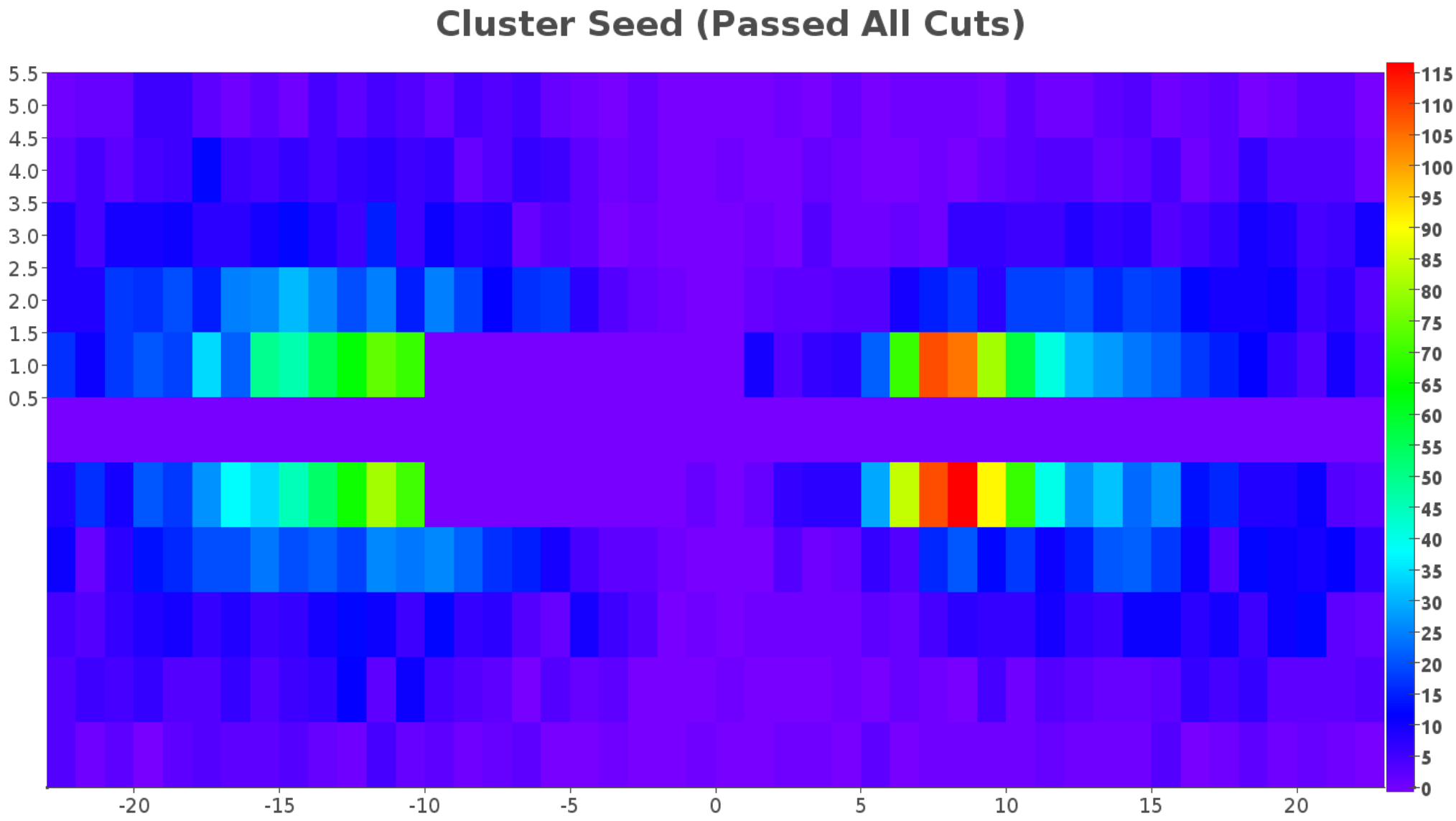
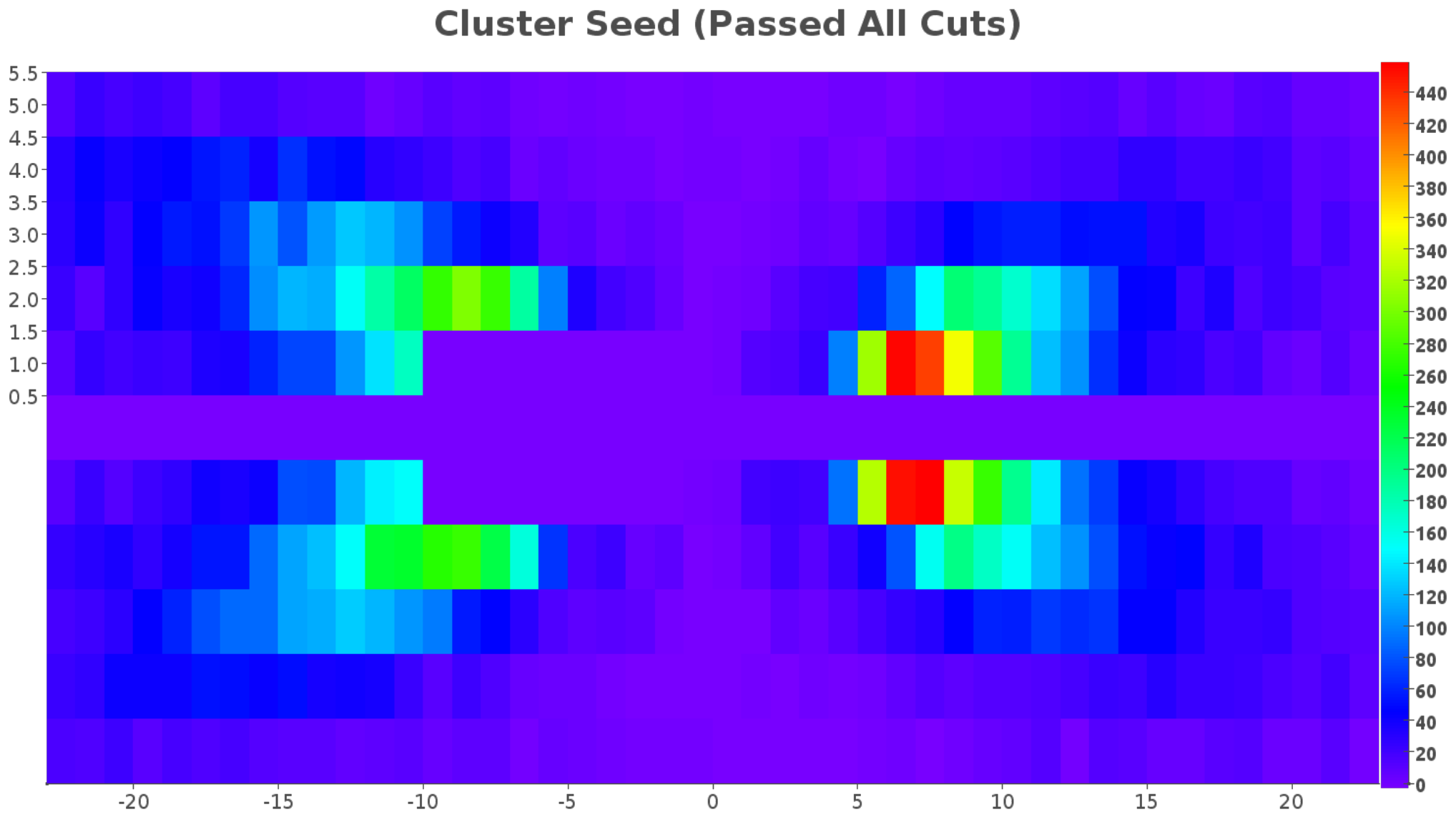
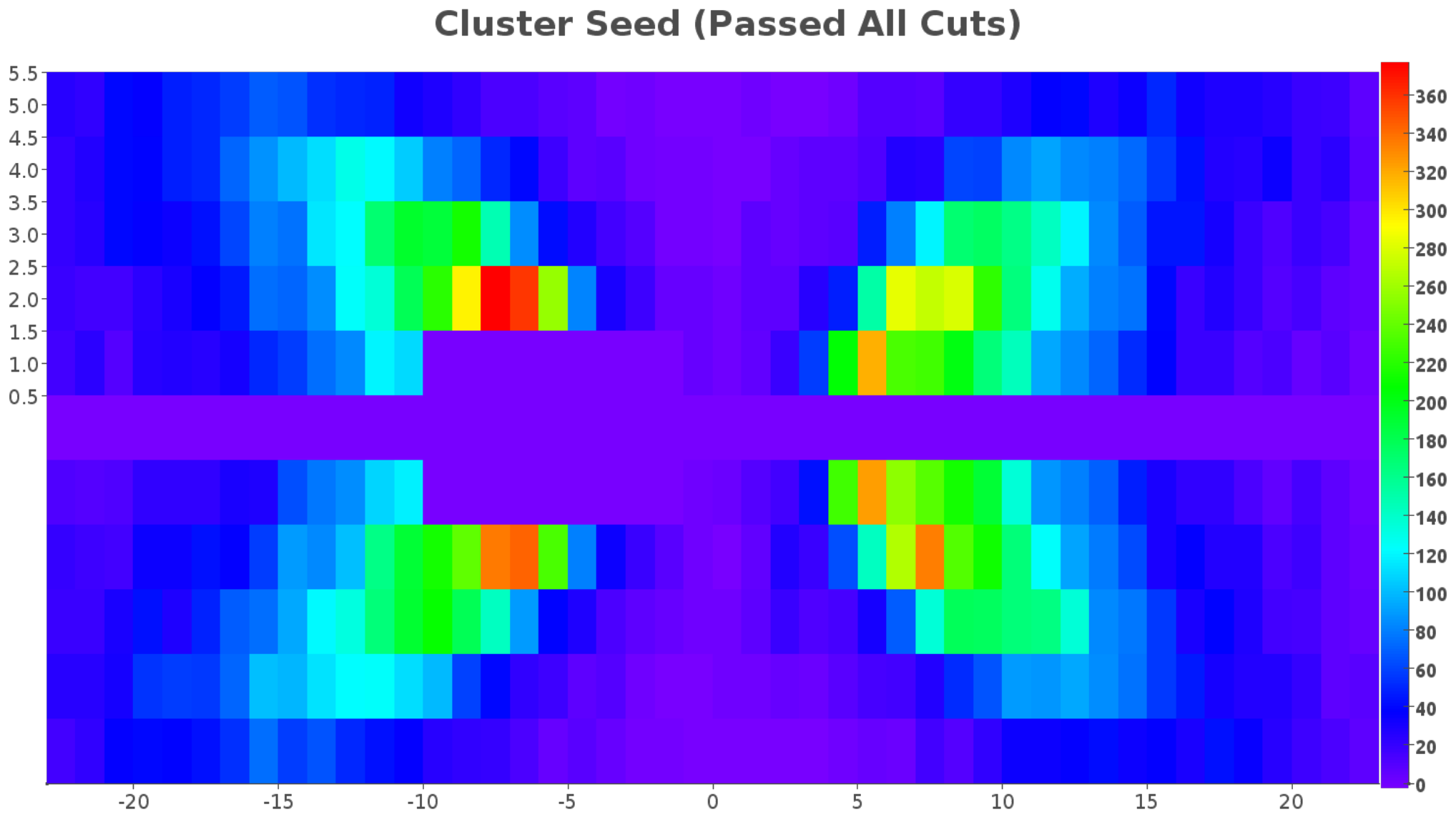
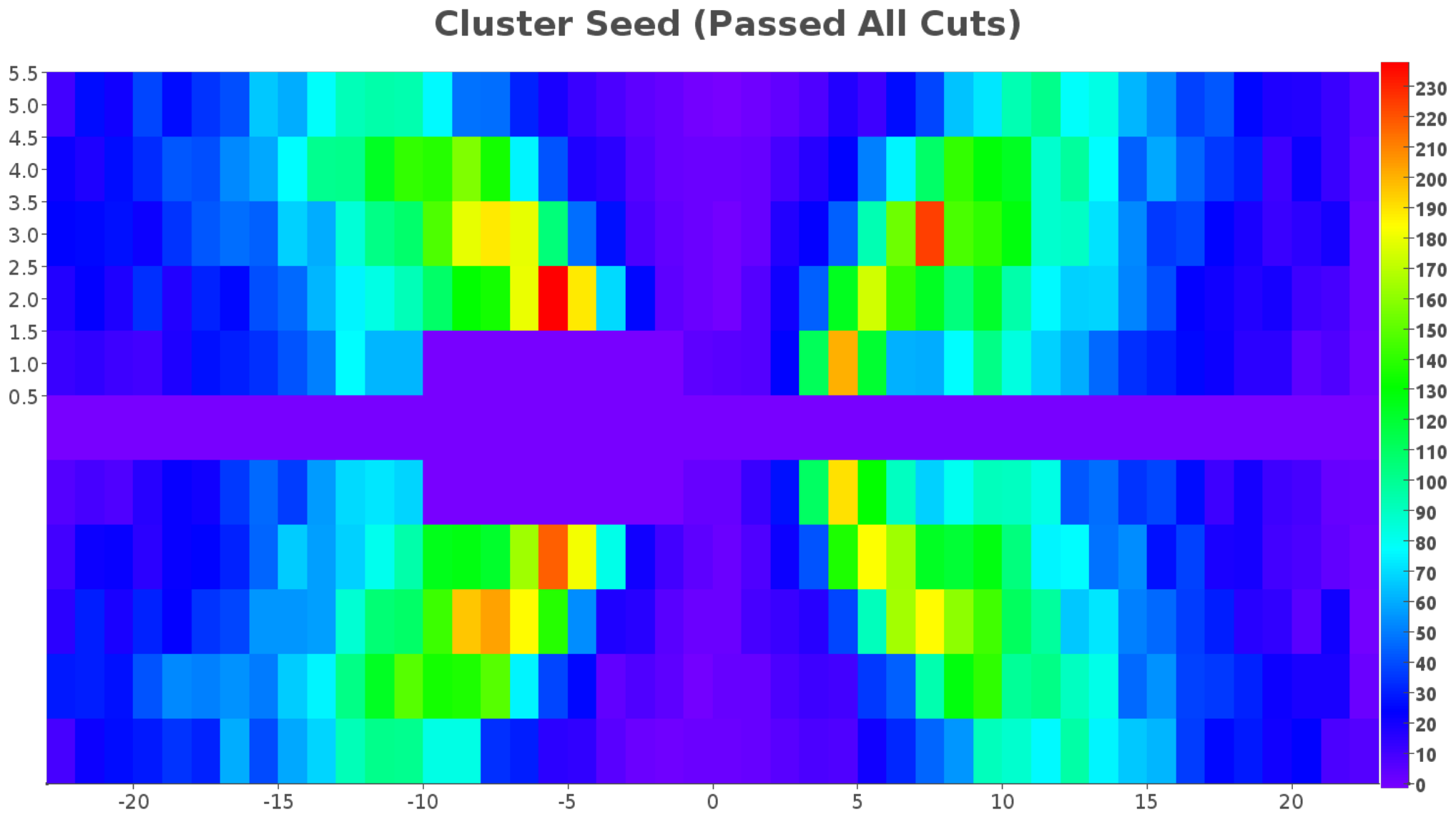
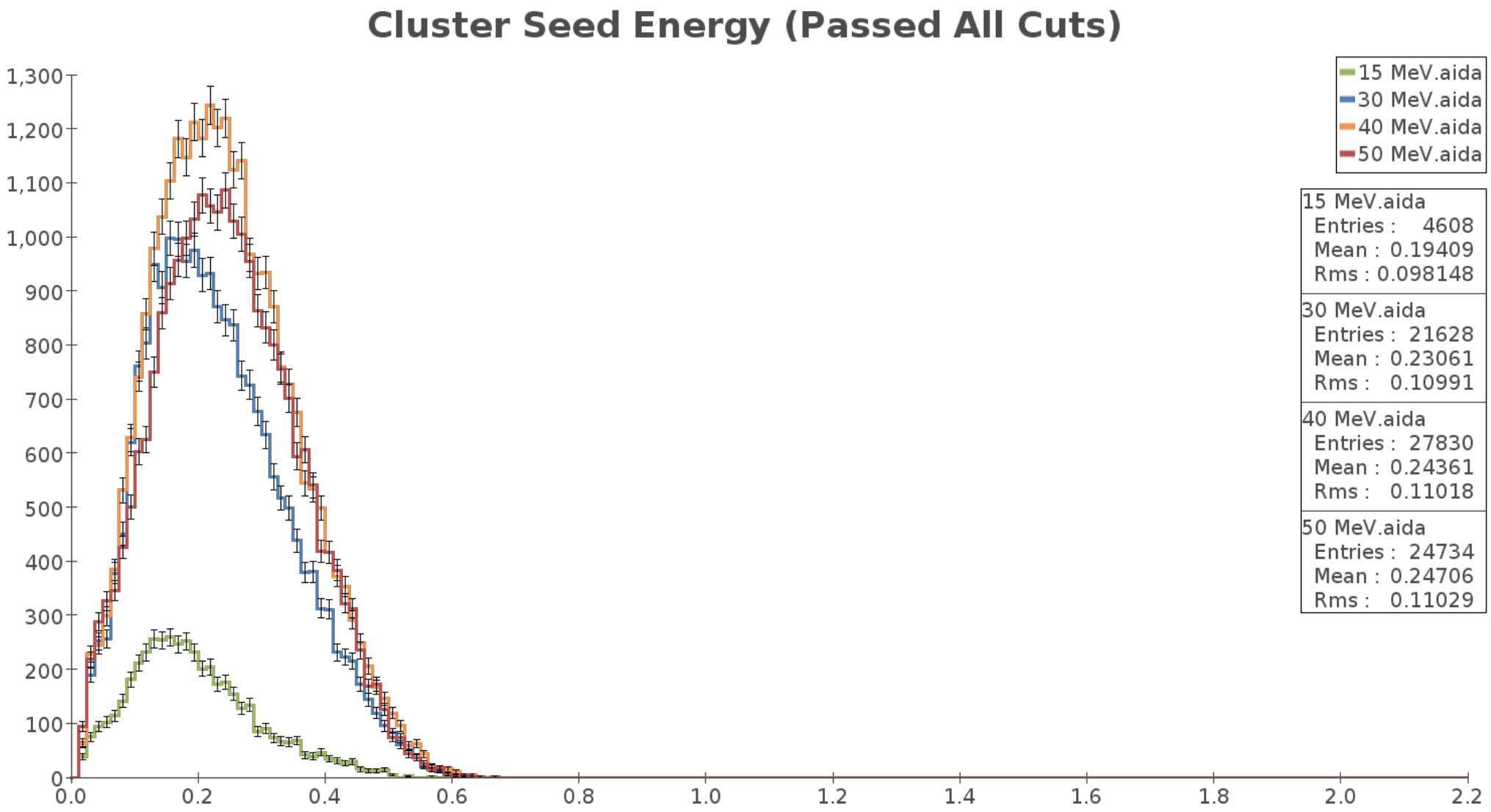

Cluster Seed (Passed All Cuts)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-20
-15
-10
-5
0
5
10
15
20
115
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0

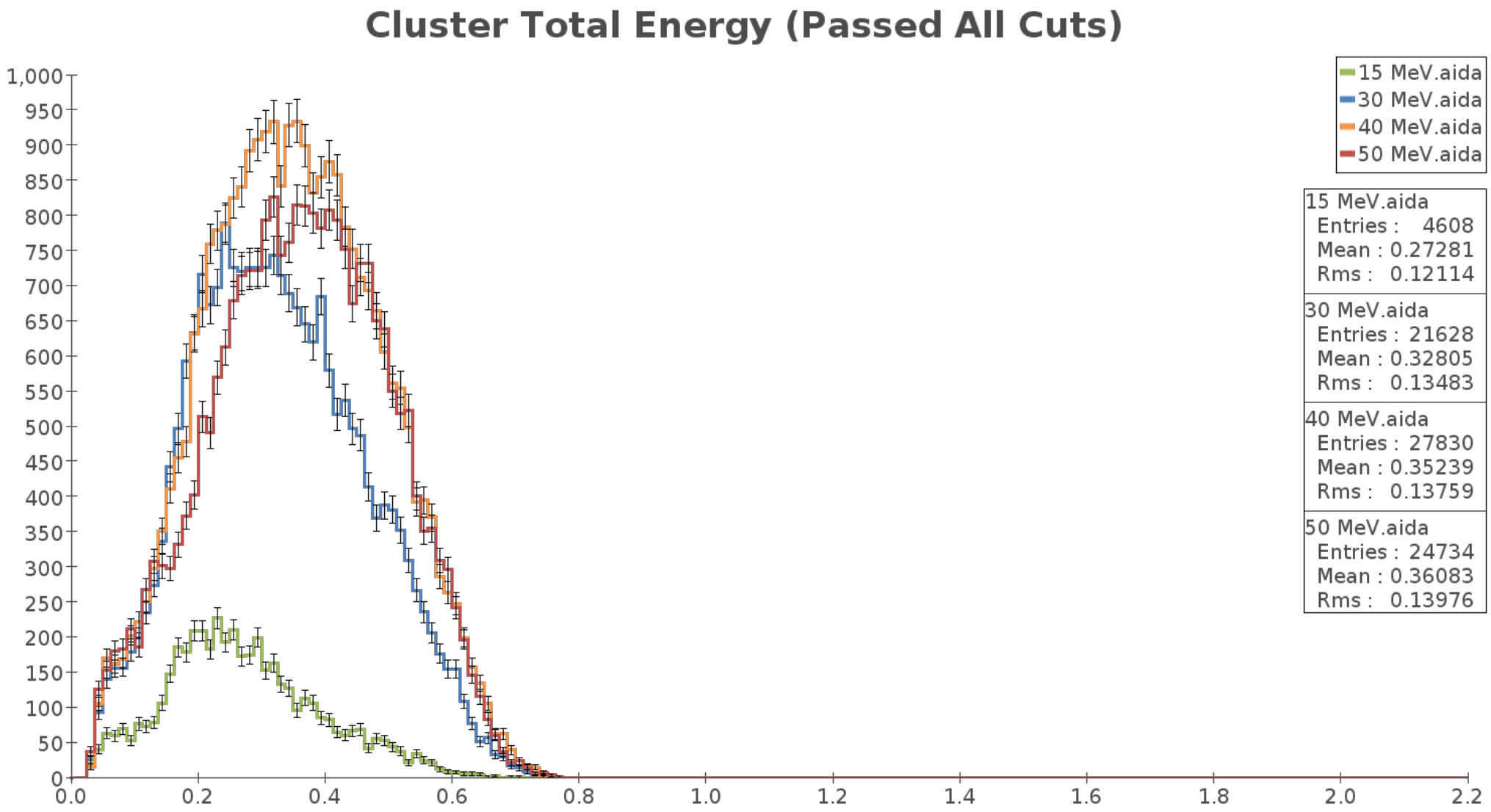

Cluster Seed (Passed All Cuts)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-20
-15
-10
-5
0
5
10
15
20
440
420
400
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0


Cluster Seed (Passed All Cuts)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-20
-15
-10
-5
0
5
10
15
20
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0

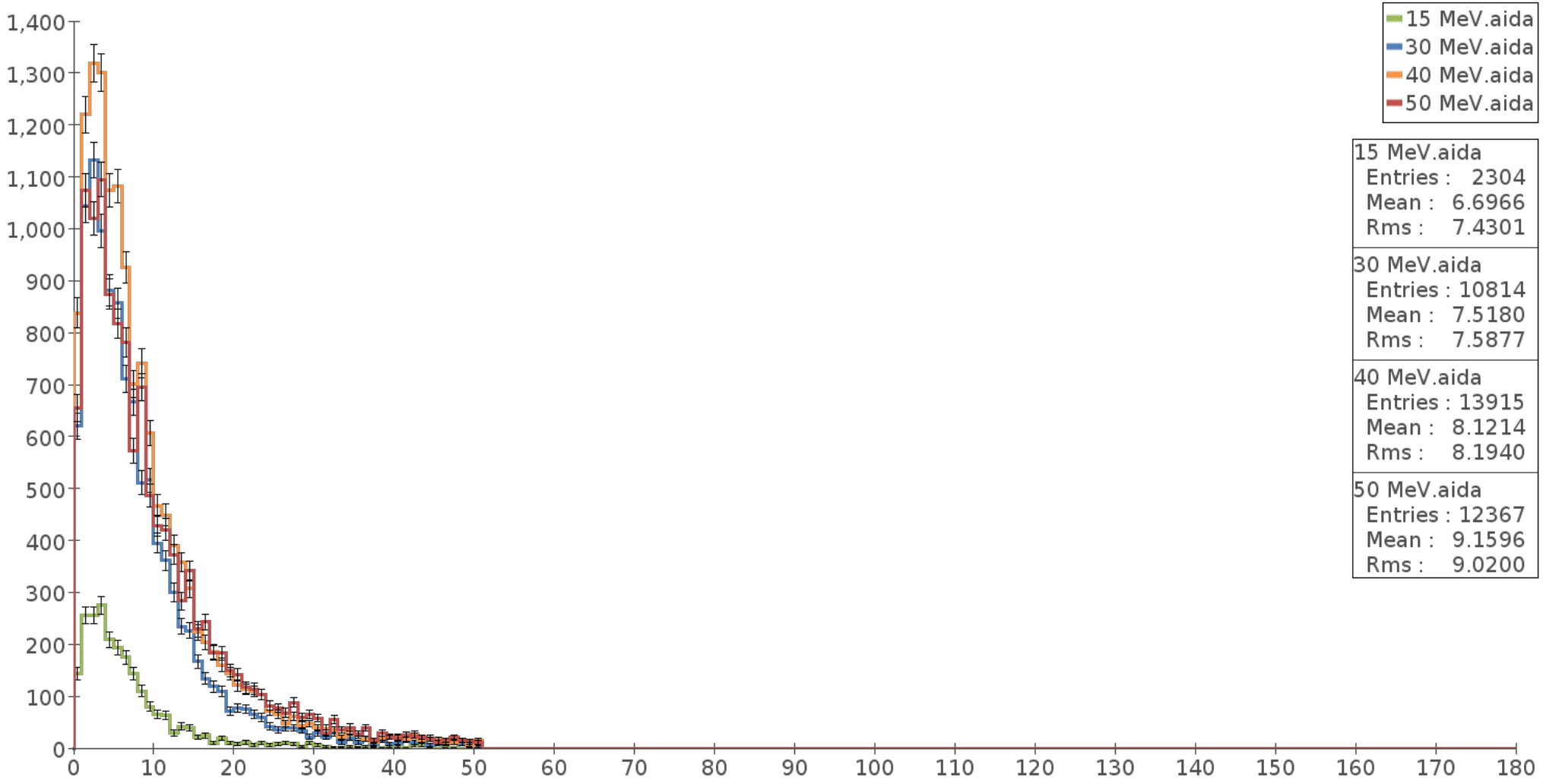

Cluster Seed (Passed All Cuts)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-20
-15
-10
-5
0
5
10
15
20
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

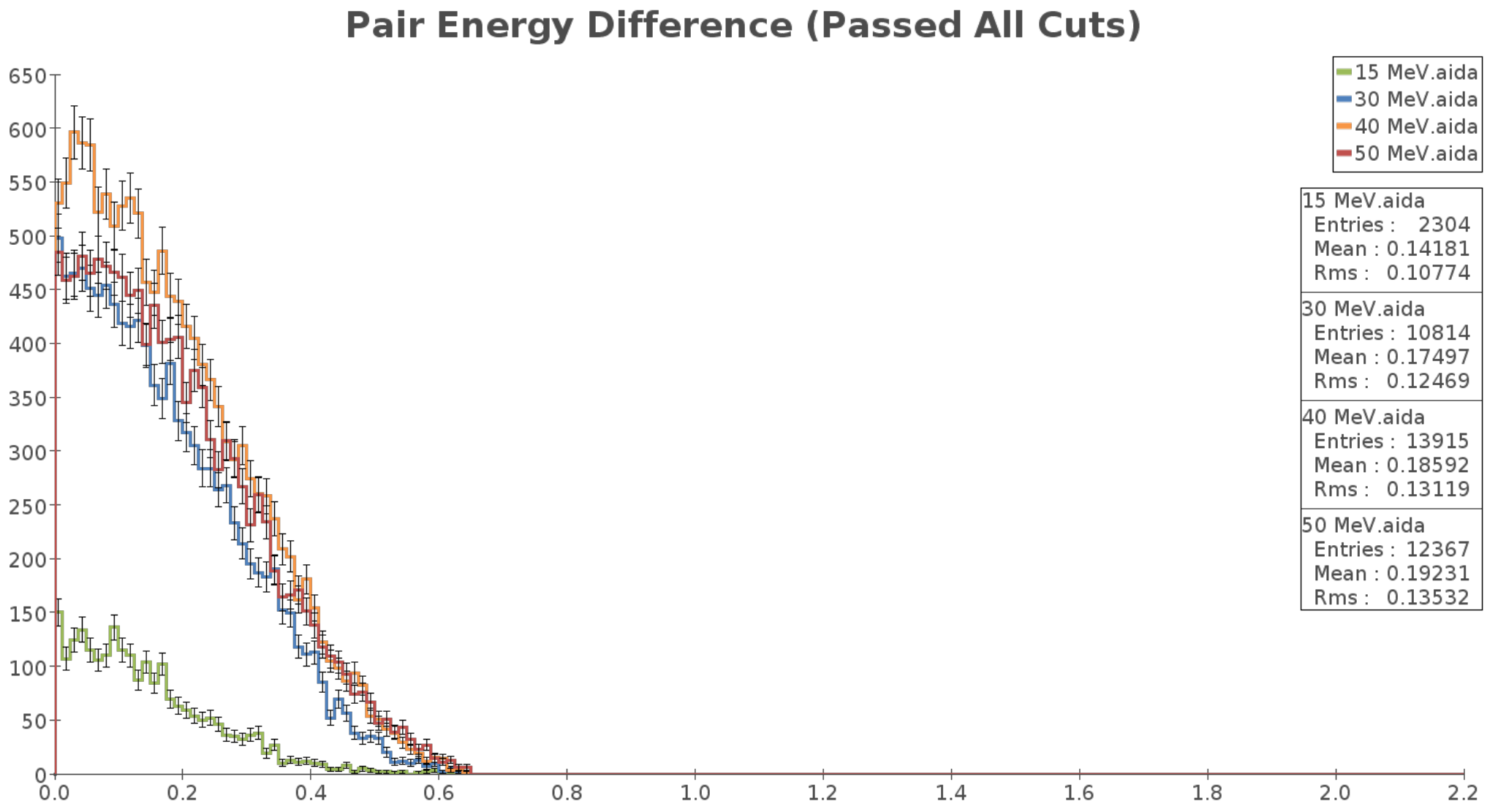
Cluster Hit Count (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 4608
Mean : 2.7710
Rms : 0.89115
30 MeV.aida
Entries : 21628
Mean : 3.0265
Rms : 0.99168
40 MeV.aida
Entries : 27830
Mean : 3.1994
Rms : 1.0418
50 MeV.aida
Entries : 24734
Mean : 3.2767
Rms : 1.0707
9,000
8,500
8,000
7,500
7,000
6,500
6,000
5,500
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5

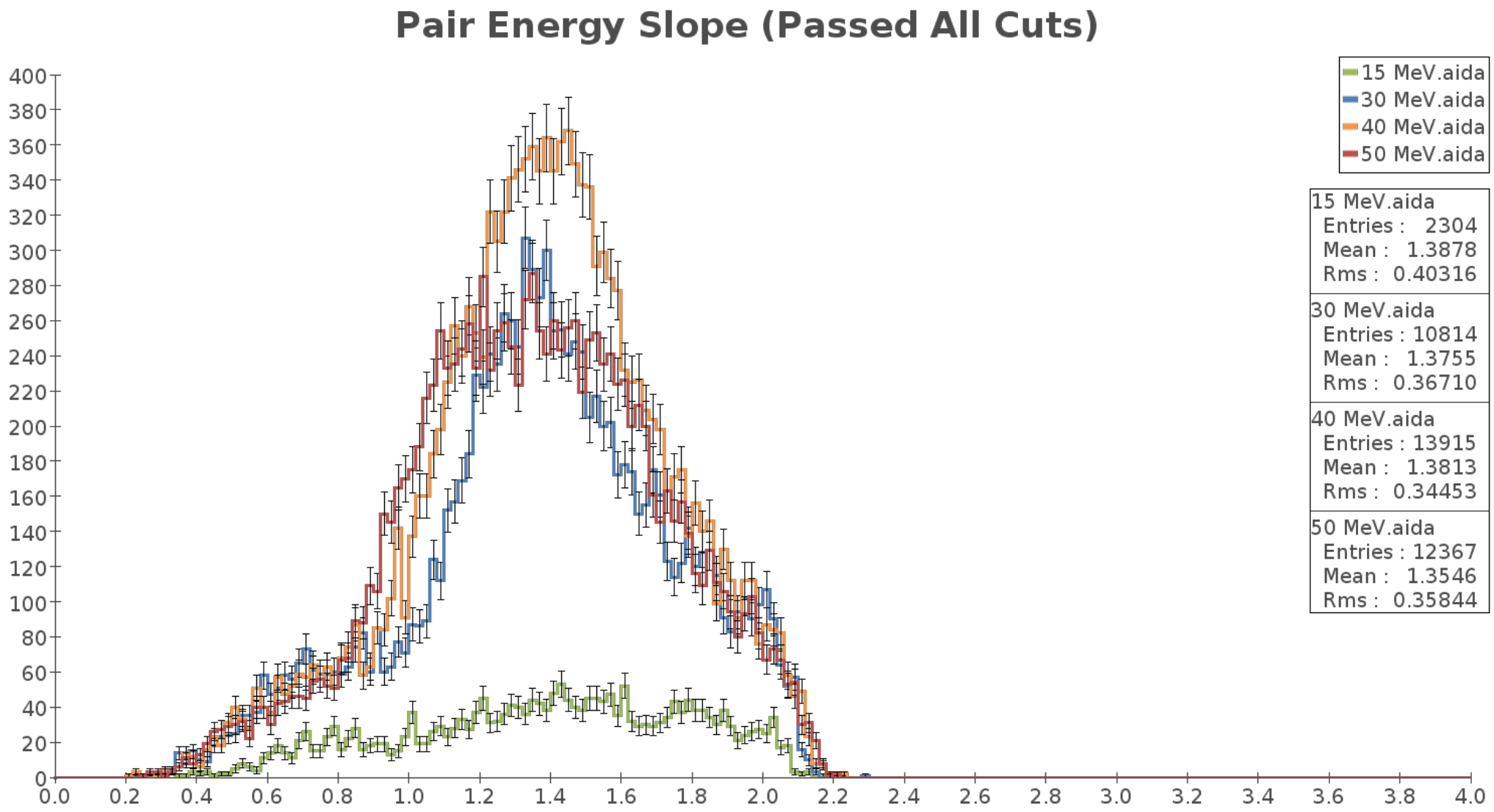

Cluster Seed Energy (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 4608
Mean : 0.19409
Rms : 0.098148
30 MeV.aida
Entries : 21628
Mean : 0.23061
Rms : 0.10991
40 MeV.aida
Entries : 27830
Mean : 0.24361
Rms : 0.11018
50 MeV.aida
Entries : 24734
Mean : 0.24706
Rms : 0.11029
0
100
200
300
400
500
600
700
800
900
1,000
1,100
1,200
1,300
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2

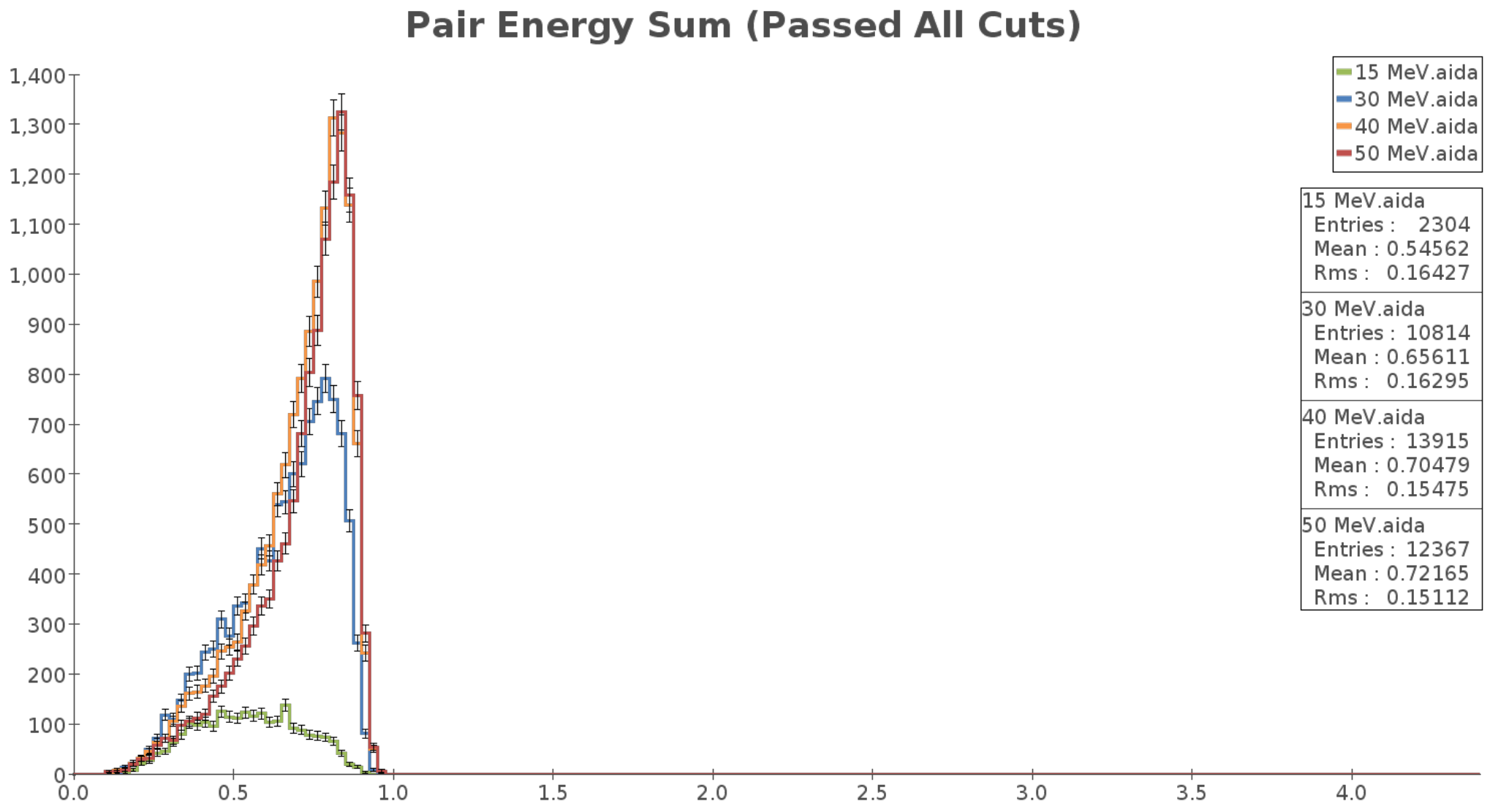

Cluster Total Energy (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 4608
Mean : 0.27281
Rms : 0.12114
30 MeV.aida
Entries : 21628
Mean : 0.32805
Rms : 0.13483
40 MeV.aida
Entries : 27830
Mean : 0.35239
Rms : 0.13759
50 MeV.aida
Entries : 24734
Mean : 0.36083
Rms : 0.13976
1,000
950
900
850
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2

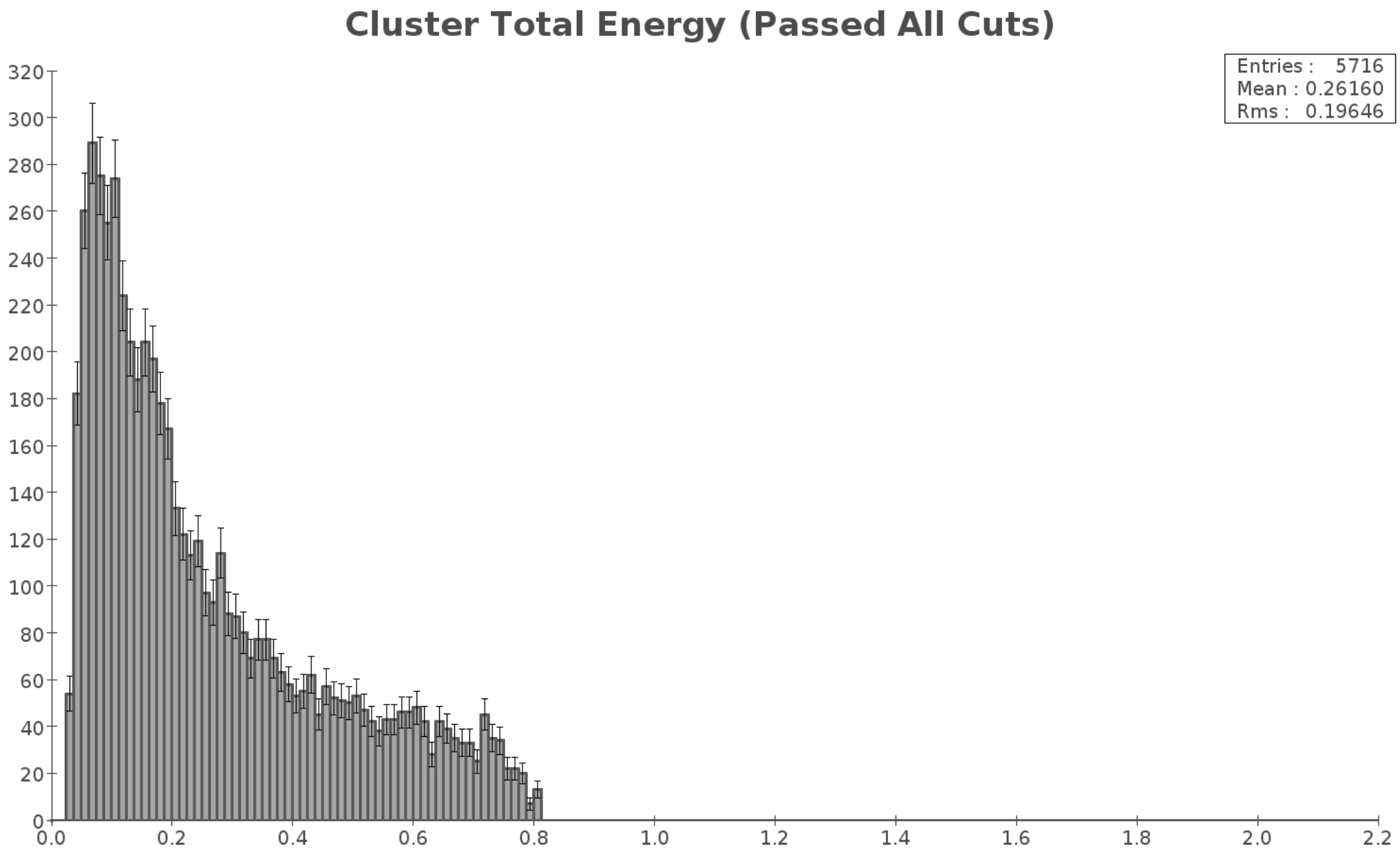
Pair Coplanarity (Passed All Cuts)

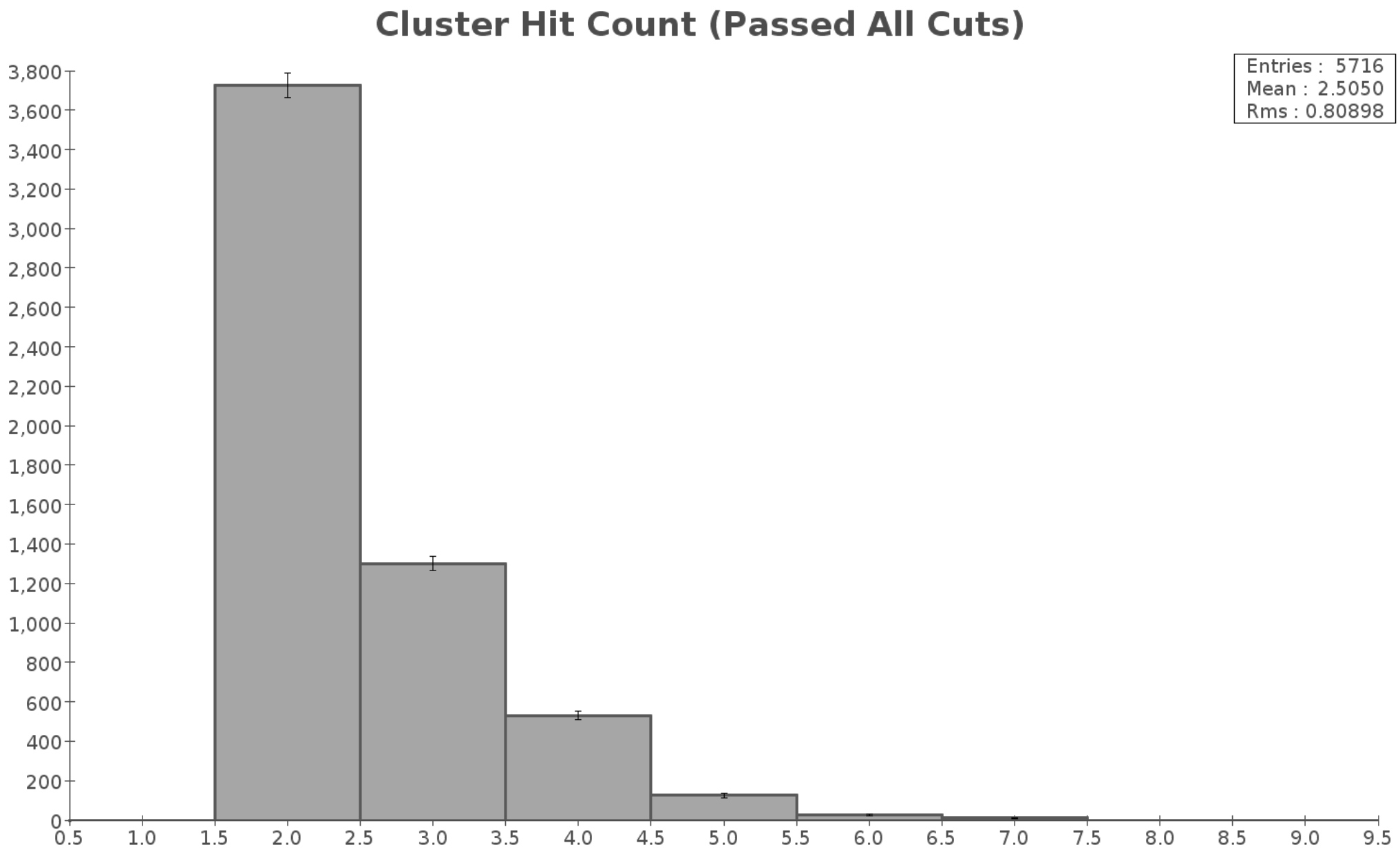


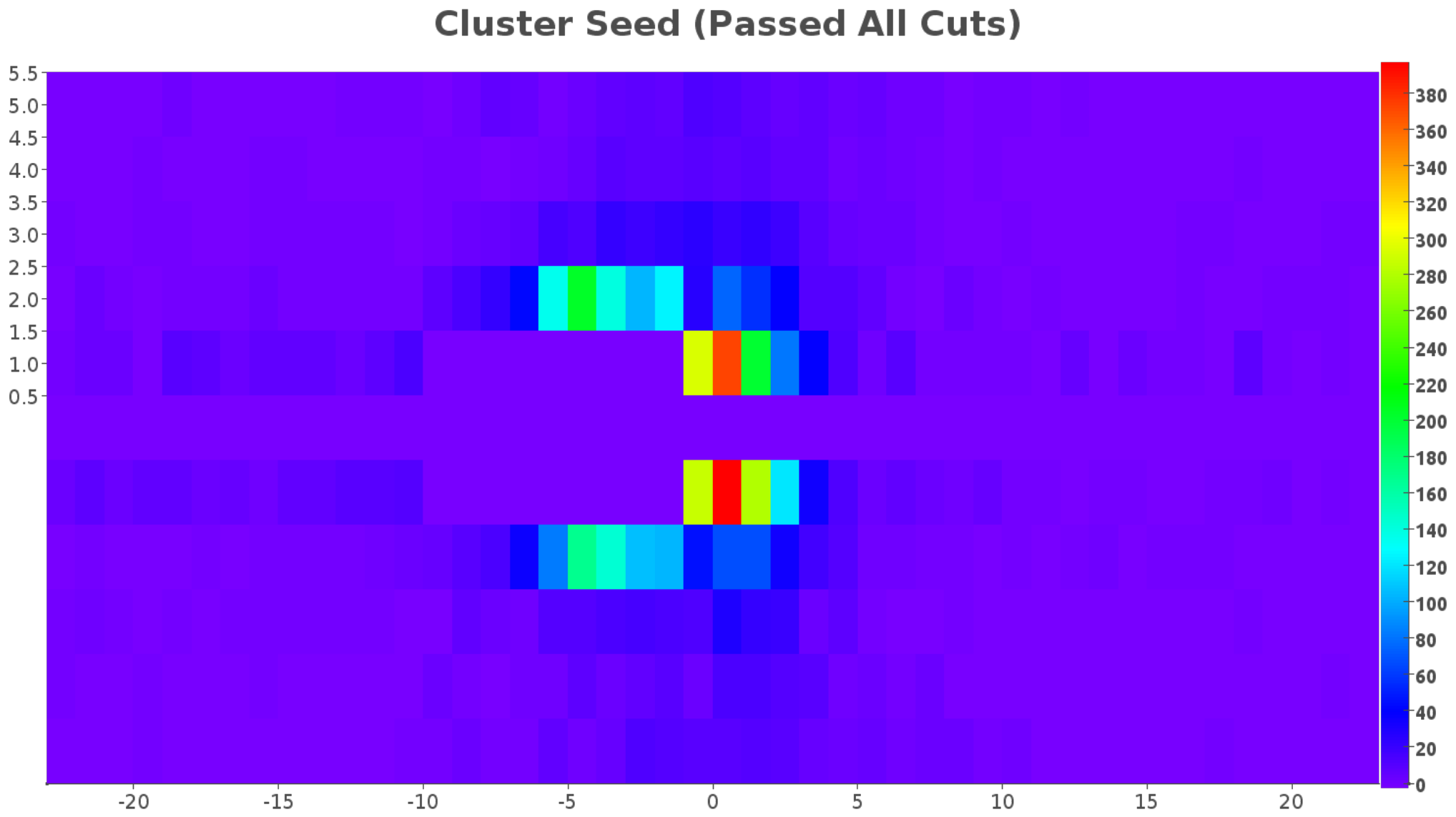

Pair Energy Difference (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 2304
Mean : 0.14181
Rms : 0.10774
30 MeV.aida
Entries : 10814
Mean : 0.17497
Rms : 0.12469
40 MeV.aida
Entries : 13915
Mean : 0.18592
Rms : 0.13119
50 MeV.aida
Entries : 12367
Mean : 0.19231
Rms : 0.13532
0
50
100
150
200
250
300
350
400
450
500
550
600
650
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2

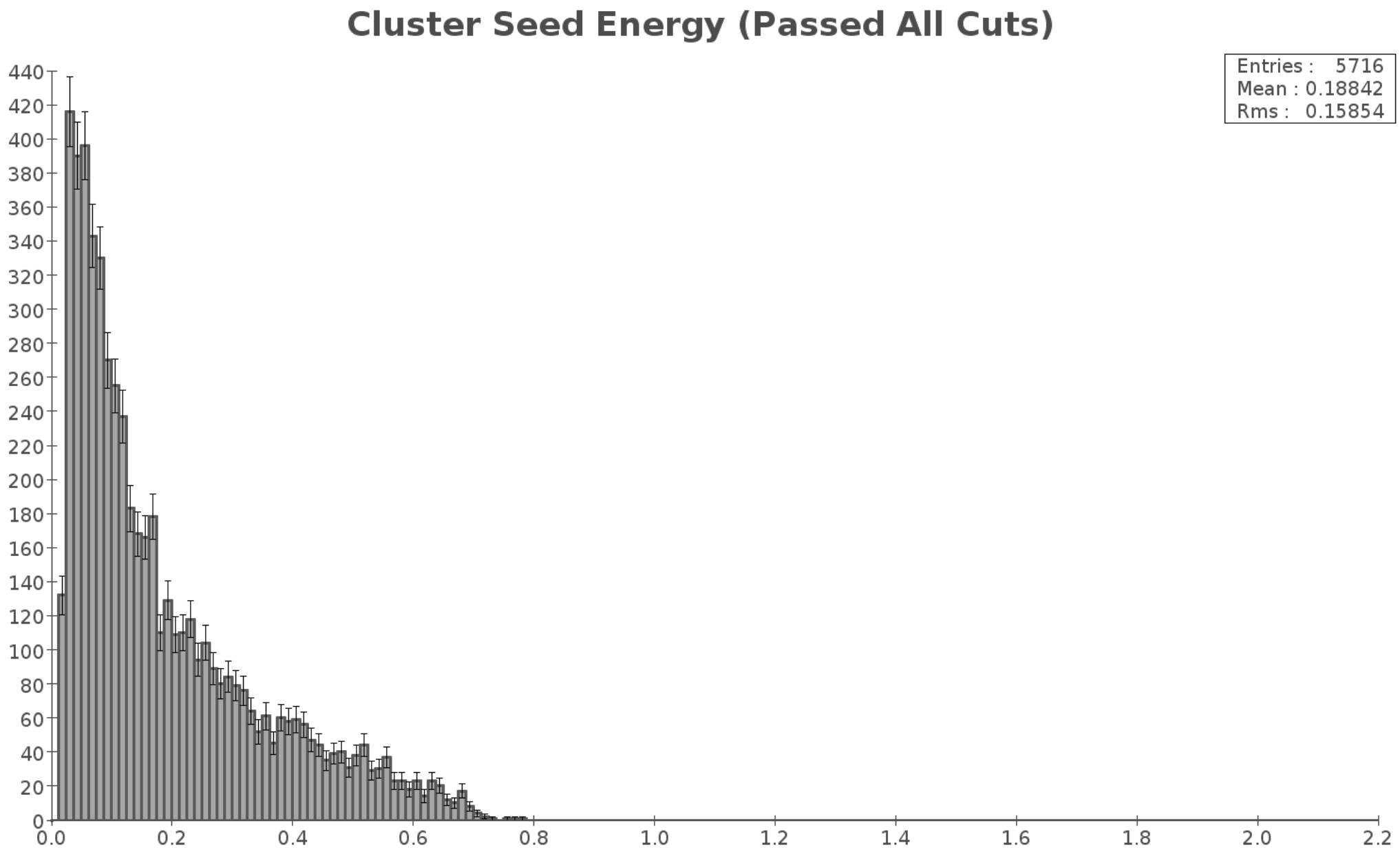

Pair Energy Slope (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 2304
Mean : 1.3878
Rms : 0.40316
30 MeV.aida
Entries : 10814
Mean : 1.3755
Rms : 0.36710
40 MeV.aida
Entries : 13915
Mean : 1.3813
Rms : 0.34453
50 MeV.aida
Entries : 12367
Mean : 1.3546
Rms : 0.35844
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0

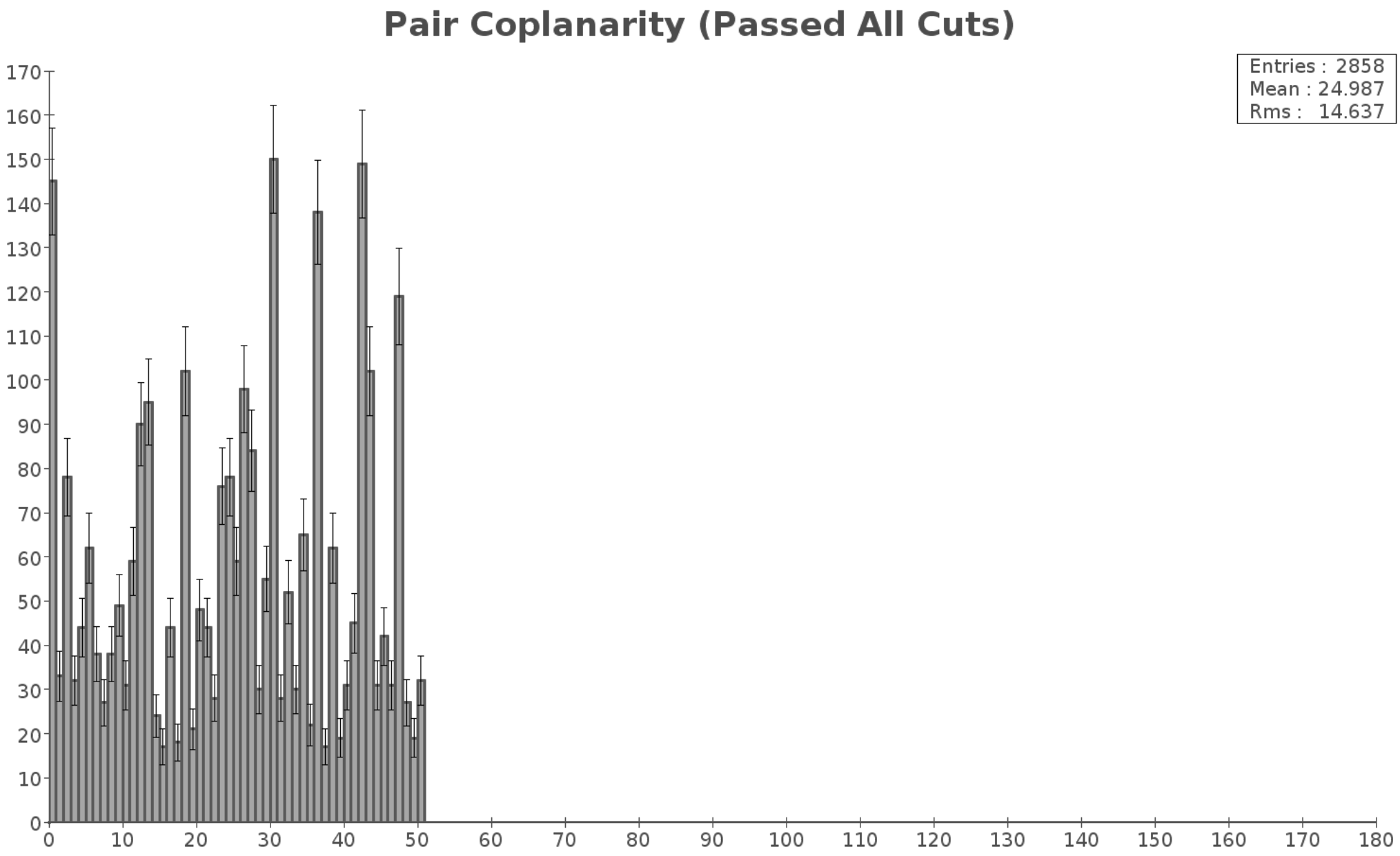

Pair Energy Sum (Passed All Cuts)
15 MeV.aida
30 MeV.aida
40 MeV.aida
50 MeV.aida
15 MeV.aida
Entries : 2304
Mean : 0.54562
Rms : 0.16427
30 MeV.aida
Entries : 10814
Mean : 0.65611
Rms : 0.16295
40 MeV.aida
Entries : 13915
Mean : 0.70479
Rms : 0.15475
50 MeV.aida
Entries : 12367
Mean : 0.72165
Rms : 0.15112
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0

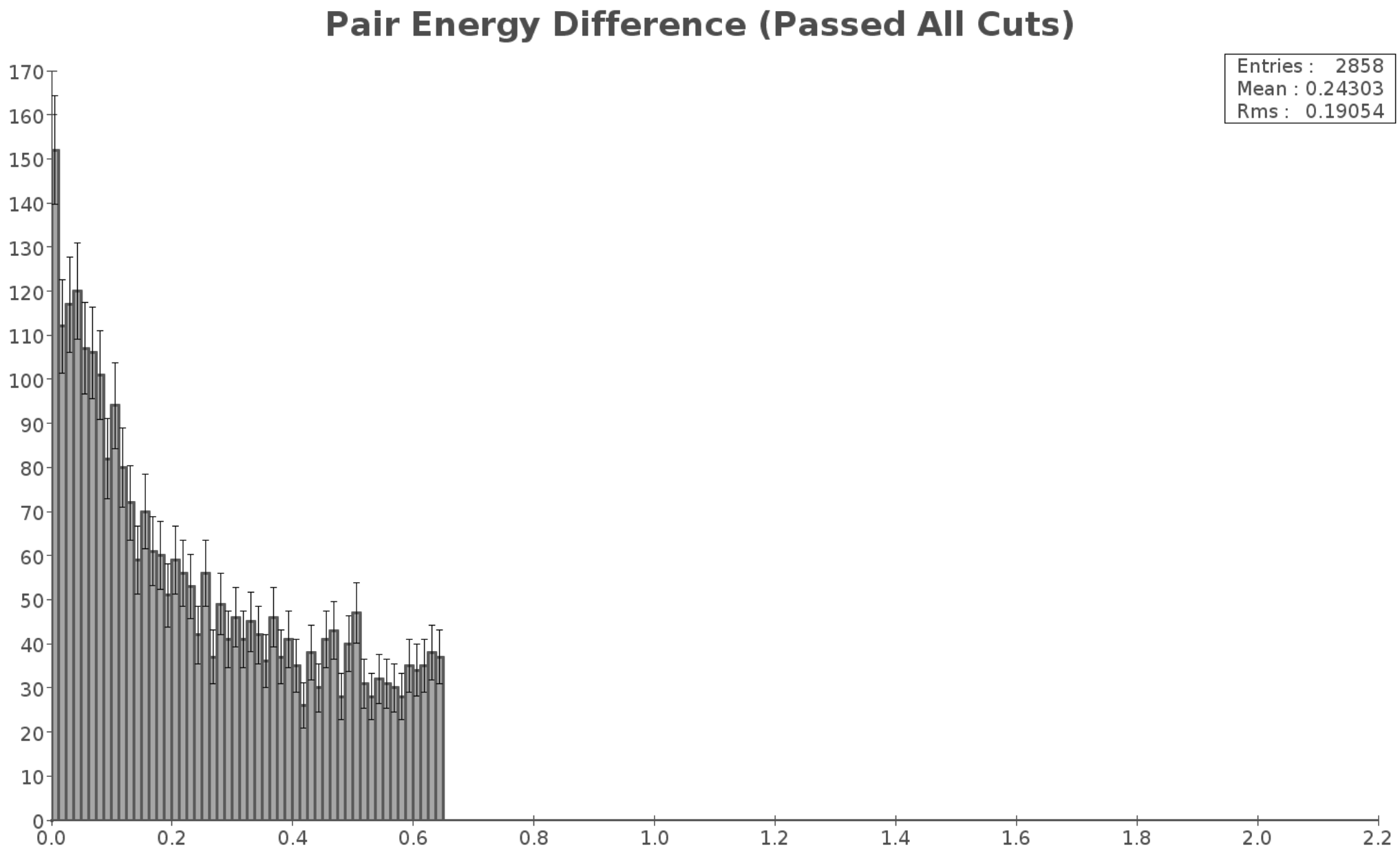

Cluster Total Energy (Passed All Cuts)
Entries : 5716
Mean : 0.26160
Rms : 0.19646
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2

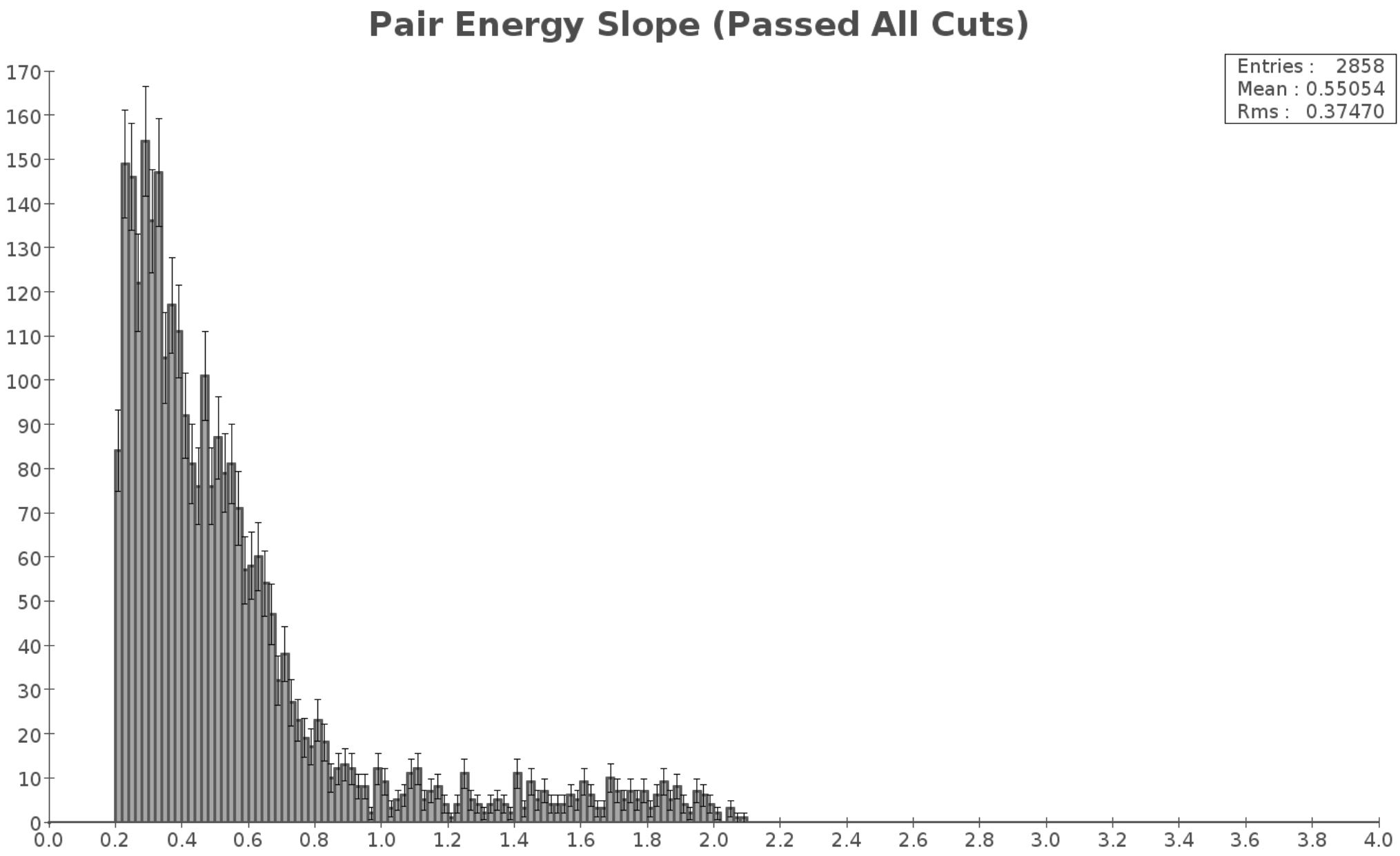

Cluster Hit Count (Passed All Cuts)
Entries : 5716
Mean : 2.5050
Rms : 0.80898
3,800
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5

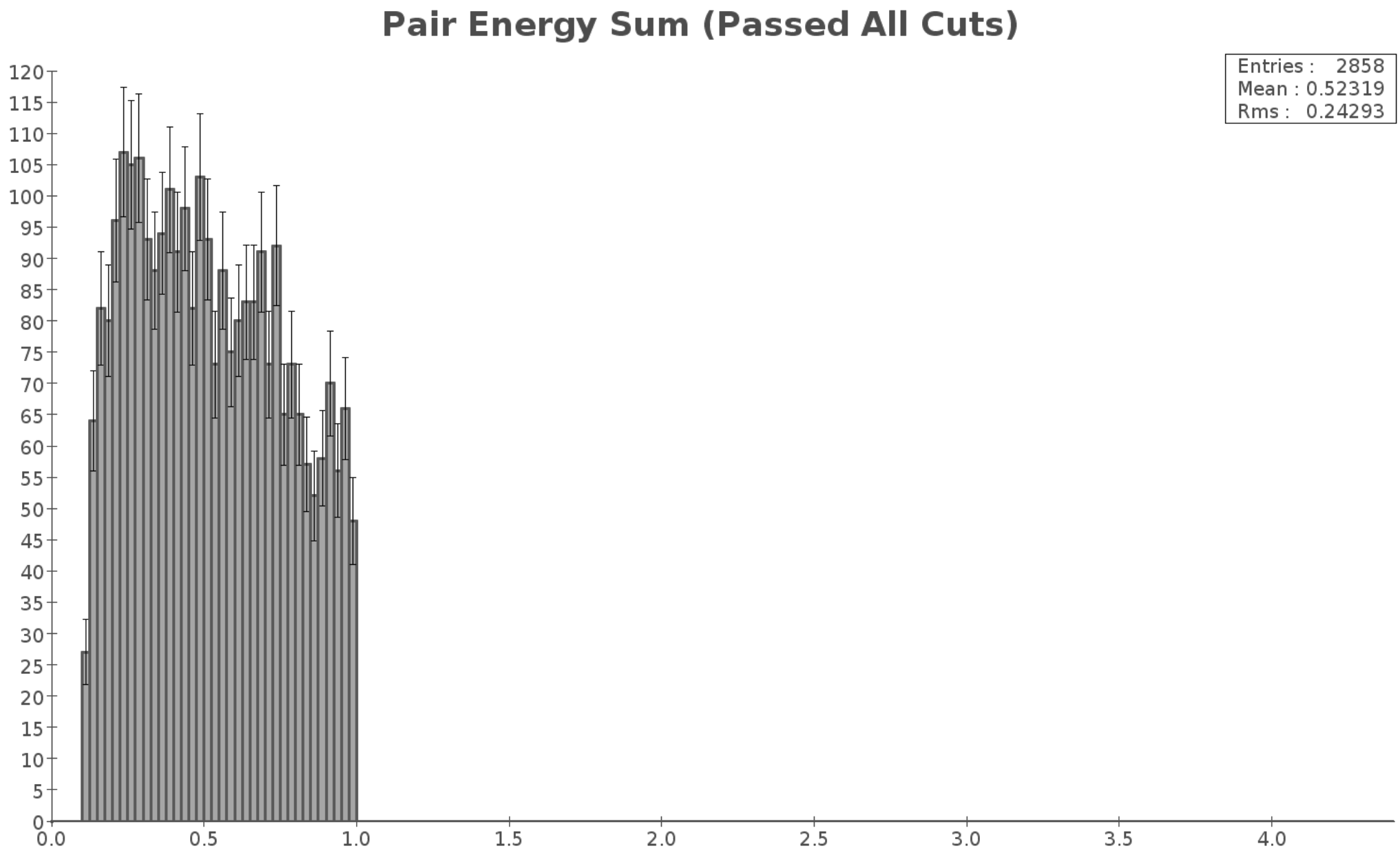

Cluster Seed (Passed All Cuts)
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
-20
-15
-10
-5
0
5
10
15
20
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0


Cluster Seed Energy (Passed All Cuts)
Entries : 5716
Mean : 0.18842
Rms : 0.15854
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
340
360
380
400
420
440
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2


Pair Coplanarity (Passed All Cuts)
Entries : 2858
Mean : 24.987
Rms : 14.637
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180


Pair Energy Difference (Passed All Cuts)
Entries : 2858
Mean : 0.24303
Rms : 0.19054
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2


Pair Energy Slope (Passed All Cuts)
Entries : 2858
Mean : 0.55054
Rms : 0.37470
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0


Pair Energy Sum (Passed All Cuts)
Entries : 2858
Mean : 0.52319
Rms : 0.24293
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0