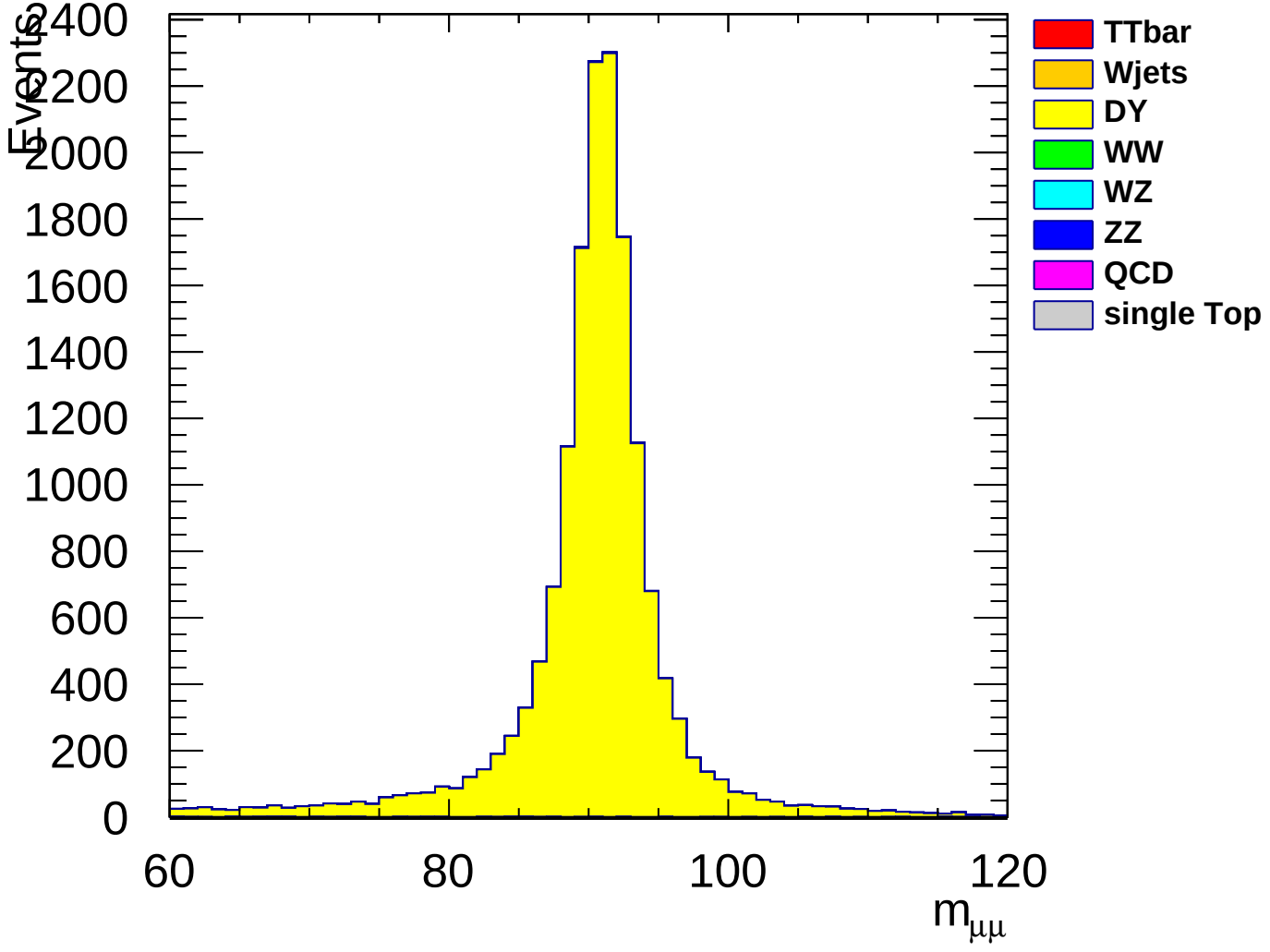
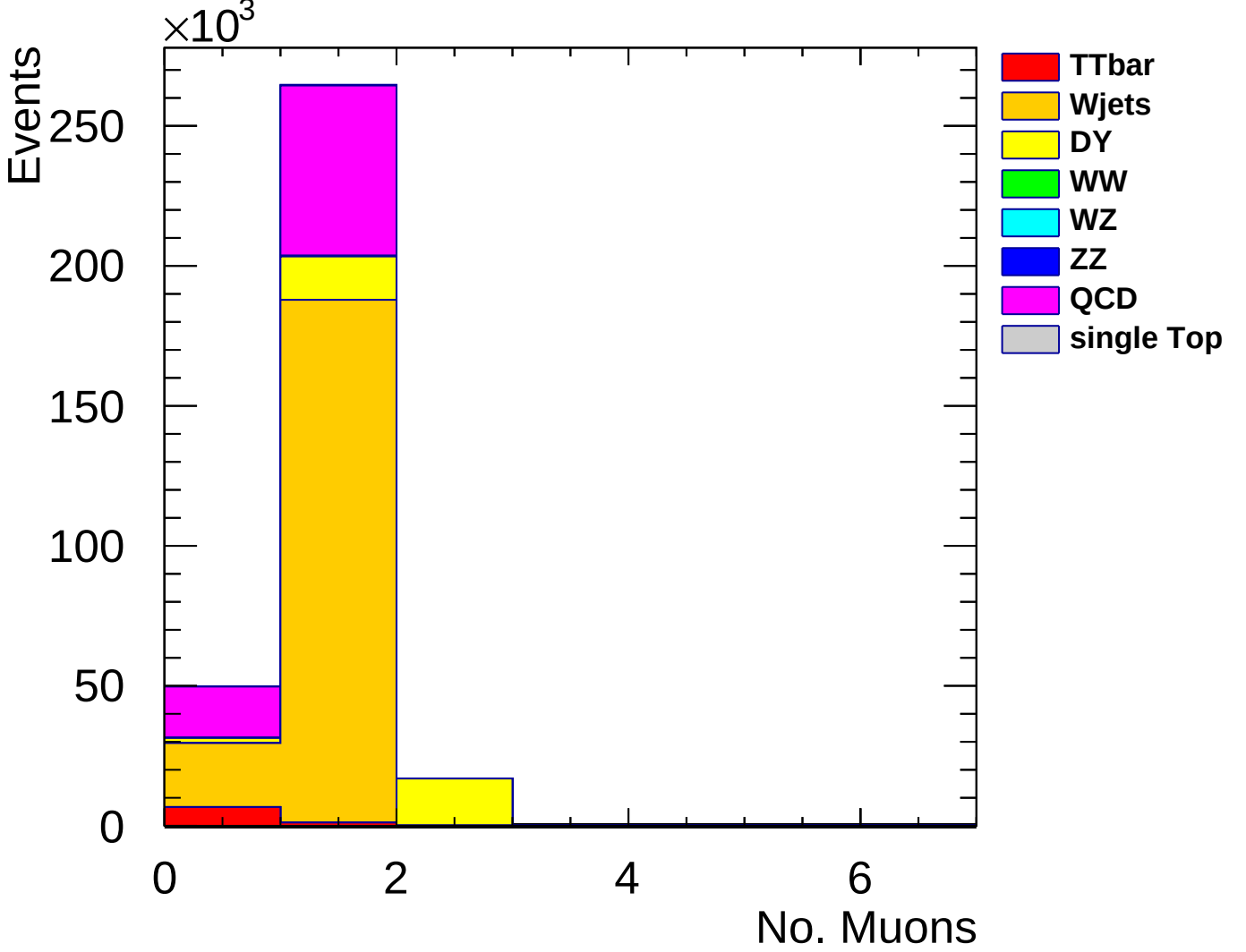
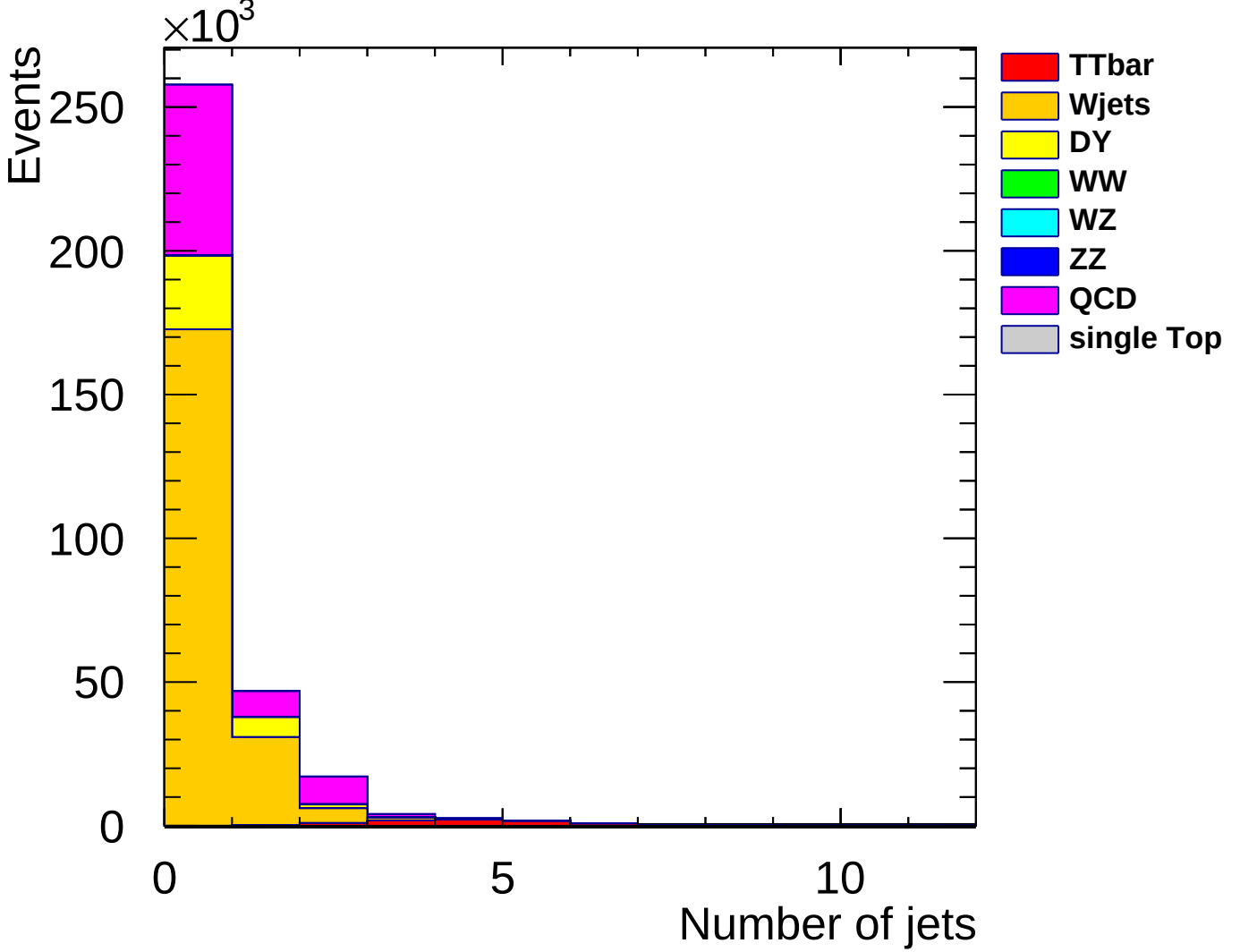
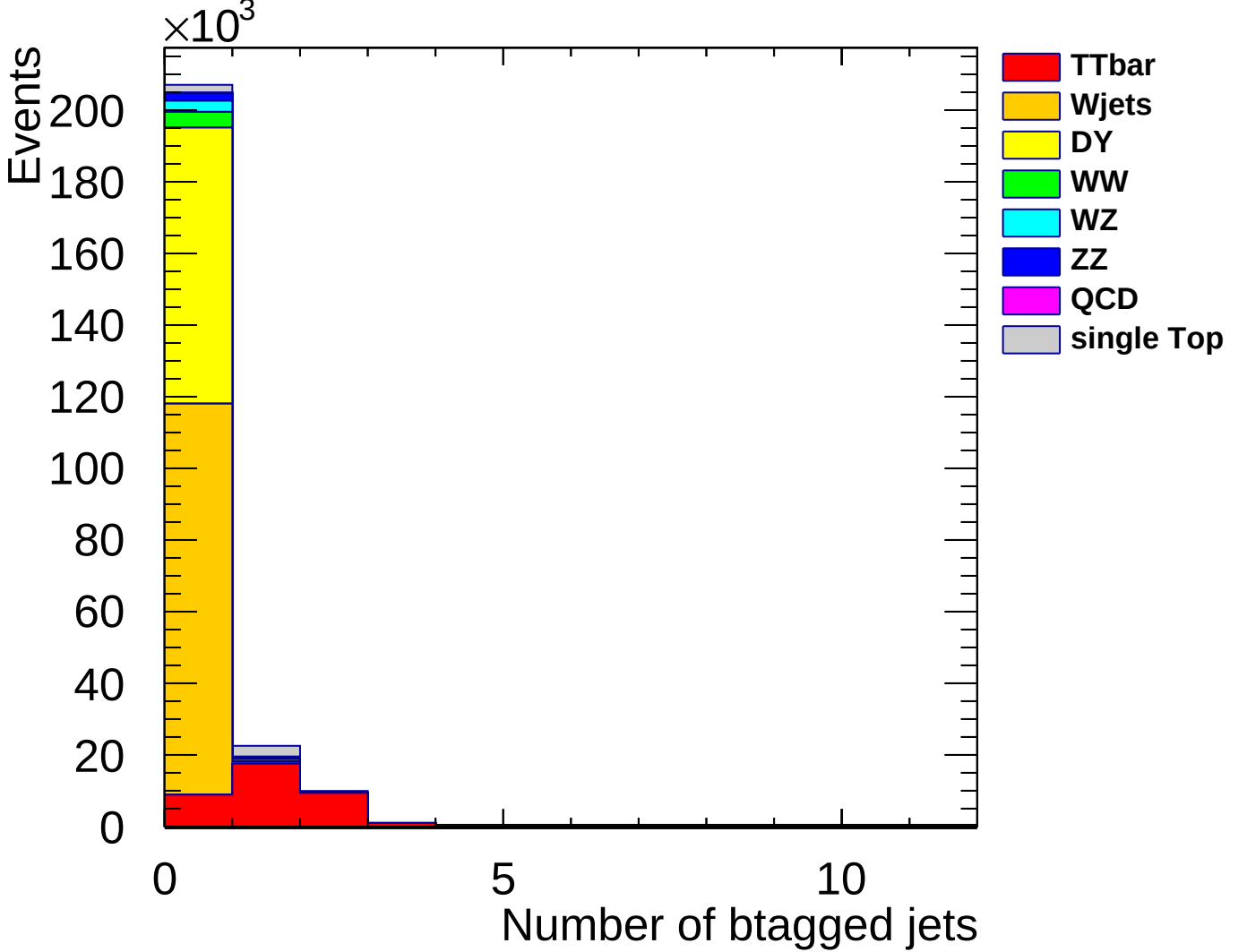
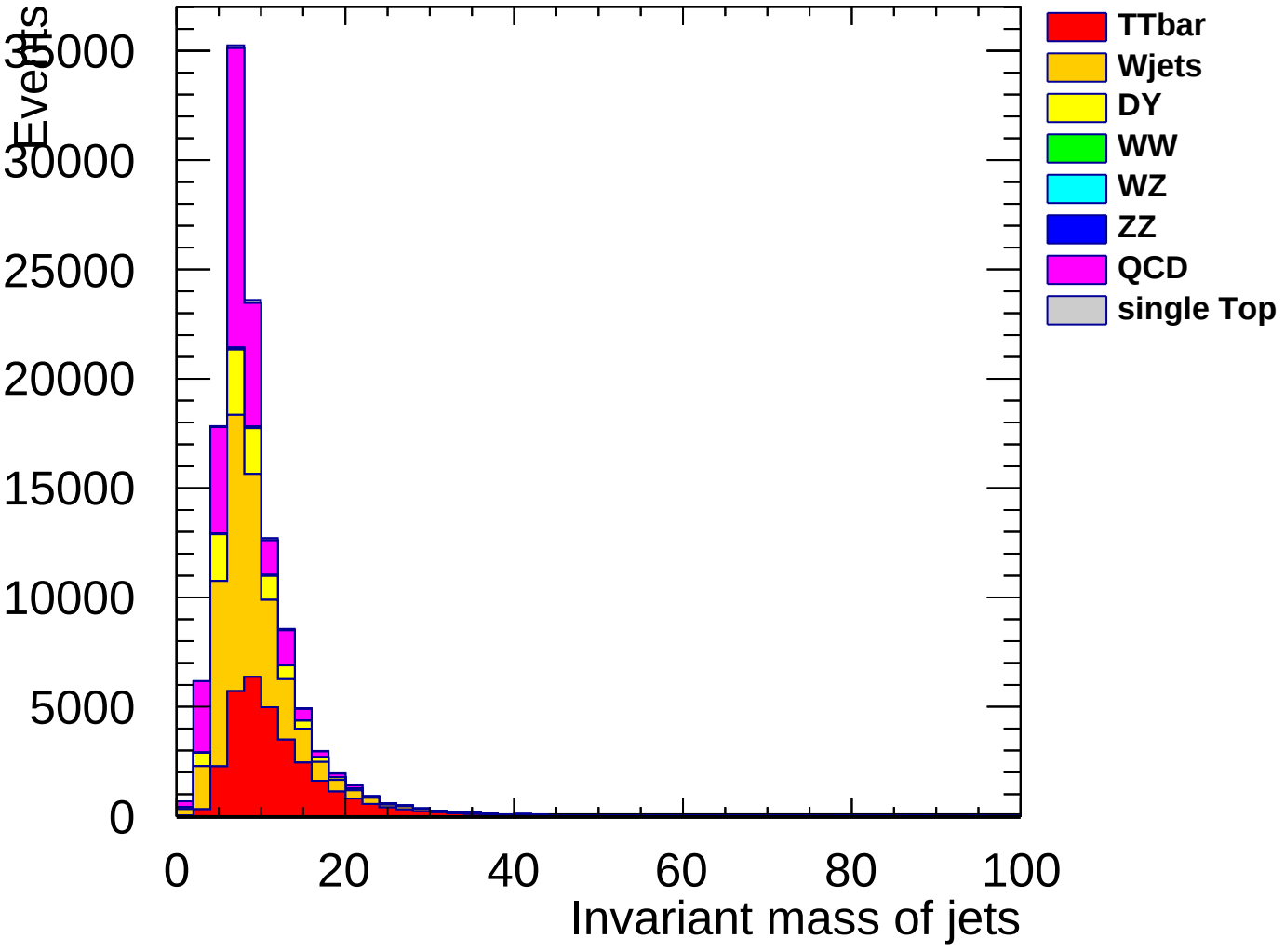
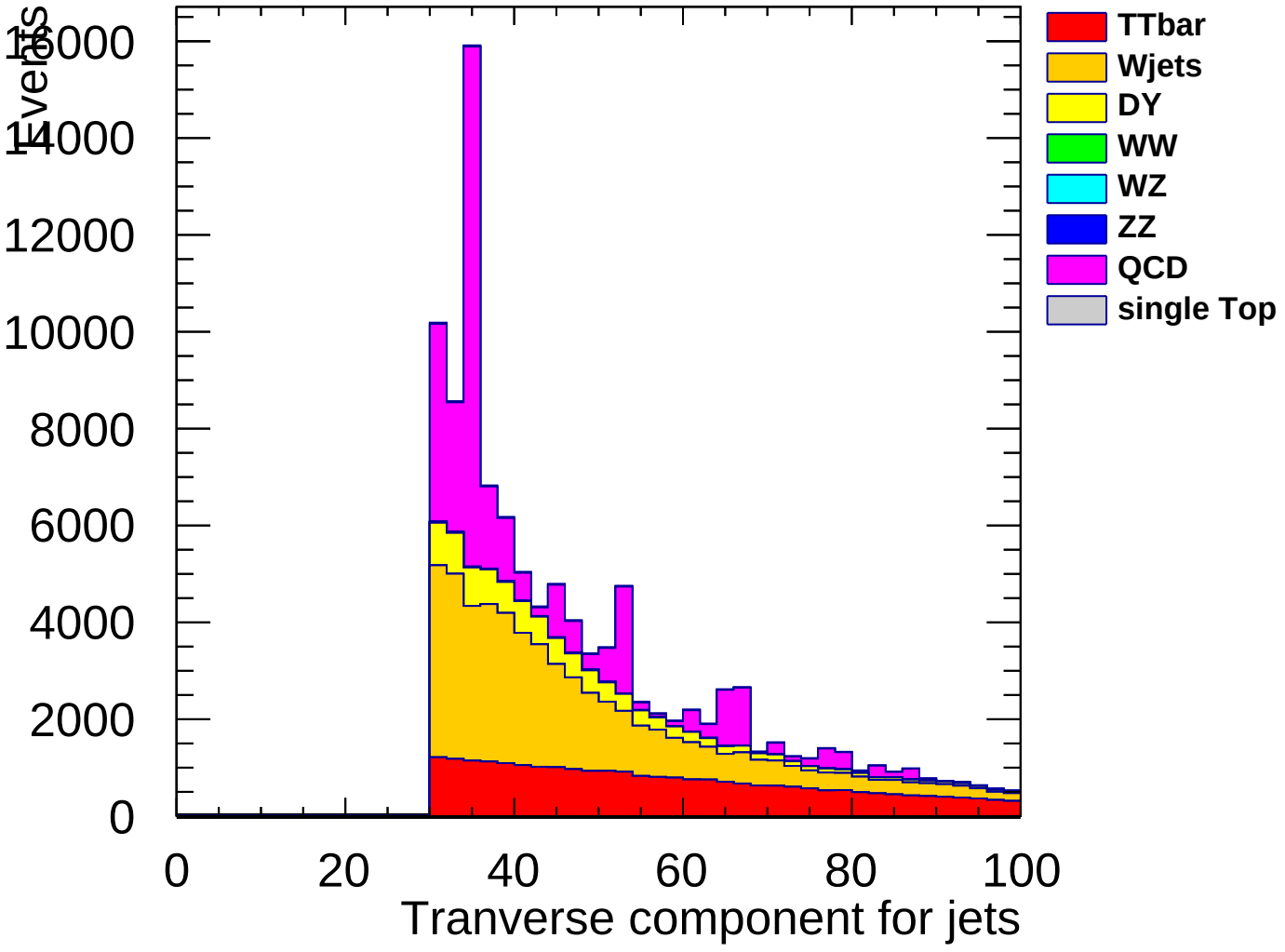

Events
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
60
80
100
120
$m_{\mu\mu}$
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

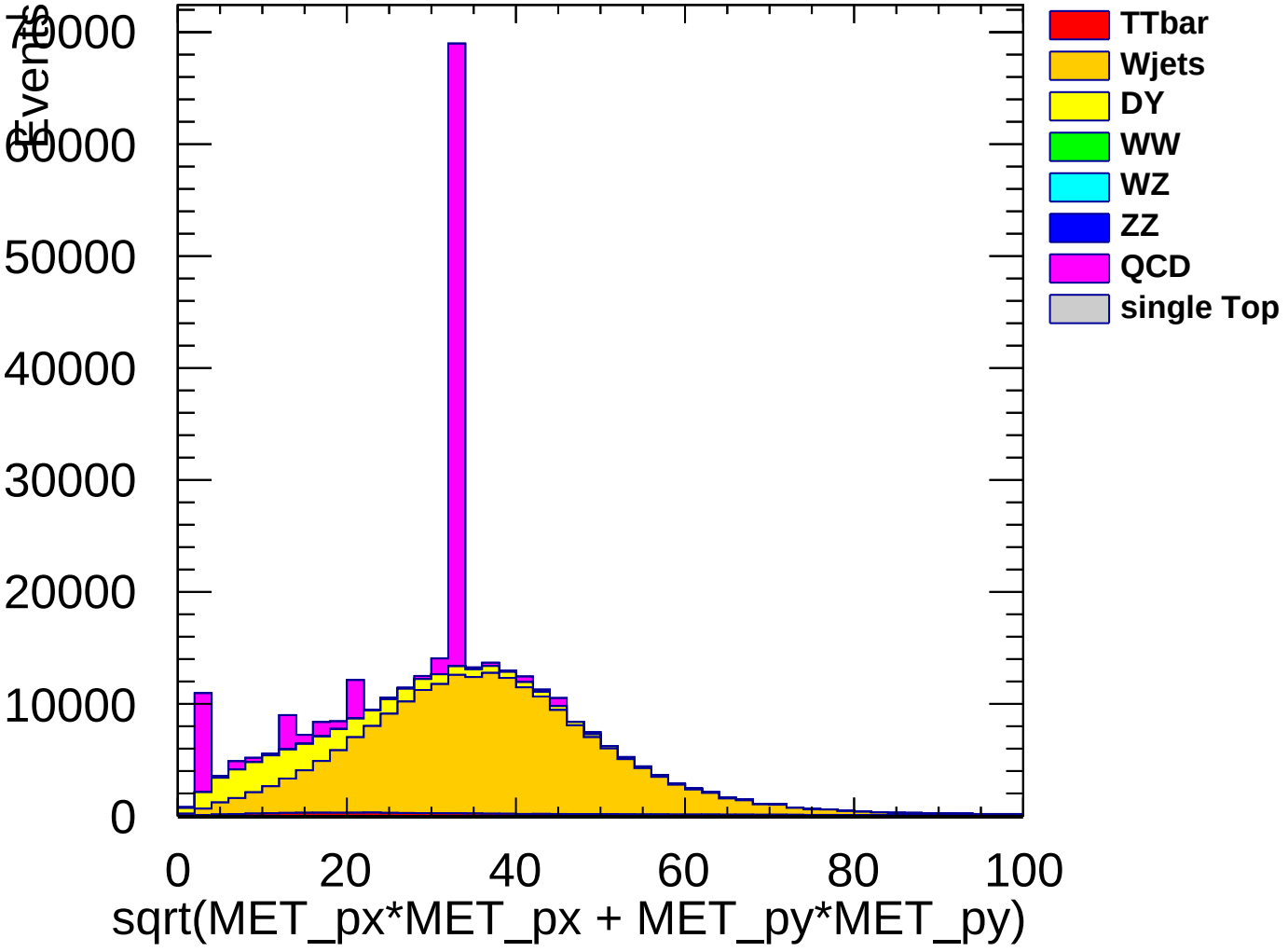

×10^3
Events
250
200
150
100
50
0
0
2
4
6
No. Muons
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

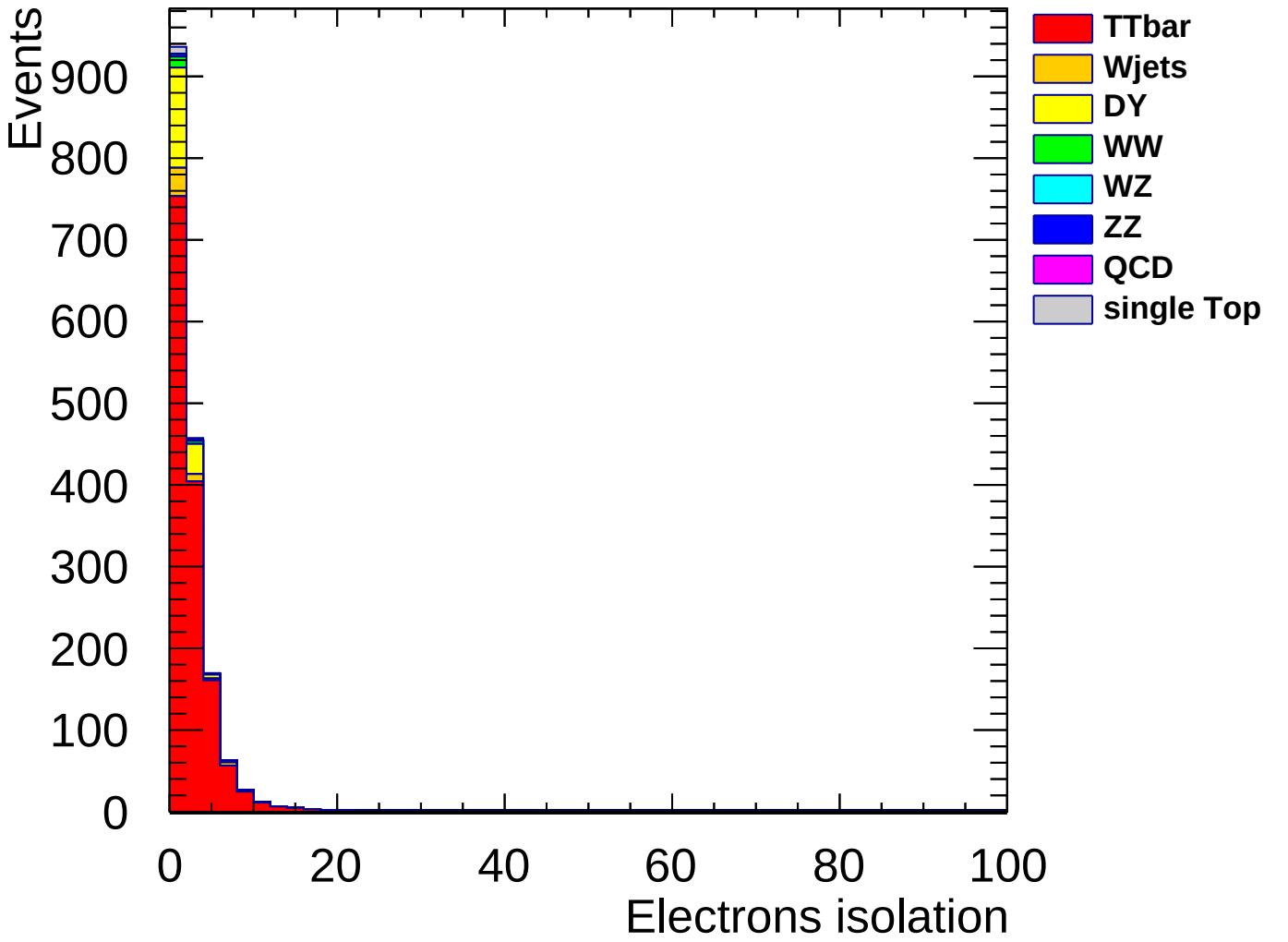

×10^3
Events
250
200
150
100
50
0
0
5
10
Number of jets
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

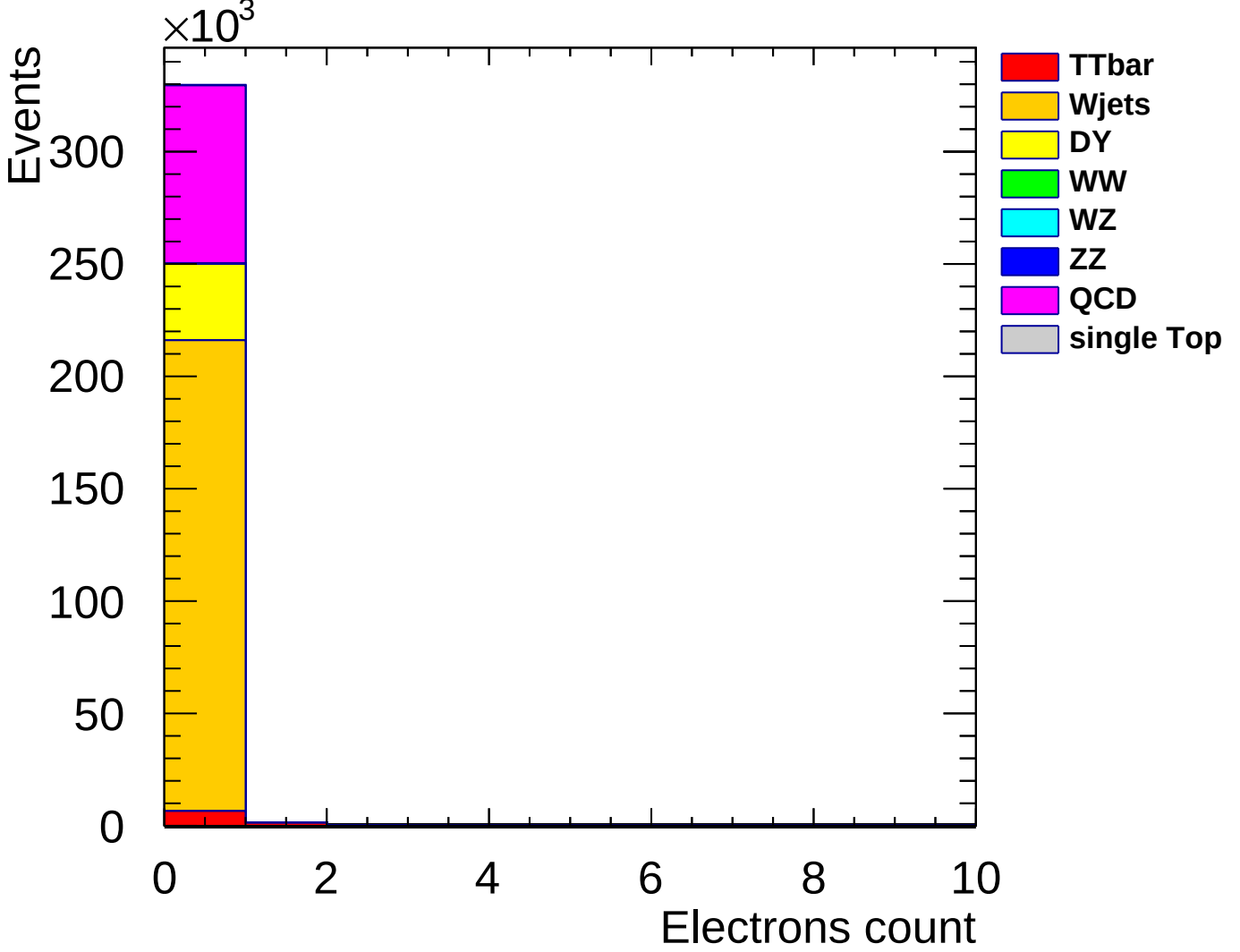

×10^3
Events
200
180
160
140
120
100
80
60
40
20
0
0
5
10
Number of btagged jets
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

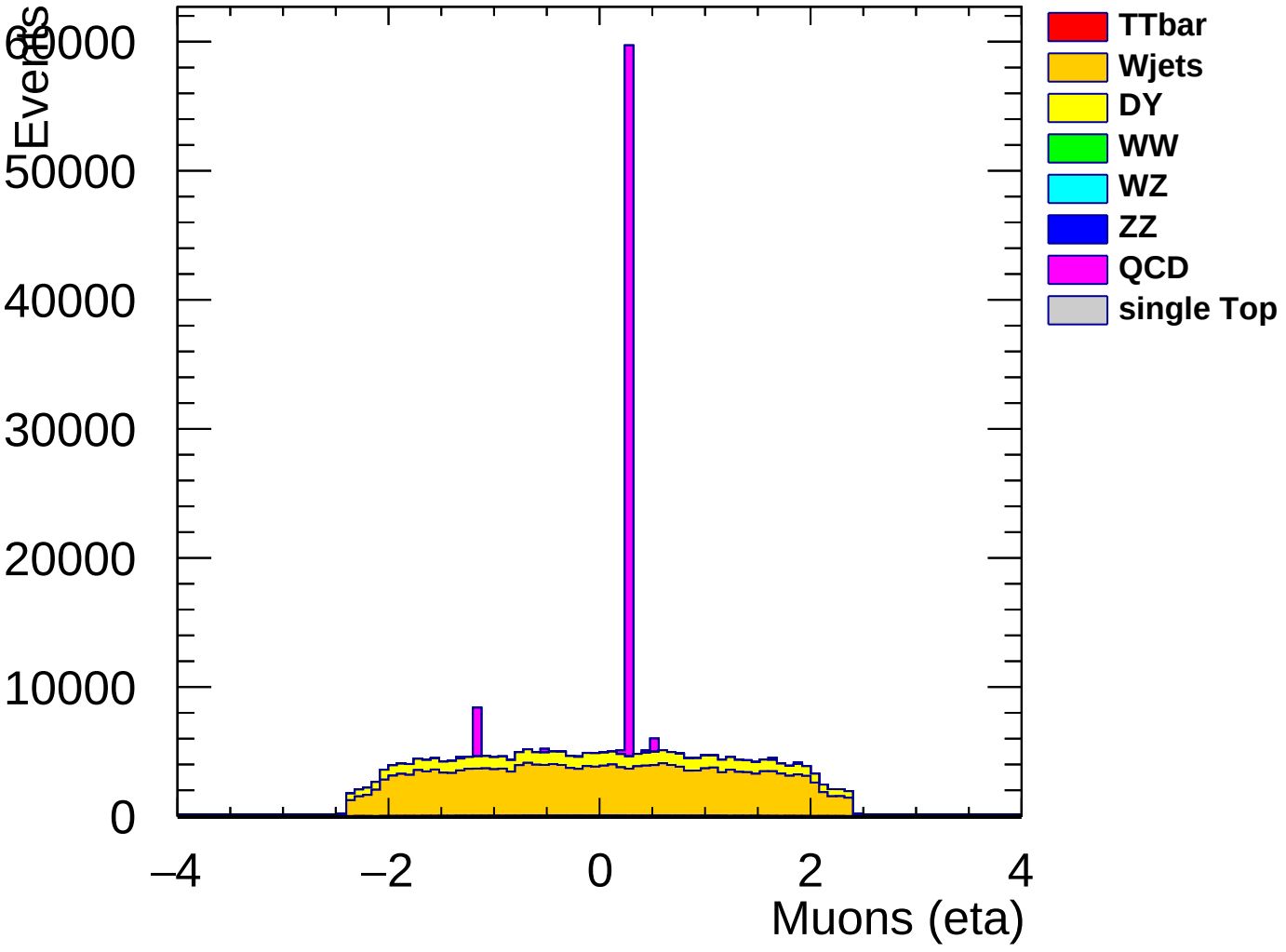

Events
35000
30000
25000
20000
15000
10000
5000
0
0
20
40
60
80
100
Invariant mass of jets
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

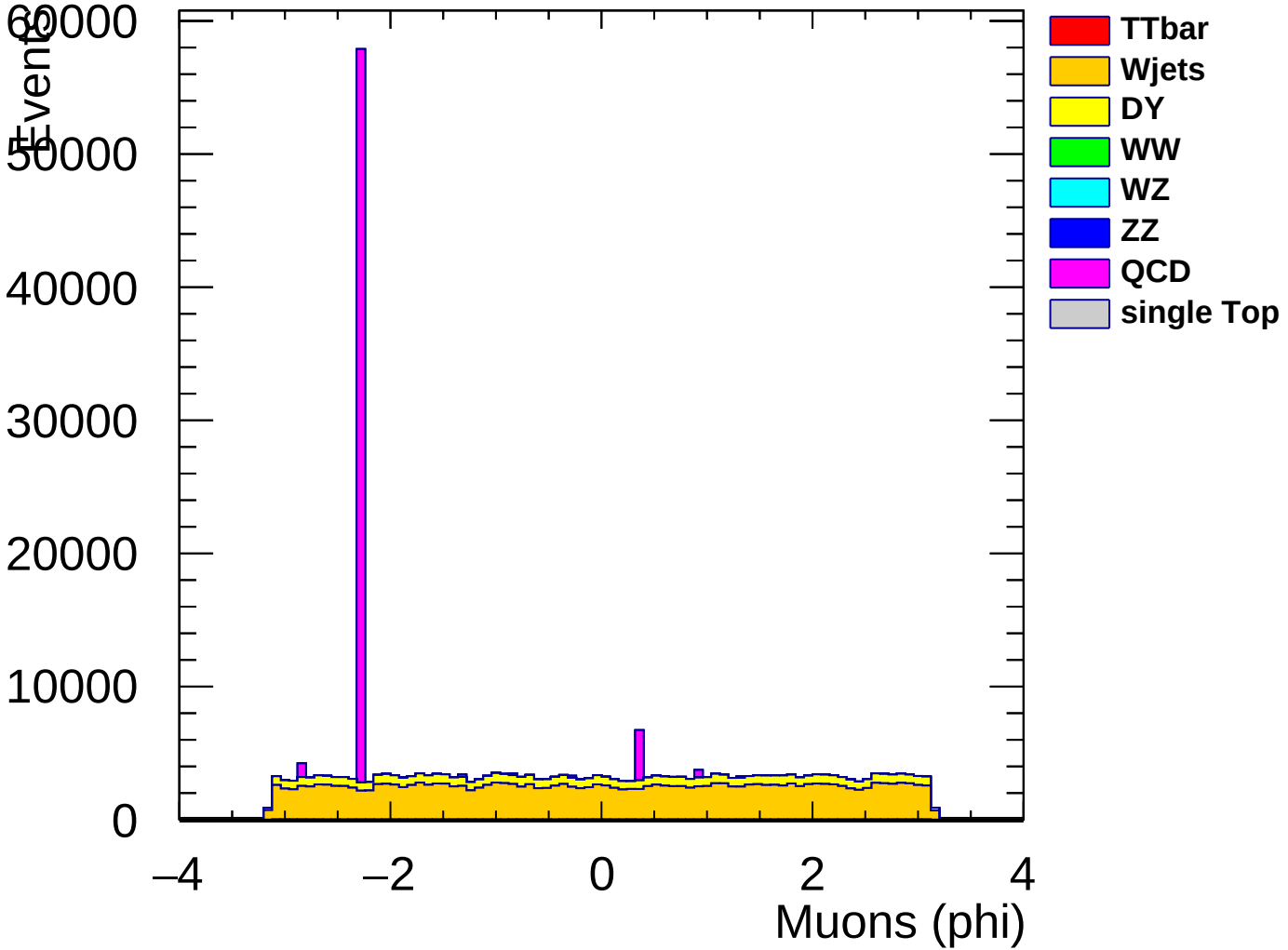

Events
16000
14000
12000
10000
8000
6000
4000
2000
0
0
20
40
60
80
100
Tranverse component for jets
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

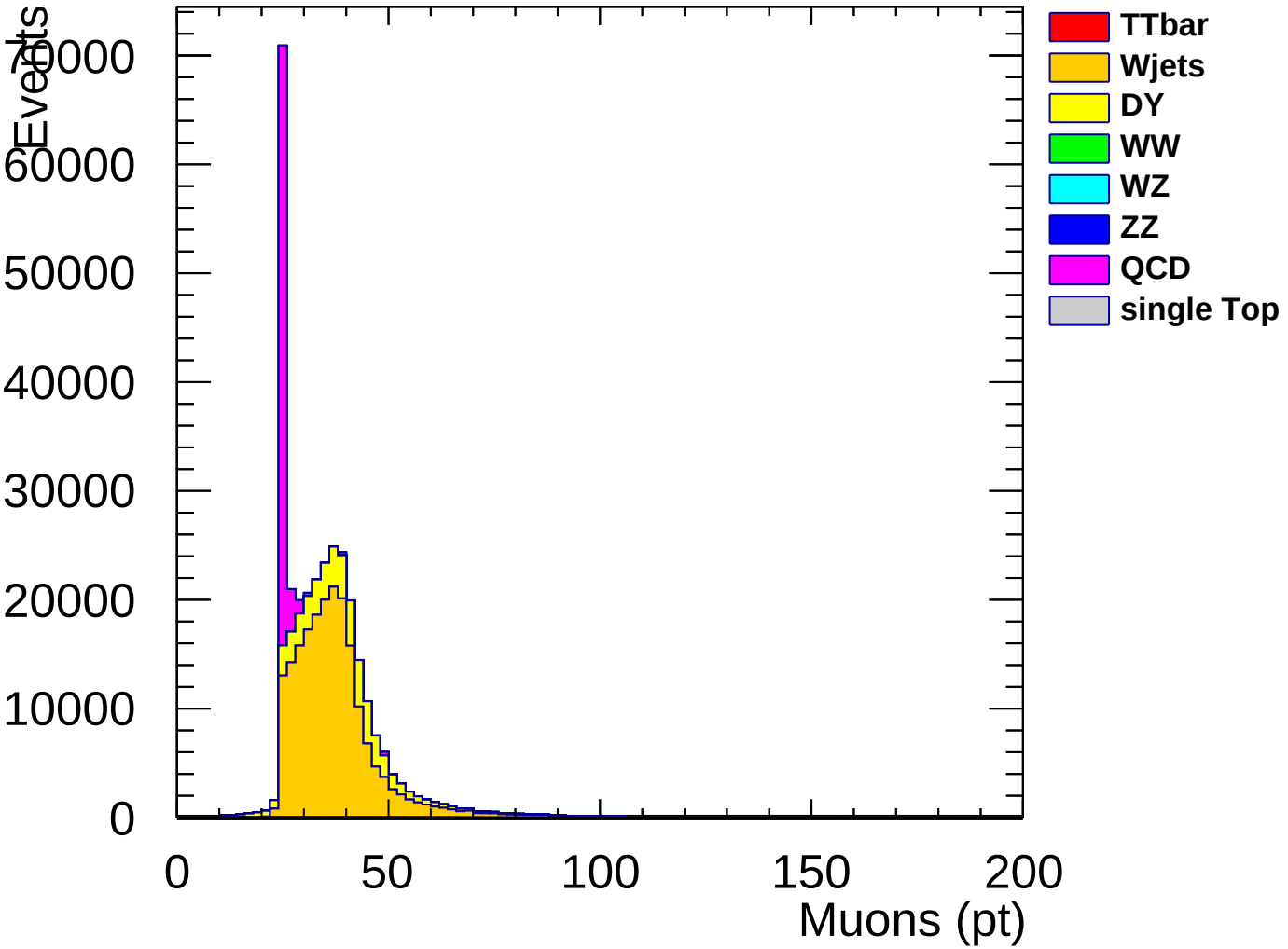

events
70000
60000
50000
40000
30000
20000
10000
0
0
20
40
60
80
100
sqrt(MET_px*MET_px + MET_py*MET_py)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

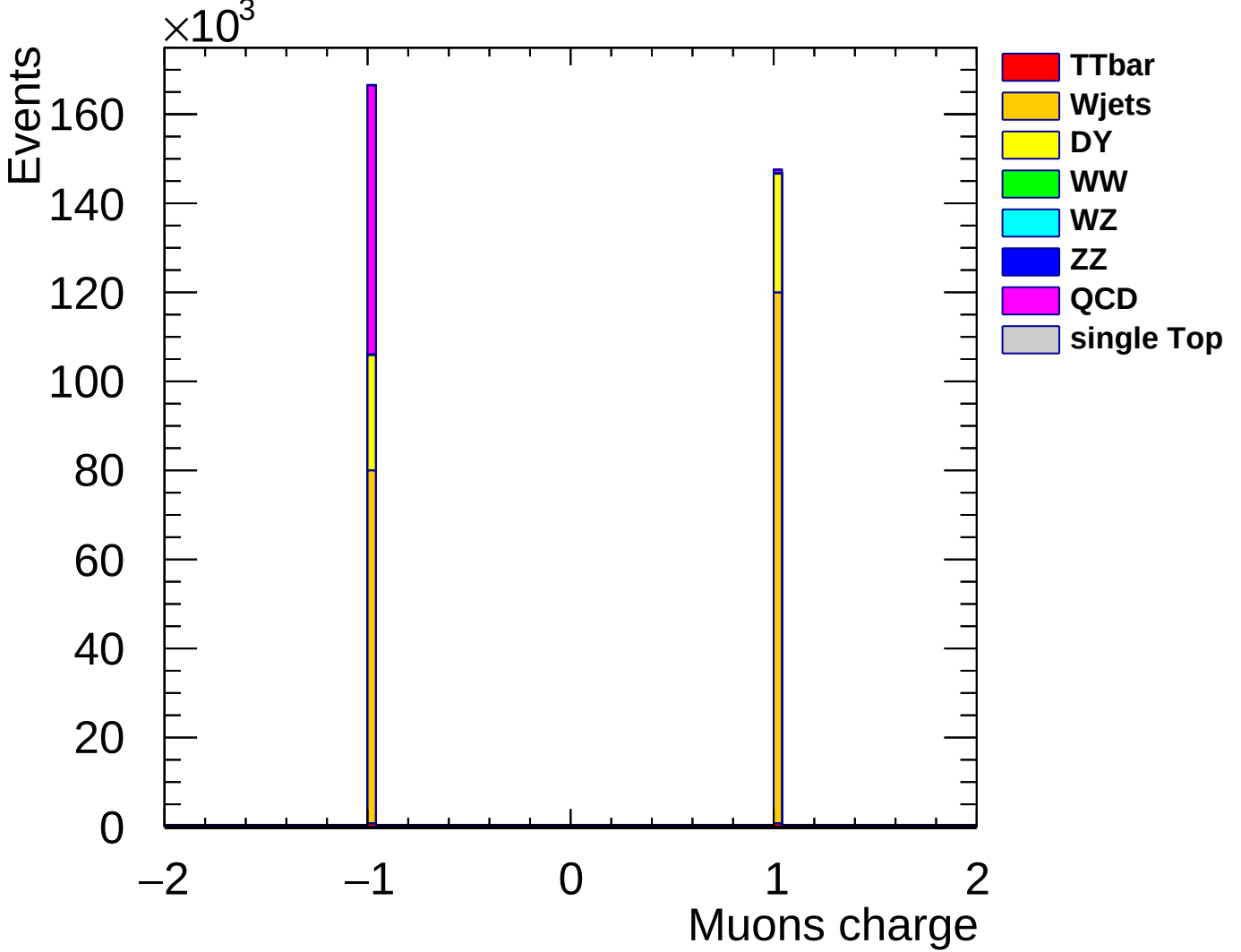

Events
900
800
700
600
500
400
300
200
100
0
0
20
40
60
80
100
Electrons isolation
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

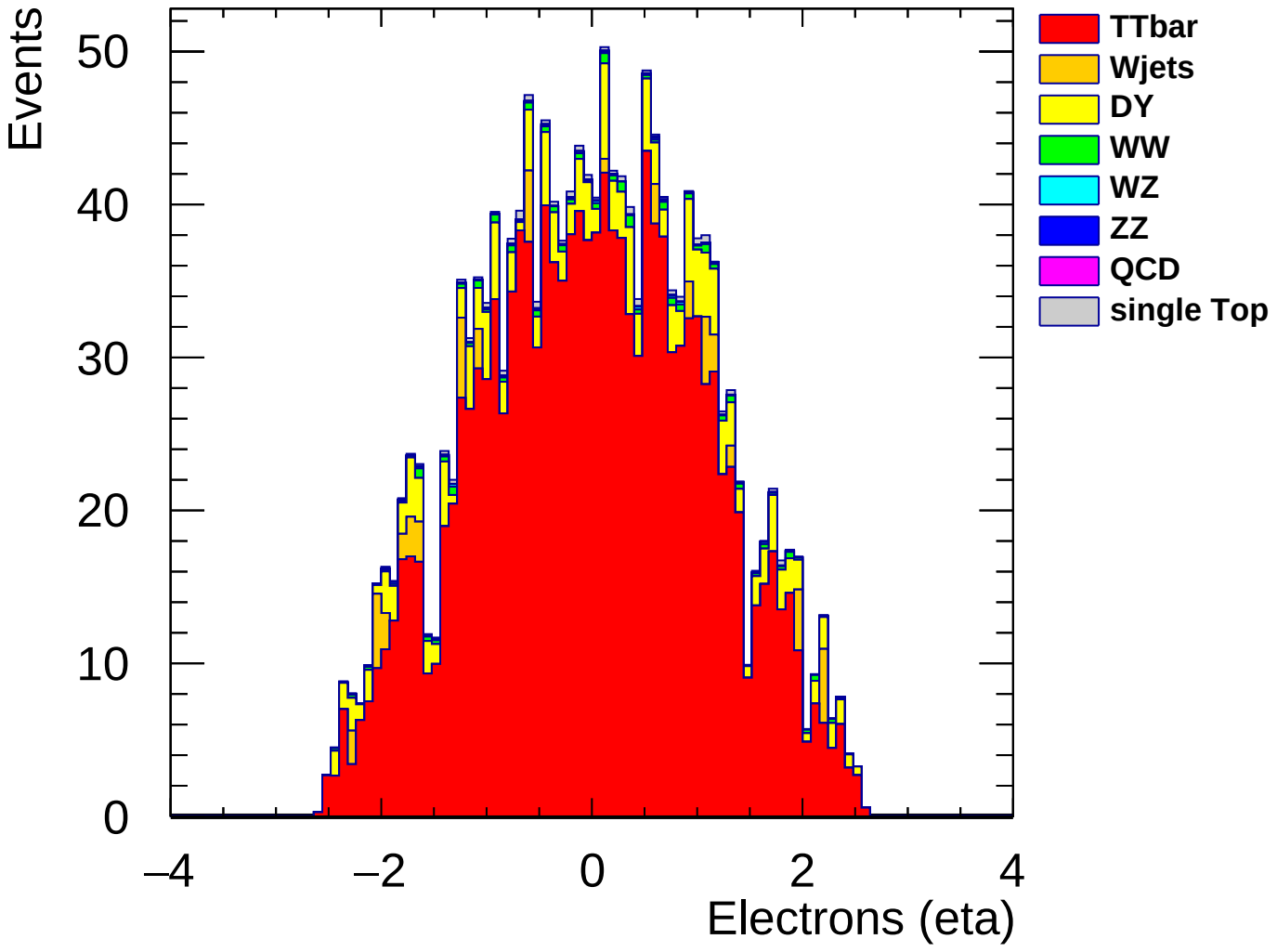

×10^3
Events
300
250
200
150
100
50
0
0
2
4
6
8
10
Electrons count
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

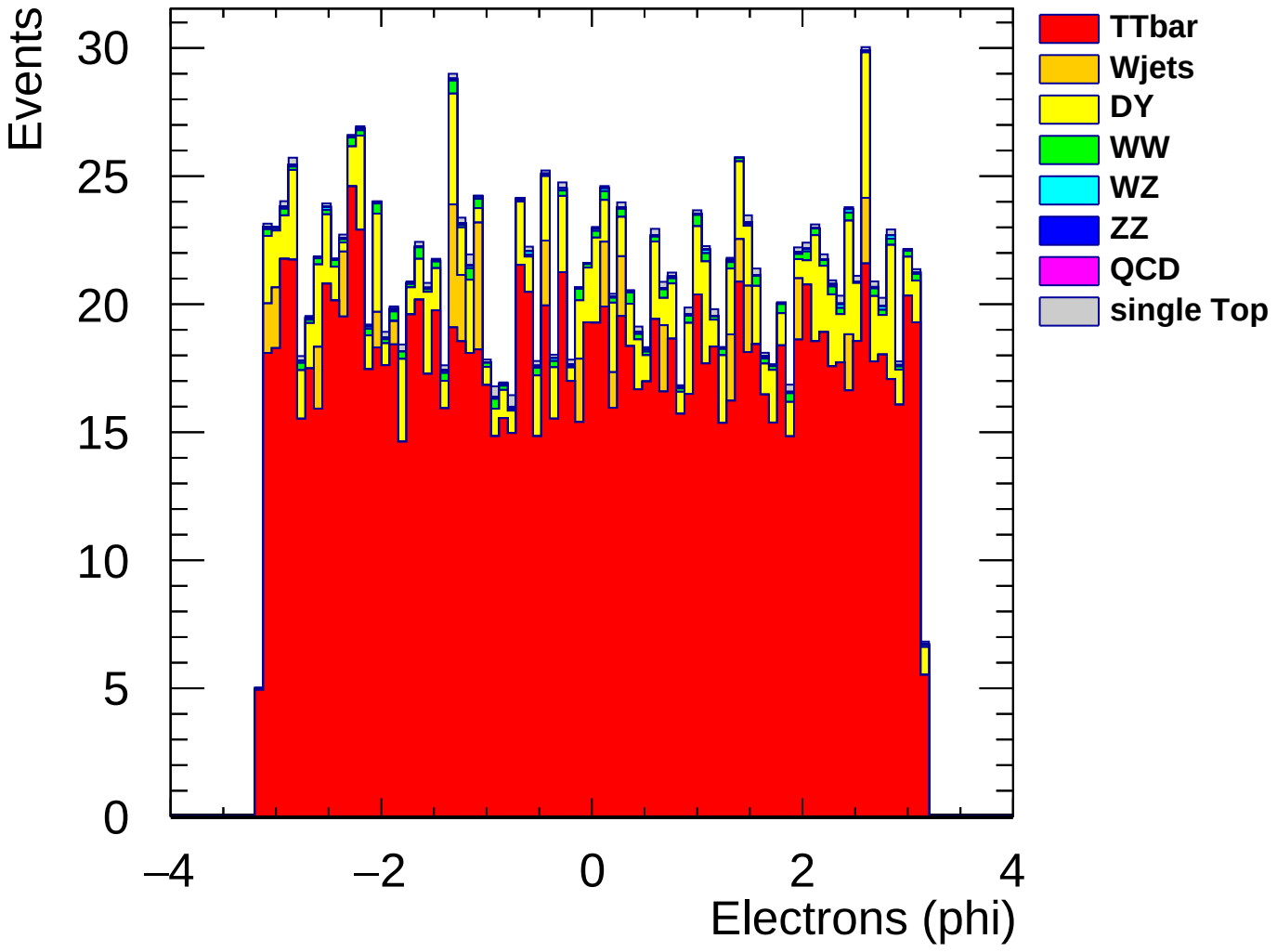

Events
60000
50000
40000
30000
20000
10000
0
–4
–2
0
2
4
Muons (eta)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

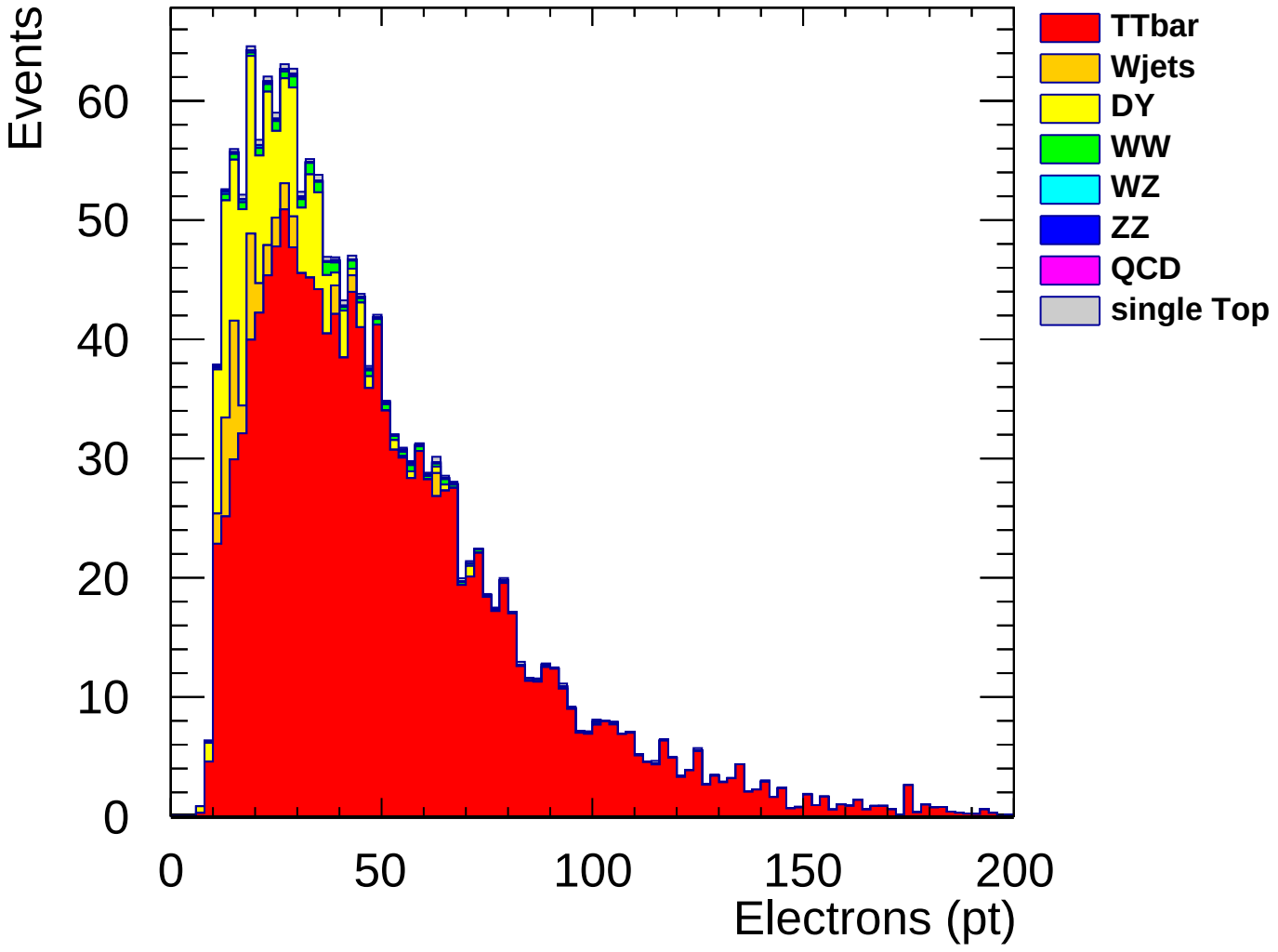

60000
50000
40000
30000
20000
10000
0
Events
–4
–2
0
2
4
Muons (phi)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

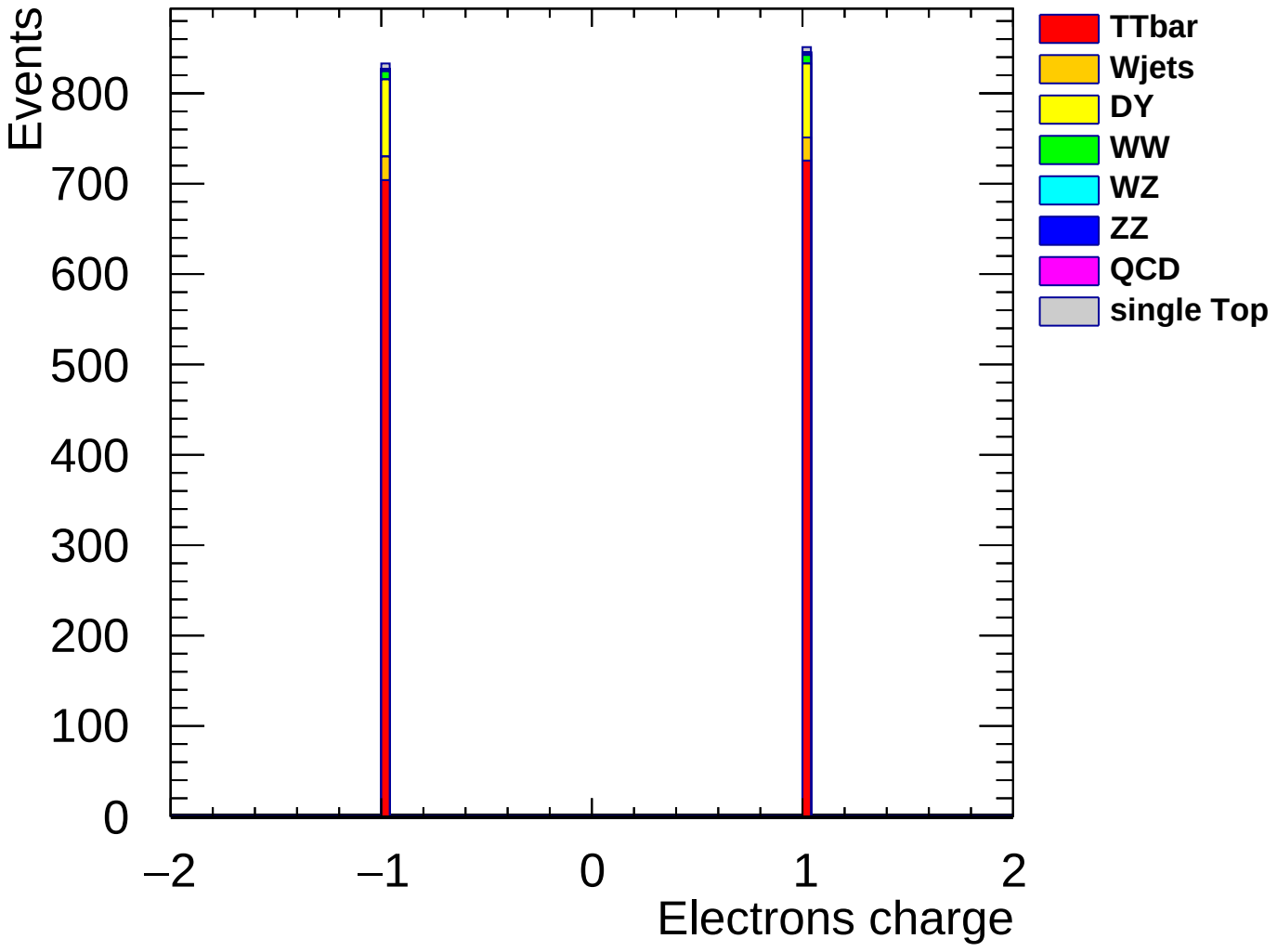

Events
70000
60000
50000
40000
30000
20000
10000
0
0
50
100
150
200
Muons (pt)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

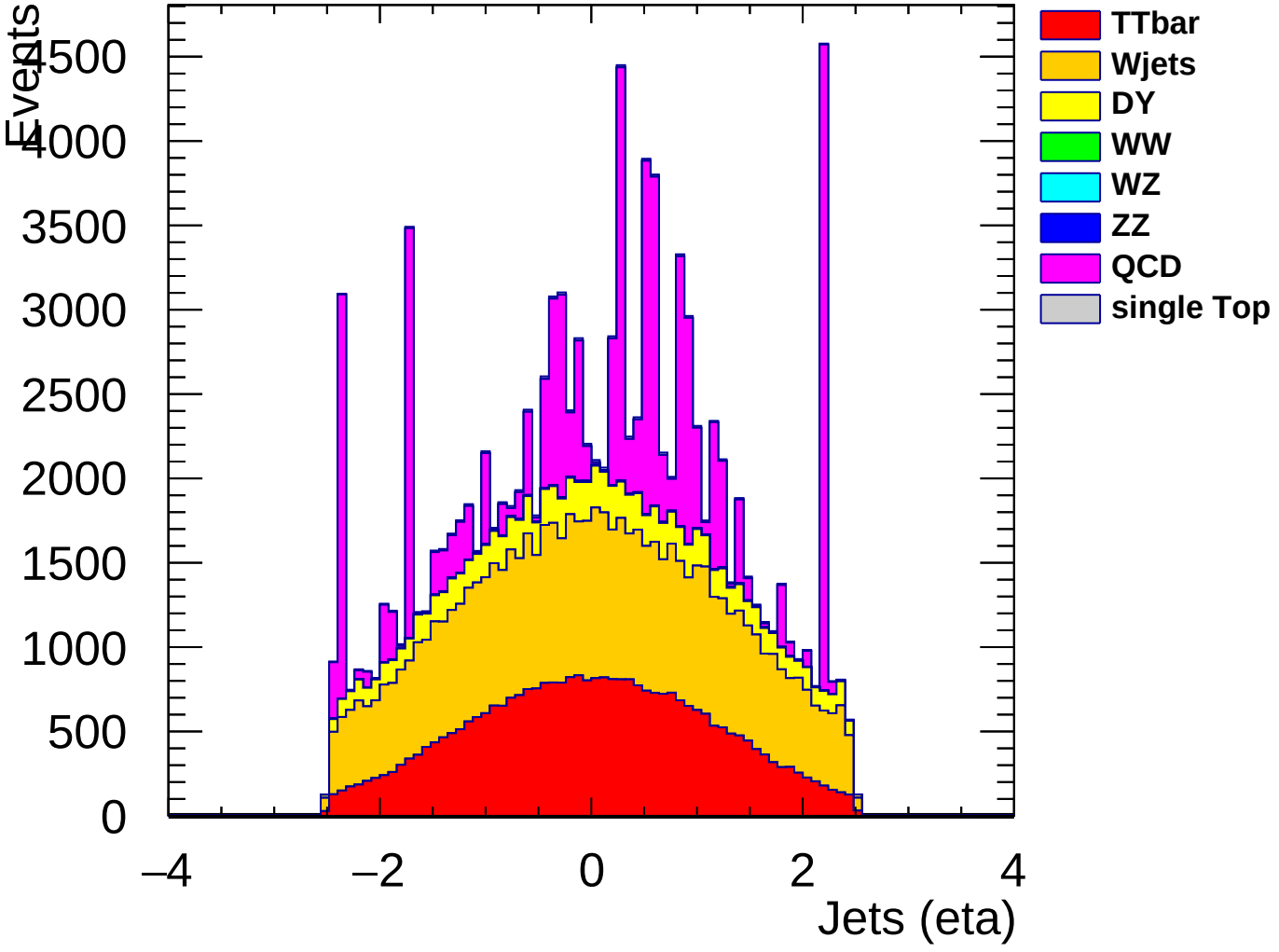

×10^3
Events
160
140
120
100
80
60
40
20
0
–2
–1
0
1
2
Muons charge
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

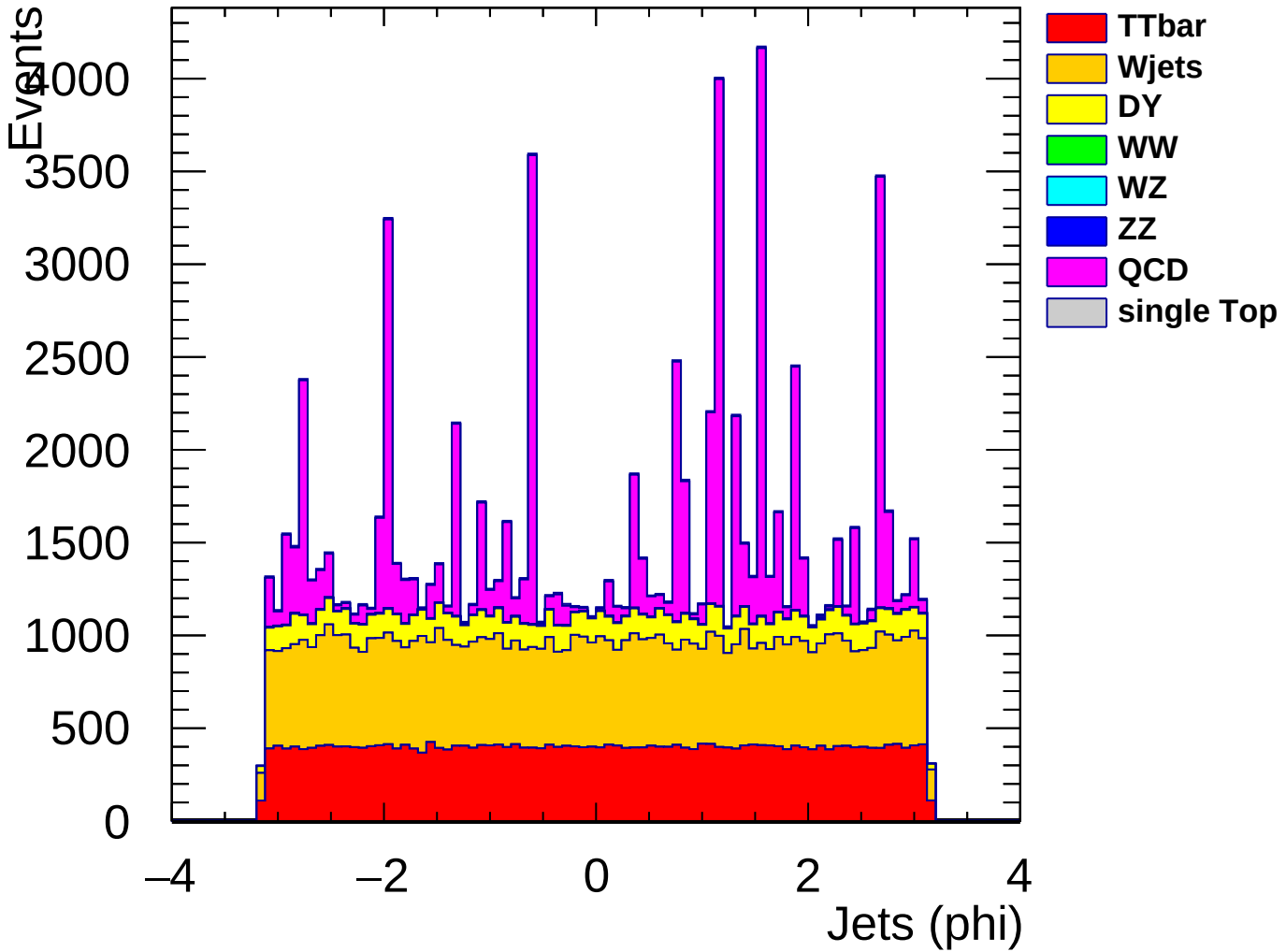

Events
50
40
30
20
10
0
–4
–2
0
2
4
Electrons (eta)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

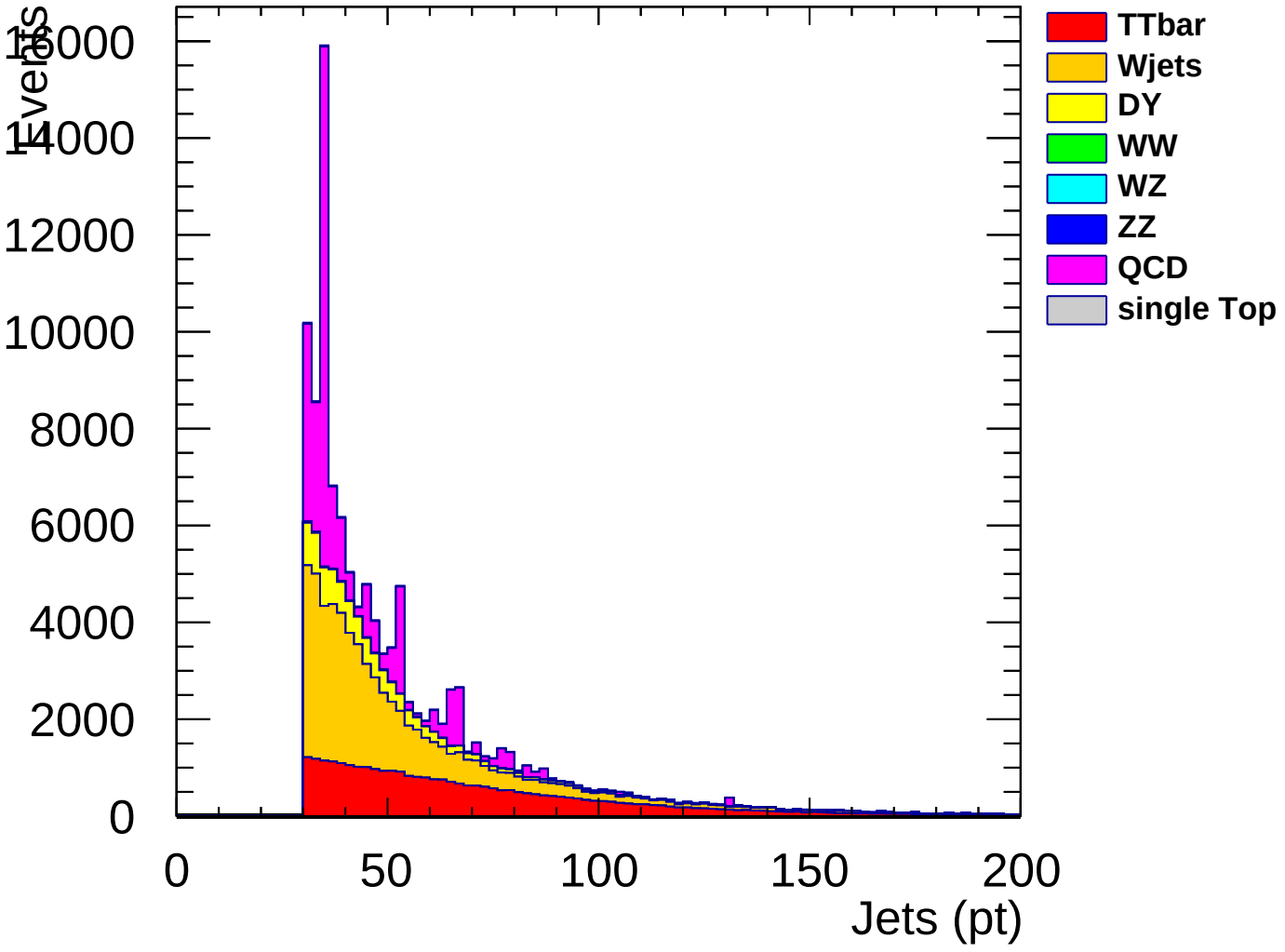

Events
30
25
20
15
10
5
0
–4
–2
0
2
4
Electrons (phi)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

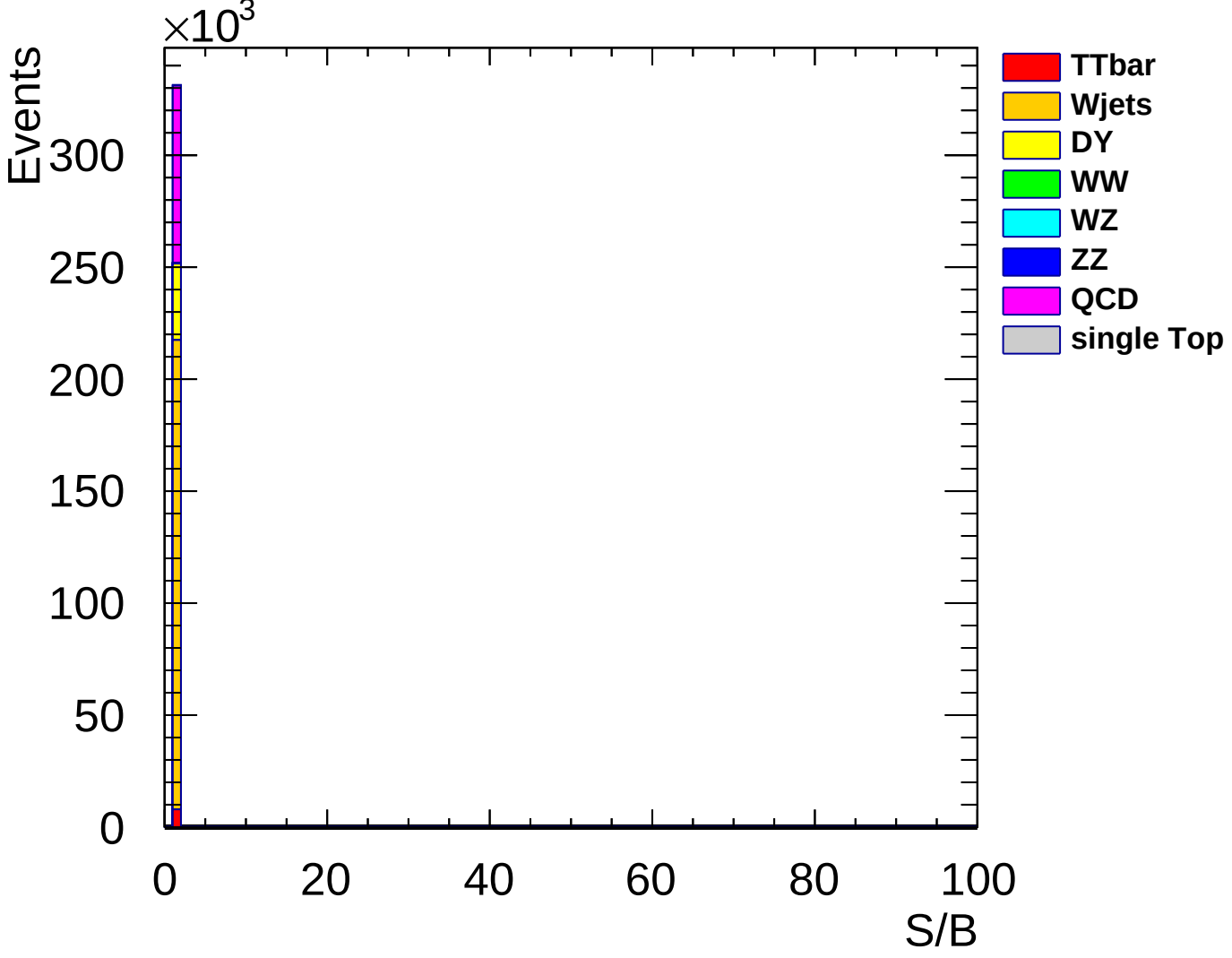

Events
60
50
40
30
20
10
0
0
50
100
150
200
Electrons (pt)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top

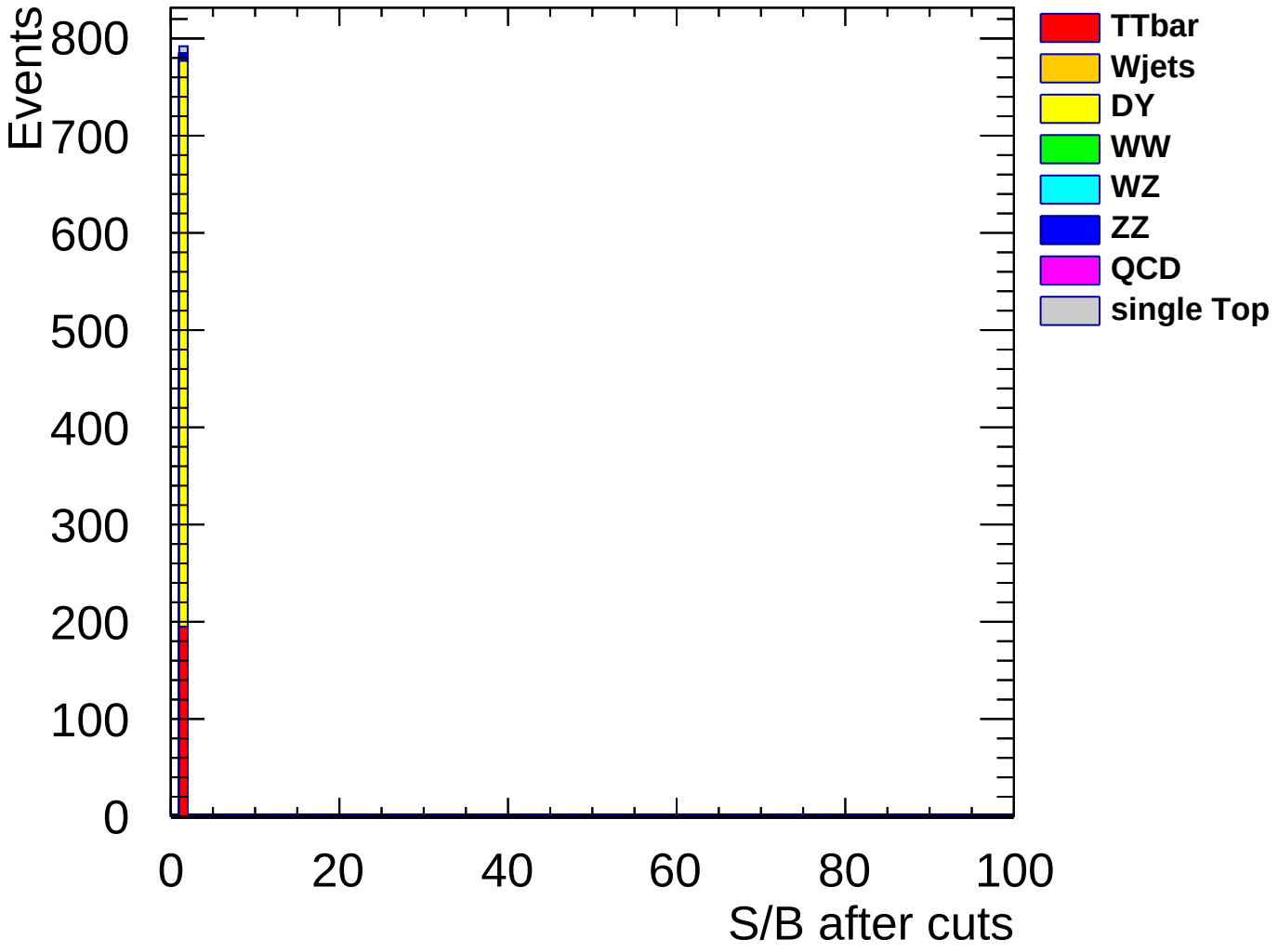

Events
800
700
600
500
400
300
200
100
0
–2
–1
0
1
2
Electrons charge
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top


Events
4500
4000
3500
3000
2500
2000
1500
1000
500
0
–4
–2
0
2
4
Jets (eta)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top


Events
4000
3500
3000
2500
2000
1500
1000
500
0
–4
–2
0
2
4
Jets (phi)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top


Events
16000
14000
12000
10000
8000
6000
4000
2000
0
0
50
100
150
200
Jets (pt)
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top


×10^3
Events
300
250
200
150
100
50
0
0
20
40
60
80
100
S/B
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top


Events
800
700
600
500
400
300
200
100
0
0
20
40
60
80
100
S/B after cuts
TTbar
Wjets
DY
WW
WZ
ZZ
QCD
single Top