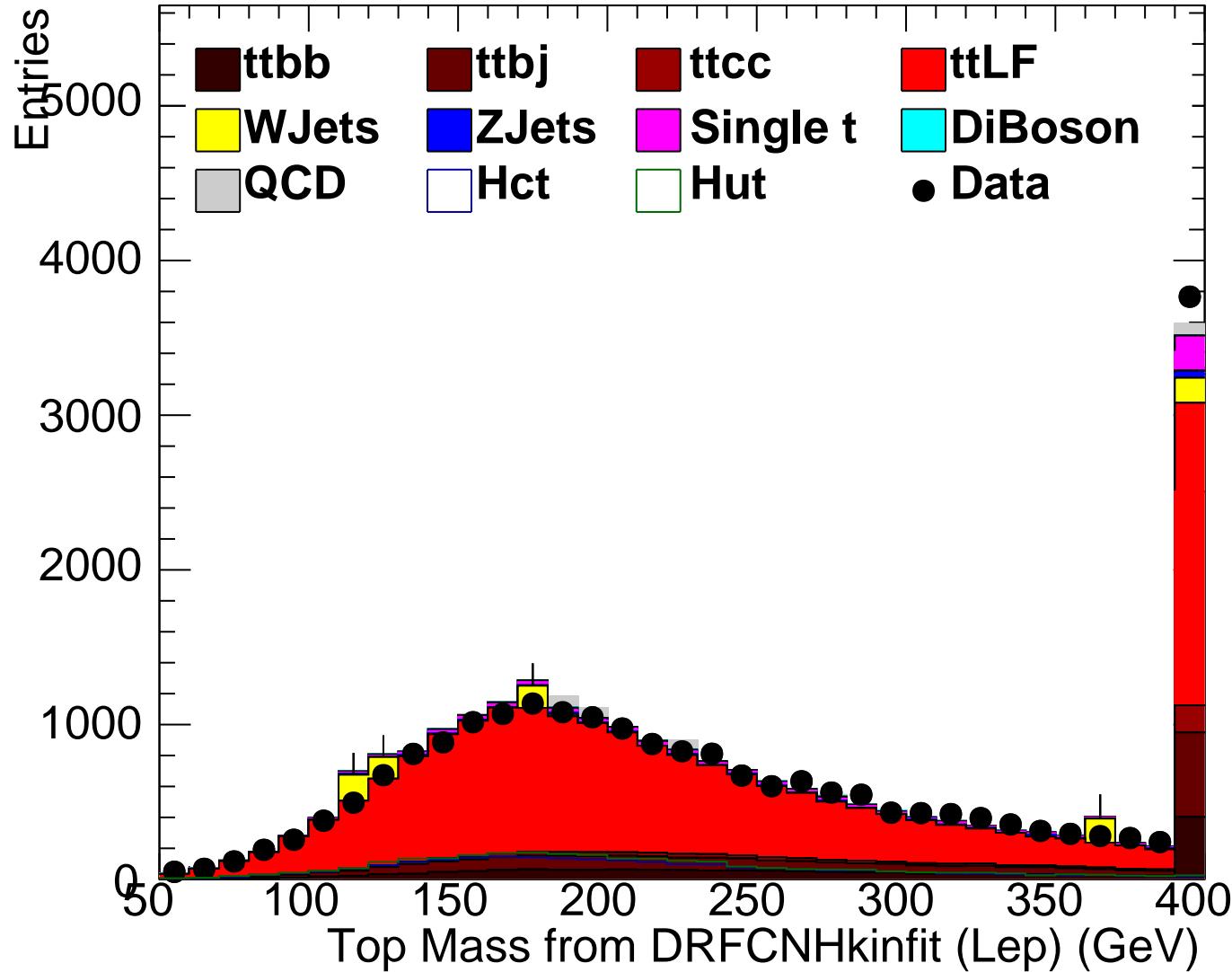


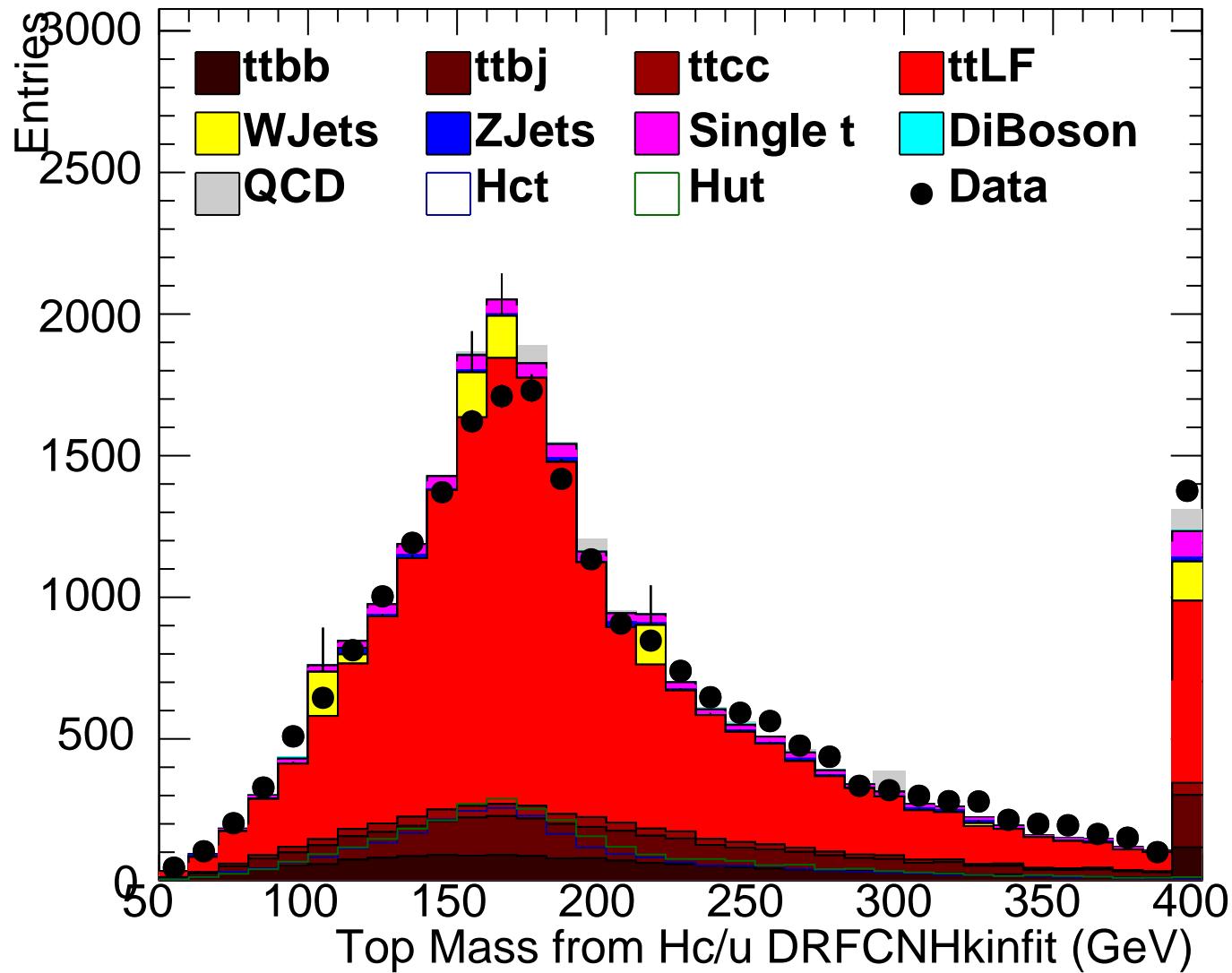
Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

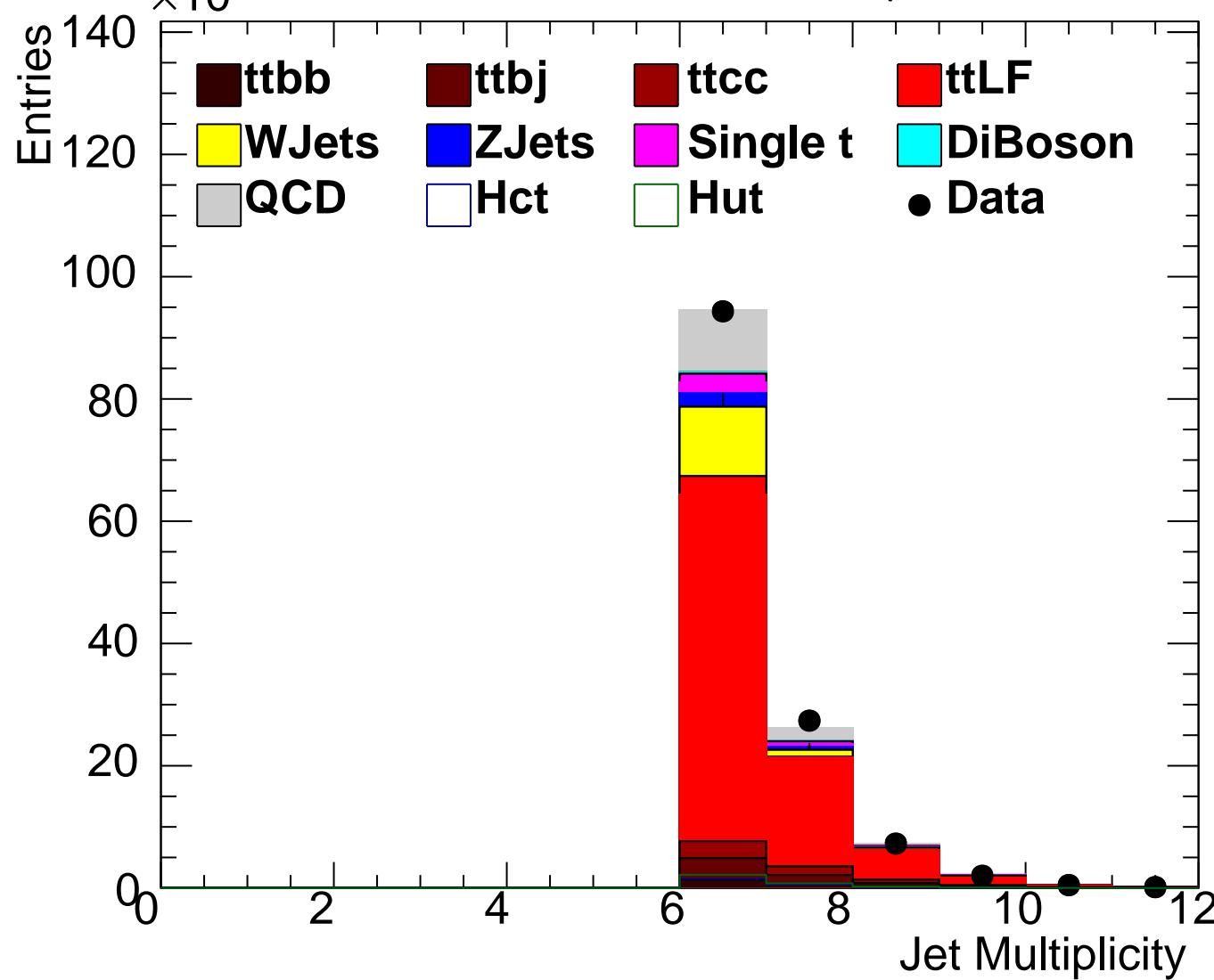
Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

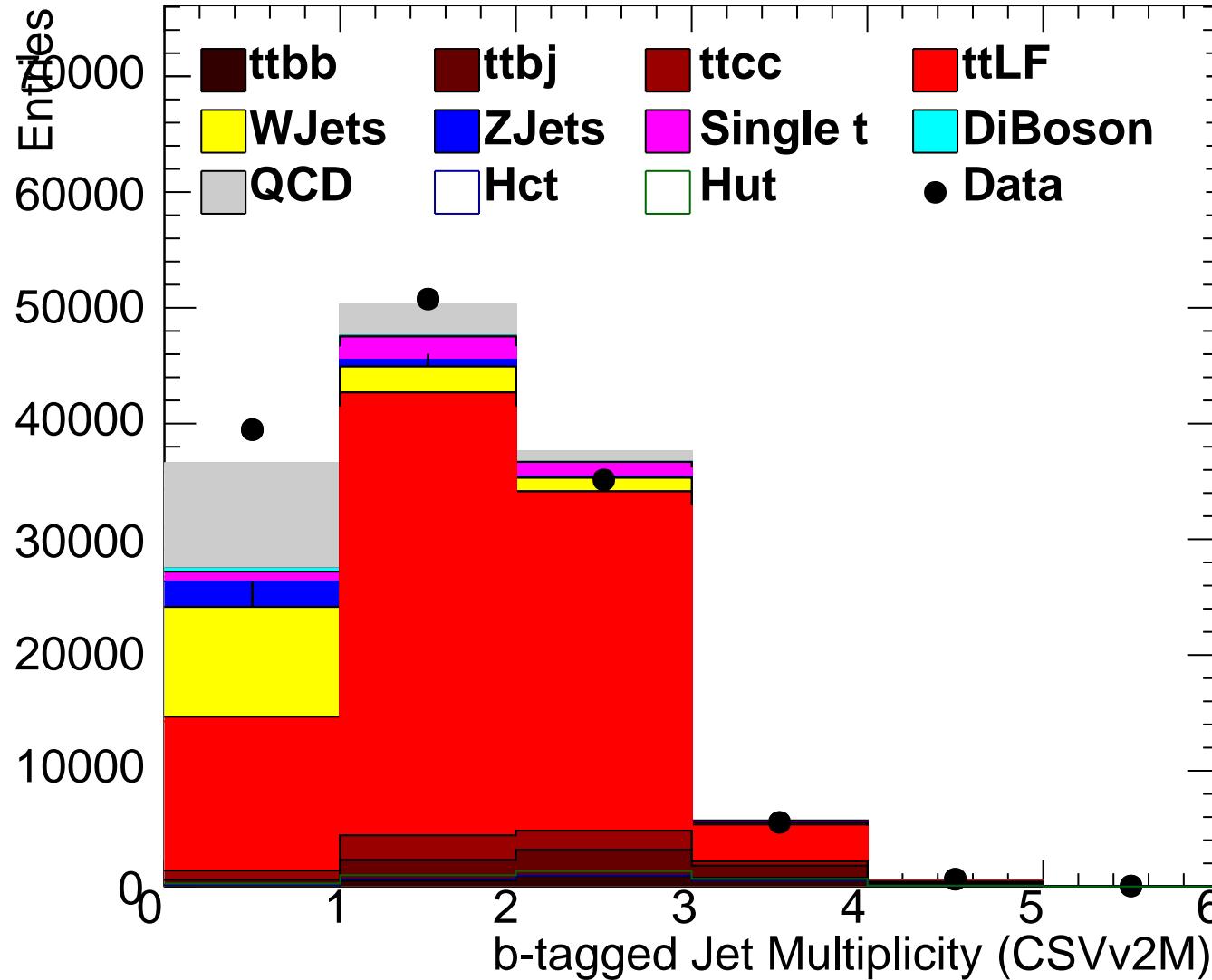
Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

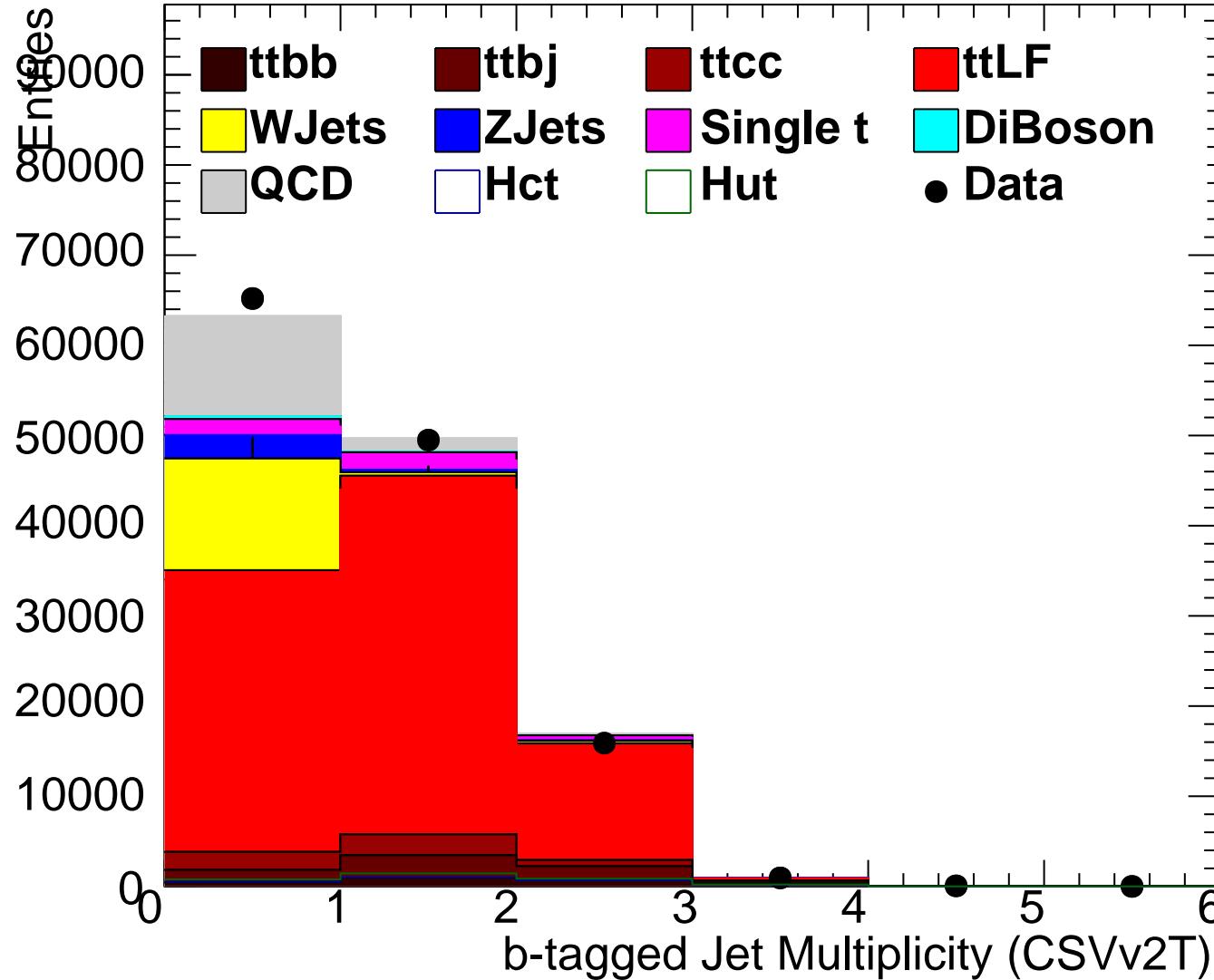
Ch1_S10CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S11

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

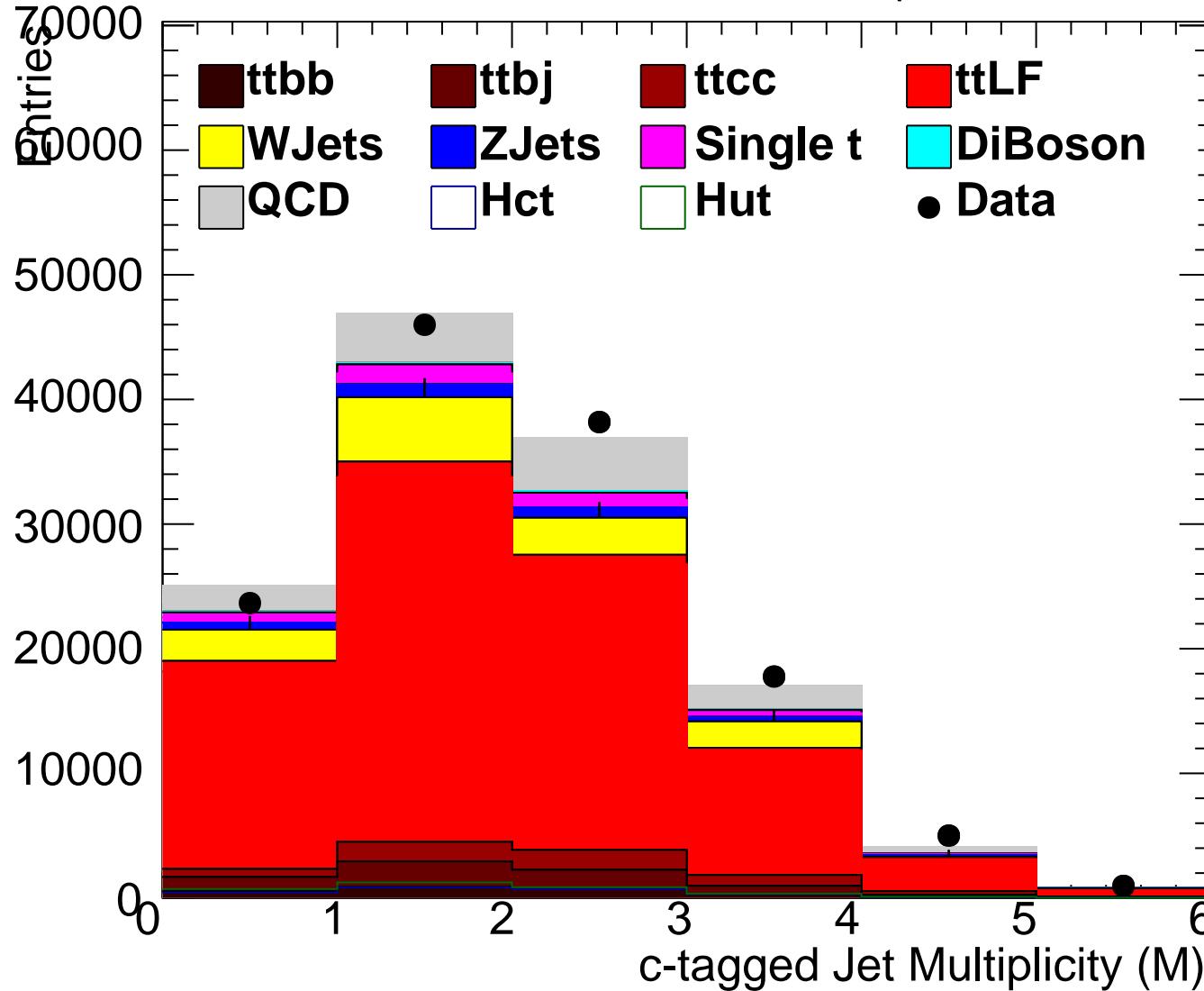


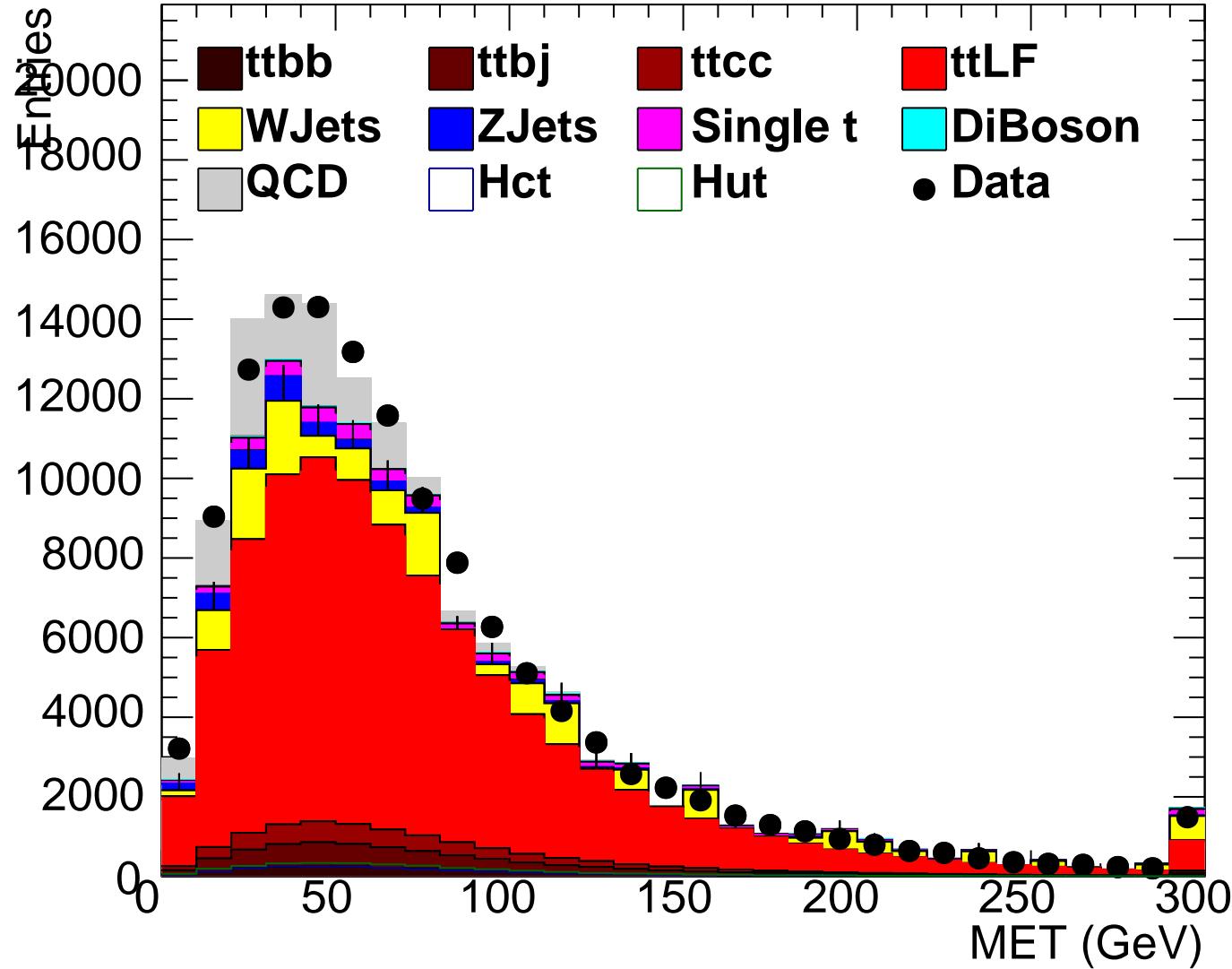


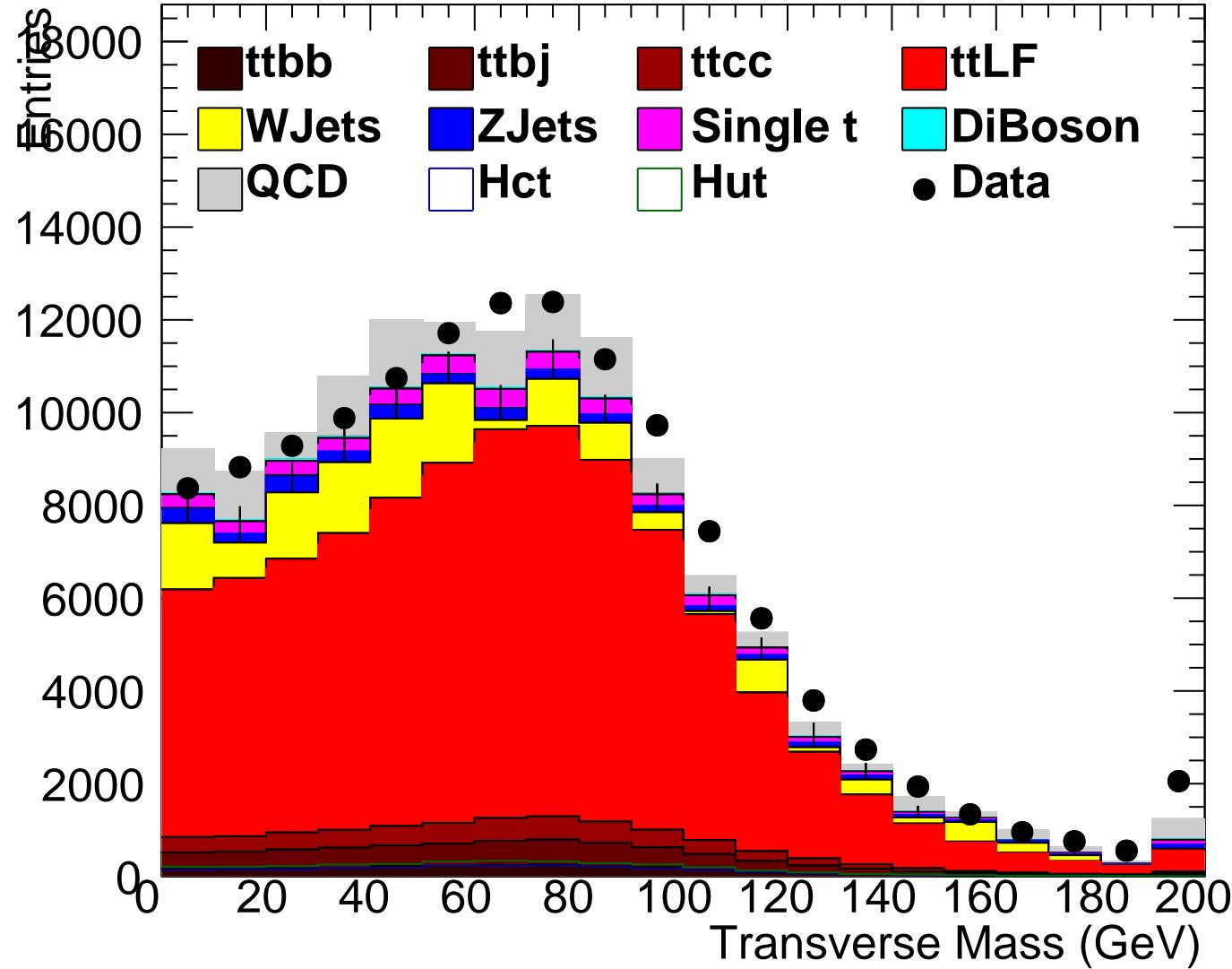


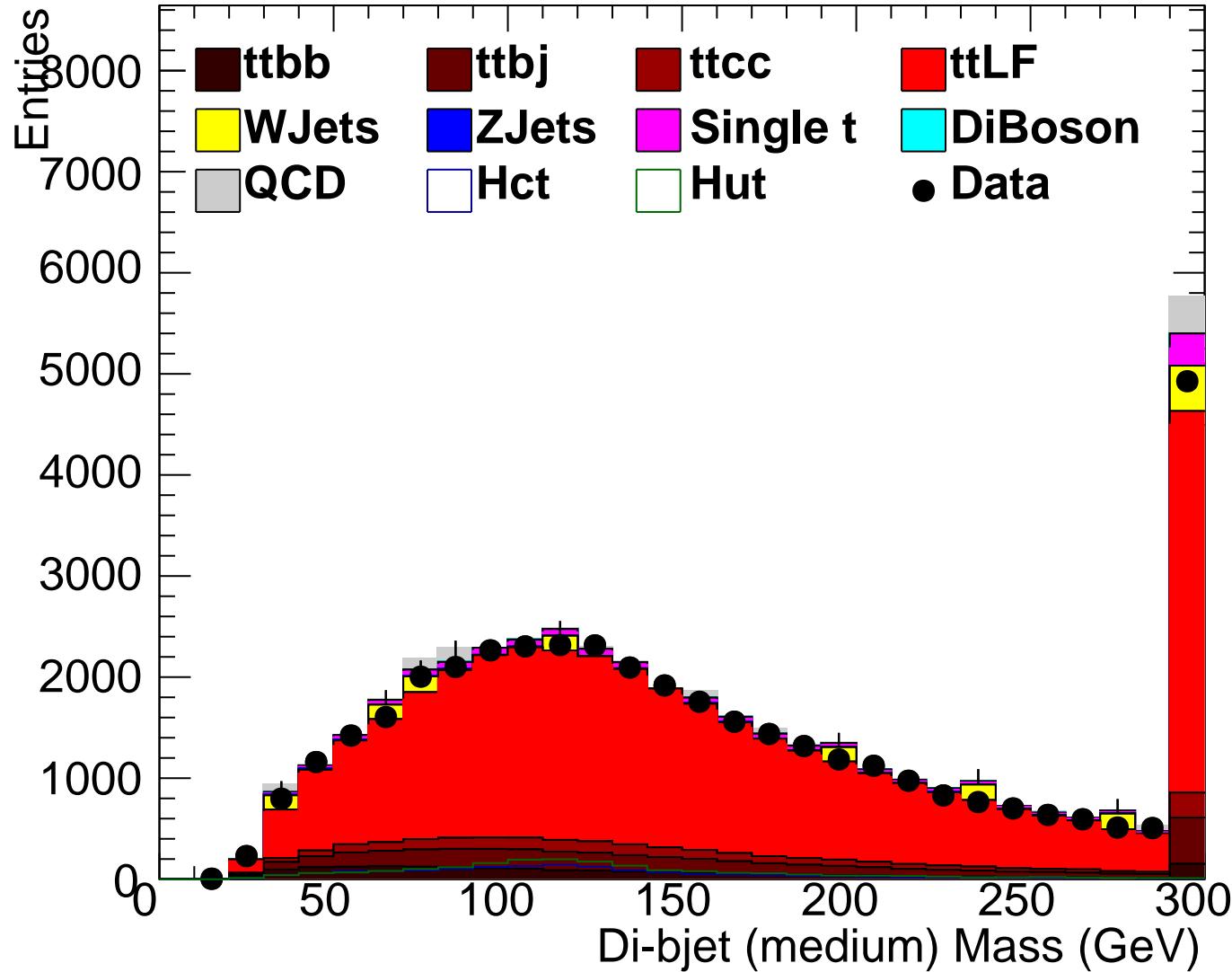
Ch1_S11

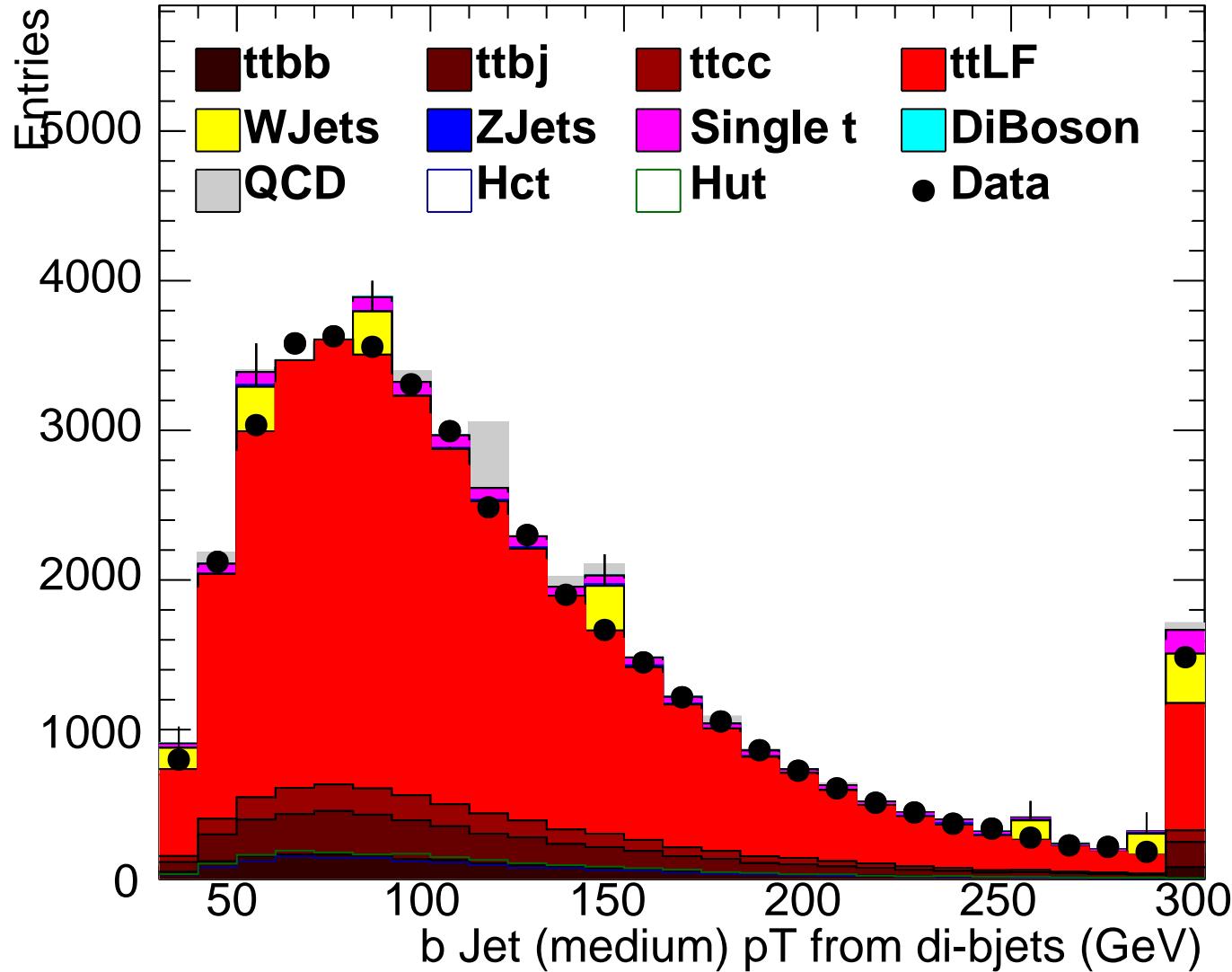
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

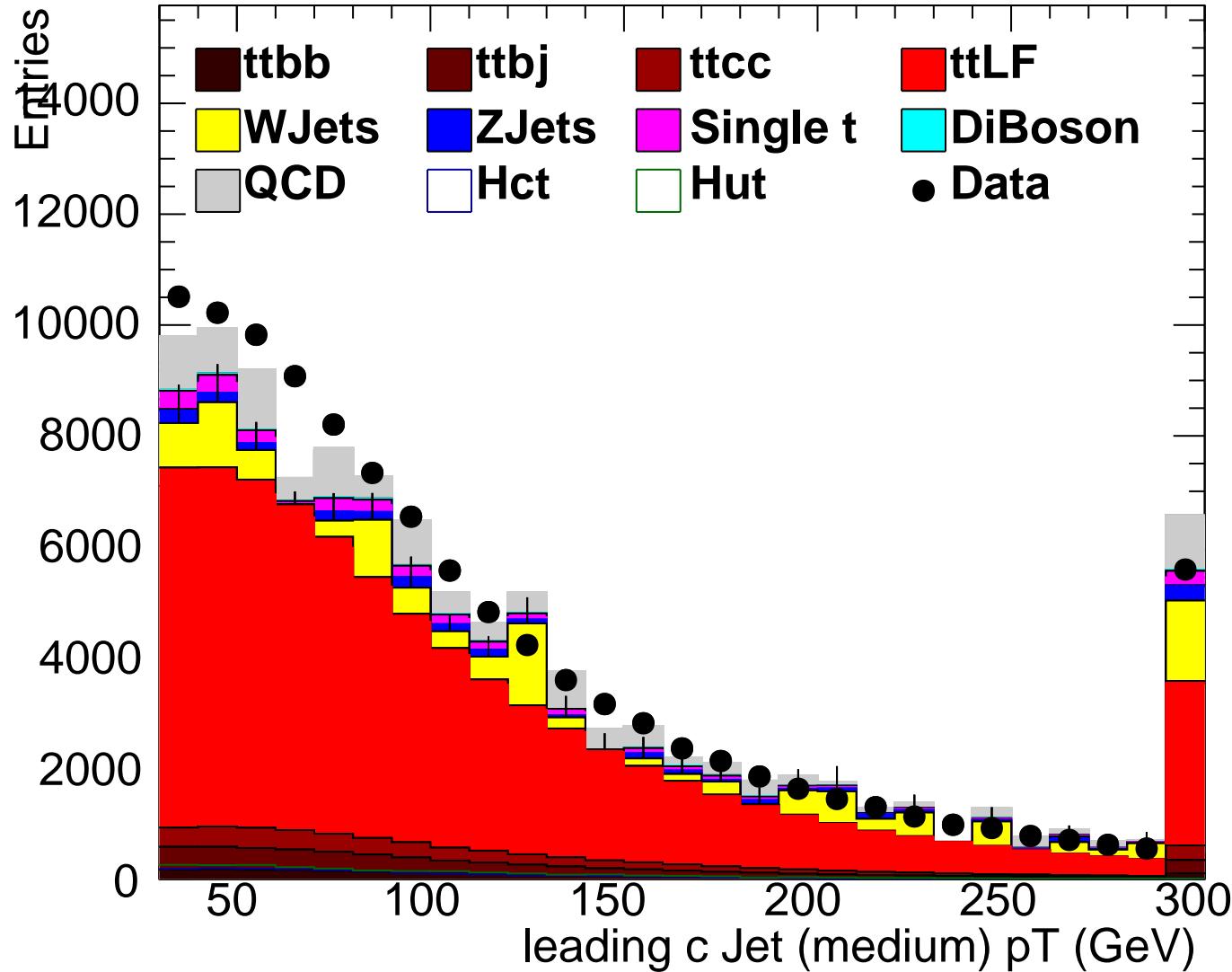


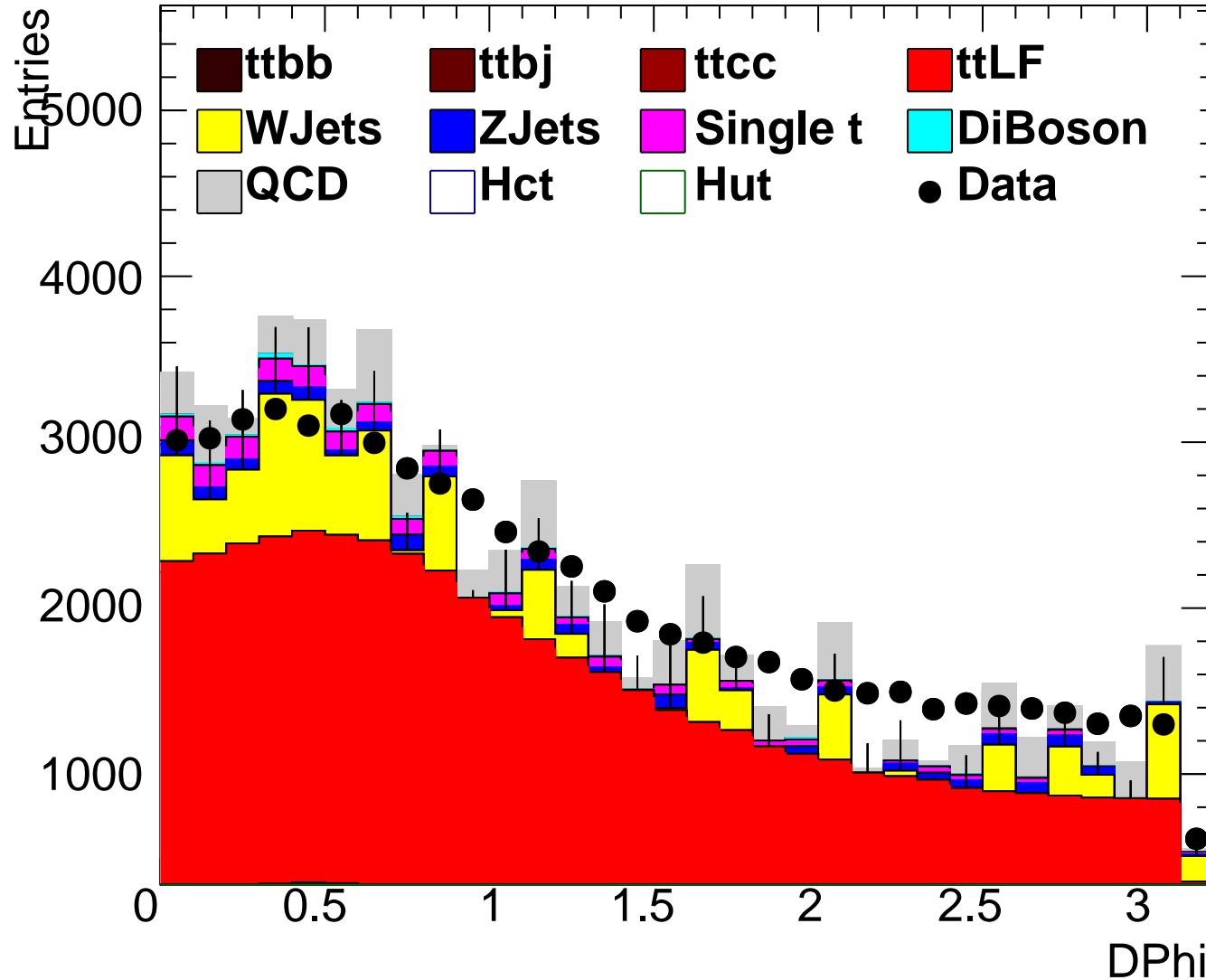
Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

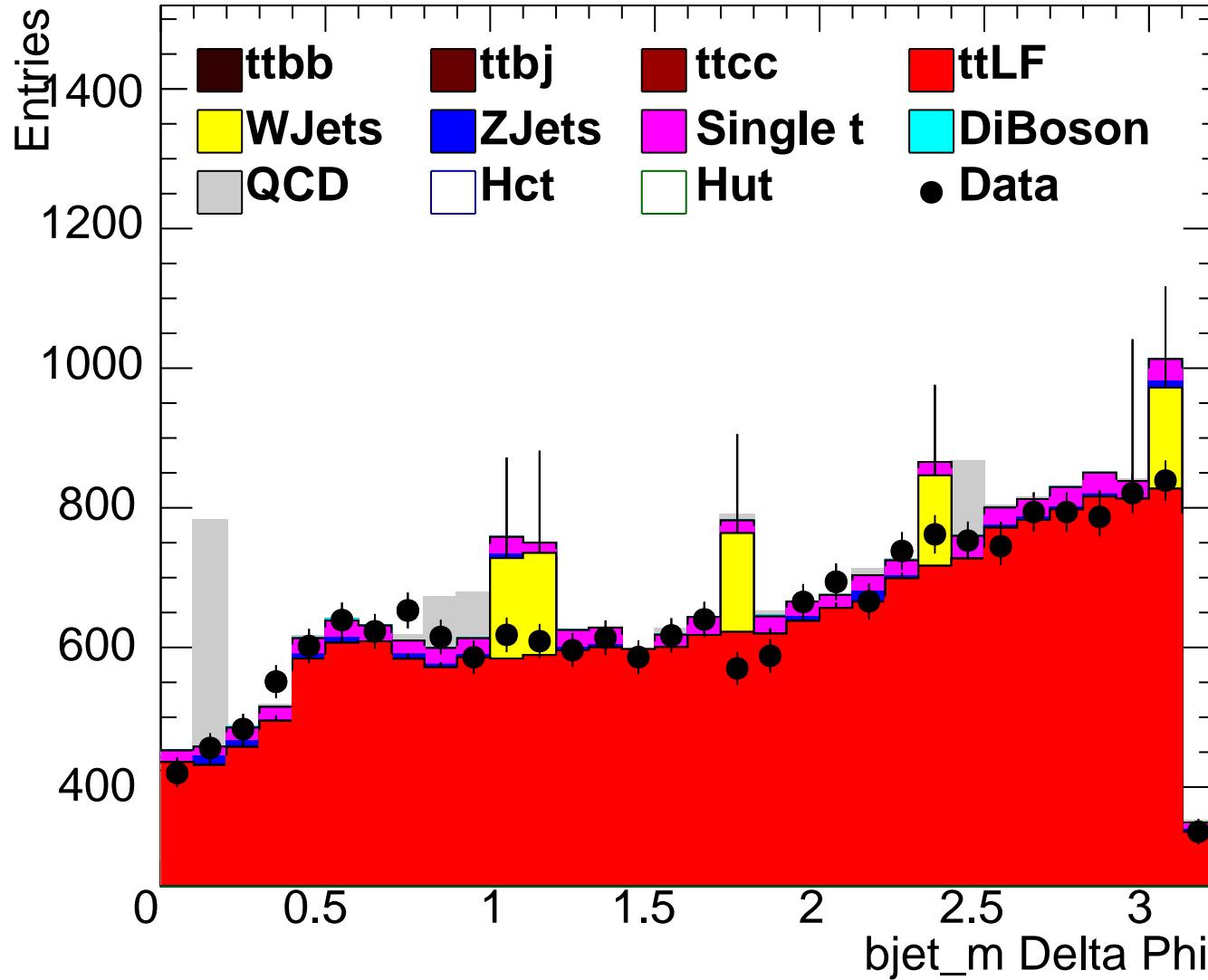
Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

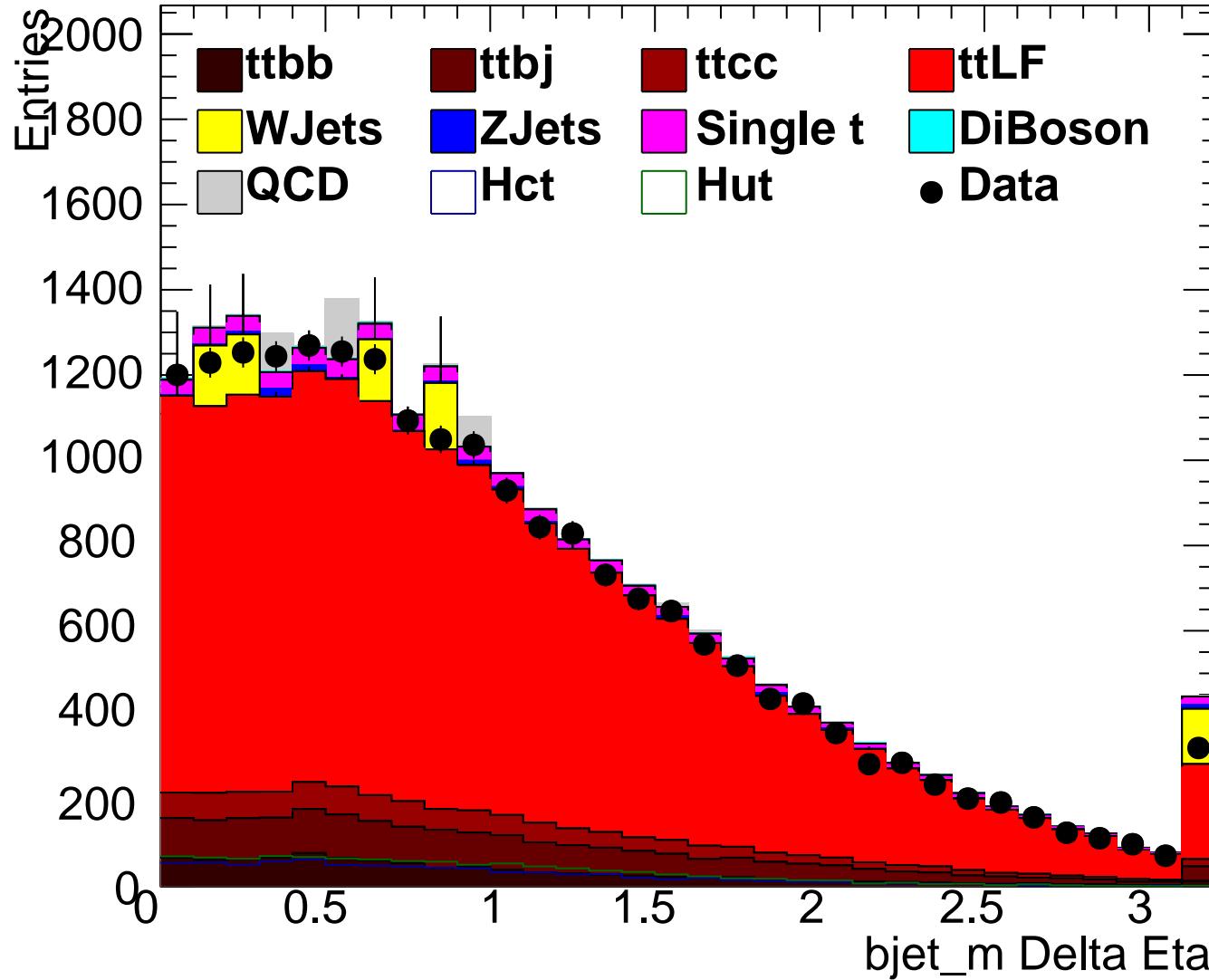


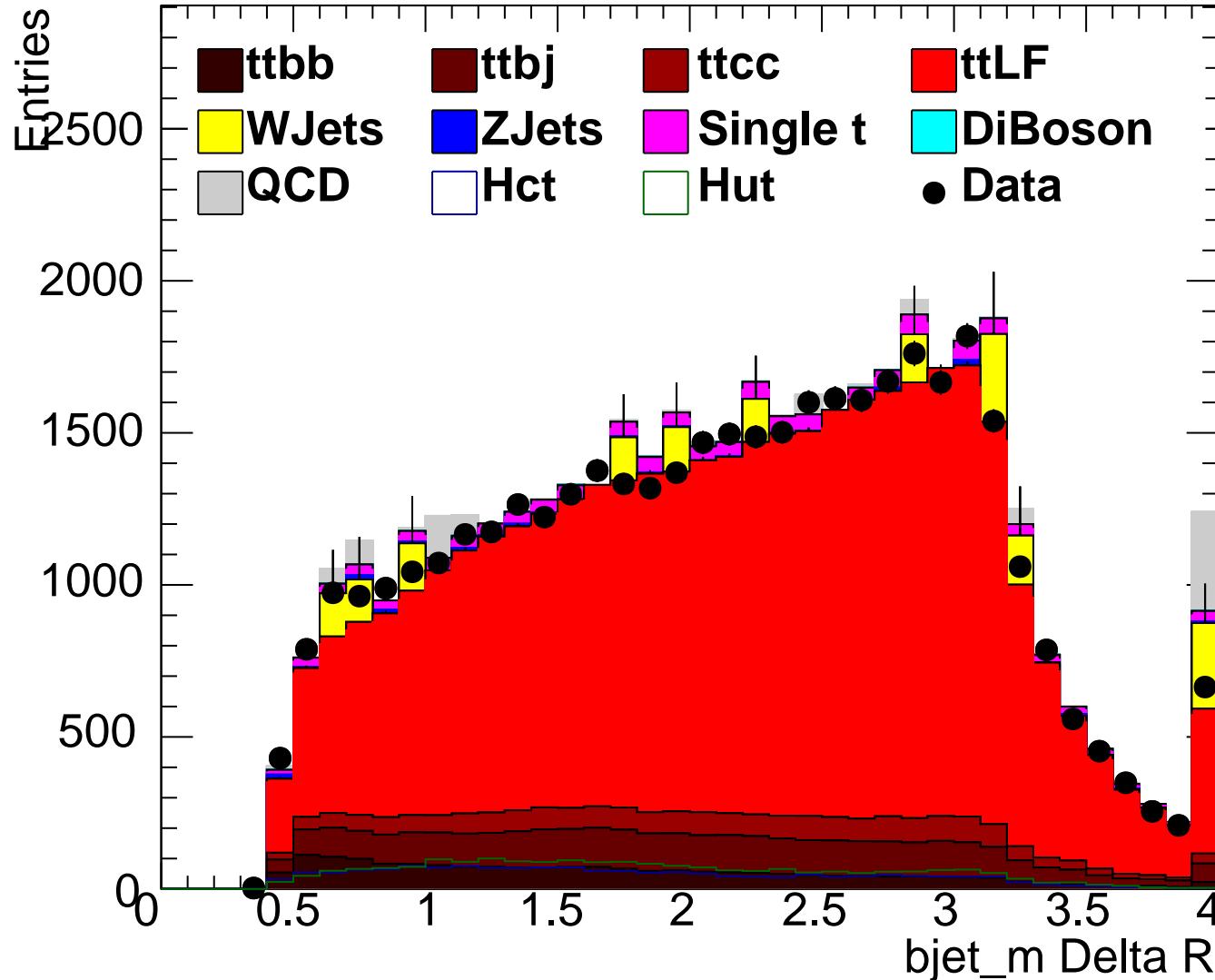


Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

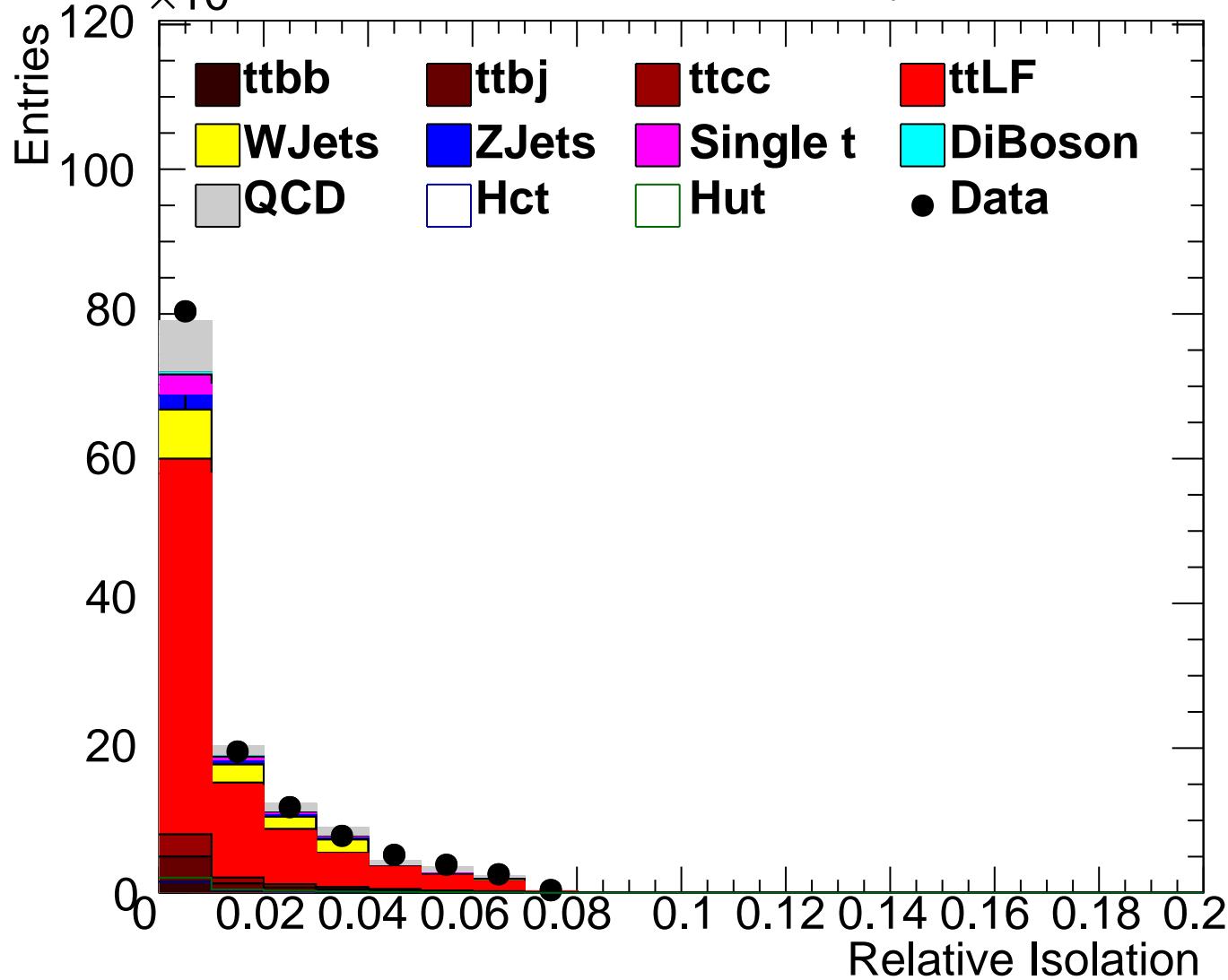


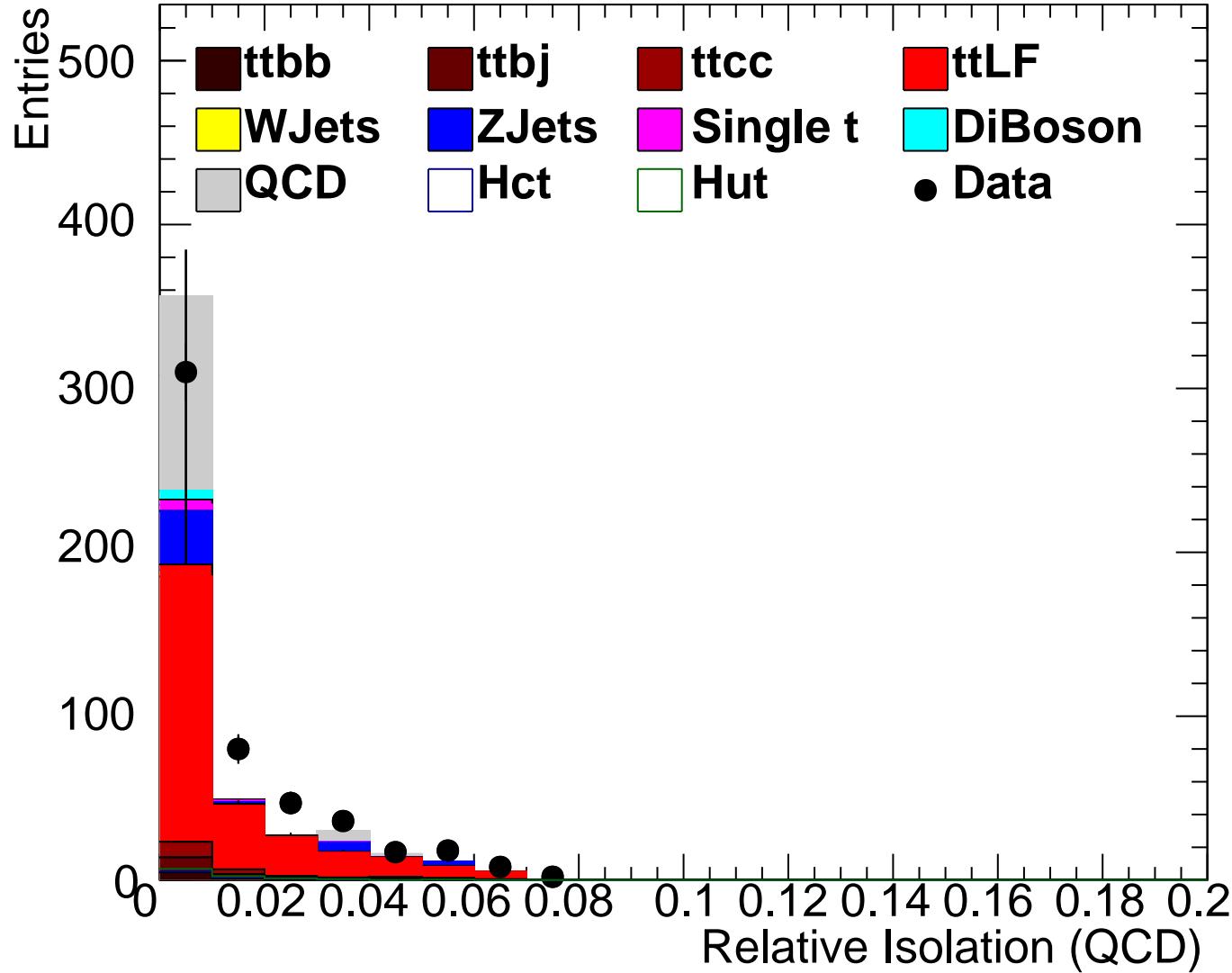


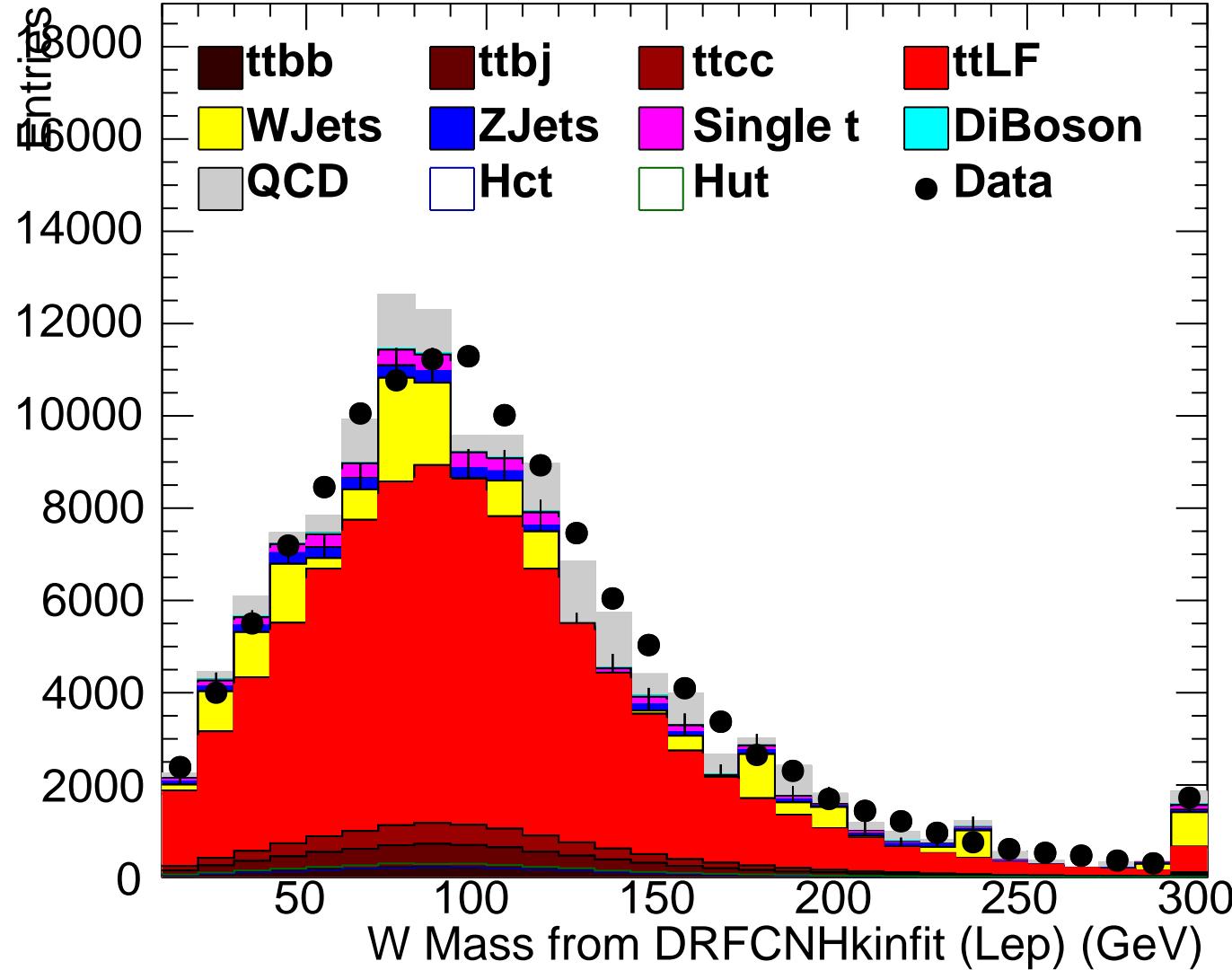


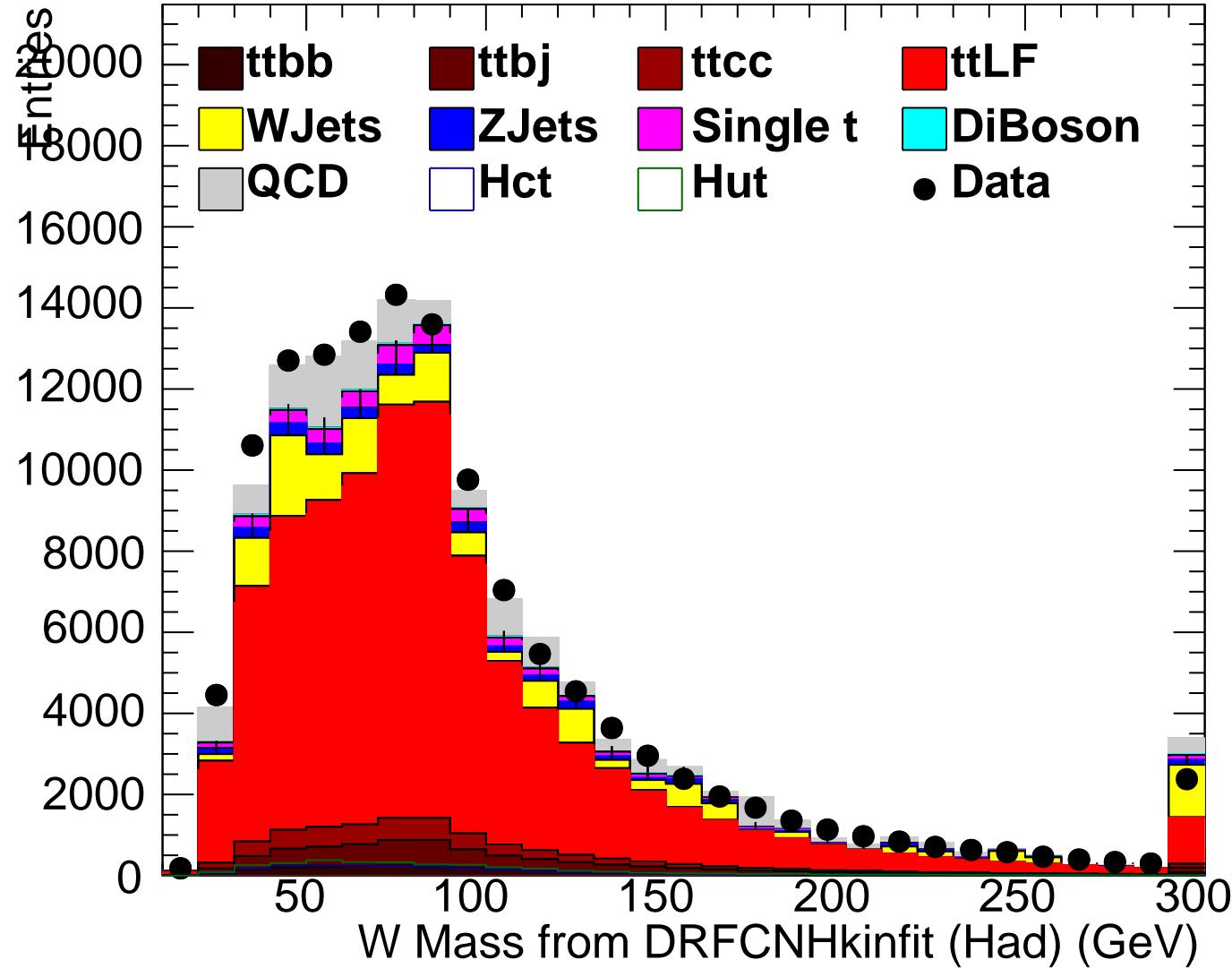
Ch1_S11

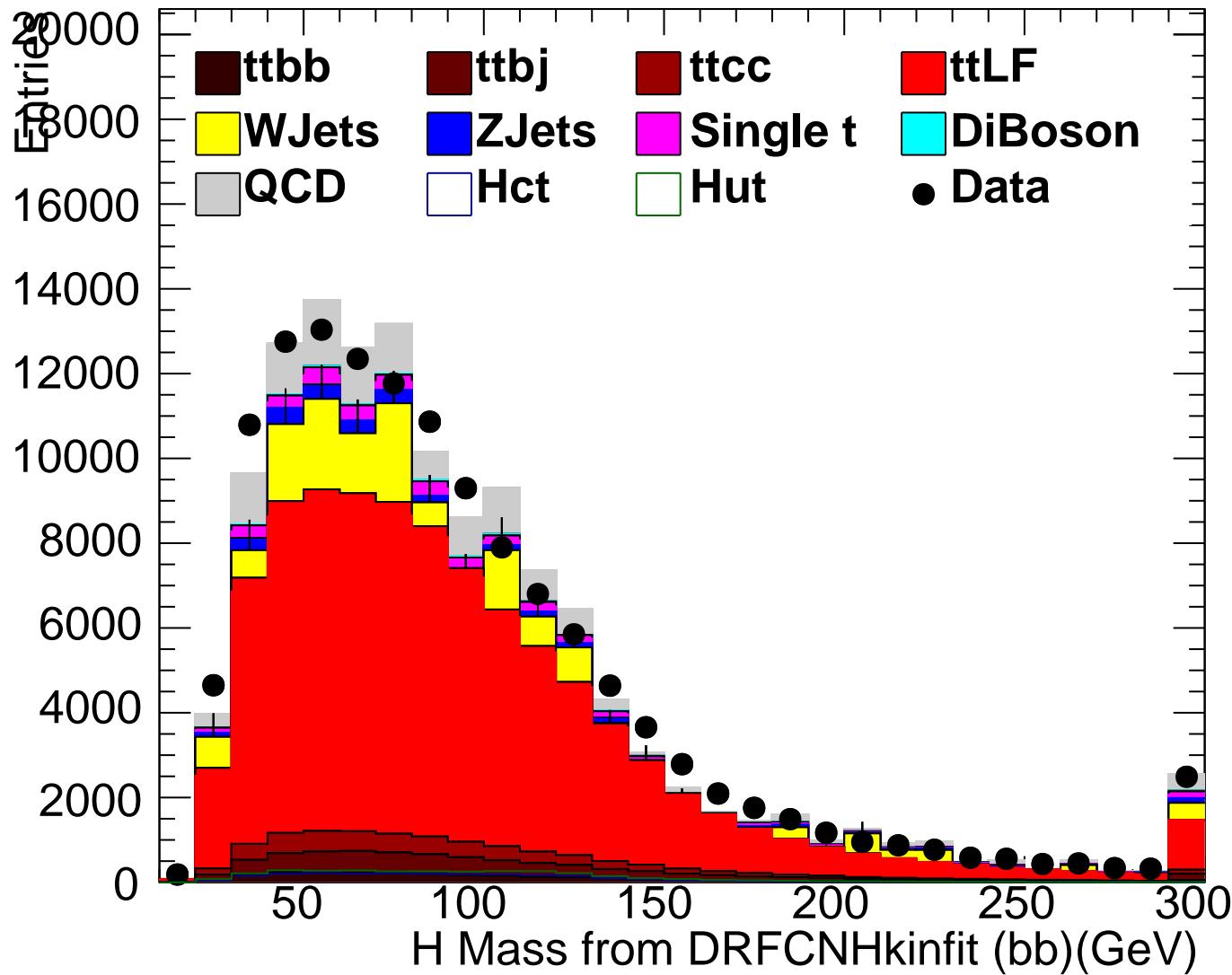
CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV

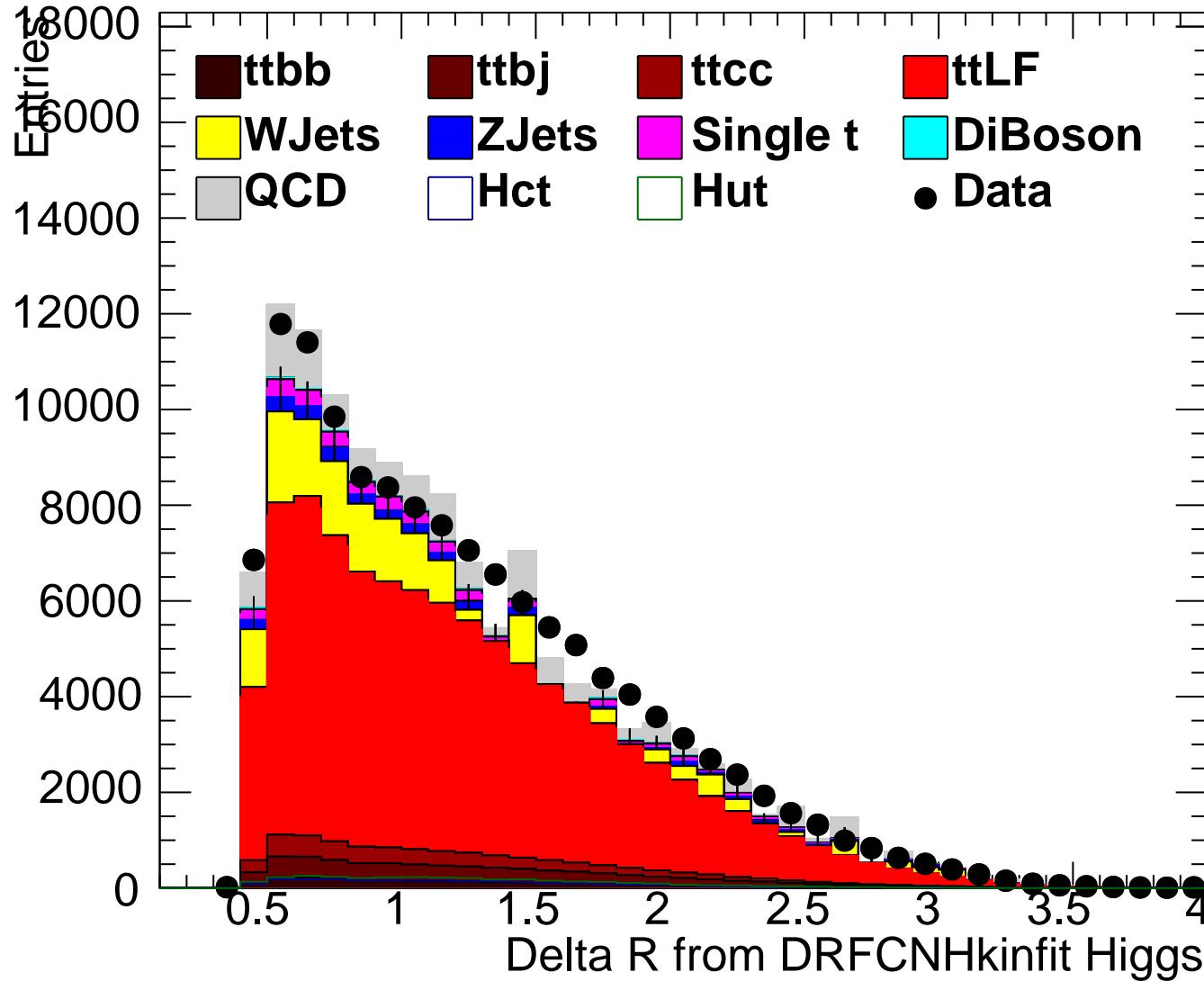


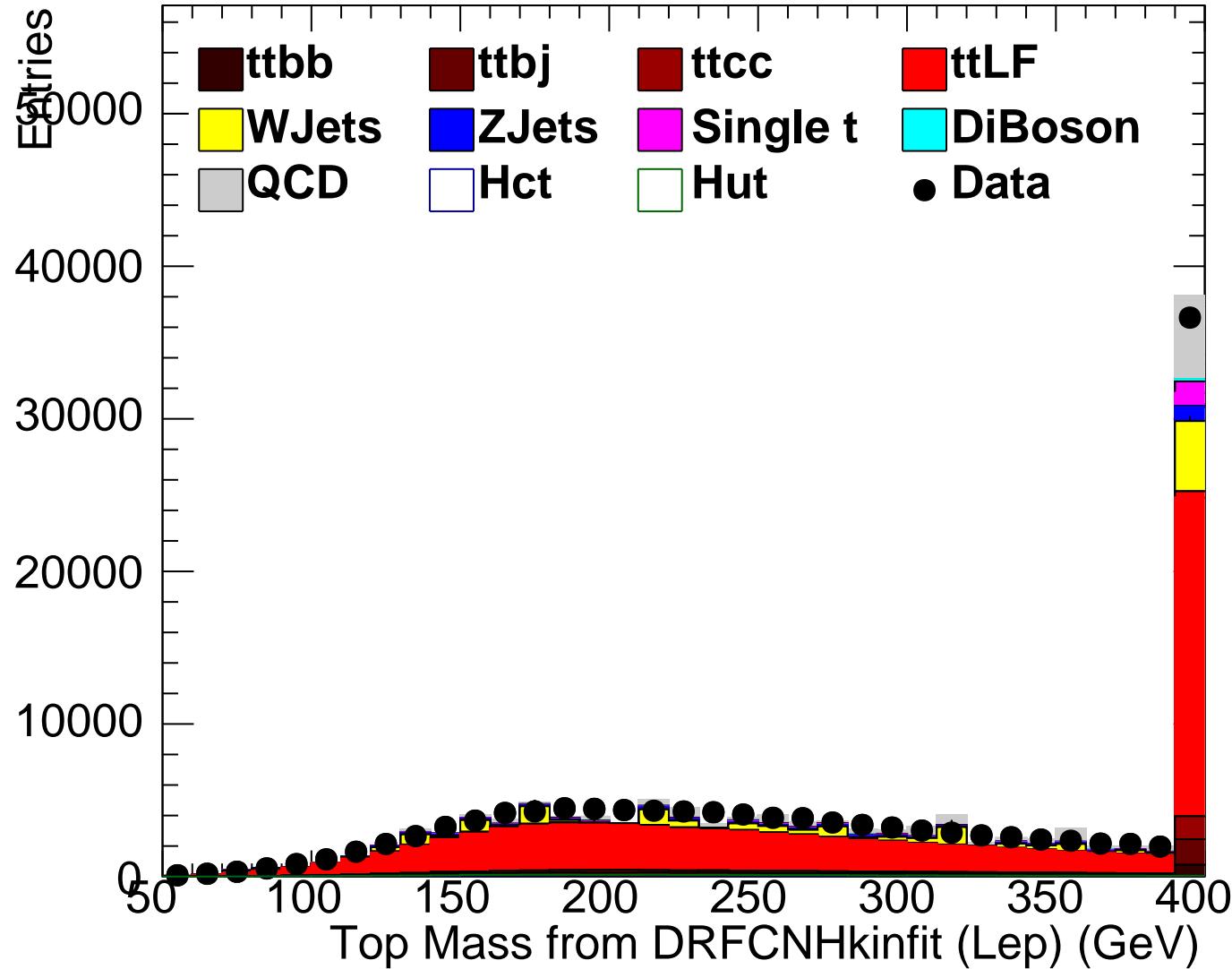


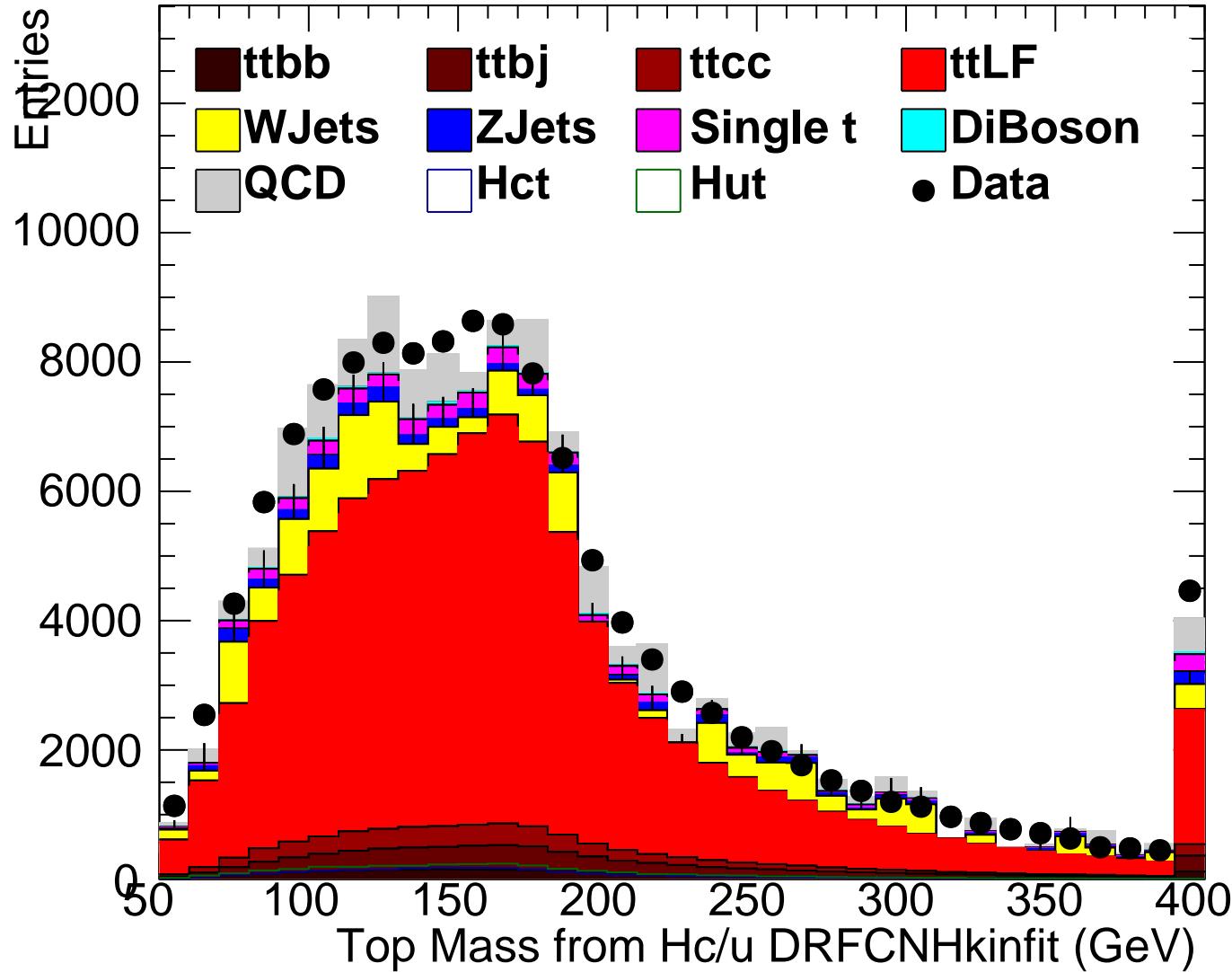


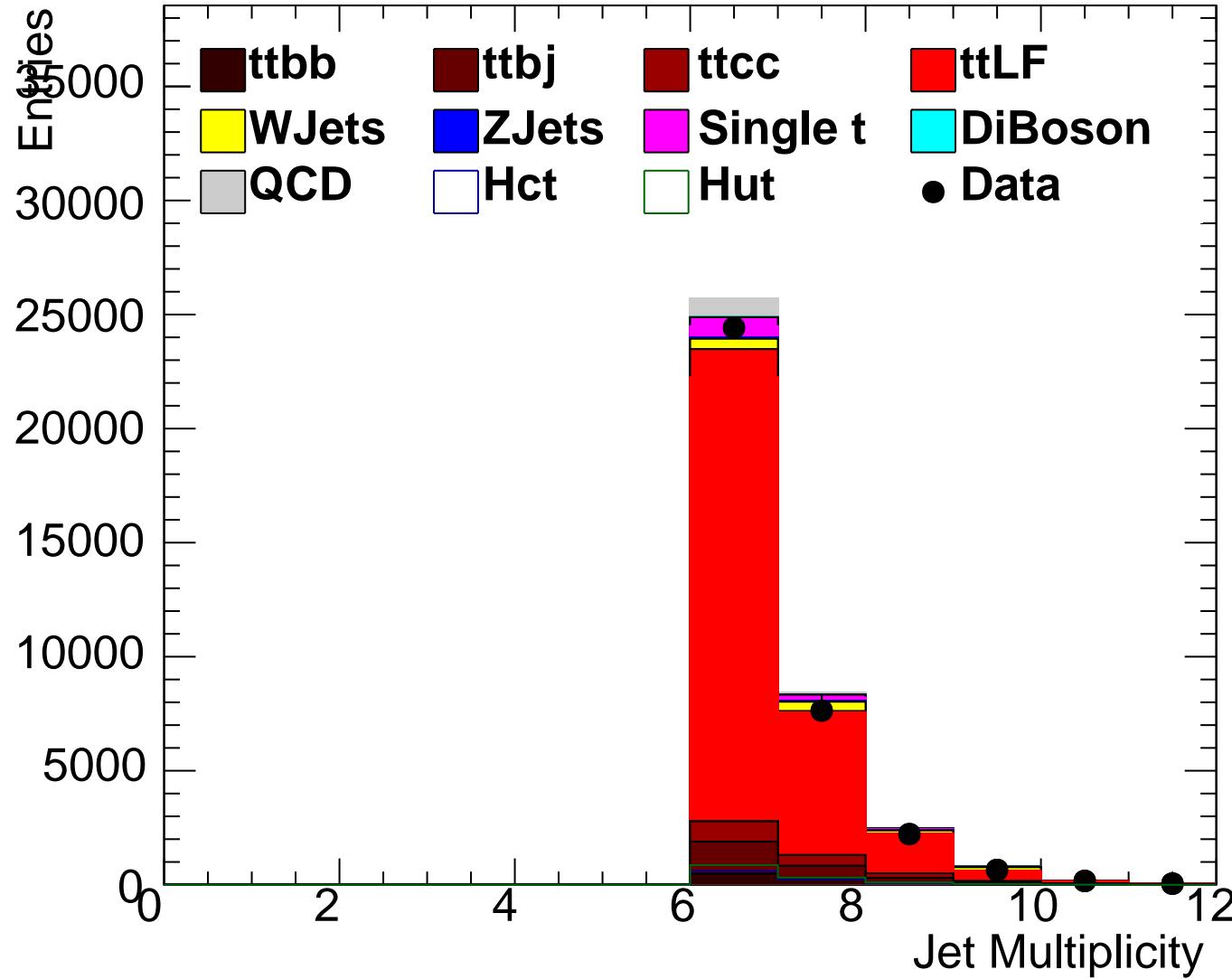
Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

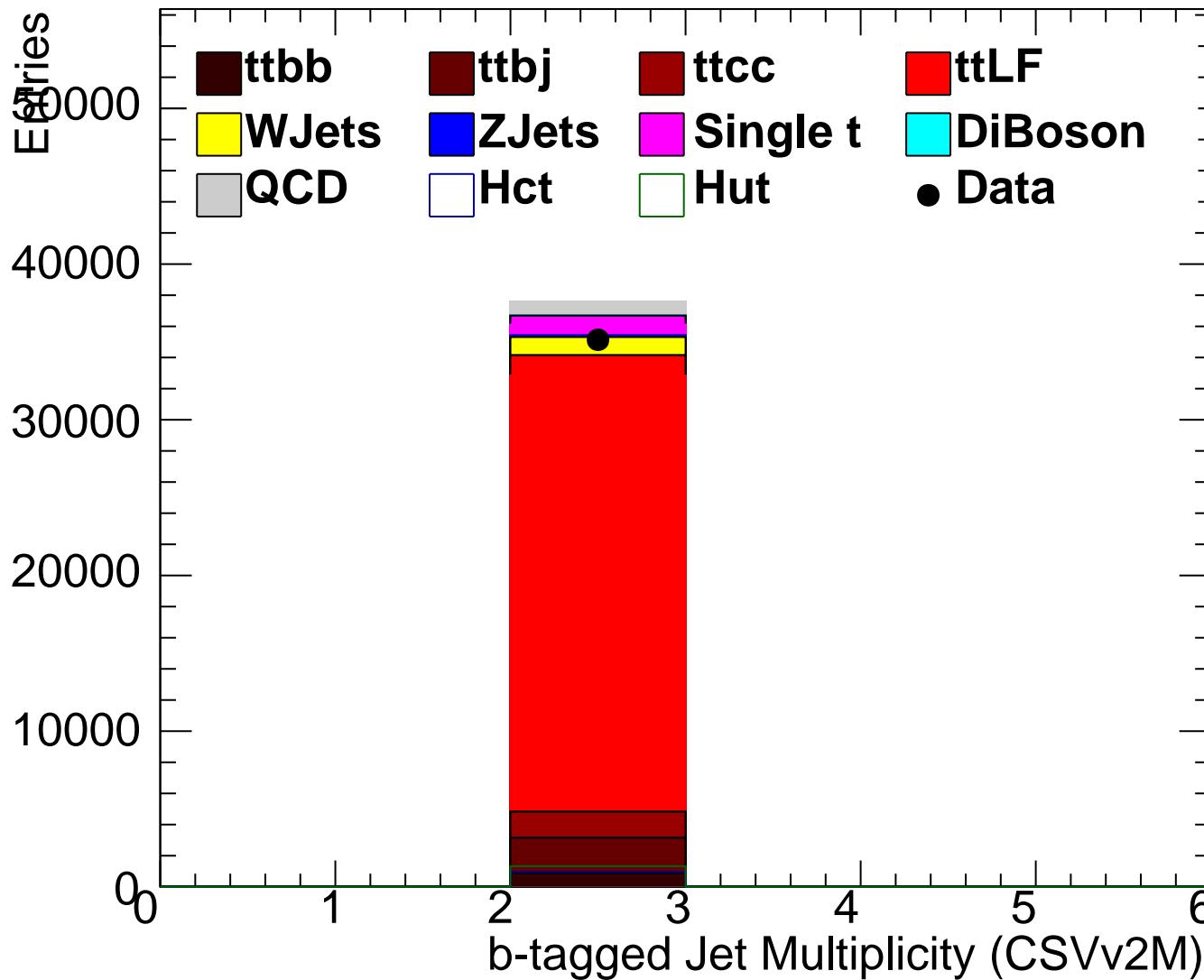


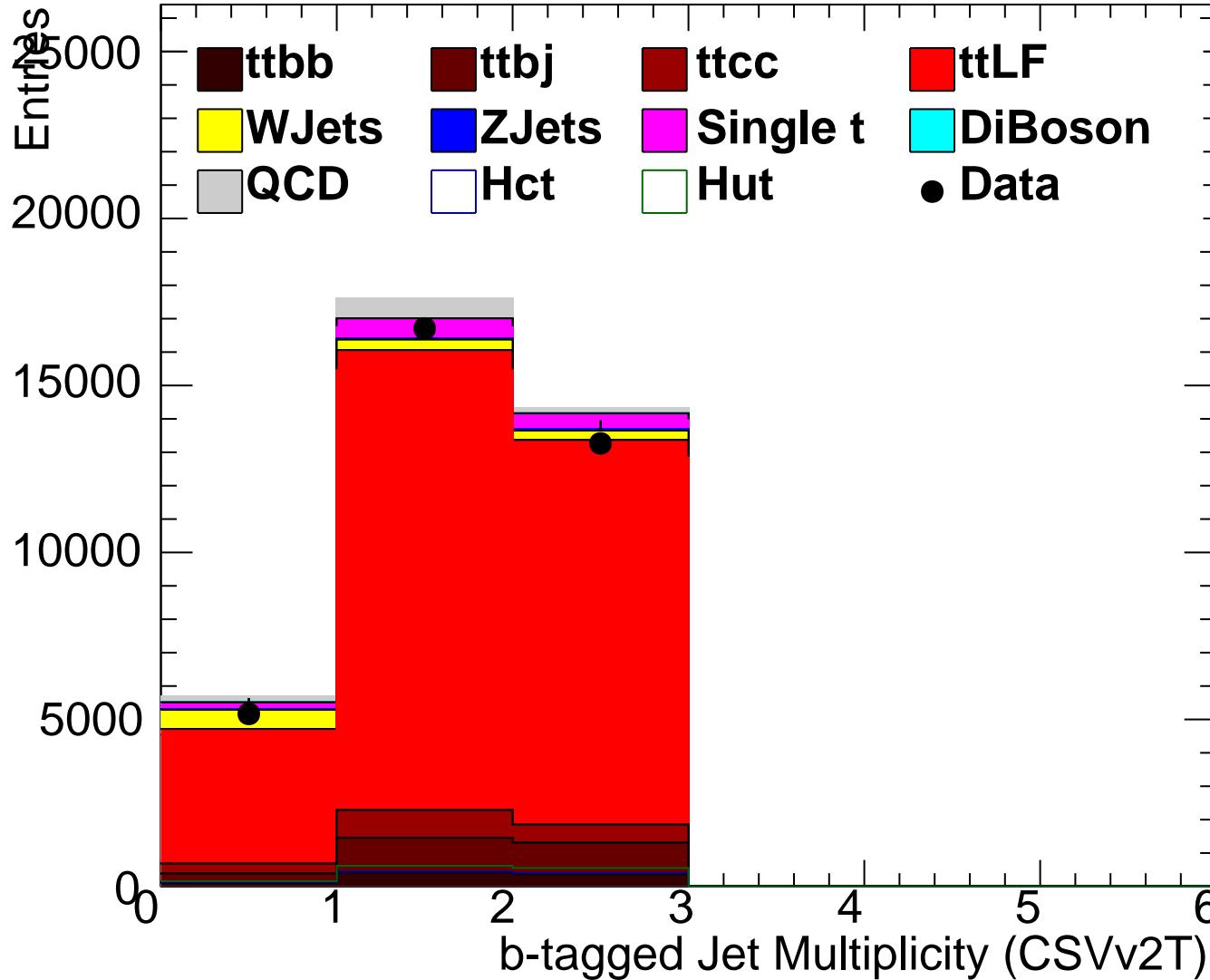
Ch1_S11CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

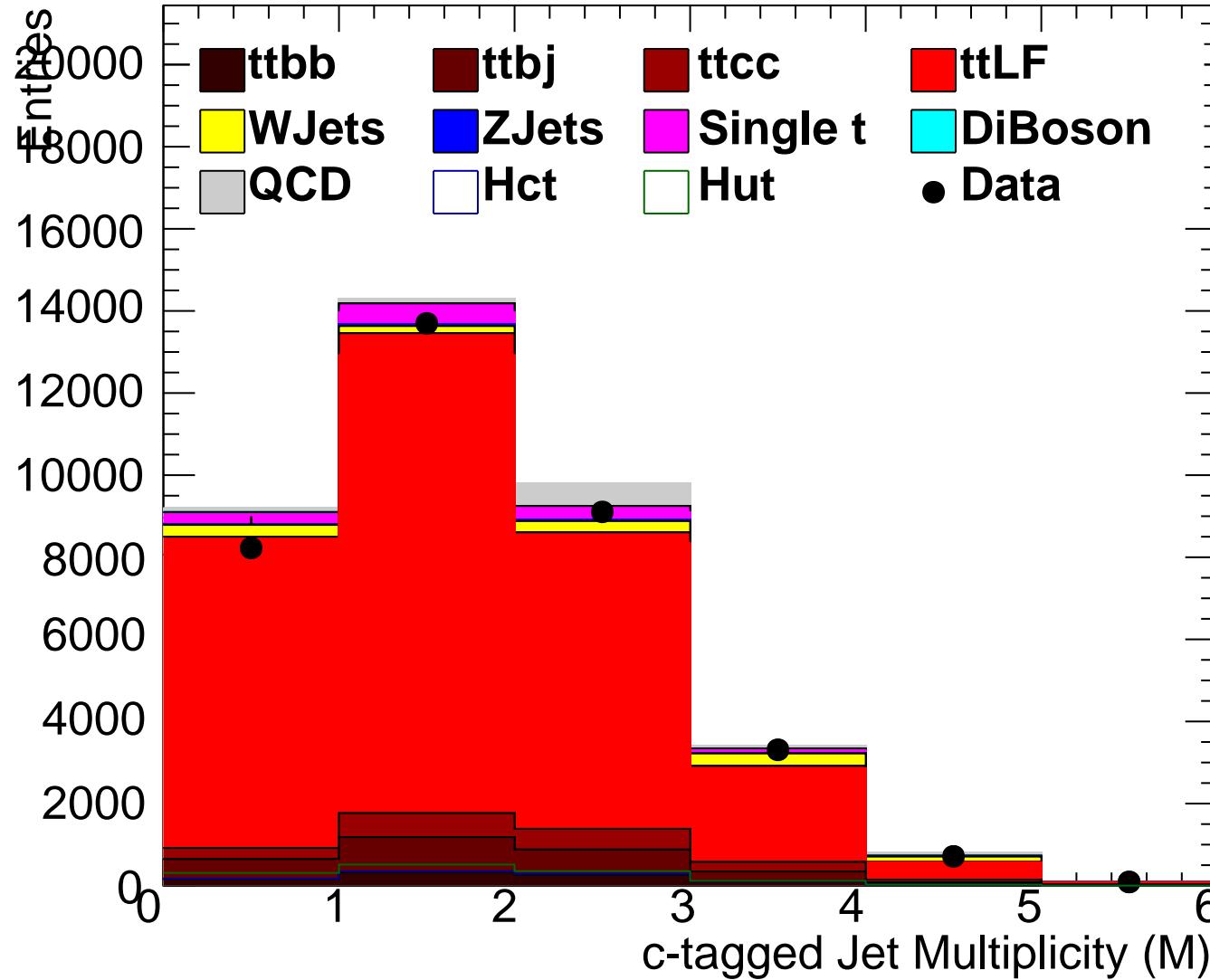


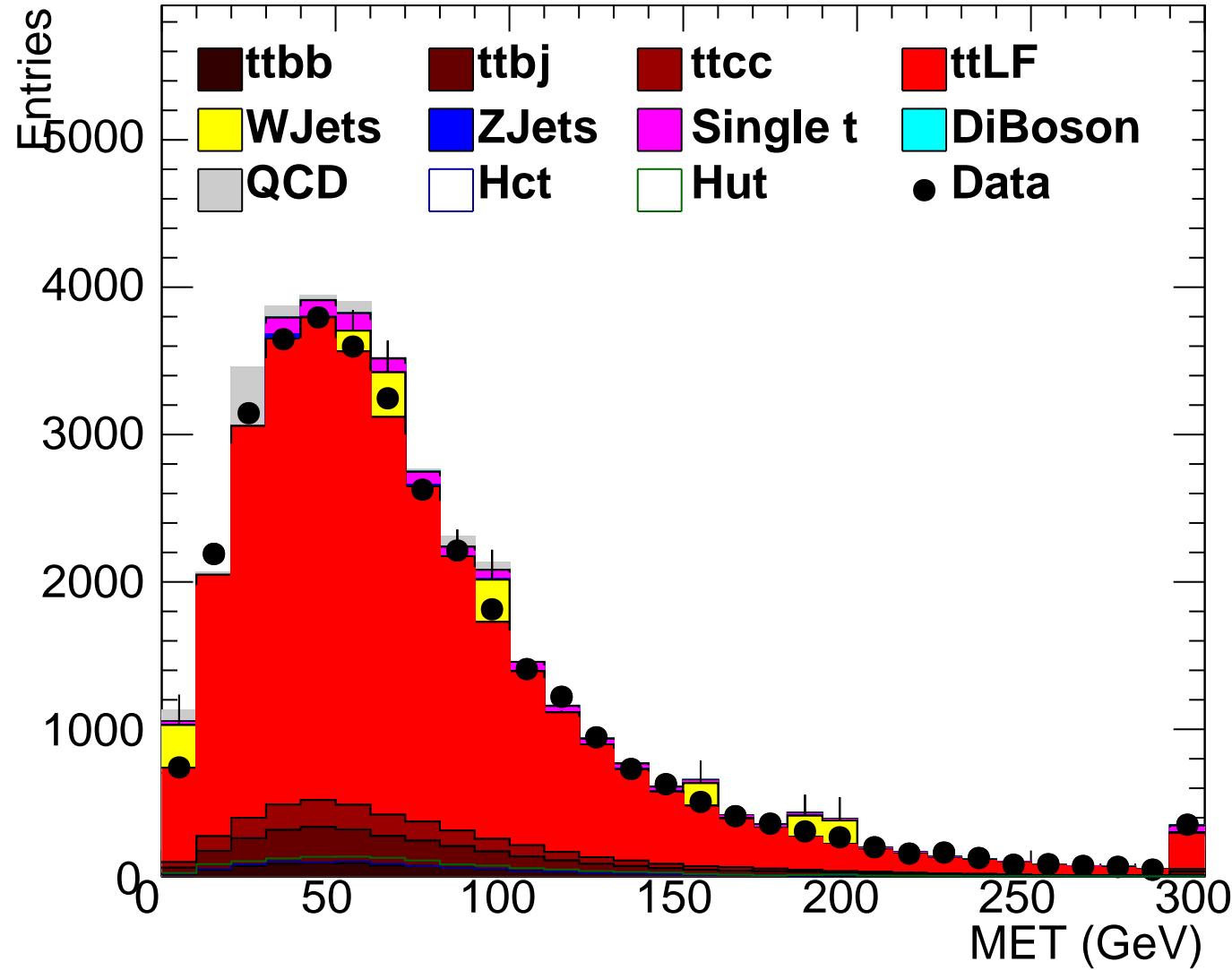
Ch1 S12

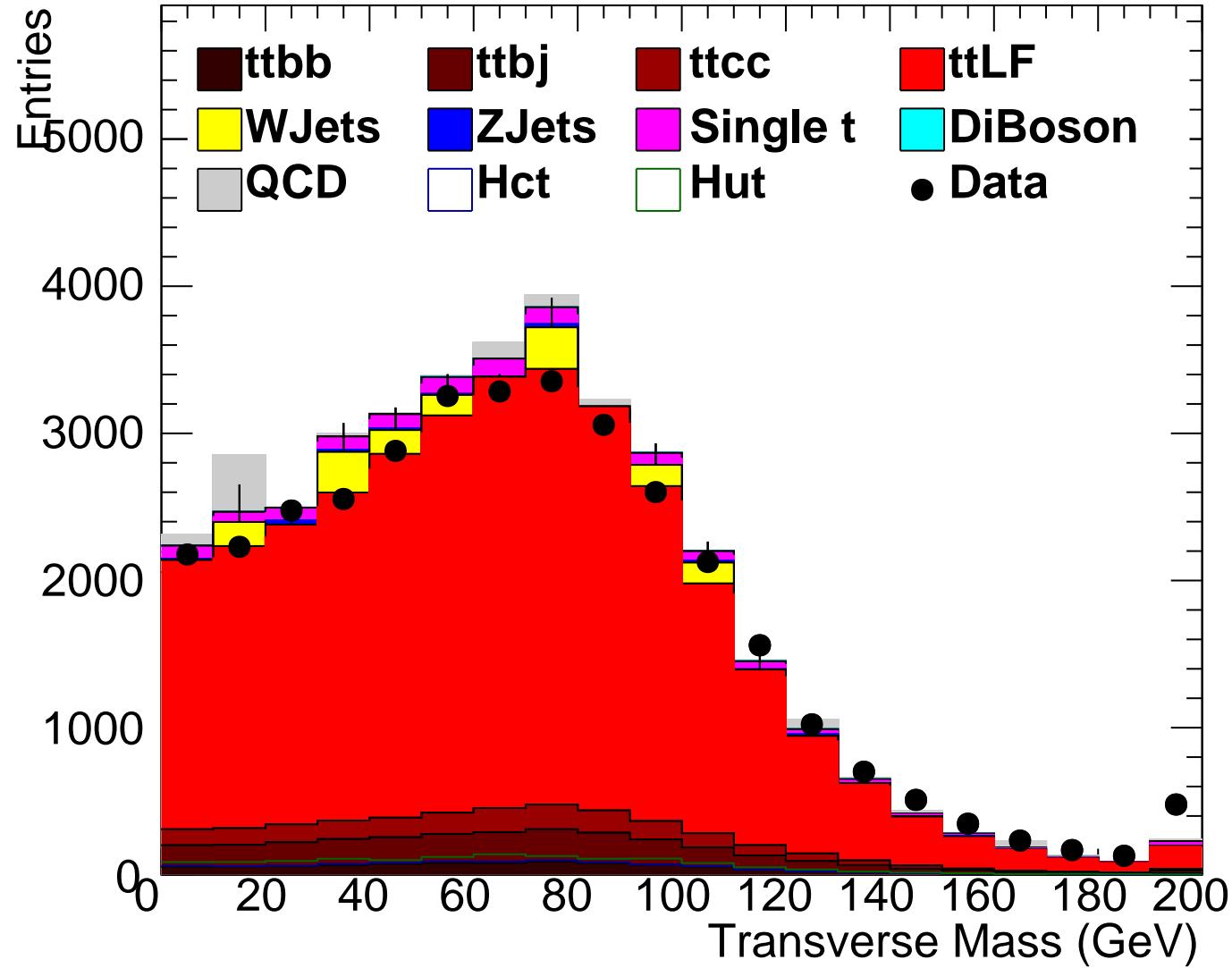
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

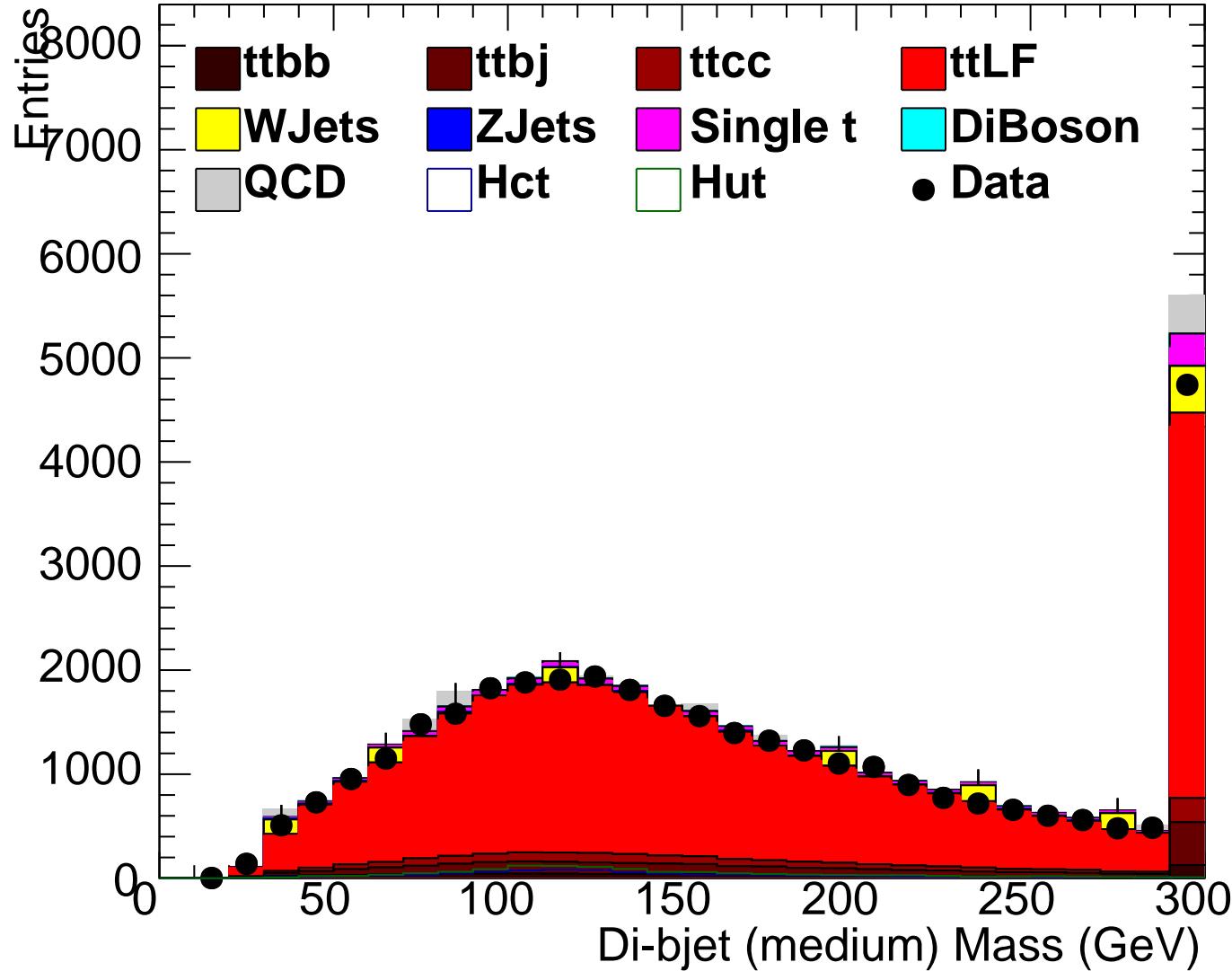


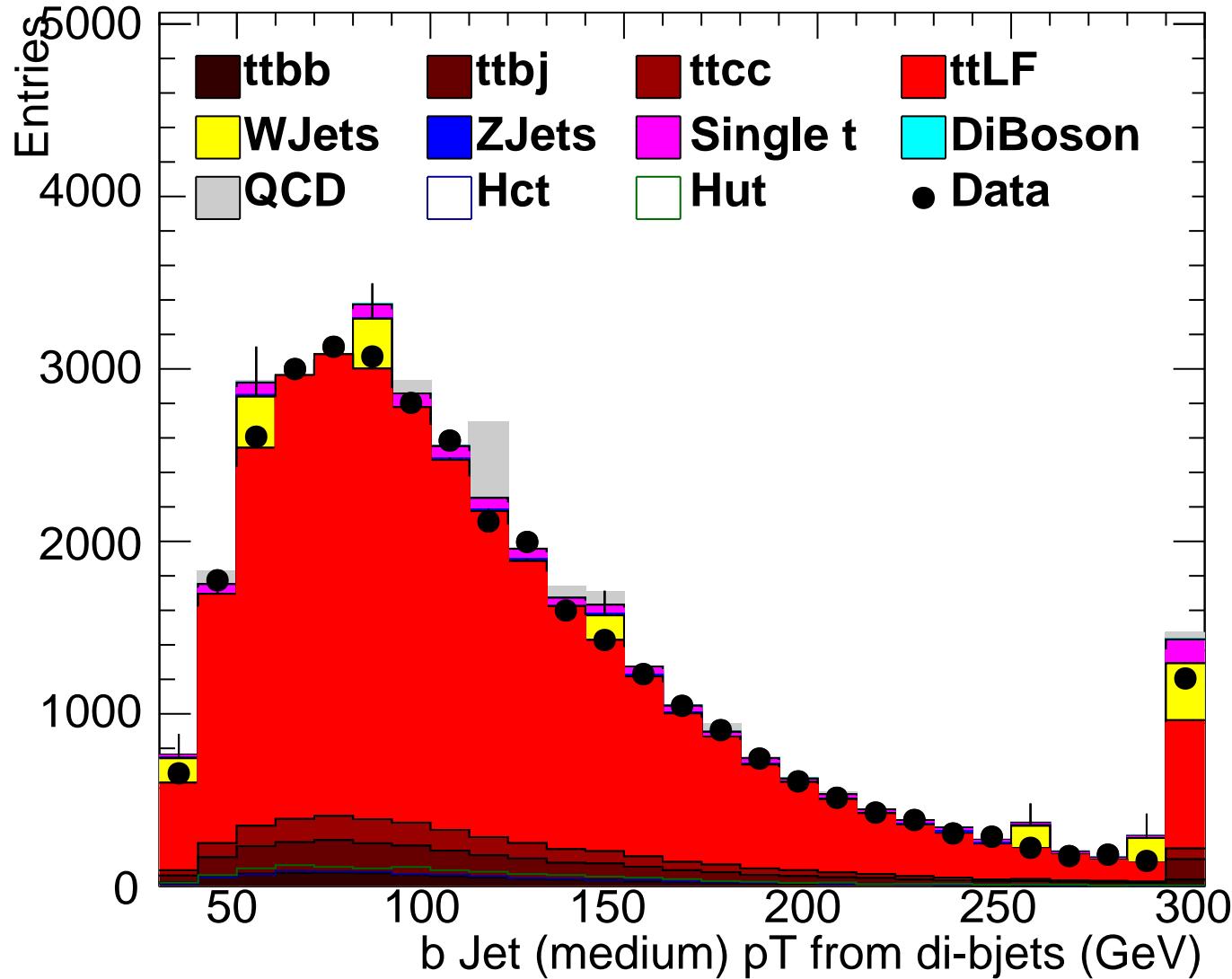
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

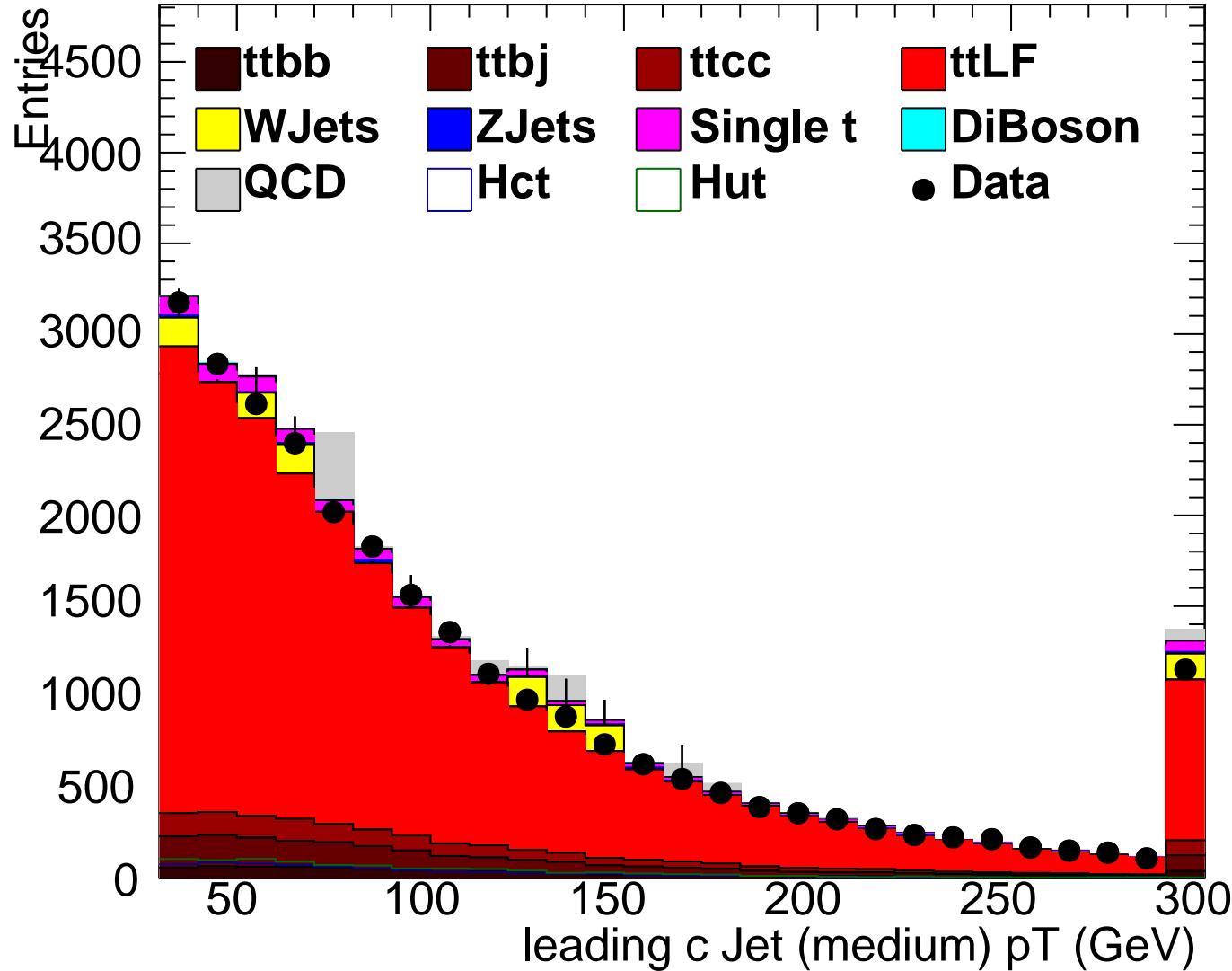


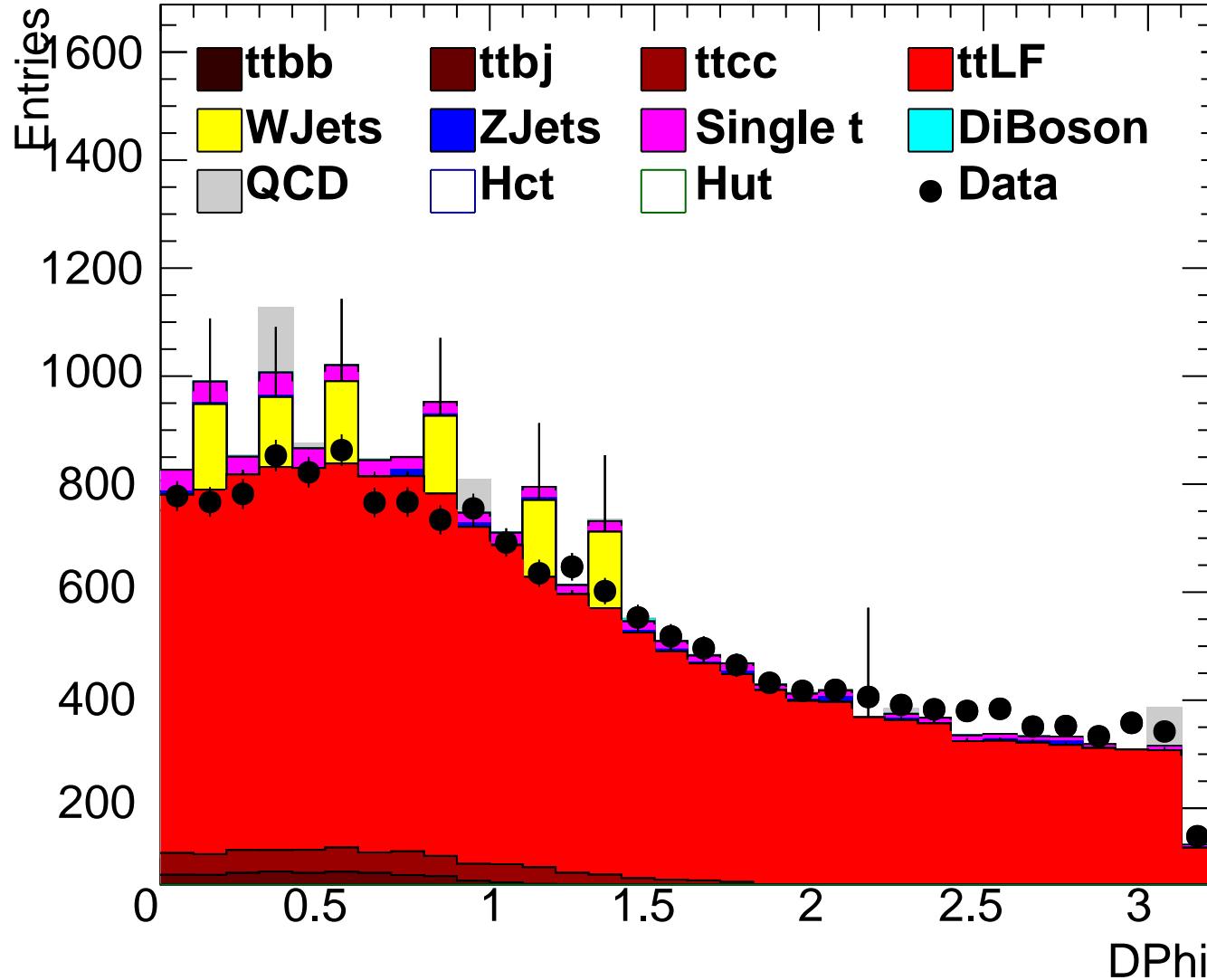
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

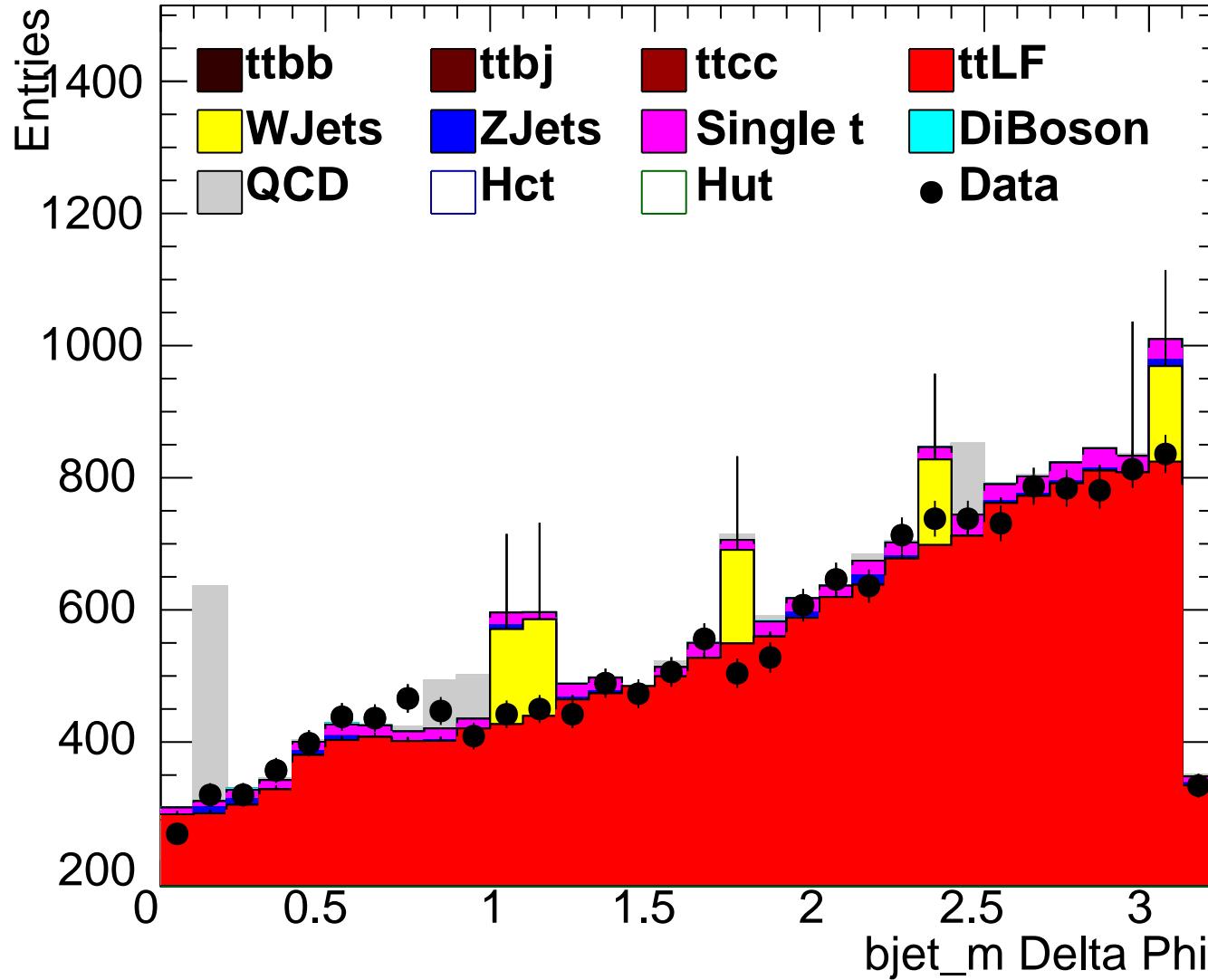
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

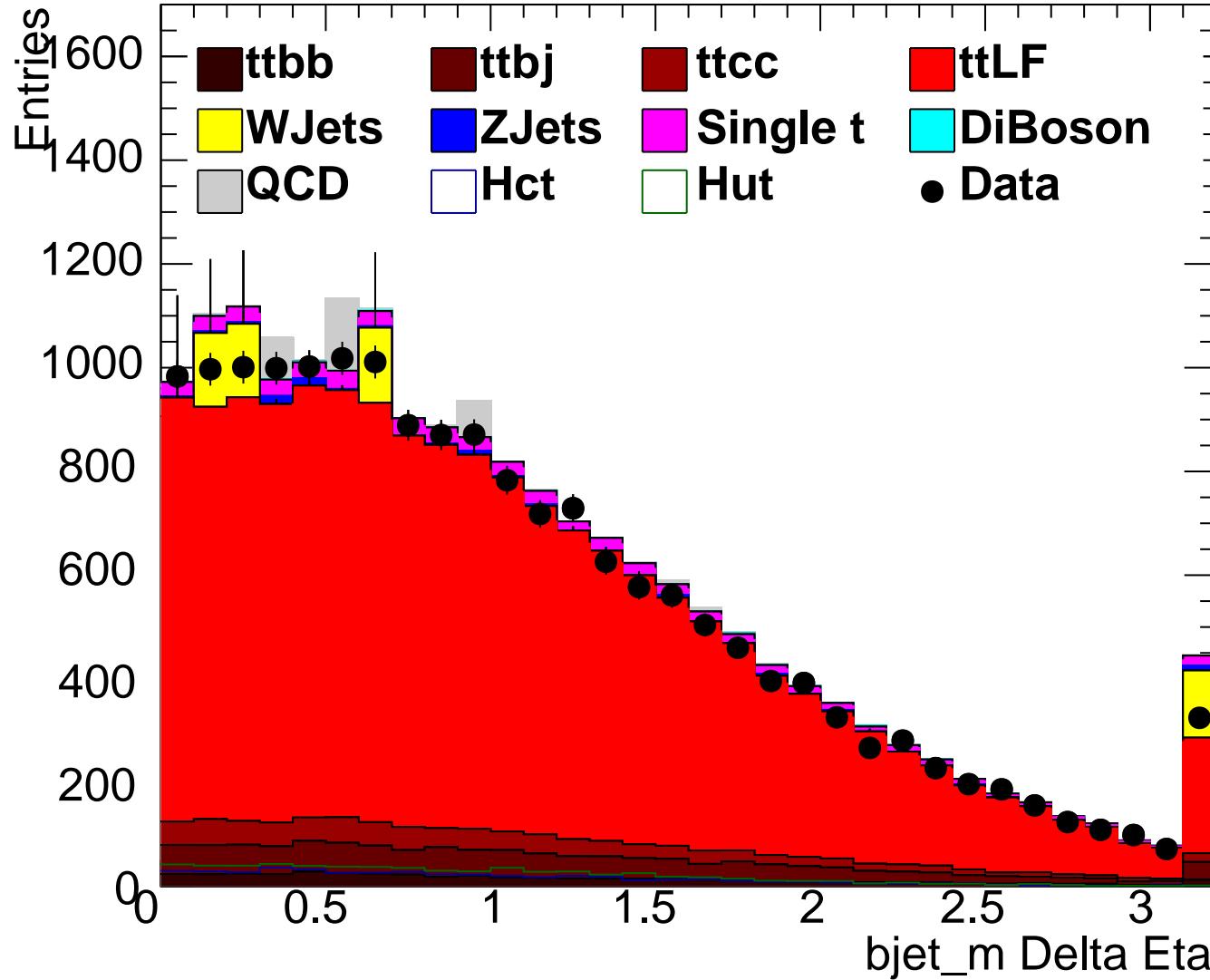
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

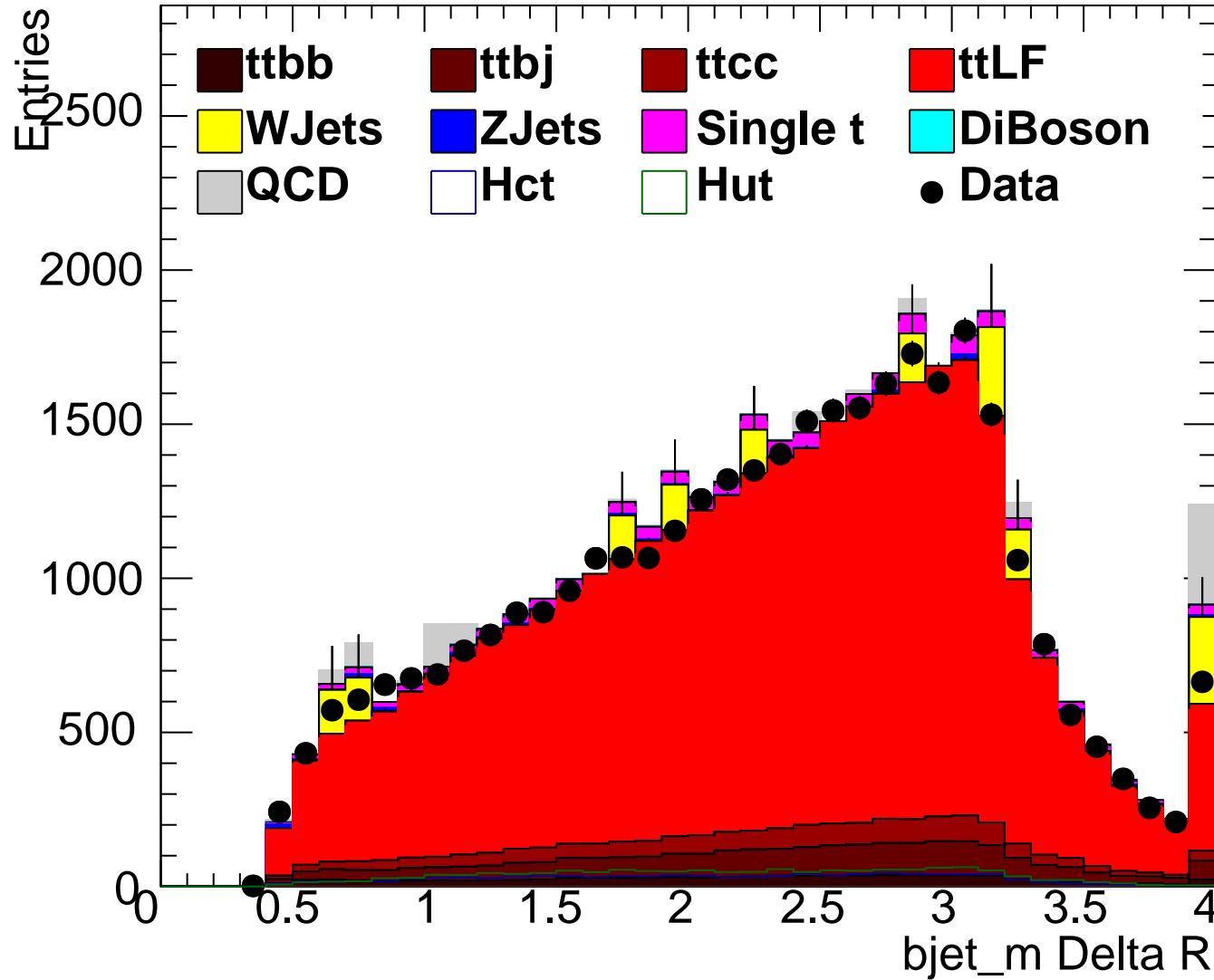
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

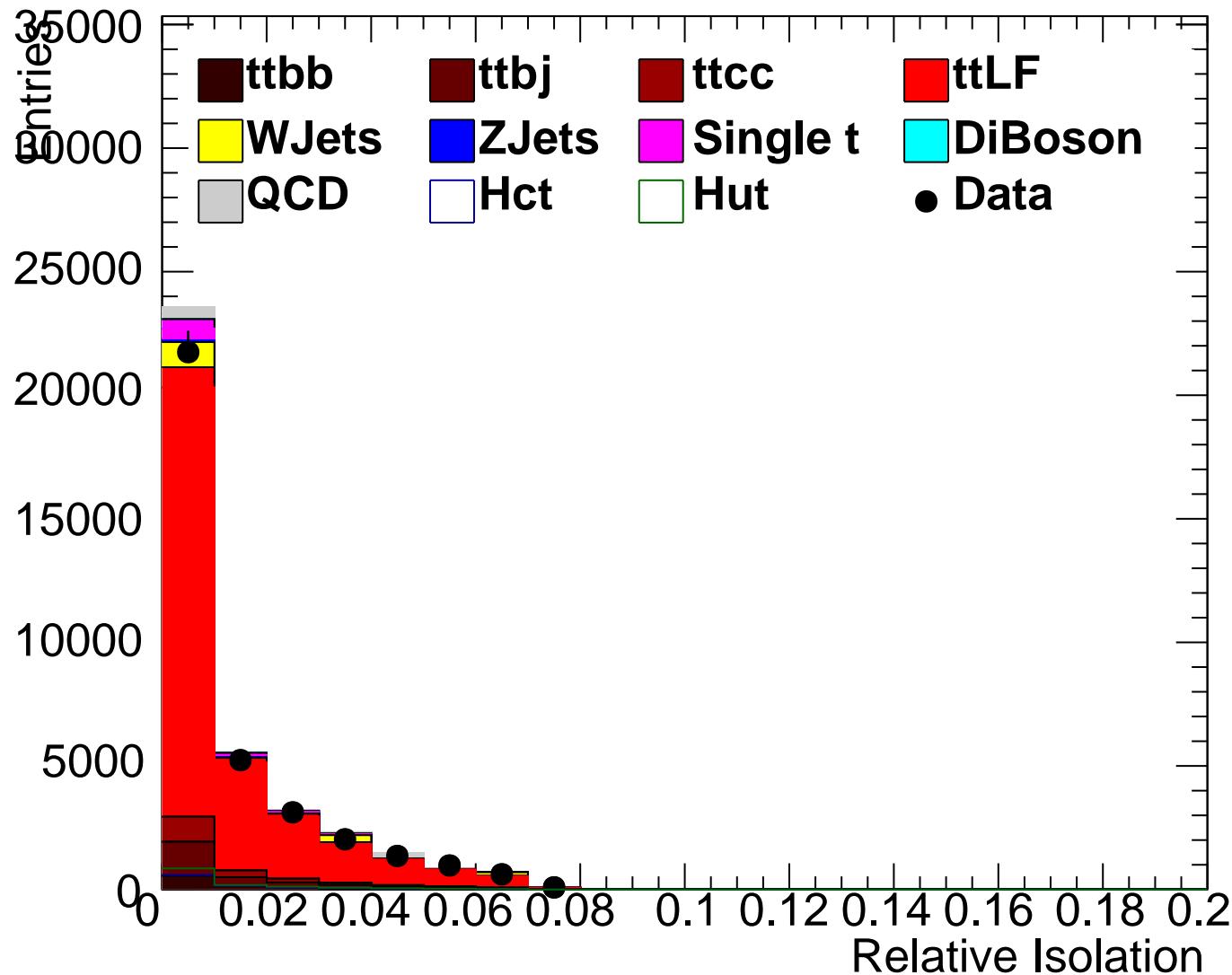
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

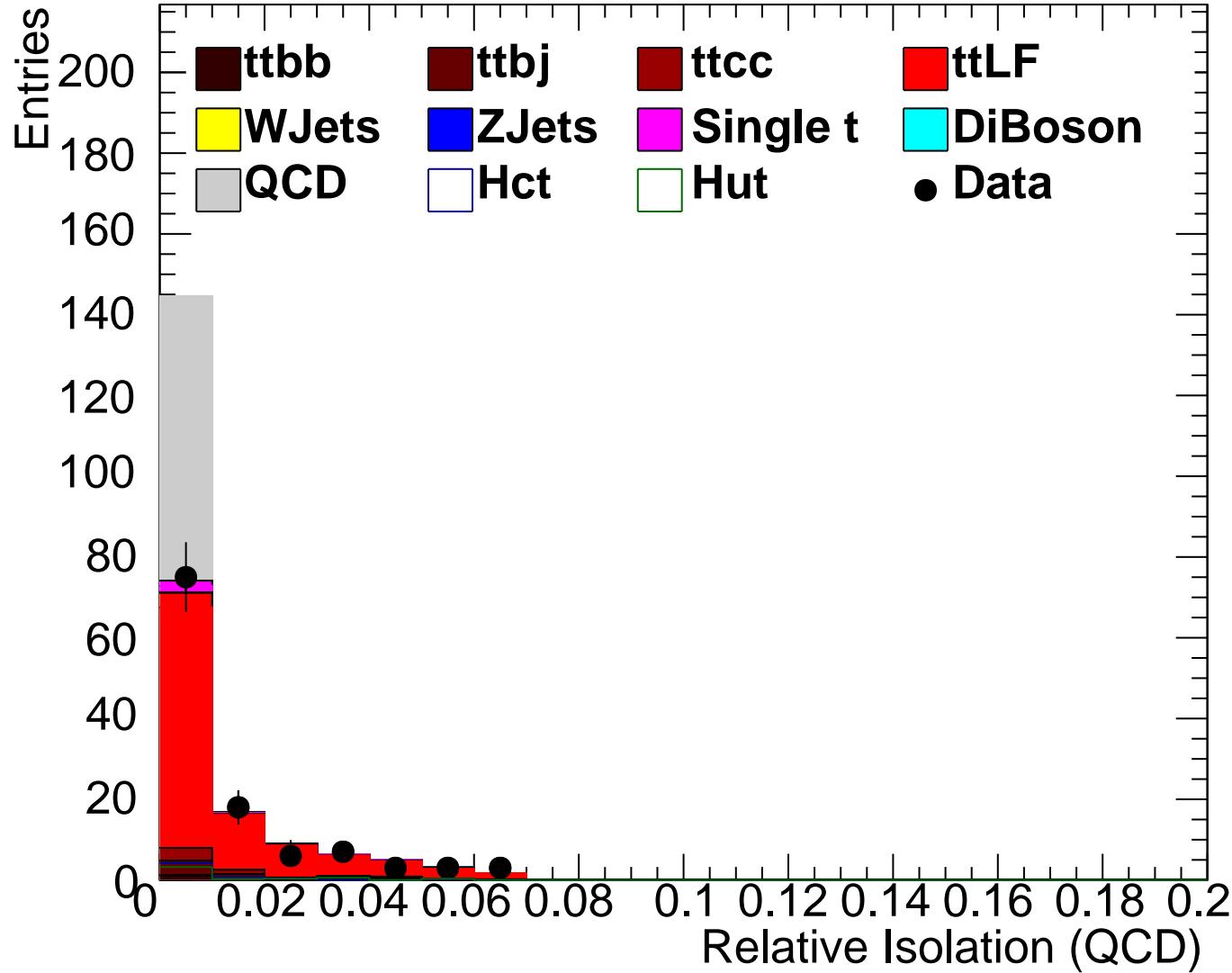
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

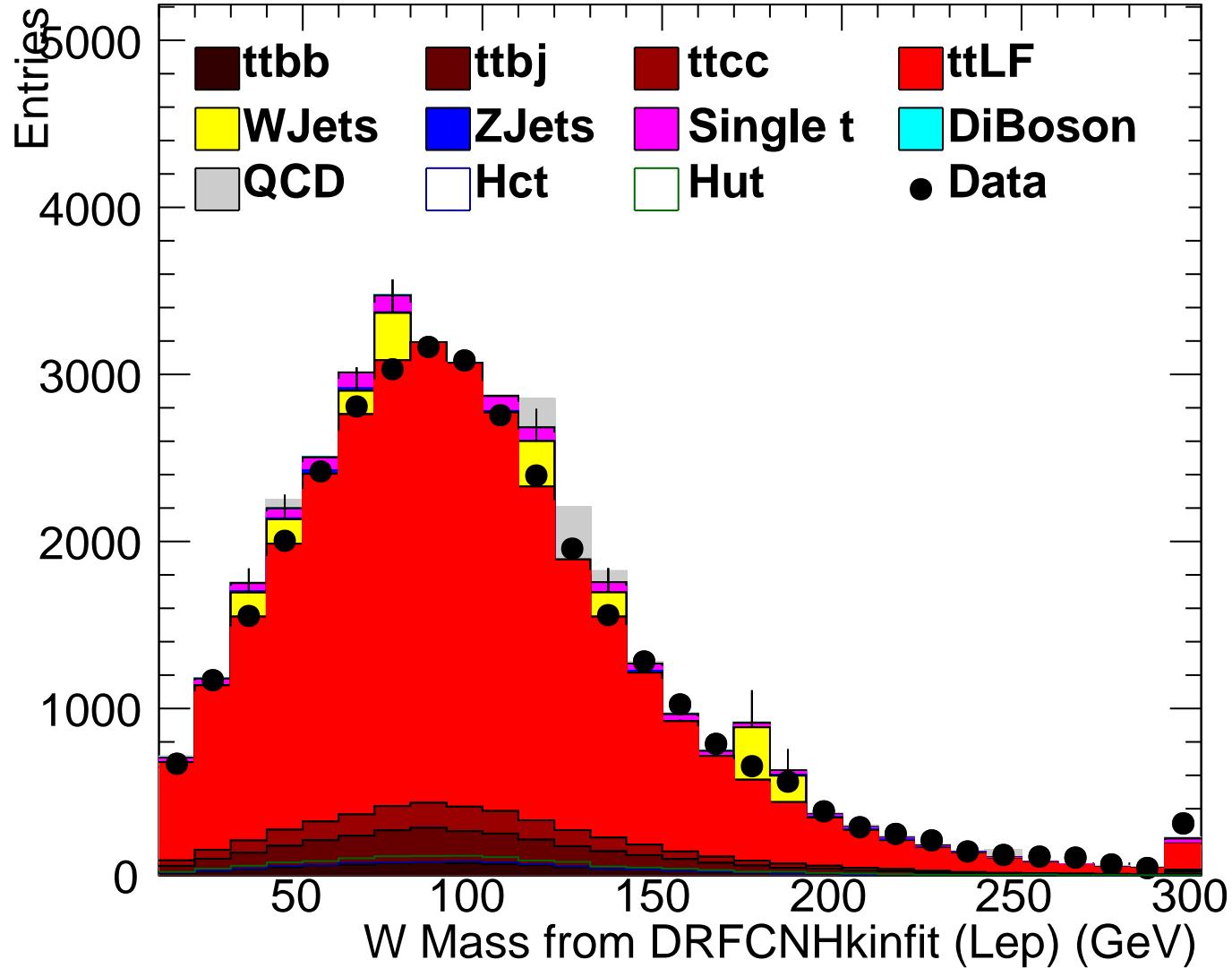


Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

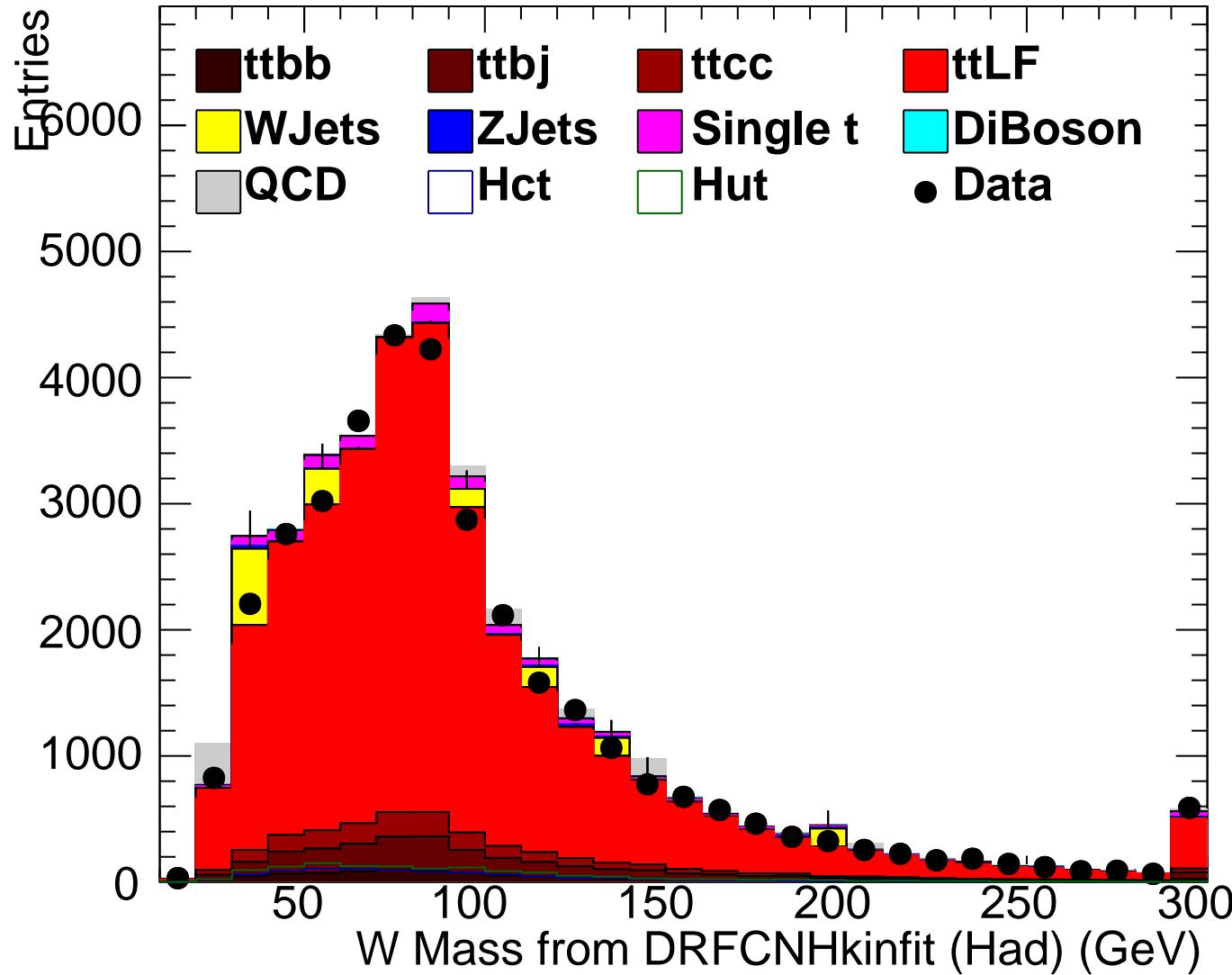


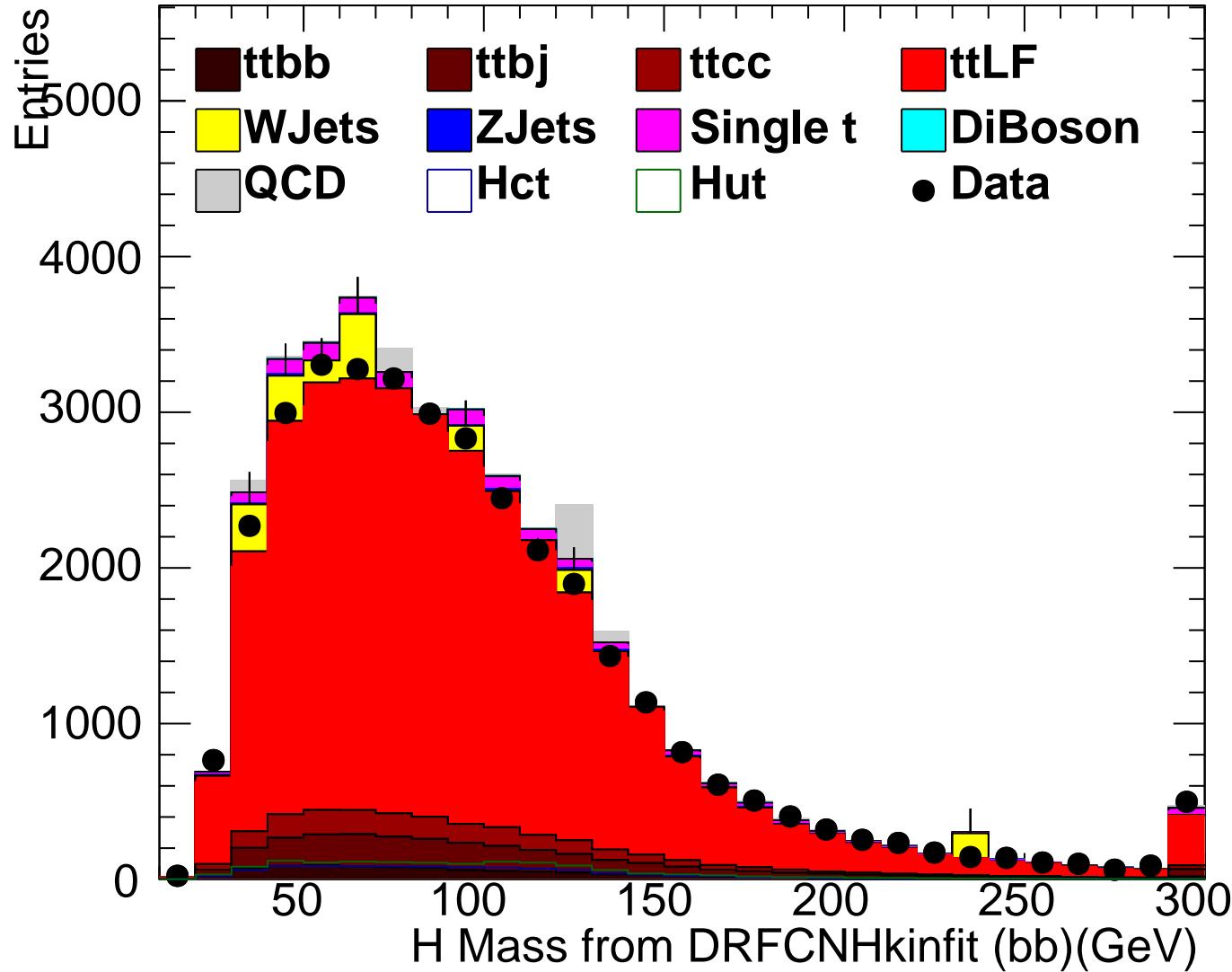


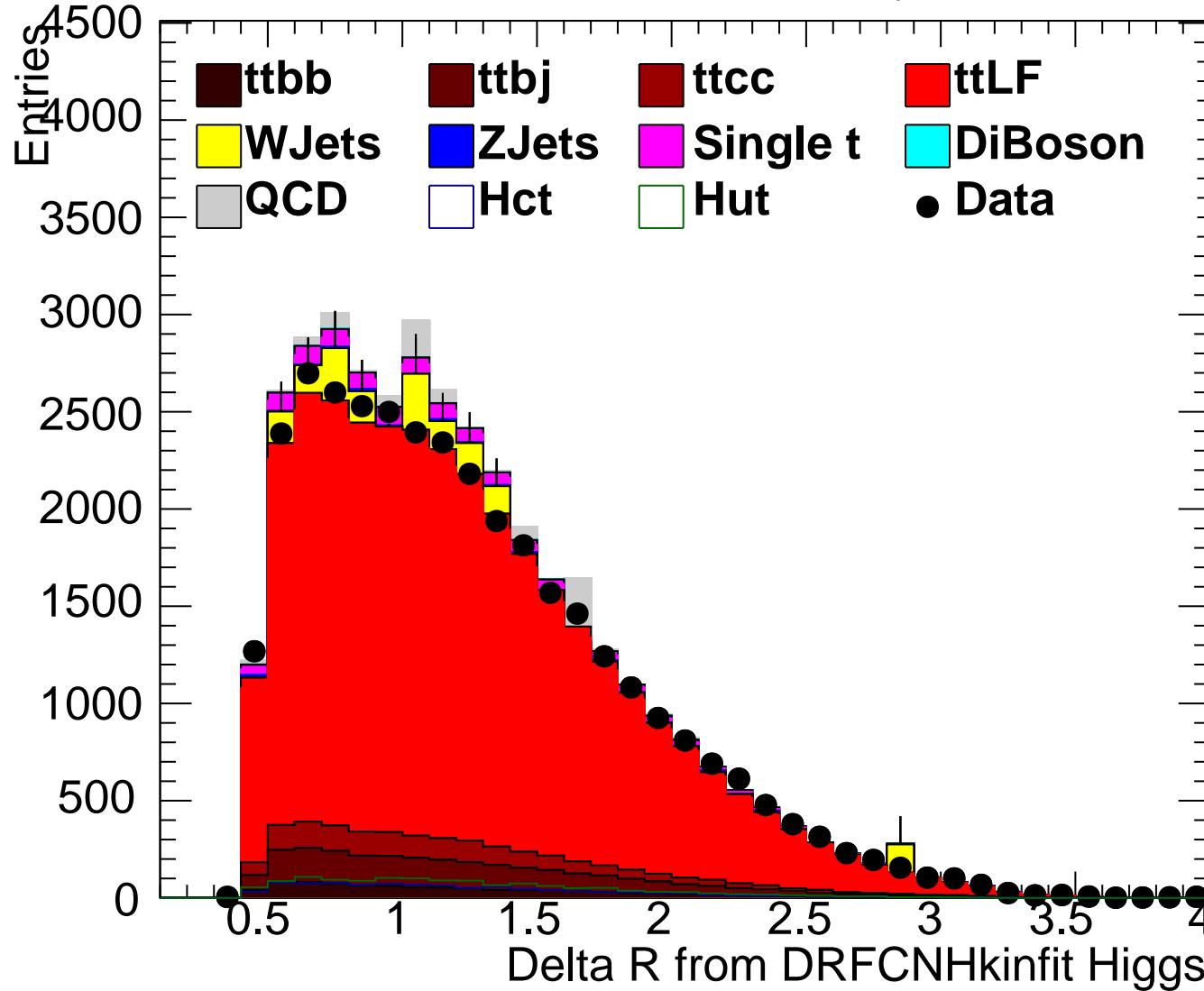
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1 S12

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

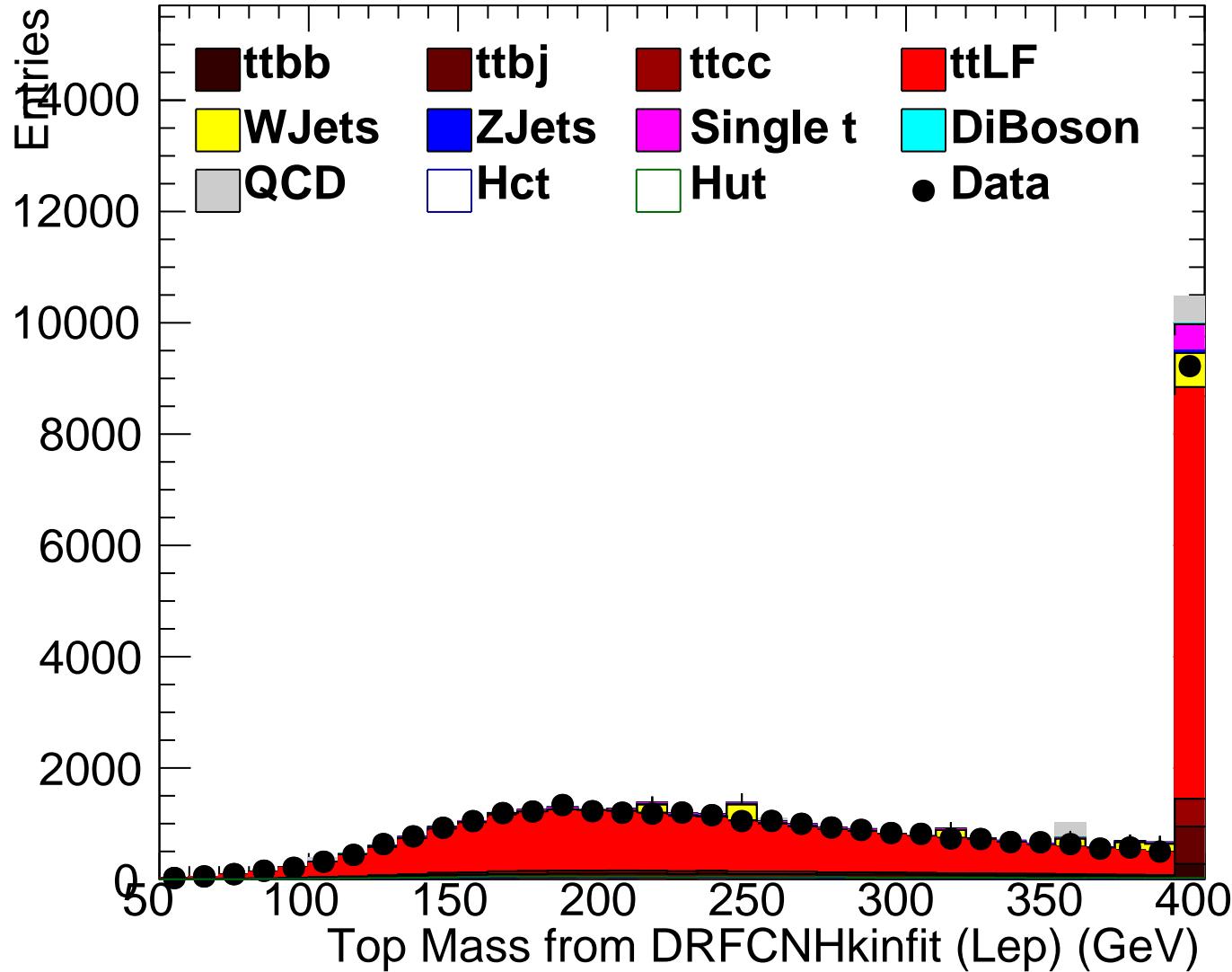


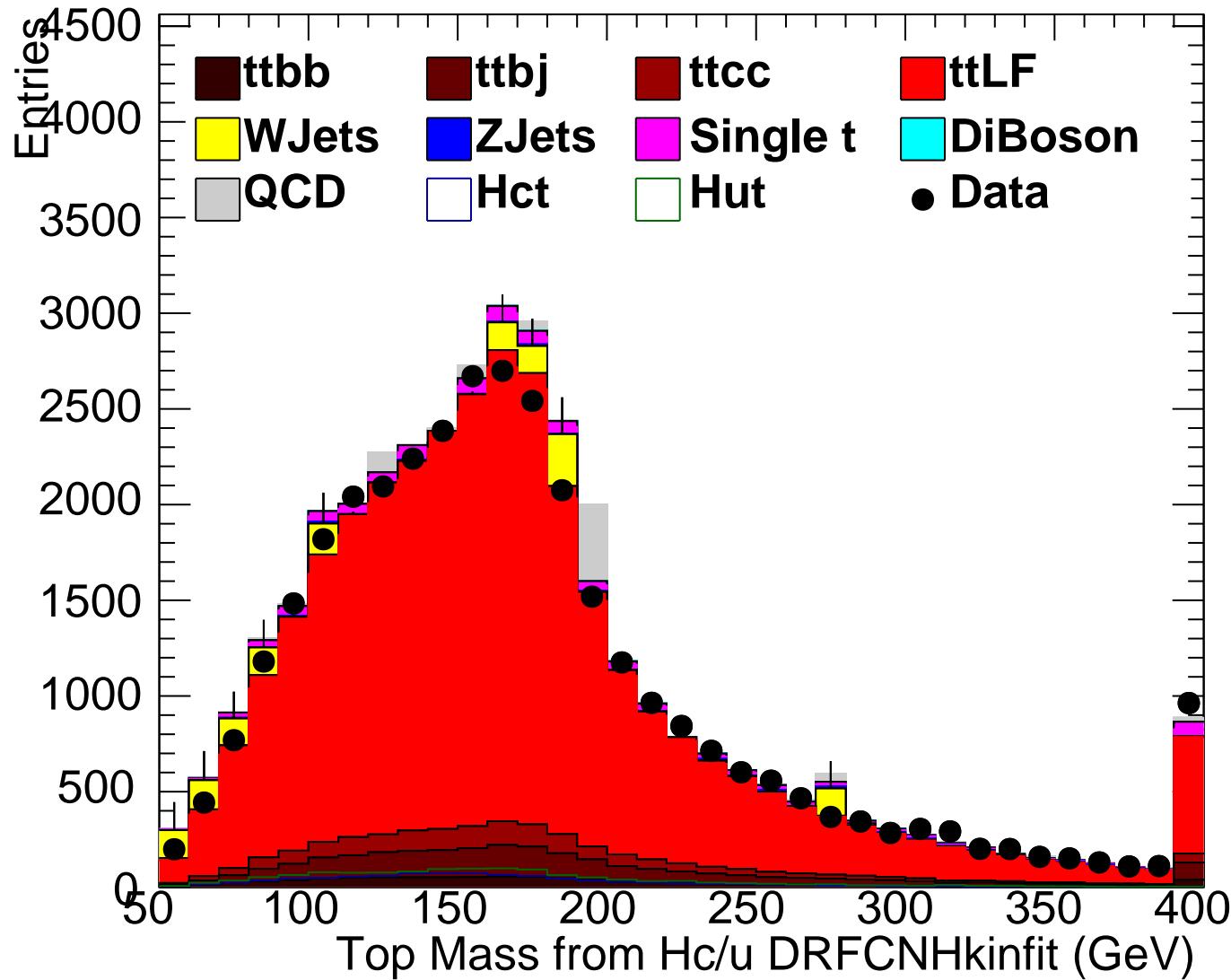
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

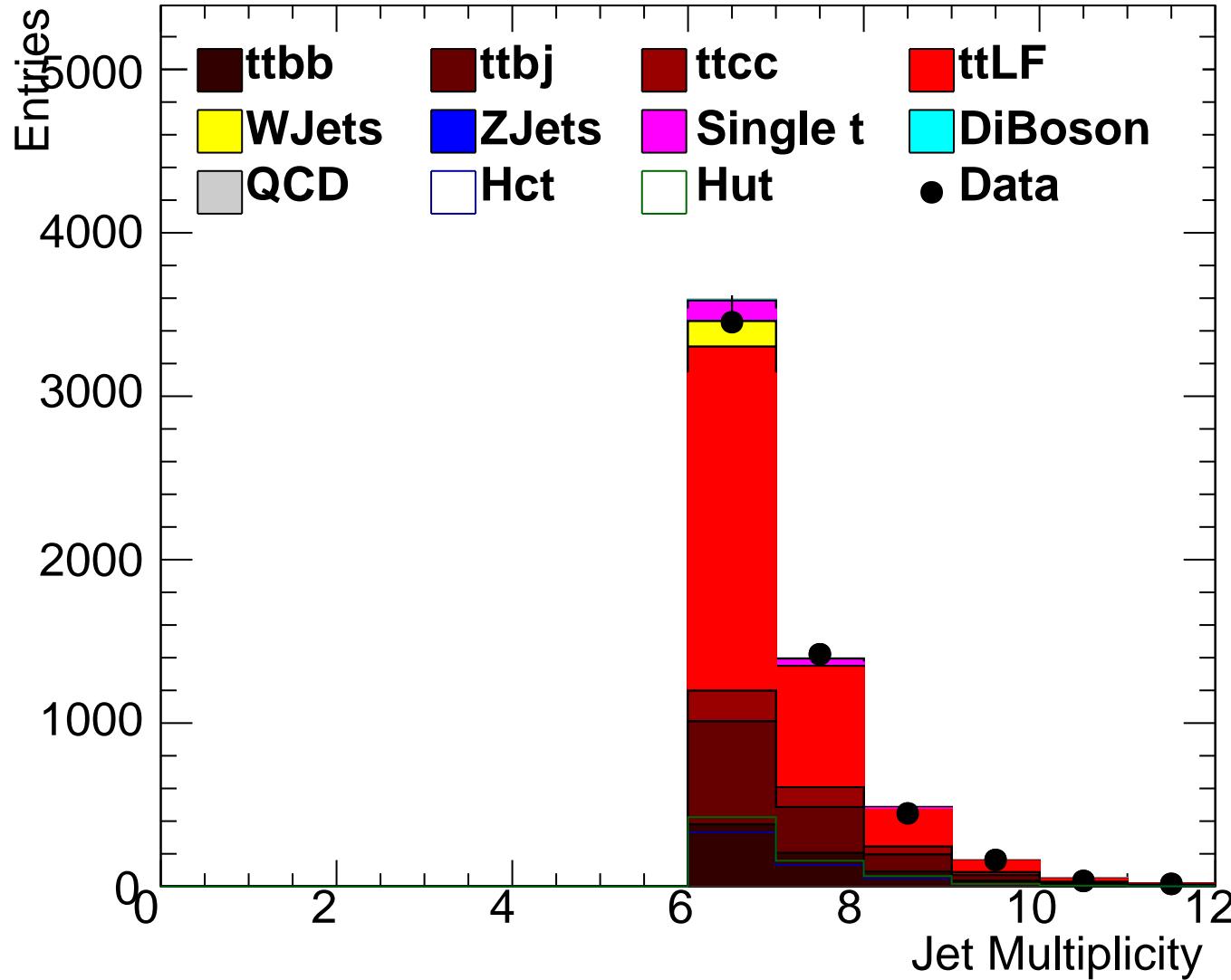
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

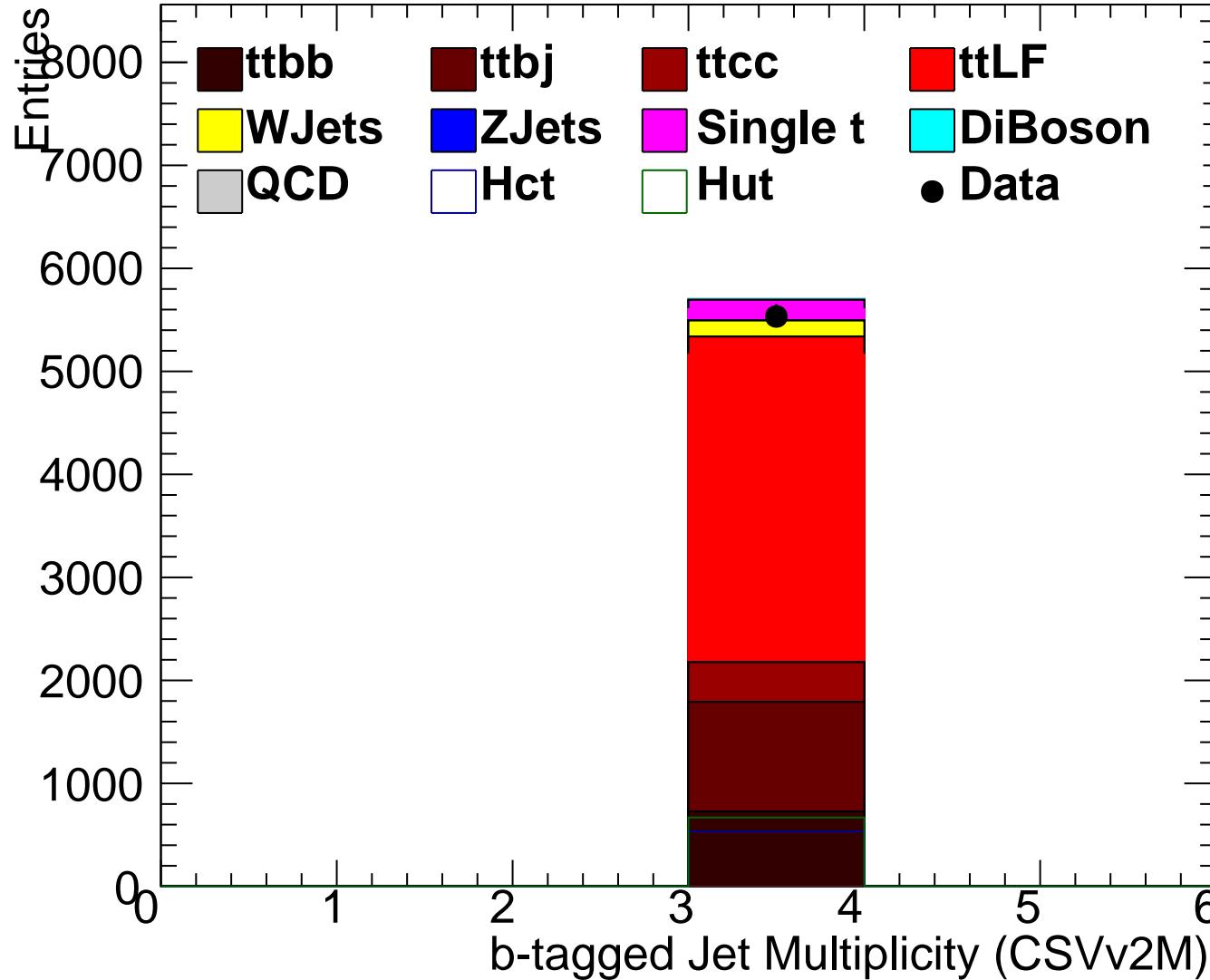
Ch1 S12

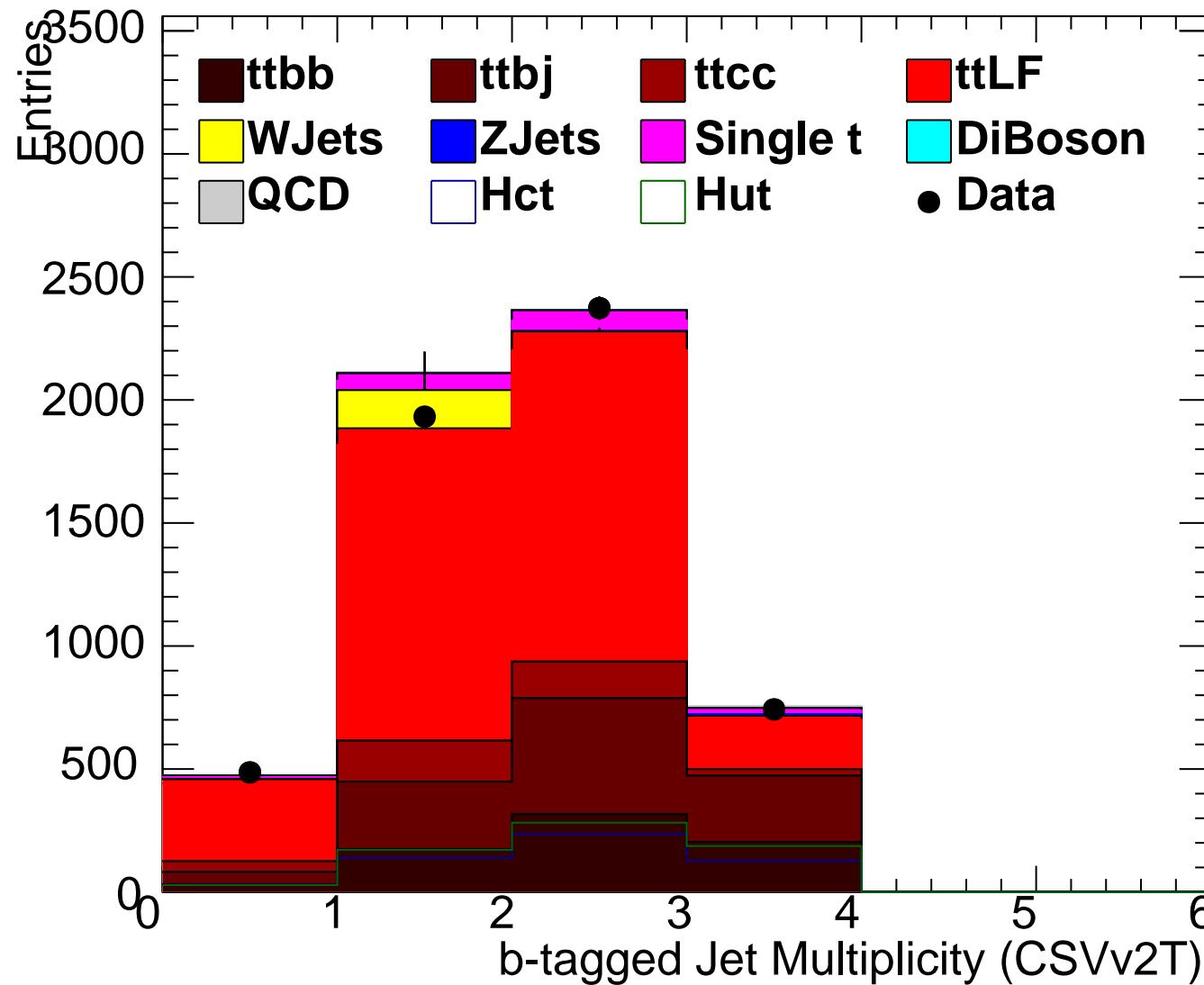
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

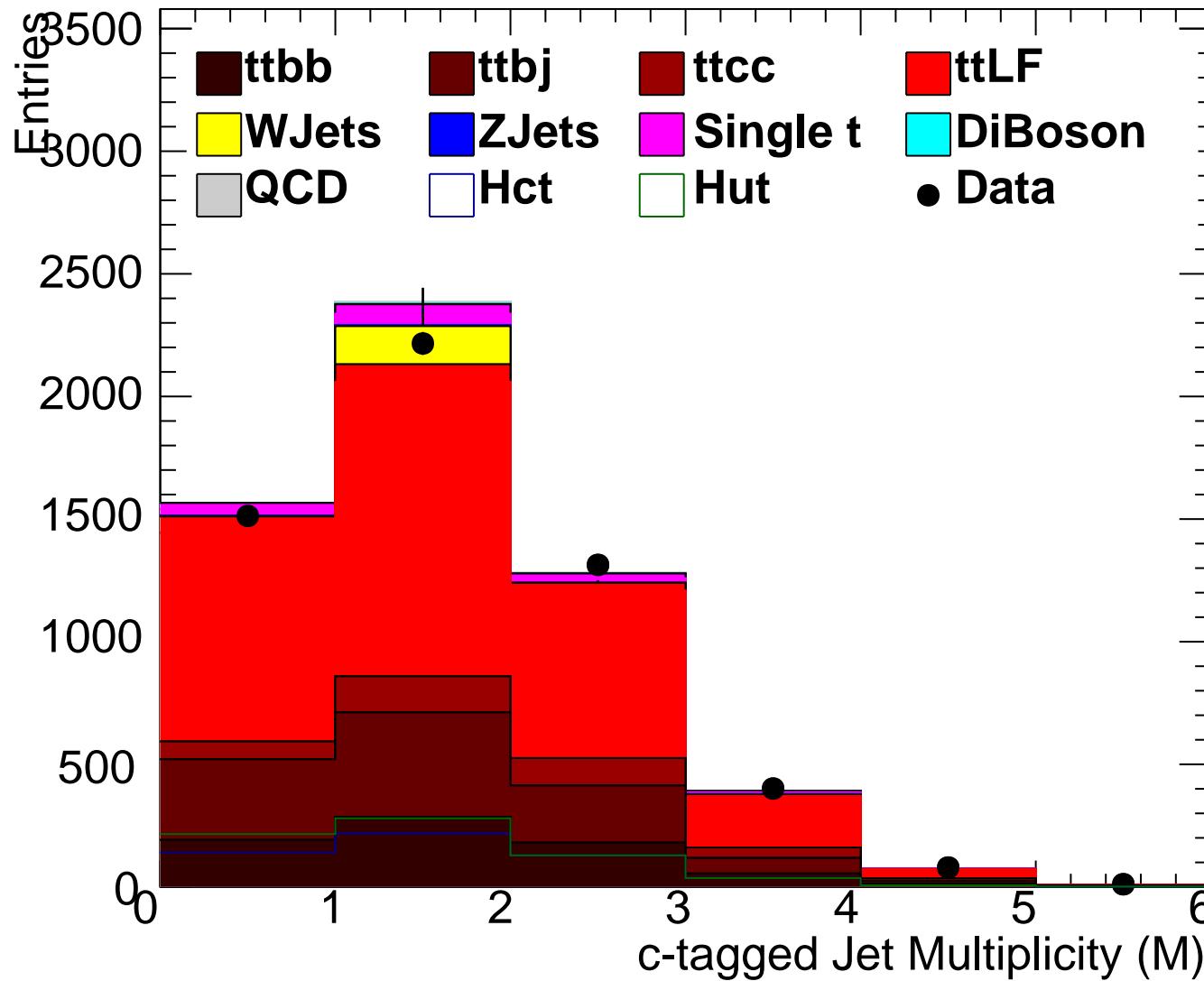


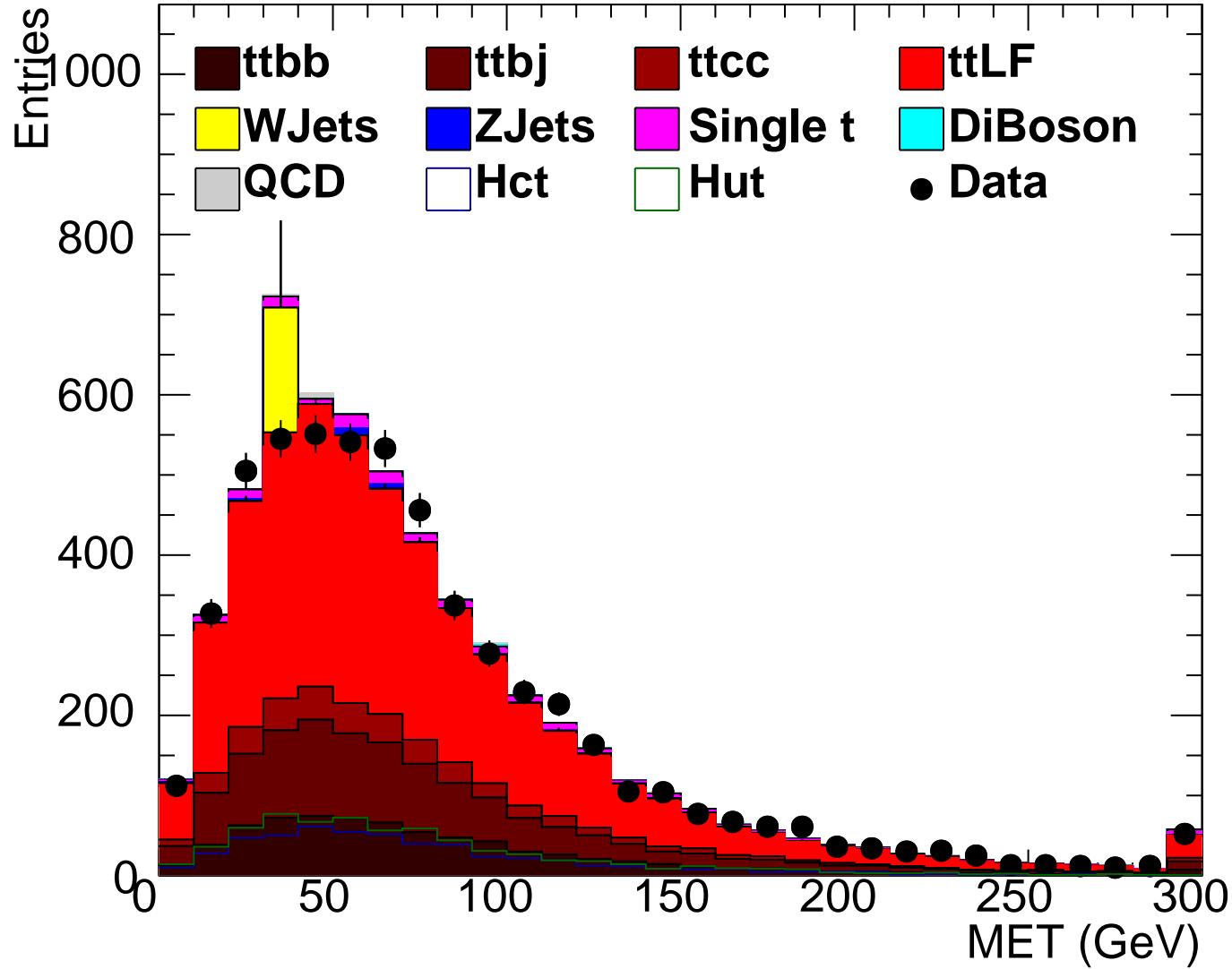
Ch1_S12CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

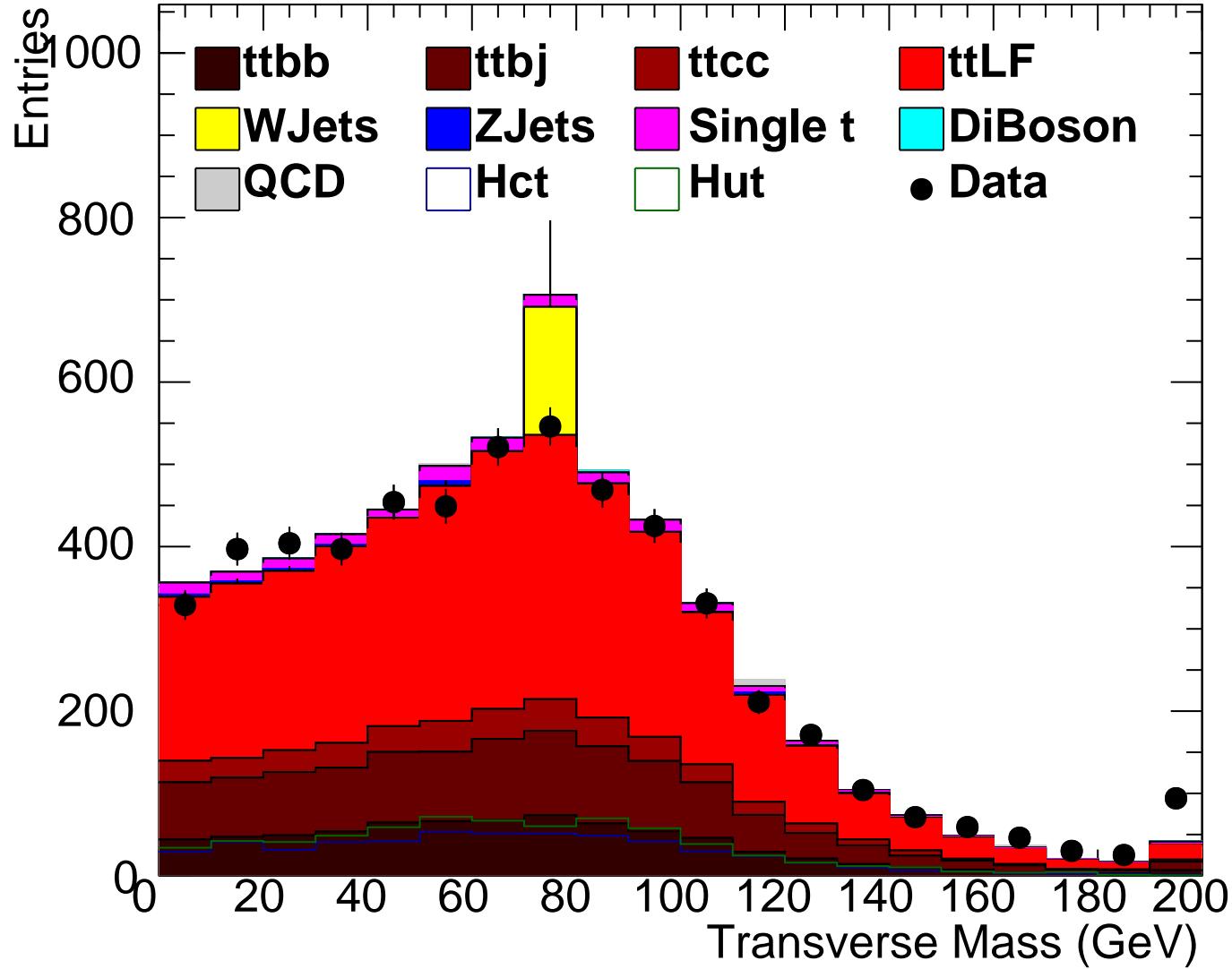


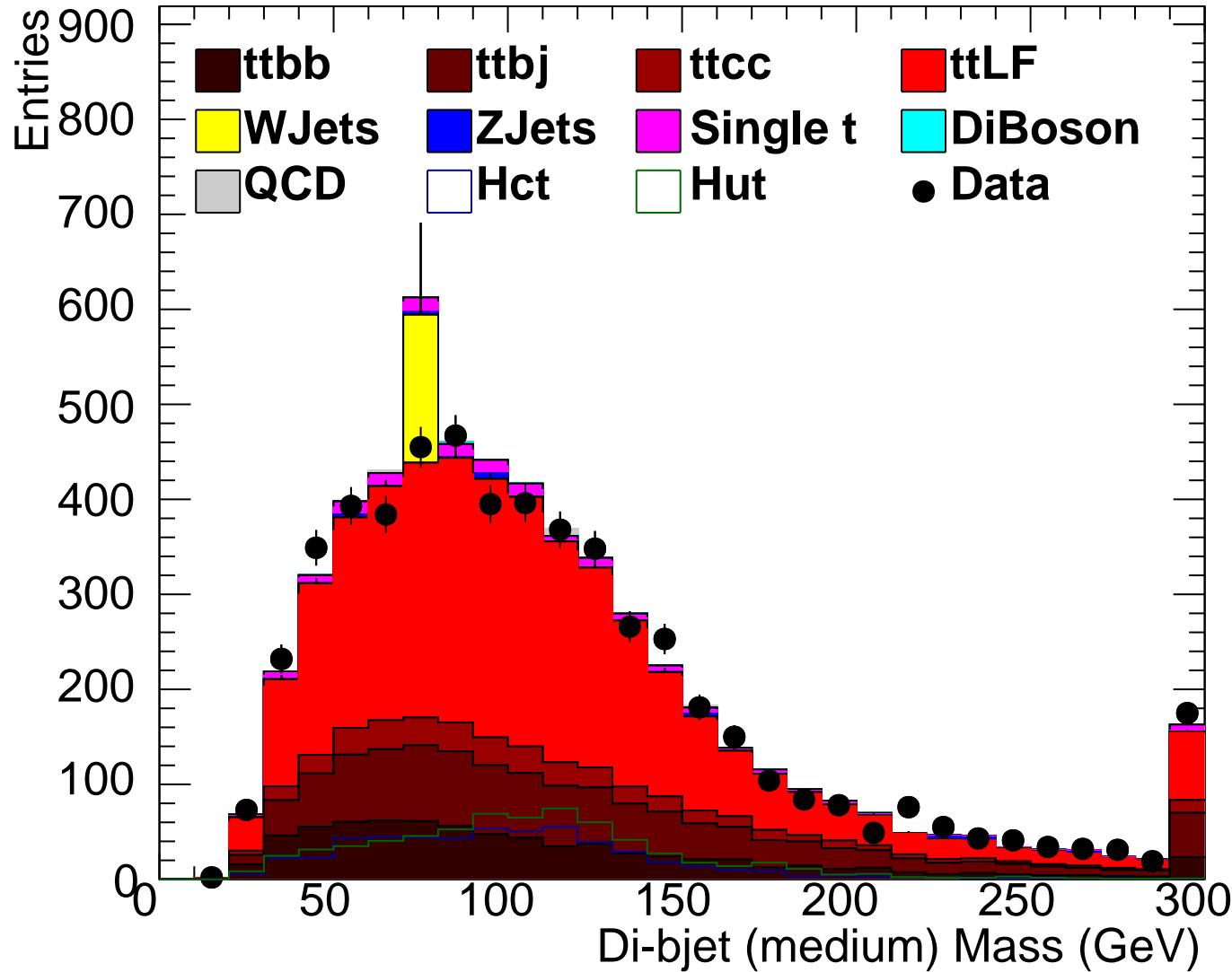


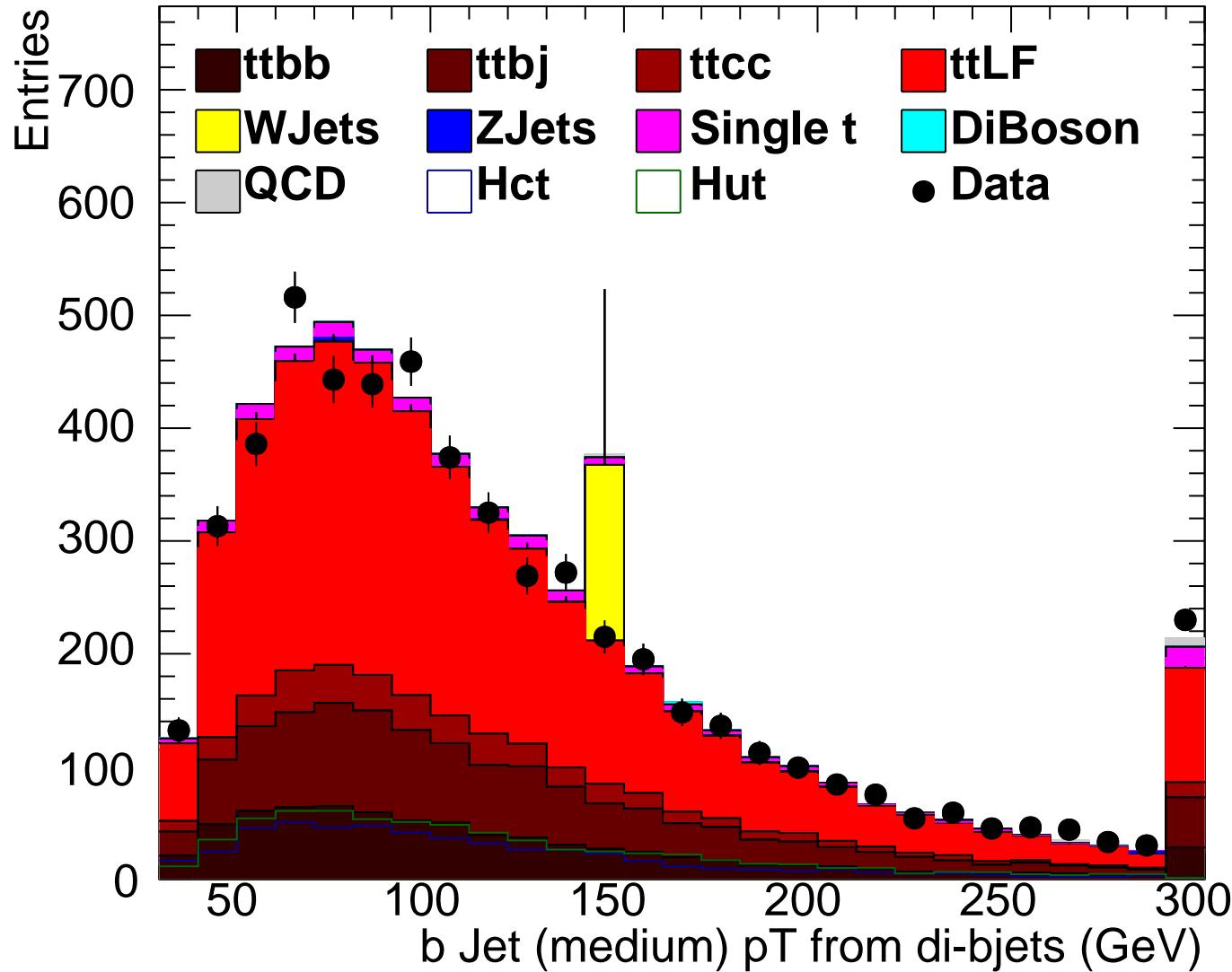




Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

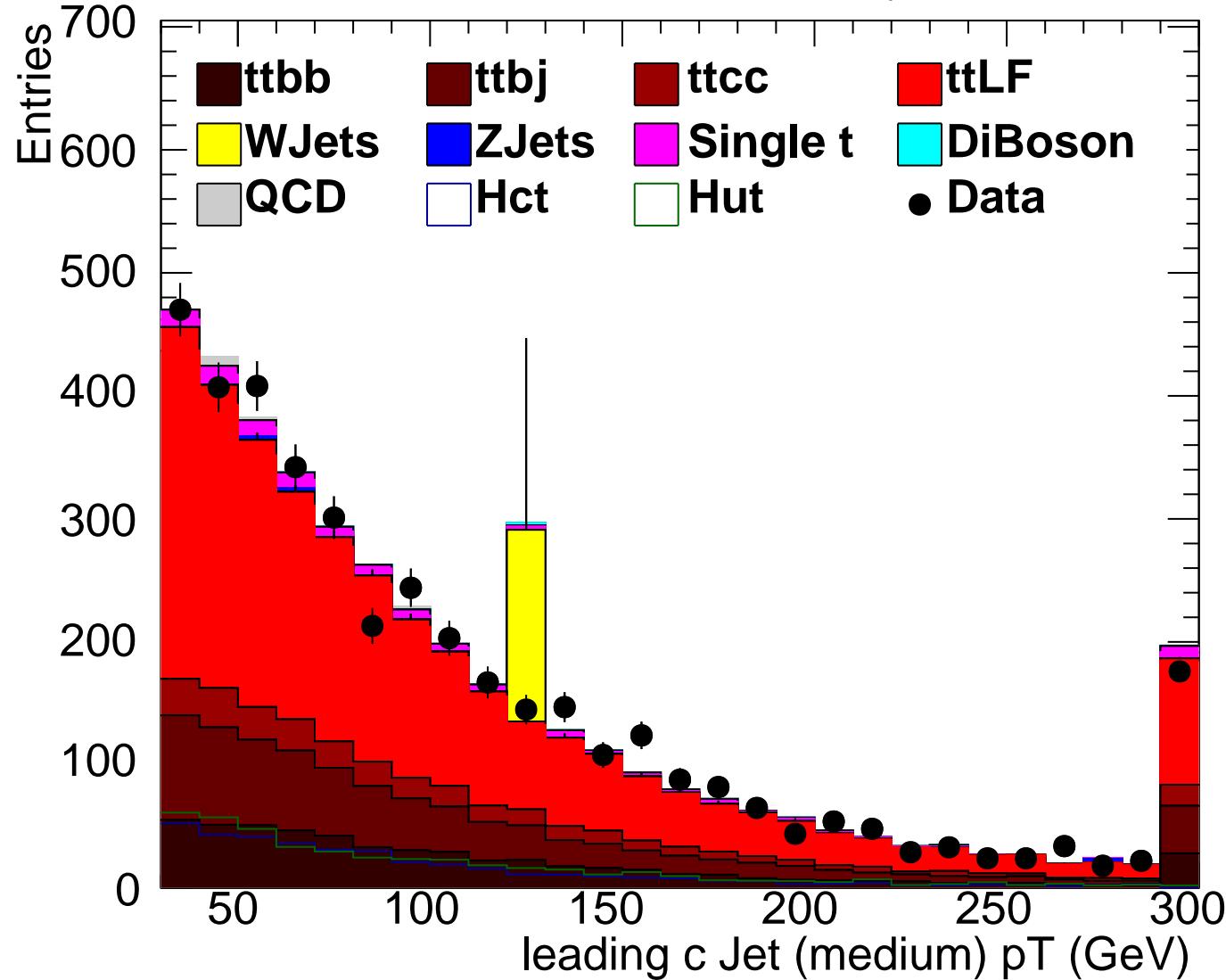


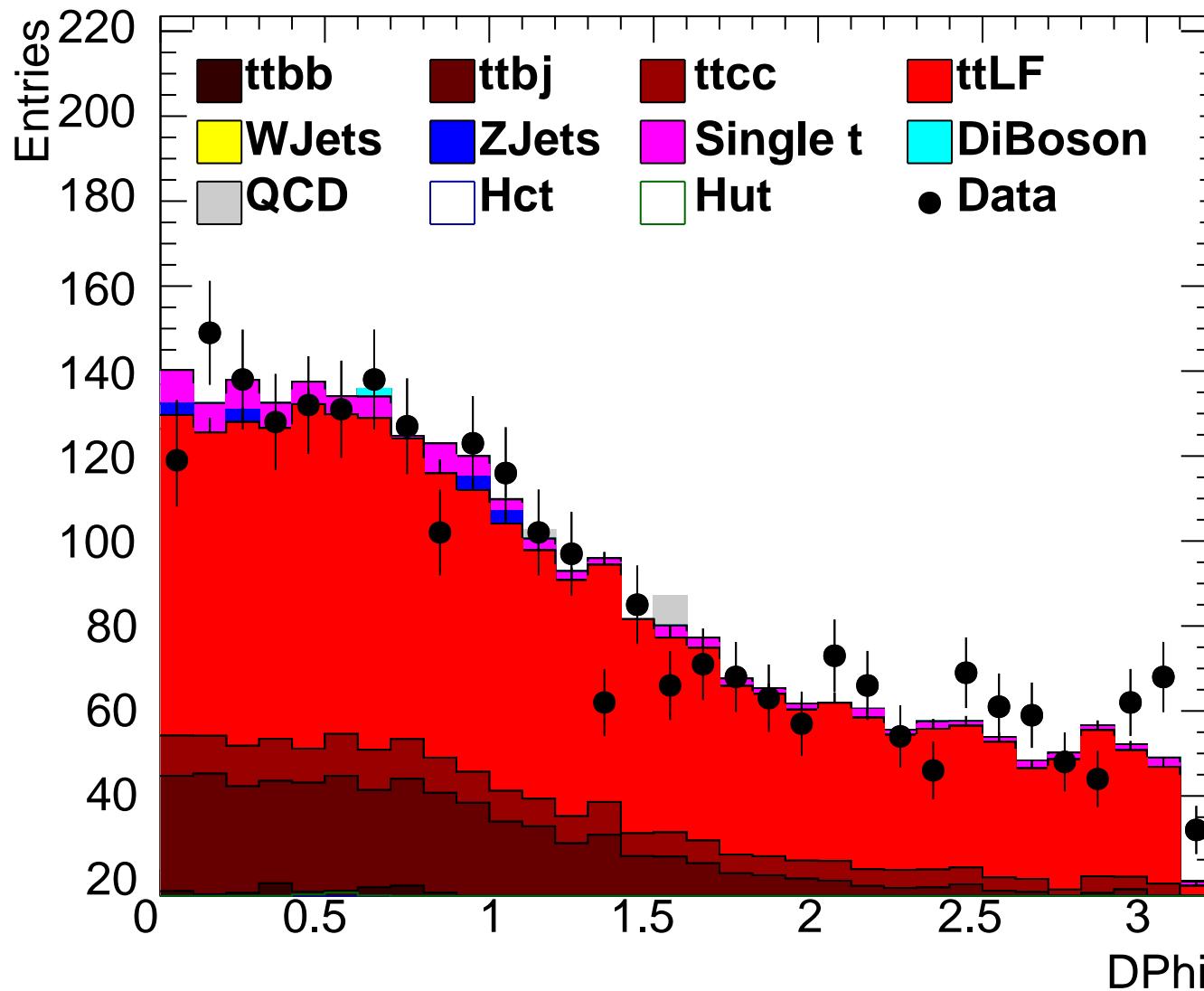
Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S13

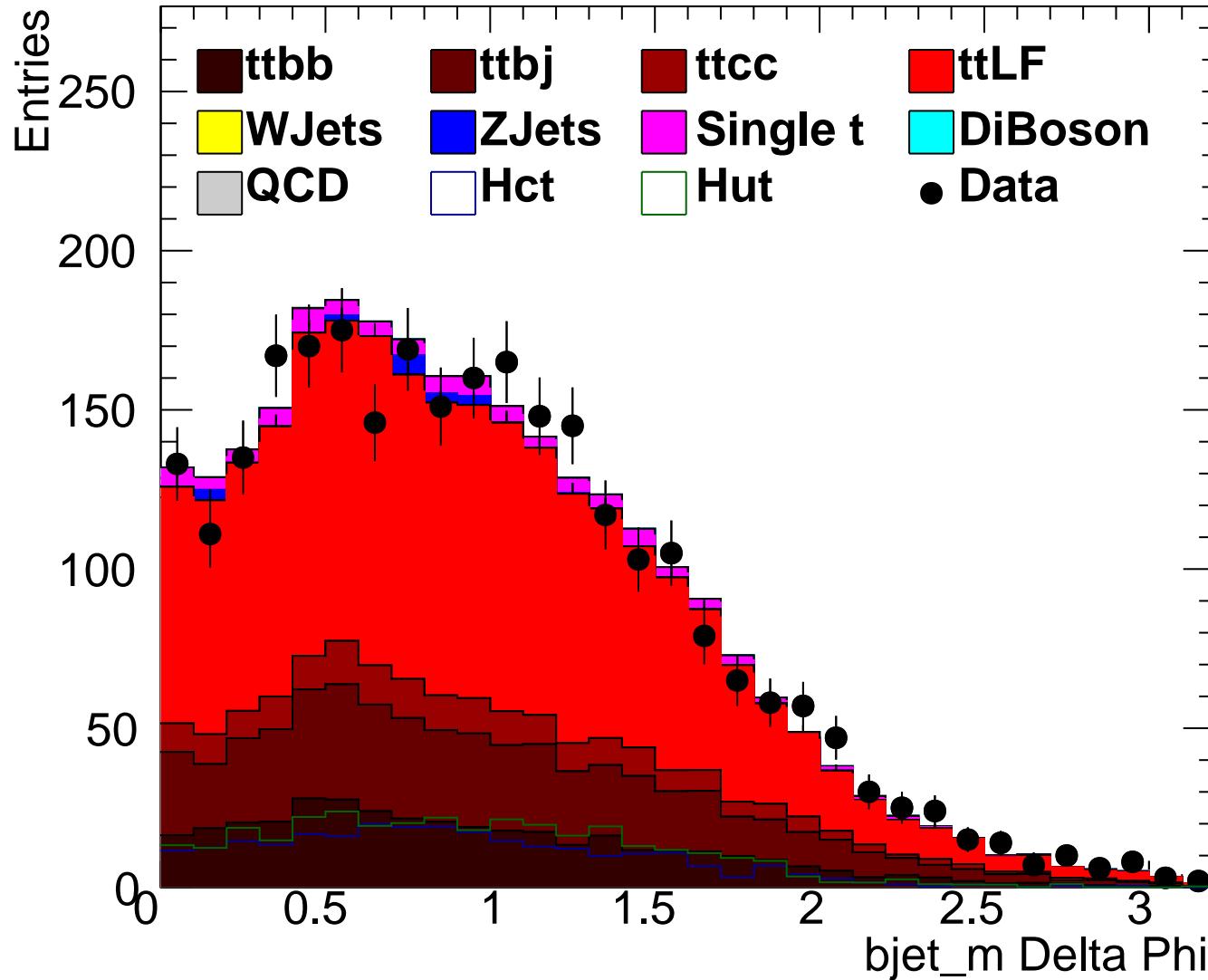
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

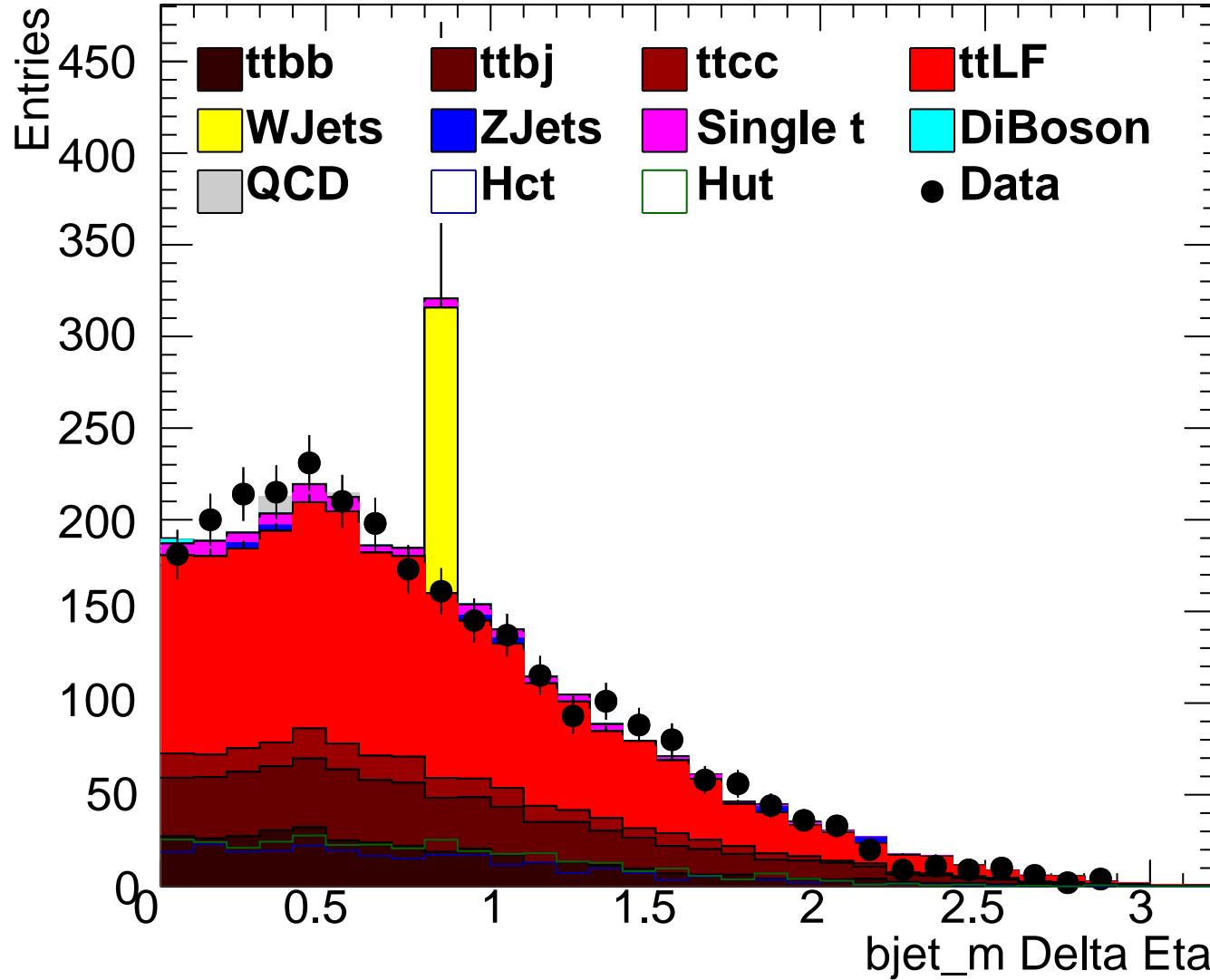


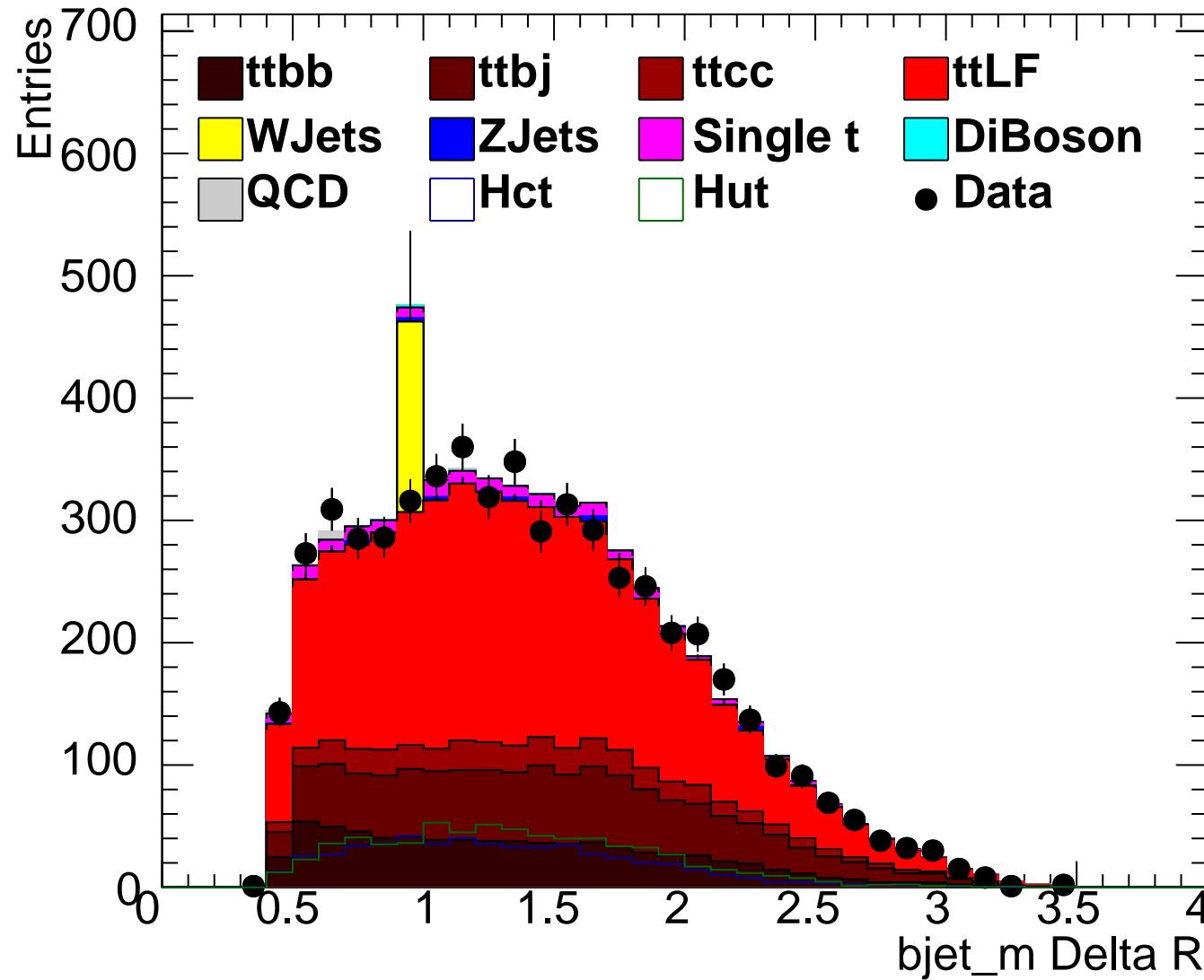


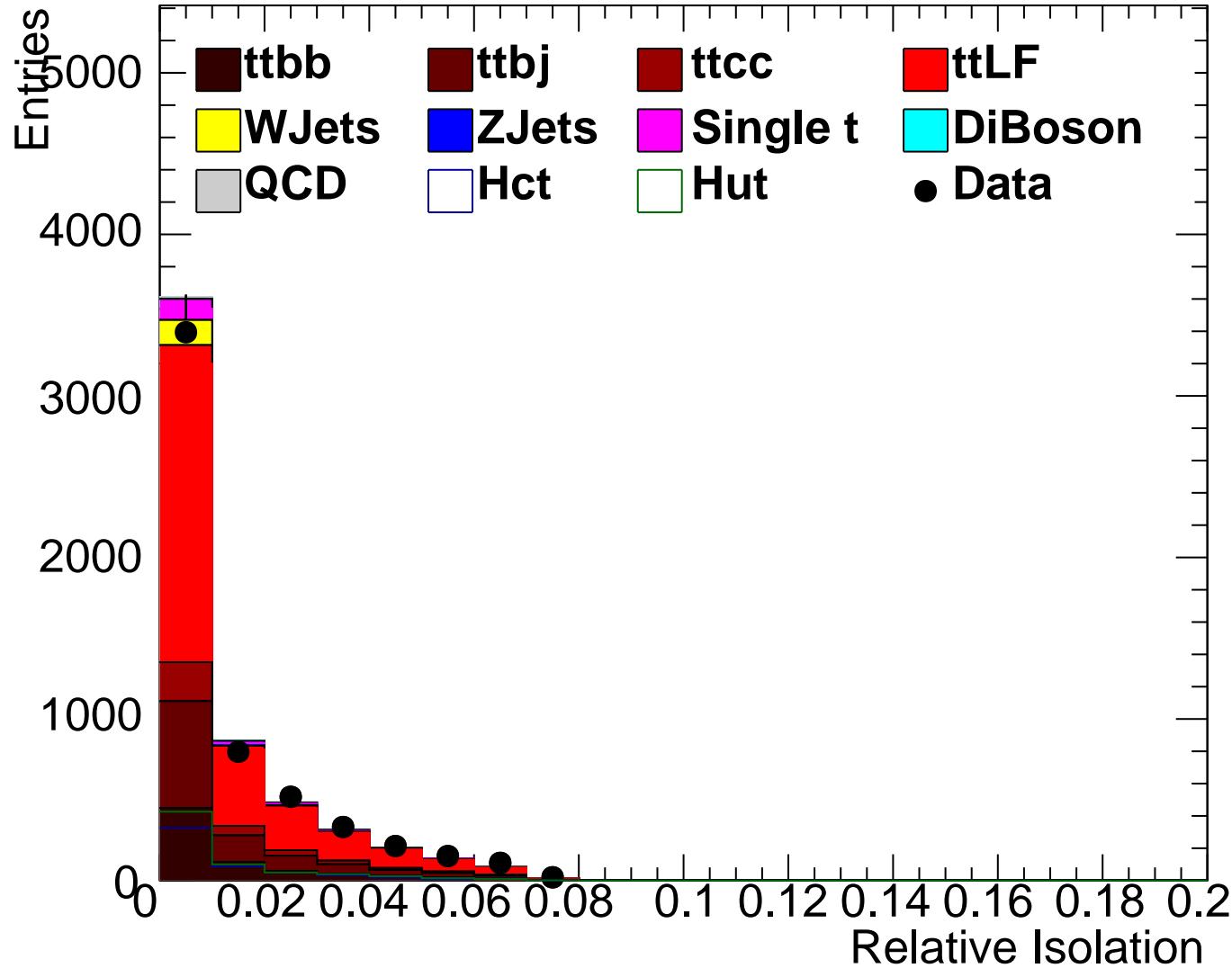
Ch1 S13

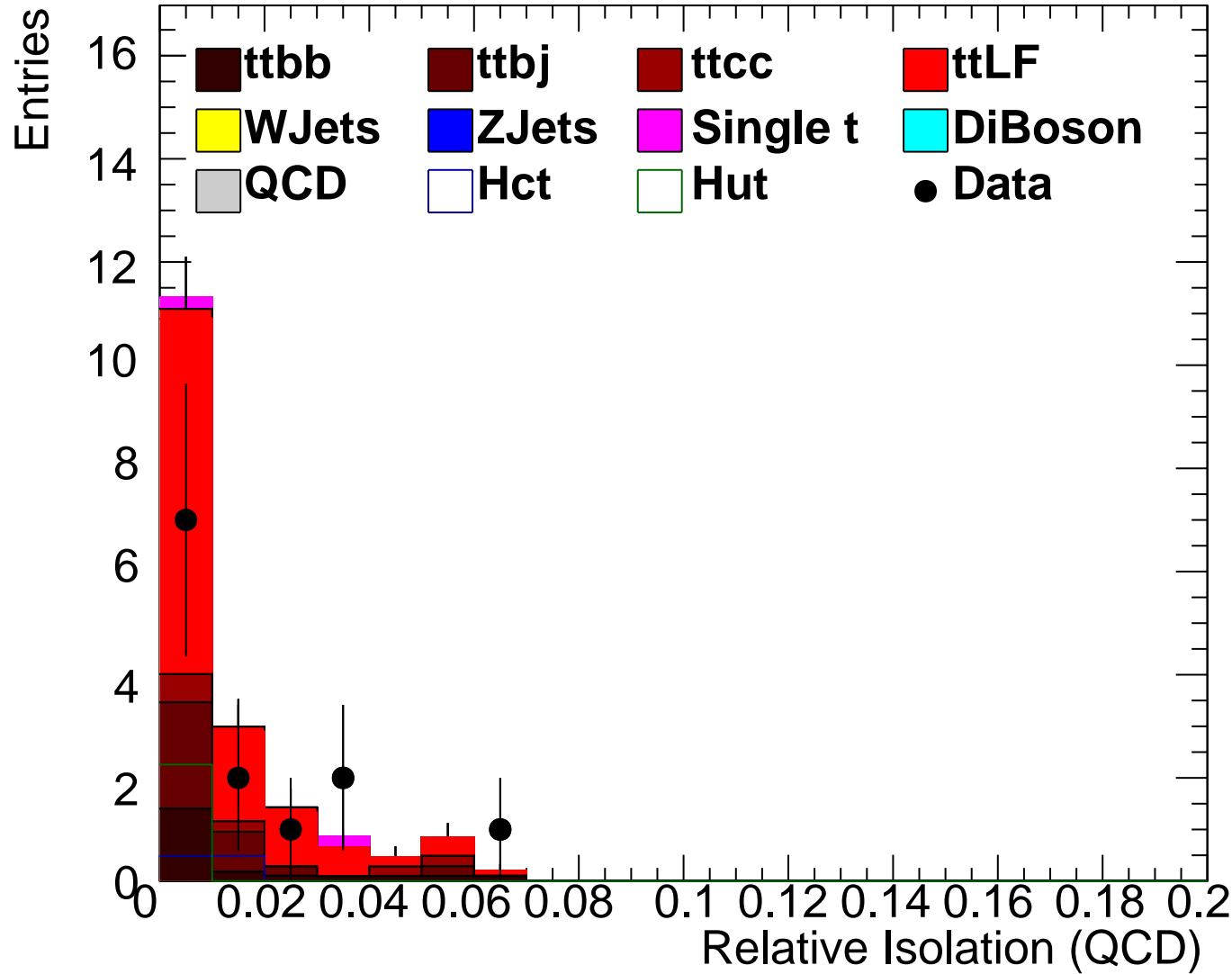
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

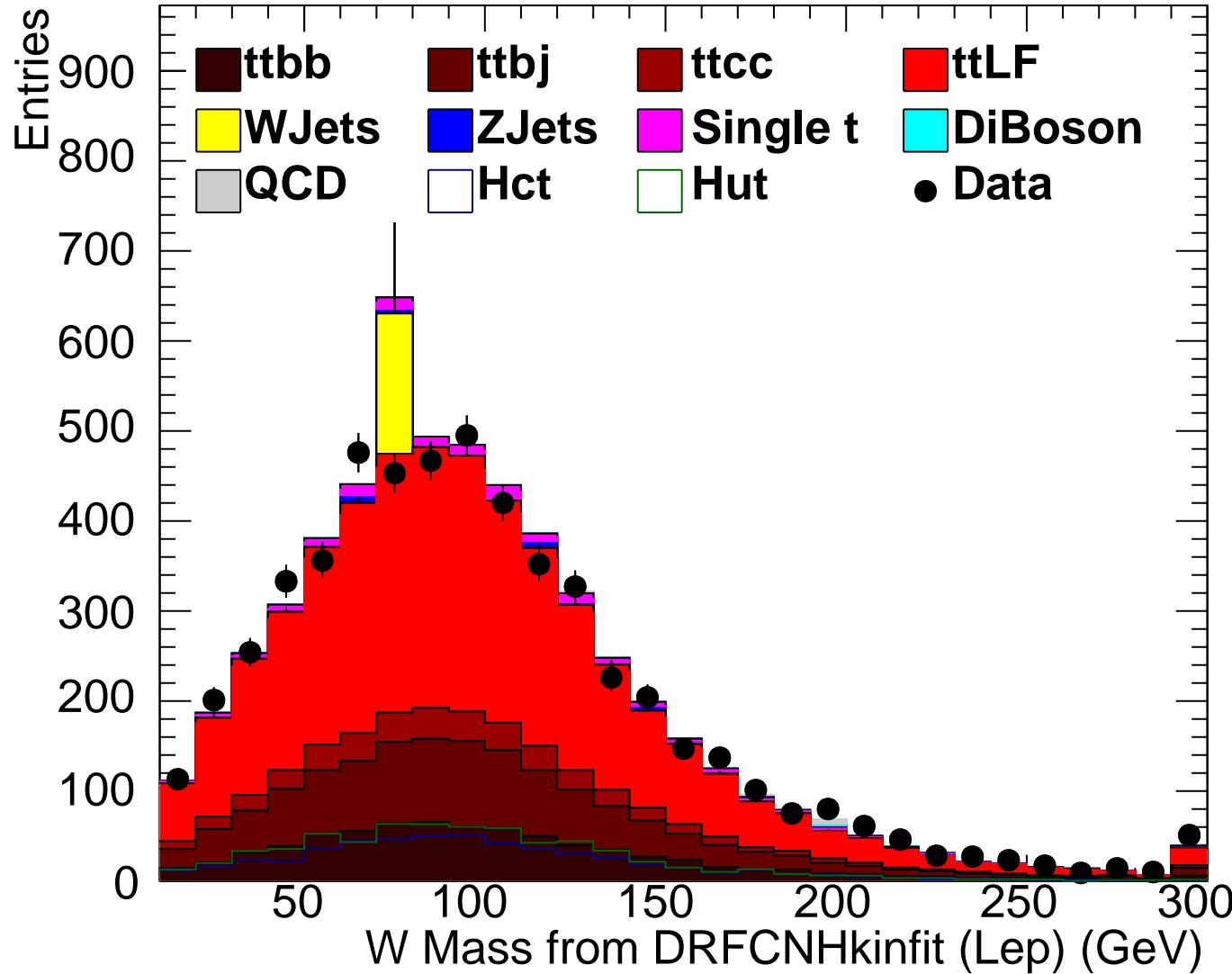


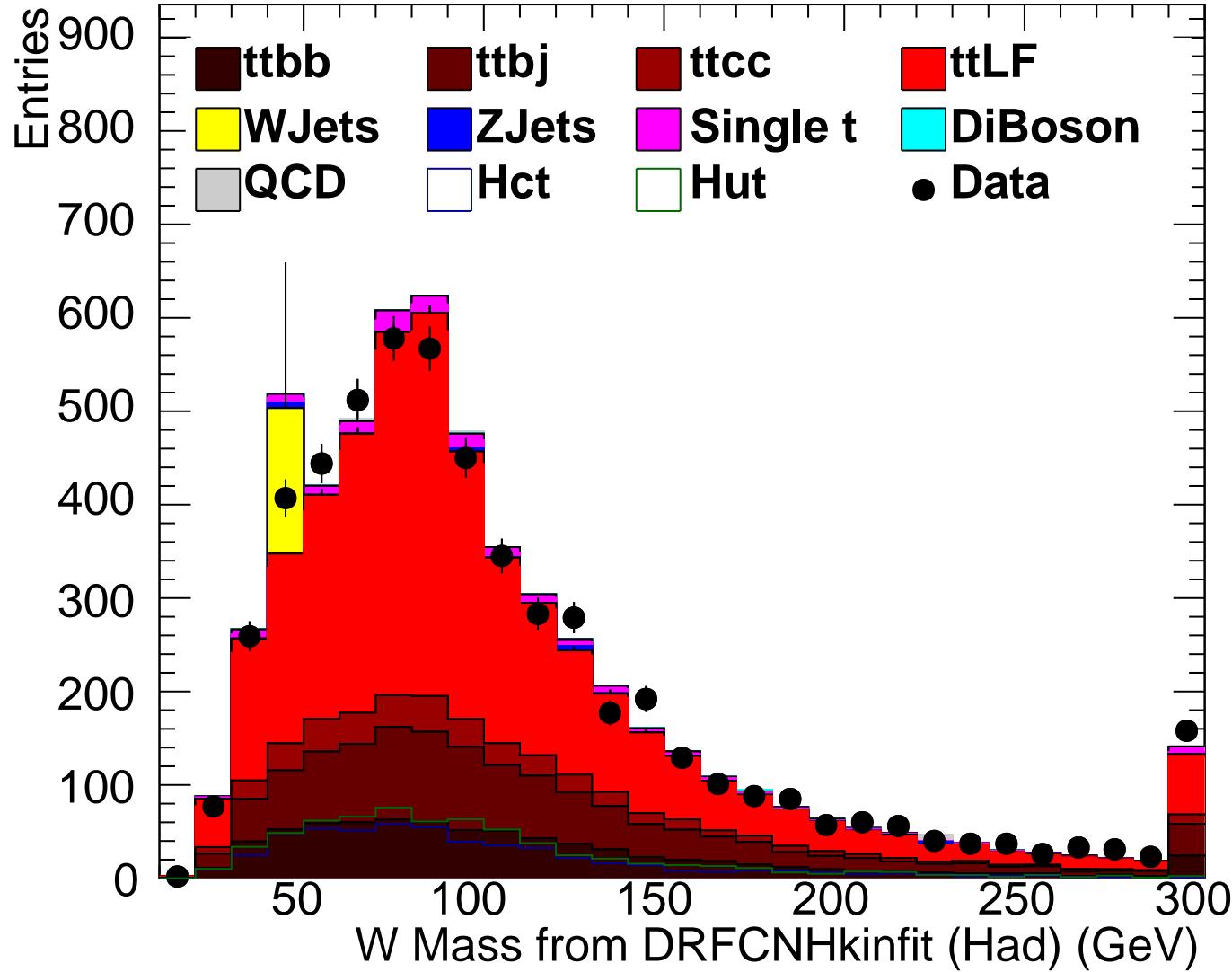


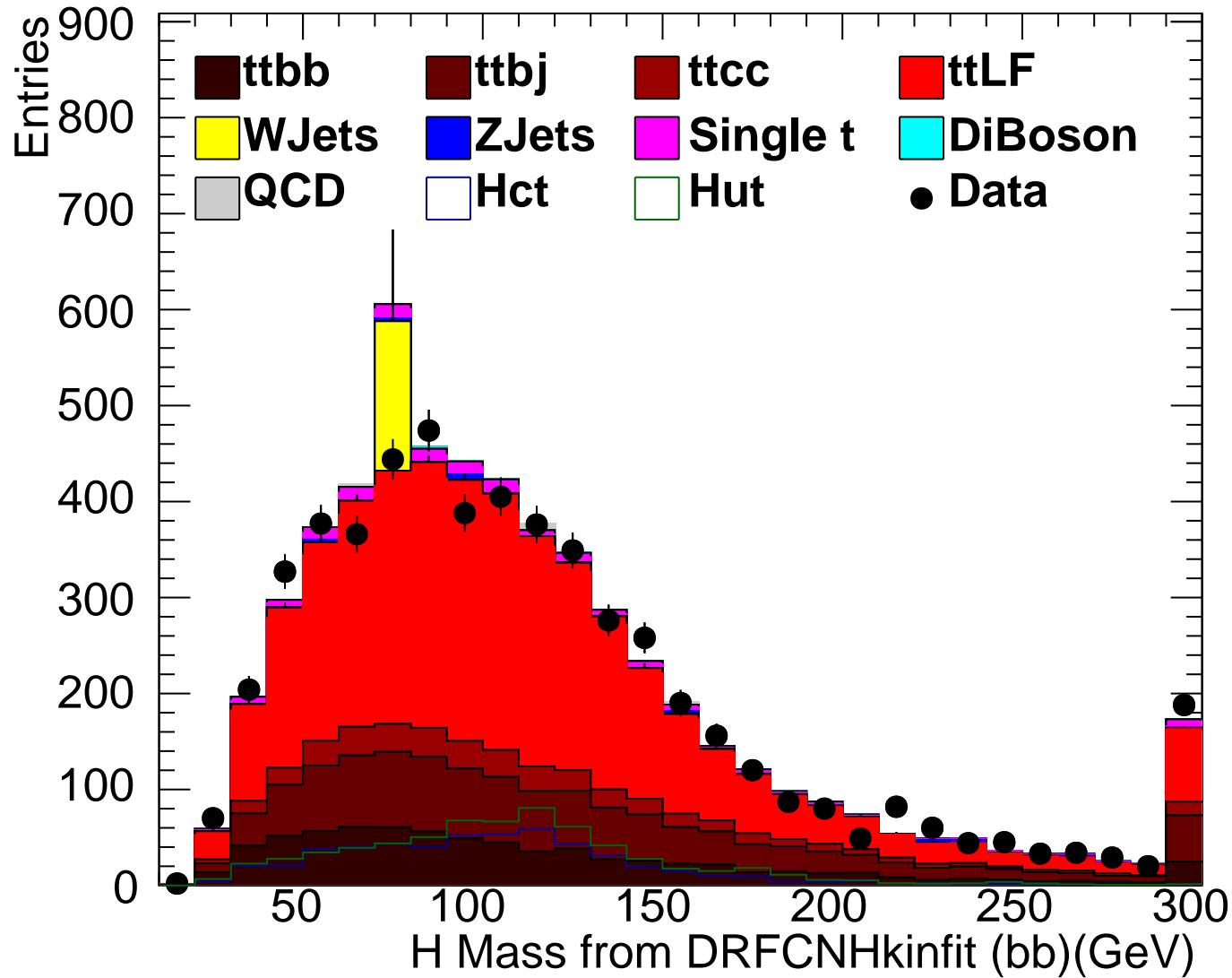


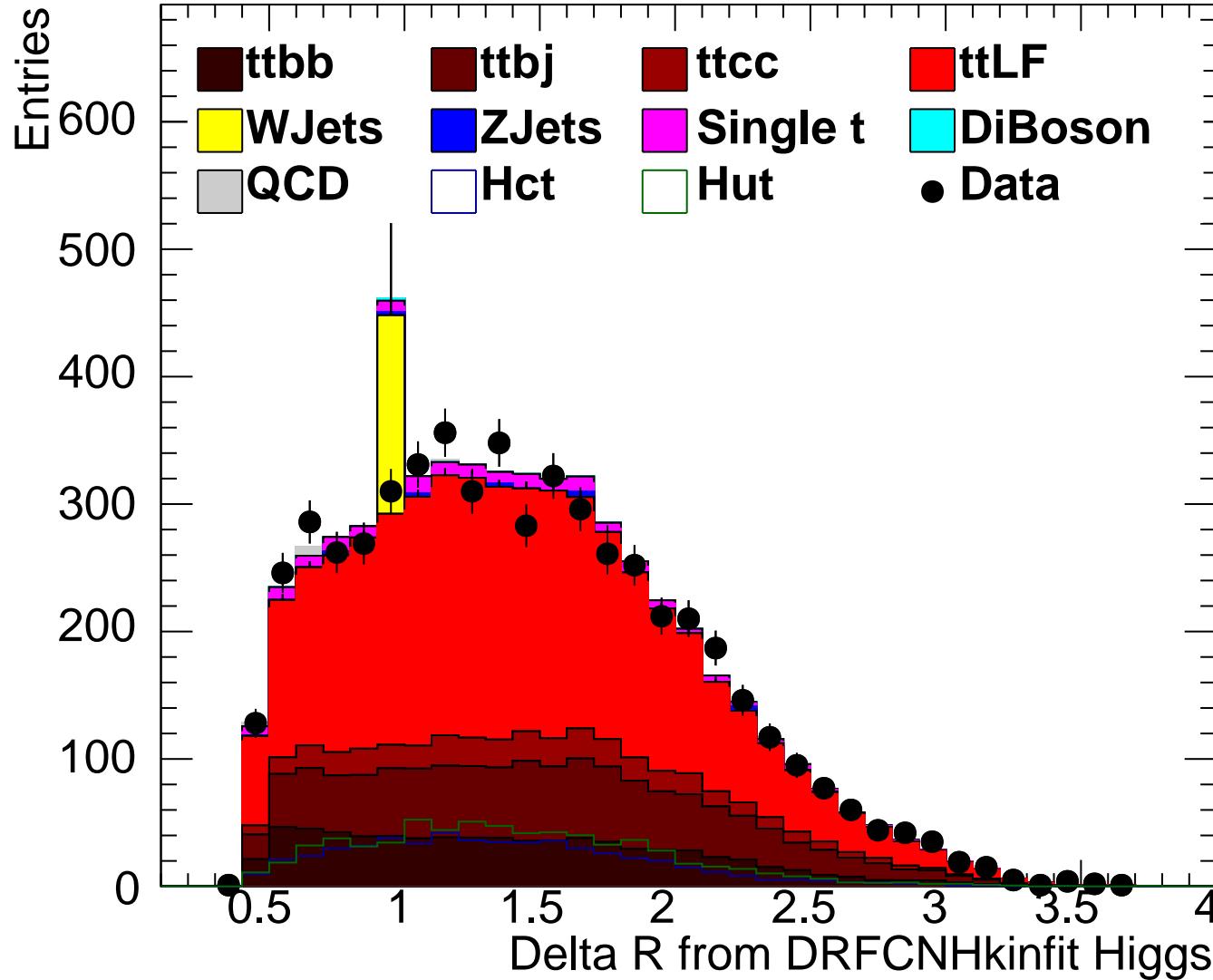
Ch1 S13

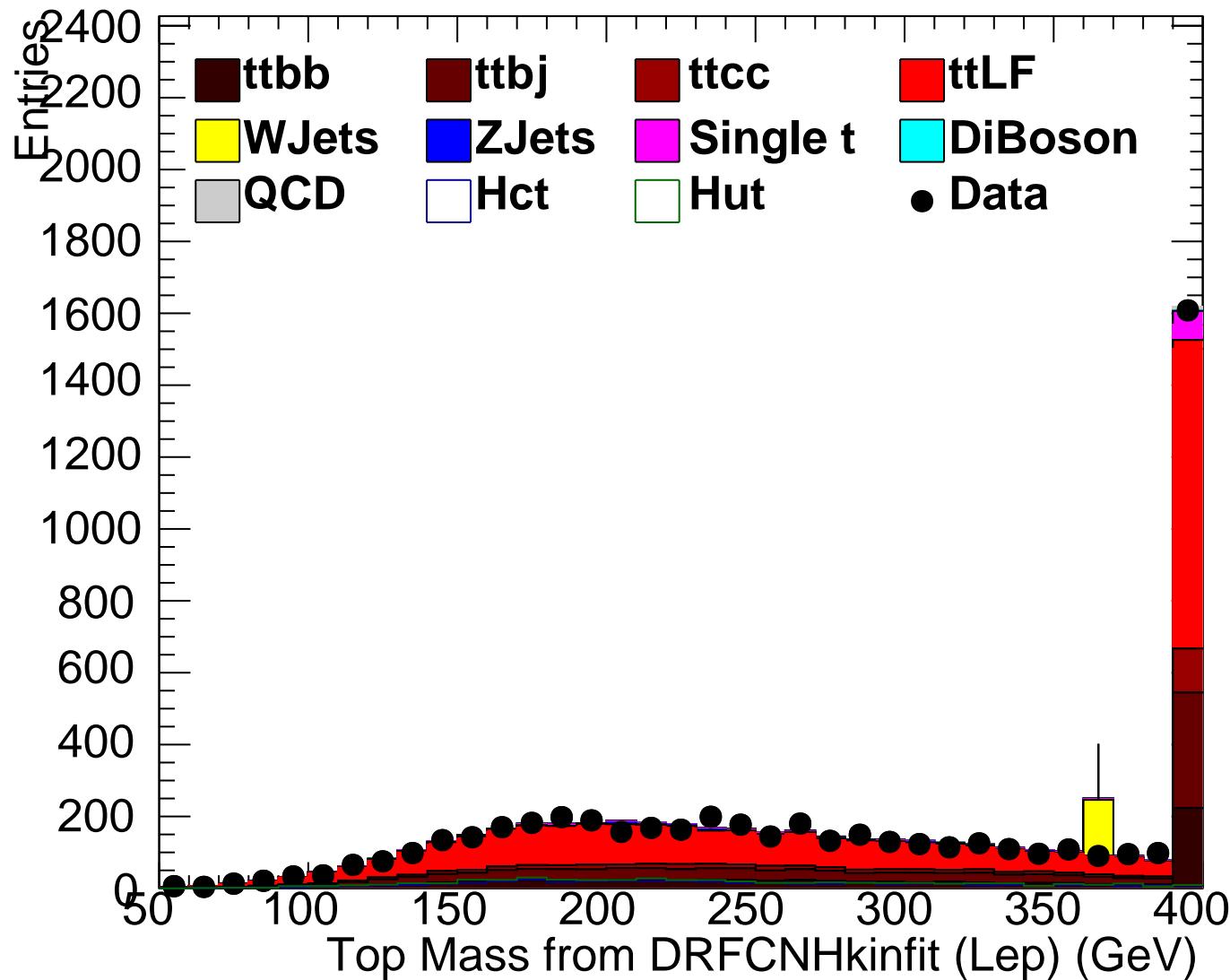
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

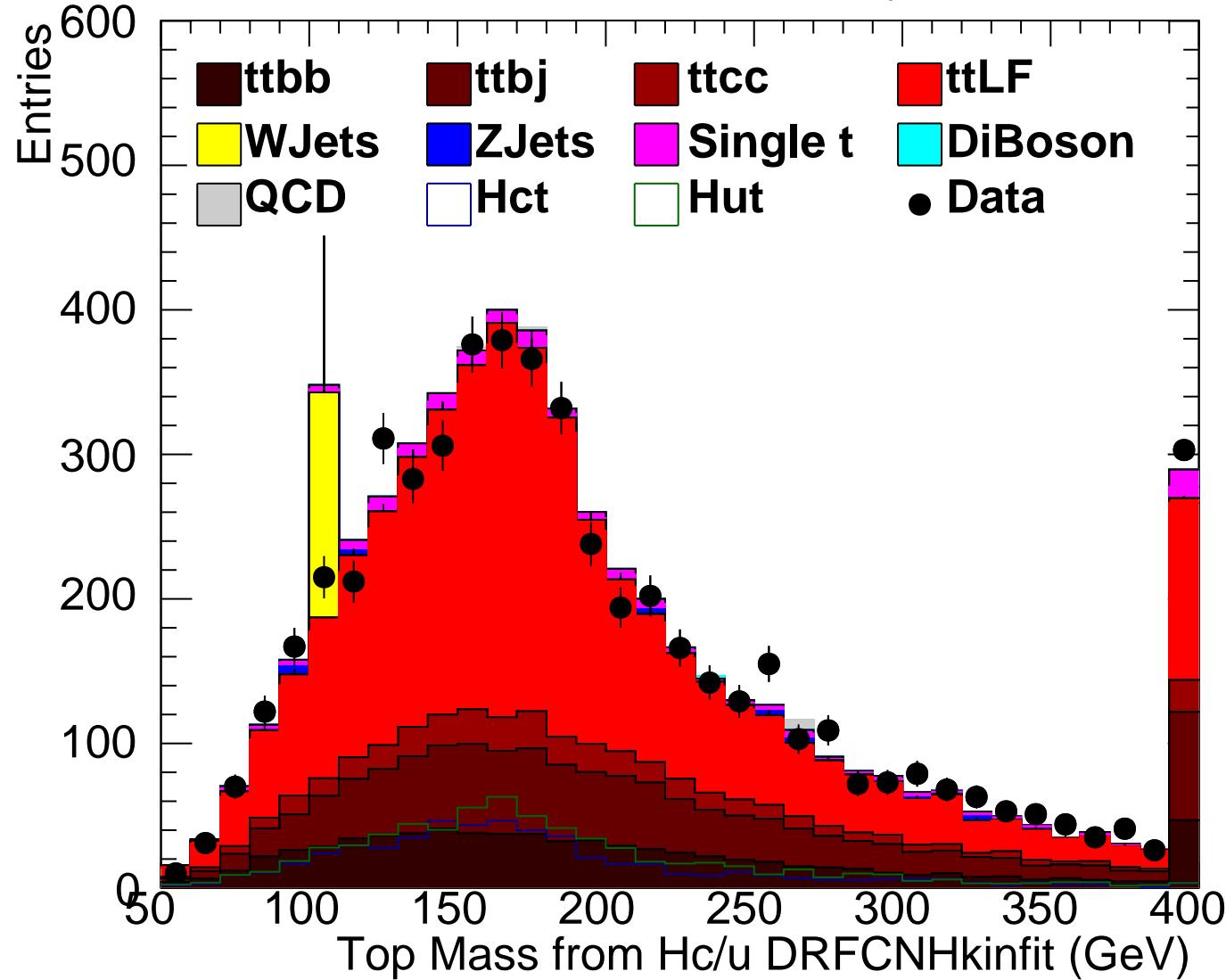


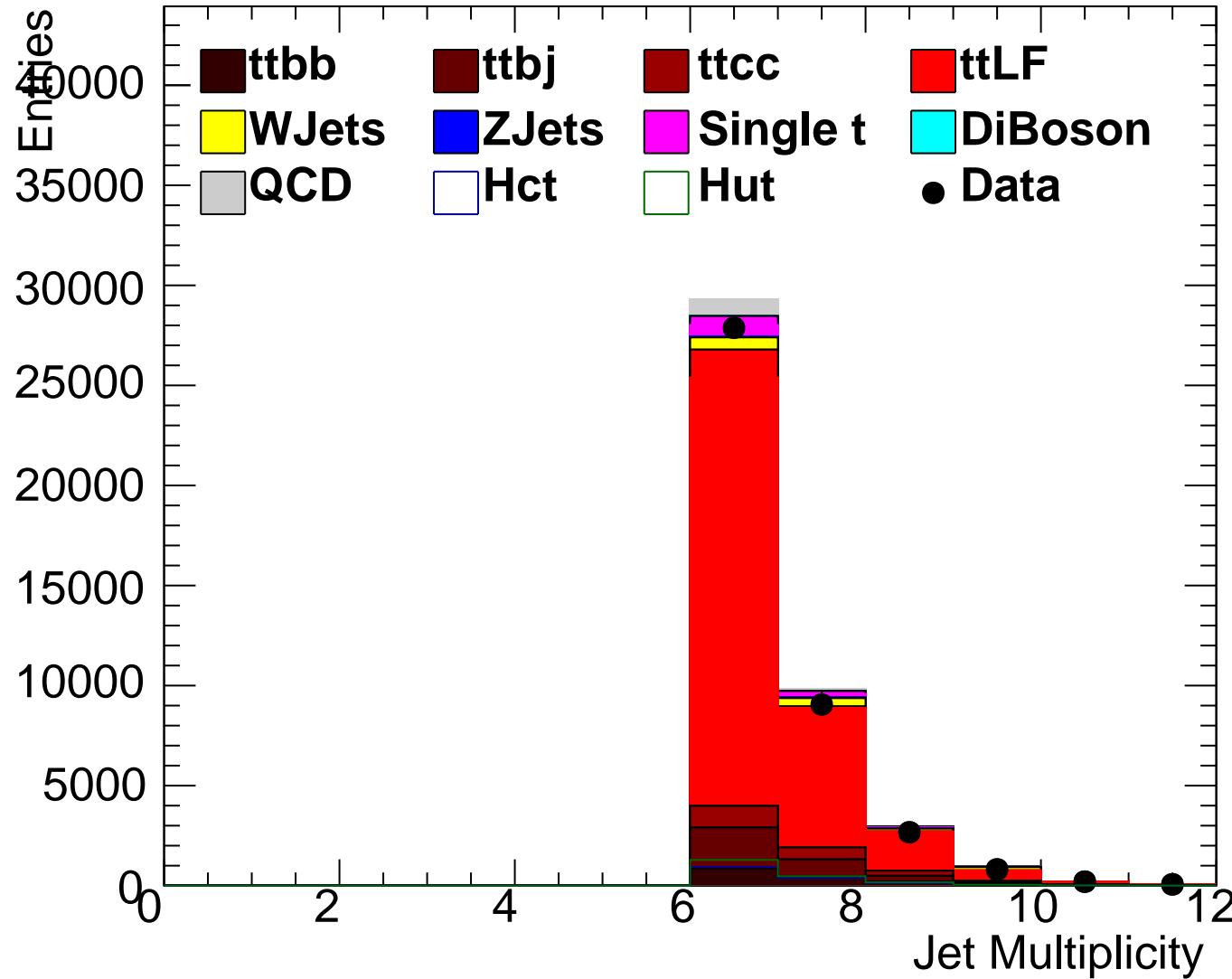
Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

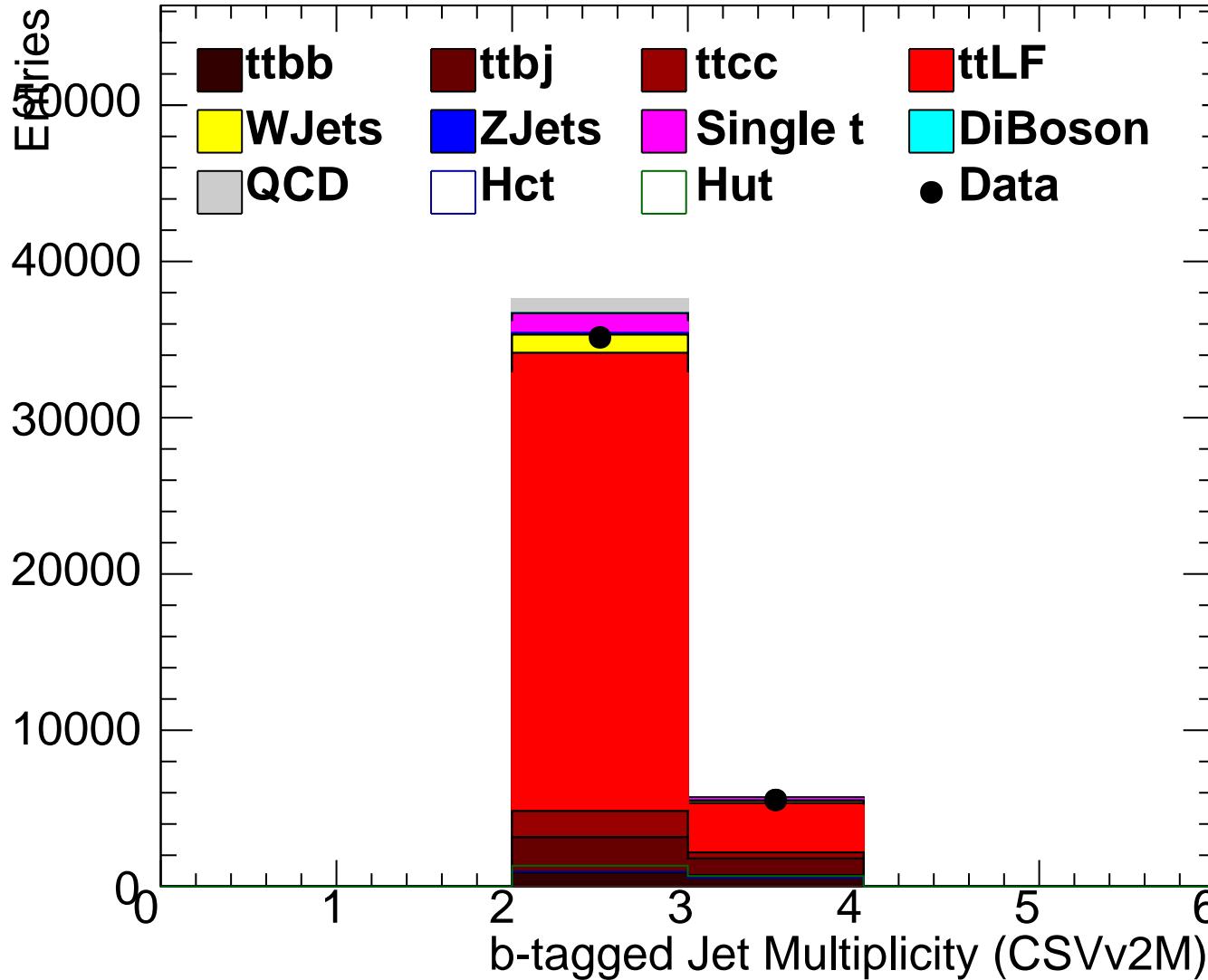
Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

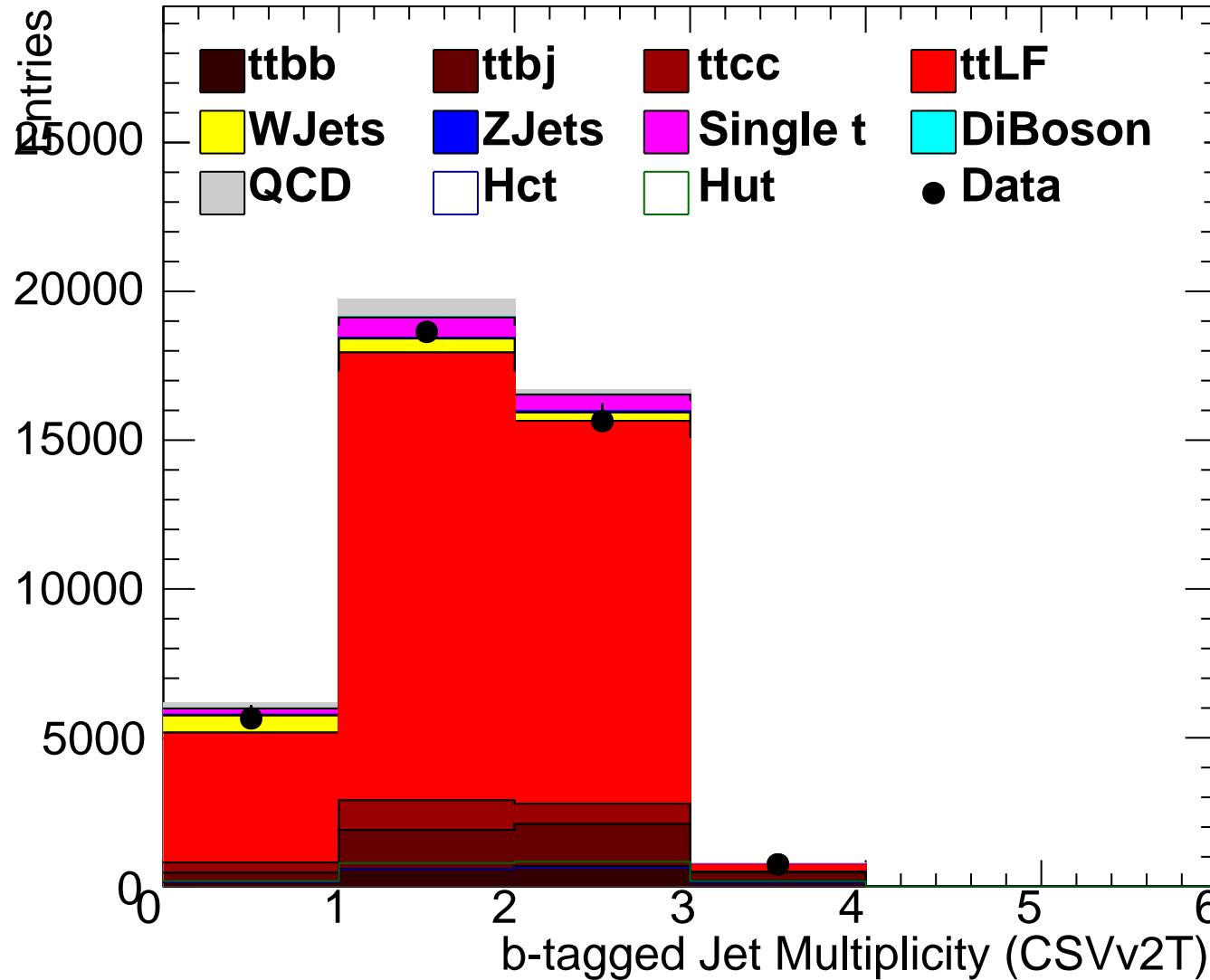
Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S13CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

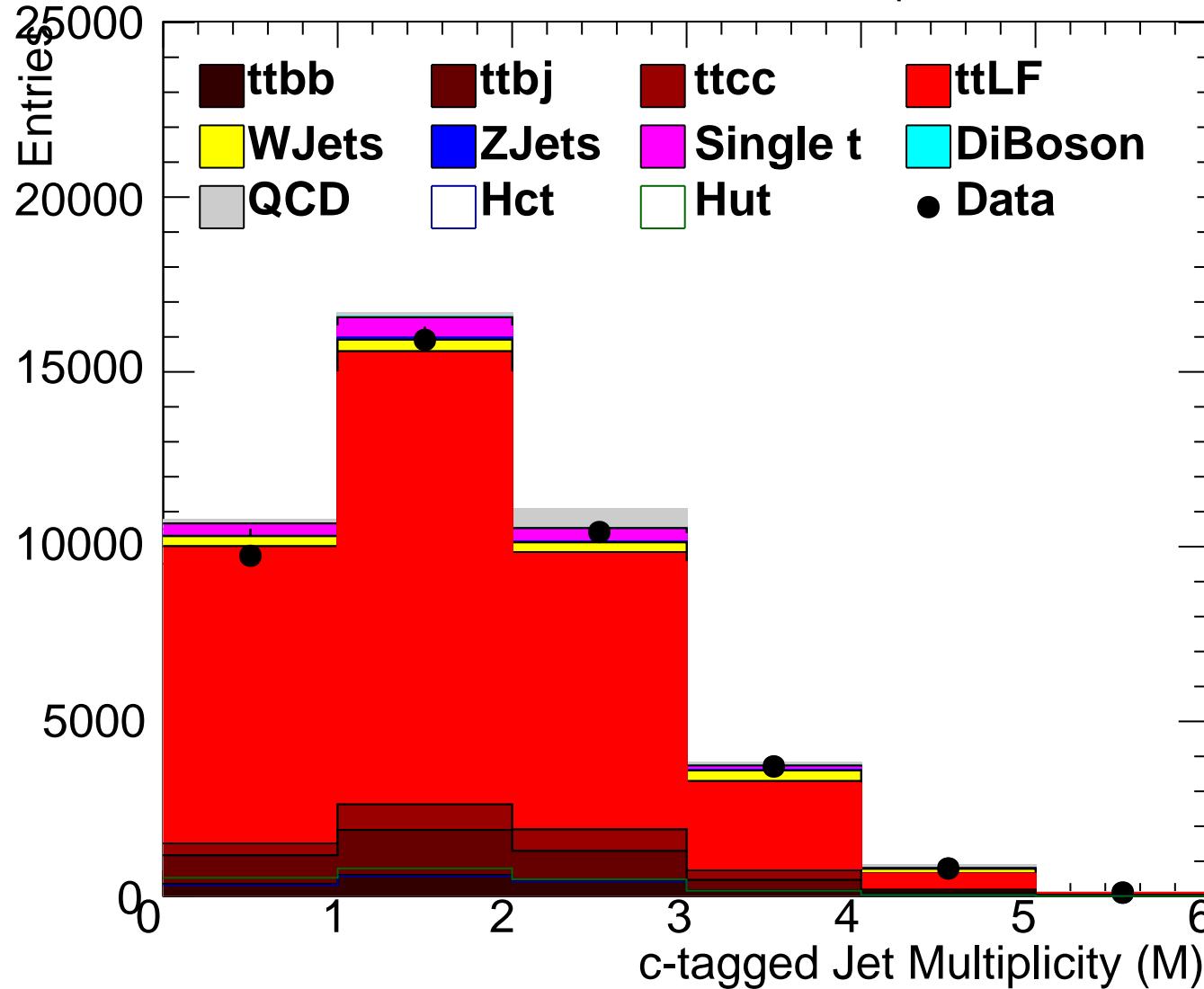


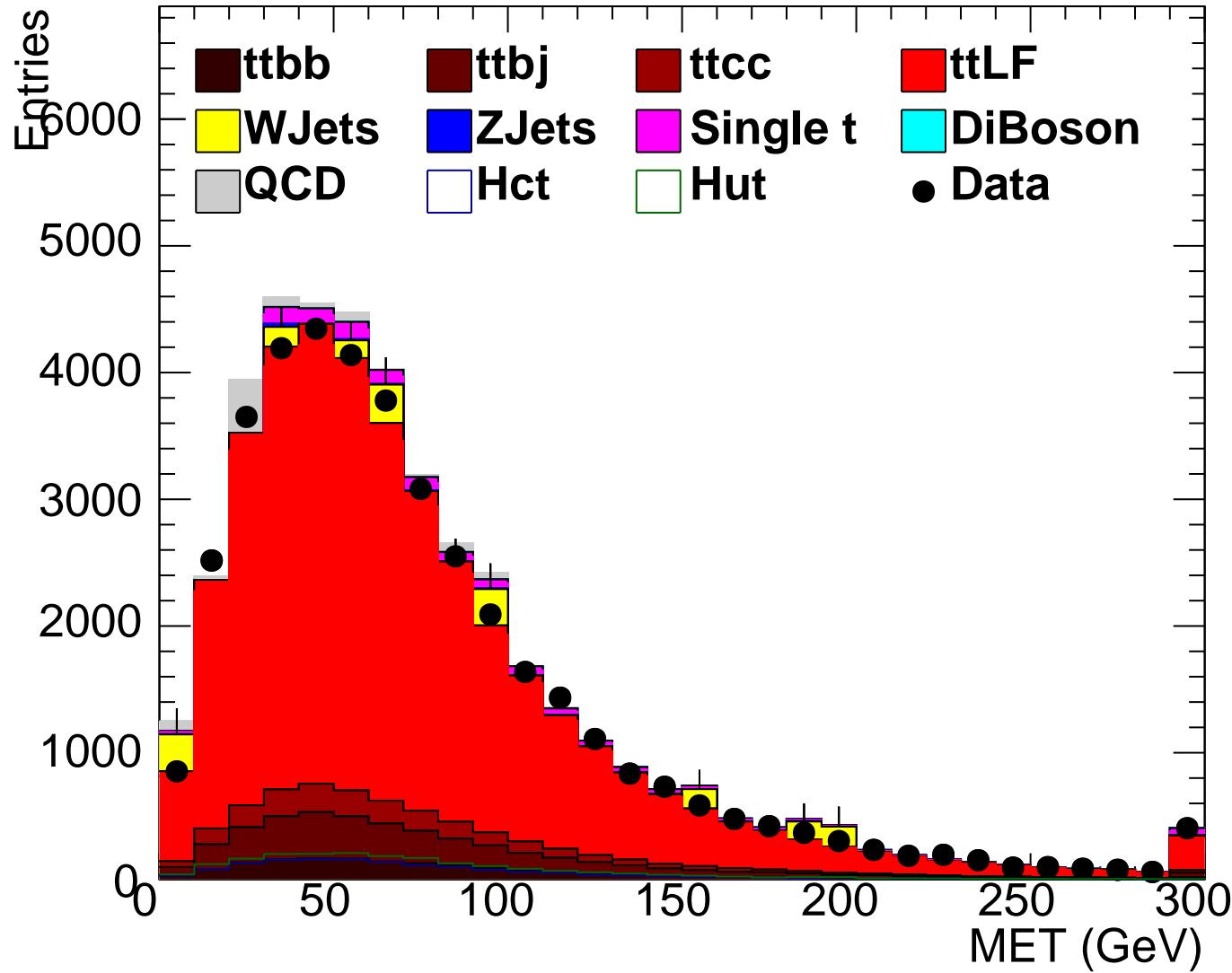


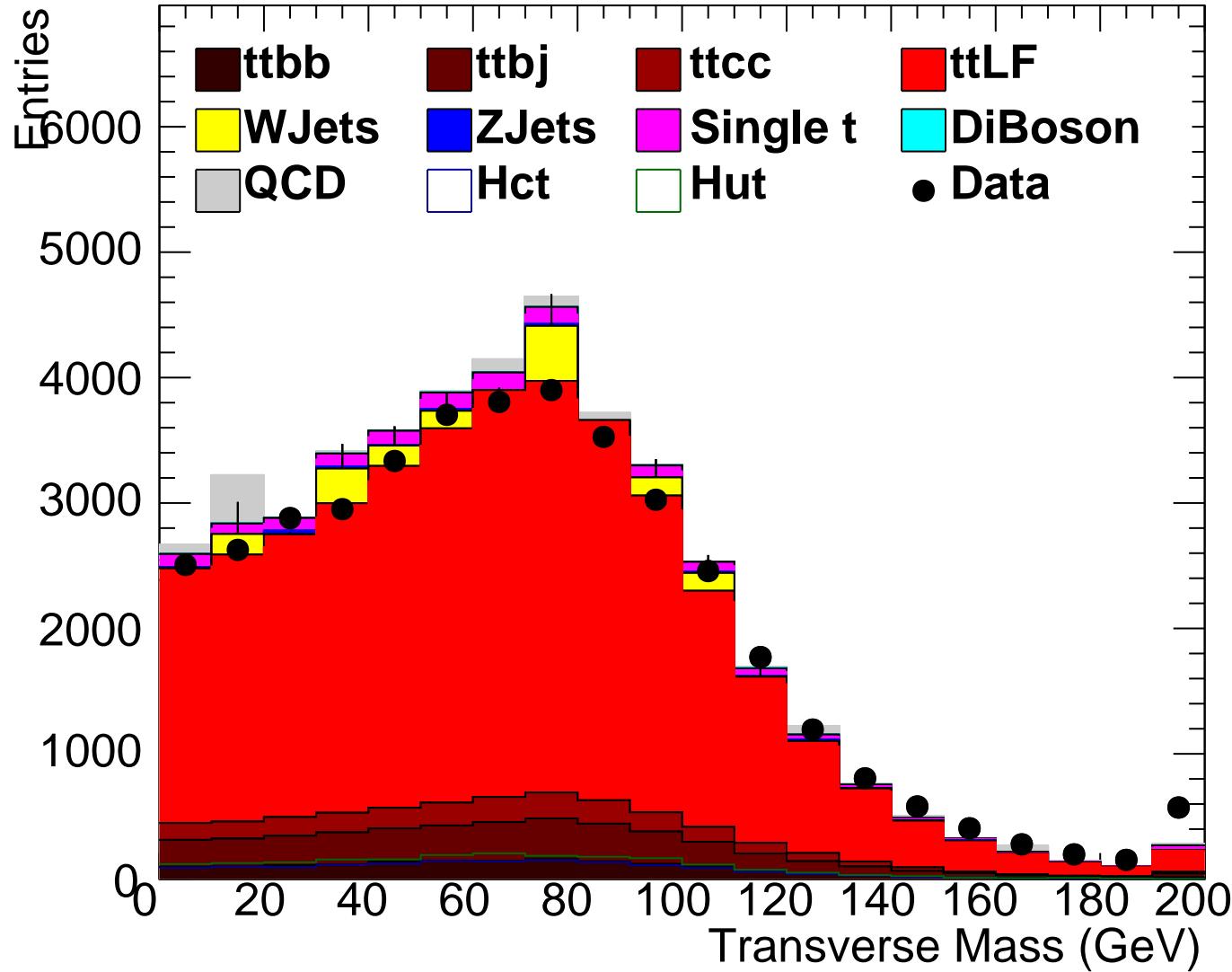


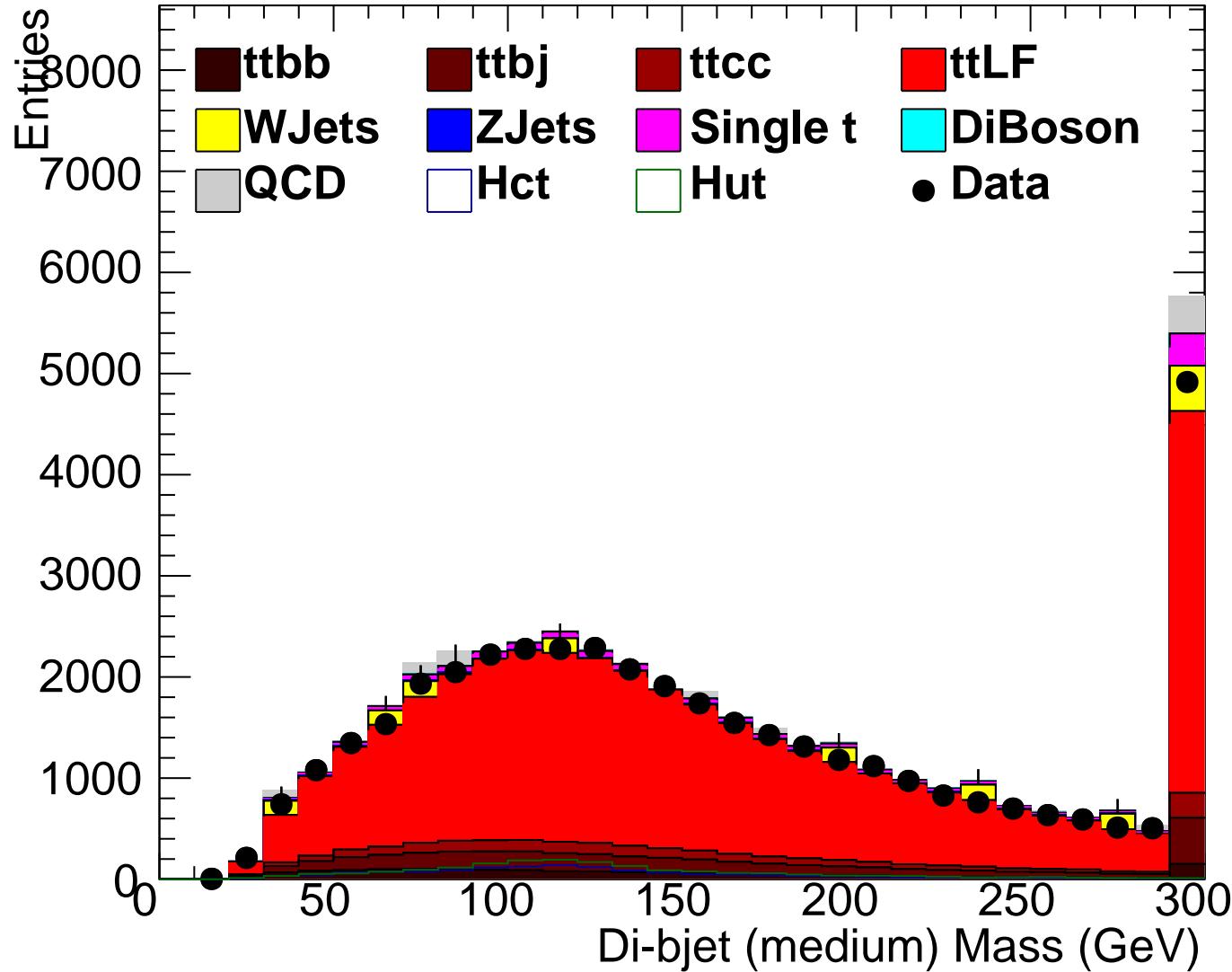
Ch1_S14

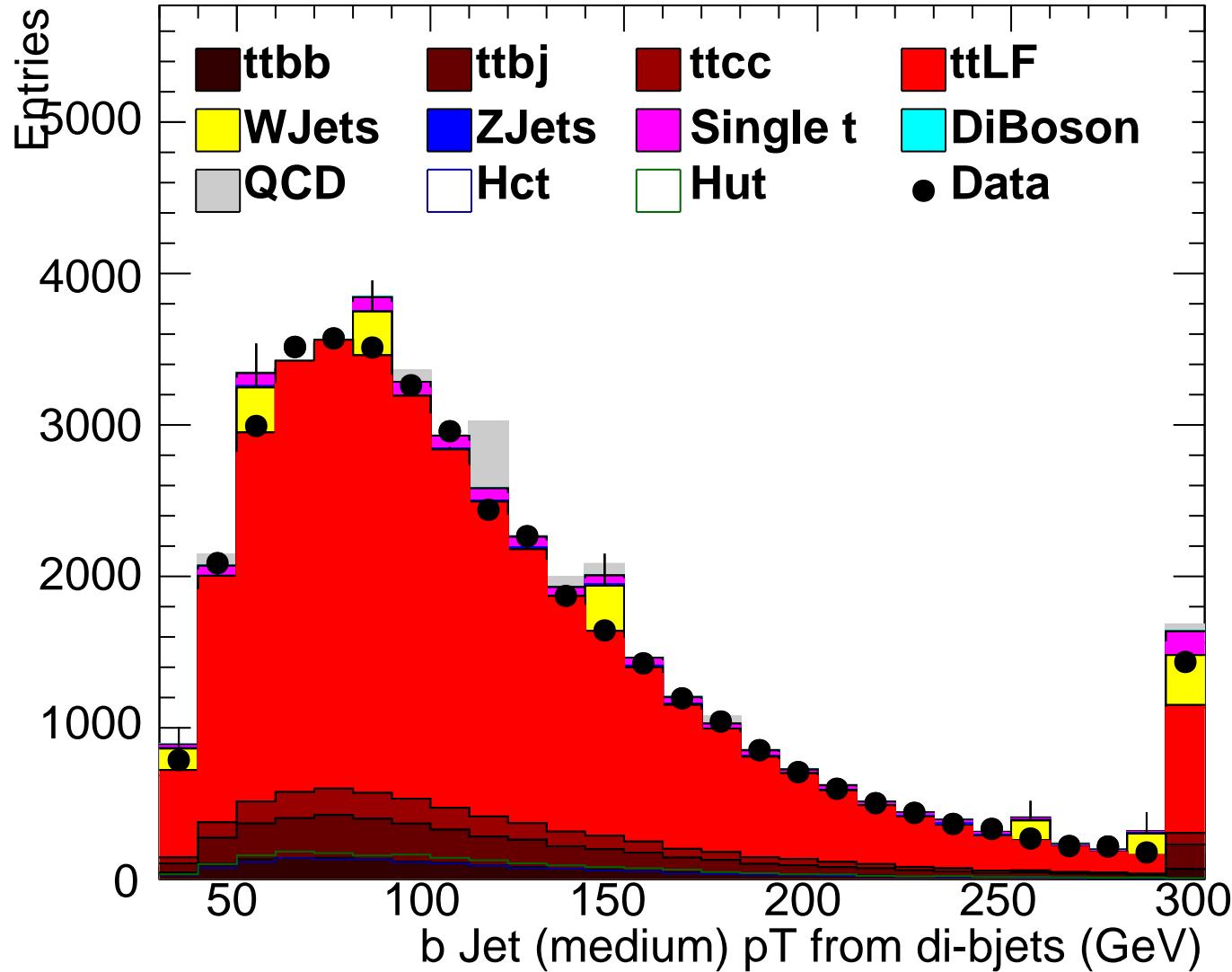
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

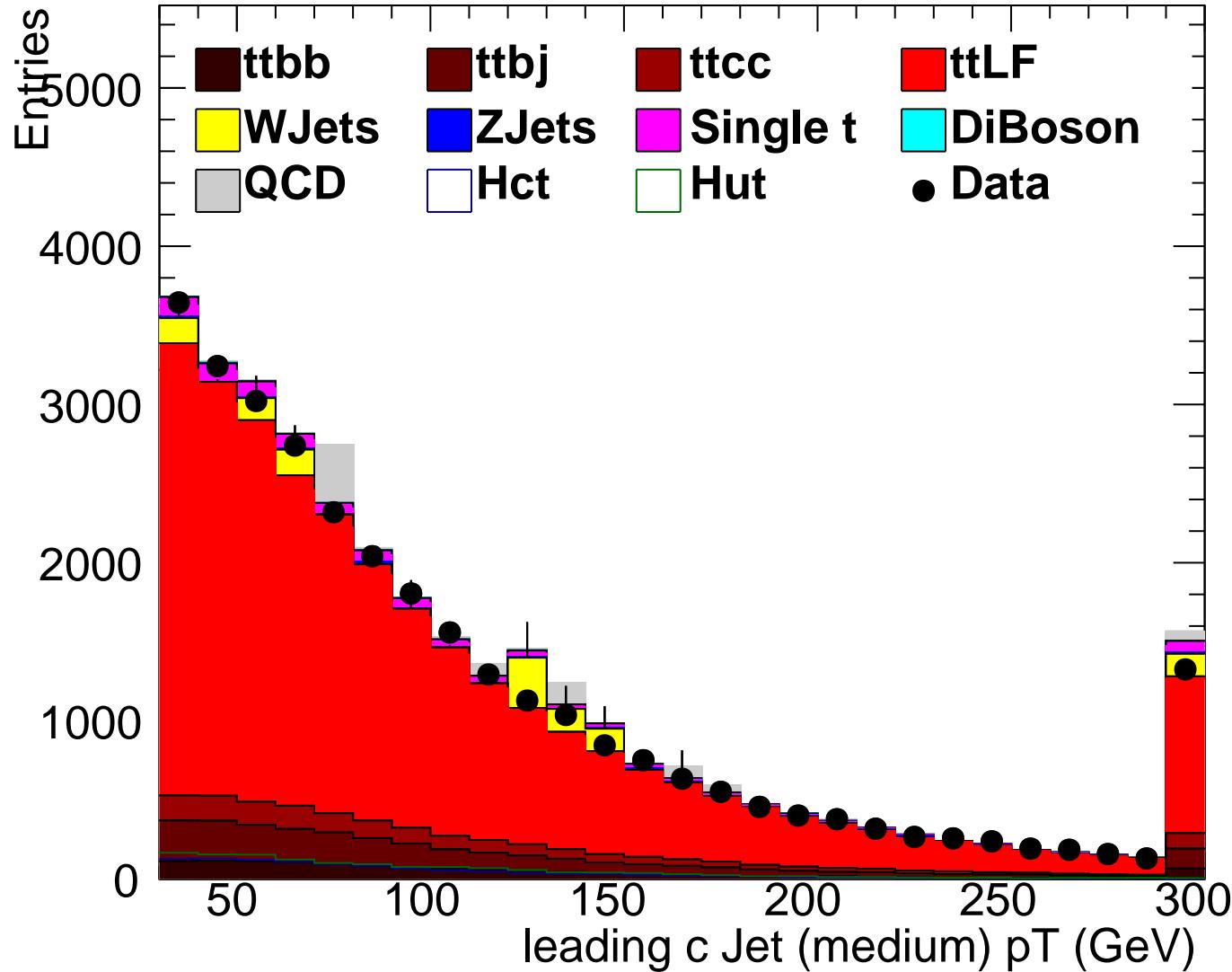


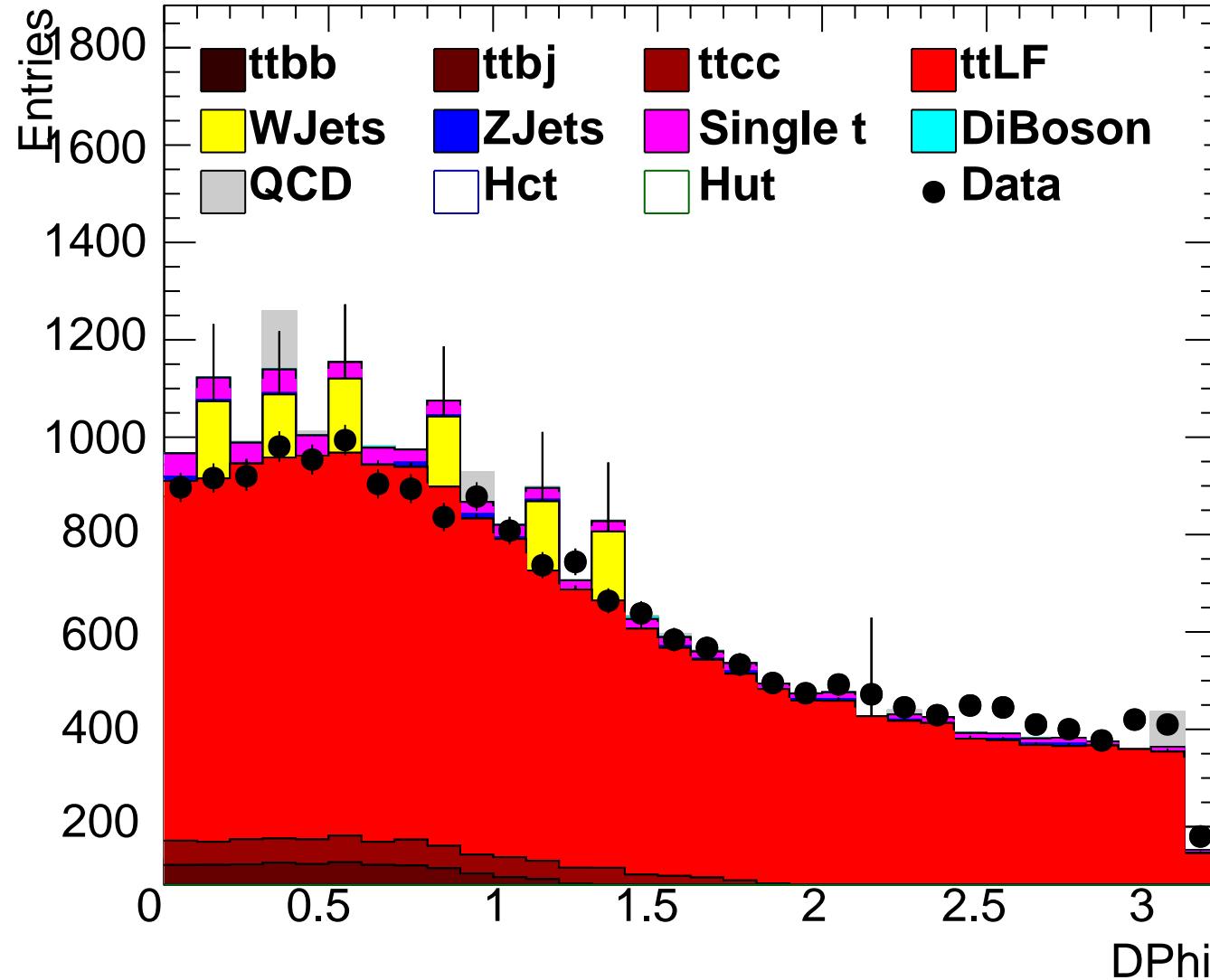


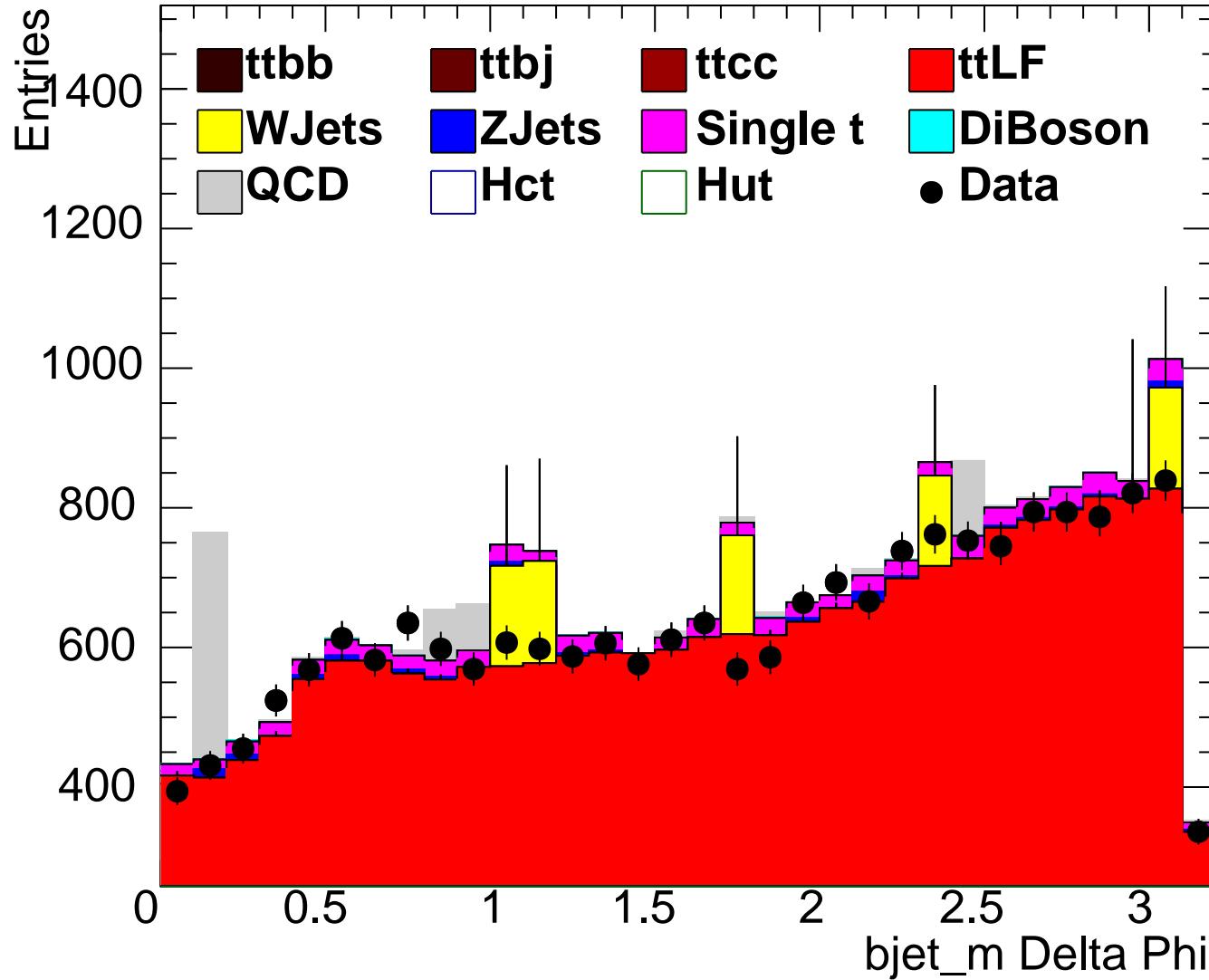


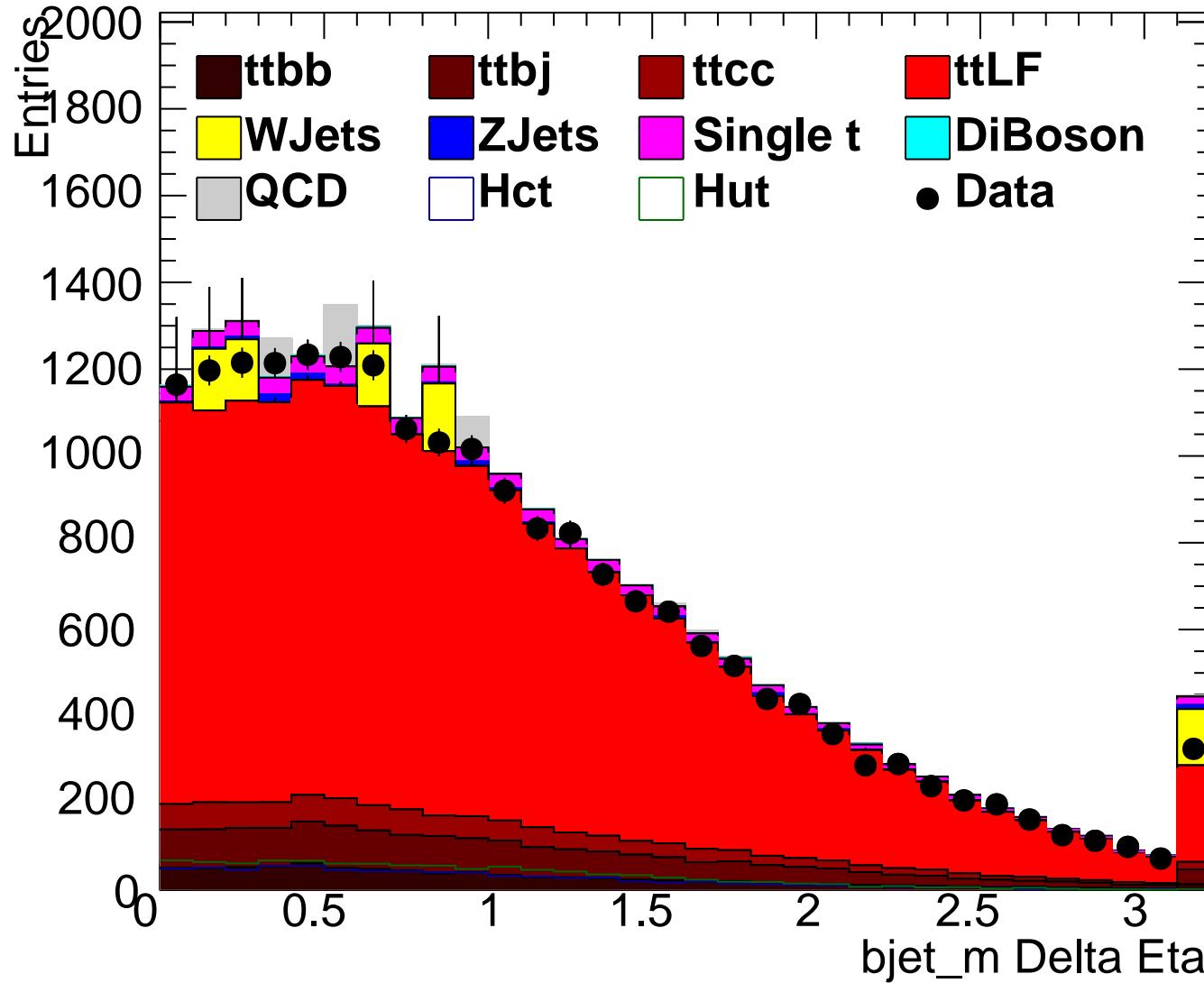
Ch1_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

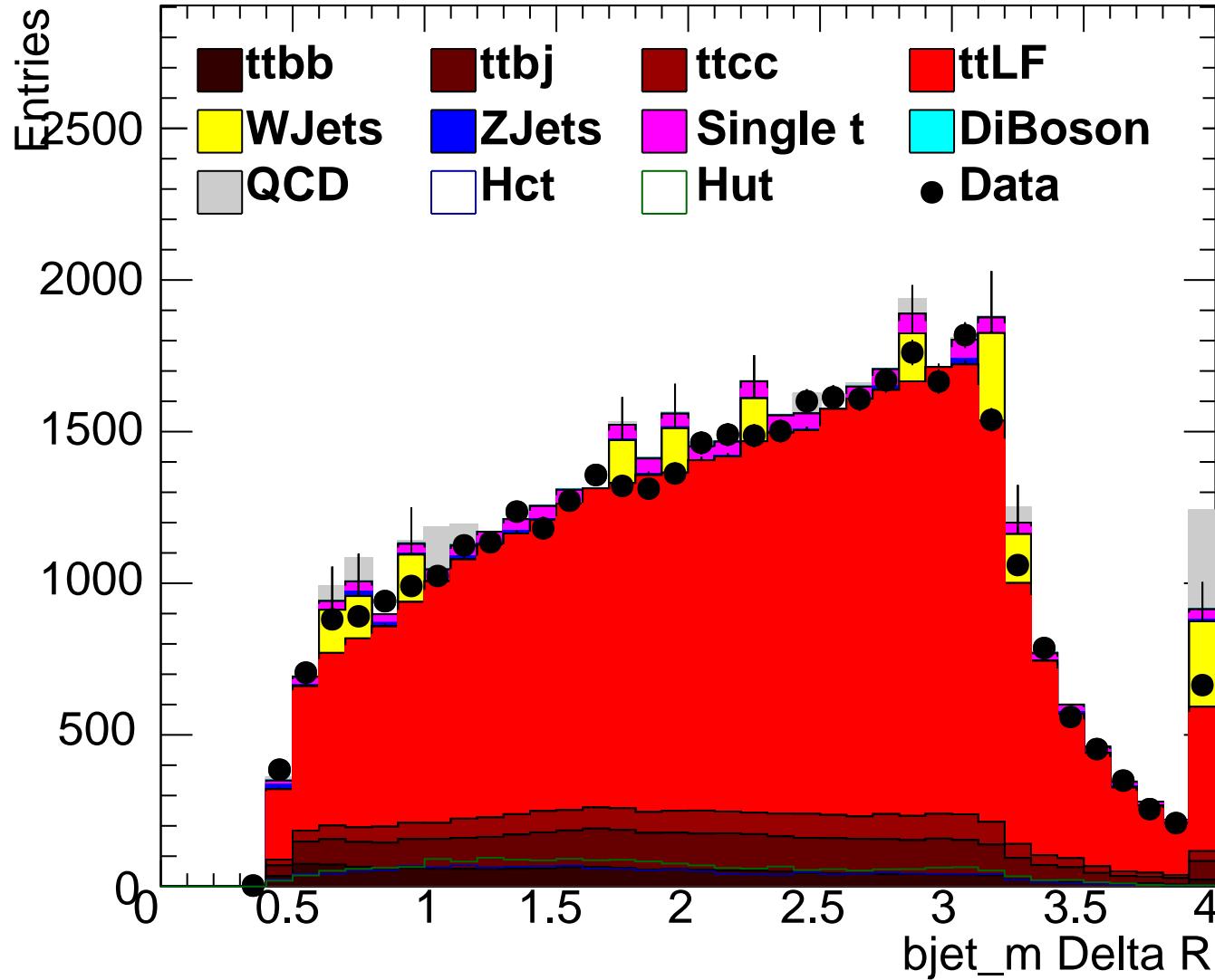


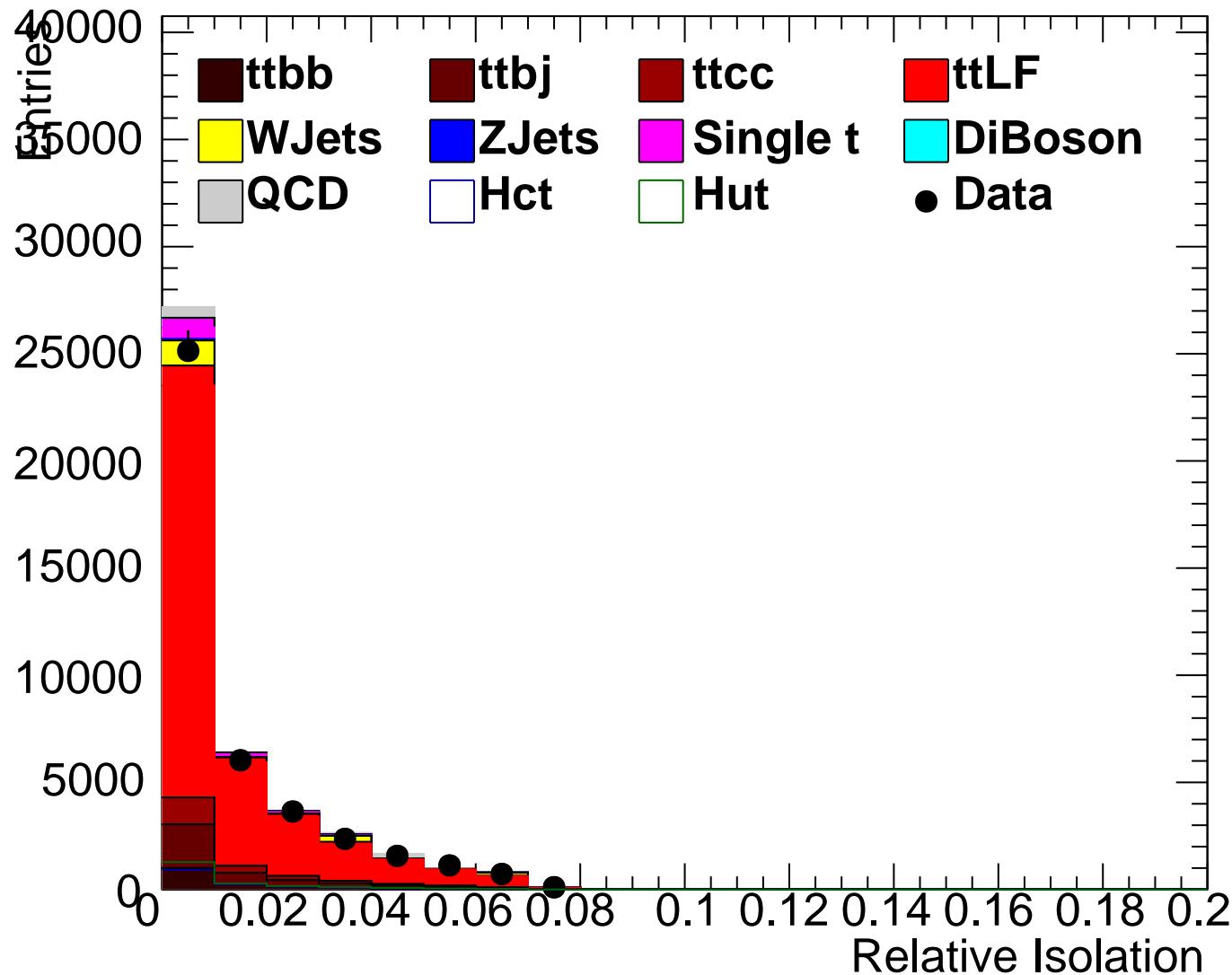
Ch1_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

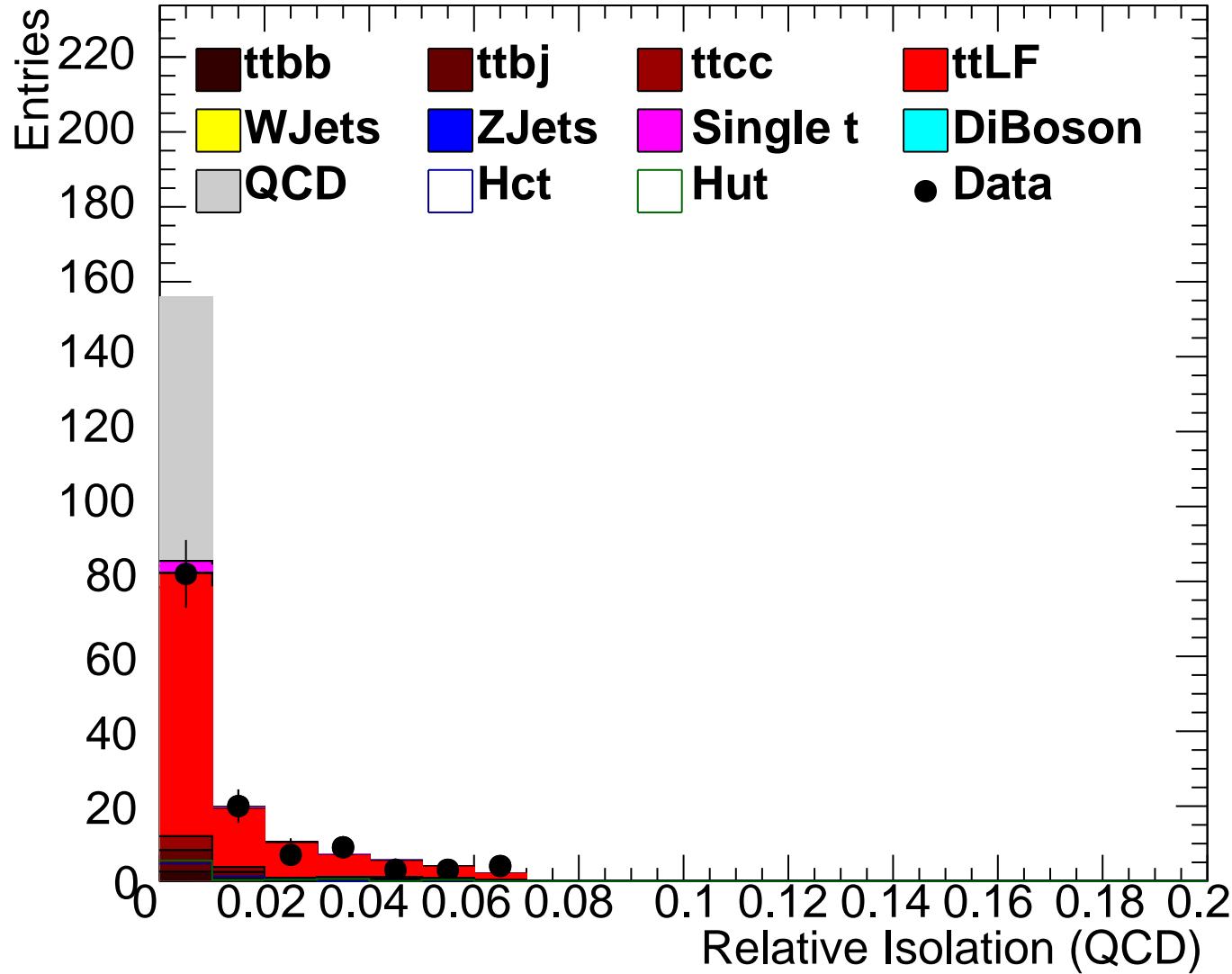






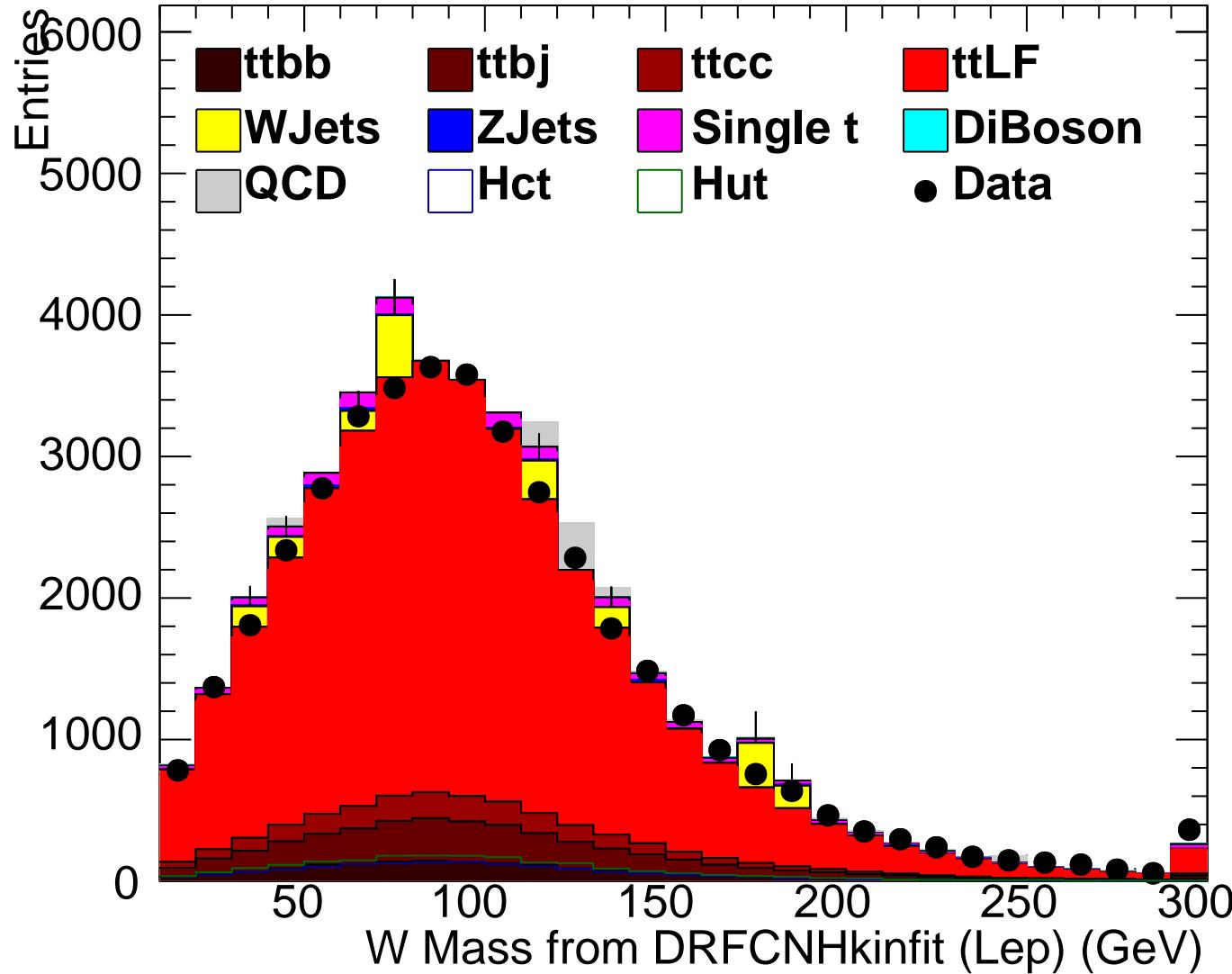


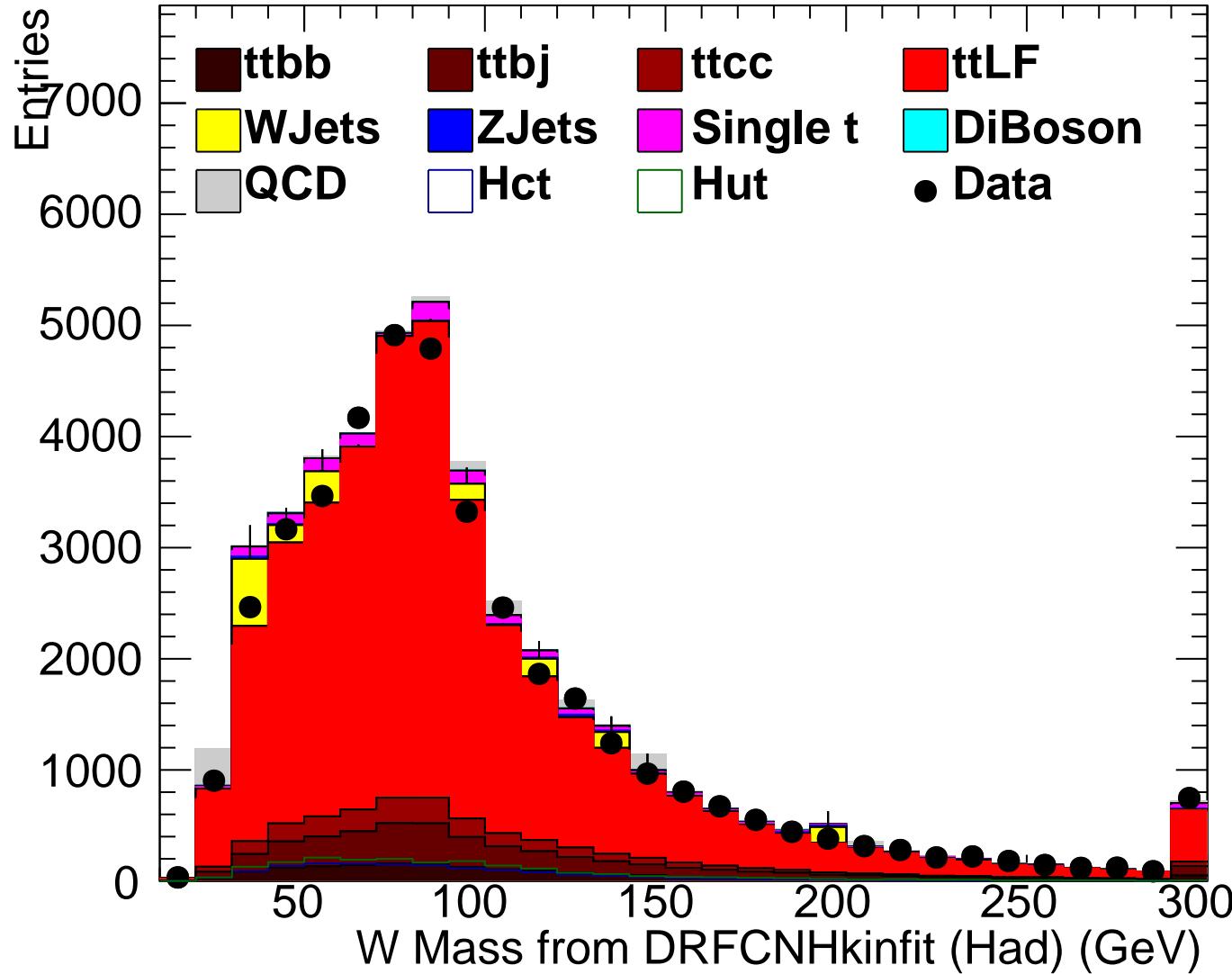


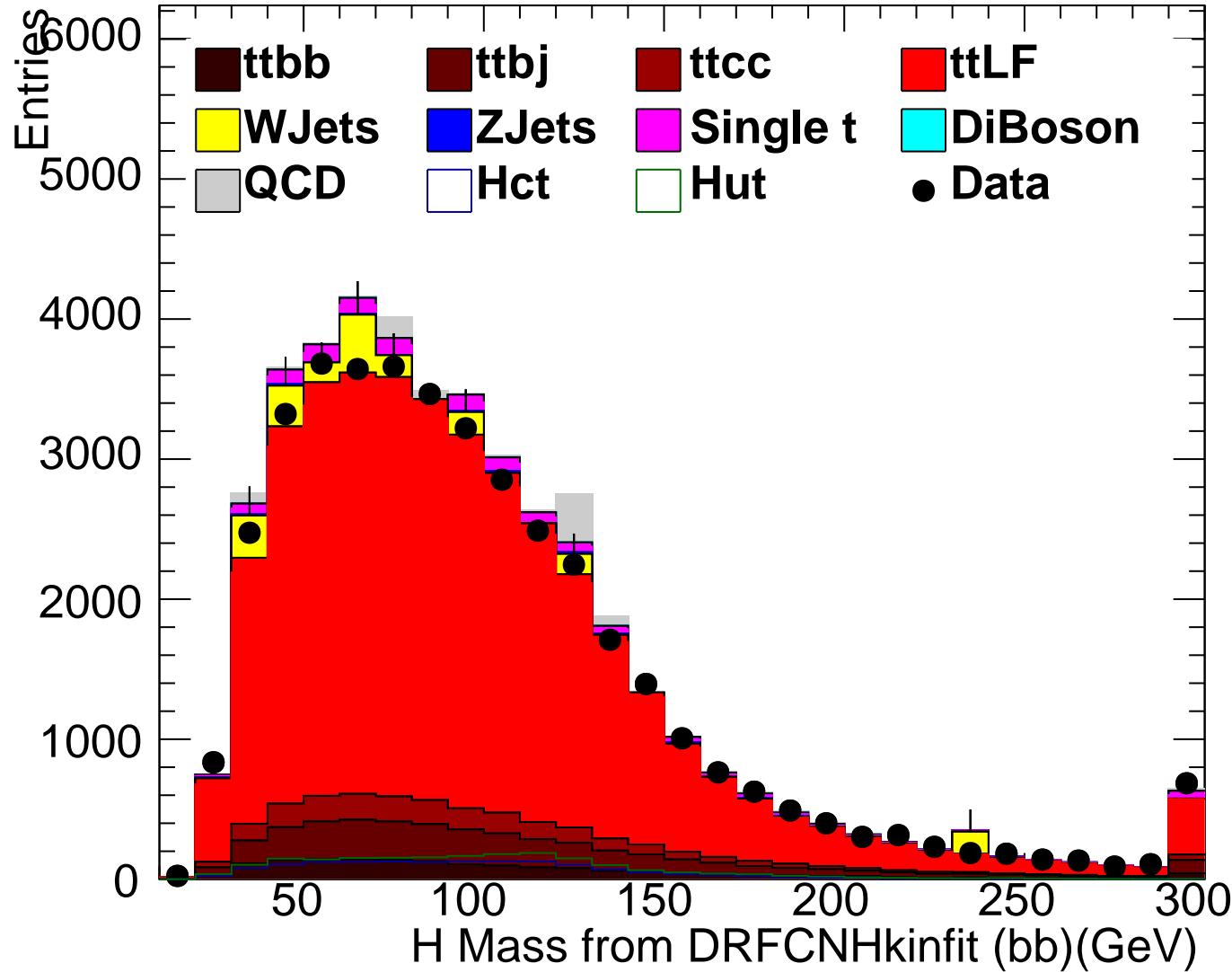


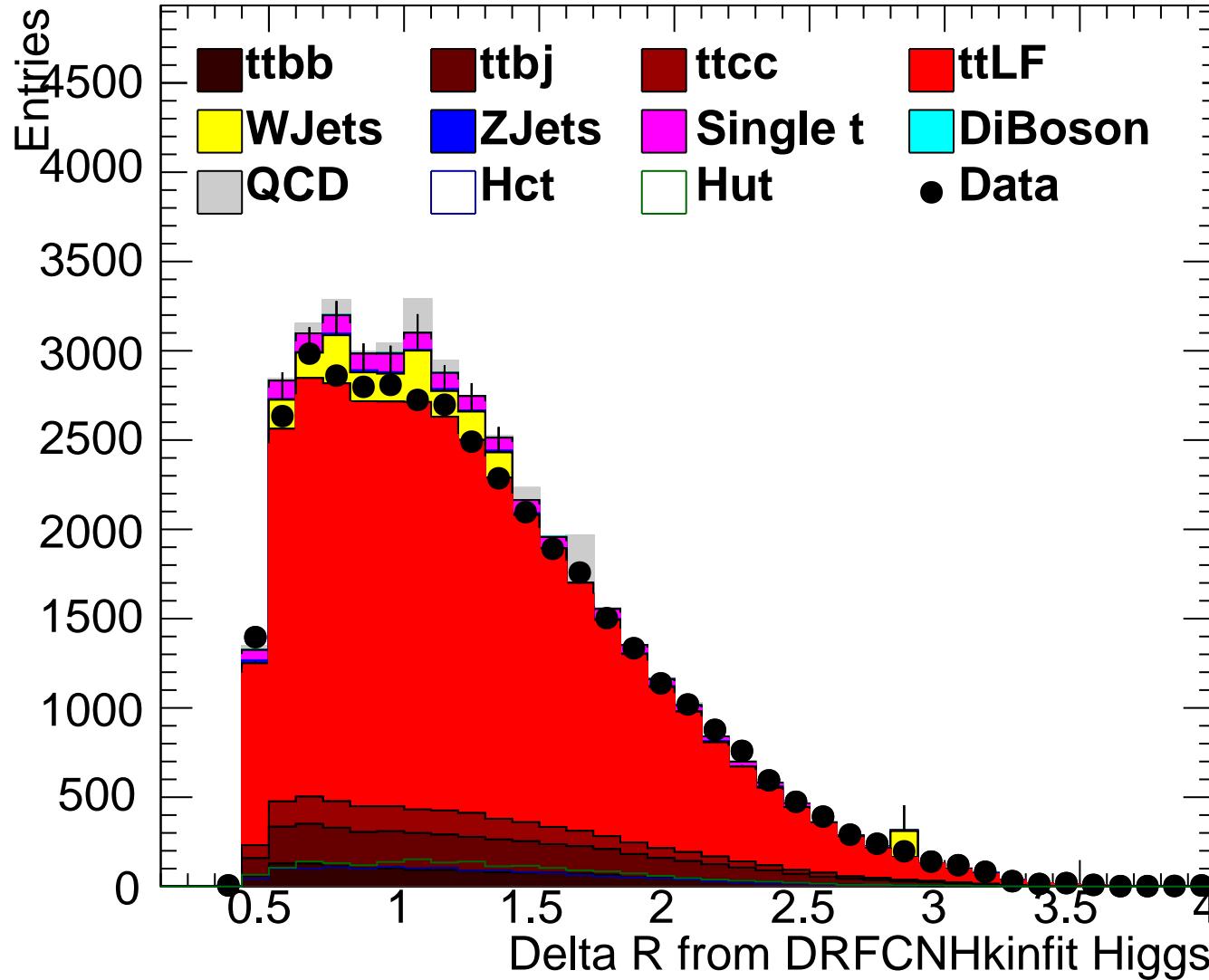
Ch1 S14

CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



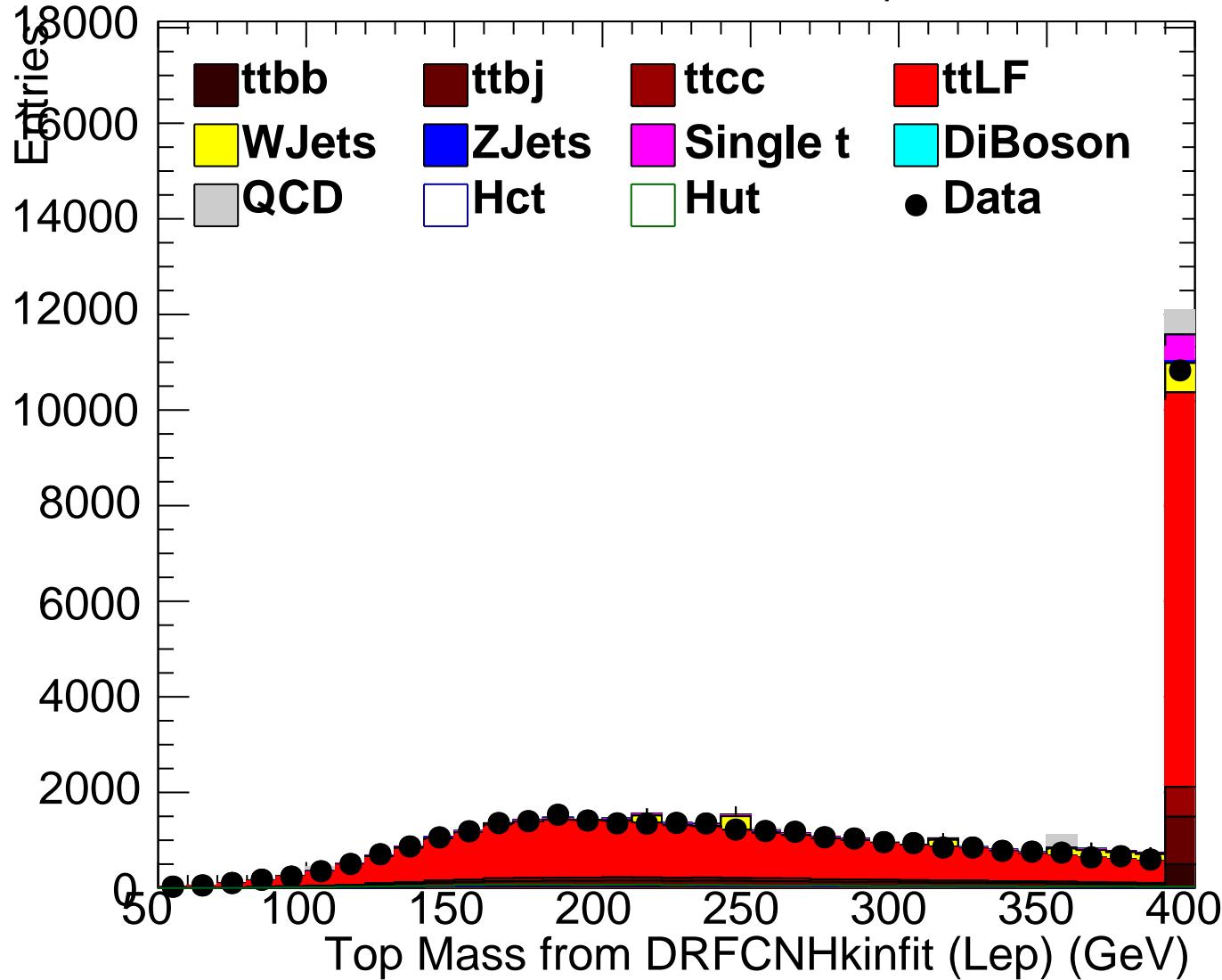




Ch1_S14CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

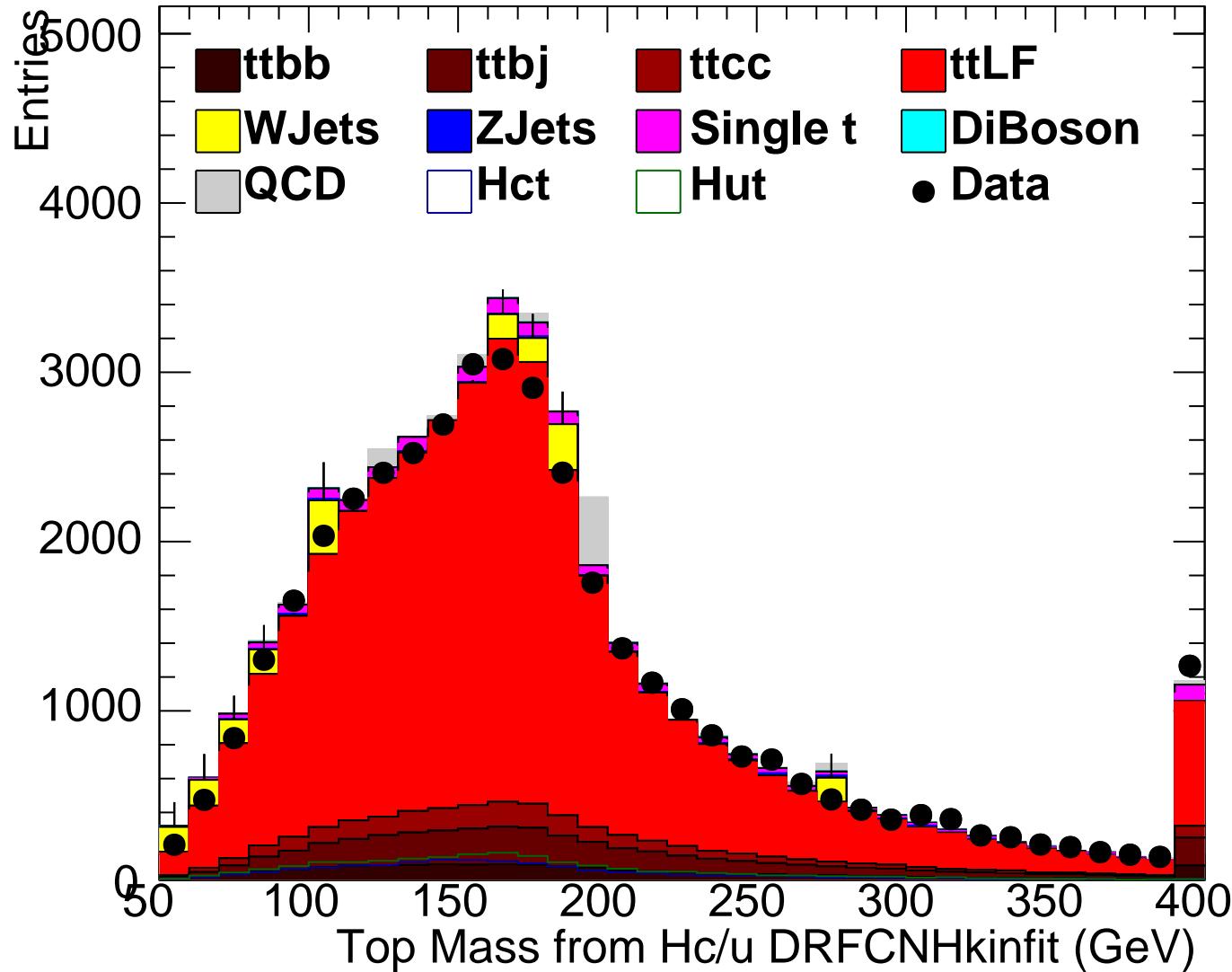
Ch1 S14

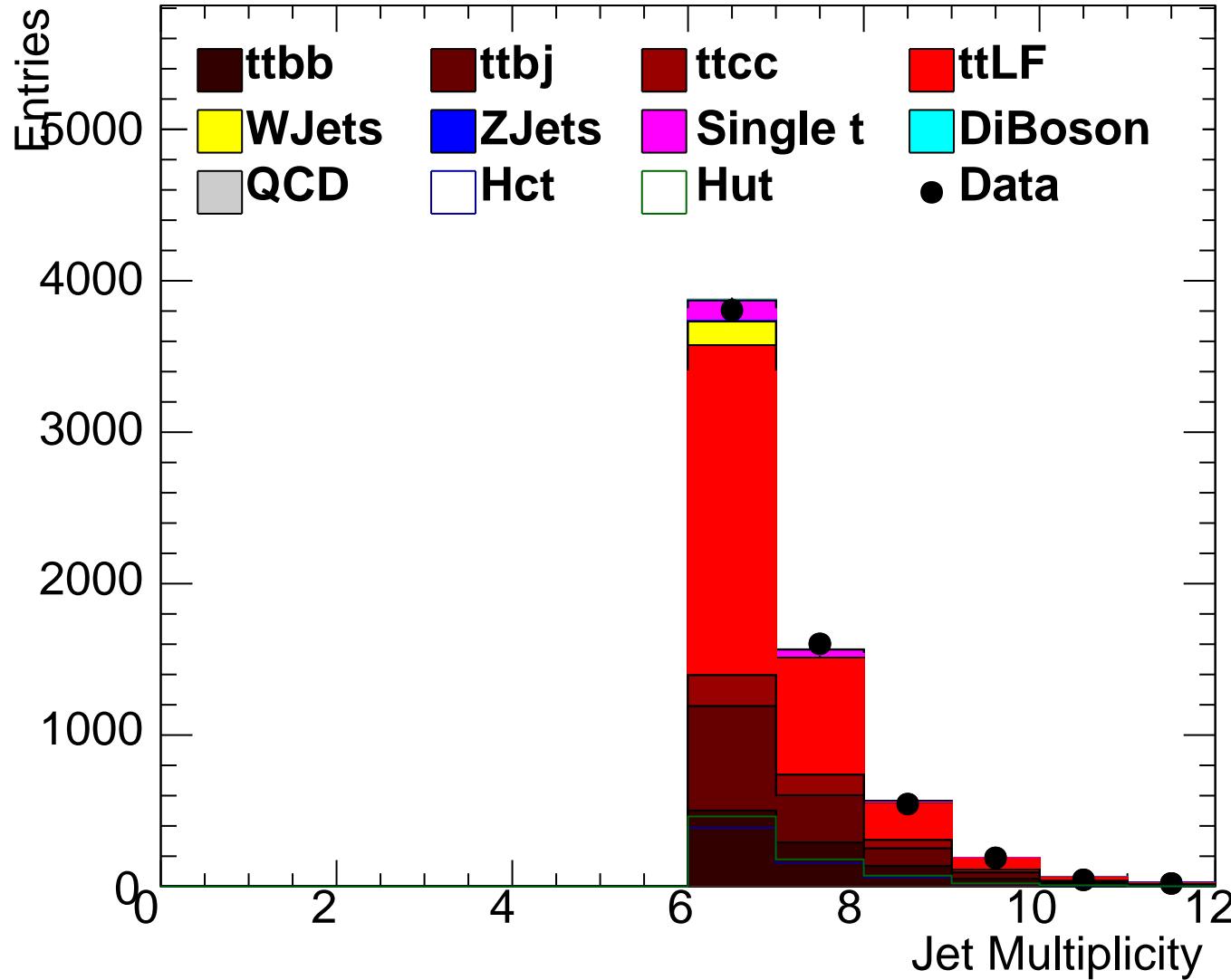
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$



Ch1 S14

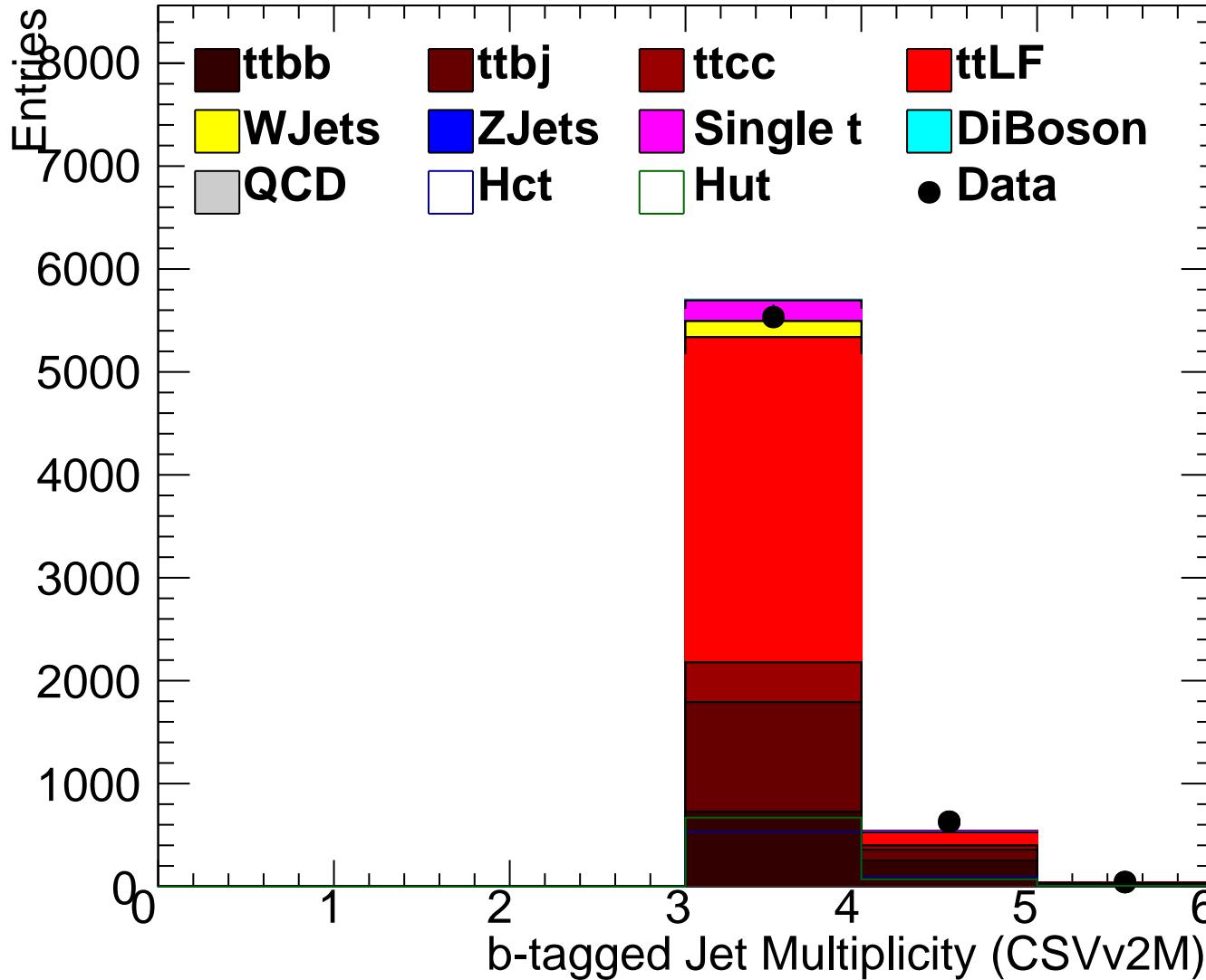
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

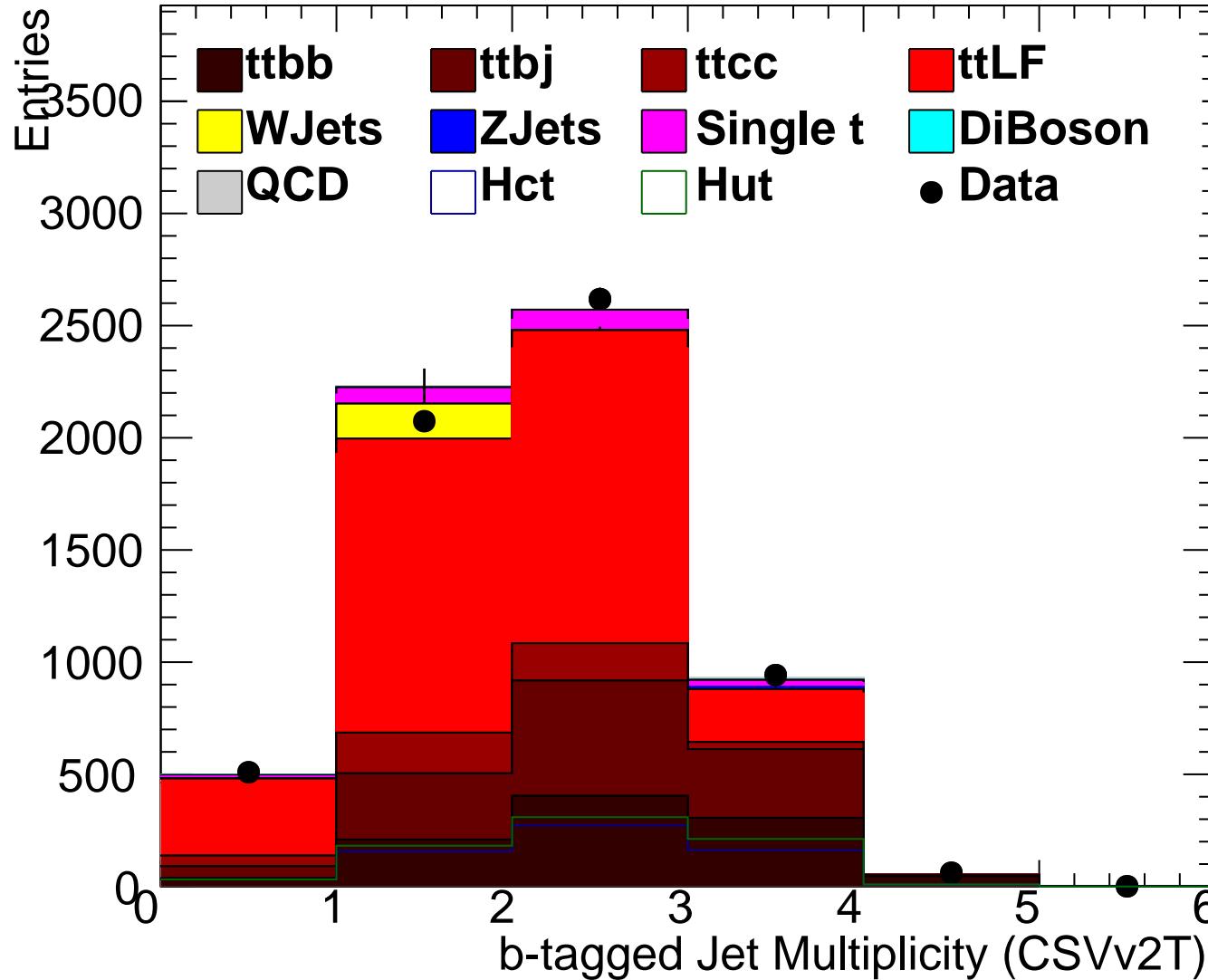


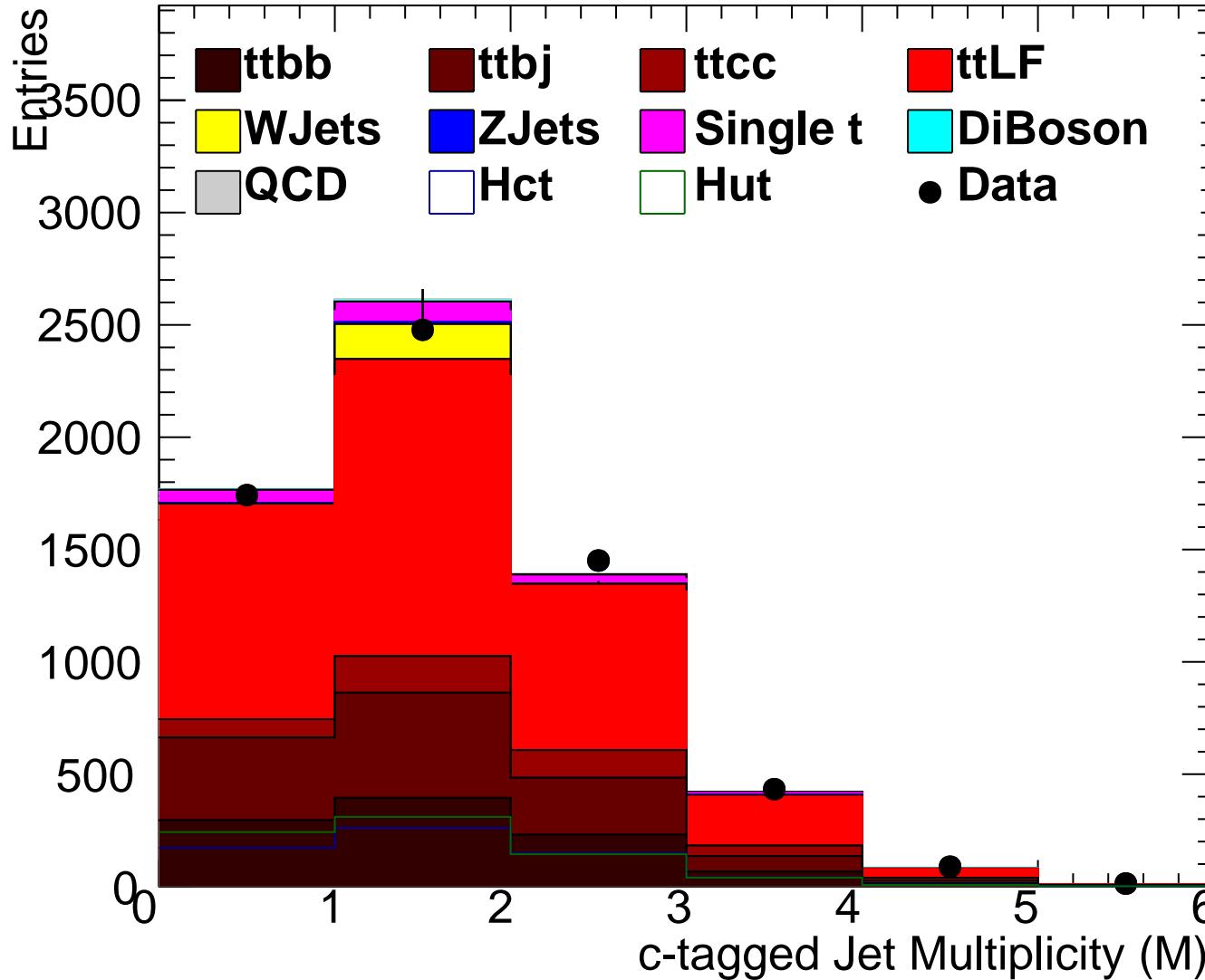


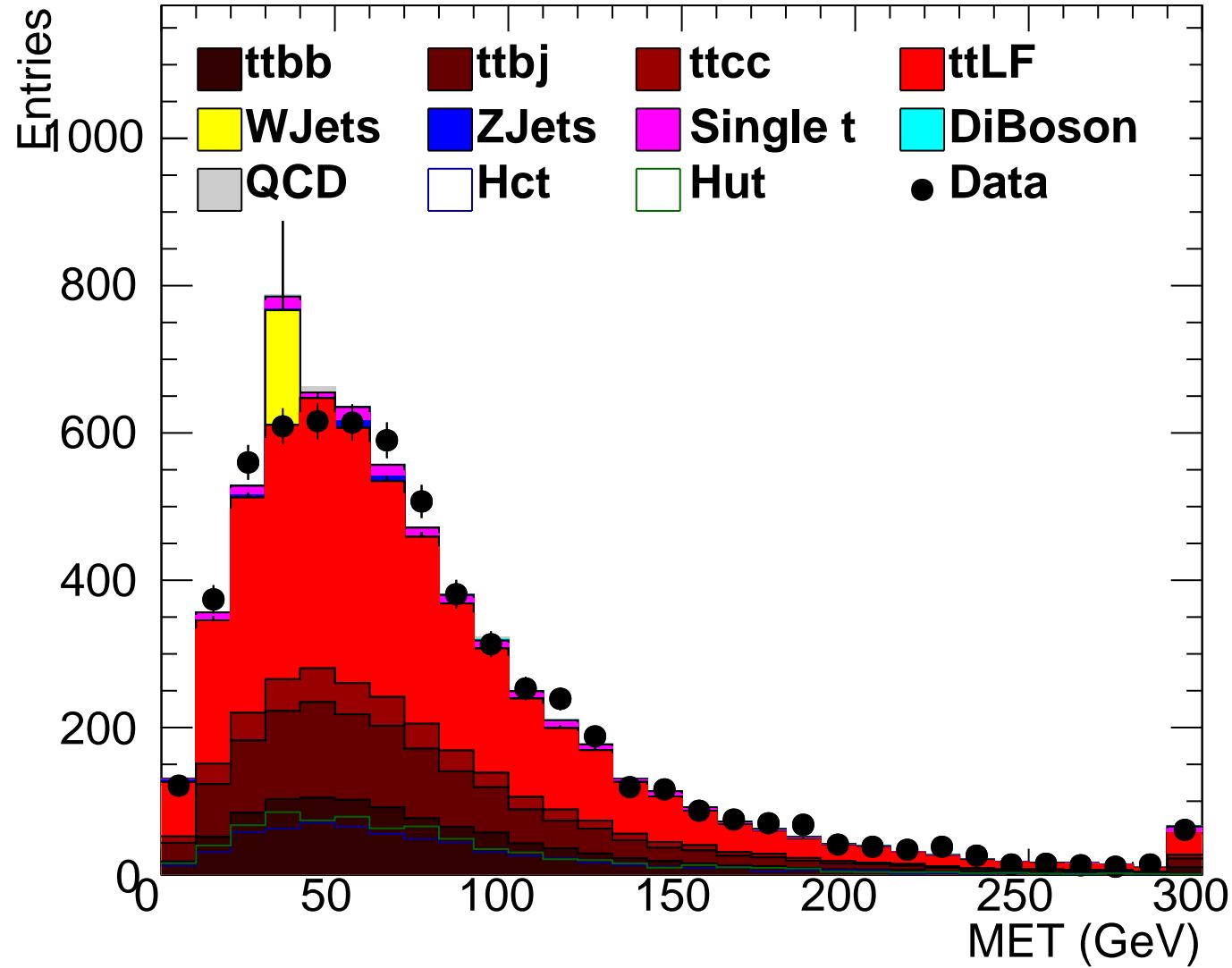
Ch1_S15

CMS, 35.9 fb⁻¹ at $\sqrt{s} = 13$ TeV



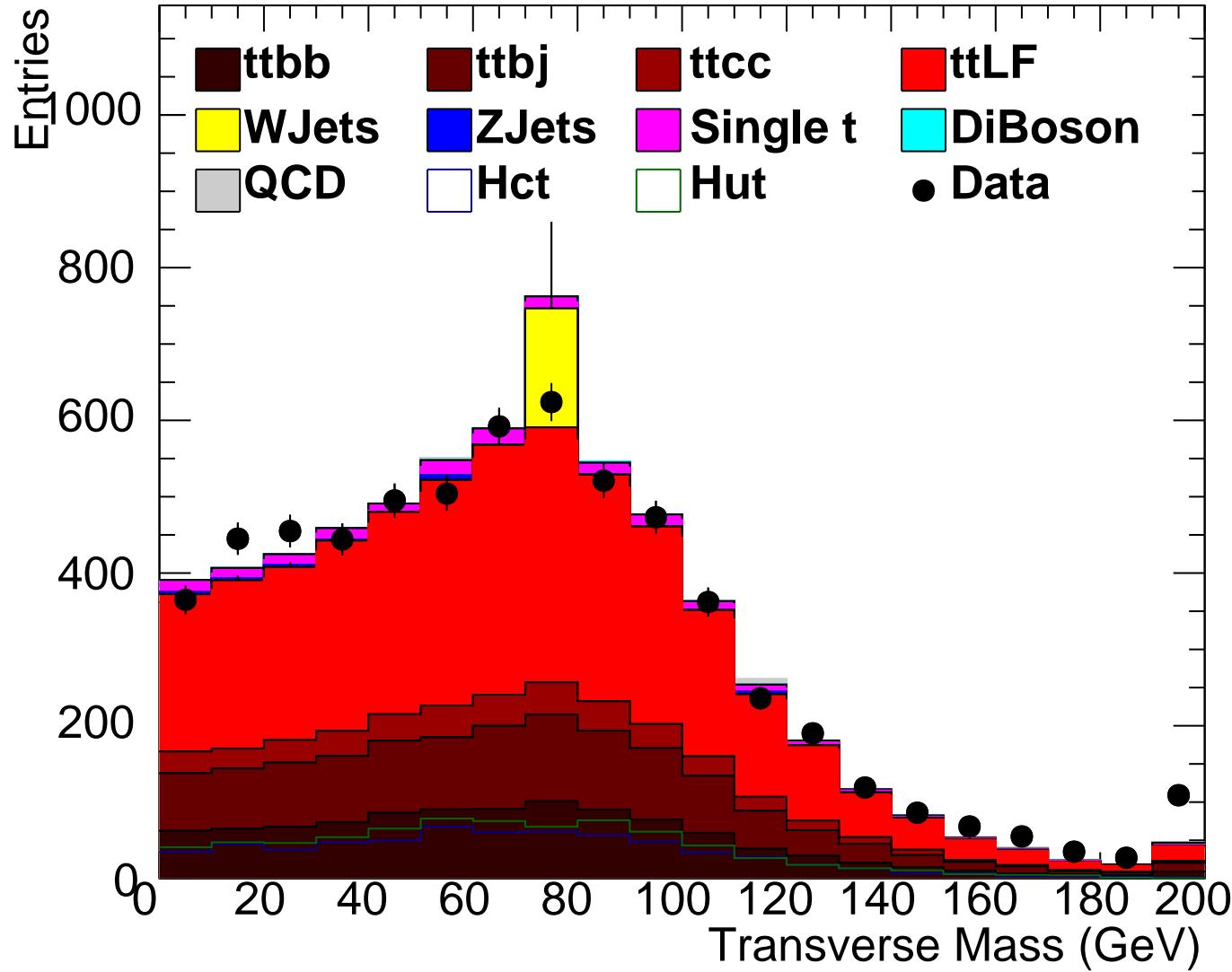
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

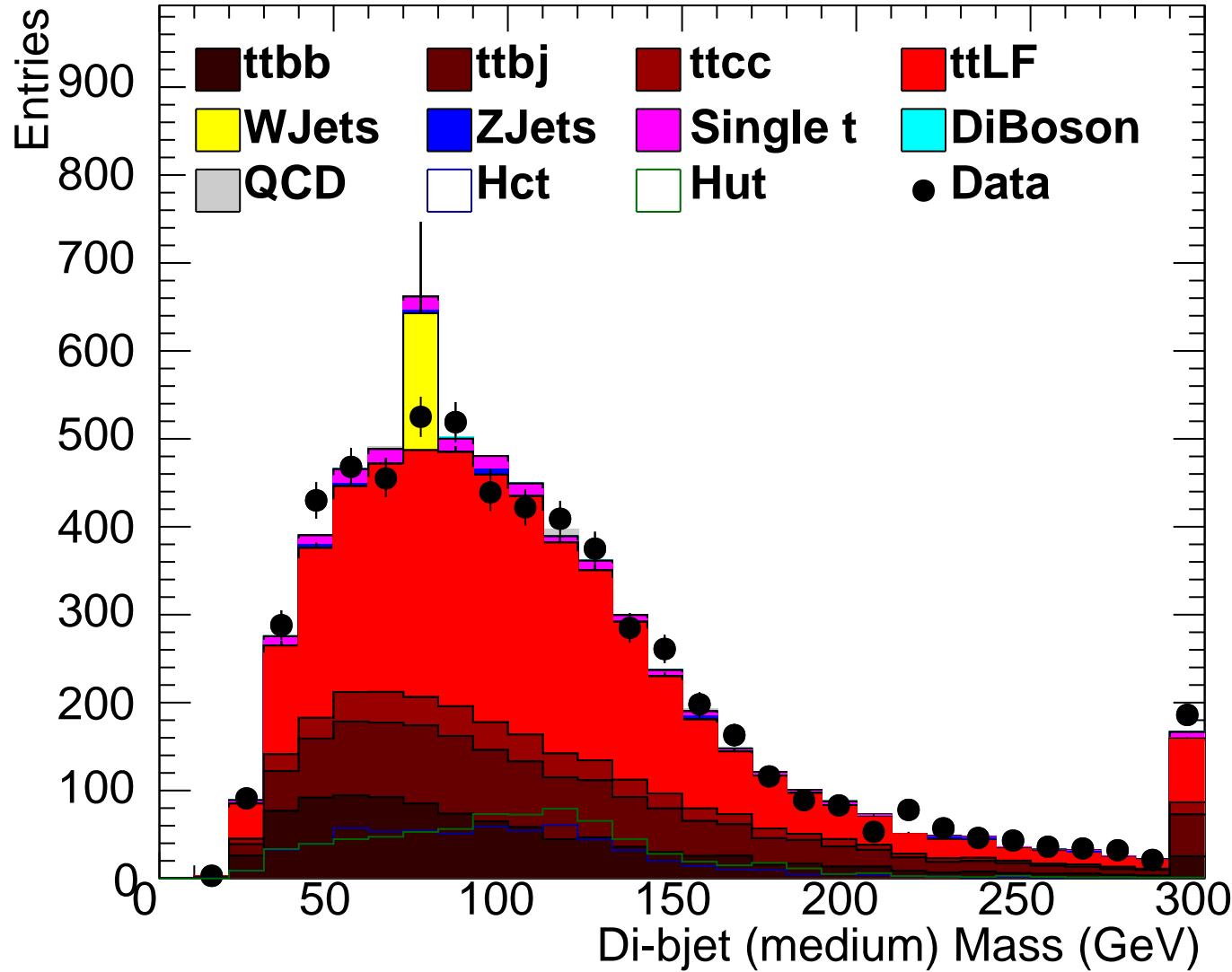




Ch1 S15

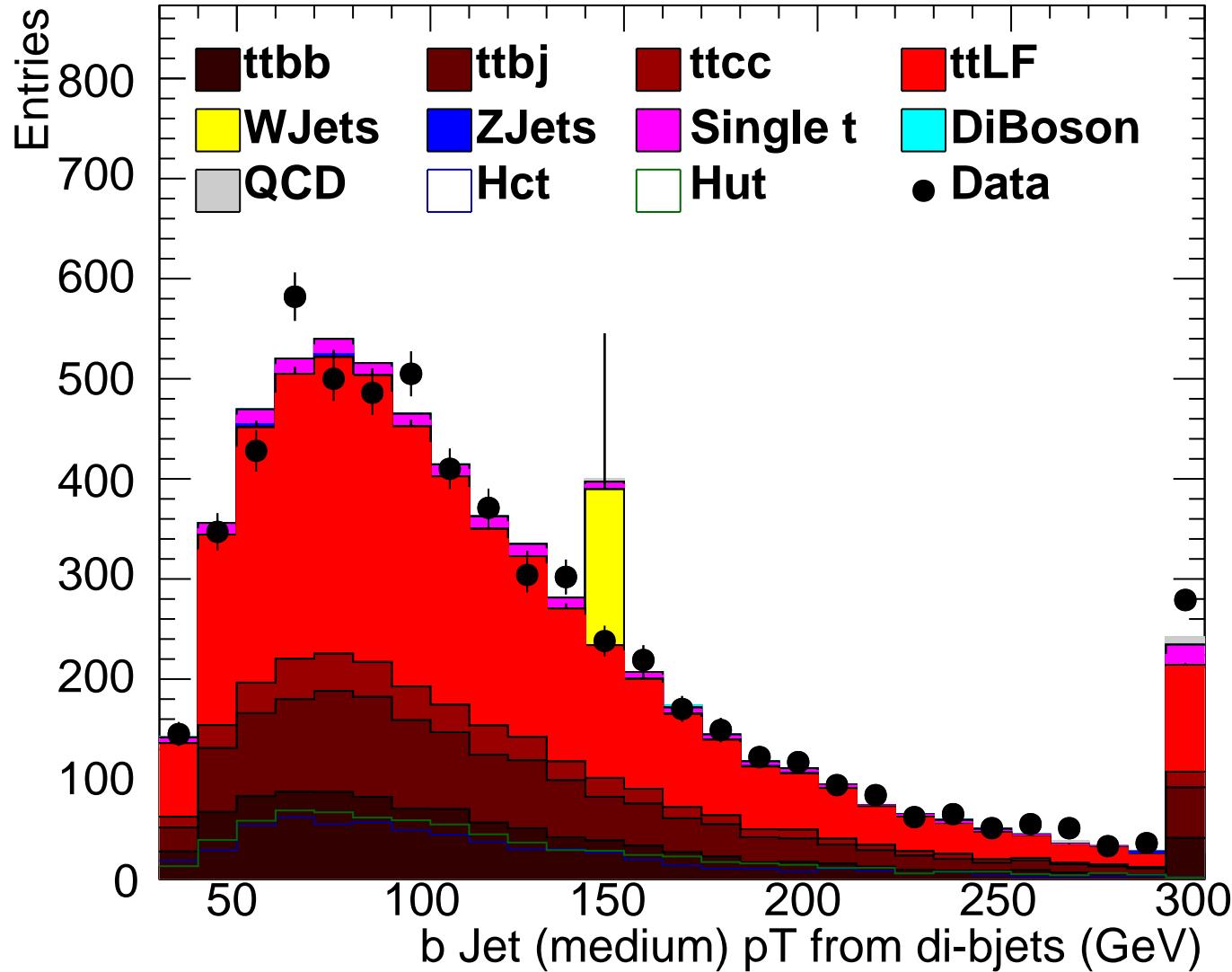
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

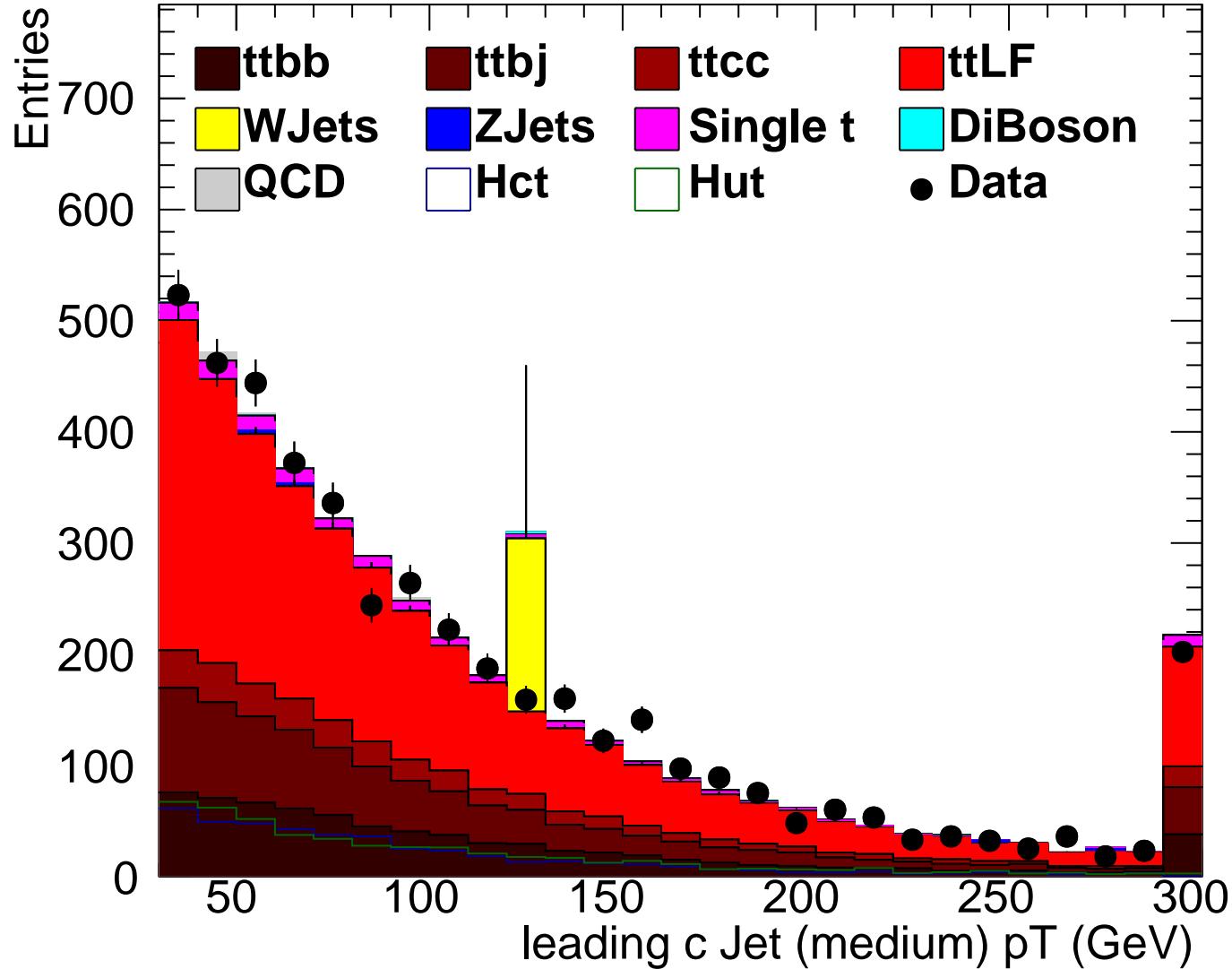


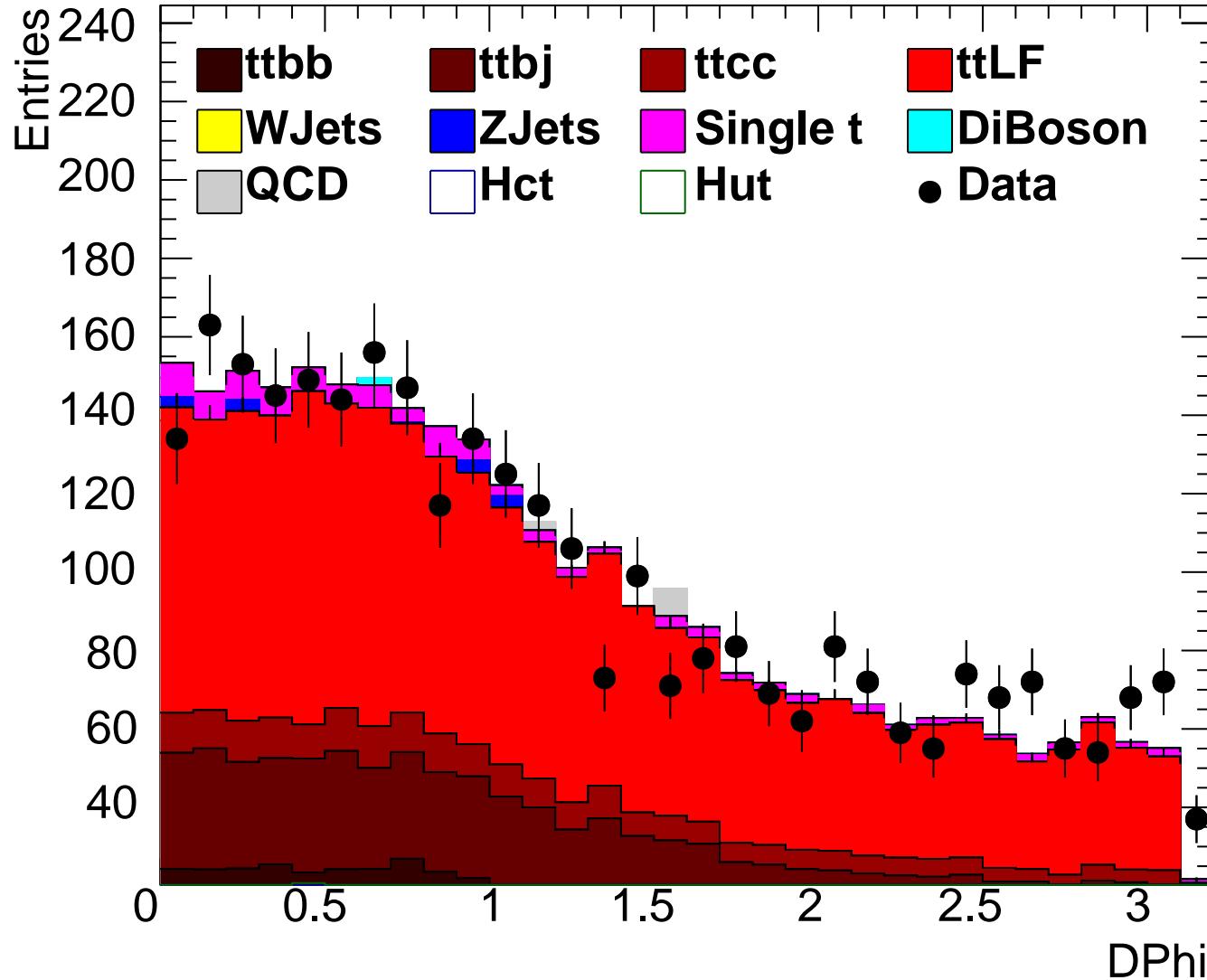
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

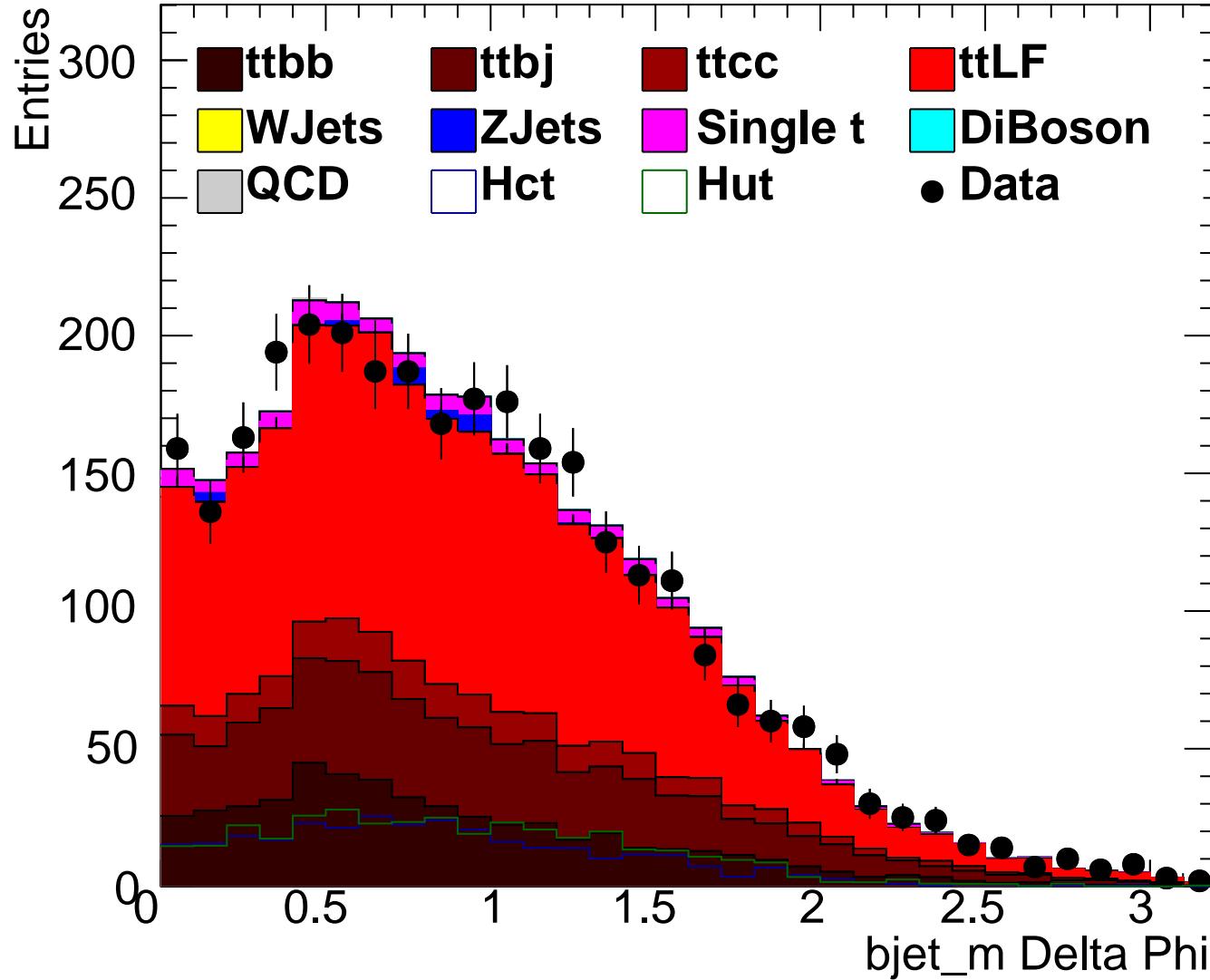
Ch1 S15

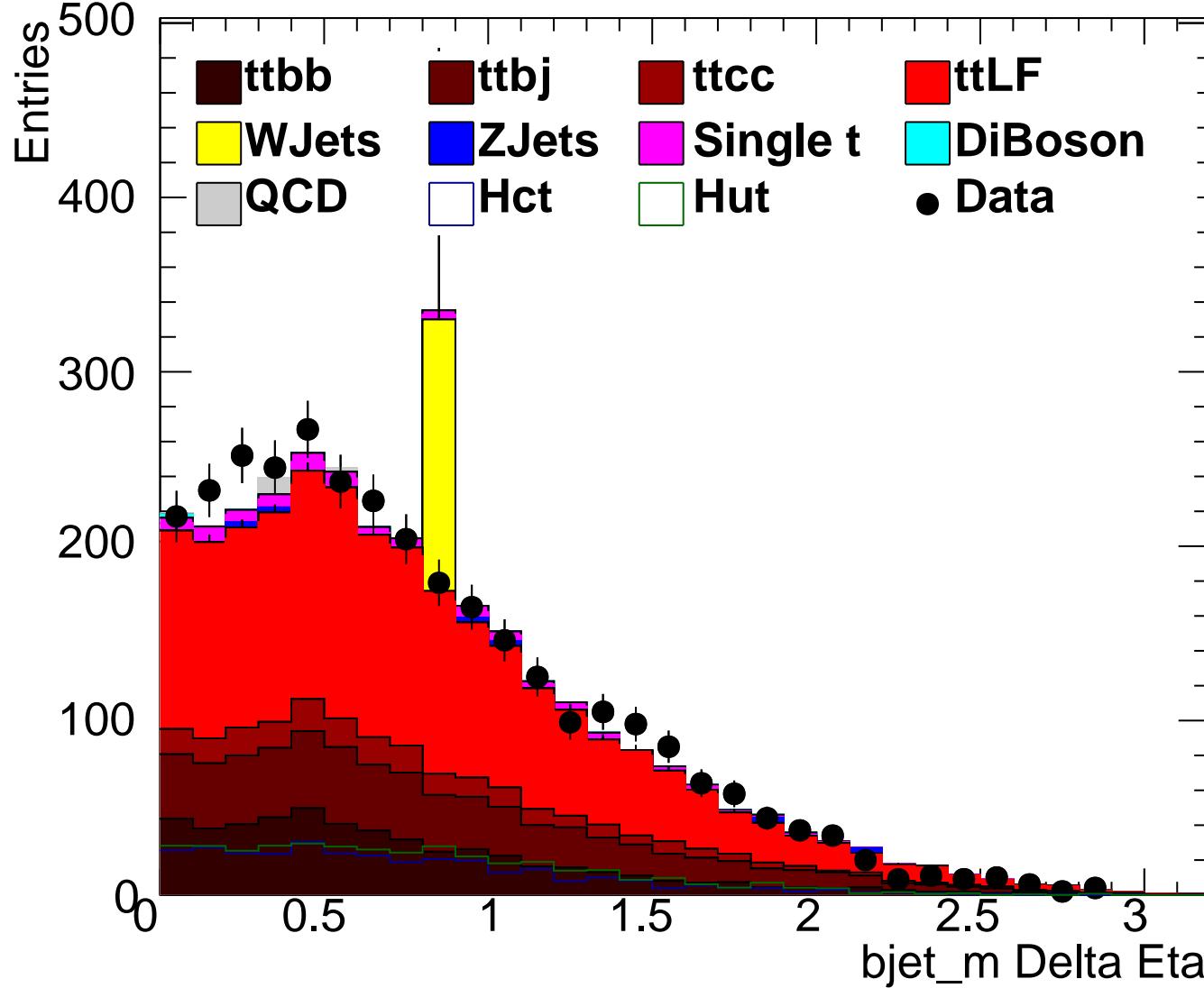
CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$

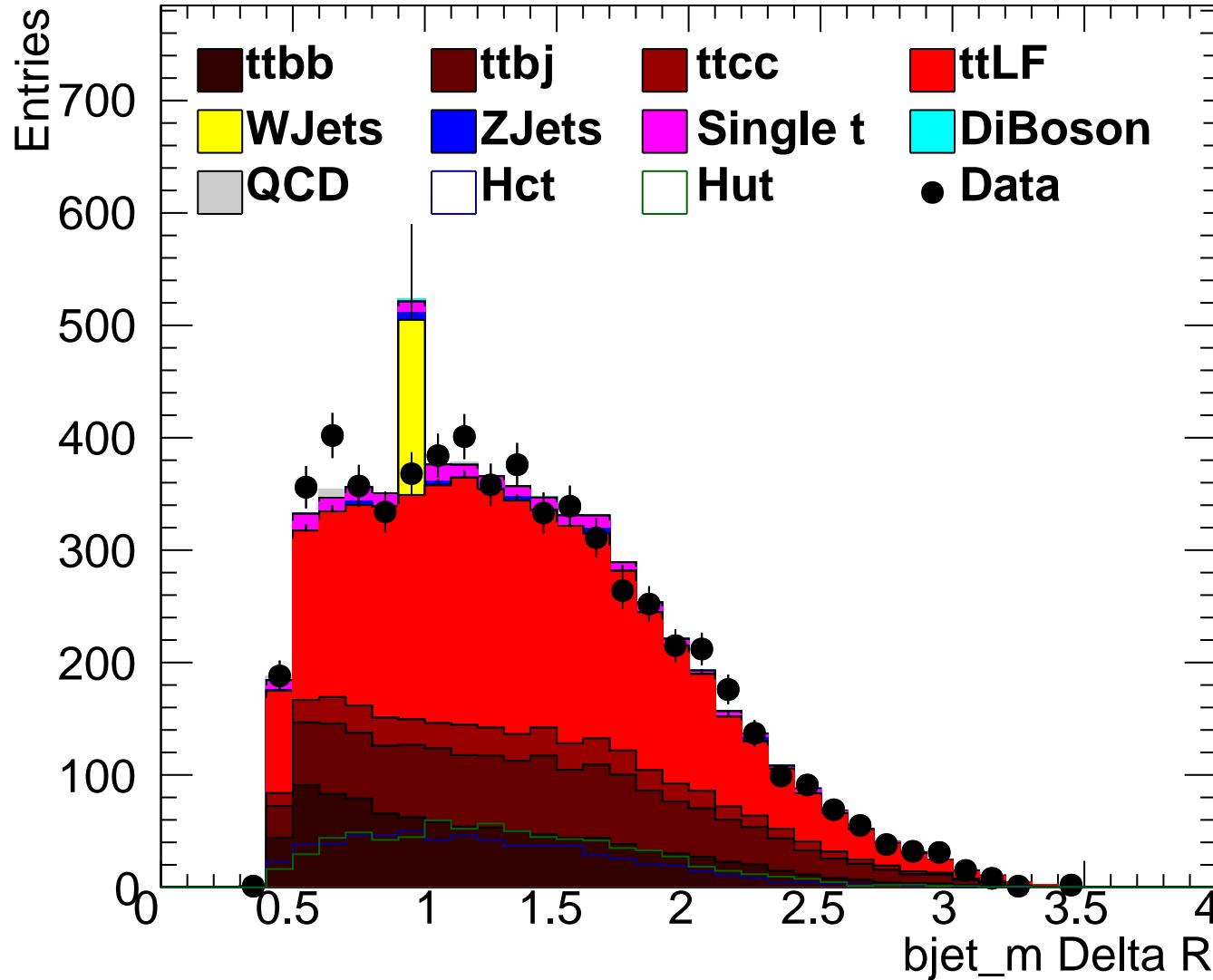


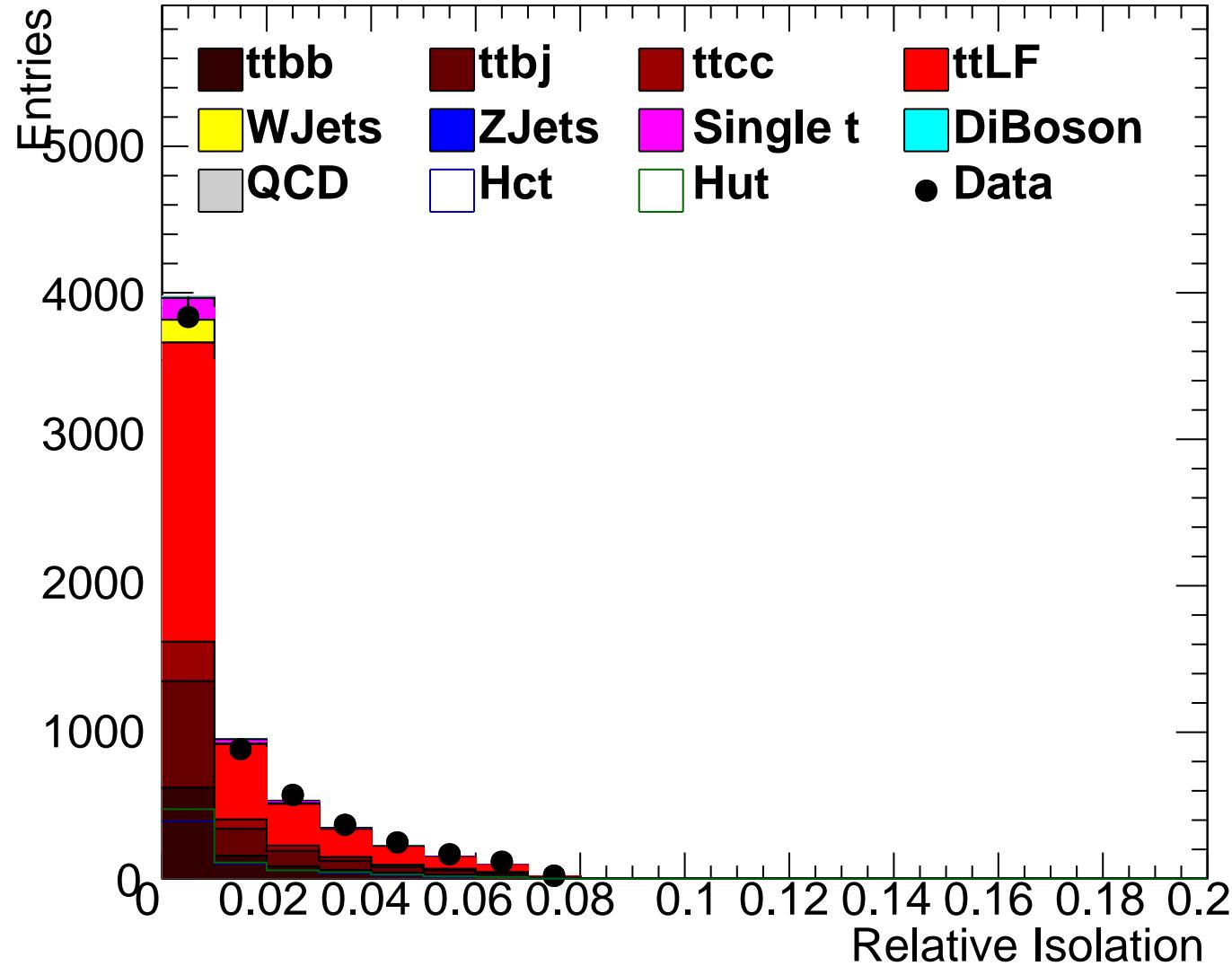
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

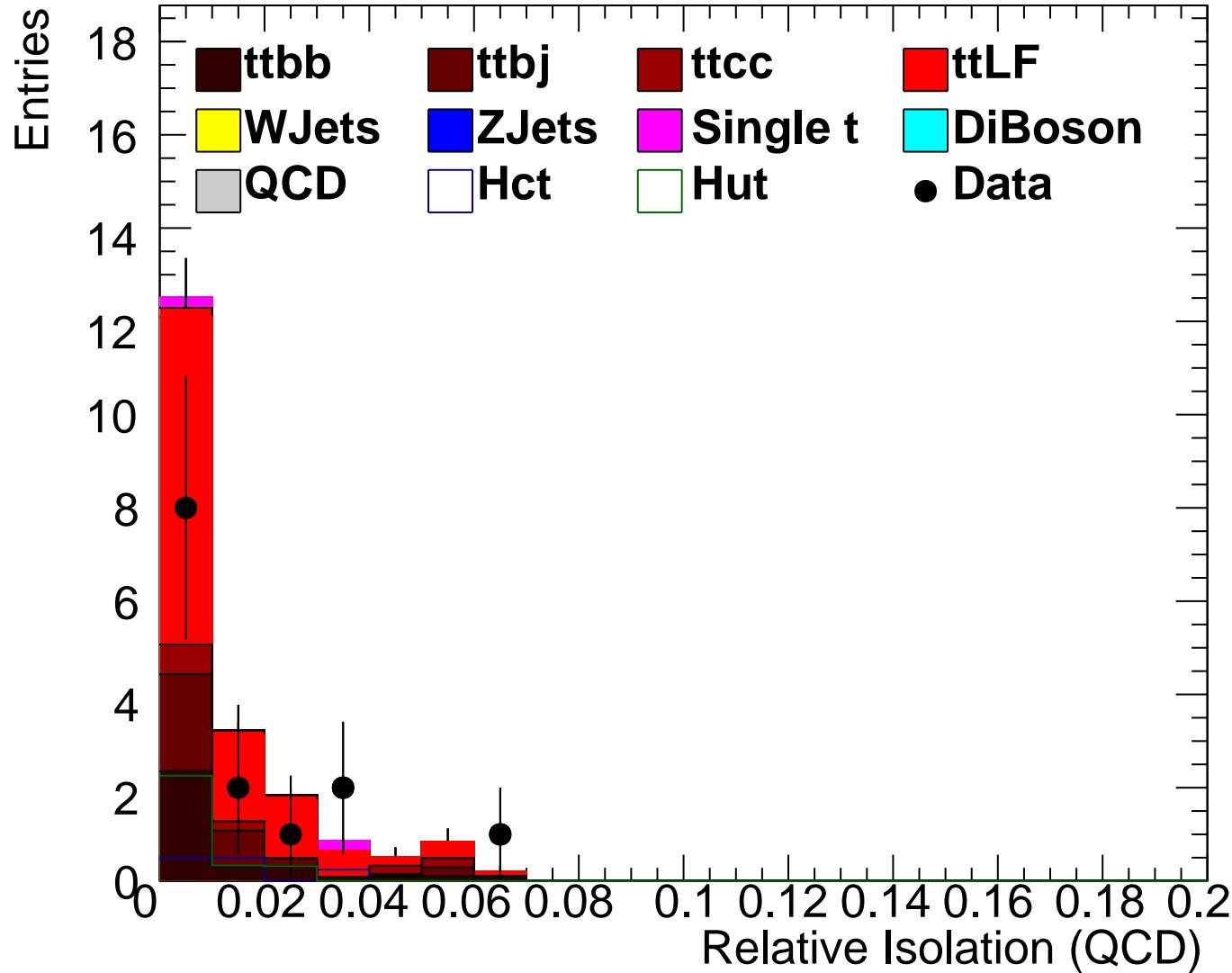


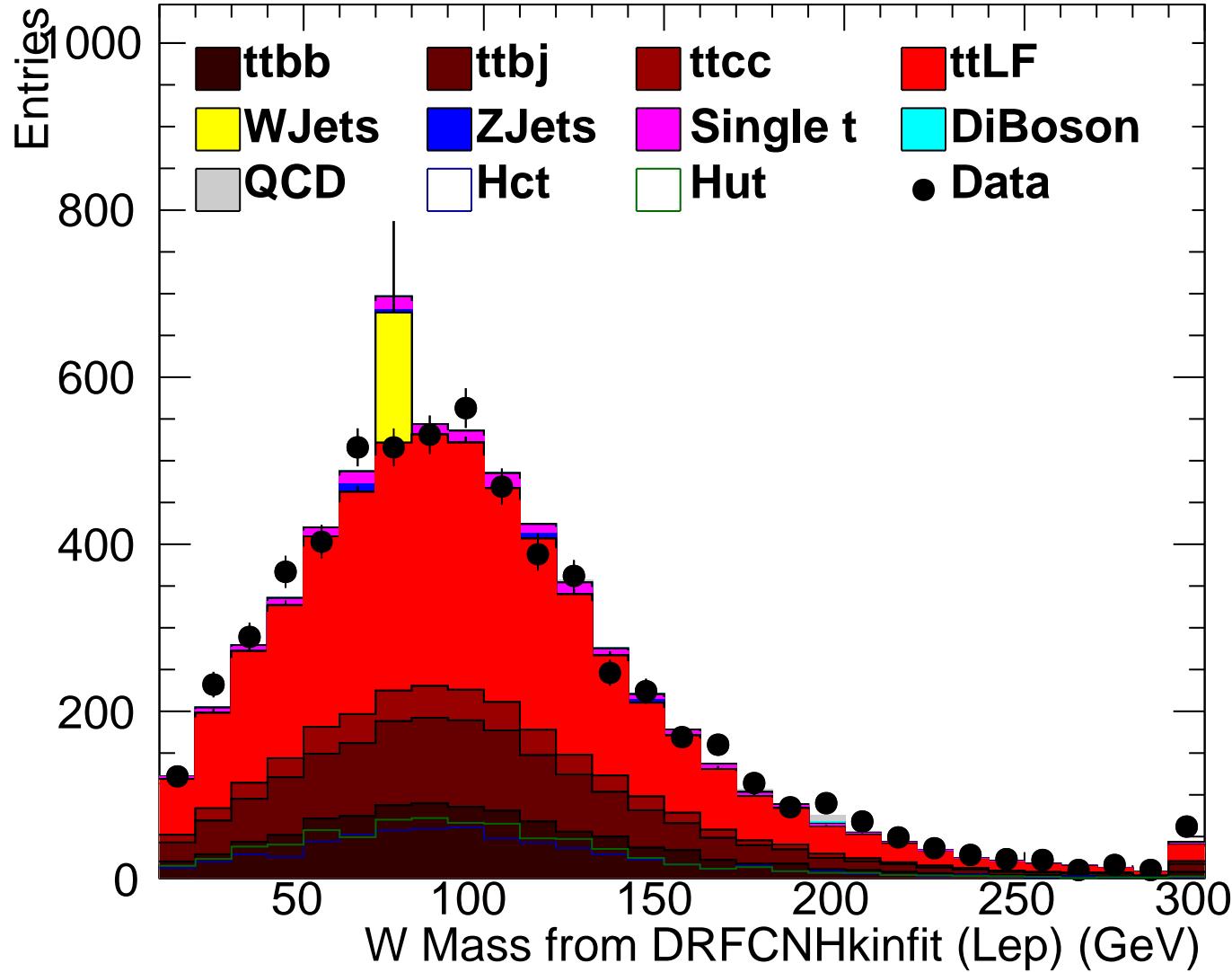
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

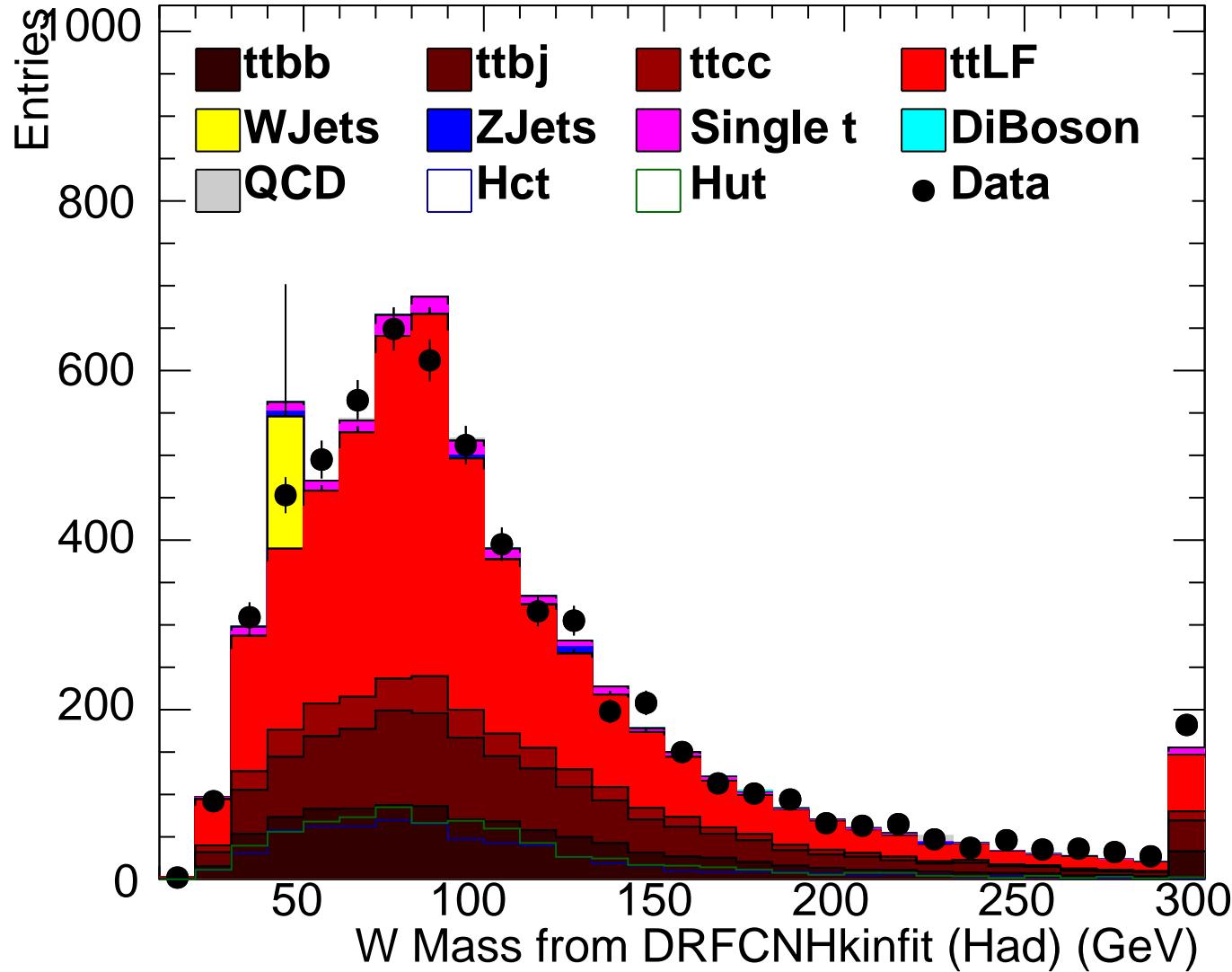
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

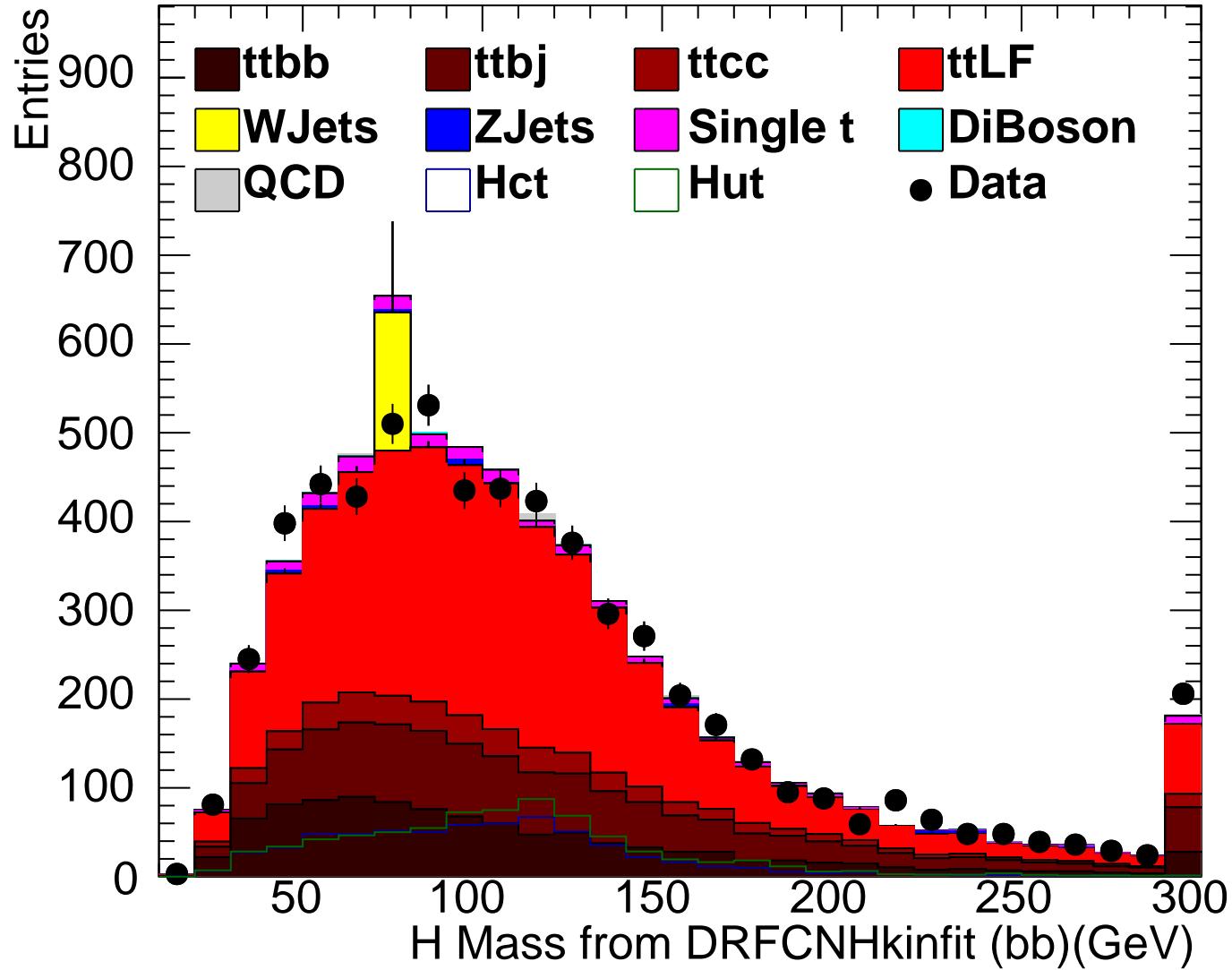
Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

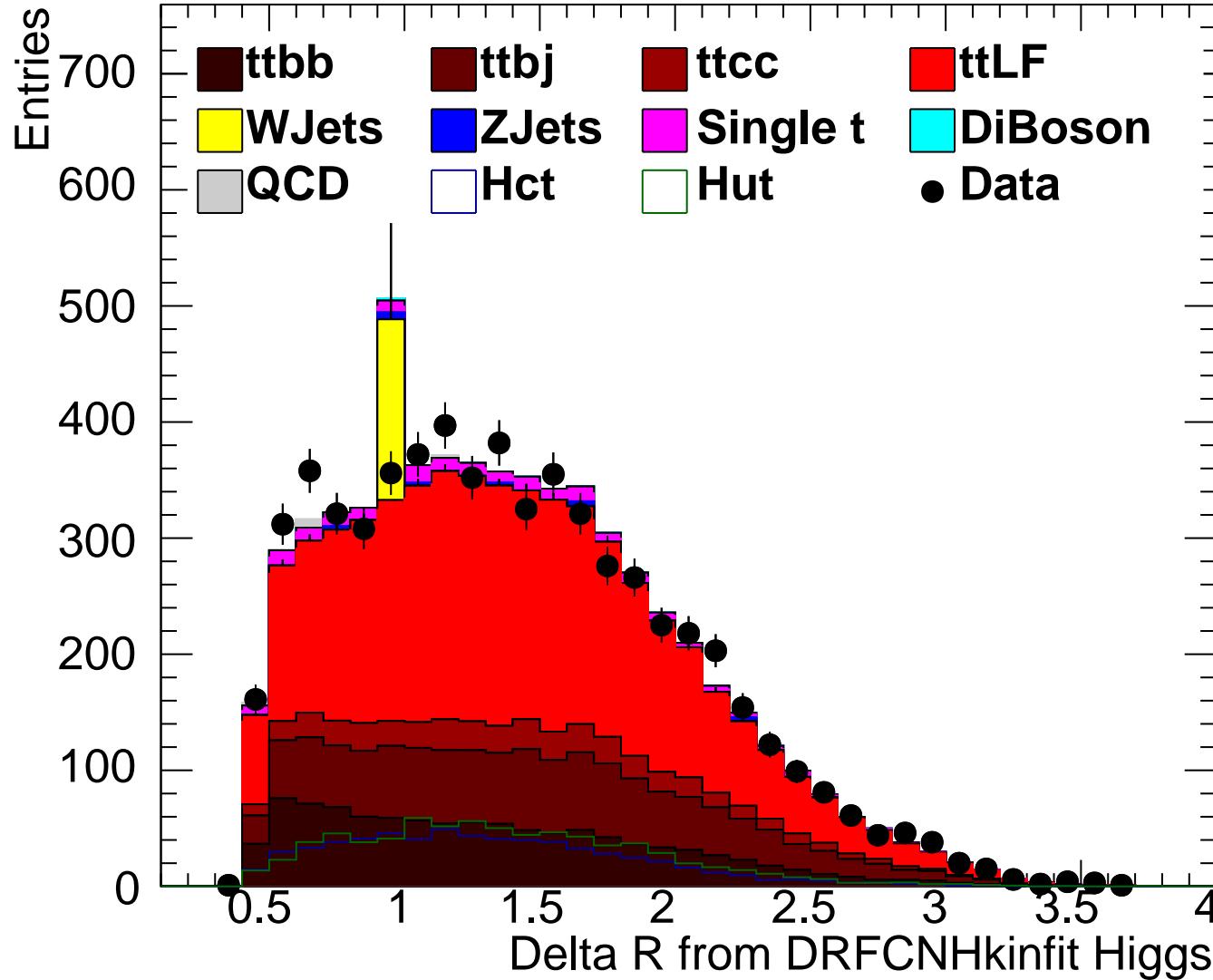


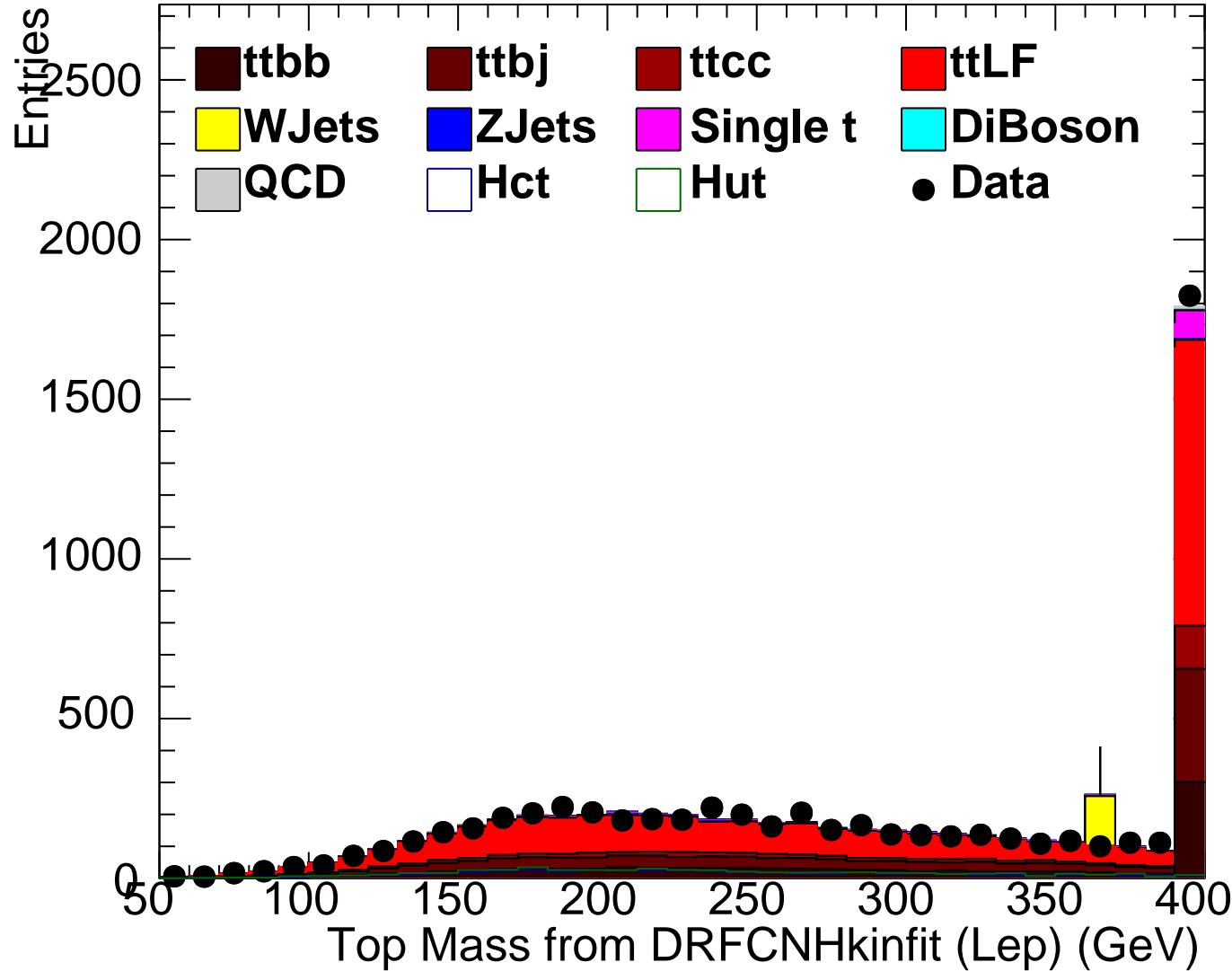




Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 

Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 



Ch1_S15CMS, 35.9 fb^{-1} at $\sqrt{s} = 13 \text{ TeV}$ 