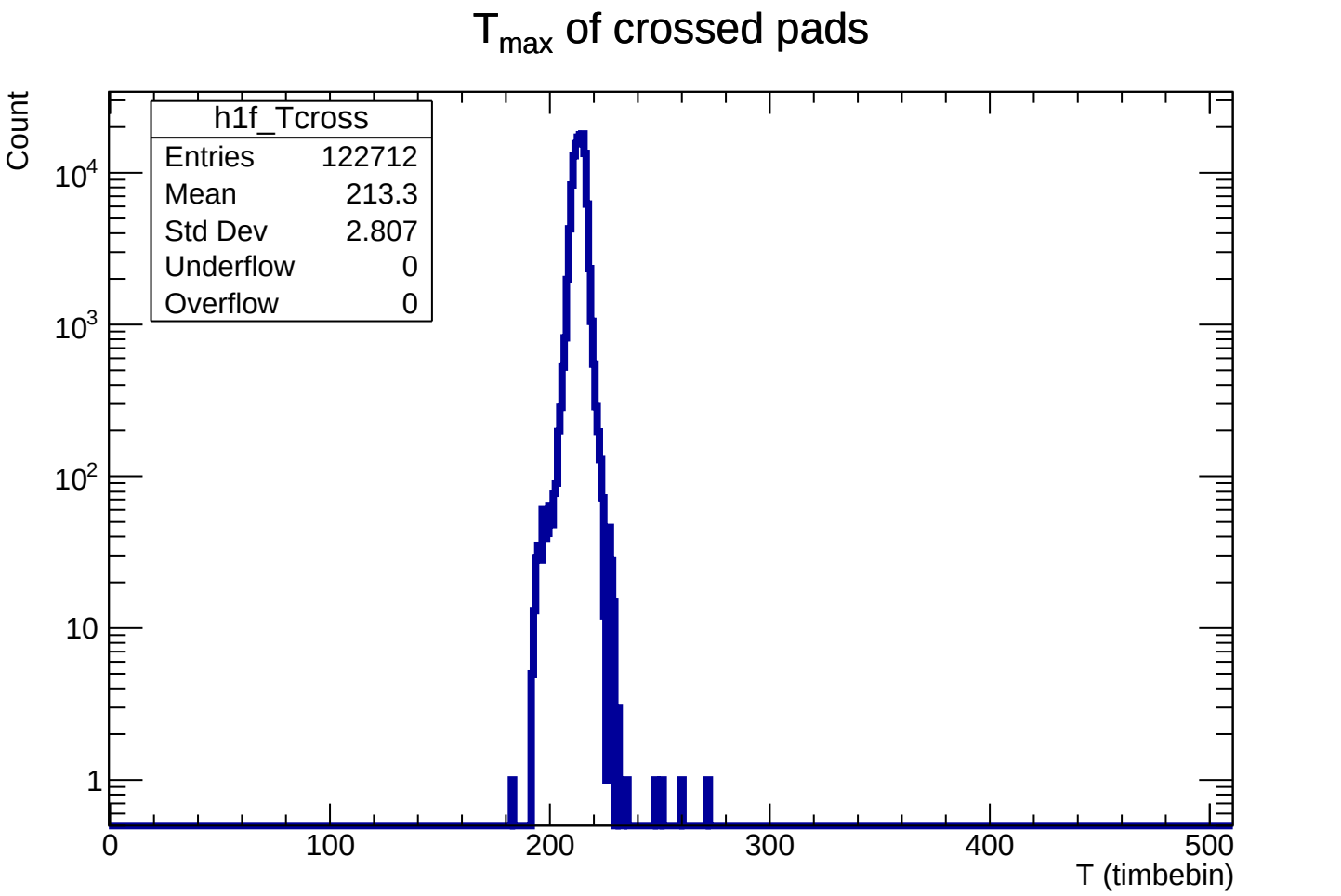
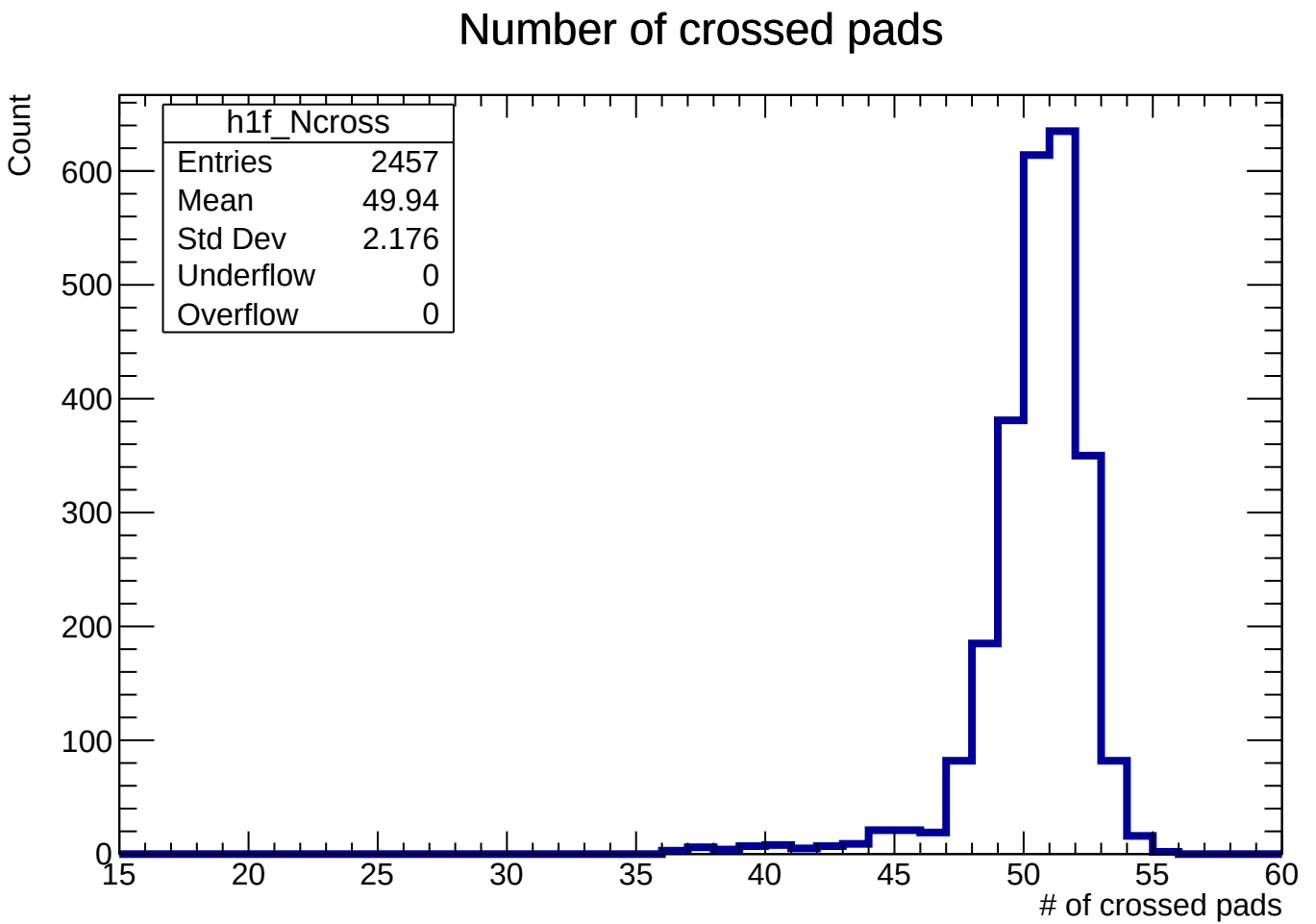
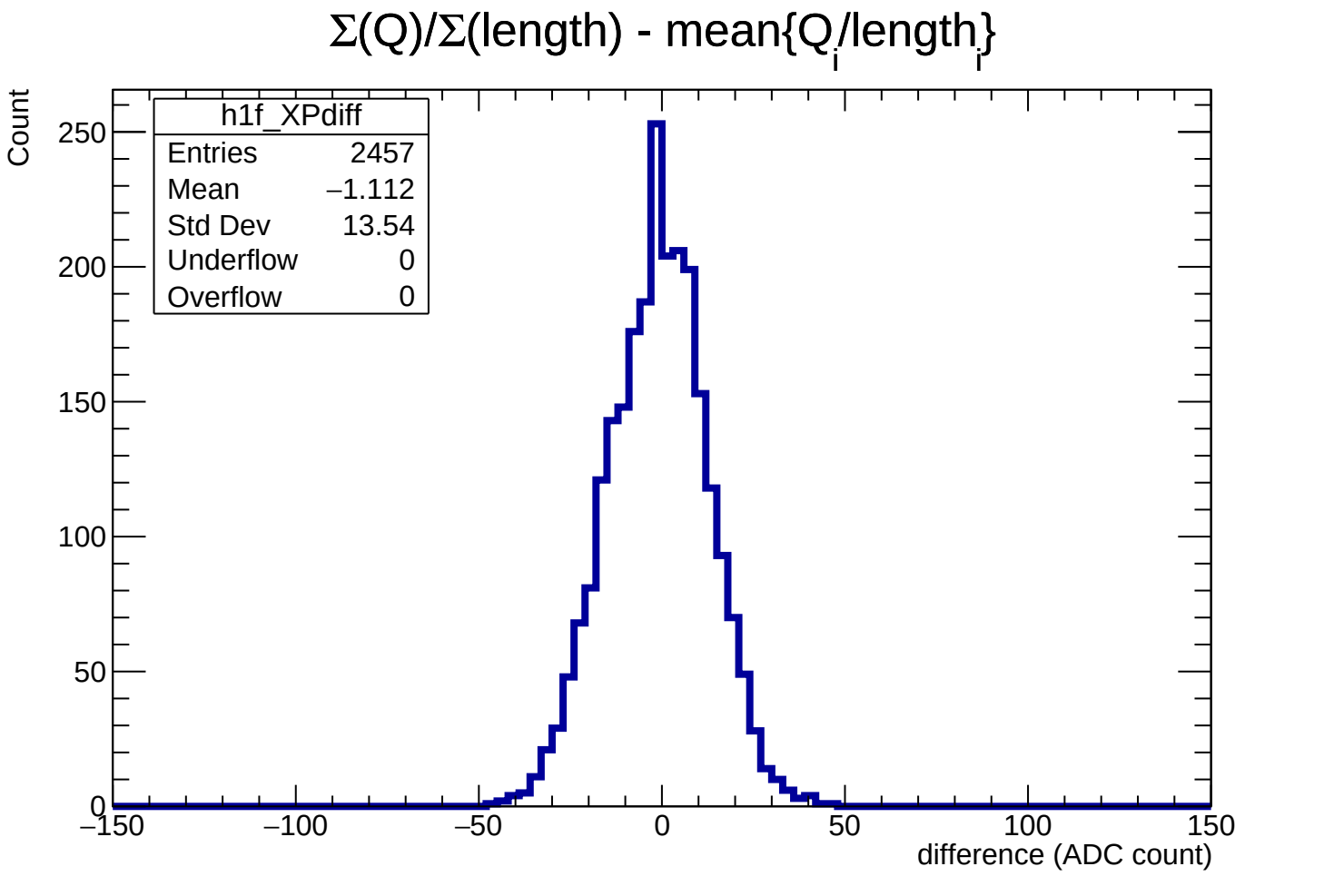
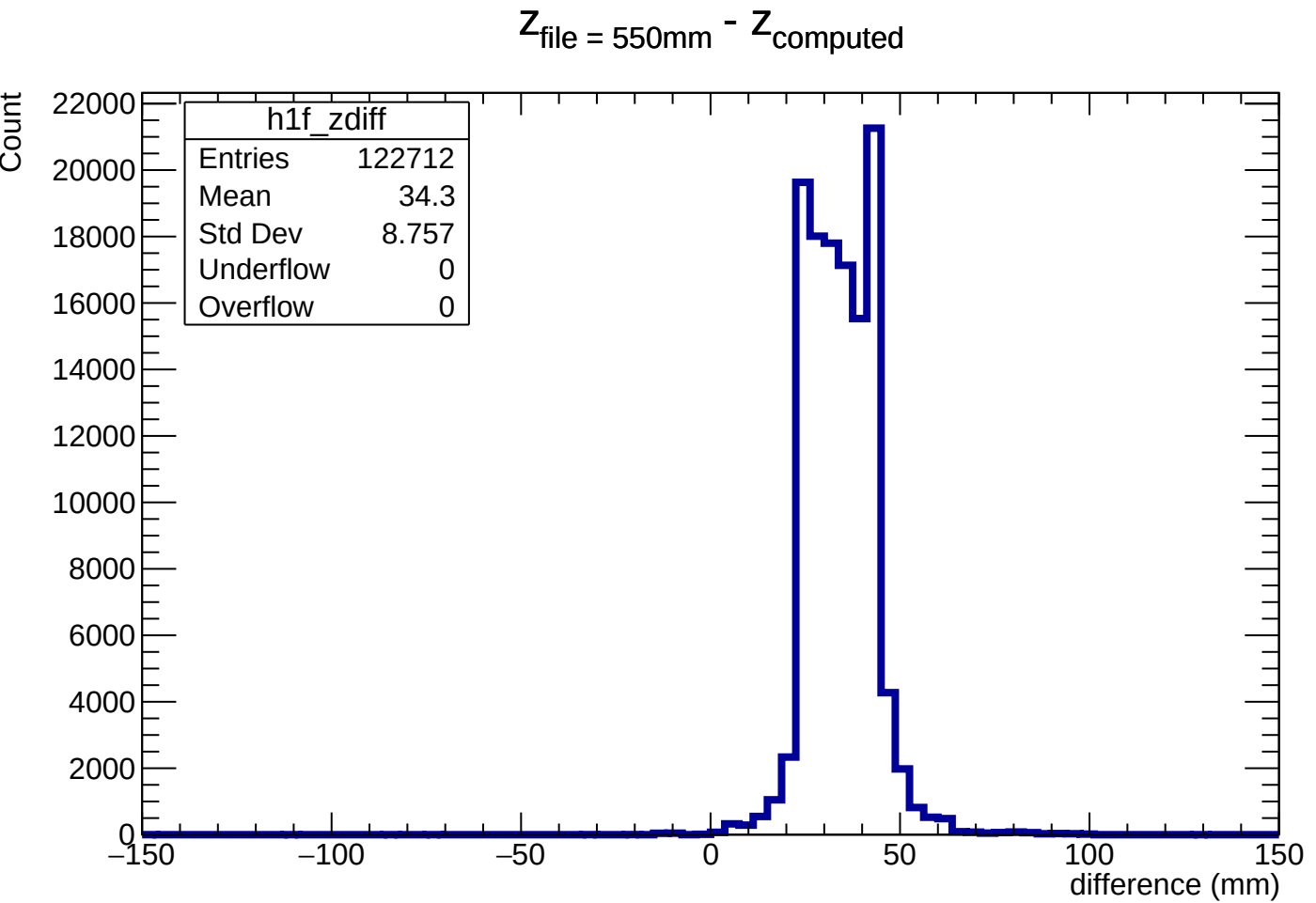
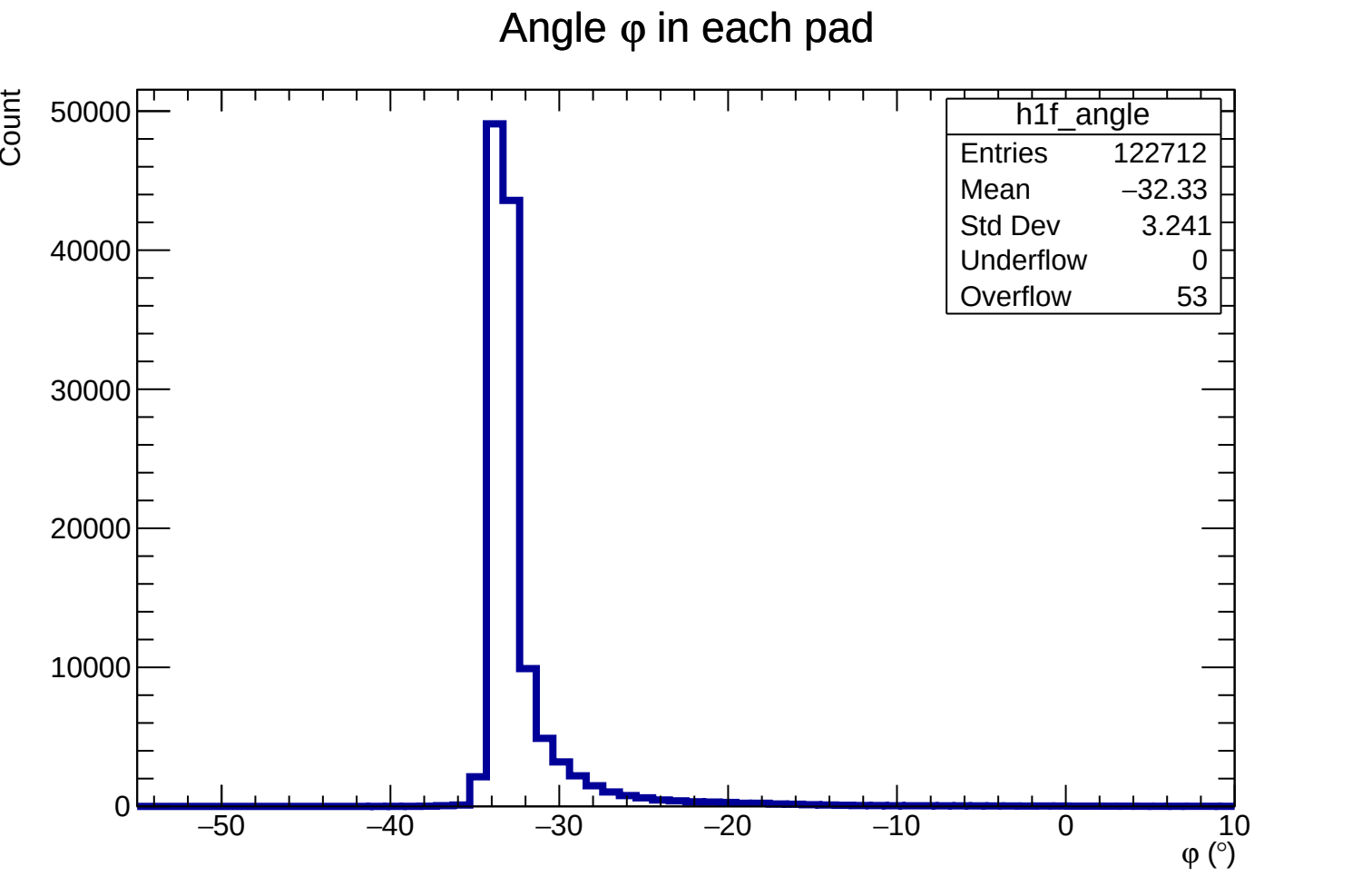
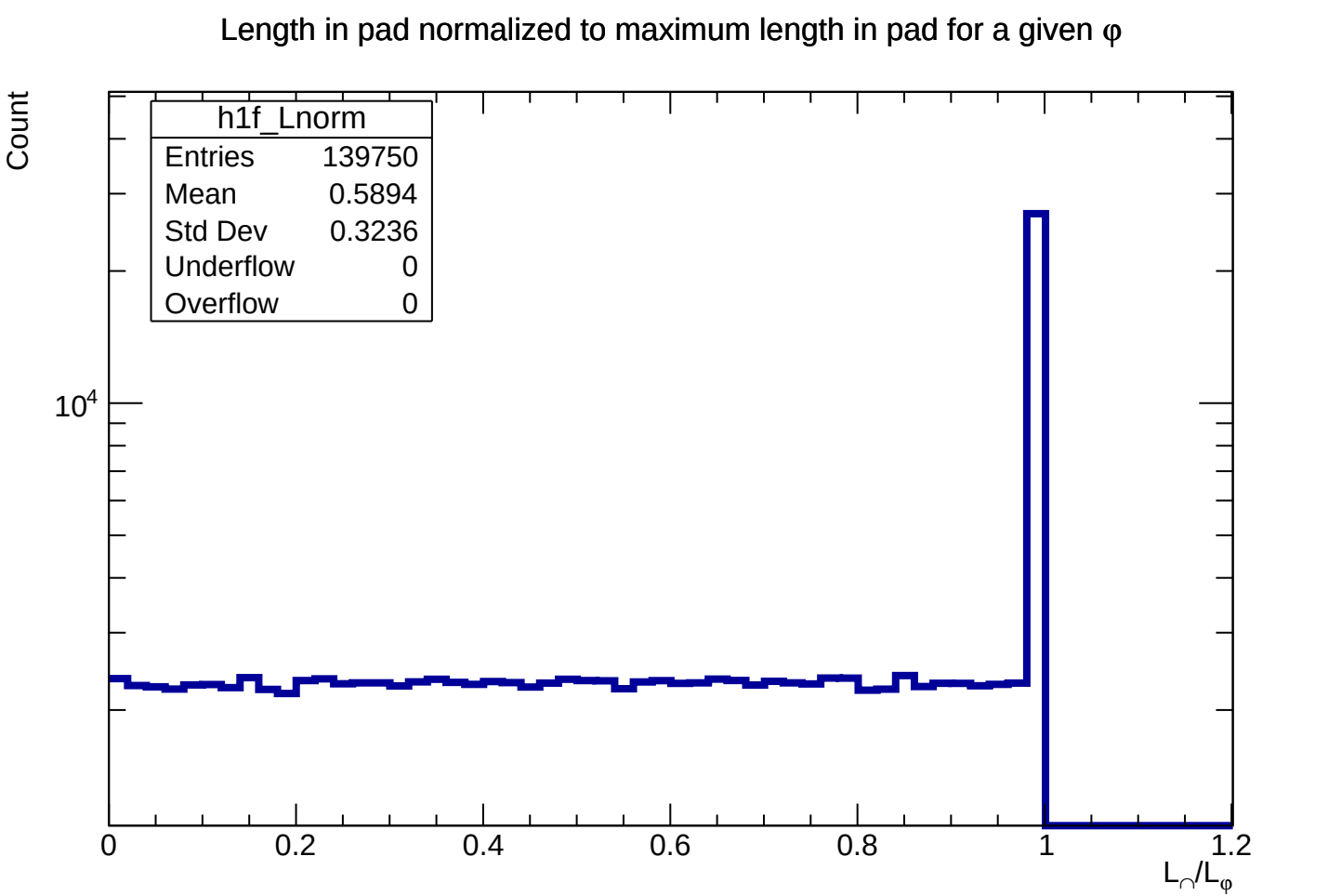

T_{max} of crossed pads
h1f_Tcross
Entries 122712
Mean 213.3
Std Dev 2.807
Underflow 0
Overflow 0
Count
10^4
10^3
10^2
10
1
0
100
200
300
400
500
T (timbebin)

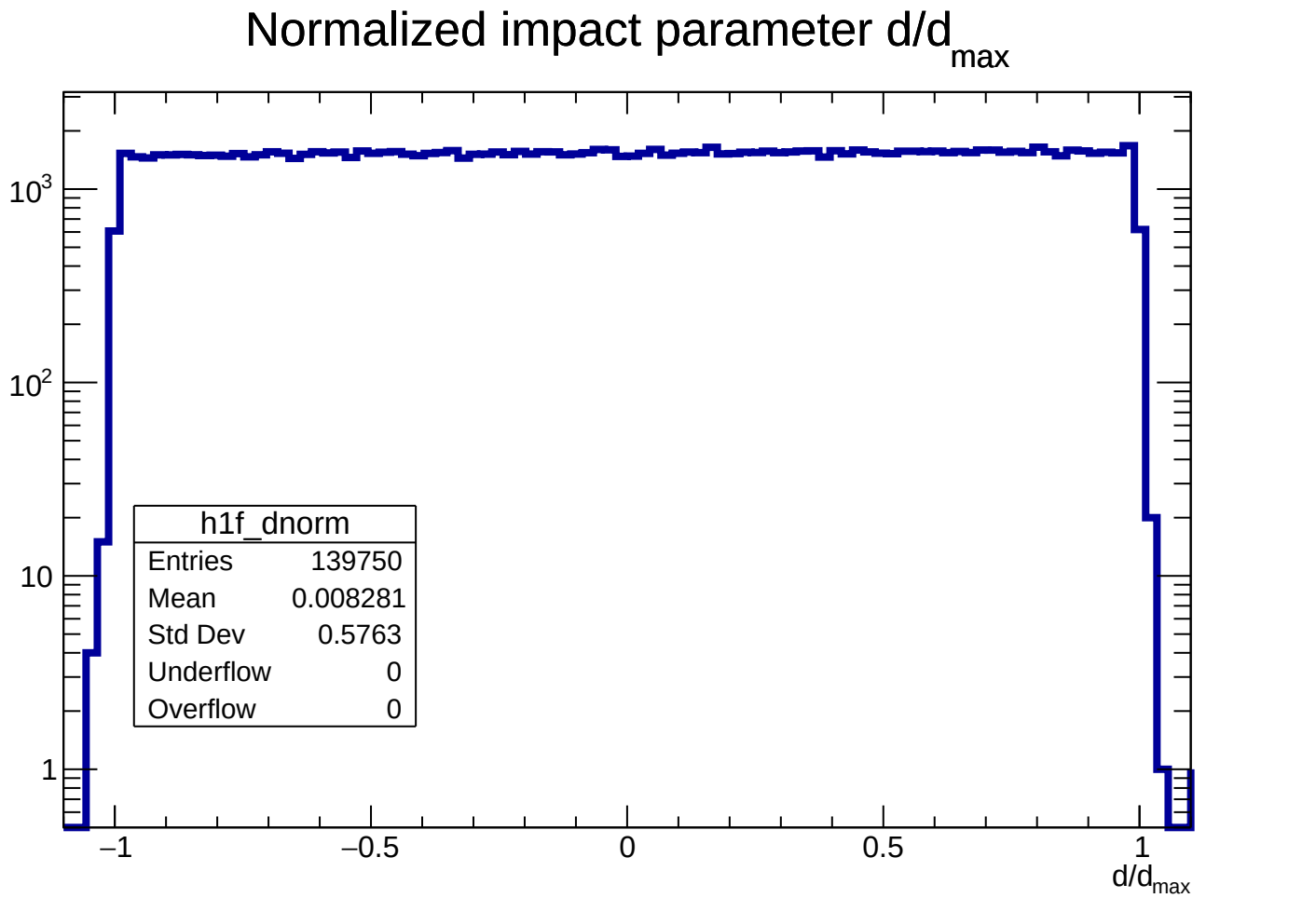

Number of crossed pads
h1f_Ncross
Entries 2457
Mean 49.94
Std Dev 2.176
Underflow 0
Overflow 0
Count
0
100
200
300
400
500
600
15
20
25
30
35
40
45
50
55
60
# of crossed pads

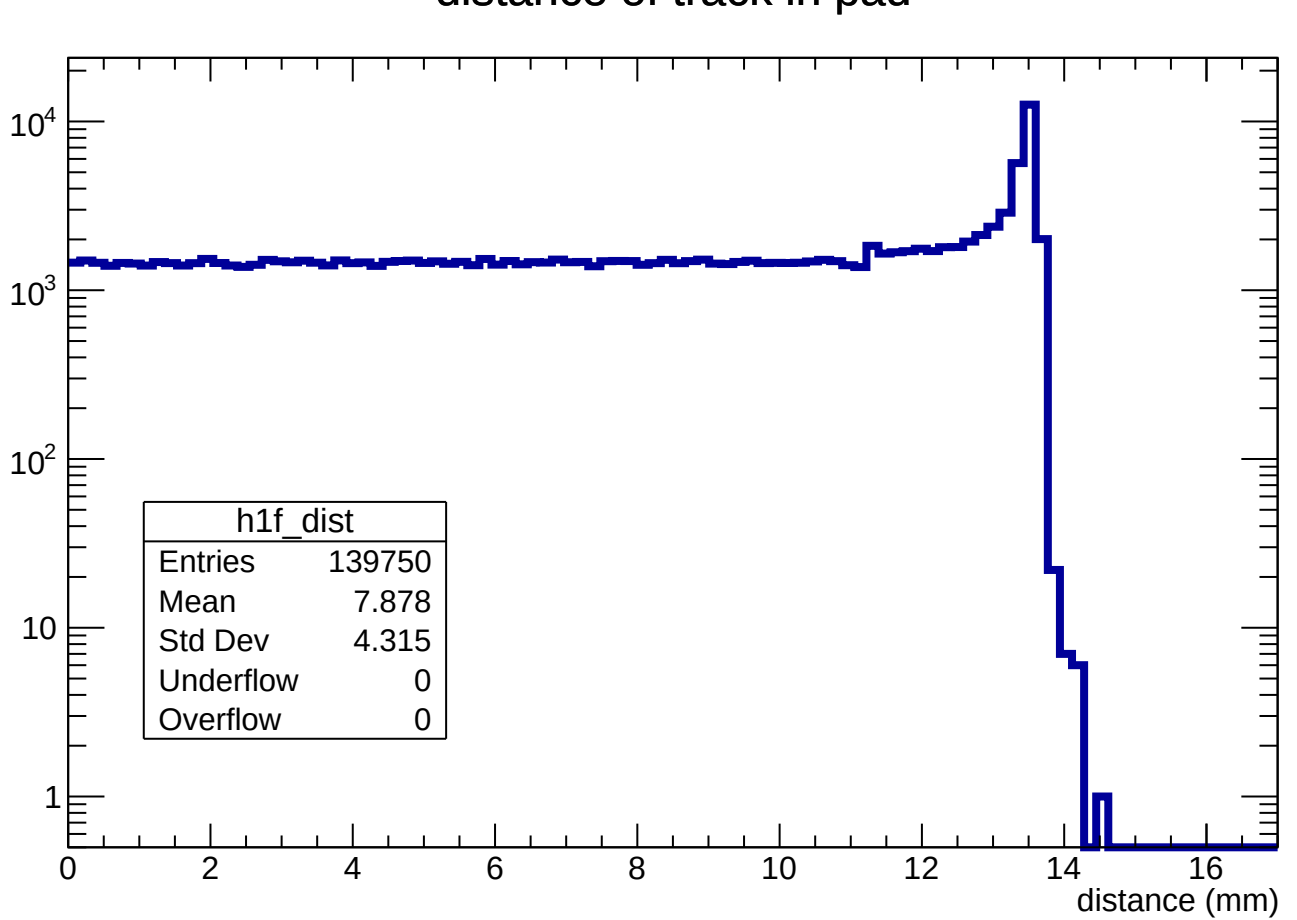

Σ(Q)/Σ(length) - mean{Q_i/length_i}
h1f_XPdiff
Entries 2457
Mean −1.112
Std Dev 13.54
Underflow 0
Overflow 0
Count
0
50
100
150
200
250
−150
−100
−50
0
50
100
150
difference (ADC count)

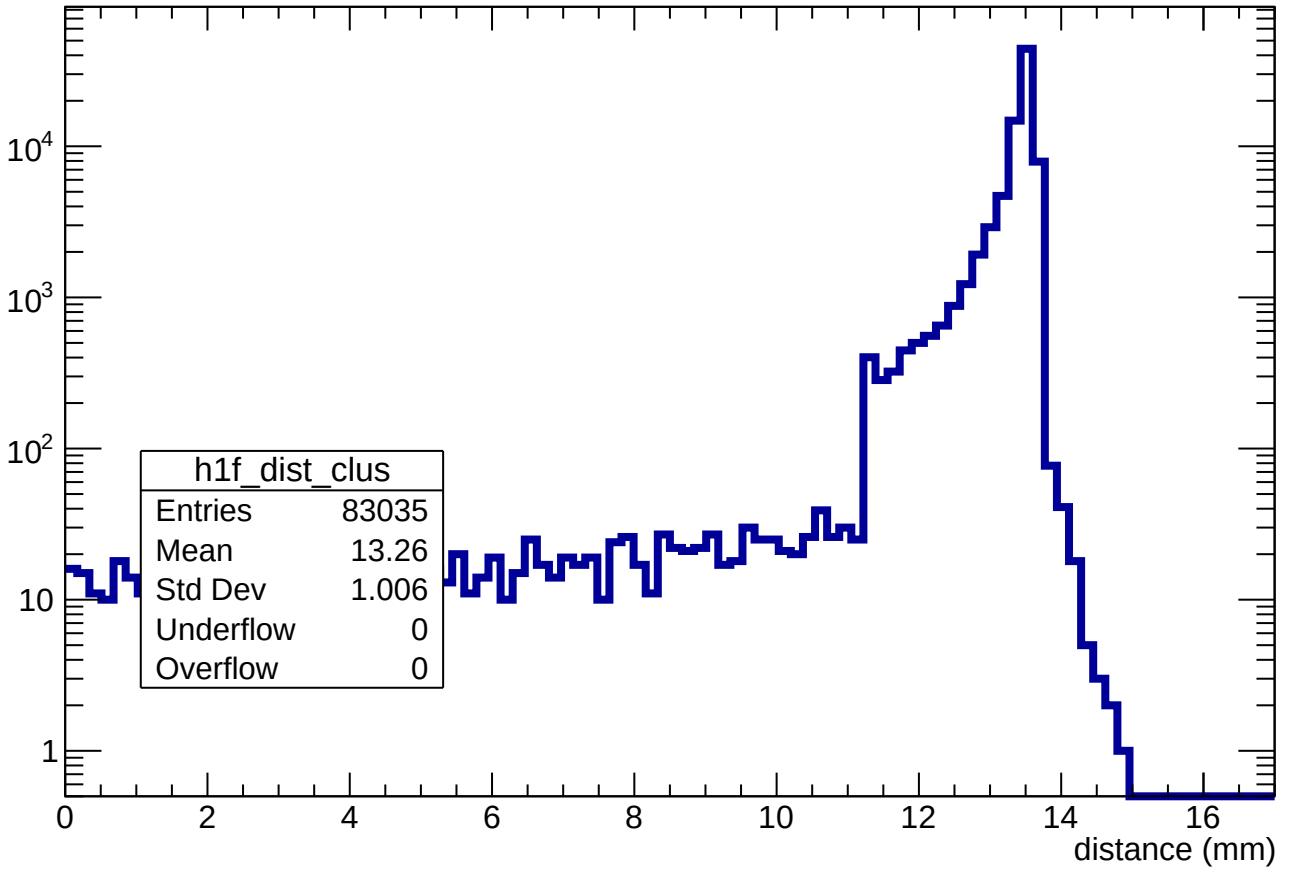

$z_{file = 550mm} - z_{computed}$
Count
h1f_zdiff
Entries 122712
Mean 34.3
Std Dev 8.757
Underflow 0
Overflow 0
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
–150
–100
–50
0
50
100
150
difference (mm)

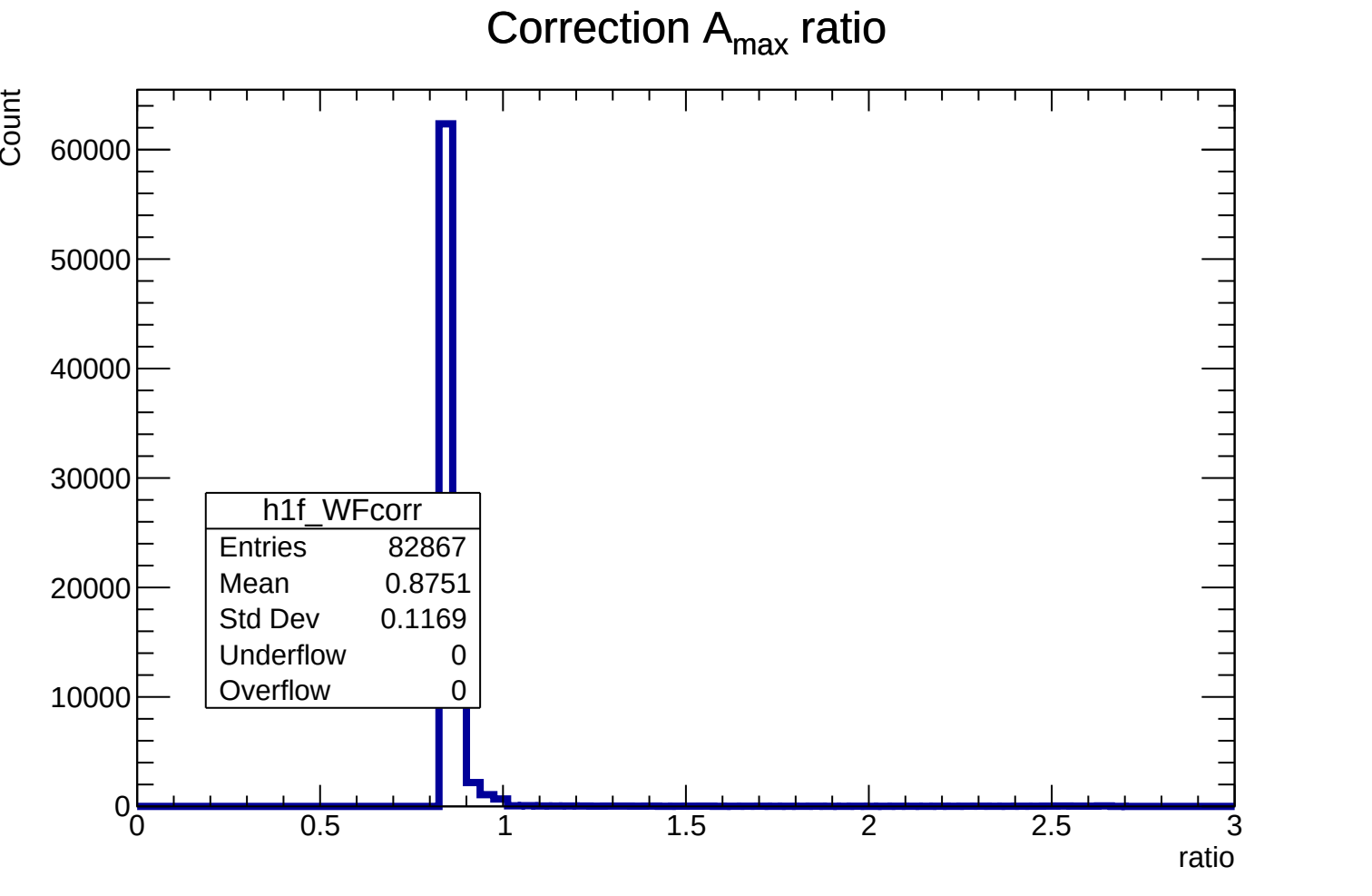

Angle φ in each pad
Count
50000
40000
30000
20000
10000
0
−50
−40
−30
−20
−10
0
10
φ (°)
h1f_angle
Entries 122712
Mean −32.33
Std Dev 3.241
Underflow 0
Overflow 53

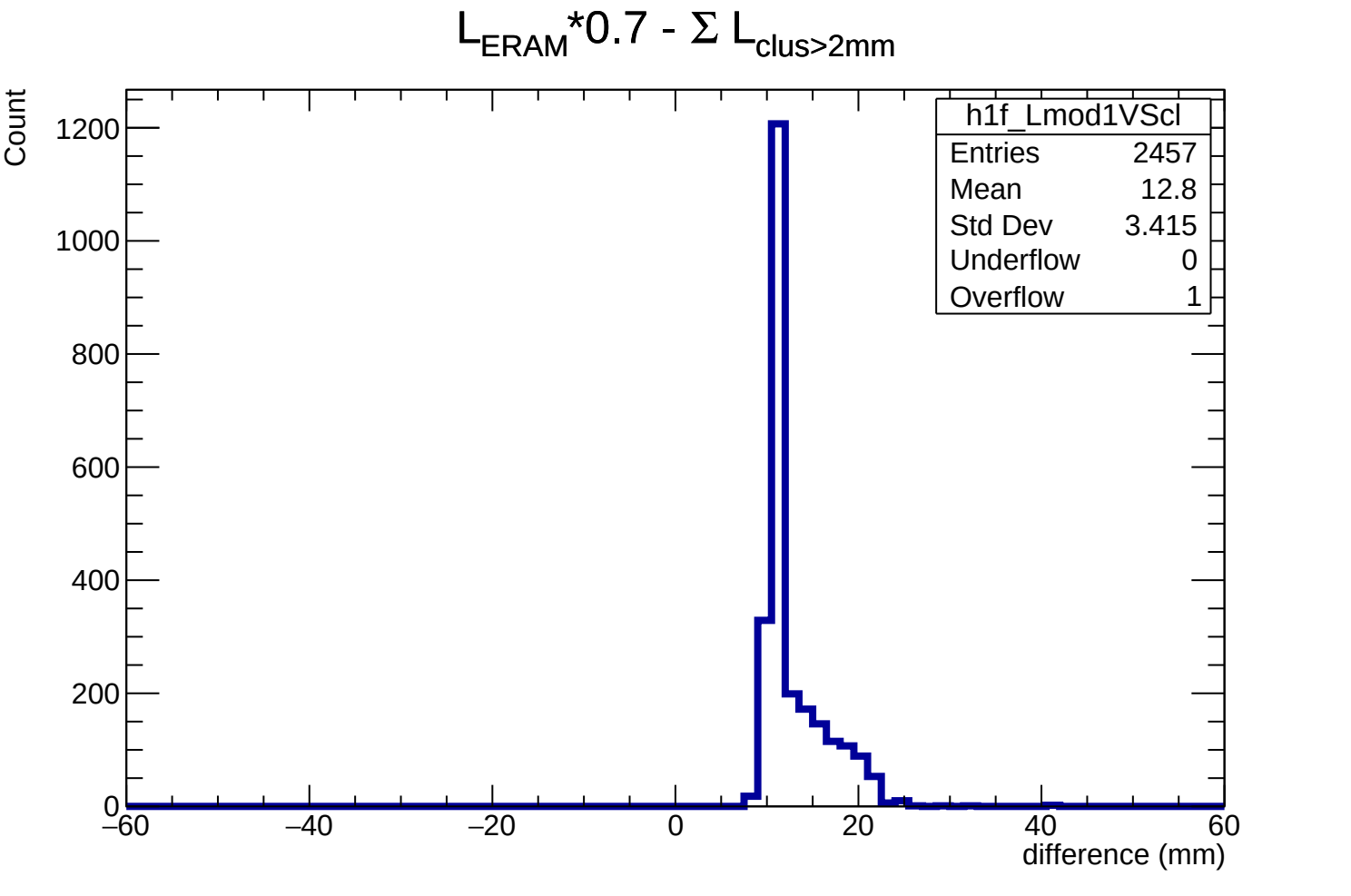

Length in pad normalized to maximum length in pad for a given φ
h1f_Lnorm
Entries 139750
Mean 0.5894
Std Dev 0.3236
Underflow 0
Overflow 0
Count
10^4
0
0.2
0.4
0.6
0.8
1
1.2
L_∩/L_φ

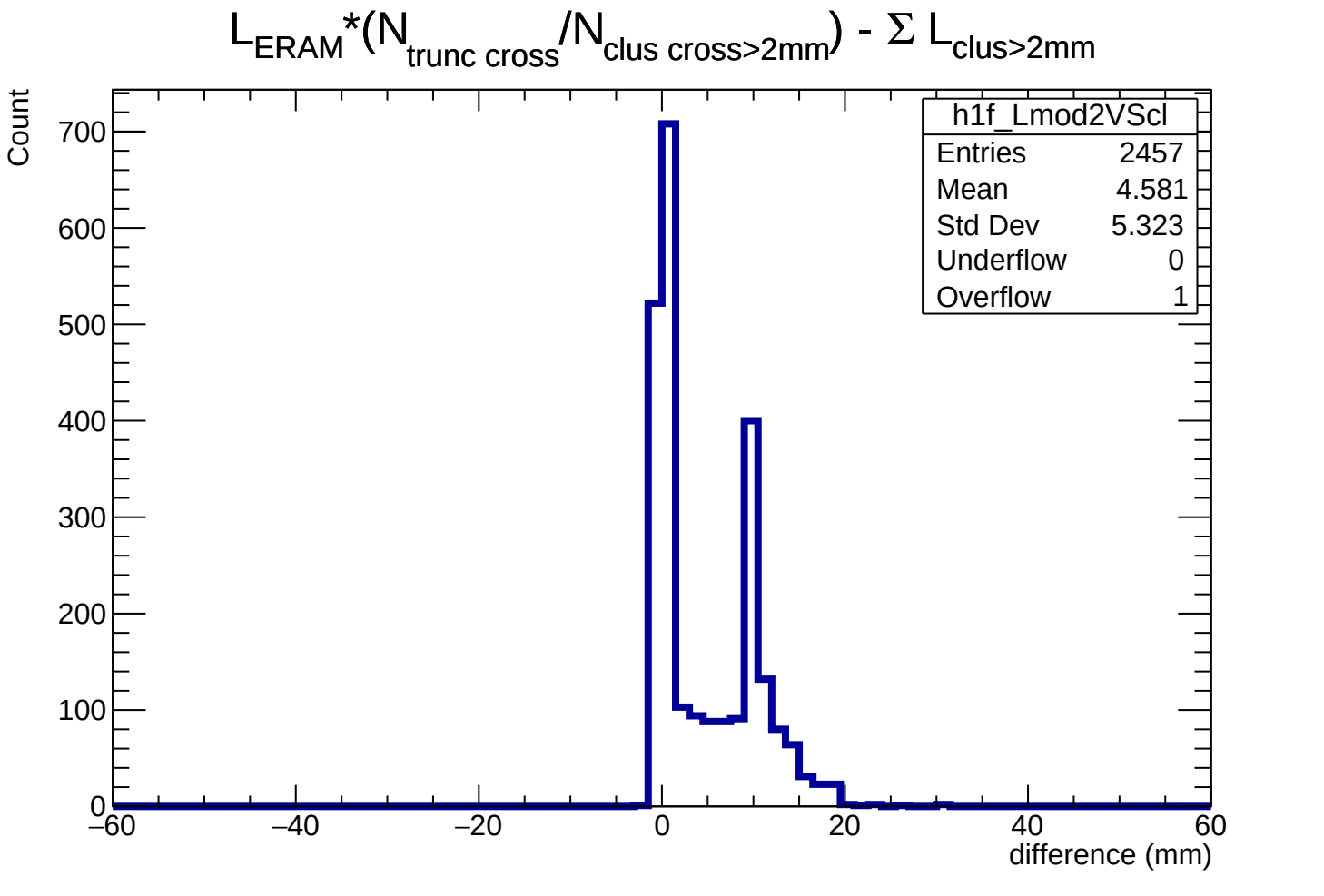

Normalized impact parameter d/d max
10 3
10 2
10
1
h1f_dnorm
Entries 139750
Mean 0.008281
Std Dev 0.5763
Underflow 0
Overflow 0
−1
−0.5
0
0.5
1
d/d max

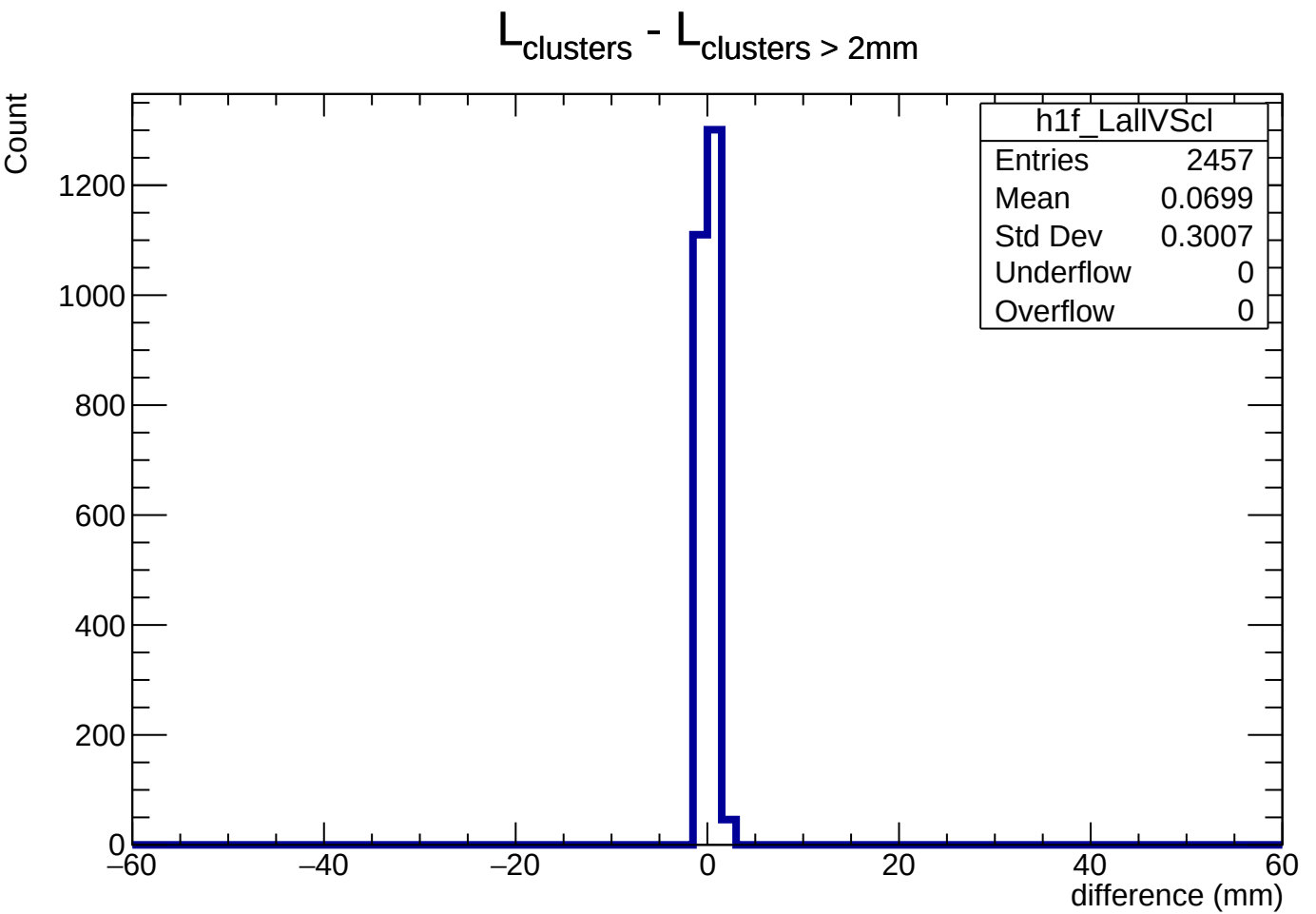

distance of track in pad
10^4
10^3
10^2
10
1
0
2
4
6
8
10
12
14
16
distance (mm)
h1f_dist
Entries 139750
Mean 7.878
Std Dev 4.315
Underflow 0
Overflow 0

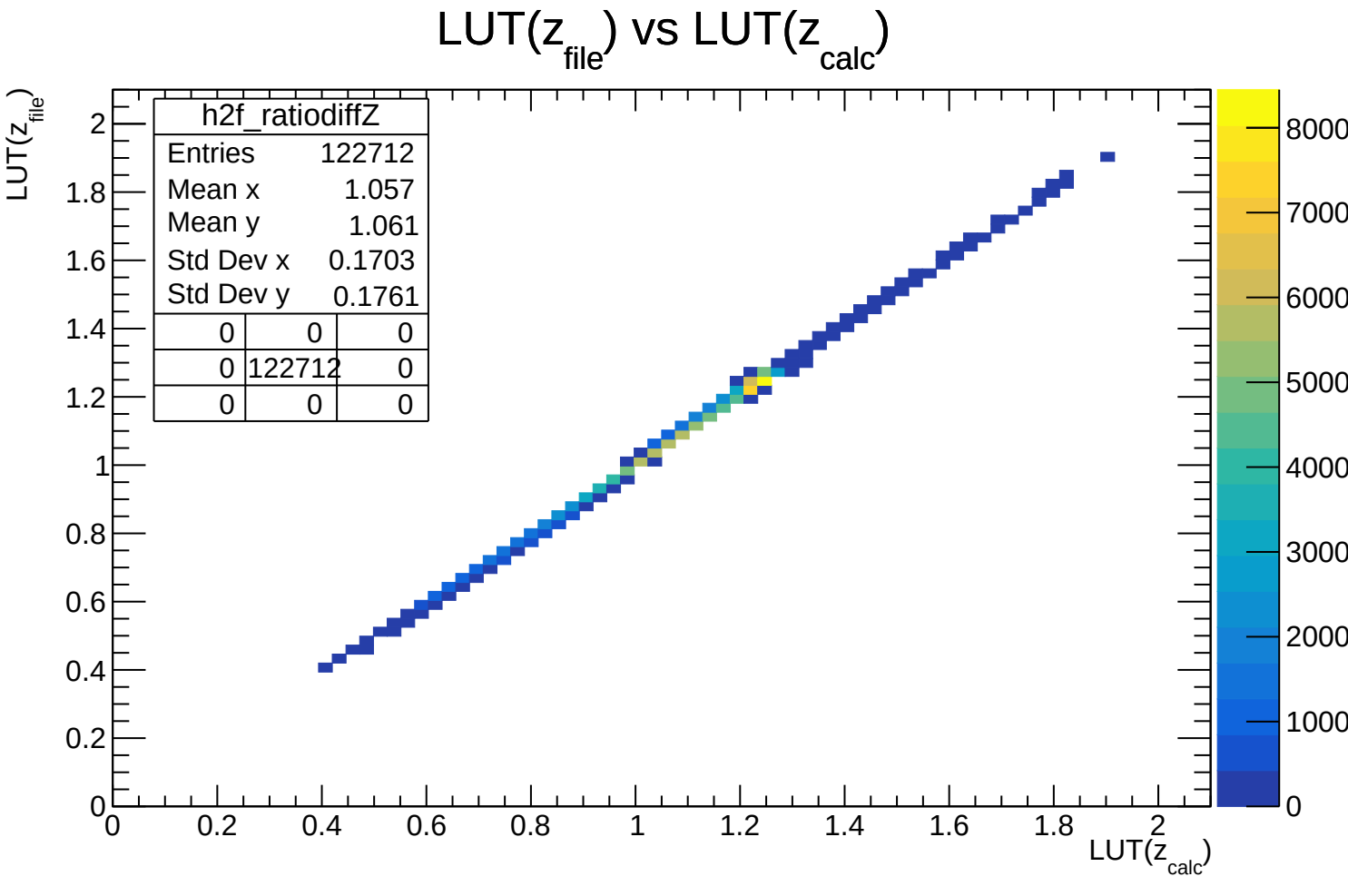

distance of track in cluster
h1f_dist_clus
Entries 83035
Mean 13.26
Std Dev 1.006
Underflow 0
Overflow 0
10^4
10^3
10^2
10
1
0
2
4
6
8
10
12
14
16
distance (mm)

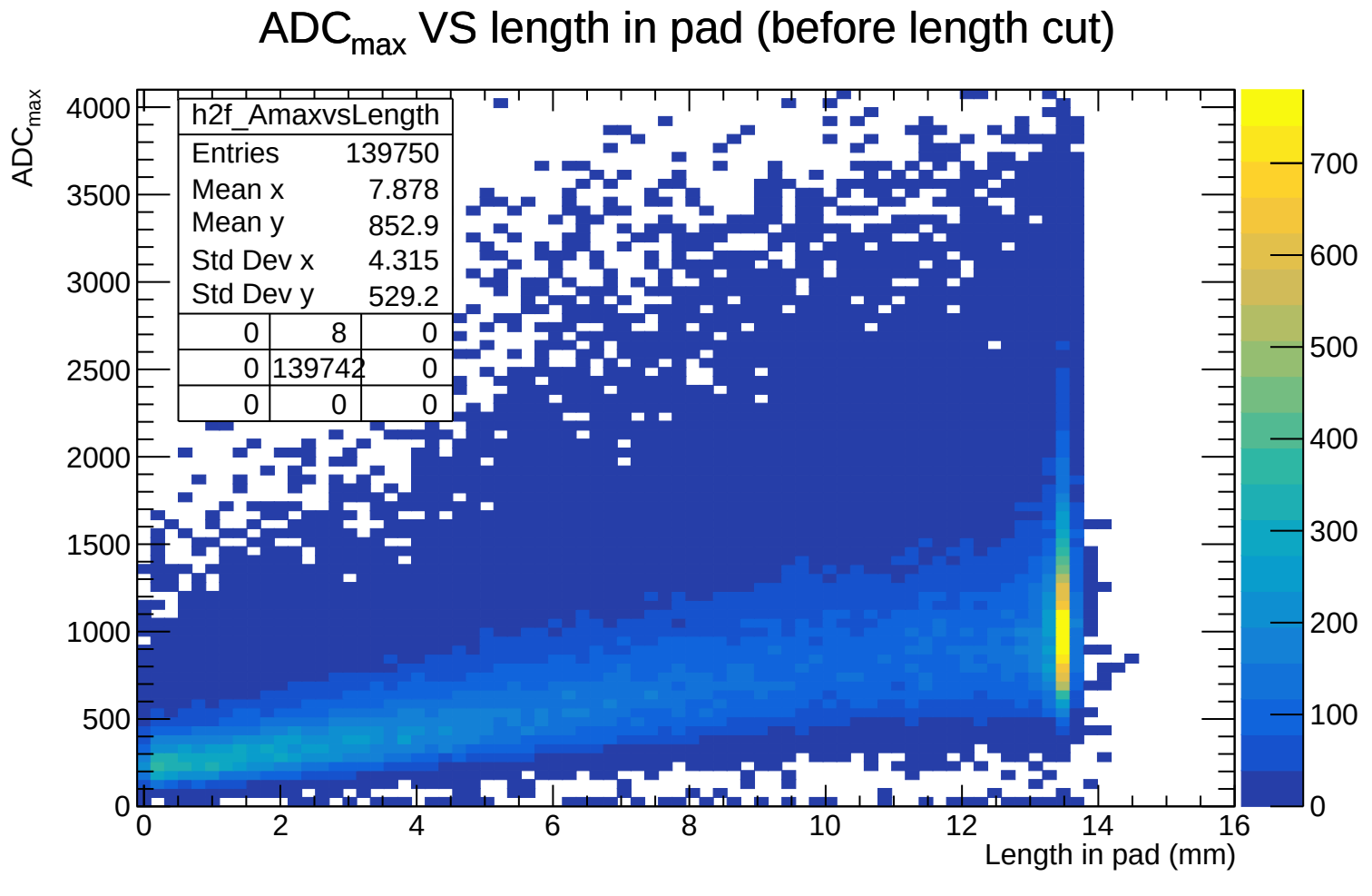

Correction A_{max} ratio
Count
60000
50000
40000
30000
20000
10000
0
0
0.5
1
1.5
2
2.5
3
ratio
h1f_WFcorr
Entries 82867
Mean 0.8751
Std Dev 0.1169
Underflow 0
Overflow 0

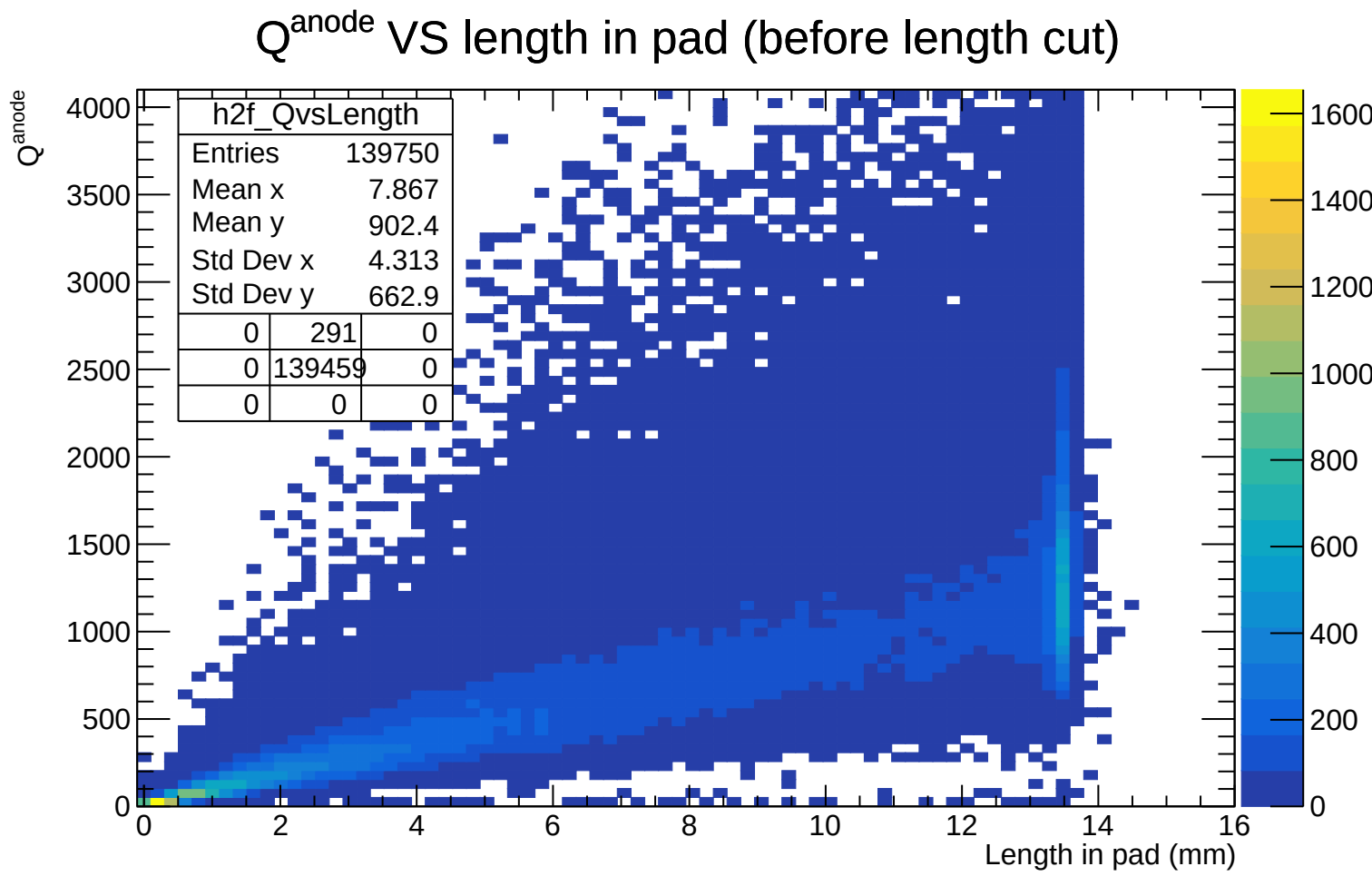

L_{ERAM}*0.7 - Σ $L_{clus>2mm}$
Count
1200
1000
800
600
400
200
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod1VScl
Entries 2457
Mean 12.8
Std Dev 3.415
Underflow 0
Overflow 1

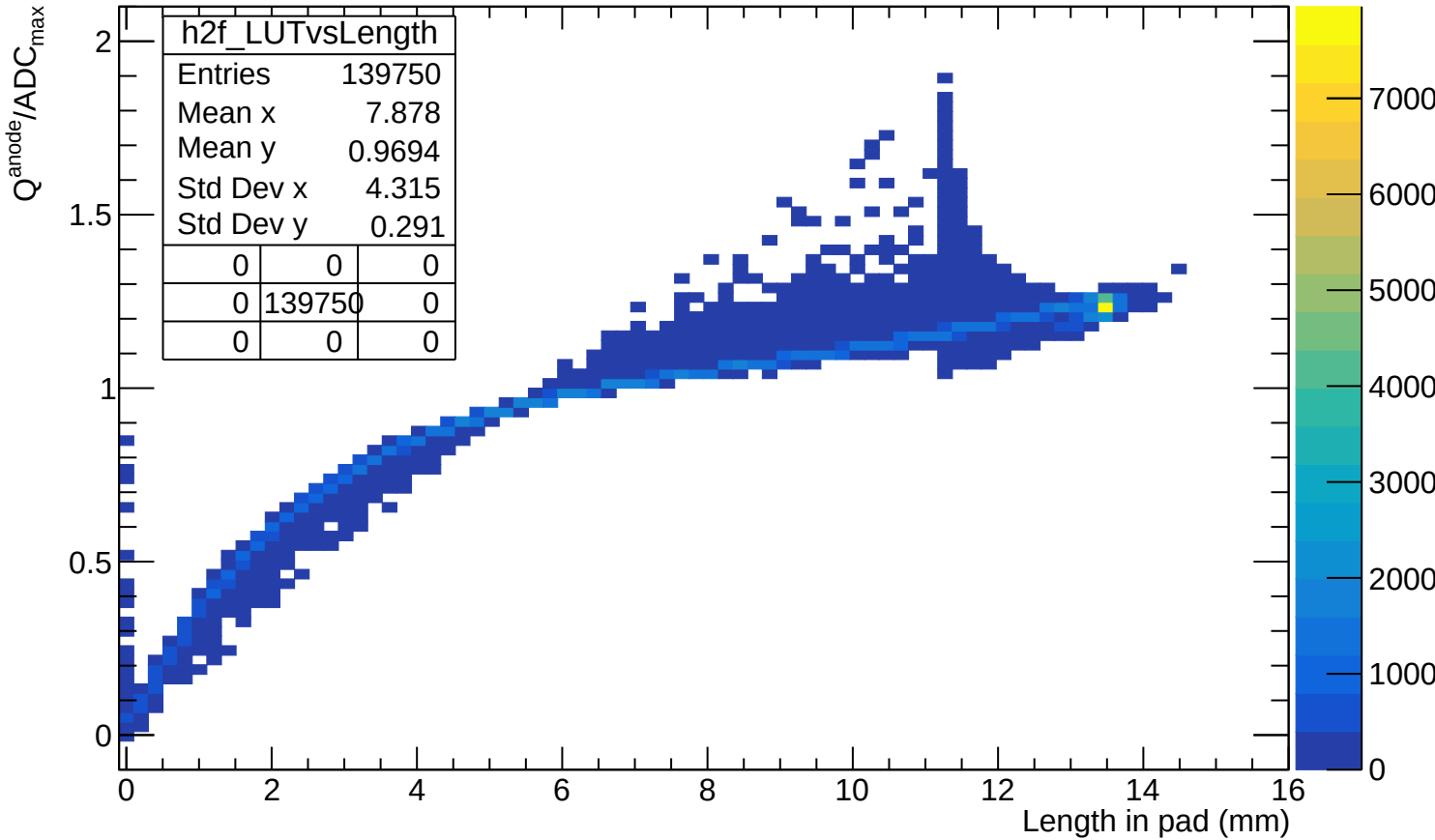

$L_{ERAM}*(N_{trunc\ cross}/N_{clus\ cross>2mm}) - \Sigma\ L_{clus>2mm}$
Count
h1f_Lmod2VScl
Entries 2457
Mean 4.581
Std Dev 5.323
Underflow 0
Overflow 1
0
100
200
300
400
500
600
700
–60
–40
–20
0
20
40
60
difference (mm)

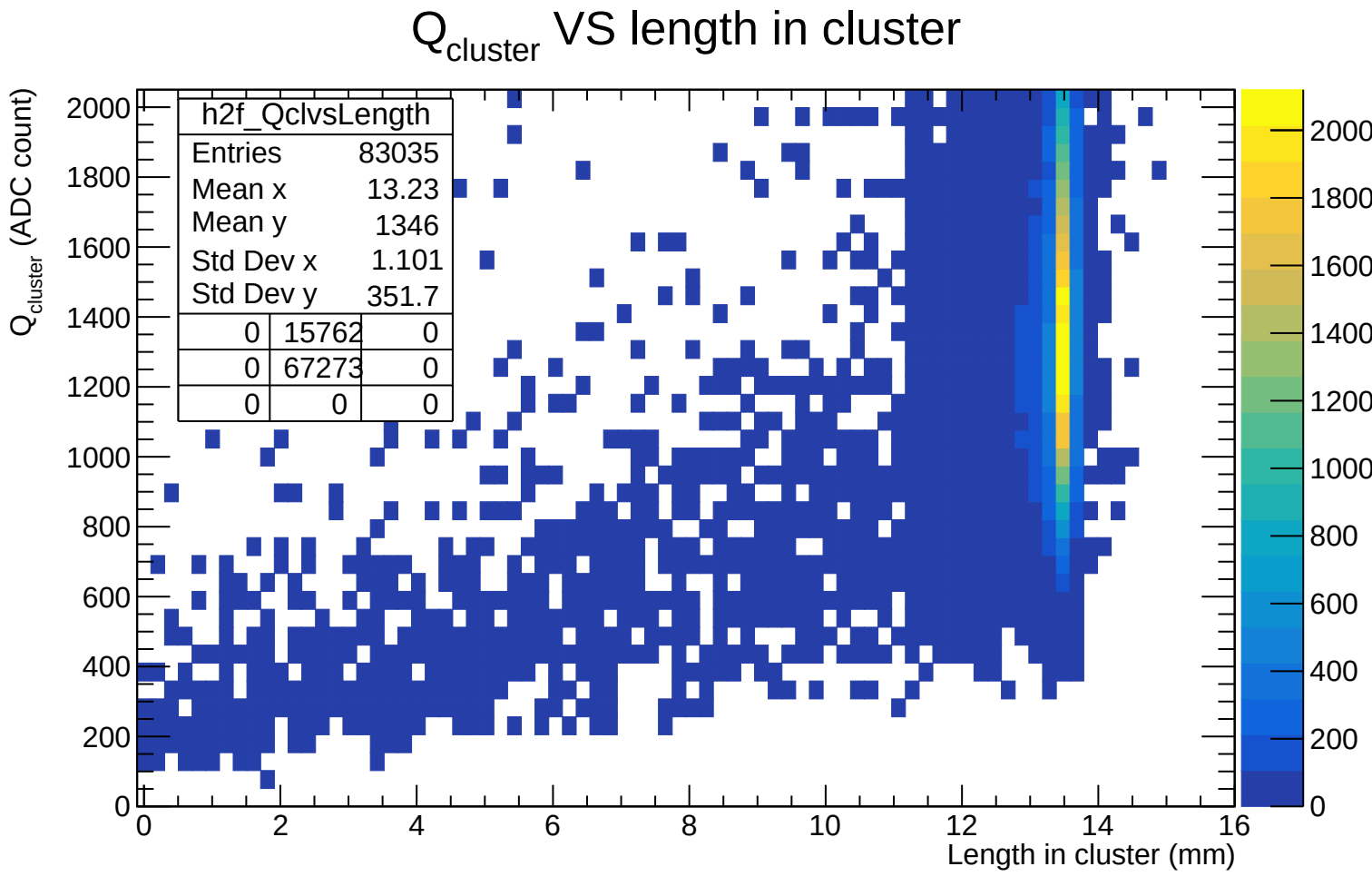

L clusters - L clusters > 2mm
Count
1200
1000
800
600
400
200
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_LallVScl
Entries 2457
Mean 0.0699
Std Dev 0.3007
Underflow 0
Overflow 0

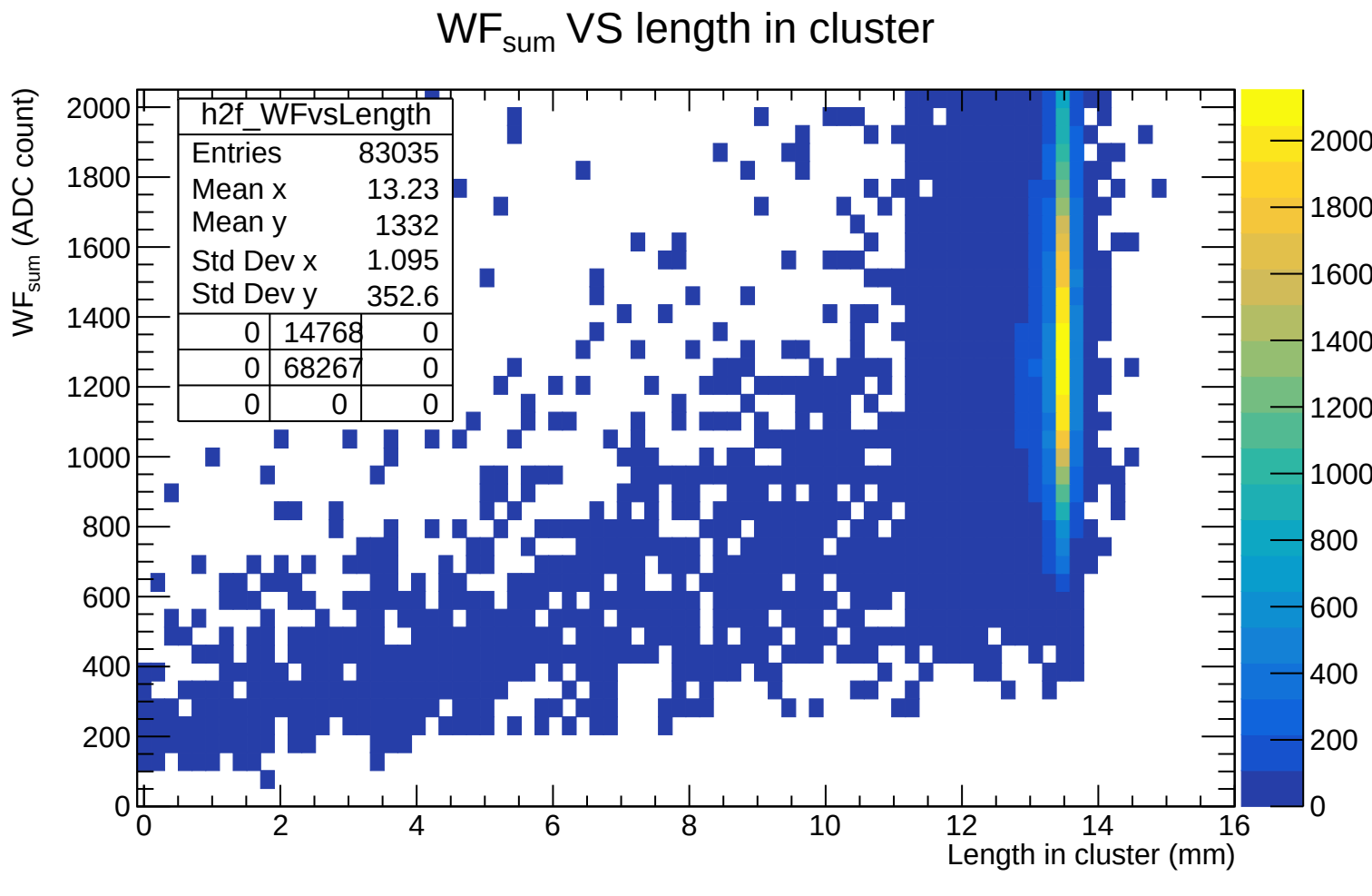

LUT(z_file) vs LUT(z_calc)
h2f_ratiodiffZ
Entries 122712
Mean x 1.057
Mean y 1.061
Std Dev x 0.1703
Std Dev y 0.1761
0 0 0
0 122712 0
0 0 0
LUT(z_file)
LUT(z_calc)
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2
0 1000 2000 3000 4000 5000 6000 7000 8000

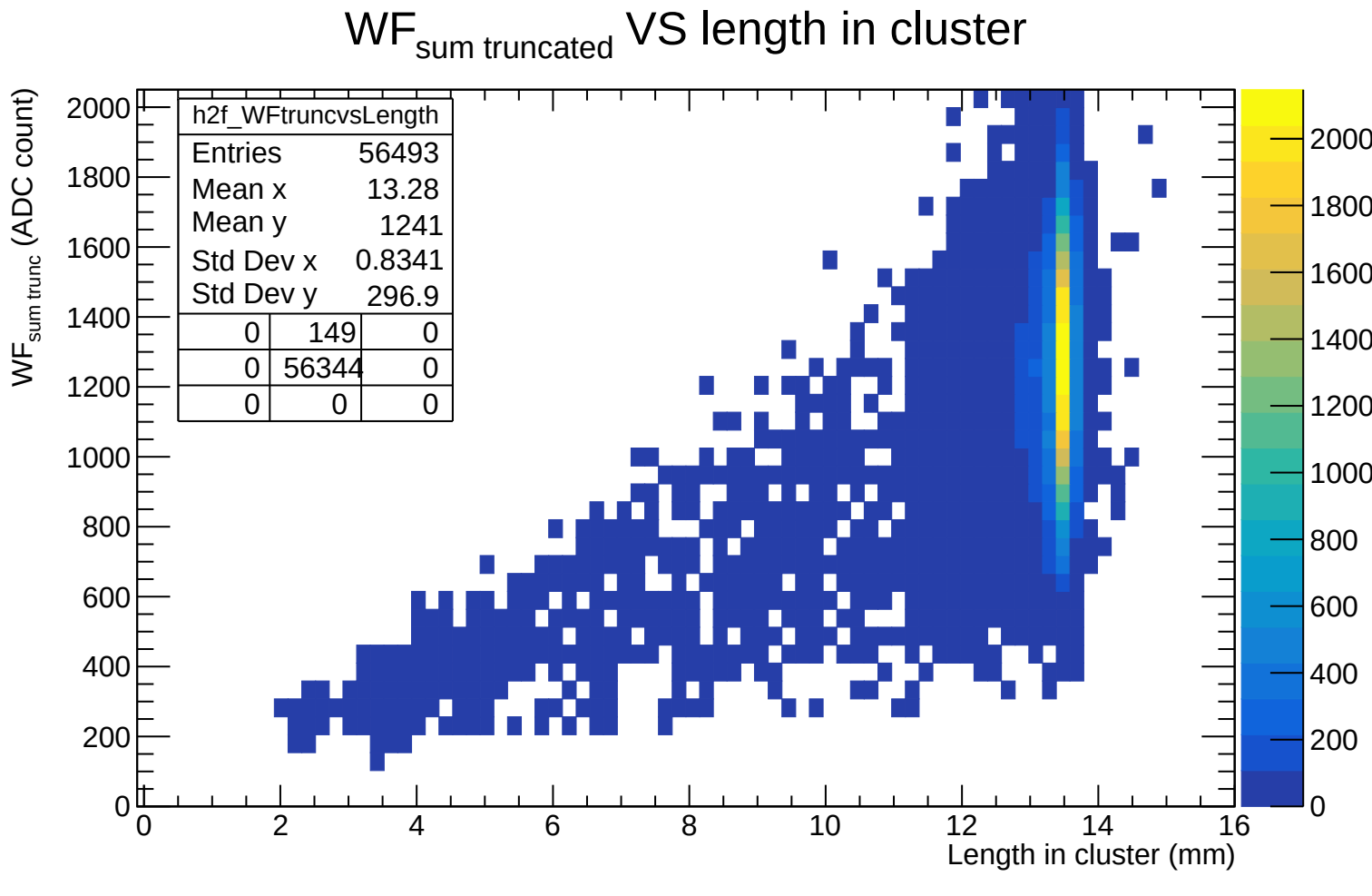

ADC$_{max}$ VS length in pad (before length cut)
ADC$_{max}$
Length in pad (mm)
h2f_AmaxvsLength
Entries 139750
Mean x 7.878
Mean y 852.9
Std Dev x 4.315
Std Dev y 529.2
0 8 0
0 139742 0
0 0 0
0 500 1000 1500 2000 2500 3000 3500 4000
0 2 4 6 8 10 12 14 16
0 100 200 300 400 500 600 700

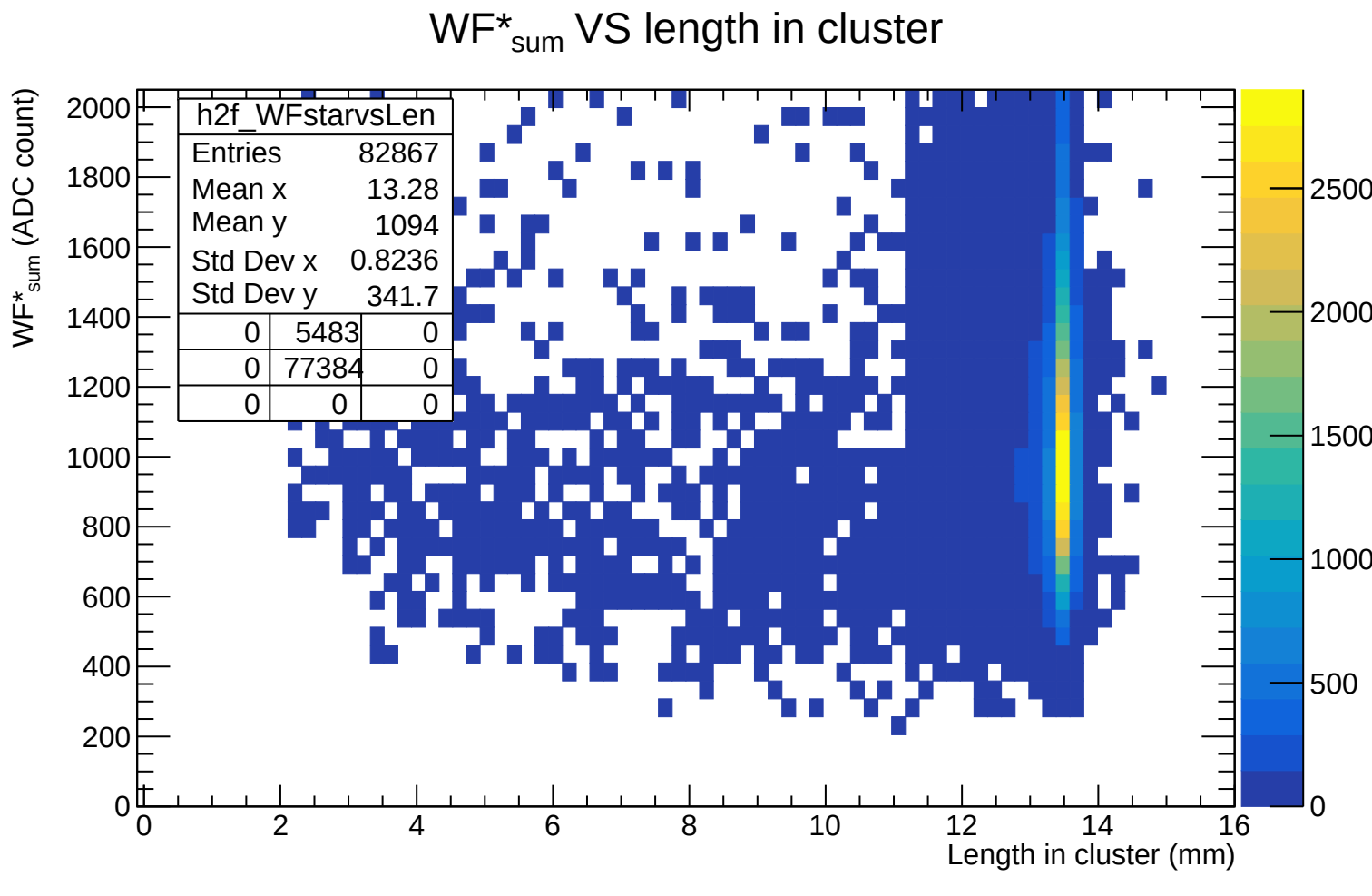

Q^anode VS length in pad (before length cut)
Q^anode
Length in pad (mm)
h2f_QvsLength
Entries 139750
Mean x 7.867
Mean y 902.4
Std Dev x 4.313
Std Dev y 662.9
0 291 0
0 139459 0
0 0 0
0 500 1000 1500 2000 2500 3000 3500 4000
0 2 4 6 8 10 12 14 16
0 200 400 600 800 1000 1200 1400 1600

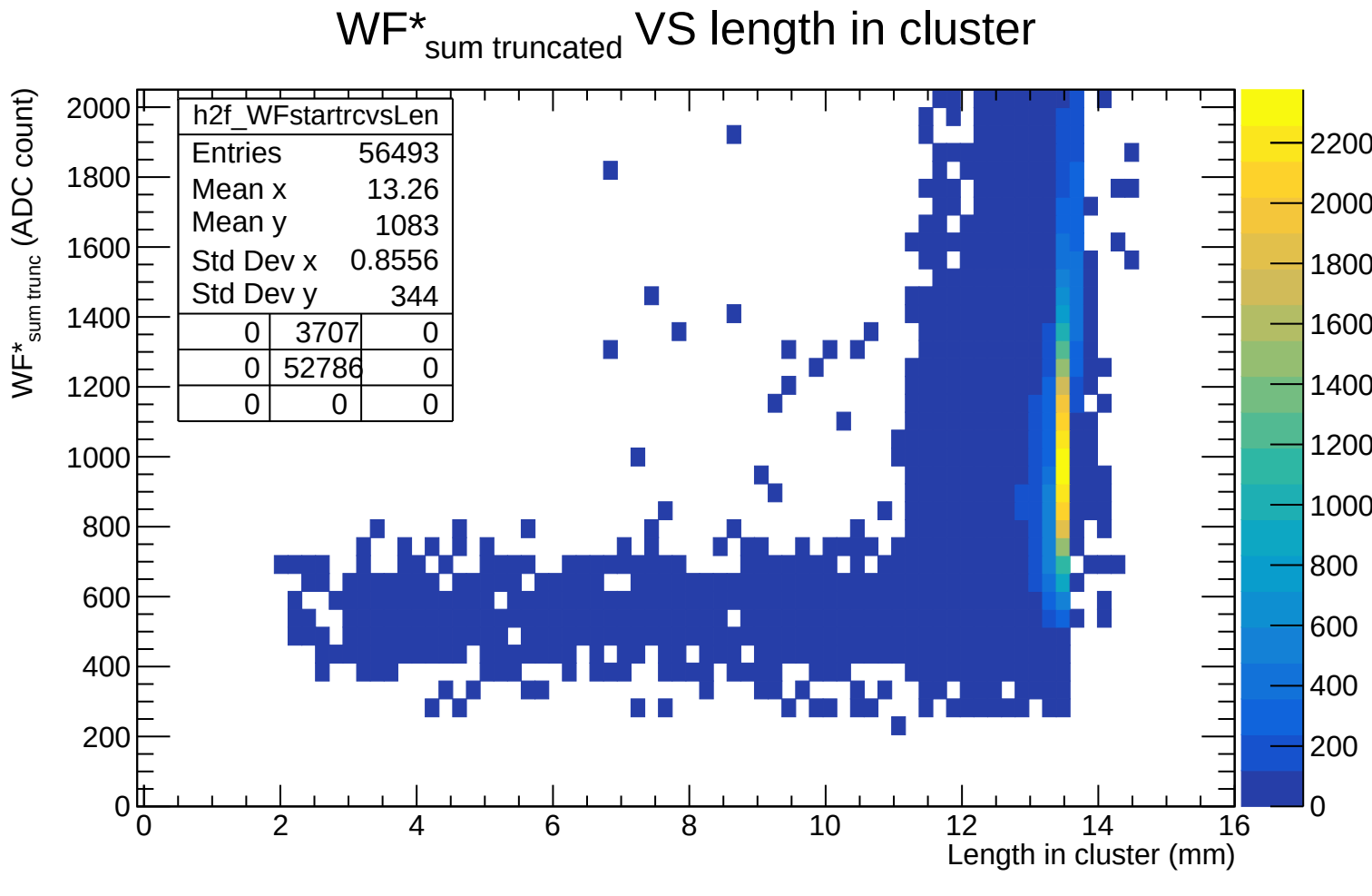

Q^anode/ADC_max VS length in pad (before length cut)
h2f_LUTvsLength
Entries 139750
Mean x 7.878
Mean y 0.9694
Std Dev x 4.315
Std Dev y 0.291
0 0 0
0 139750 0
0 0 0
Q^anode/ADC_max
Length in pad (mm)
0
0.5
1
1.5
2
0
2
4
6
8
10
12
14
16
0
1000
2000
3000
4000
5000
6000
7000

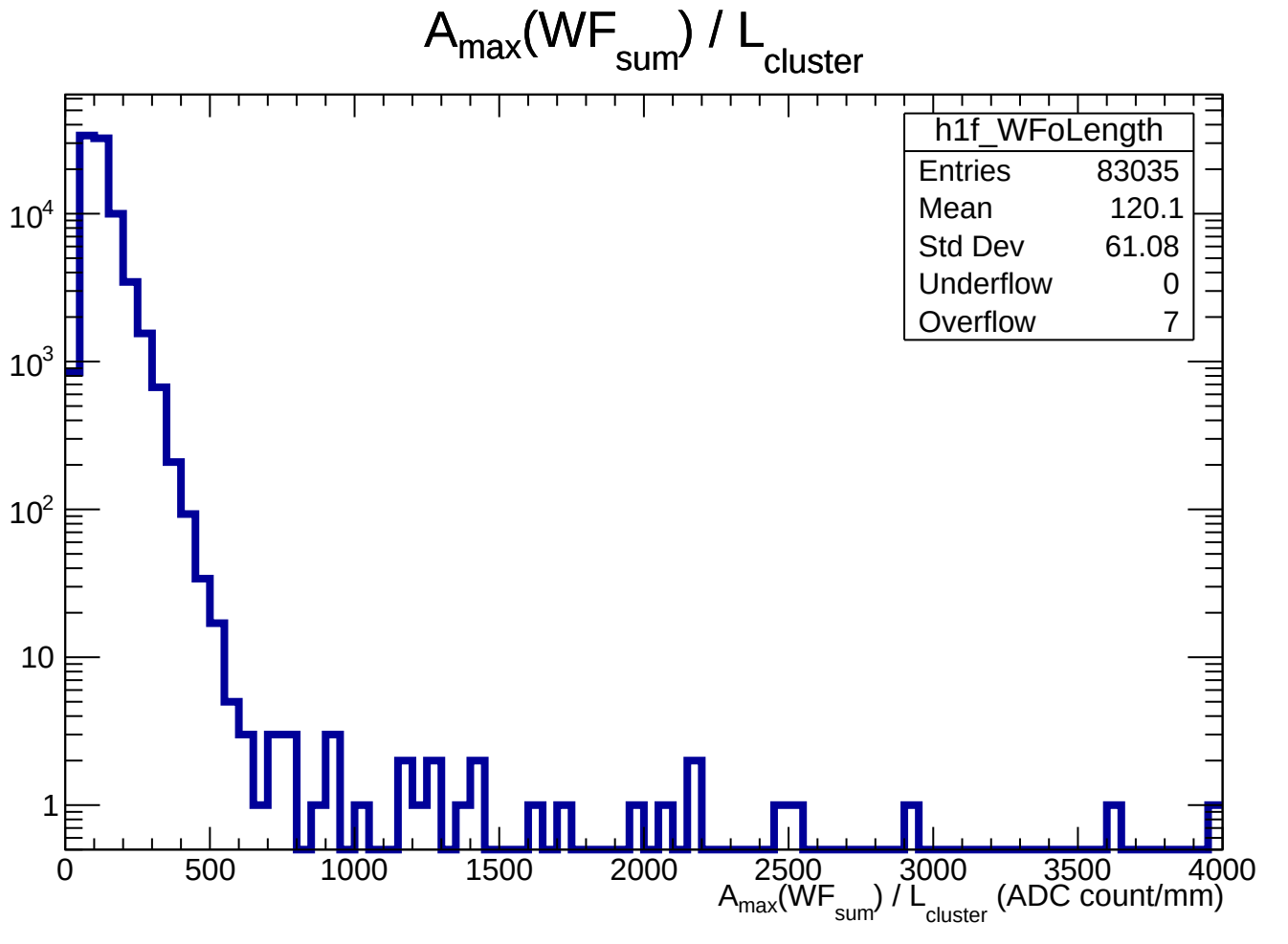

$Q_{cluster}$ VS length in cluster
h2f_QclvsLength
Entries 83035
Mean x 13.23
Mean y 1346
Std Dev x 1.101
Std Dev y 351.7
0 15762 0
0 67273 0
0 0 0
$Q_{cluster}$ (ADC count)
Length in cluster (mm)
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 2 4 6 8 10 12 14 16

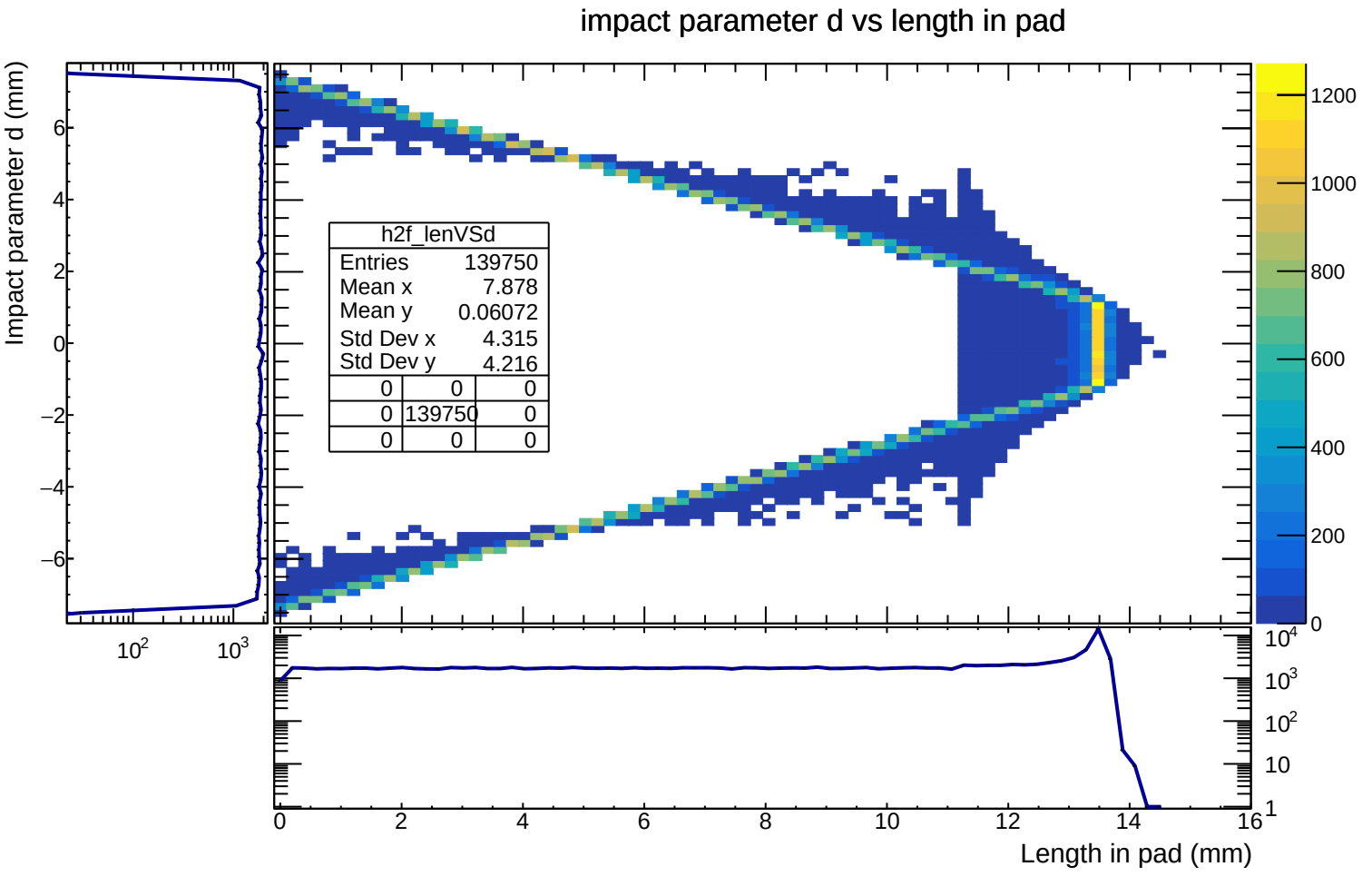

WF$_{sum}$ VS length in cluster
h2f_WFvsLength
Entries 83035
Mean x 13.23
Mean y 1332
Std Dev x 1.095
Std Dev y 352.6
0 14768 0
0 68267 0
0 0 0
WF$_{sum}$ (ADC count)
Length in cluster (mm)
0 2 4 6 8 10 12 14 16
0 200 400 600 800 1000 1200 1400 1600 1800 2000


WF sum truncated VS length in cluster
h2f_WFtruncvsLength
Entries 56493
Mean x 13.28
Mean y 1241
Std Dev x 0.8341
Std Dev y 296.9
0 149 0
0 56344 0
0 0 0
WF sum trunc (ADC count)
Length in cluster (mm)
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 2 4 6 8 10 12 14 16


WF*sum VS length in cluster
WF*sum (ADC count)
Length in cluster (mm)
h2f_WFstarvsLen
Entries 82867
Mean x 13.28
Mean y 1094
Std Dev x 0.8236
Std Dev y 341.7
0 5483 0
0 77384 0
0 0 0
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 2 4 6 8 10 12 14 16
0 500 1000 1500 2000 2500


WF*sum truncated VS length in cluster
h2f_WFstartrcvsLen
Entries 56493
Mean x 13.26
Mean y 1083
Std Dev x 0.8556
Std Dev y 344
0 3707 0
0 52786 0
0 0 0
WF*sum trunc (ADC count)
Length in cluster (mm)
0 2 4 6 8 10 12 14 16
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200


$A_{max}(WF_{sum}) / L_{cluster}$
h1f_WFoLength
Entries 83035
Mean 120.1
Std Dev 61.08
Underflow 0
Overflow 7
10^4
10^3
10^2
10
1
0
500
1000
1500
2000
2500
3000
3500
4000
$A_{max}(WF_{sum}) / L_{cluster}$ (ADC count/mm)


impact parameter d vs length in pad
Impact parameter d (mm)
Length in pad (mm)
h2f_lenVSd
Entries 139750
Mean x 7.878
Mean y 0.06072
Std Dev x 4.315
Std Dev y 4.216
0 0 0
0 139750 0
0 0 0