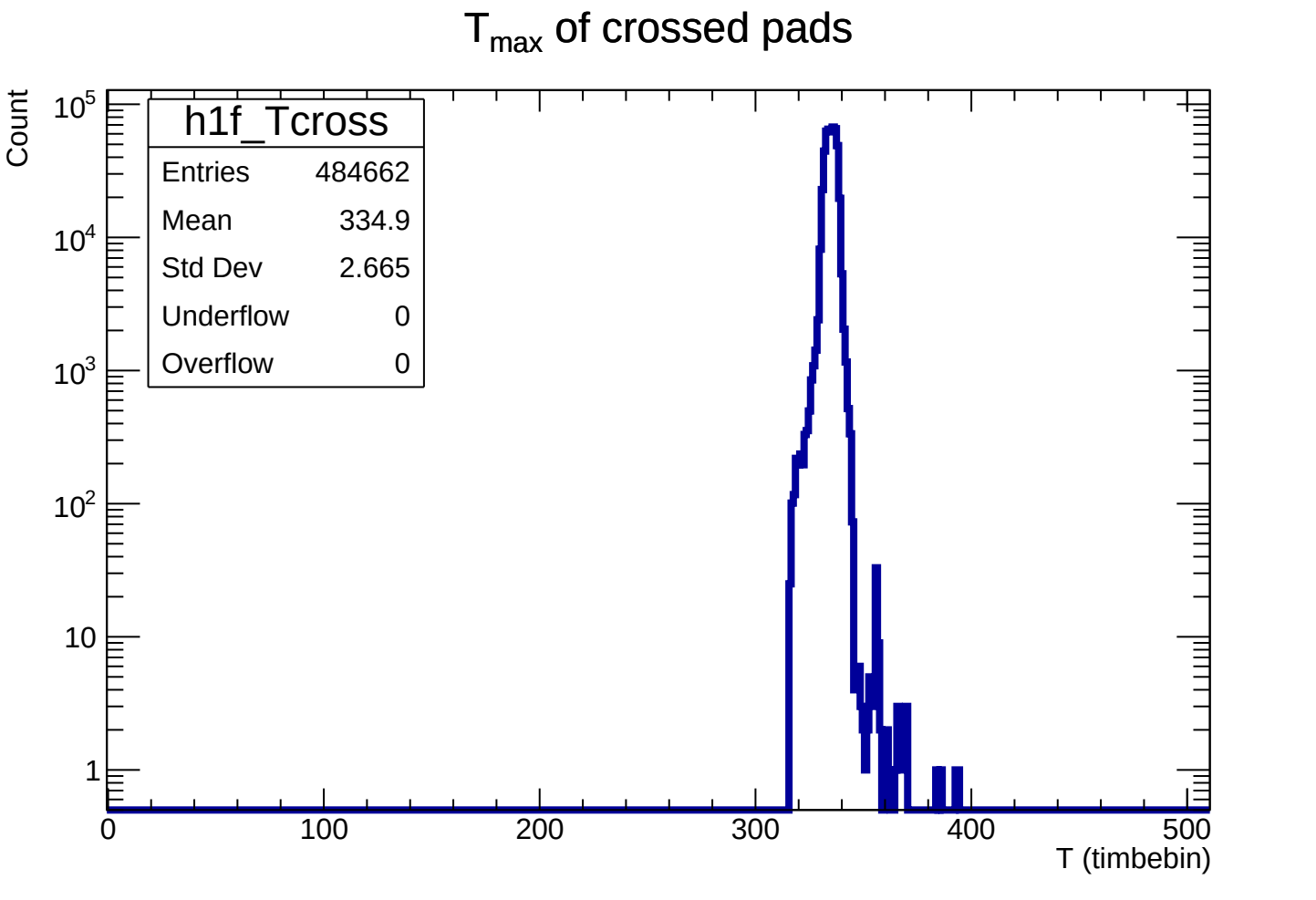
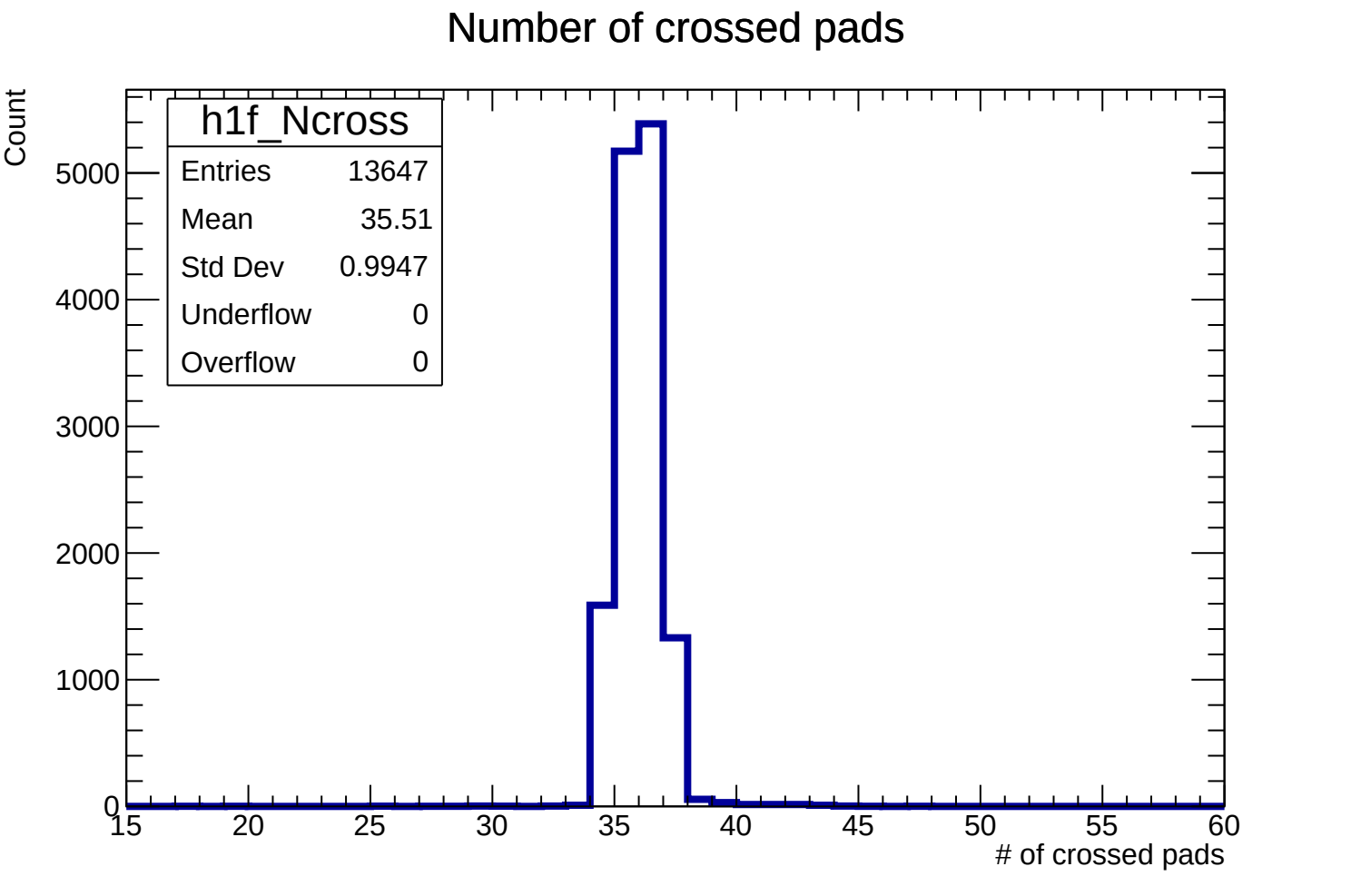
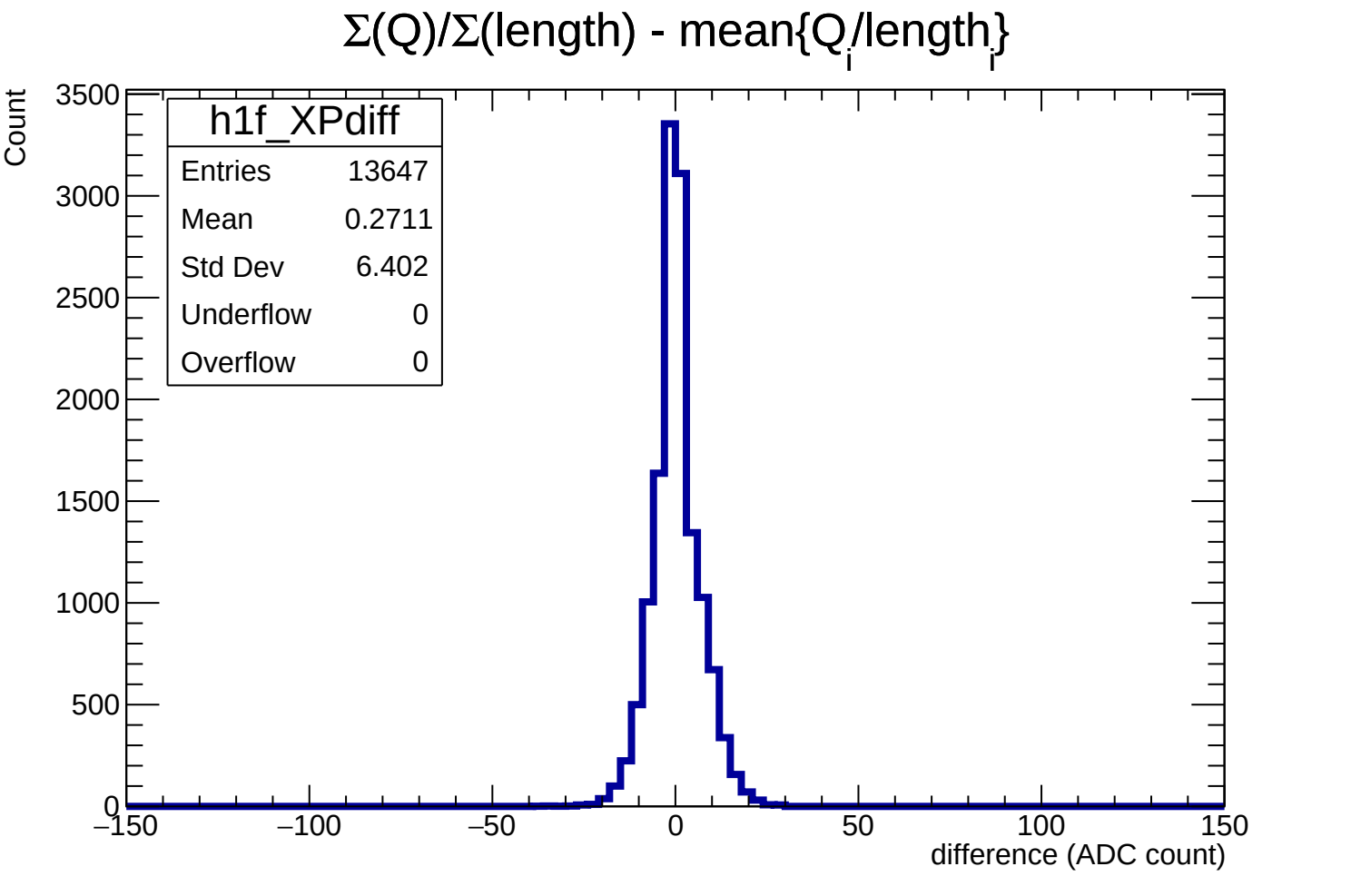
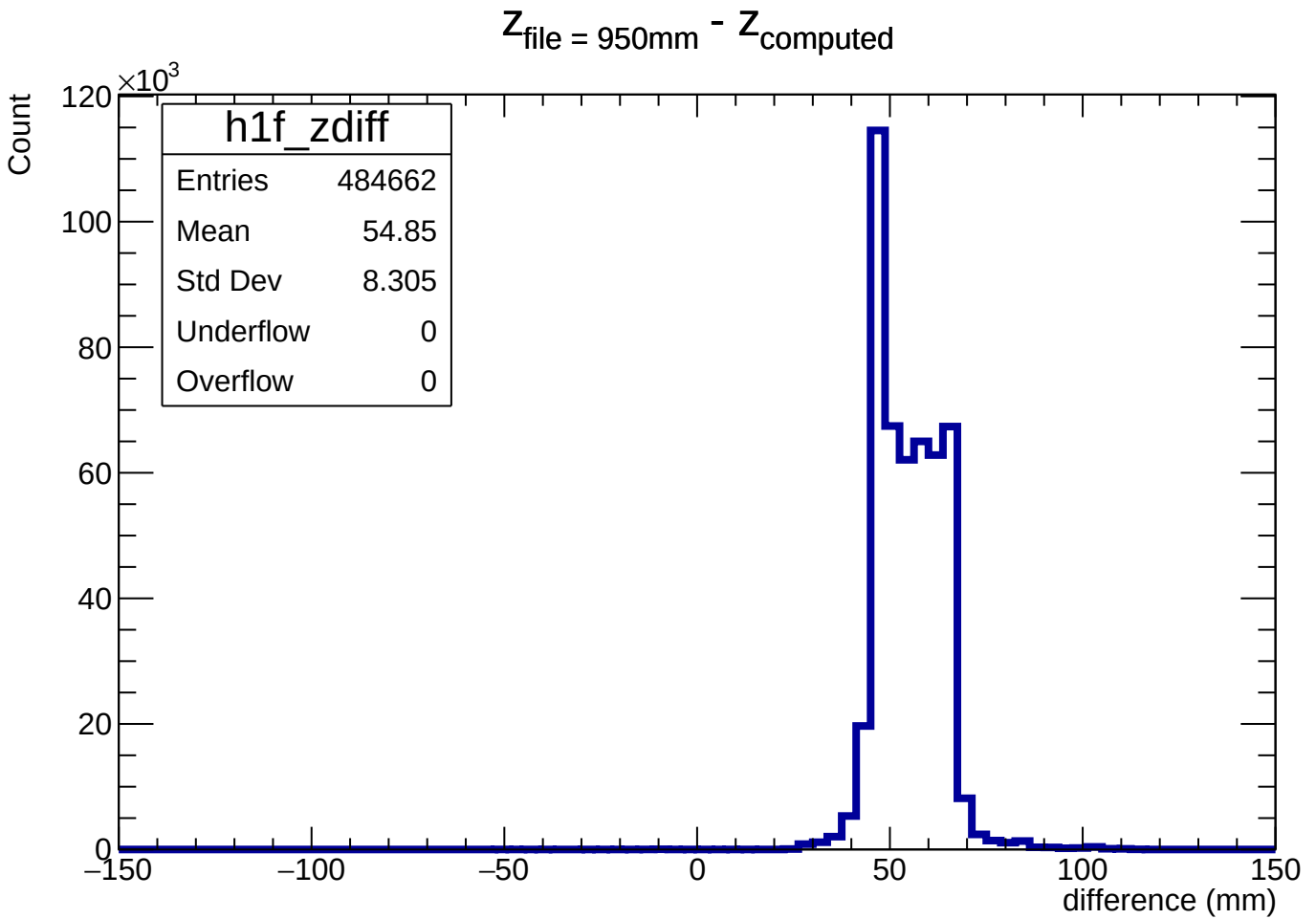
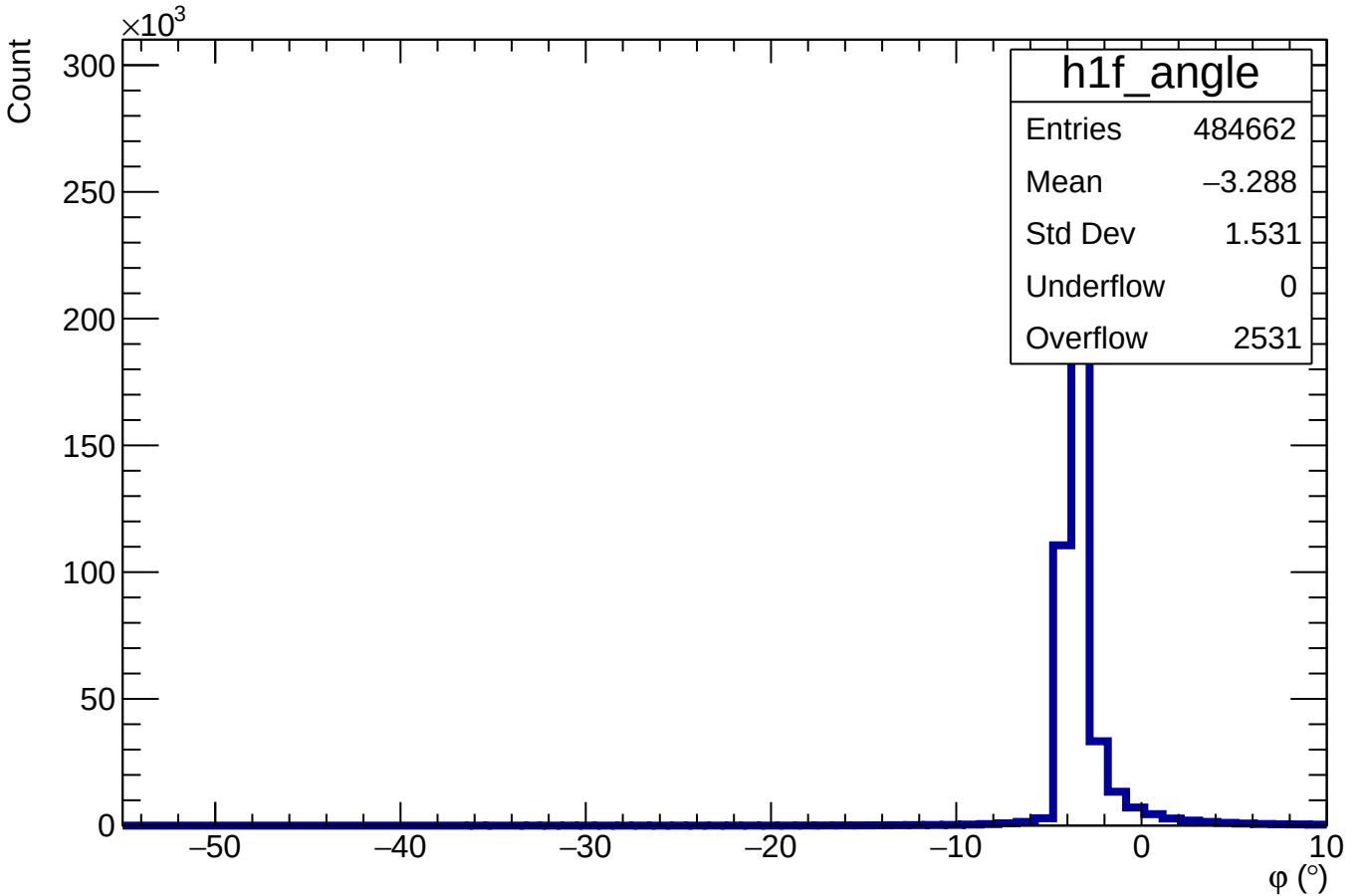
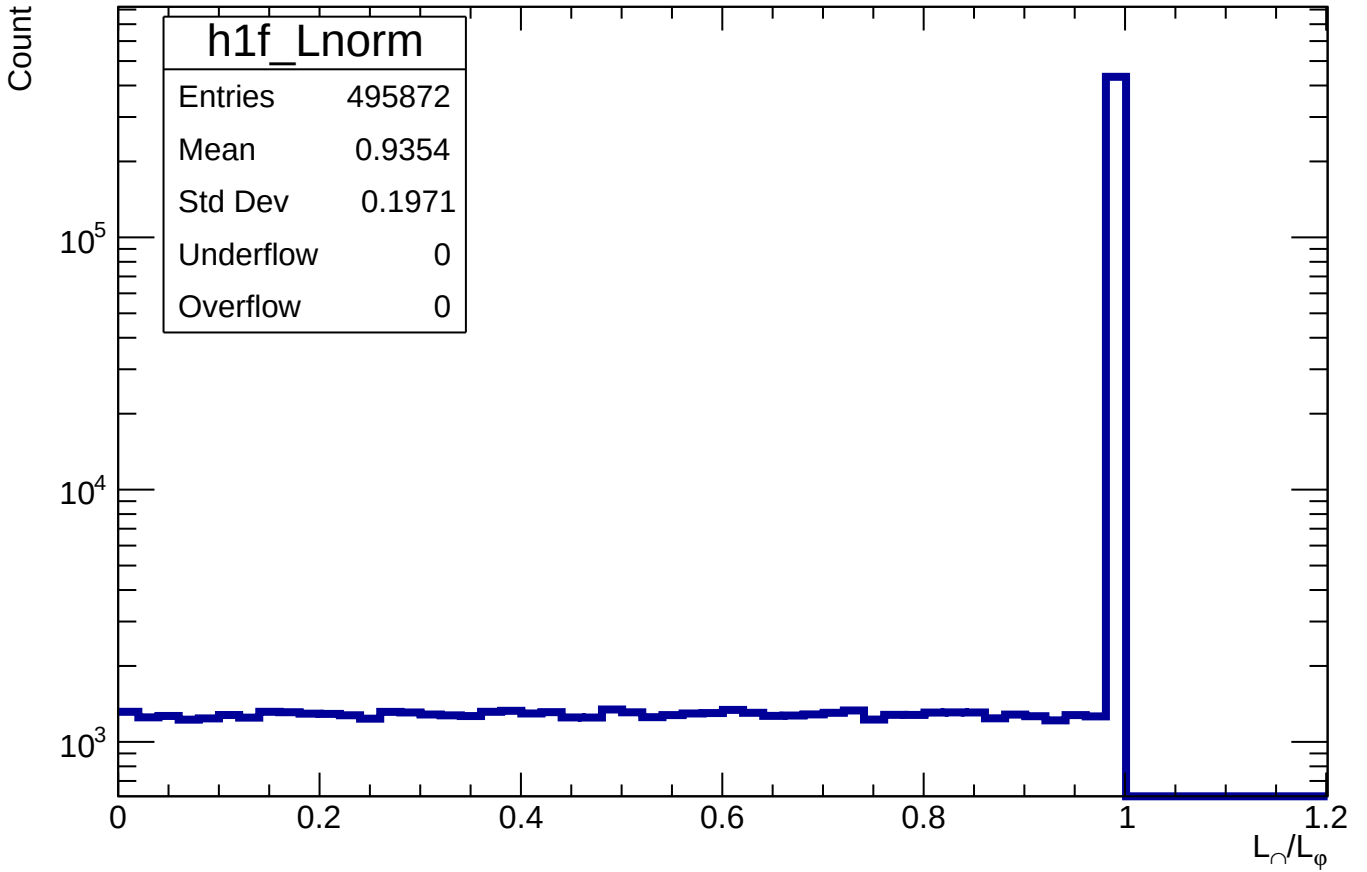

T_{max} of crossed pads
h1f_Tcross
Entries 484662
Mean 334.9
Std Dev 2.665
Underflow 0
Overflow 0
Count
10^5
10^4
10^3
10^2
10
1
0
100
200
300
400
500
T (timbebin)

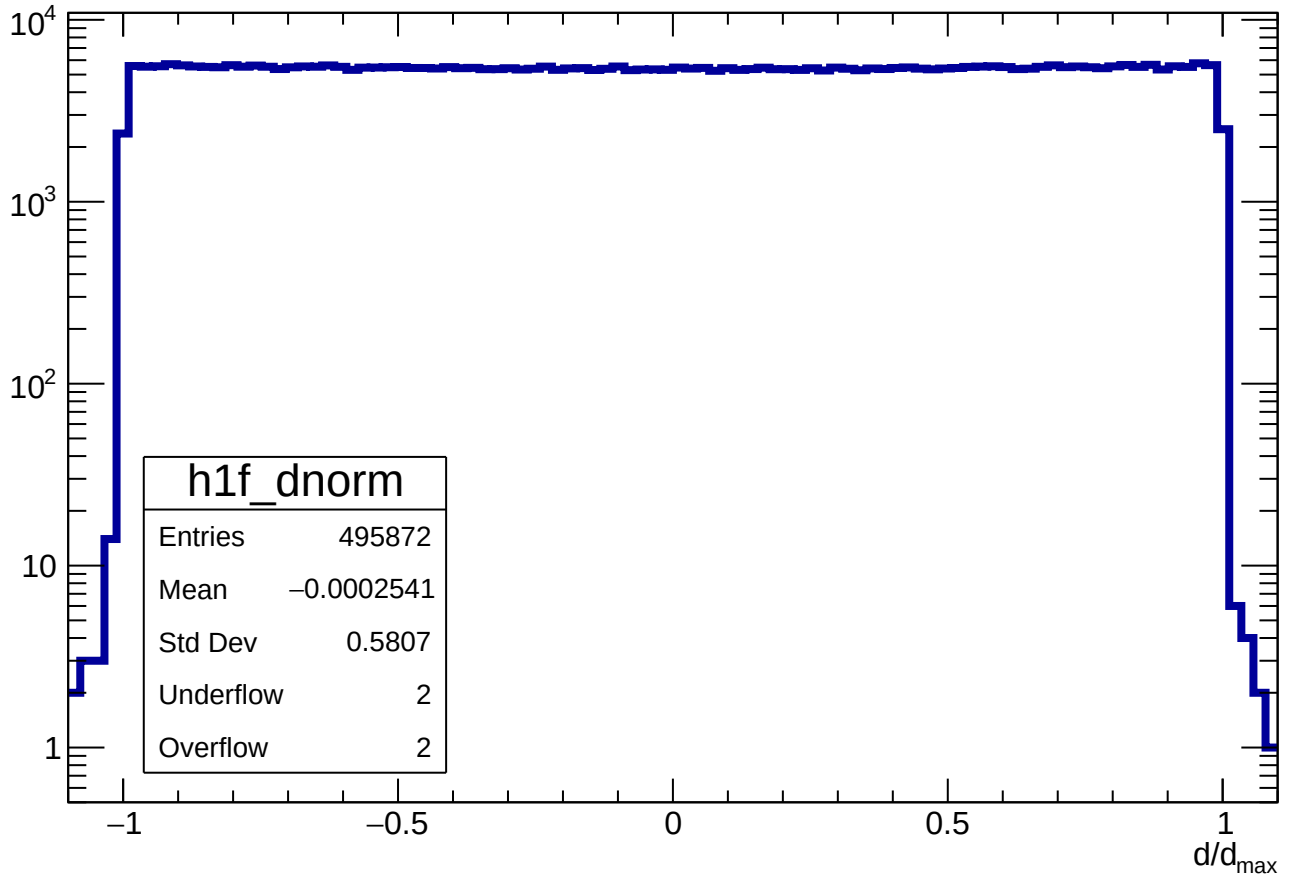

Number of crossed pads
h1f_Ncross
Entries 13647
Mean 35.51
Std Dev 0.9947
Underflow 0
Overflow 0
Count
0
1000
2000
3000
4000
5000
15
20
25
30
35
40
45
50
55
60
# of crossed pads

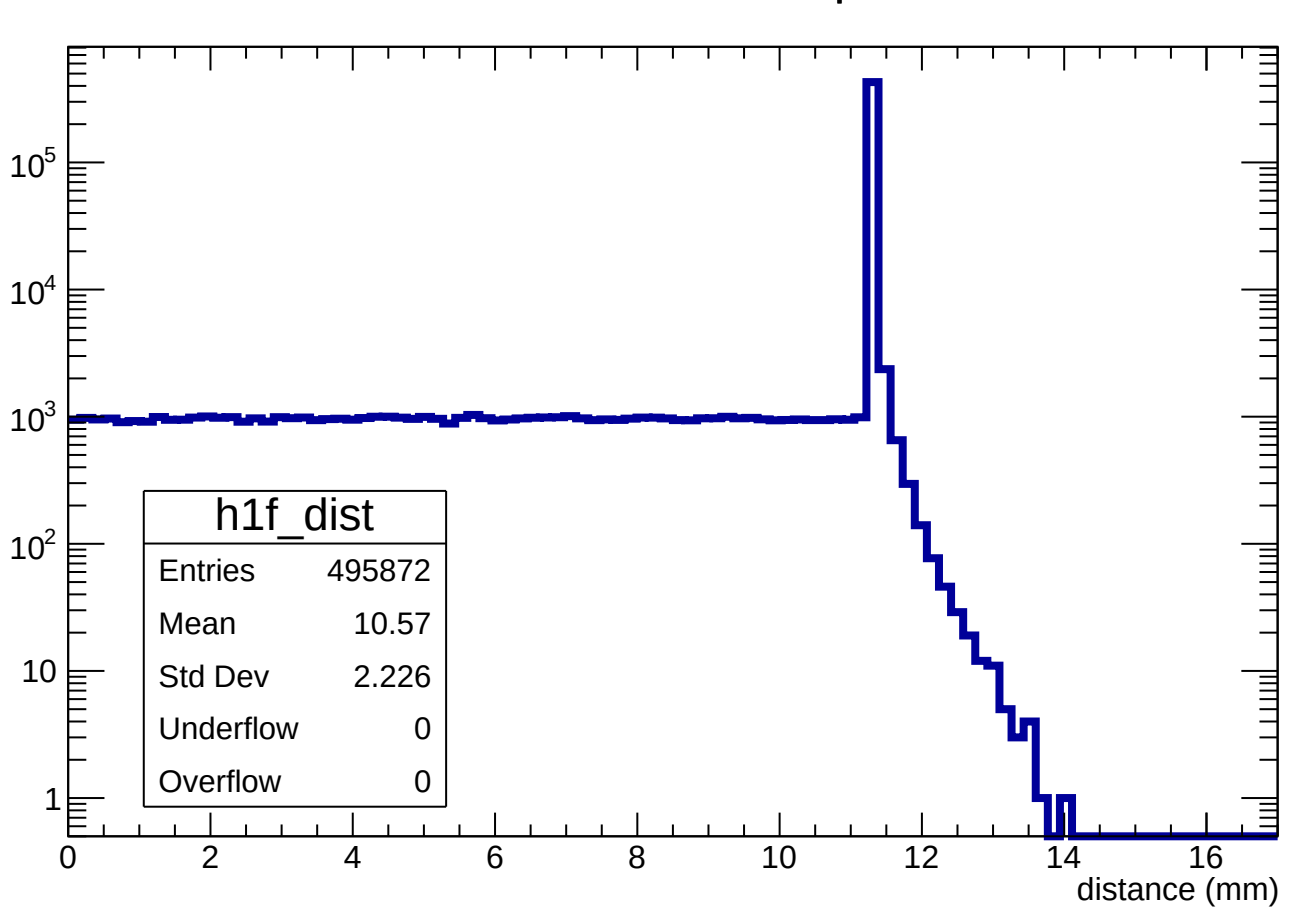

Σ(Q)/Σ(length) - mean{Q_i/length_i}
h1f_XPdiff
Entries 13647
Mean 0.2711
Std Dev 6.402
Underflow 0
Overflow 0
Count
3500
3000
2500
2000
1500
1000
500
0
–150
–100
–50
0
50
100
150
difference (ADC count)

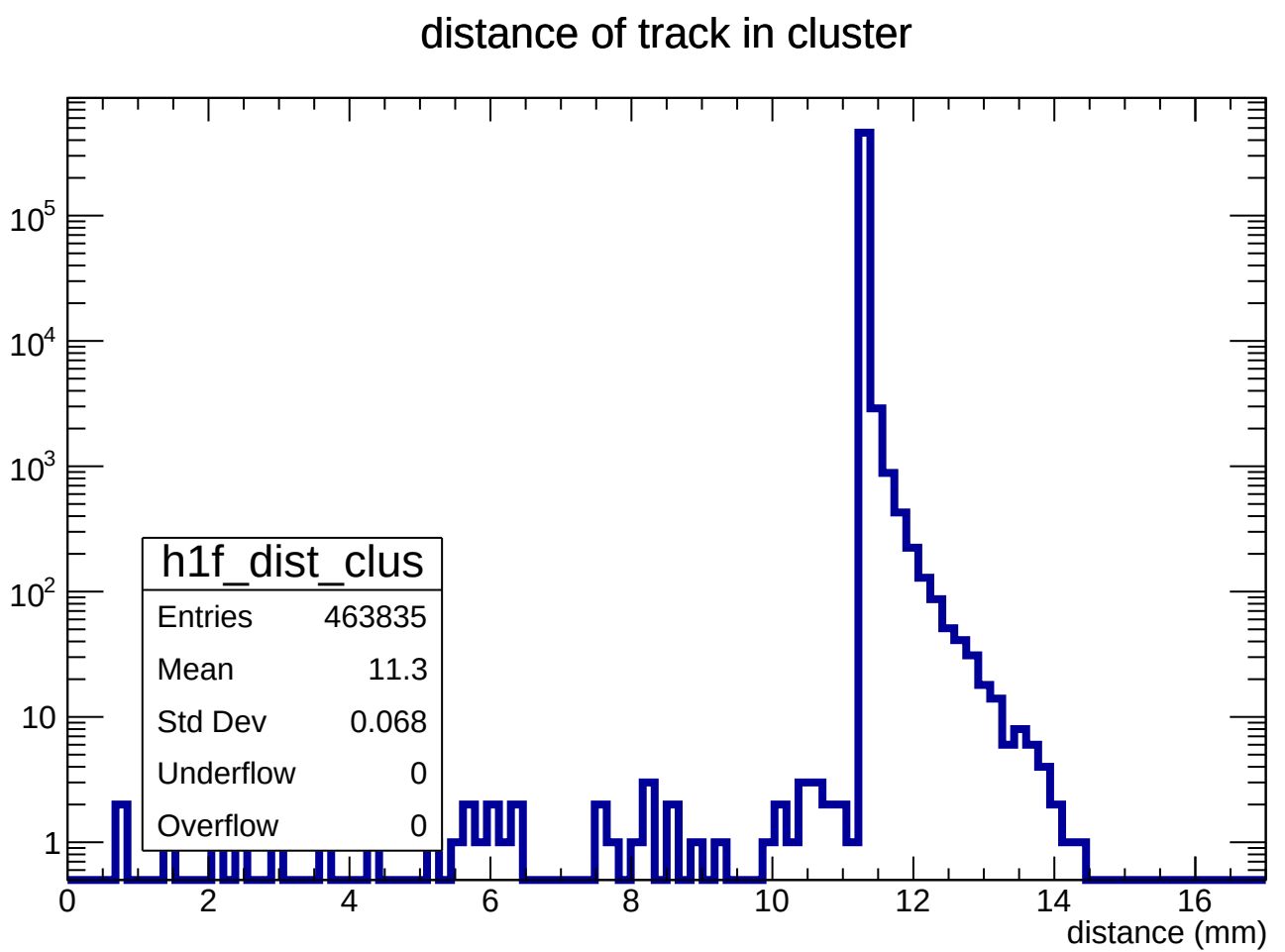

$z_{file = 950mm} - z_{computed}$
h1f_zdiff
Entries 484662
Mean 54.85
Std Dev 8.305
Underflow 0
Overflow 0
Count
×10^3
120
100
80
60
40
20
0
–150
–100
–50
0
50
100
150
difference (mm)

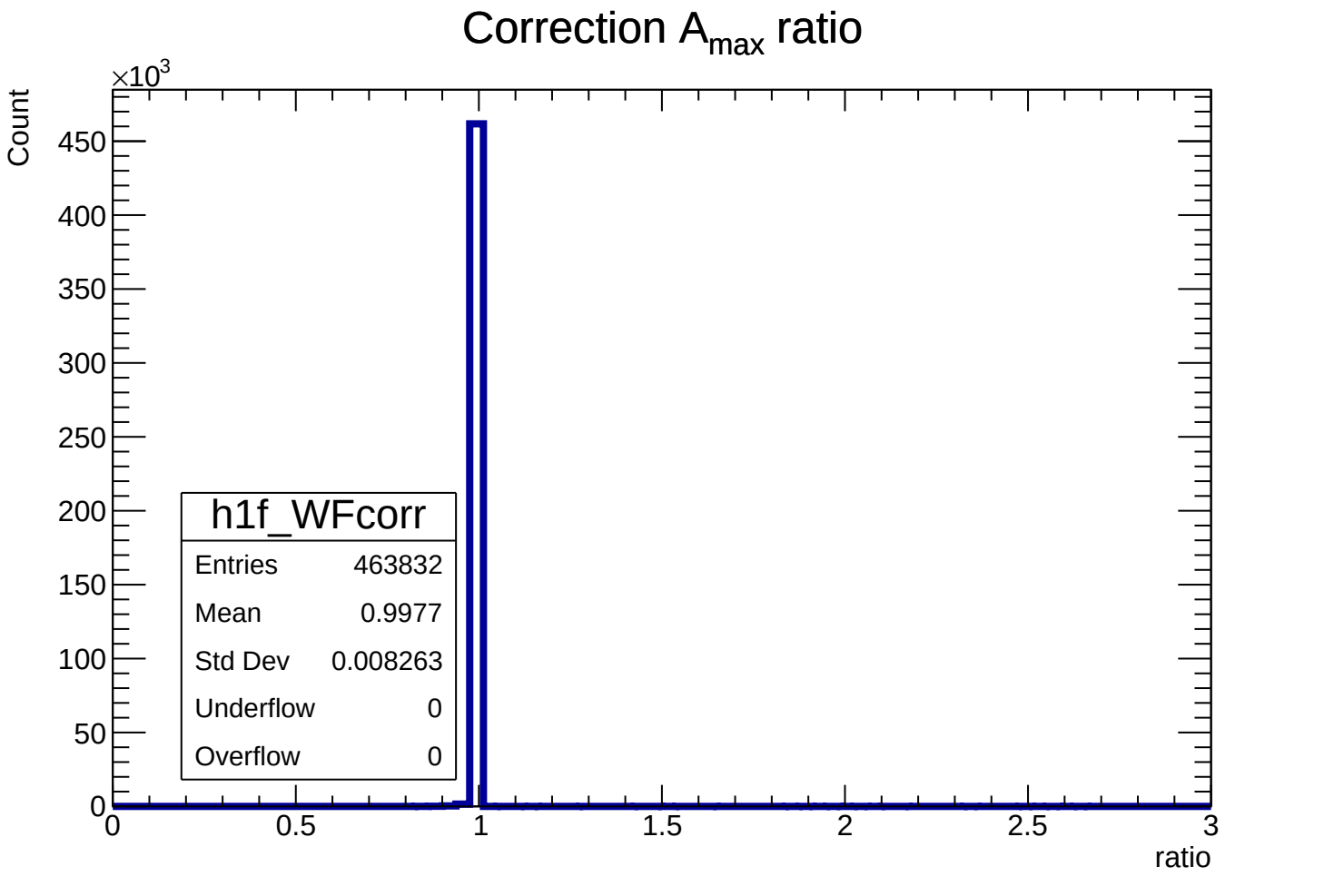

Angle φ in each pad
Count
×10^3
300
250
200
150
100
50
0
h1f_angle
Entries 484662
Mean −3.288
Std Dev 1.531
Underflow 0
Overflow 2531
−50
−40
−30
−20
−10
0
10
φ (°)

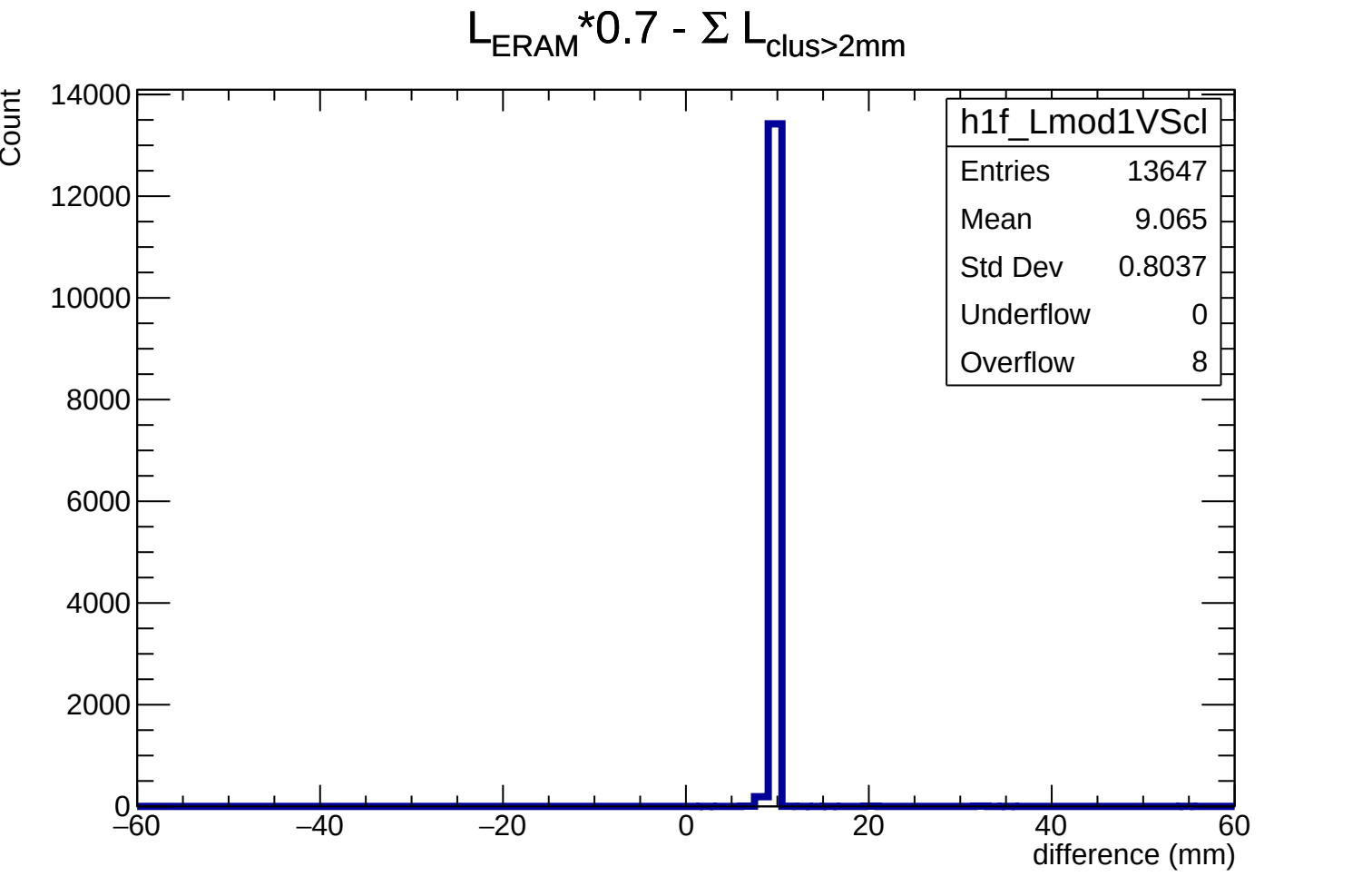

Length in pad normalized to maximum length in pad for a given φ
h1f_Lnorm
Entries 495872
Mean 0.9354
Std Dev 0.1971
Underflow 0
Overflow 0
Count
10^5
10^4
10^3
0
0.2
0.4
0.6
0.8
1
1.2
L_⌒/L_φ

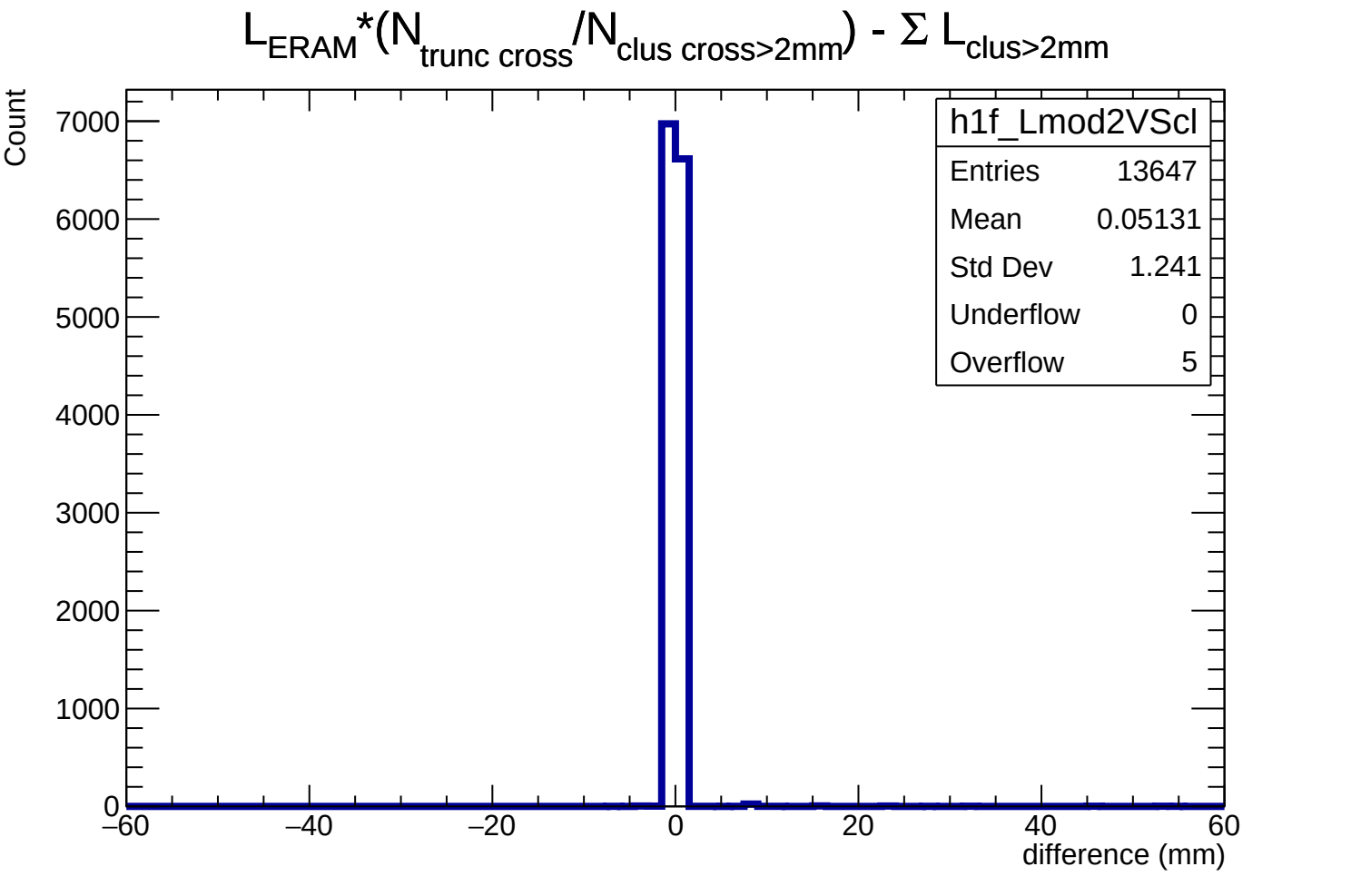

Normalized impact parameter d/d max
10^4
10^3
10^2
10
1
h1f_dnorm
Entries 495872
Mean −0.0002541
Std Dev 0.5807
Underflow 2
Overflow 2
−1
−0.5
0
0.5
1
d/d max

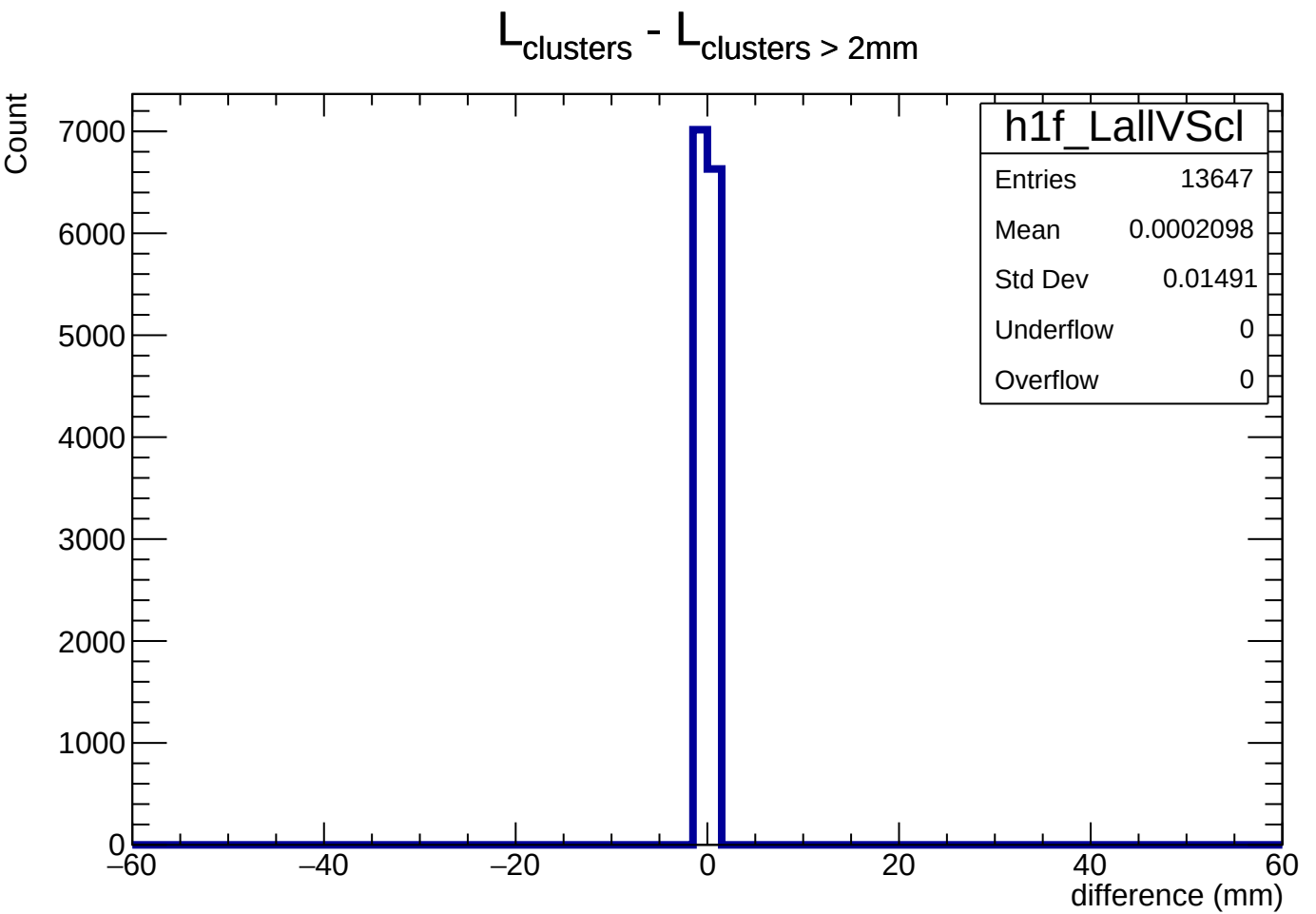

distance of track in pad
h1f_dist
Entries 495872
Mean 10.57
Std Dev 2.226
Underflow 0
Overflow 0
10^5
10^4
10^3
10^2
10
1
0
2
4
6
8
10
12
14
16
distance (mm)

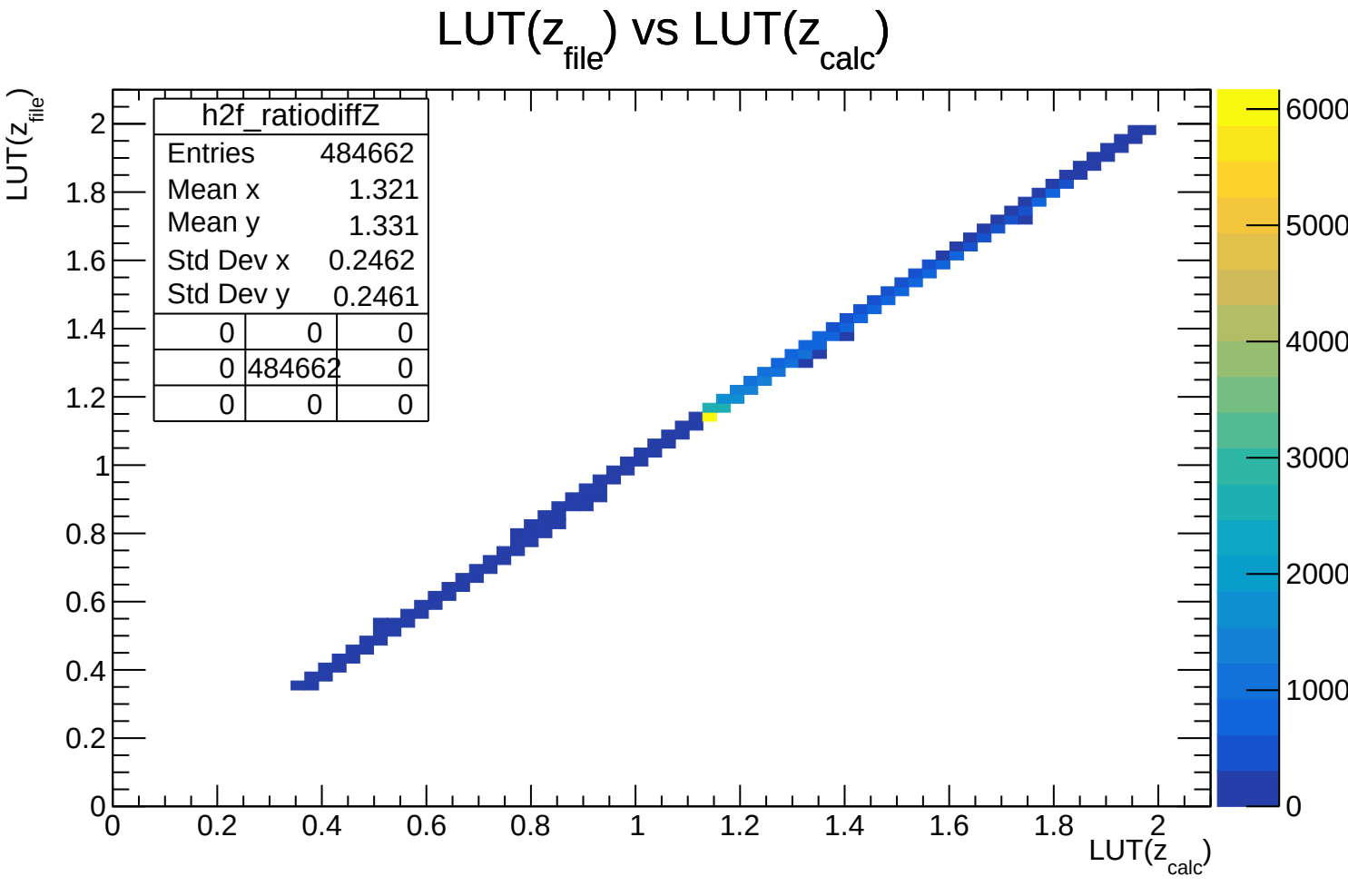

distance of track in cluster
h1f_dist_clus
Entries 463835
Mean 11.3
Std Dev 0.068
Underflow 0
Overflow 0
10^5
10^4
10^3
10^2
10
1
0
2
4
6
8
10
12
14
16
distance (mm)

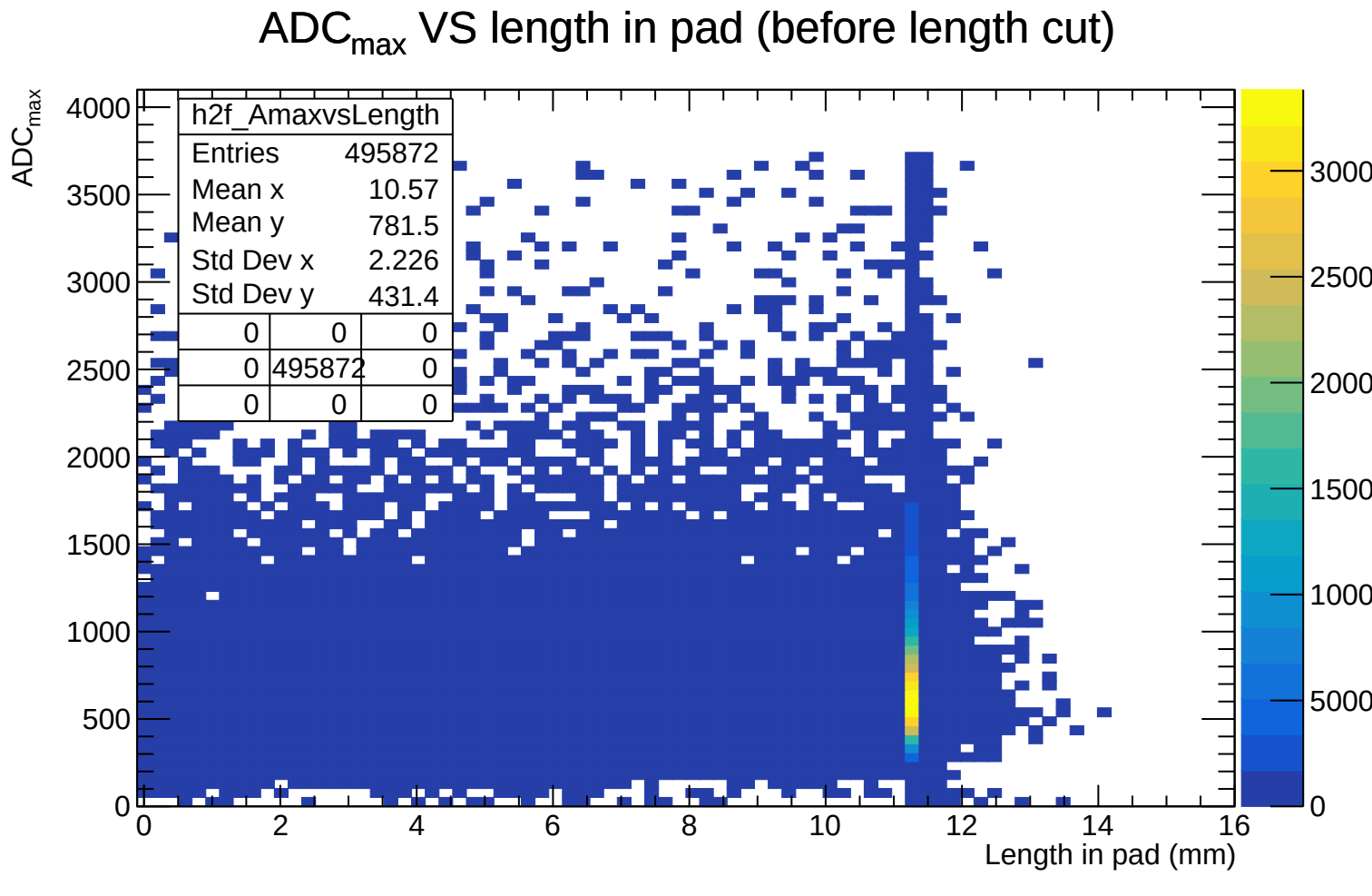

Correction A_{max} ratio
$\times 10^3$
Count
450
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5
3
ratio
h1f_WFcorr
Entries 463832
Mean 0.9977
Std Dev 0.008263
Underflow 0
Overflow 0

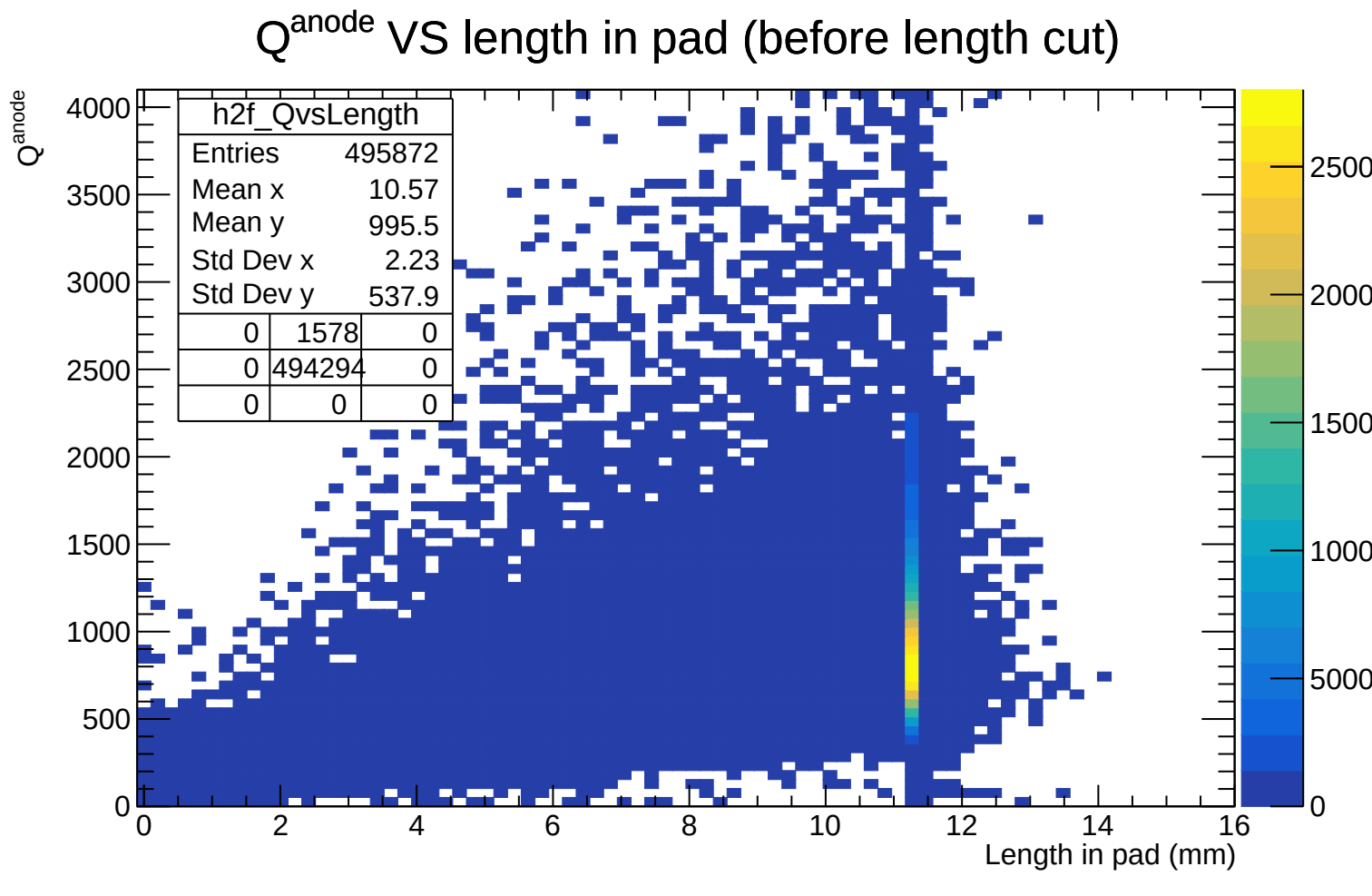

L_{ERAM}*0.7 - Σ $L_{clus>2mm}$
Count
14000
12000
10000
8000
6000
4000
2000
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod1VScl
Entries 13647
Mean 9.065
Std Dev 0.8037
Underflow 0
Overflow 8

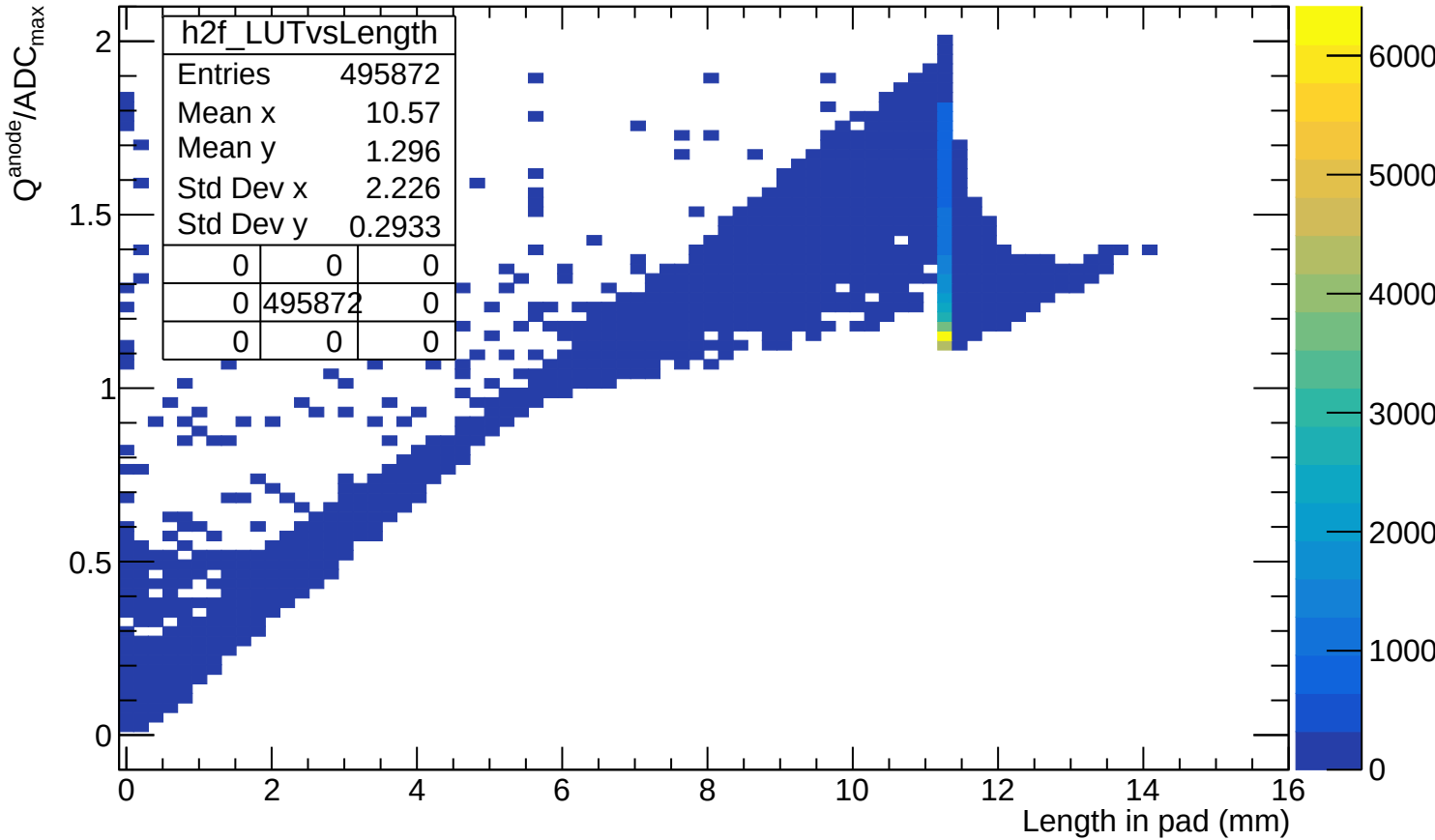

$L_{ERAM}*(N_{trunc\ cross}/N_{clus\ cross>2mm}) - \Sigma\ L_{clus>2mm}$
Count
7000
6000
5000
4000
3000
2000
1000
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_Lmod2VScl
Entries 13647
Mean 0.05131
Std Dev 1.241
Underflow 0
Overflow 5

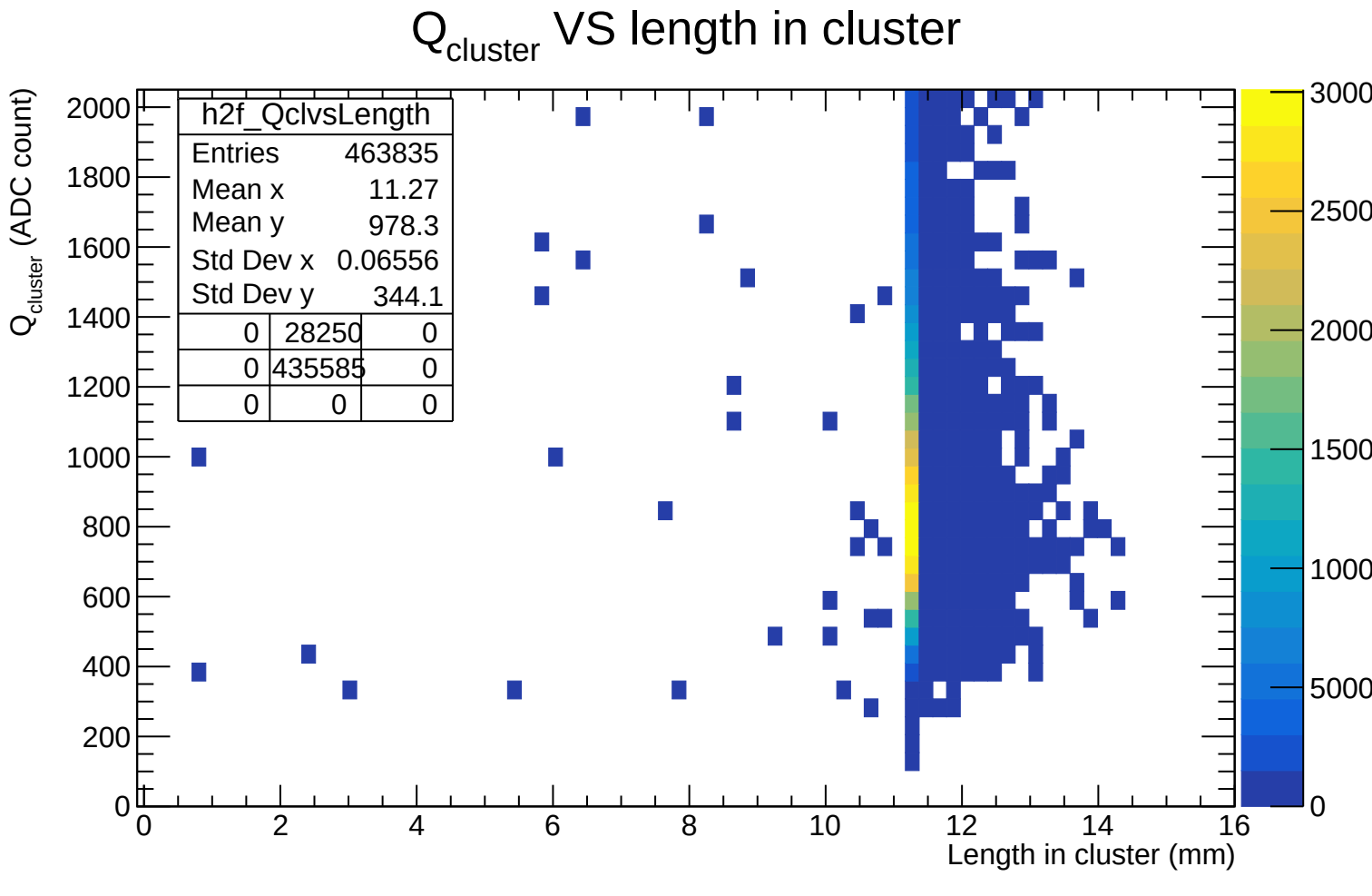

L clusters - L clusters > 2mm
Count
7000
6000
5000
4000
3000
2000
1000
0
–60
–40
–20
0
20
40
60
difference (mm)
h1f_LallVScl
Entries 13647
Mean 0.0002098
Std Dev 0.01491
Underflow 0
Overflow 0

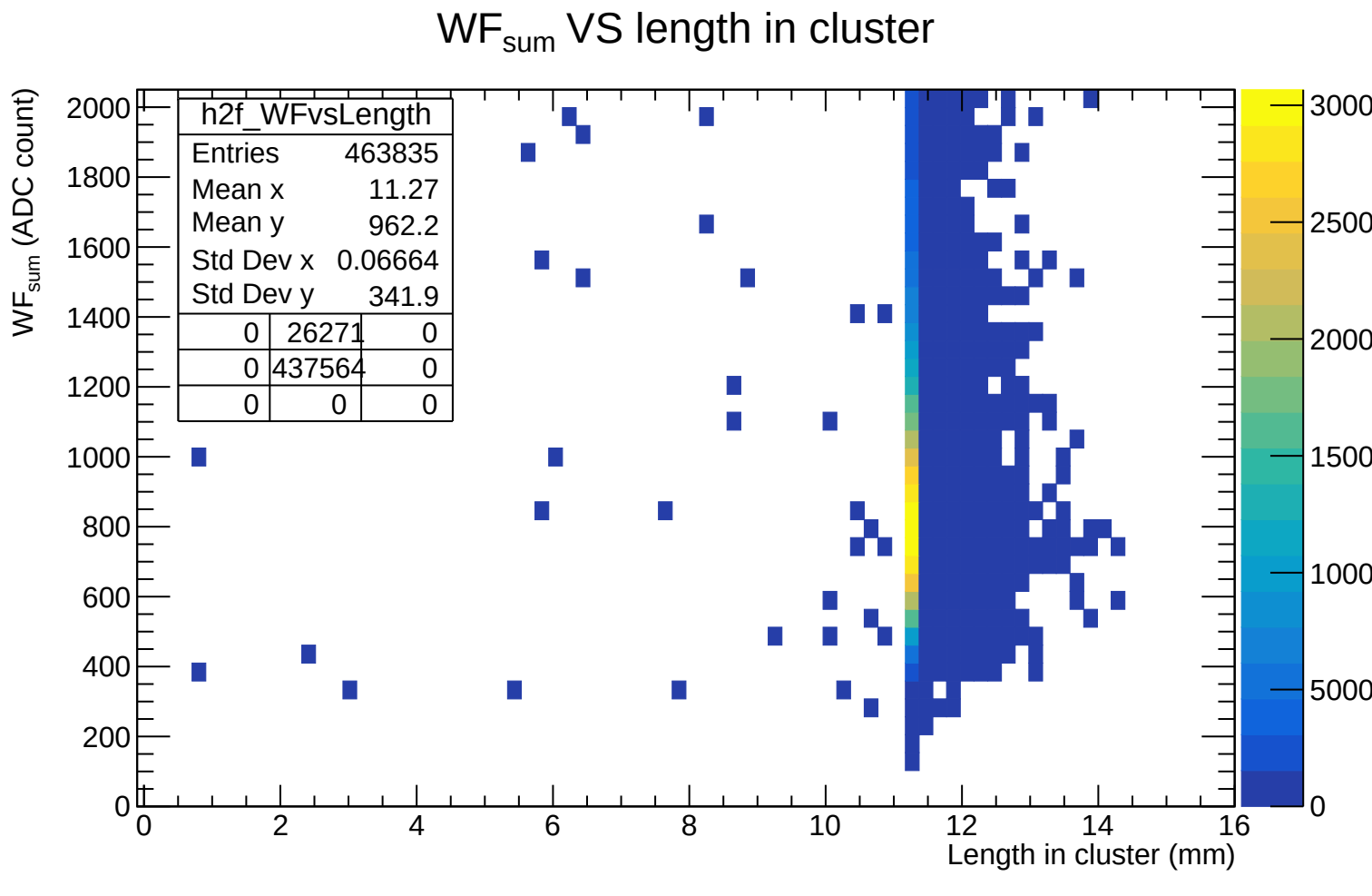

LUT(z_file) vs LUT(z_calc)
h2f_ratiodiffZ
Entries 484662
Mean x 1.321
Mean y 1.331
Std Dev x 0.2462
Std Dev y 0.2461
0 0 0
0 484662 0
0 0 0
LUT(z_file)
LUT(z_calc)
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2
0 1000 2000 3000 4000 5000 6000

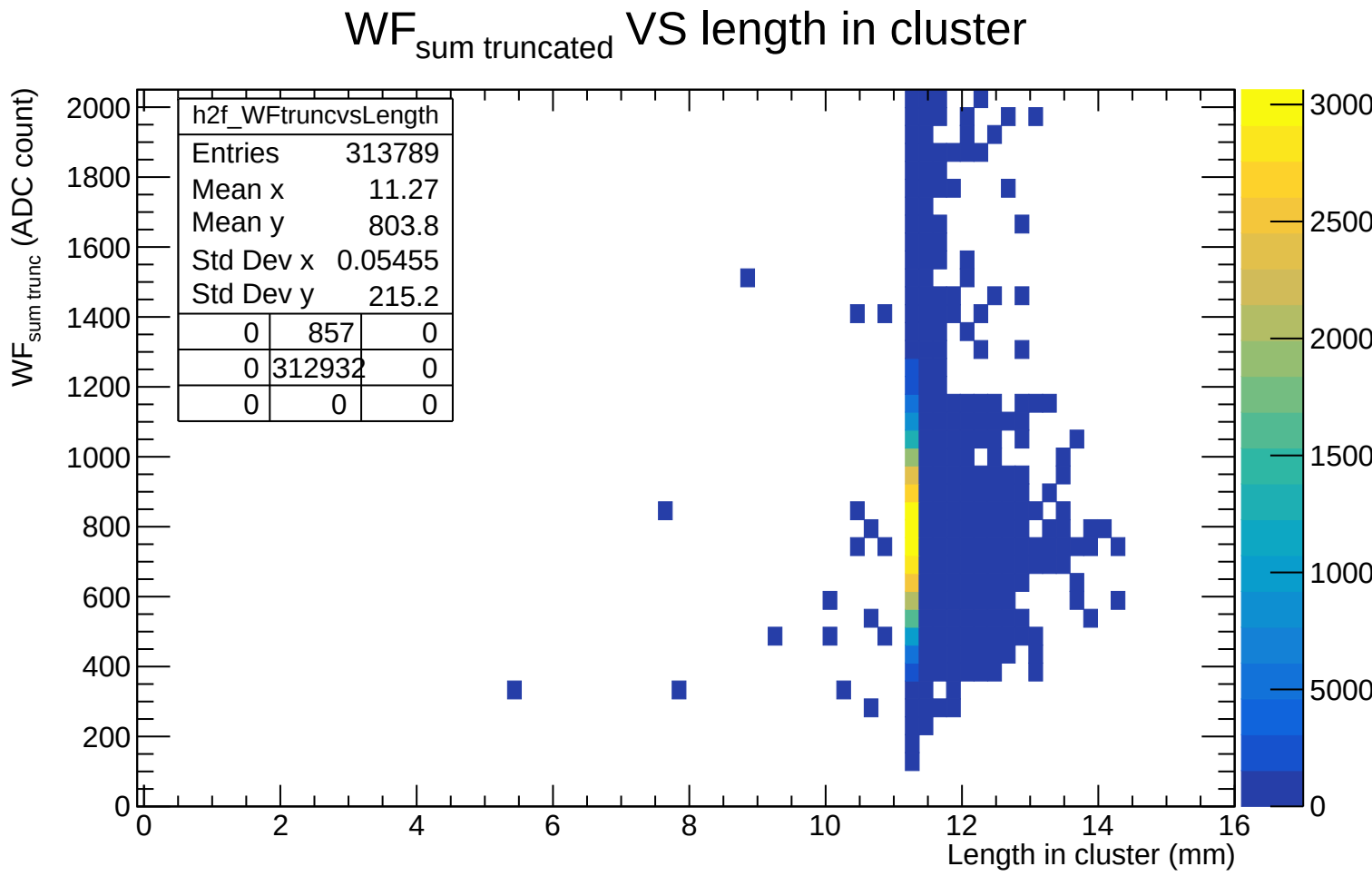

ADC$_{max}$ VS length in pad (before length cut)
h2f_AmaxvsLength
Entries 495872
Mean x 10.57
Mean y 781.5
Std Dev x 2.226
Std Dev y 431.4
0 0 0
0 495872 0
0 0 0
ADC$_{max}$
Length in pad (mm)
0
500
1000
1500
2000
2500
3000
3500
4000
0
2
4
6
8
10
12
14
16
0
5000
1000
1500
2000
2500
3000

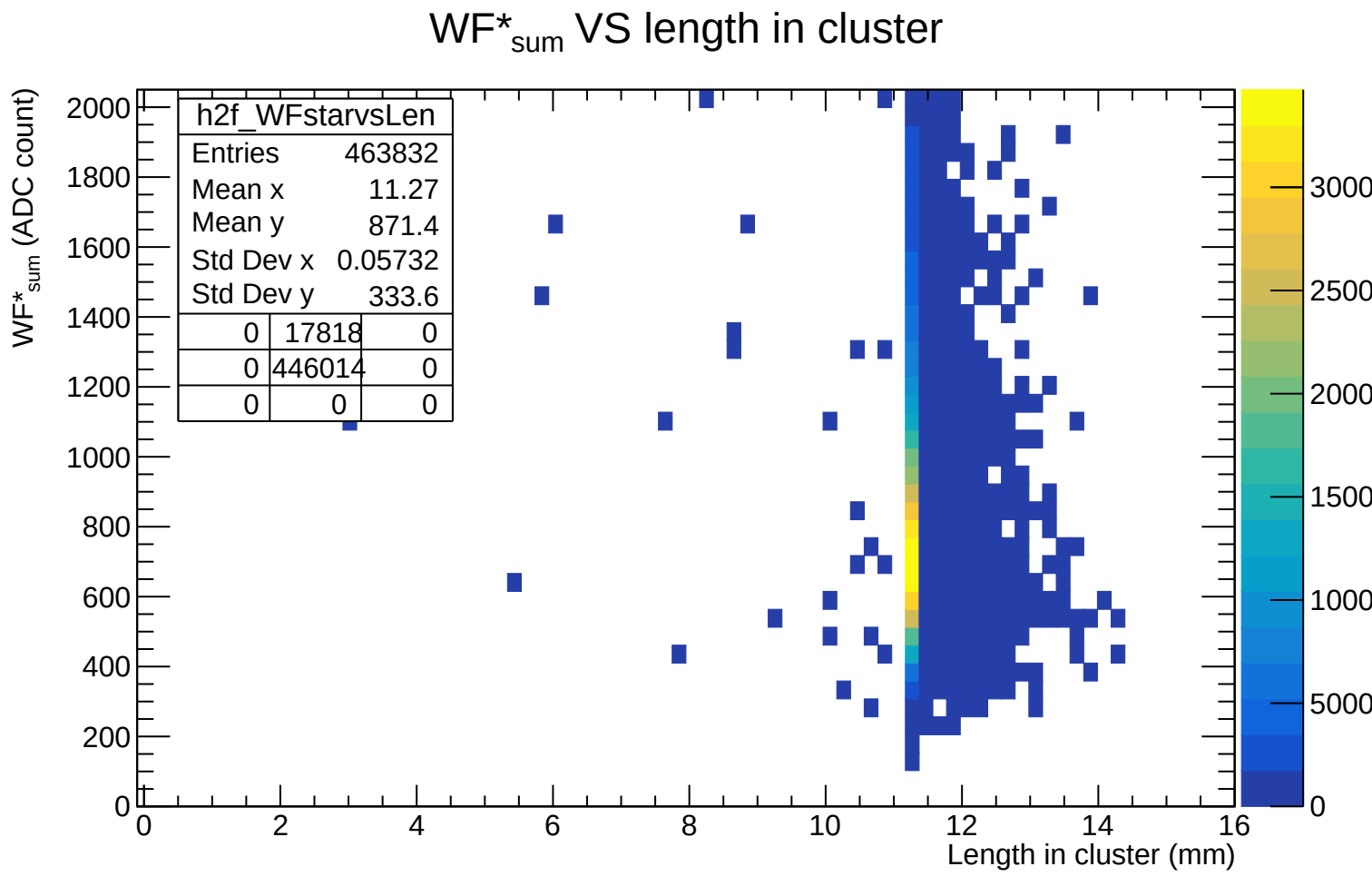

Q^anode VS length in pad (before length cut)
h2f_QvsLength
Entries 495872
Mean x 10.57
Mean y 995.5
Std Dev x 2.23
Std Dev y 537.9
0 1578 0
0 494294 0
0 0 0
Q^anode
Length in pad (mm)
0
500
1000
1500
2000
2500
3000
3500
4000
0
2
4
6
8
10
12
14
16
0
5000
1000
1500
2000
2500

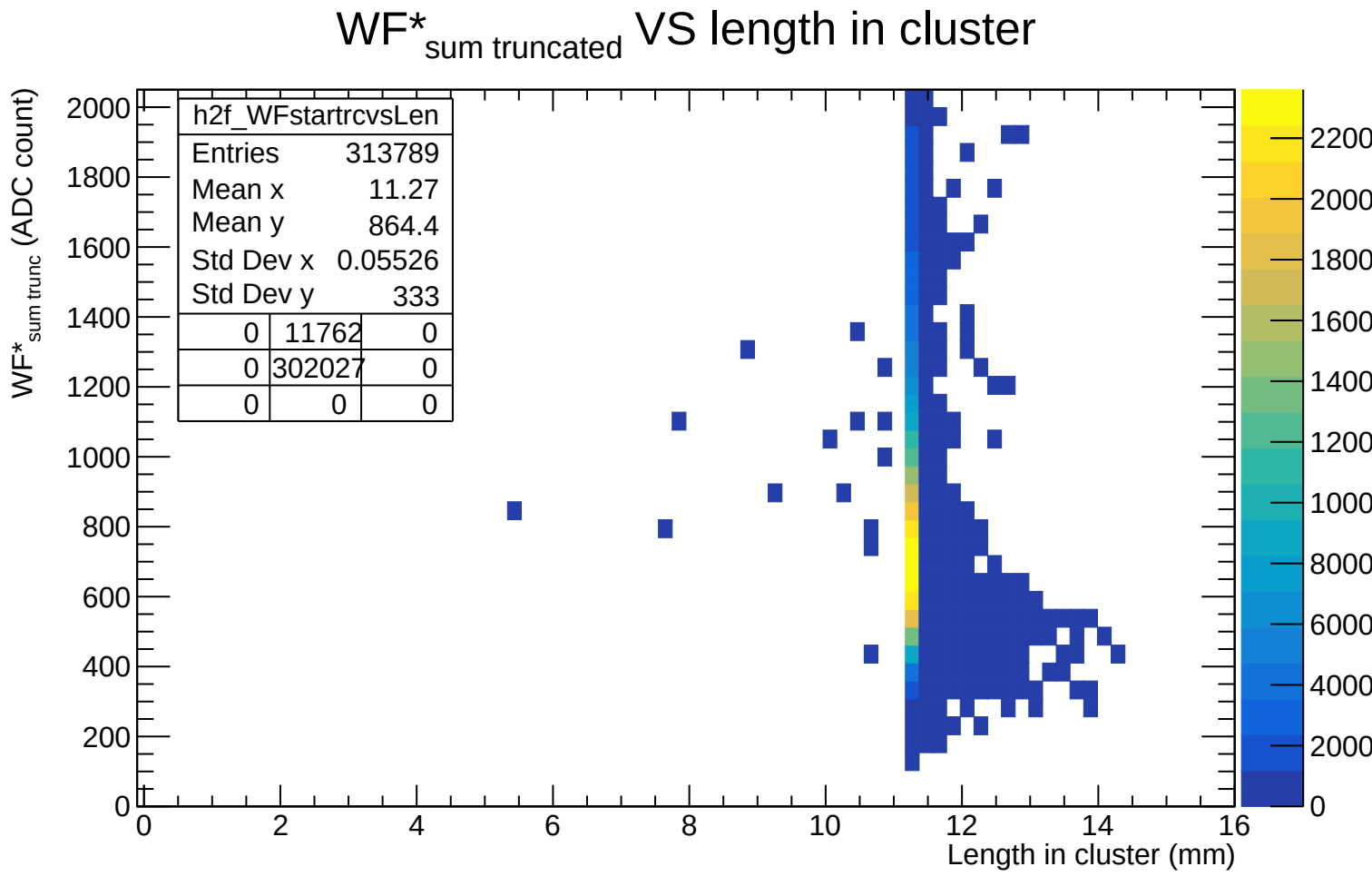

Q^{anode}/ADC_{max} VS length in pad (before length cut)
h2f_LUTvsLength
Entries 495872
Mean x 10.57
Mean y 1.296
Std Dev x 2.226
Std Dev y 0.2933
0 0 0
0 495872 0
0 0 0
Q^{anode}/ADC_{max}
Length in pad (mm)
0
0.5
1
1.5
2
0
2
4
6
8
10
12
14
16
0
1000
2000
3000
4000
5000
6000

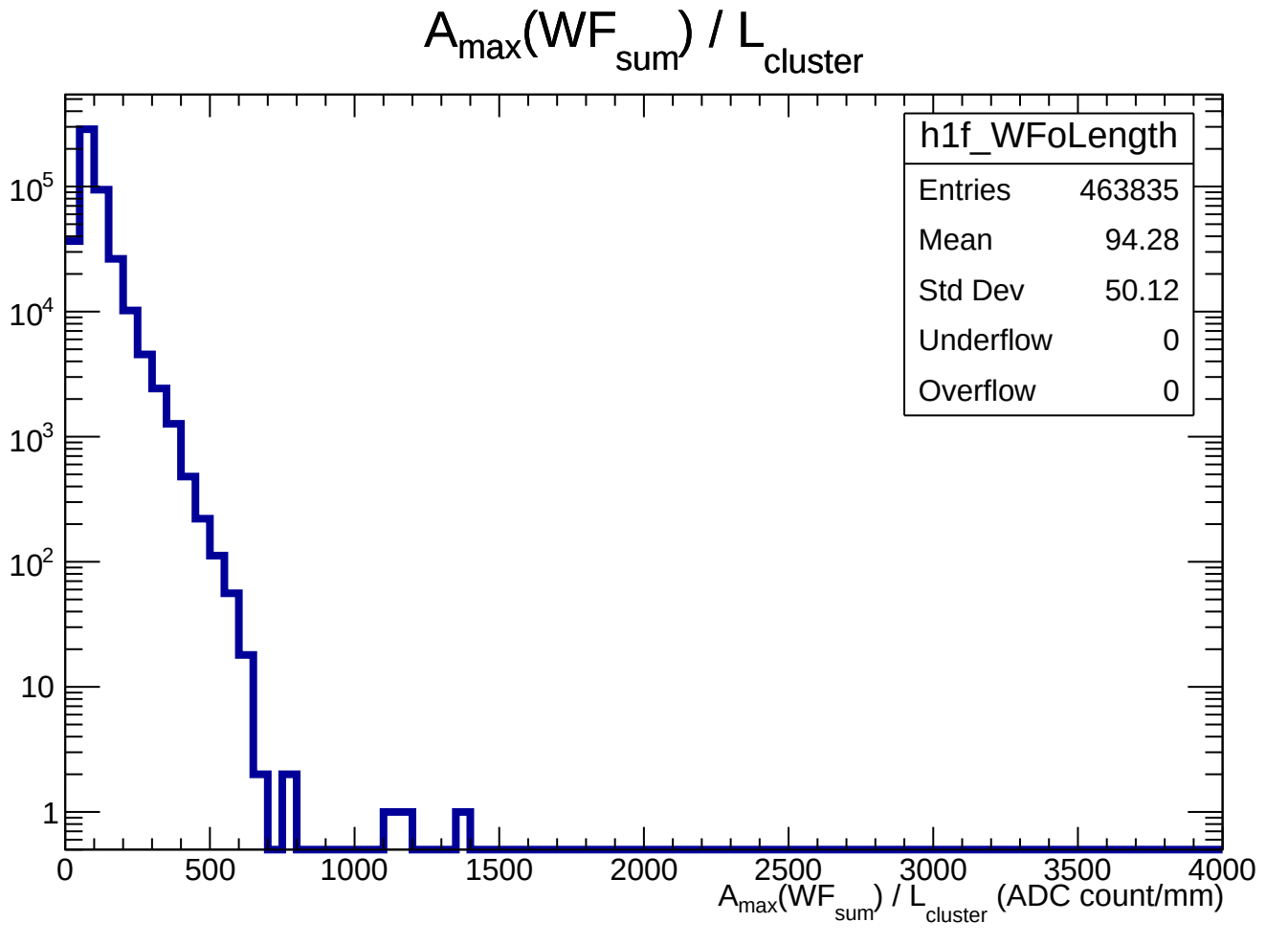

$Q_{cluster}$ VS length in cluster
h2f_QclvsLength
Entries 463835
Mean x 11.27
Mean y 978.3
Std Dev x 0.06556
Std Dev y 344.1
0 28250 0
0 435585 0
0 0 0
$Q_{cluster}$ (ADC count)
Length in cluster (mm)
0 200 400 600 800 1000 1200 1400 1600 1800 2000
0 2 4 6 8 10 12 14 16
0 500 1000 1500 2000 2500 3000

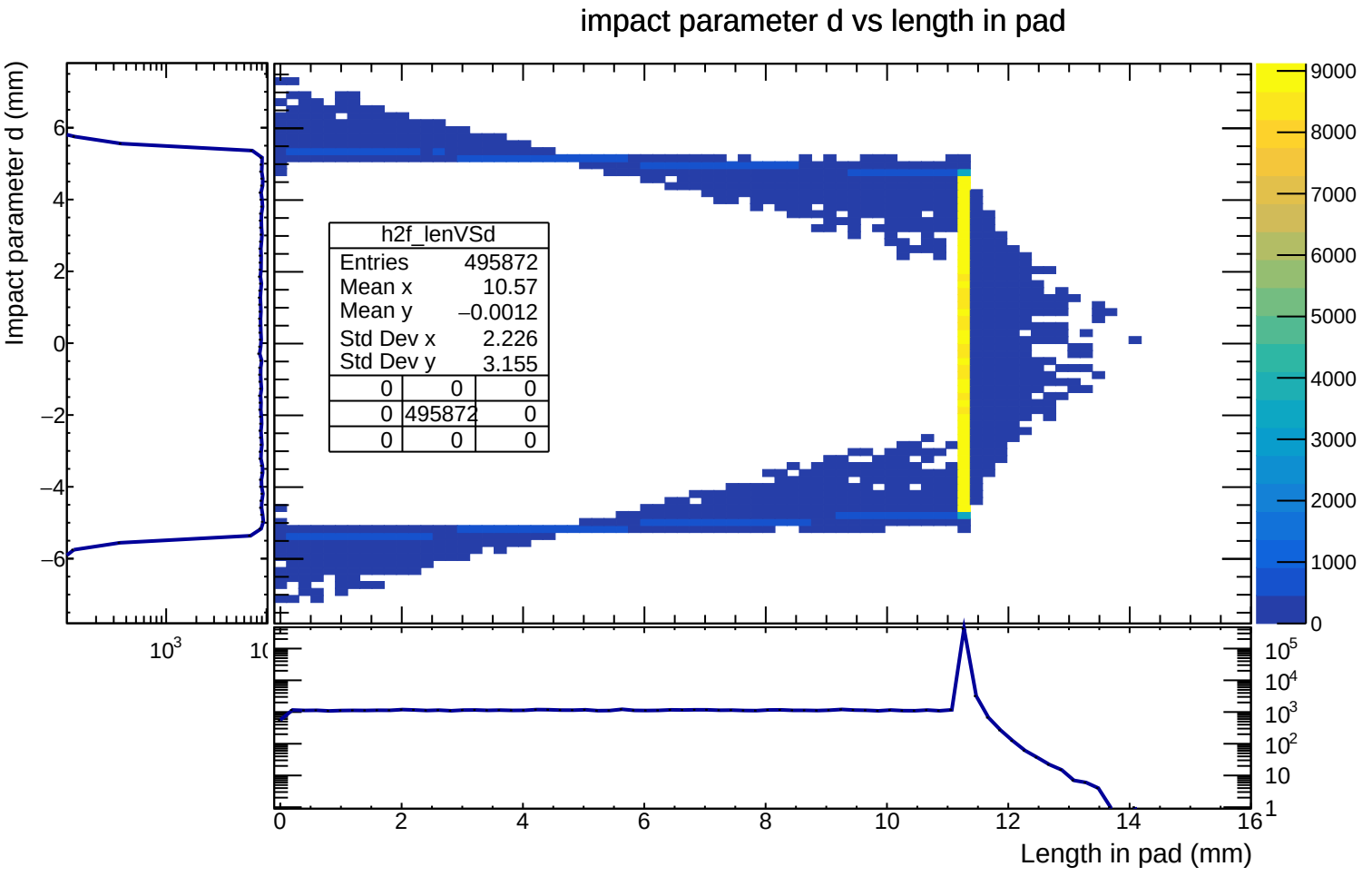

WF_sum VS length in cluster
h2f_WFvsLength
Entries 463835
Mean x 11.27
Mean y 962.2
Std Dev x 0.06664
Std Dev y 341.9
0 26271 0
0 437564 0
0 0 0
WF_sum (ADC count)
Length in cluster (mm)
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2
4
6
8
10
12
14
16
500
1000
1500
2000
2500
3000


WF sum truncated VS length in cluster
h2f_WFtruncvsLength
Entries 313789
Mean x 11.27
Mean y 803.8
Std Dev x 0.05455
Std Dev y 215.2
0 857 0
0 312932 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
3000
2500
2000
1500
1000
5000
0


WF*sum VS length in cluster
WF*sum (ADC count)
Length in cluster (mm)
h2f_WFstarvsLen
Entries 463832
Mean x 11.27
Mean y 871.4
Std Dev x 0.05732
Std Dev y 333.6
0 17818 0
0 446014 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 5000 1000 1500 2000 2500 3000


WF*sum truncated VS length in cluster
h2f_WFstartrcvsLen
Entries 313789
Mean x 11.27
Mean y 864.4
Std Dev x 0.05526
Std Dev y 333
0 11762 0
0 302027 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 2000 4000 6000 8000 1000 1200 1400 1600 1800 2000 2200


$A_{max}(WF_{sum}) / L_{cluster}$
h1f_WFoLength
Entries 463835
Mean 94.28
Std Dev 50.12
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)
Length in pad (mm)
h2f_lenVSd
Entries 495872
Mean x 10.57
Mean y −0.0012
Std Dev x 2.226
Std Dev y 3.155
0 0 0
0 495872 0
0 0 0