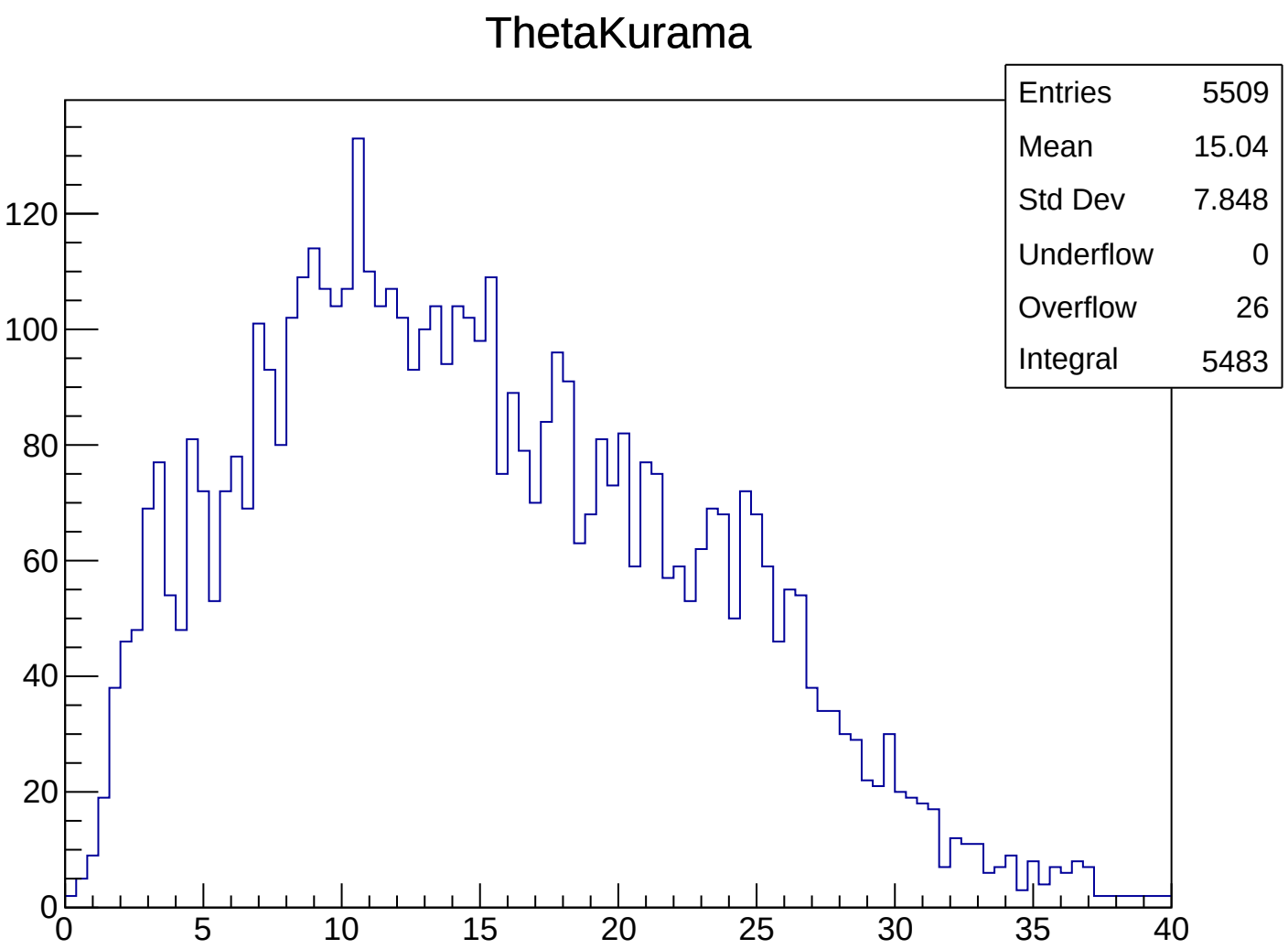
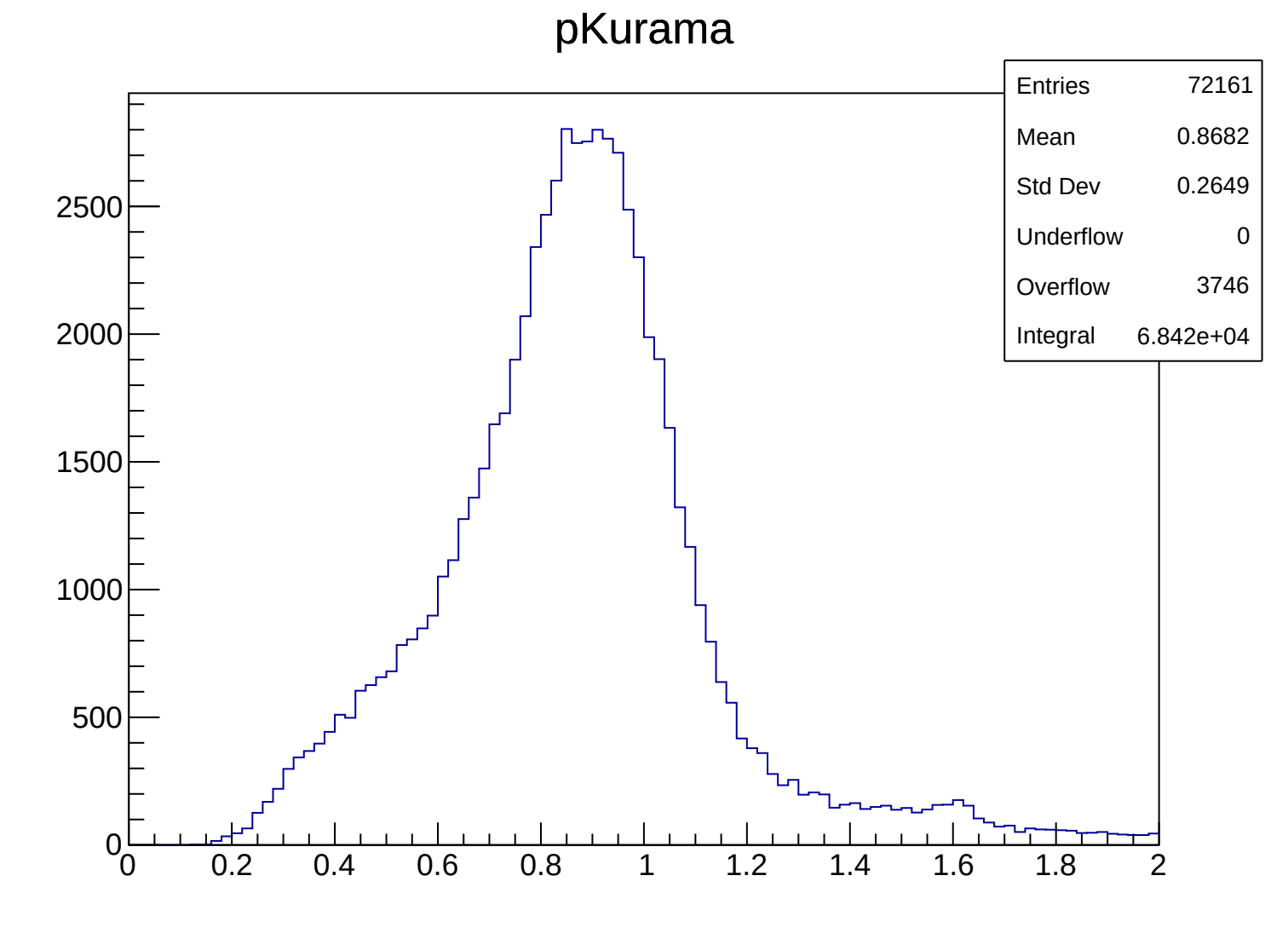
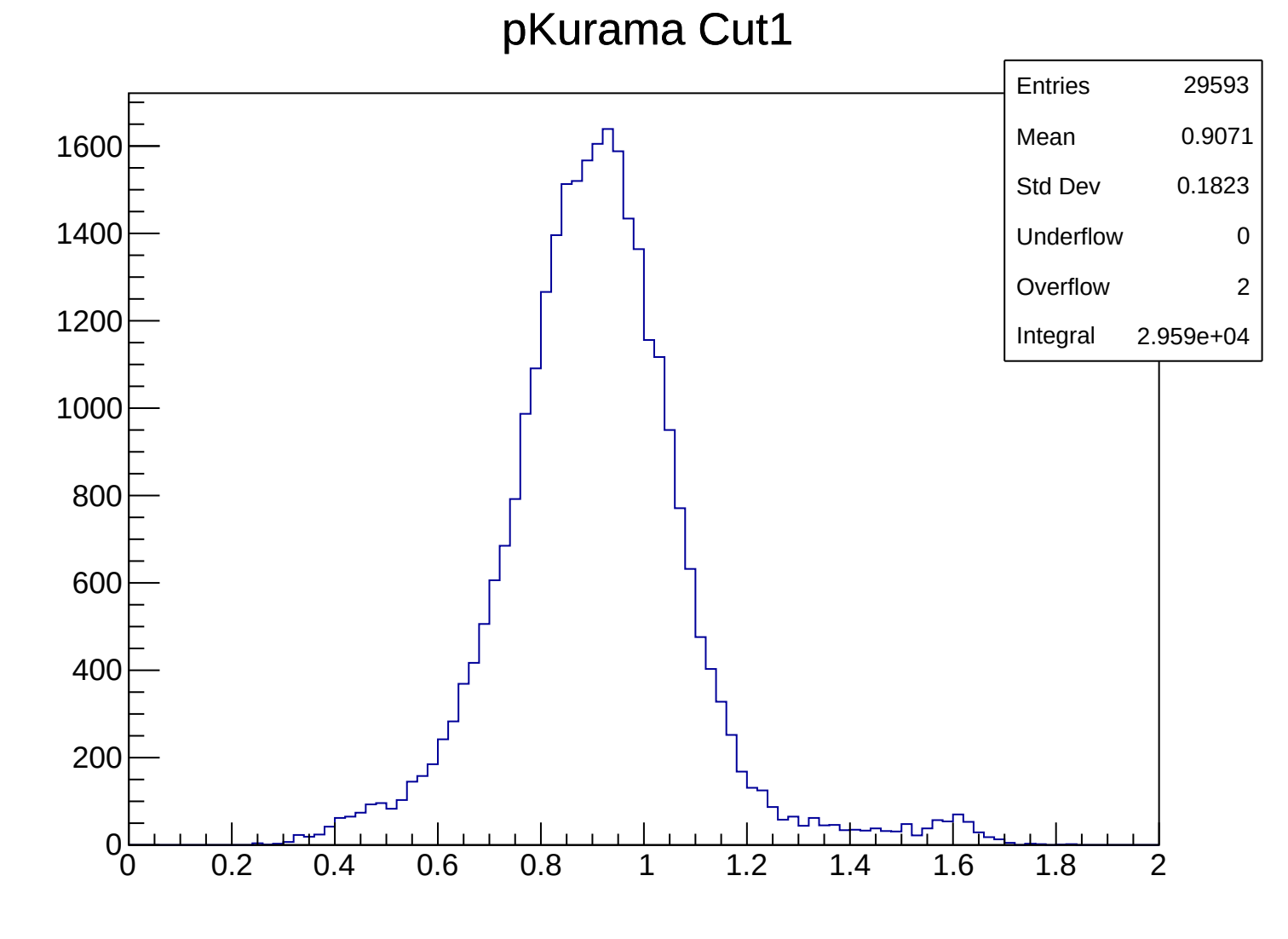
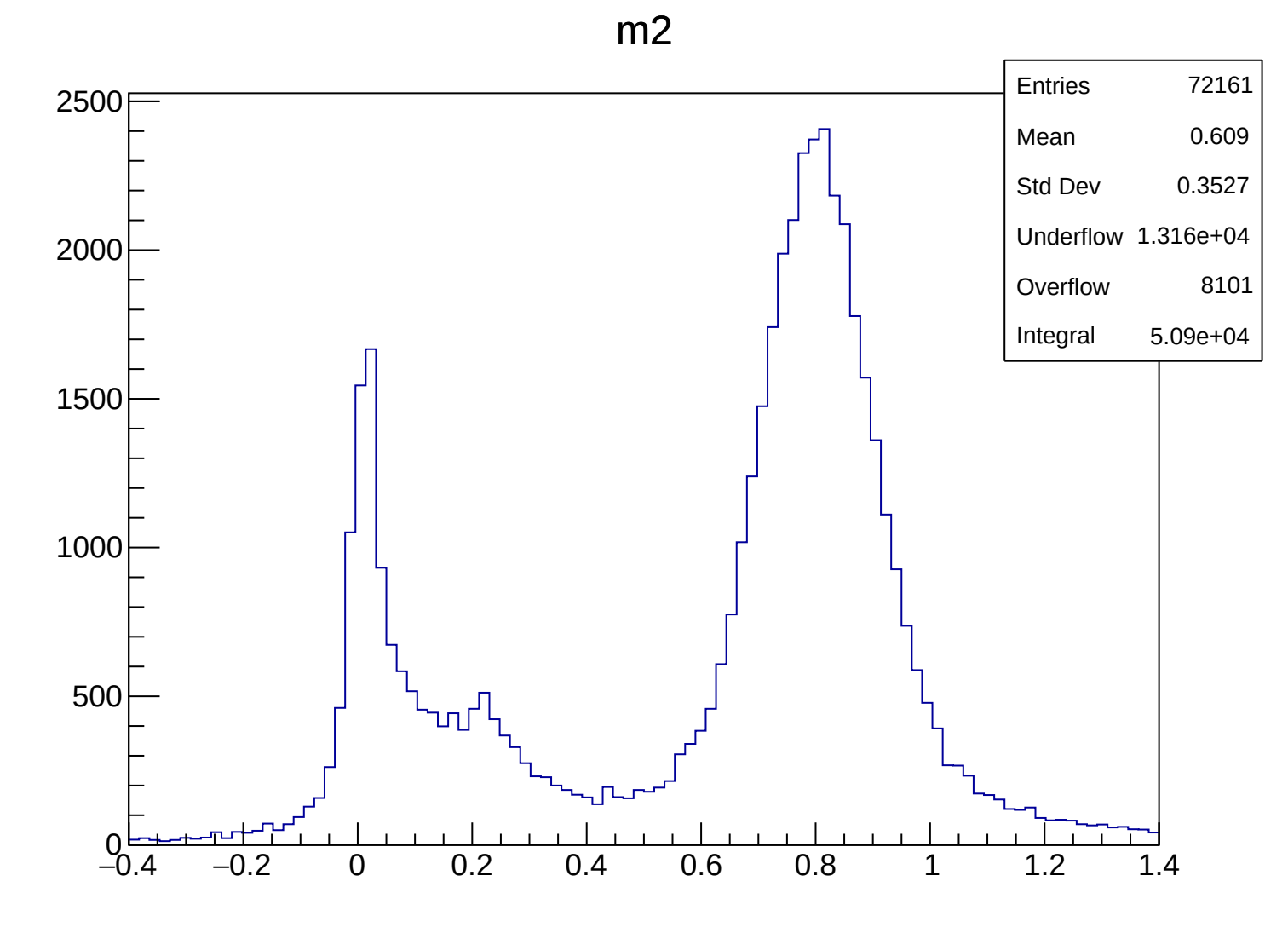
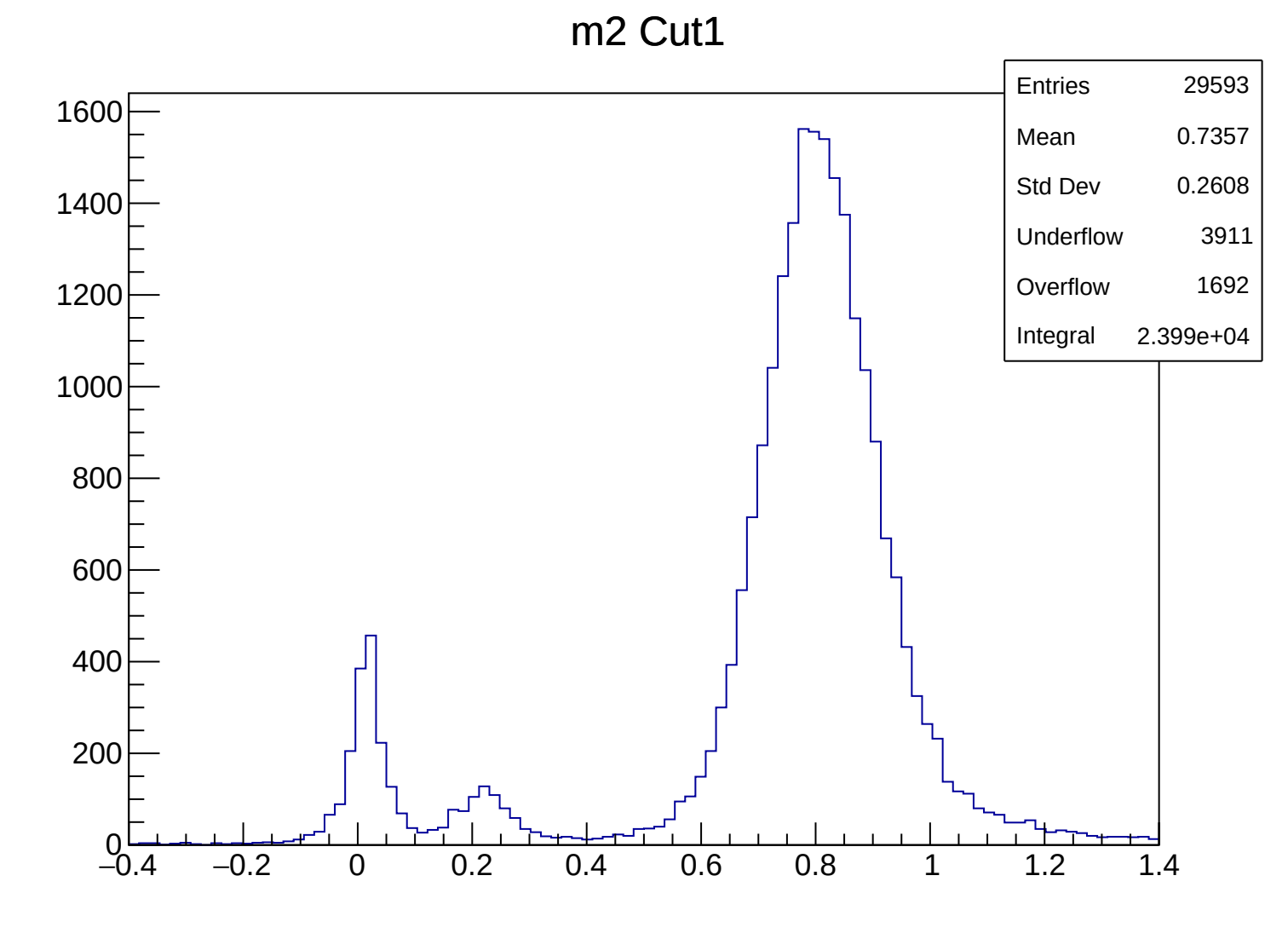
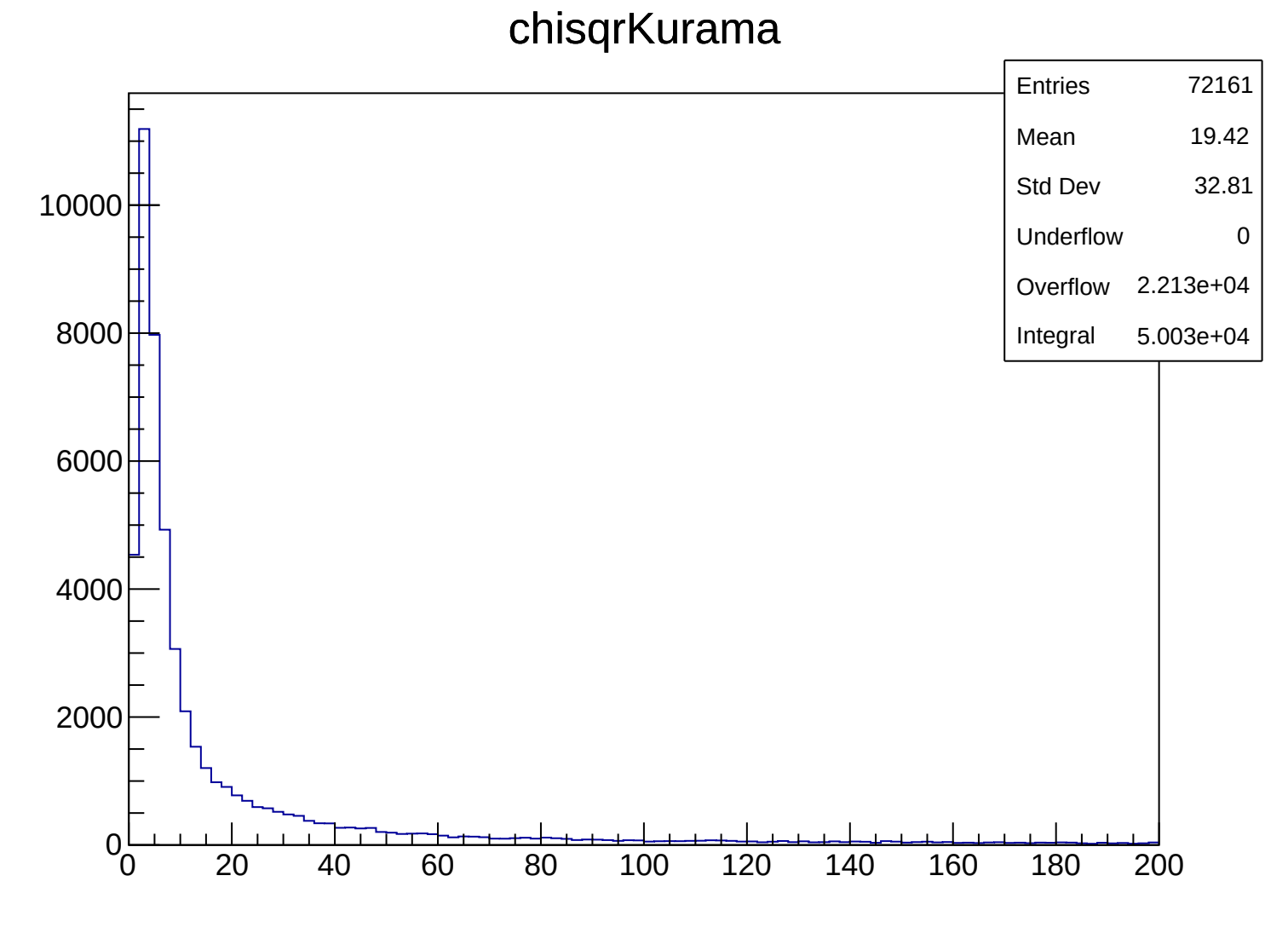

ThetaKurama
Entries 5509
Mean 15.04
Std Dev 7.848
Underflow 0
Overflow 26
Integral 5483
0
20
40
60
80
100
120
0
5
10
15
20
25
30
35
40

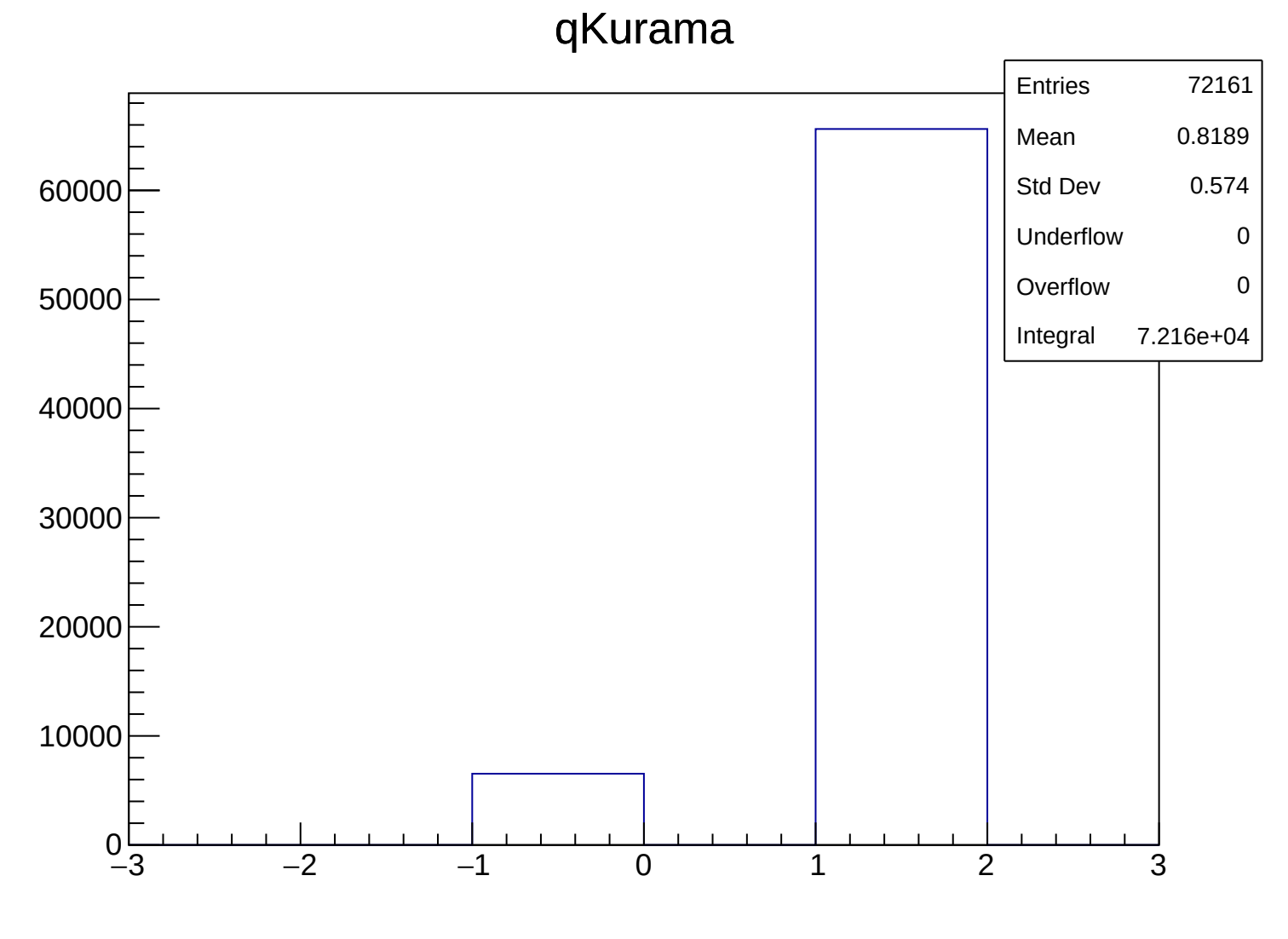

pKurama
Entries 72161
Mean 0.8682
Std Dev 0.2649
Underflow 0
Overflow 3746
Integral 6.842e+04
2500
2000
1500
1000
500
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

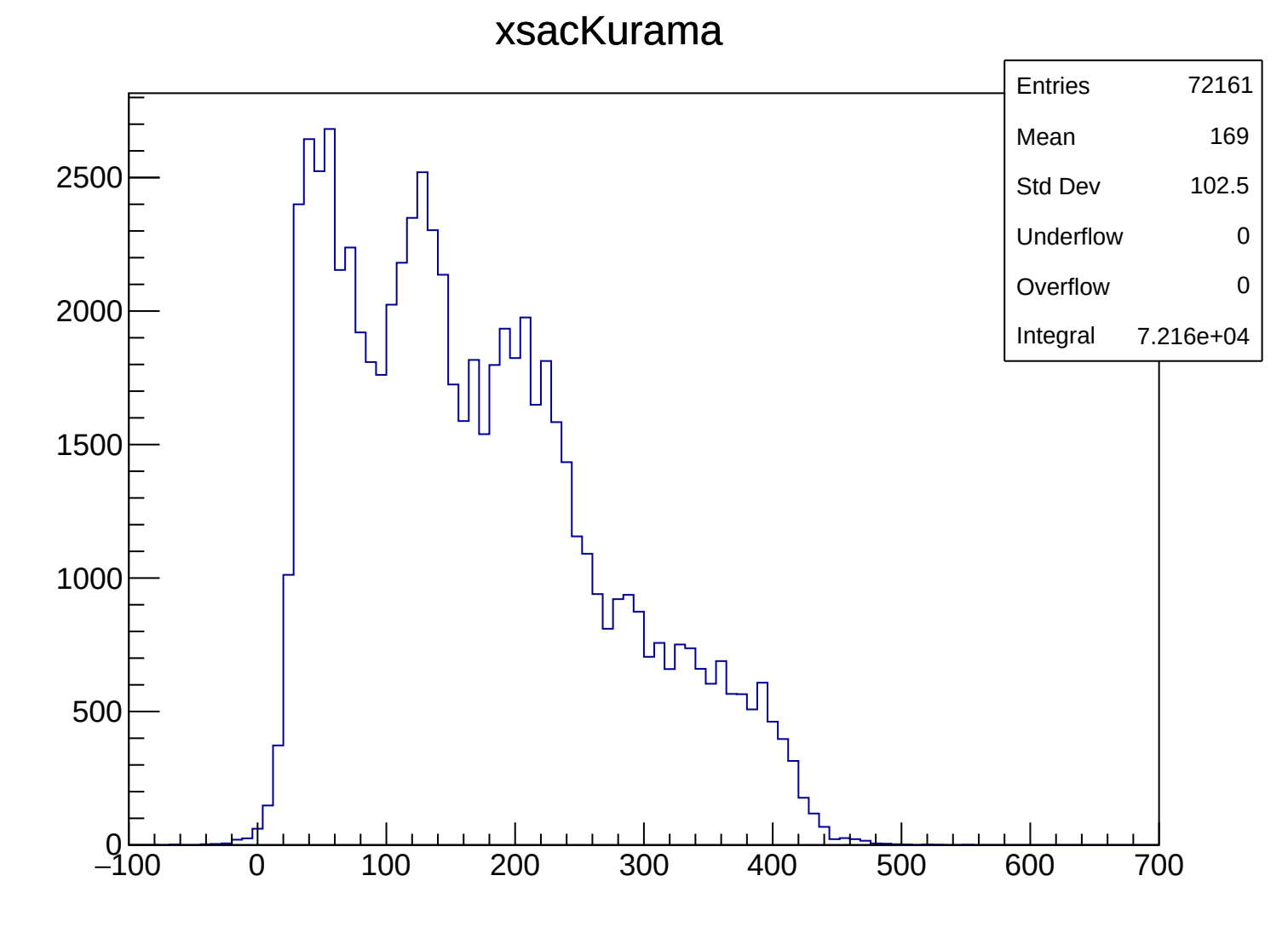

pKurama Cut1
Entries 29593
Mean 0.9071
Std Dev 0.1823
Underflow 0
Overflow 2
Integral 2.959e+04
1600
1400
1200
1000
800
600
400
200
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

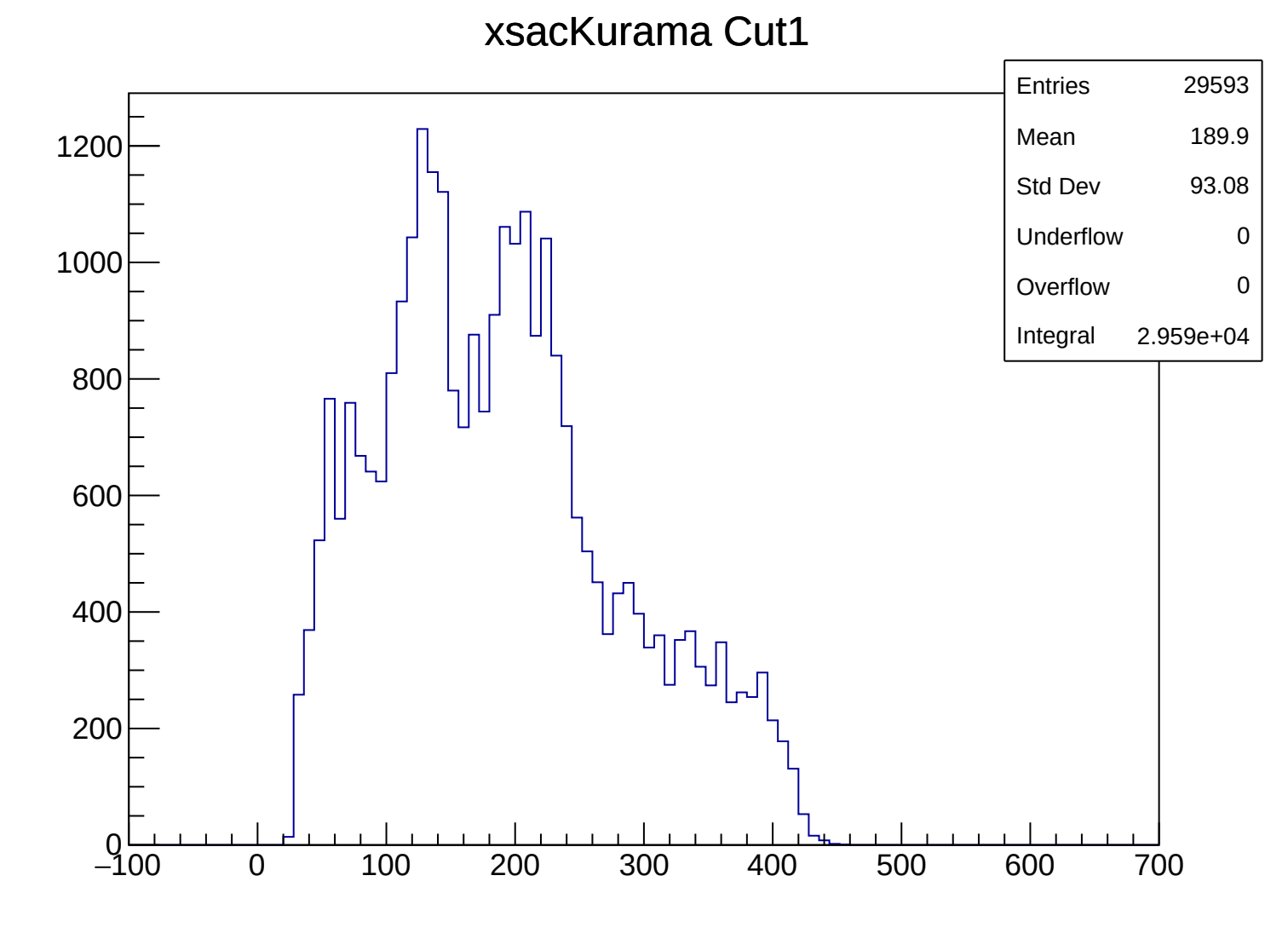

m2
Entries 72161
Mean 0.609
Std Dev 0.3527
Underflow 1.316e+04
Overflow 8101
Integral 5.09e+04
2500
2000
1500
1000
500
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

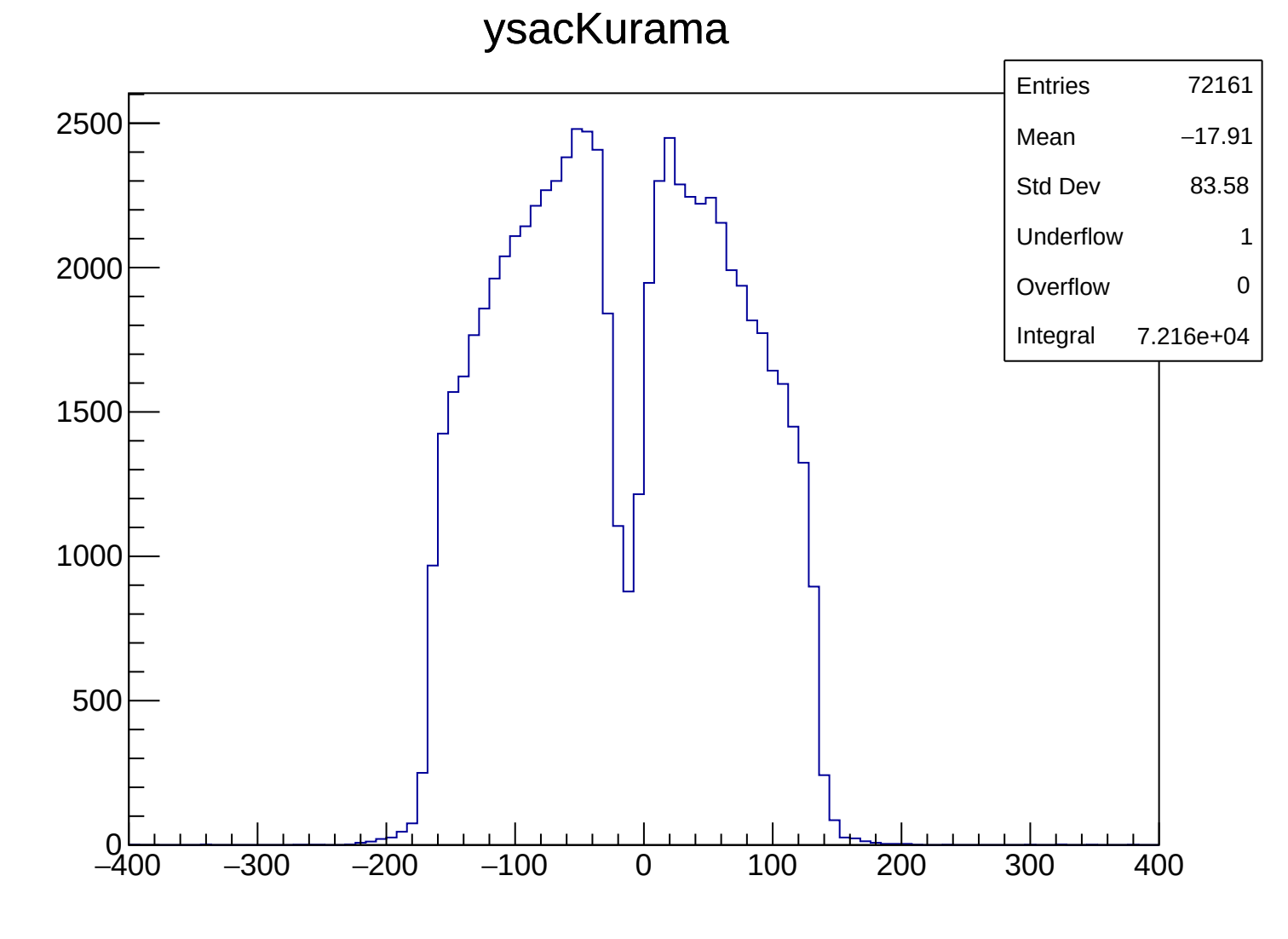

m2 Cut1
Entries 29593
Mean 0.7357
Std Dev 0.2608
Underflow 3911
Overflow 1692
Integral 2.399e+04
1600
1400
1200
1000
800
600
400
200
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

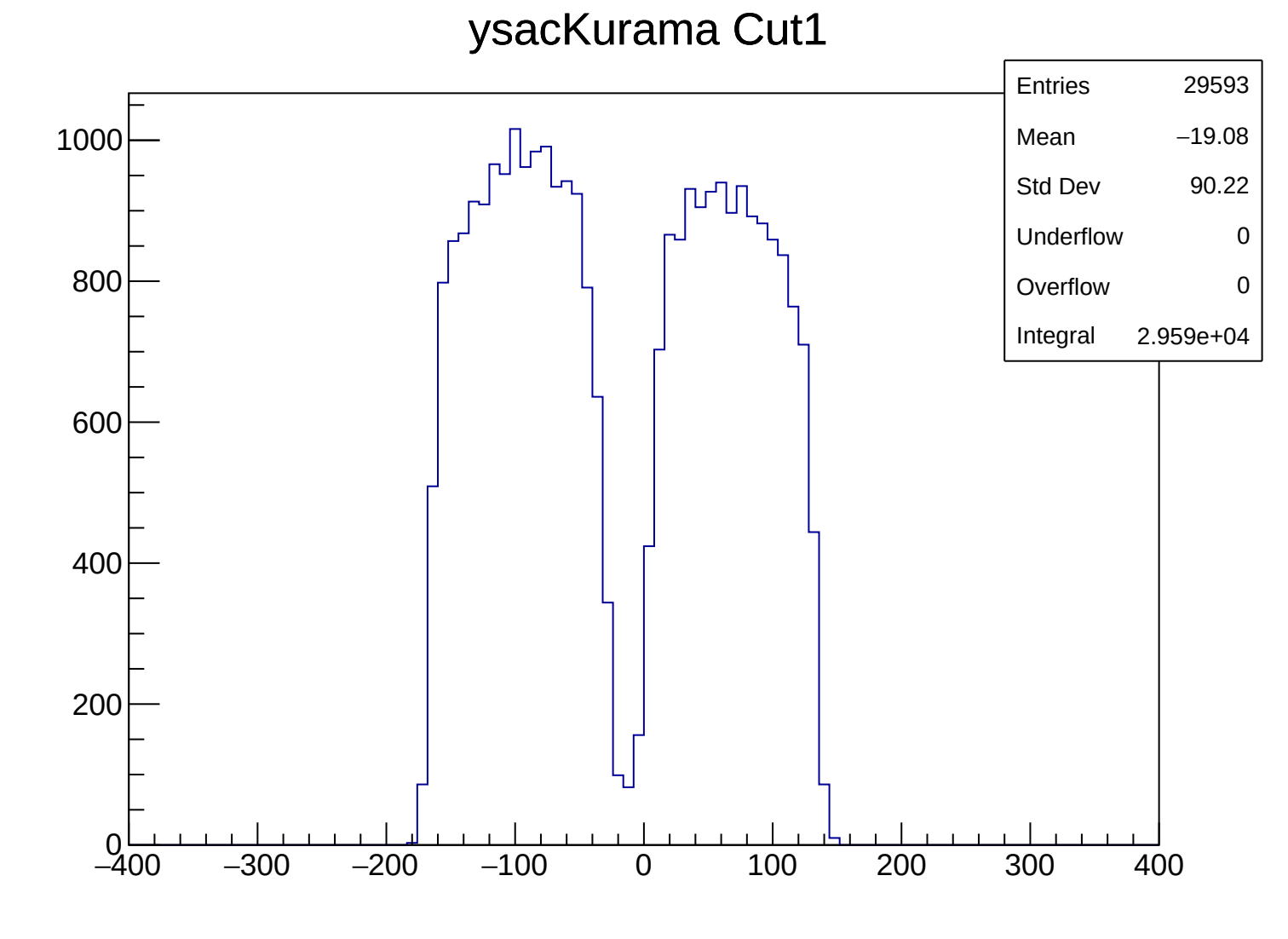

chisqrKurama
Entries 72161
Mean 19.42
Std Dev 32.81
Underflow 0
Overflow 2.213e+04
Integral 5.003e+04
10000
8000
6000
4000
2000
0
0
20
40
60
80
100
120
140
160
180
200

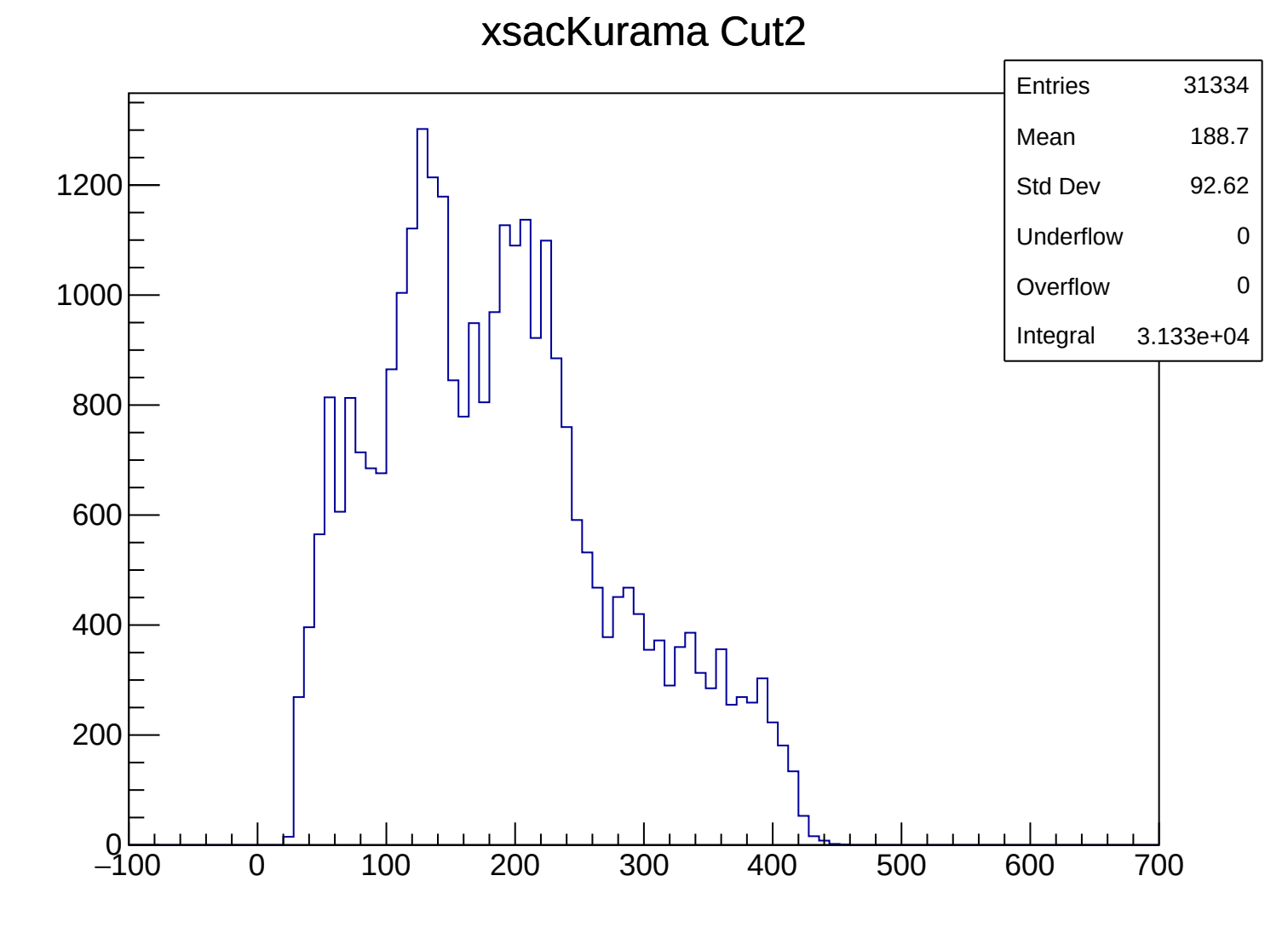

qKurama
Entries 72161
Mean 0.8189
Std Dev 0.574
Underflow 0
Overflow 0
Integral 7.216e+04
60000
50000
40000
30000
20000
10000
0
−3
−2
−1
0
1
2
3

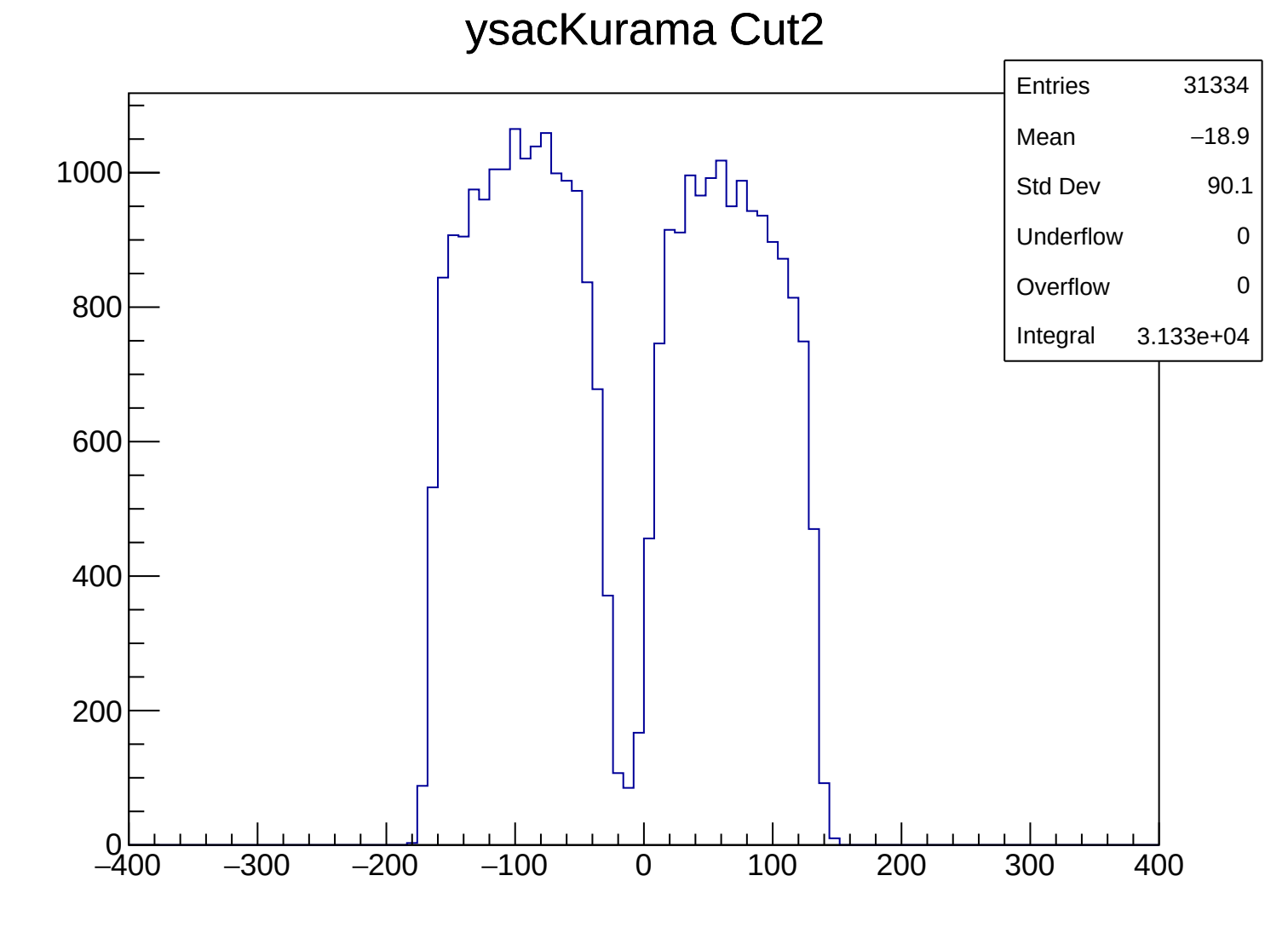

xsacKurama
Entries 72161
Mean 169
Std Dev 102.5
Underflow 0
Overflow 0
Integral 7.216e+04
2500
2000
1500
1000
500
0
–100
0
100
200
300
400
500
600
700

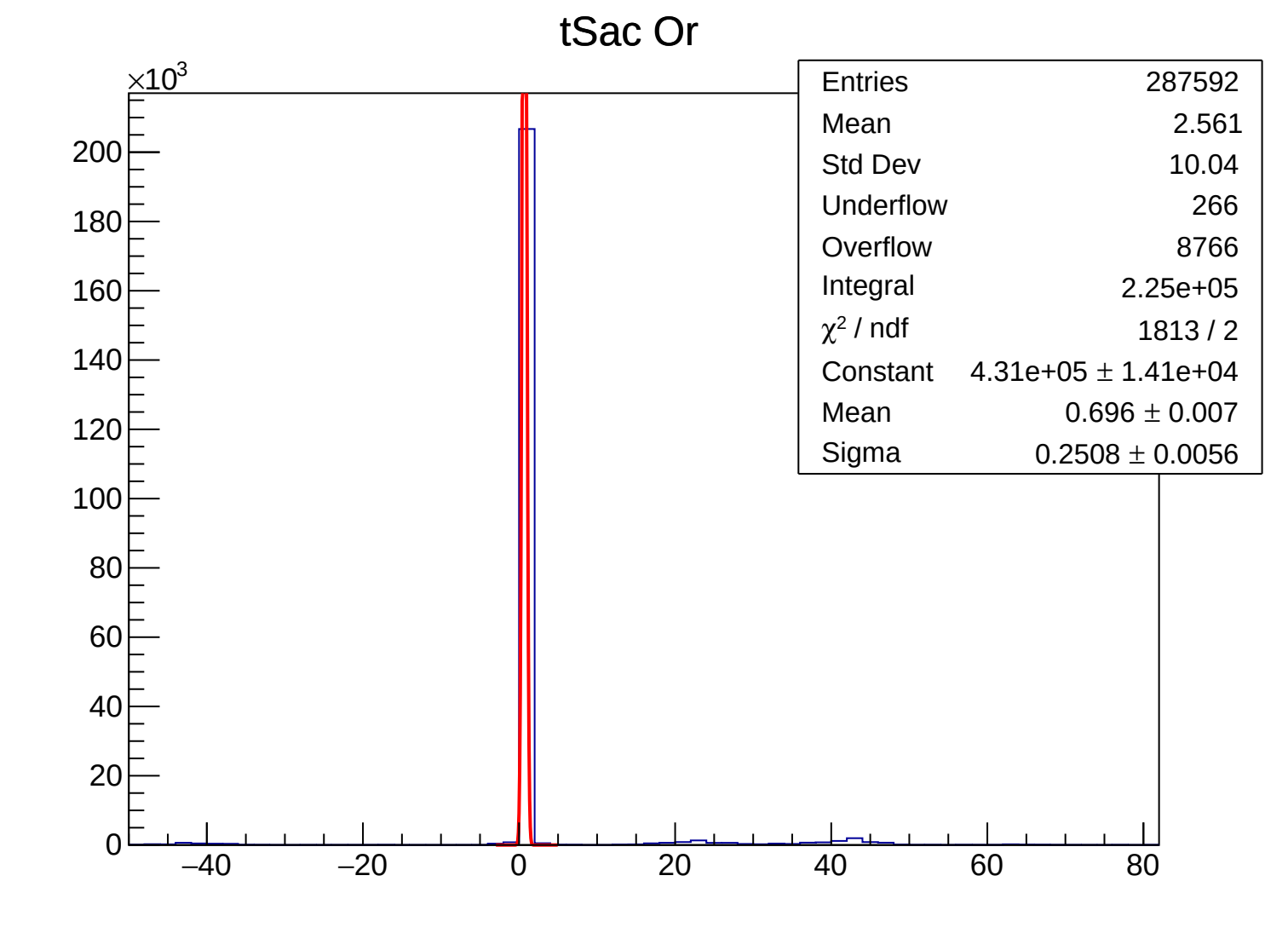

xsacKurama Cut1
Entries 29593
Mean 189.9
Std Dev 93.08
Underflow 0
Overflow 0
Integral 2.959e+04
1200
1000
800
600
400
200
0
–100
0
100
200
300
400
500
600
700

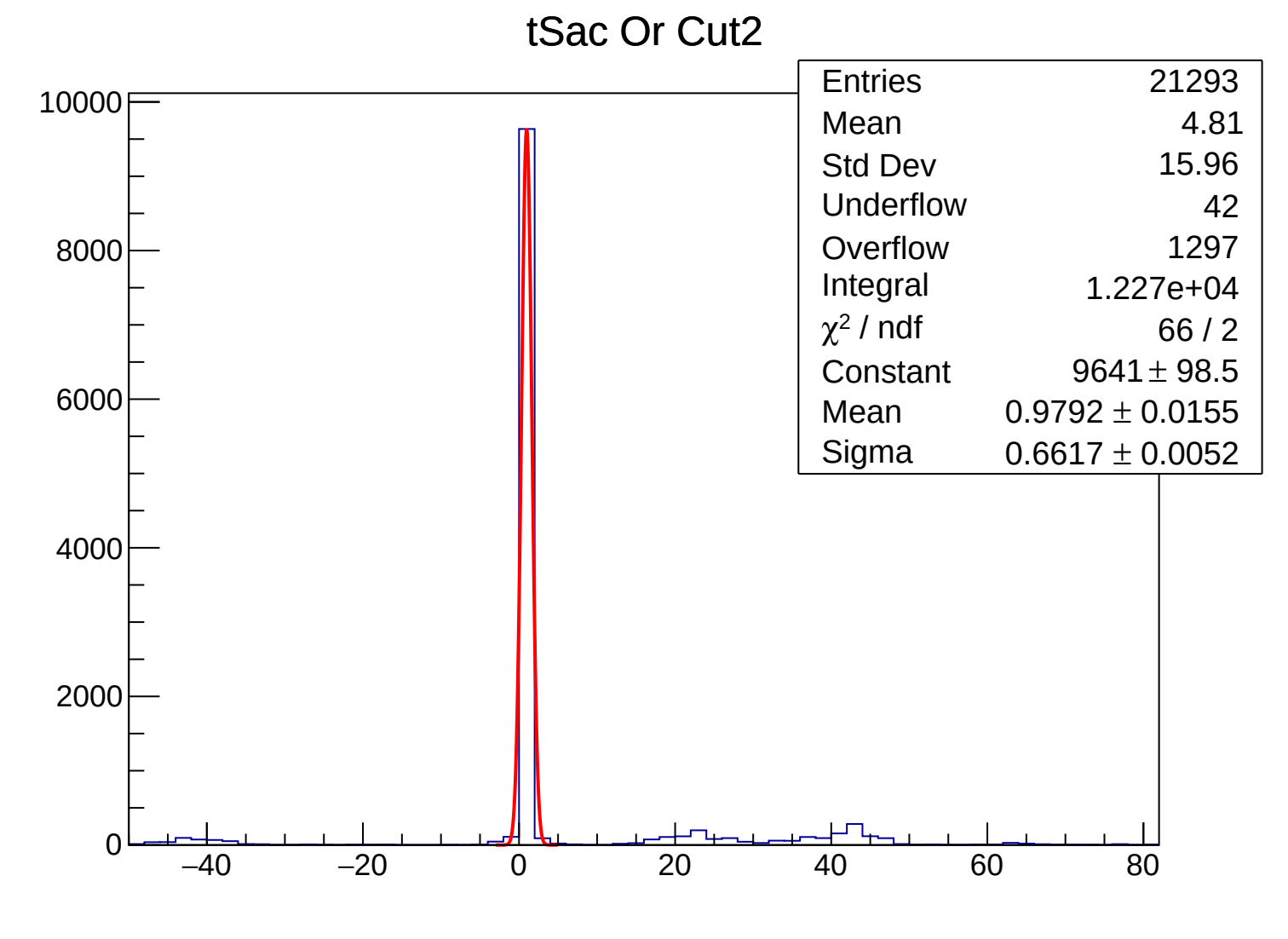

ysacKurama
Entries 72161
Mean –17.91
Std Dev 83.58
Underflow 1
Overflow 0
Integral 7.216e+04
2500
2000
1500
1000
500
0
–400
–300
–200
–100
0
100
200
300
400

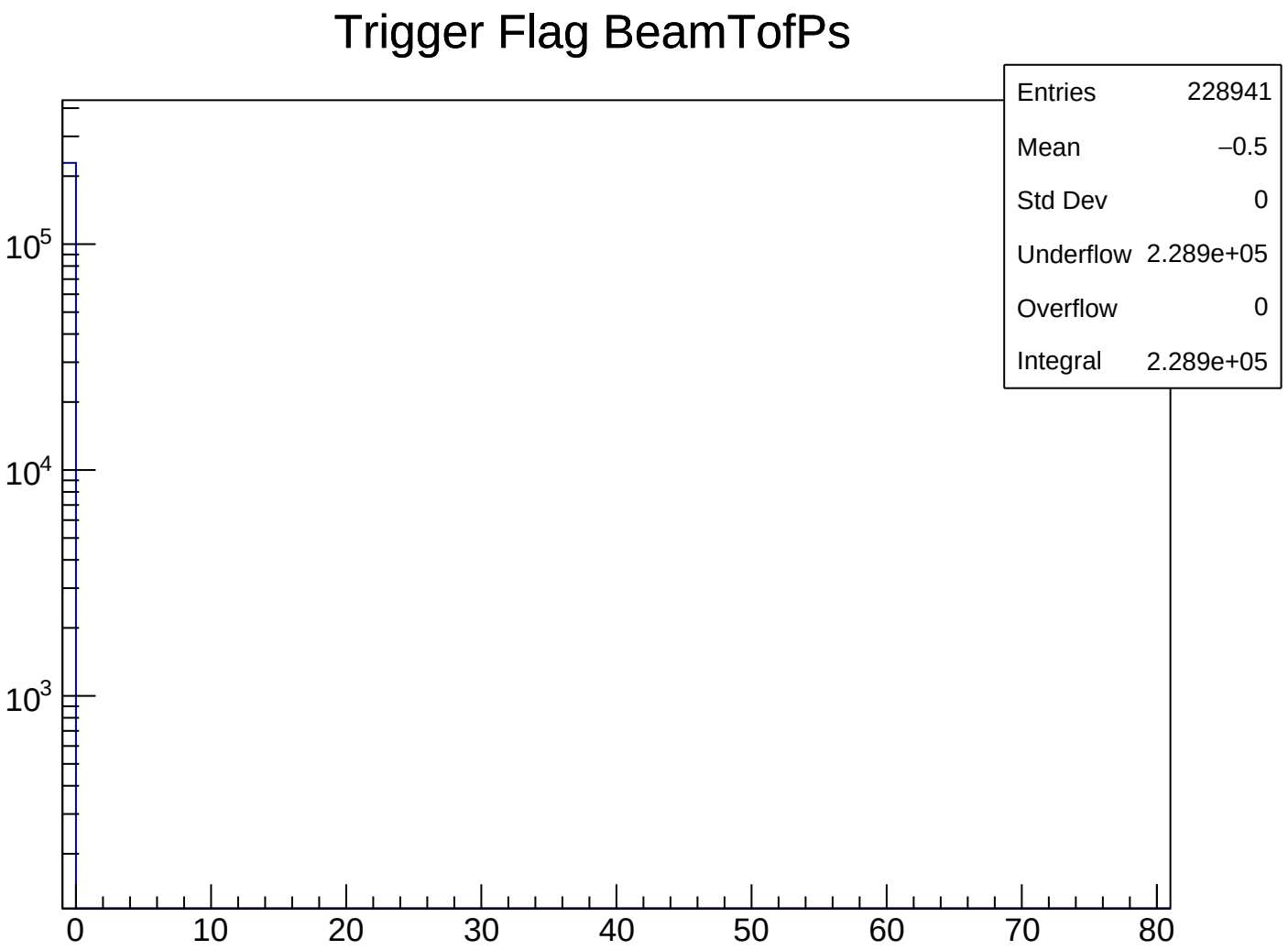

ysacKurama Cut1
Entries 29593
Mean –19.08
Std Dev 90.22
Underflow 0
Overflow 0
Integral 2.959e+04
1000
800
600
400
200
0
–400
–300
–200
–100
0
100
200
300
400

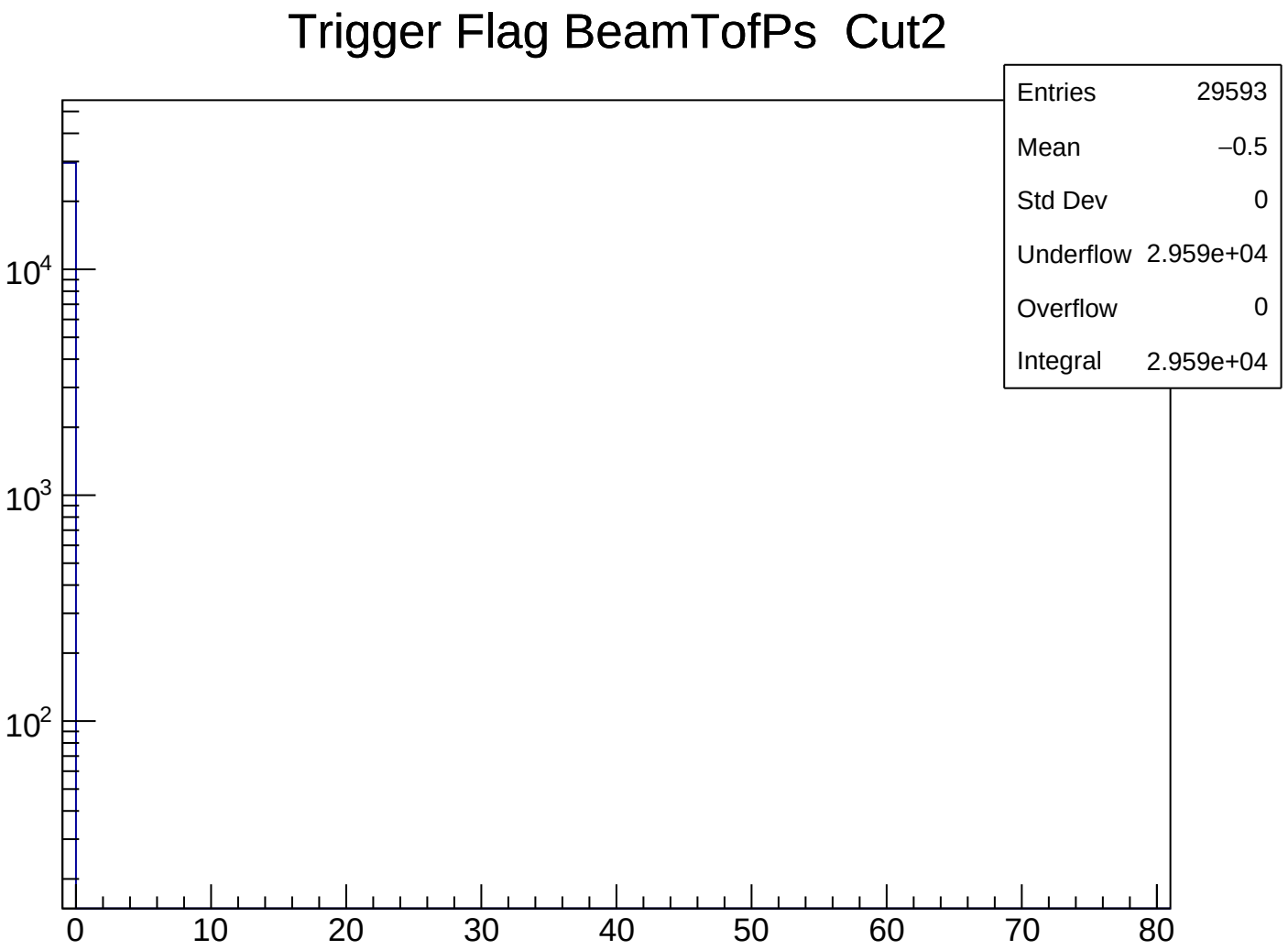

xsacKurama Cut2
Entries 31334
Mean 188.7
Std Dev 92.62
Underflow 0
Overflow 0
Integral 3.133e+04
1200
1000
800
600
400
200
0
–100
0
100
200
300
400
500
600
700

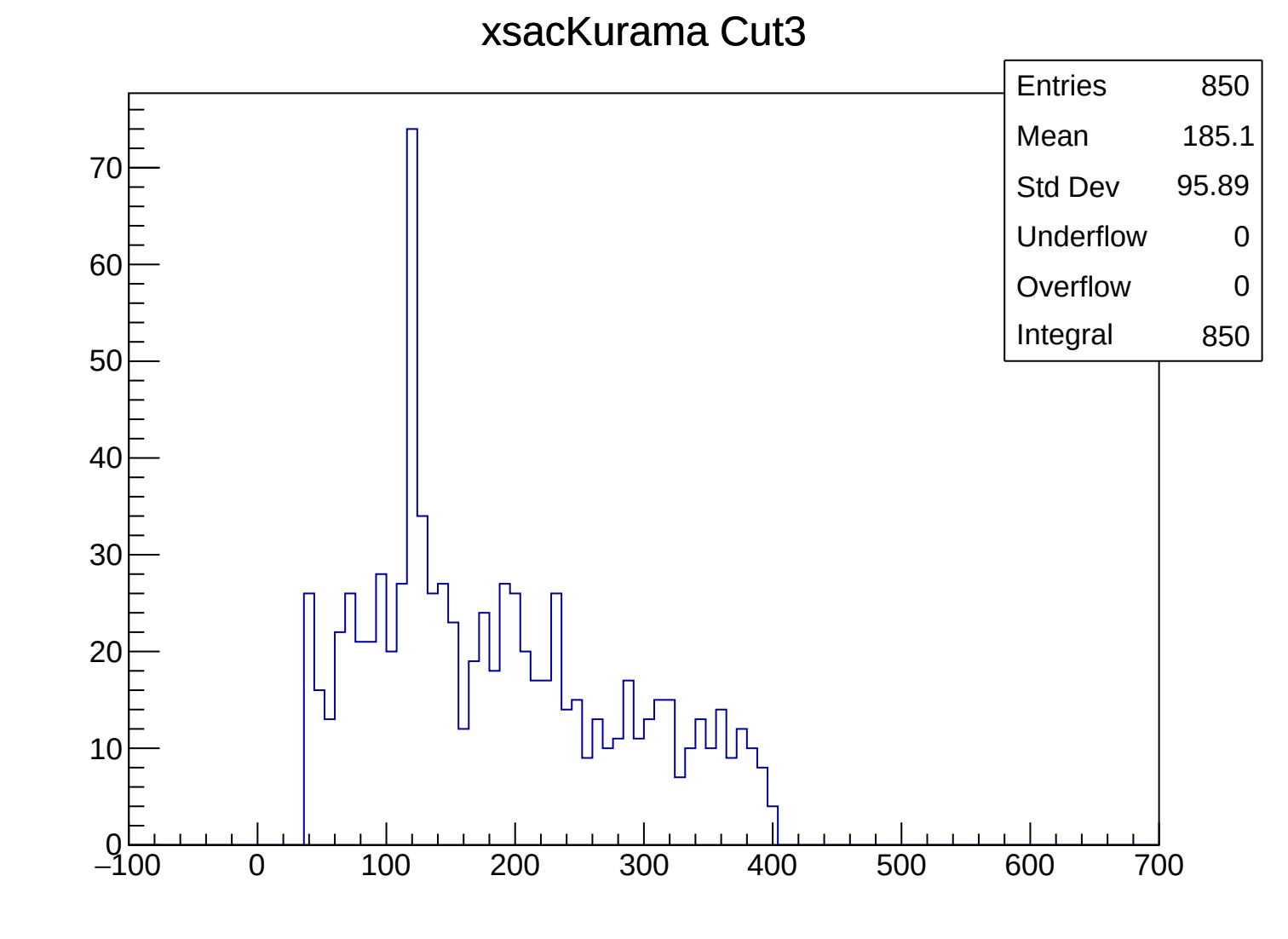

ysacKurama Cut2
Entries 31334
Mean −18.9
Std Dev 90.1
Underflow 0
Overflow 0
Integral 3.133e+04
1000
800
600
400
200
0
−400
−300
−200
−100
0
100
200
300
400

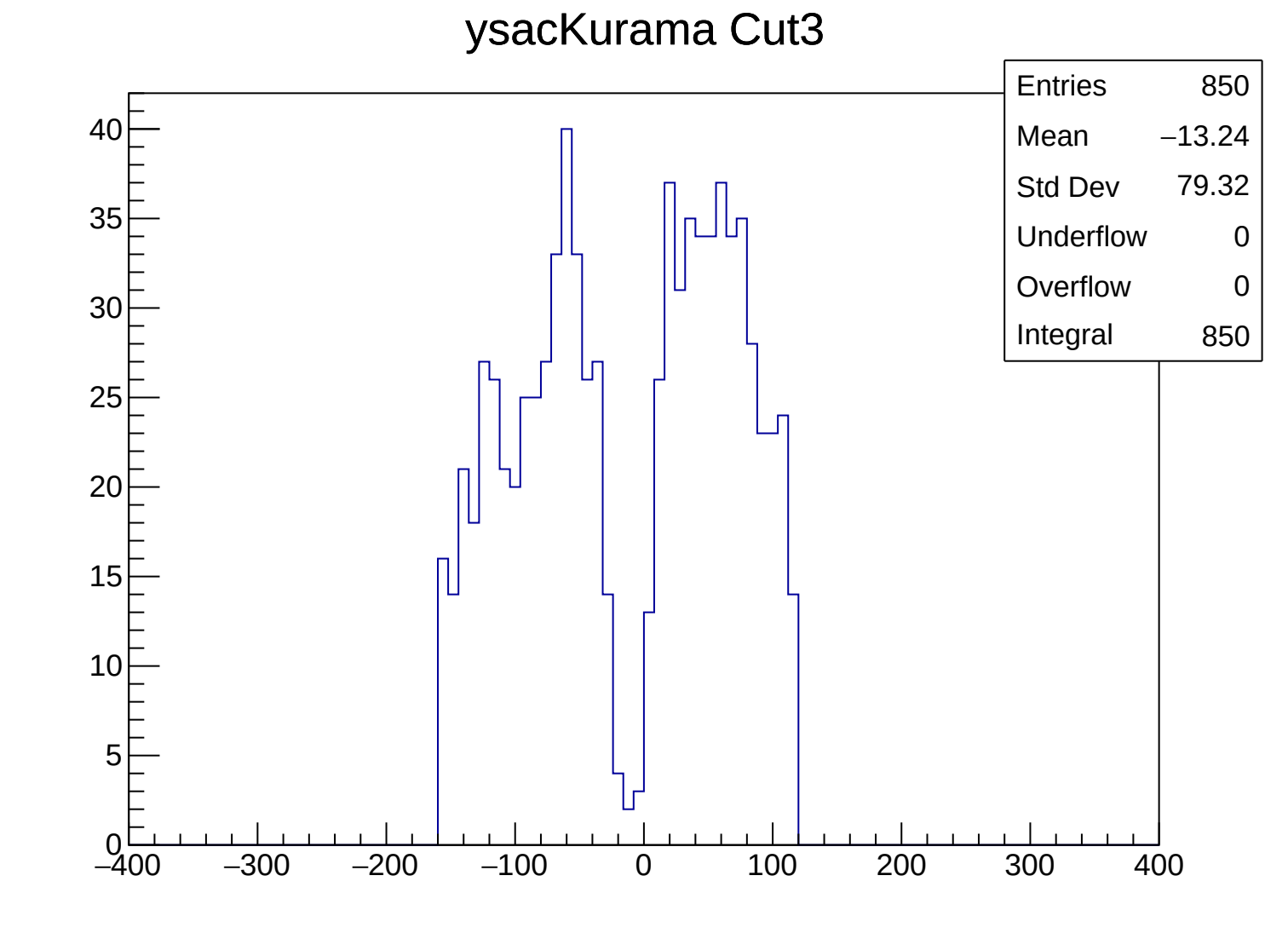

tSac Or
×10^3
200
180
160
140
120
100
80
60
40
20
0
−40
−20
0
20
40
60
80
Entries 287592
Mean 2.561
Std Dev 10.04
Underflow 266
Overflow 8766
Integral 2.25e+05
χ² / ndf 1813 / 2
Constant 4.31e+05 ± 1.41e+04
Mean 0.696 ± 0.007
Sigma 0.2508 ± 0.0056

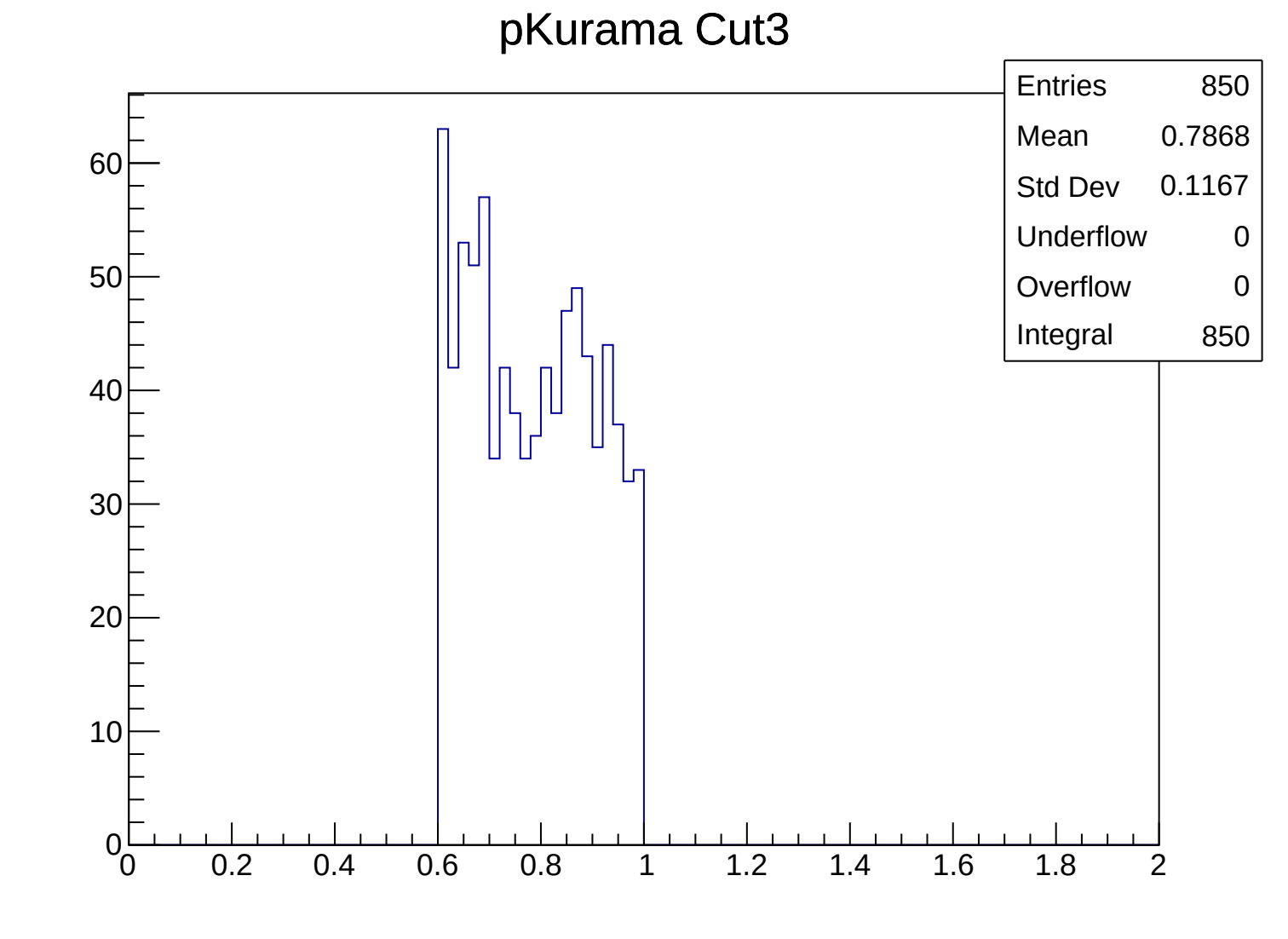

tSac Or Cut2
Entries 21293
Mean 4.81
Std Dev 15.96
Underflow 42
Overflow 1297
Integral 1.227e+04
χ² / ndf 66 / 2
Constant 9641 ± 98.5
Mean 0.9792 ± 0.0155
Sigma 0.6617 ± 0.0052
10000
8000
6000
4000
2000
0
−40
−20
0
20
40
60
80

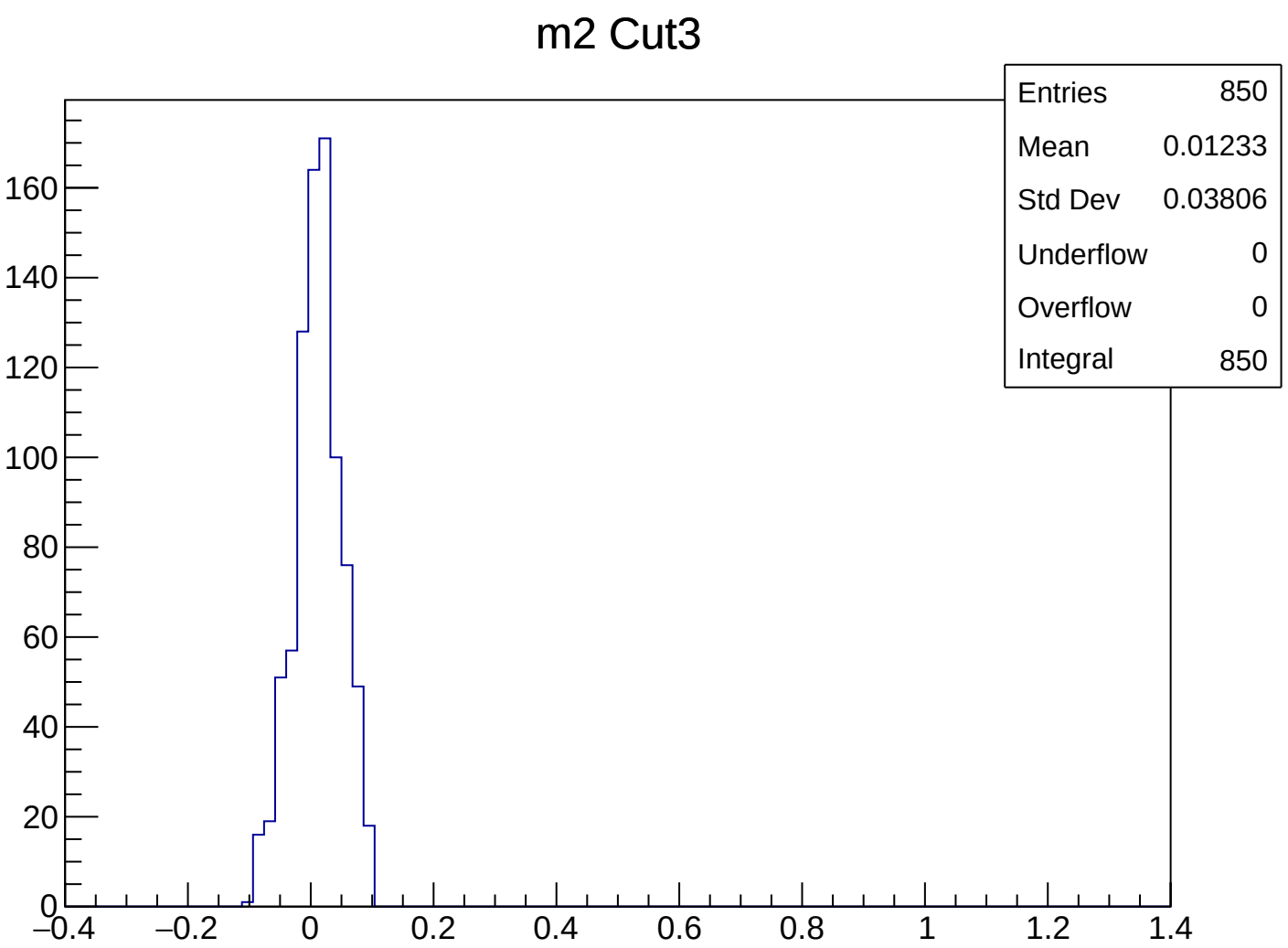

Trigger Flag BeamTofPs
Entries 228941
Mean −0.5
Std Dev 0
Underflow 2.289e+05
Overflow 0
Integral 2.289e+05
10^5
10^4
10^3
0
10
20
30
40
50
60
70
80

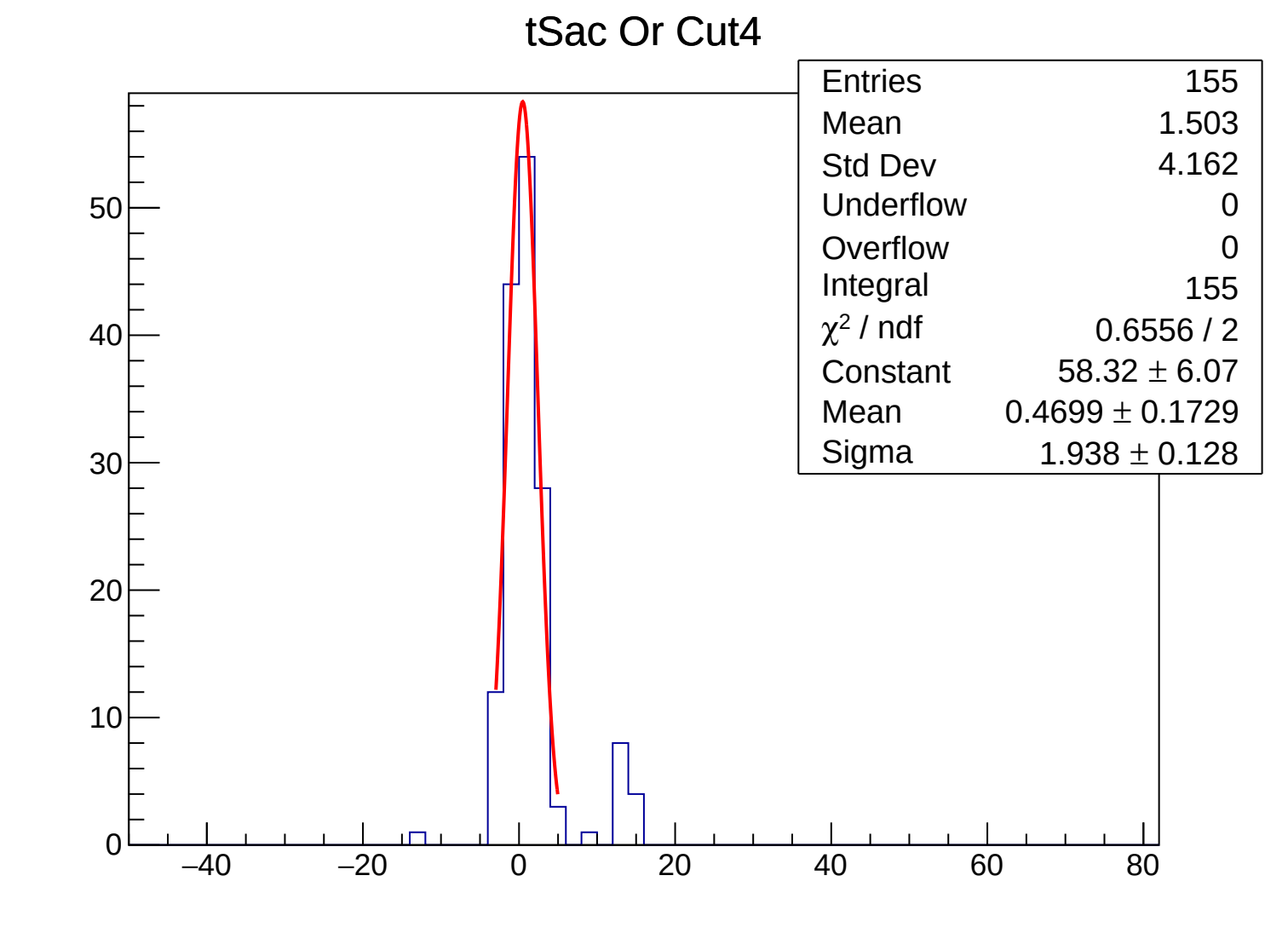

Trigger Flag BeamTofPs Cut2
Entries 29593
Mean −0.5
Std Dev 0
Underflow 2.959e+04
Overflow 0
Integral 2.959e+04
10^4
10^3
10^2
0
10
20
30
40
50
60
70
80

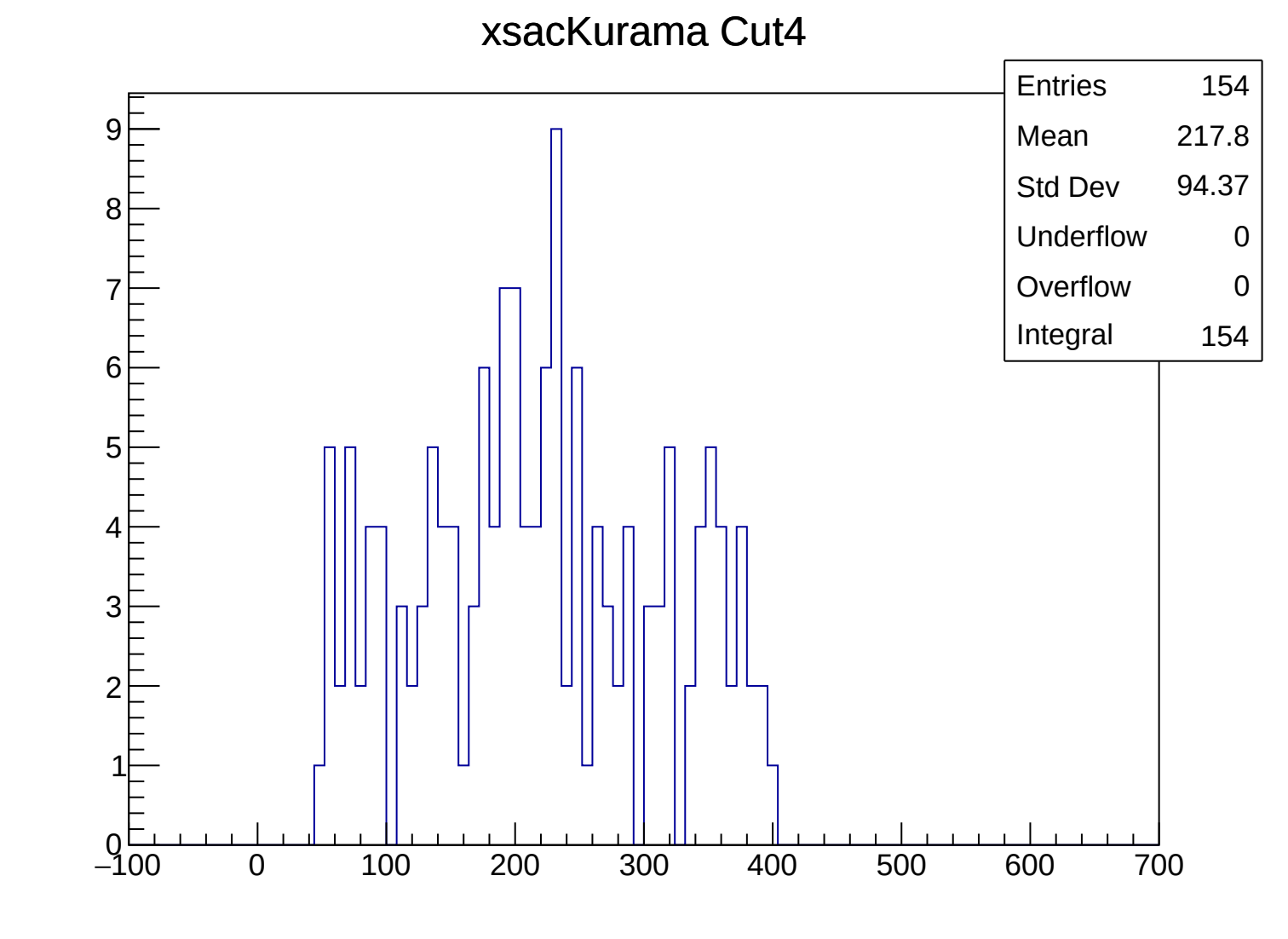

xsacKurama Cut3
Entries 850
Mean 185.1
Std Dev 95.89
Underflow 0
Overflow 0
Integral 850
70
60
50
40
30
20
10
0
–100
0
100
200
300
400
500
600
700

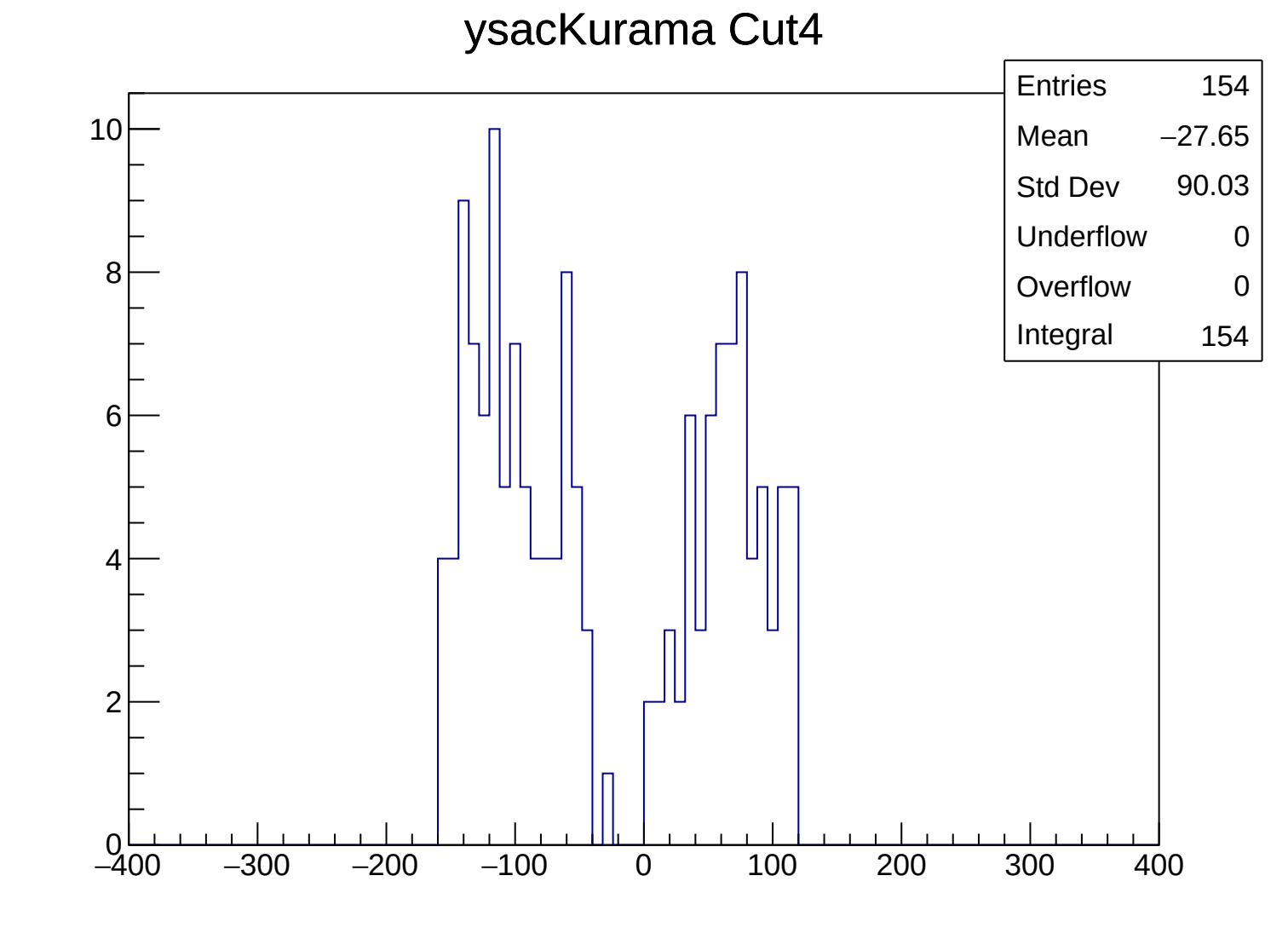

ysacKurama Cut3
Entries 850
Mean –13.24
Std Dev 79.32
Underflow 0
Overflow 0
Integral 850
40
35
30
25
20
15
10
5
0
–400
–300
–200
–100
0
100
200
300
400

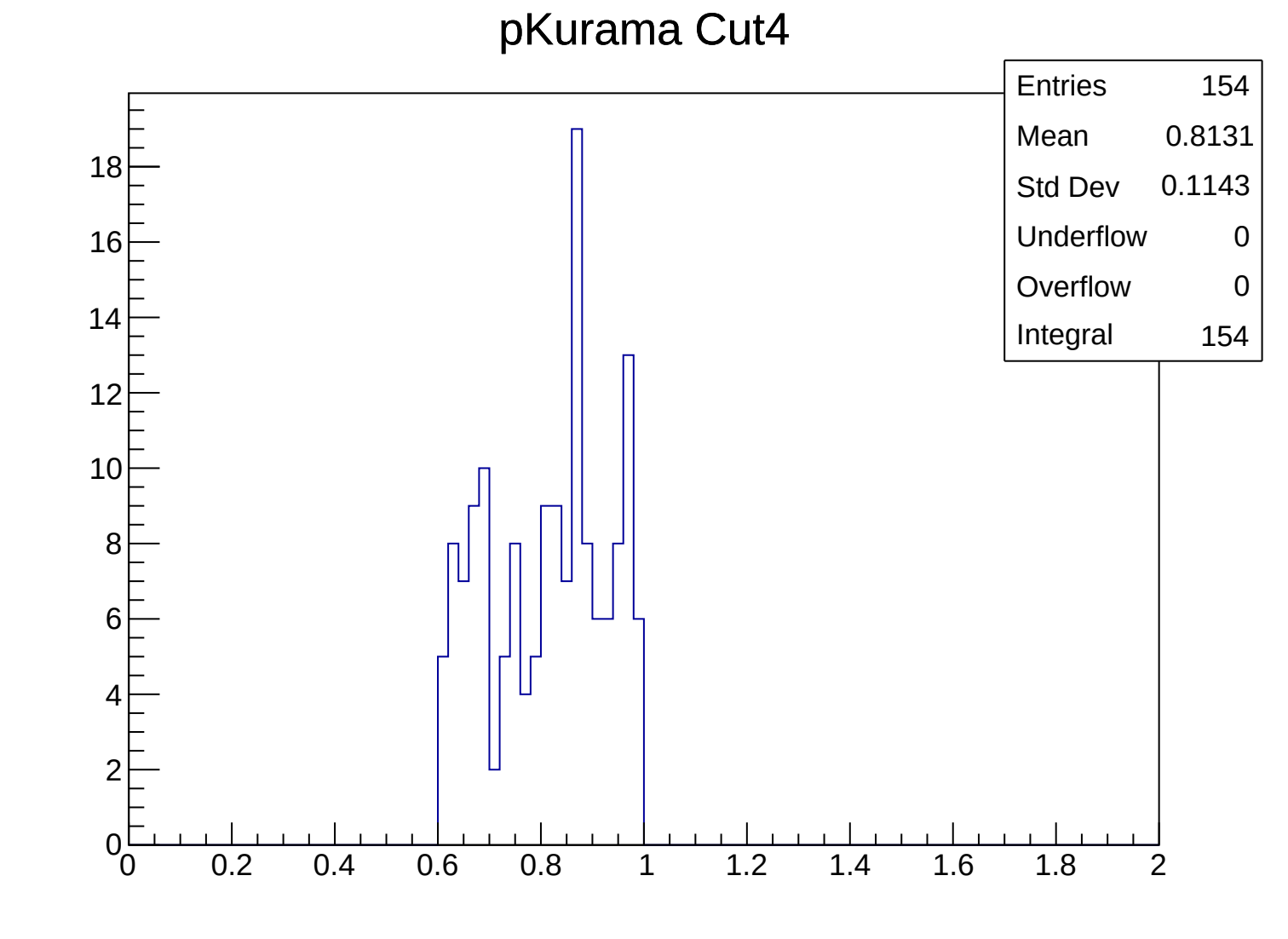

pKurama Cut3
Entries 850
Mean 0.7868
Std Dev 0.1167
Underflow 0
Overflow 0
Integral 850
0
10
20
30
40
50
60
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

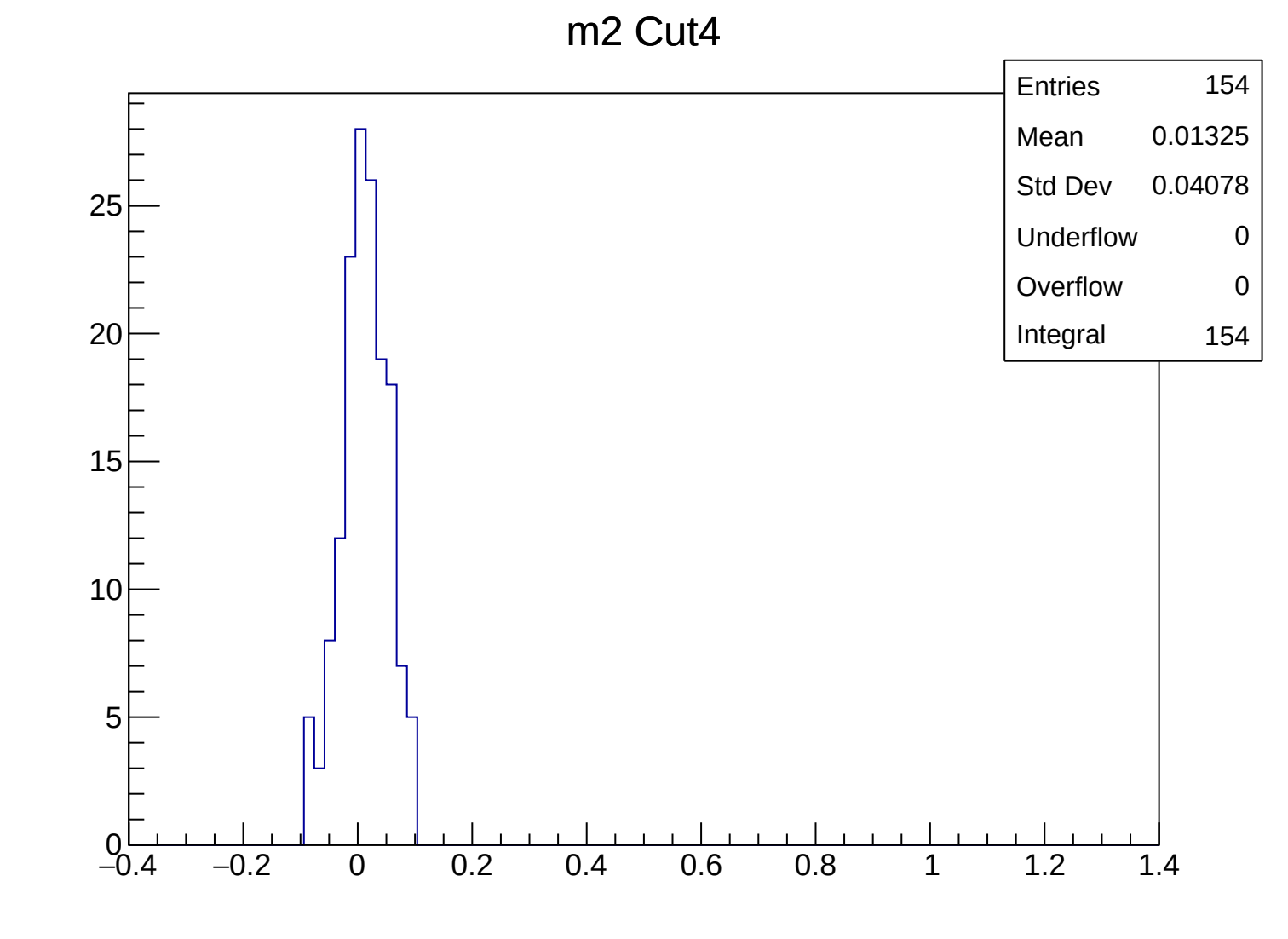

m2 Cut3
Entries 850
Mean 0.01233
Std Dev 0.03806
Underflow 0
Overflow 0
Integral 850
160
140
120
100
80
60
40
20
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

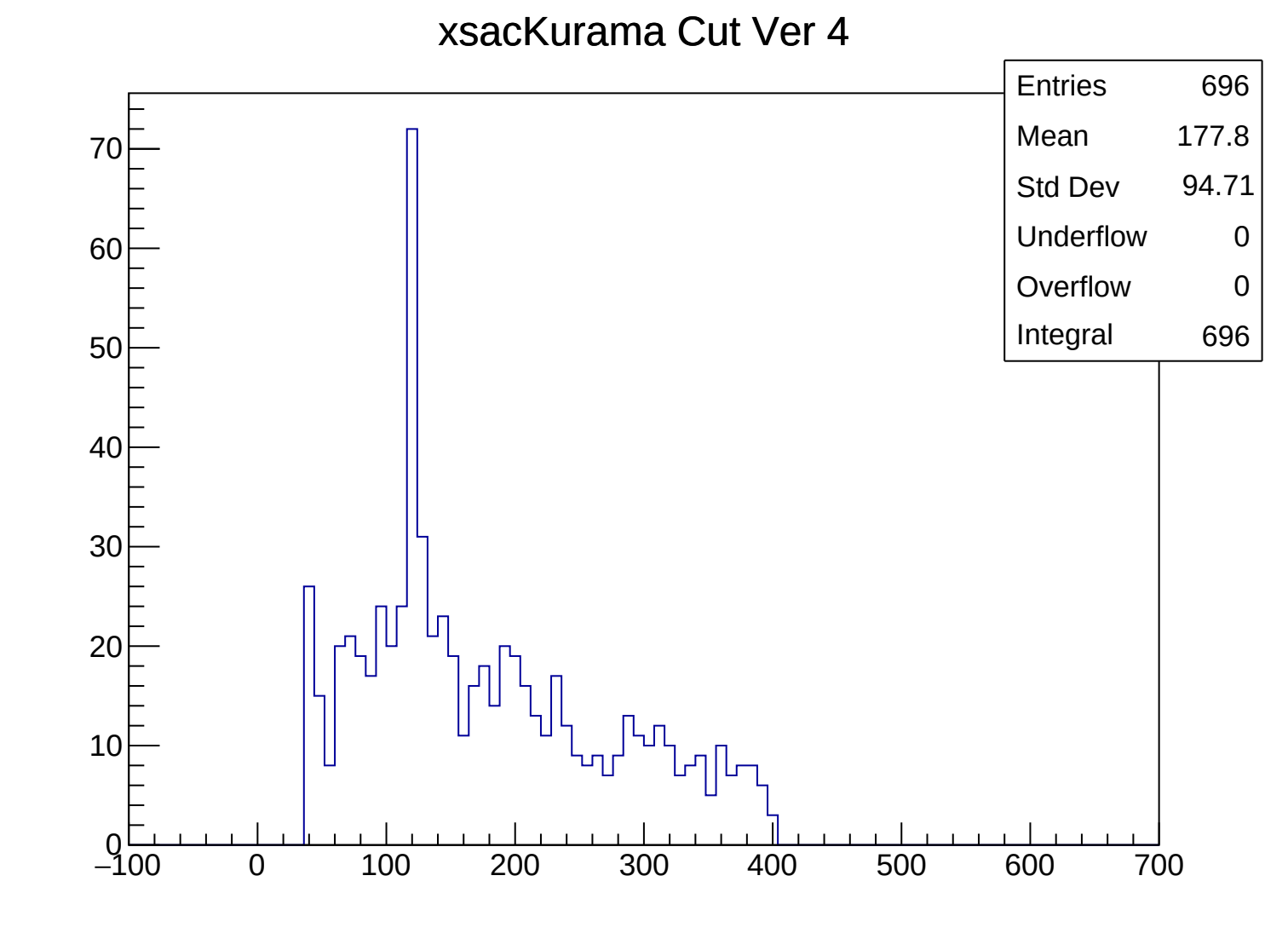

tSac Or Cut4
Entries 155
Mean 1.503
Std Dev 4.162
Underflow 0
Overflow 0
Integral 155
χ² / ndf 0.6556 / 2
Constant 58.32 ± 6.07
Mean 0.4699 ± 0.1729
Sigma 1.938 ± 0.128
50
40
30
20
10
0
–40
–20
0
20
40
60
80

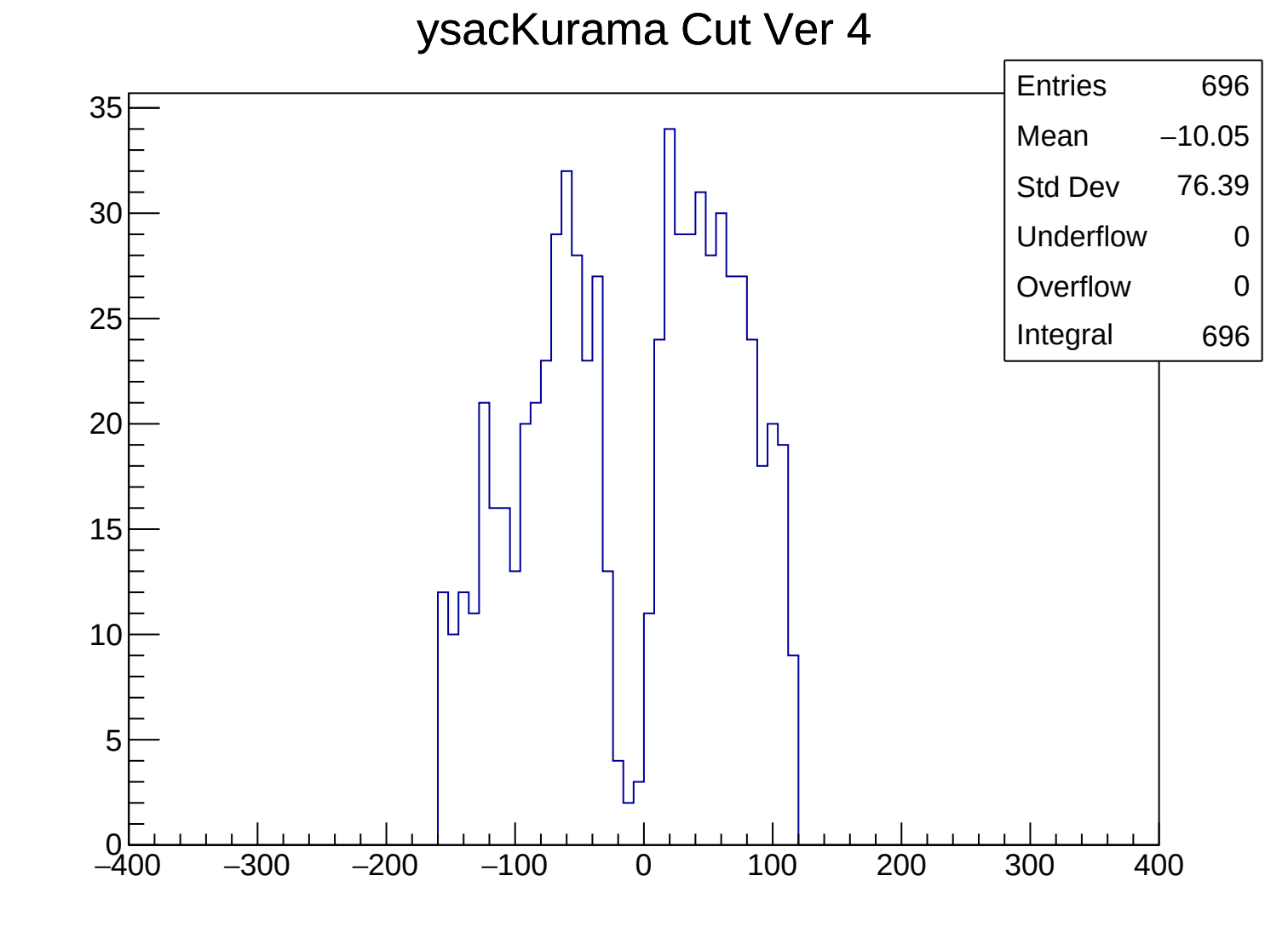

xsacKurama Cut4
Entries 154
Mean 217.8
Std Dev 94.37
Underflow 0
Overflow 0
Integral 154
0
1
2
3
4
5
6
7
8
9
–100
0
100
200
300
400
500
600
700

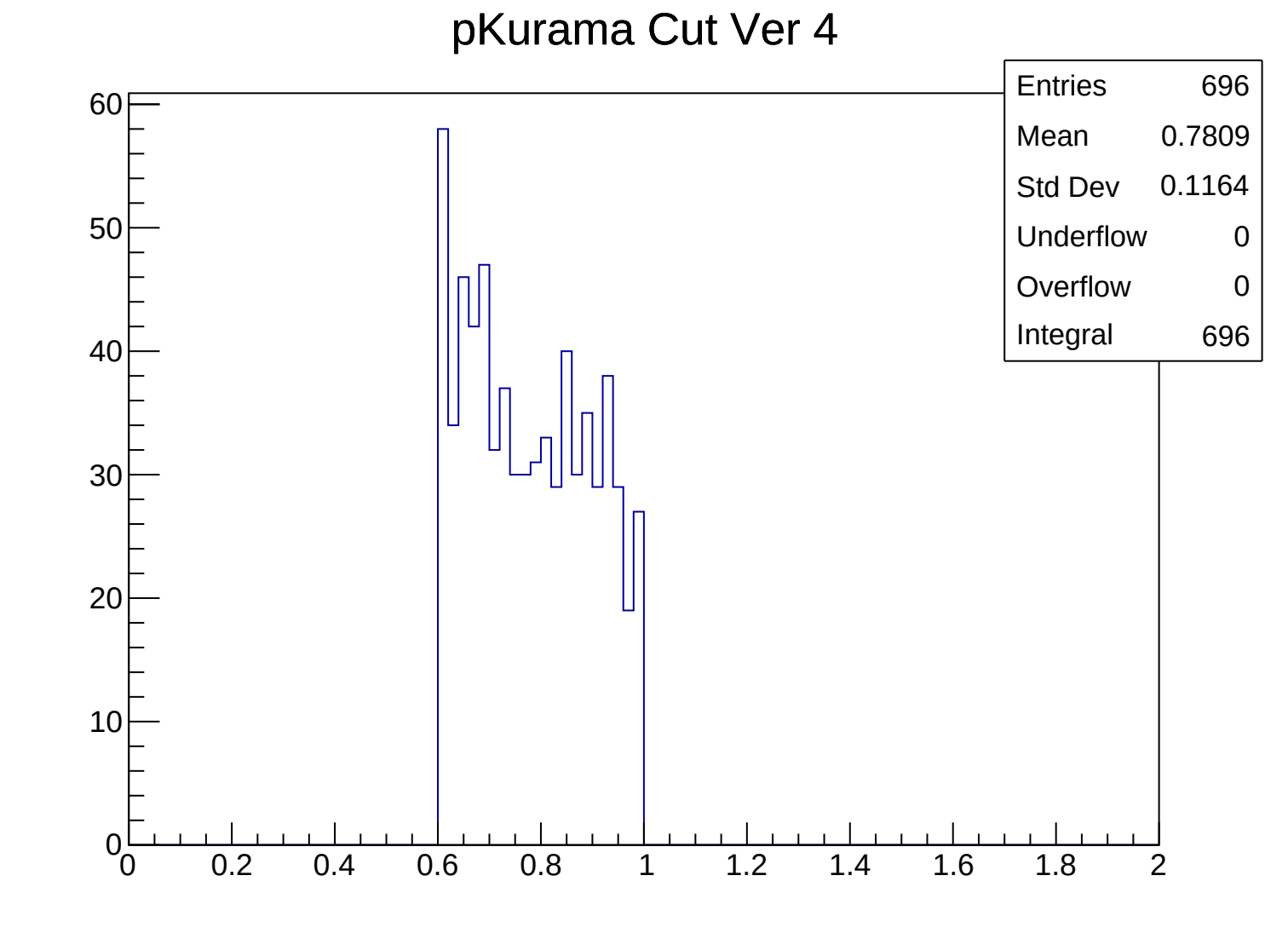

ysacKurama Cut4
Entries 154
Mean −27.65
Std Dev 90.03
Underflow 0
Overflow 0
Integral 154
10
8
6
4
2
0
−400
−300
−200
−100
0
100
200
300
400

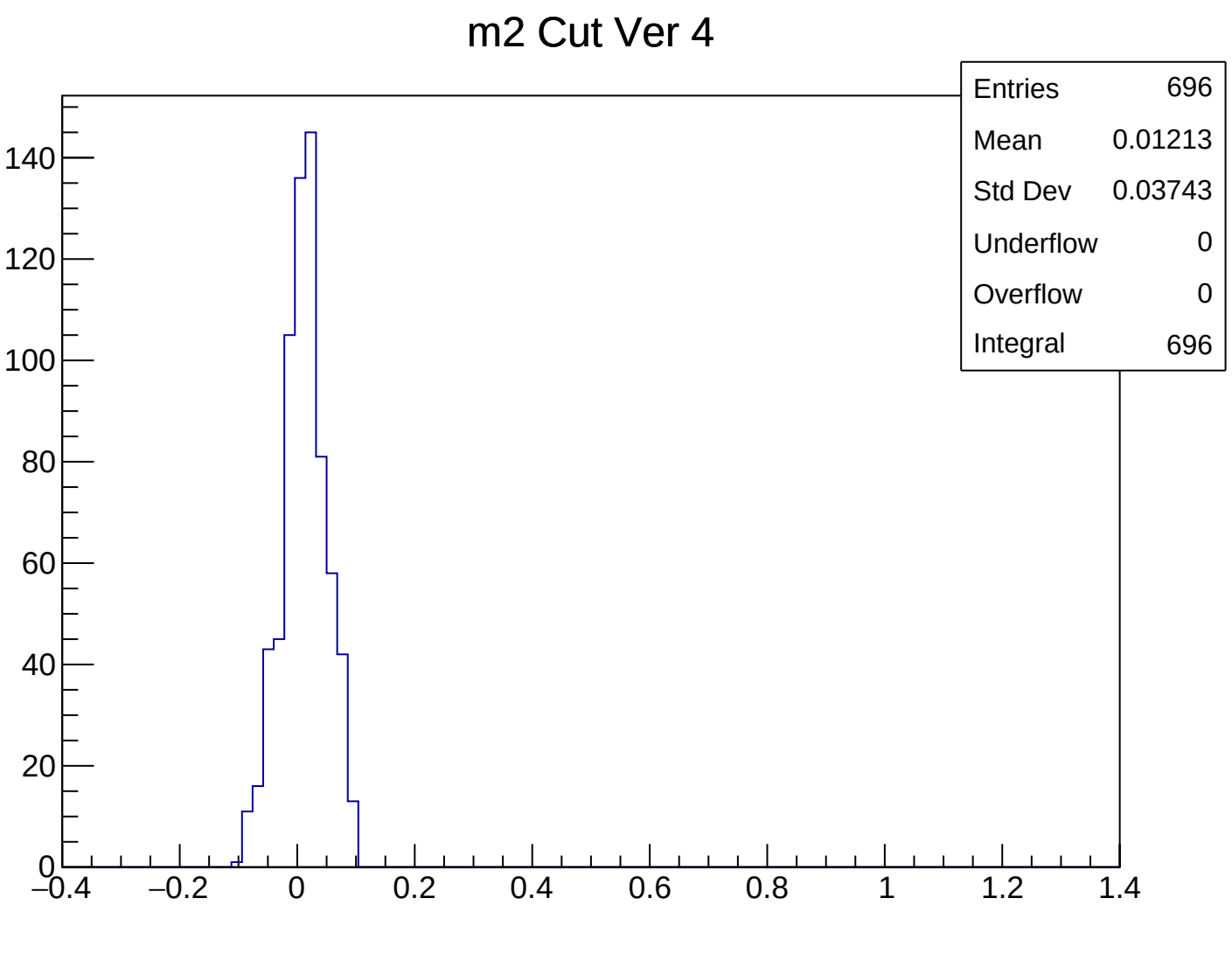

pKurama Cut4
Entries 154
Mean 0.8131
Std Dev 0.1143
Underflow 0
Overflow 0
Integral 154
0
2
4
6
8
10
12
14
16
18
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

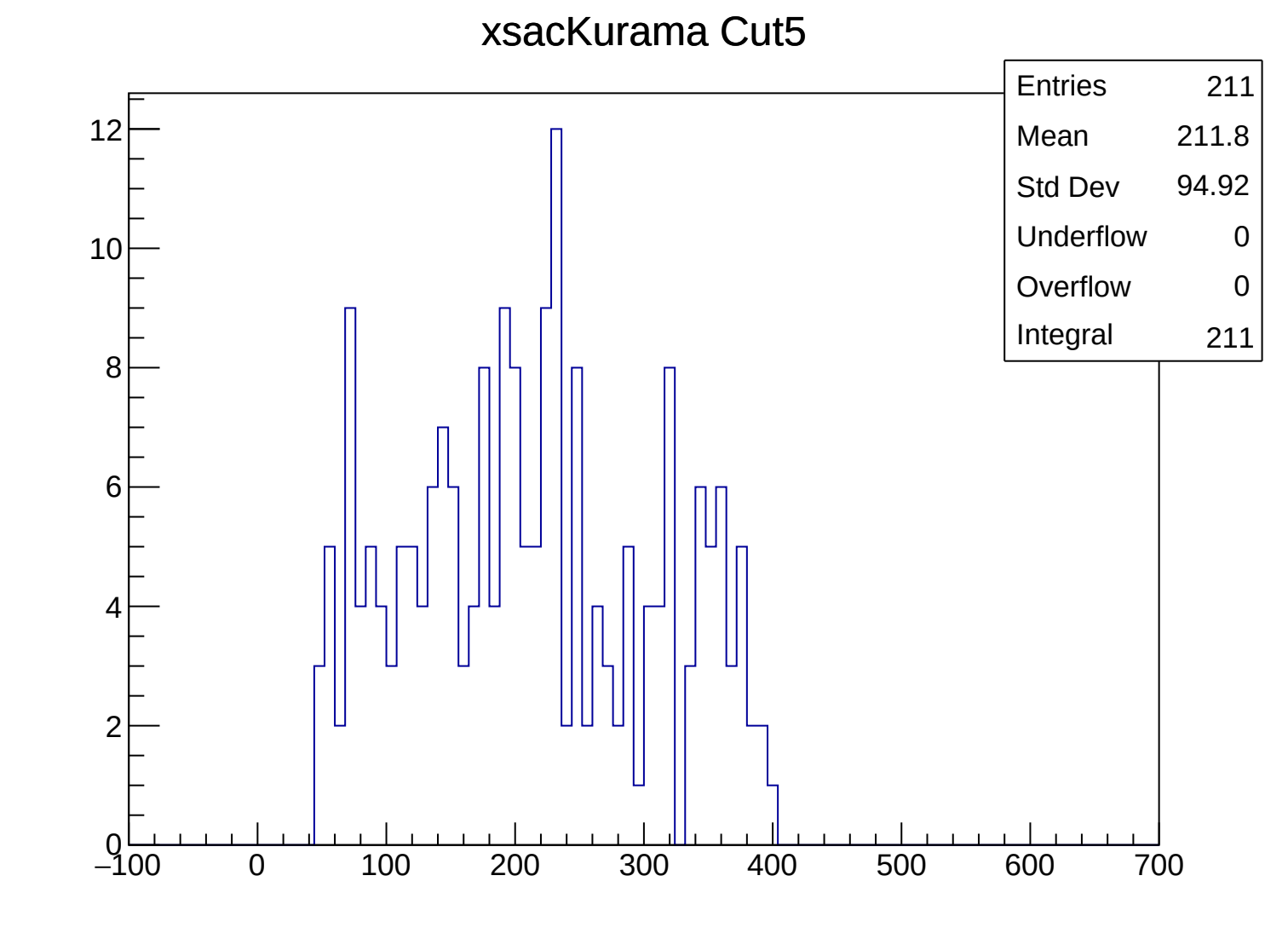

m2 Cut4
Entries 154
Mean 0.01325
Std Dev 0.04078
Underflow 0
Overflow 0
Integral 154
25
20
15
10
5
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

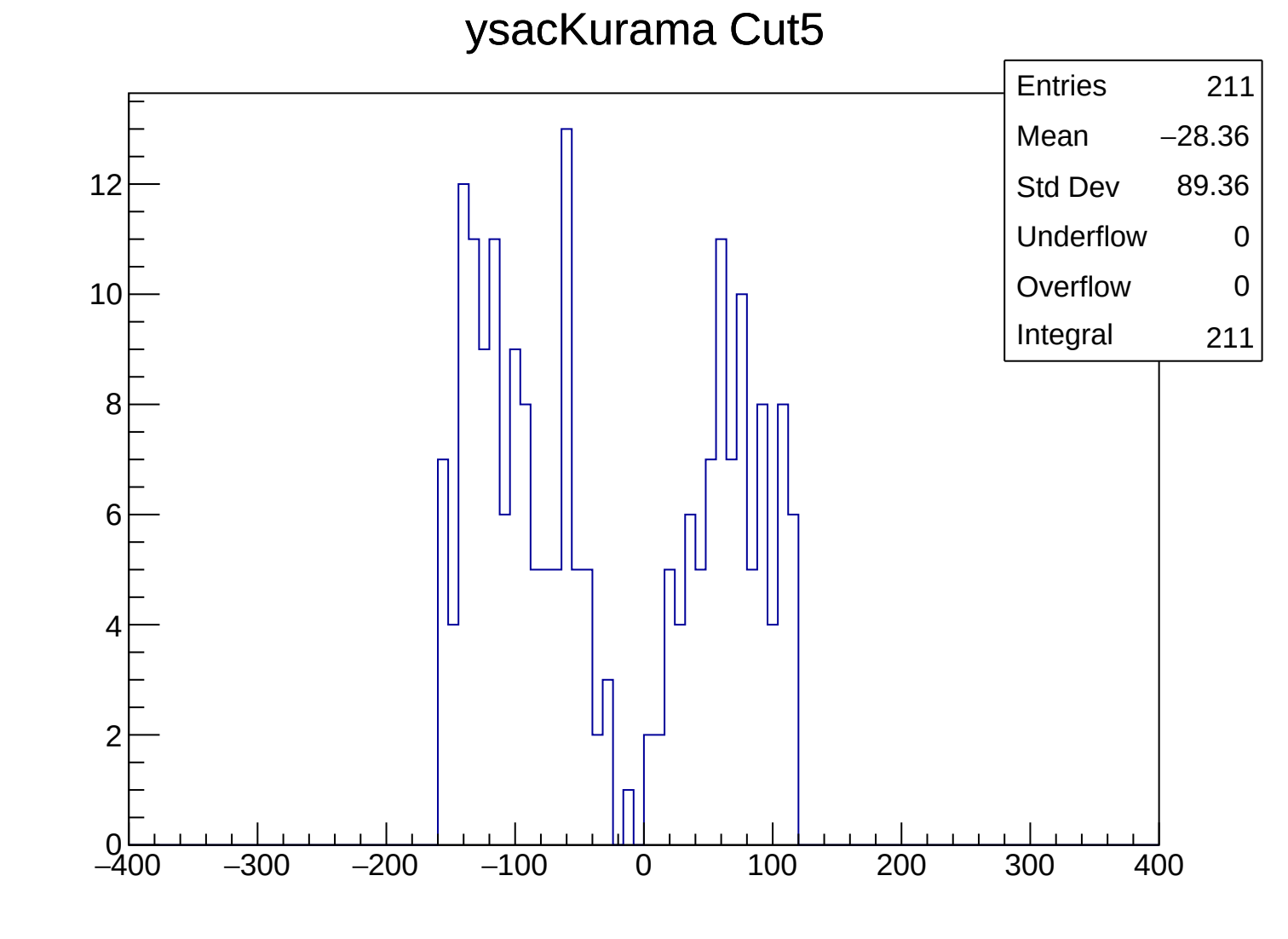

xsacKurama Cut Ver 4
Entries 696
Mean 177.8
Std Dev 94.71
Underflow 0
Overflow 0
Integral 696
70
60
50
40
30
20
10
0
–100
0
100
200
300
400
500
600
700

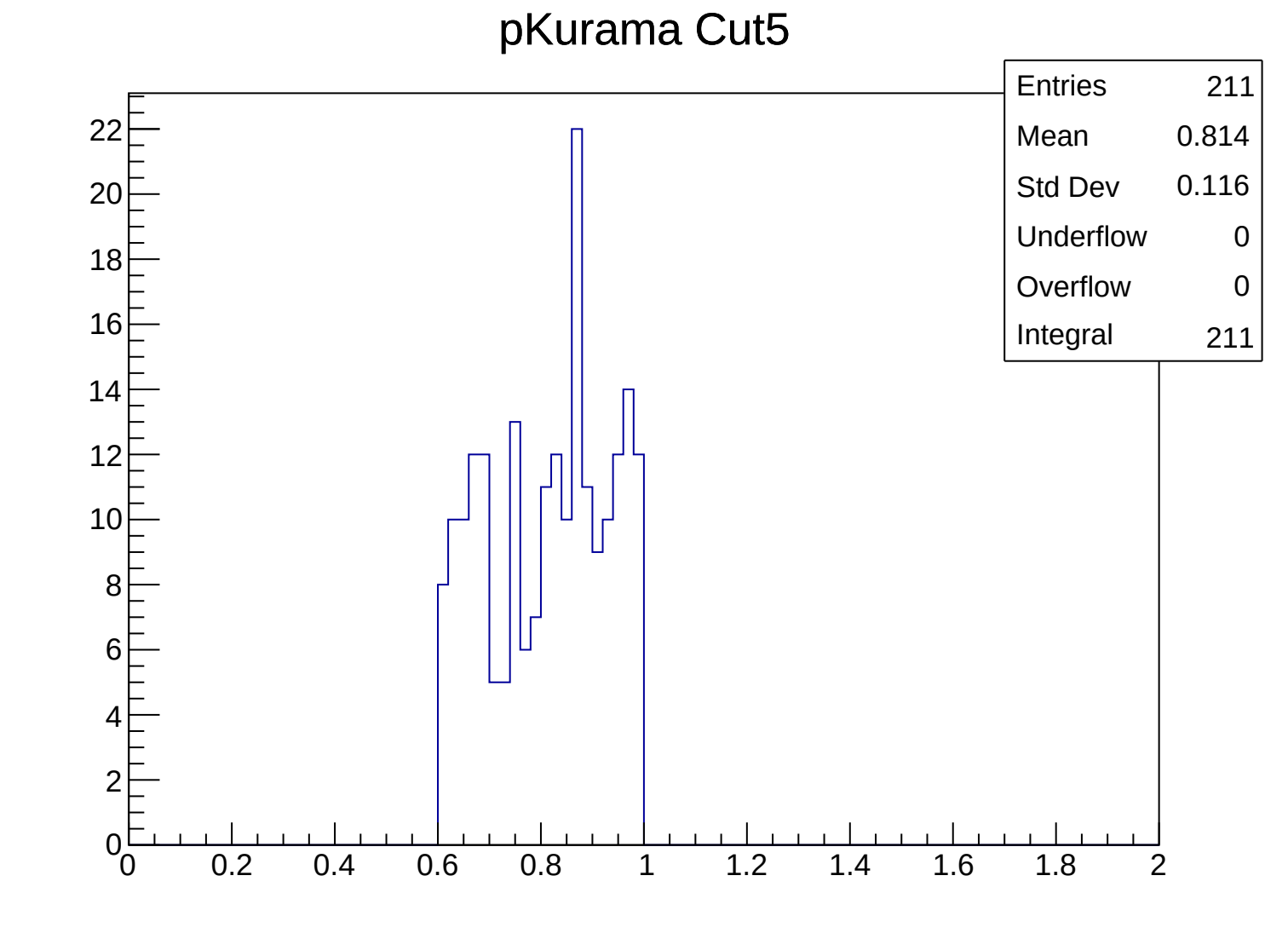

ysacKurama Cut Ver 4
Entries 696
Mean −10.05
Std Dev 76.39
Underflow 0
Overflow 0
Integral 696
35
30
25
20
15
10
5
0
−400
−300
−200
−100
0
100
200
300
400

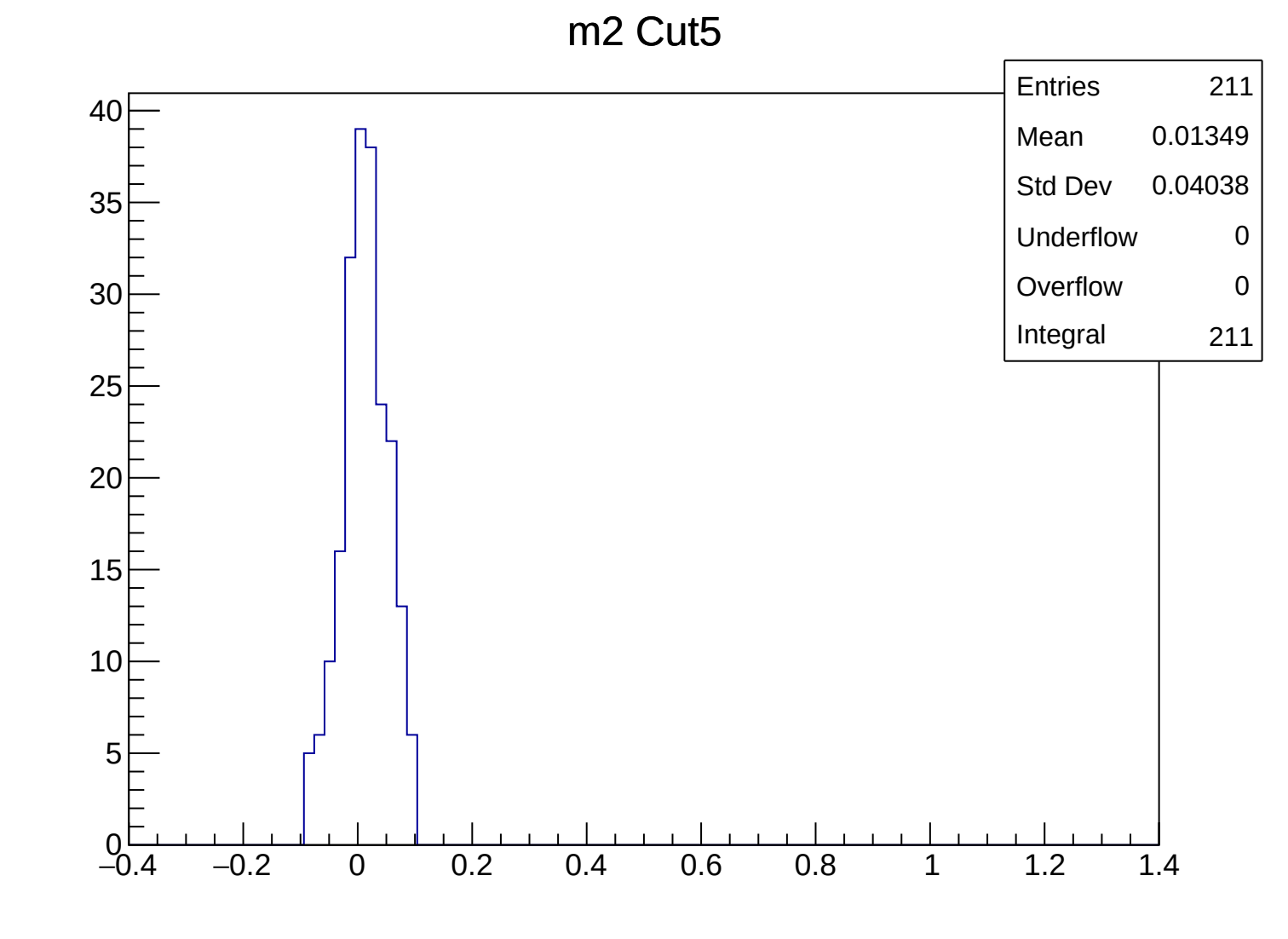

pKurama Cut Ver 4
Entries 696
Mean 0.7809
Std Dev 0.1164
Underflow 0
Overflow 0
Integral 696
60
50
40
30
20
10
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

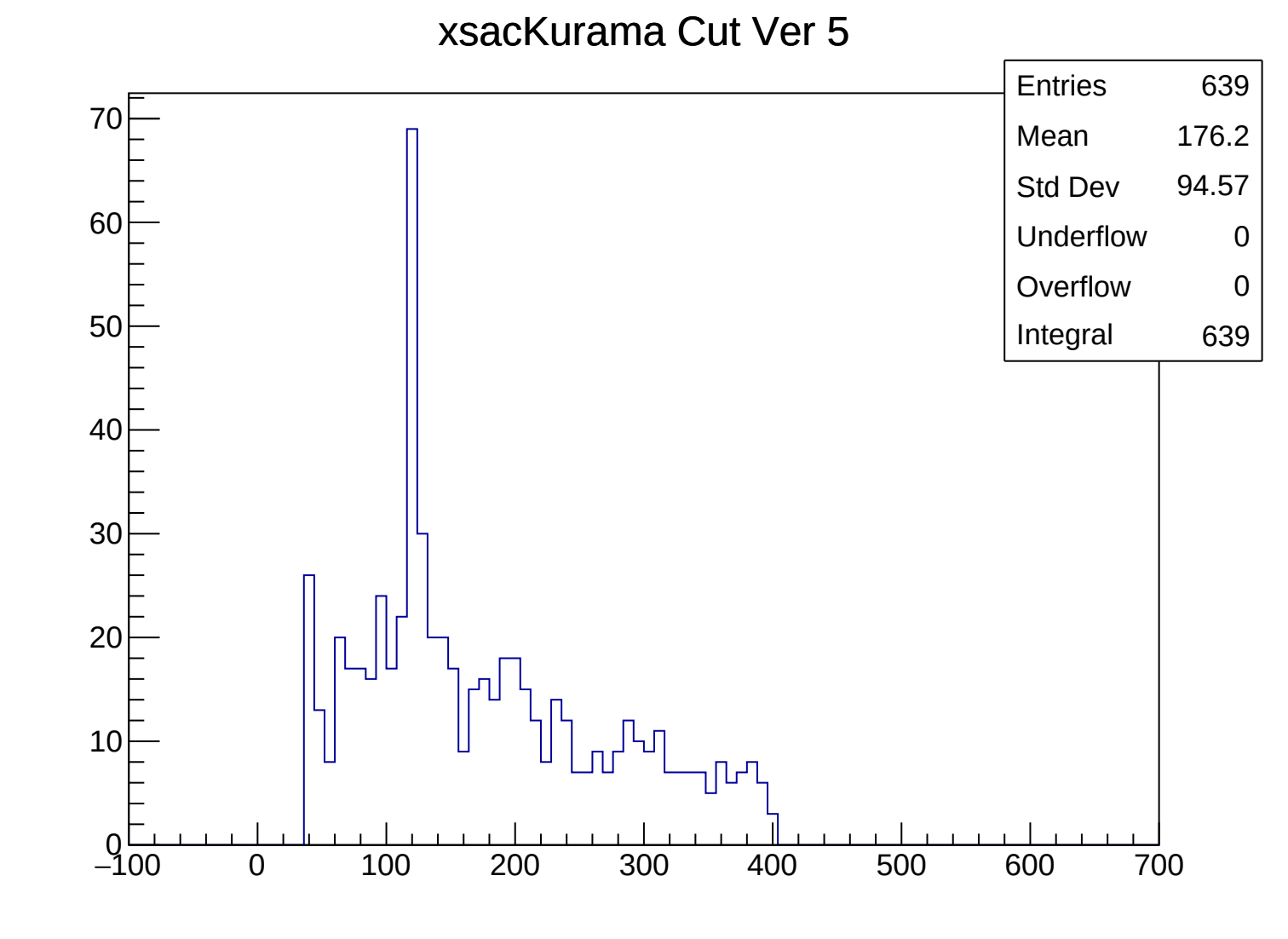

m2 Cut Ver 4
Entries 696
Mean 0.01213
Std Dev 0.03743
Underflow 0
Overflow 0
Integral 696
140
120
100
80
60
40
20
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

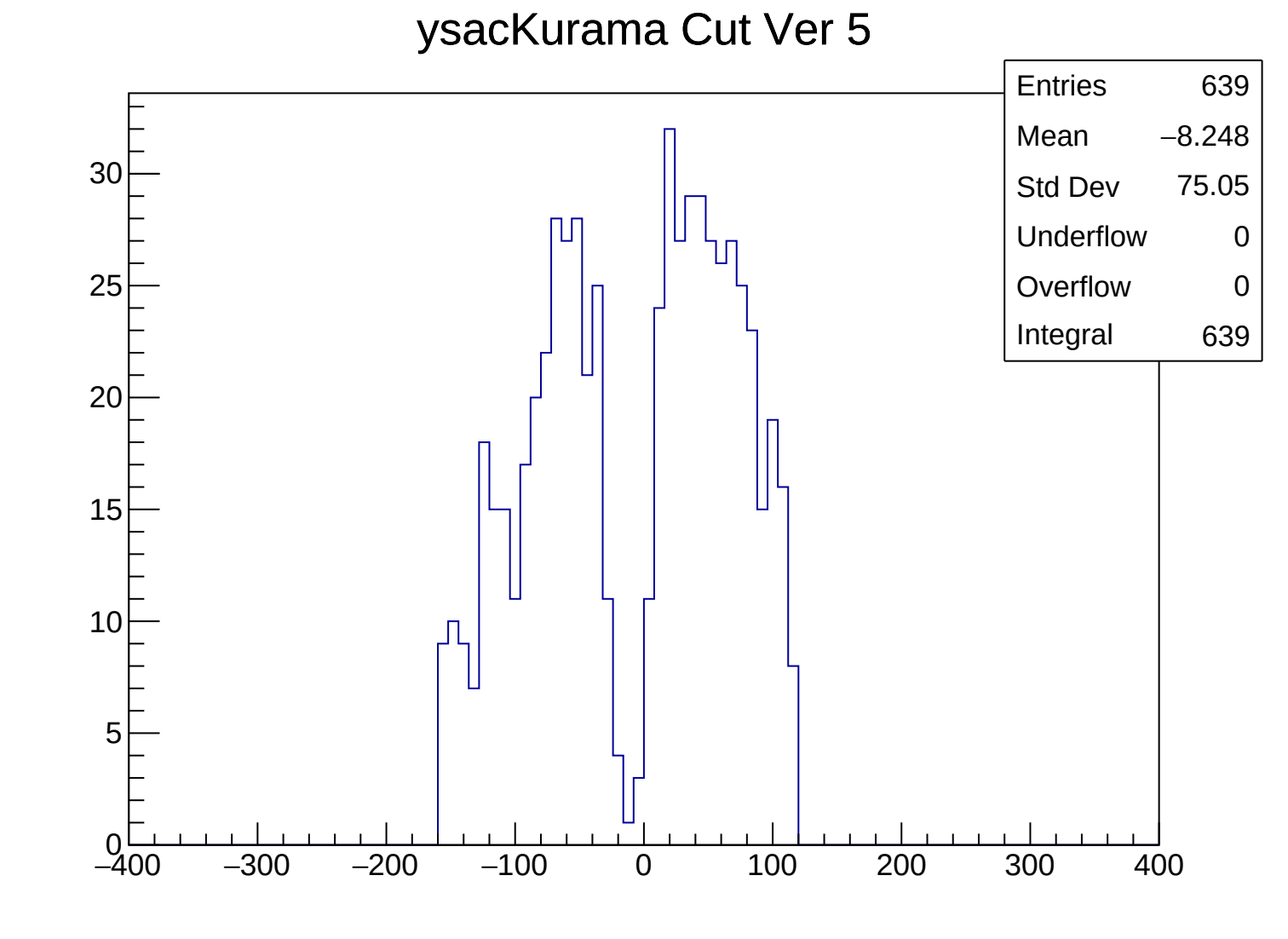

xsacKurama Cut5
Entries 211
Mean 211.8
Std Dev 94.92
Underflow 0
Overflow 0
Integral 211
12
10
8
6
4
2
0
–100
0
100
200
300
400
500
600
700

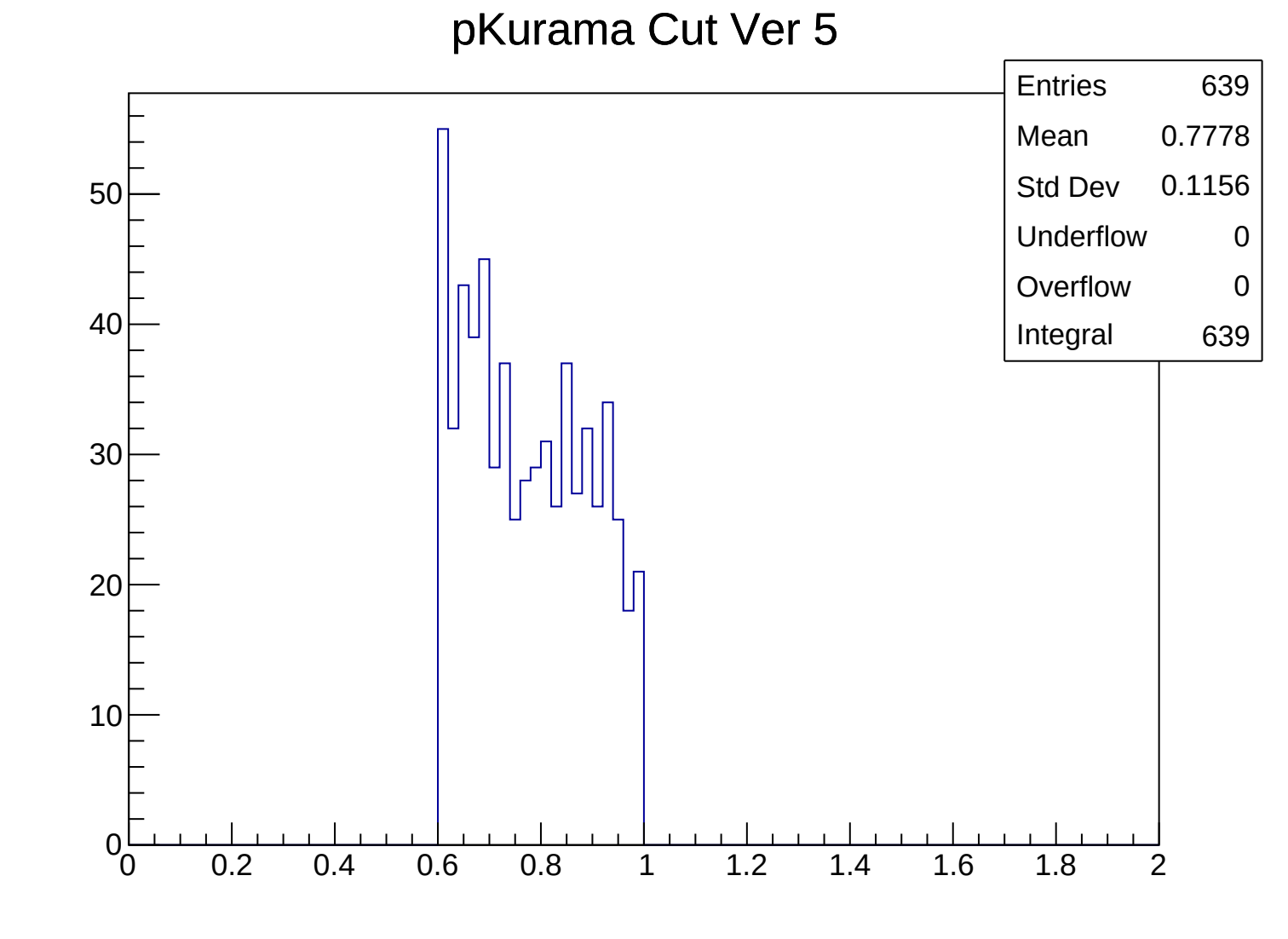

ysacKurama Cut5
Entries 211
Mean −28.36
Std Dev 89.36
Underflow 0
Overflow 0
Integral 211
0
2
4
6
8
10
12
−400
−300
−200
−100
0
100
200
300
400

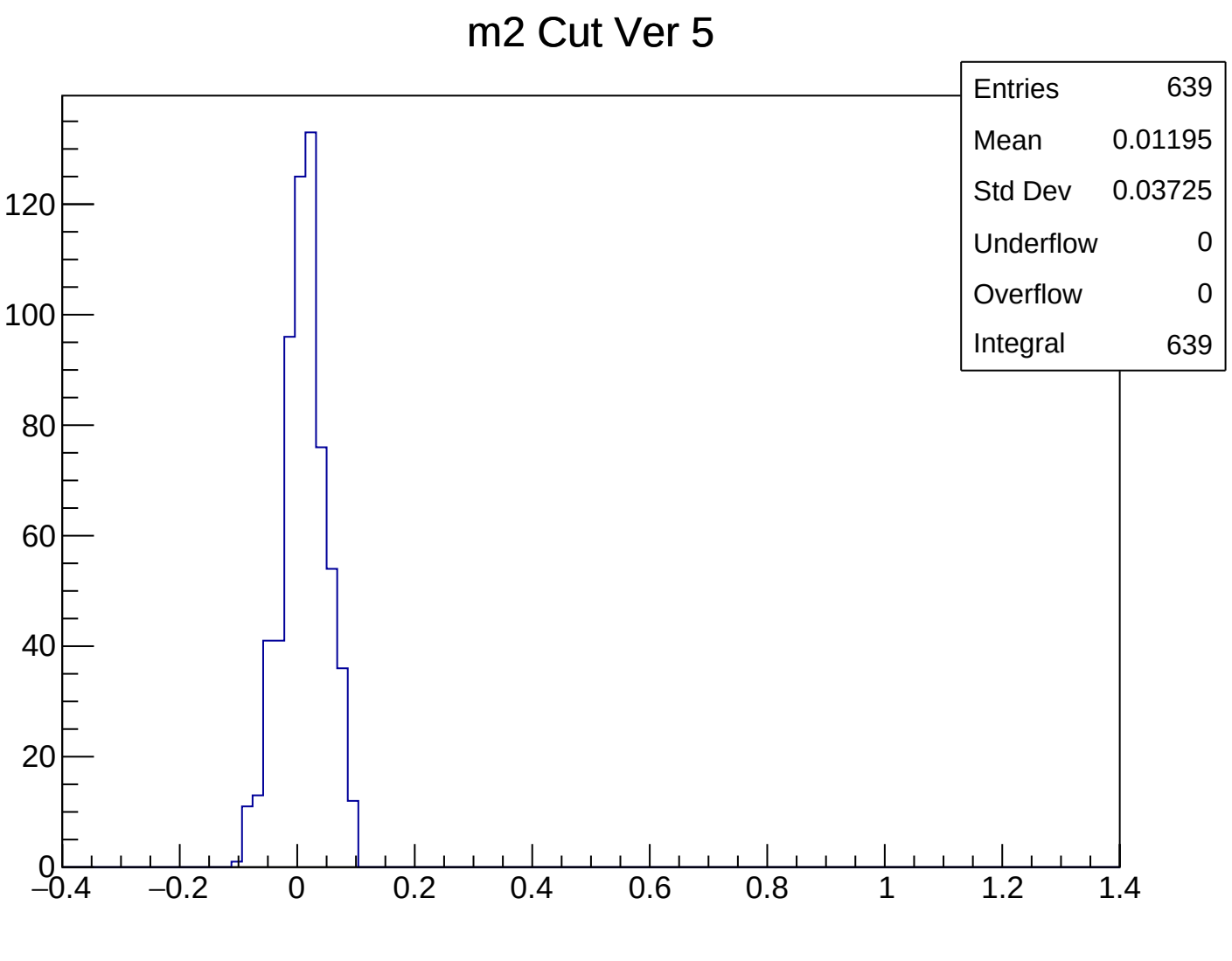

pKurama Cut5
Entries 211
Mean 0.814
Std Dev 0.116
Underflow 0
Overflow 0
Integral 211
0
2
4
6
8
10
12
14
16
18
20
22
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

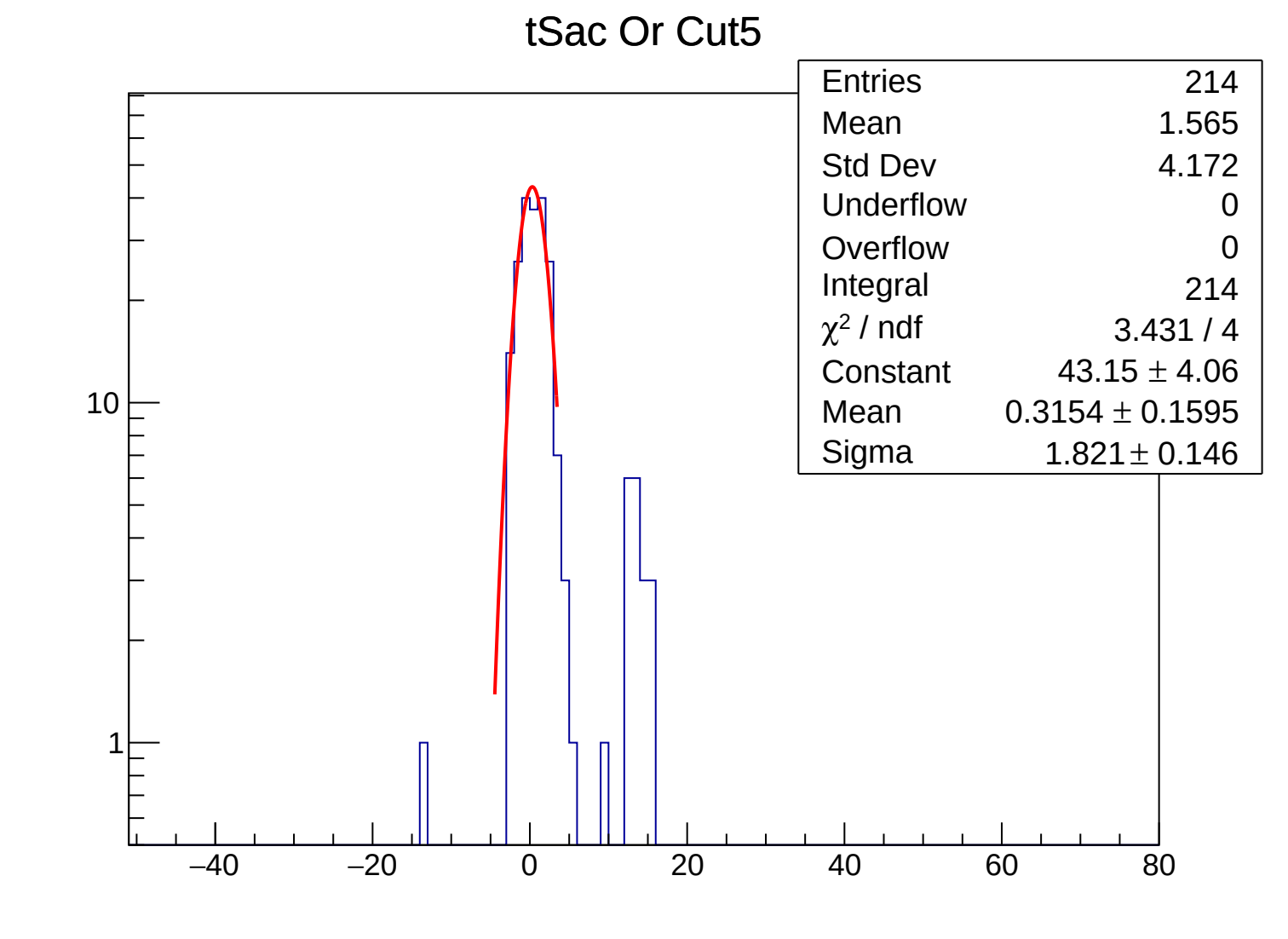

m2 Cut5
Entries 211
Mean 0.01349
Std Dev 0.04038
Underflow 0
Overflow 0
Integral 211
40
35
30
25
20
15
10
5
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

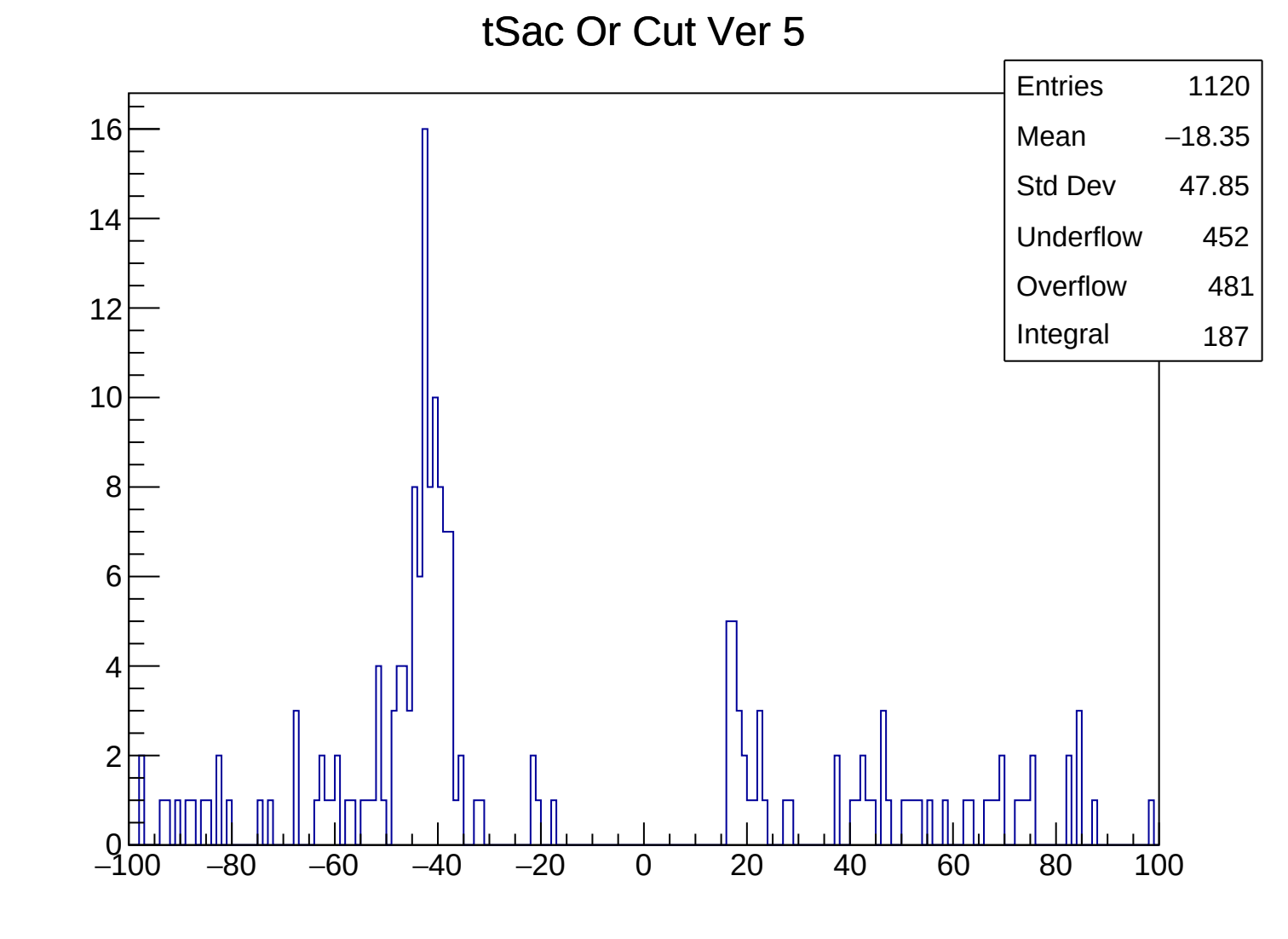

xsacKurama Cut Ver 5
Entries 639
Mean 176.2
Std Dev 94.57
Underflow 0
Overflow 0
Integral 639
70
60
50
40
30
20
10
0
–100
0
100
200
300
400
500
600
700

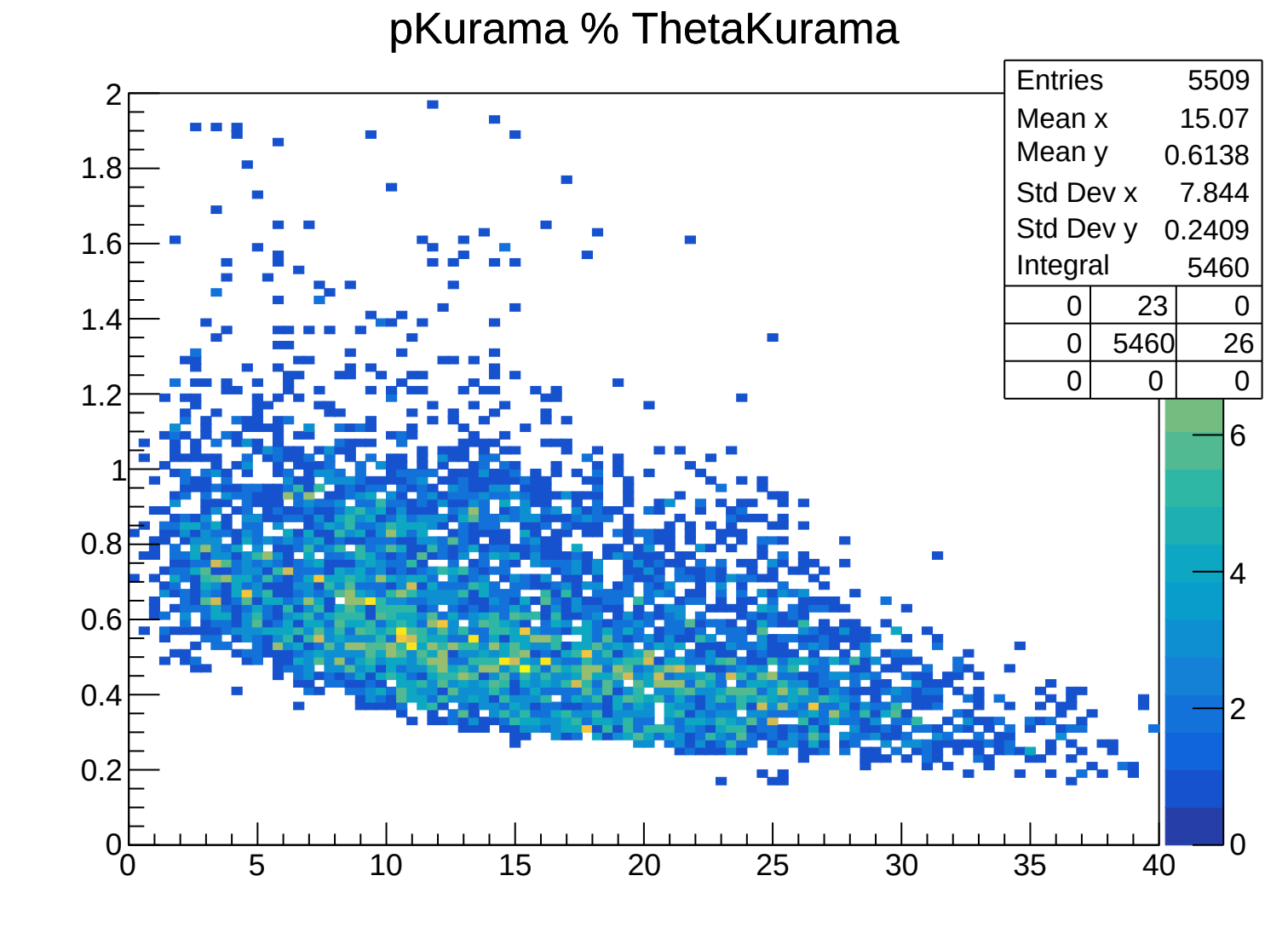

ysacKurama Cut Ver 5
Entries 639
Mean −8.248
Std Dev 75.05
Underflow 0
Overflow 0
Integral 639
30
25
20
15
10
5
0
−400
−300
−200
−100
0
100
200
300
400

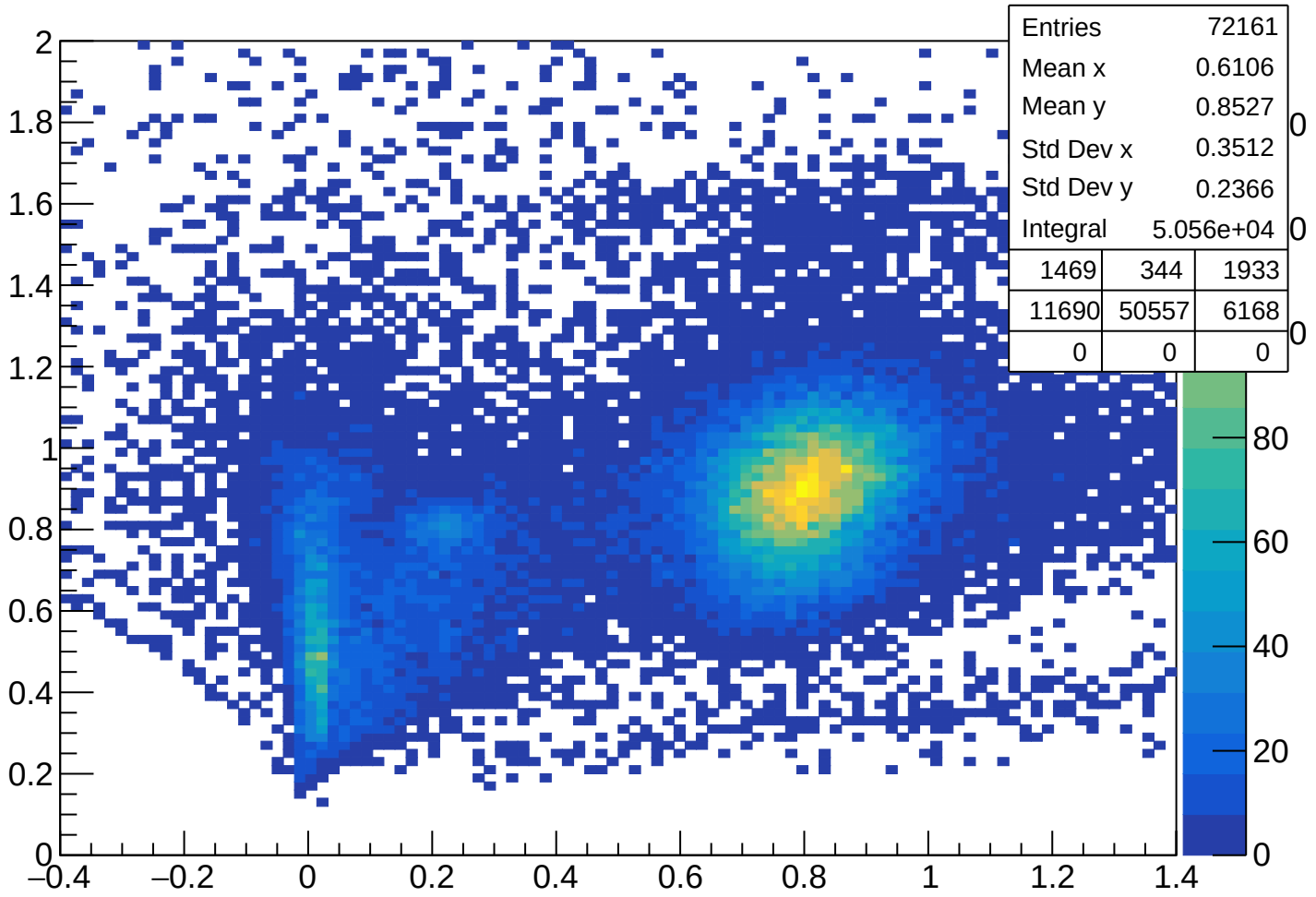

pKurama Cut Ver 5
Entries 639
Mean 0.7778
Std Dev 0.1156
Underflow 0
Overflow 0
Integral 639
0
10
20
30
40
50
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2

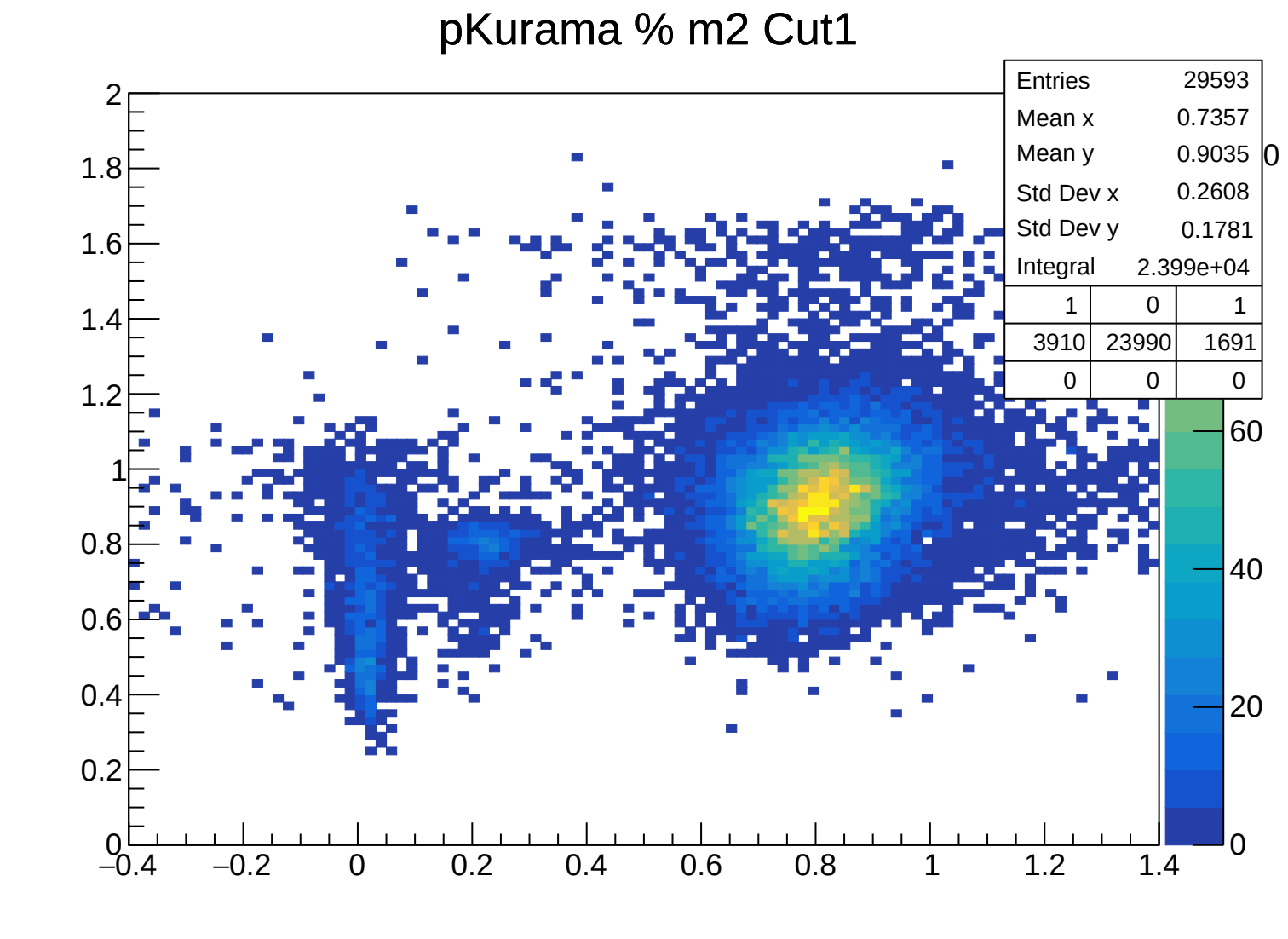

m2 Cut Ver 5
Entries 639
Mean 0.01195
Std Dev 0.03725
Underflow 0
Overflow 0
Integral 639
120
100
80
60
40
20
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

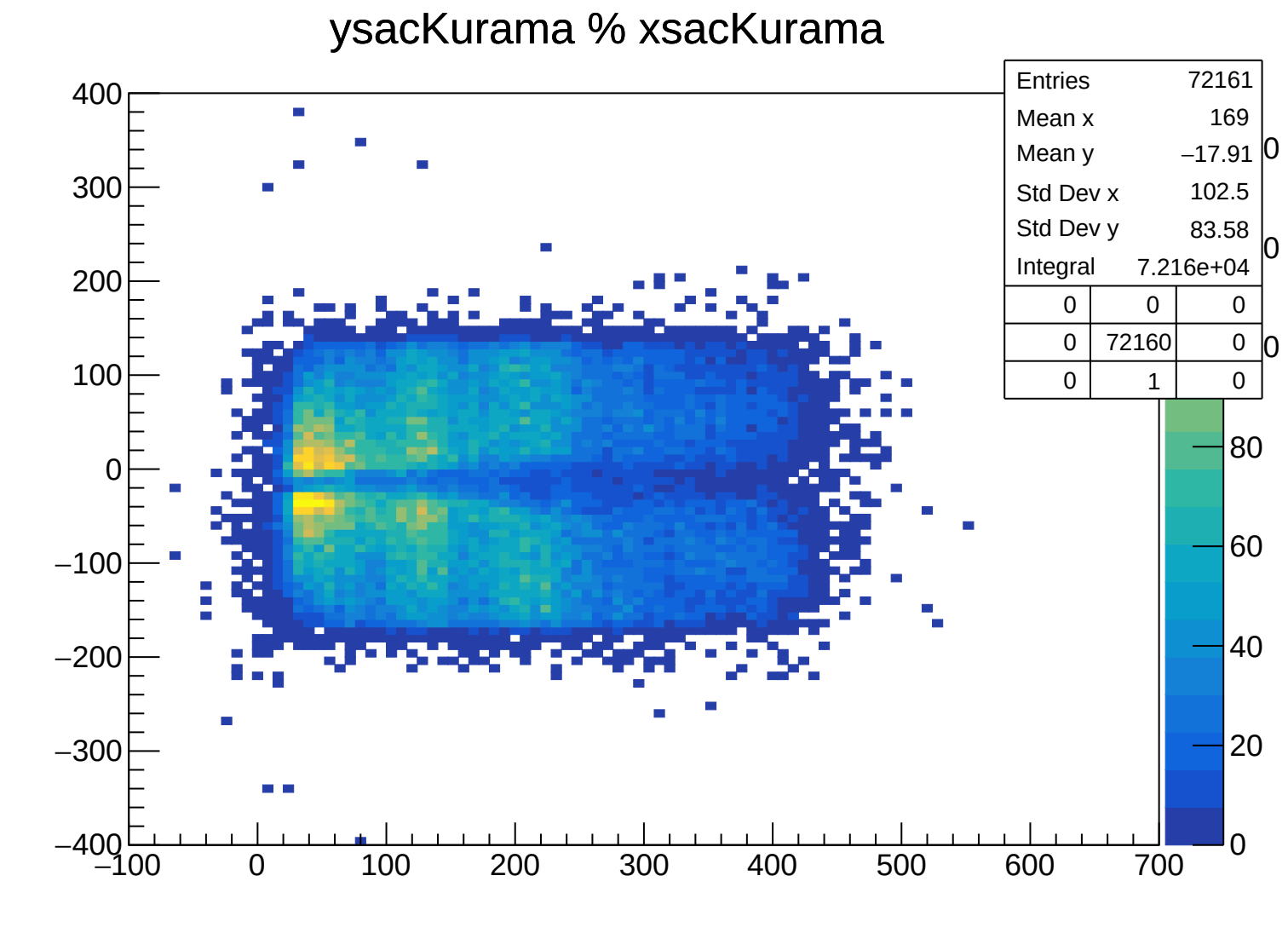

tSac Or Cut5
Entries 214
Mean 1.565
Std Dev 4.172
Underflow 0
Overflow 0
Integral 214
χ2 / ndf 3.431 / 4
Constant 43.15 ± 4.06
Mean 0.3154 ± 0.1595
Sigma 1.821 ± 0.146
10
1
–40
–20
0
20
40
60
80

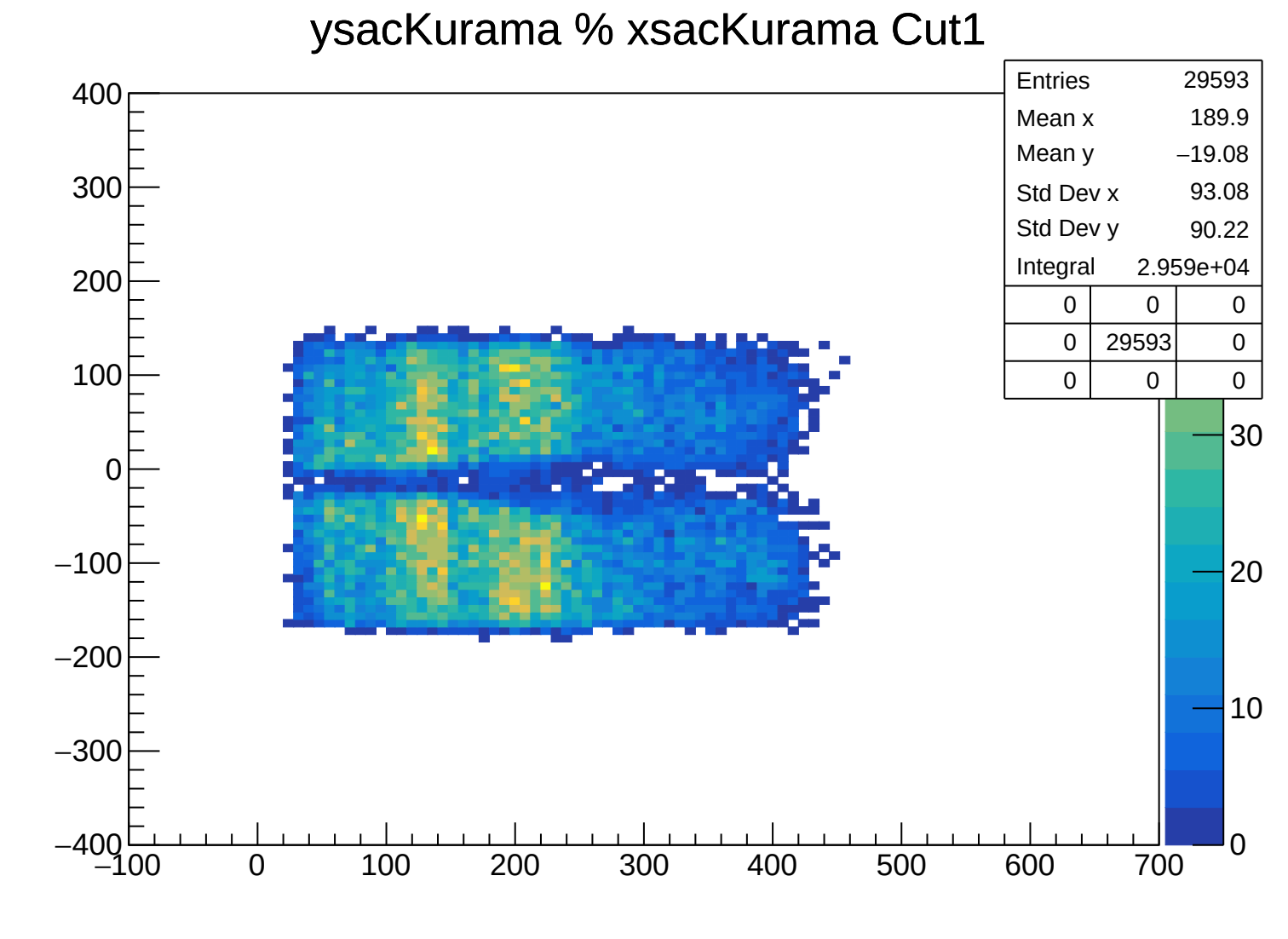

tSac Or Cut Ver 5
Entries 1120
Mean −18.35
Std Dev 47.85
Underflow 452
Overflow 481
Integral 187
16
14
12
10
8
6
4
2
0
−100
−80
−60
−40
−20
0
20
40
60
80
100

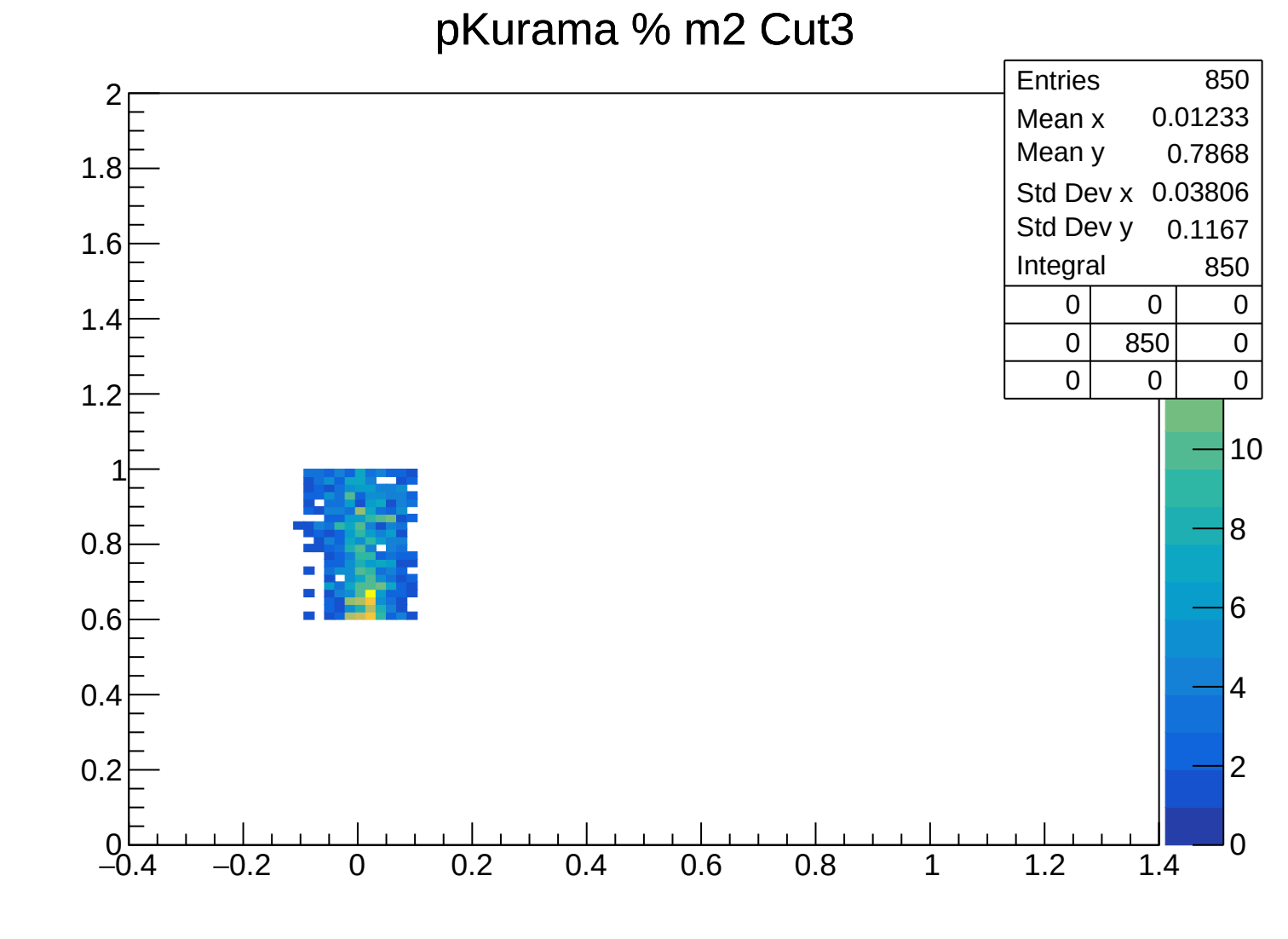

pKurama % ThetaKurama
Entries 5509
Mean x 15.07
Mean y 0.6138
Std Dev x 7.844
Std Dev y 0.2409
Integral 5460
0 23 0
0 5460 26
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40
6
4
2
0

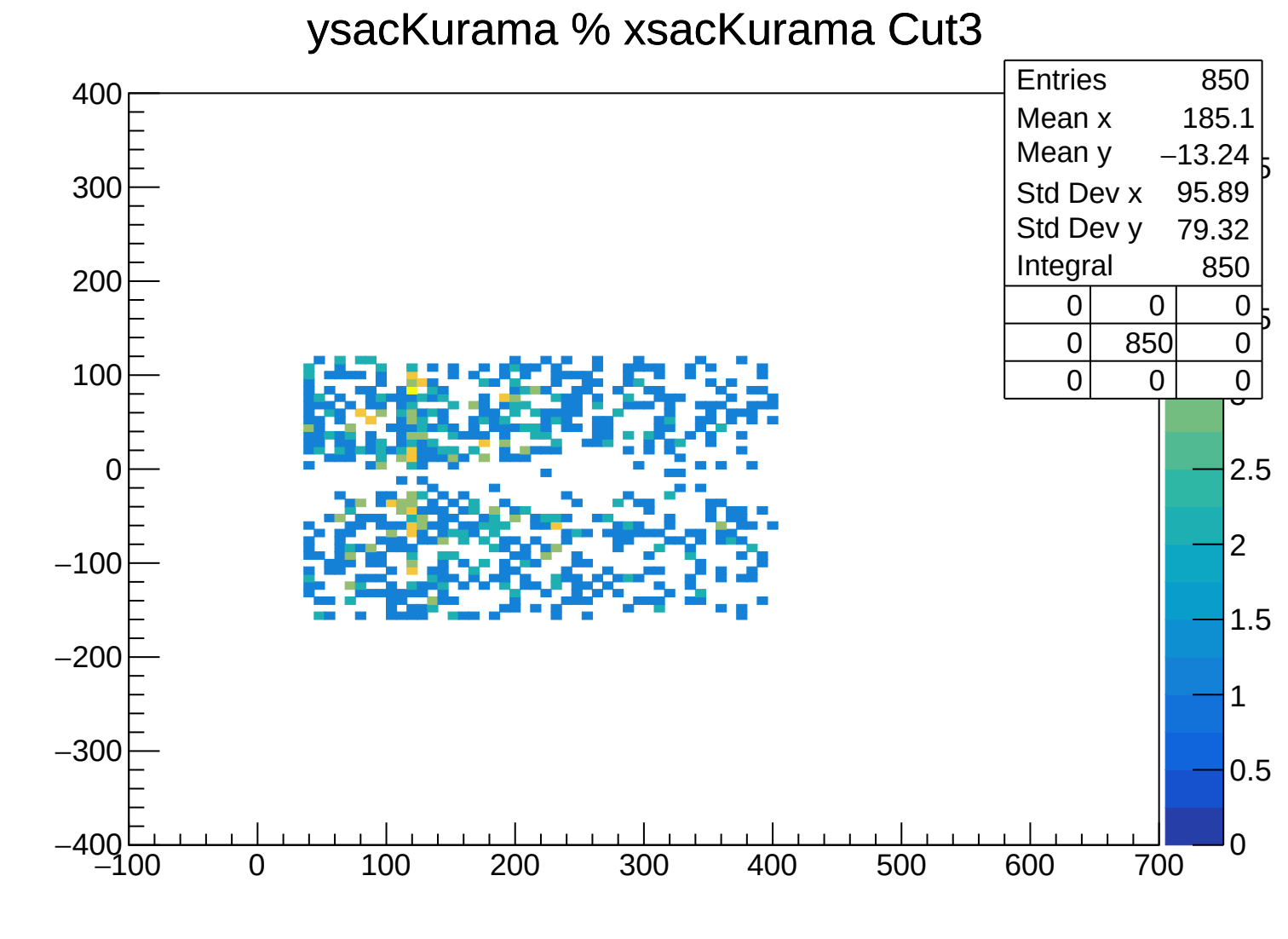

pKurama % m2
Entries 72161
Mean x 0.6106
Mean y 0.8527
Std Dev x 0.3512
Std Dev y 0.2366
Integral 5.056e+04
1469 344 1933
11690 50557 6168
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
80
60
40
20
0

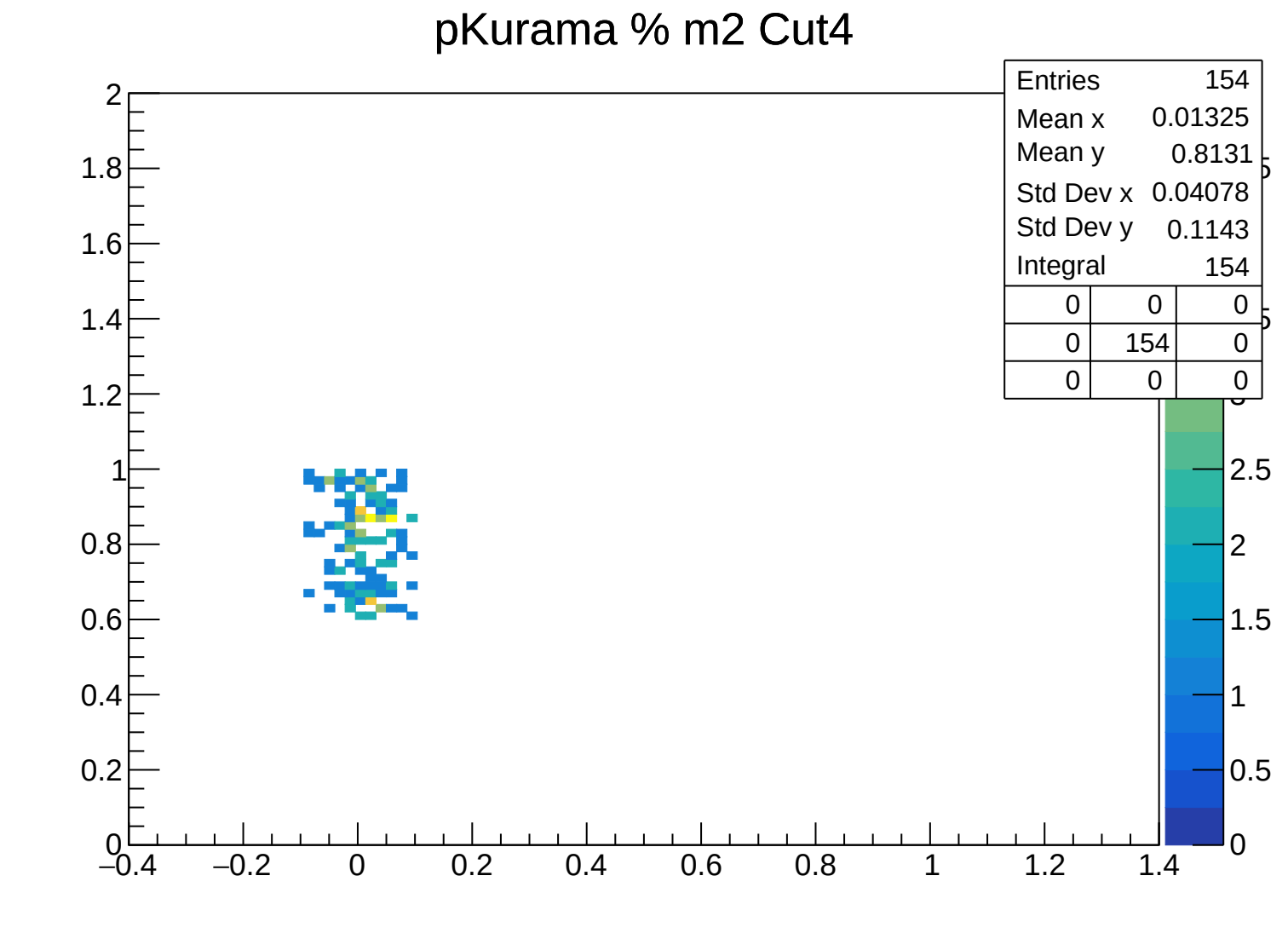

pKurama % m2 Cut1
Entries 29593
Mean x 0.7357
Mean y 0.9035
Std Dev x 0.2608
Std Dev y 0.1781
Integral 2.399e+04
1 0 1
3910 23990 1691
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
60
40
20
0

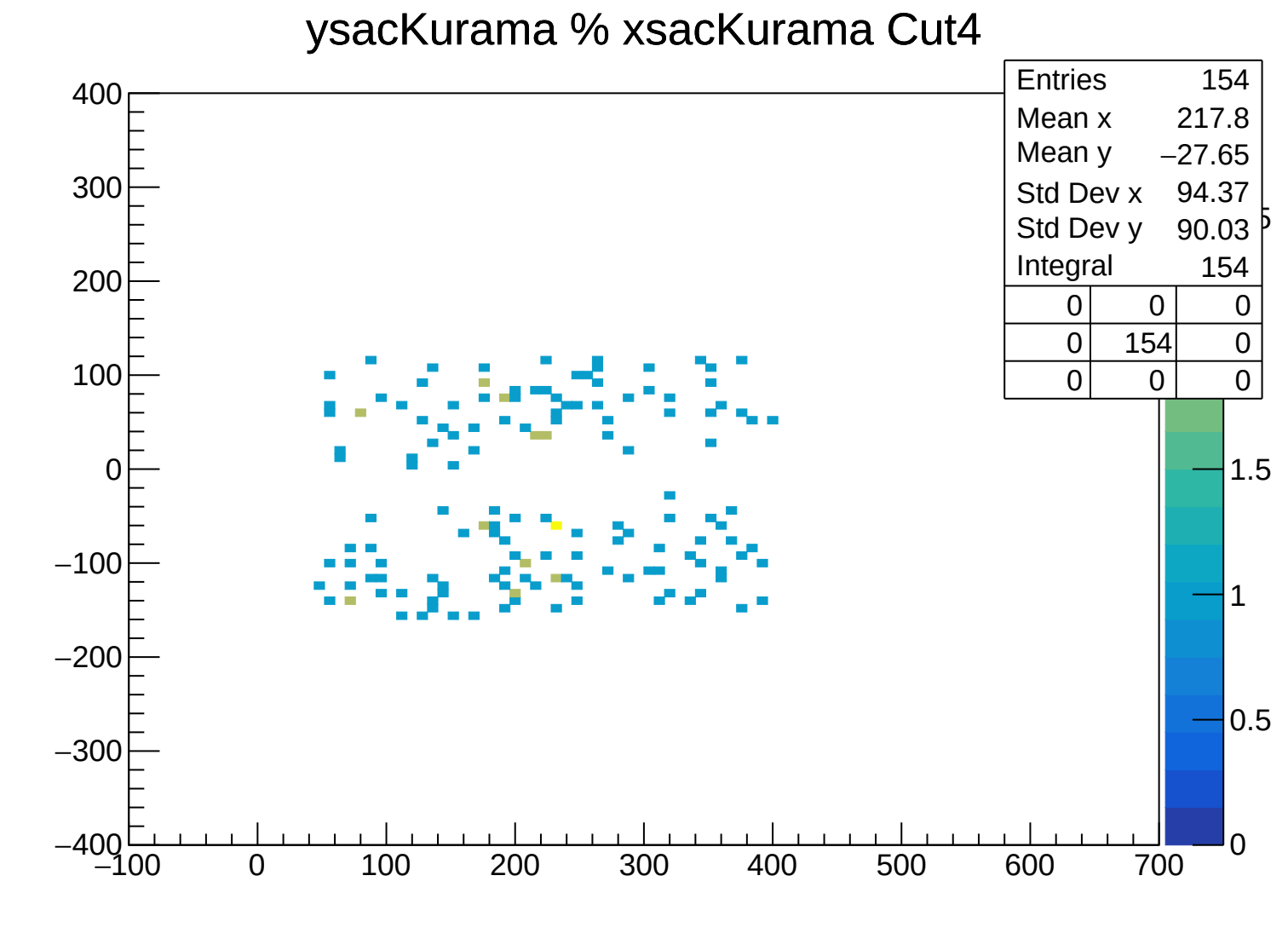

ysacKurama % xsacKurama
Entries 72161
Mean x 169
Mean y –17.91
Std Dev x 102.5
Std Dev y 83.58
Integral 7.216e+04
0 0 0
0 72160 0
0 1 0
400
300
200
100
0
–100
–200
–300
–400
–100
0
100
200
300
400
500
600
700
80
60
40
20
0

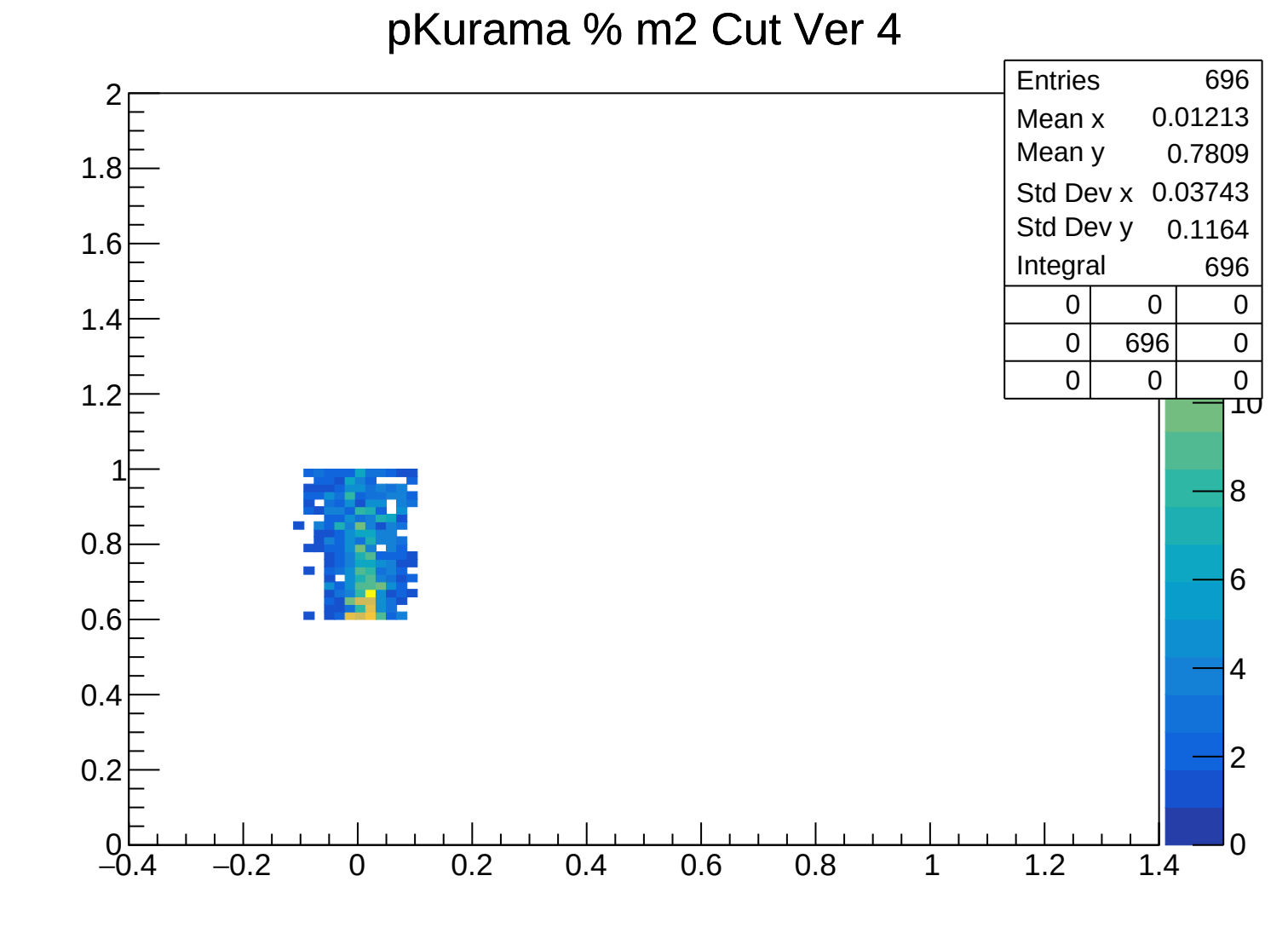

ysacKurama % xsacKurama Cut1
Entries 29593
Mean x 189.9
Mean y −19.08
Std Dev x 93.08
Std Dev y 90.22
Integral 2.959e+04
0 0 0
0 29593 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
30
20
10
0

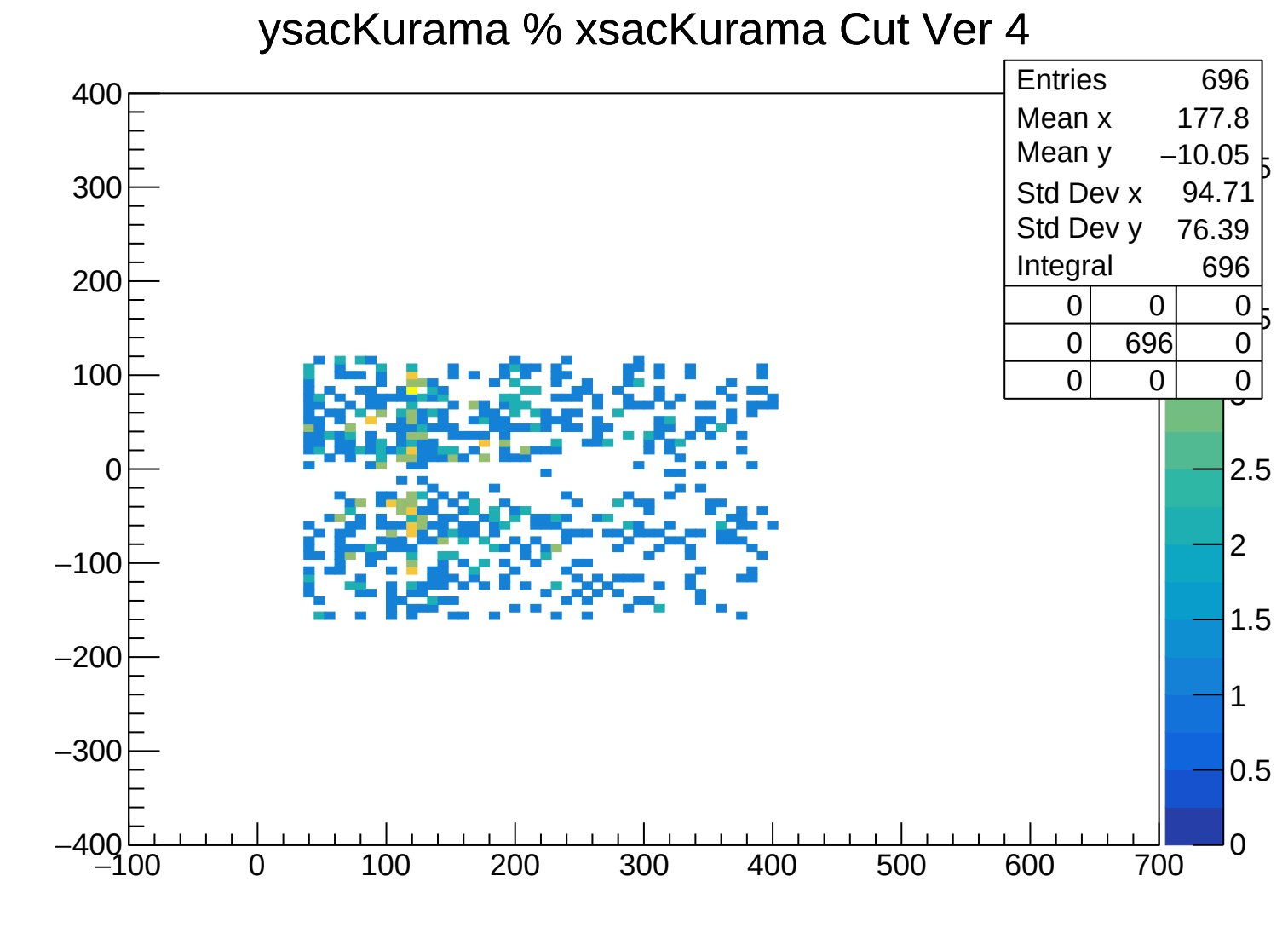

pKurama % m2 Cut3
Entries 850
Mean x 0.01233
Mean y 0.7868
Std Dev x 0.03806
Std Dev y 0.1167
Integral 850
0 0 0
0 850 0
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
10
8
6
4
2
0

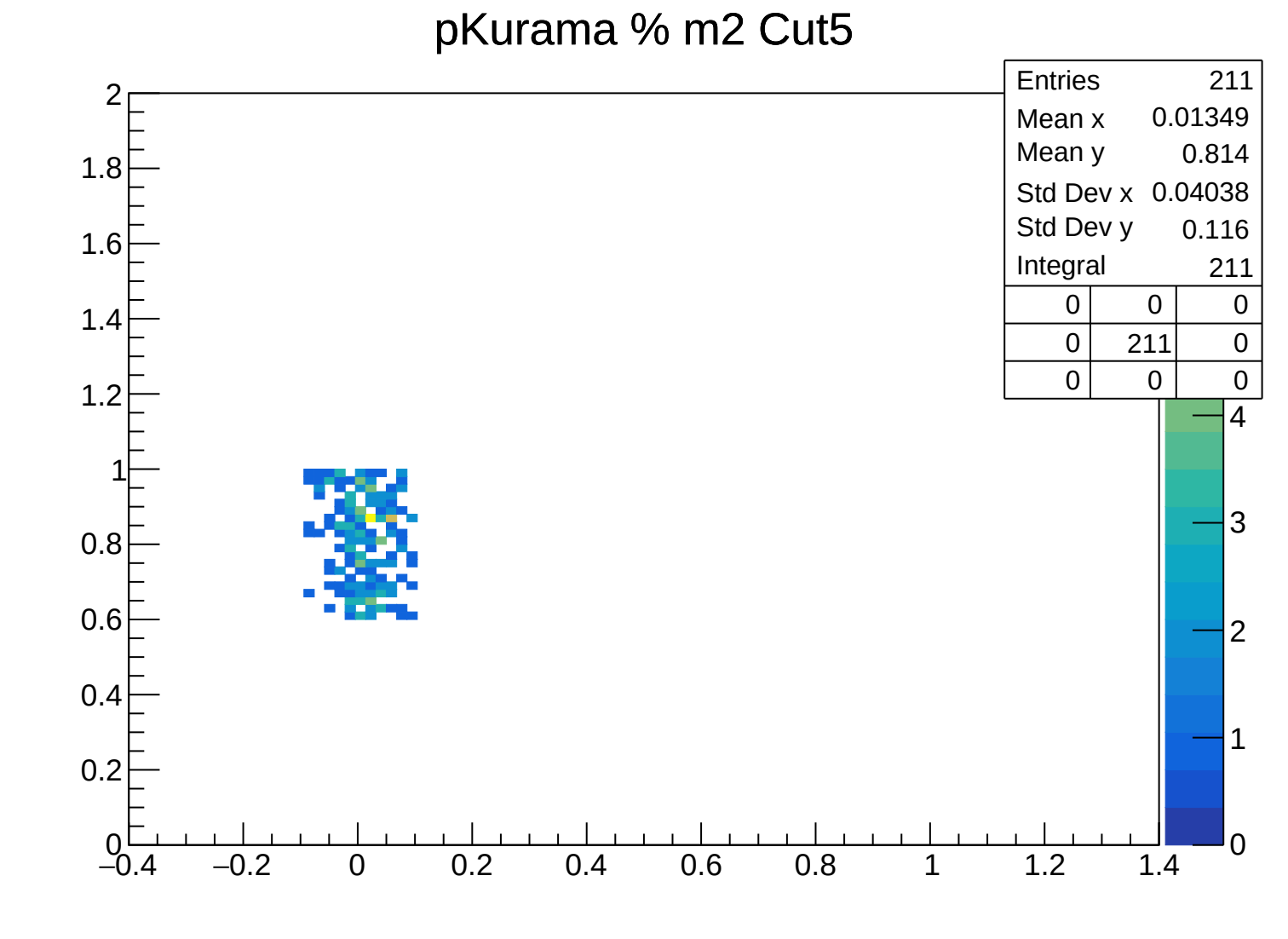

ysacKurama % xsacKurama Cut3
Entries 850
Mean x 185.1
Mean y −13.24
Std Dev x 95.89
Std Dev y 79.32
Integral 850
0 0 0
0 850 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
2.5
2
1.5
1
0.5
0

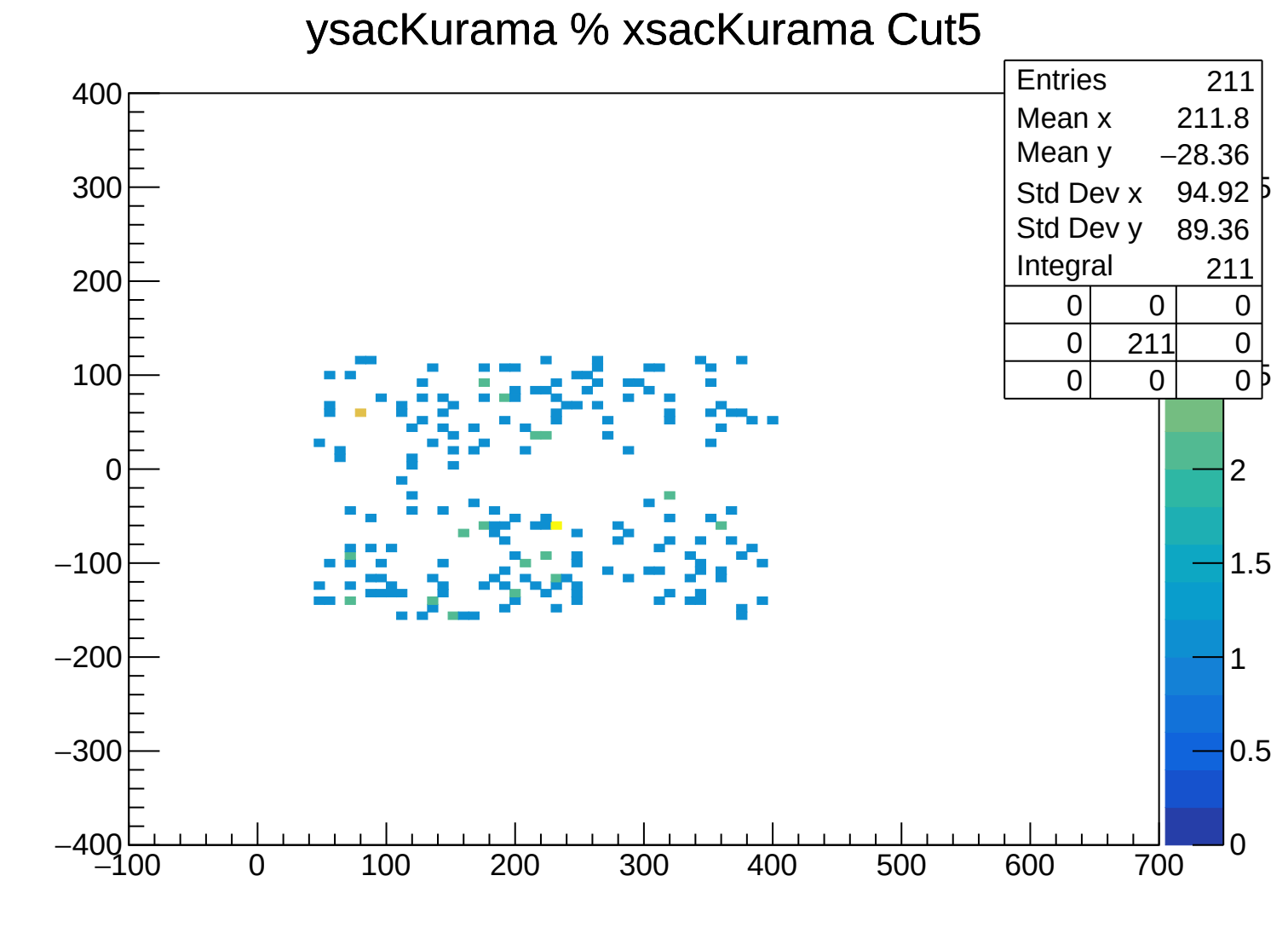

pKurama % m2 Cut4
Entries 154
Mean x 0.01325
Mean y 0.8131
Std Dev x 0.04078
Std Dev y 0.1143
Integral 154
0 0 0
0 154 0
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
2.5
2
1.5
1
0.5
0

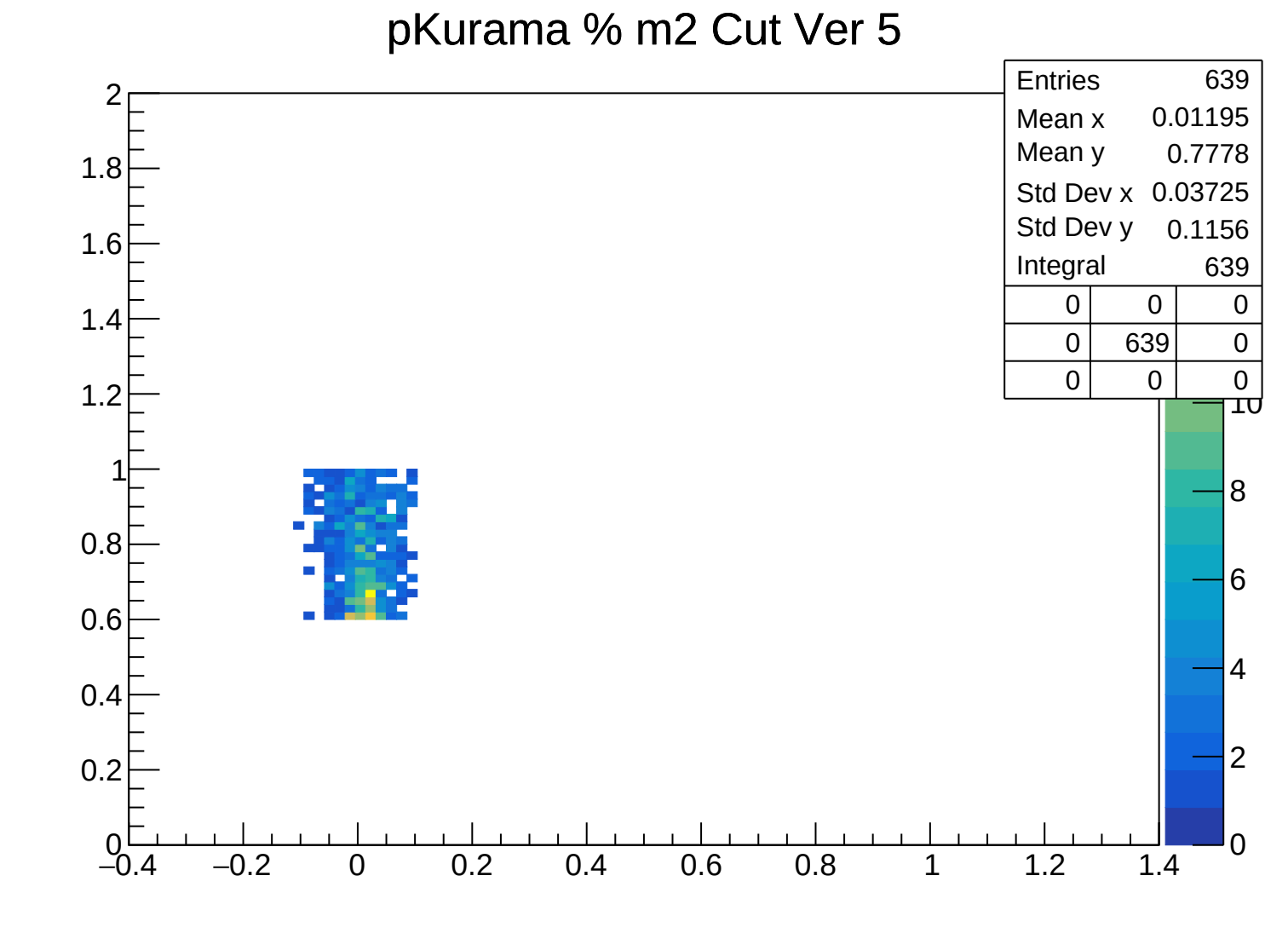

ysacKurama % xsacKurama Cut4
Entries 154
Mean x 217.8
Mean y −27.65
Std Dev x 94.37
Std Dev y 90.03
Integral 154
0 0 0
0 154 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
1.5
1
0.5
0

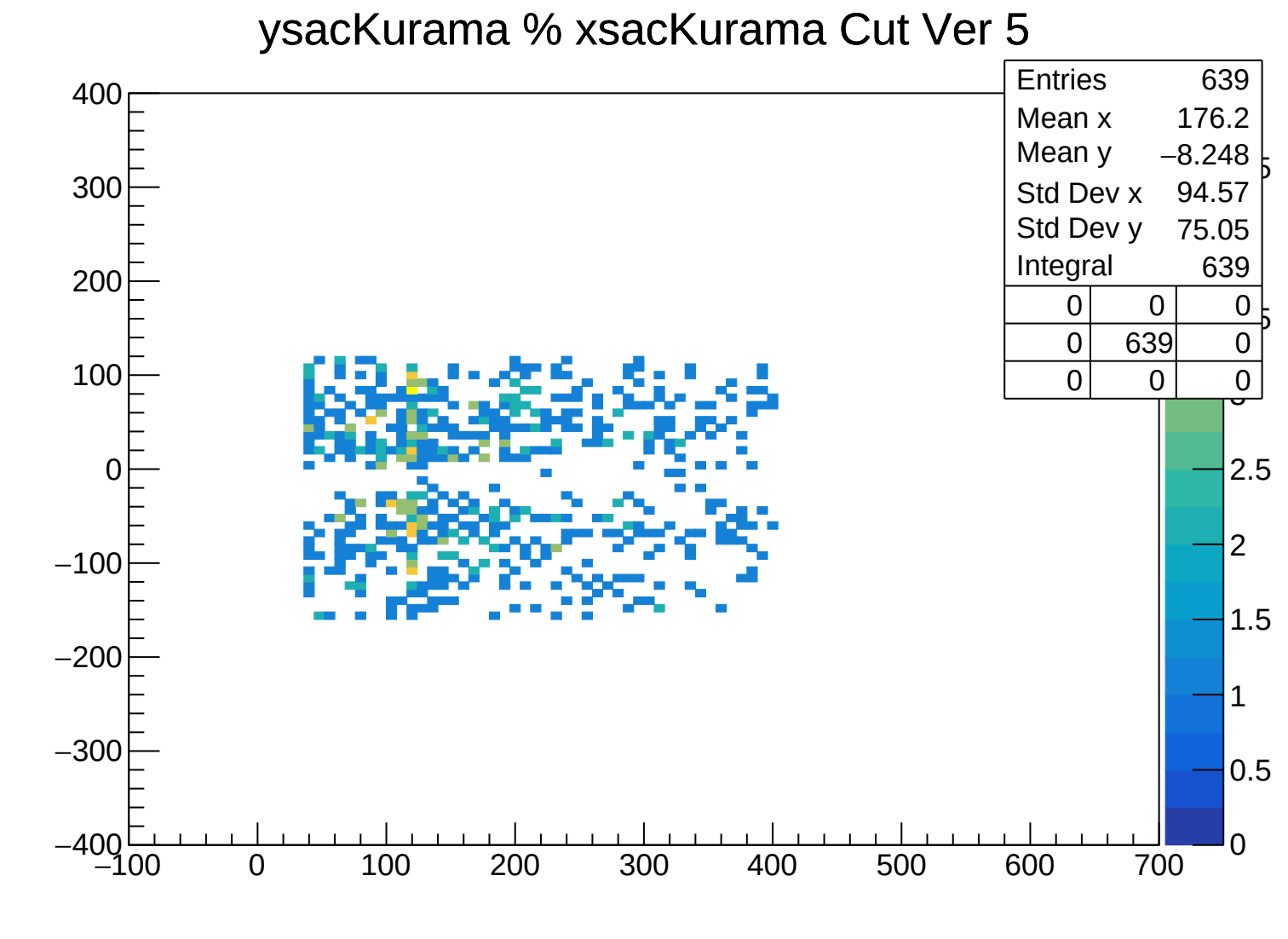

pKurama % m2 Cut Ver 4
Entries 696
Mean x 0.01213
Mean y 0.7809
Std Dev x 0.03743
Std Dev y 0.1164
Integral 696
0 0 0
0 696 0
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
10
8
6
4
2
0


ysacKurama % xsacKurama Cut Ver 4
Entries 696
Mean x 177.8
Mean y −10.05
Std Dev x 94.71
Std Dev y 76.39
Integral 696
0 0 0
0 696 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
2.5
2
1.5
1
0.5
0


pKurama % m2 Cut5
Entries 211
Mean x 0.01349
Mean y 0.814
Std Dev x 0.04038
Std Dev y 0.116
Integral 211
0 0 0
0 211 0
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
4
3
2
1
0


ysacKurama % xsacKurama Cut5
Entries 211
Mean x 211.8
Mean y −28.36
Std Dev x 94.92
Std Dev y 89.36
Integral 211
0 0 0
0 211 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
2
1.5
1
0.5
0


pKurama % m2 Cut Ver 5
Entries 639
Mean x 0.01195
Mean y 0.7778
Std Dev x 0.03725
Std Dev y 0.1156
Integral 639
0 0 0
0 639 0
0 0 0
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4
10
8
6
4
2
0


ysacKurama % xsacKurama Cut Ver 5
Entries 639
Mean x 176.2
Mean y −8.248
Std Dev x 94.57
Std Dev y 75.05
Integral 639
0 0 0
0 639 0
0 0 0
400
300
200
100
0
−100
−200
−300
−400
−100
0
100
200
300
400
500
600
700
2.5
2
1.5
1
0.5
0