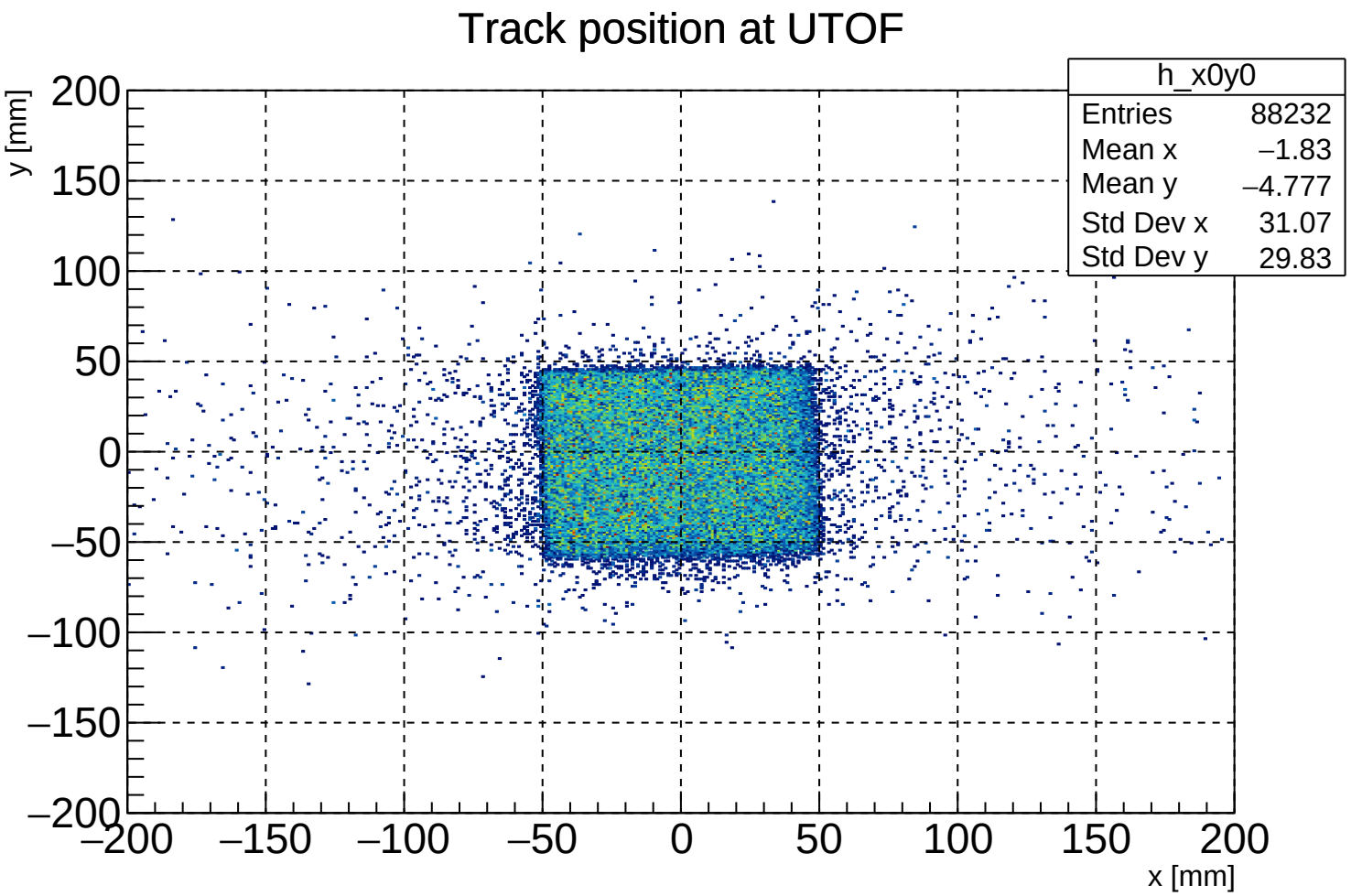
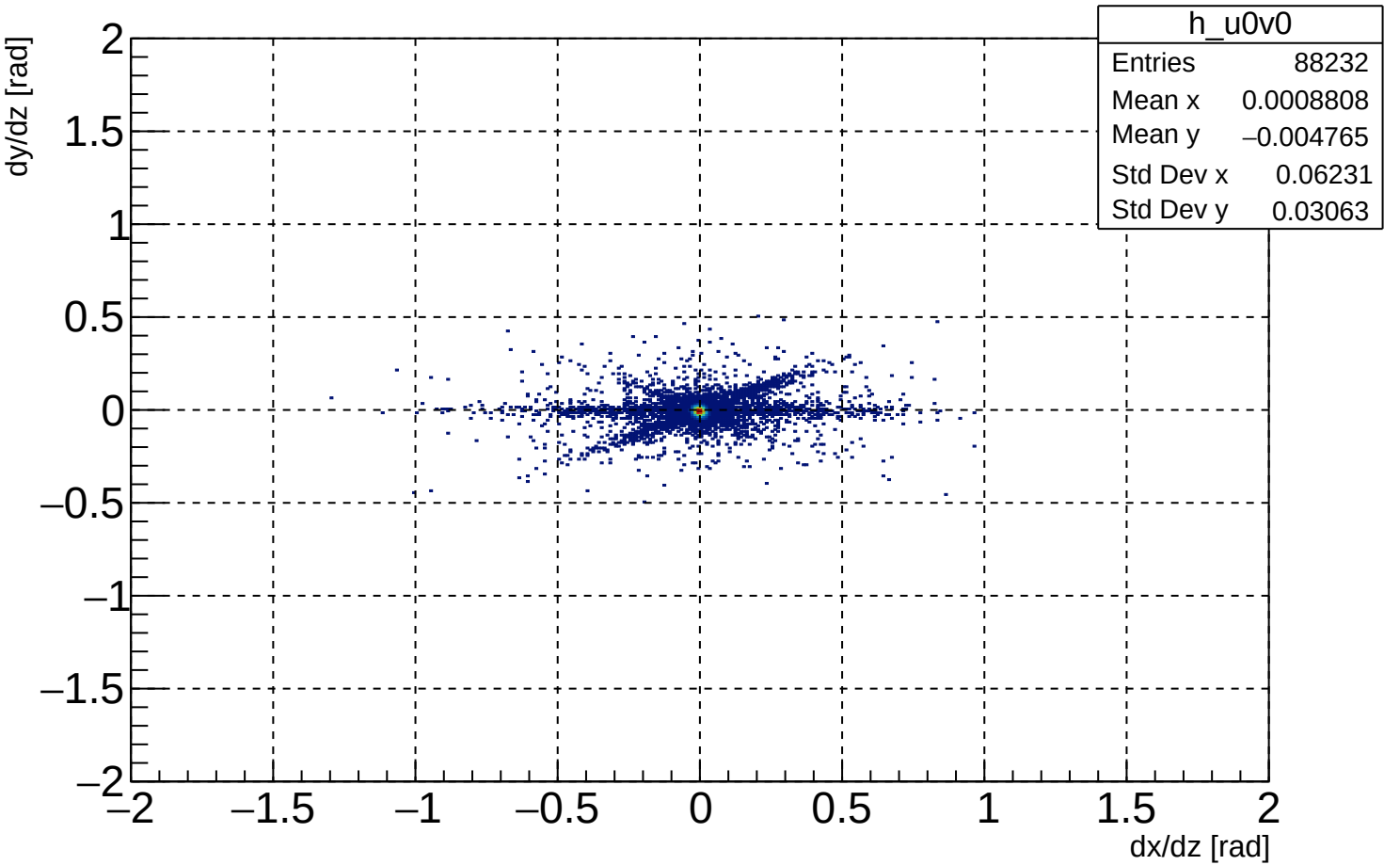
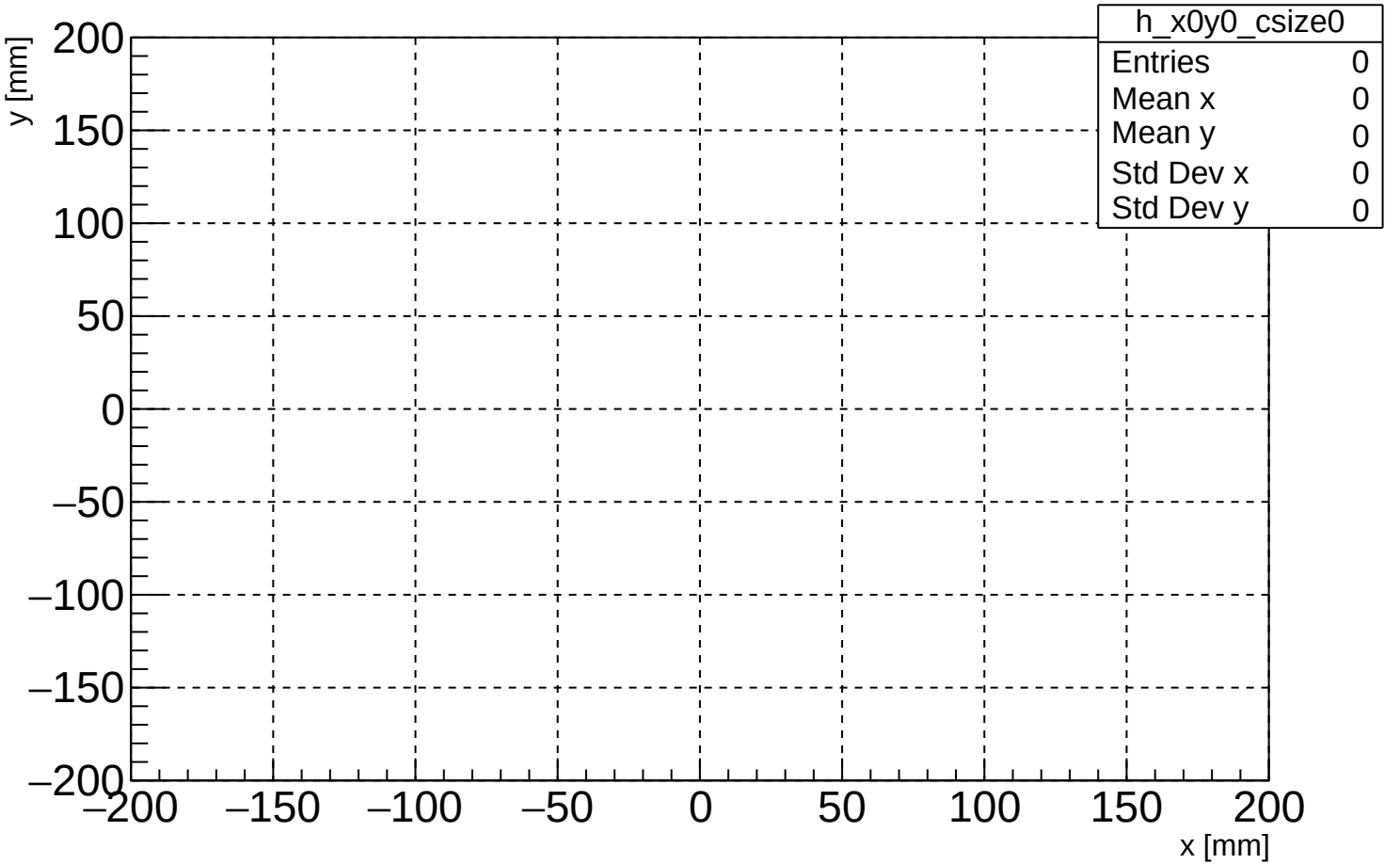
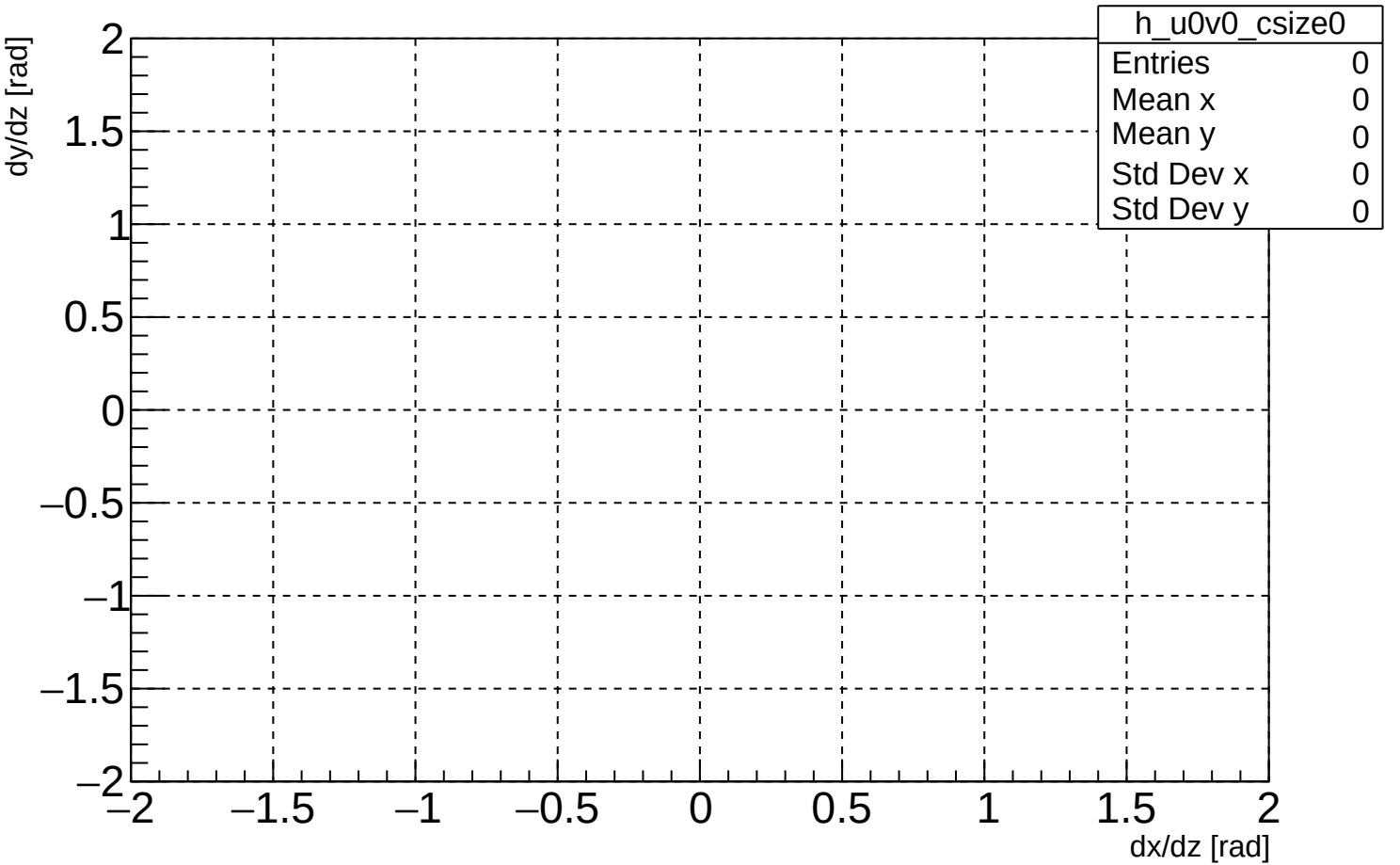
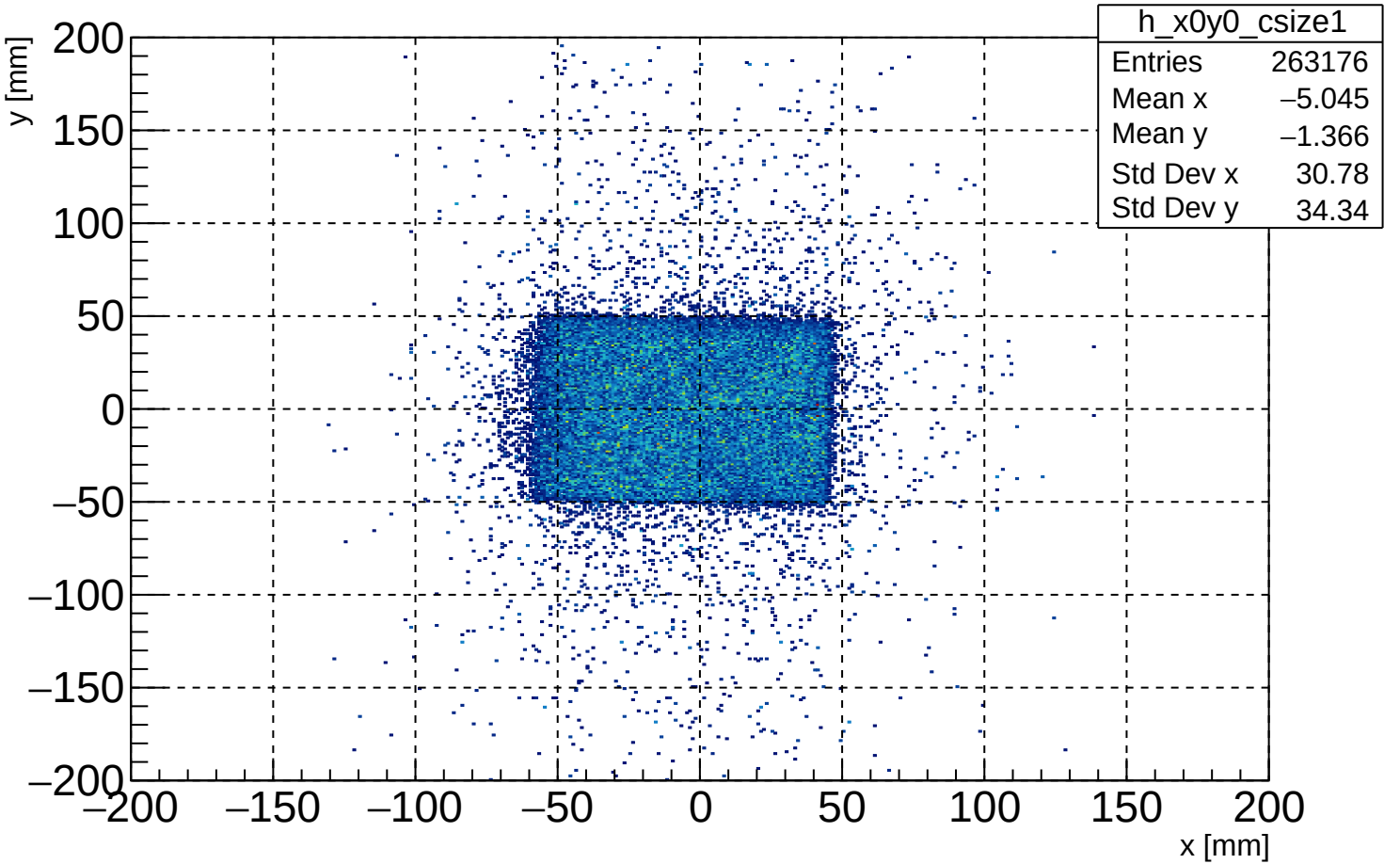
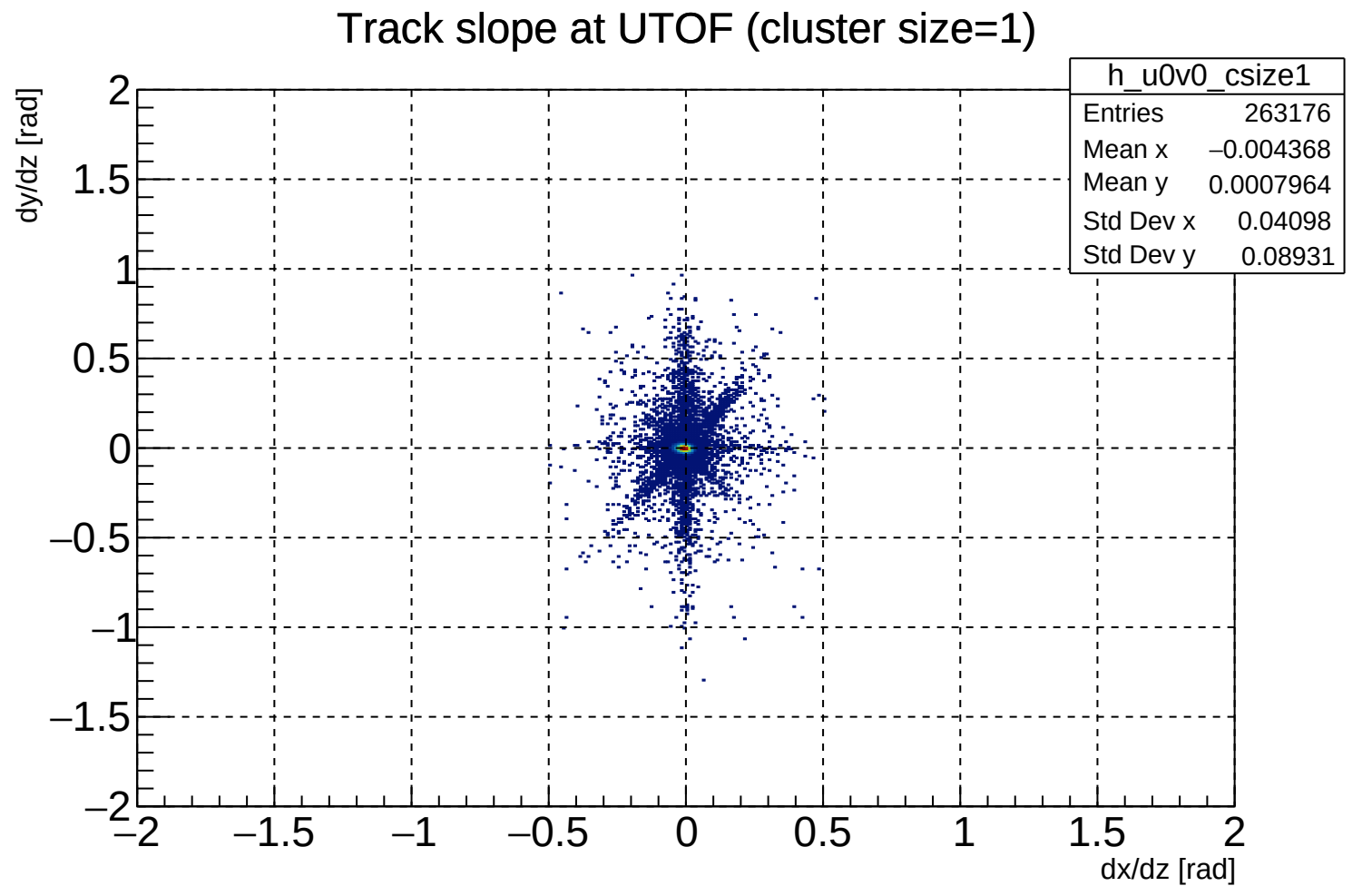

Track position at UTOF
h_x0y0
Entries 88232
Mean x −1.83
Mean y −4.777
Std Dev x 31.07
Std Dev y 29.83
y [mm]
x [mm]
200
150
100
50
0
−50
−100
−150
−200
−200
−150
−100
−50
0
50
100
150
200

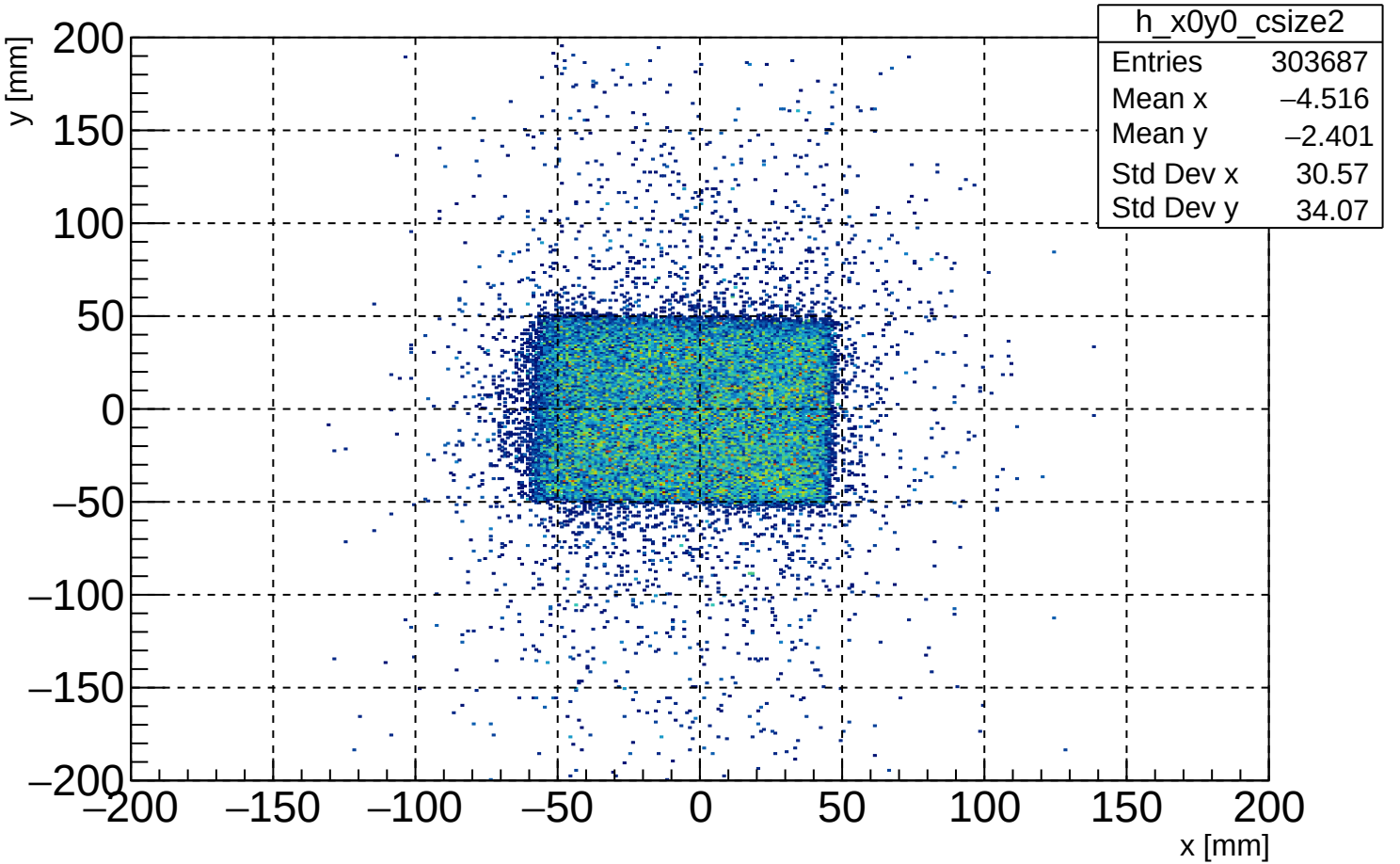

Track slope at UTOF
h_u0v0
Entries 88232
Mean x 0.0008808
Mean y −0.004765
Std Dev x 0.06231
Std Dev y 0.03063
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2

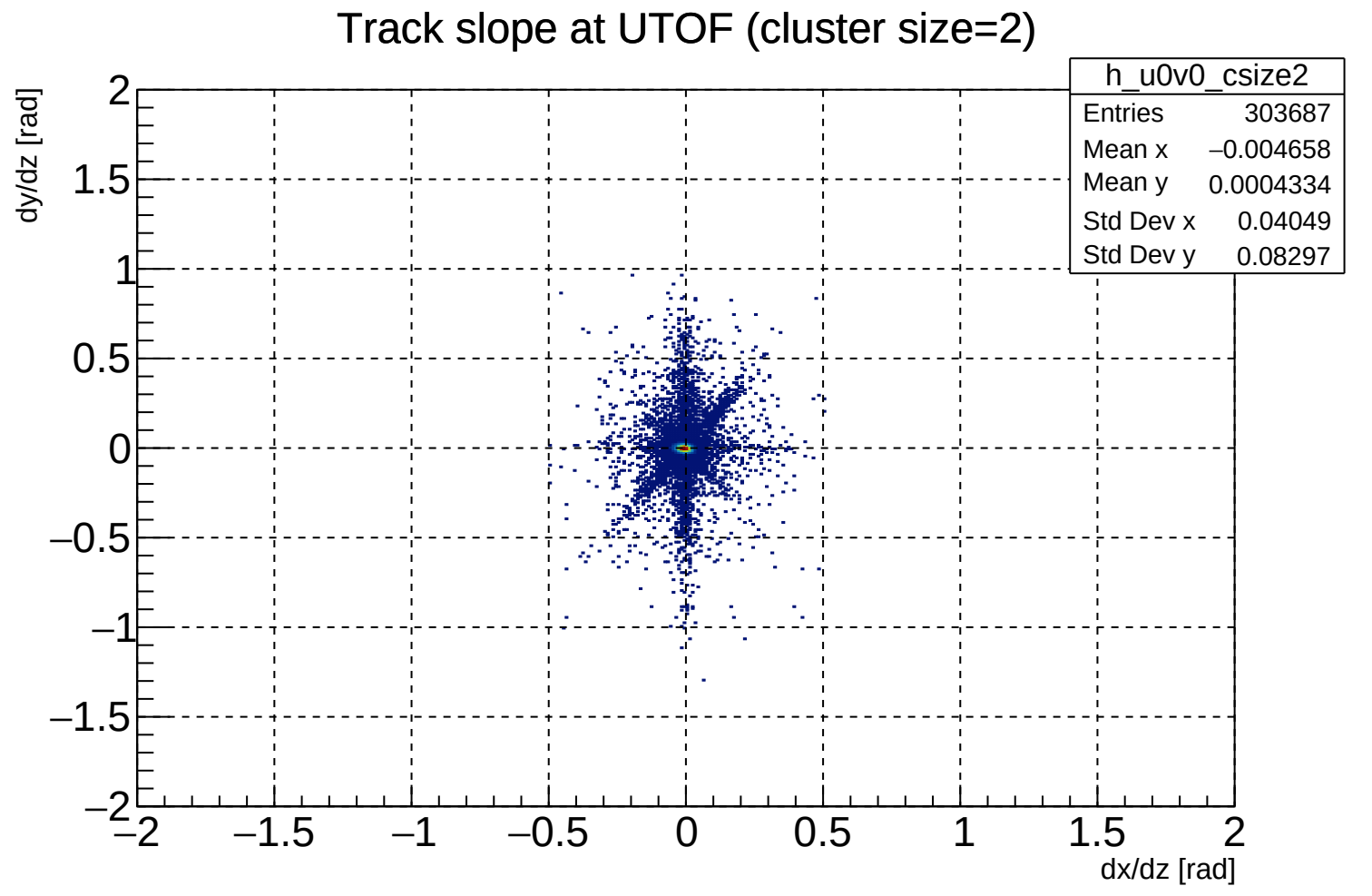

Track position at UTOF (cluster size=0)
h_x0y0_csize0
Entries 0
Mean x 0
Mean y 0
Std Dev x 0
Std Dev y 0
y [mm]
200
150
100
50
0
–50
–100
–150
–200
–200
–150
–100
–50
0
50
100
150
200
x [mm]

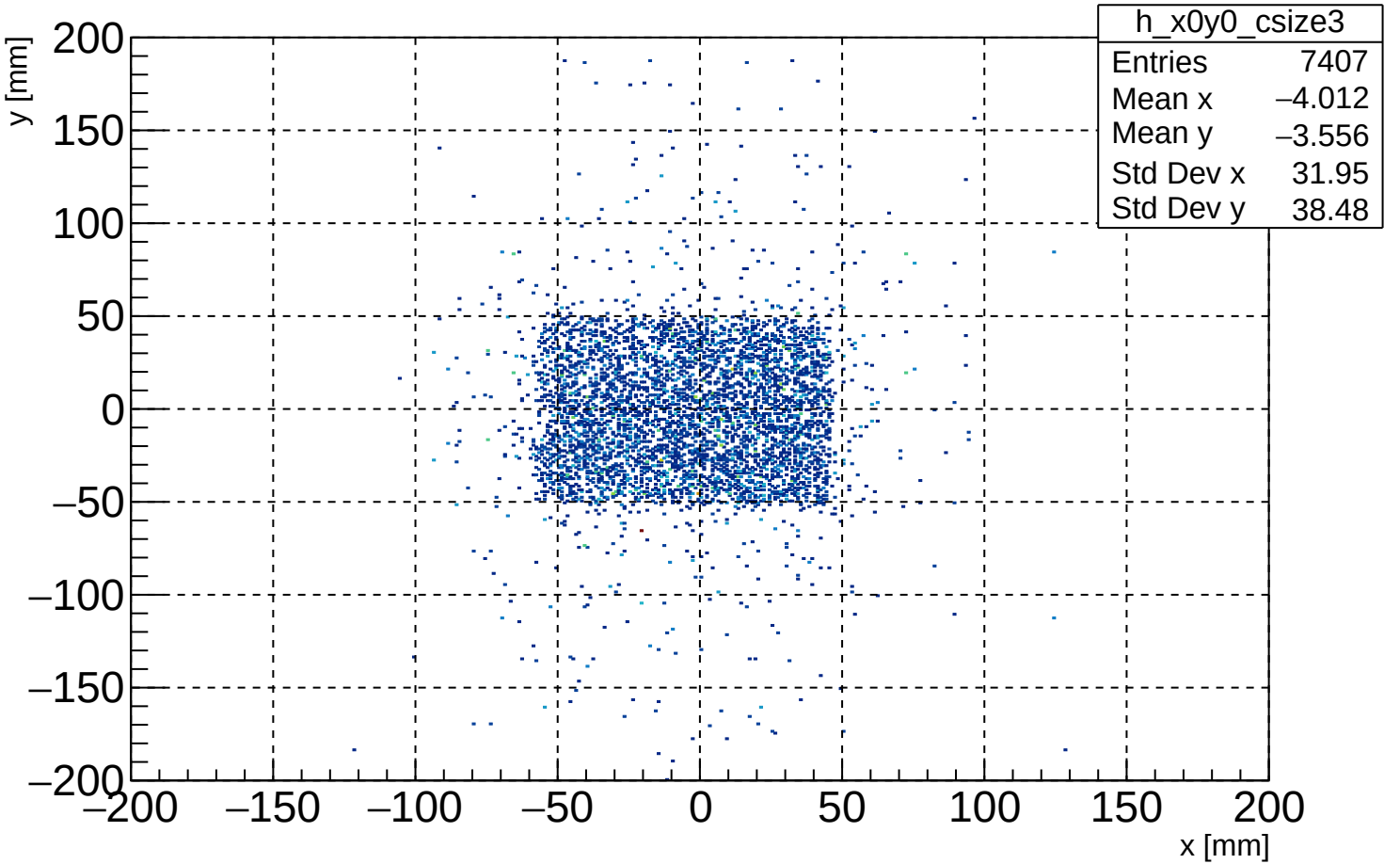

Track slope at UTOF (cluster size=0)
h_u0v0_csize0
Entries 0
Mean x 0
Mean y 0
Std Dev x 0
Std Dev y 0
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

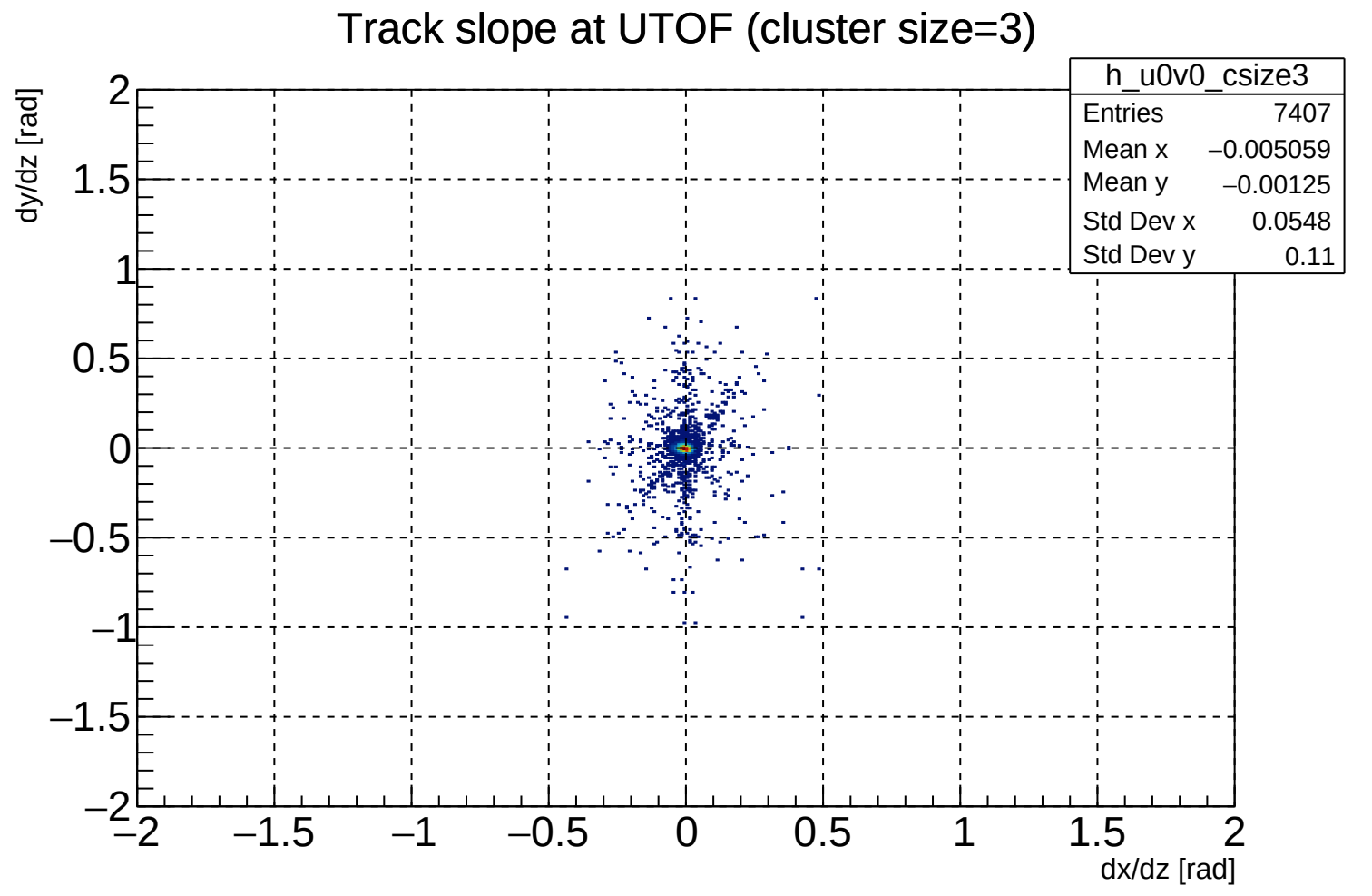

Track position at UTOF (cluster size=1)
h_x0y0_csize1
Entries 263176
Mean x −5.045
Mean y −1.366
Std Dev x 30.78
Std Dev y 34.34
y [mm]
x [mm]
200
150
100
50
0
−50
−100
−150
−200
−200
−150
−100
−50
0
50
100
150
200

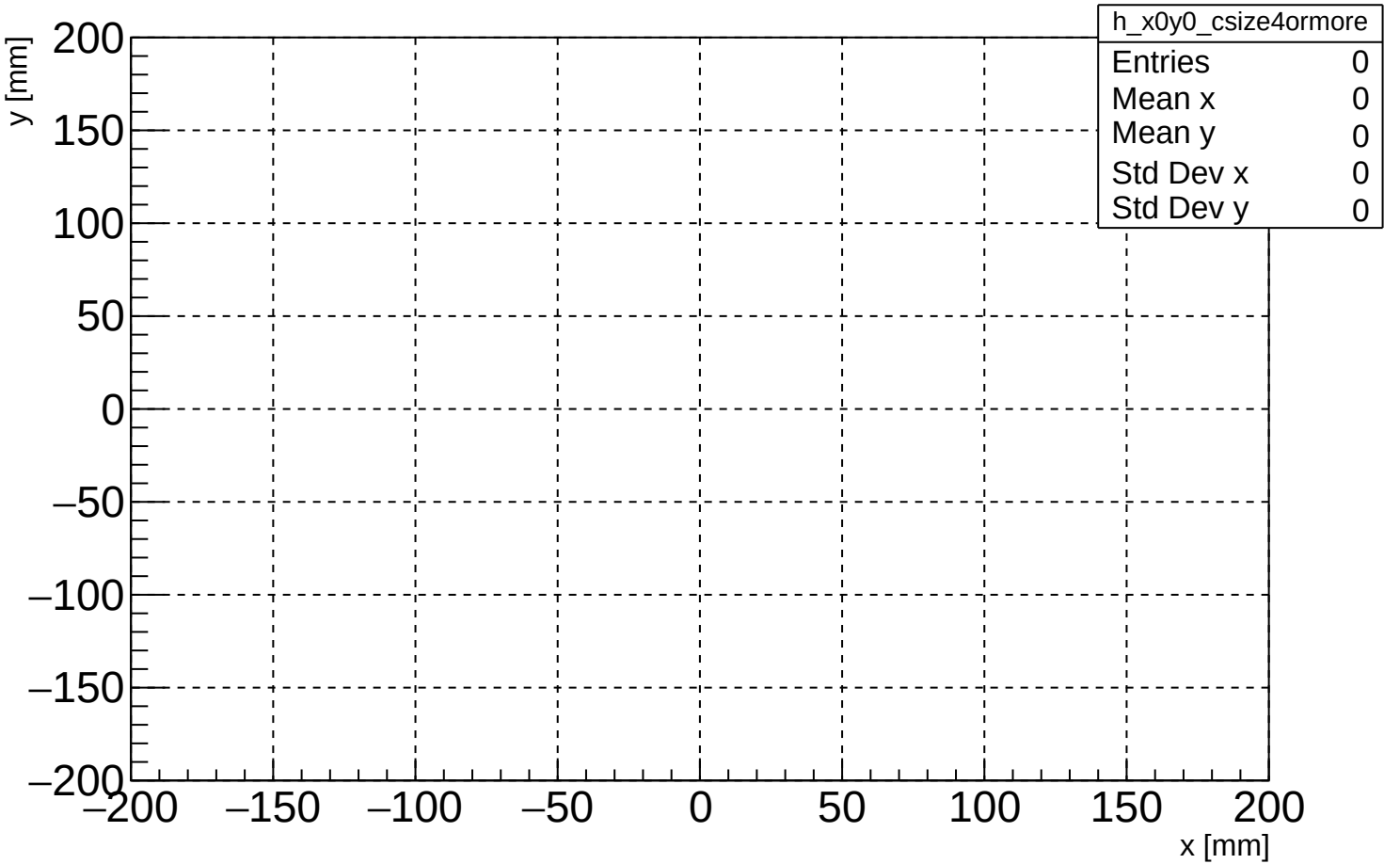

Track slope at UTOF (cluster size=1)
h_u0v0_csize1
Entries 263176
Mean x –0.004368
Mean y 0.0007964
Std Dev x 0.04098
Std Dev y 0.08931
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
–0.5
–1
–1.5
–2

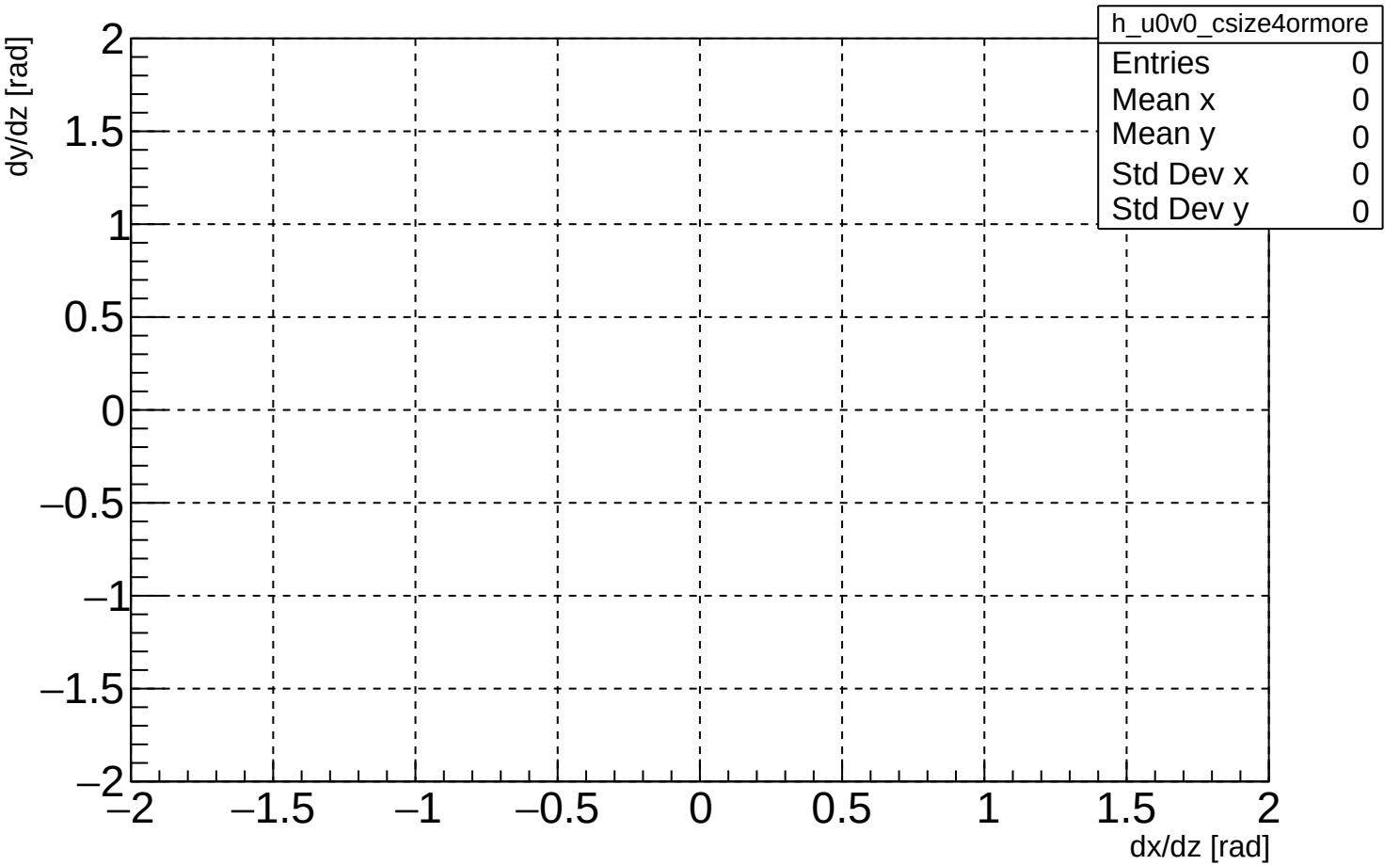

Track position at UTOF (cluster size=2)
h_x0y0_csize2
Entries 303687
Mean x −4.516
Mean y −2.401
Std Dev x 30.57
Std Dev y 34.07
y [mm]
x [mm]
200
150
100
50
0
−50
−100
−150
−200
−200
−150
−100
−50
0
50
100
150
200

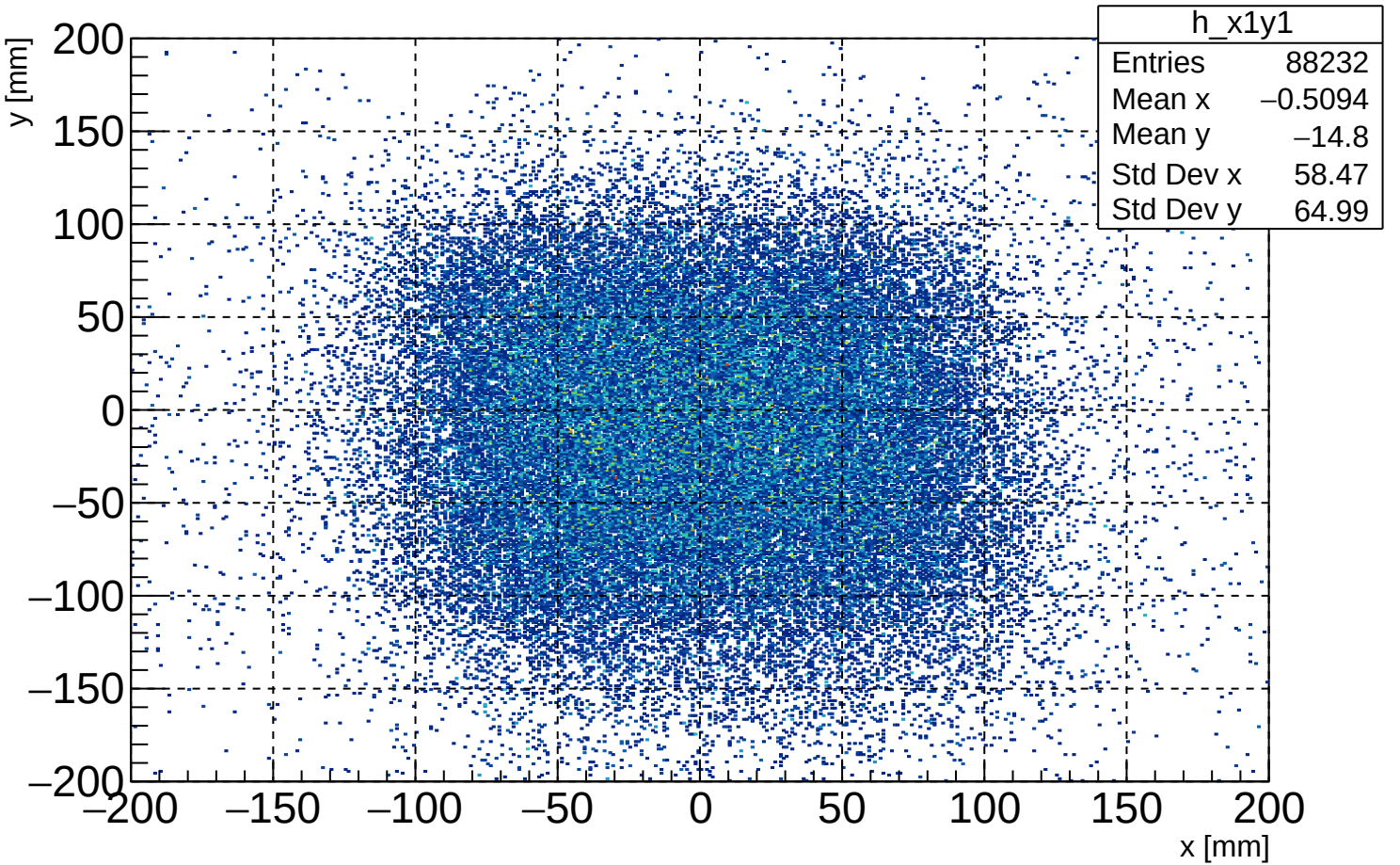

Track slope at UTOF (cluster size=2)
h_u0v0_csize2
Entries 303687
Mean x –0.004658
Mean y 0.0004334
Std Dev x 0.04049
Std Dev y 0.08297
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
–0.5
–1
–1.5
–2

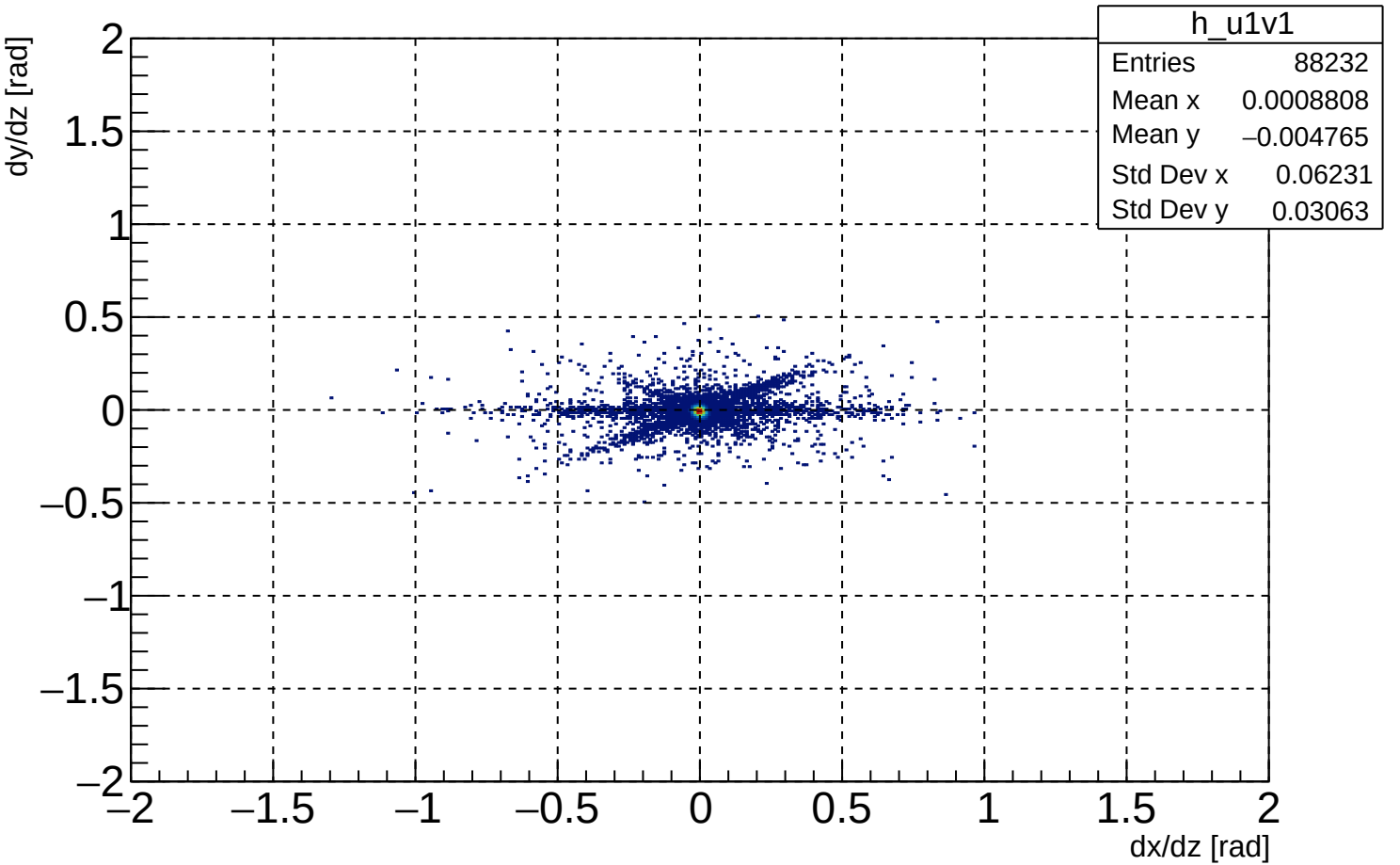

Track position at UTOF (cluster size=3)
h_x0y0_csize3
Entries 7407
Mean x −4.012
Mean y −3.556
Std Dev x 31.95
Std Dev y 38.48
y [mm]
x [mm]
200
150
100
50
0
−50
−100
−150
−200
−200
−150
−100
−50
0
50
100
150
200

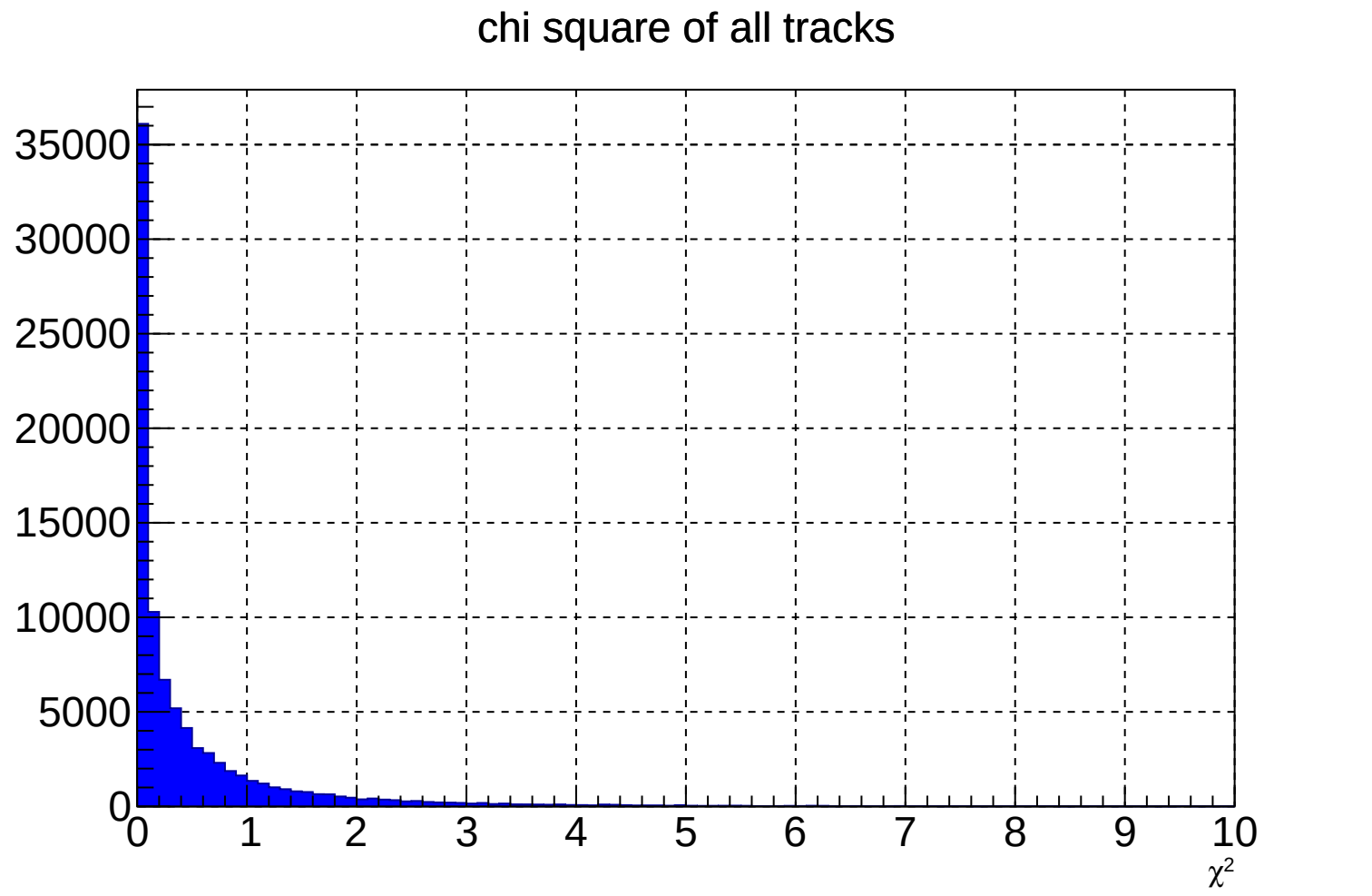

Track slope at UTOF (cluster size=3)
h_u0v0_csize3
Entries 7407
Mean x −0.005059
Mean y −0.00125
Std Dev x 0.0548
Std Dev y 0.11
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

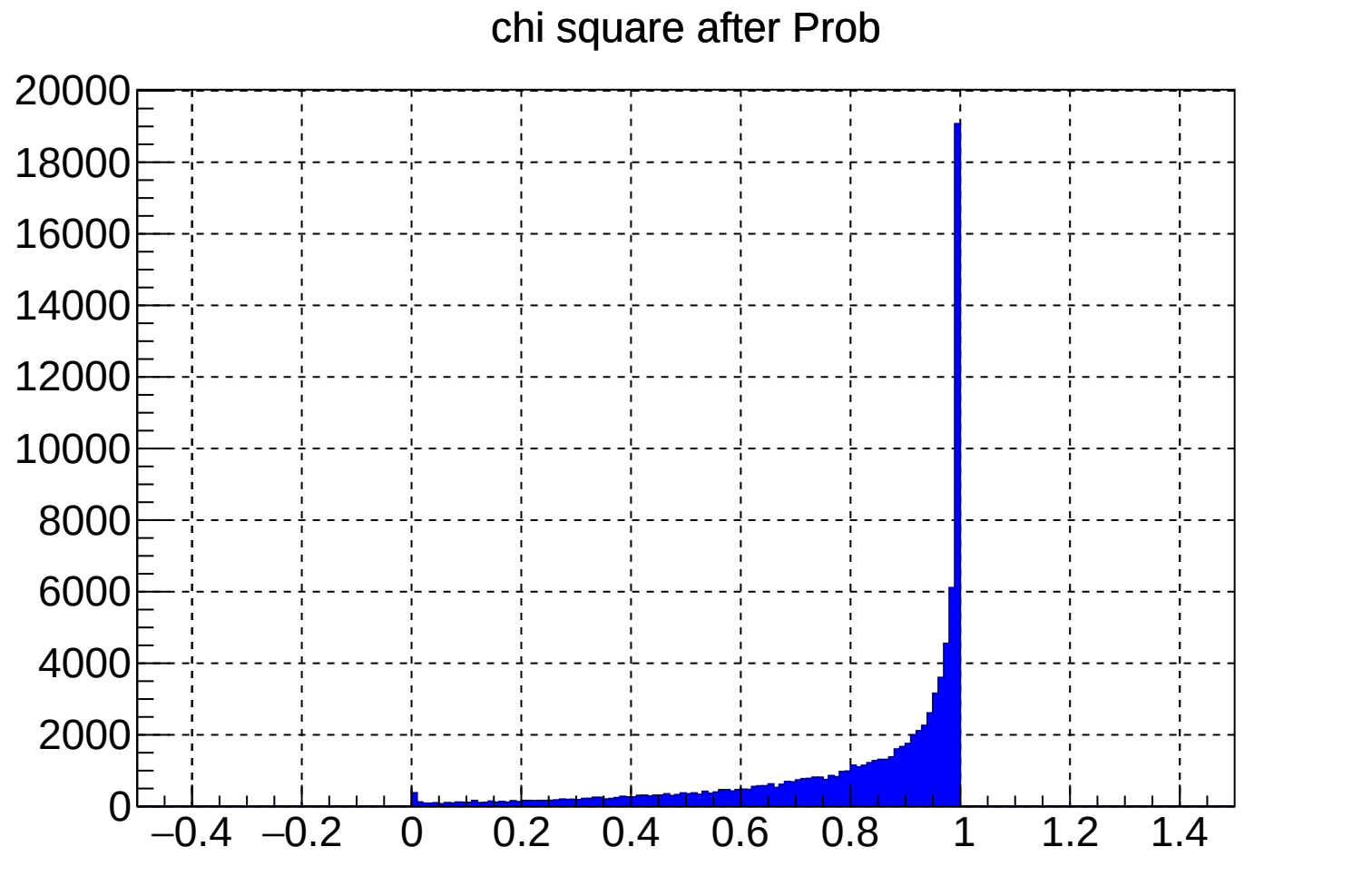

Track position at UTOF (cluster size>3)
h_x0y0_csize4ormore
Entries 0
Mean x 0
Mean y 0
Std Dev x 0
Std Dev y 0
y [mm]
200
150
100
50
0
–50
–100
–150
–200
–200
–150
–100
–50
0
50
100
150
200
x [mm]

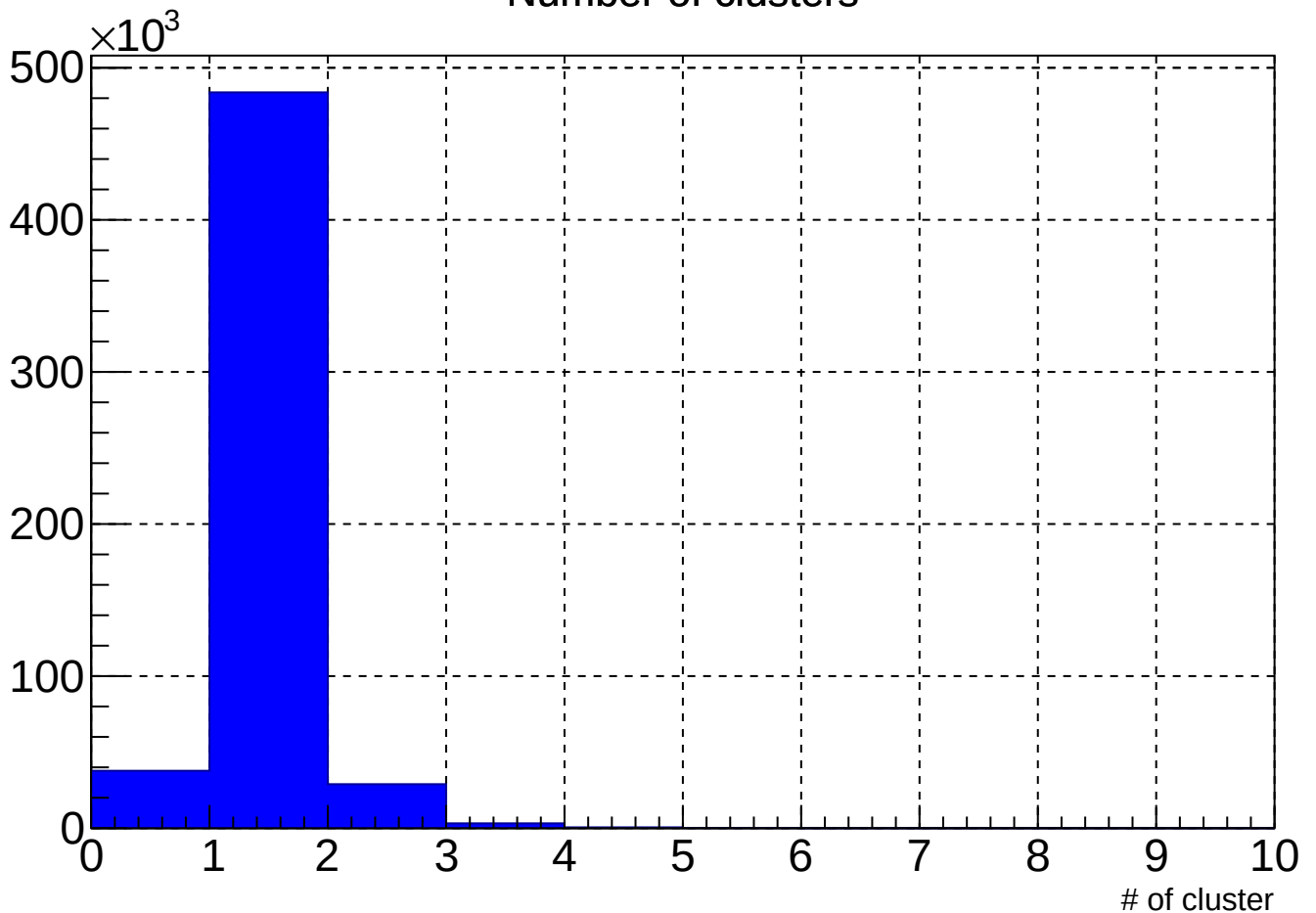

Track slope at UTOF (cluster size>3)
h_u0v0_csize4ormore
Entries 0
Mean x 0
Mean y 0
Std Dev x 0
Std Dev y 0
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2

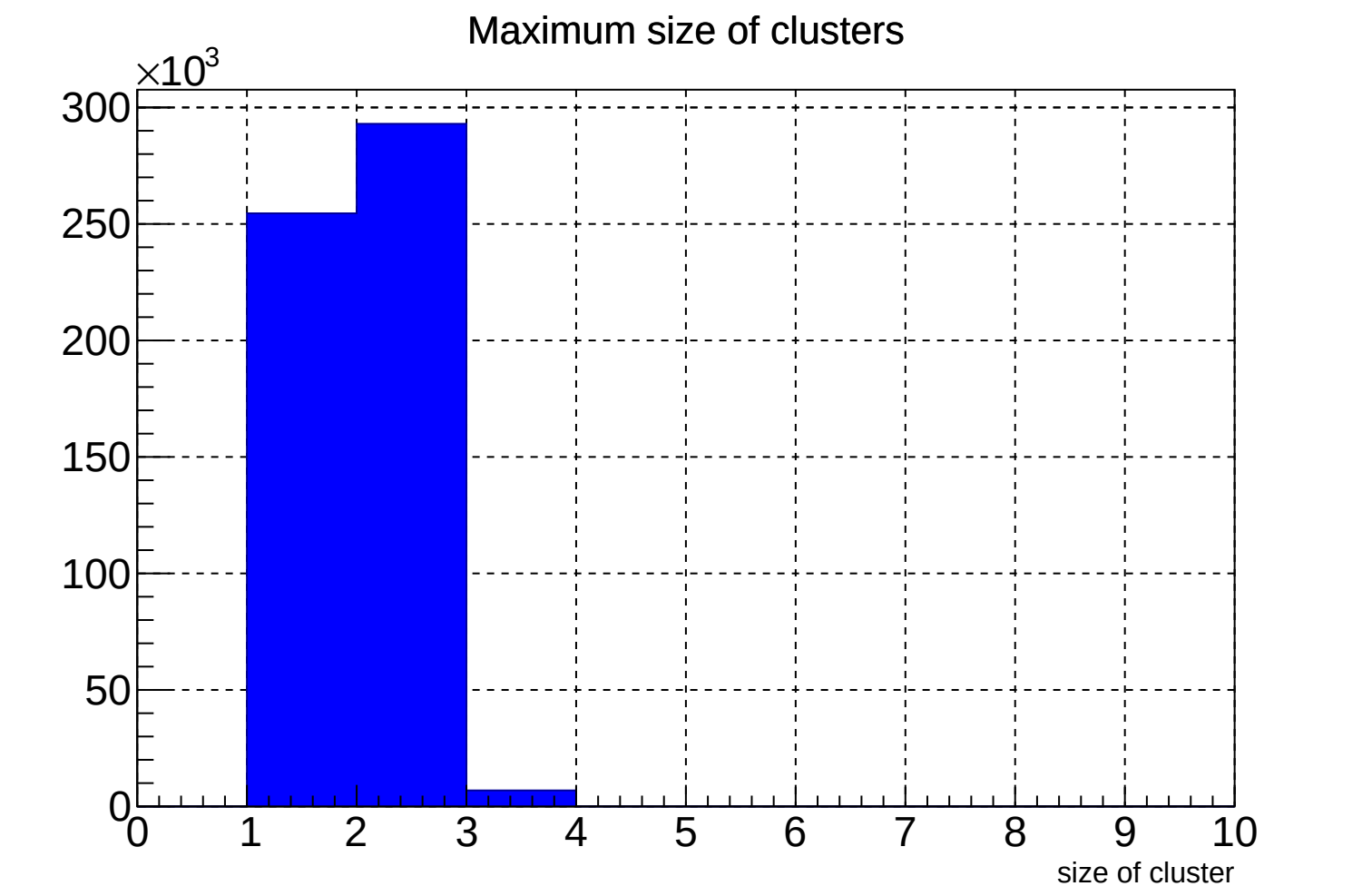

Track position at LTOF
h_x1y1
Entries 88232
Mean x −0.5094
Mean y −14.8
Std Dev x 58.47
Std Dev y 64.99
y [mm]
200
150
100
50
0
−50
−100
−150
−200
−200
−150
−100
−50
0
50
100
150
200
x [mm]

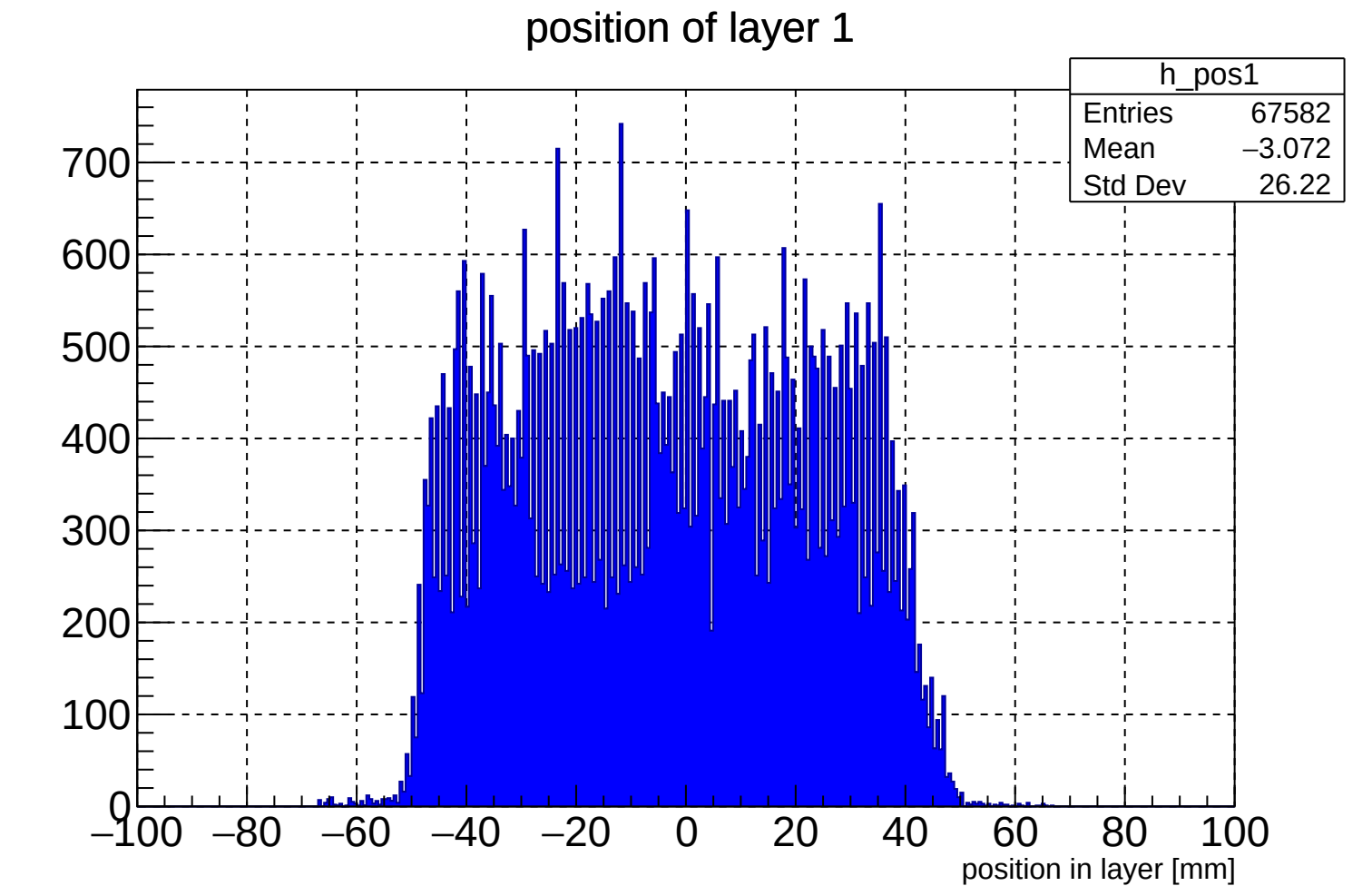

Track slope at LTOF
h_u1v1
Entries 88232
Mean x 0.0008808
Mean y −0.004765
Std Dev x 0.06231
Std Dev y 0.03063
dy/dz [rad]
dx/dz [rad]
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2

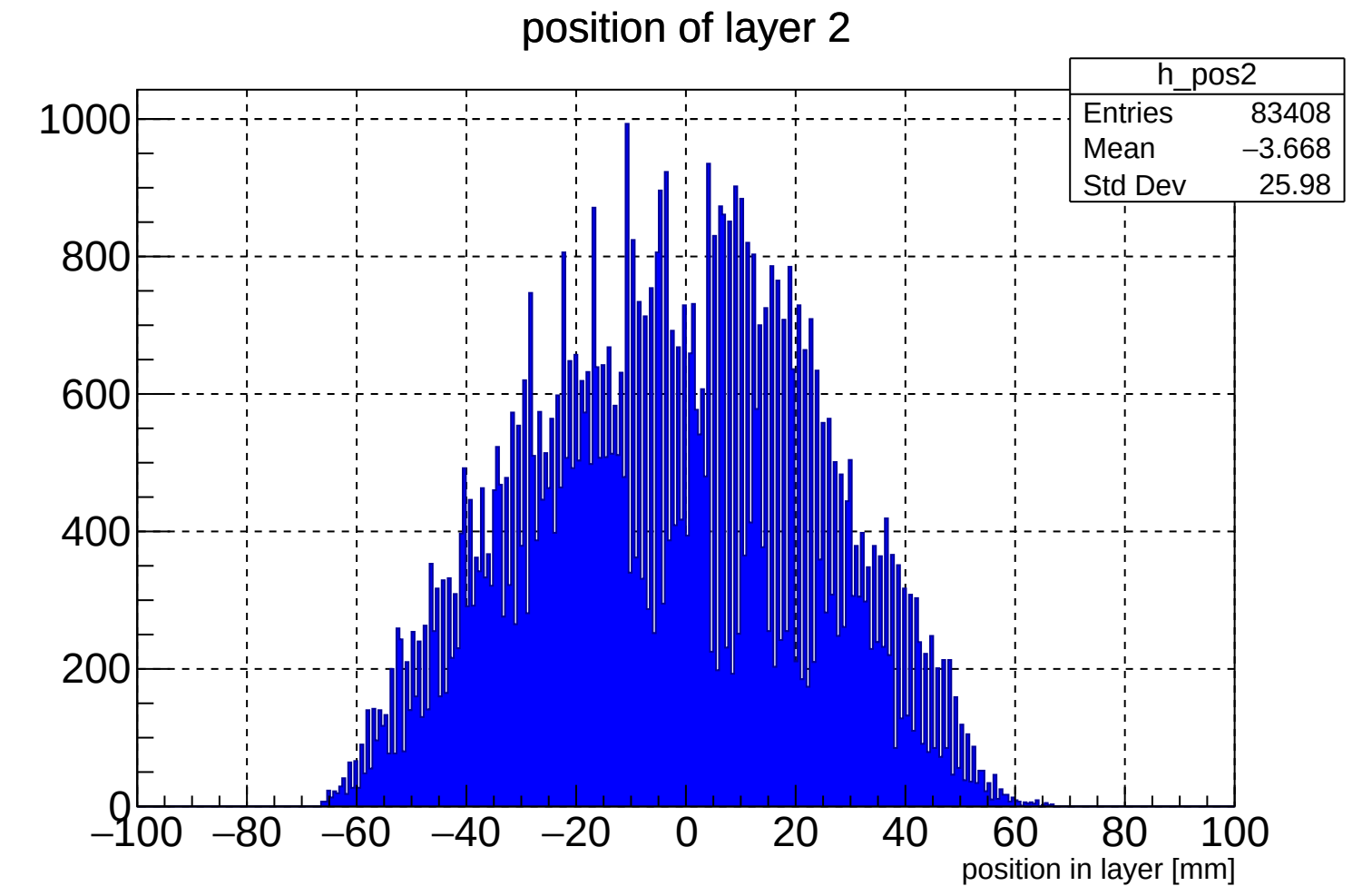

chi square of all tracks
35000
30000
25000
20000
15000
10000
5000
0
0
1
2
3
4
5
6
7
8
9
10
χ2

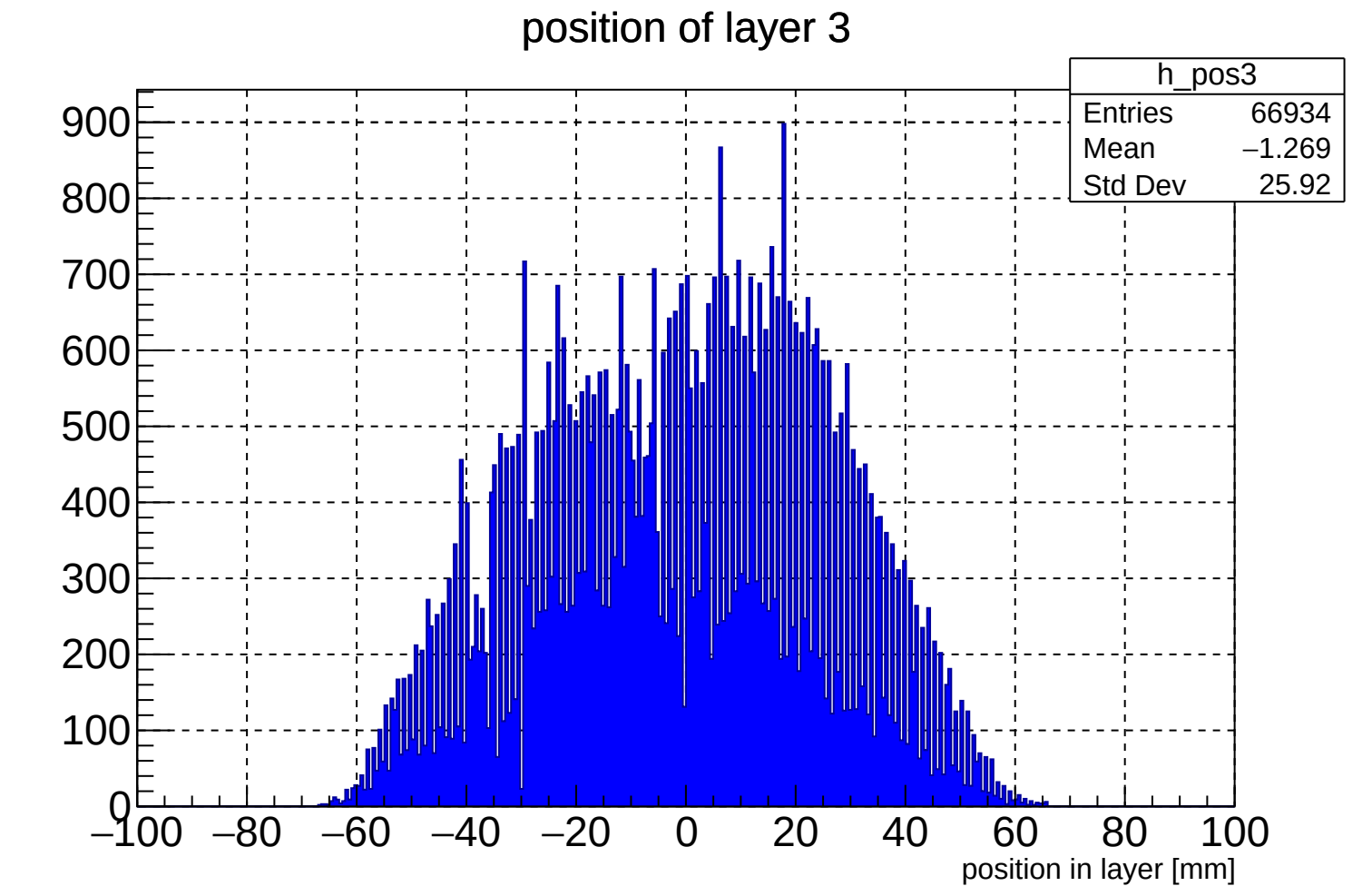

chi square after Prob
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
–0.4
–0.2
0
0.2
0.4
0.6
0.8
1
1.2
1.4

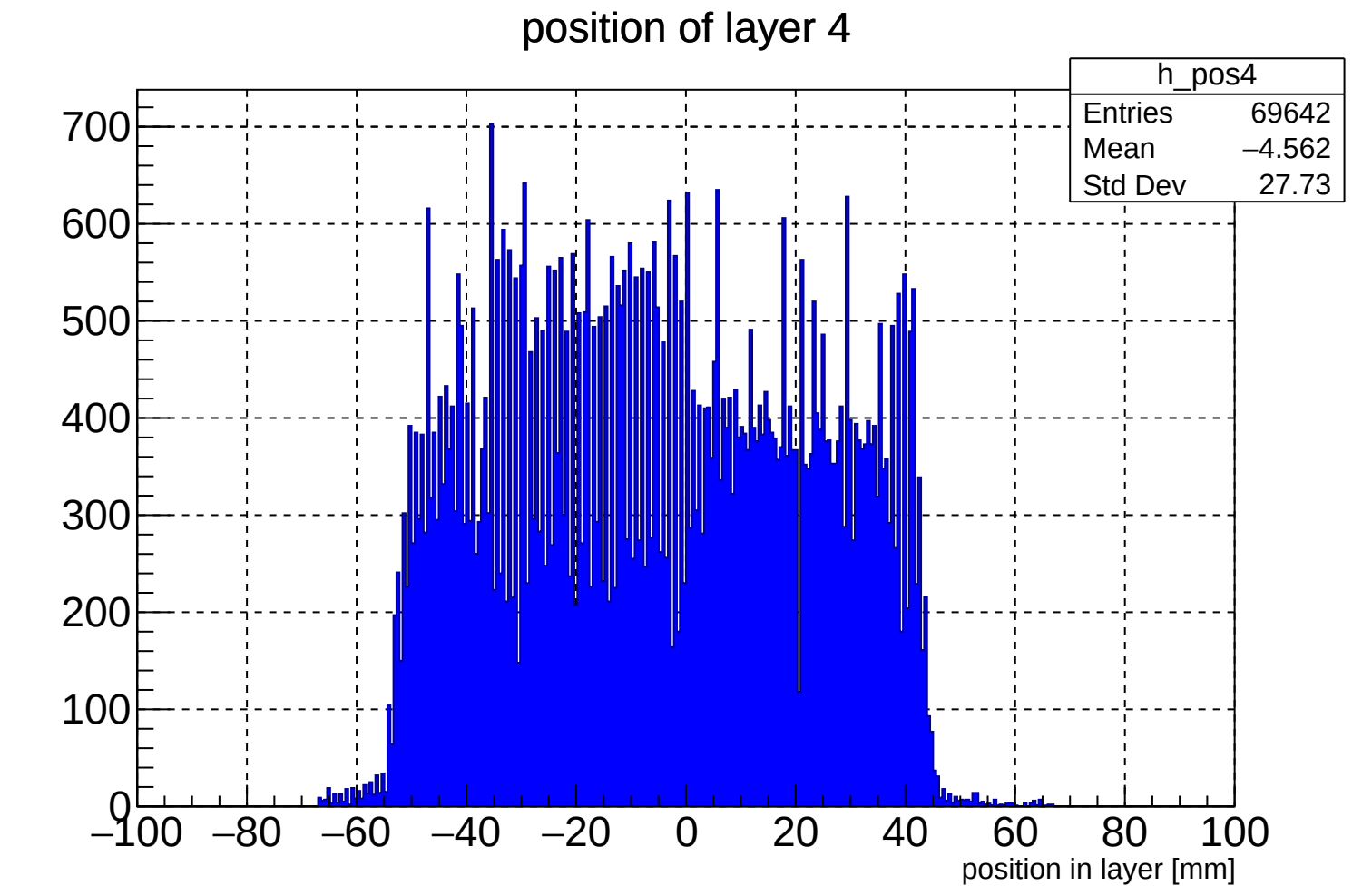

Number of clusters
×10^3
500
400
300
200
100
0
0
1
2
3
4
5
6
7
8
9
10
# of cluster

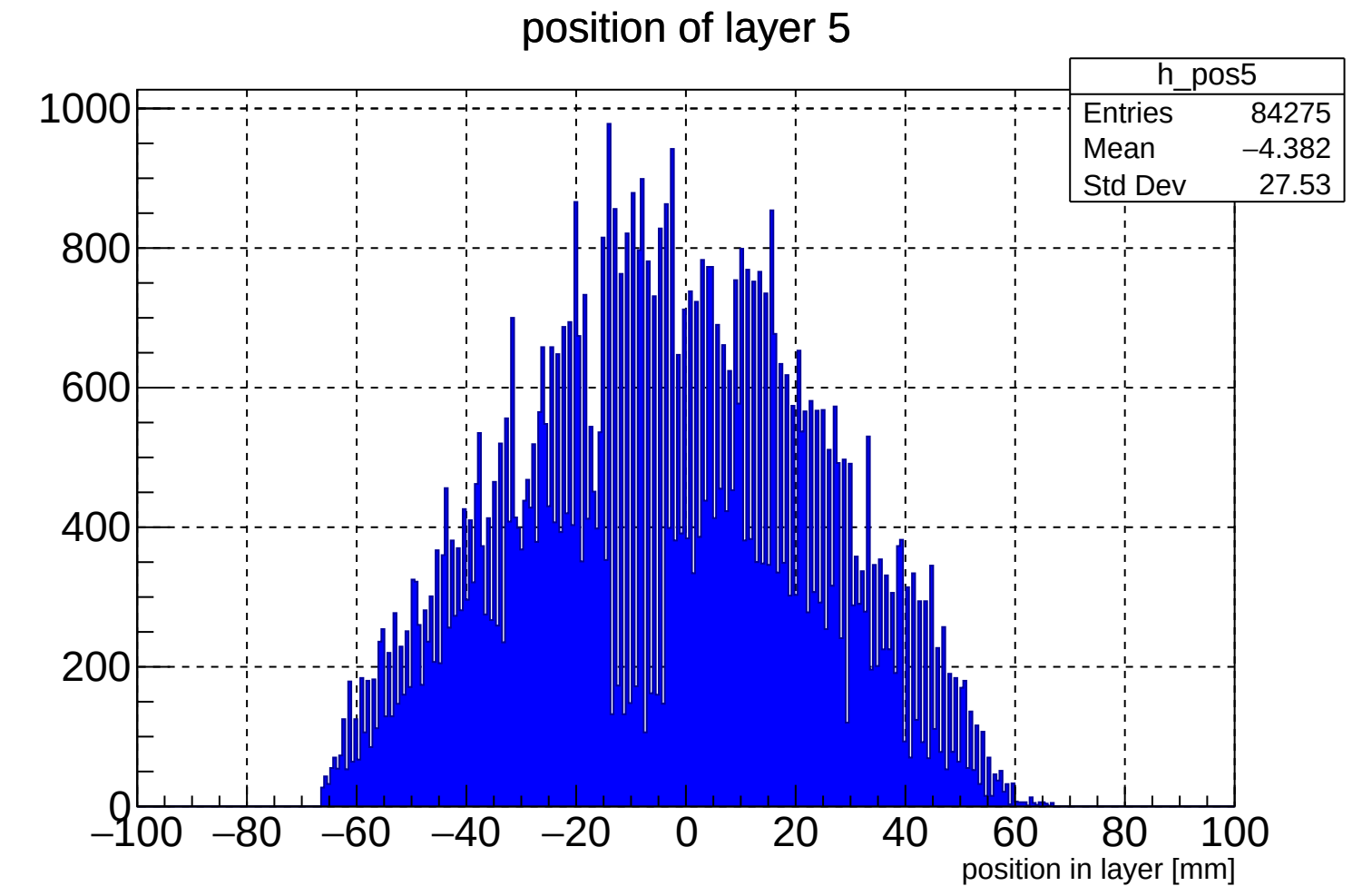

Maximum size of clusters
×10^3
300
250
200
150
100
50
0
0
1
2
3
4
5
6
7
8
9
10
size of cluster

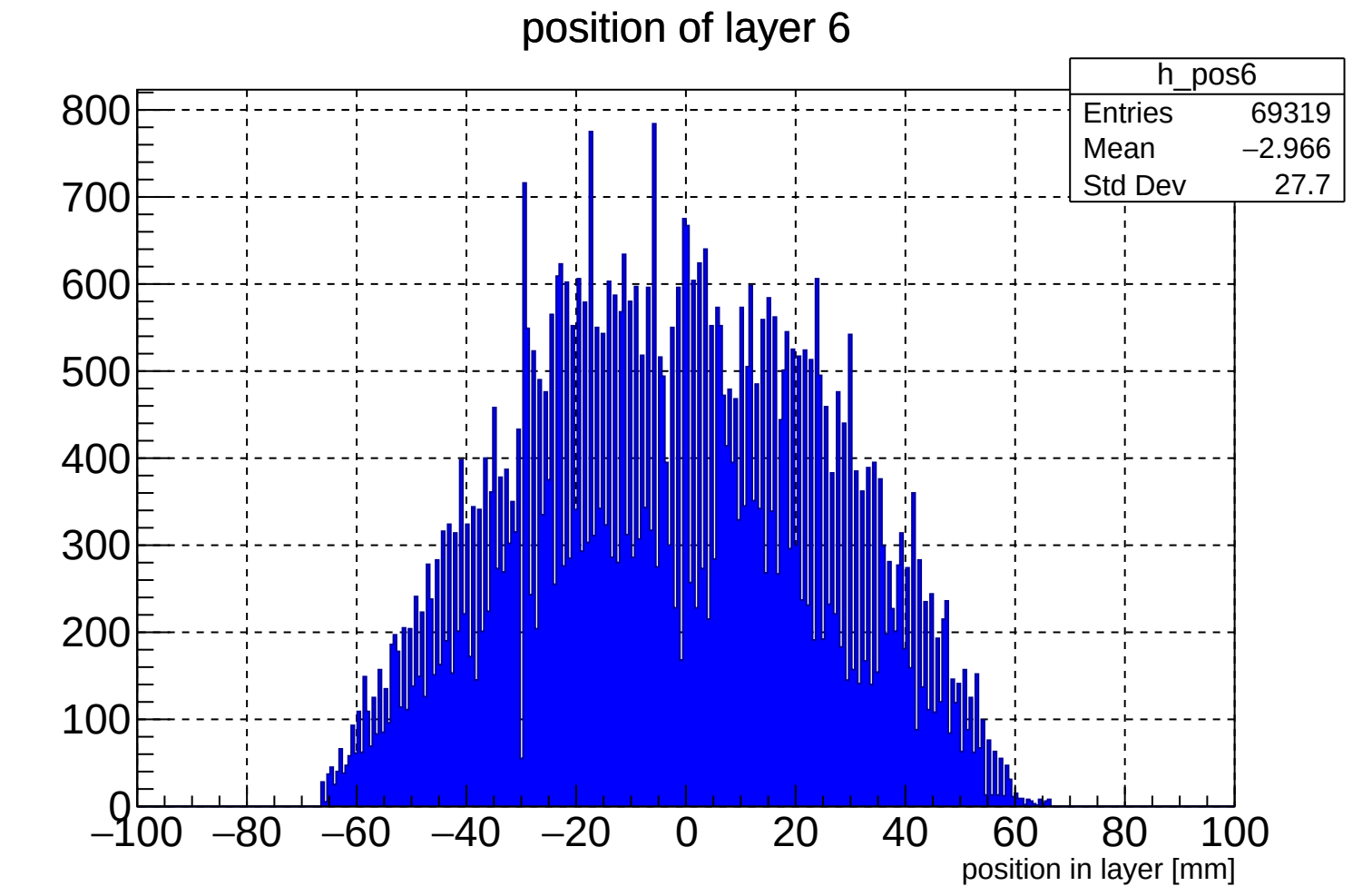

position of layer 1
h_pos1
Entries 67582
Mean −3.072
Std Dev 26.22
700
600
500
400
300
200
100
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

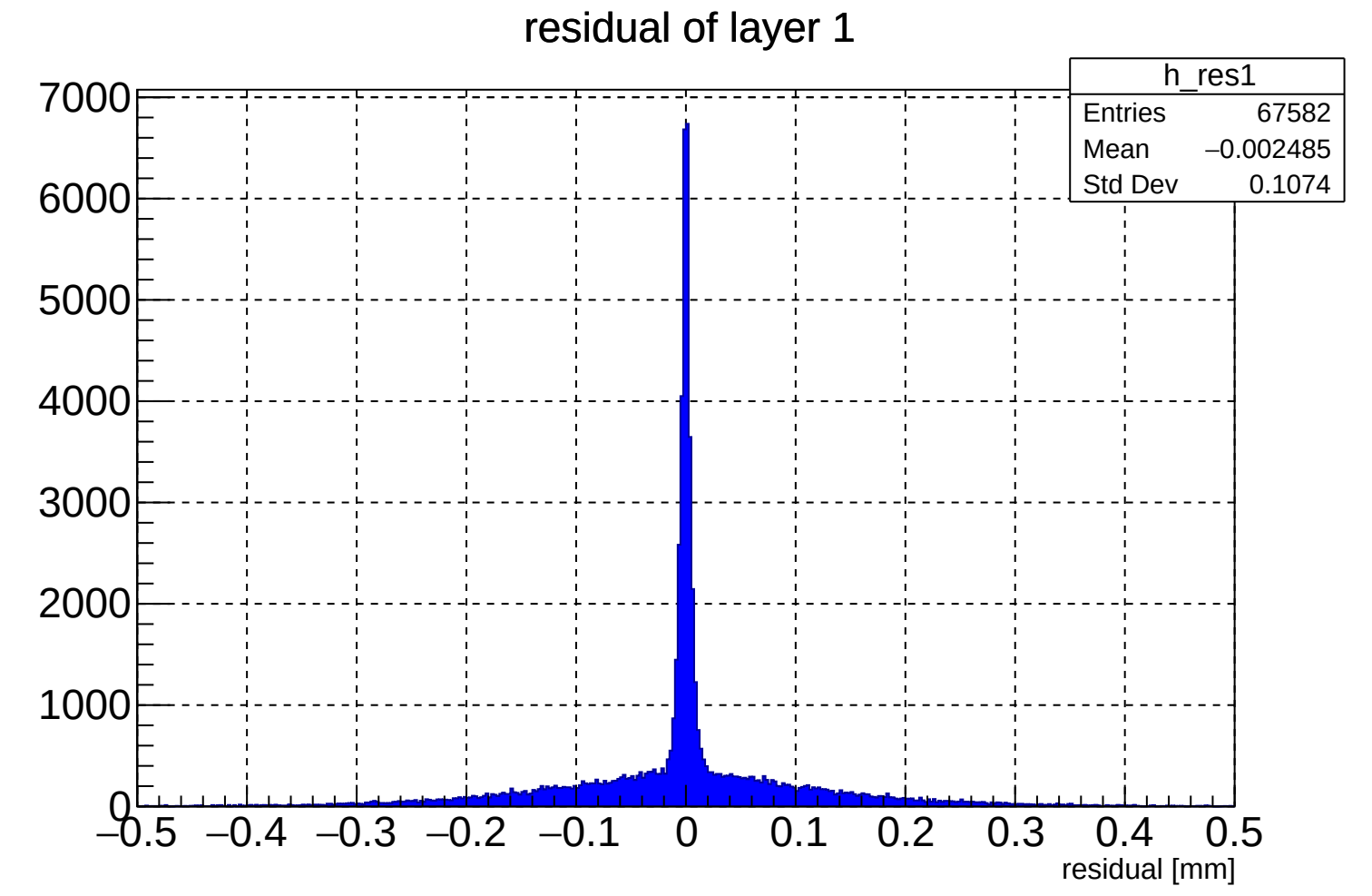

position of layer 2
h_pos2
Entries 83408
Mean −3.668
Std Dev 25.98
1000
800
600
400
200
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

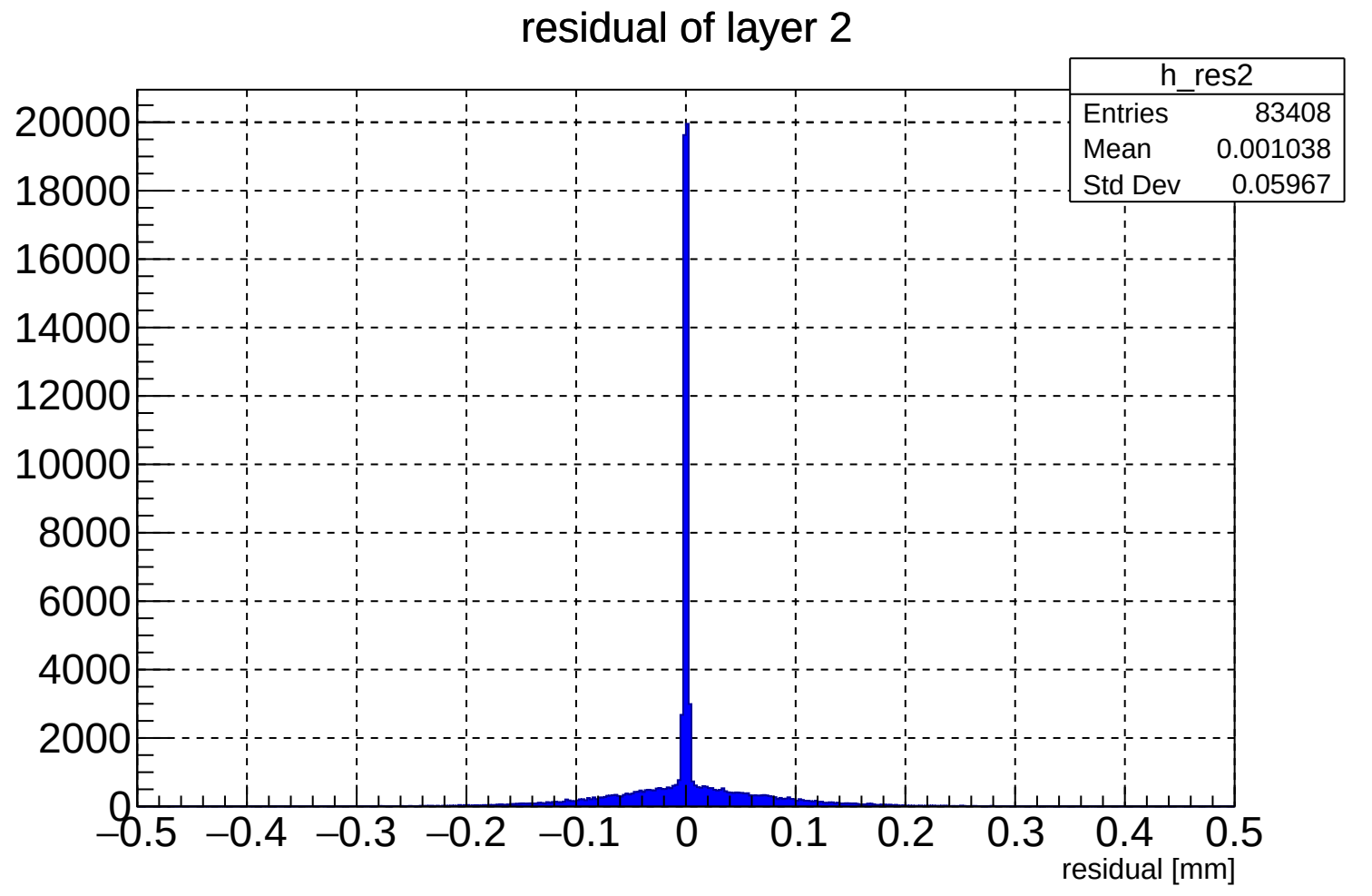

position of layer 3
h_pos3
Entries 66934
Mean −1.269
Std Dev 25.92
900
800
700
600
500
400
300
200
100
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

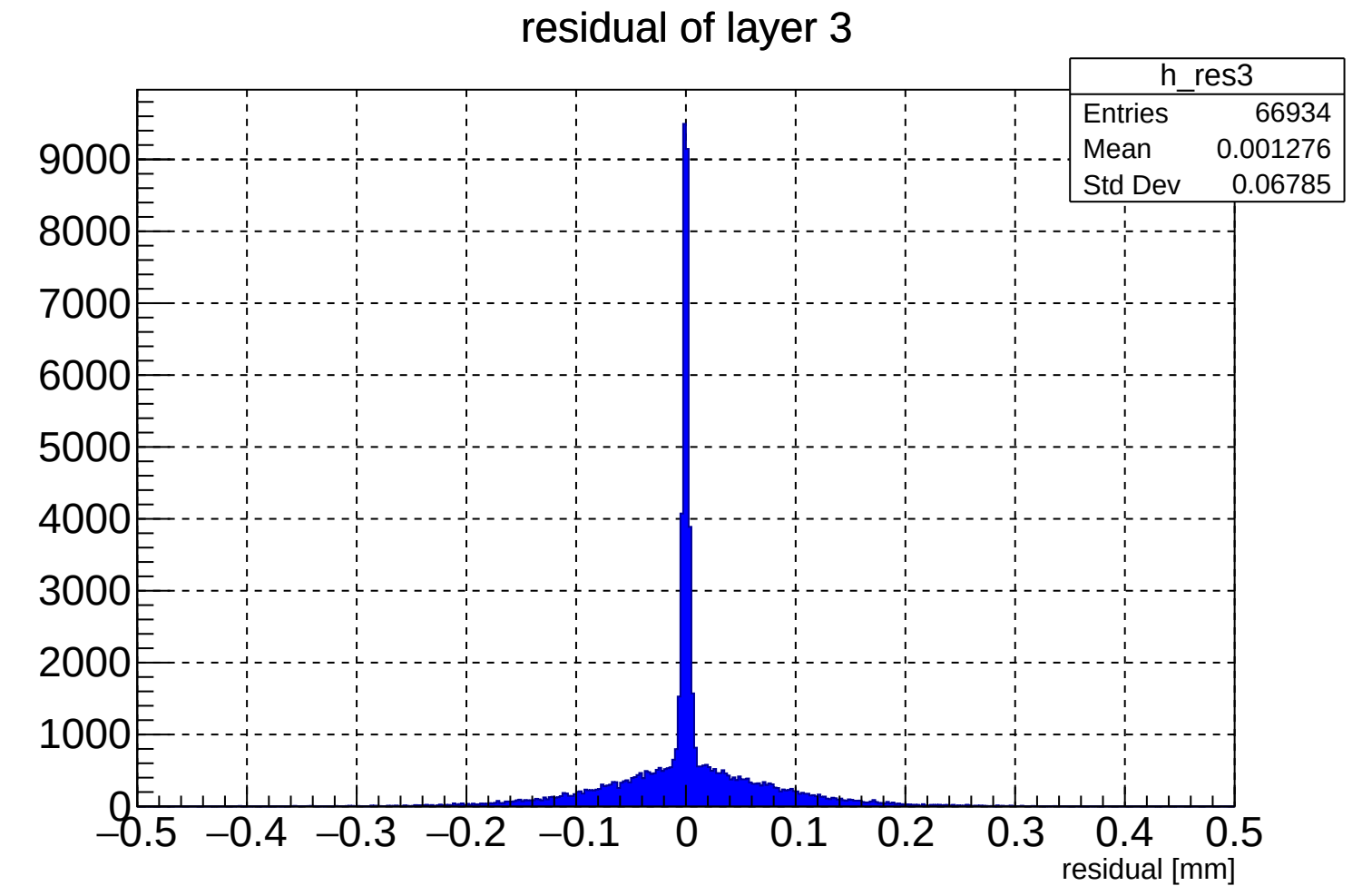

position of layer 4
h_pos4
Entries 69642
Mean −4.562
Std Dev 27.73
700
600
500
400
300
200
100
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

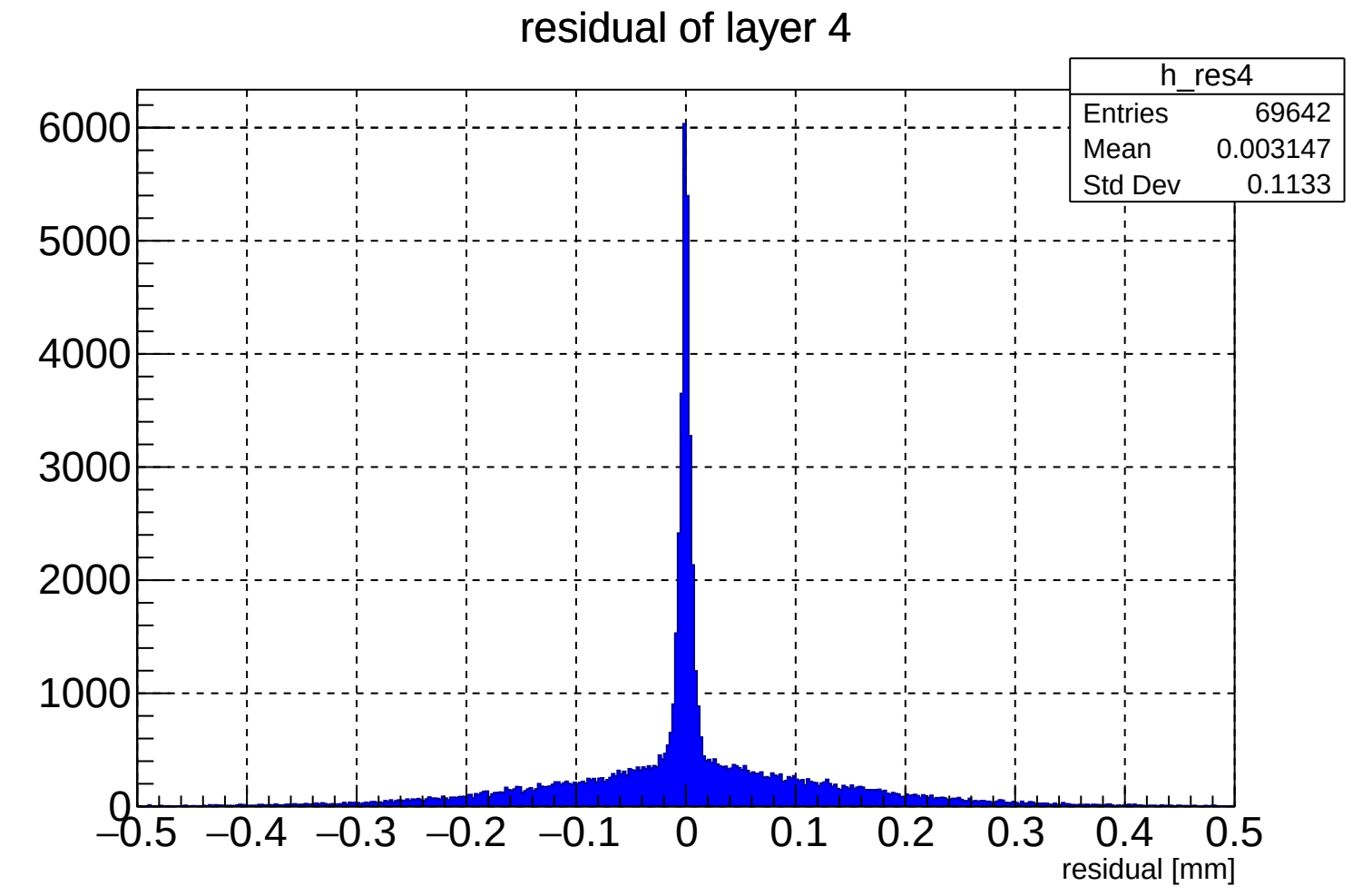

position of layer 5
h_pos5
Entries 84275
Mean −4.382
Std Dev 27.53
1000
800
600
400
200
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

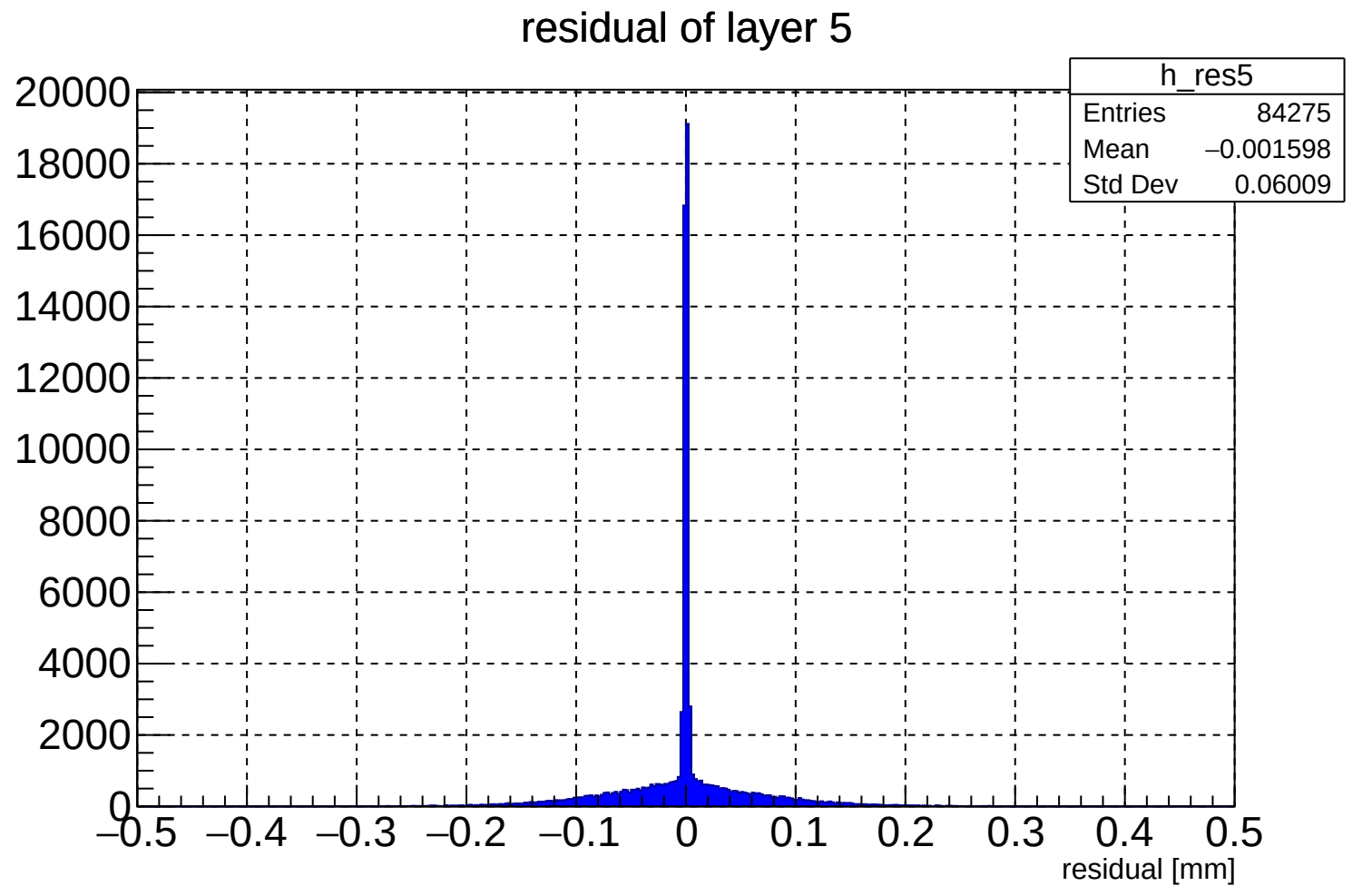

position of layer 6
h_pos6
Entries 69319
Mean −2.966
Std Dev 27.7
800
700
600
500
400
300
200
100
0
−100
−80
−60
−40
−20
0
20
40
60
80
100
position in layer [mm]

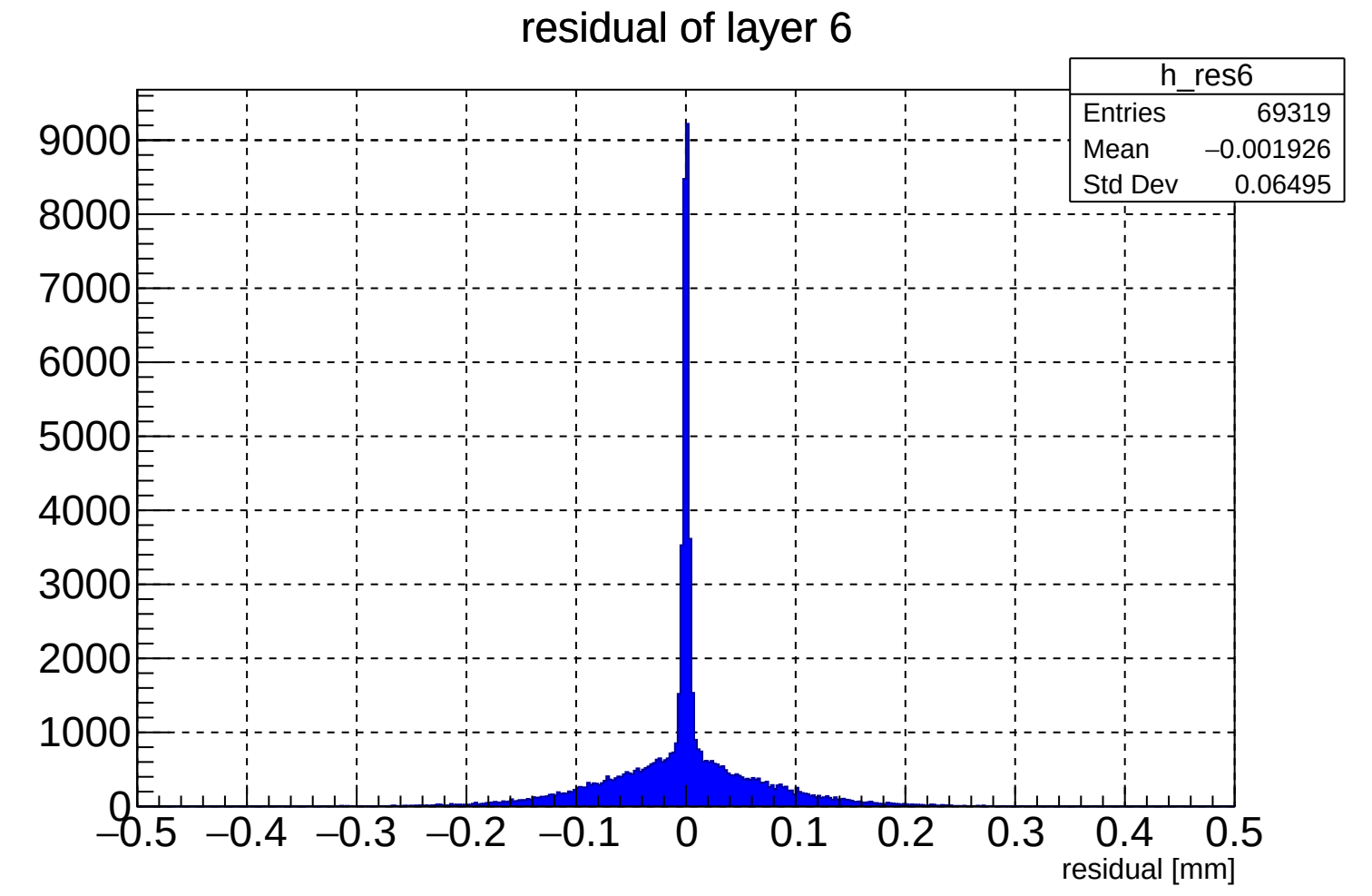

residual of layer 1
h_res1
Entries 67582
Mean −0.002485
Std Dev 0.1074
7000
6000
5000
4000
3000
2000
1000
0
−0.5 −0.4 −0.3 −0.2 −0.1 0 0.1 0.2 0.3 0.4 0.5
residual [mm]

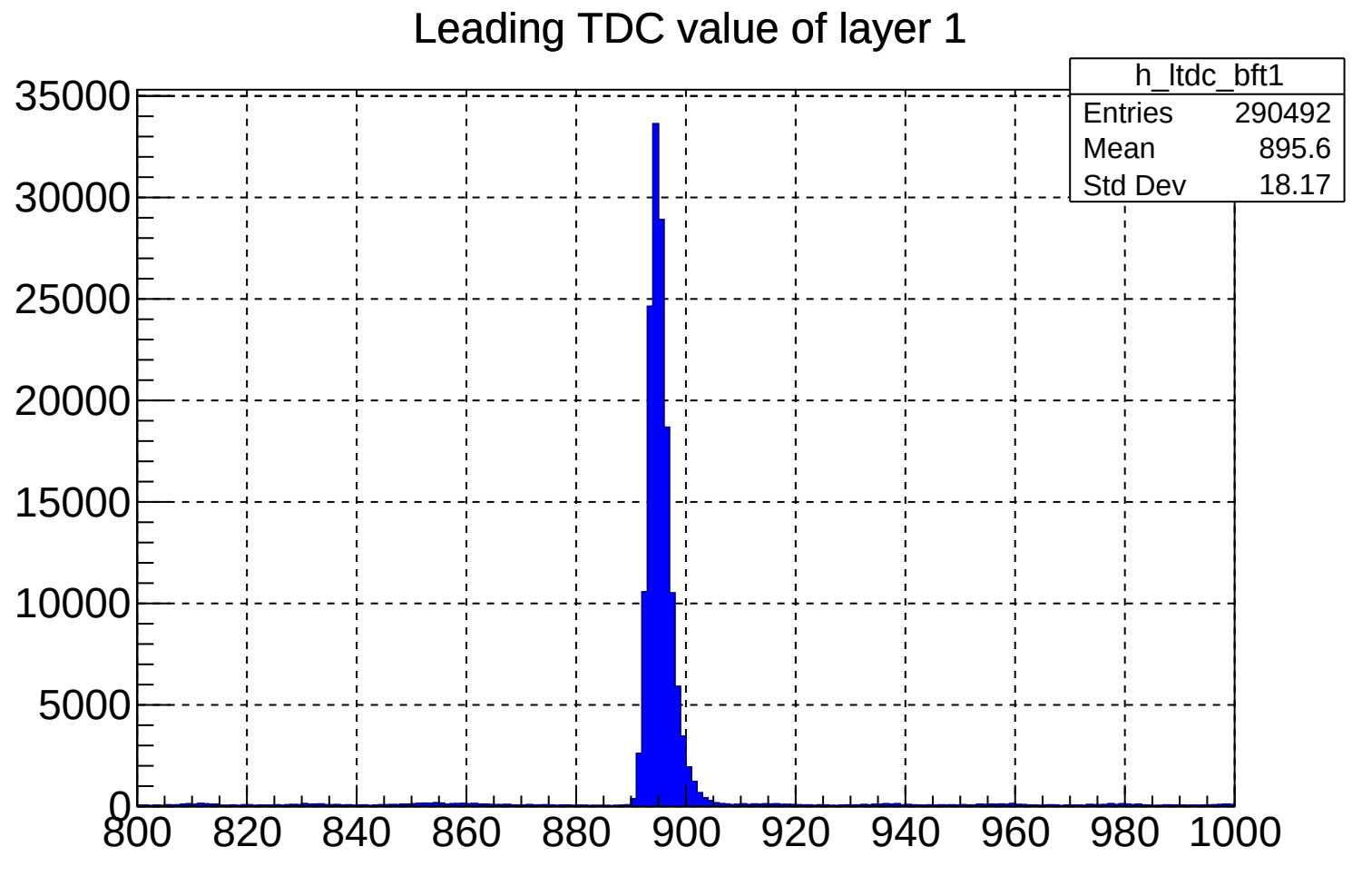

residual of layer 2
h_res2
Entries 83408
Mean 0.001038
Std Dev 0.05967
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
–0.5
–0.4
–0.3
–0.2
–0.1
0
0.1
0.2
0.3
0.4
0.5
residual [mm]

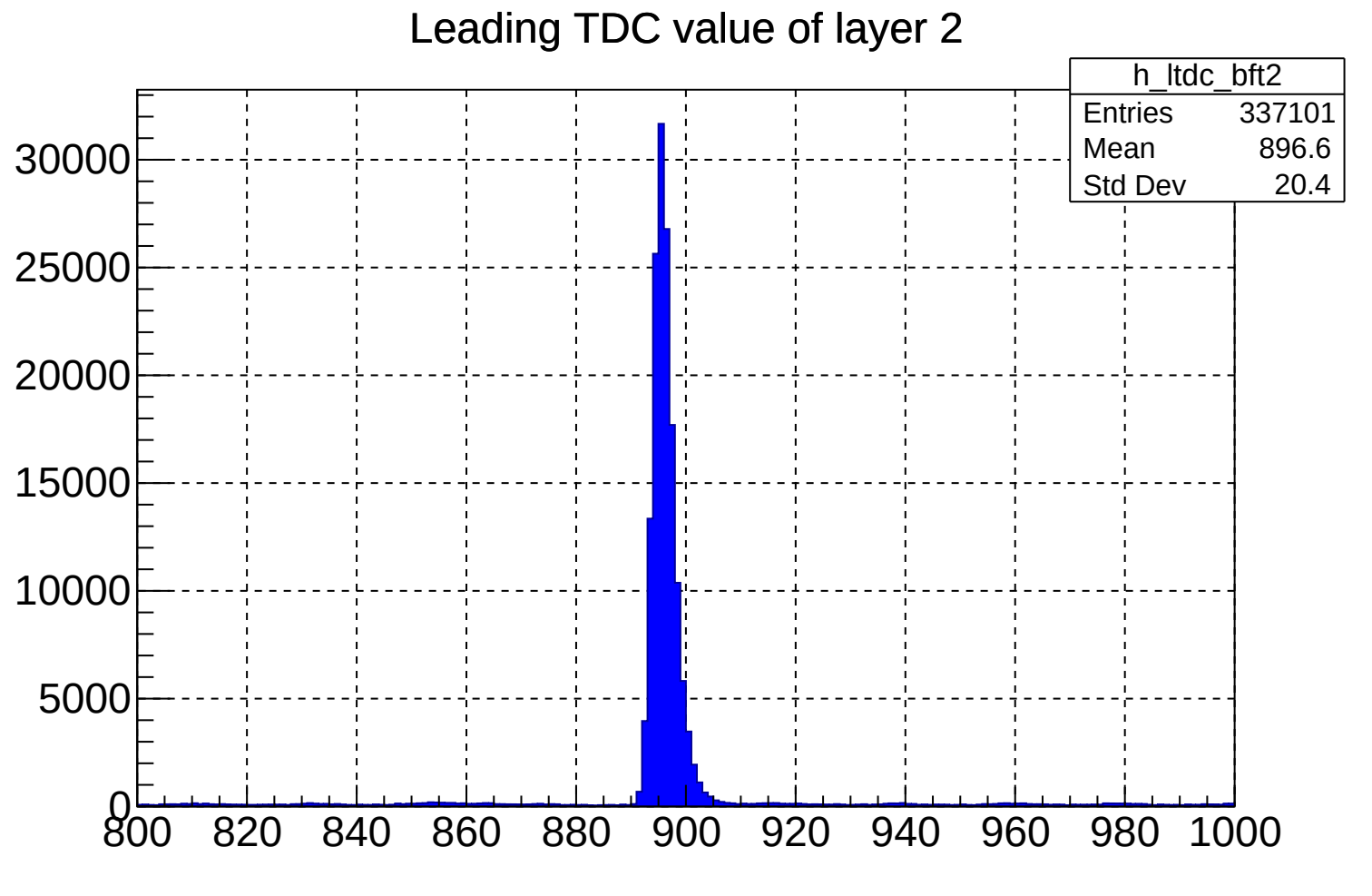

residual of layer 3
h_res3
Entries 66934
Mean 0.001276
Std Dev 0.06785
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
–0.5
–0.4
–0.3
–0.2
–0.1
0
0.1
0.2
0.3
0.4
0.5
residual [mm]

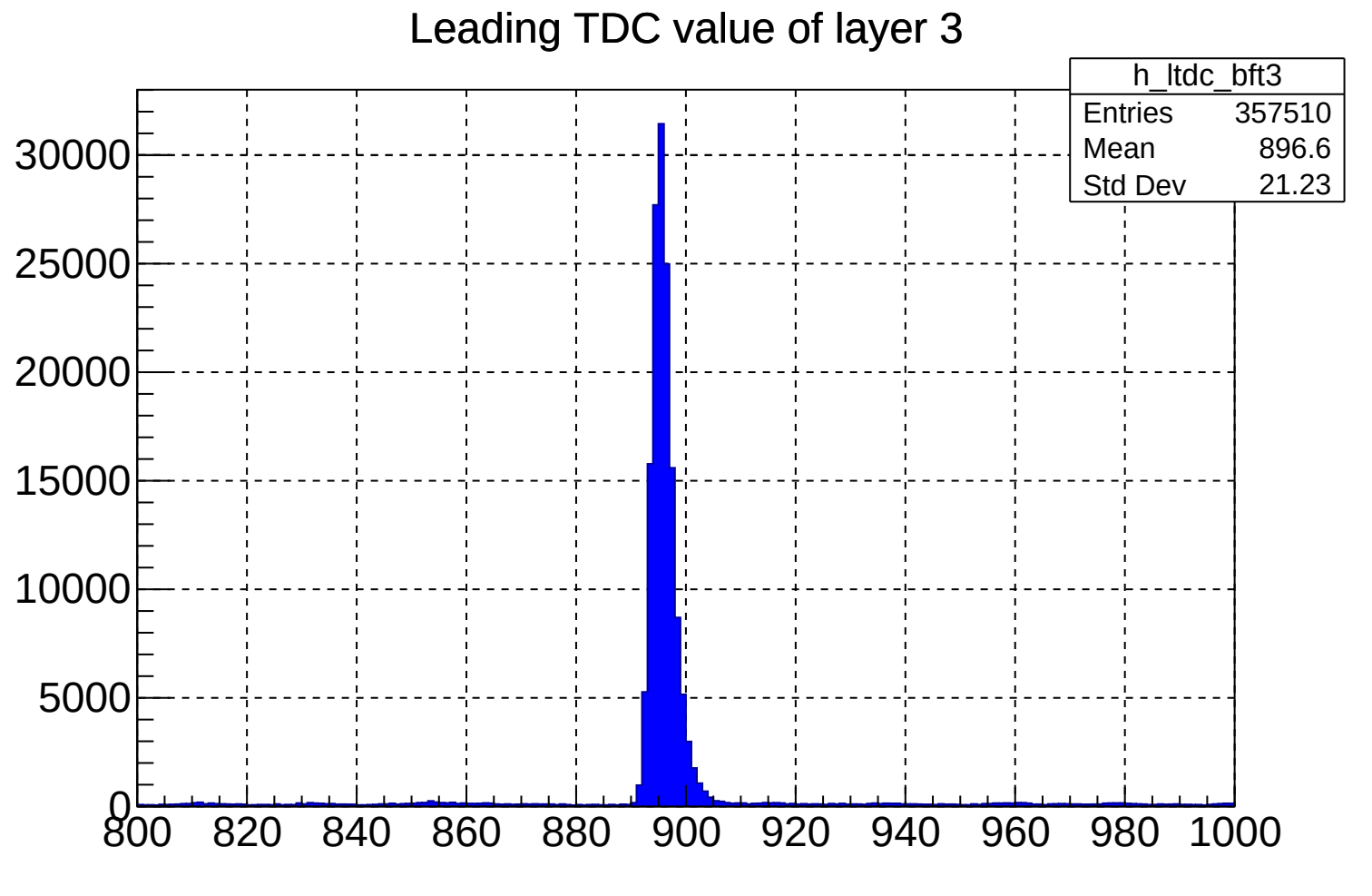

residual of layer 4
h_res4
Entries 69642
Mean 0.003147
Std Dev 0.1133
6000
5000
4000
3000
2000
1000
0
–0.5
–0.4
–0.3
–0.2
–0.1
0
0.1
0.2
0.3
0.4
0.5
residual [mm]


residual of layer 5
h_res5
Entries 84275
Mean –0.001598
Std Dev 0.06009
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
–0.5
–0.4
–0.3
–0.2
–0.1
0
0.1
0.2
0.3
0.4
0.5
residual [mm]


residual of layer 6
h_res6
Entries 69319
Mean –0.001926
Std Dev 0.06495
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
–0.5
–0.4
–0.3
–0.2
–0.1
0
0.1
0.2
0.3
0.4
0.5
residual [mm]


Leading TDC value of layer 1
h_ltdc_bft1
Entries 290492
Mean 895.6
Std Dev 18.17
35000
30000
25000
20000
15000
10000
5000
0
800
820
840
860
880
900
920
940
960
980
1000


Leading TDC value of layer 2
h_ltdc_bft2
Entries 337101
Mean 896.6
Std Dev 20.4
30000
25000
20000
15000
10000
5000
0
800
820
840
860
880
900
920
940
960
980
1000


Leading TDC value of layer 3
h_ltdc_bft3
Entries 357510
Mean 896.6
Std Dev 21.23
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20000
15000
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5000
0
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820
840
860
880
900
920
940
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980
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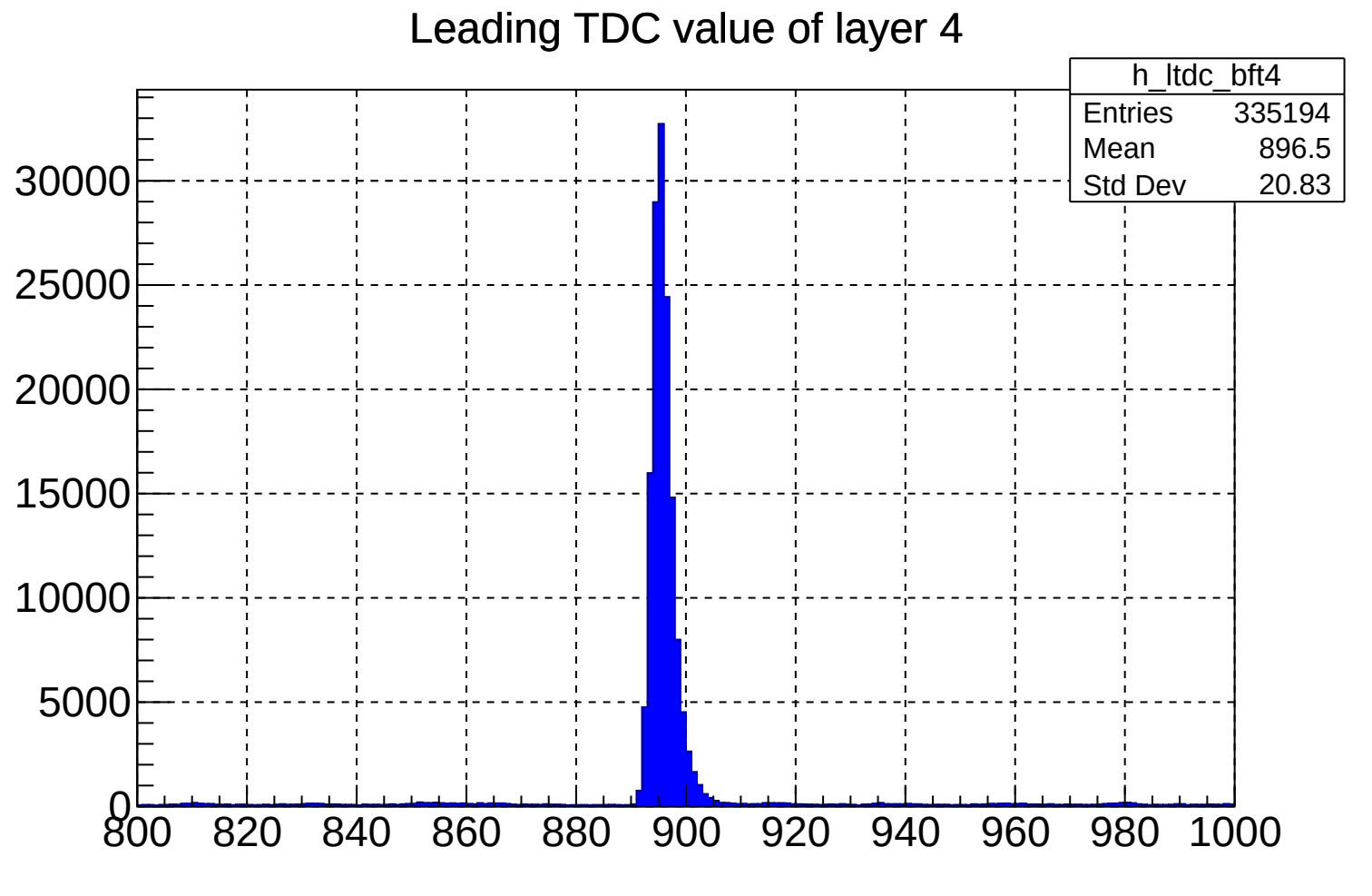
Leading TDC value of layer 4
h_ltdc_bft4
Entries 335194
Mean 896.5
Std Dev 20.83
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20000
15000
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860
880
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940
960
980
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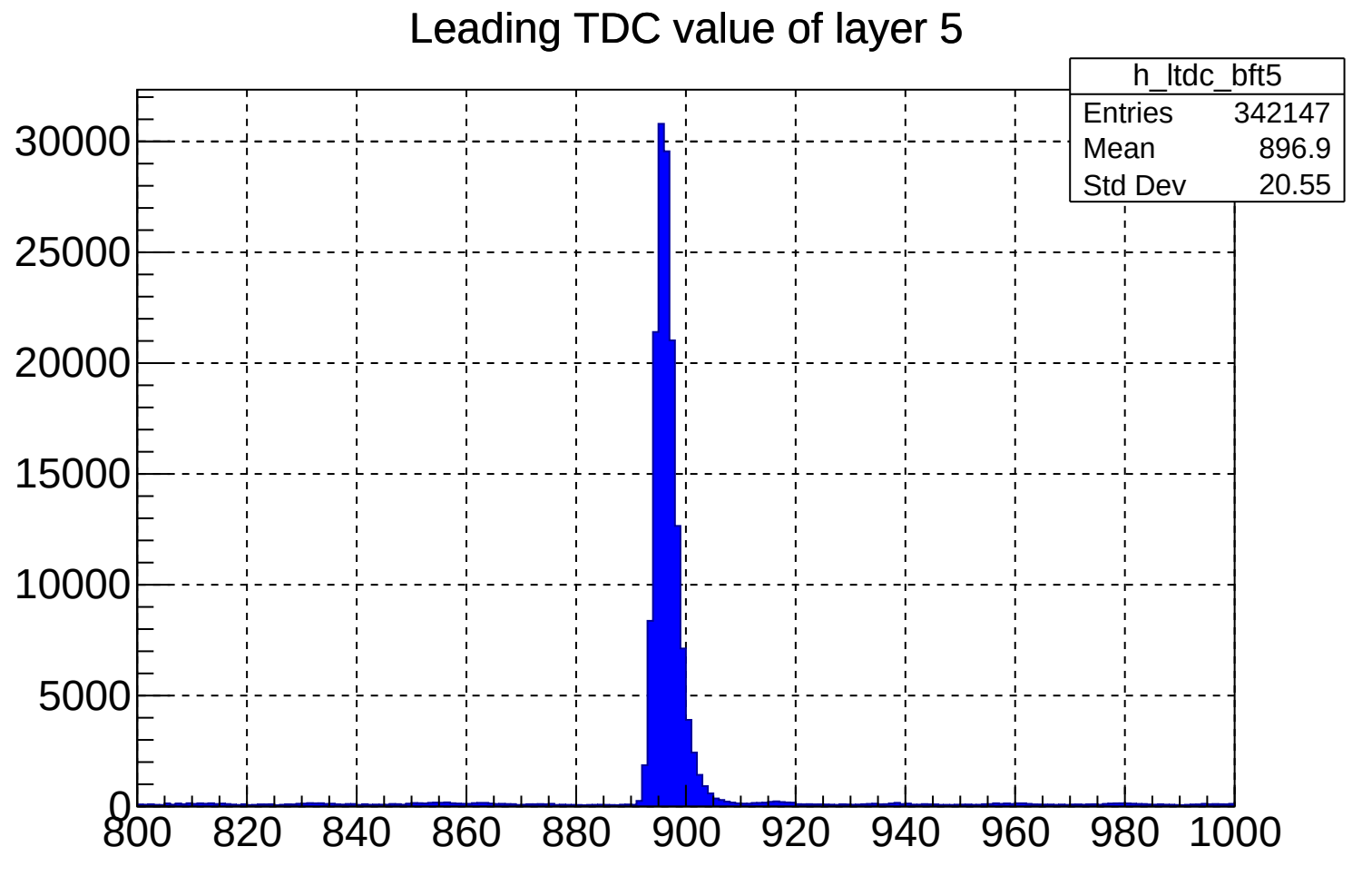
Leading TDC value of layer 5
h_ltdc_bft5
Entries 342147
Mean 896.9
Std Dev 20.55
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20000
15000
10000
5000
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820
840
860
880
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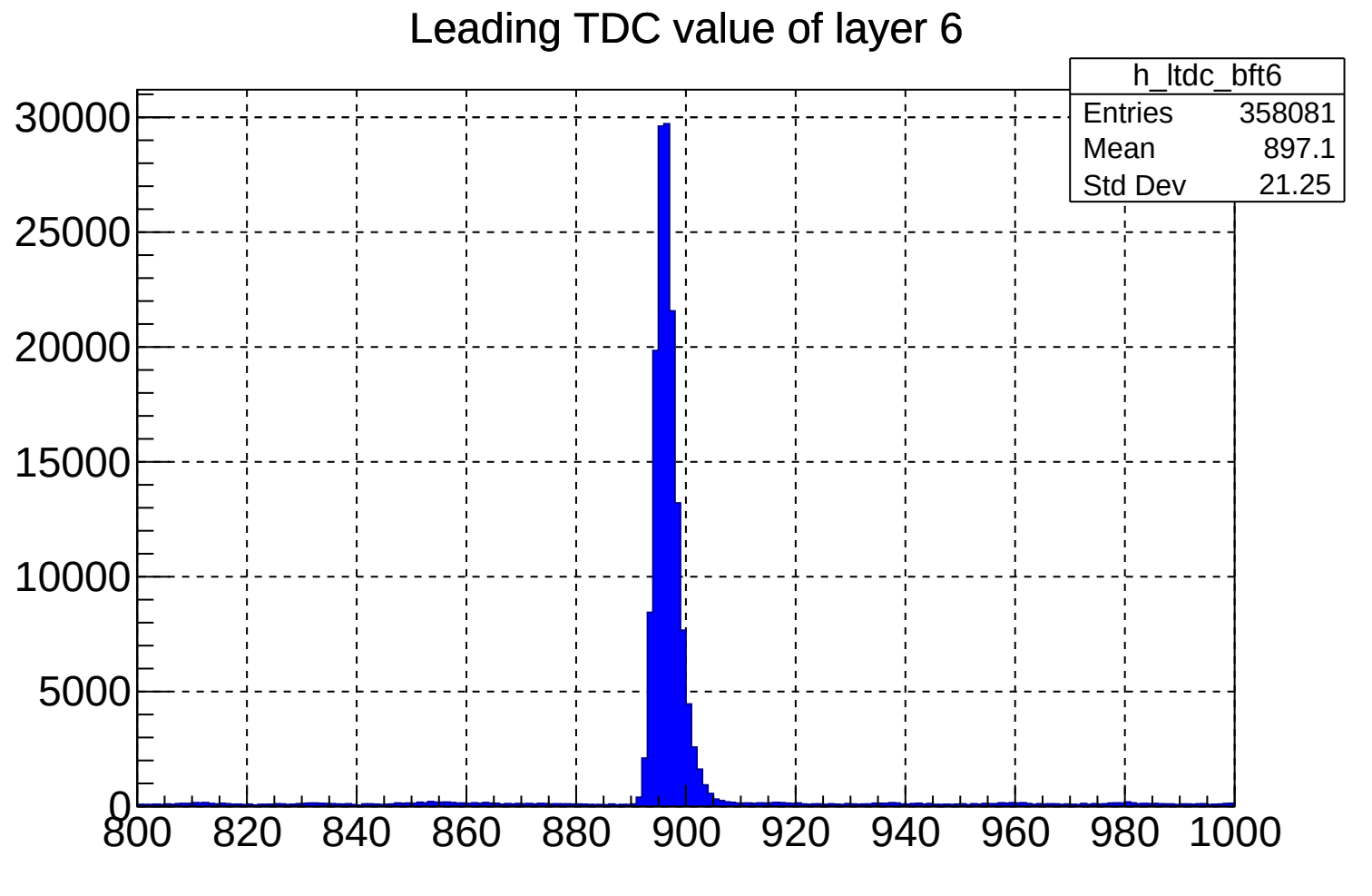
920
940
960
980
1000


Leading TDC value of layer 6
h_ltdc_bft6
Entries 358081
Mean 897.1
Std Dev 21.25
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20000
15000
10000
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820
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860
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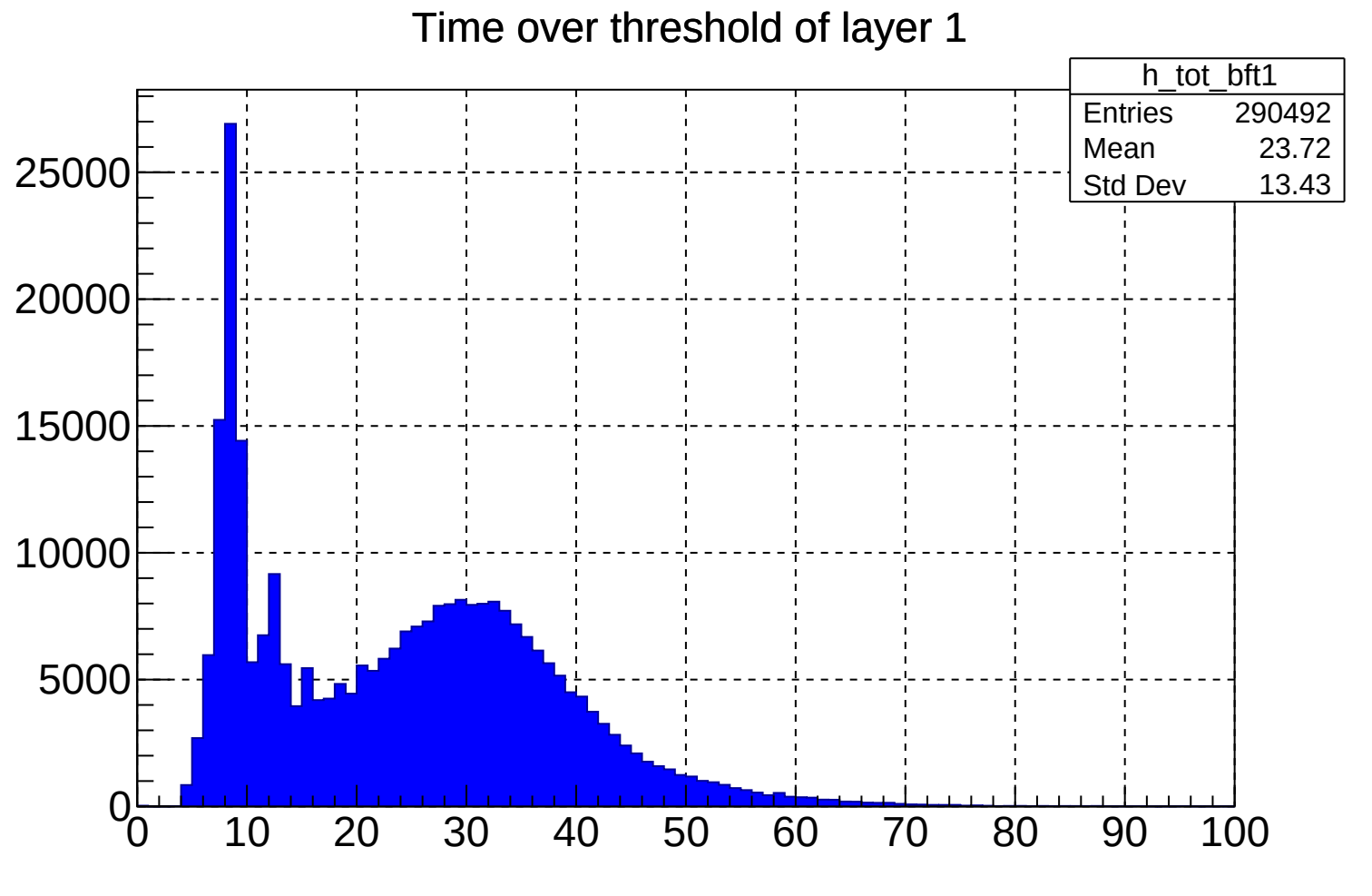
940
960
980
1000


Time over threshold of layer 1
h_tot_bft1
Entries 290492
Mean 23.72
Std Dev 13.43
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15000
10000
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0
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10
20
30
40
50
60
70
80
90
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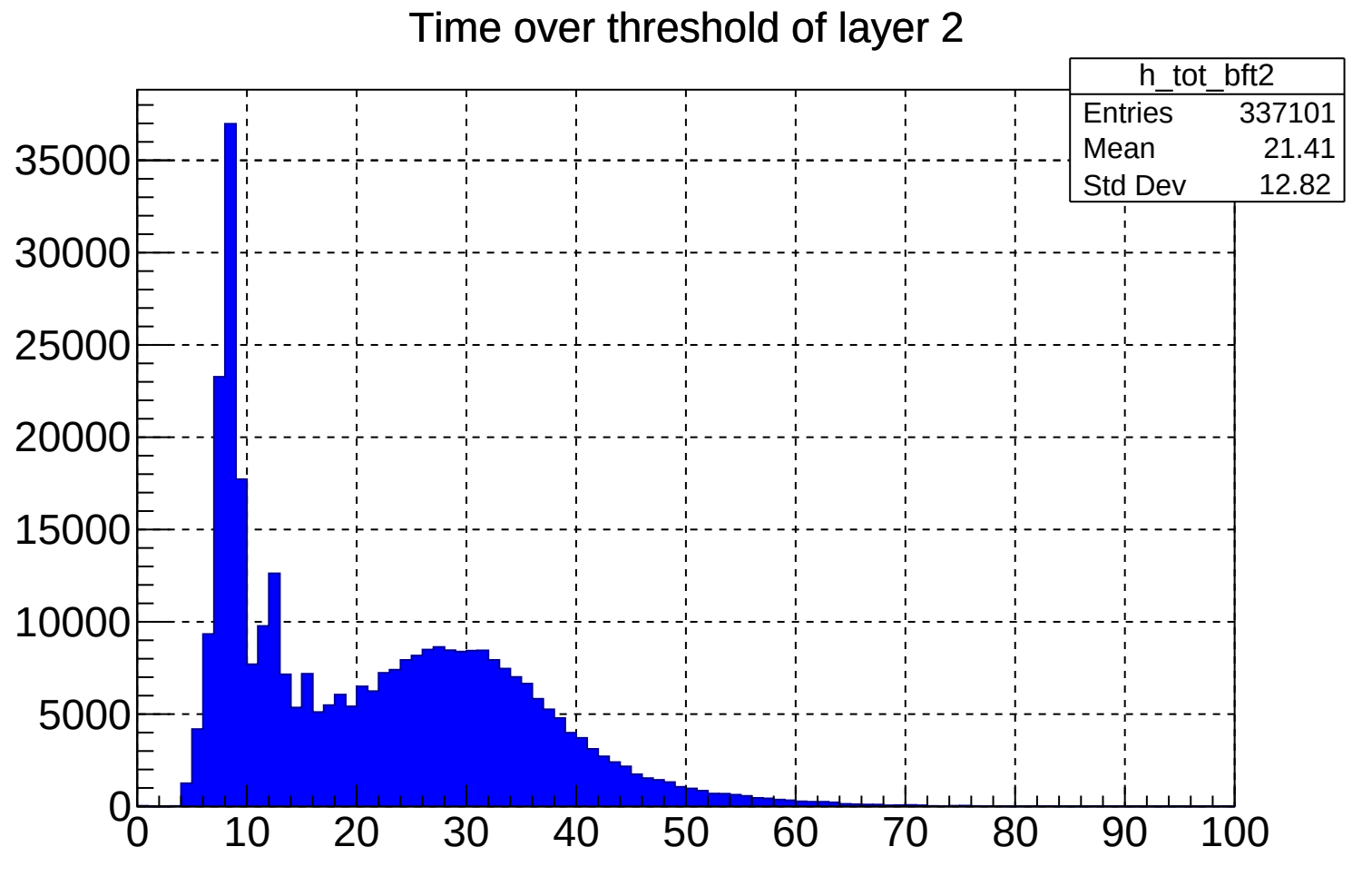
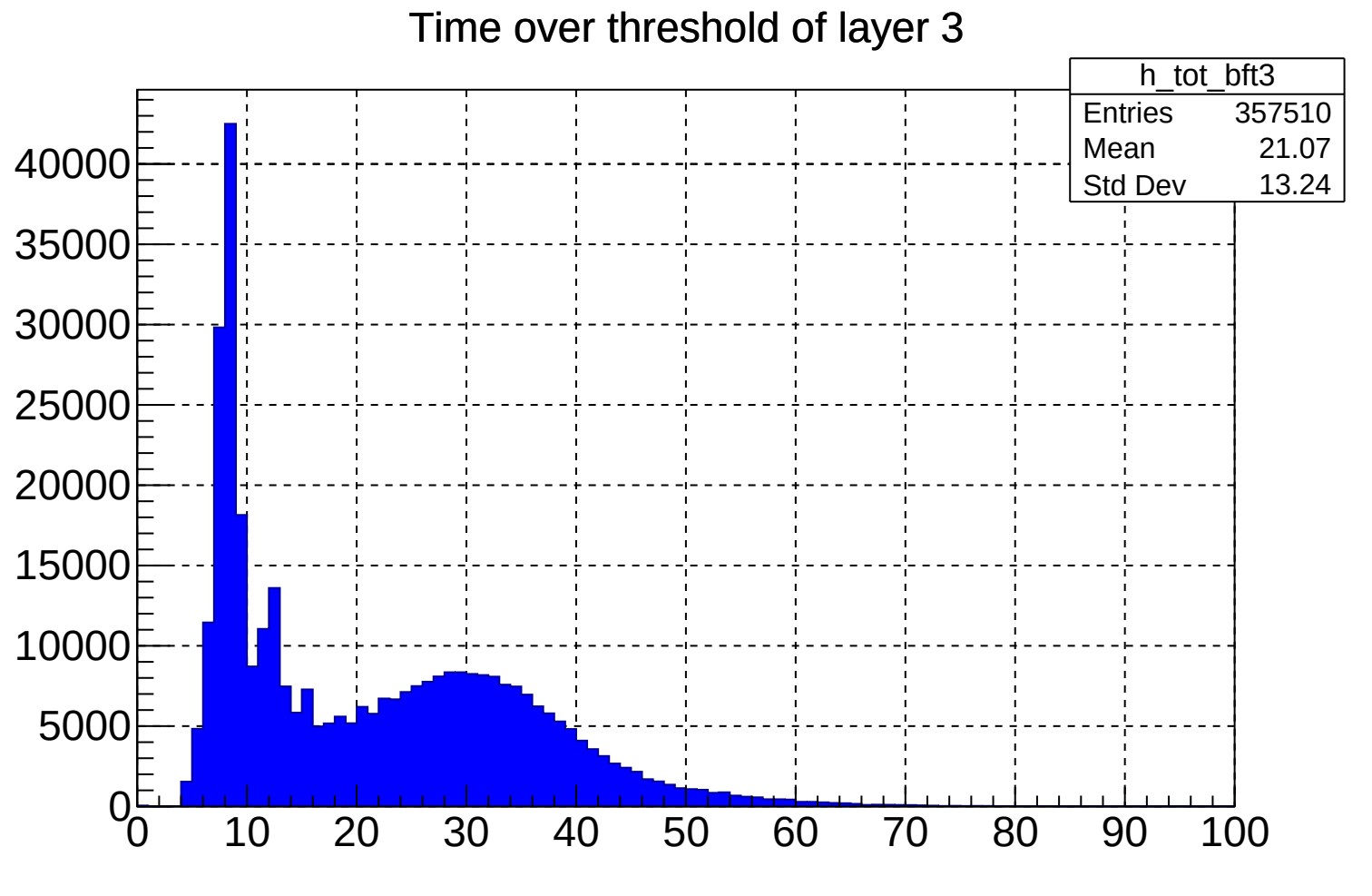

Time over threshold of layer 2
h_tot_bft2
Entries 337101
Mean 21.41
Std Dev 12.82
35000
30000
25000
20000
15000
10000
5000
0
0
10
20
30
40
50
60
70
80
90
100


Time over threshold of layer 3
h_tot_bft3
Entries 357510
Mean 21.07
Std Dev 13.24
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25000
20000
15000
10000
5000
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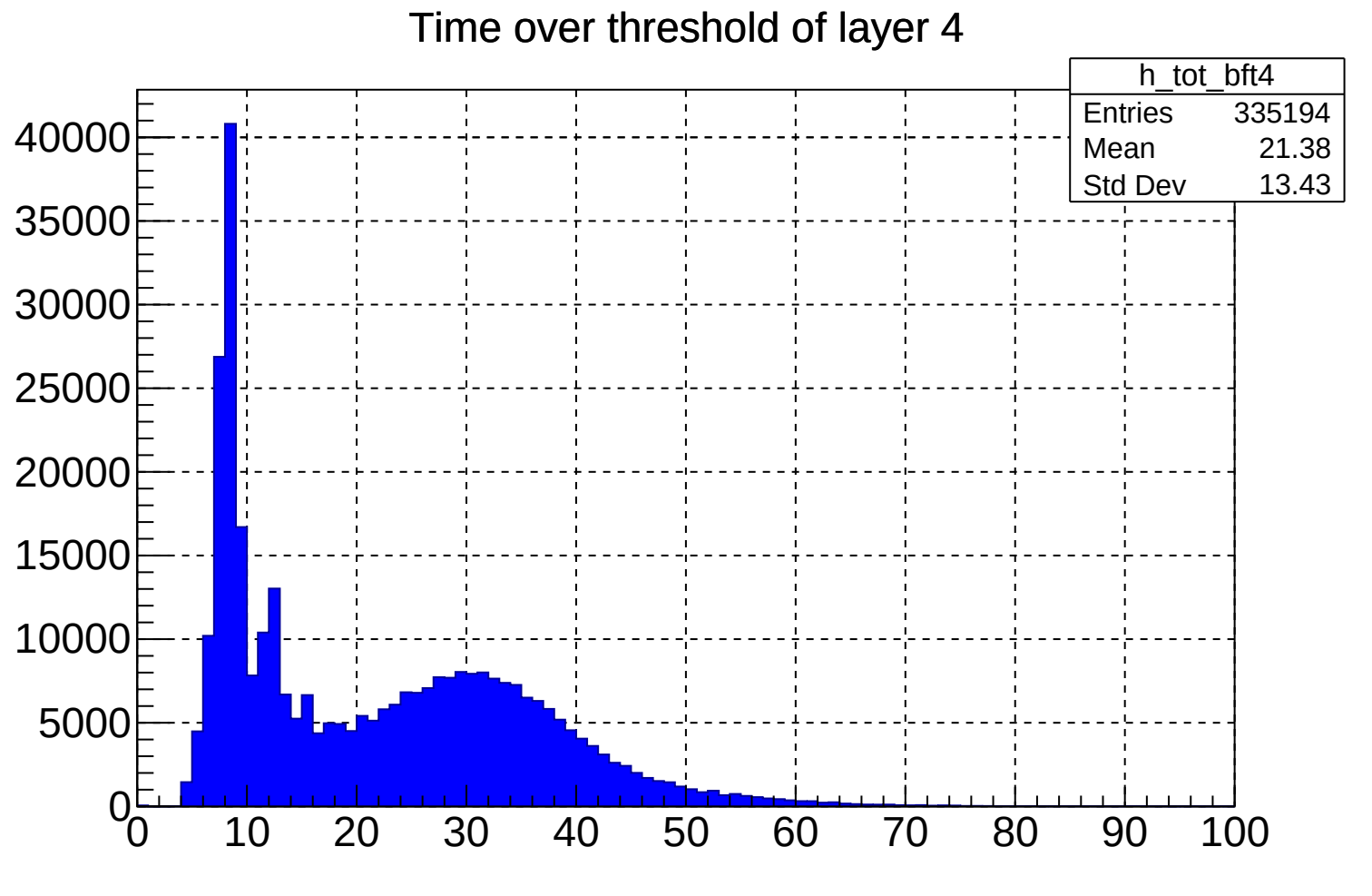
30
40
50
60
70
80
90
100


Time over threshold of layer 4
h_tot_bft4
Entries 335194
Mean 21.38
Std Dev 13.43
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30000
25000
20000
15000
10000
5000
0
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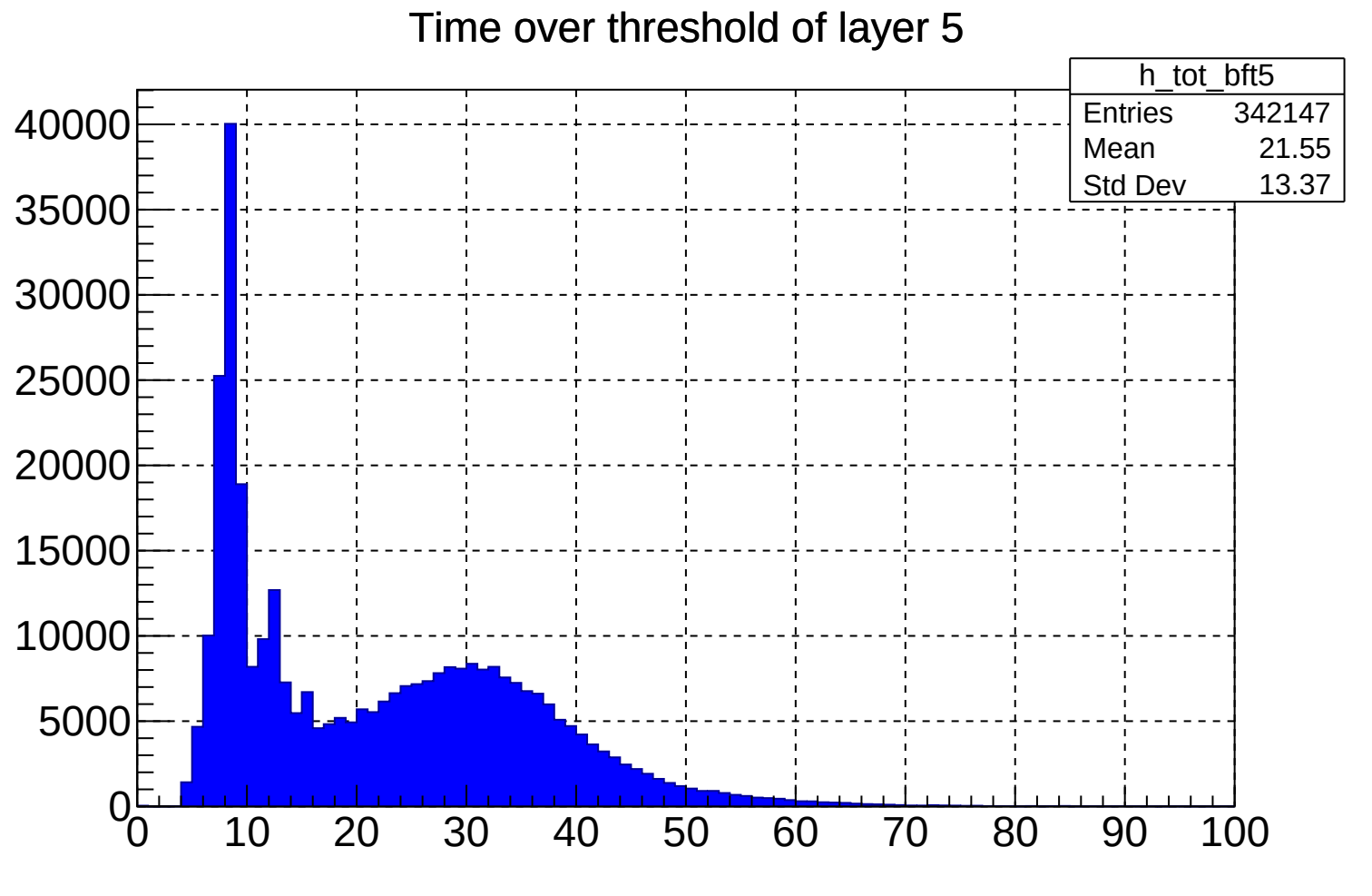
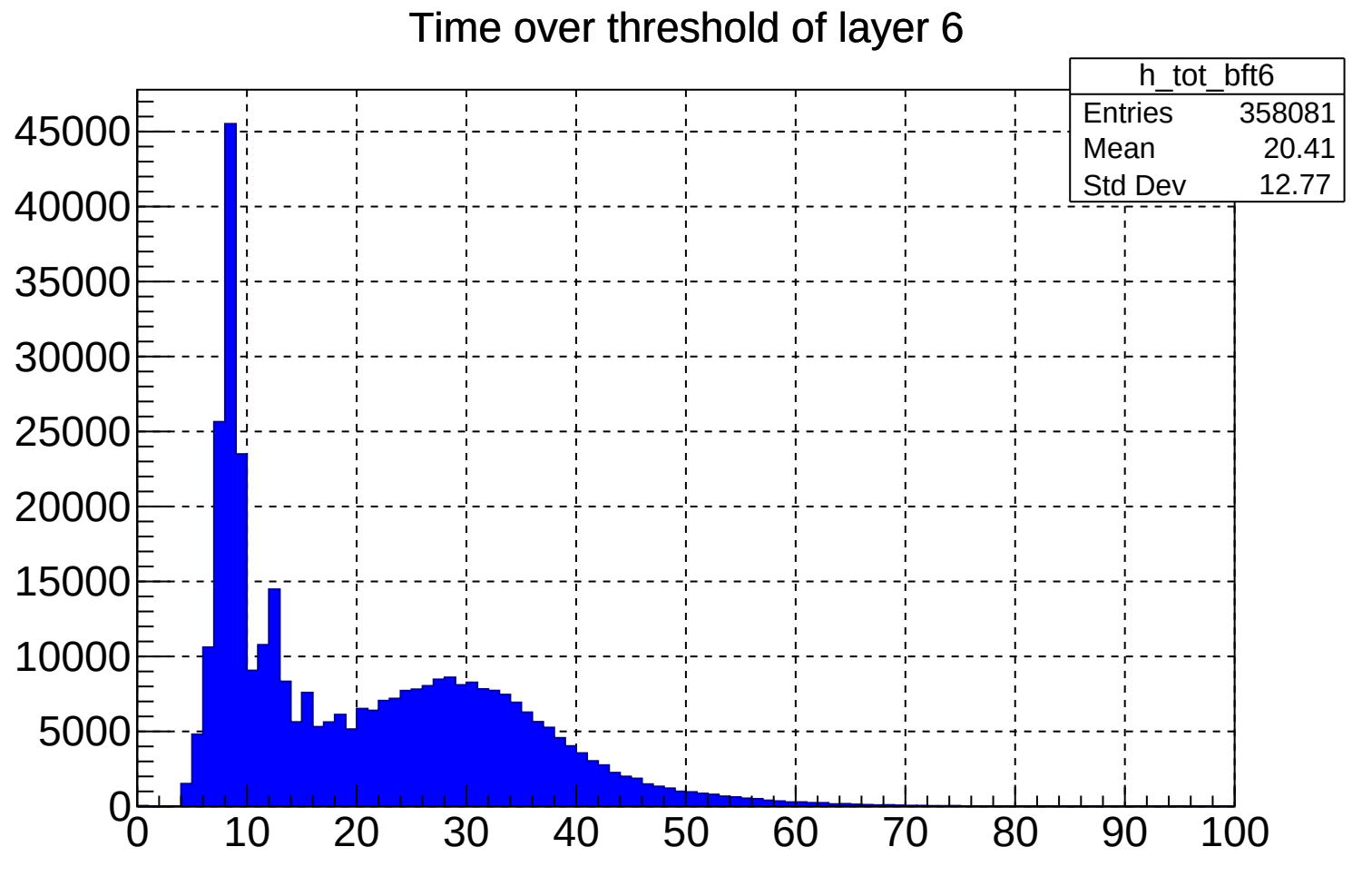
30
40
50
60
70
80
90
100


Time over threshold of layer 5
h_tot_bft5
Entries 342147
Mean 21.55
Std Dev 13.37
40000
35000
30000
25000
20000
15000
10000
5000
0
0
10
20
30
40
50
60
70
80
90
100


Time over threshold of layer 6
h_tot_bft6
Entries 358081
Mean 20.41
Std Dev 12.77
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
0
10
20
30
40
50
60
70
80
90
100