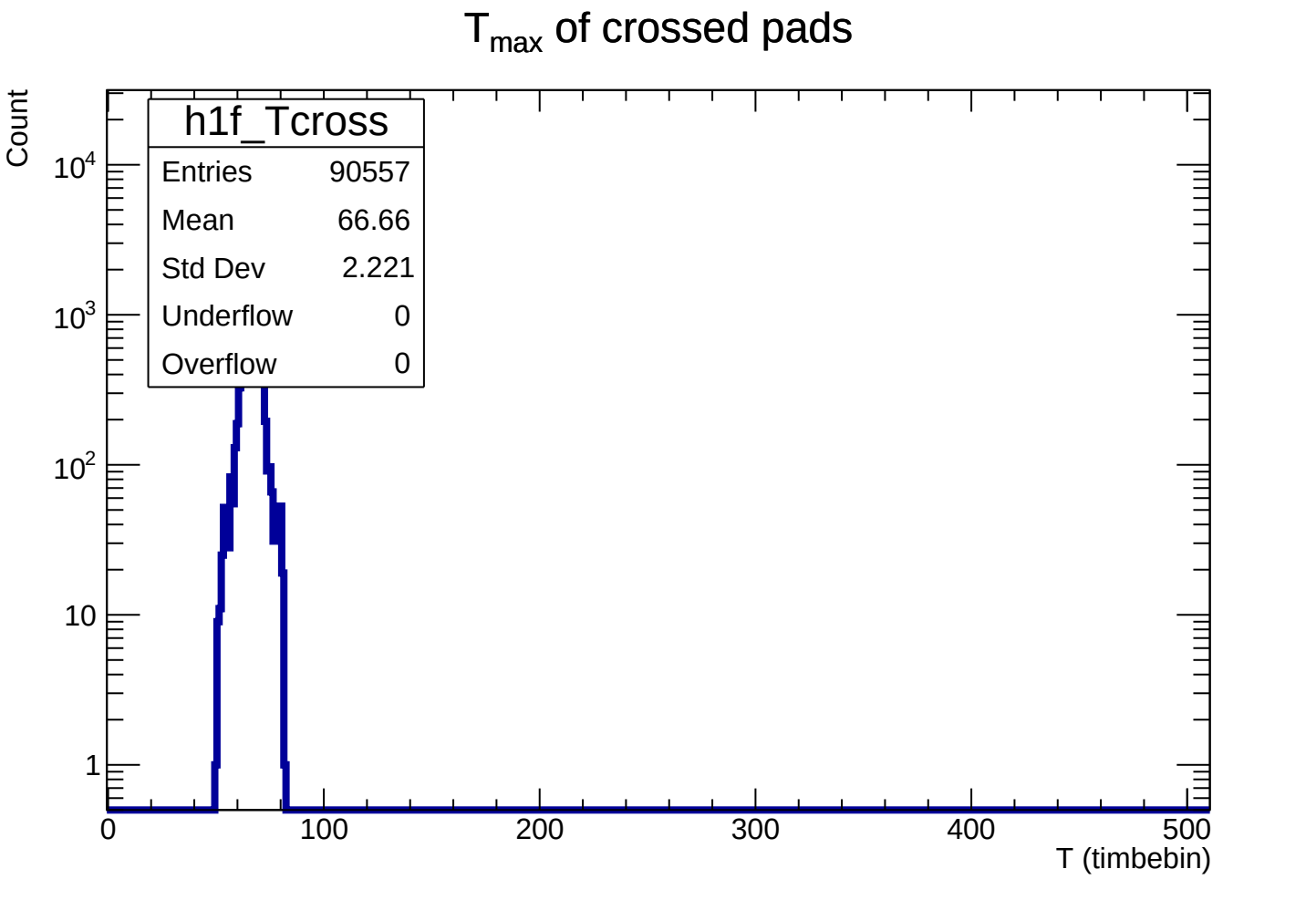
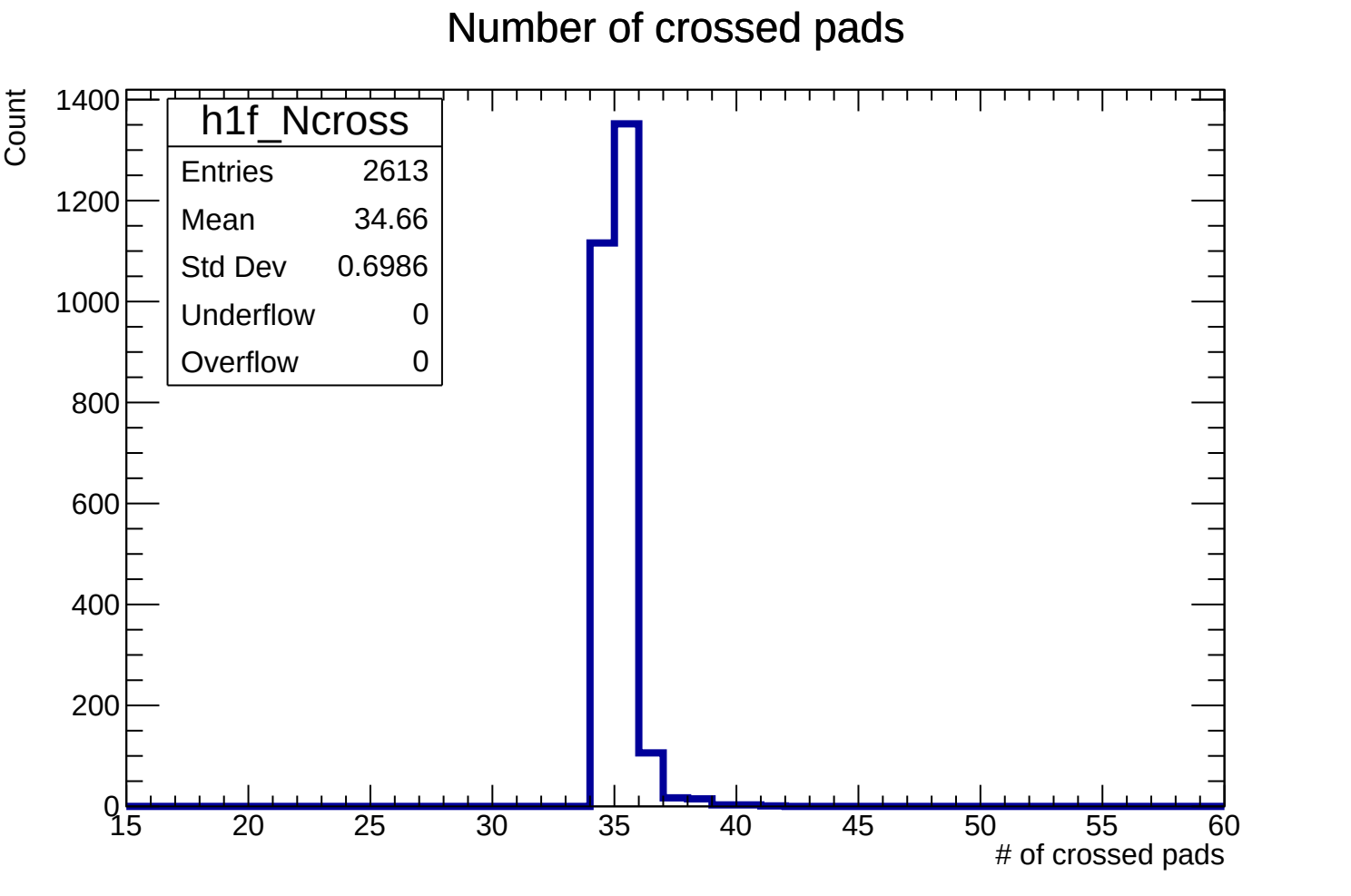
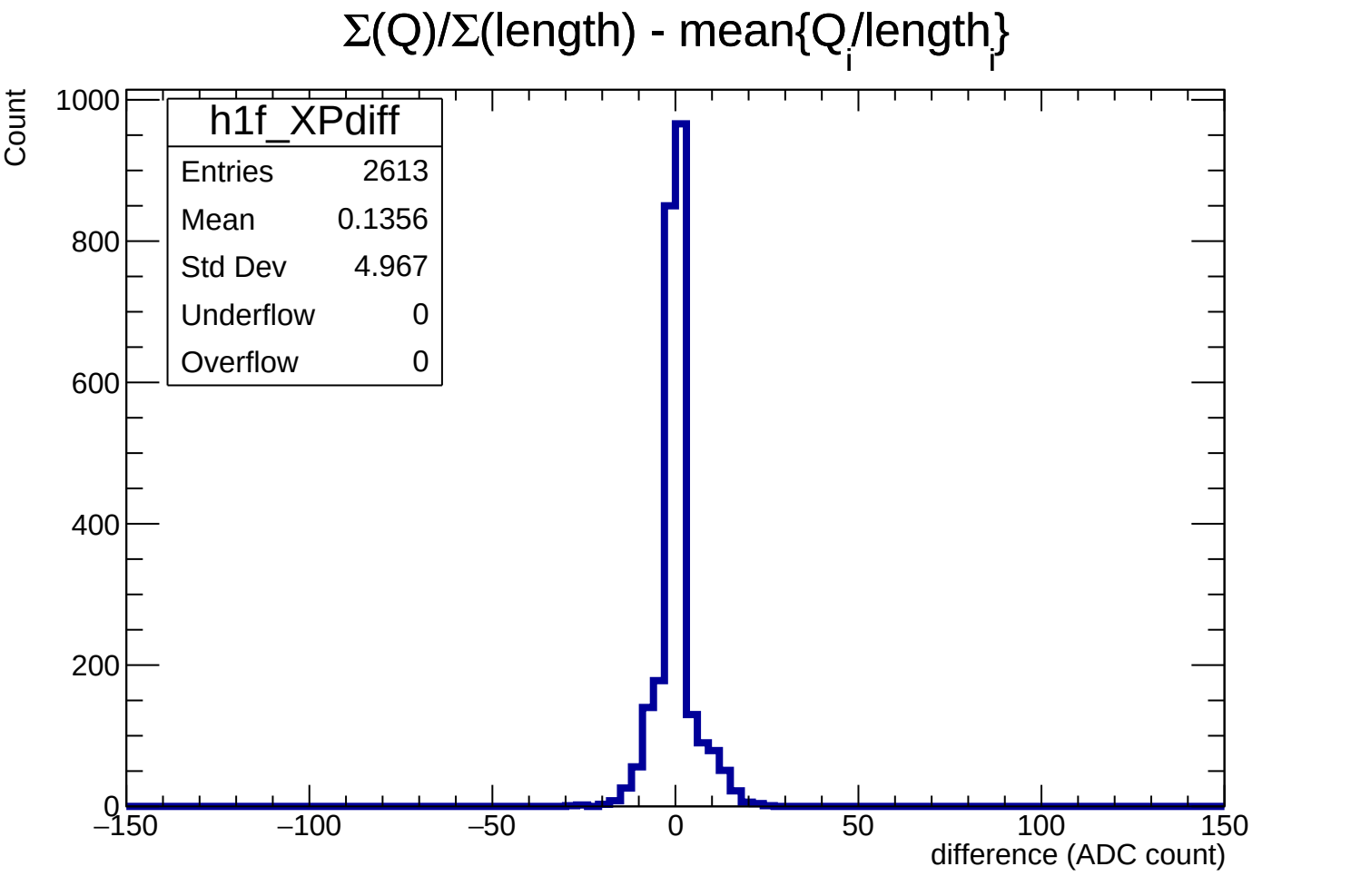
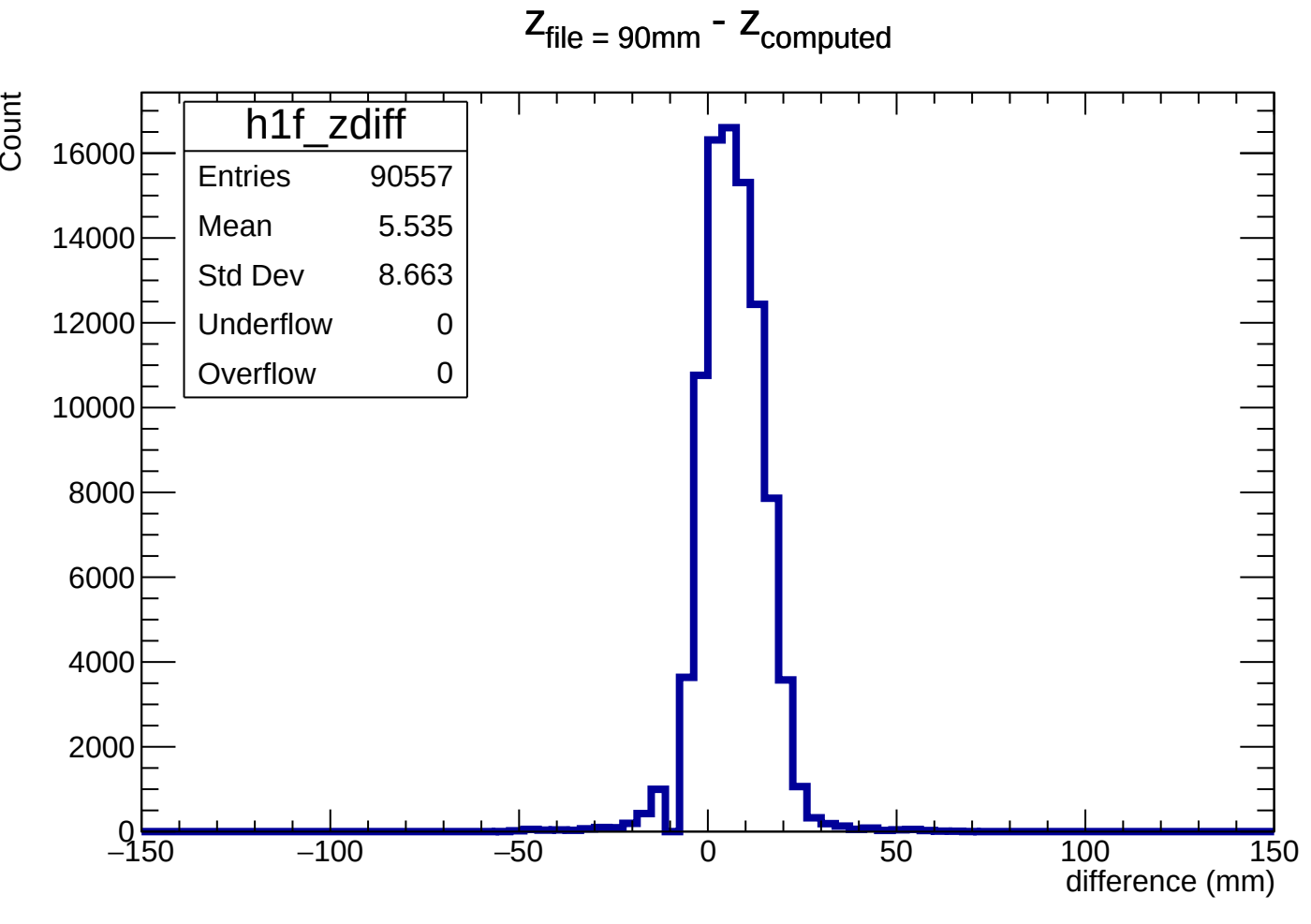
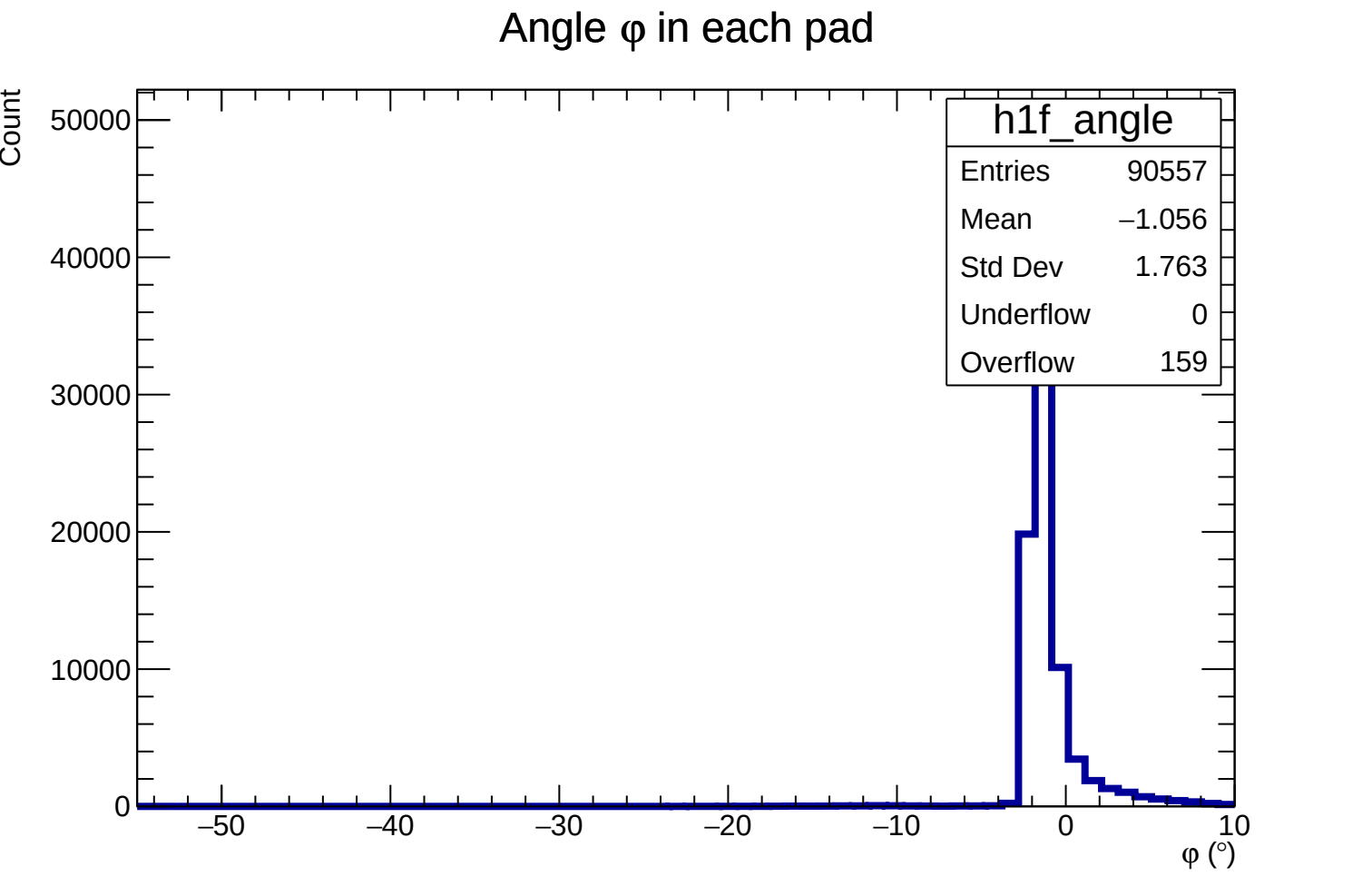
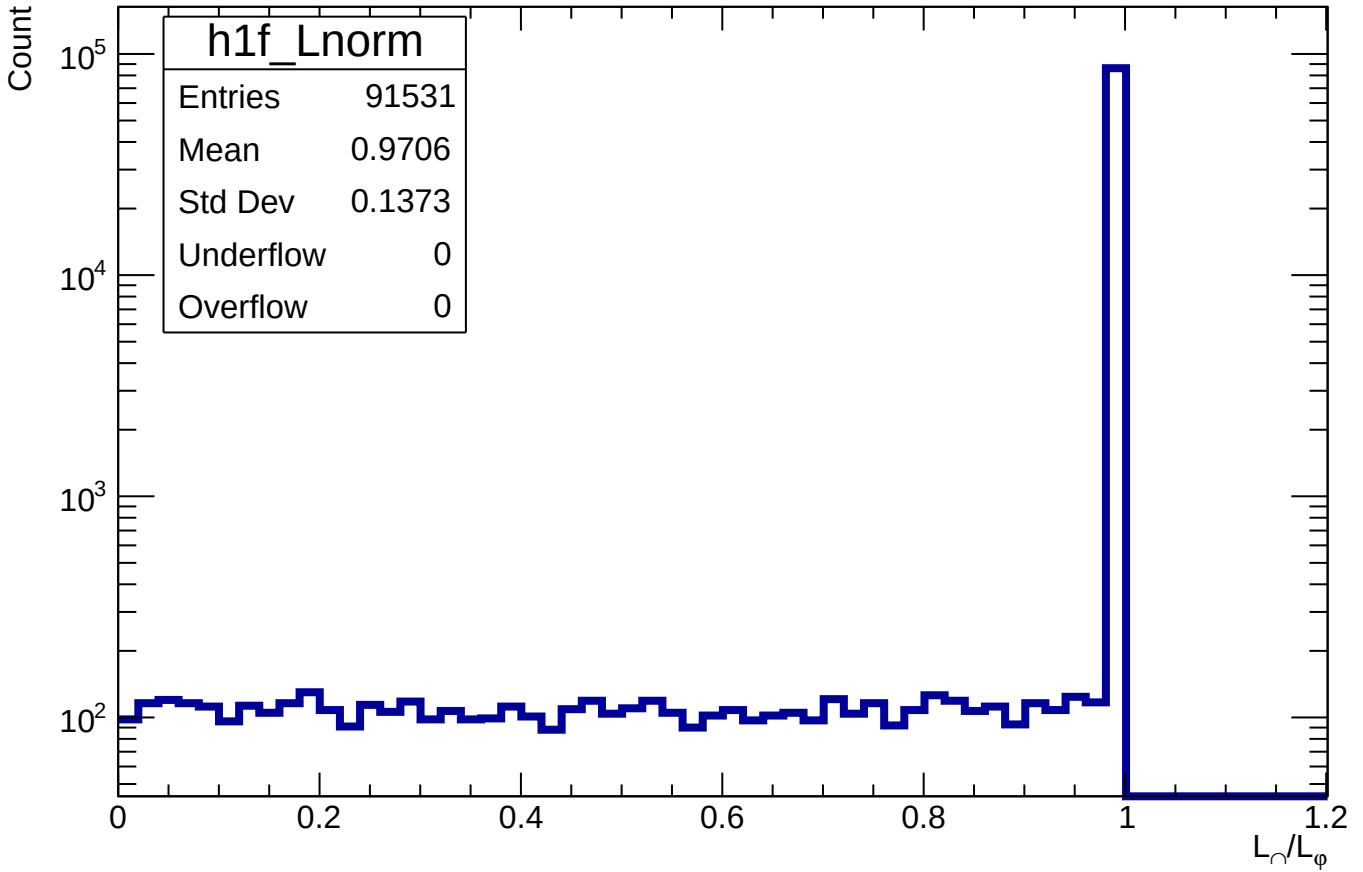

$T_{max}$ of crossed pads
h1f_Tcross
Entries 90557
Mean 66.66
Std Dev 2.221
Underflow 0
Overflow 0
Count
$10^4$
$10^3$
$10^2$
10
1
0
100
200
300
400
500
T (timbebin)

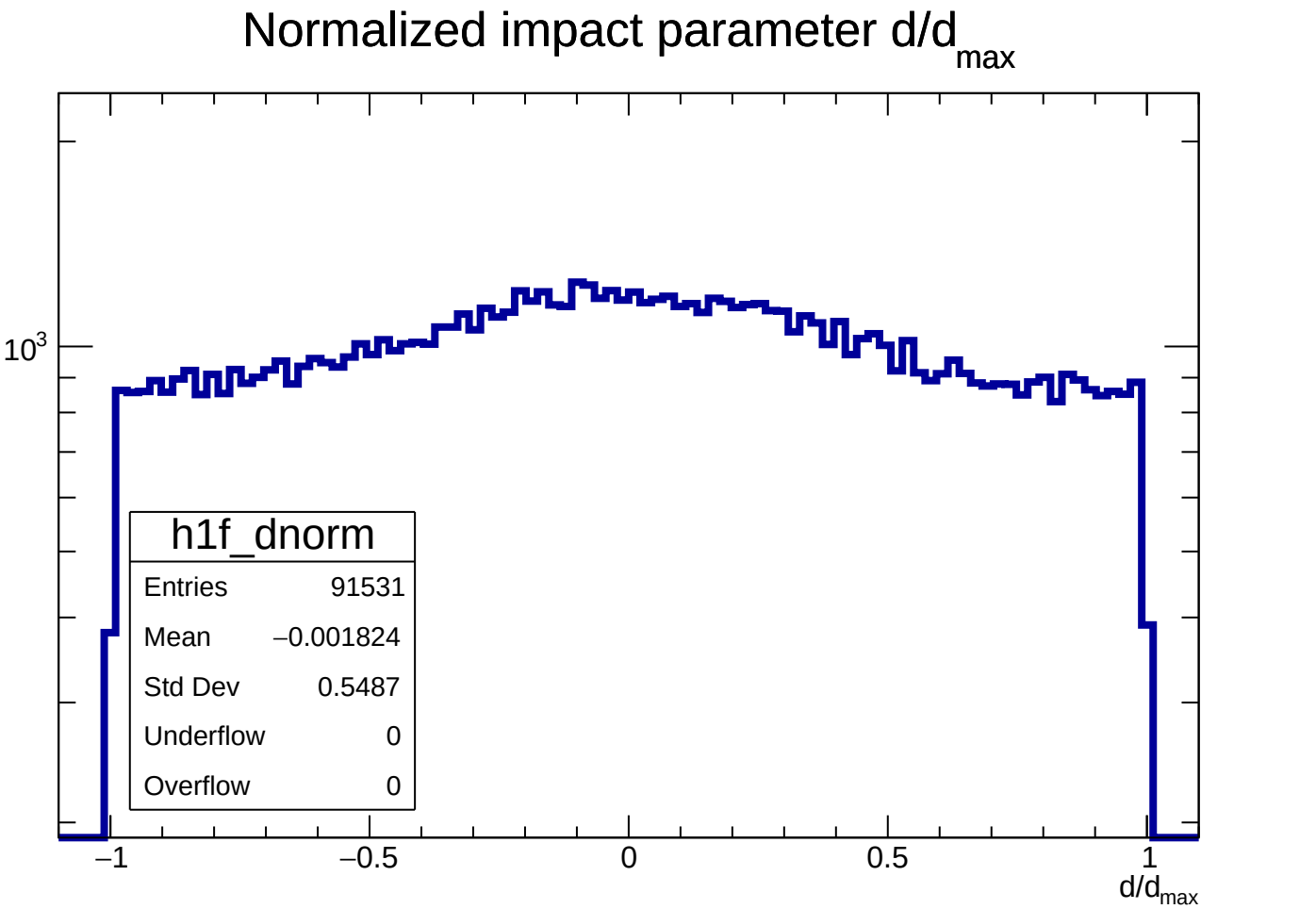

Number of crossed pads
h1f_Ncross
Entries 2613
Mean 34.66
Std Dev 0.6986
Underflow 0
Overflow 0
Count
# of crossed pads
0
200
400
600
800
1000
1200
1400
15
20
25
30
35
40
45
50
55
60

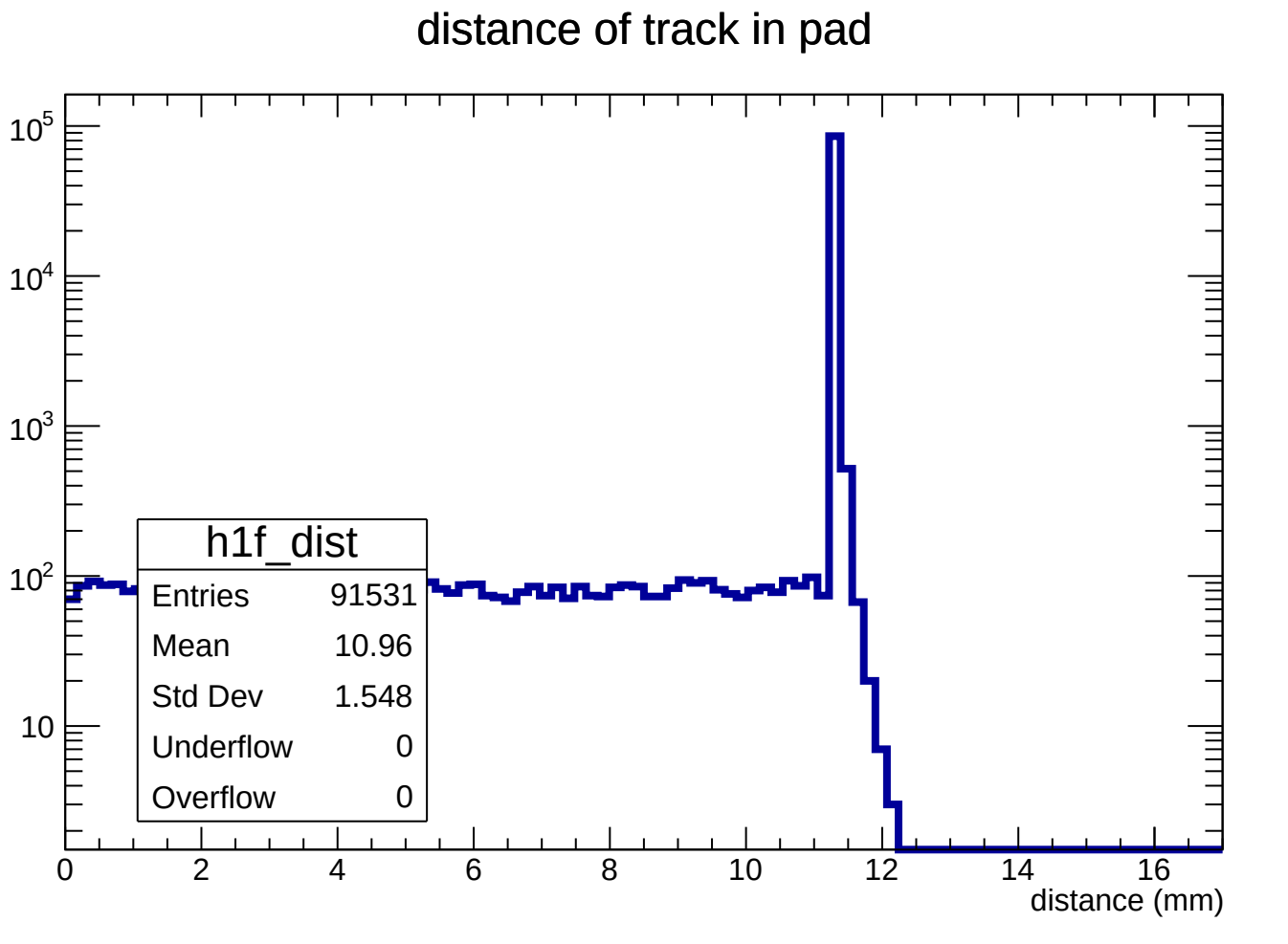

Σ(Q)/Σ(length) - mean{Q_i/length_i}
h1f_XPdiff
Entries 2613
Mean 0.1356
Std Dev 4.967
Underflow 0
Overflow 0
Count
1000
800
600
400
200
0
–150
–100
–50
0
50
100
150
difference (ADC count)

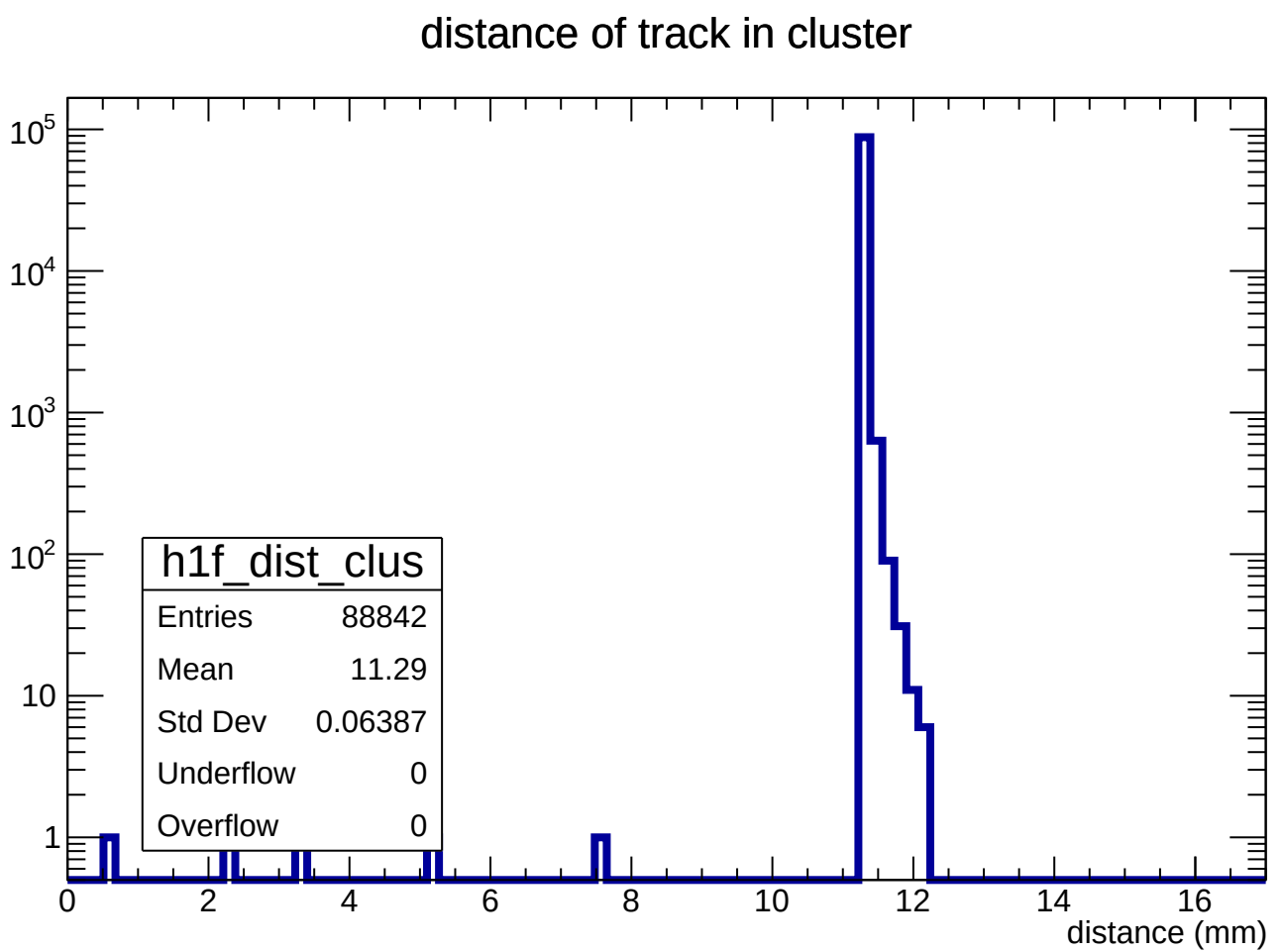

$z_{file = 90mm} - z_{computed}$
h1f_zdiff
Entries 90557
Mean 5.535
Std Dev 8.663
Underflow 0
Overflow 0
Count
16000
14000
12000
10000
8000
6000
4000
2000
0
–150
–100
–50
0
50
100
150
difference (mm)

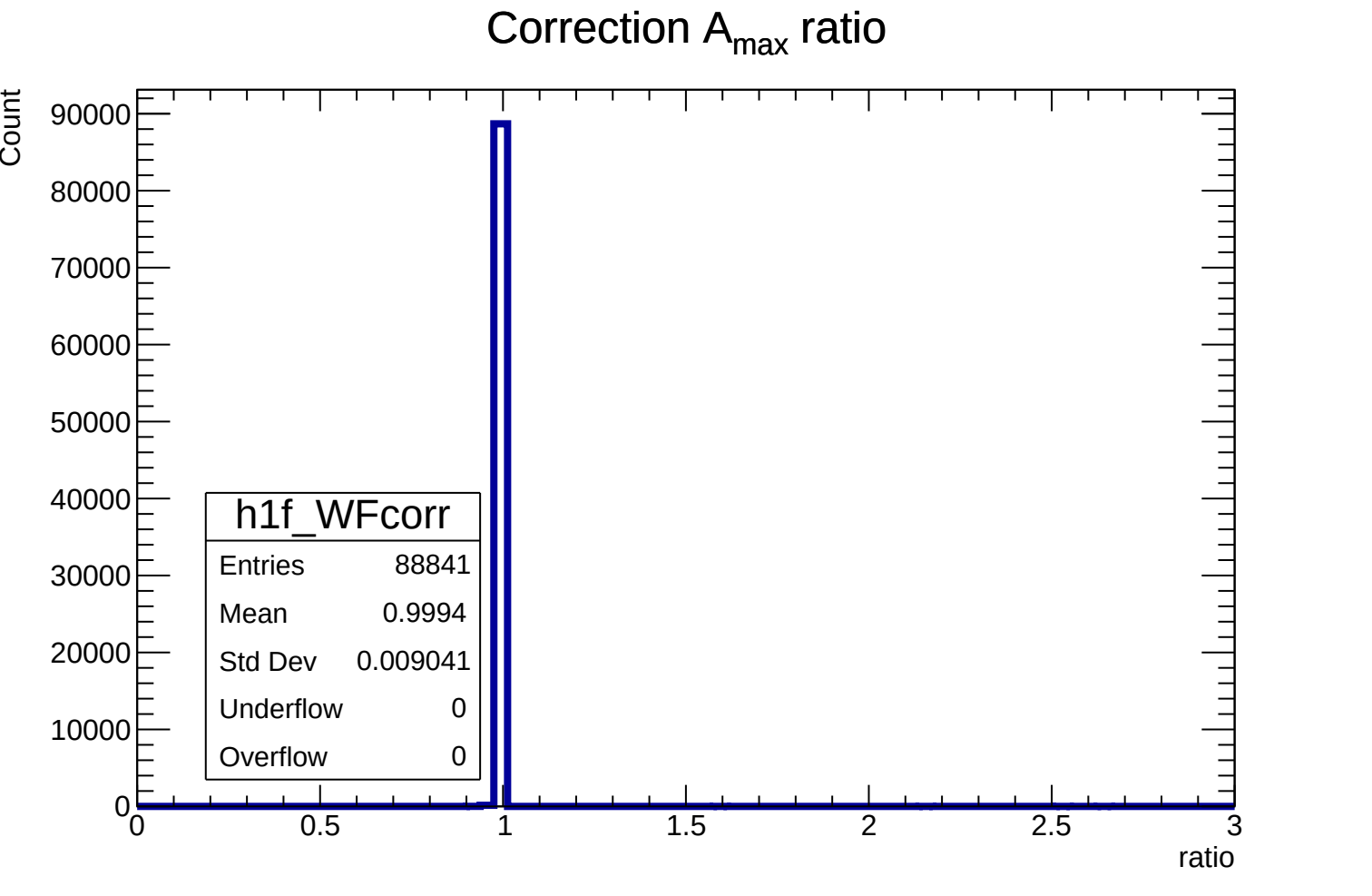

Angle φ in each pad
Count
50000
40000
30000
20000
10000
0
–50
–40
–30
–20
–10
0
10
φ (°)
h1f_angle
Entries 90557
Mean –1.056
Std Dev 1.763
Underflow 0
Overflow 159

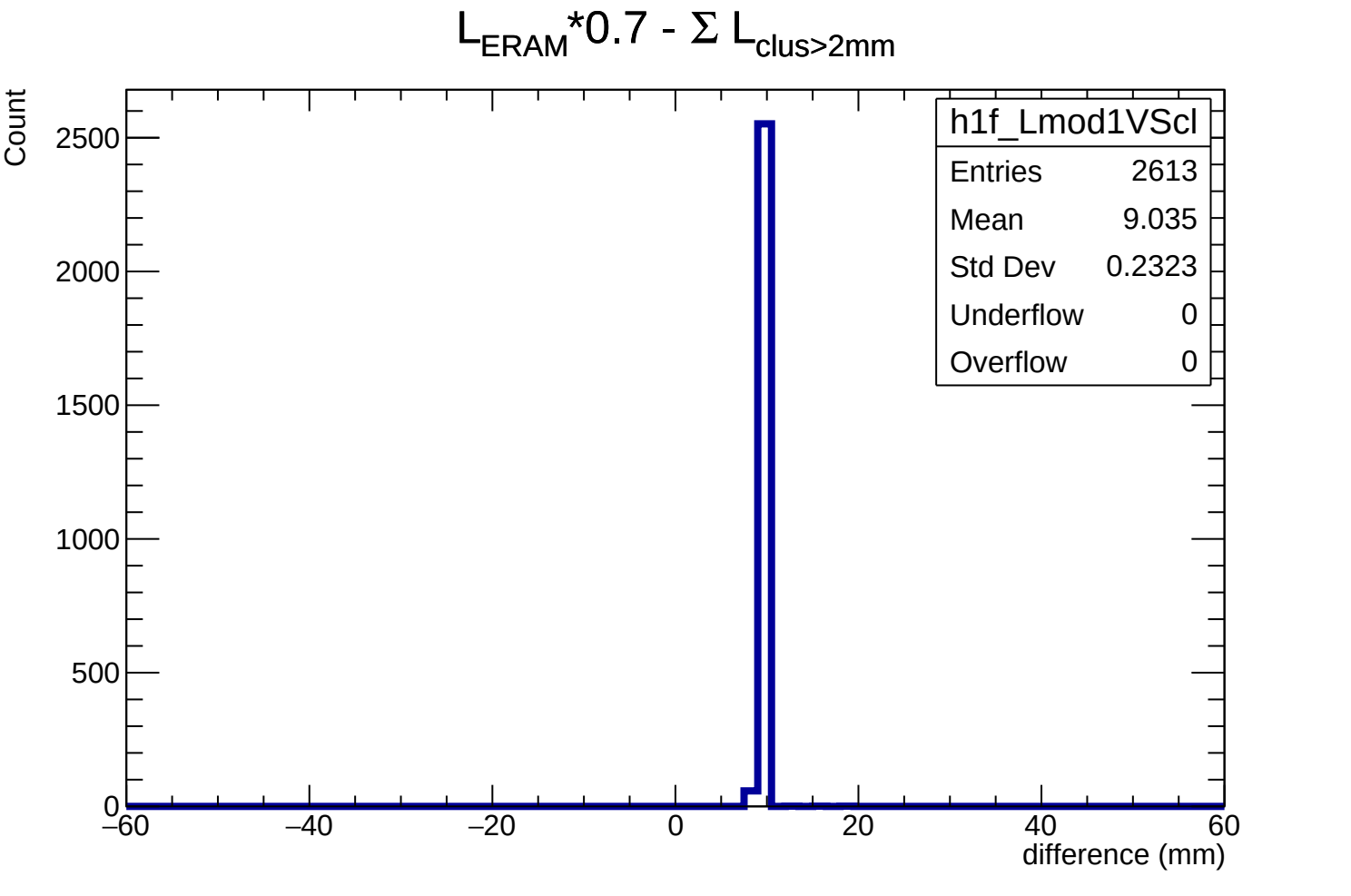

Length in pad normalized to maximum length in pad for a given φ
h1f_Lnorm
Entries 91531
Mean 0.9706
Std Dev 0.1373
Underflow 0
Overflow 0
Count
$10^5$
$10^4$
$10^3$
$10^2$
0
0.2
0.4
0.6
0.8
1
1.2
$L_{\cap}/L_{\varphi}$

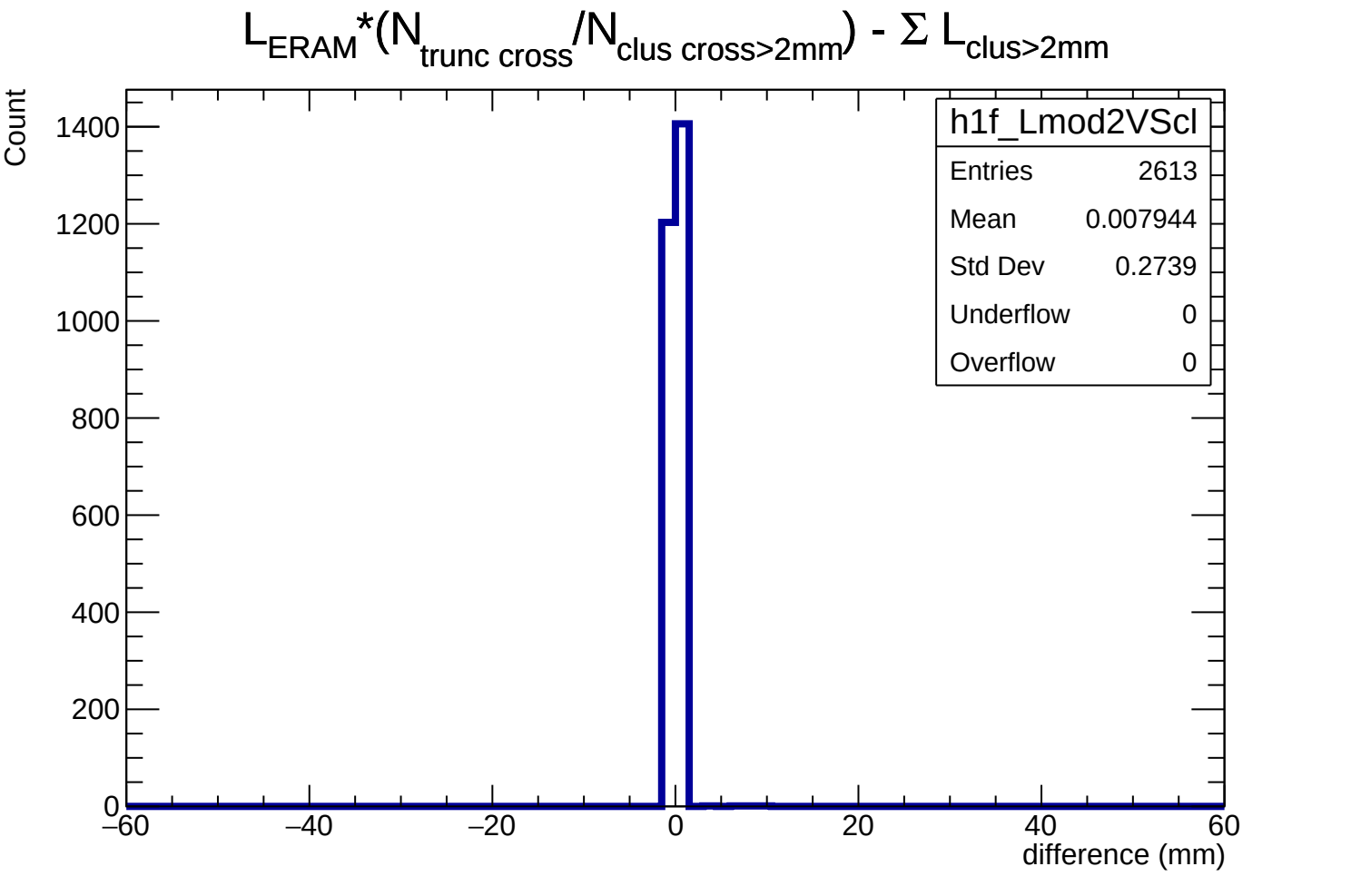

Normalized impact parameter d/d max
10 3
h1f_dnorm
Entries 91531
Mean −0.001824
Std Dev 0.5487
Underflow 0
Overflow 0
−1
−0.5
0
0.5
1
d/d max

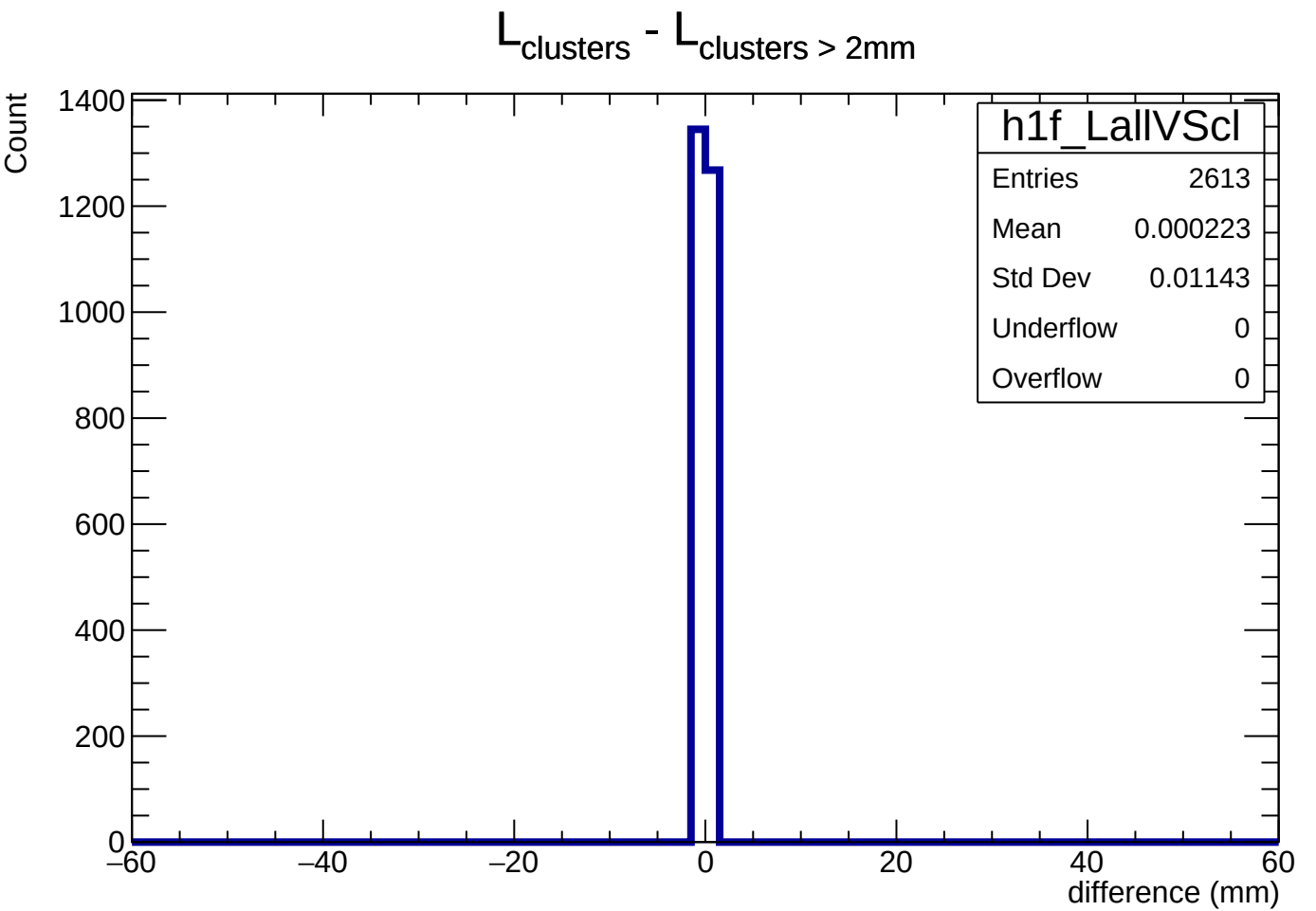

distance of track in pad
h1f_dist
Entries 91531
Mean 10.96
Std Dev 1.548
Underflow 0
Overflow 0
distance (mm)

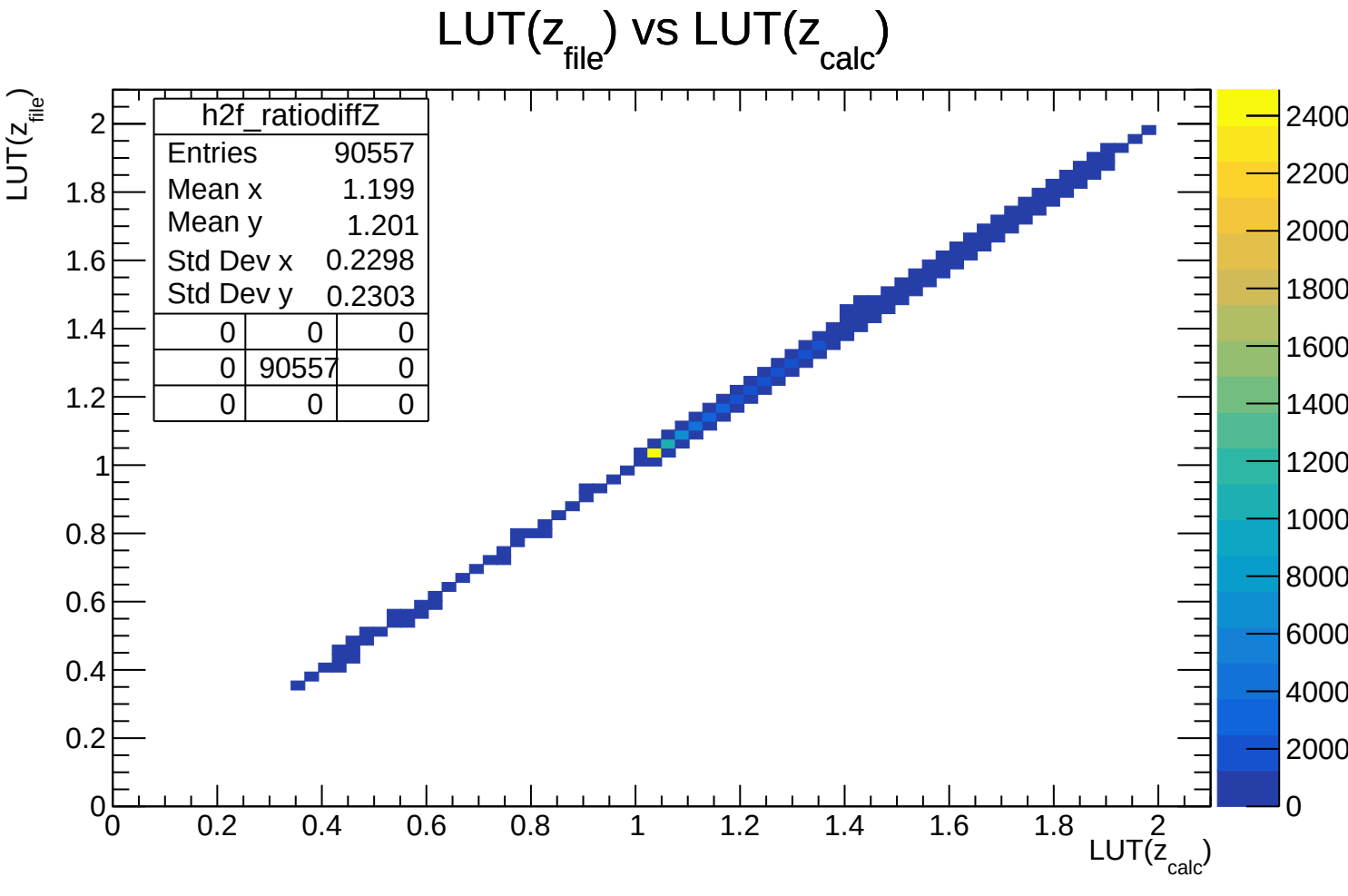

distance of track in cluster
h1f_dist_clus
Entries 88842
Mean 11.29
Std Dev 0.06387
Underflow 0
Overflow 0
distance (mm)

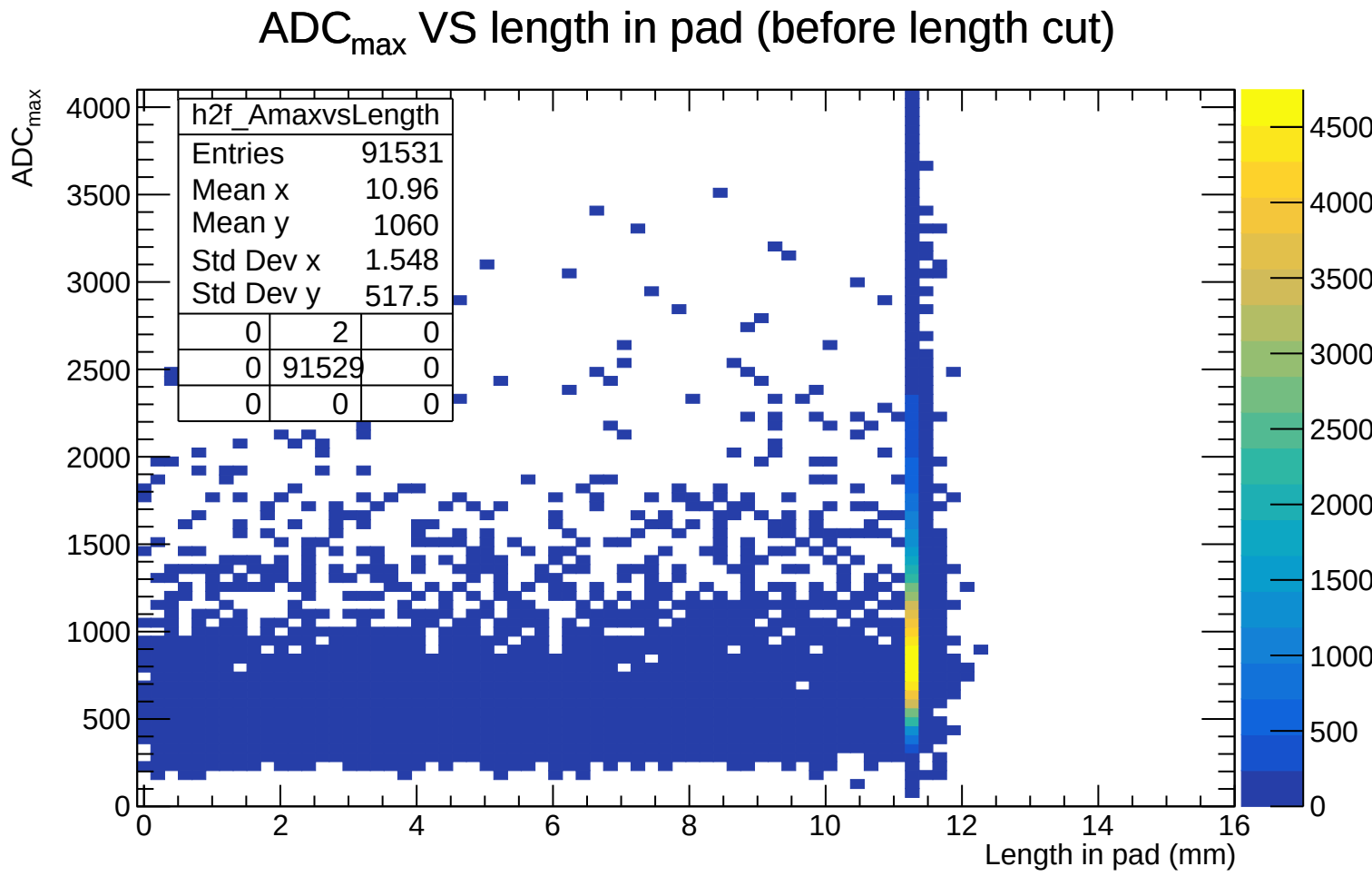

Correction $A_{max}$ ratio
Count
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
0
0.5
1
1.5
2
2.5
3
ratio
h1f_WFcorr
Entries 88841
Mean 0.9994
Std Dev 0.009041
Underflow 0
Overflow 0

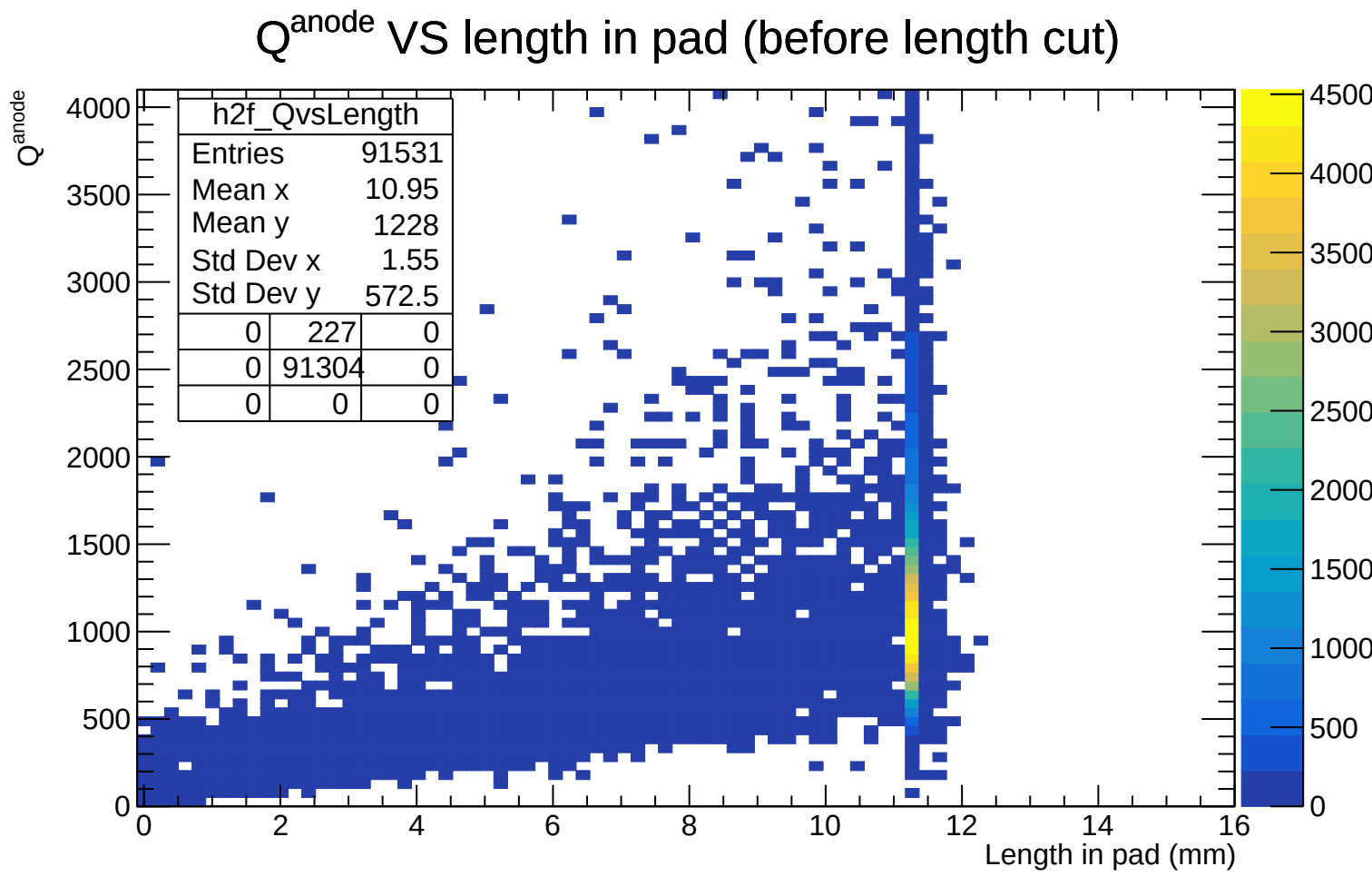

$L_{ERAM}$*0.7 - Σ $L_{clus>2mm}$
Count
2500
2000
1500
1000
500
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod1VScl
Entries 2613
Mean 9.035
Std Dev 0.2323
Underflow 0
Overflow 0

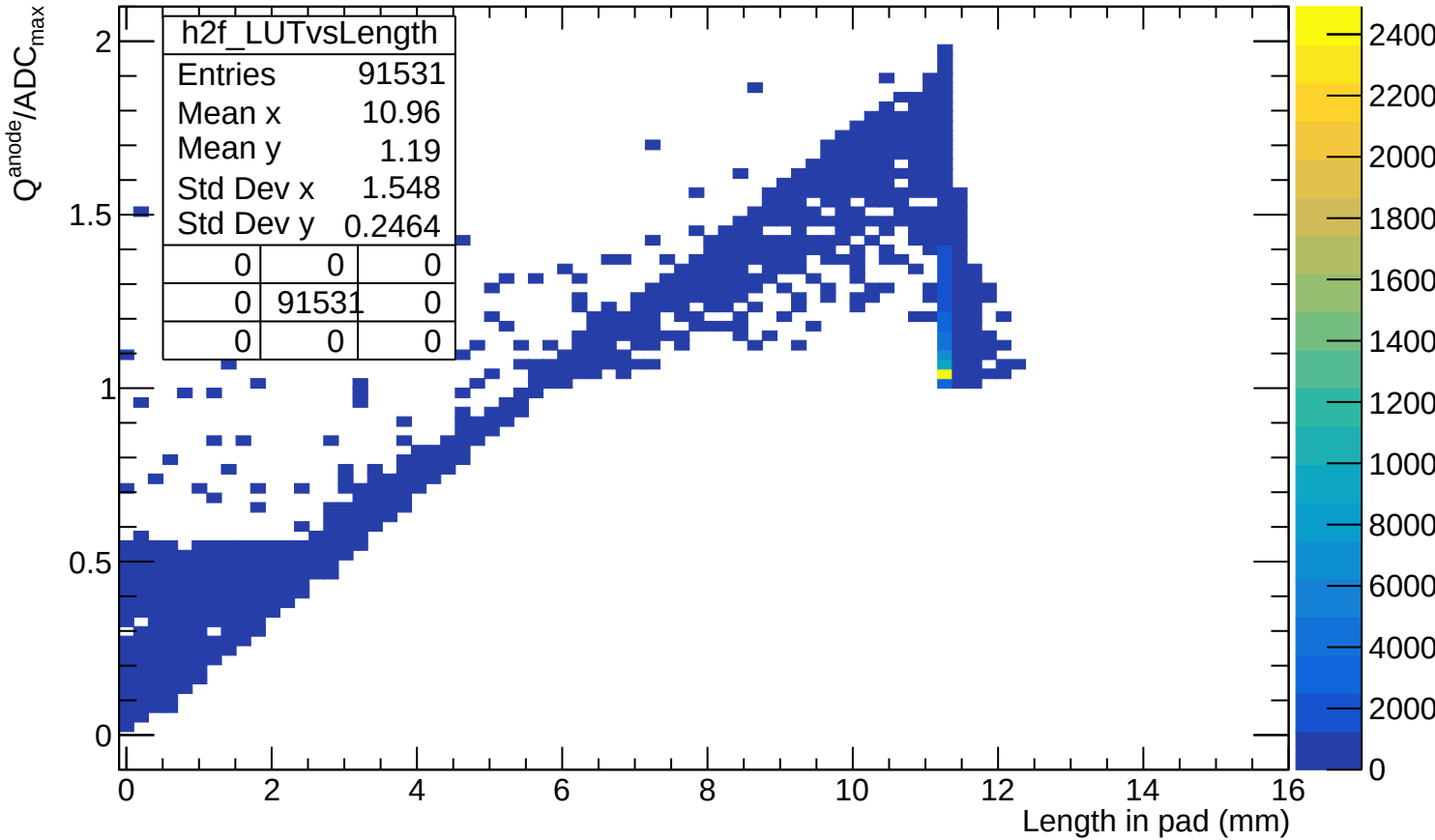

$L_{ERAM}*(N_{trunc\ cross}/N_{clus\ cross>2mm}) - \Sigma\ L_{clus>2mm}$
Count
1400
1200
1000
800
600
400
200
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod2VScl
Entries 2613
Mean 0.007944
Std Dev 0.2739
Underflow 0
Overflow 0

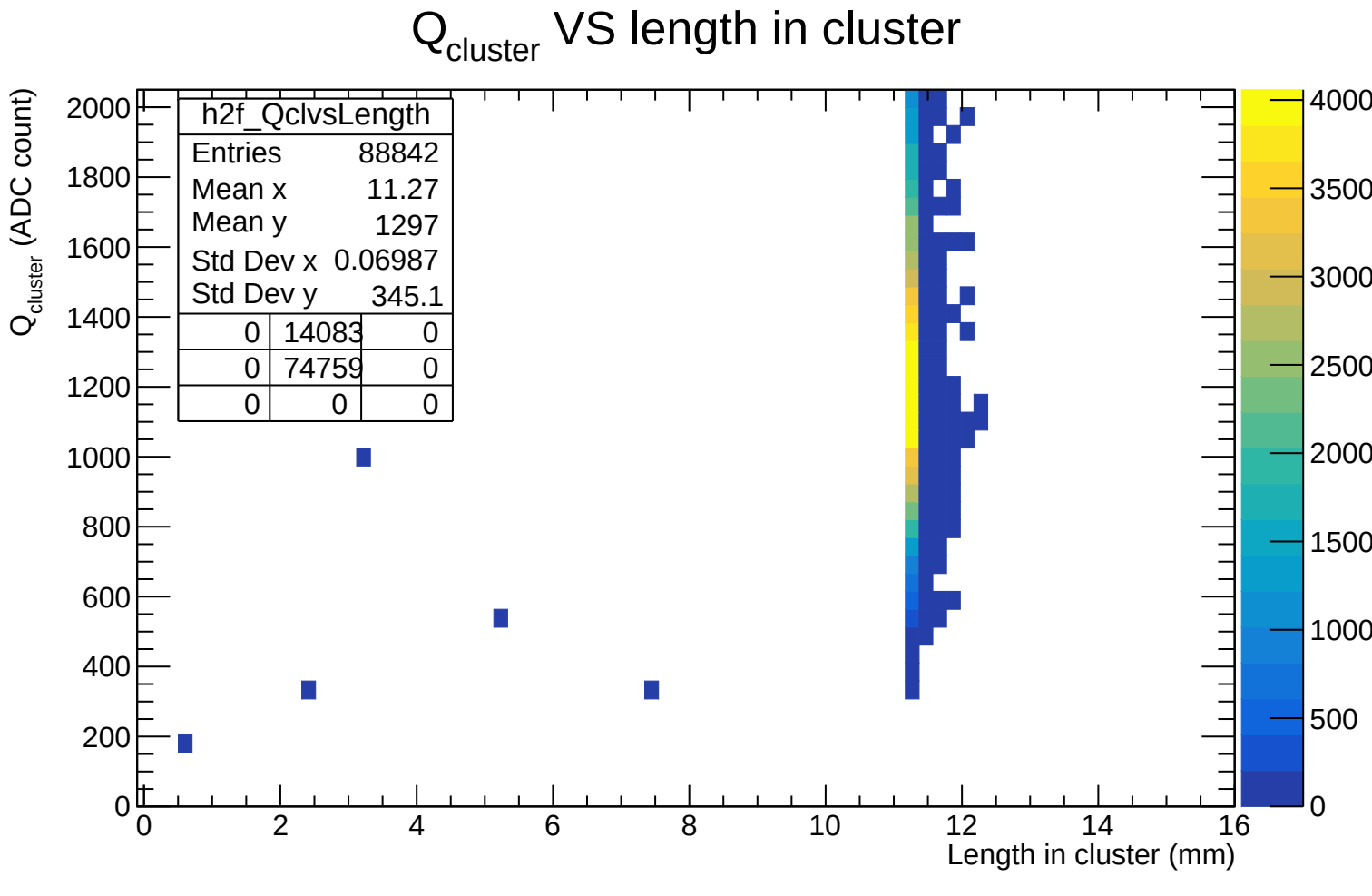

$L_{clusters}$ - $L_{clusters > 2mm}$
Count
1400
1200
1000
800
600
400
200
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_LallVScl
Entries 2613
Mean 0.000223
Std Dev 0.01143
Underflow 0
Overflow 0

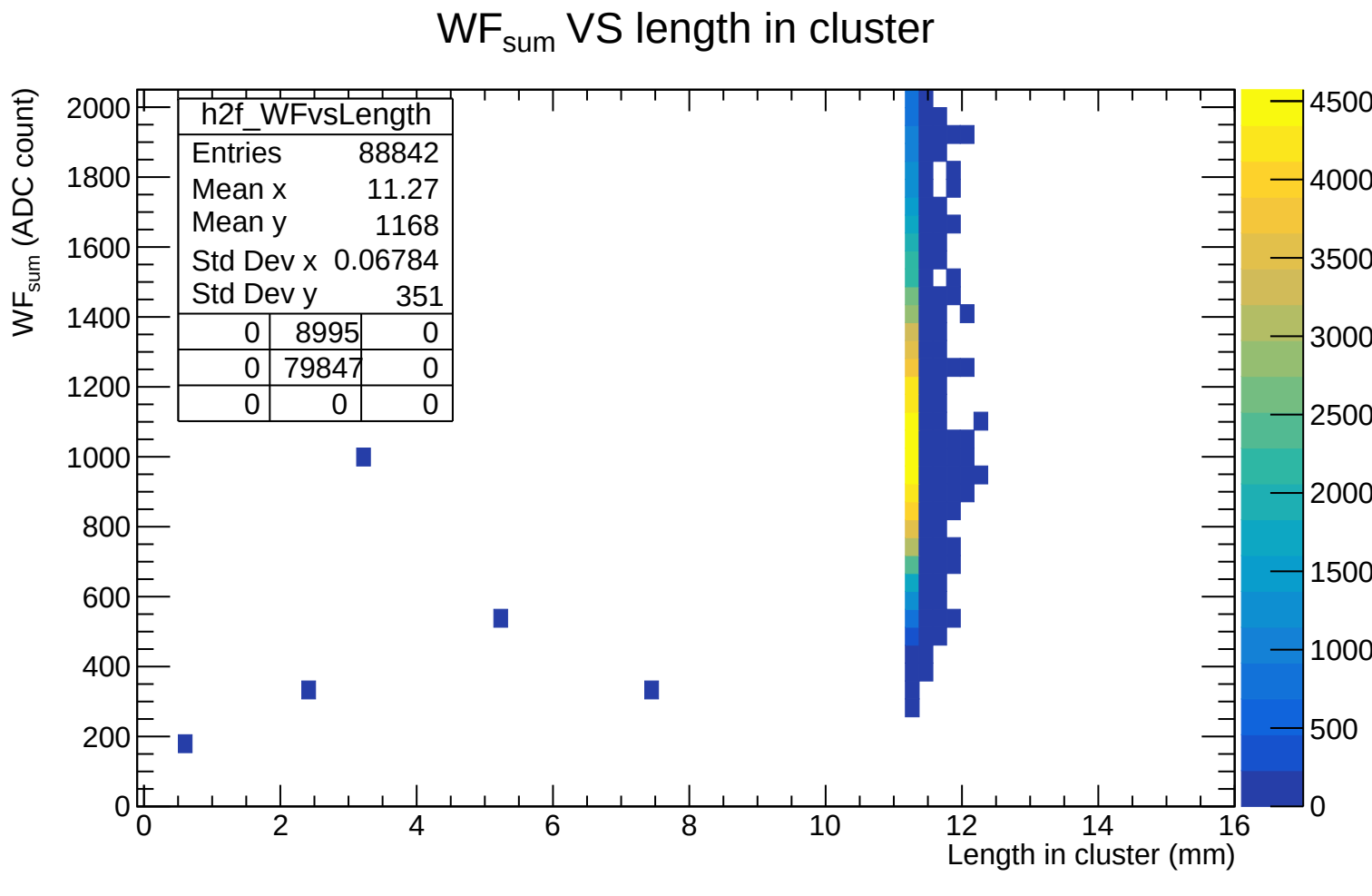

LUT(z_file) vs LUT(z_calc)
h2f_ratiodiffZ
Entries 90557
Mean x 1.199
Mean y 1.201
Std Dev x 0.2298
Std Dev y 0.2303
0 0 0
0 90557 0
0 0 0
LUT(z_file)
LUT(z_calc)
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2
2400 2200 2000 1800 1600 1400 1200 1000 8000 6000 4000 2000 0

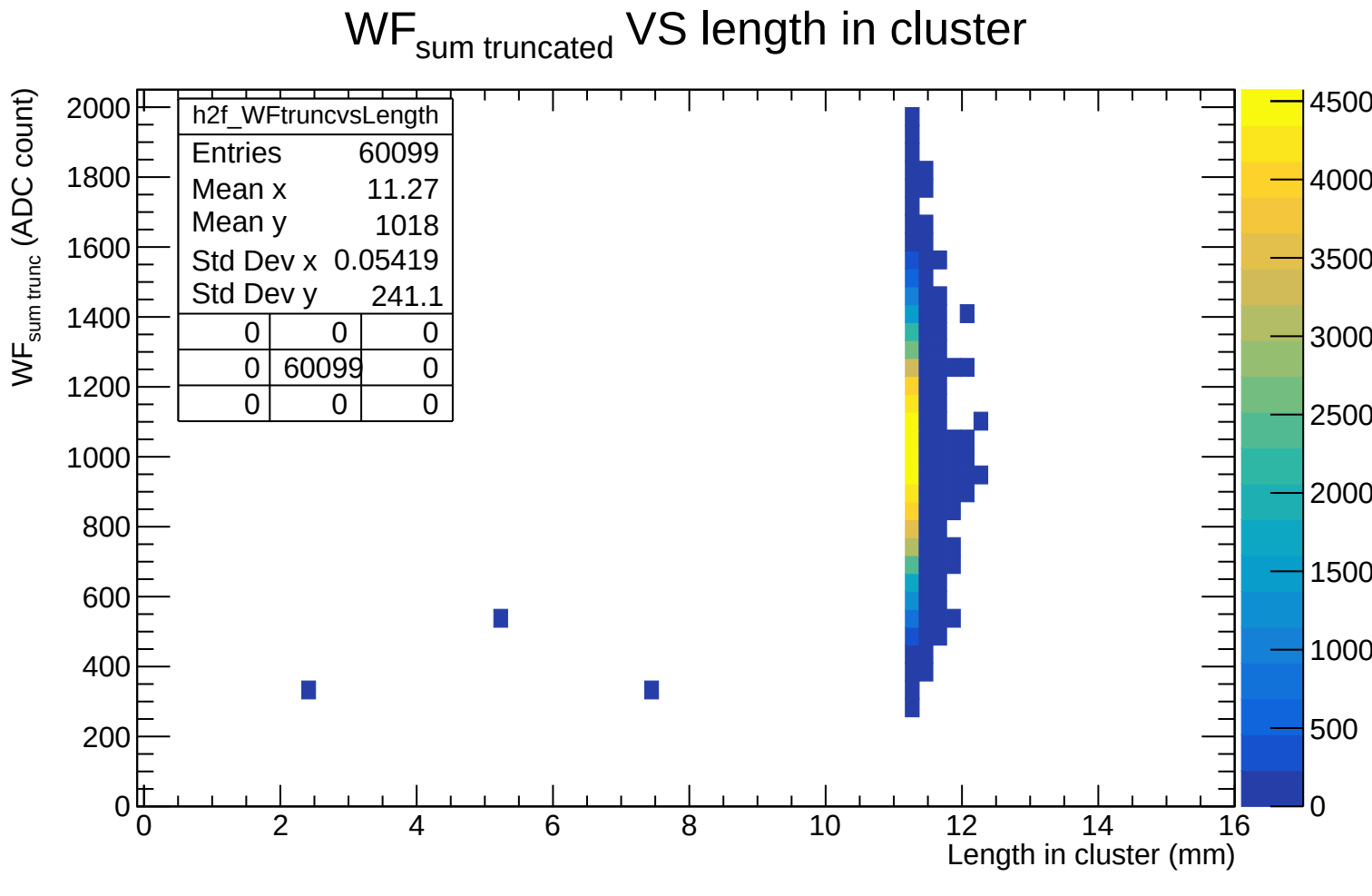

ADC$_{max}$ VS length in pad (before length cut)
h2f_AmaxvsLength
Entries 91531
Mean x 10.96
Mean y 1060
Std Dev x 1.548
Std Dev y 517.5
0 2 0
0 91529 0
0 0 0
ADC$_{max}$
Length in pad (mm)
0 500 1000 1500 2000 2500 3000 3500 4000
0 2 4 6 8 10 12 14 16
0 500 1000 1500 2000 2500 3000 3500 4000 4500

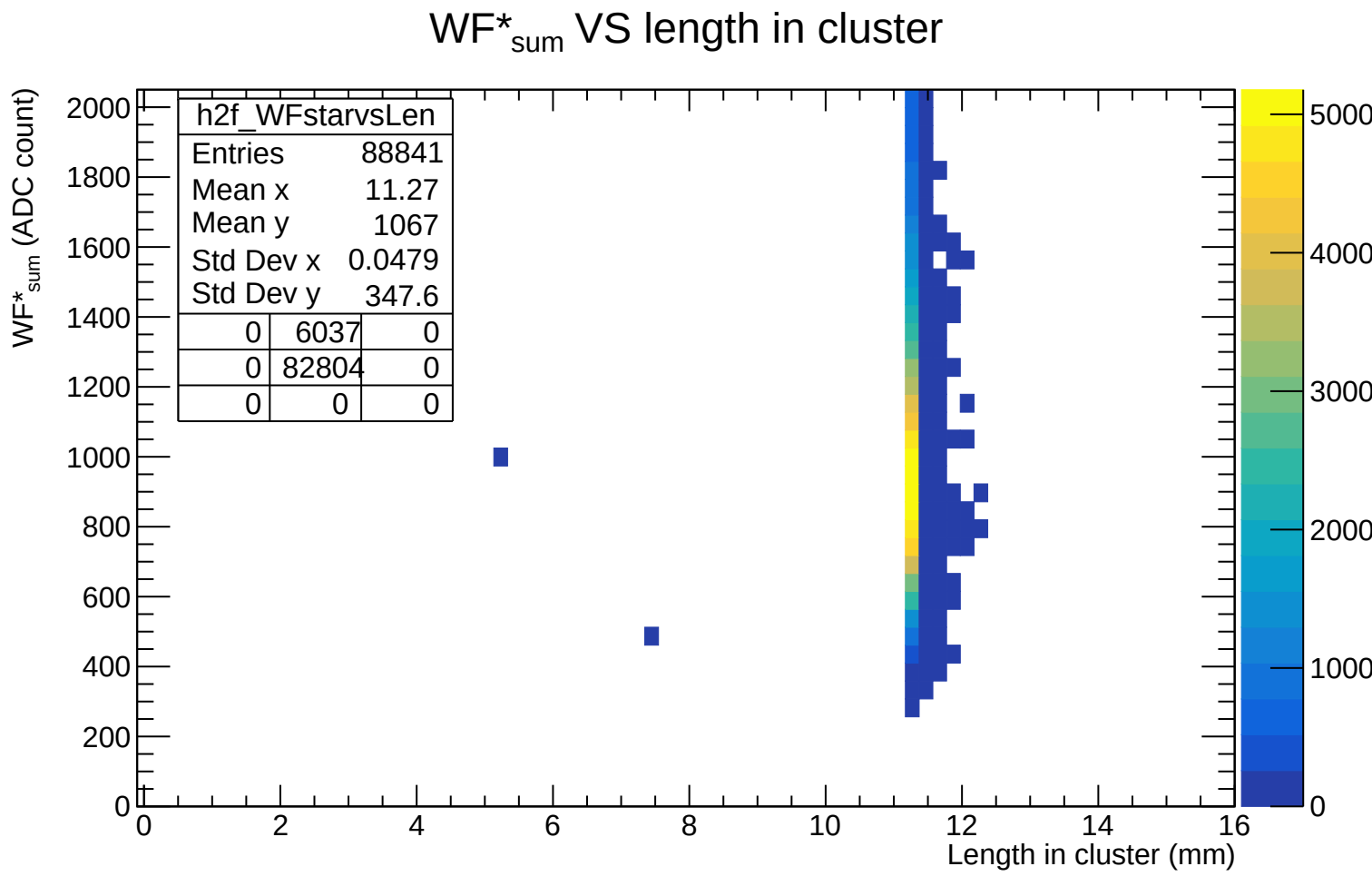

Q^anode VS length in pad (before length cut)
Q^anode
Length in pad (mm)
h2f_QvsLength
Entries 91531
Mean x 10.95
Mean y 1228
Std Dev x 1.55
Std Dev y 572.5
0 227 0
0 91304 0
0 0 0
0
500
1000
1500
2000
2500
3000
3500
4000
4500
0
2
4
6
8
10
12
14
16

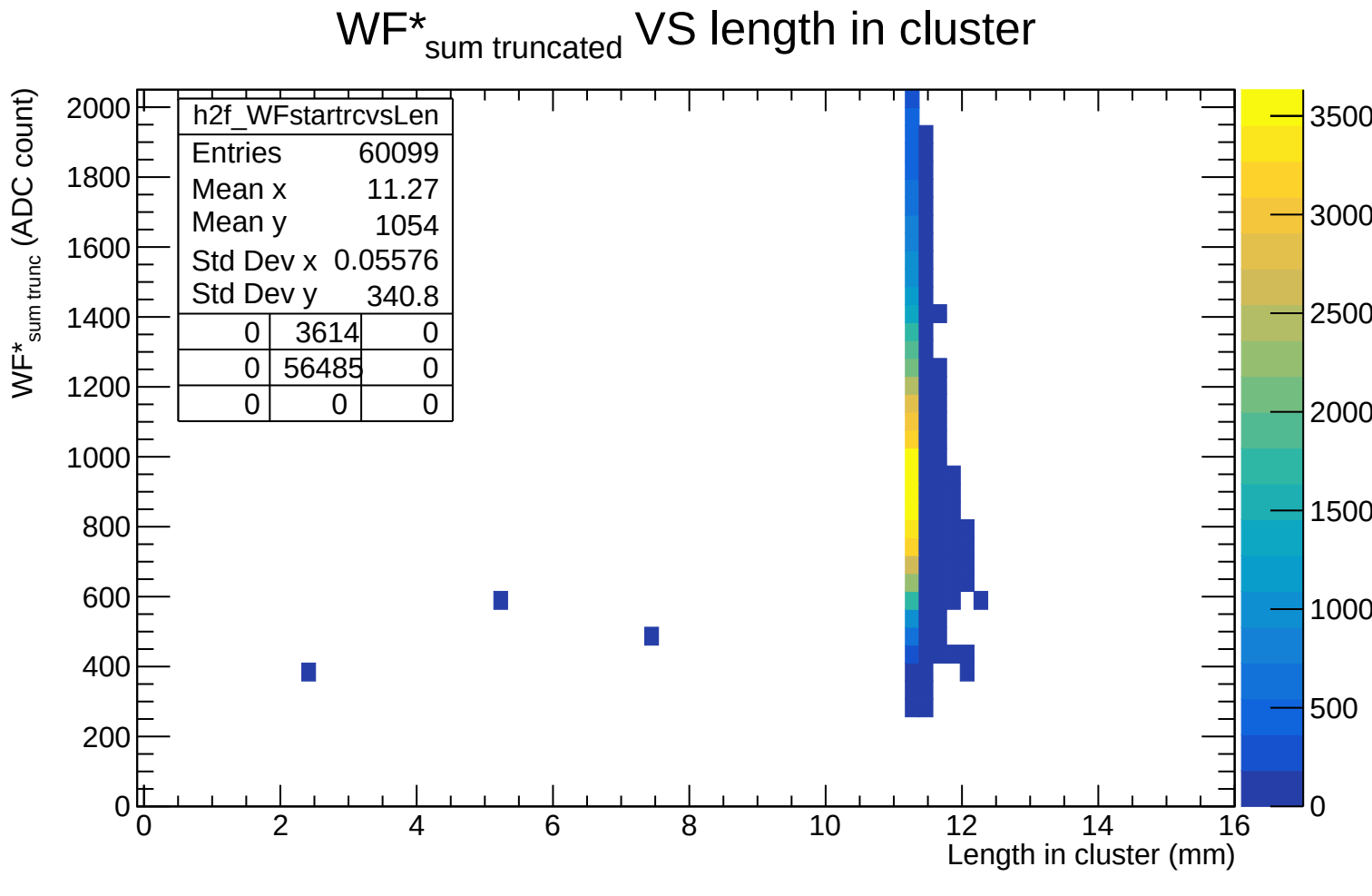

$Q^{anode}/ADC_{max}$ VS length in pad (before length cut)
h2f_LUTvsLength
Entries 91531
Mean x 10.96
Mean y 1.19
Std Dev x 1.548
Std Dev y 0.2464
0 0 0
0 91531 0
0 0 0
$Q^{anode}/ADC_{max}$
Length in pad (mm)
0
0.5
1
1.5
2
0
2
4
6
8
10
12
14
16
2400
2200
2000
1800
1600
1400
1200
1000
8000
6000
4000
2000
0

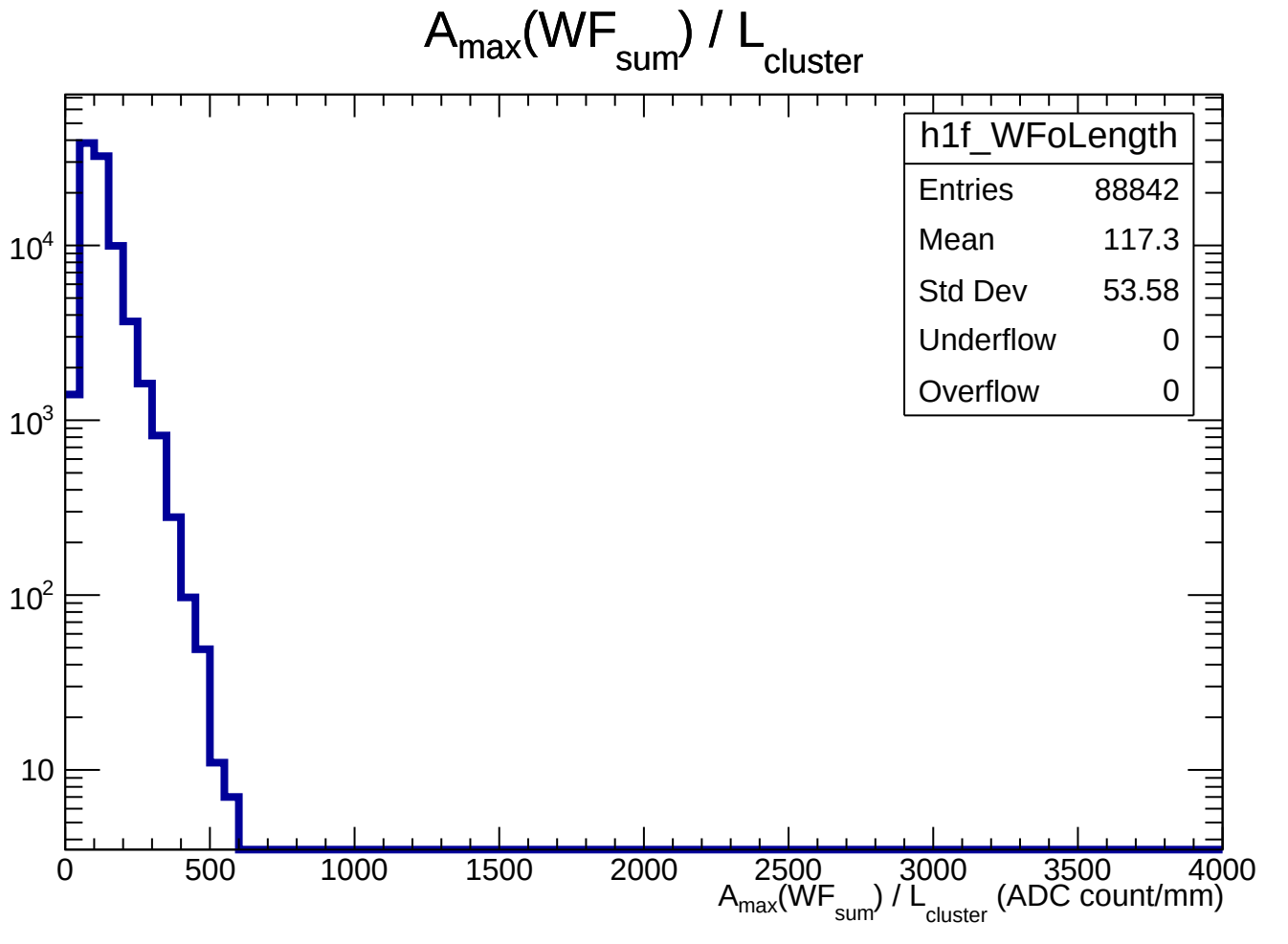

$Q_{cluster}$ VS length in cluster
h2f_QclvsLength
Entries 88842
Mean x 11.27
Mean y 1297
Std Dev x 0.06987
Std Dev y 345.1
0 14083 0
0 74759 0
0 0 0
$Q_{cluster}$ (ADC count)
Length in cluster (mm)
0 2 4 6 8 10 12 14 16
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 500 1000 1500 2000 2500 3000 3500 4000

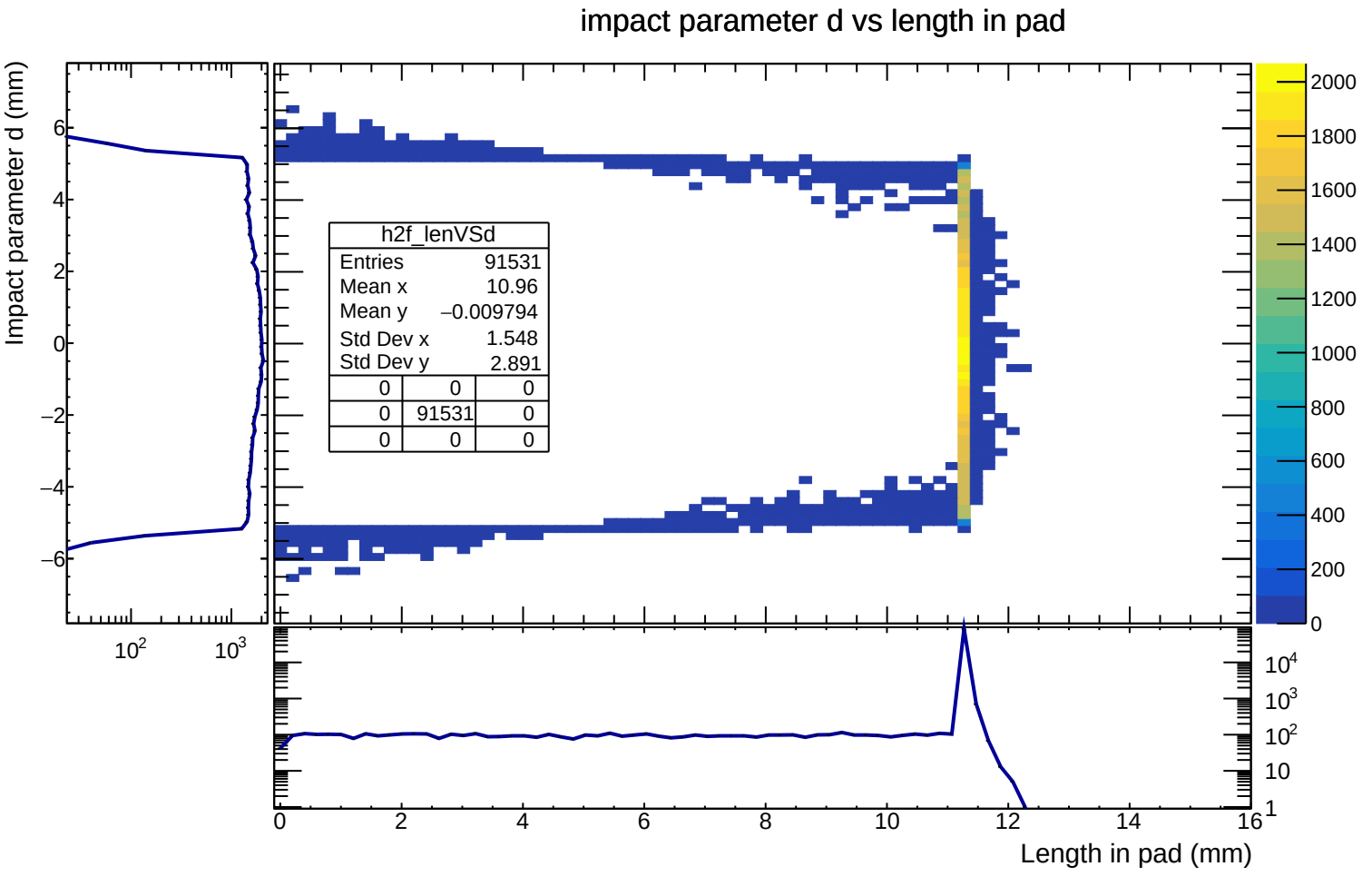

WF_sum VS length in cluster
h2f_WFvsLength
Entries 88842
Mean x 11.27
Mean y 1168
Std Dev x 0.06784
Std Dev y 351
0 8995 0
0 79847 0
0 0 0
WF_sum (ADC count)
Length in cluster (mm)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
2
4
6
8
10
12
14
16
0
500
1000
1500
2000
2500
3000
3500
4000
4500


WF sum truncated VS length in cluster
h2f_WFtruncvsLength
Entries 60099
Mean x 11.27
Mean y 1018
Std Dev x 0.05419
Std Dev y 241.1
0 0 0
0 60099 0
0 0 0
WF sum trunc (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
500
1500
2500
3000
3500
4000
4500


WF*sum VS length in cluster
h2f_WFstarvsLen
Entries 88841
Mean x 11.27
Mean y 1067
Std Dev x 0.0479
Std Dev y 347.6
0 6037 0
0 82804 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


WF*sum truncated VS length in cluster
h2f_WFstartrcvsLen
Entries 60099
Mean x 11.27
Mean y 1054
Std Dev x 0.05576
Std Dev y 340.8
0 3614 0
0 56485 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
0 500 1000 1500 2000 2500 3000 3500


$A_{max}(WF_{sum}) / L_{cluster}$
h1f_WFoLength
Entries 88842
Mean 117.3
Std Dev 53.58
Underflow 0
Overflow 0
$10^4$
$10^3$
$10^2$
10
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 91531
Mean x 10.96
Mean y −0.009794
Std Dev x 1.548
Std Dev y 2.891
0 0 0
0 91531 0
0 0 0