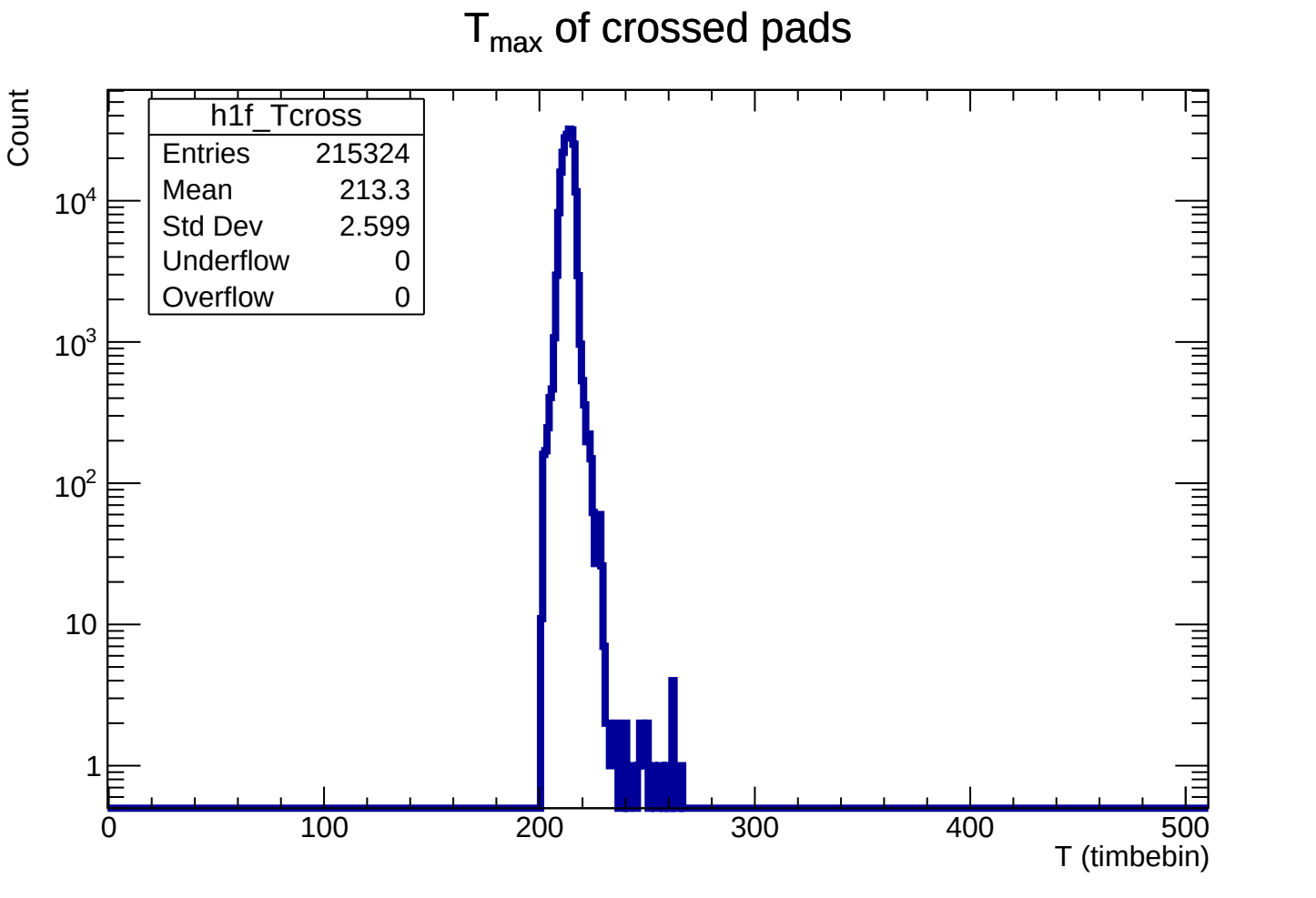
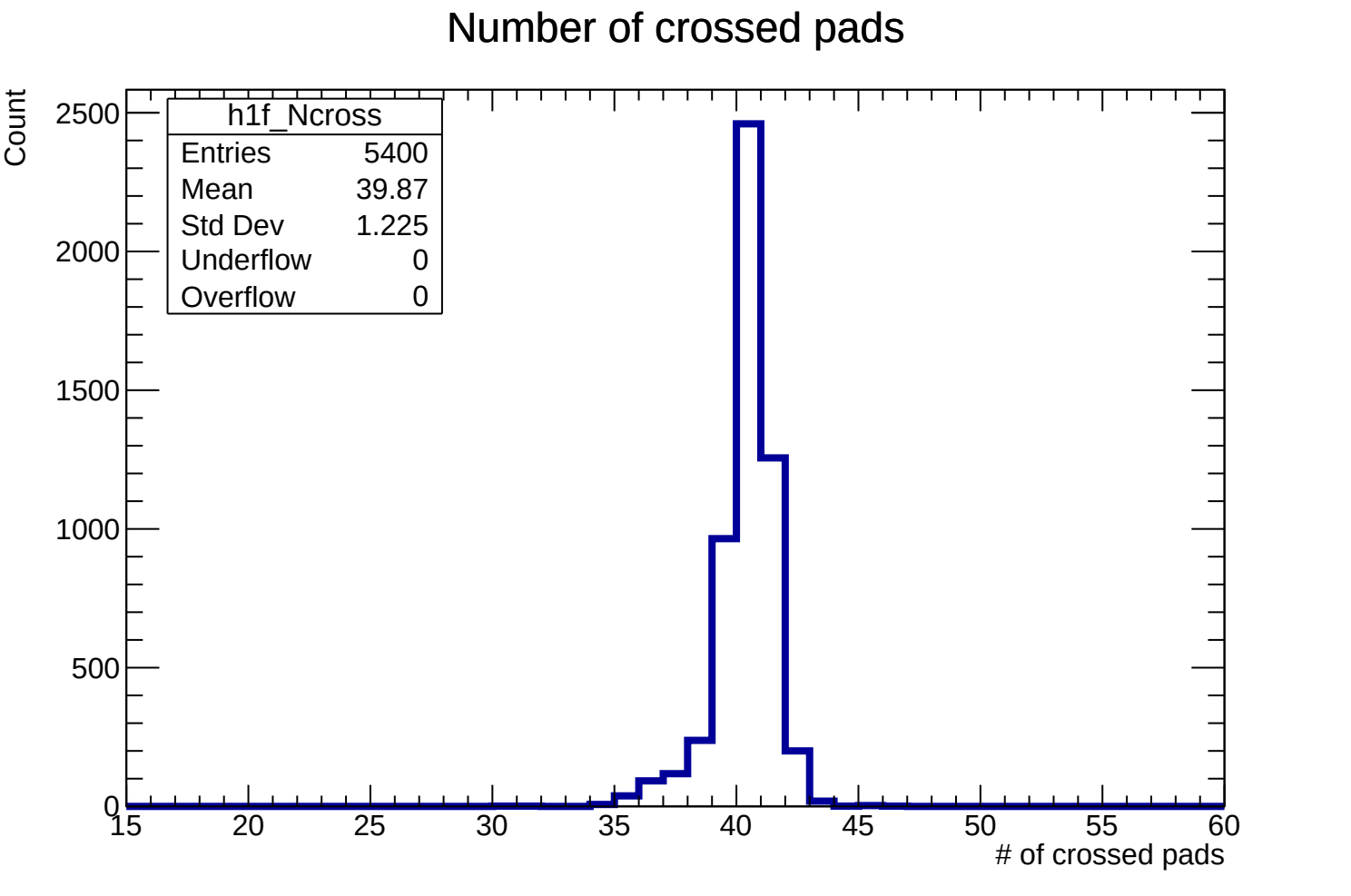
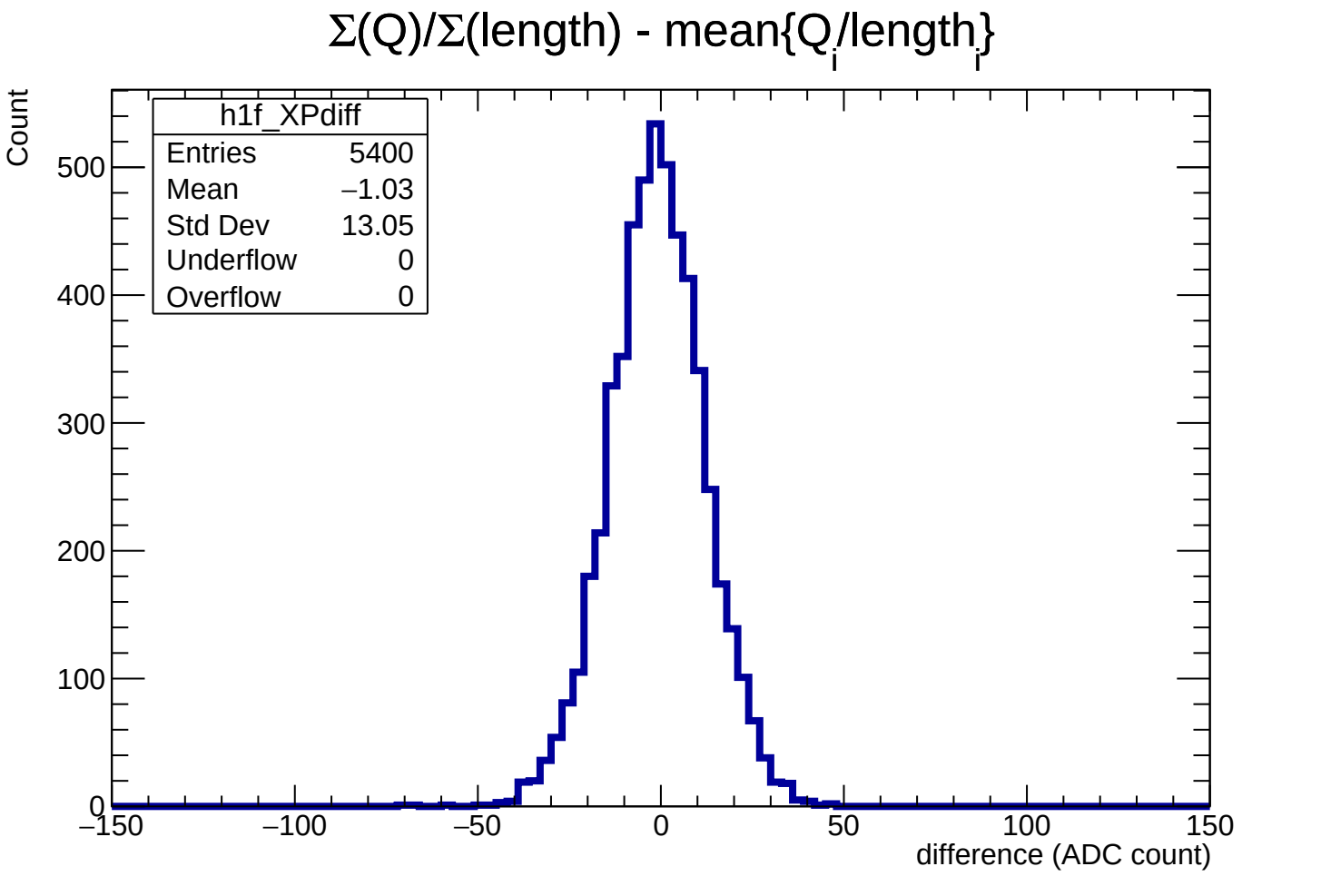
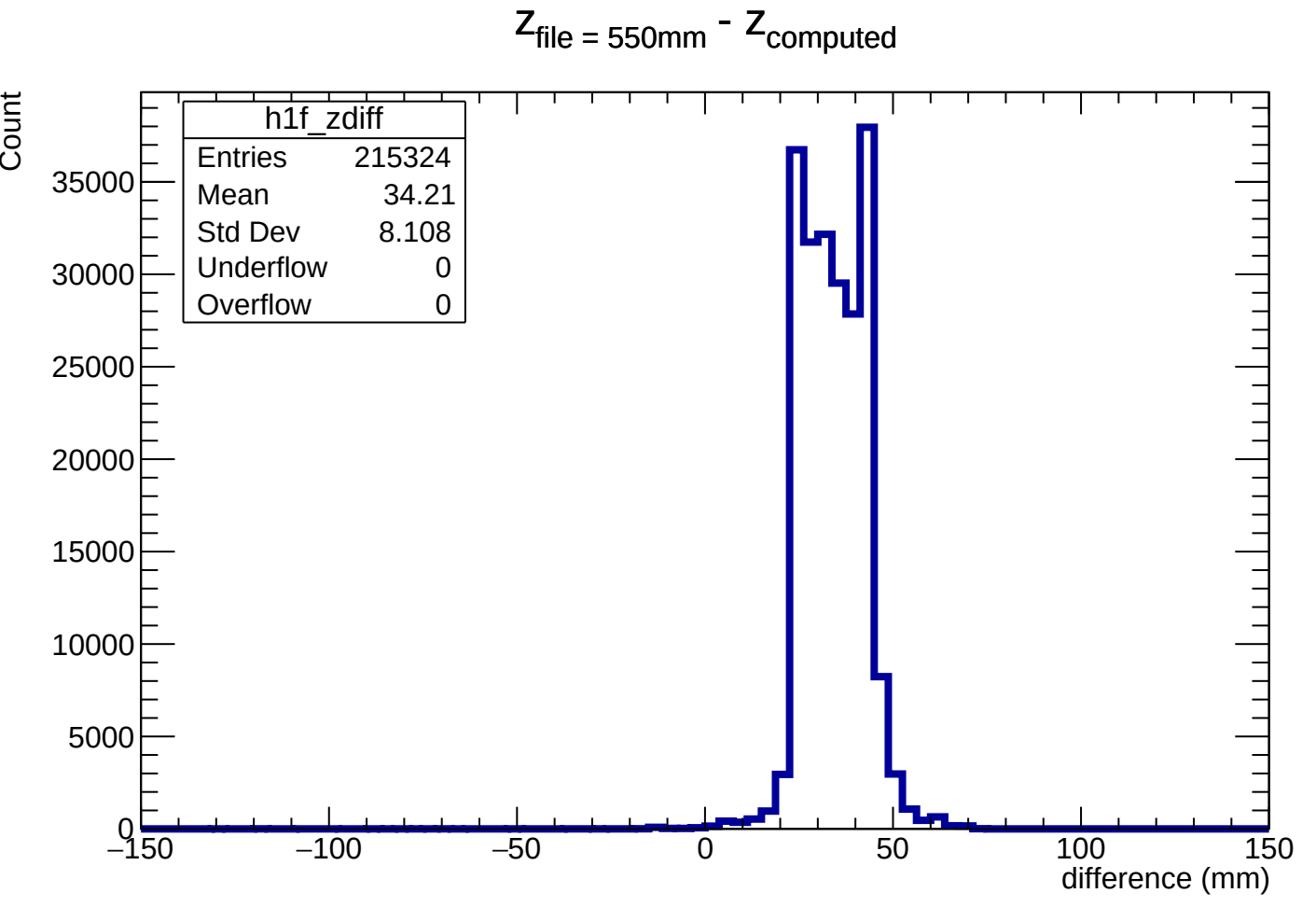
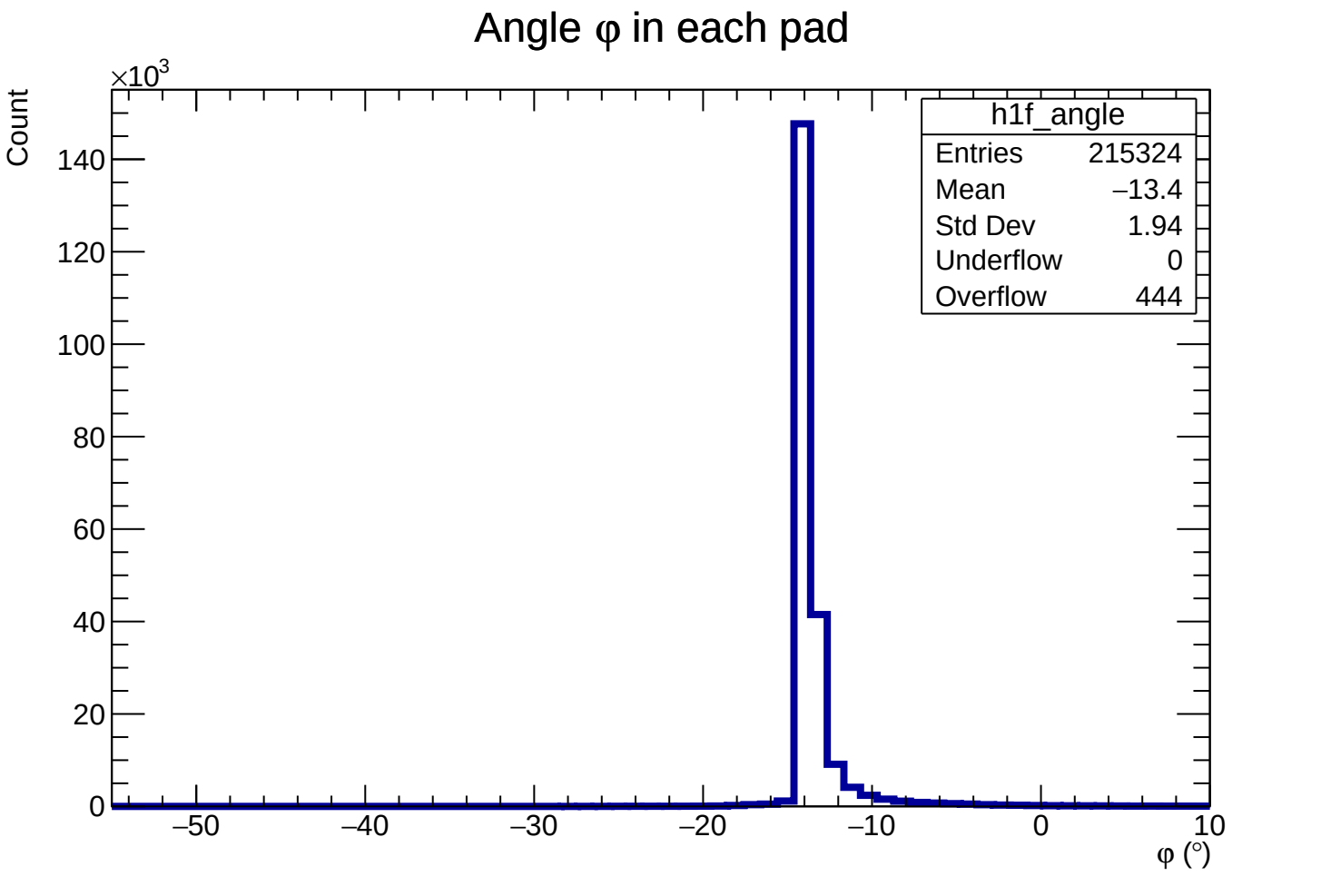
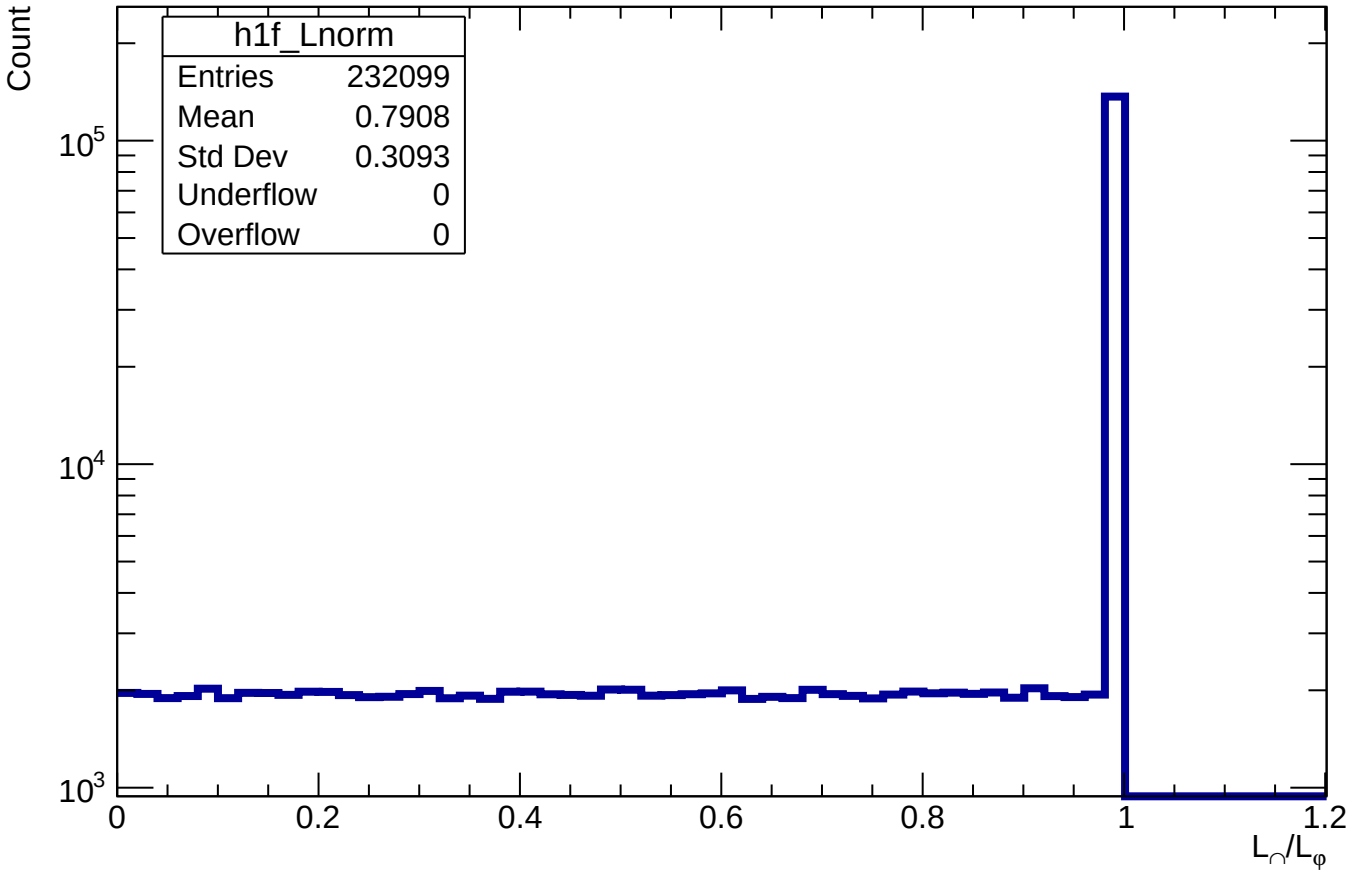

T_{max} of crossed pads
h1f_Tcross
Entries 215324
Mean 213.3
Std Dev 2.599
Underflow 0
Overflow 0
Count
10^4
10^3
10^2
10
1
0
100
200
300
400
500
T (timbebin)

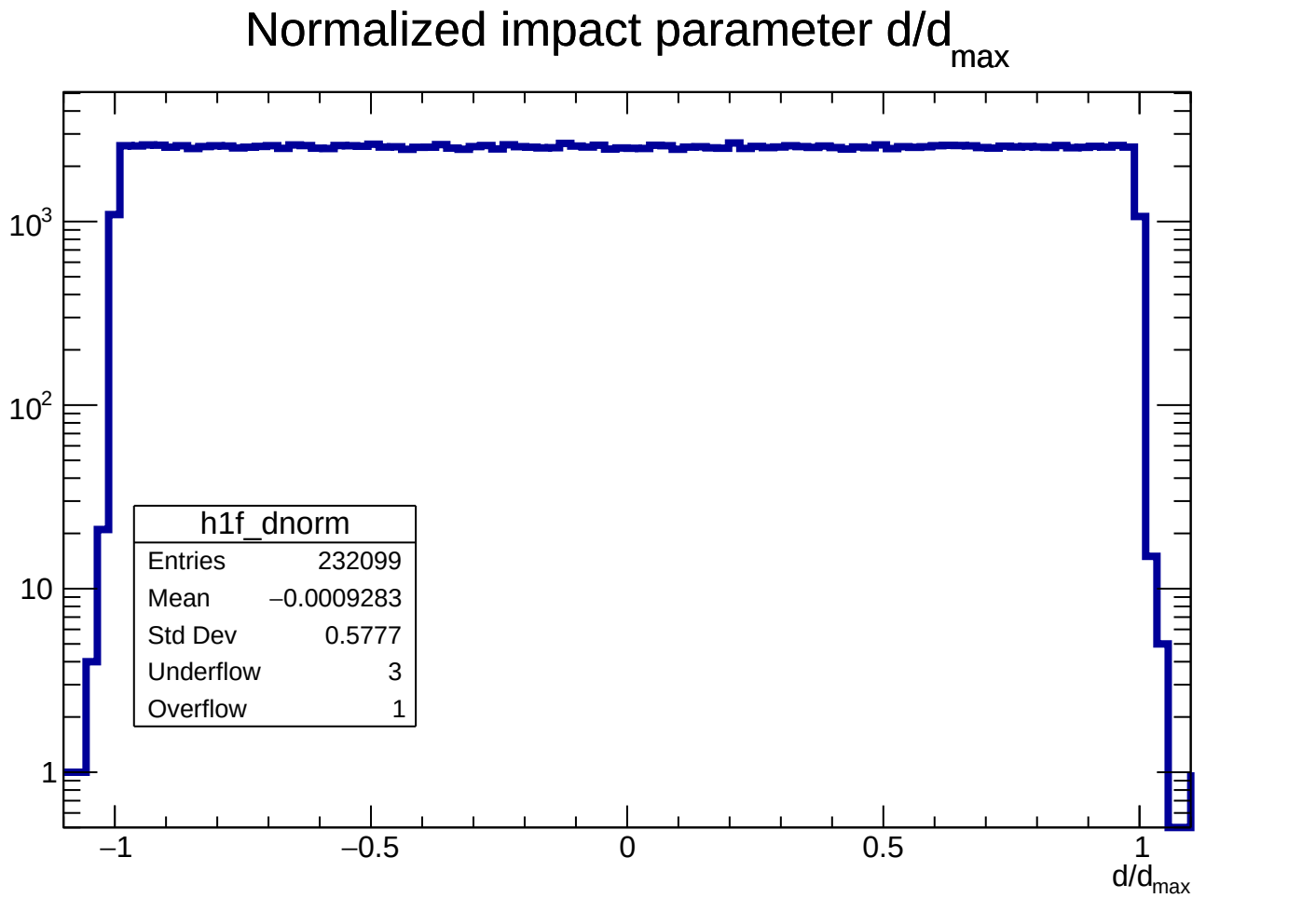

Number of crossed pads
h1f_Ncross
Entries 5400
Mean 39.87
Std Dev 1.225
Underflow 0
Overflow 0
Count
2500
2000
1500
1000
500
0
15
20
25
30
35
40
45
50
55
60
# of crossed pads

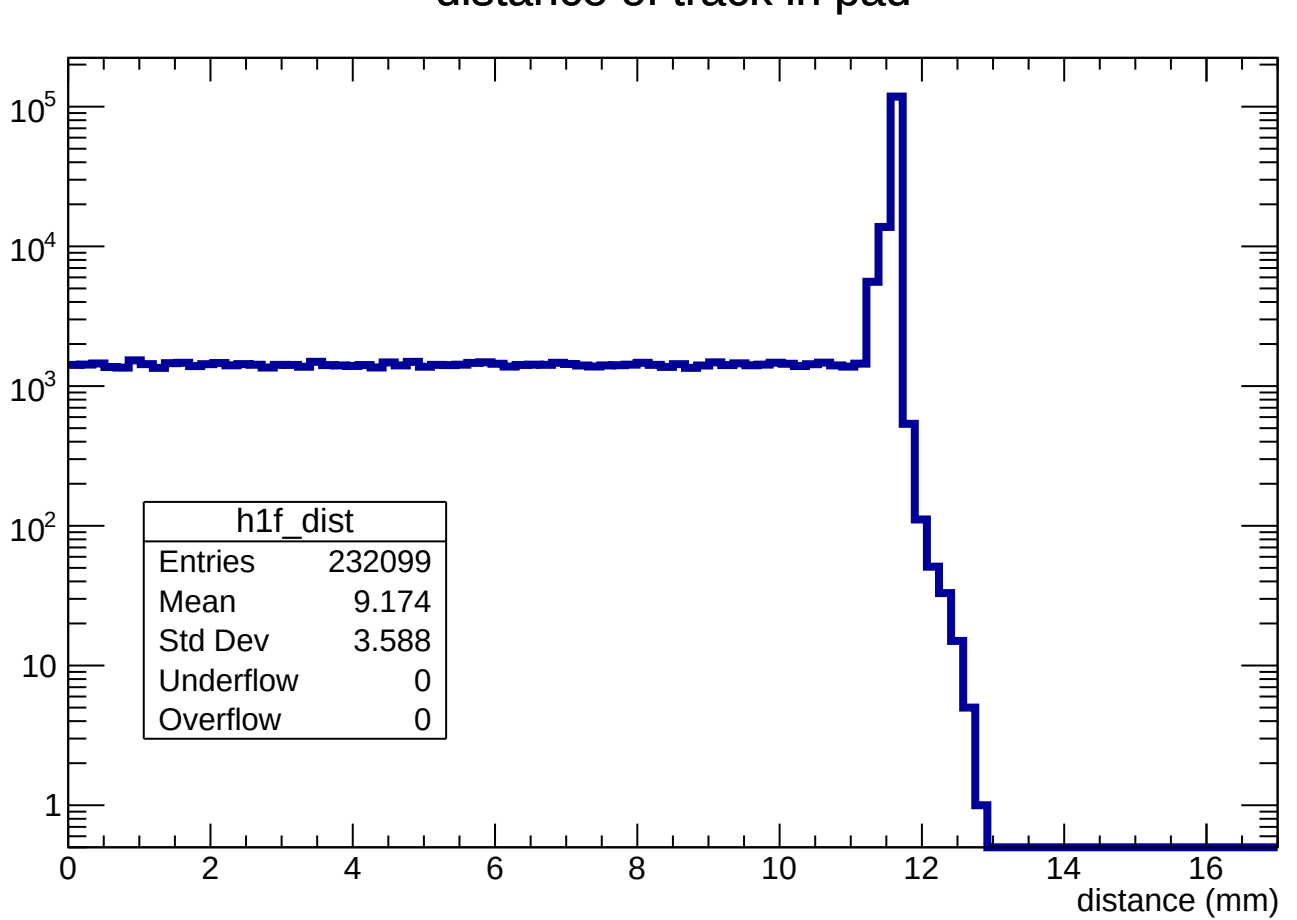

Σ(Q)/Σ(length) - mean{Q_i/length_i}
h1f_XPdiff
Entries 5400
Mean –1.03
Std Dev 13.05
Underflow 0
Overflow 0
Count
0
100
200
300
400
500
–150
–100
–50
0
50
100
150
difference (ADC count)

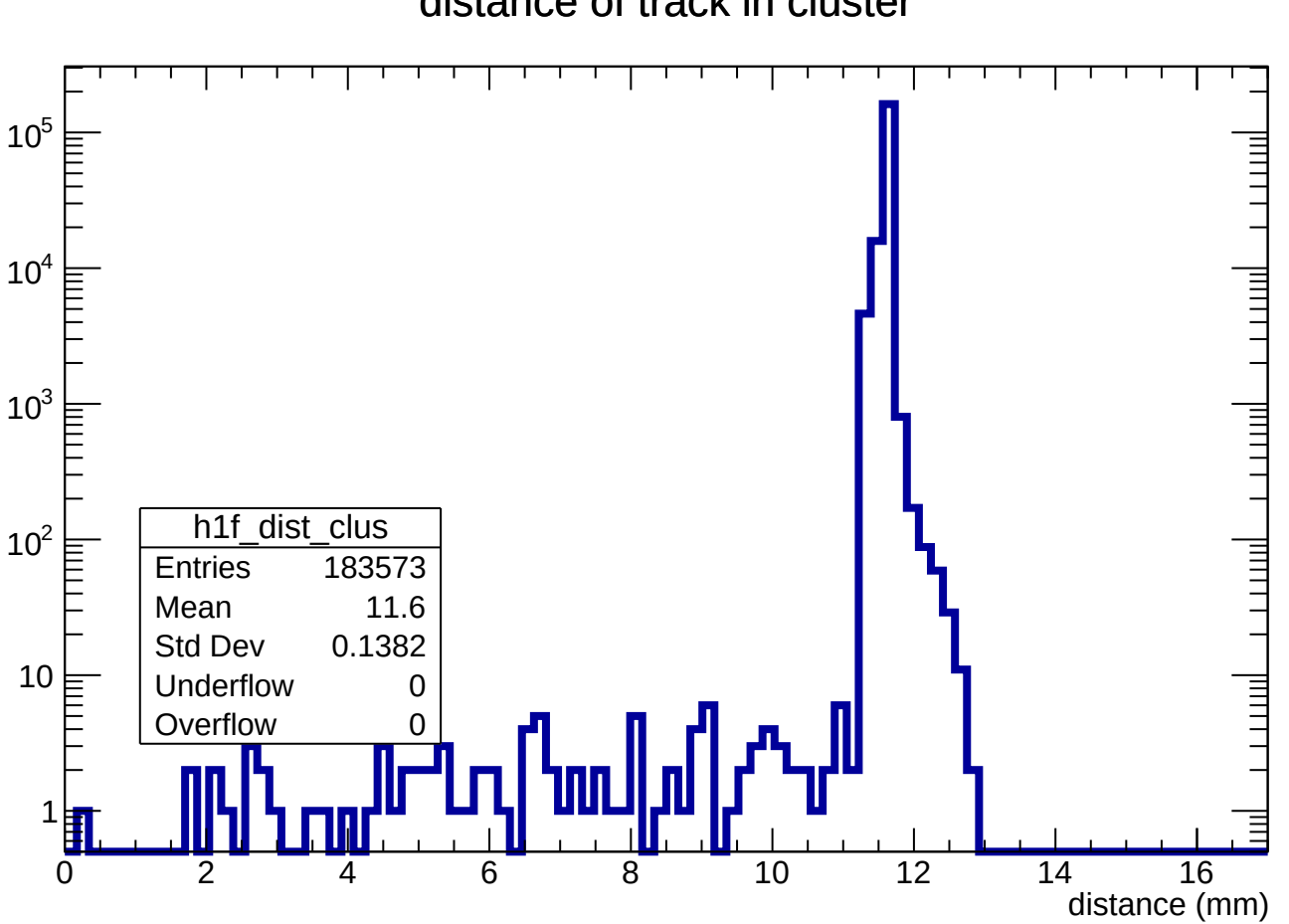

$z_{file = 550mm} - z_{computed}$
h1f_zdiff
Entries 215324
Mean 34.21
Std Dev 8.108
Underflow 0
Overflow 0
Count
35000
30000
25000
20000
15000
10000
5000
0
–150
–100
–50
0
50
100
150
difference (mm)

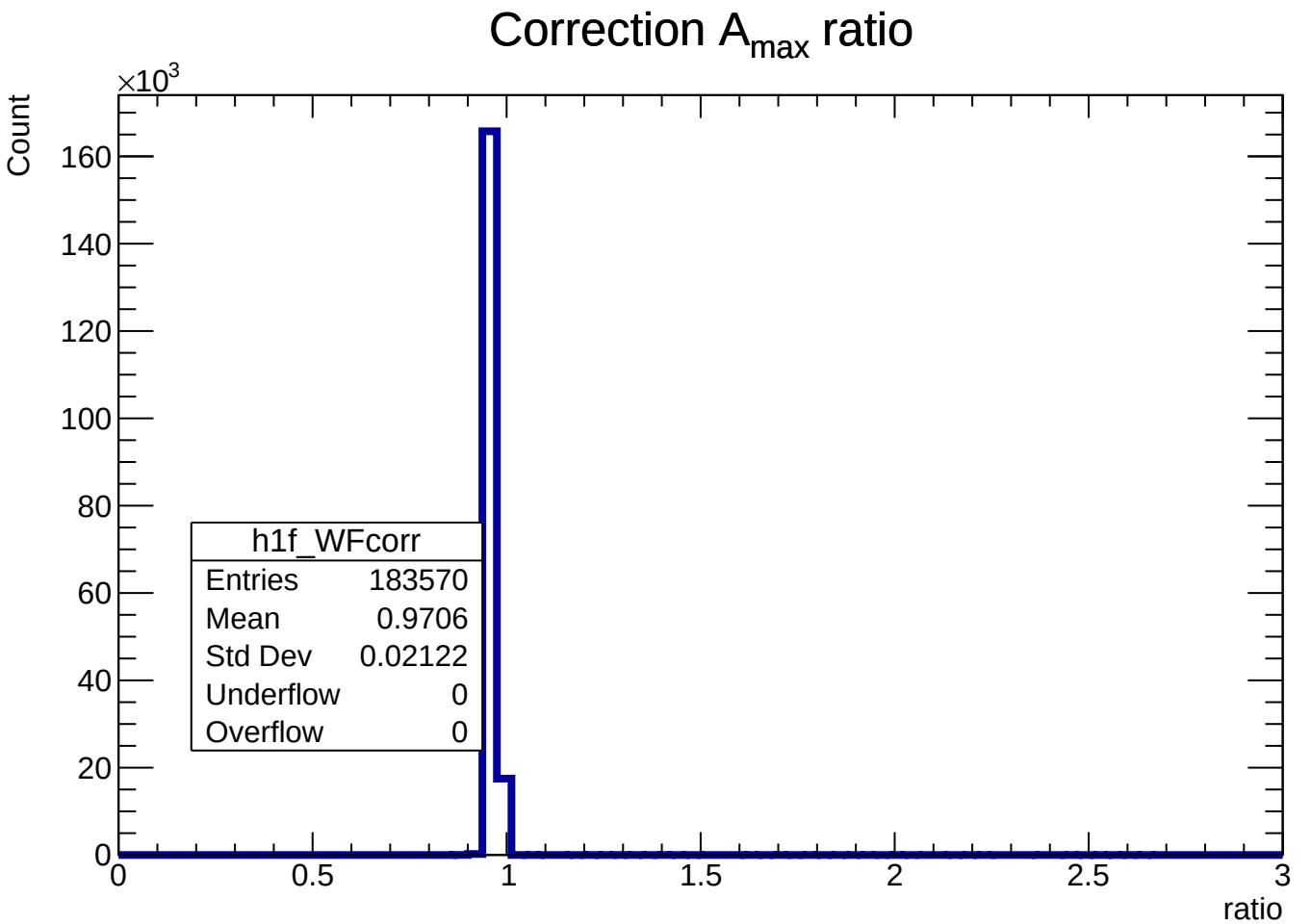

Angle φ in each pad
Count
×10^3
140
120
100
80
60
40
20
0
−50
−40
−30
−20
−10
0
10
φ (°)
h1f_angle
Entries 215324
Mean −13.4
Std Dev 1.94
Underflow 0
Overflow 444

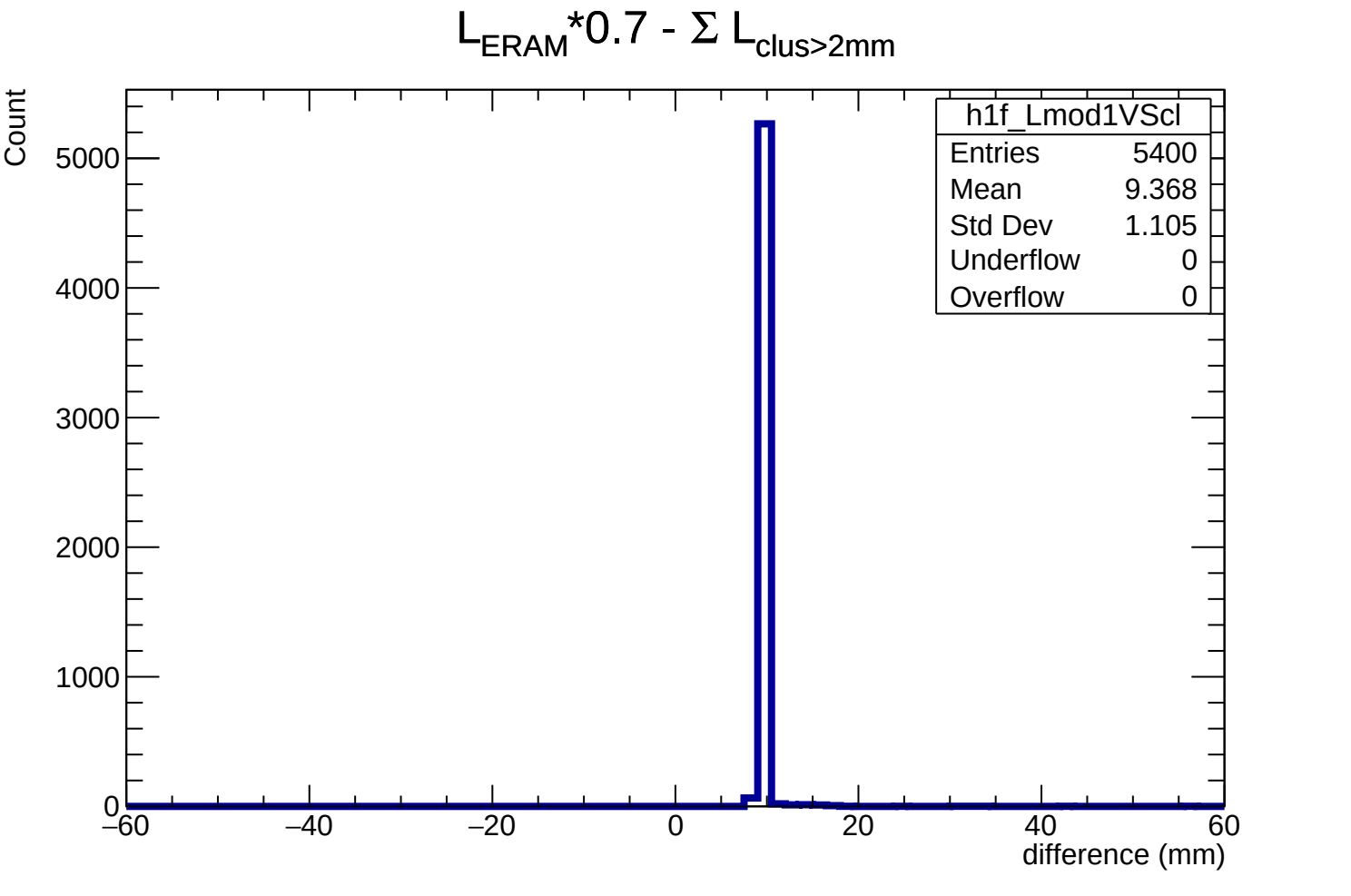

Length in pad normalized to maximum length in pad for a given φ
h1f_Lnorm
Entries 232099
Mean 0.7908
Std Dev 0.3093
Underflow 0
Overflow 0
Count
10^5
10^4
10^3
0
0.2
0.4
0.6
0.8
1
1.2
L_⌒/L_φ

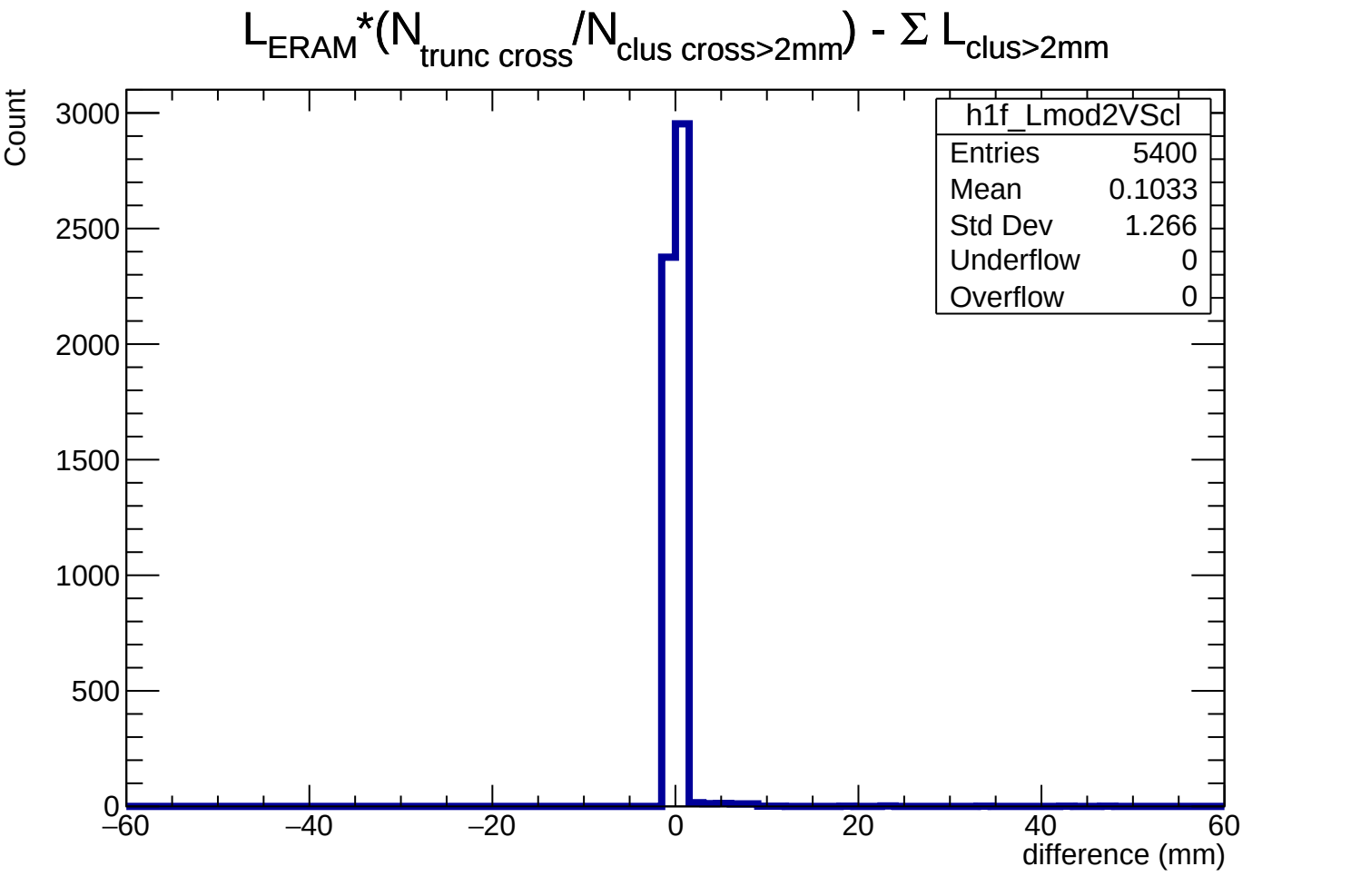

Normalized impact parameter d/d max
10^3
10^2
10
1
h1f_dnorm
Entries 232099
Mean −0.0009283
Std Dev 0.5777
Underflow 3
Overflow 1
−1
−0.5
0
0.5
1
d/d max

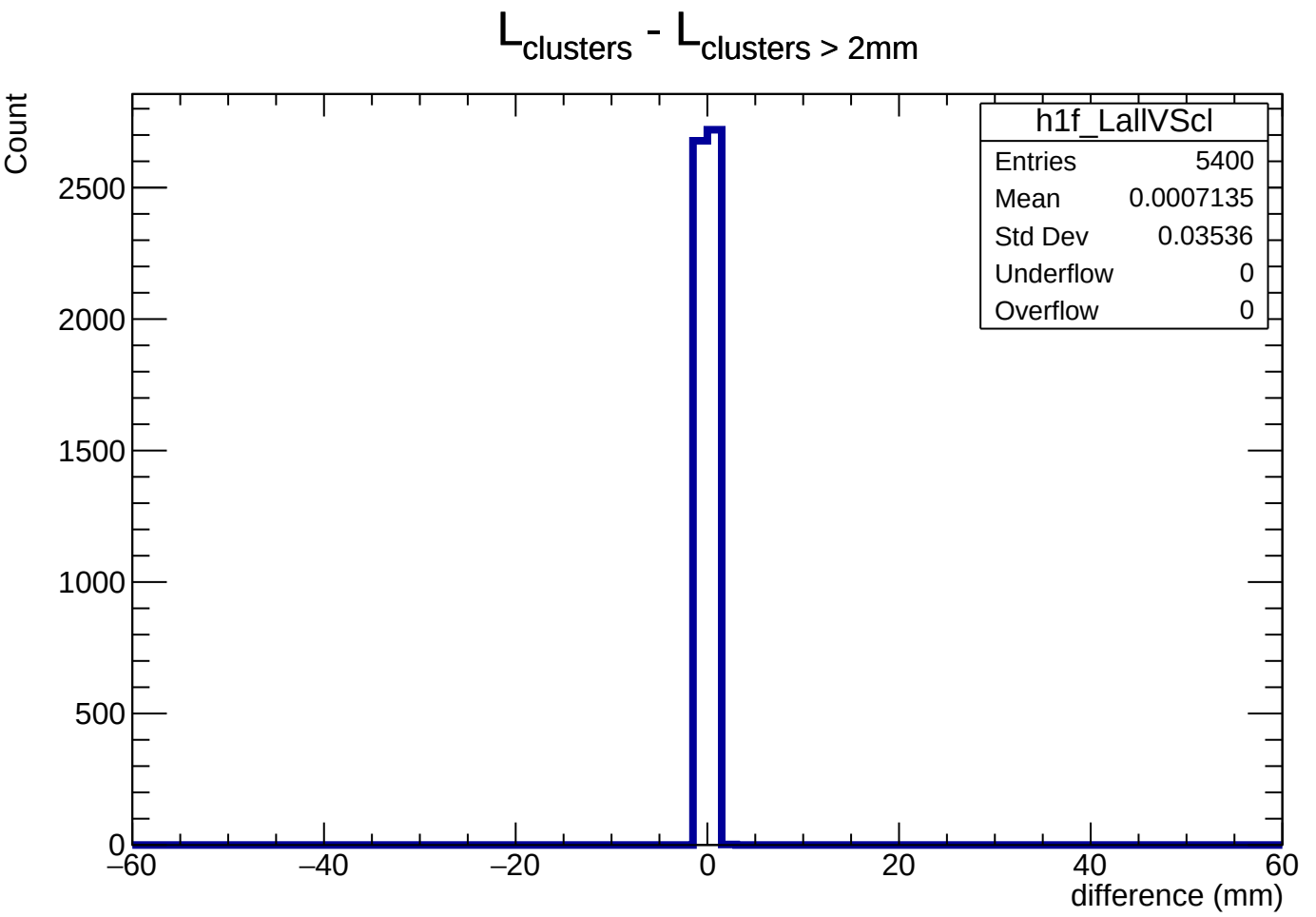

distance of track in pad
h1f_dist
Entries 232099
Mean 9.174
Std Dev 3.588
Underflow 0
Overflow 0
distance (mm)

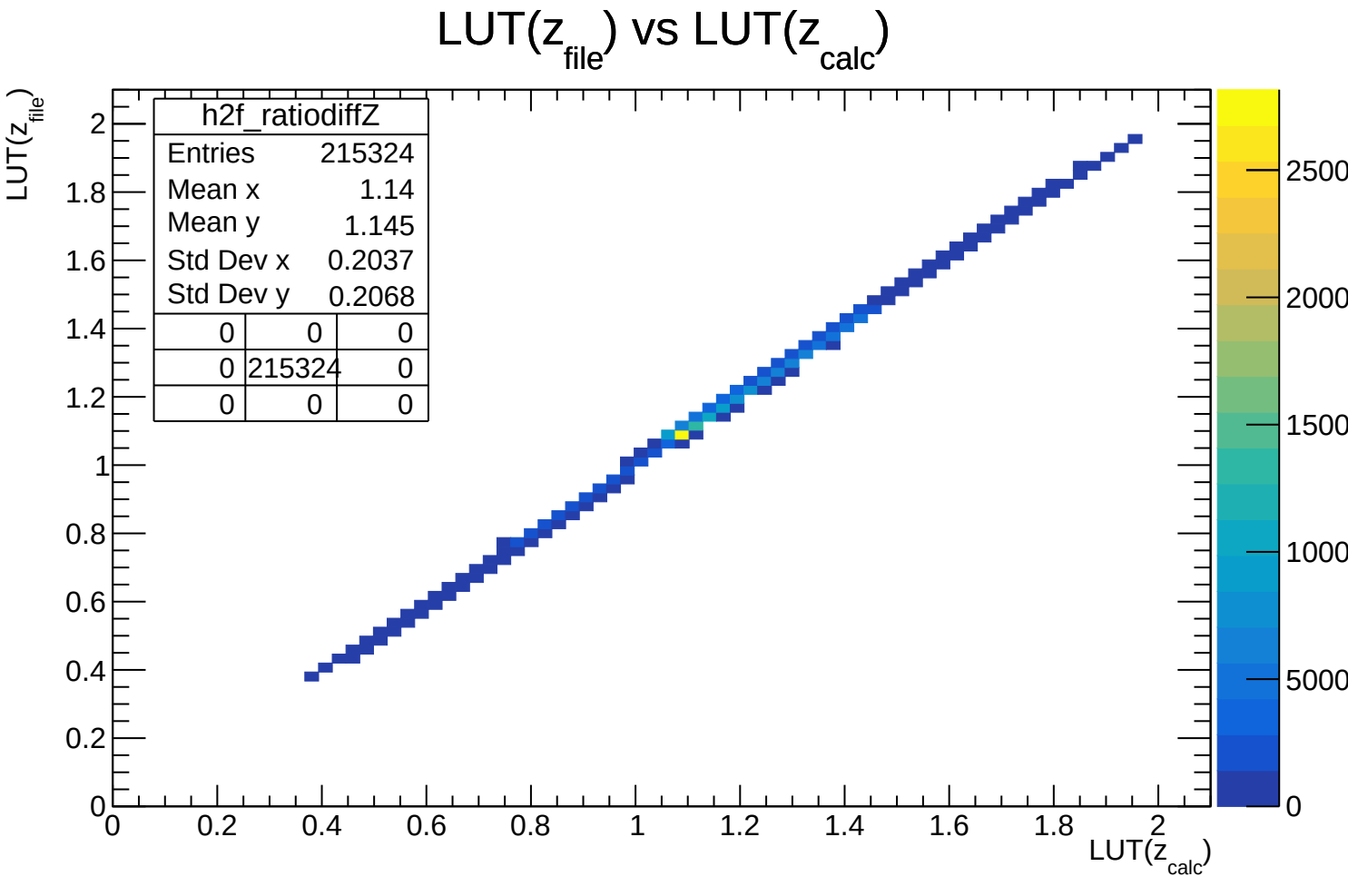

distance of track in cluster
h1f_dist_clus
Entries 183573
Mean 11.6
Std Dev 0.1382
Underflow 0
Overflow 0
distance (mm)

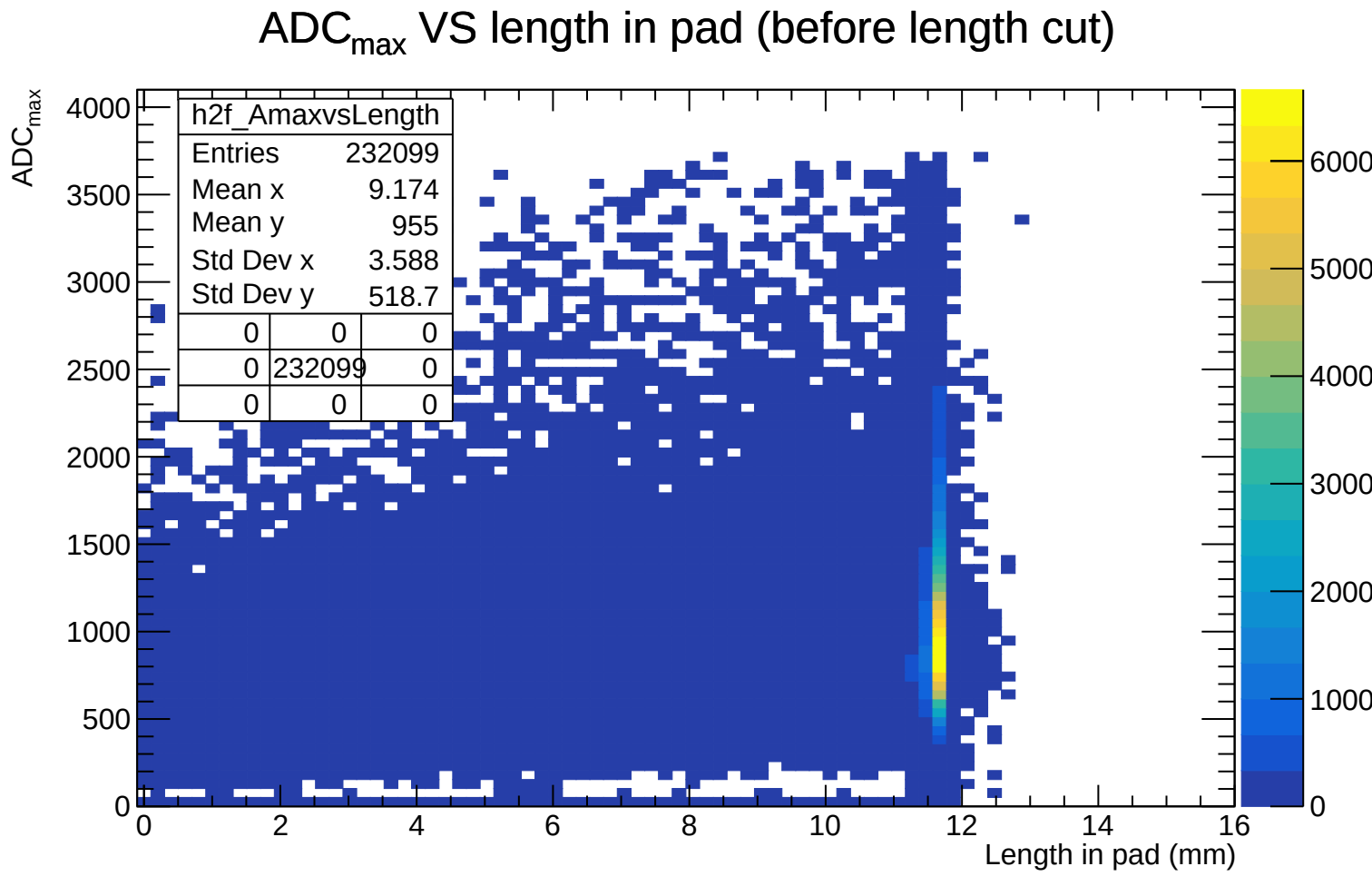

Correction A_{max} ratio
$\times 10^3$
Count
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5
3
ratio
h1f_WFcorr
Entries 183570
Mean 0.9706
Std Dev 0.02122
Underflow 0
Overflow 0

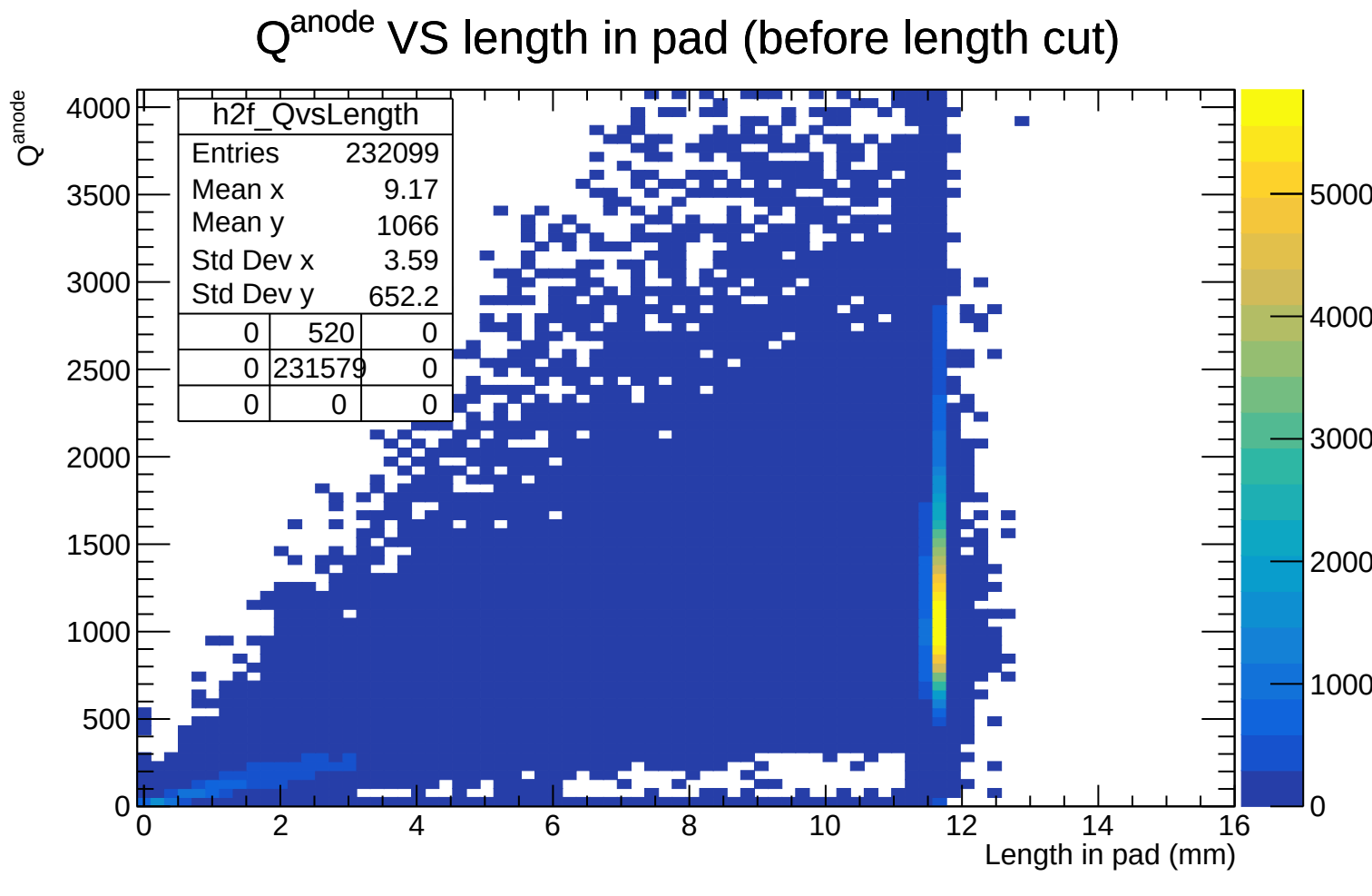

L_{ERAM}*0.7 - Σ $L_{clus>2mm}$
Count
5000
4000
3000
2000
1000
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod1VScl
Entries 5400
Mean 9.368
Std Dev 1.105
Underflow 0
Overflow 0

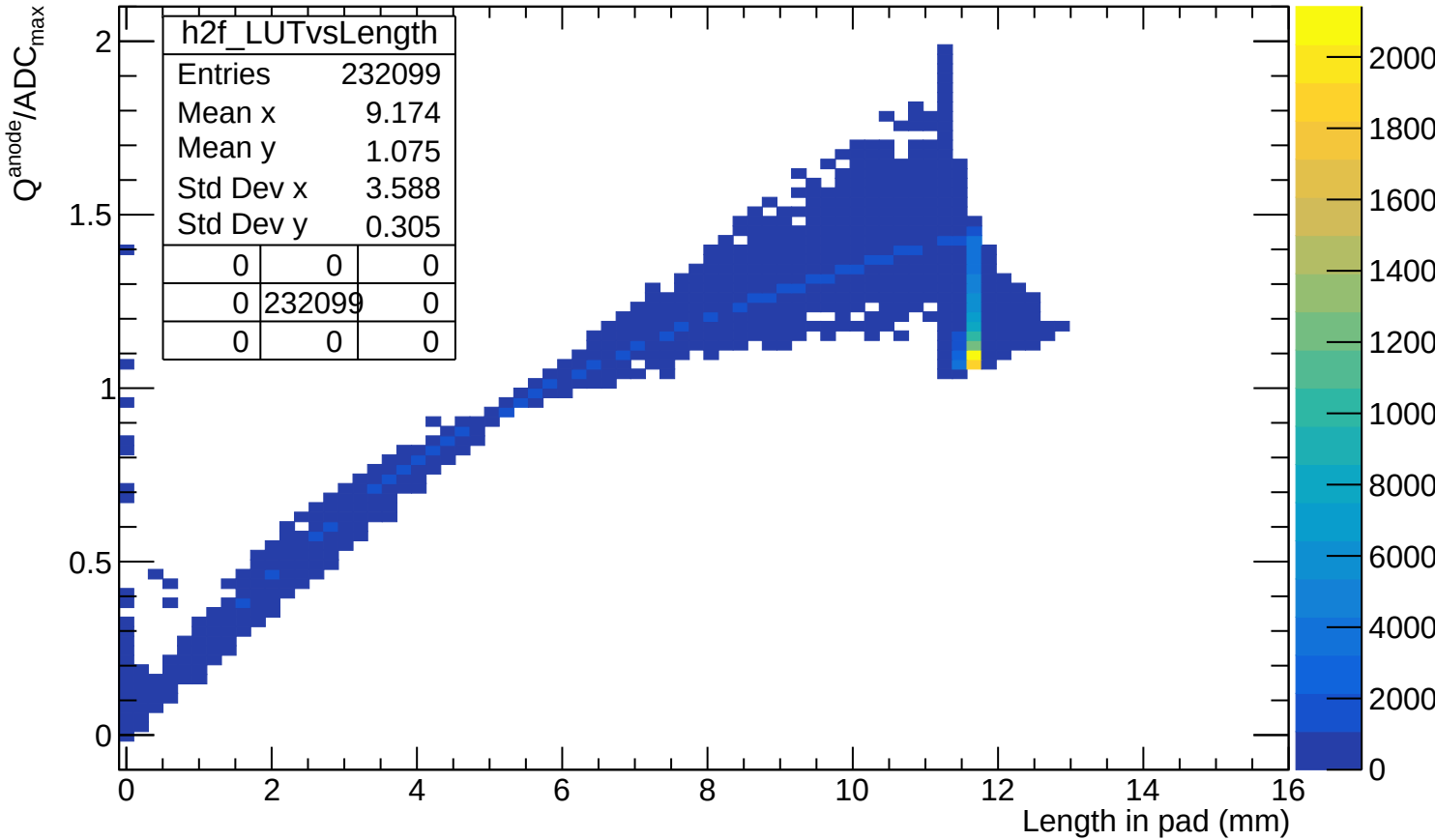

$L_{ERAM}*(N_{trunc\ cross}/N_{clus\ cross>2mm}) - \Sigma\ L_{clus>2mm}$
Count
3000
2500
2000
1500
1000
500
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod2VScl
Entries 5400
Mean 0.1033
Std Dev 1.266
Underflow 0
Overflow 0

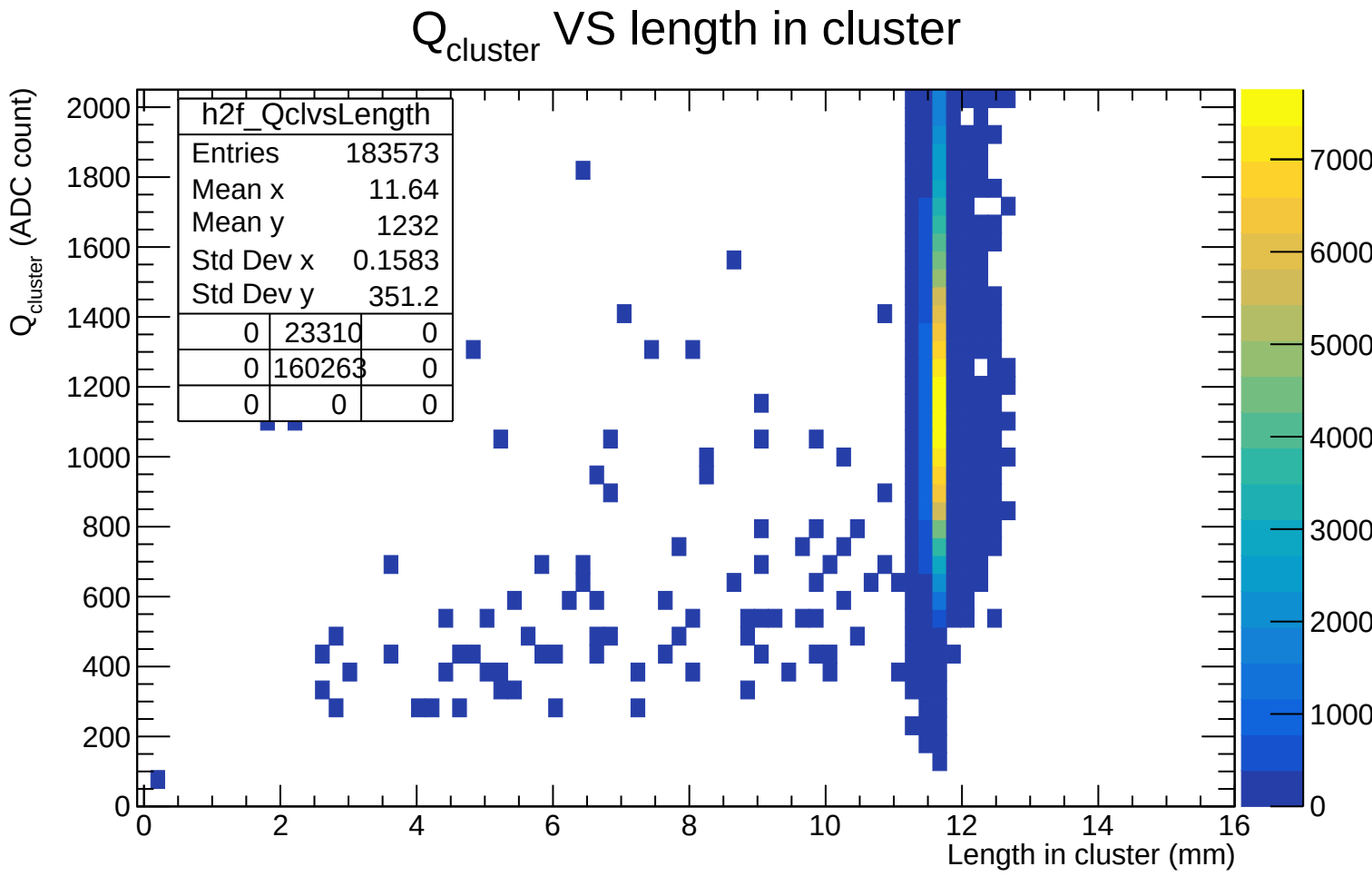

L clusters - L clusters > 2mm
Count
2500
2000
1500
1000
500
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_LallVScl
Entries 5400
Mean 0.0007135
Std Dev 0.03536
Underflow 0
Overflow 0

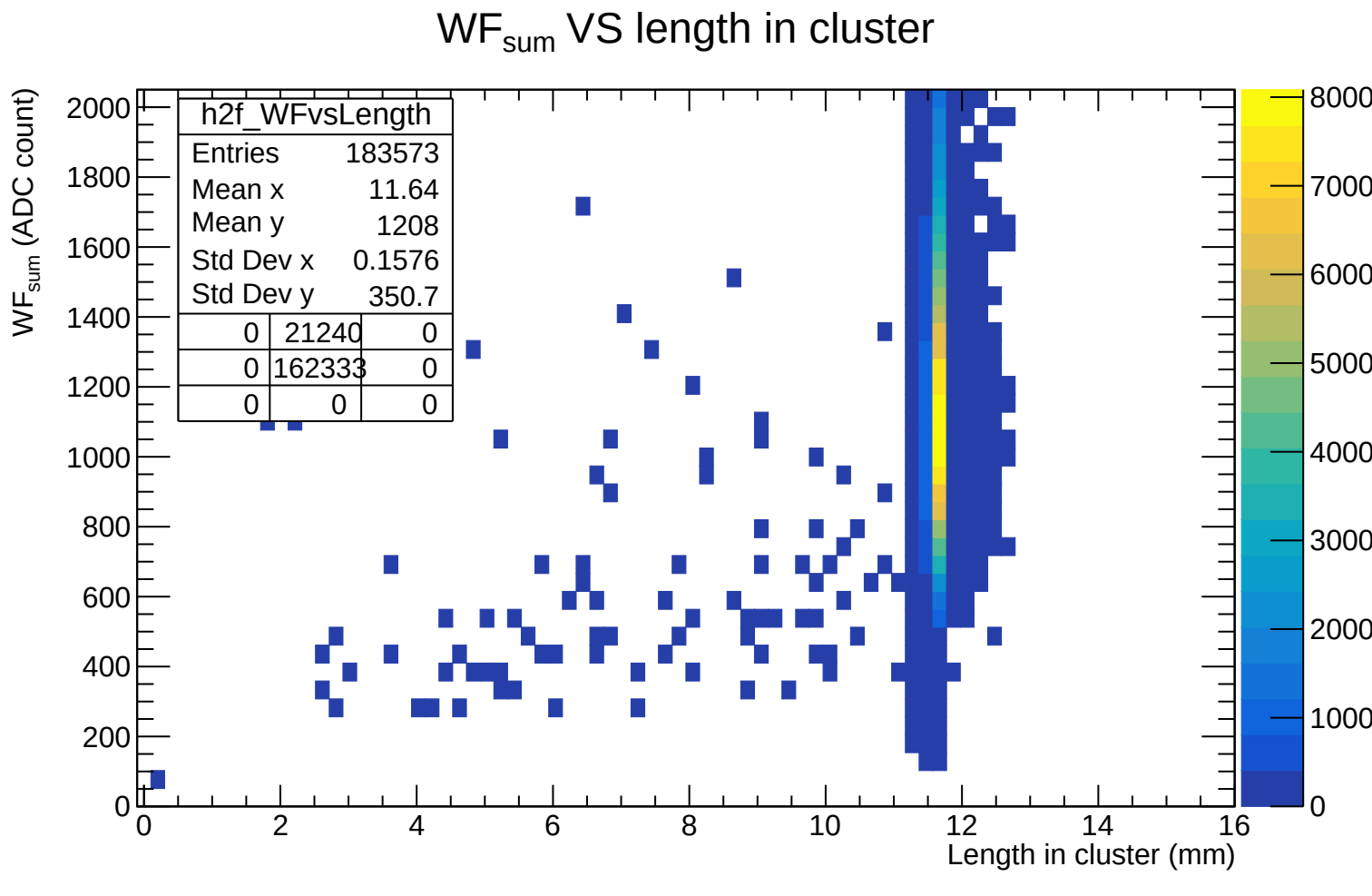

LUT(z_file) vs LUT(z_calc)
h2f_ratiodiffZ
Entries 215324
Mean x 1.14
Mean y 1.145
Std Dev x 0.2037
Std Dev y 0.2068
0 0 0
0 215324 0
0 0 0
LUT(z_file)
LUT(z_calc)
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2
0 5000 1000 1500 2000 2500

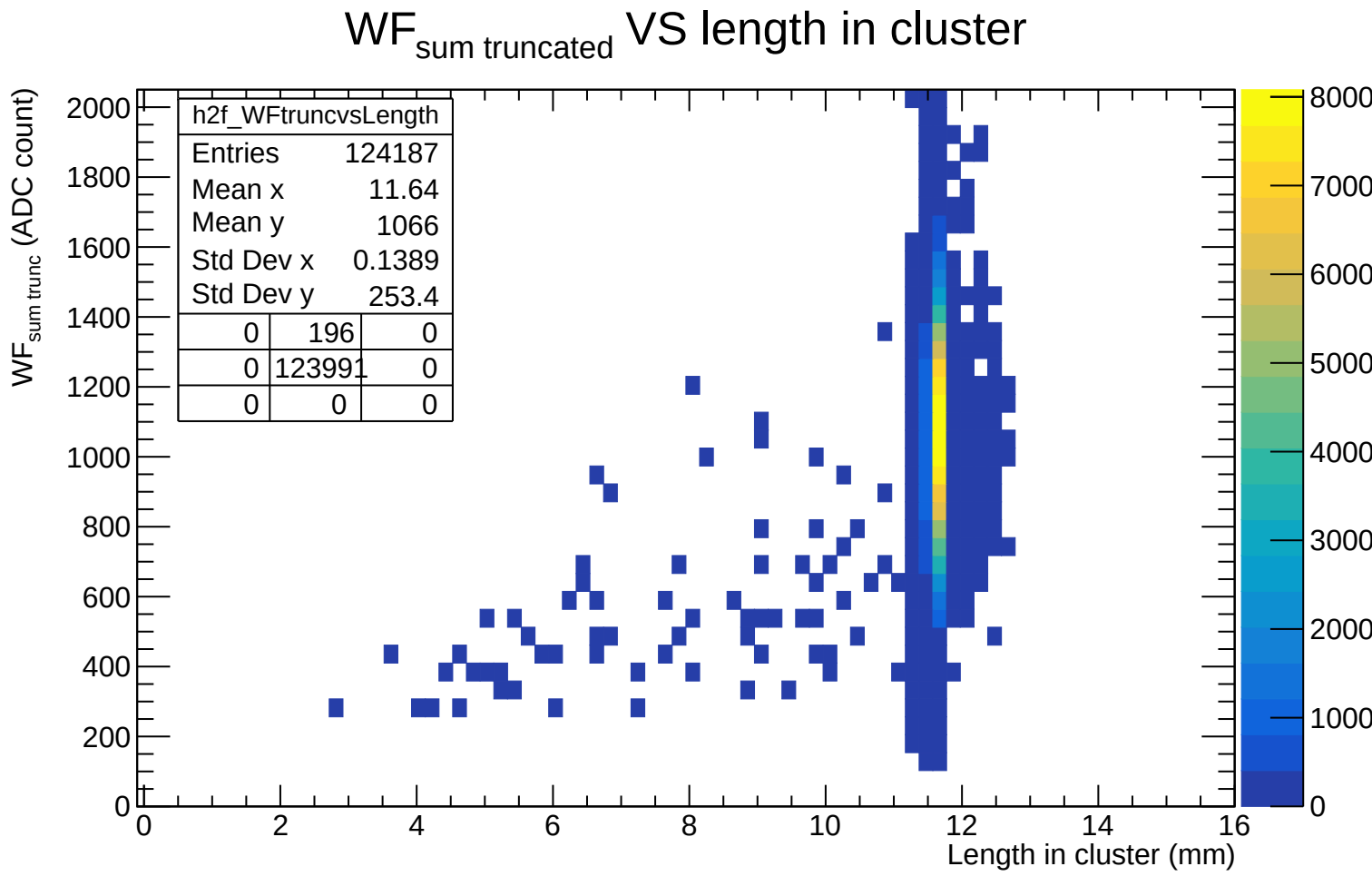

ADC$_{max}$ VS length in pad (before length cut)
ADC$_{max}$
Length in pad (mm)
h2f_AmaxvsLength
Entries 232099
Mean x 9.174
Mean y 955
Std Dev x 3.588
Std Dev y 518.7
0 0 0
0 232099 0
0 0 0
0 500 1000 1500 2000 2500 3000 3500 4000
0 2 4 6 8 10 12 14 16
0 1000 2000 3000 4000 5000 6000

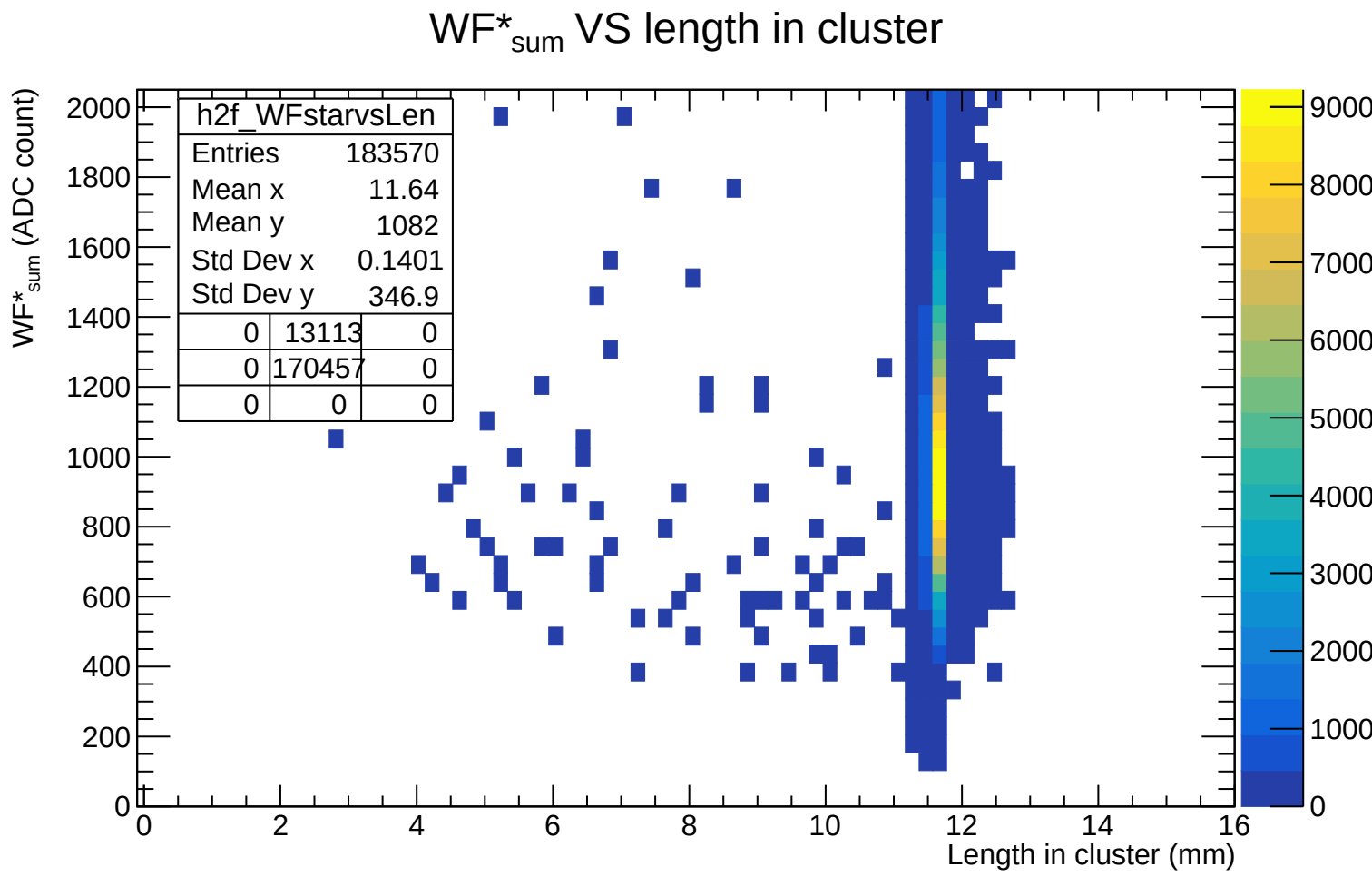

Q^anode VS length in pad (before length cut)
Q^anode
h2f_QvsLength
Entries 232099
Mean x 9.17
Mean y 1066
Std Dev x 3.59
Std Dev y 652.2
0 520 0
0 231579 0
0 0 0
4000
3500
3000
2500
2000
1500
1000
500
0
0
2
4
6
8
10
12
14
16
Length in pad (mm)
5000
4000
3000
2000
1000
0

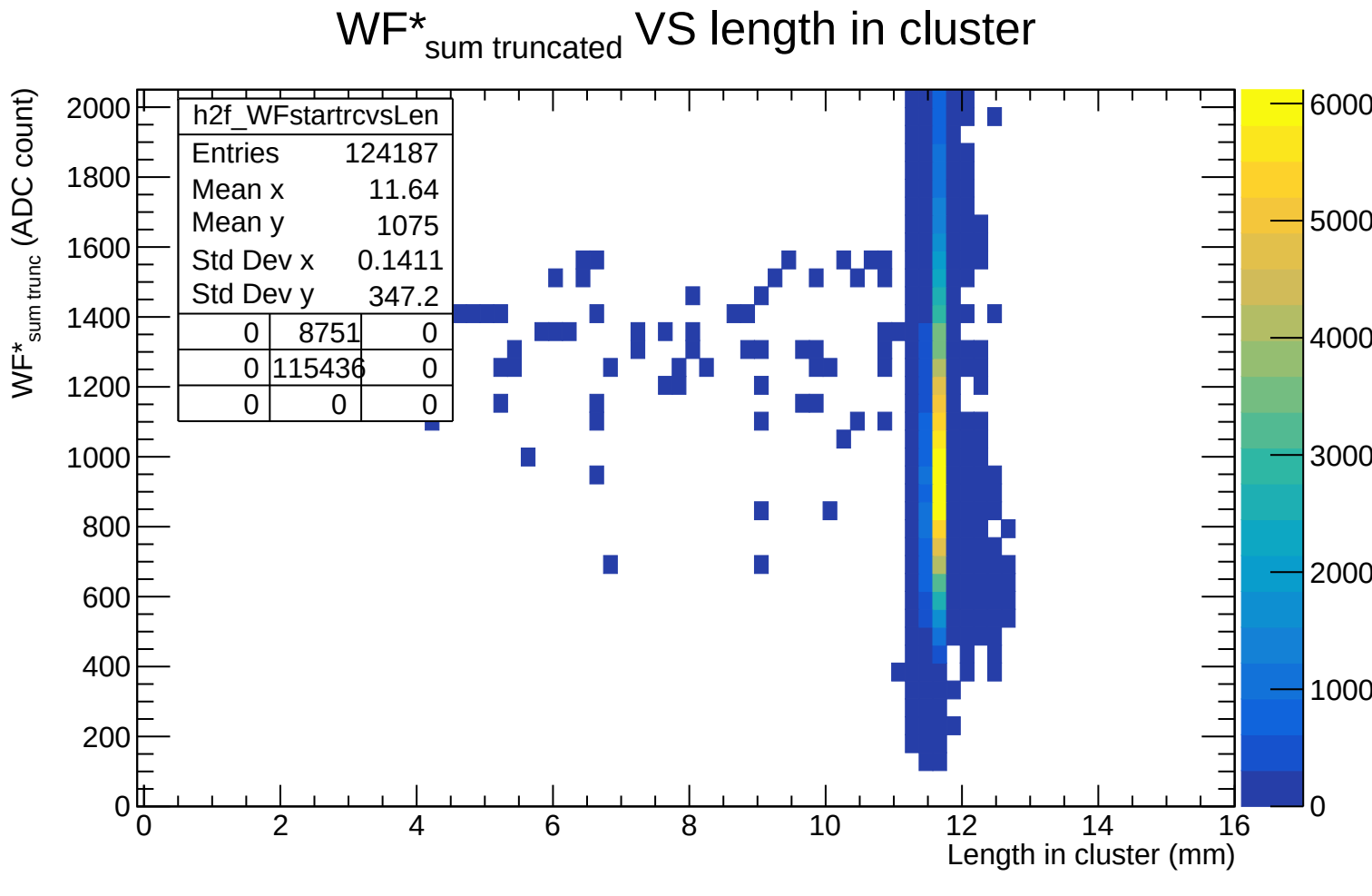

Q^{anode}/ADC_{max} VS length in pad (before length cut)
h2f_LUTvsLength
Entries 232099
Mean x 9.174
Mean y 1.075
Std Dev x 3.588
Std Dev y 0.305
0 0 0
0 232099 0
0 0 0
Q^{anode}/ADC_{max}
Length in pad (mm)
0
0.5
1
1.5
2
0
2
4
6
8
10
12
14
16
0
2000
4000
6000
8000
1000
1200
1400
1600
1800
2000

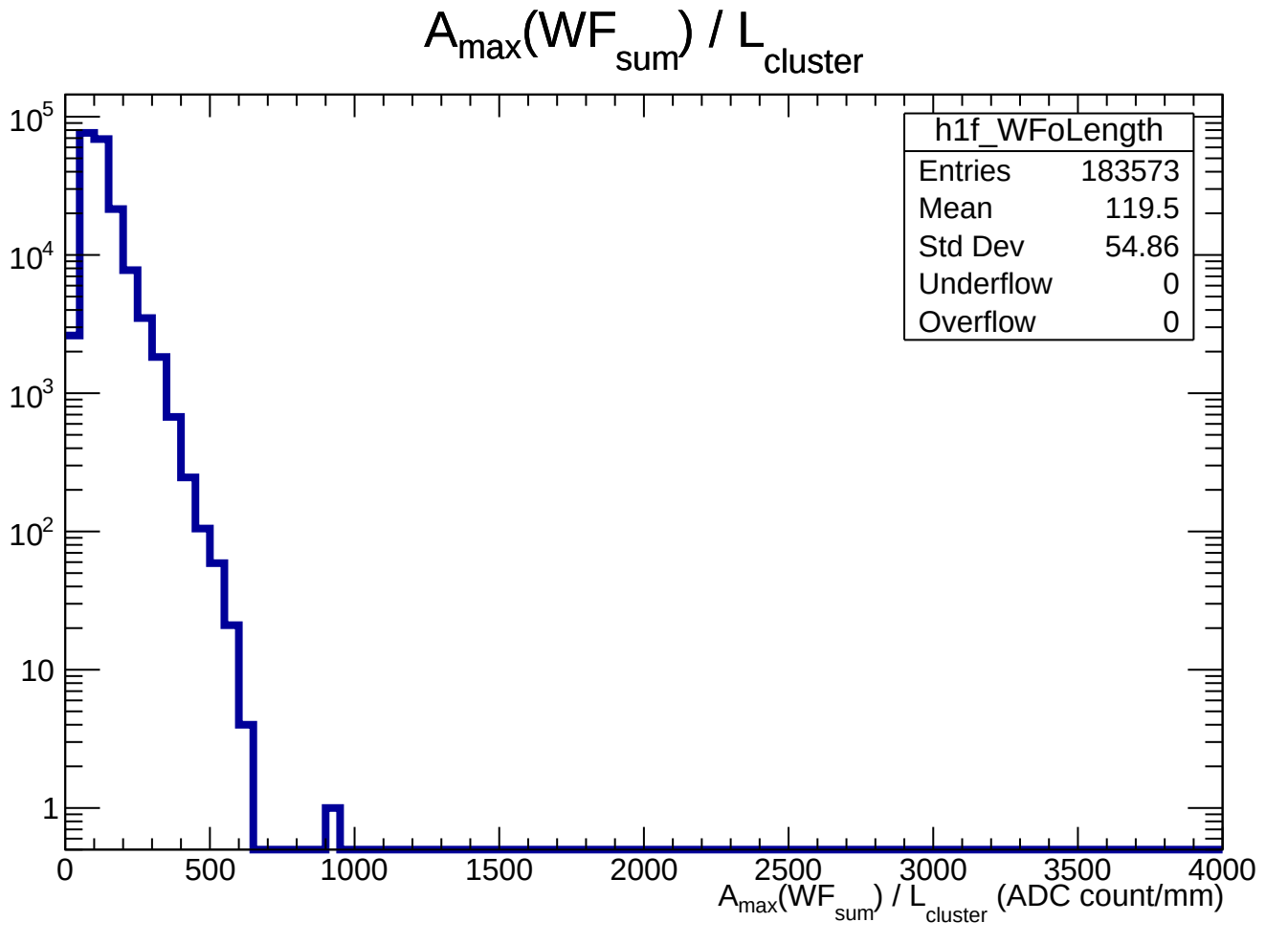

$Q_{cluster}$ VS length in cluster
h2f_QclvsLength
Entries 183573
Mean x 11.64
Mean y 1232
Std Dev x 0.1583
Std Dev y 351.2
0 23310 0
0 160263 0
0 0 0
$Q_{cluster}$ (ADC count)
Length in cluster (mm)
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 2 4 6 8 10 12 14 16
0 1000 2000 3000 4000 5000 6000 7000

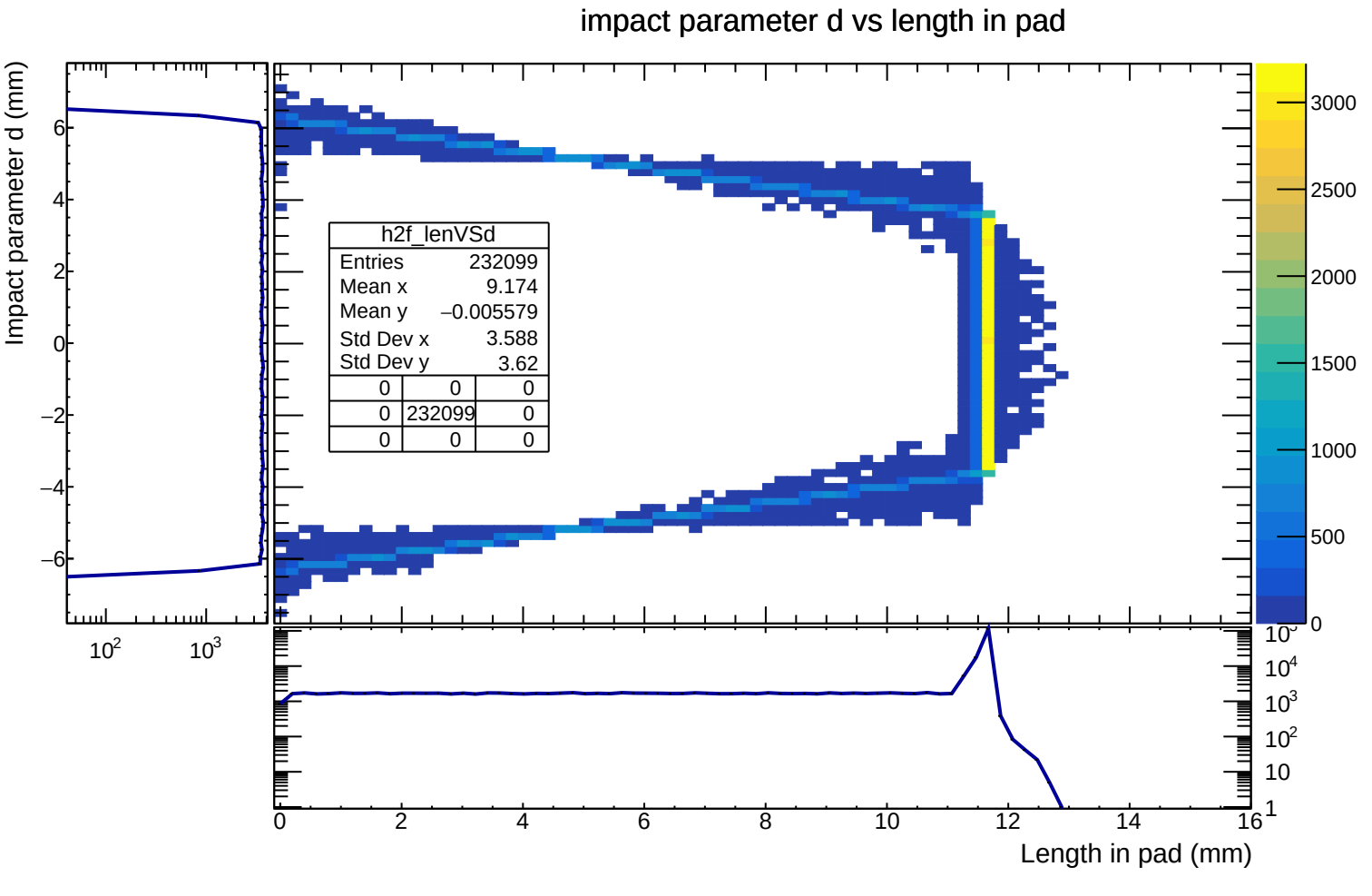

WF_sum VS length in cluster
h2f_WFvsLength
Entries 183573
Mean x 11.64
Mean y 1208
Std Dev x 0.1576
Std Dev y 350.7
0 21240 0
0 162333 0
0 0 0
WF_sum (ADC count)
Length in cluster (mm)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2
4
6
8
10
12
14
16
1000
2000
3000
4000
5000
6000
7000
8000


WF sum truncated VS length in cluster
h2f_WFtruncvsLength
Entries 124187
Mean x 11.64
Mean y 1066
Std Dev x 0.1389
Std Dev y 253.4
0 196 0
0 123991 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
0 1000 2000 3000 4000 5000 6000 7000 8000


WF*sum VS length in cluster
h2f_WFstarvsLen
Entries 183570
Mean x 11.64
Mean y 1082
Std Dev x 0.1401
Std Dev y 346.9
0 13113 0
0 170457 0
0 0 0
WF*sum (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
0 1000 2000 3000 4000 5000 6000 7000 8000 9000


WF*sum truncated VS length in cluster
h2f_WFstartrcvsLen
Entries 124187
Mean x 11.64
Mean y 1075
Std Dev x 0.1411
Std Dev y 347.2
0 8751 0
0 115436 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
0 1000 2000 3000 4000 5000 6000


$A_{max}(WF_{sum}) / L_{cluster}$
h1f_WFoLength
Entries 183573
Mean 119.5
Std Dev 54.86
Underflow 0
Overflow 0
10^5
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)
h2f_lenVSd
Entries 232099
Mean x 9.174
Mean y −0.005579
Std Dev x 3.588
Std Dev y 3.62
0 0 0
0 232099 0
0 0 0
Length in pad (mm)