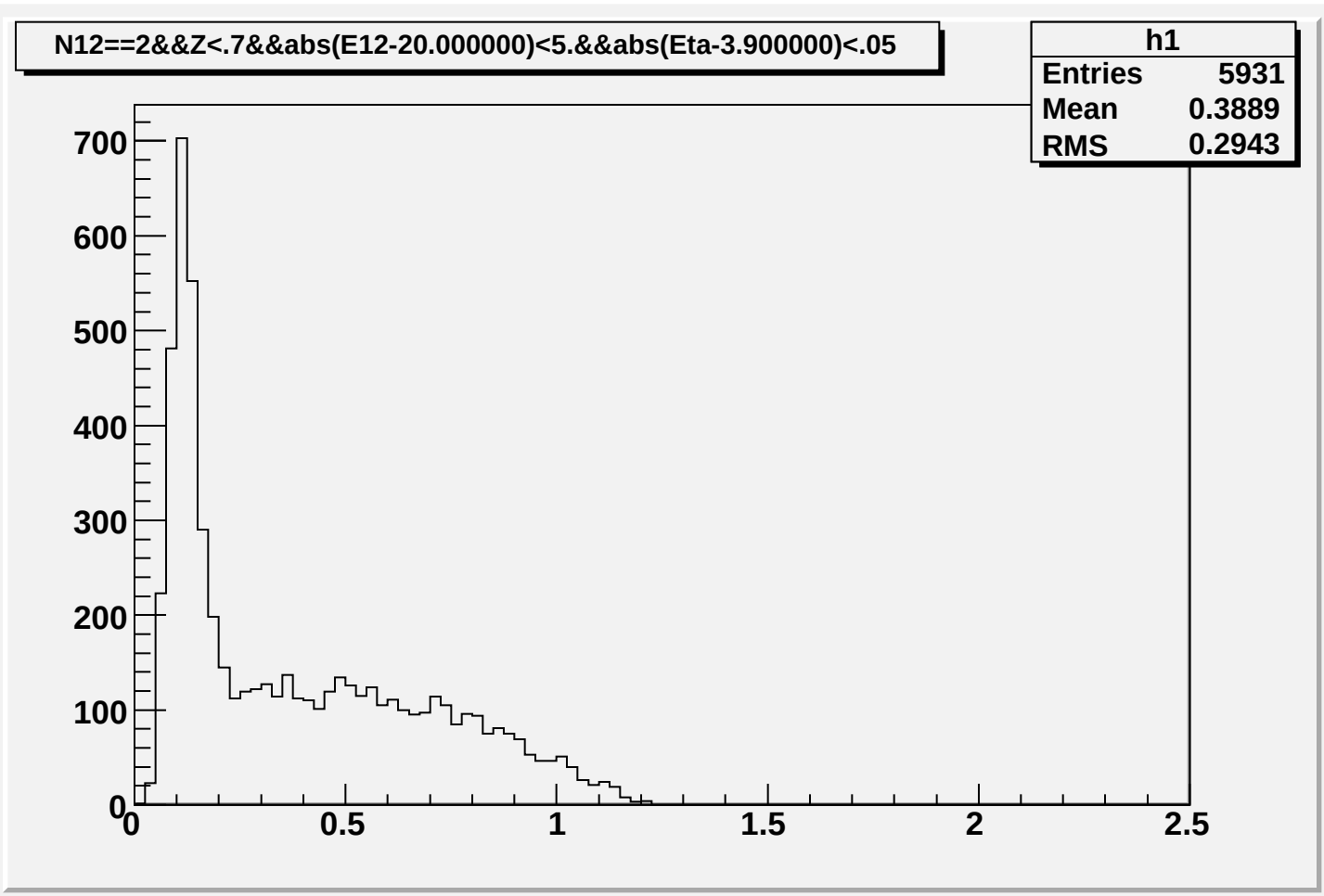
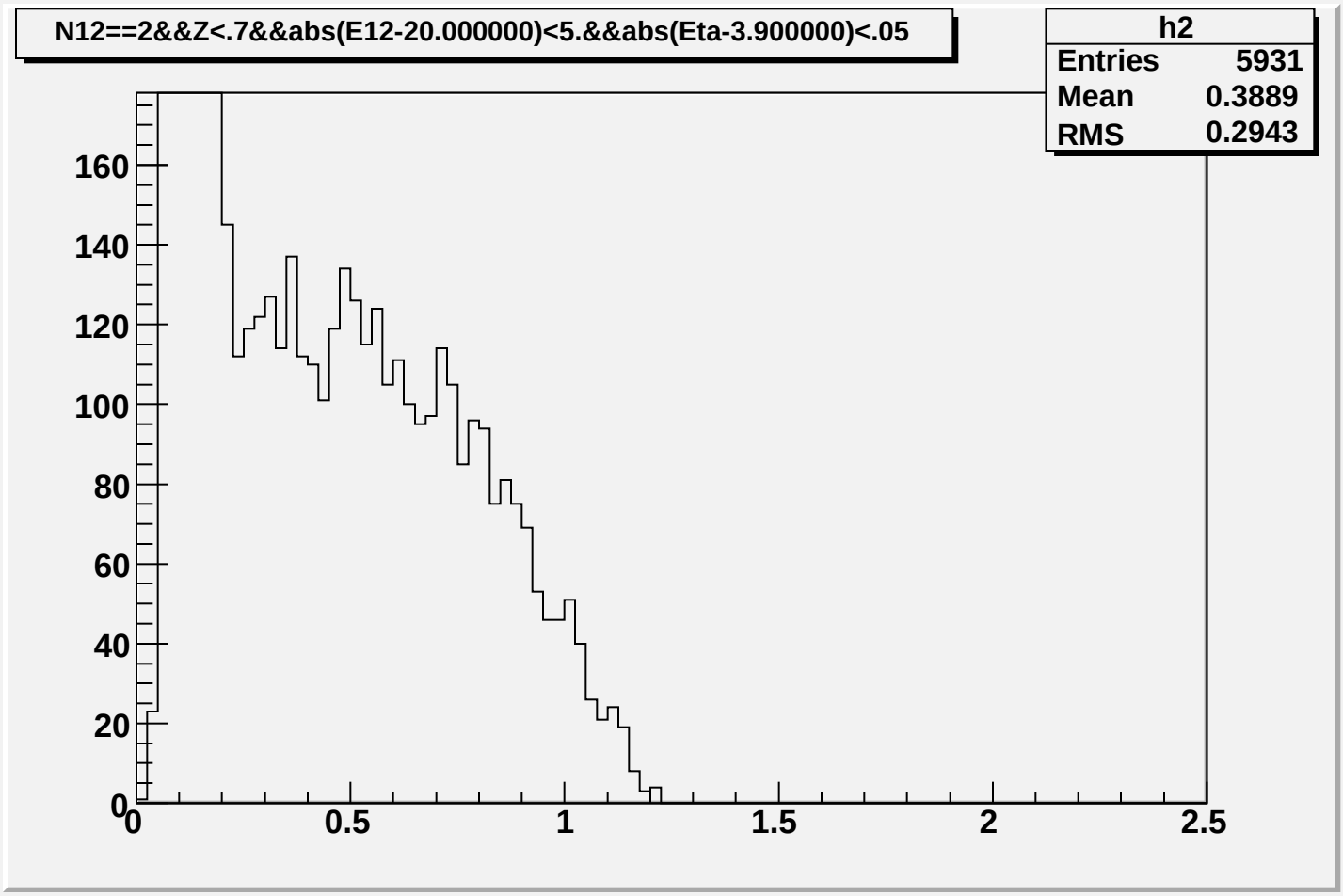
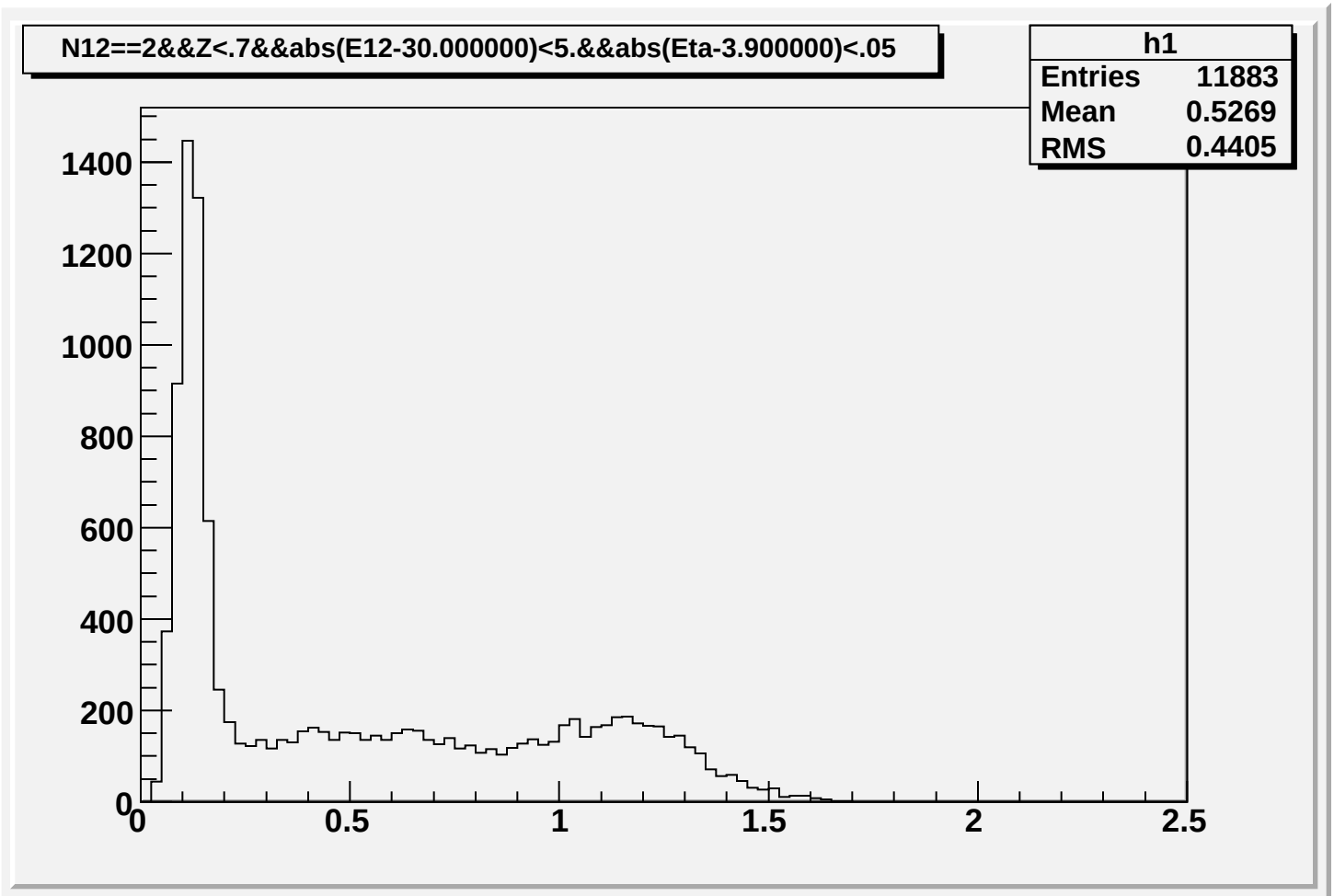
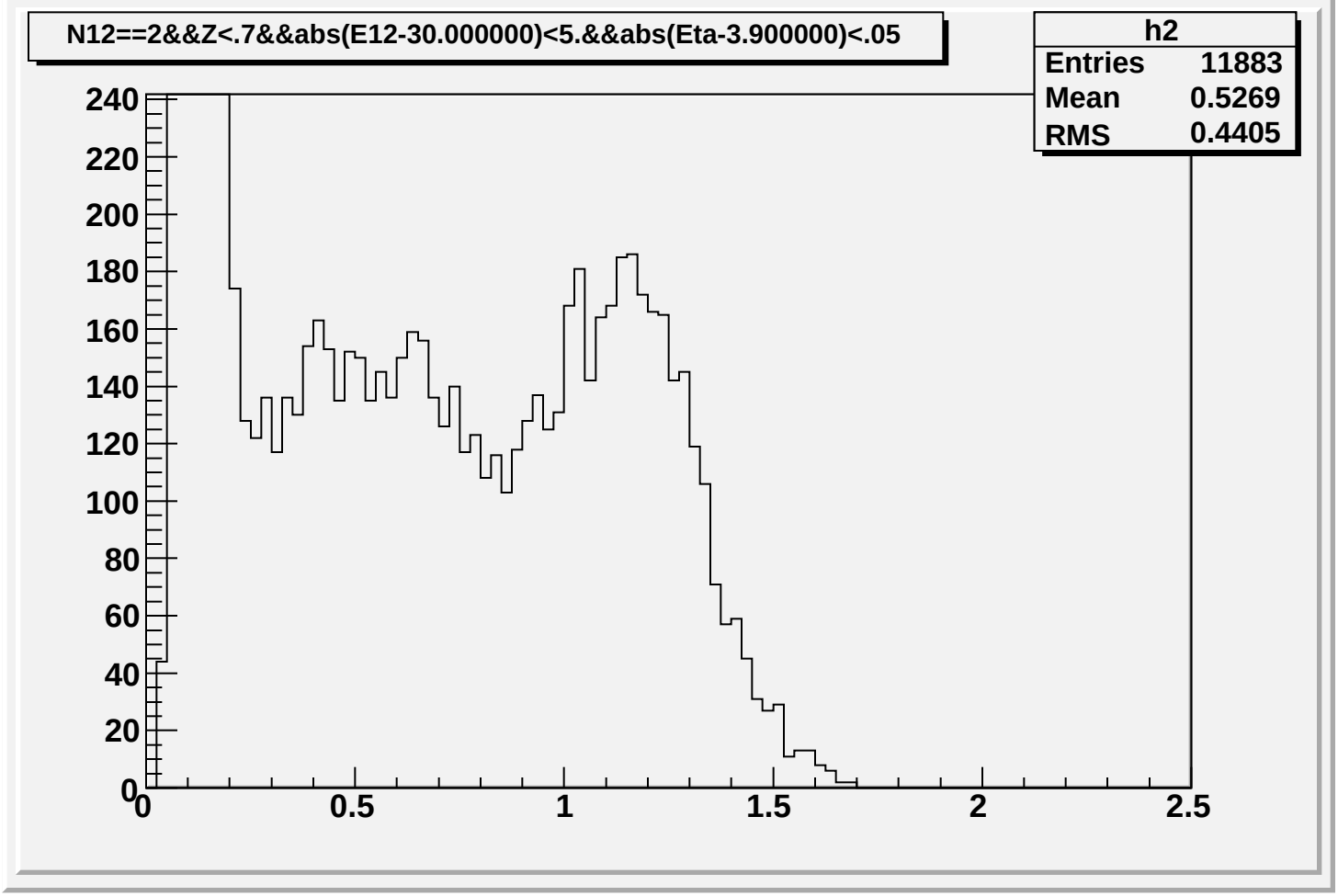
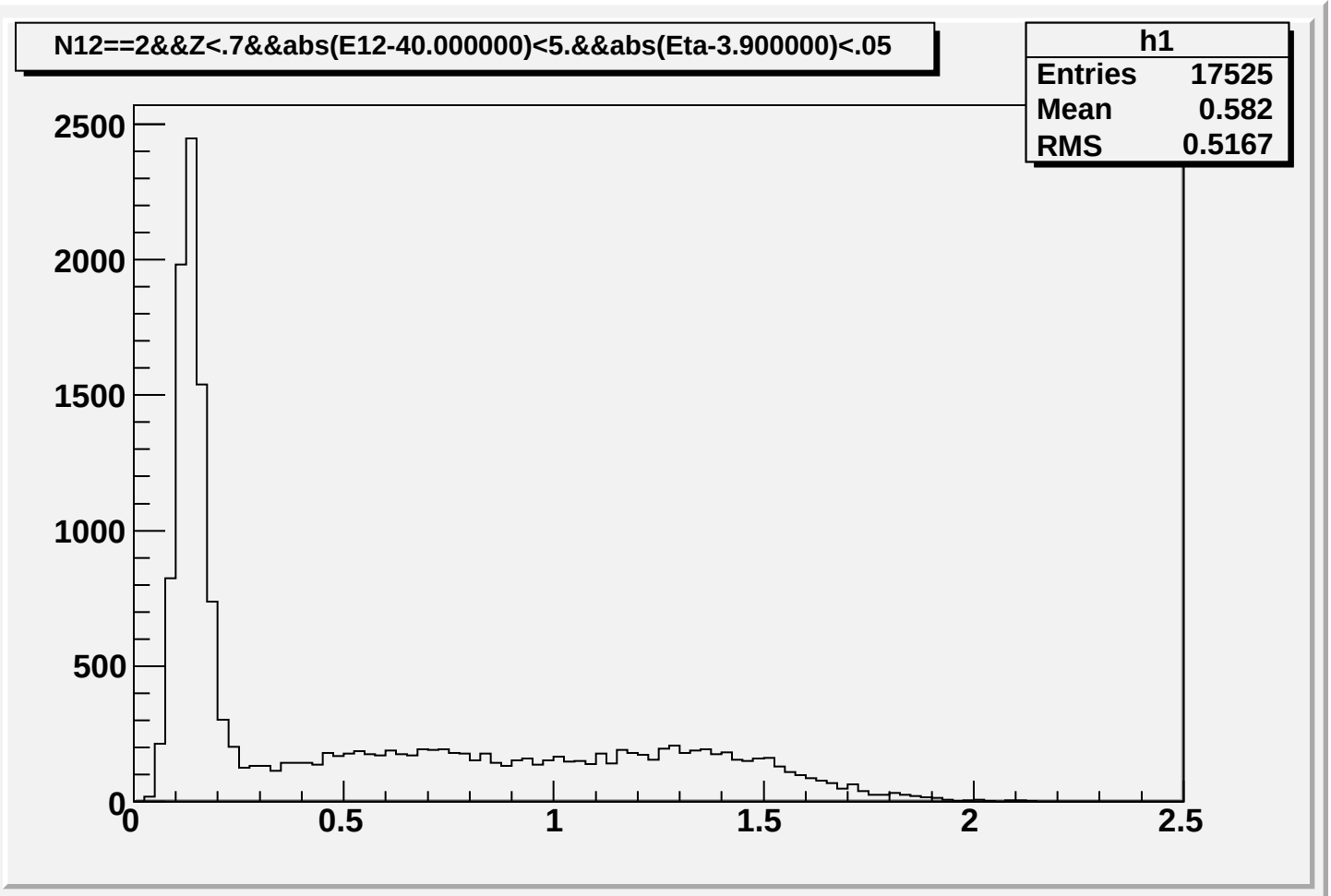
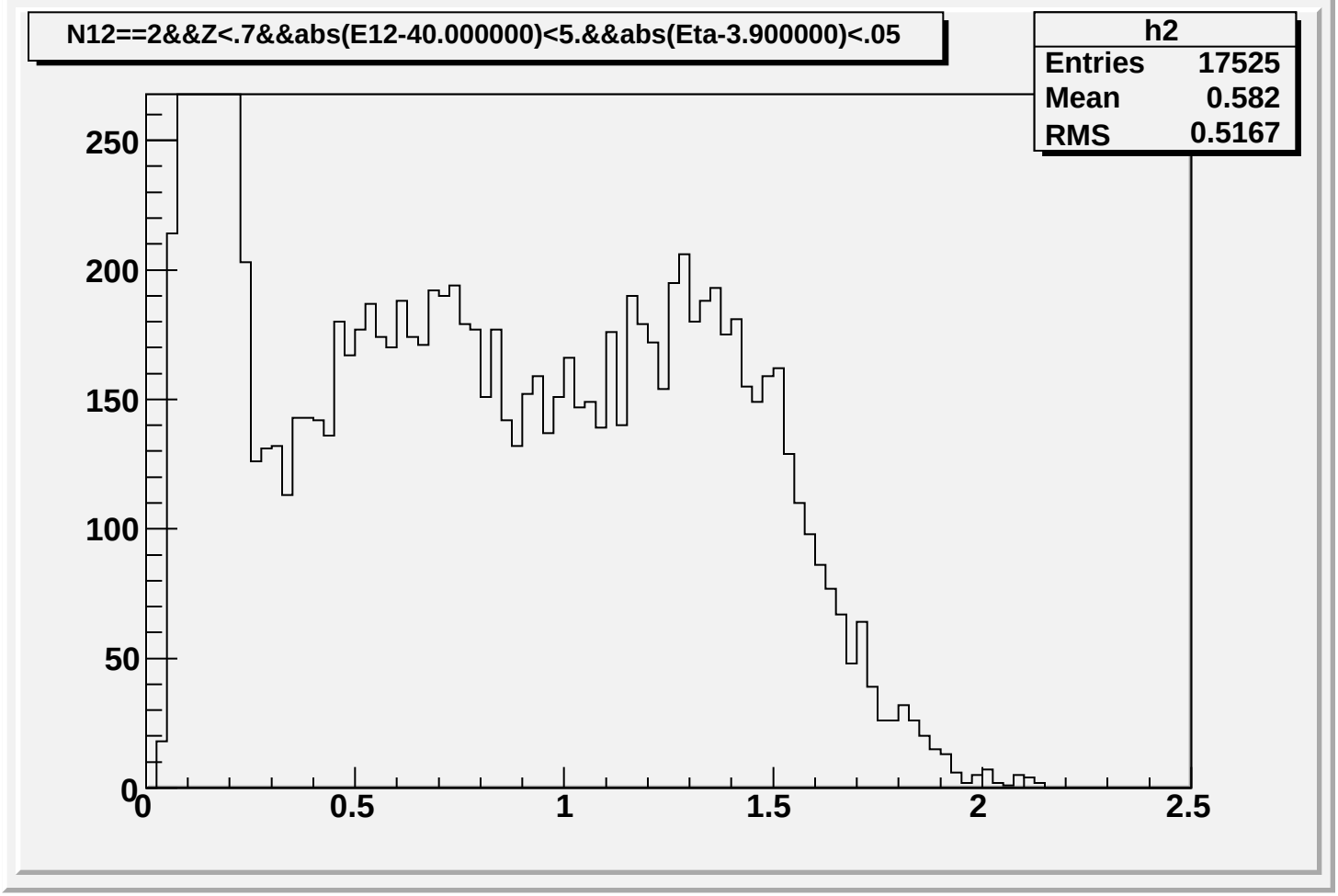

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 5931
Mean 0.3889
RMS 0.2943
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

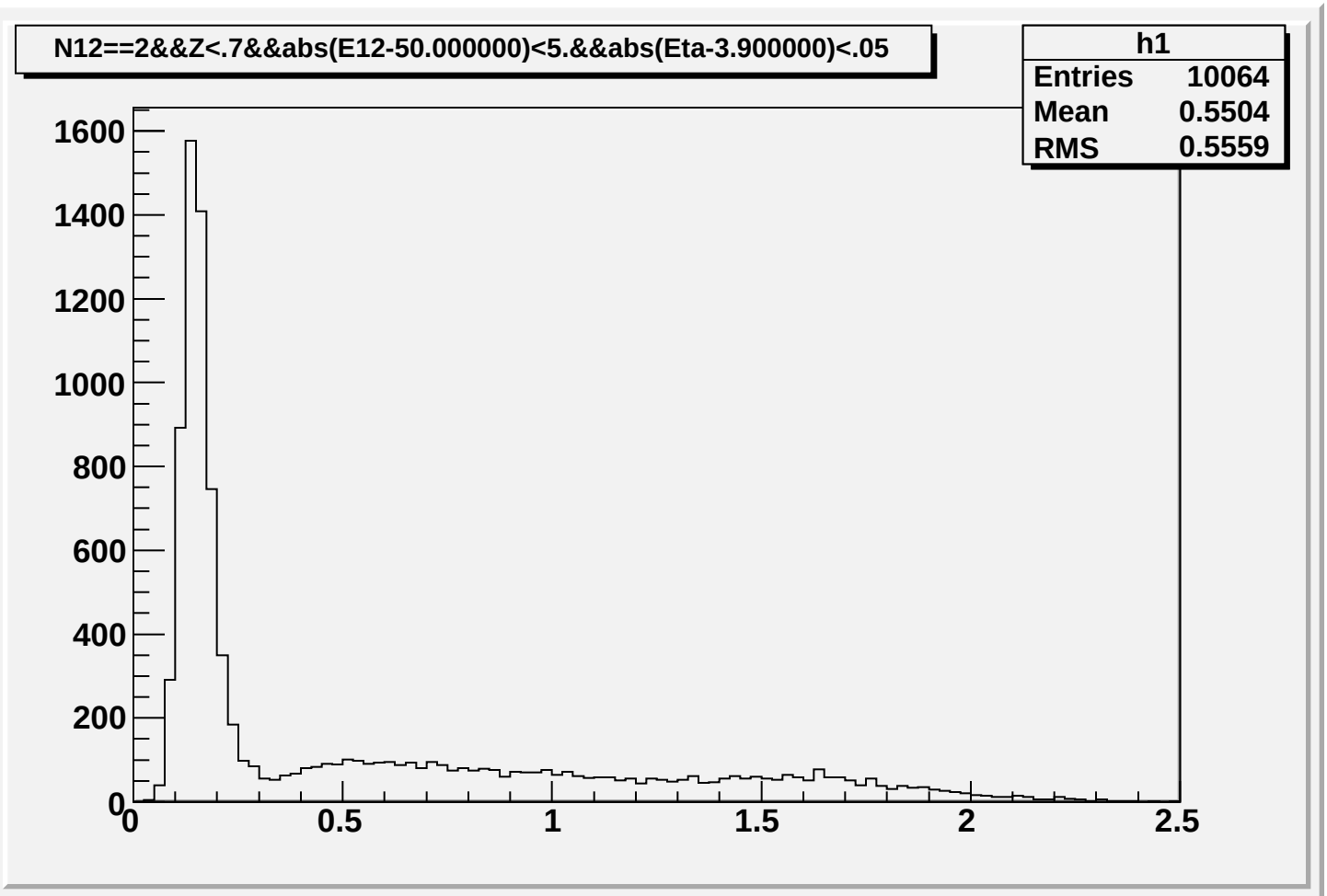

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 5931
Mean 0.3889
RMS 0.2943
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

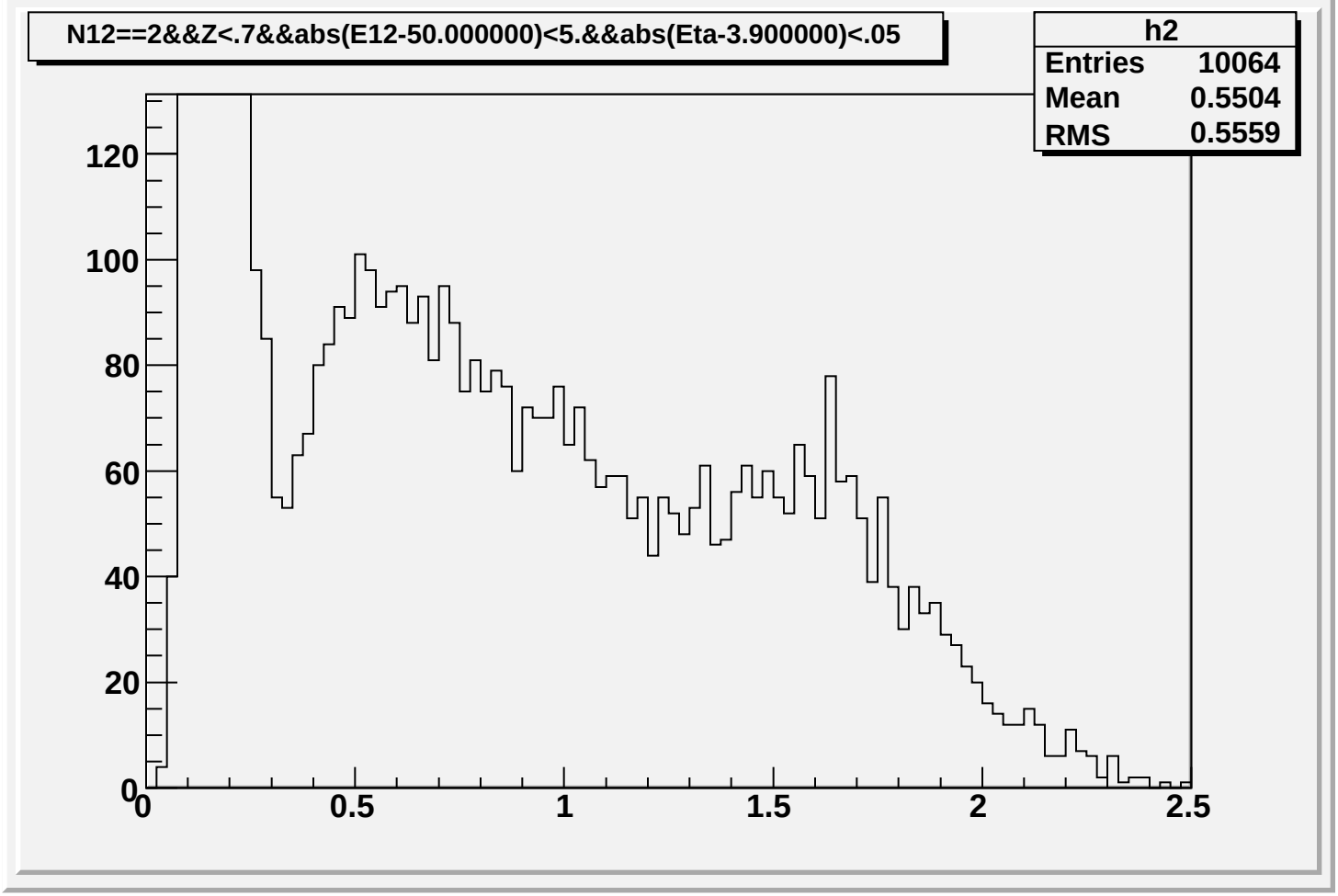

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 11883
Mean 0.5269
RMS 0.4405
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

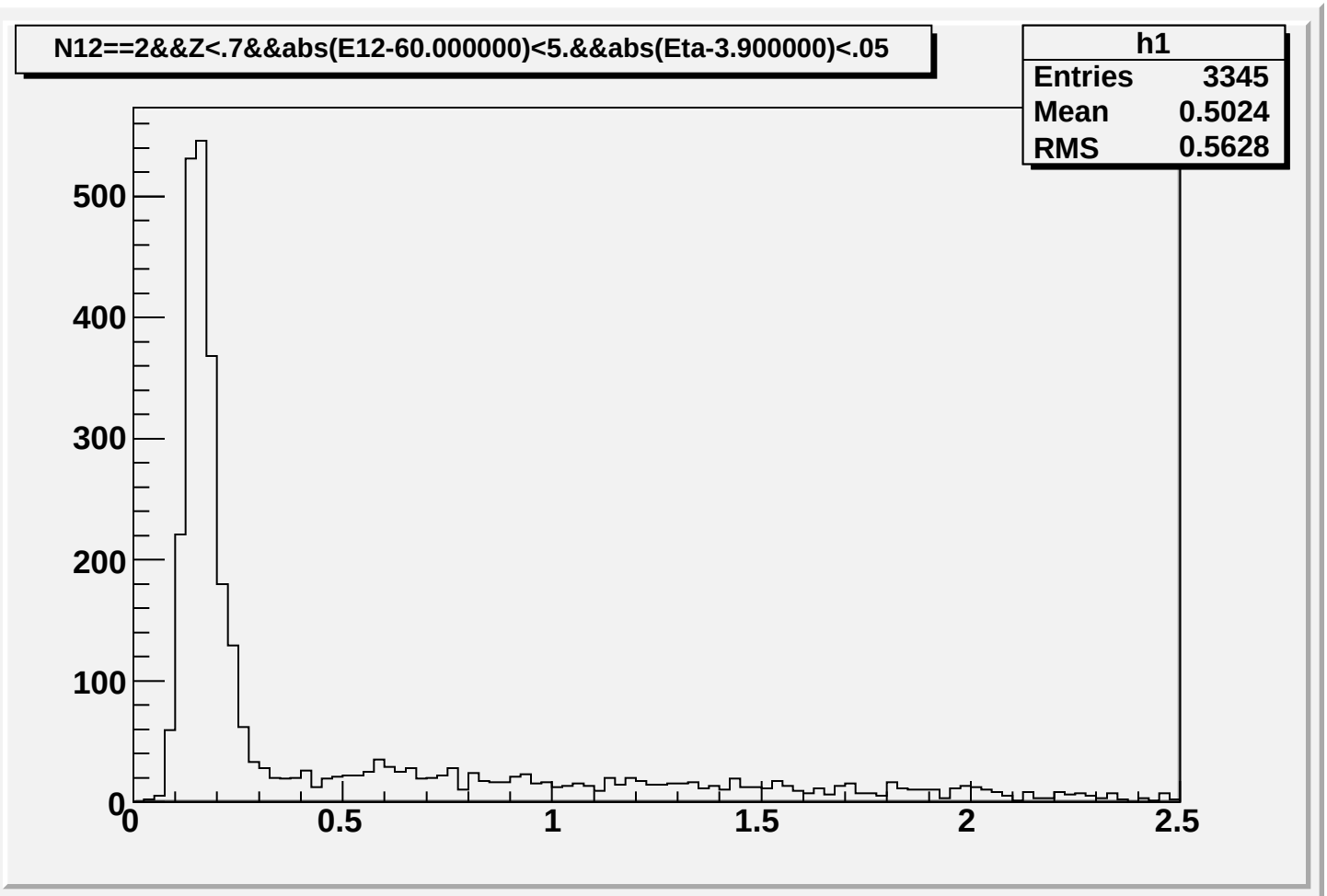

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 11883
Mean 0.5269
RMS 0.4405
240
220
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

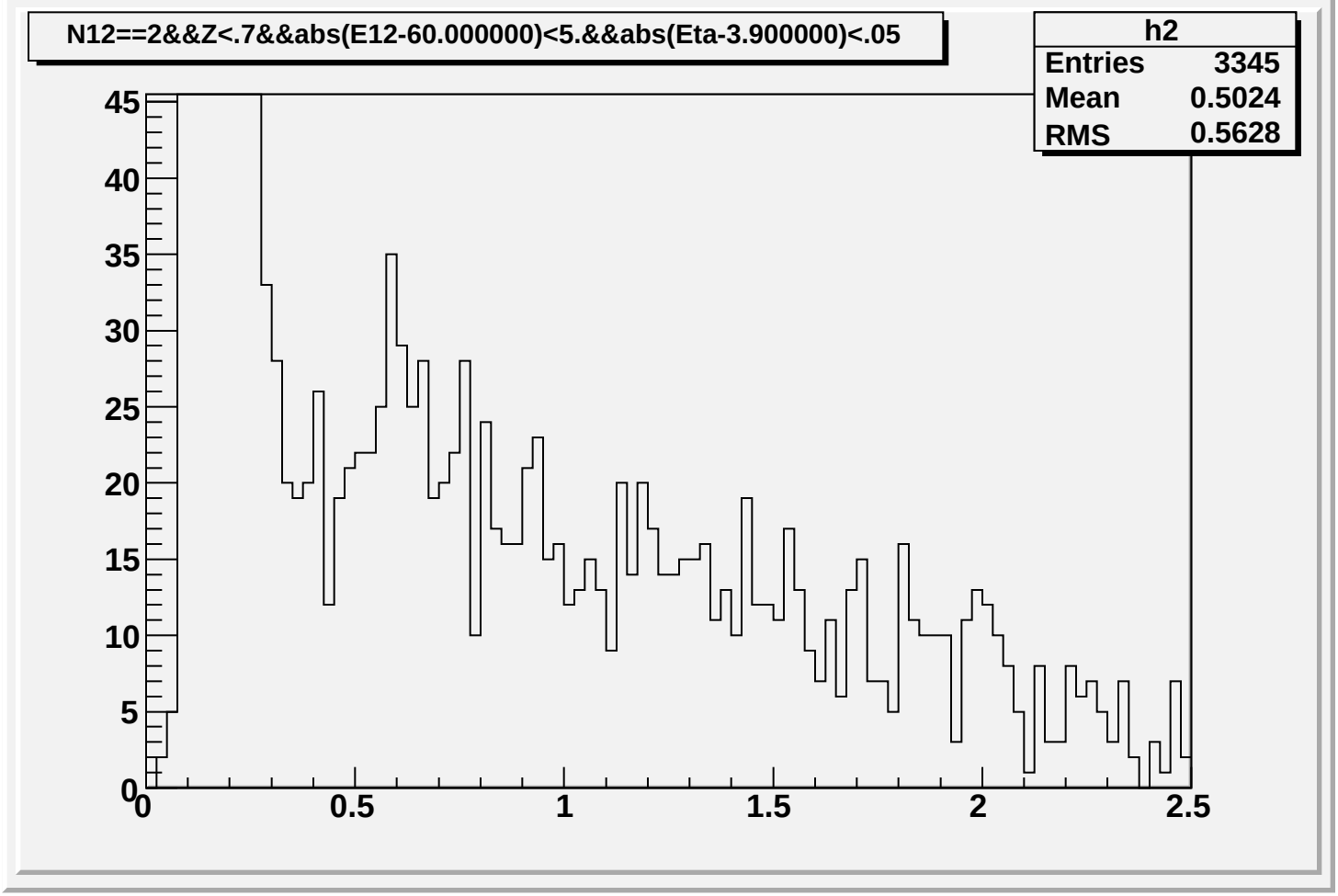

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 17525
Mean 0.582
RMS 0.5167
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

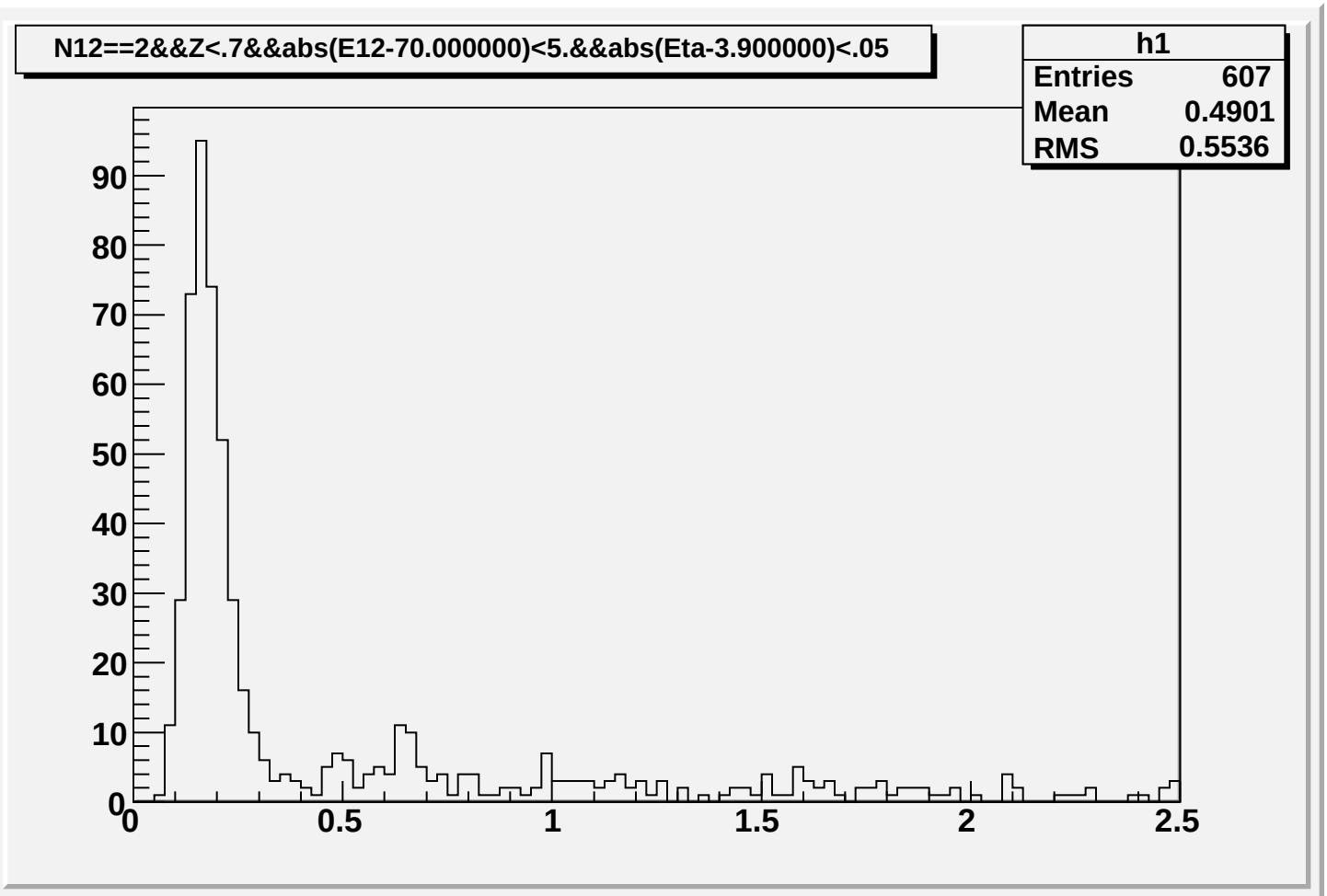

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 17525
Mean 0.582
RMS 0.5167
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

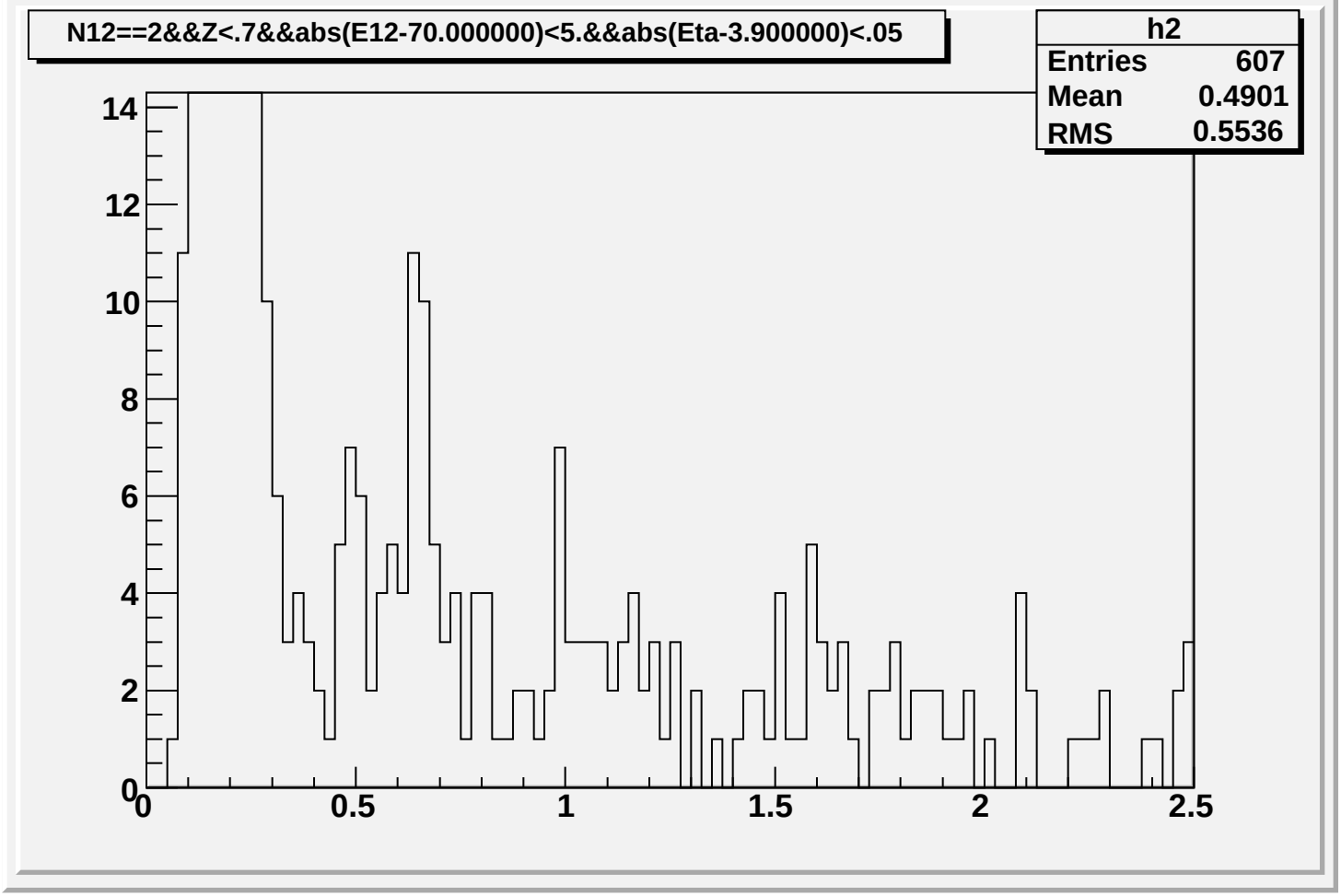

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 10064
Mean 0.5504
RMS 0.5559
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

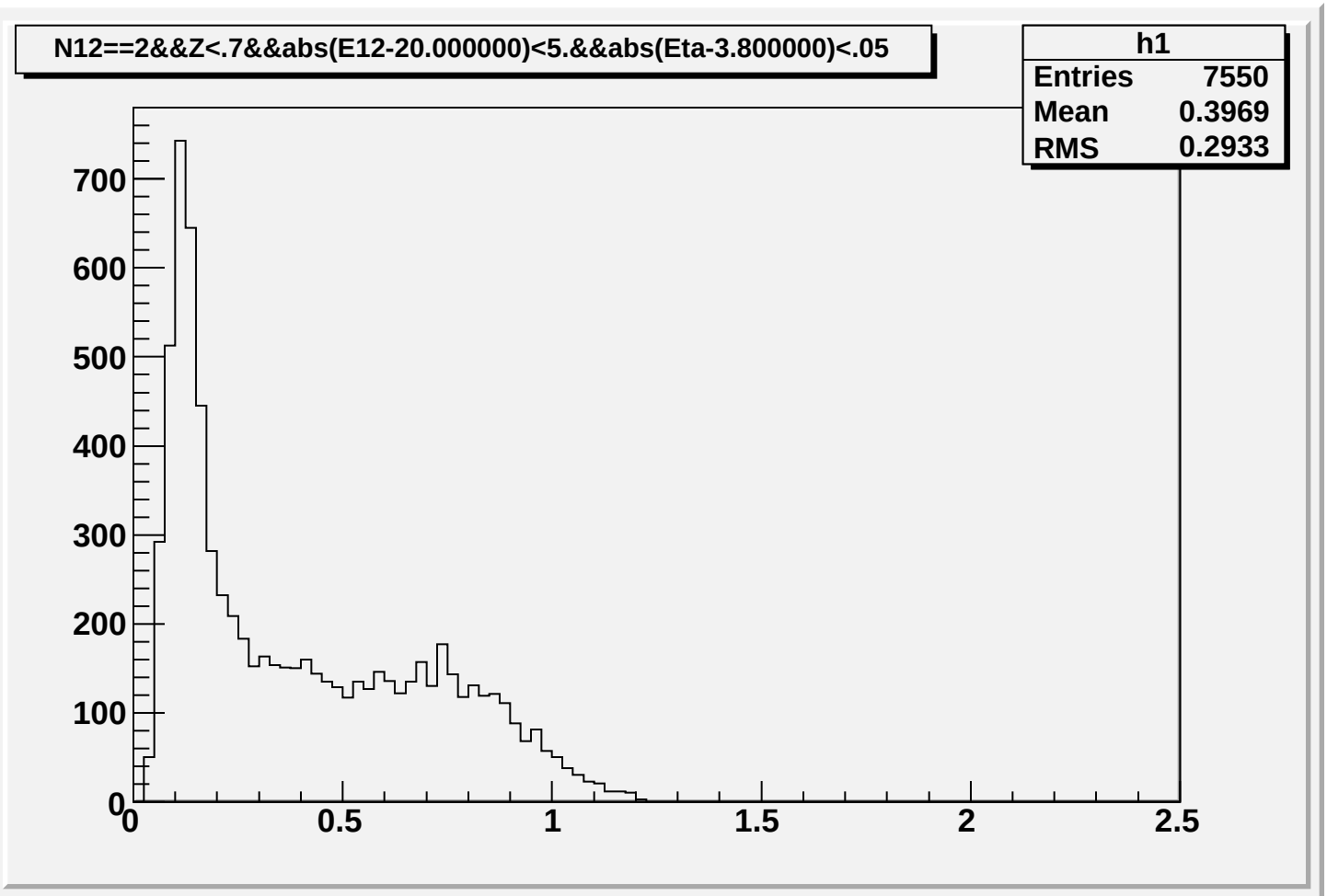

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 10064
Mean 0.5504
RMS 0.5559
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

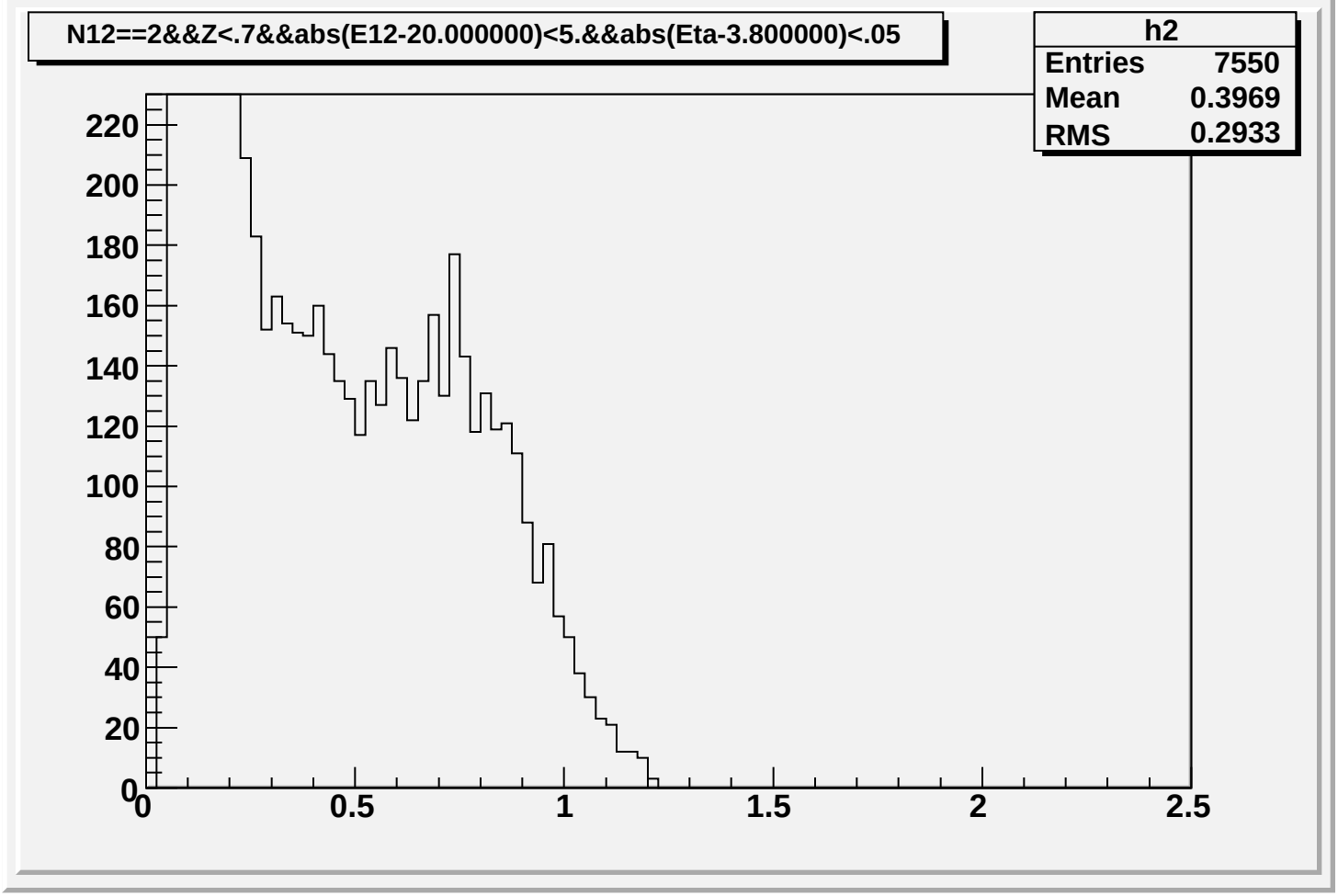

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 3345
Mean 0.5024
RMS 0.5628
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

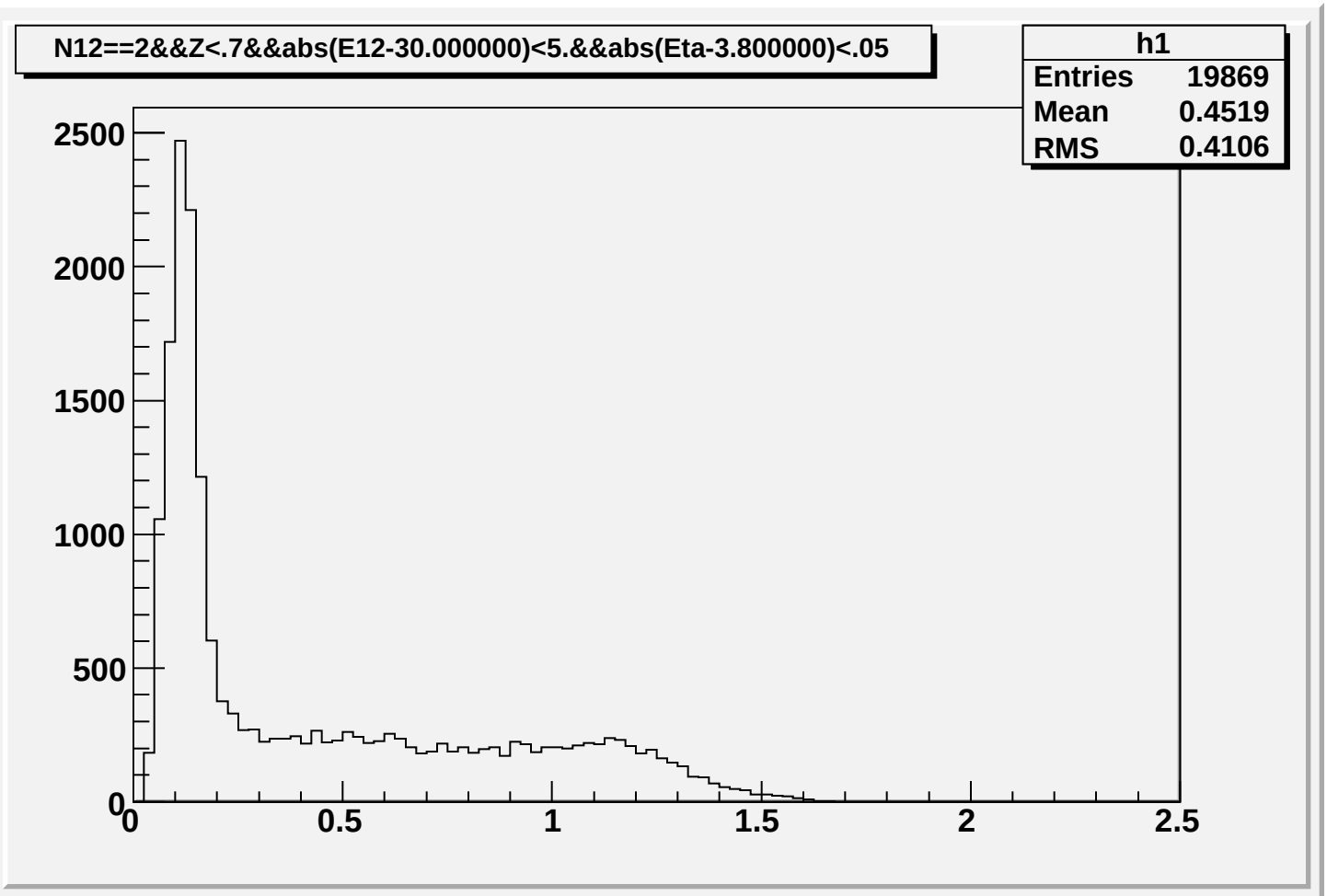

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 3345
Mean 0.5024
RMS 0.5628
45
40
35
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

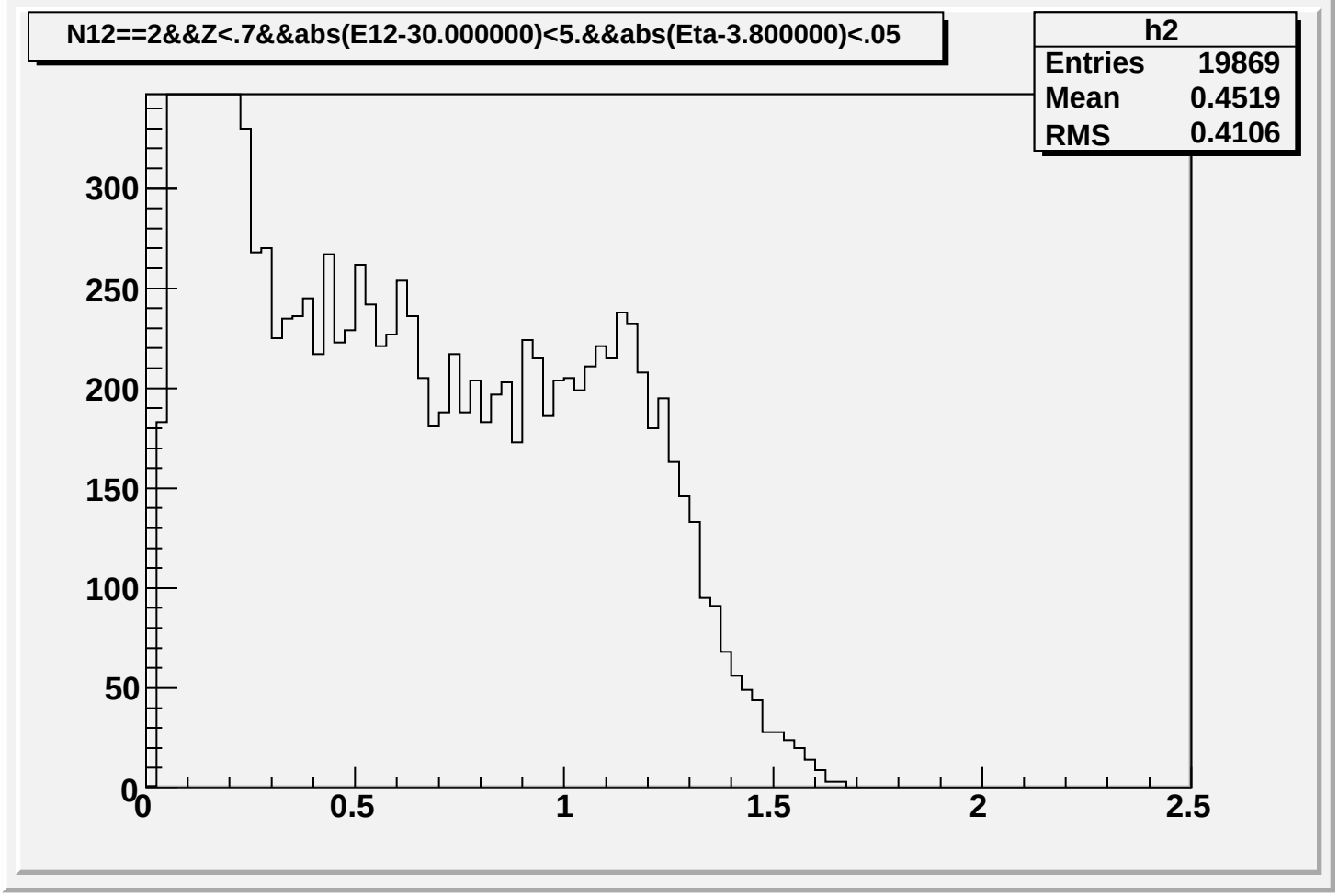

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.900000)<.05
h1
Entries 607
Mean 0.4901
RMS 0.5536
90
80
70
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

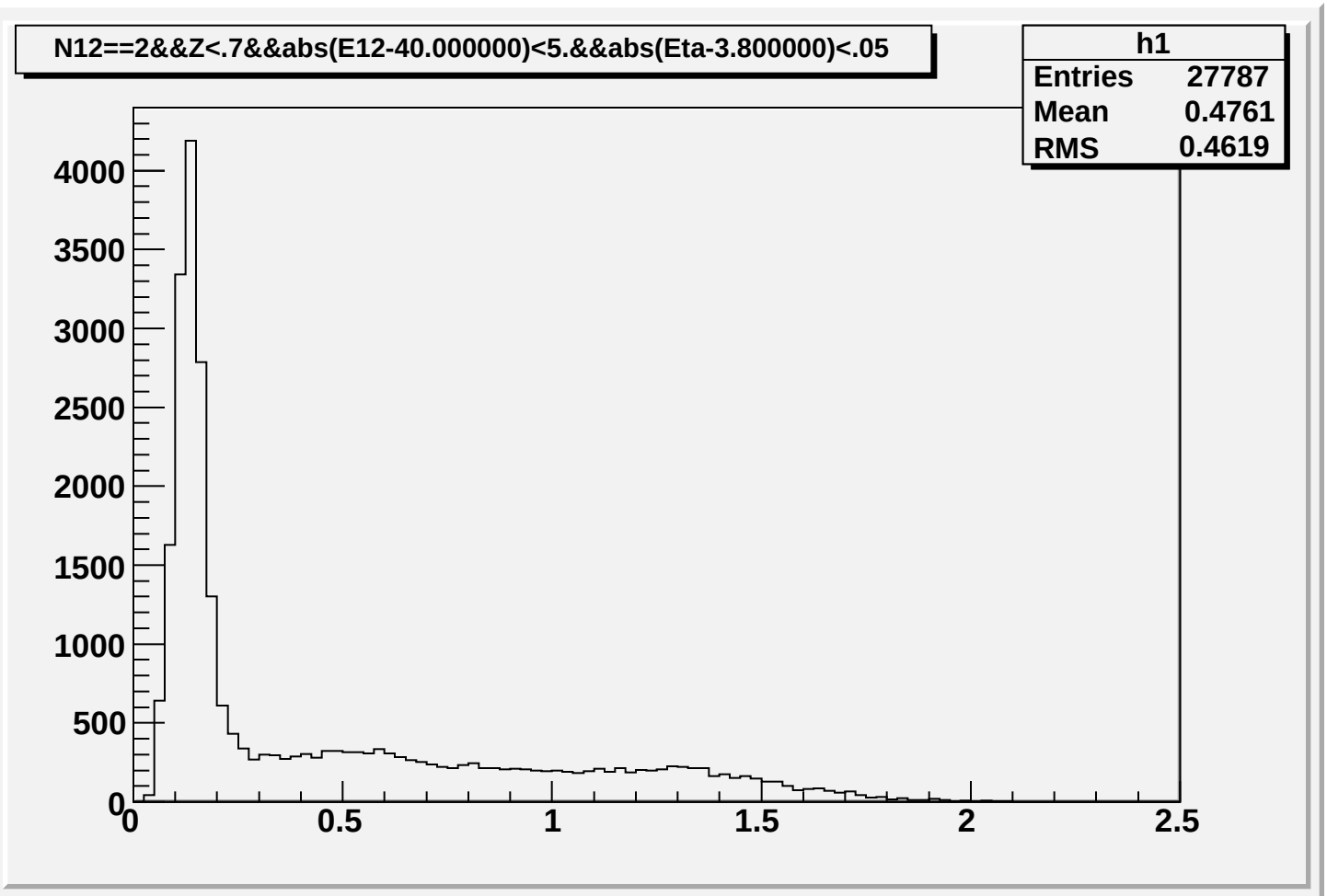

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.900000)<.05
h2
Entries 607
Mean 0.4901
RMS 0.5536
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

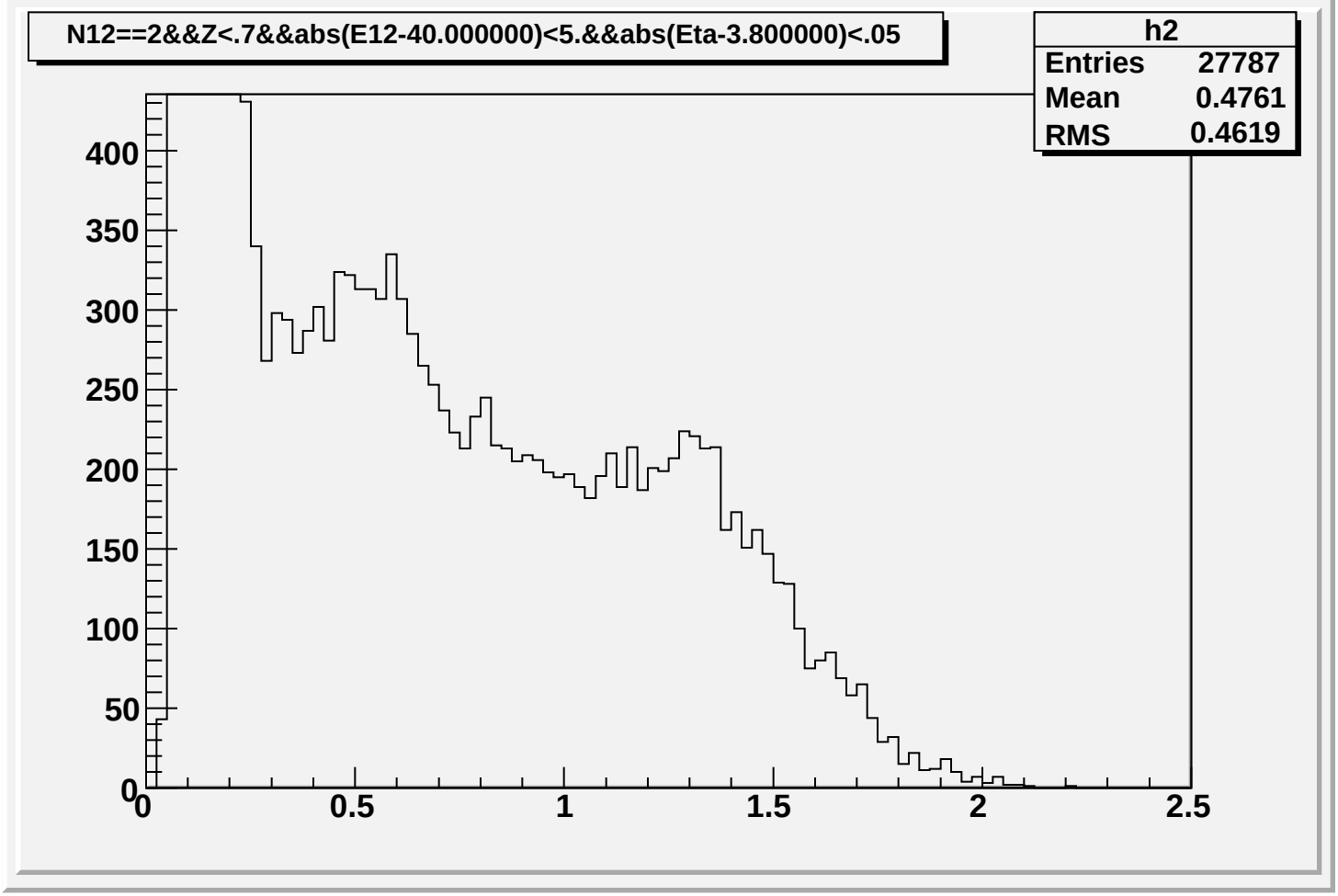

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 7550
Mean 0.3969
RMS 0.2933
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

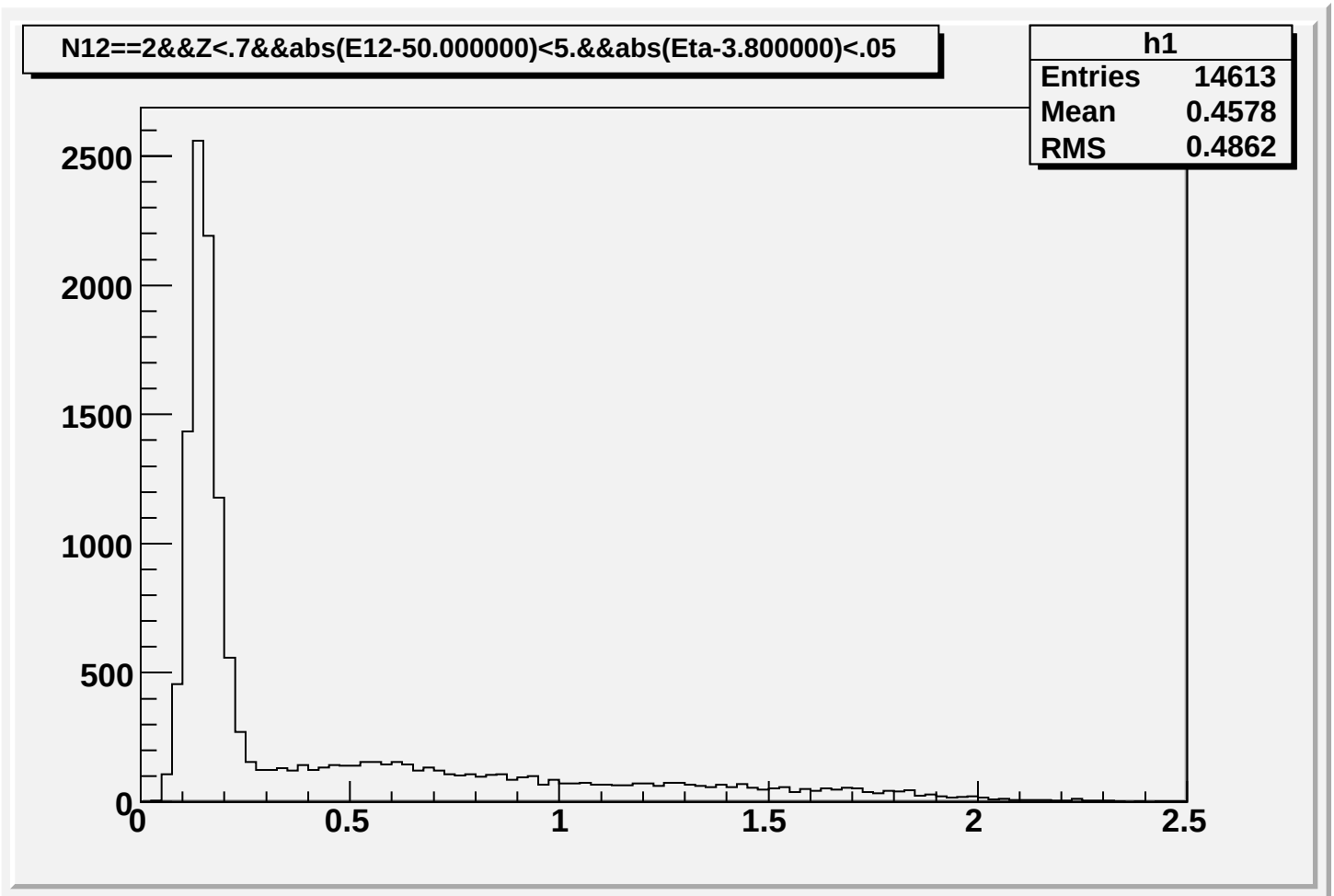

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 7550
Mean 0.3969
RMS 0.2933
220
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

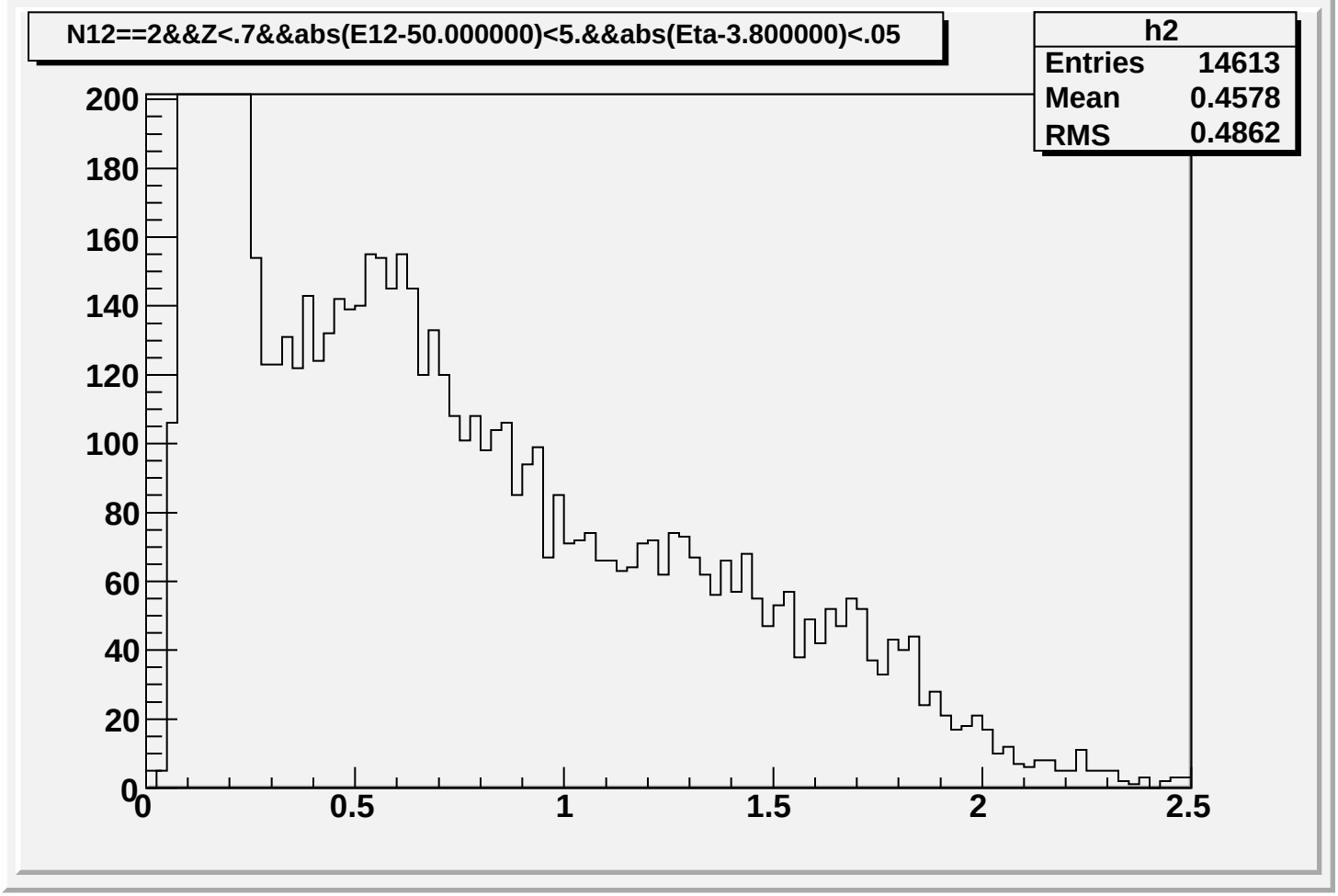

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 19869
Mean 0.4519
RMS 0.4106
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

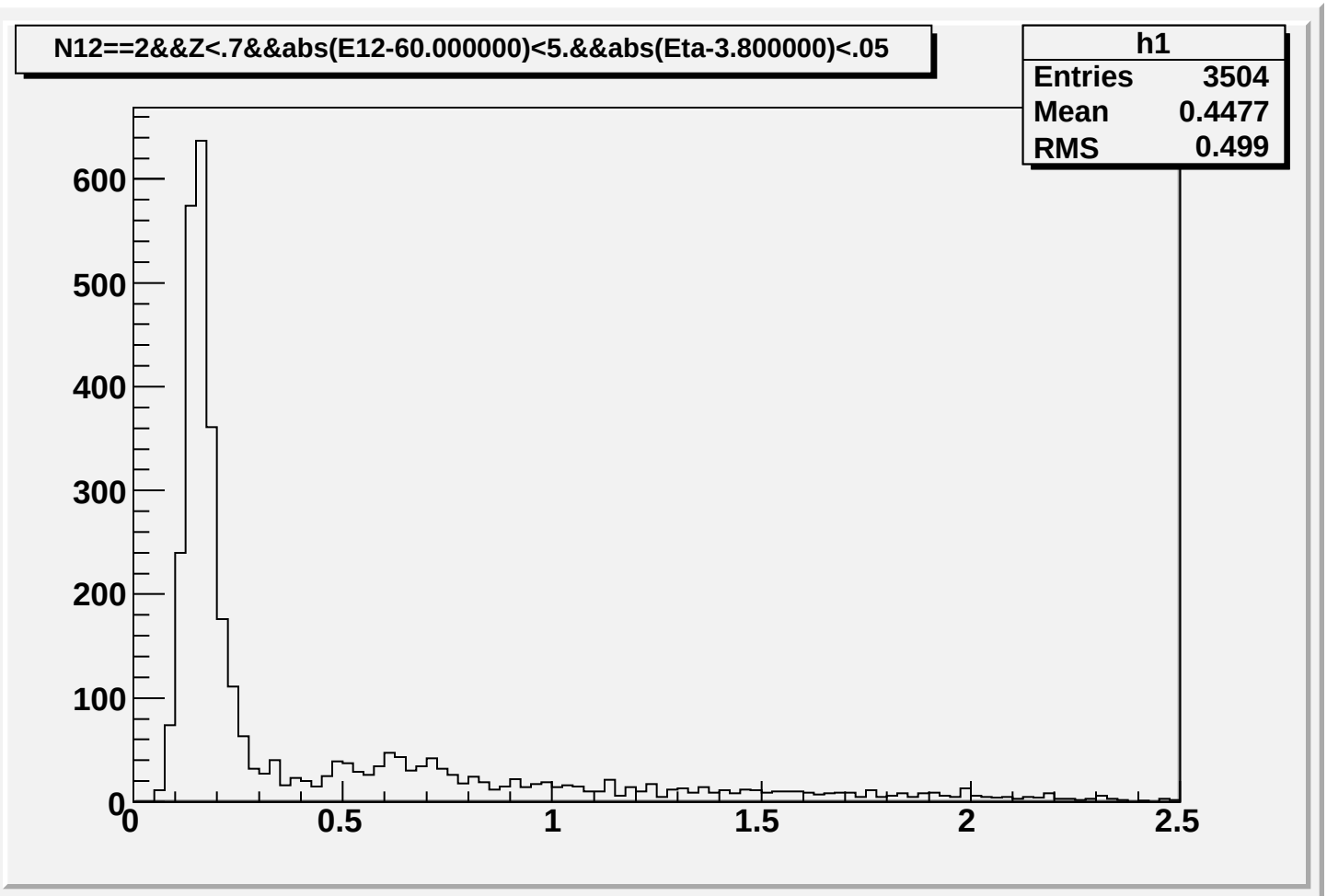

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 19869
Mean 0.4519
RMS 0.4106
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

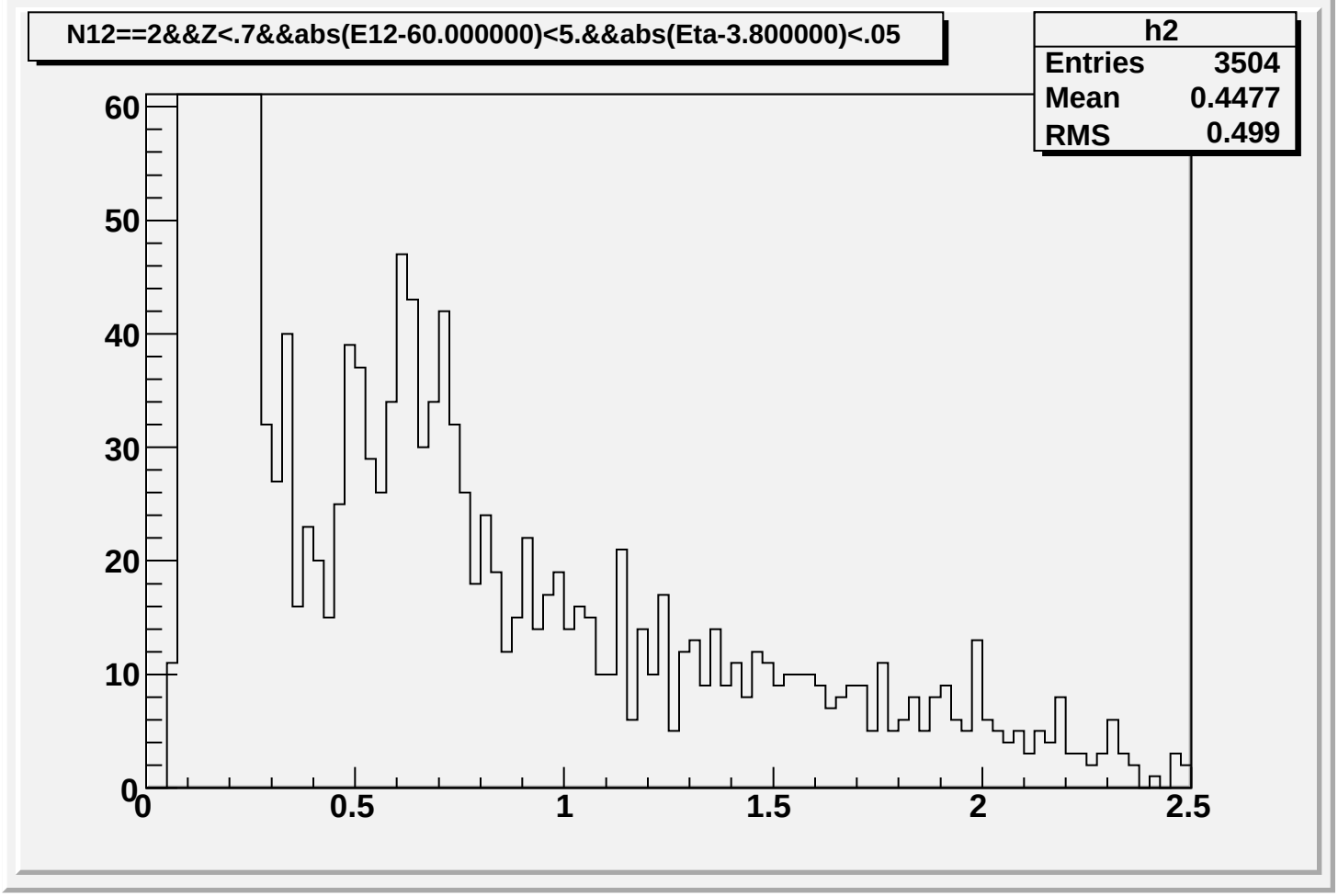

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 27787
Mean 0.4761
RMS 0.4619
4000
3500
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

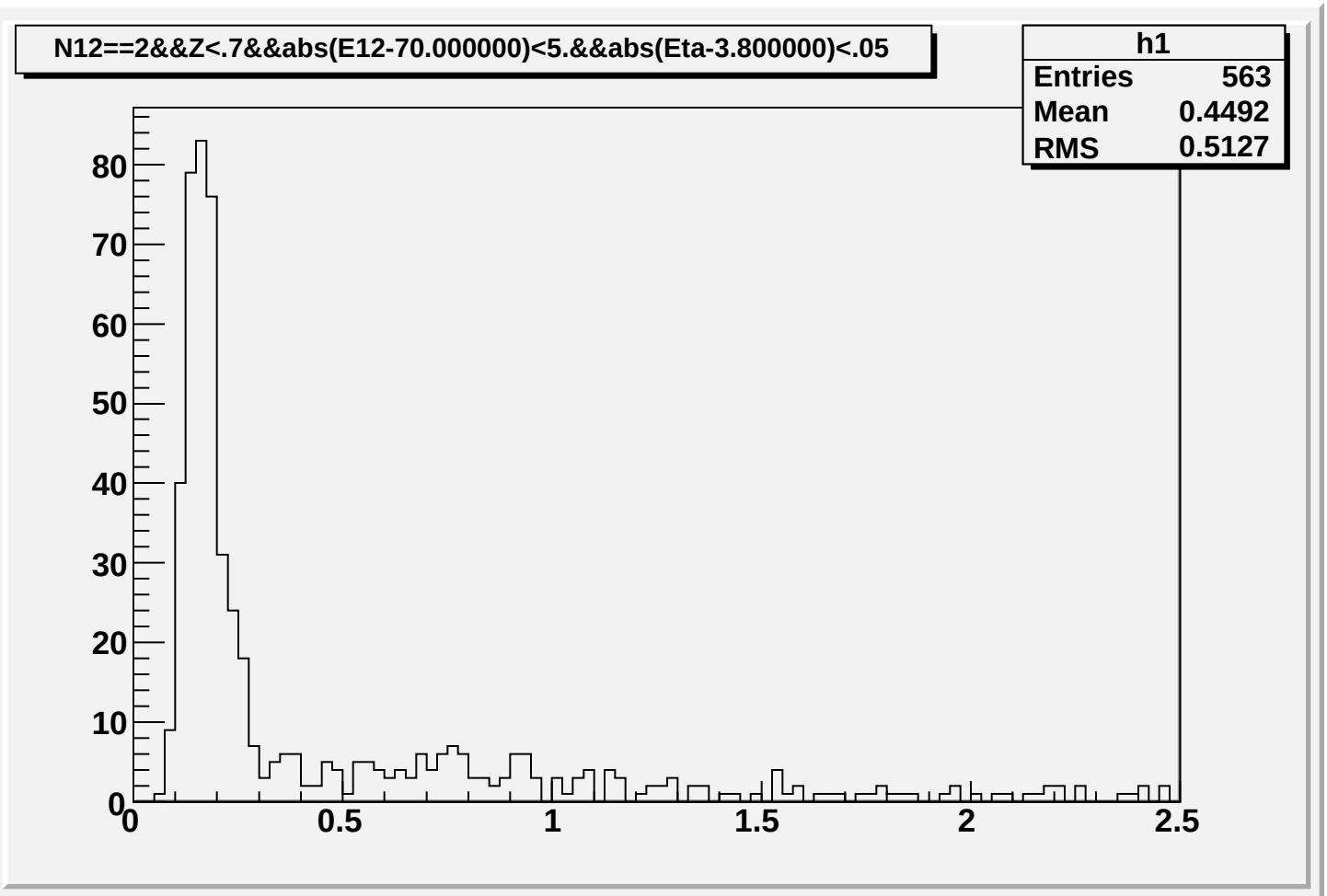

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 27787
Mean 0.4761
RMS 0.4619
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

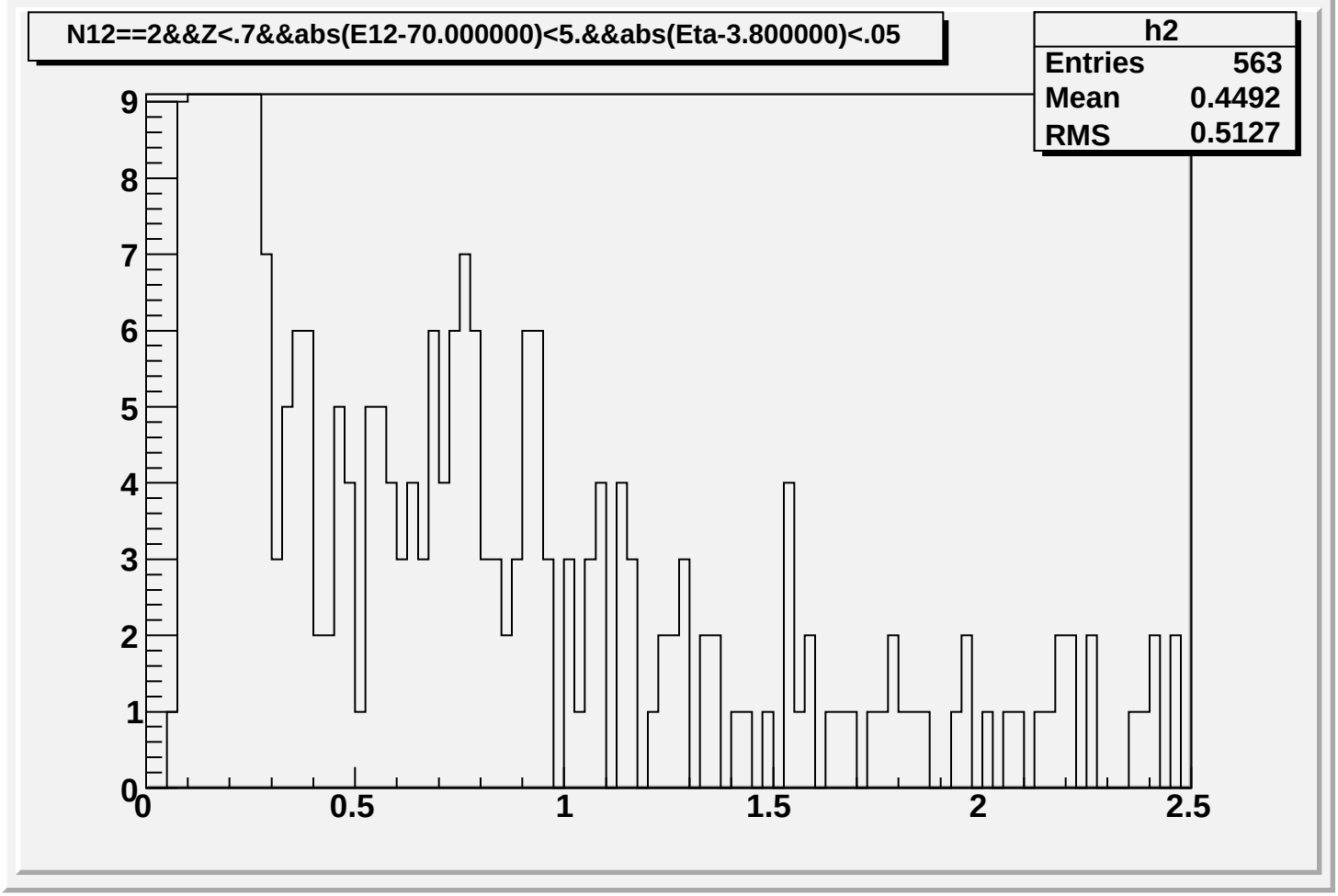

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 14613
Mean 0.4578
RMS 0.4862
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

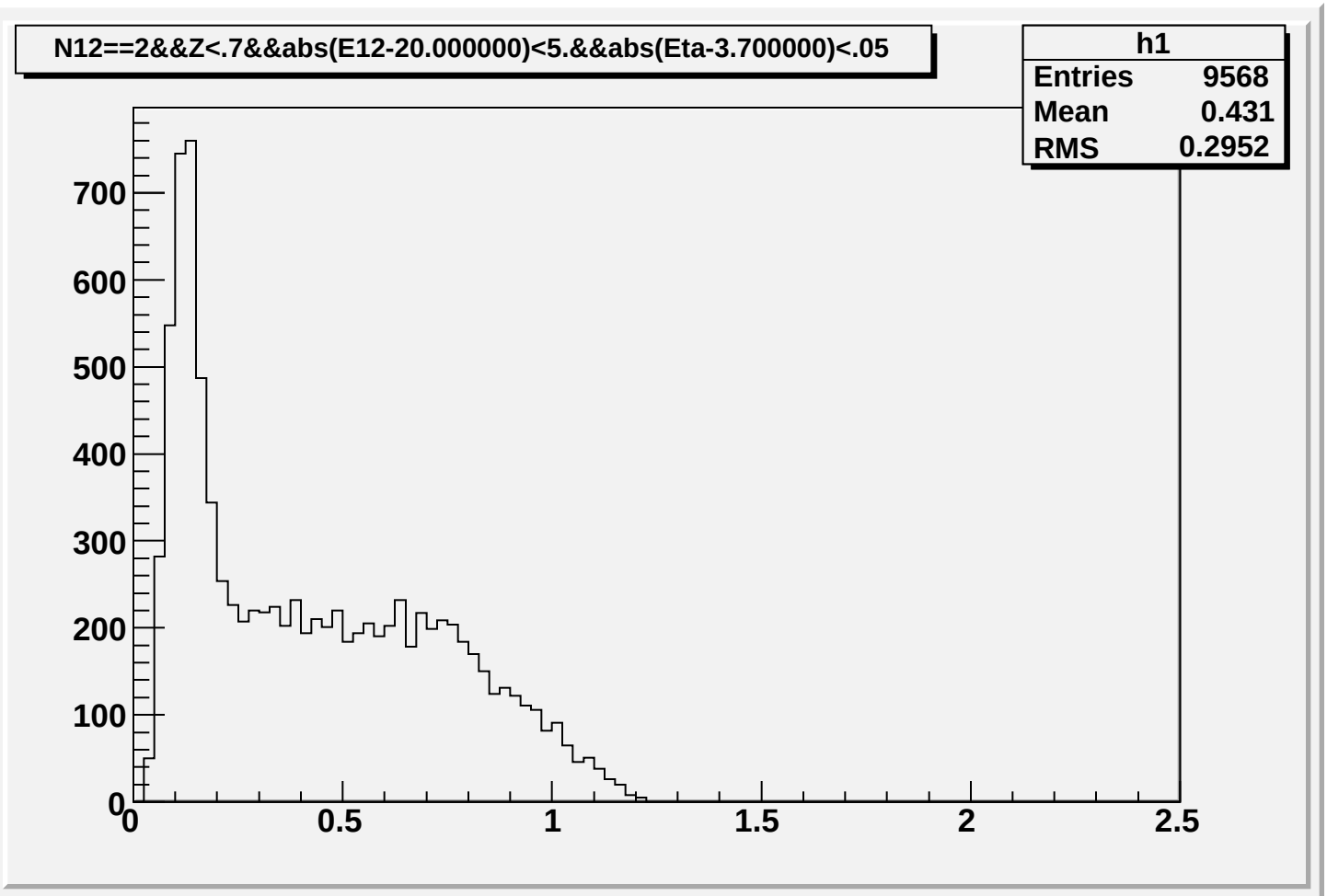

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 14613
Mean 0.4578
RMS 0.4862
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

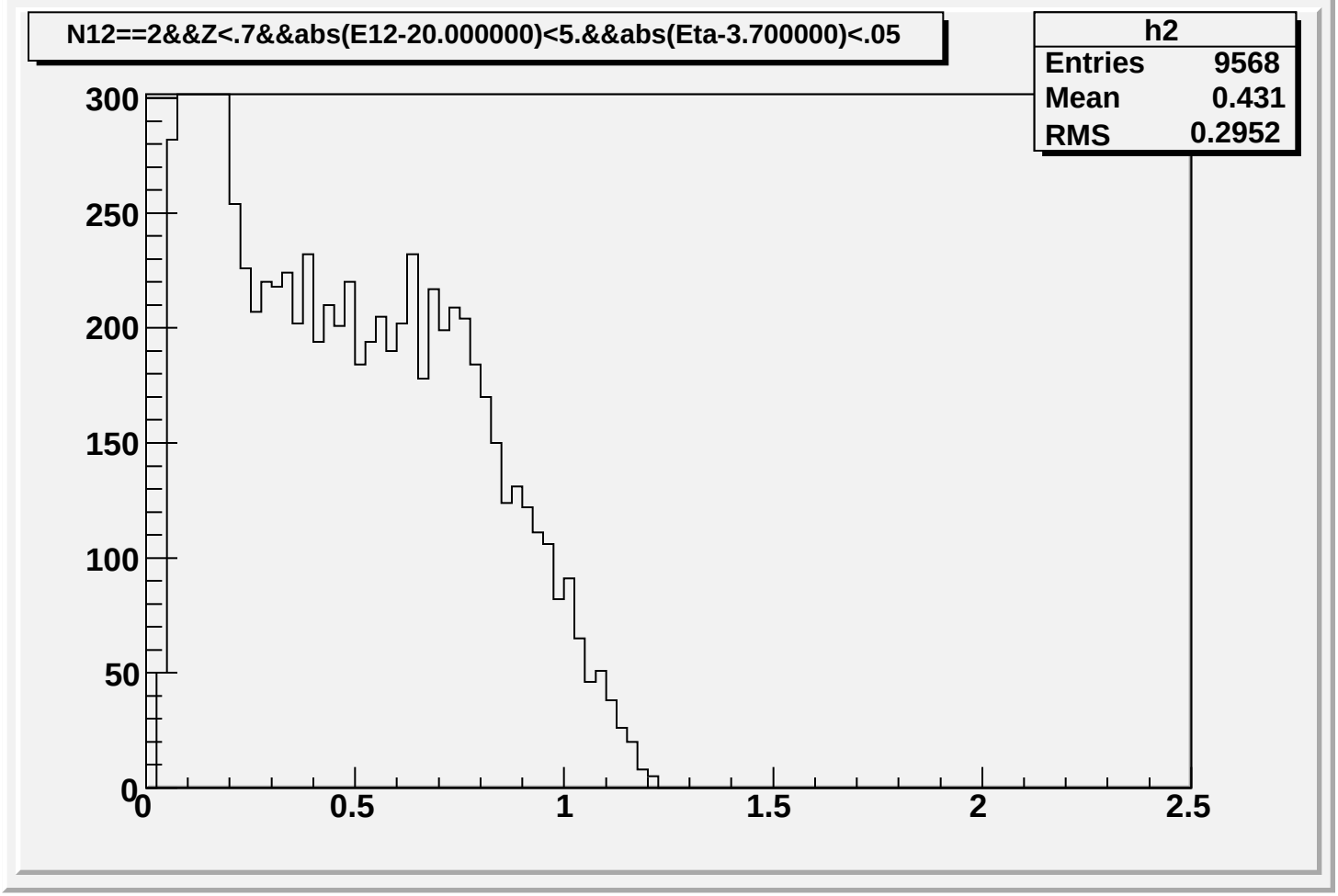

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 3504
Mean 0.4477
RMS 0.499
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

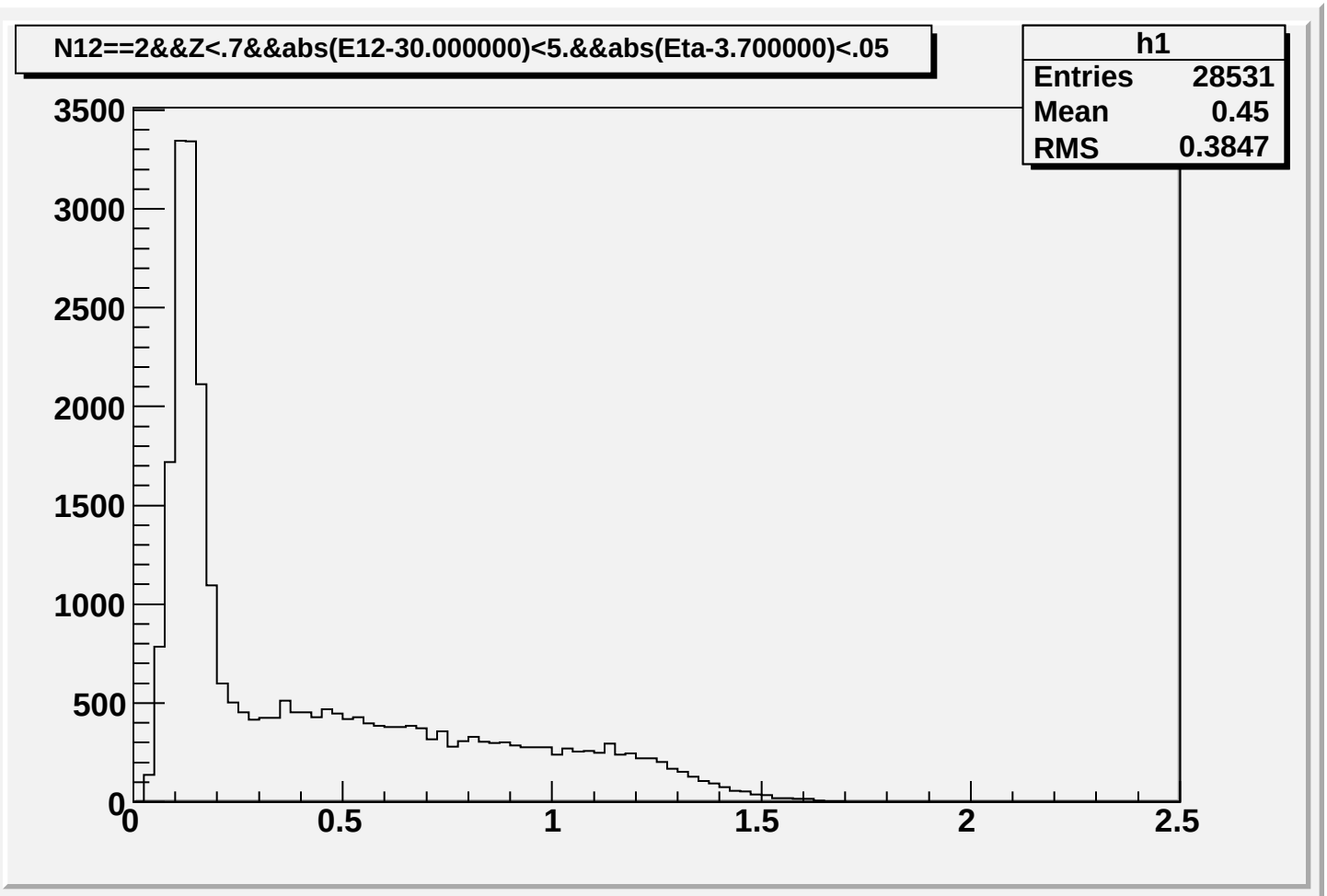

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 3504
Mean 0.4477
RMS 0.499
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

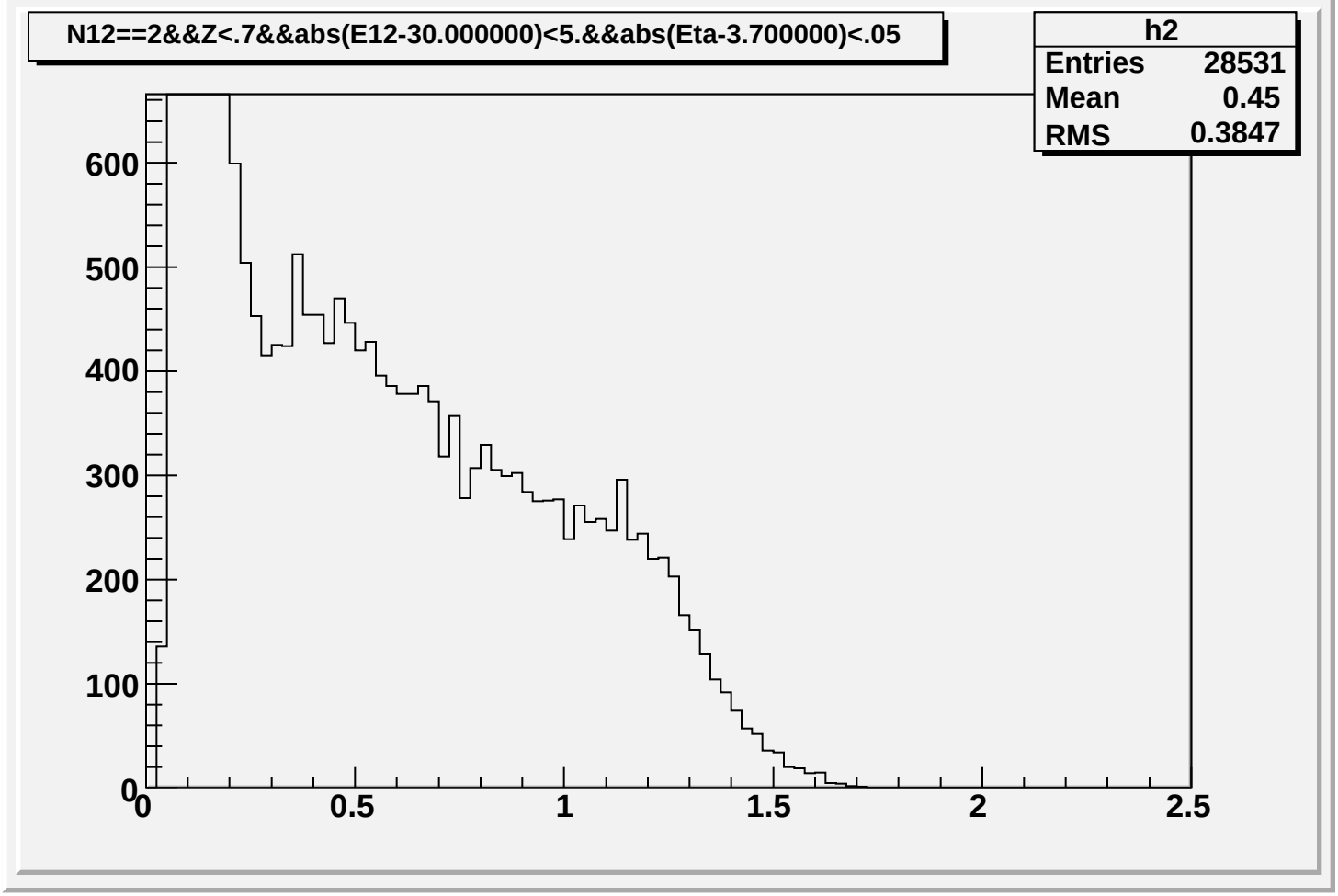

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.800000)<.05
h1
Entries 563
Mean 0.4492
RMS 0.5127
0
10
20
30
40
50
60
70
80
0
0.5
1
1.5
2
2.5

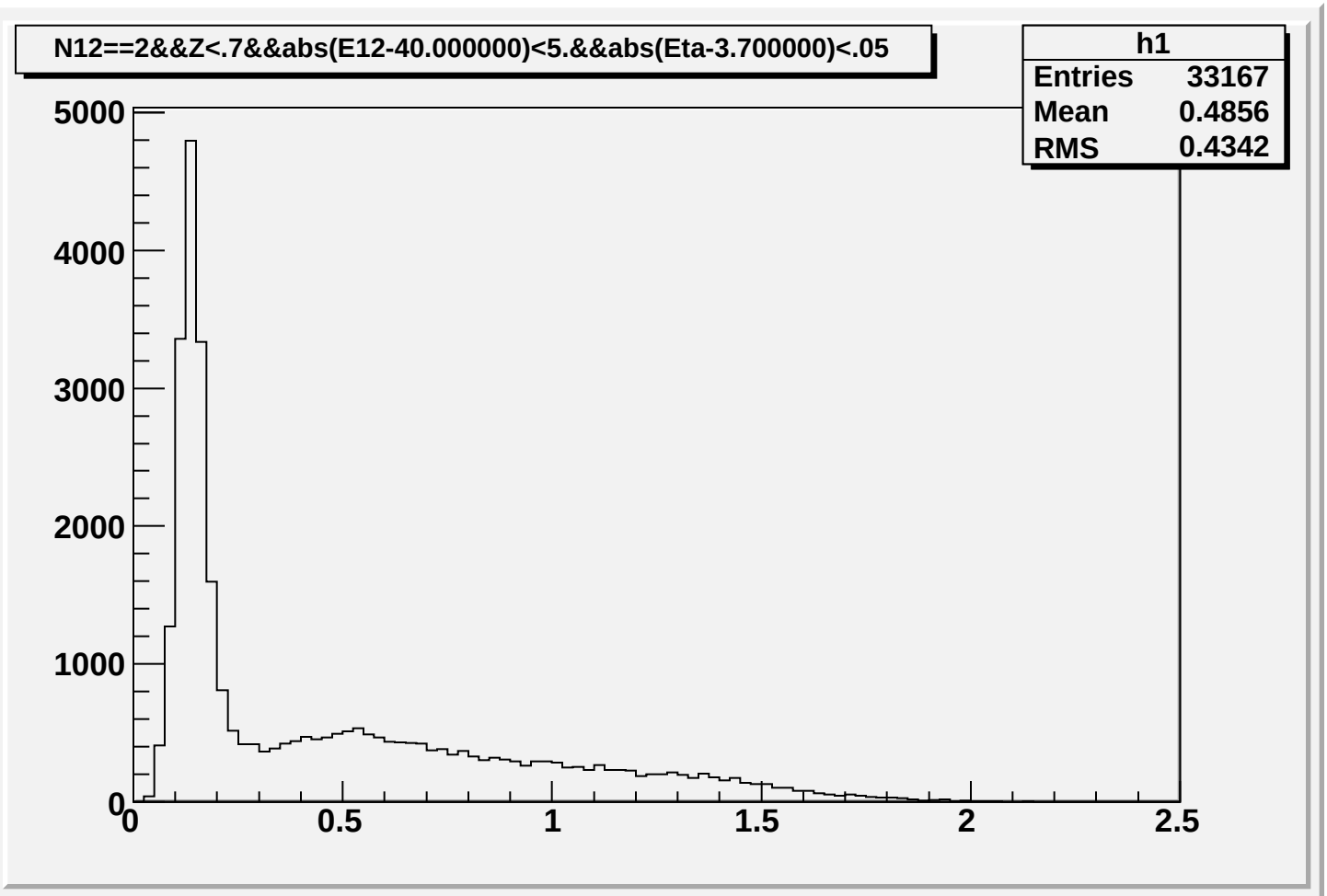

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.800000)<.05
h2
Entries 563
Mean 0.4492
RMS 0.5127
0
1
2
3
4
5
6
7
8
9
0
0.5
1
1.5
2
2.5

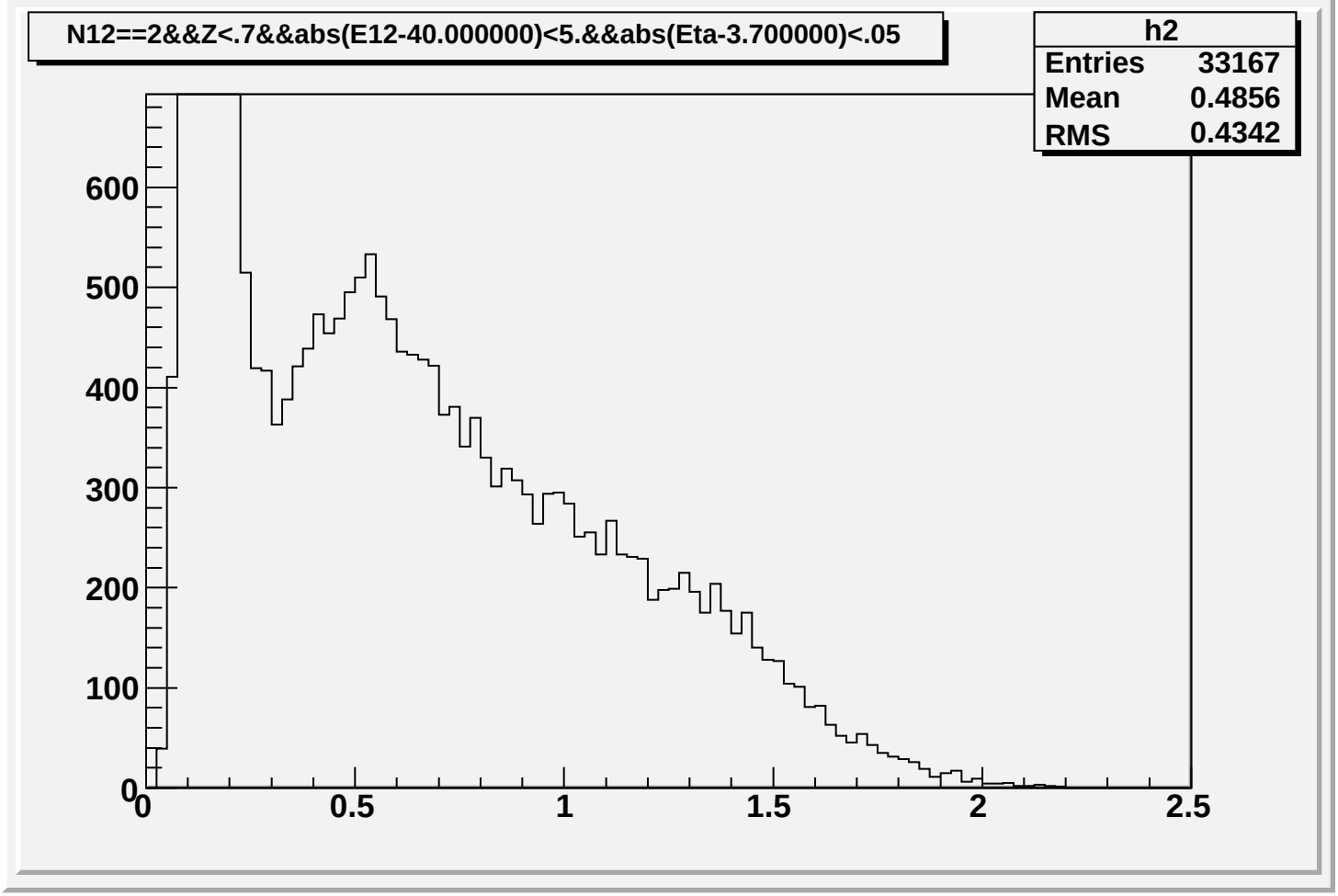

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 9568
Mean 0.431
RMS 0.2952
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

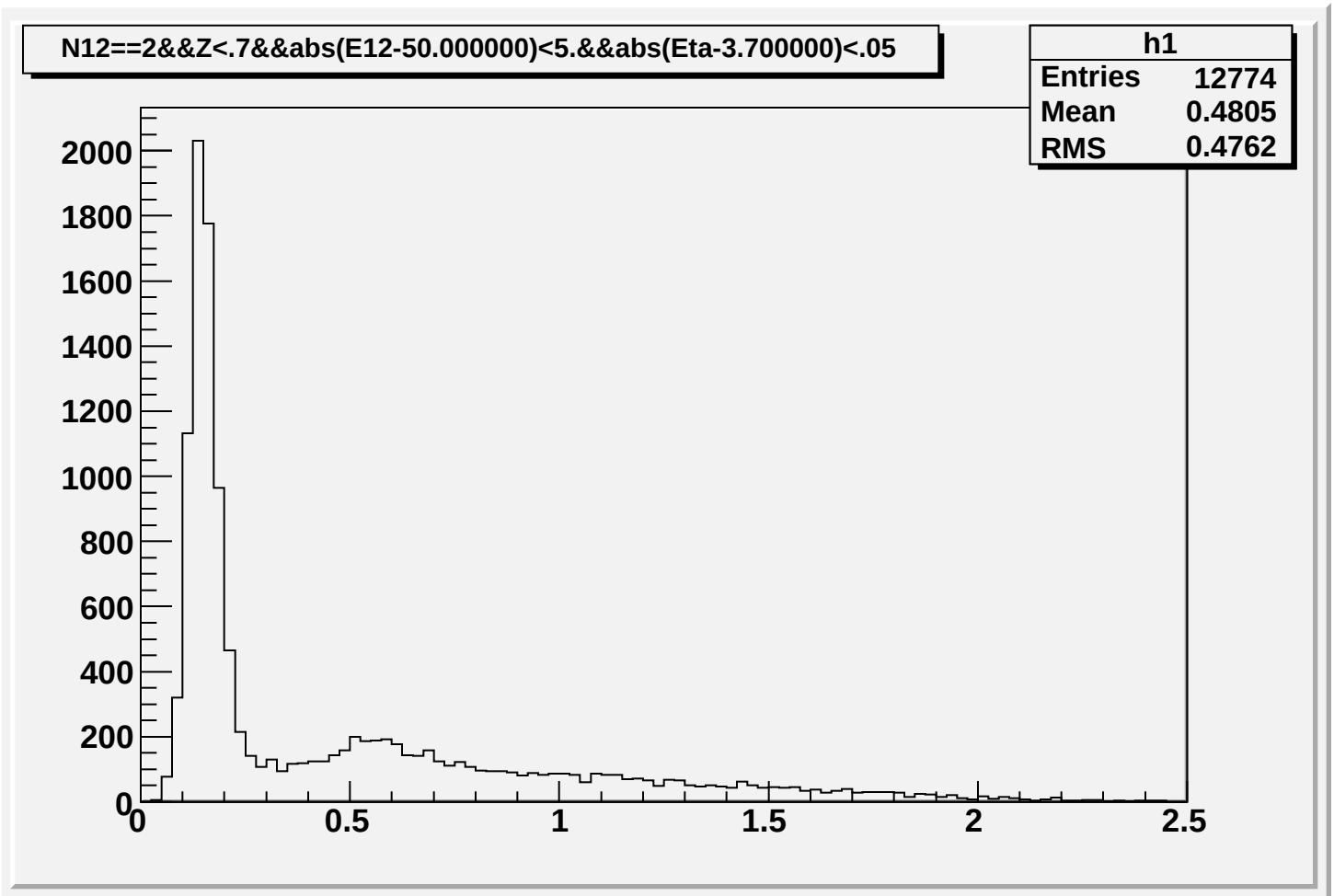

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 9568
Mean 0.431
RMS 0.2952
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

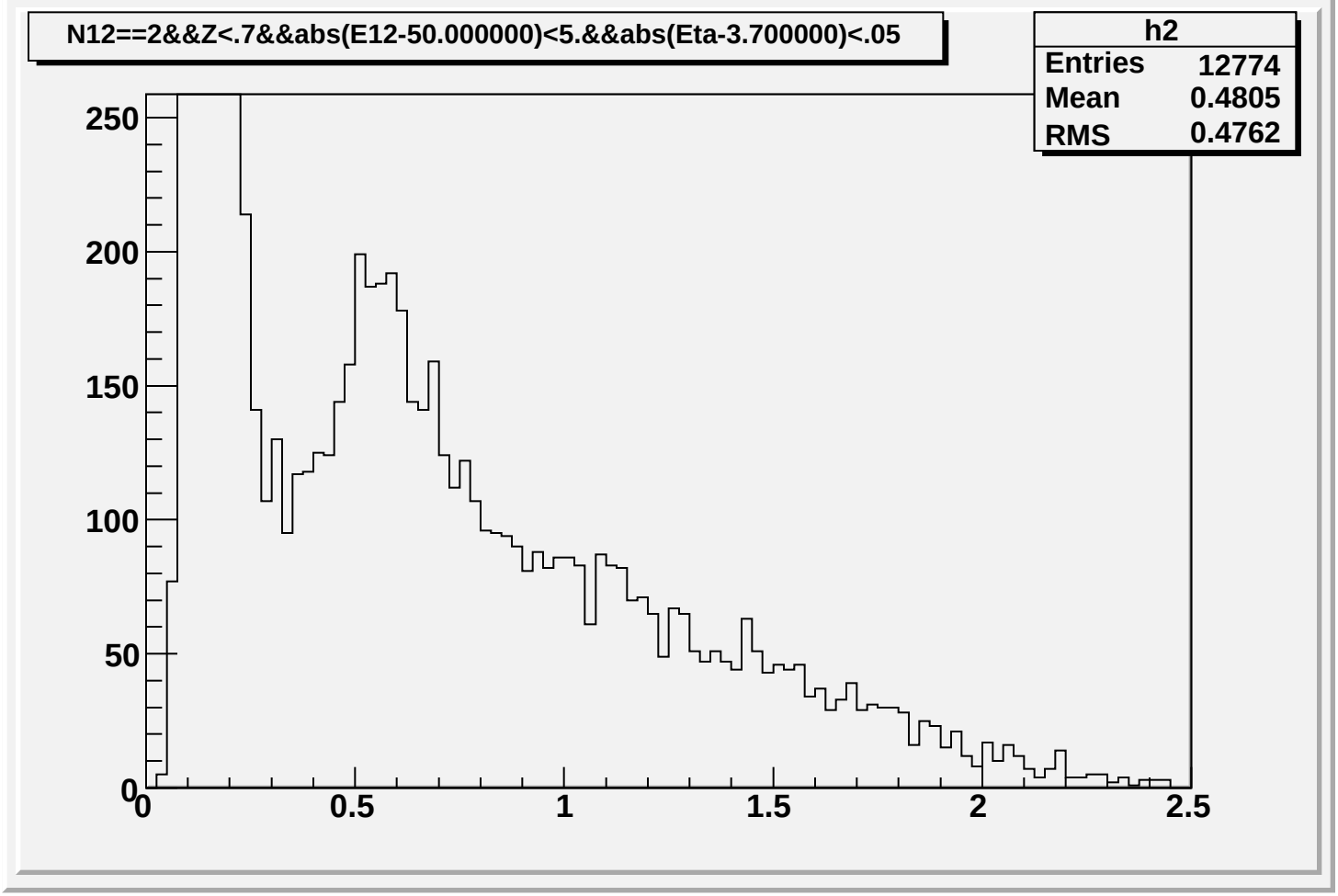

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 28531
Mean 0.45
RMS 0.3847
3500
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

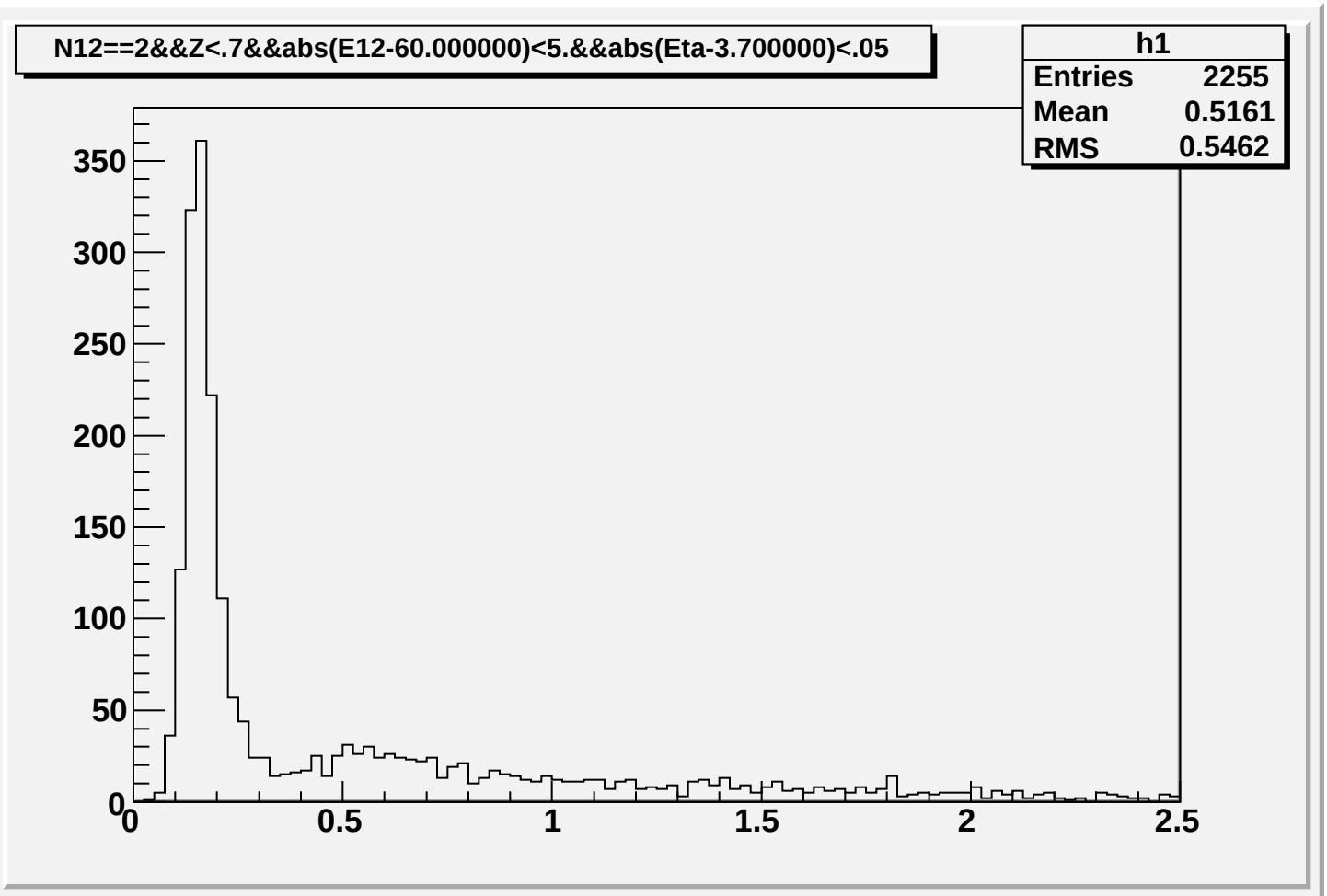

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 28531
Mean 0.45
RMS 0.3847
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

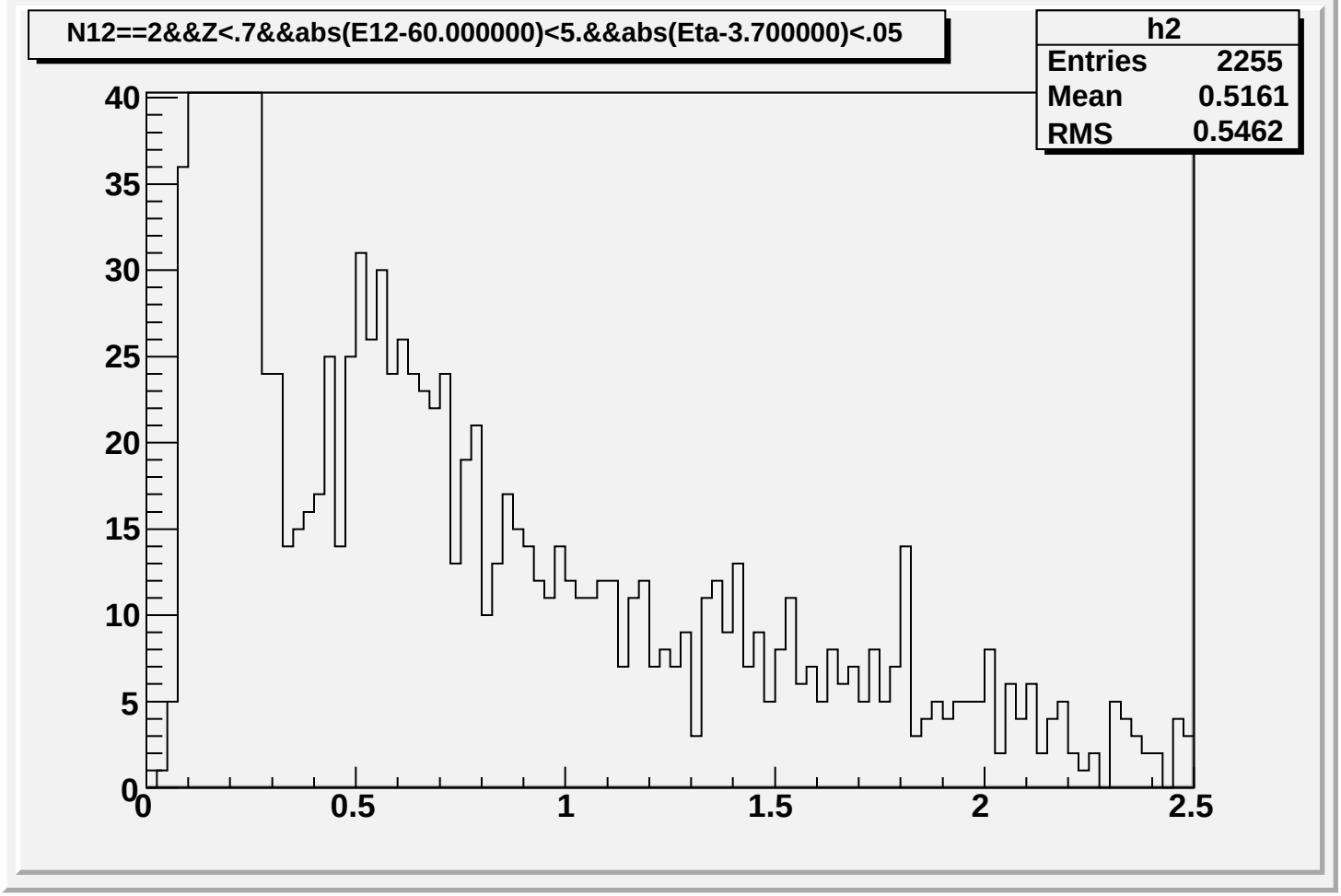

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 33167
Mean 0.4856
RMS 0.4342
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

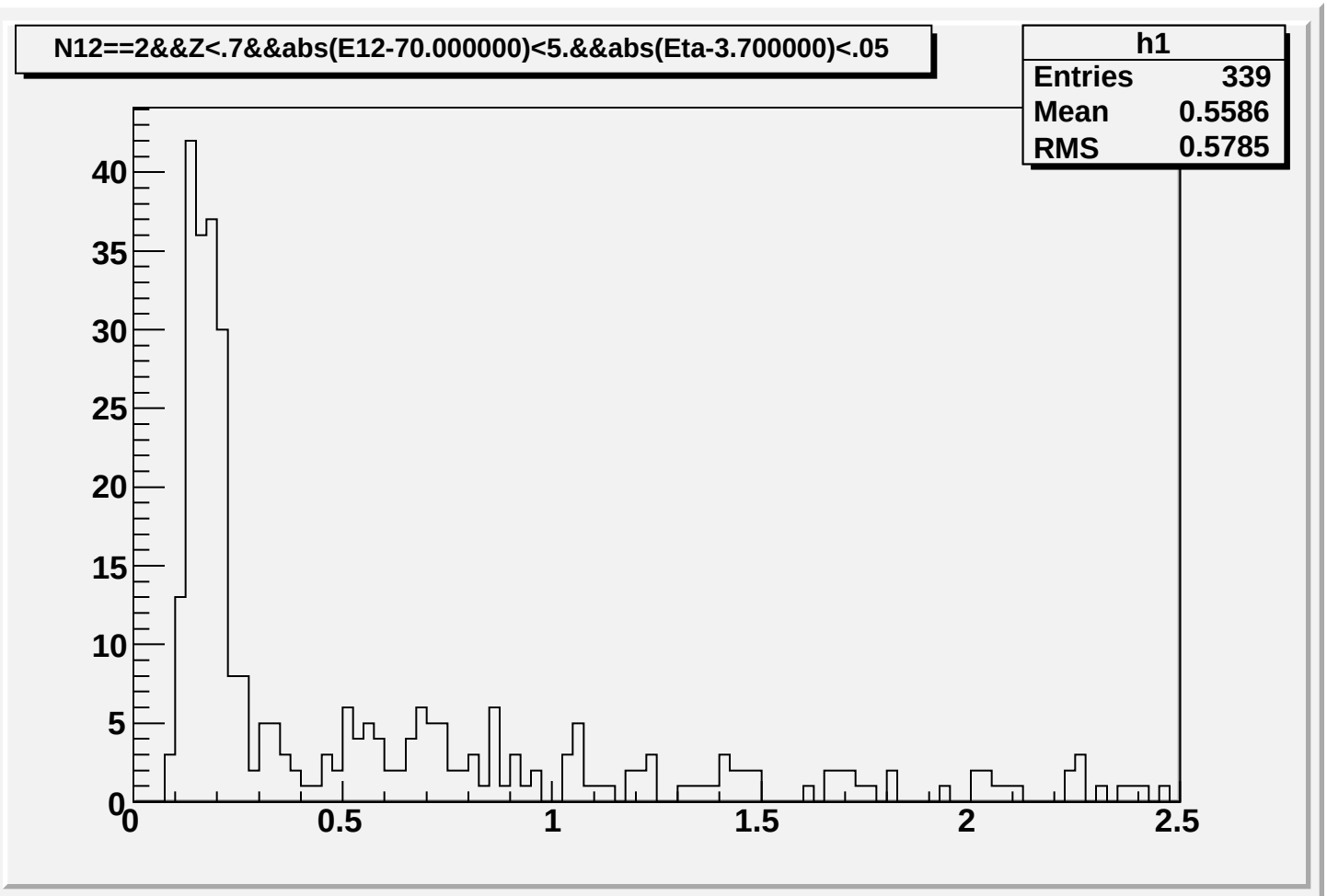

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 33167
Mean 0.4856
RMS 0.4342
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

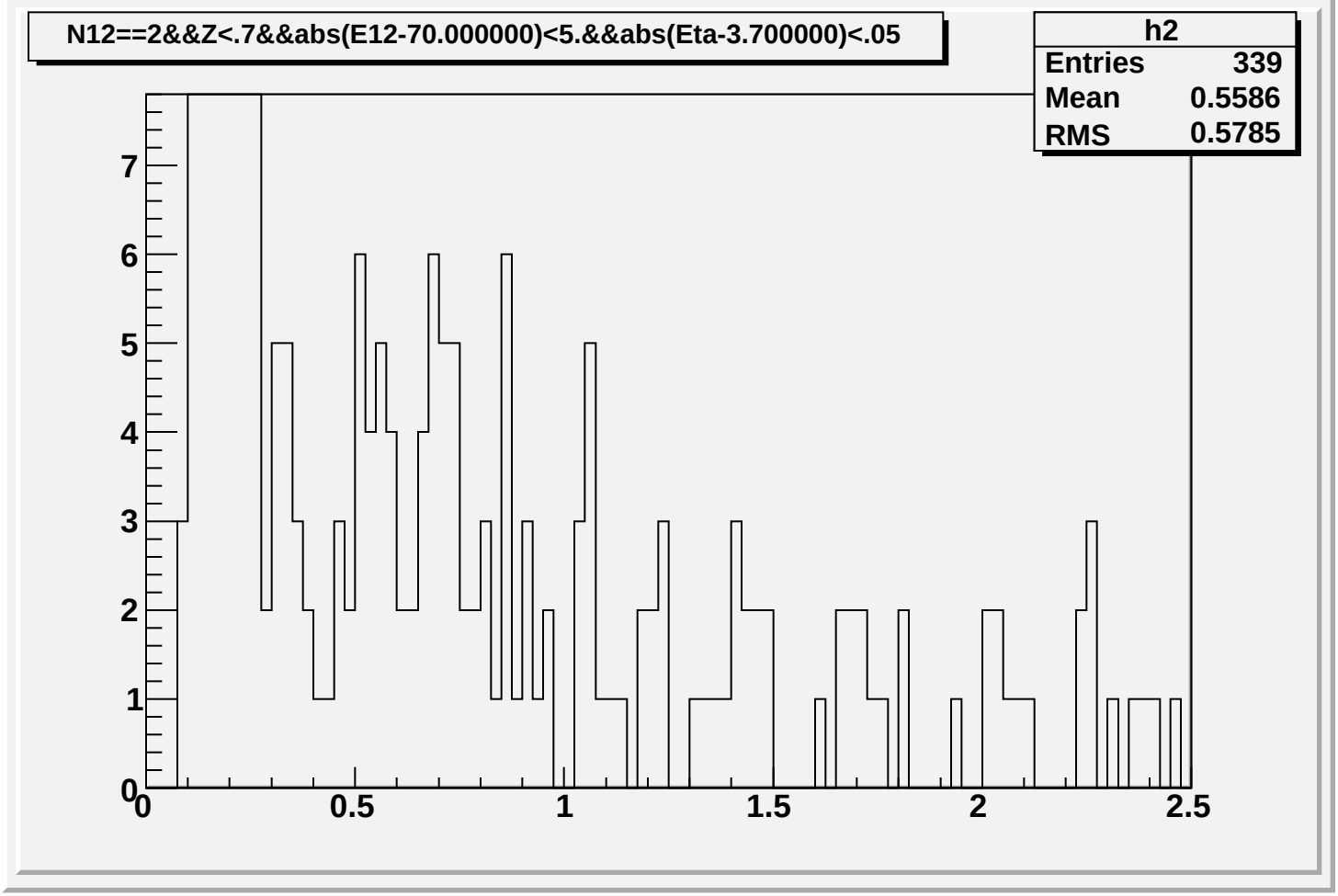

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 12774
Mean 0.4805
RMS 0.4762
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

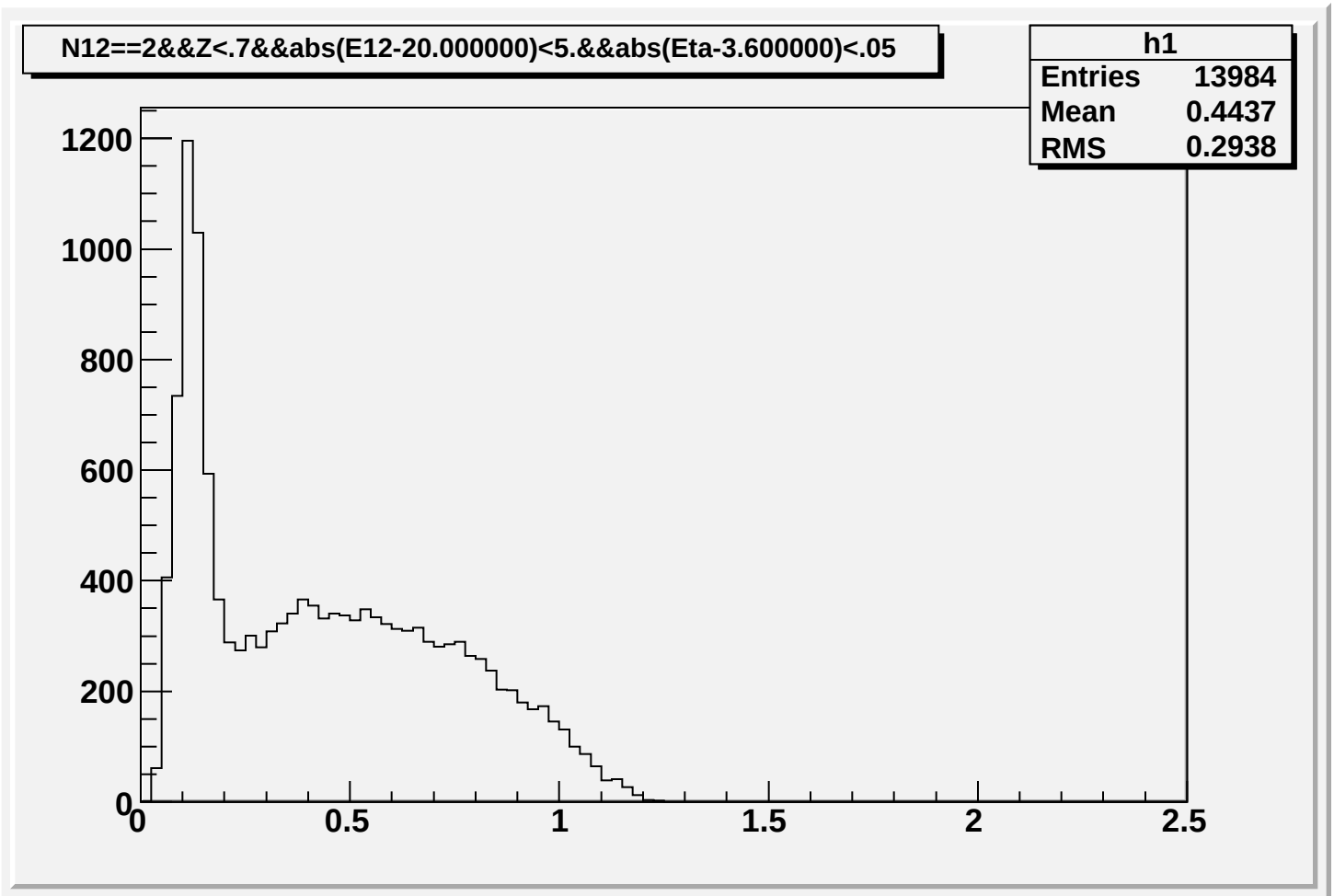

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 12774
Mean 0.4805
RMS 0.4762
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

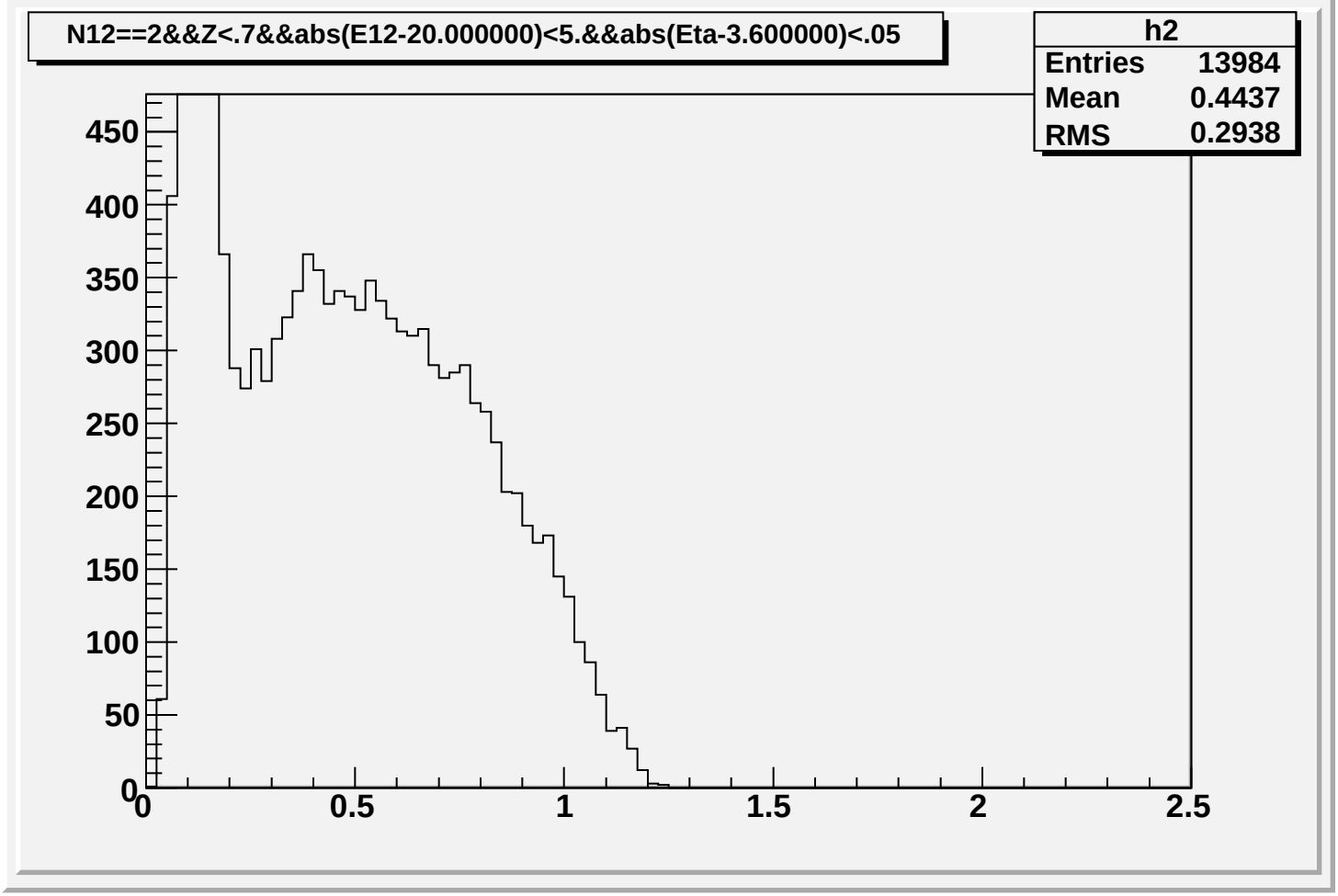

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 2255
Mean 0.5161
RMS 0.5462
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

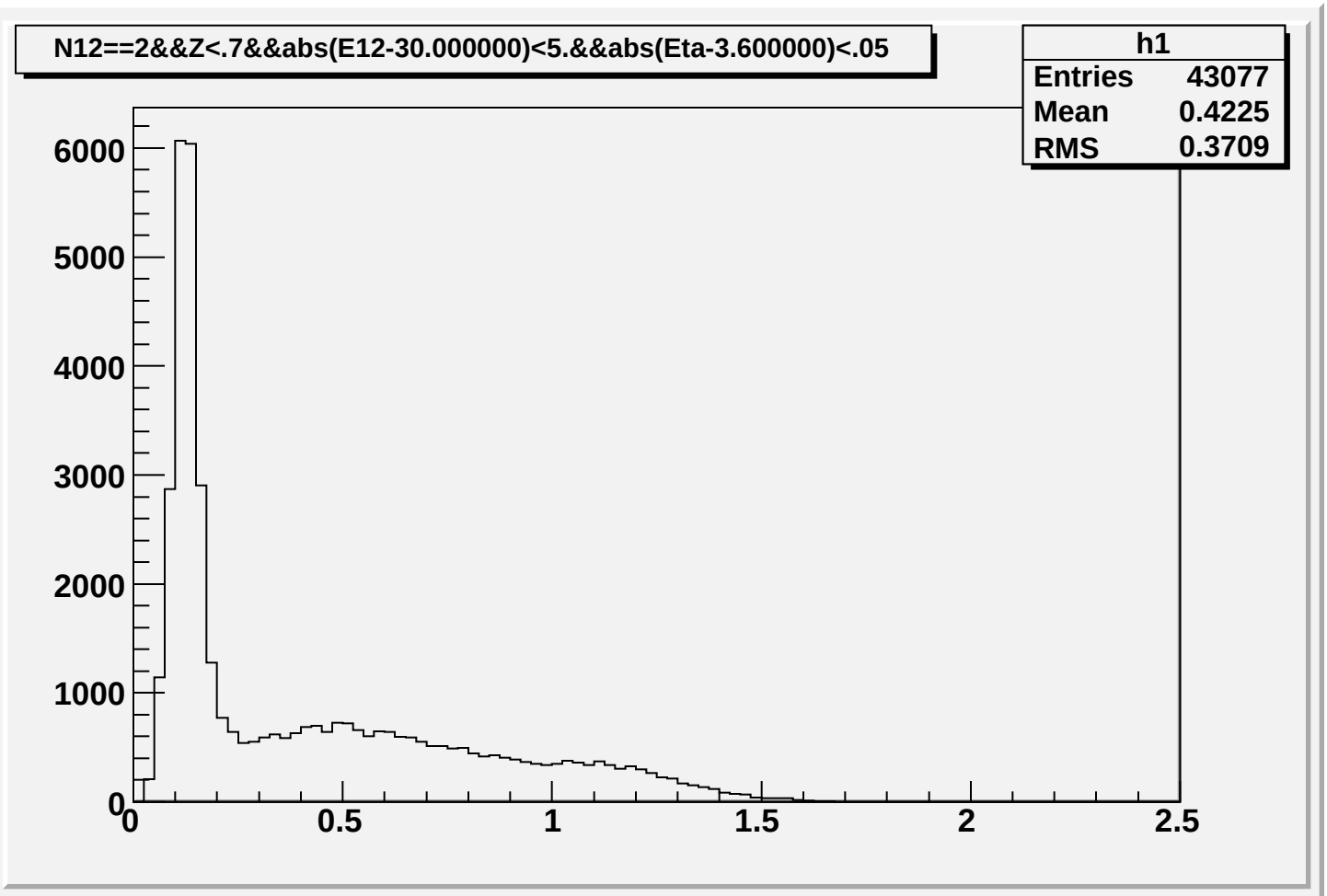

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 2255
Mean 0.5161
RMS 0.5462
40
35
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

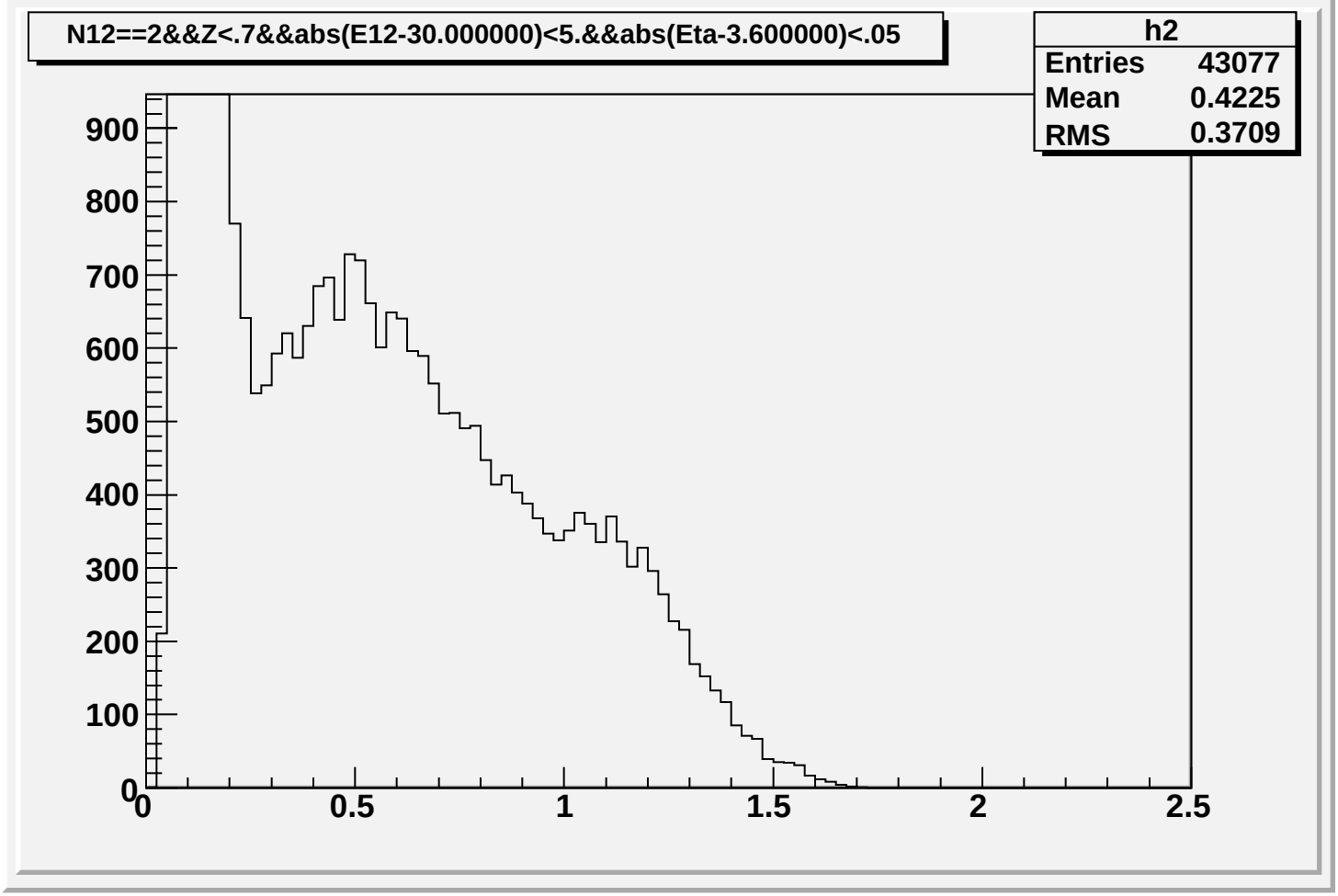

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.700000)<.05
h1
Entries 339
Mean 0.5586
RMS 0.5785
0
5
10
15
20
25
30
35
40
0
0.5
1
1.5
2
2.5

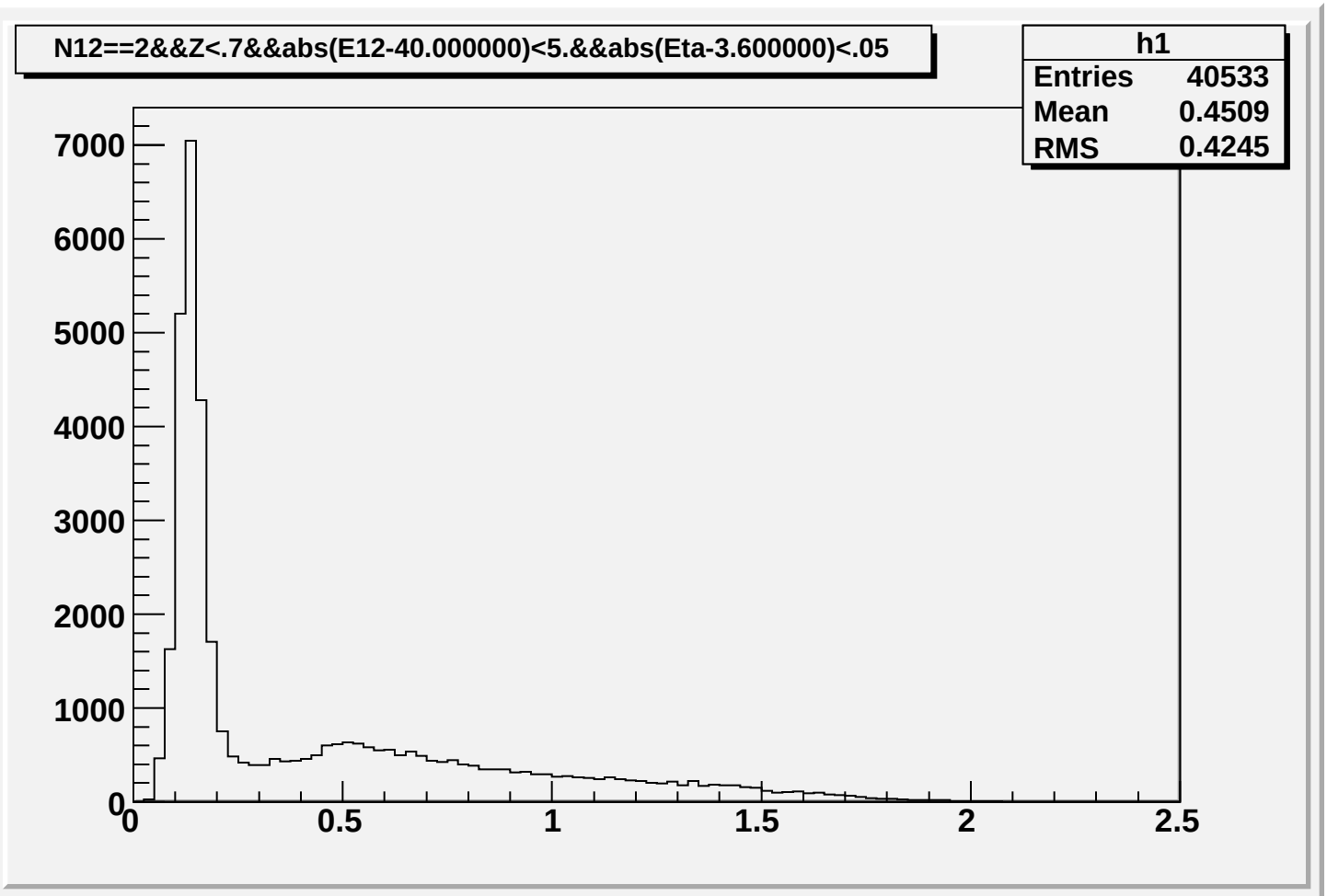

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.700000)<.05
h2
Entries 339
Mean 0.5586
RMS 0.5785
0
1
2
3
4
5
6
7
0
0.5
1
1.5
2
2.5

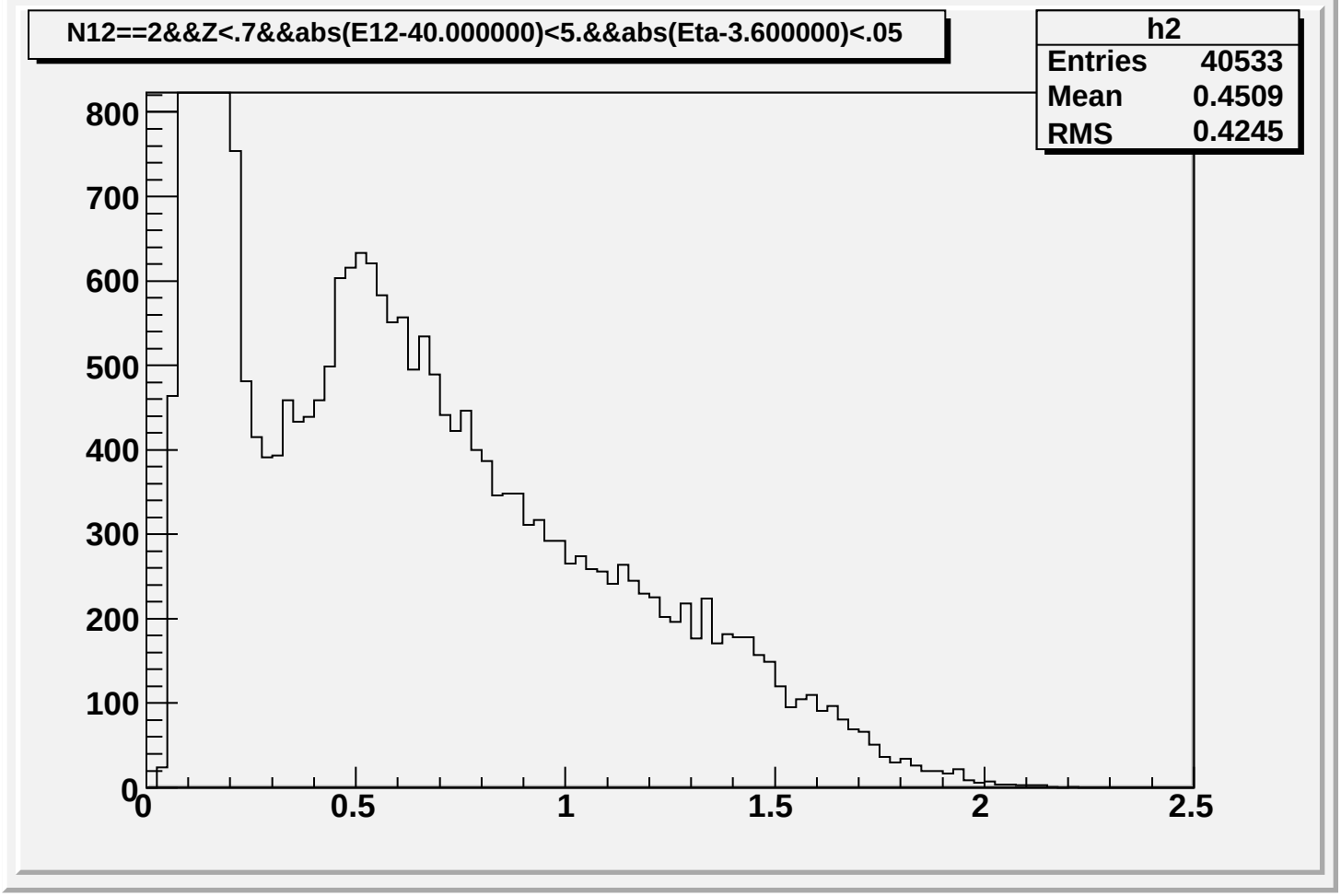

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 13984
Mean 0.4437
RMS 0.2938
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

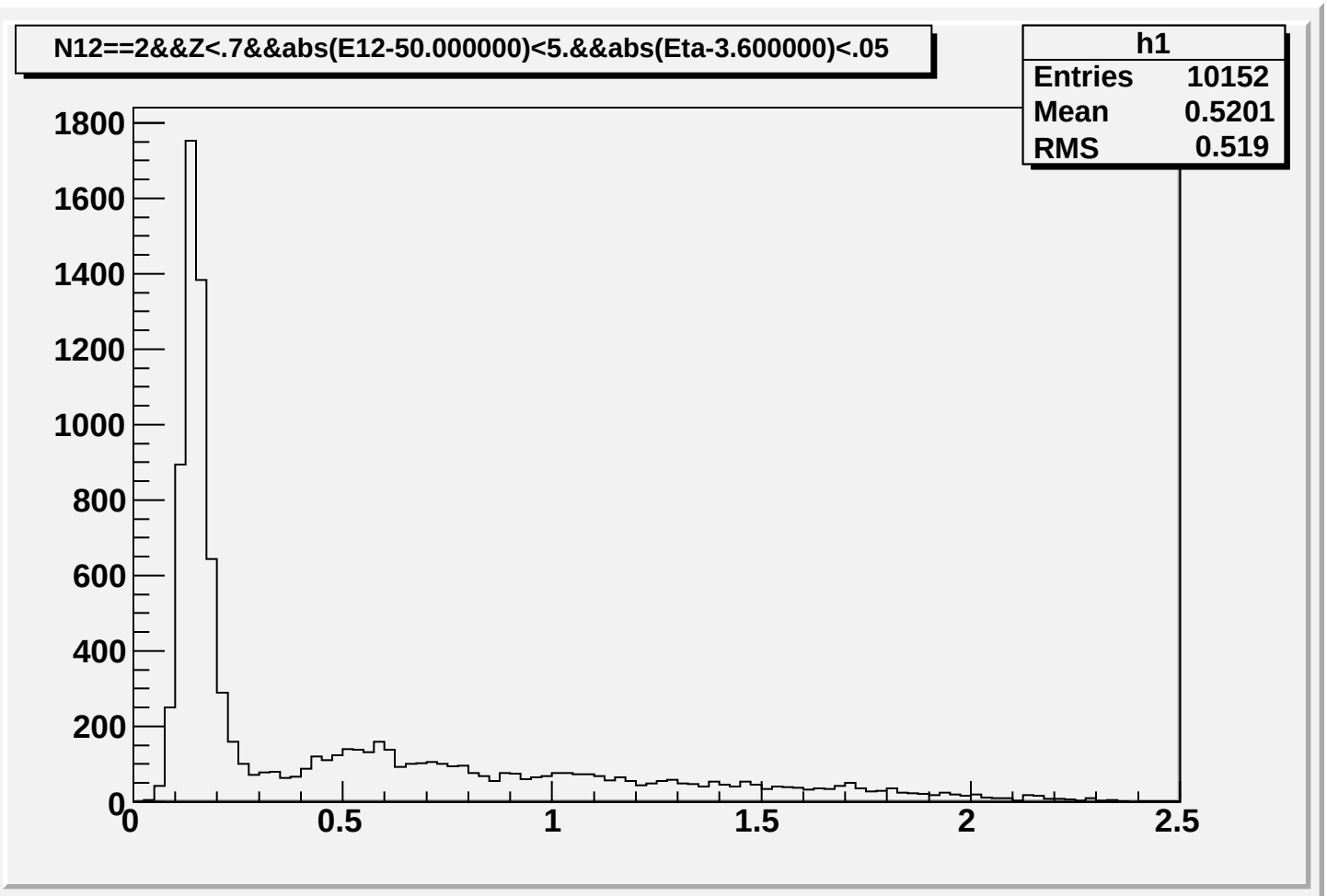

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 13984
Mean 0.4437
RMS 0.2938
450
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

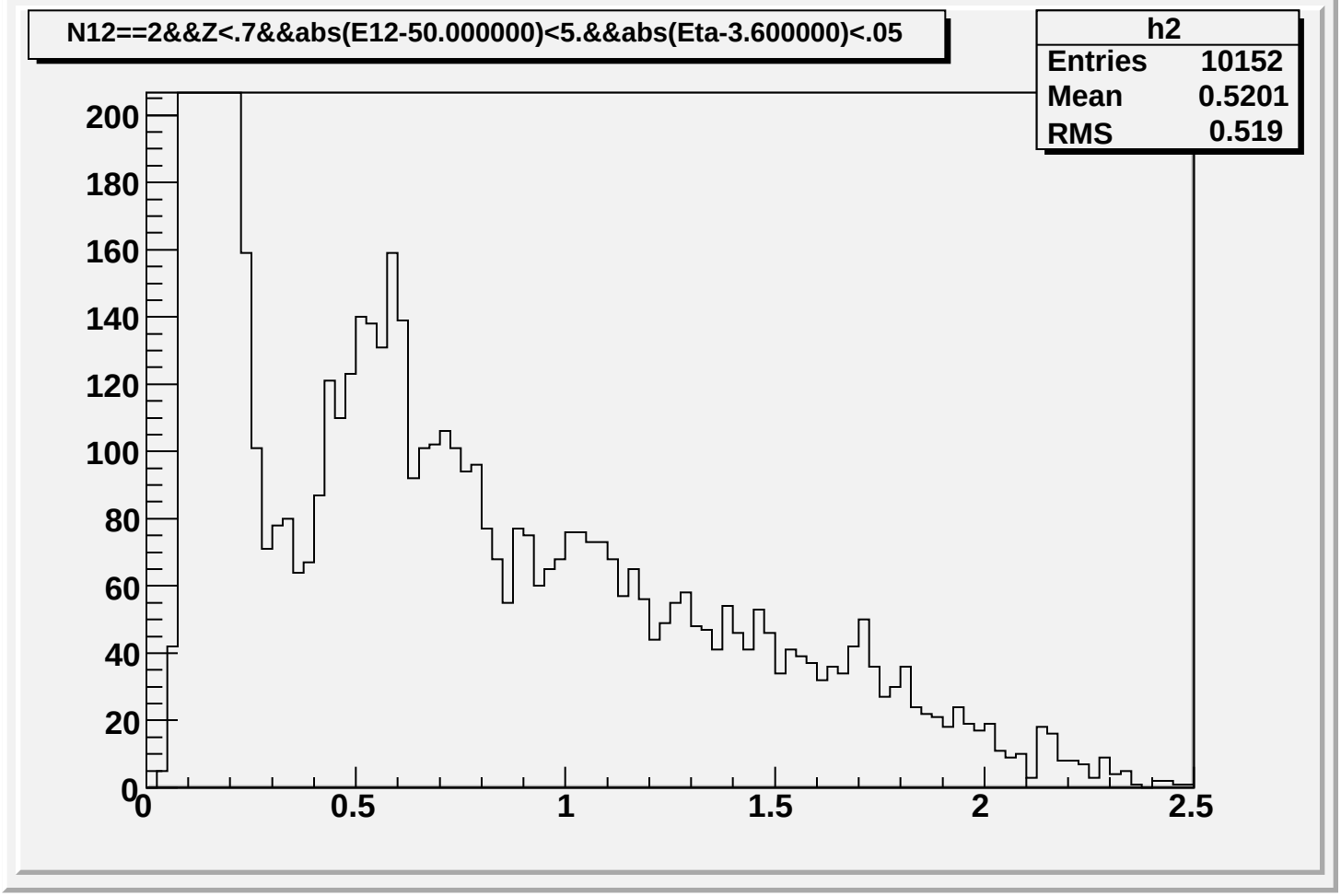

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 43077
Mean 0.4225
RMS 0.3709
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

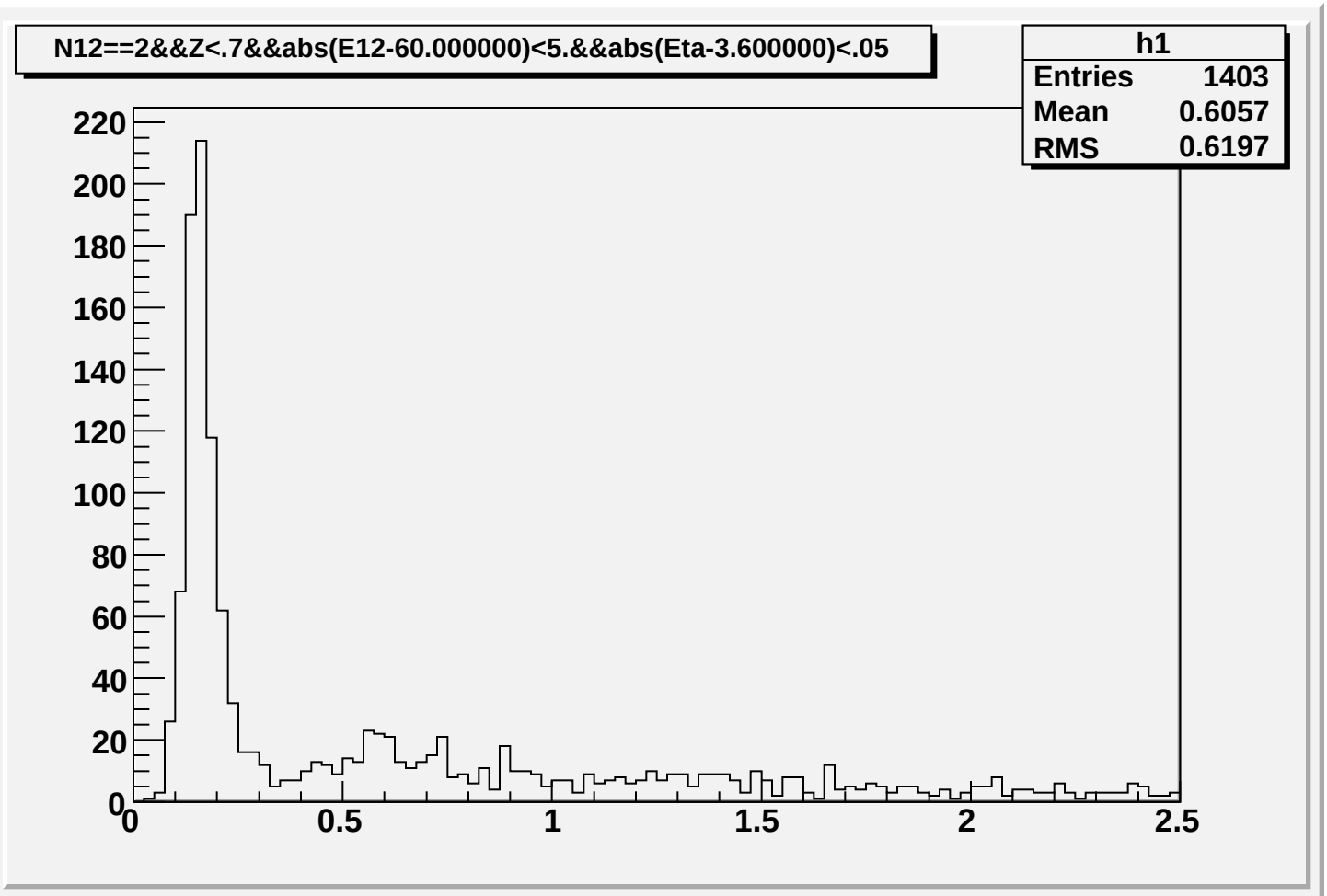

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 43077
Mean 0.4225
RMS 0.3709
900
800
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

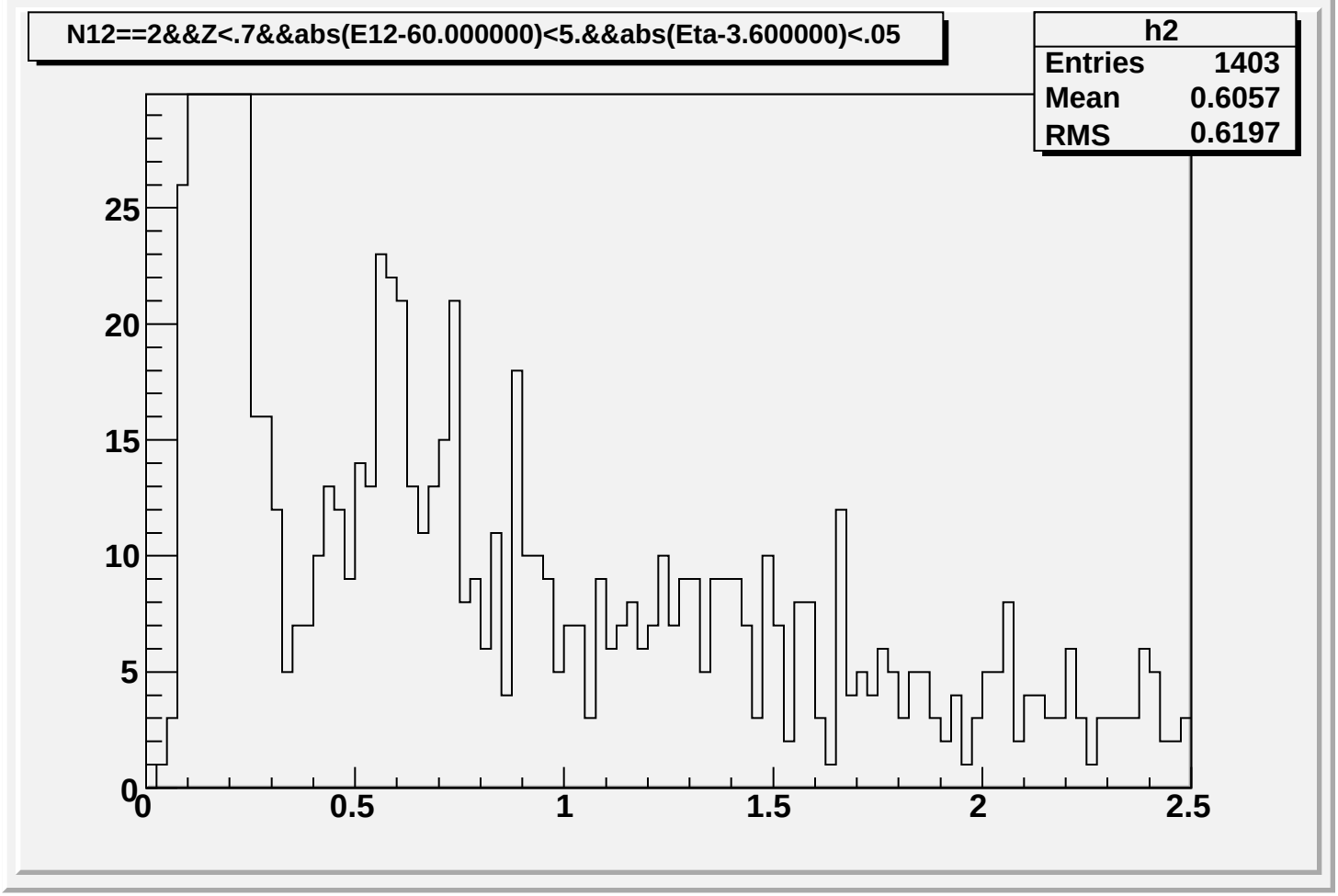

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 40533
Mean 0.4509
RMS 0.4245
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

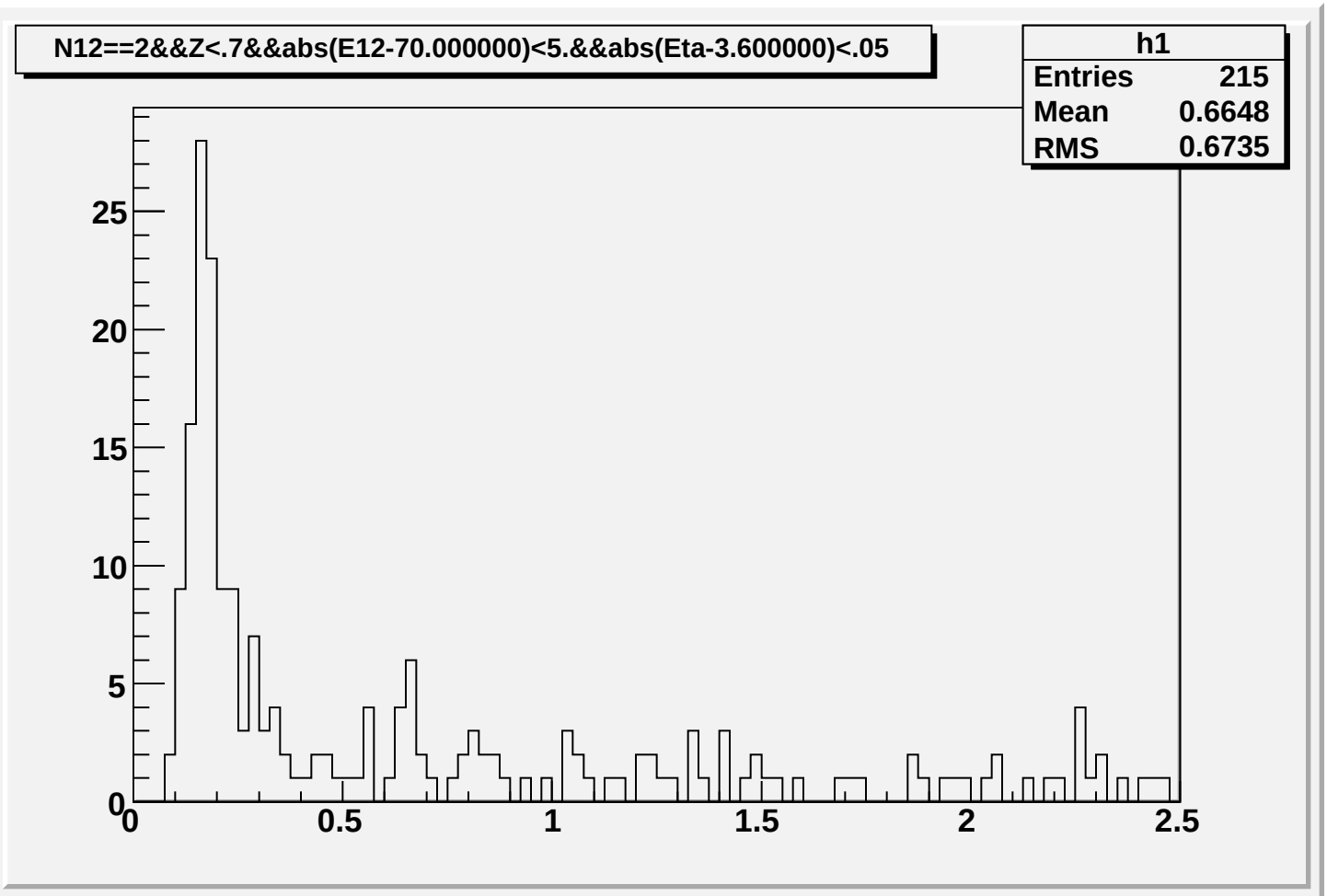

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 40533
Mean 0.4509
RMS 0.4245
800
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

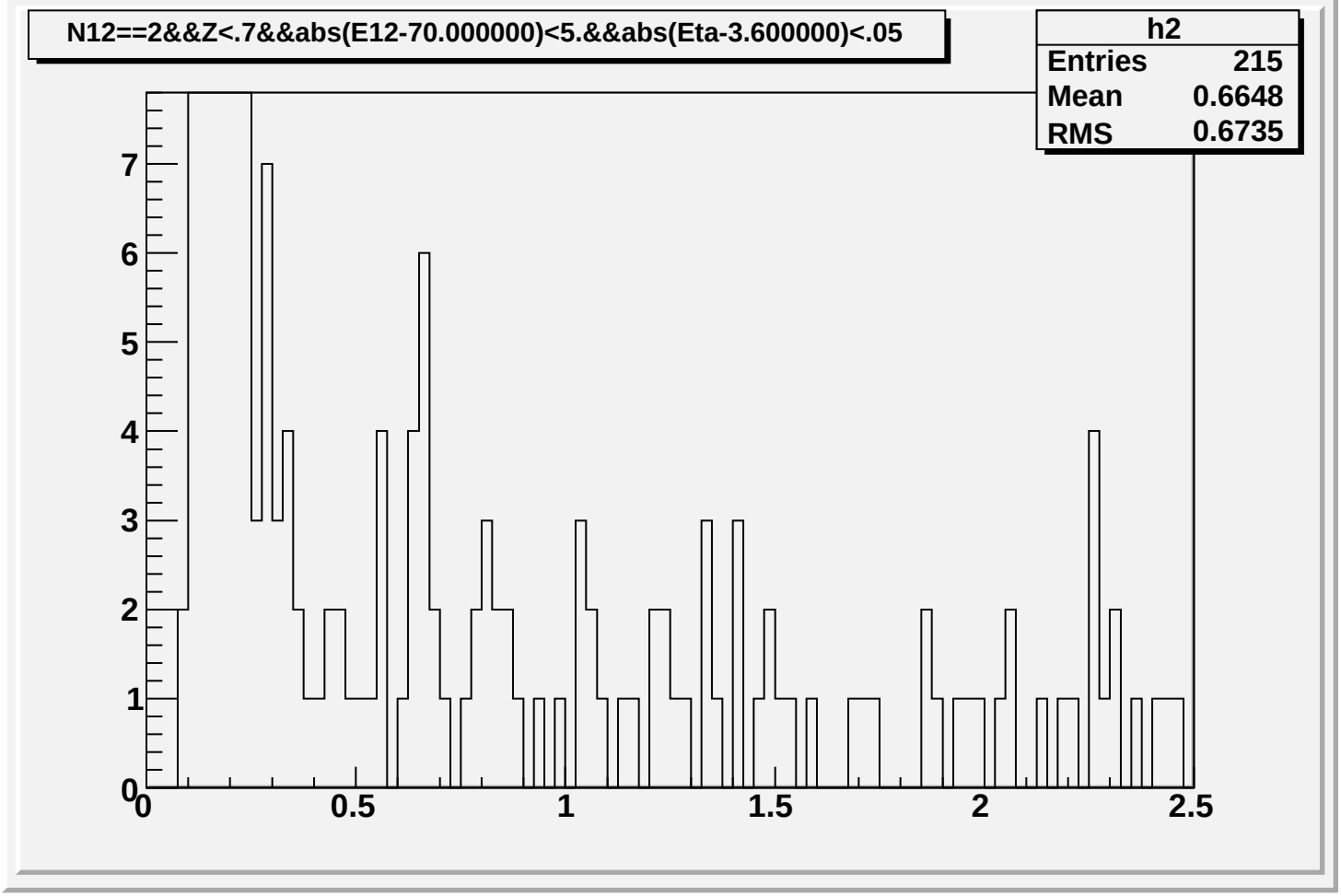

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 10152
Mean 0.5201
RMS 0.519
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

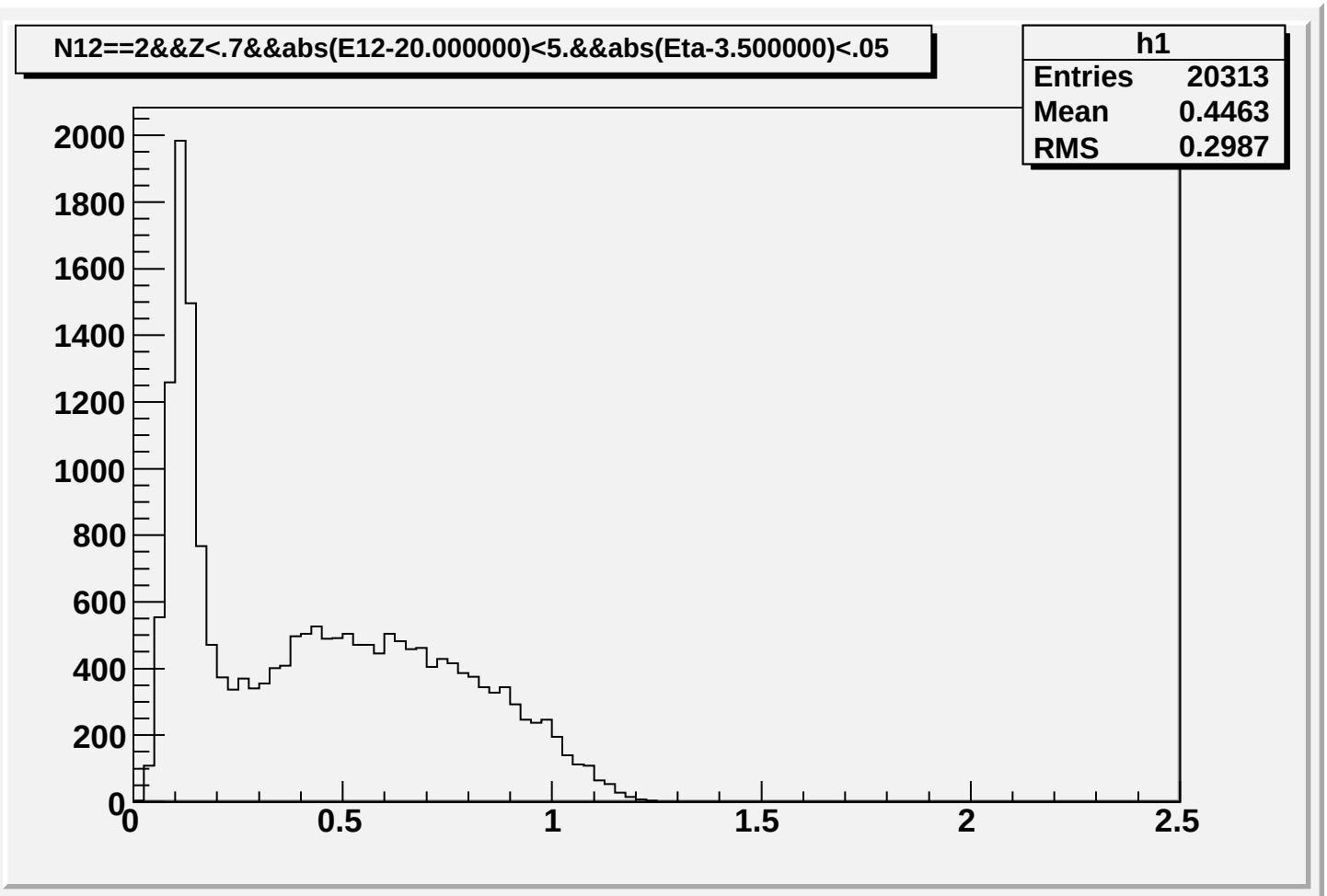

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 10152
Mean 0.5201
RMS 0.519
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

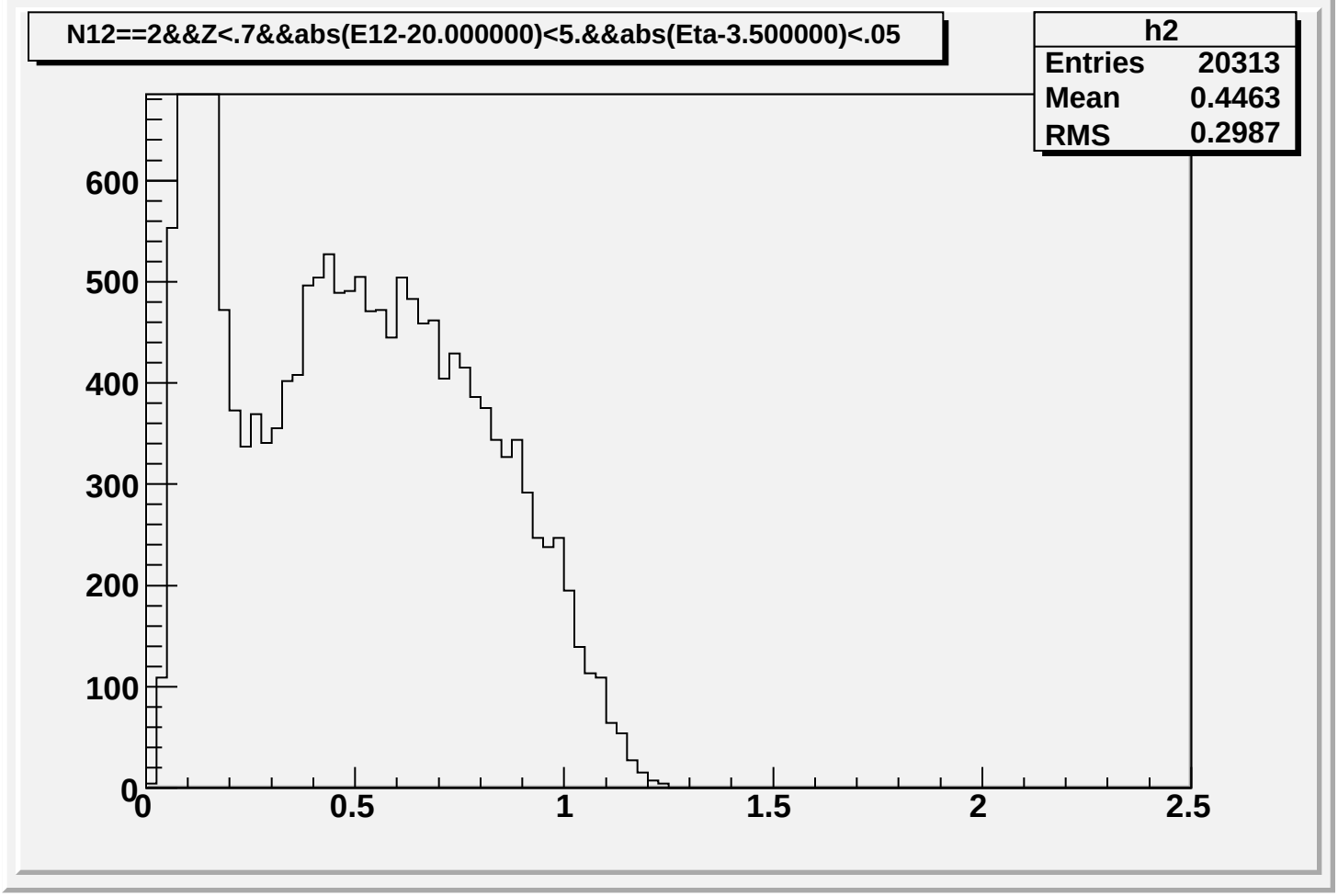

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 1403
Mean 0.6057
RMS 0.6197
220
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

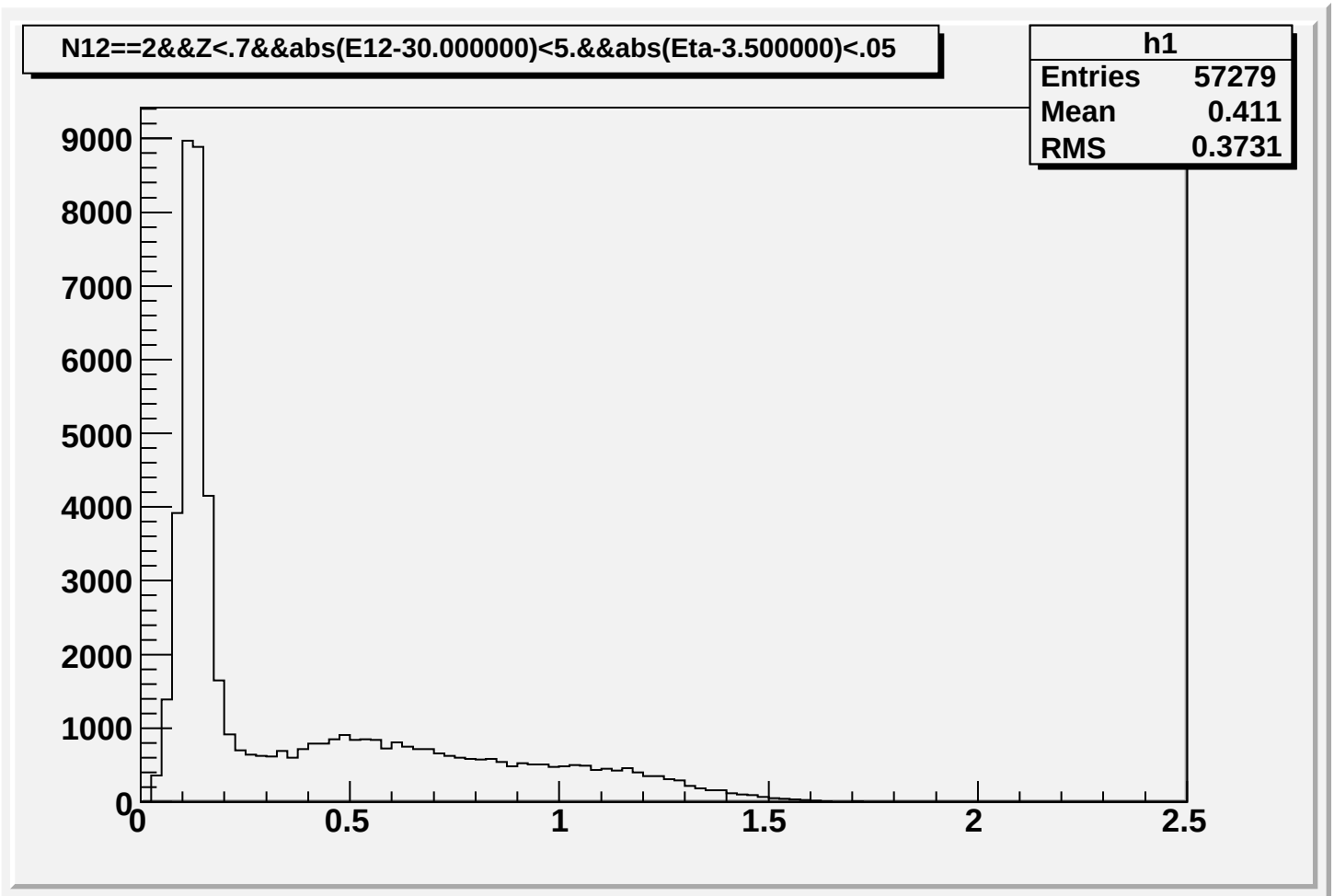

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 1403
Mean 0.6057
RMS 0.6197
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

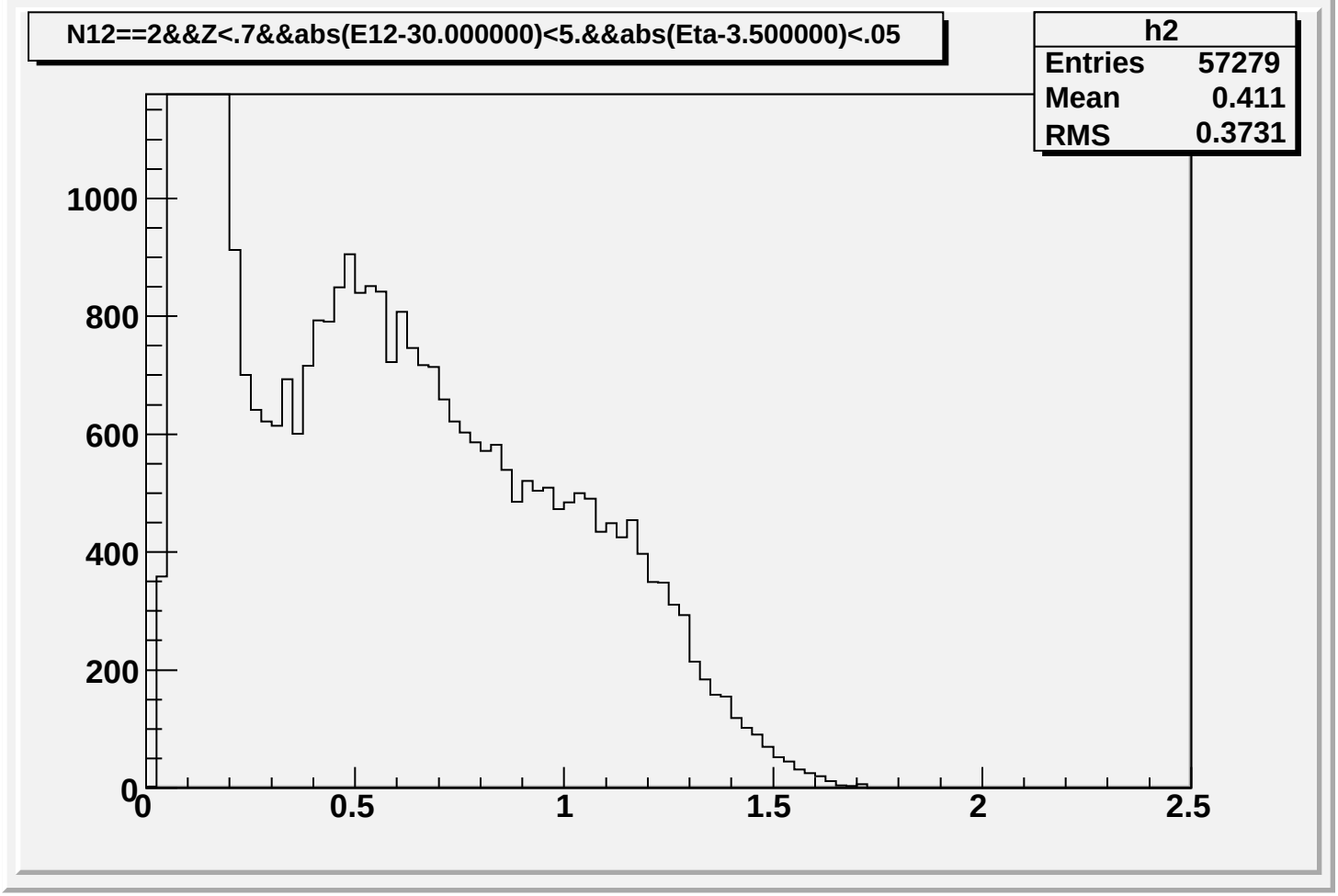

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.600000)<.05
h1
Entries 215
Mean 0.6648
RMS 0.6735
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

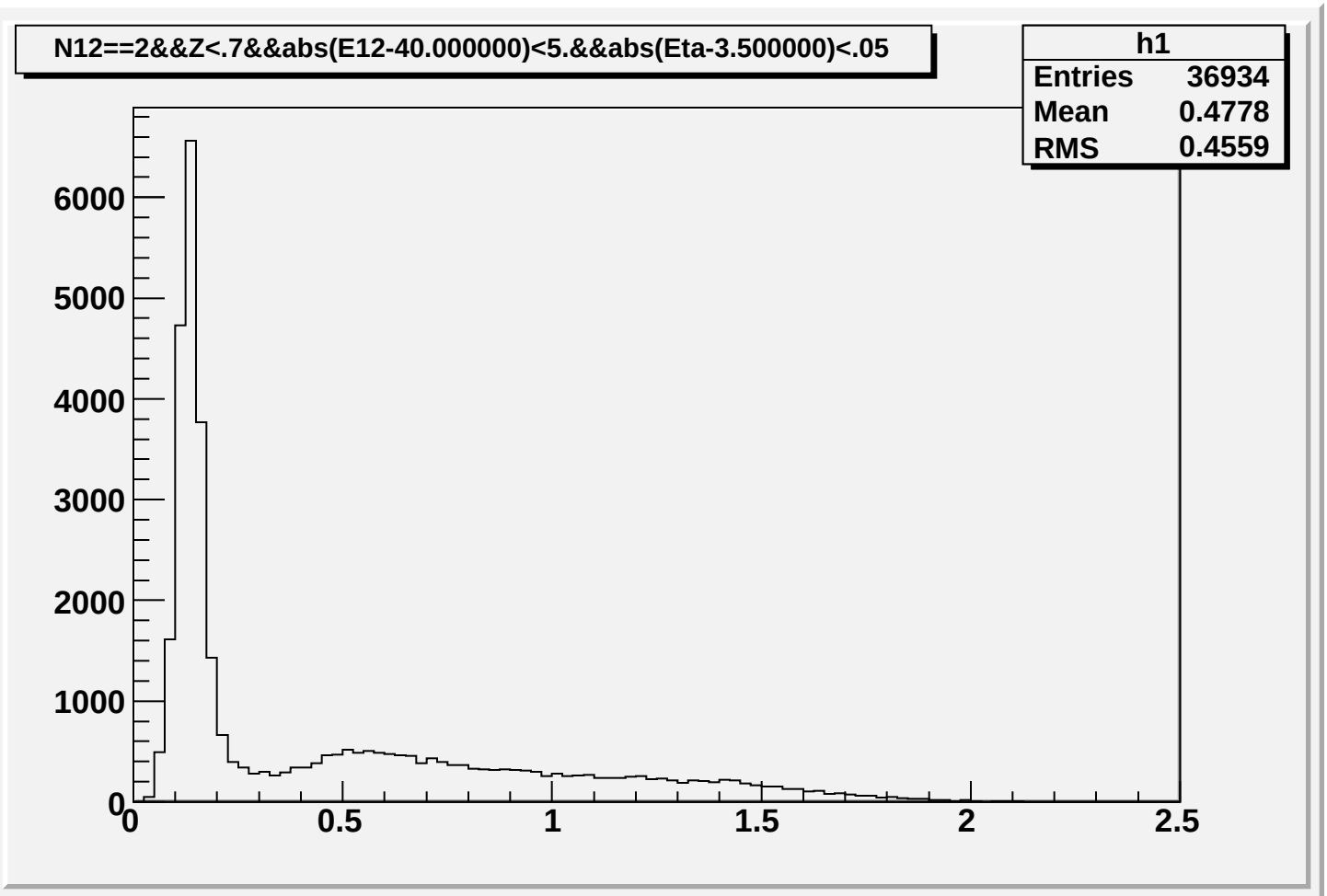

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.600000)<.05
h2
Entries 215
Mean 0.6648
RMS 0.6735
7
6
5
4
3
2
1
0
0
0.5
1
1.5
2
2.5

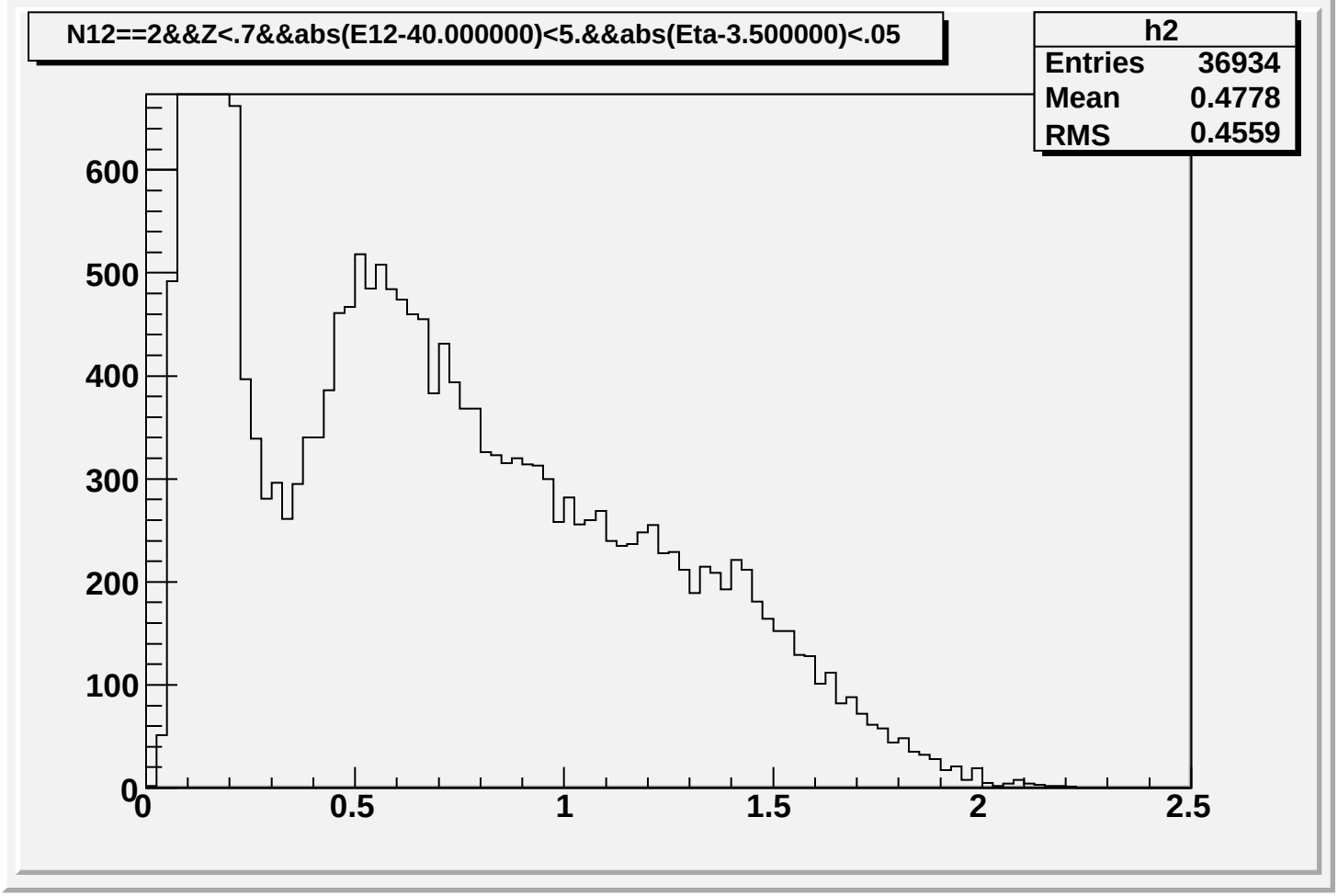

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 20313
Mean 0.4463
RMS 0.2987
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

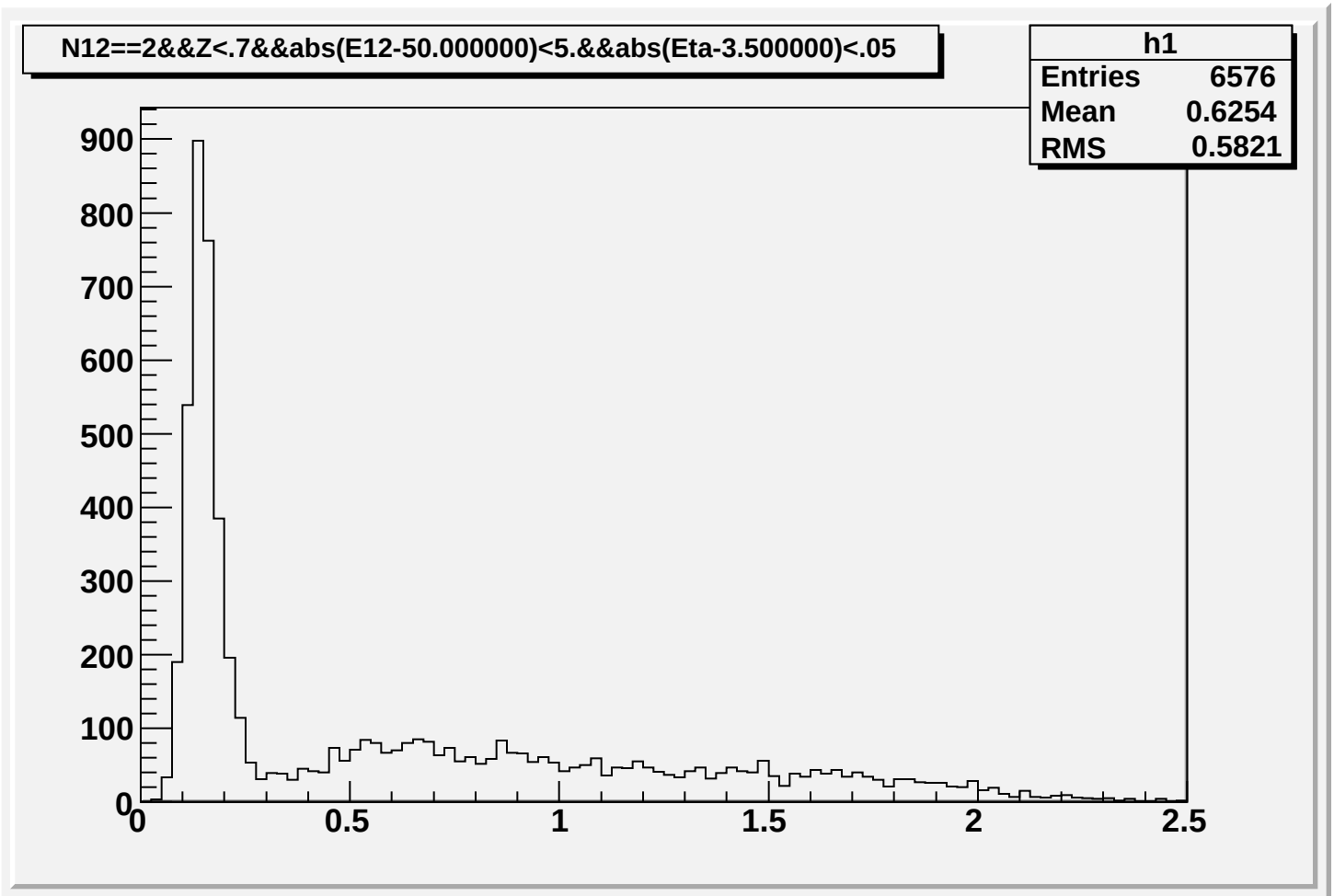

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 20313
Mean 0.4463
RMS 0.2987
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

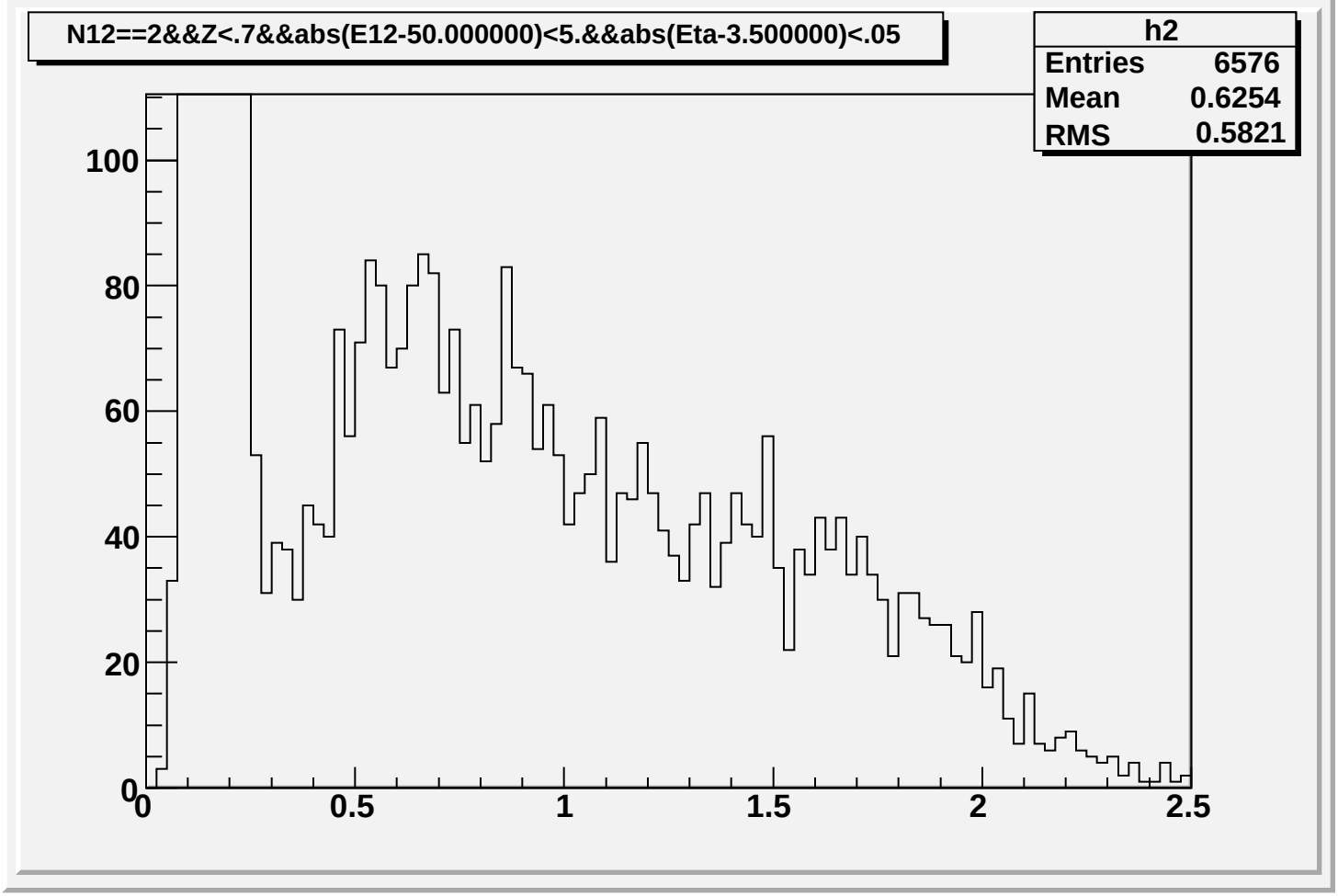

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 57279
Mean 0.411
RMS 0.3731
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

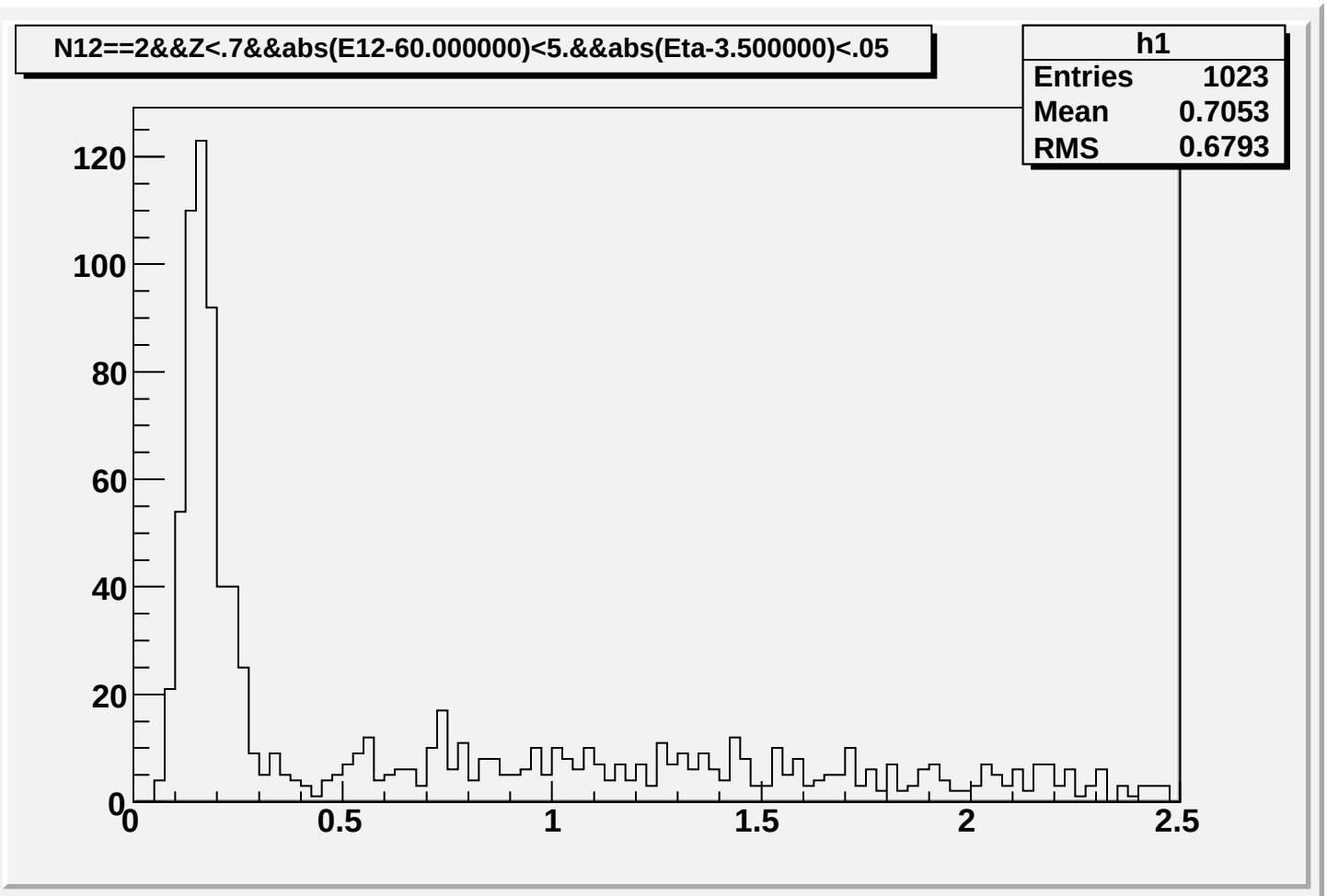

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 57279
Mean 0.411
RMS 0.3731
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

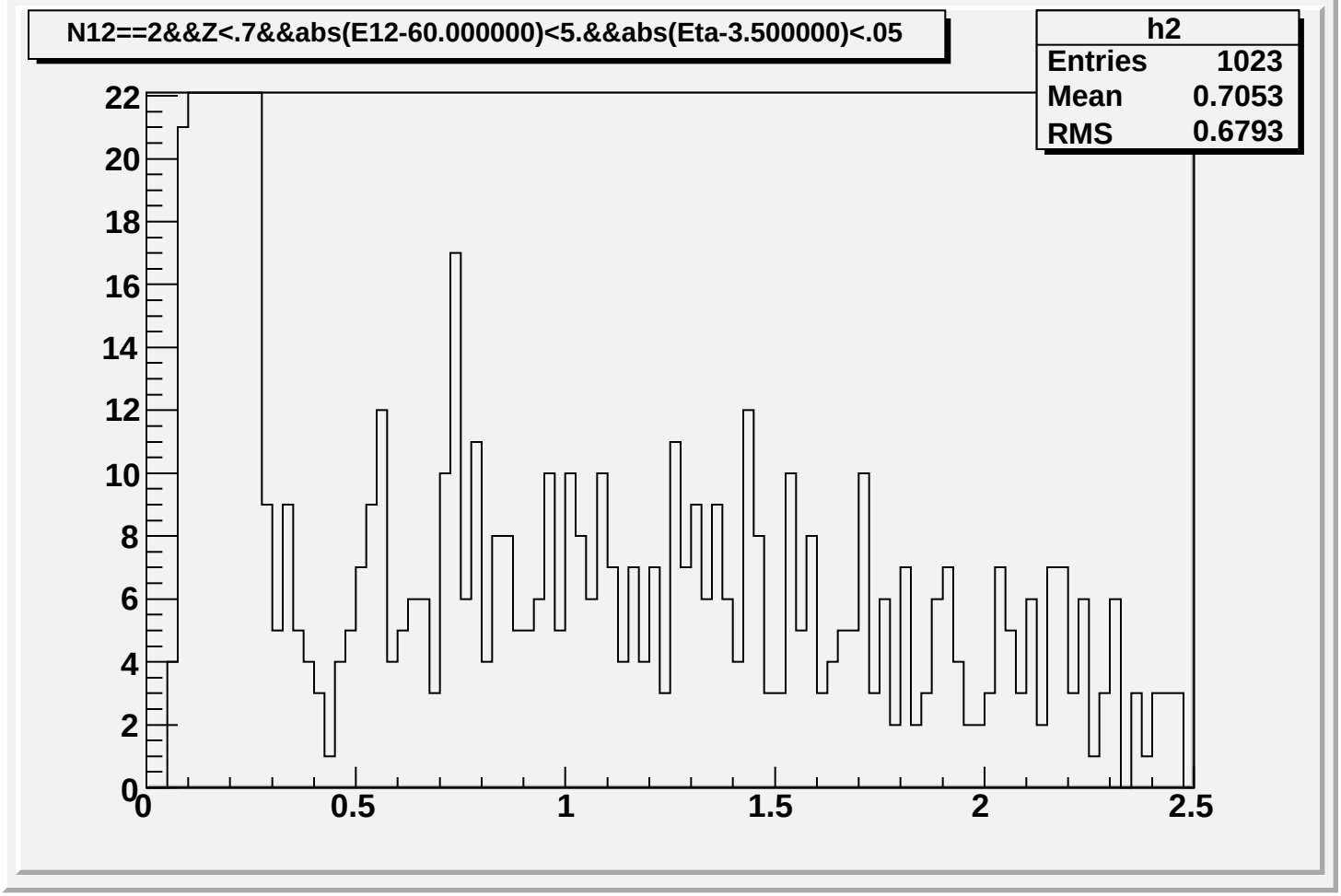

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 36934
Mean 0.4778
RMS 0.4559
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

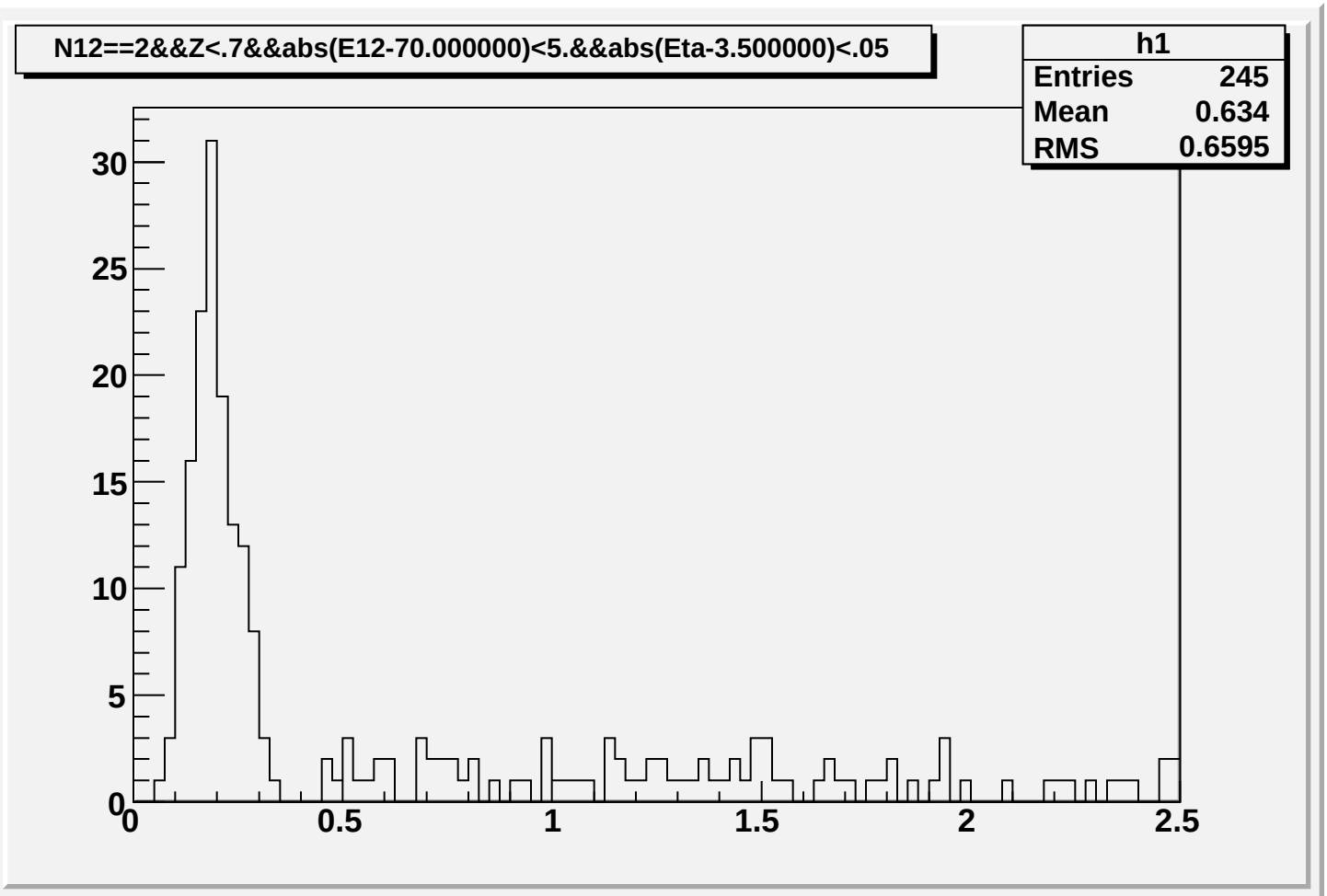

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 36934
Mean 0.4778
RMS 0.4559
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

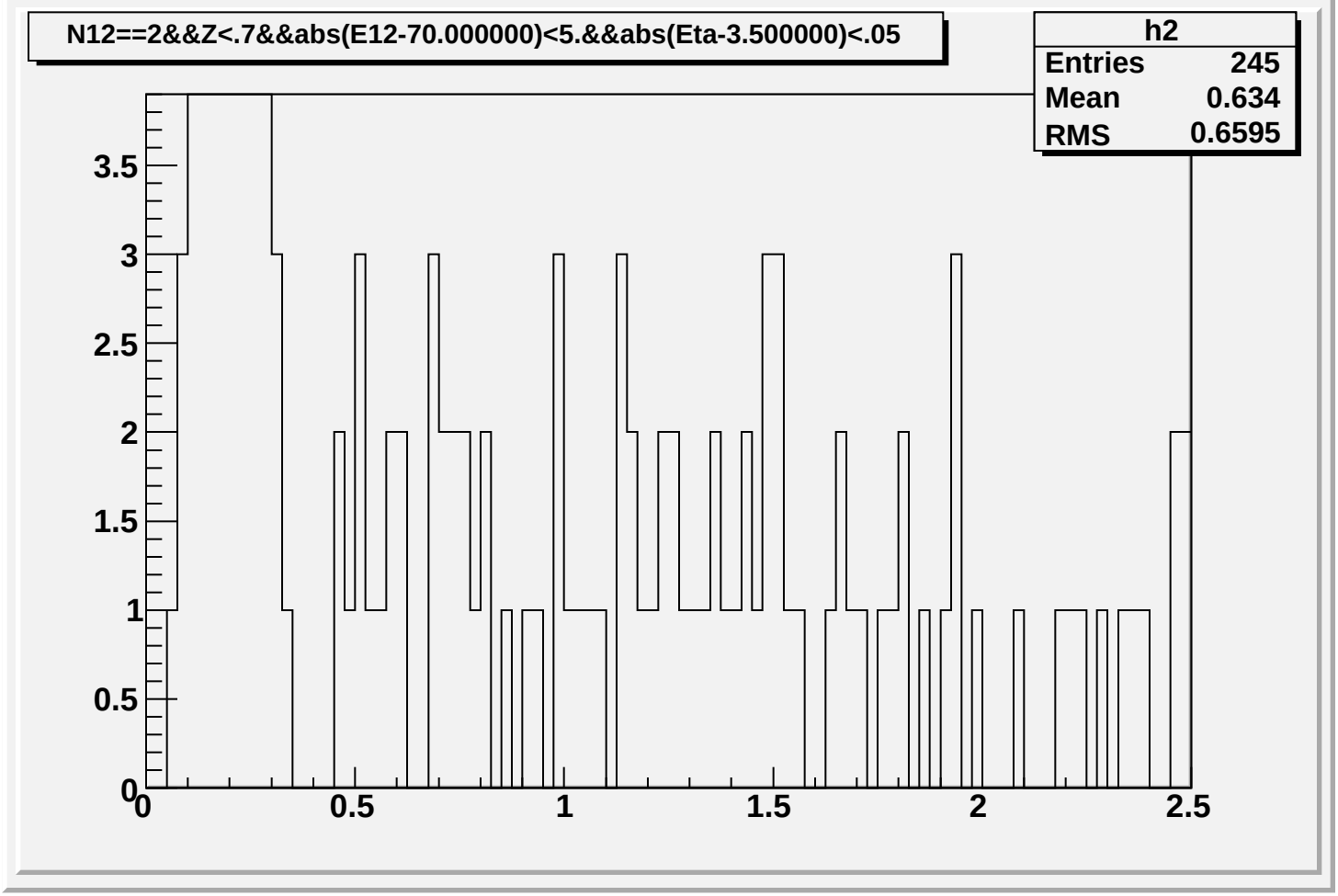

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 6576
Mean 0.6254
RMS 0.5821
900
800
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

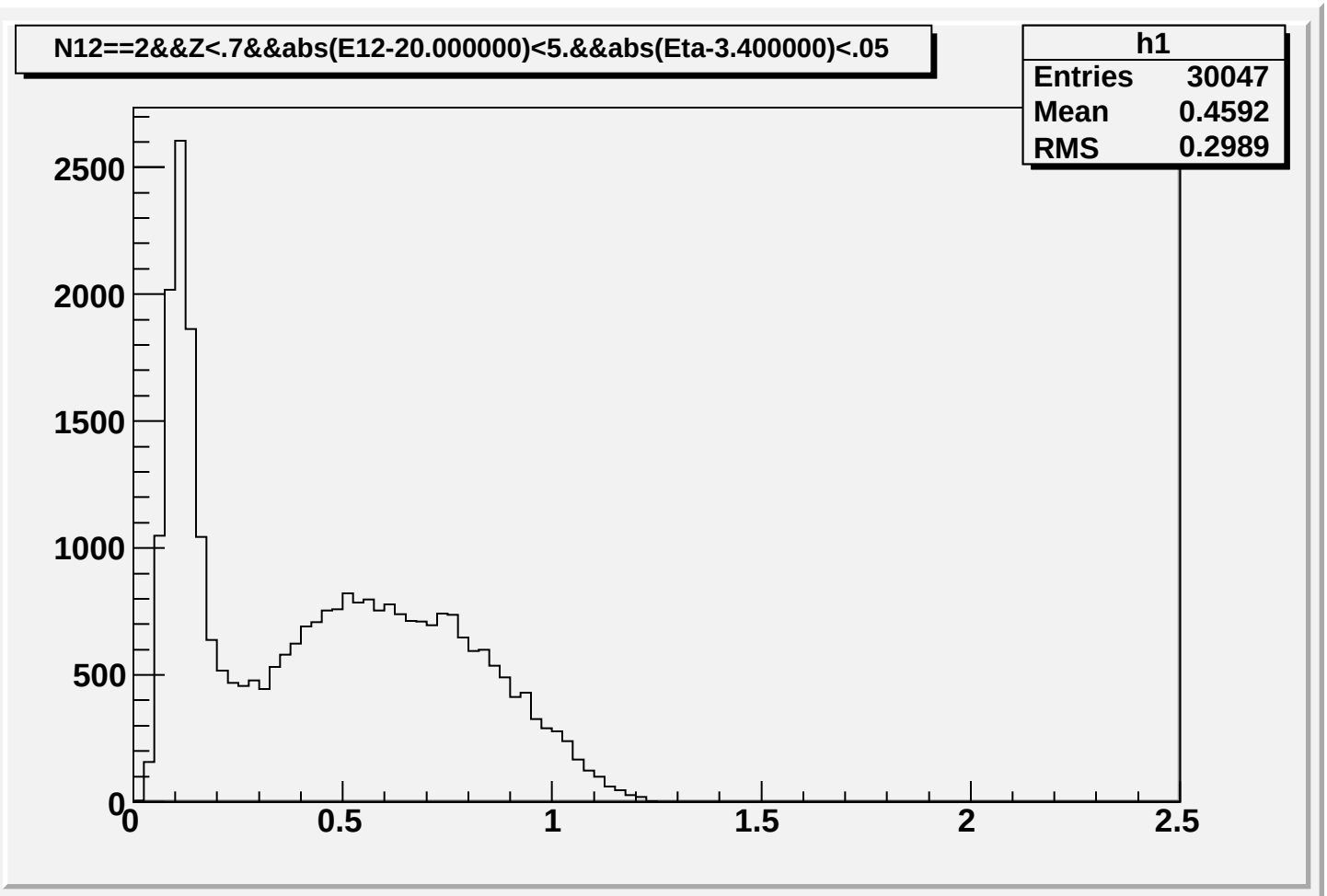

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 6576
Mean 0.6254
RMS 0.5821
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

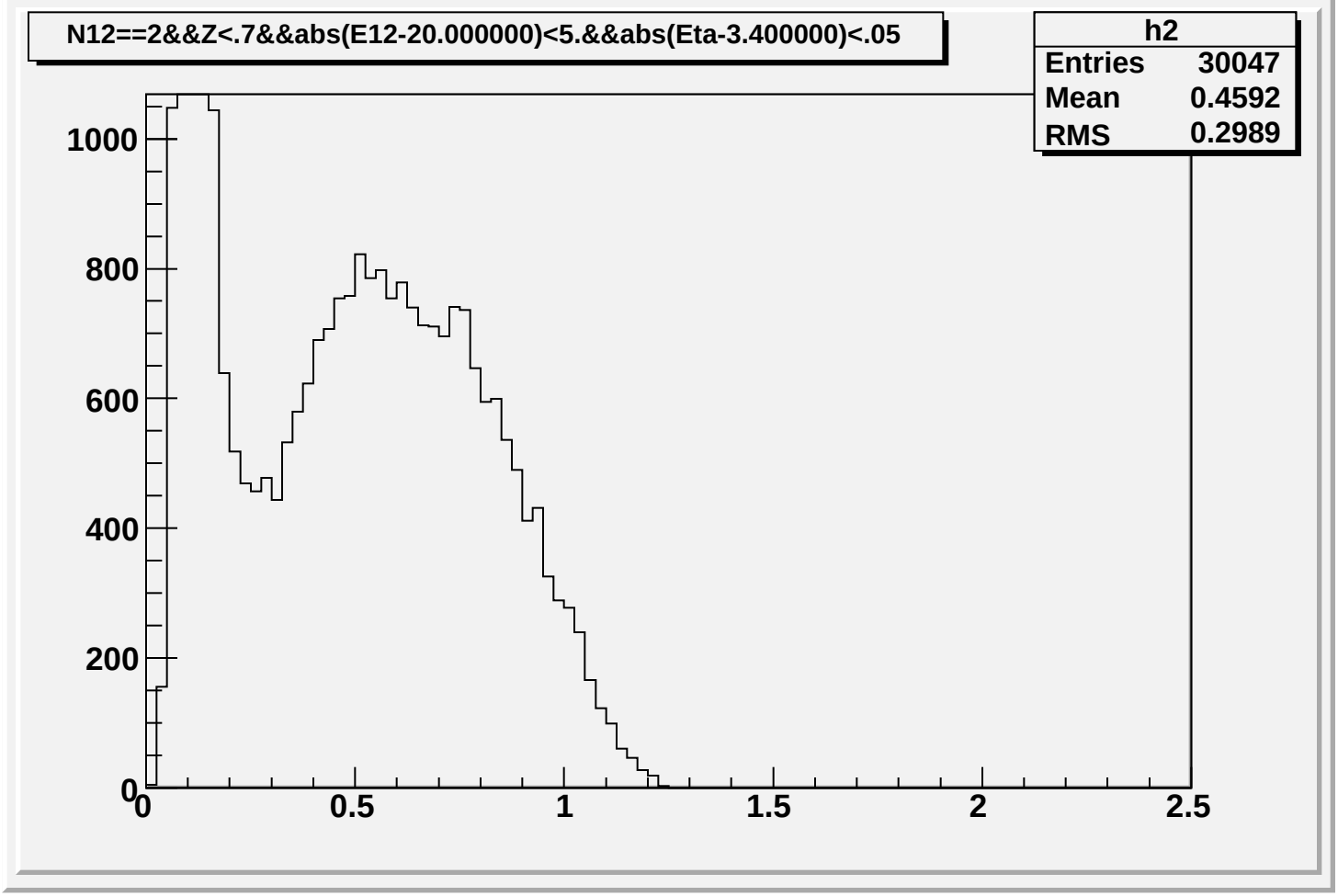

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 1023
Mean 0.7053
RMS 0.6793
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

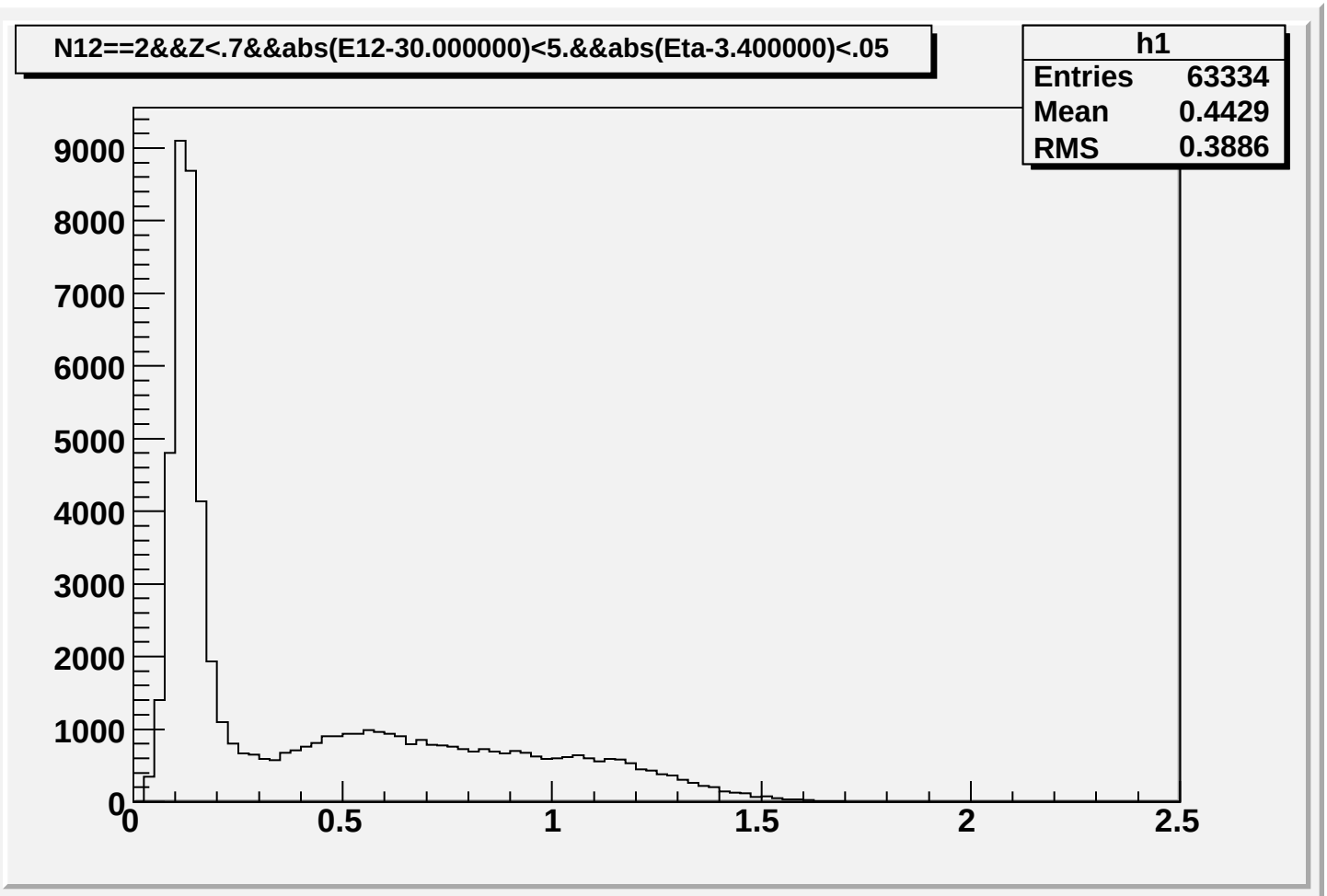

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 1023
Mean 0.7053
RMS 0.6793
22
20
18
16
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

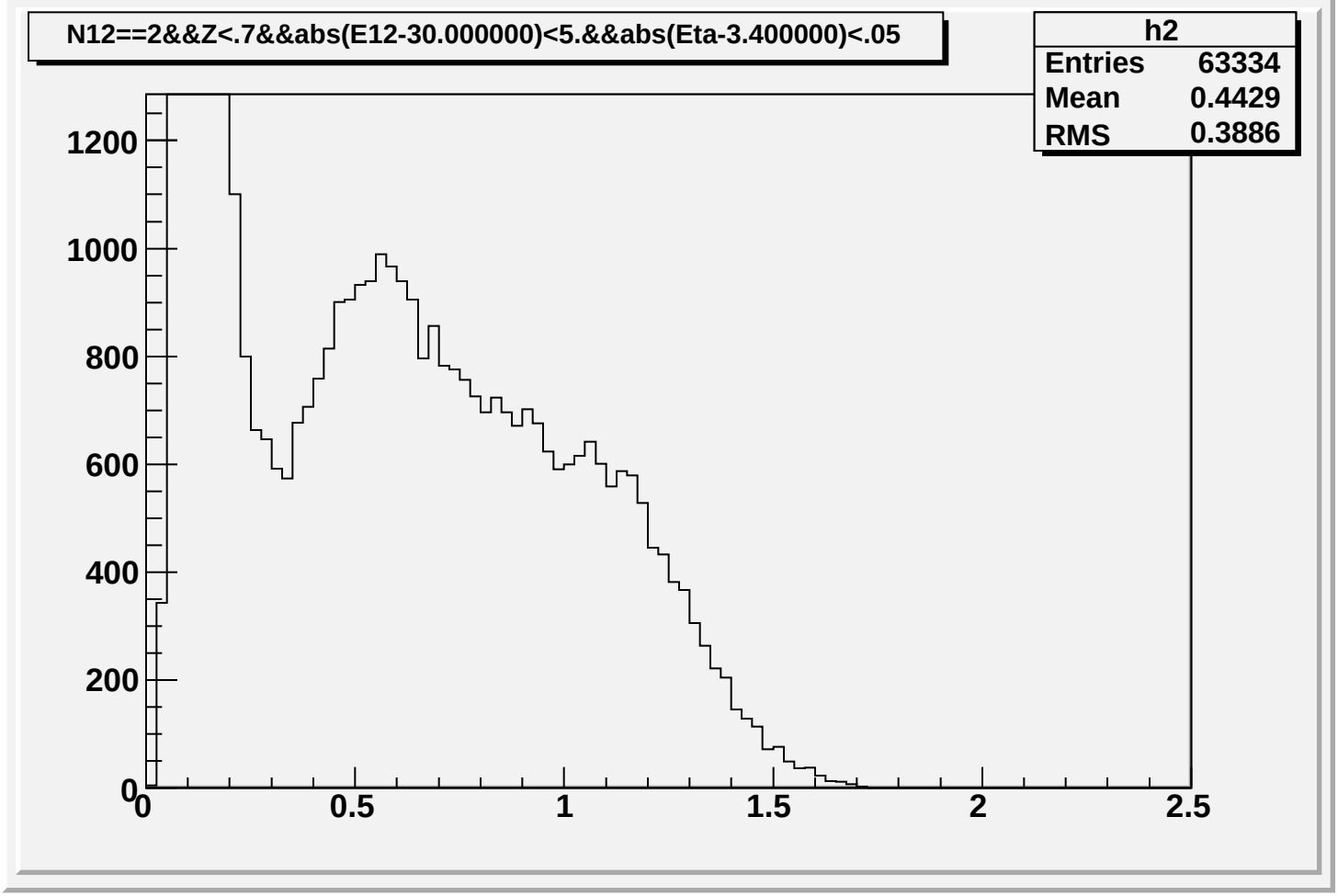

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.500000)<.05
h1
Entries 245
Mean 0.634
RMS 0.6595
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

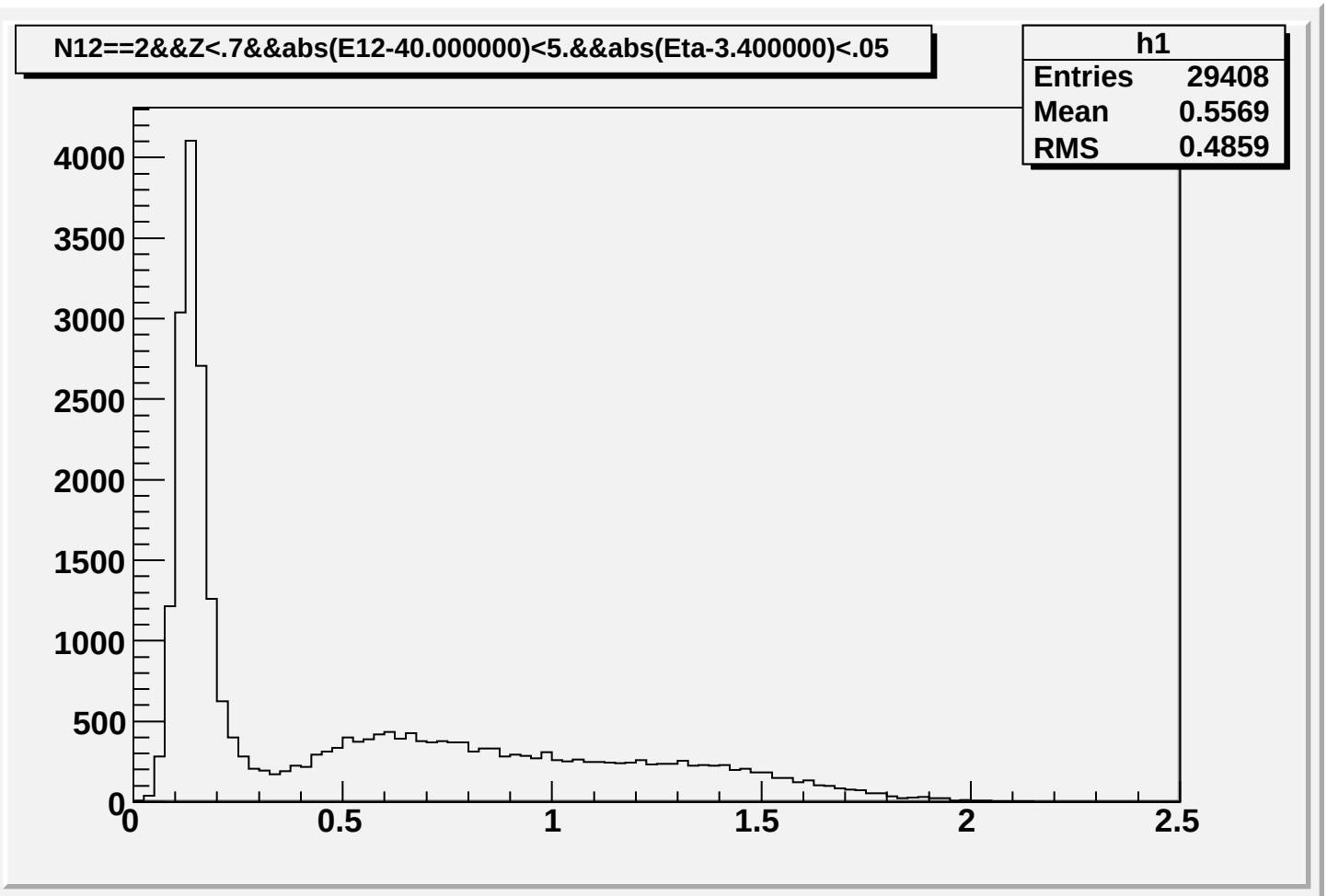

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.500000)<.05
h2
Entries 245
Mean 0.634
RMS 0.6595
3.5
3
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5
2
2.5

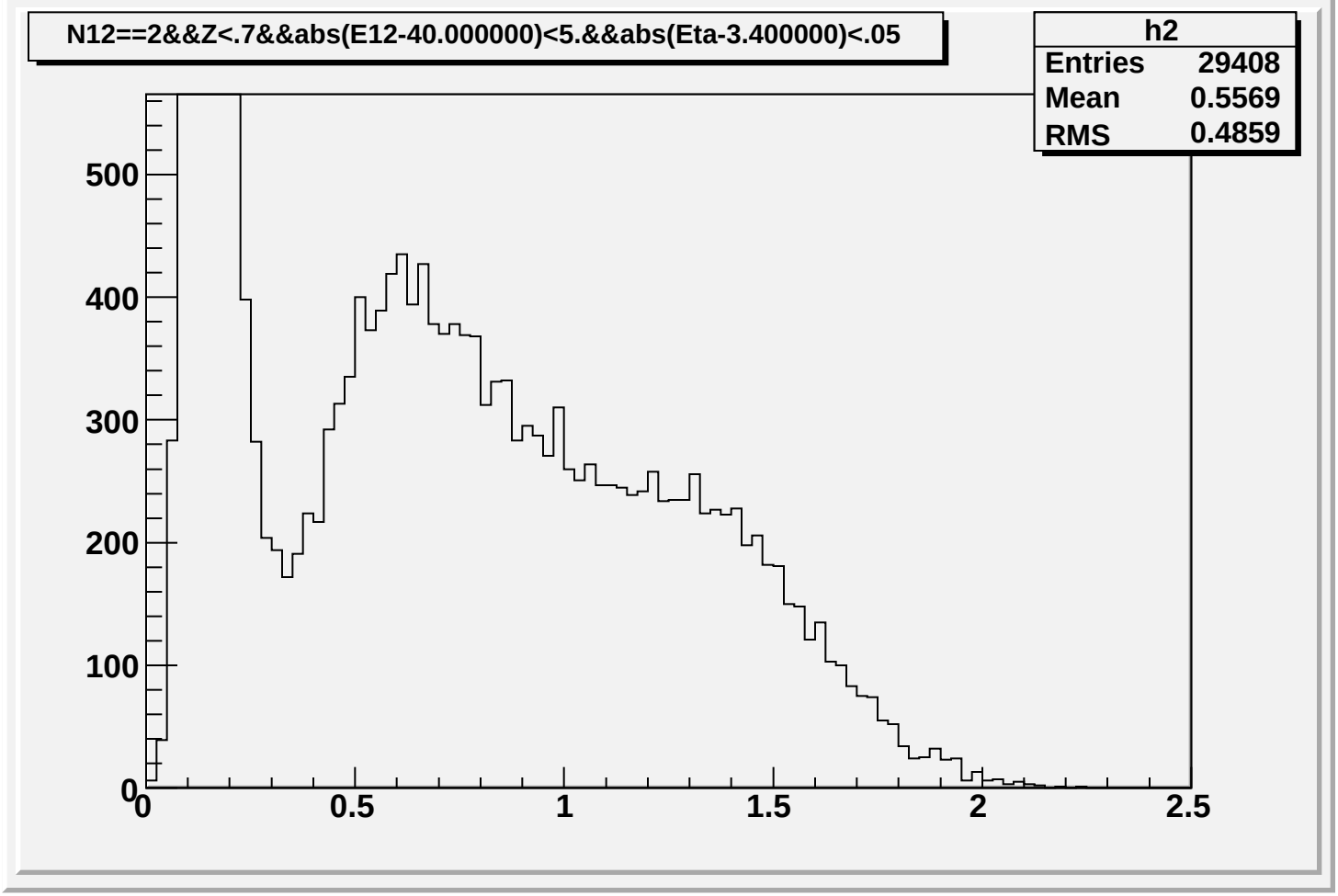

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 30047
Mean 0.4592
RMS 0.2989
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

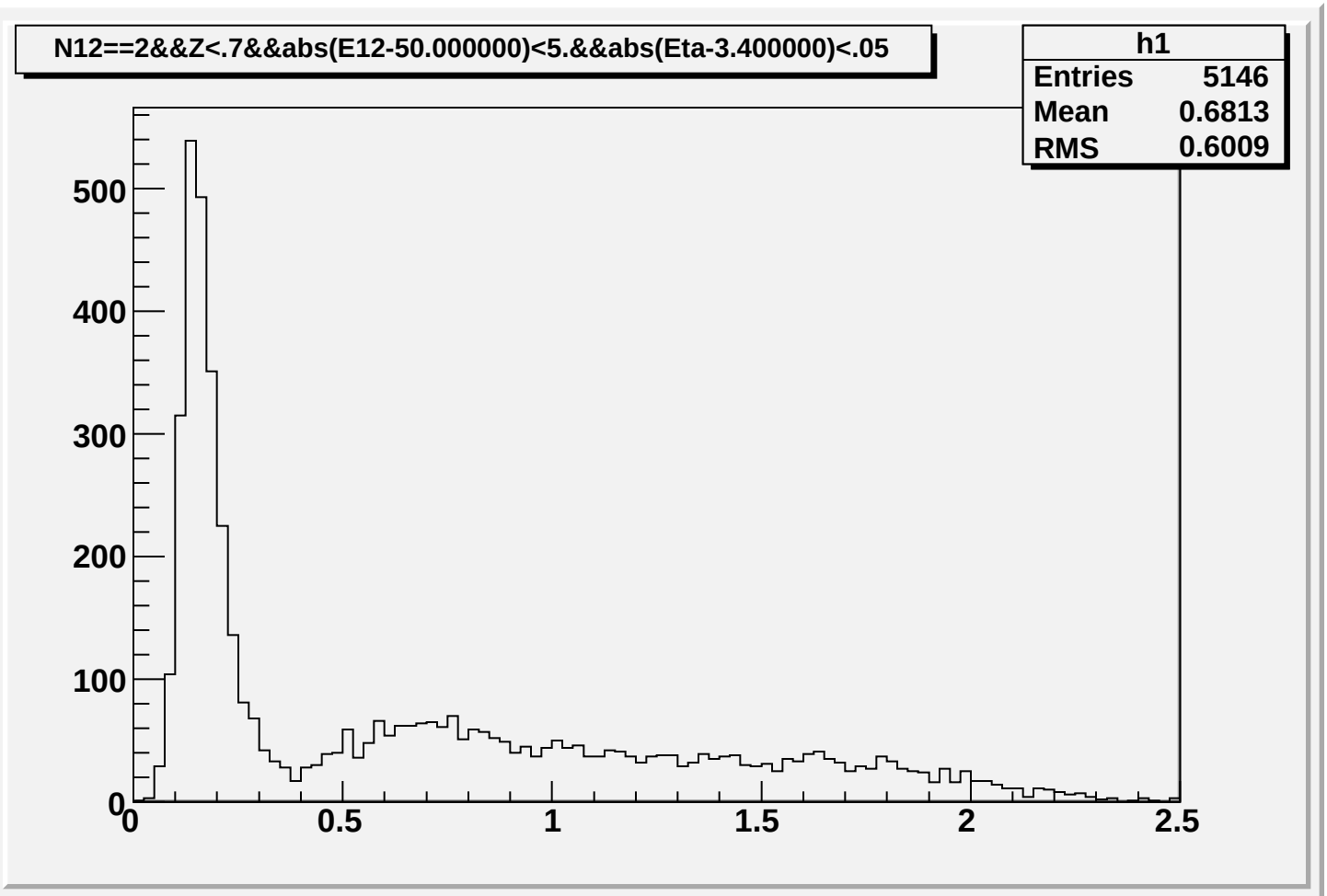

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 30047
Mean 0.4592
RMS 0.2989
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

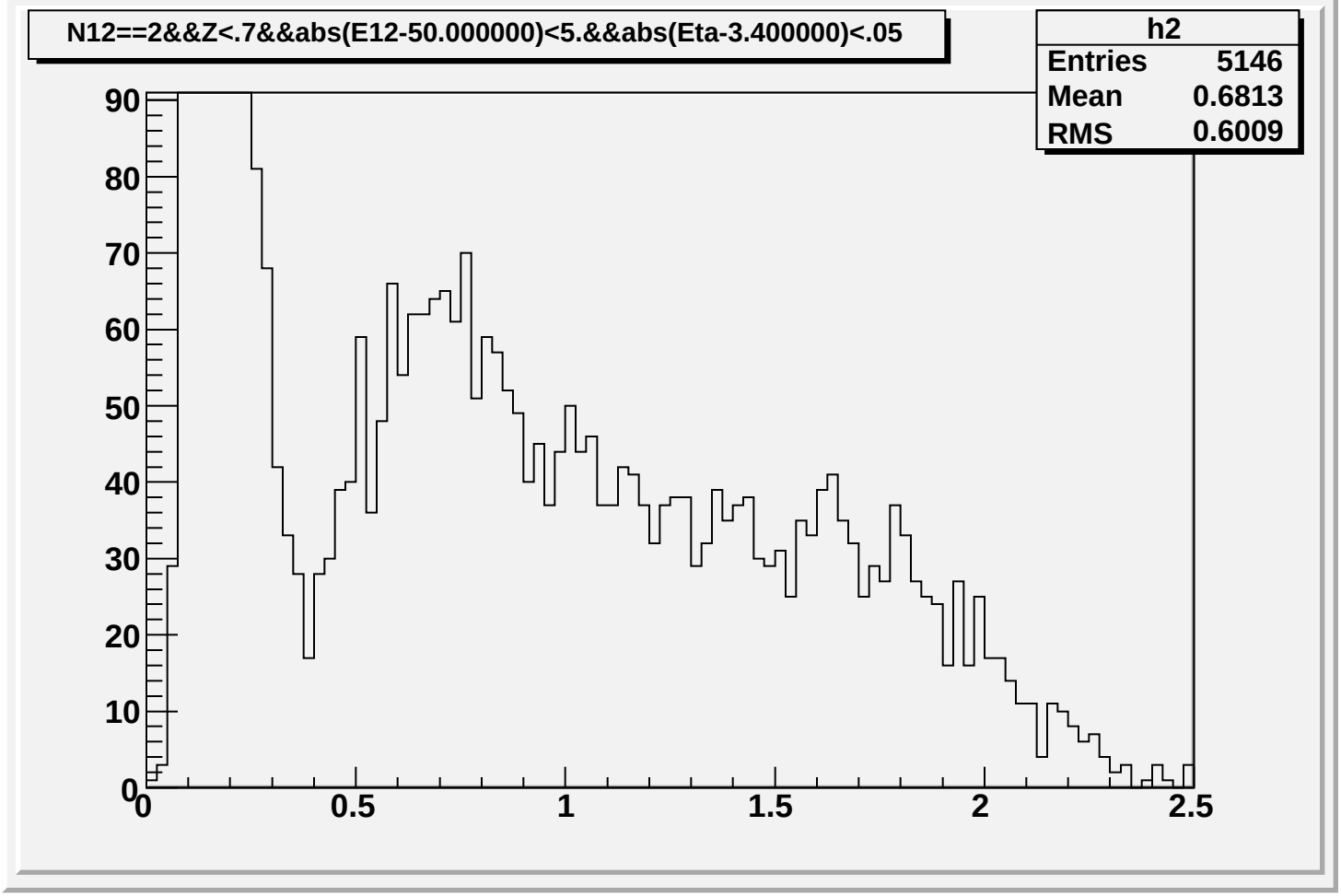

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 63334
Mean 0.4429
RMS 0.3886
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

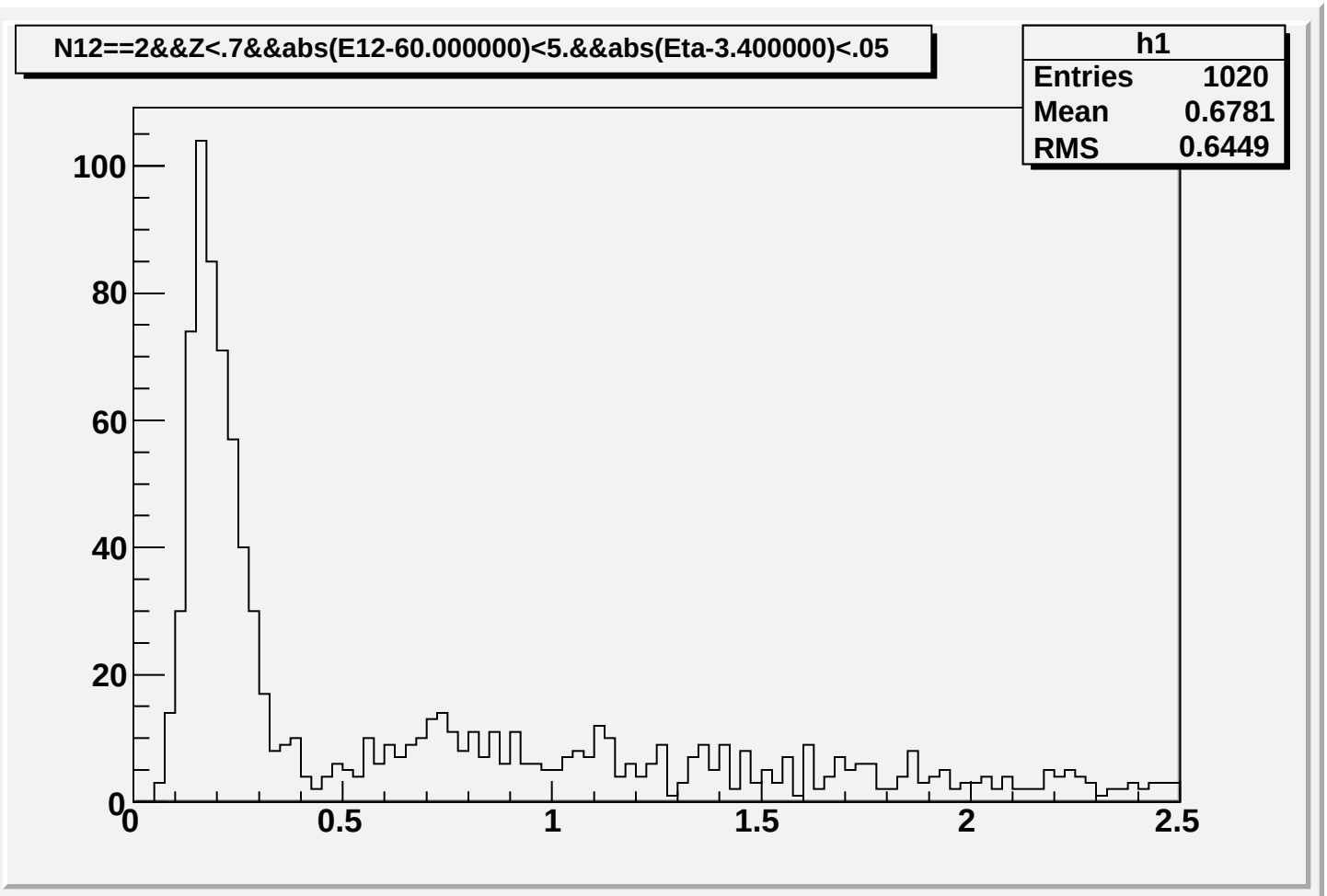

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 63334
Mean 0.4429
RMS 0.3886
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

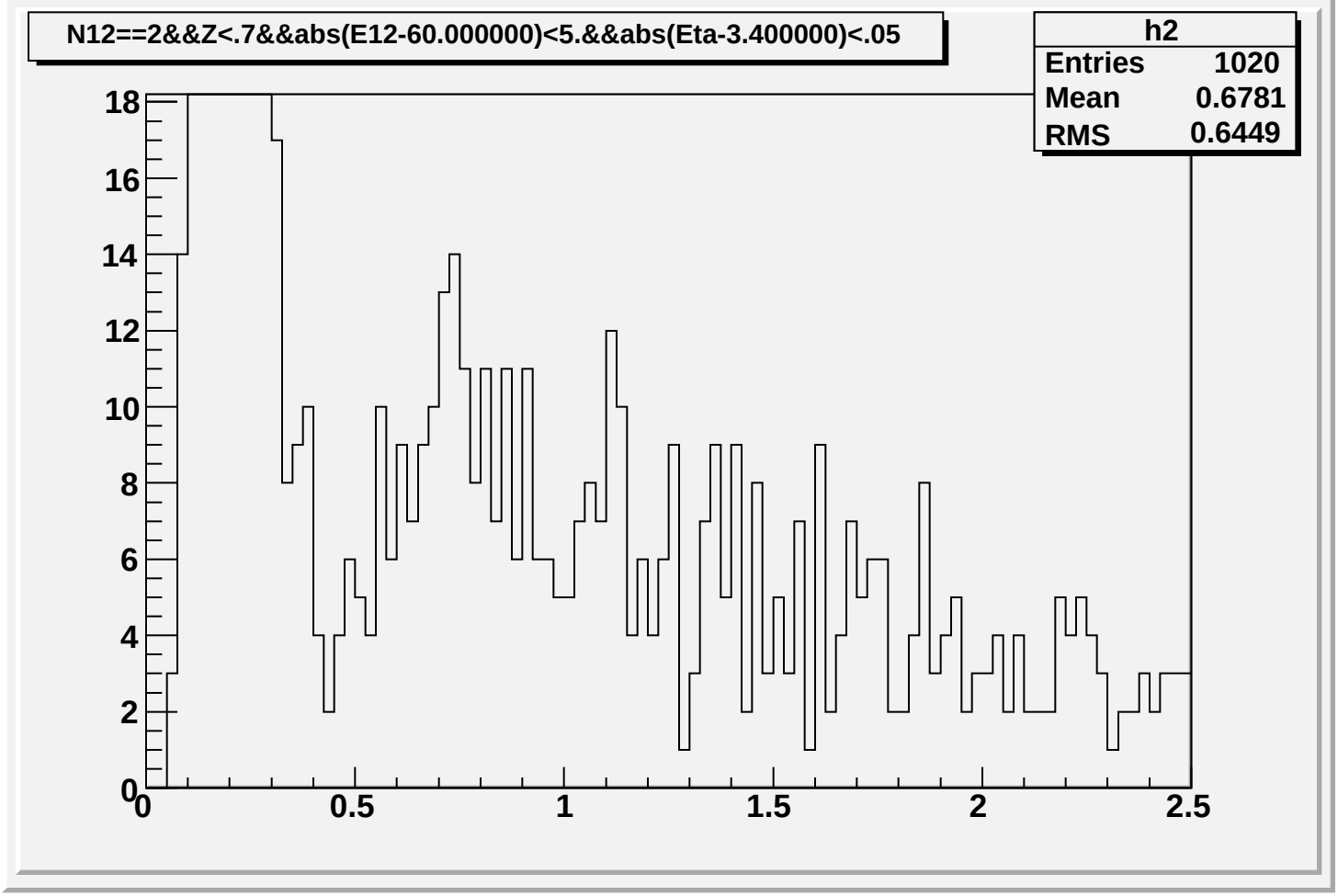

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 29408
Mean 0.5569
RMS 0.4859
4000
3500
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

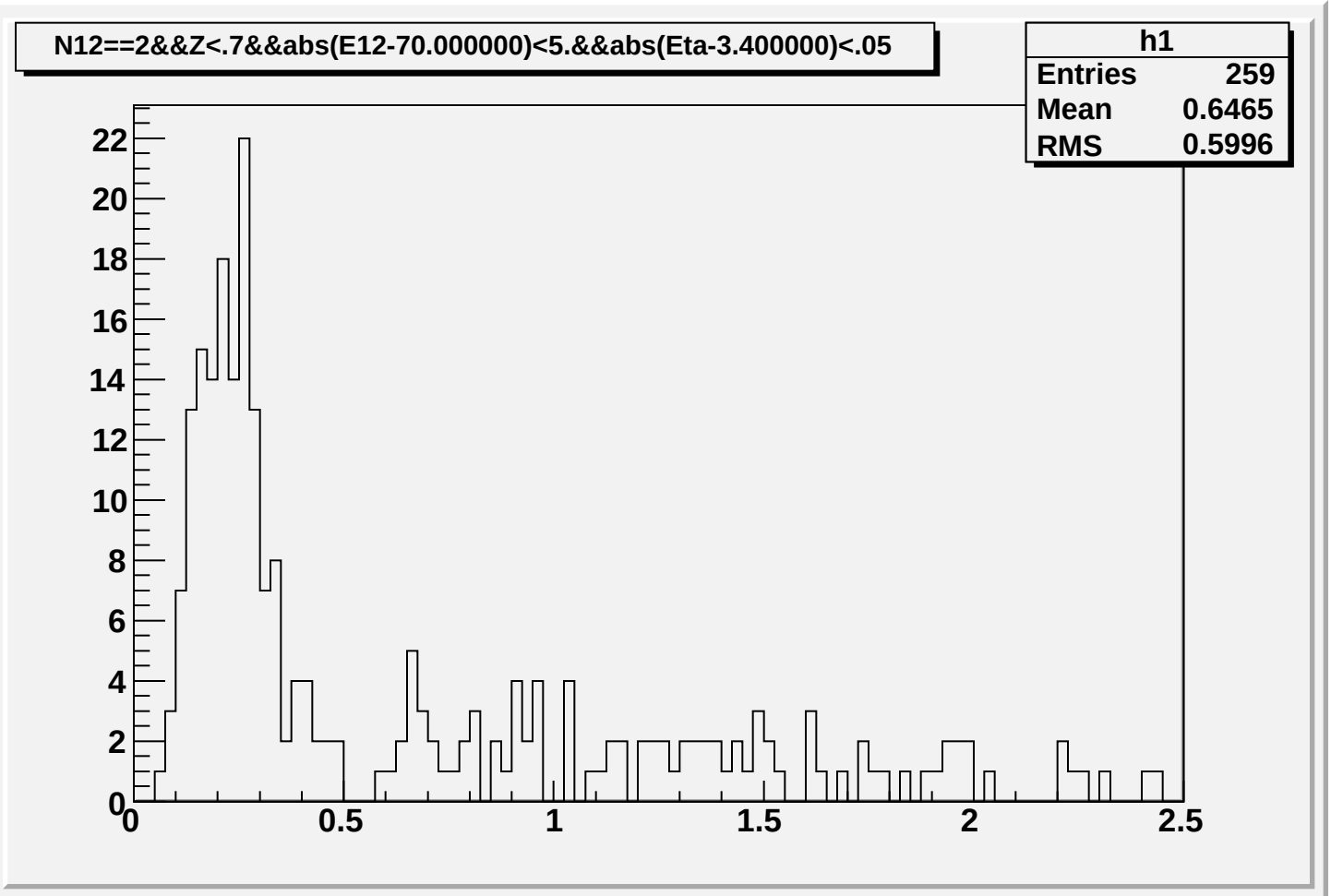

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 29408
Mean 0.5569
RMS 0.4859
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

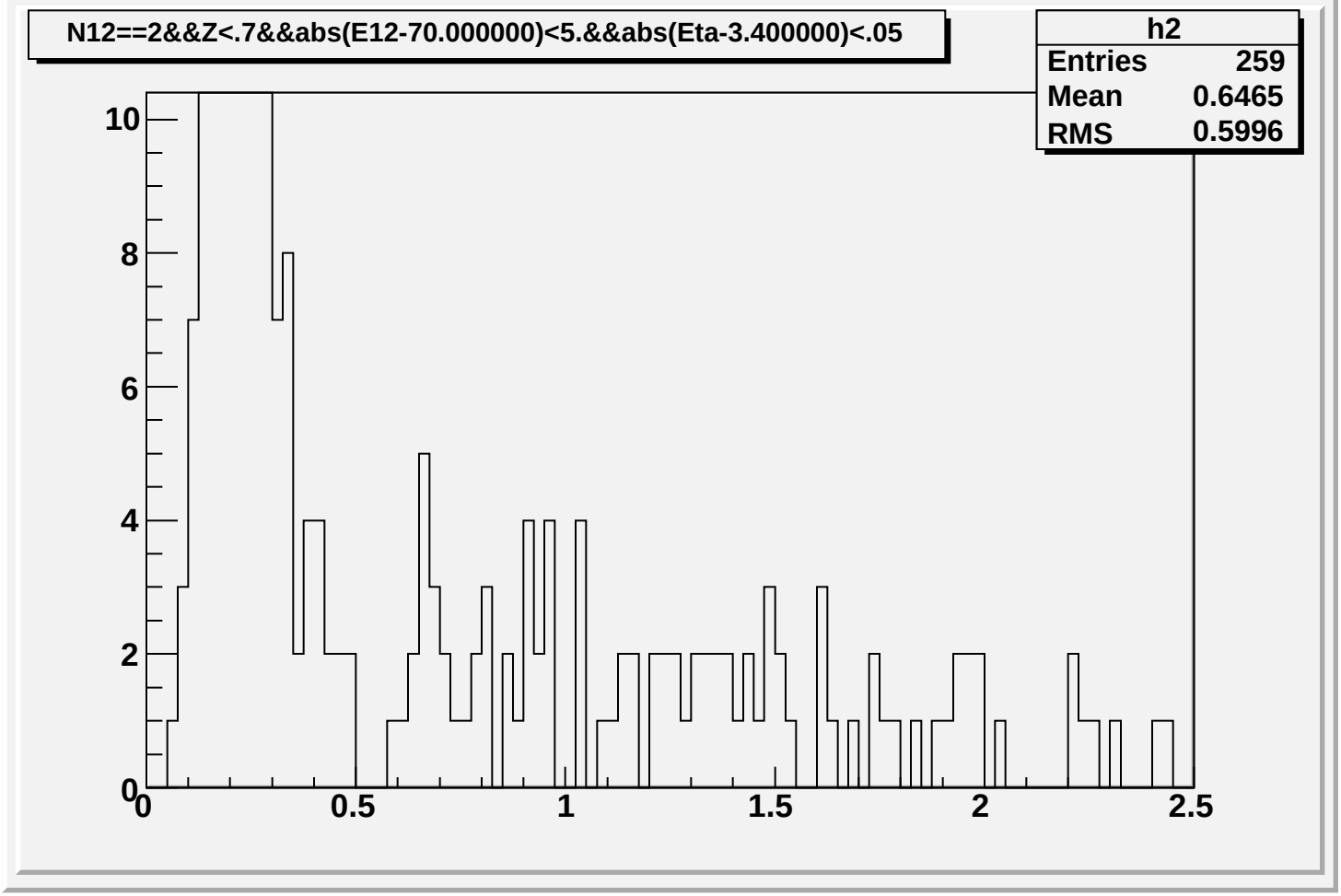

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 5146
Mean 0.6813
RMS 0.6009
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

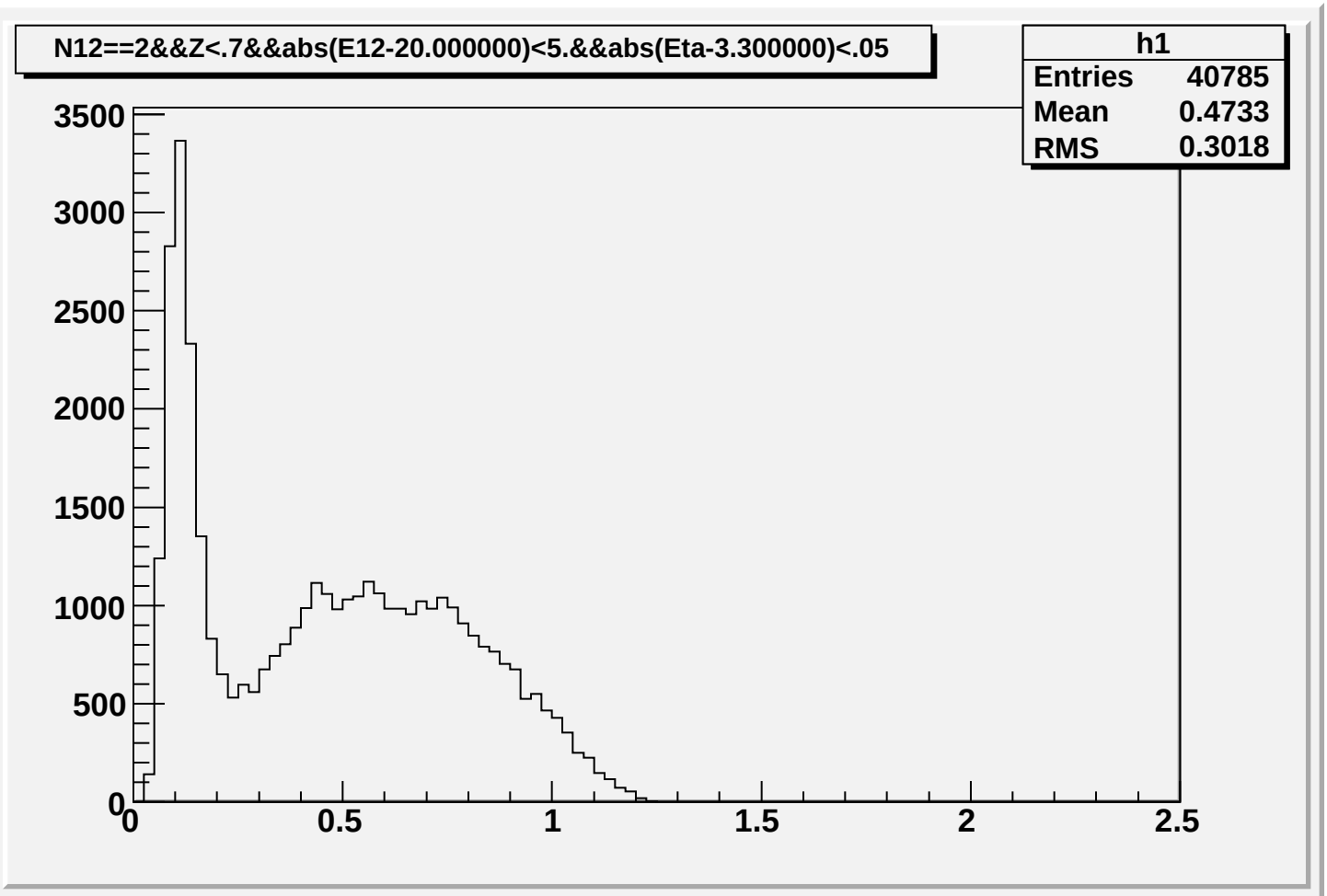

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 5146
Mean 0.6813
RMS 0.6009
90
80
70
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

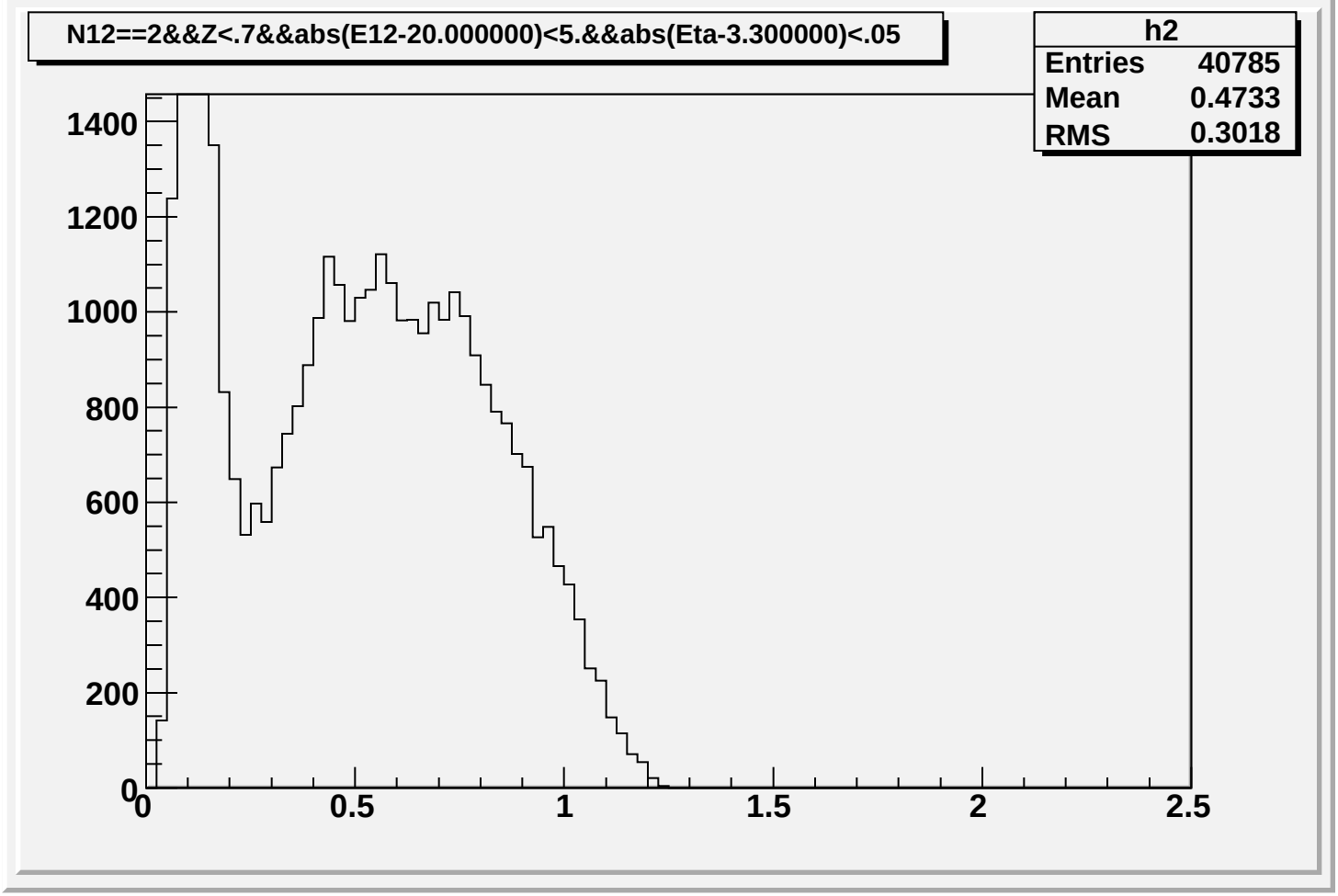

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 1020
Mean 0.6781
RMS 0.6449
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

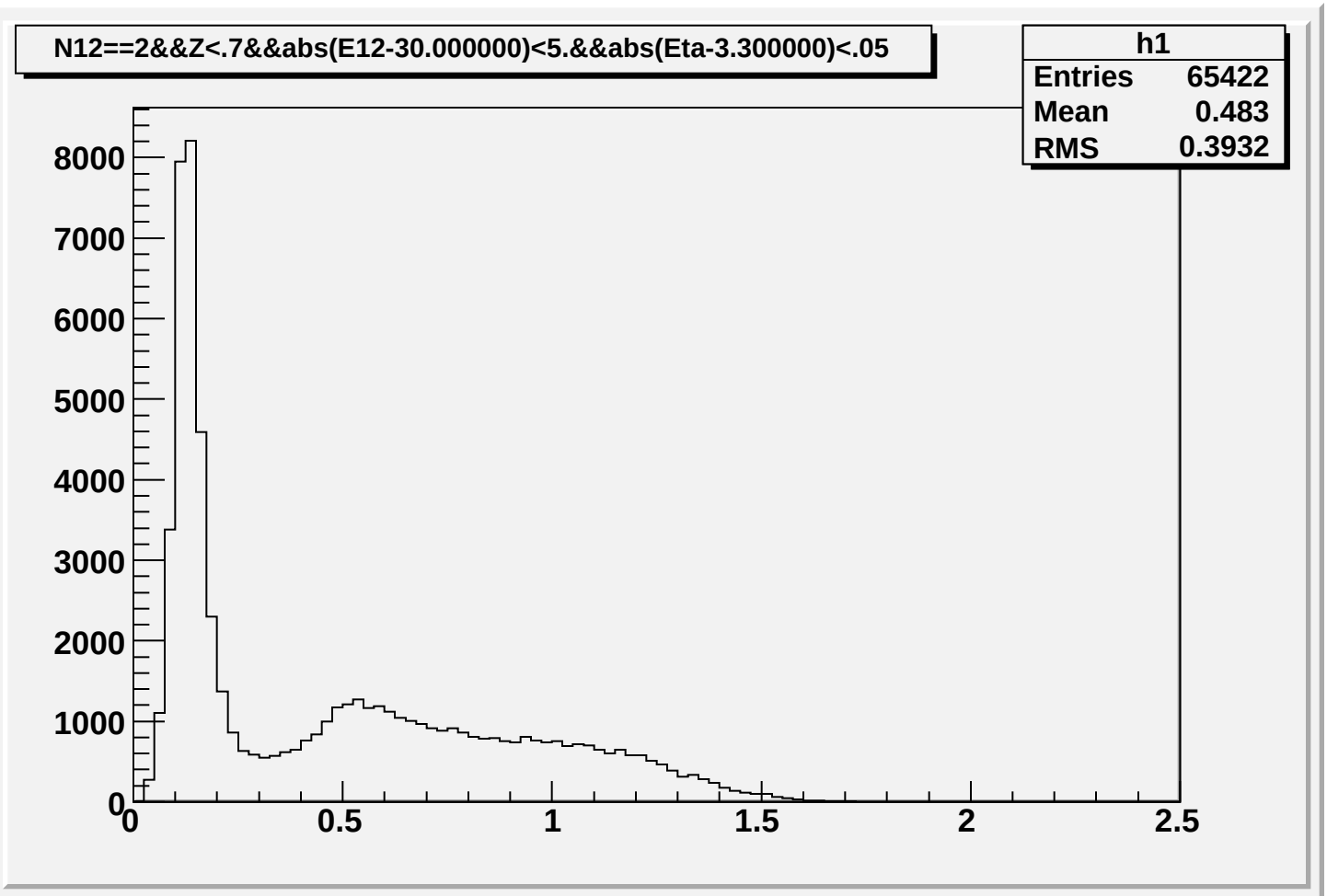

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 1020
Mean 0.6781
RMS 0.6449
18
16
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

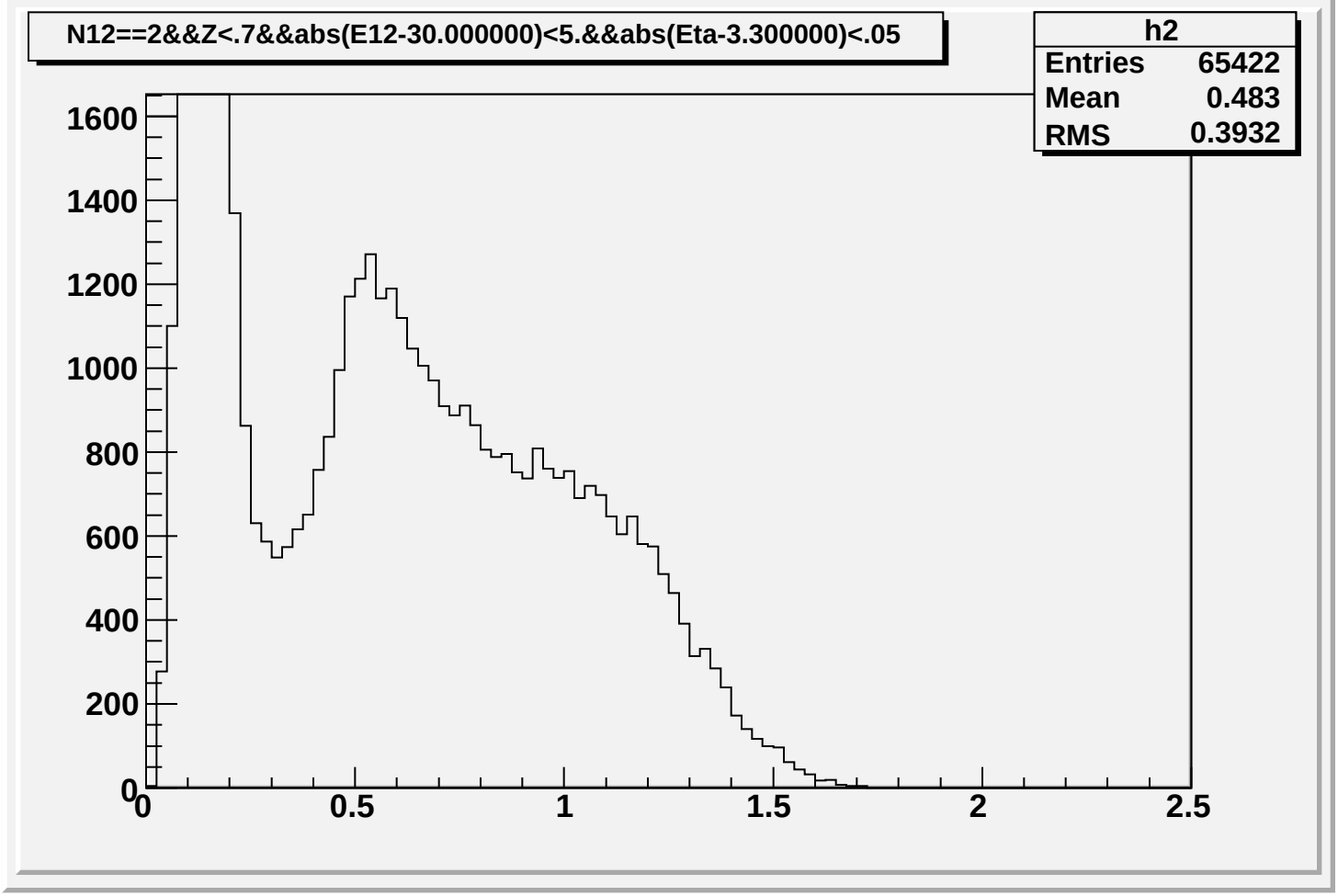

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.400000)<.05
h1
Entries 259
Mean 0.6465
RMS 0.5996
0 2 4 6 8 10 12 14 16 18 20 22
0 0.5 1 1.5 2 2.5

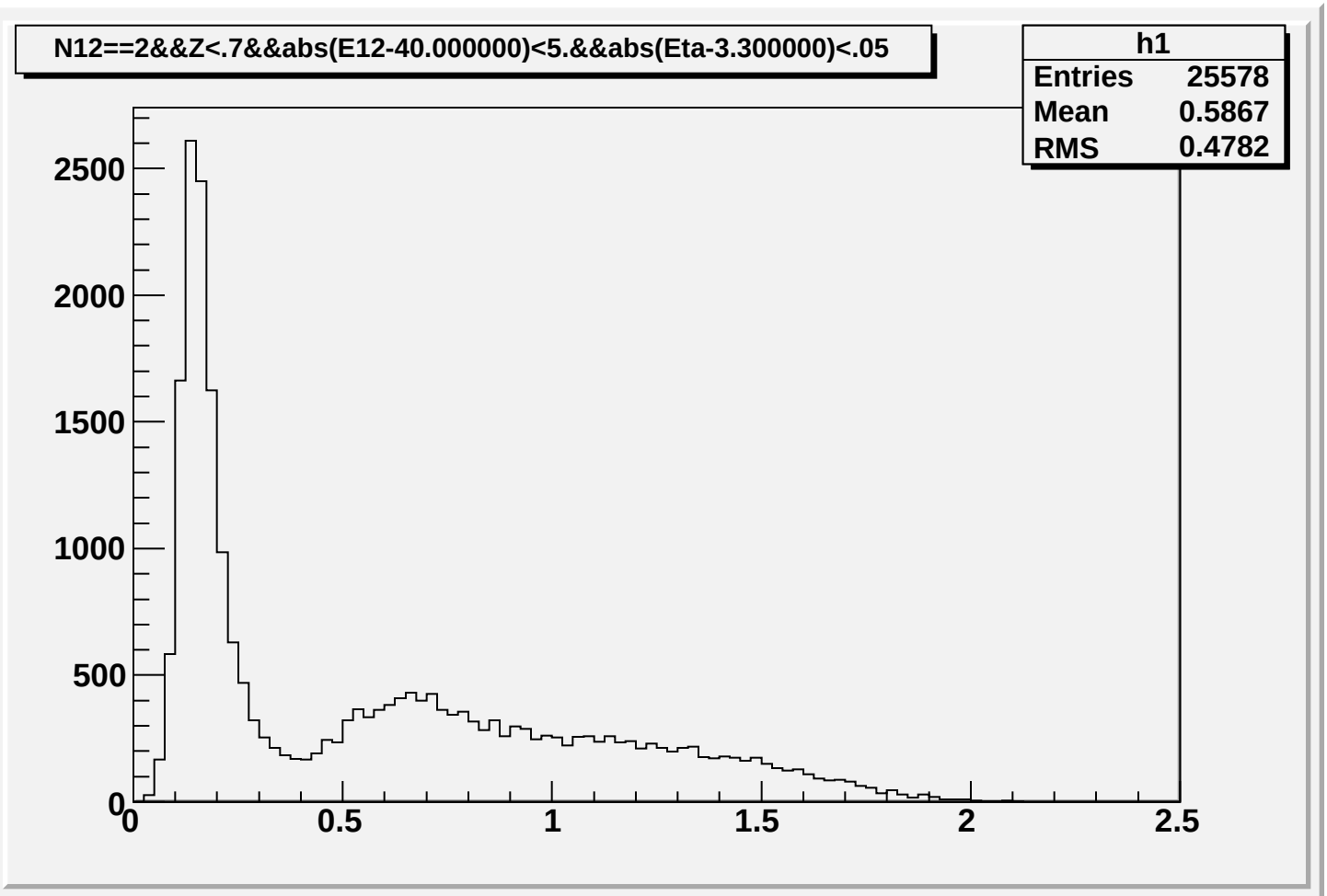

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.400000)<.05
h2
Entries 259
Mean 0.6465
RMS 0.5996
0 2 4 6 8 10
0 0.5 1 1.5 2 2.5

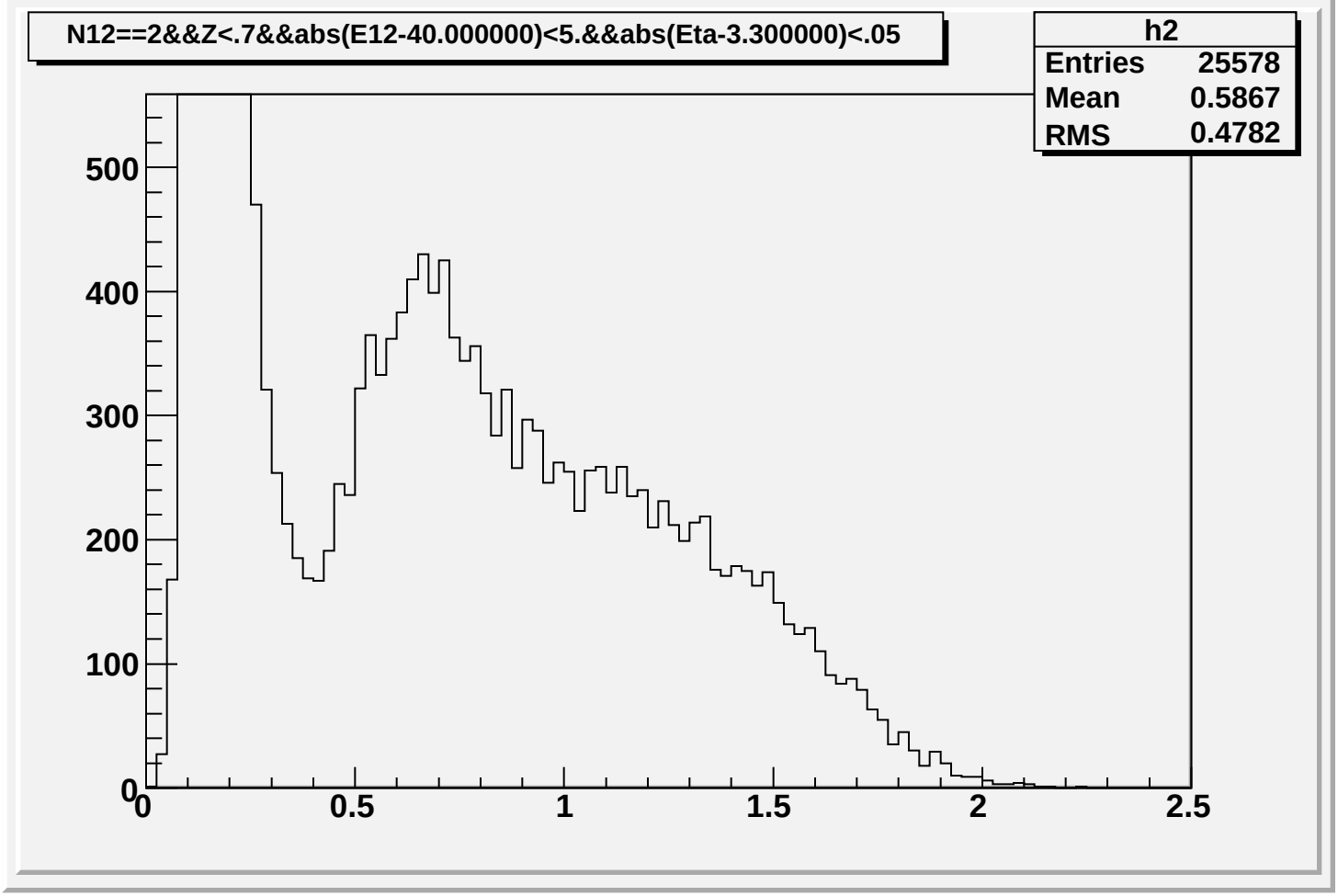

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 40785
Mean 0.4733
RMS 0.3018
3500
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

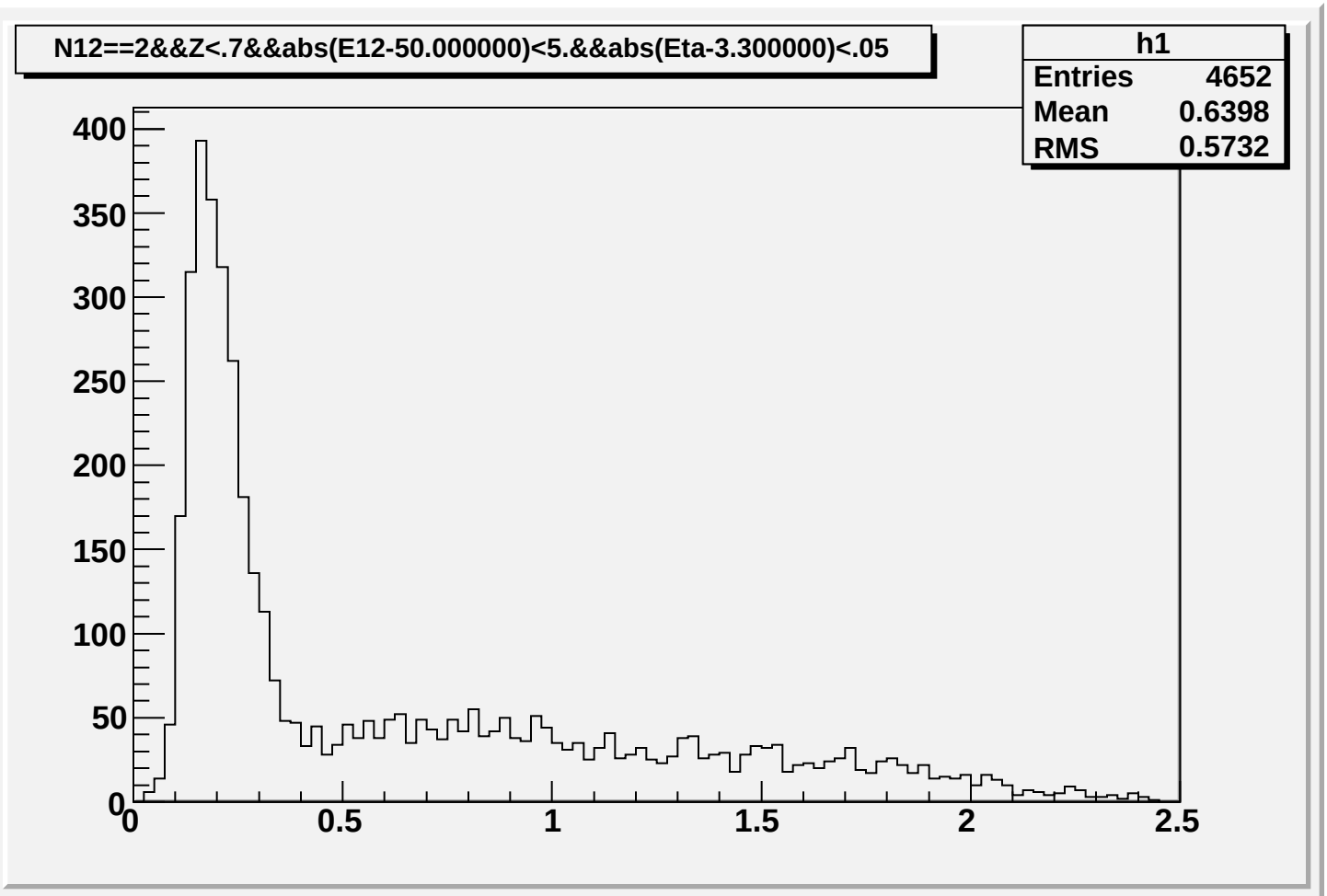

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 40785
Mean 0.4733
RMS 0.3018
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

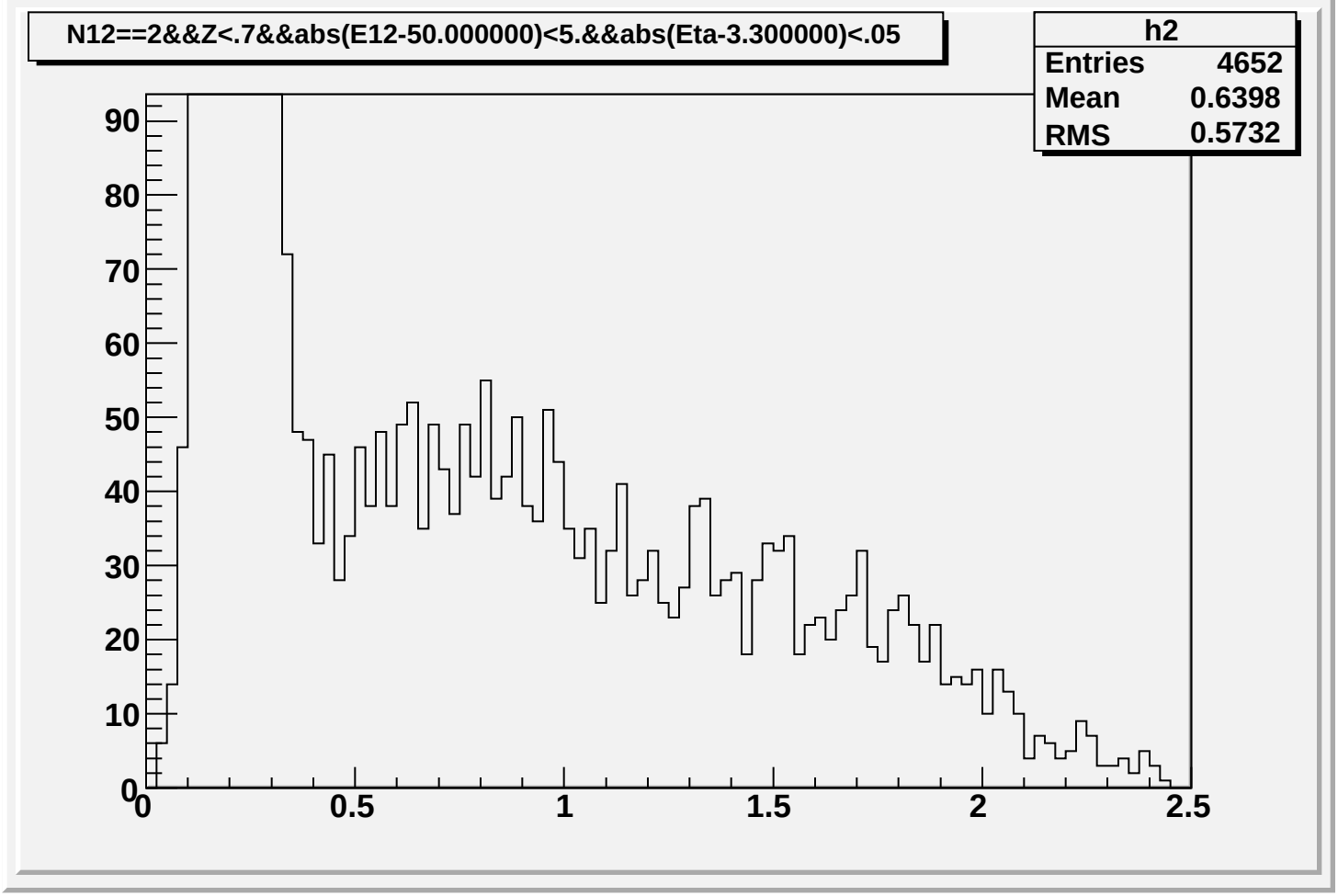

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 65422
Mean 0.483
RMS 0.3932
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

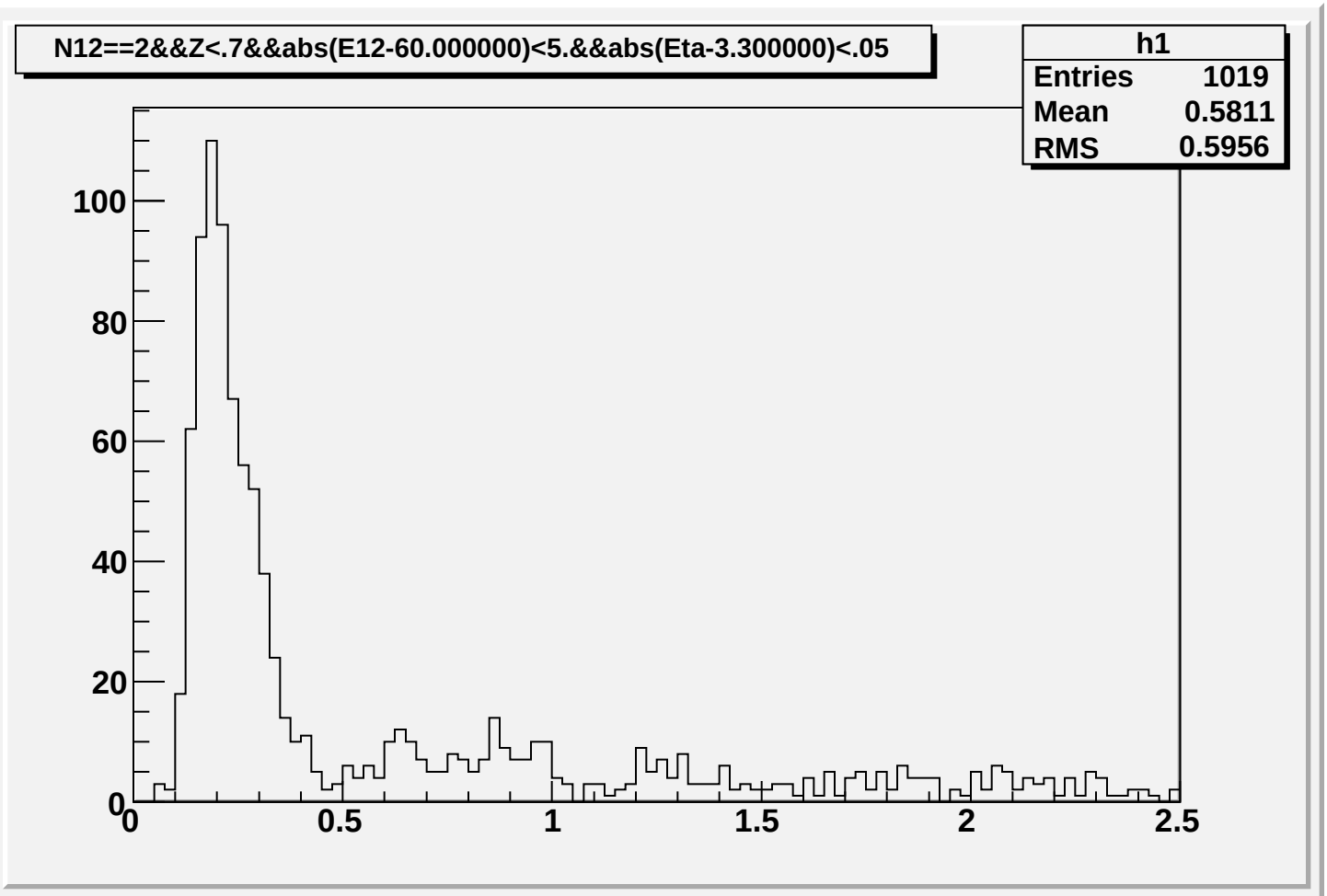

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 65422
Mean 0.483
RMS 0.3932
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

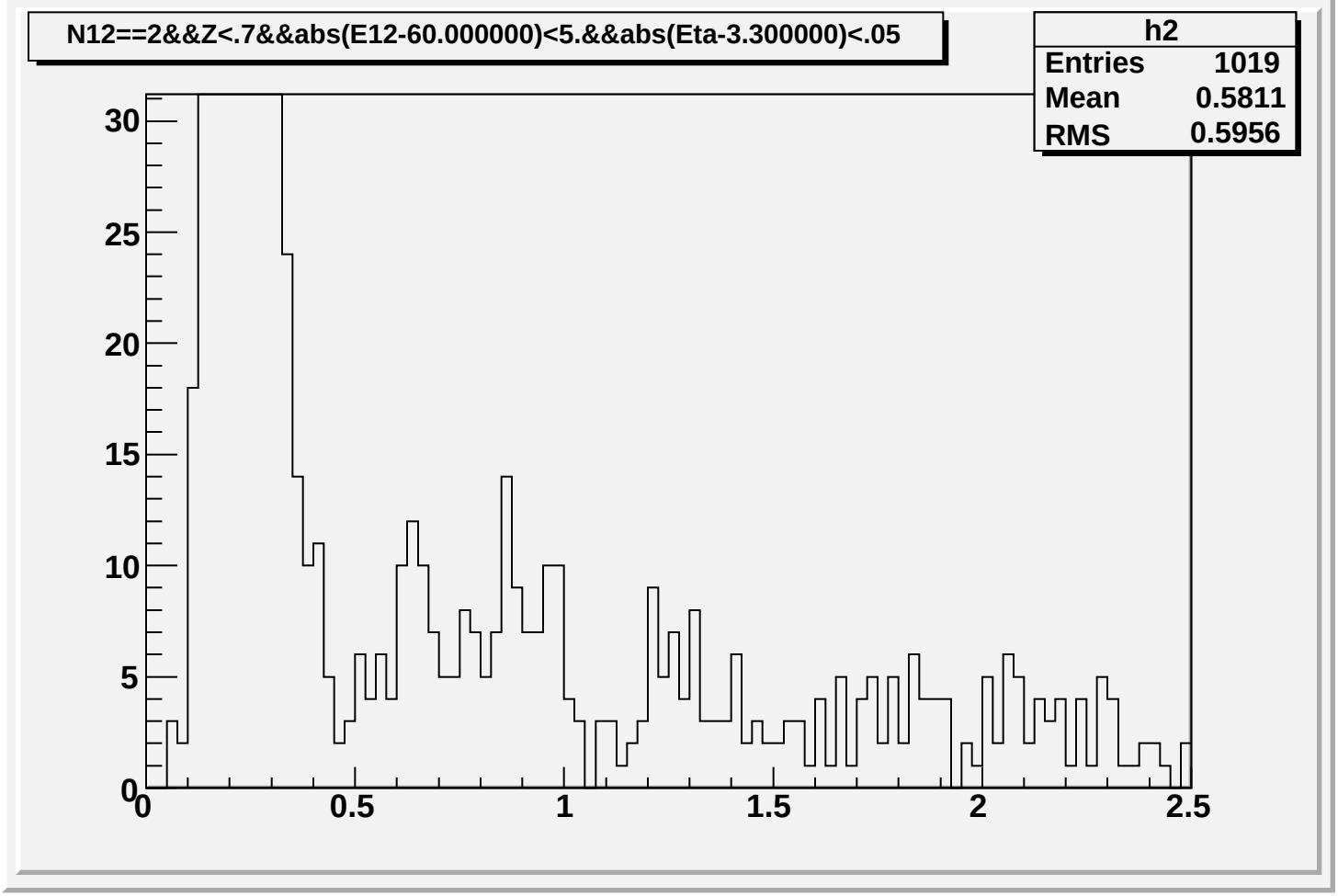

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 25578
Mean 0.5867
RMS 0.4782
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

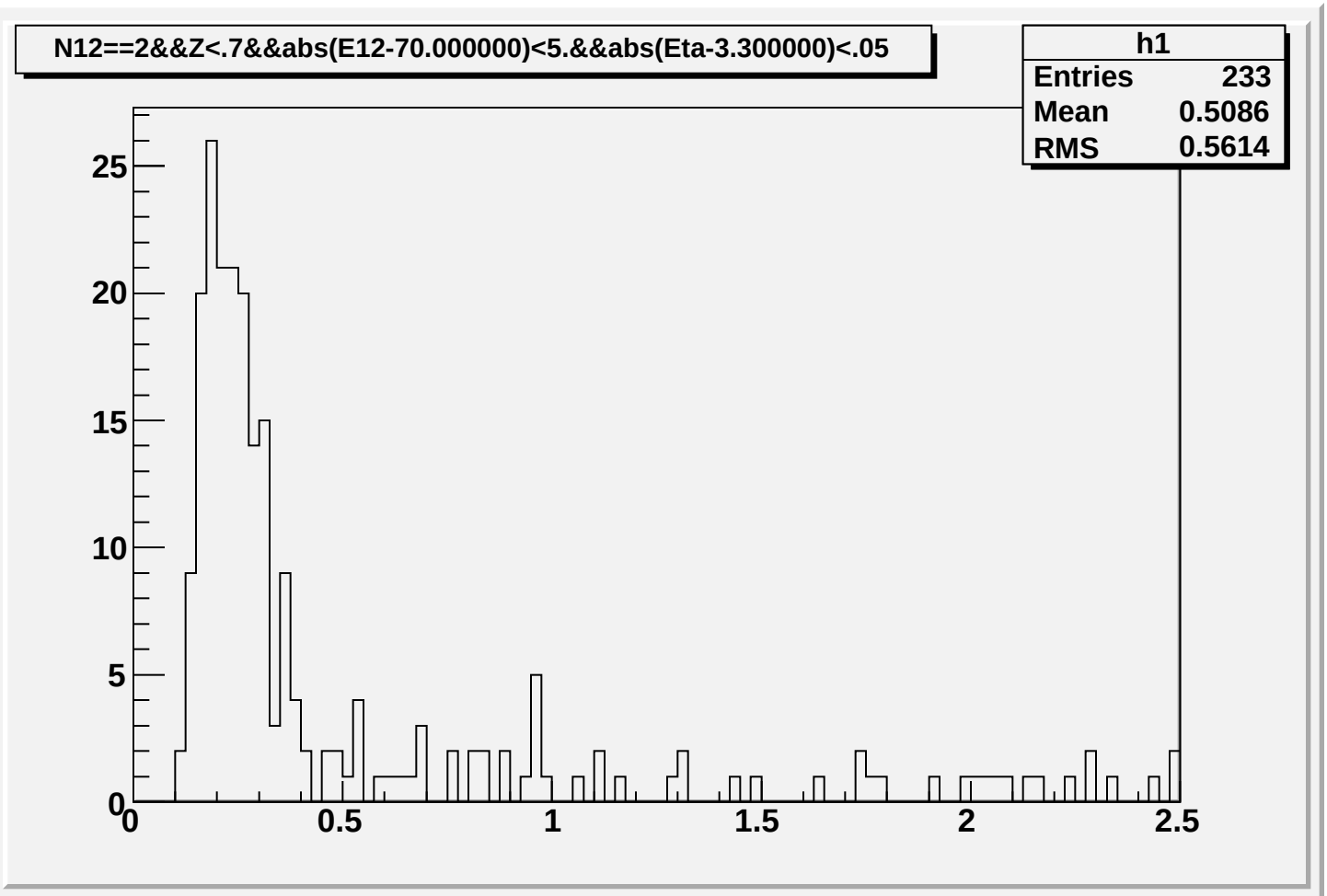

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 25578
Mean 0.5867
RMS 0.4782
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

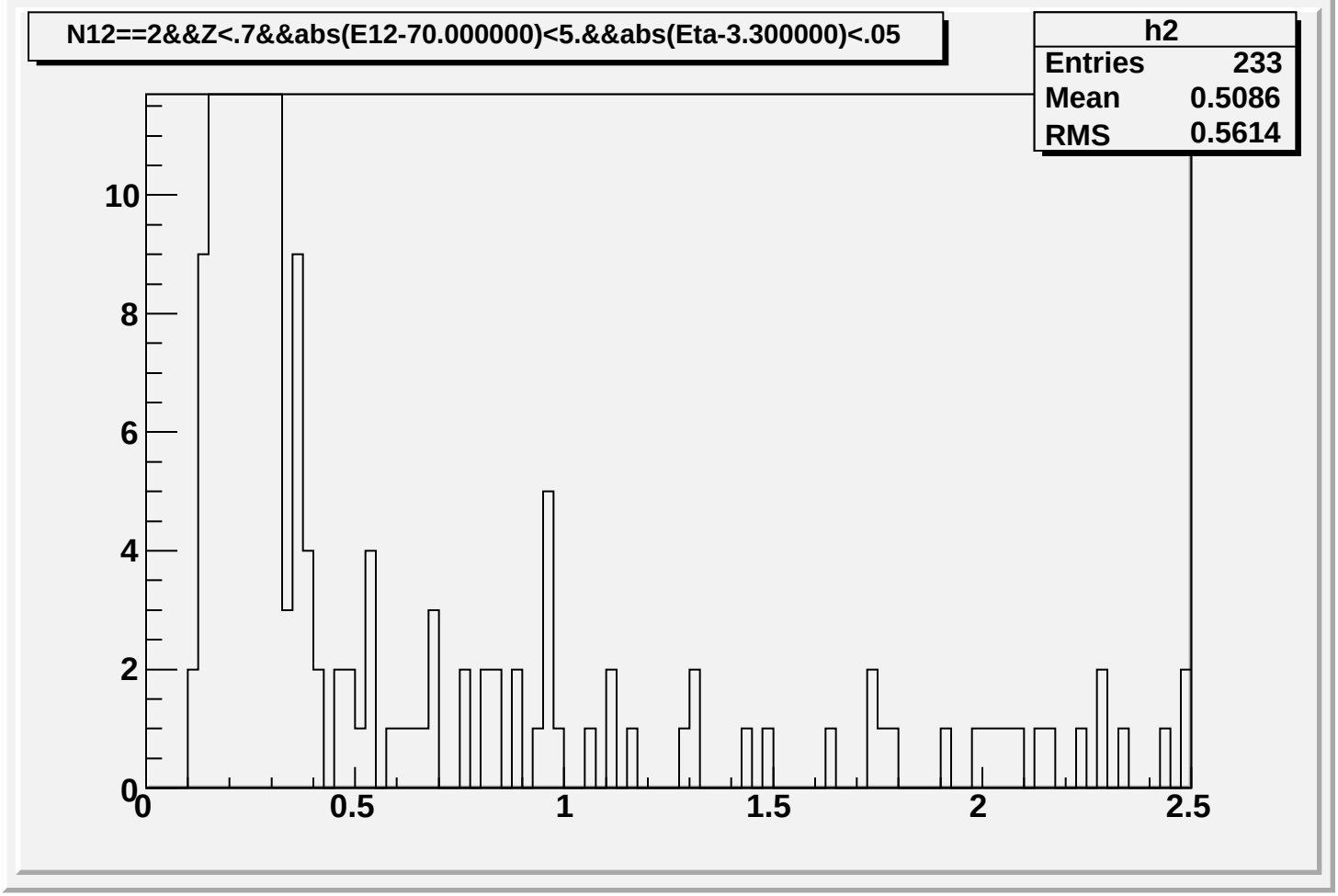

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 4652
Mean 0.6398
RMS 0.5732
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

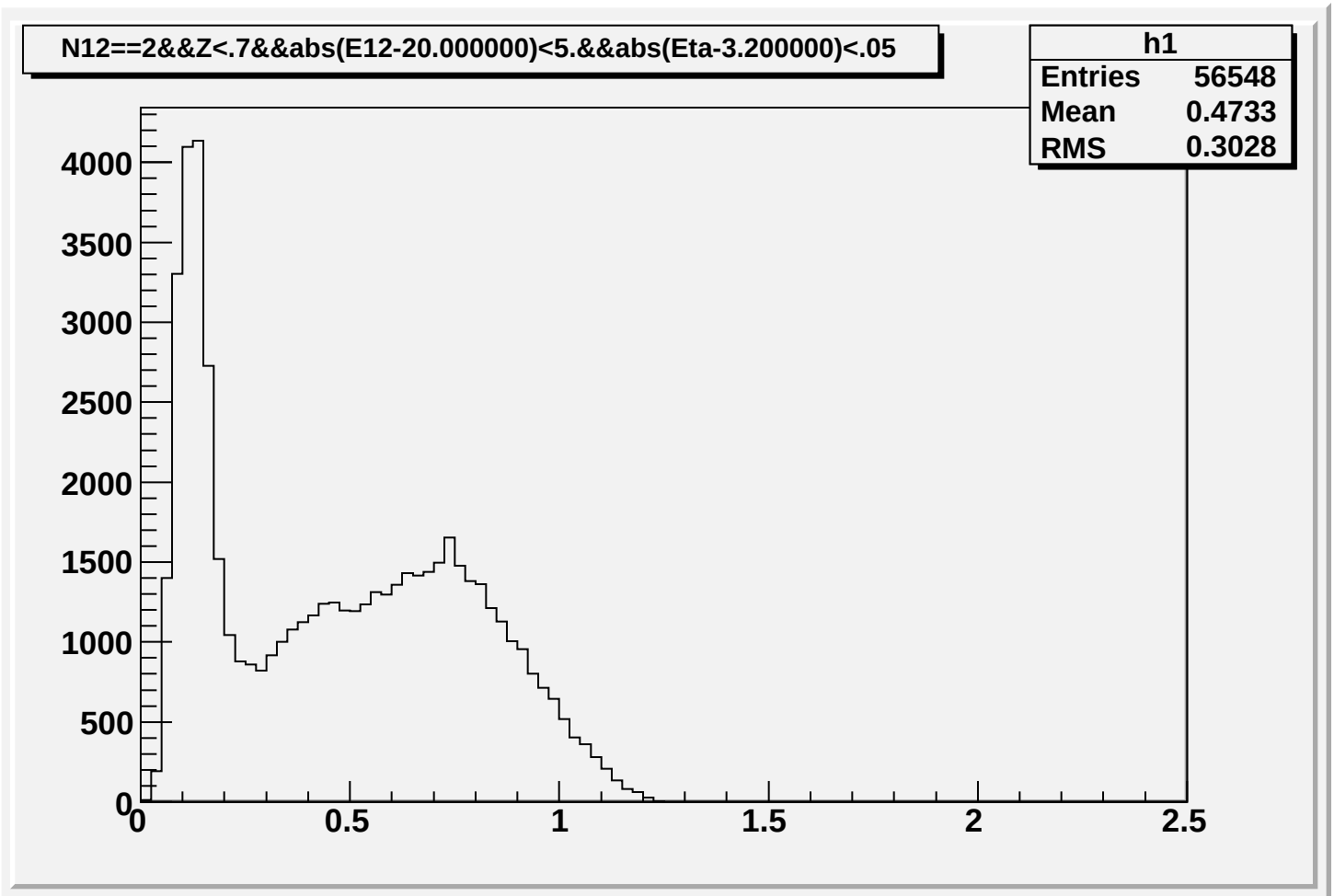

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 4652
Mean 0.6398
RMS 0.5732
90
80
70
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

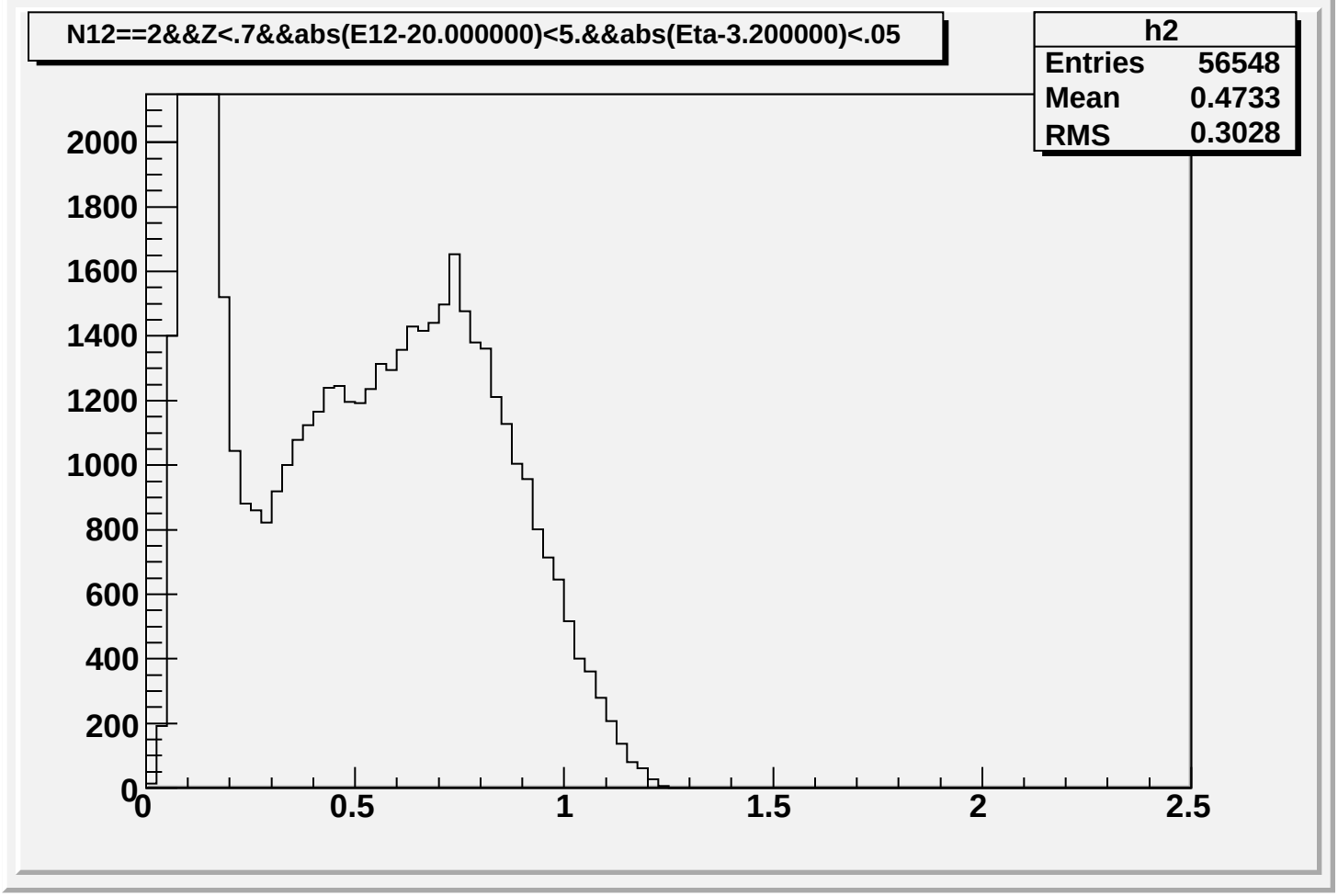

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 1019
Mean 0.5811
RMS 0.5956
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

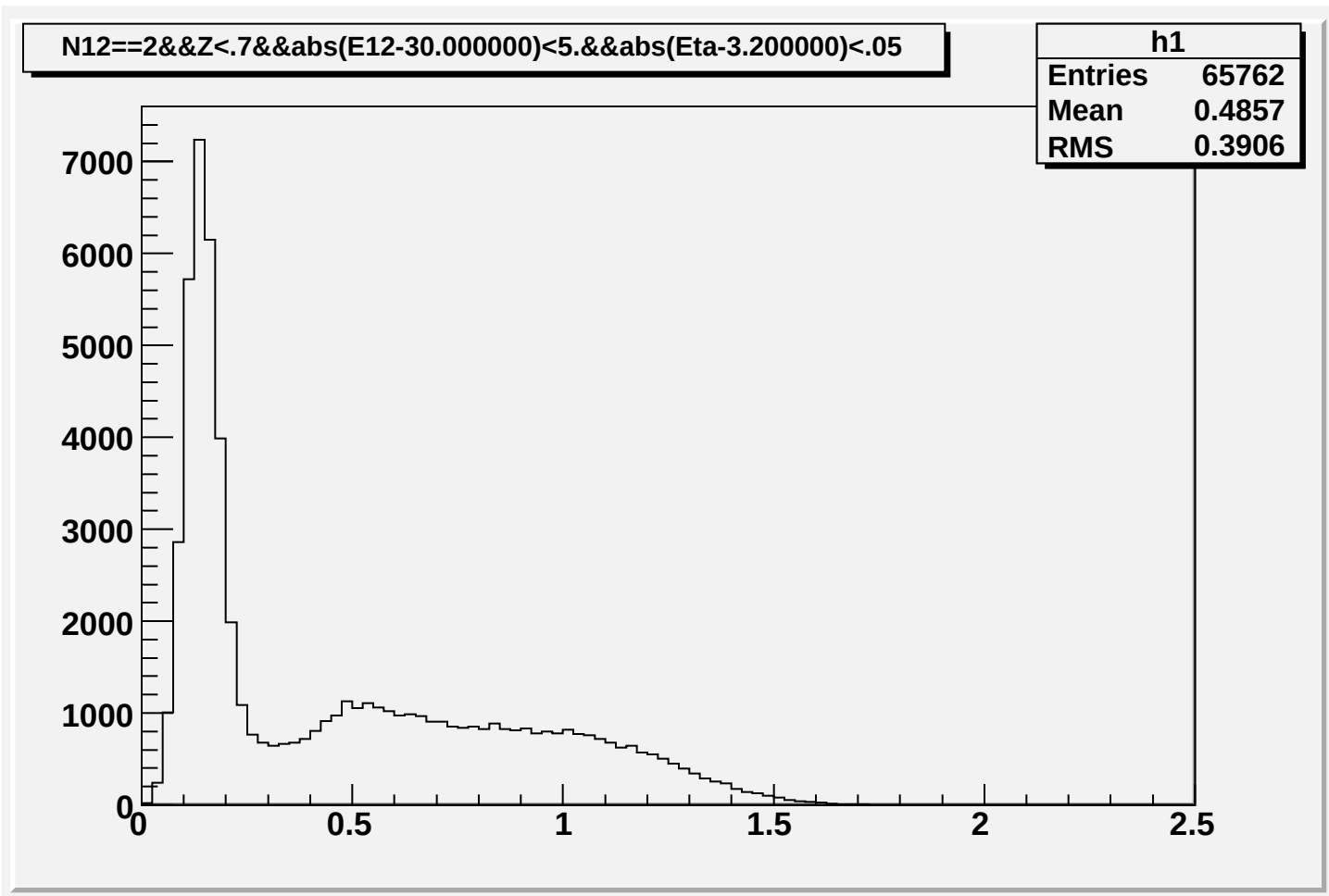

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 1019
Mean 0.5811
RMS 0.5956
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

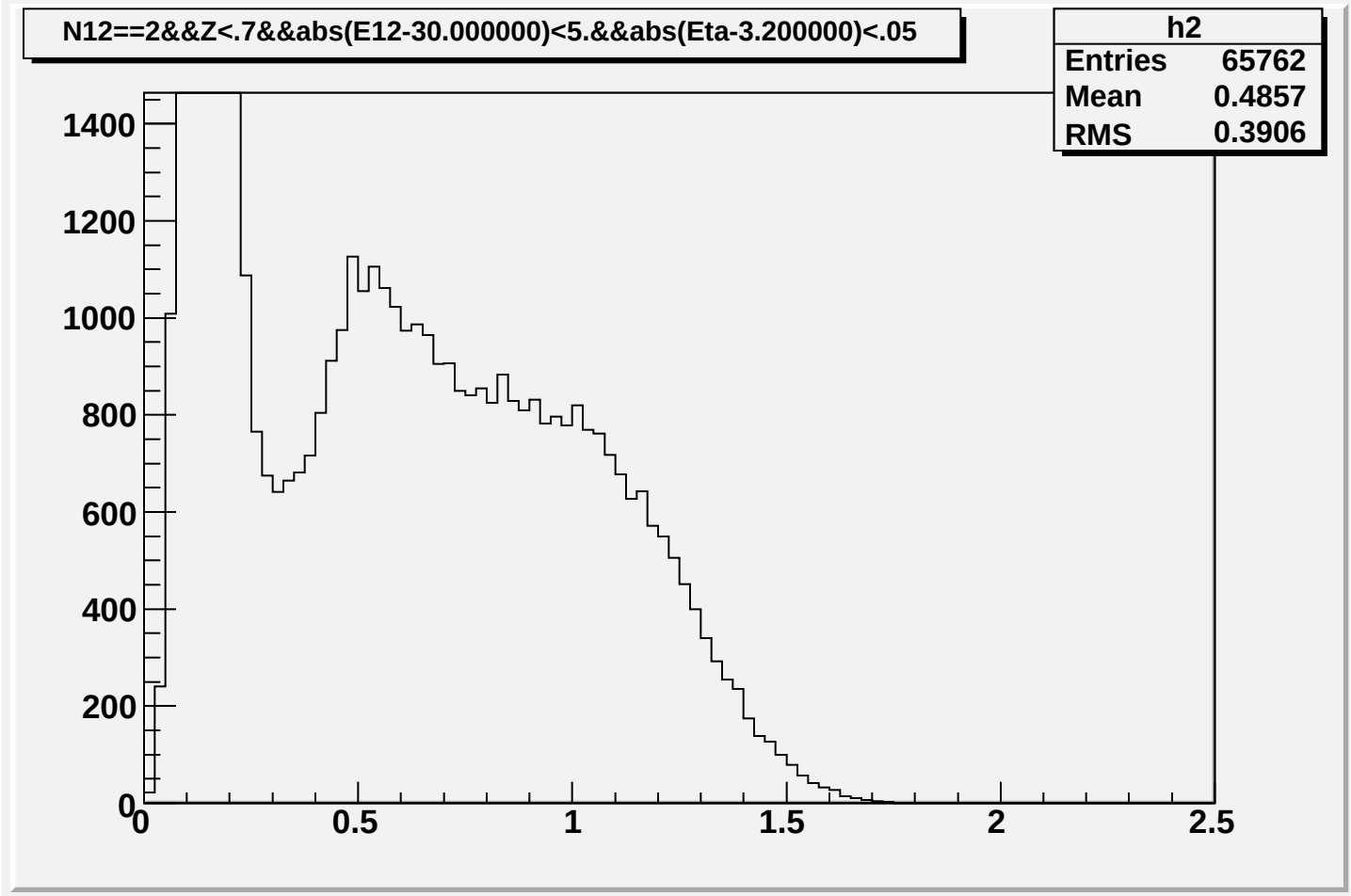

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.300000)<.05
h1
Entries 233
Mean 0.5086
RMS 0.5614
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

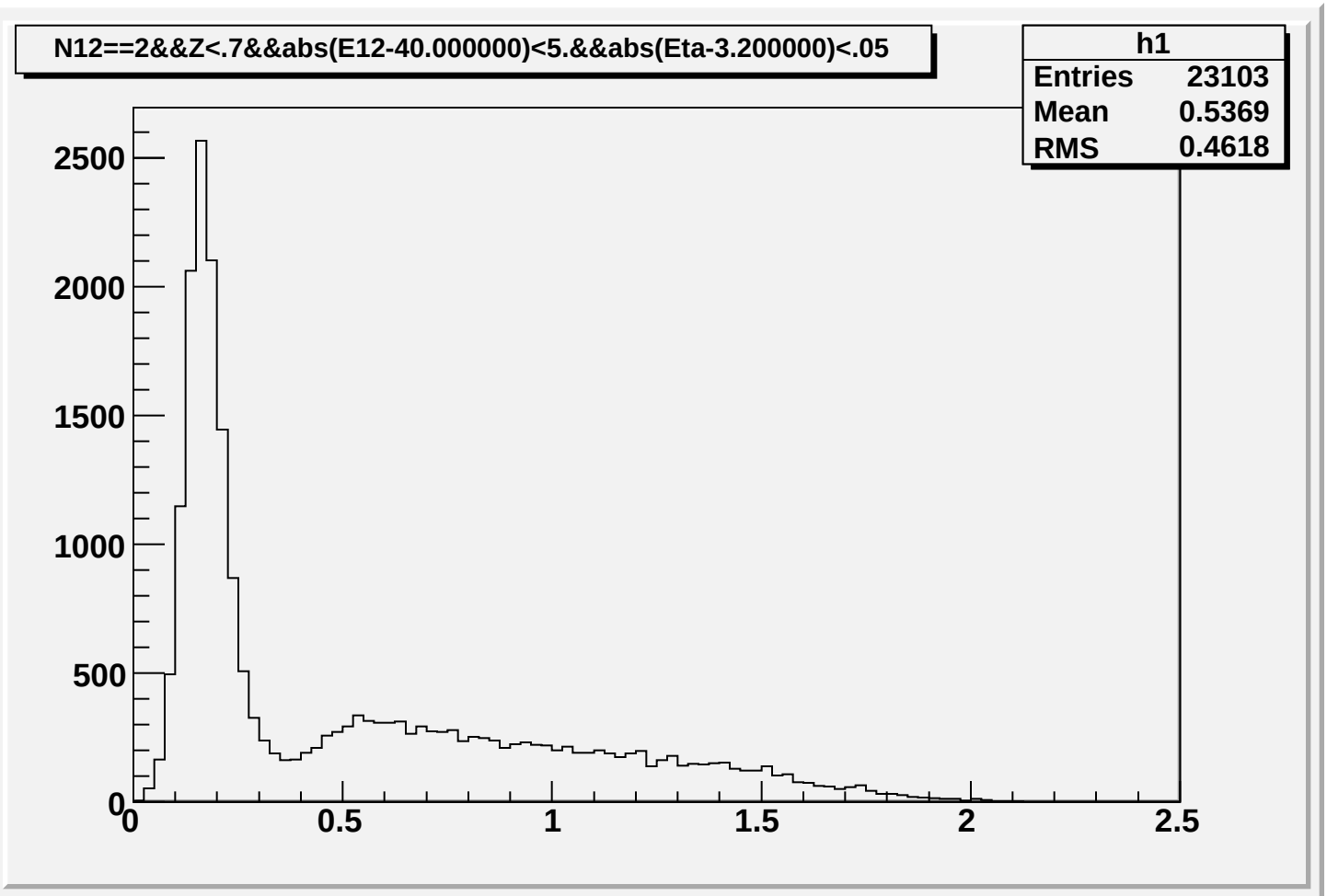

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.300000)<.05
h2
Entries 233
Mean 0.5086
RMS 0.5614
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

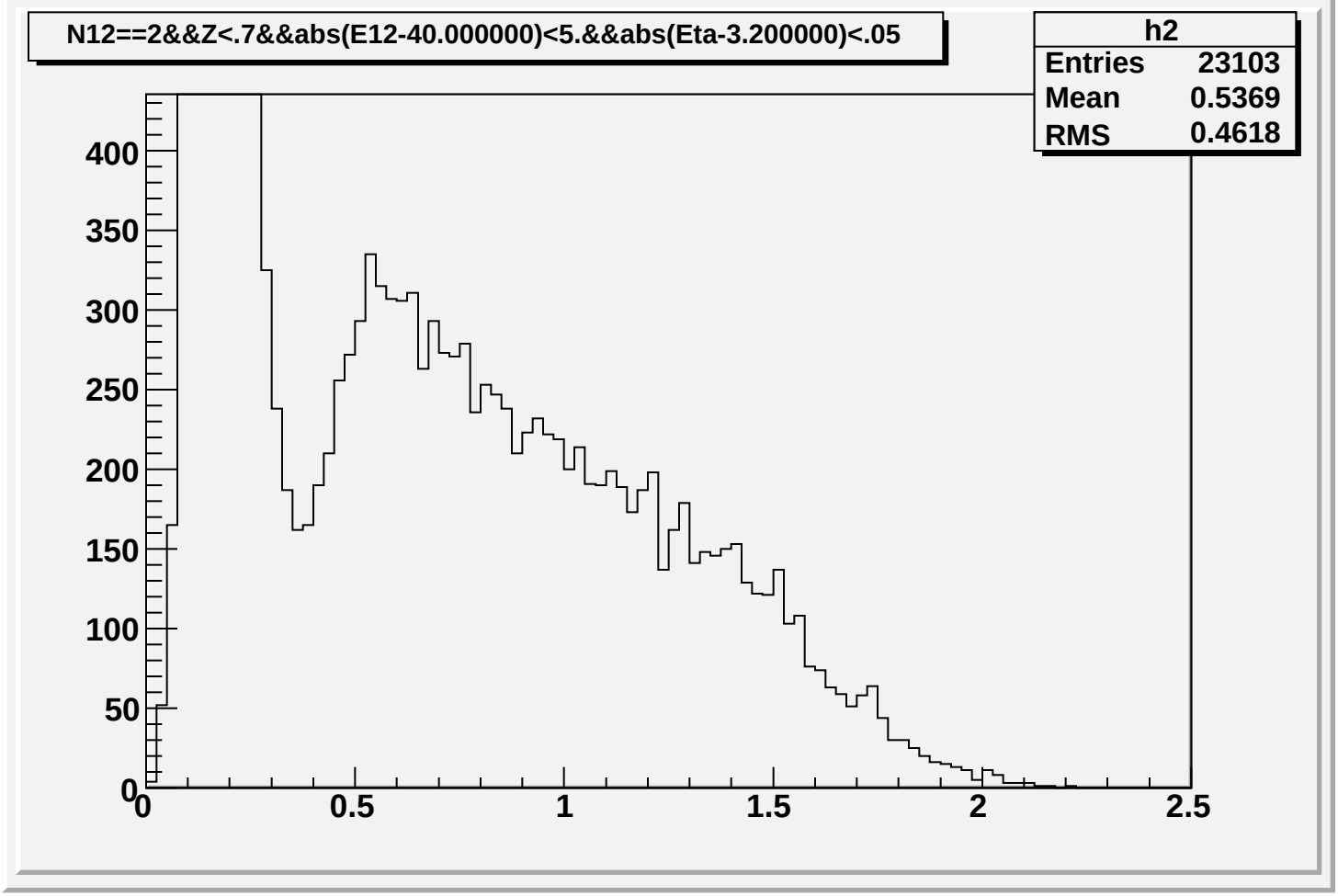

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 56548
Mean 0.4733
RMS 0.3028
4000
3500
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

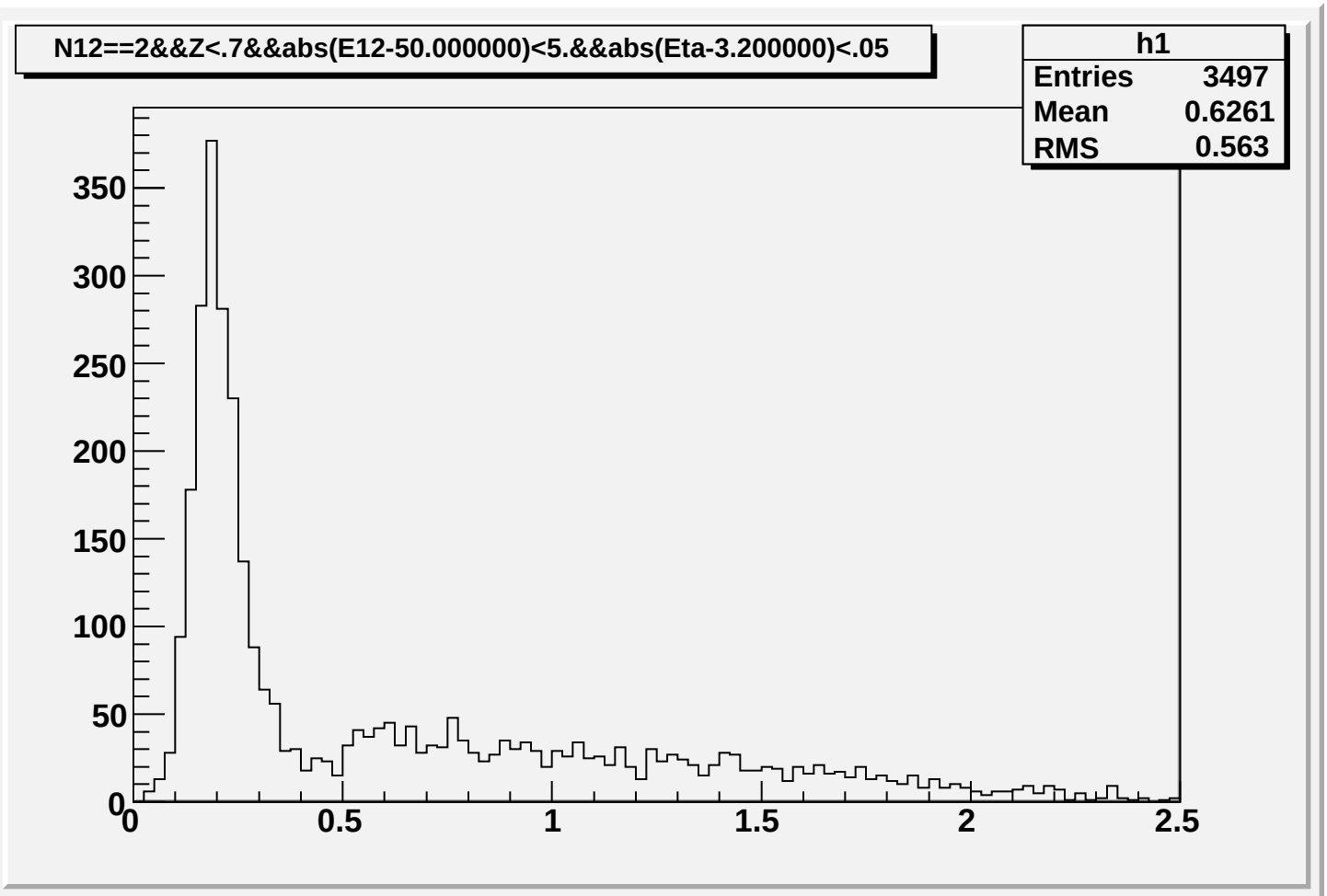

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 56548
Mean 0.4733
RMS 0.3028
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

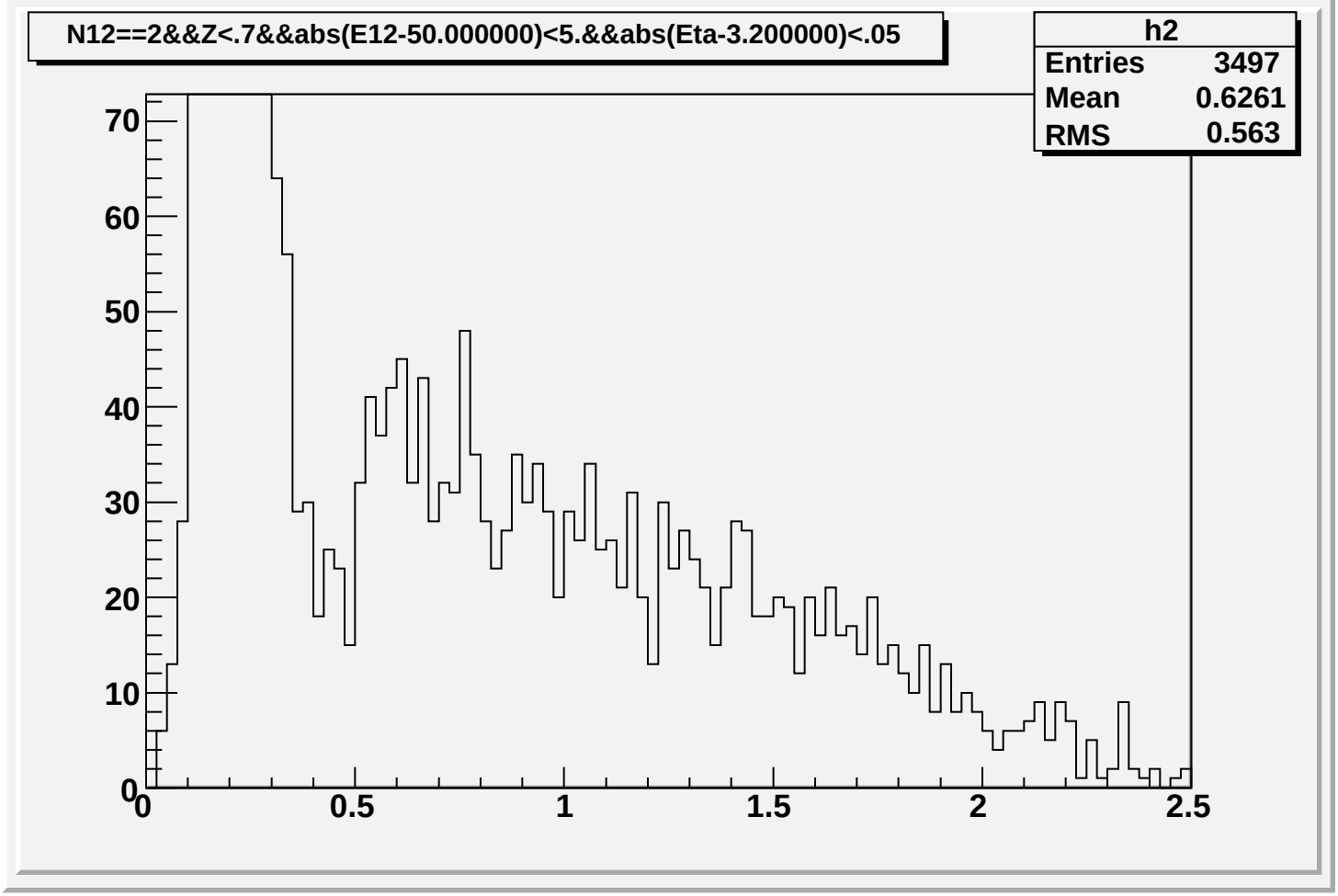

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 65762
Mean 0.4857
RMS 0.3906
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

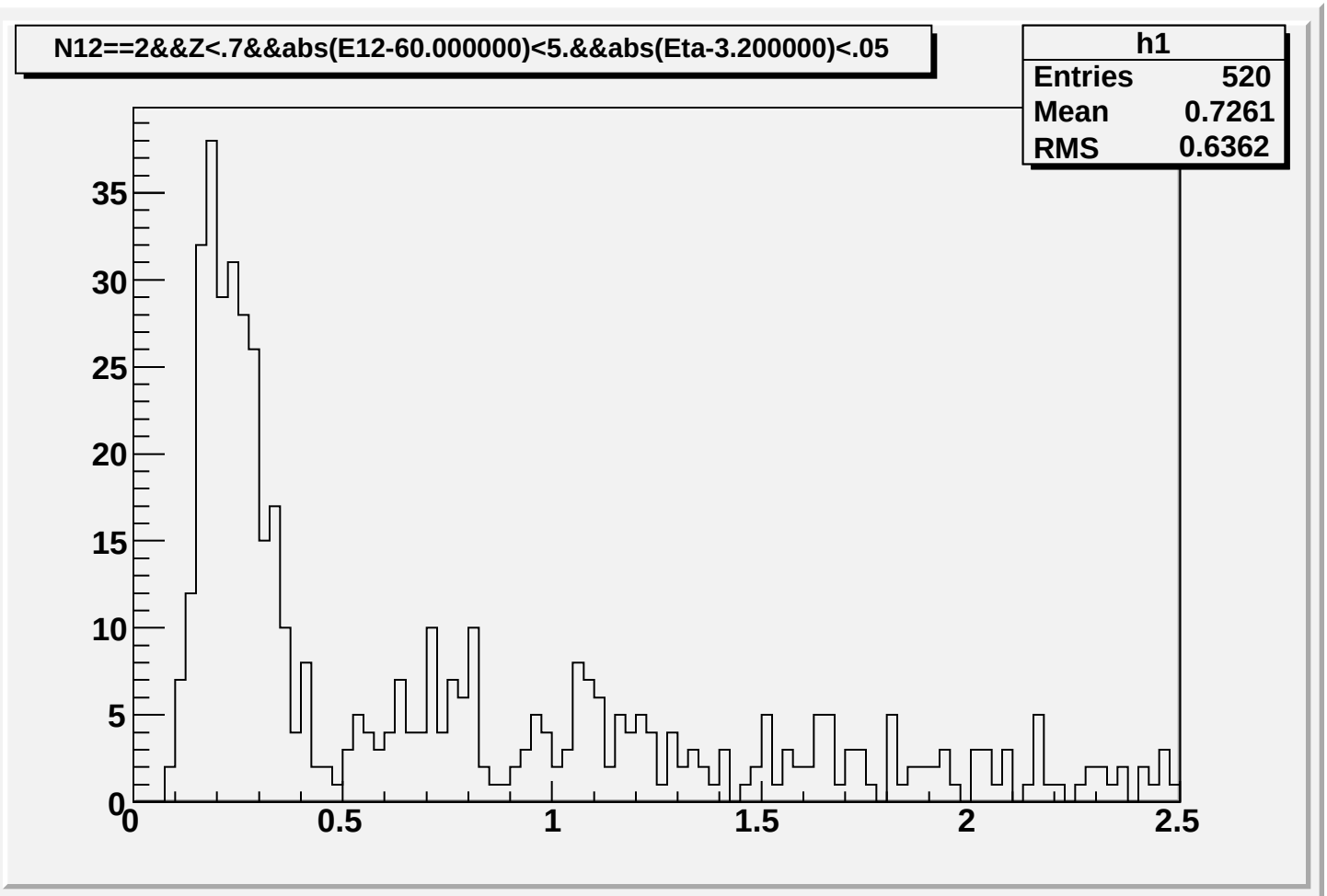

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 65762
Mean 0.4857
RMS 0.3906
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

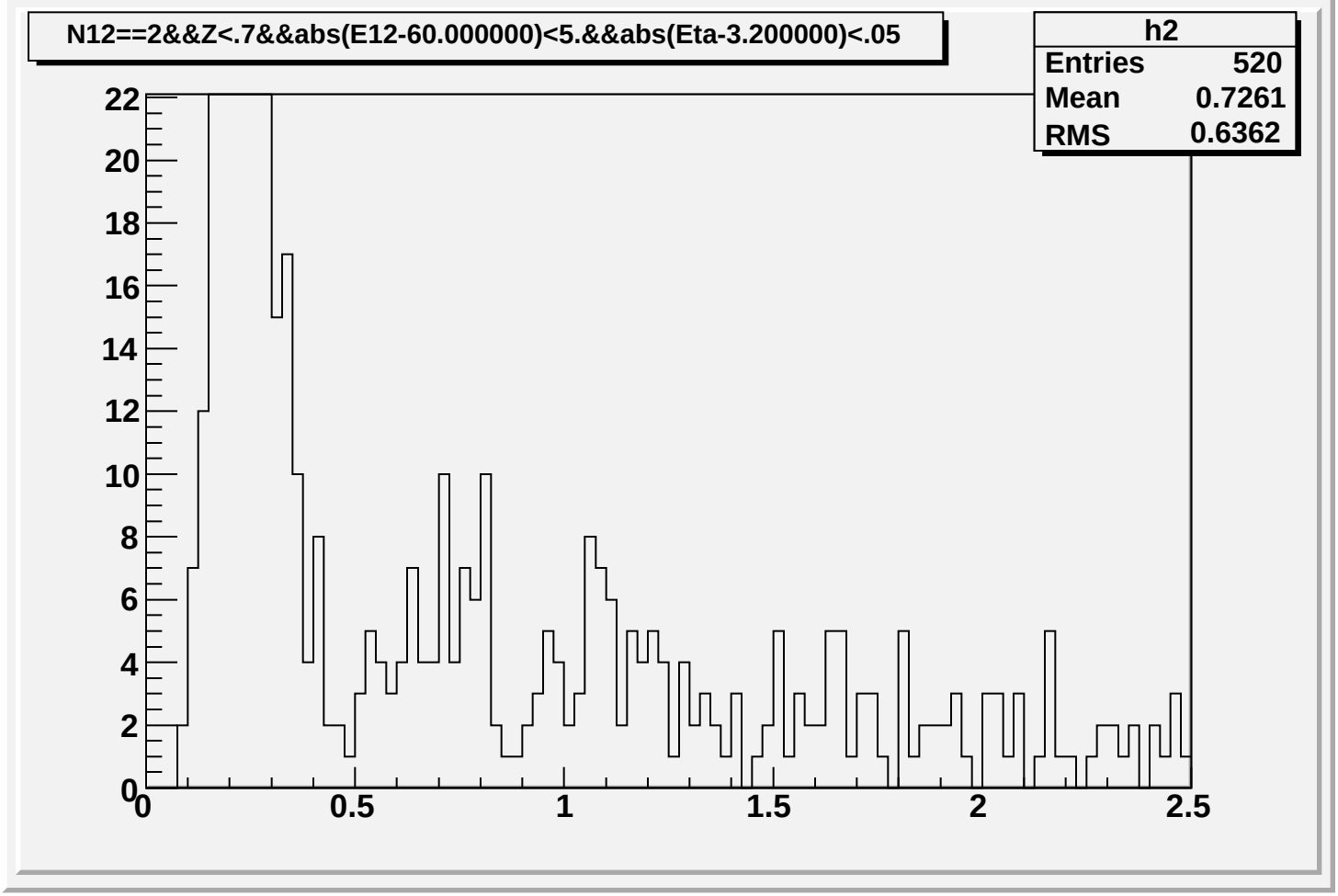

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 23103
Mean 0.5369
RMS 0.4618
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

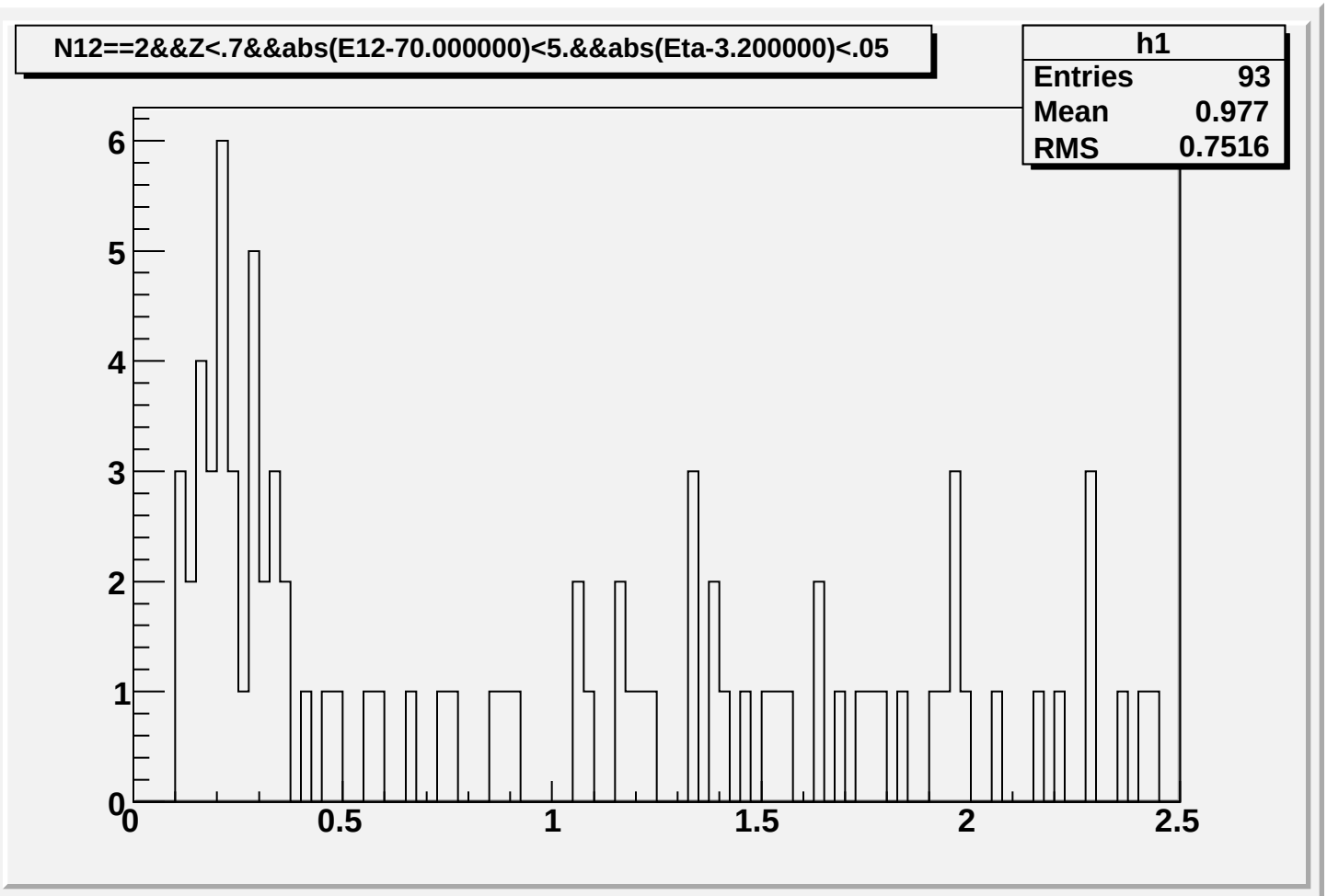

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 23103
Mean 0.5369
RMS 0.4618
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

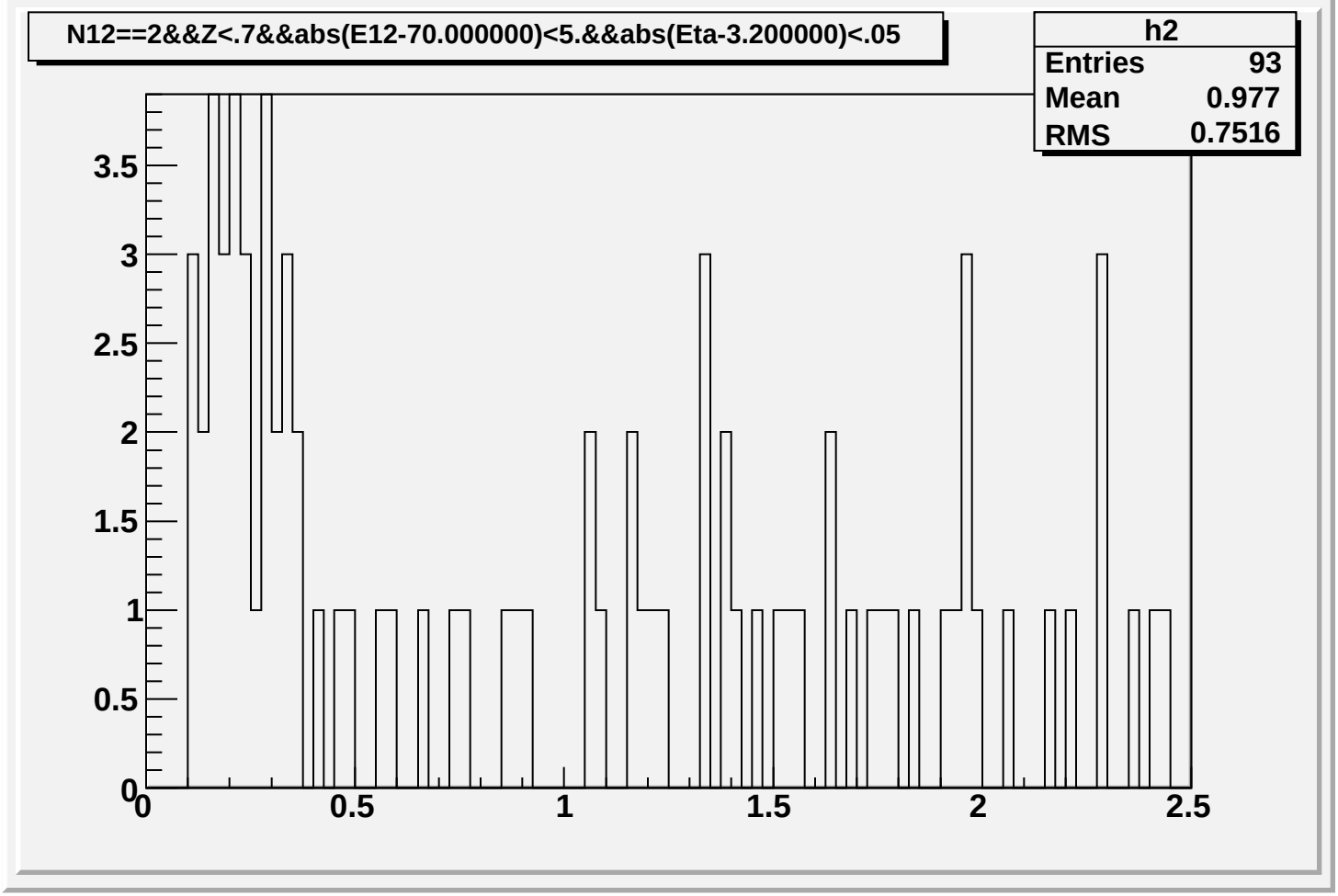

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 3497
Mean 0.6261
RMS 0.563
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

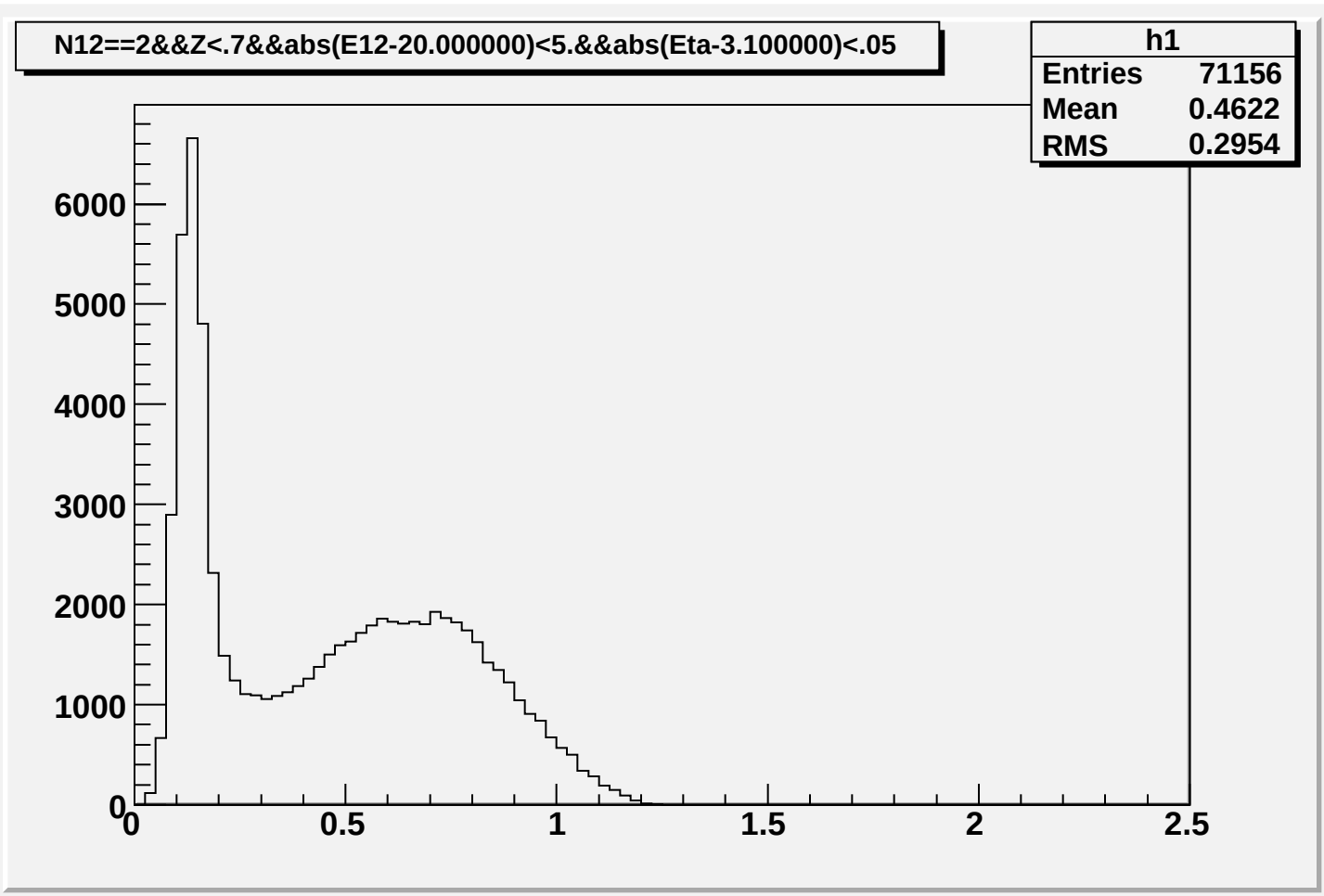

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 3497
Mean 0.6261
RMS 0.563
70
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

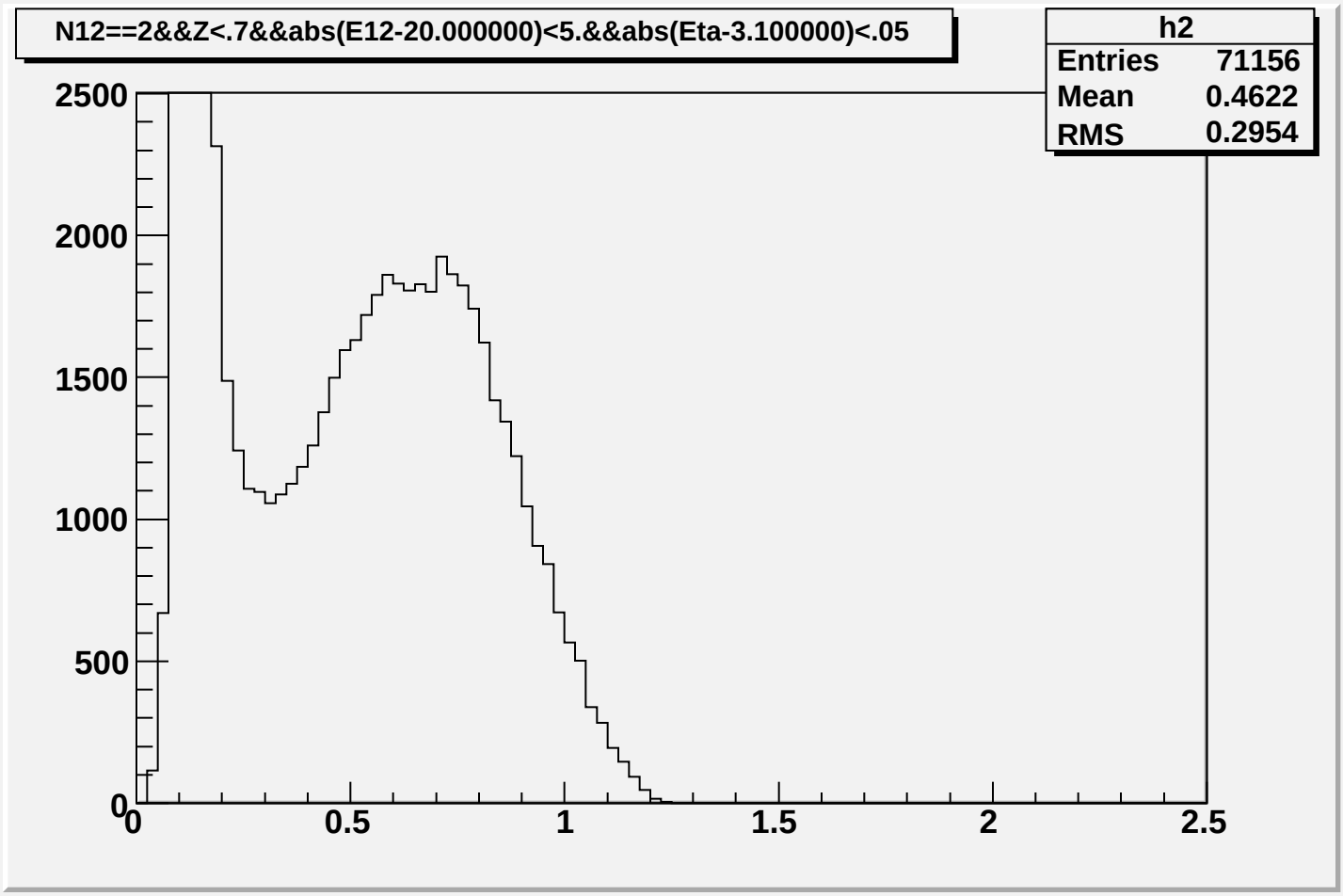

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 520
Mean 0.7261
RMS 0.6362
0
5
10
15
20
25
30
35
0
0.5
1
1.5
2
2.5

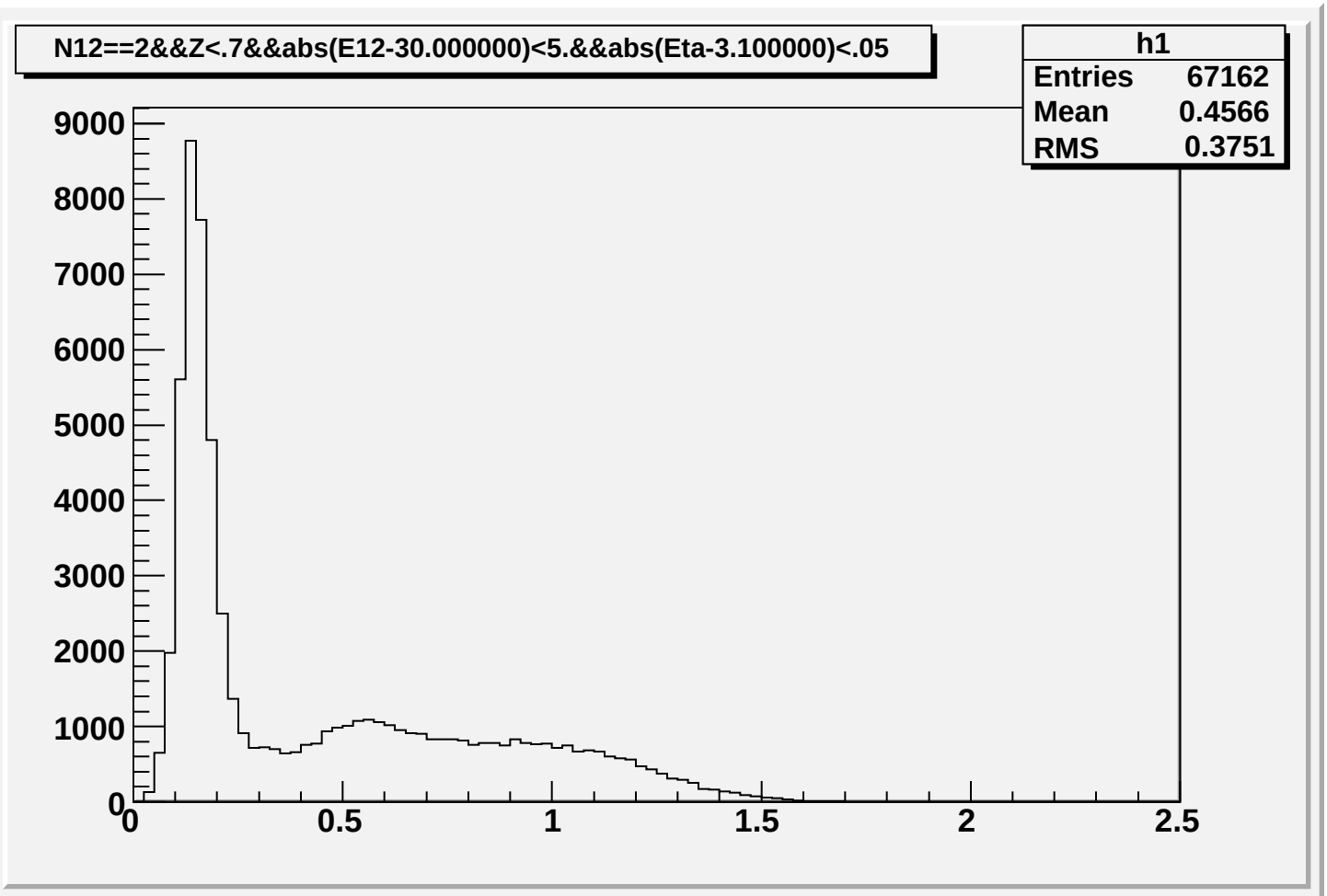

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 520
Mean 0.7261
RMS 0.6362
0
2
4
6
8
10
12
14
16
18
20
22
0
0.5
1
1.5
2
2.5

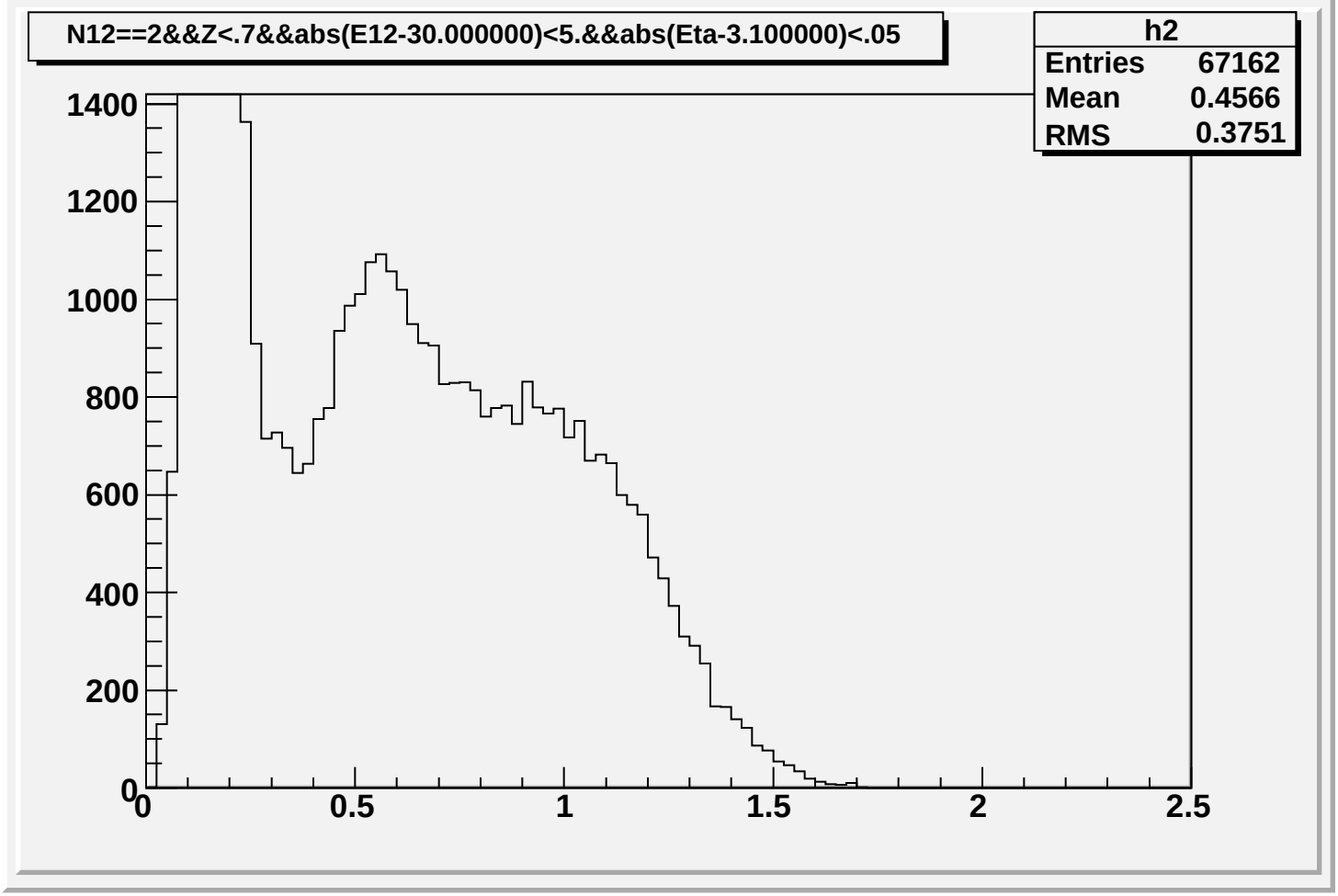

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.200000)<.05
h1
Entries 93
Mean 0.977
RMS 0.7516
0
1
2
3
4
5
6
0
0.5
1
1.5
2
2.5

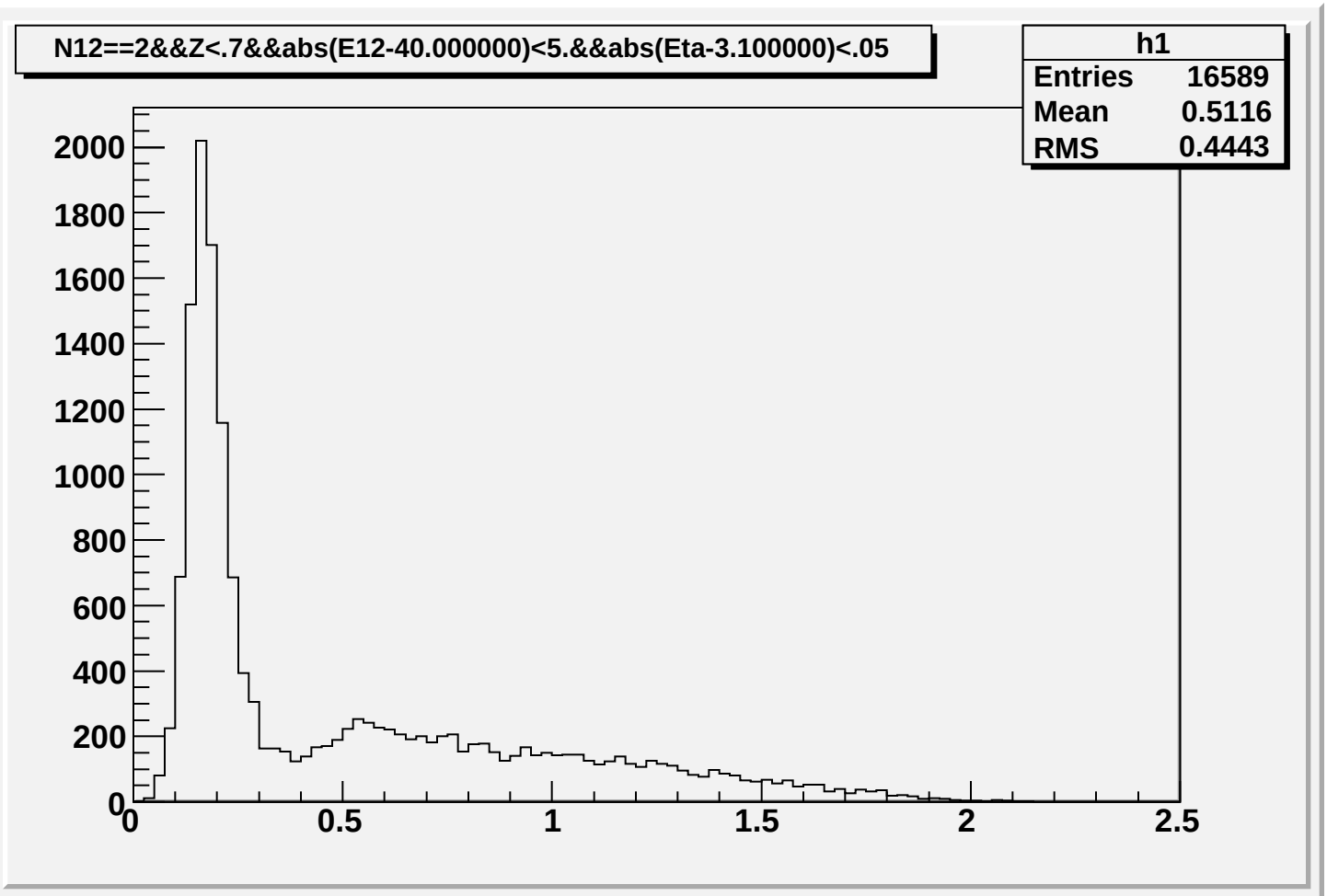

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.200000)<.05
h2
Entries 93
Mean 0.977
RMS 0.7516
0
0.5
1
1.5
2
2.5
3
3.5
0
0.5
1
1.5
2
2.5

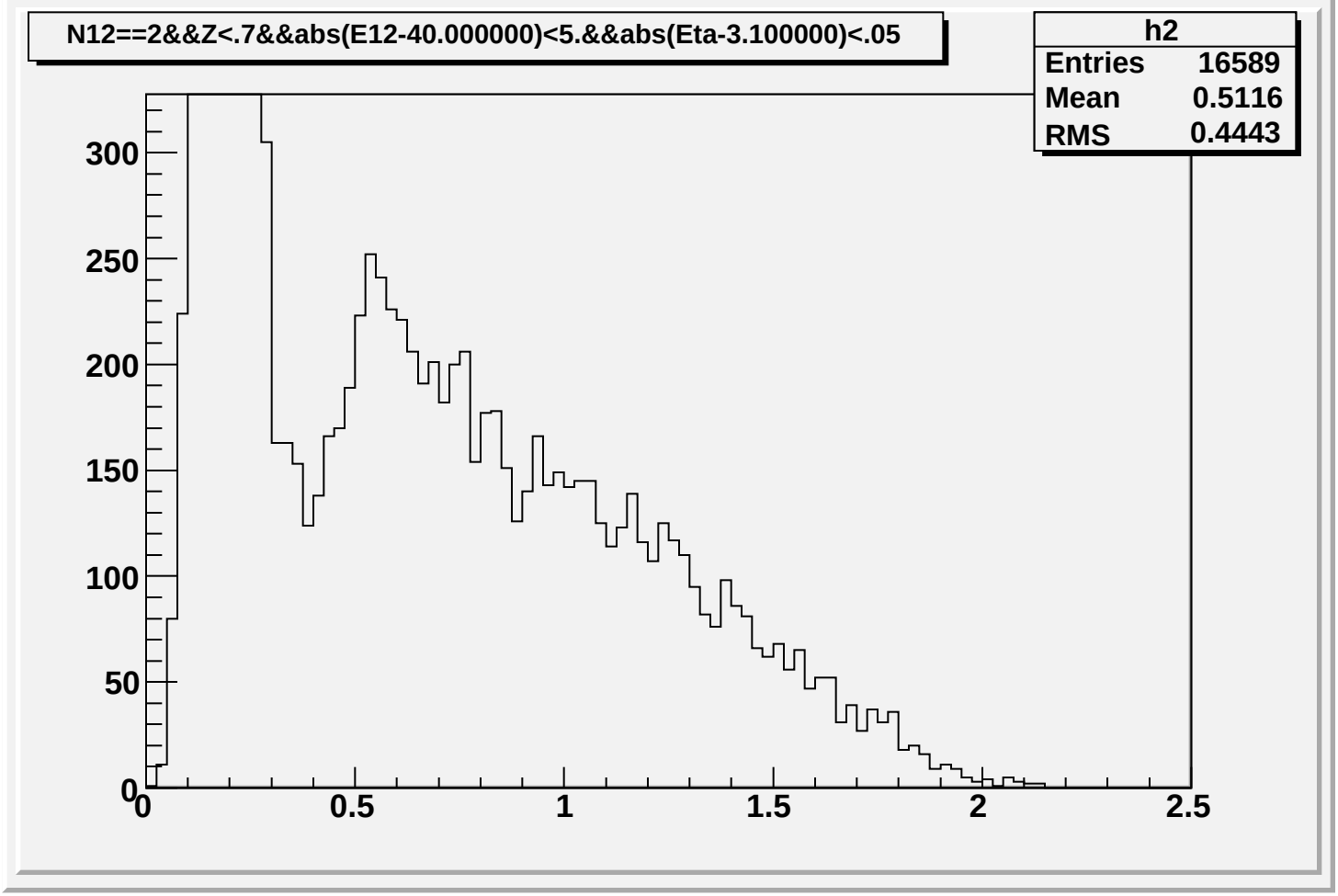

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 71156
Mean 0.4622
RMS 0.2954
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

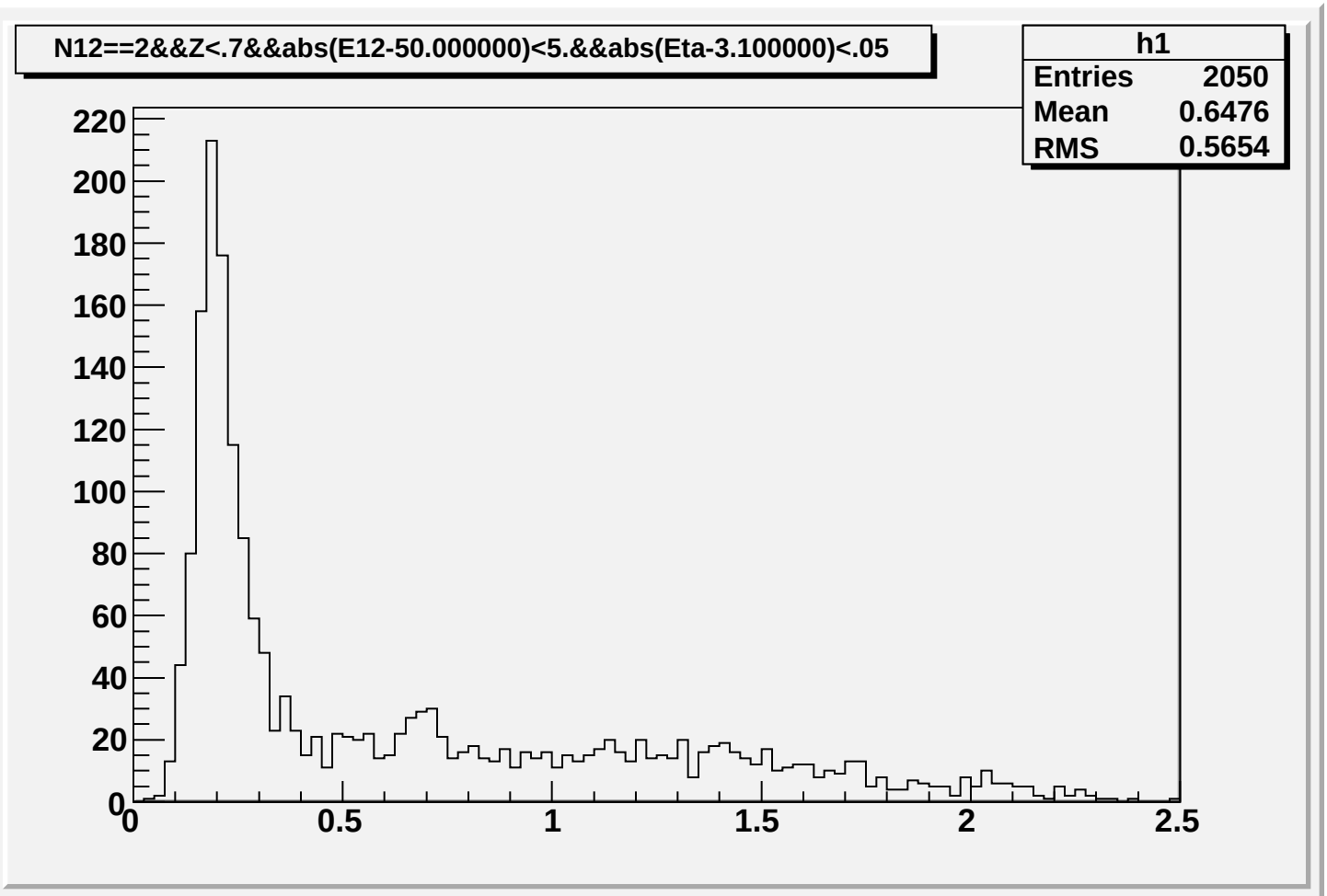

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 71156
Mean 0.4622
RMS 0.2954
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

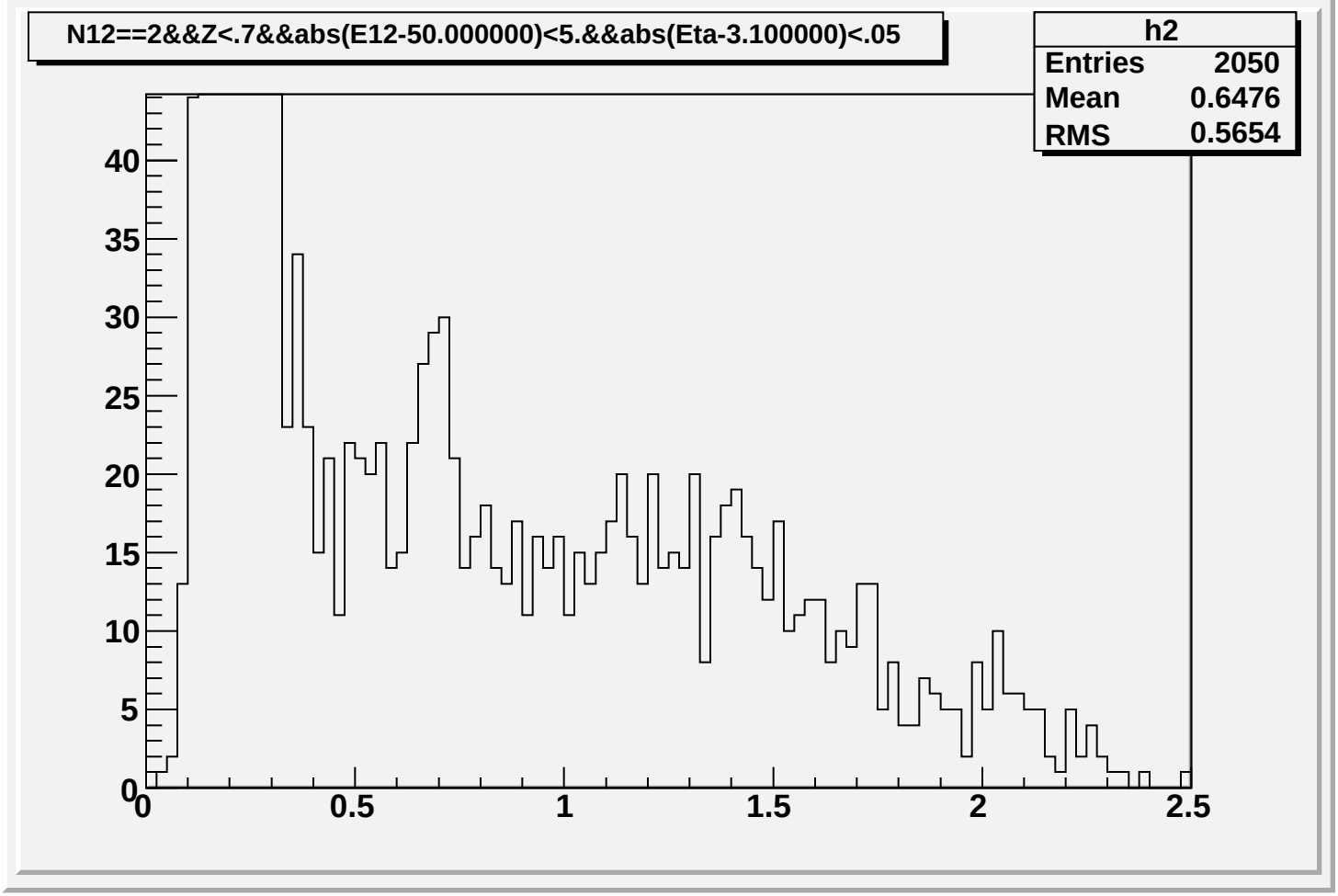

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 67162
Mean 0.4566
RMS 0.3751
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

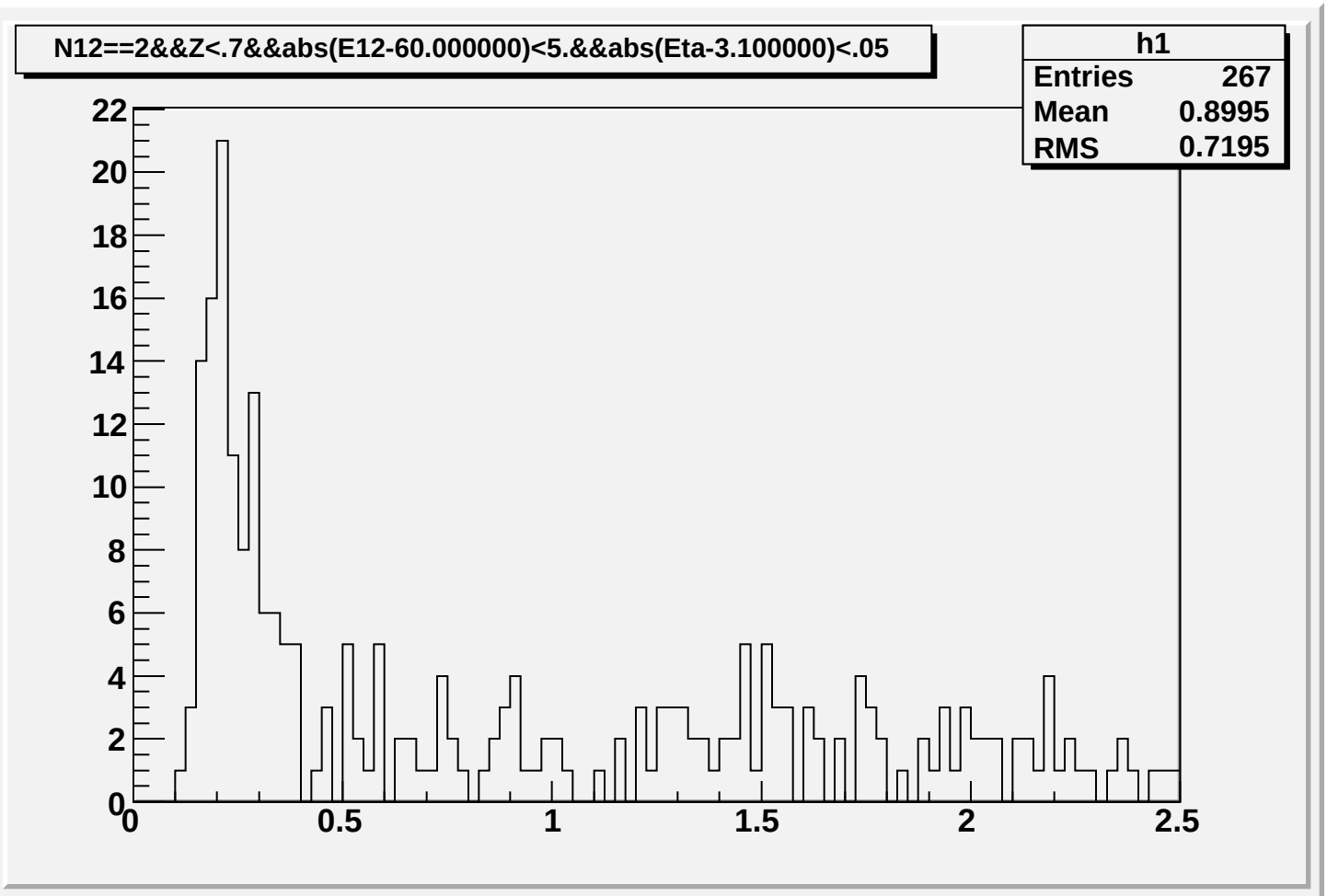

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 67162
Mean 0.4566
RMS 0.3751
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

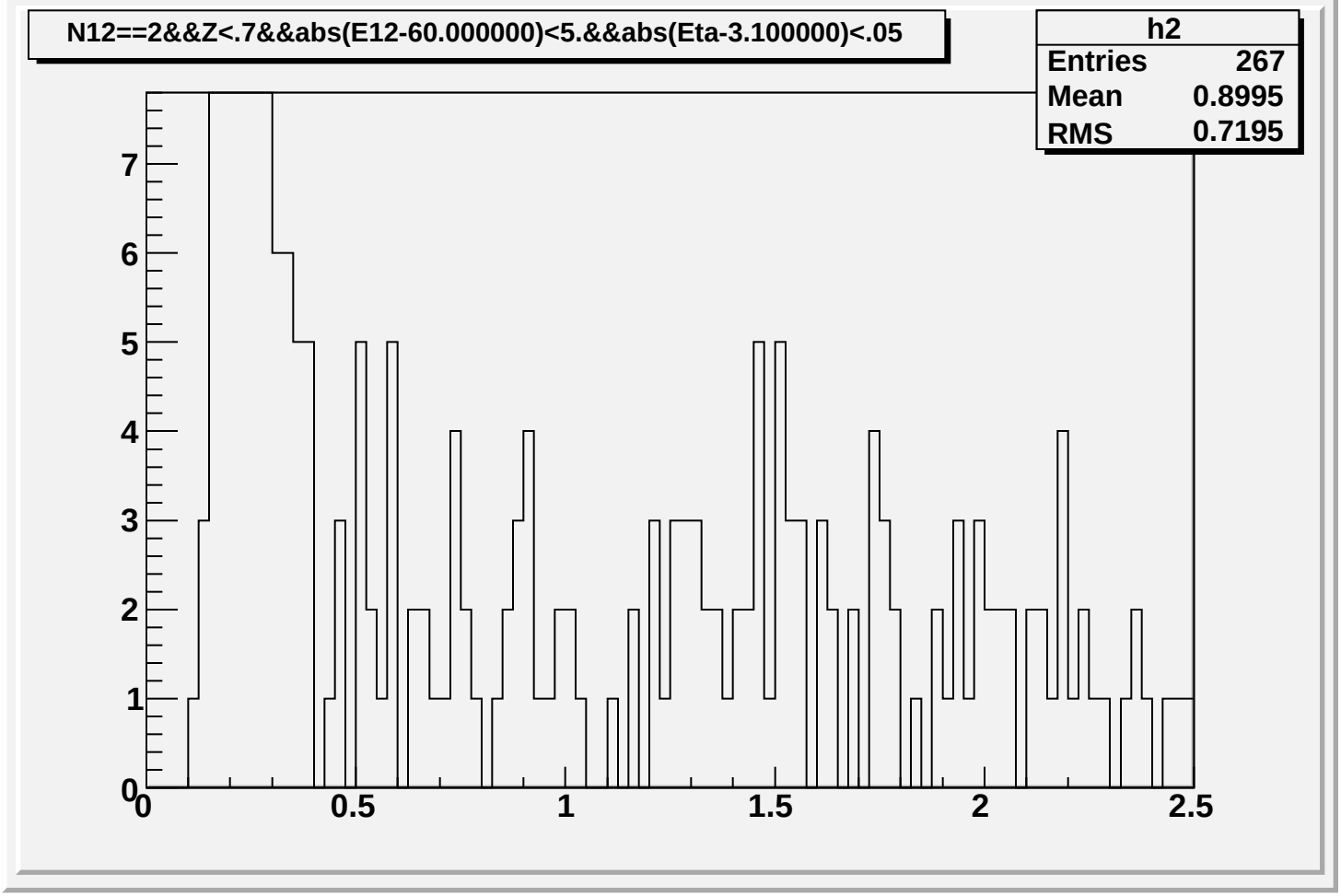

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 16589
Mean 0.5116
RMS 0.4443
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

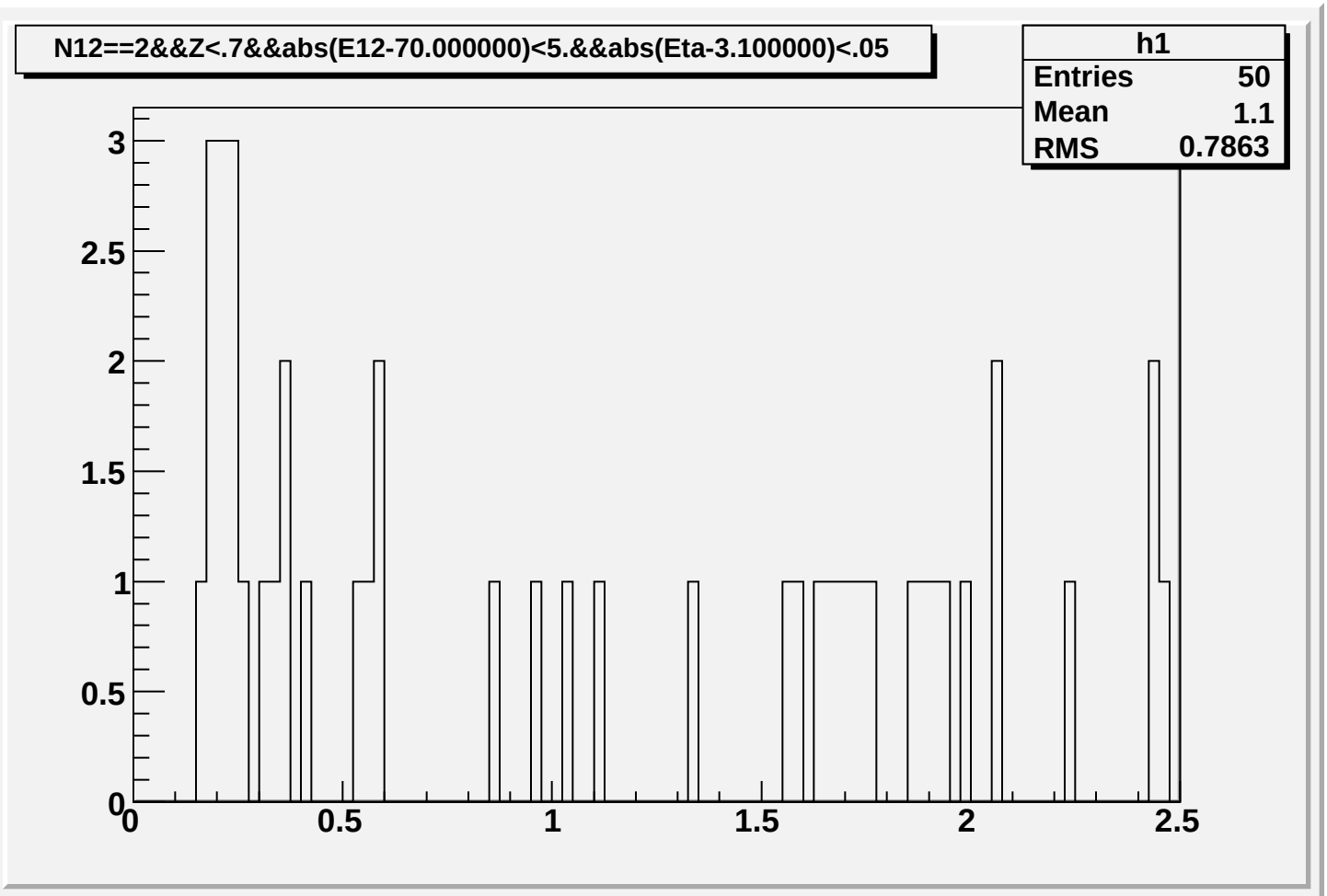

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 16589
Mean 0.5116
RMS 0.4443
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

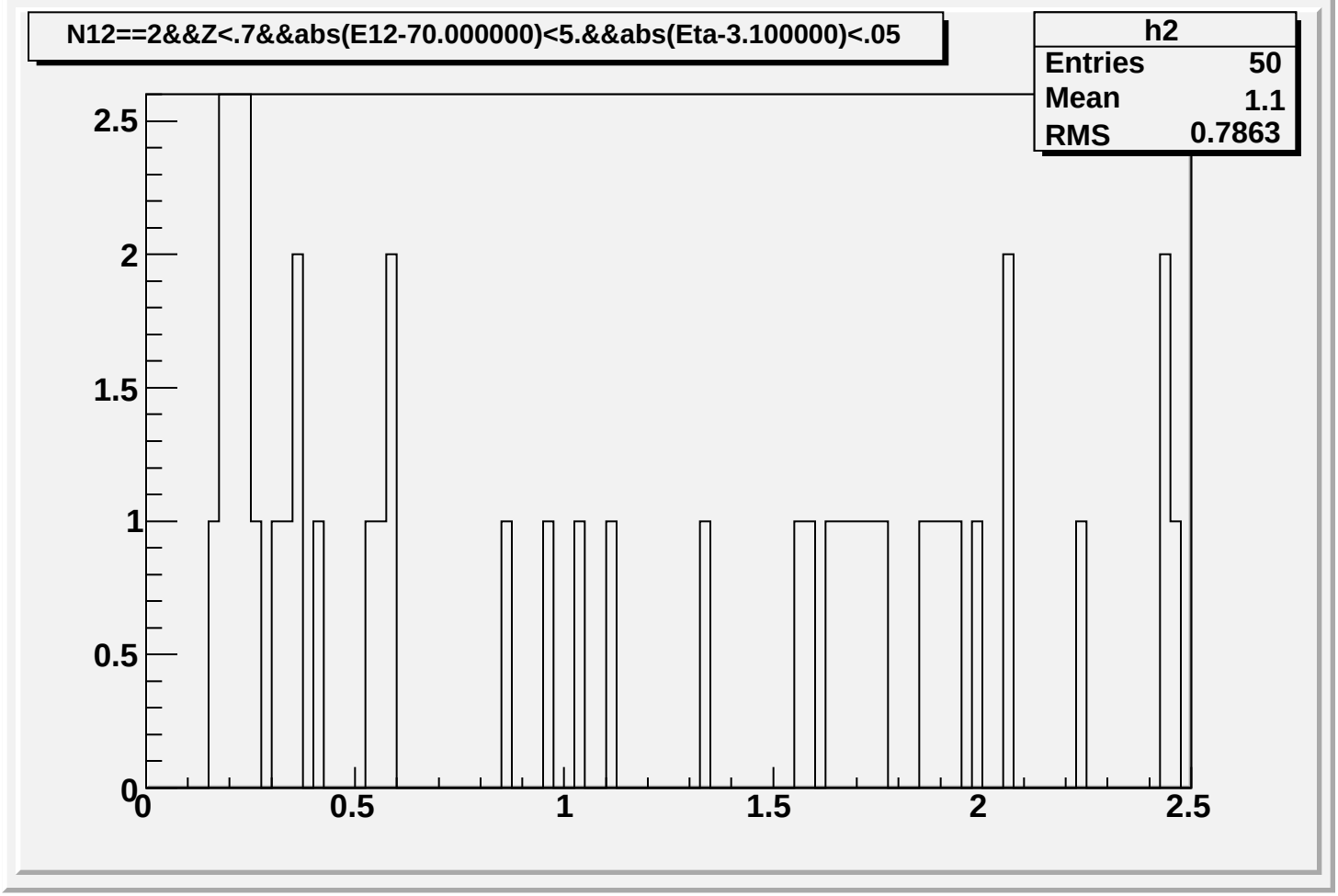

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 2050
Mean 0.6476
RMS 0.5654
220
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

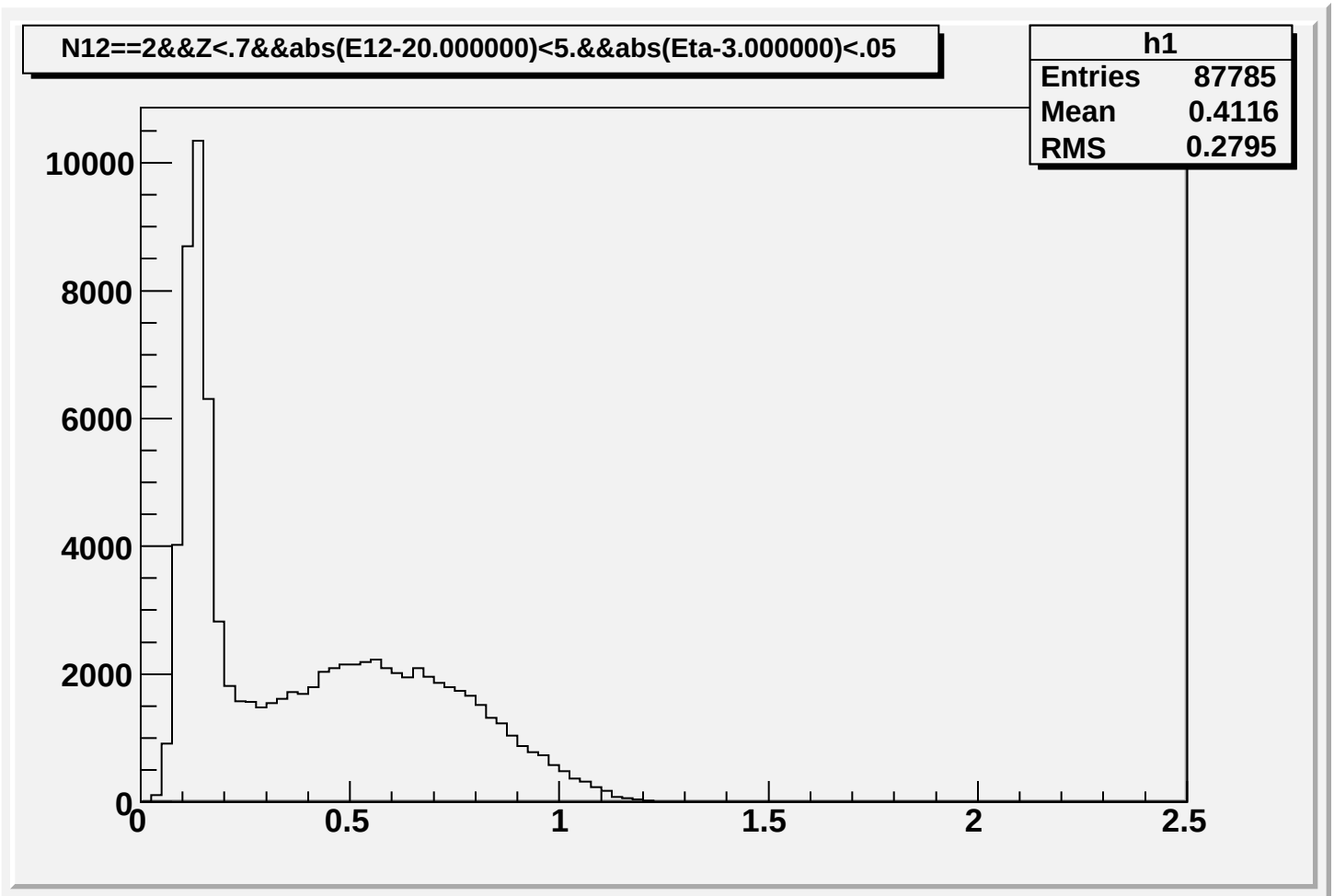

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 2050
Mean 0.6476
RMS 0.5654
40
35
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5

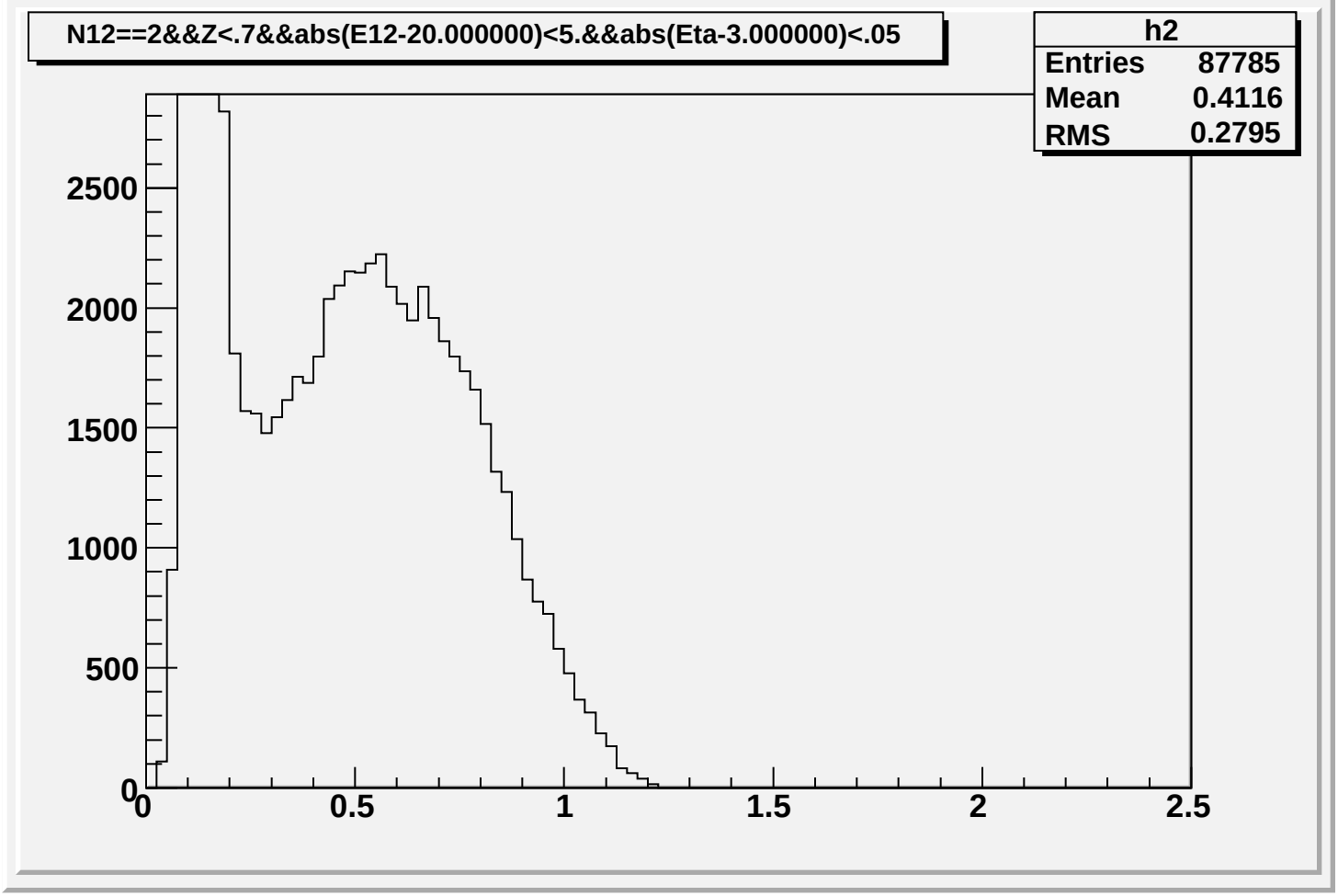

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 267
Mean 0.8995
RMS 0.7195
22
20
18
16
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

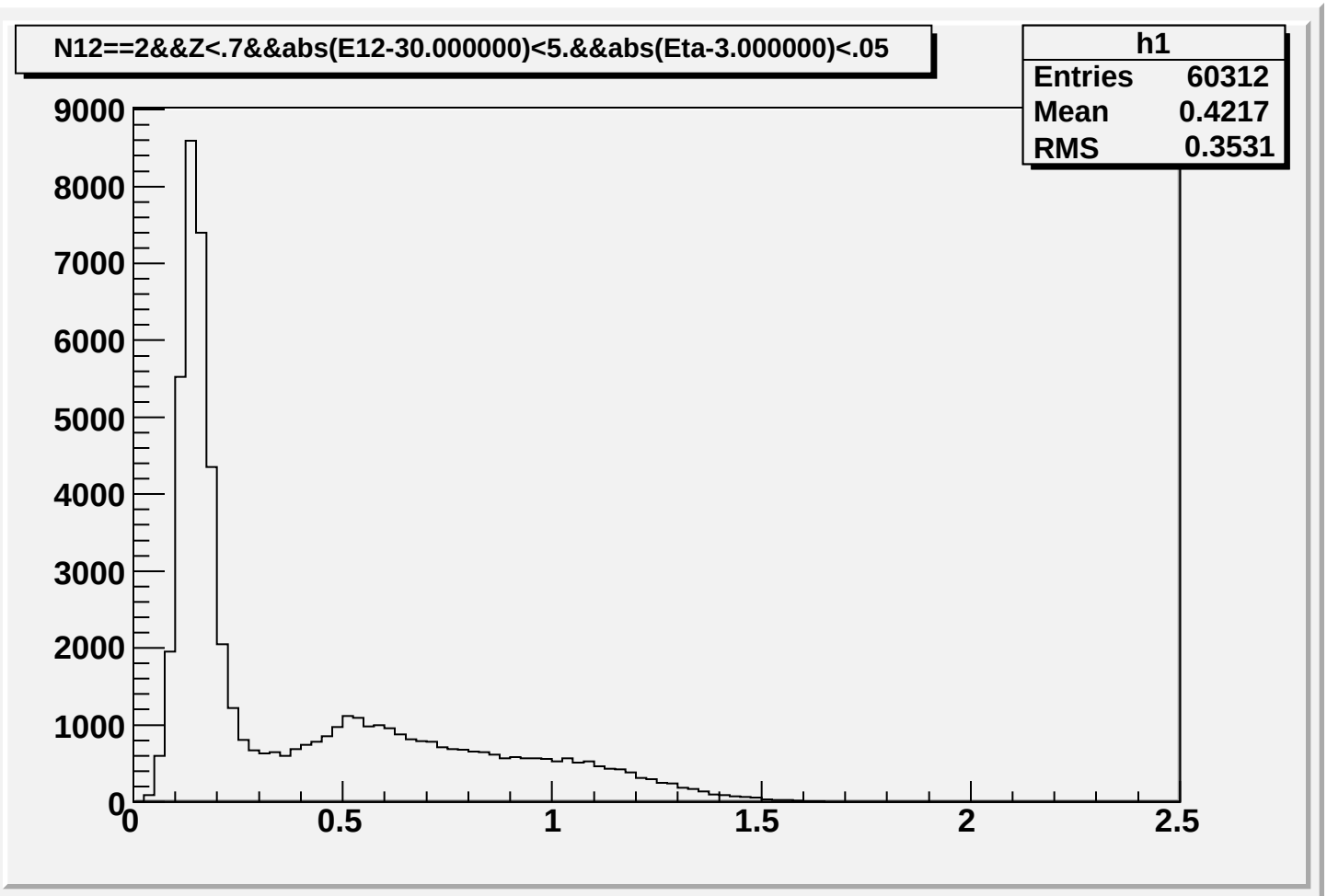

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 267
Mean 0.8995
RMS 0.7195
7
6
5
4
3
2
1
0
0
0.5
1
1.5
2
2.5

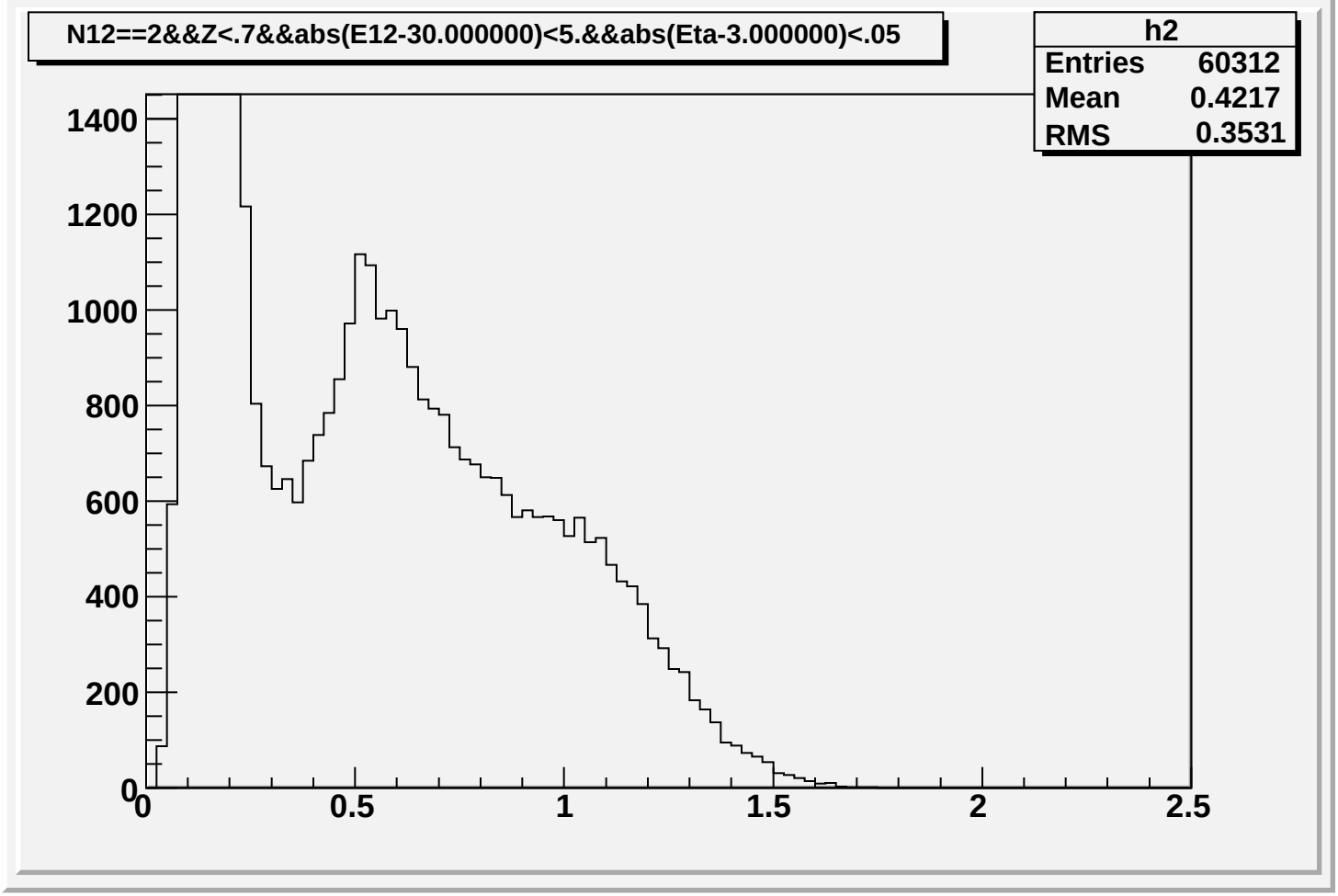

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.100000)<.05
h1
Entries 50
Mean 1.1
RMS 0.7863
3
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5
2
2.5

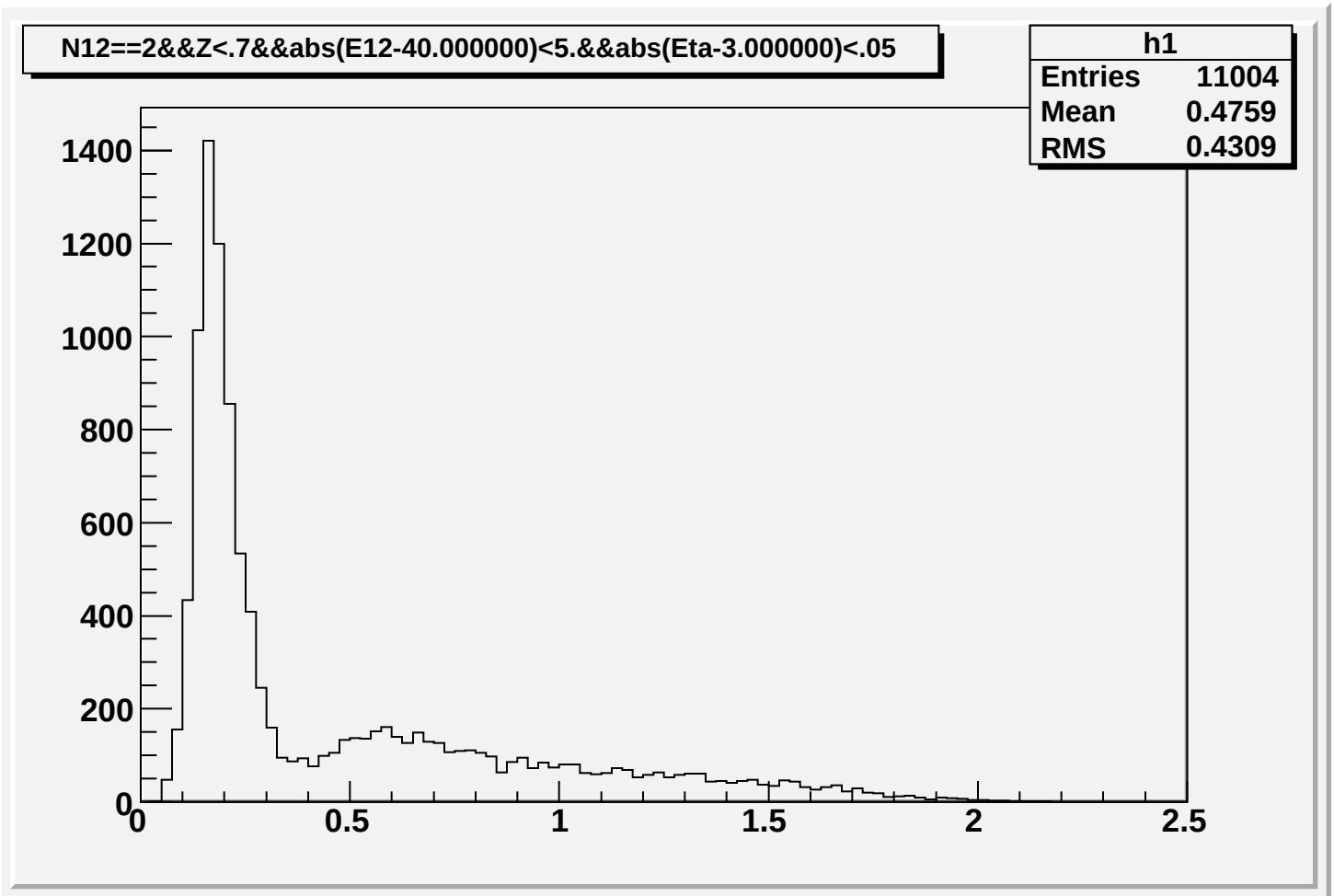

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.100000)<.05
h2
Entries 50
Mean 1.1
RMS 0.7863
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5
2
2.5

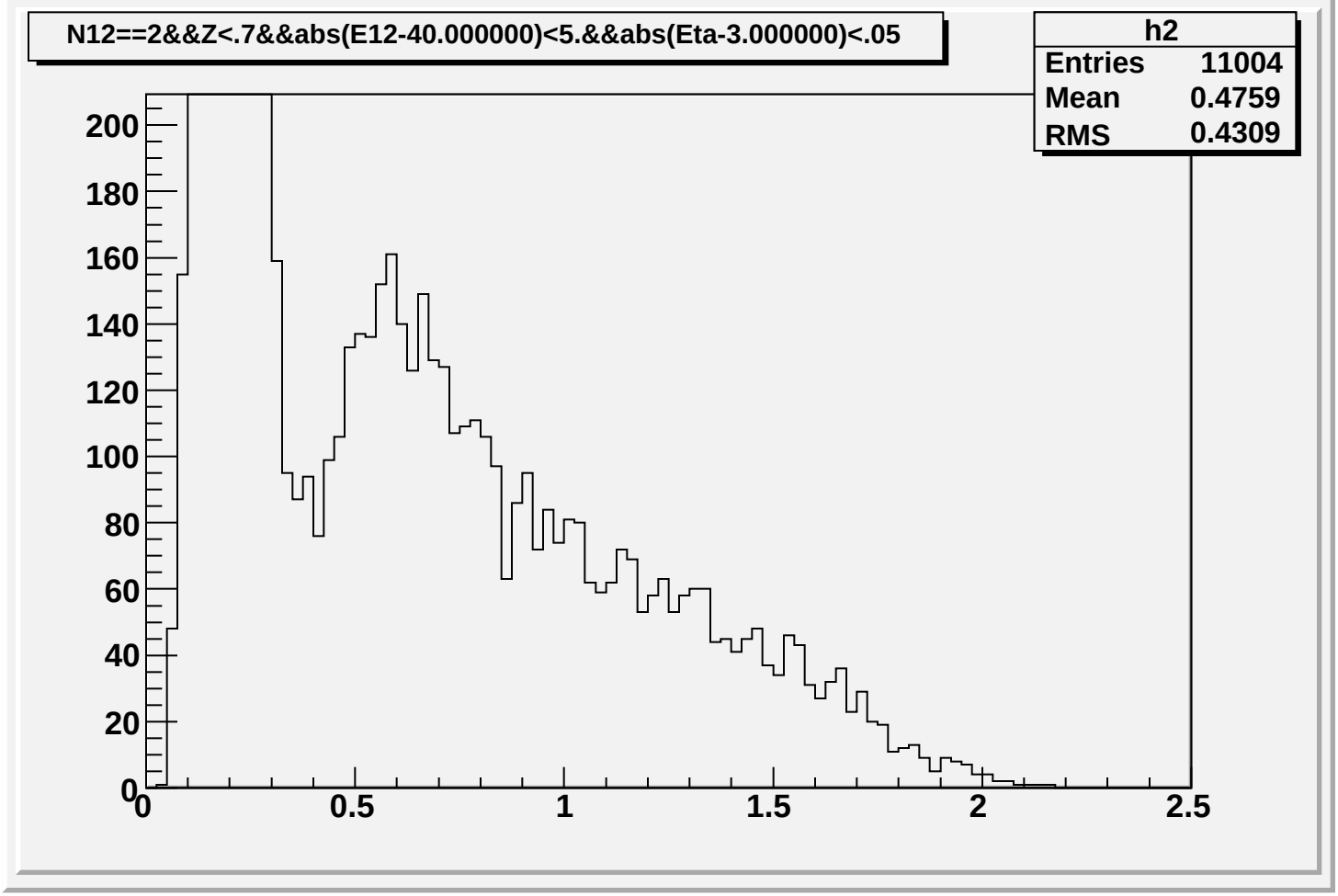

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 87785
Mean 0.4116
RMS 0.2795
10000
8000
6000
4000
2000
0
0
0.5
1
1.5
2
2.5

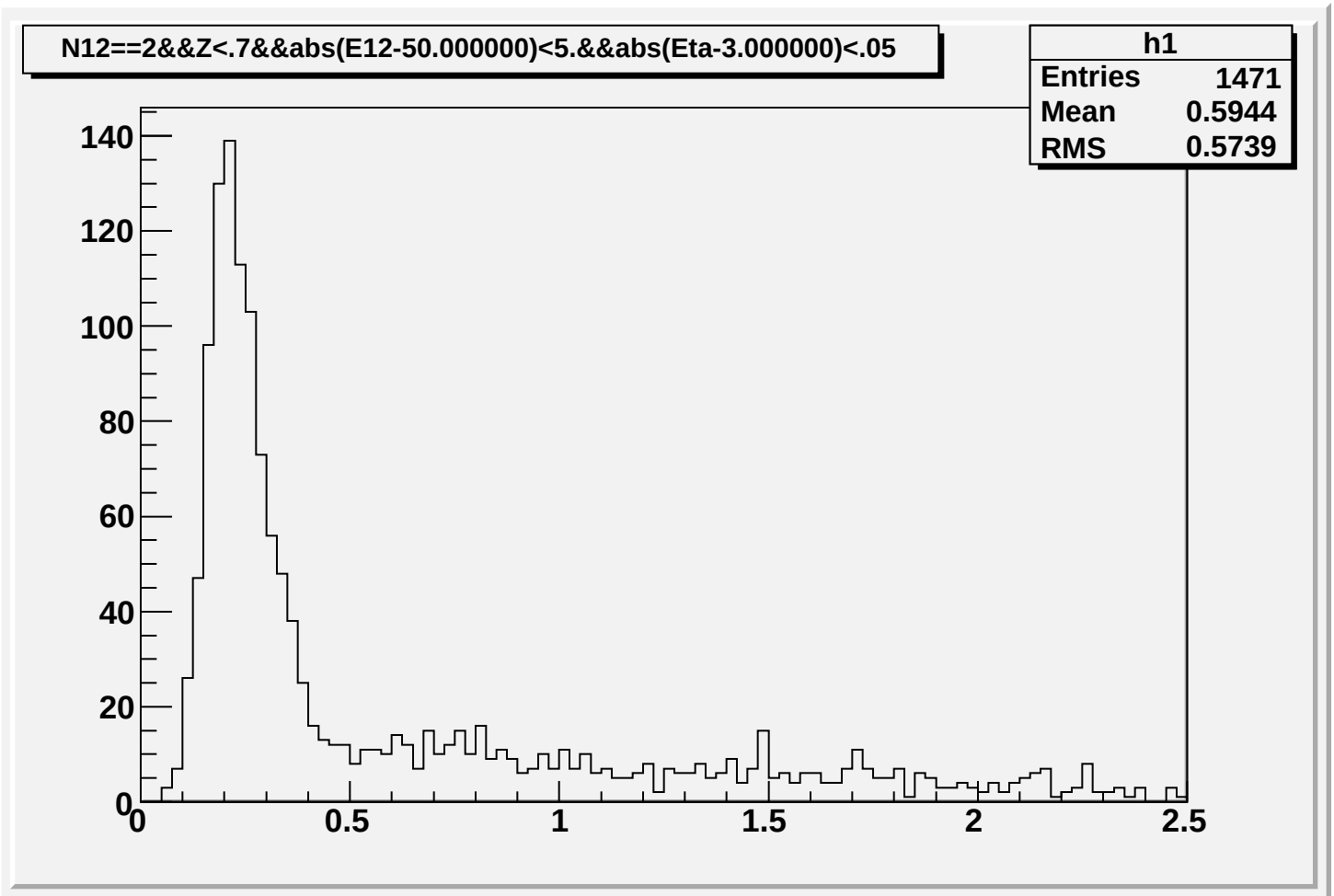

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 87785
Mean 0.4116
RMS 0.2795
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

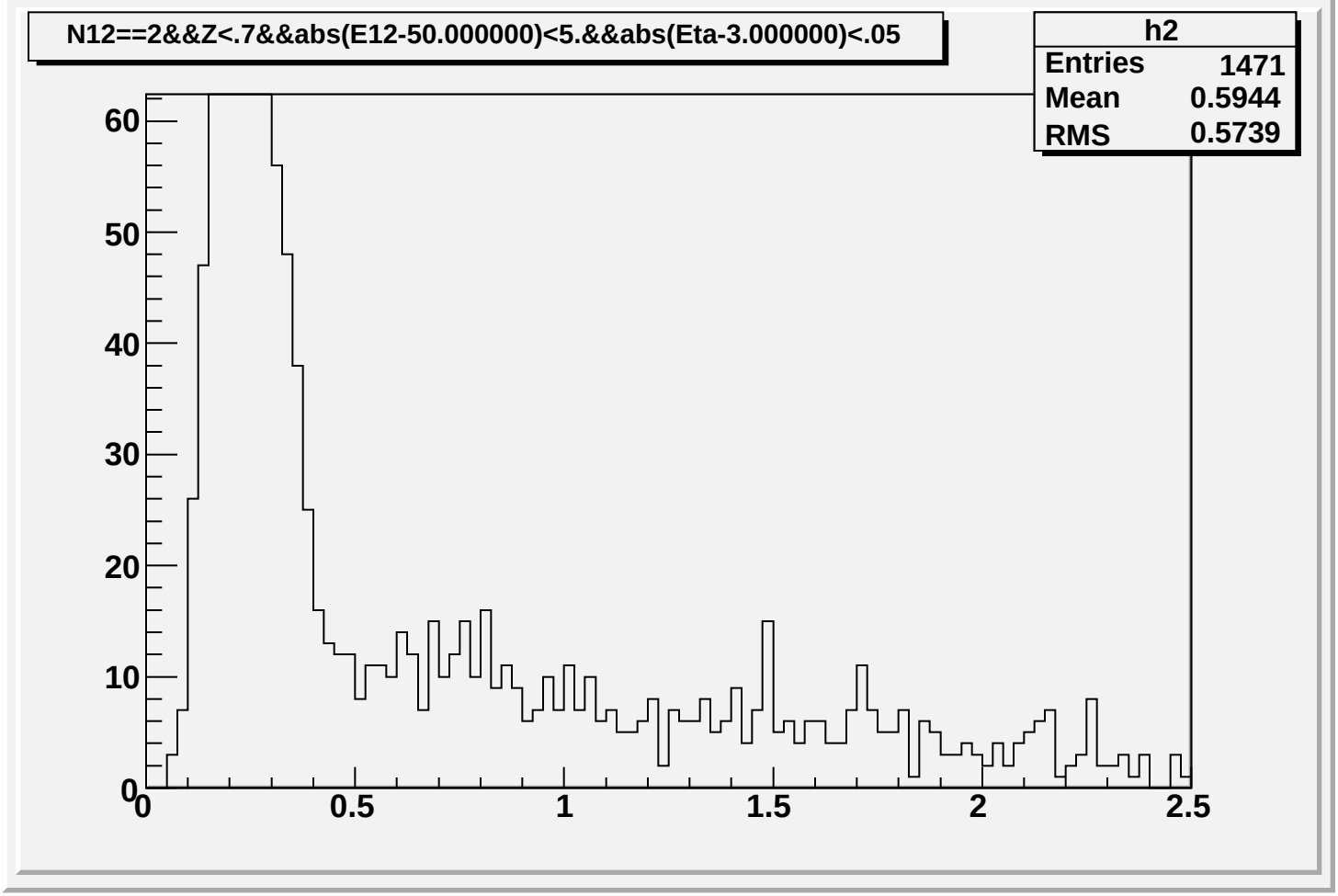

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 60312
Mean 0.4217
RMS 0.3531
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

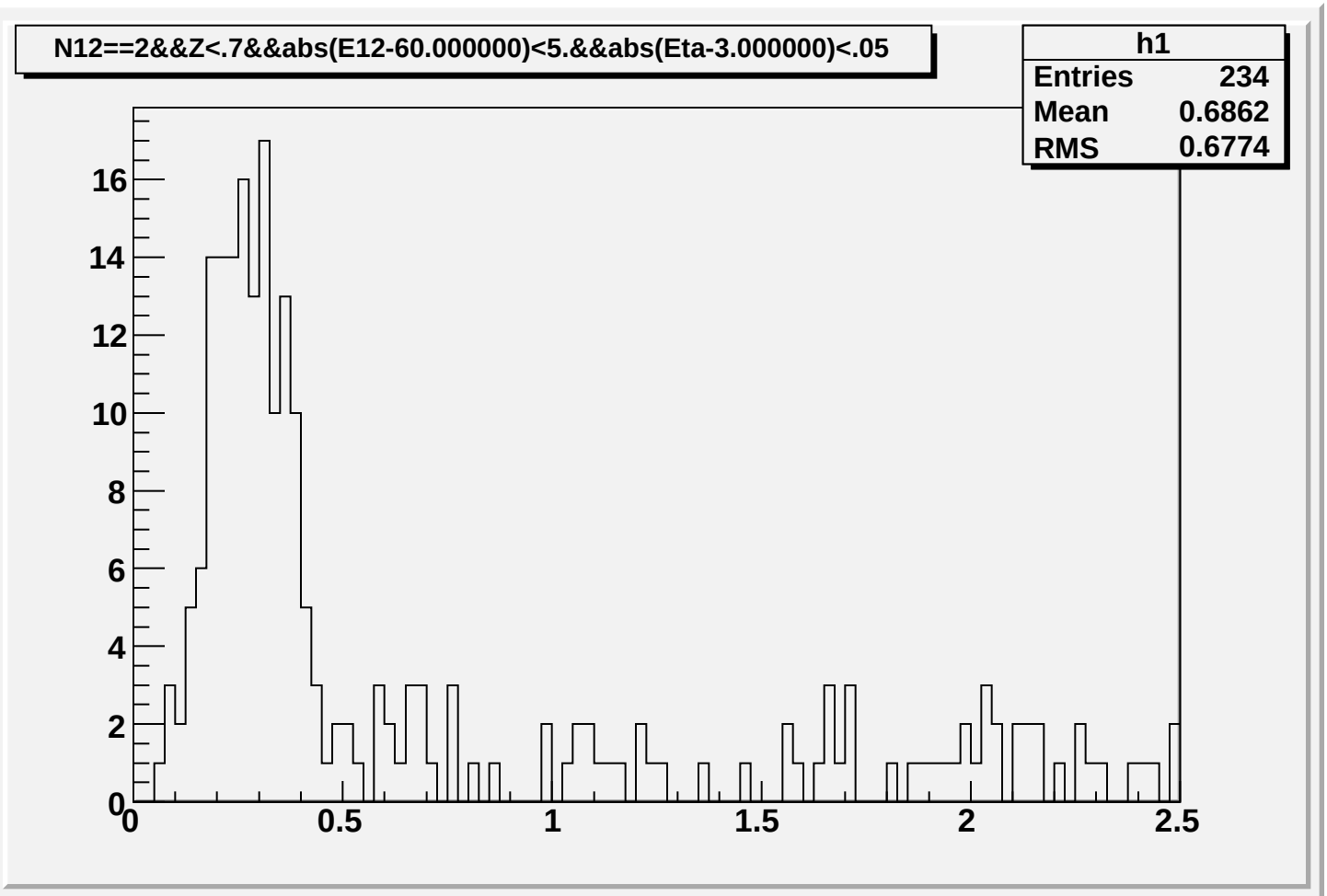

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 60312
Mean 0.4217
RMS 0.3531
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

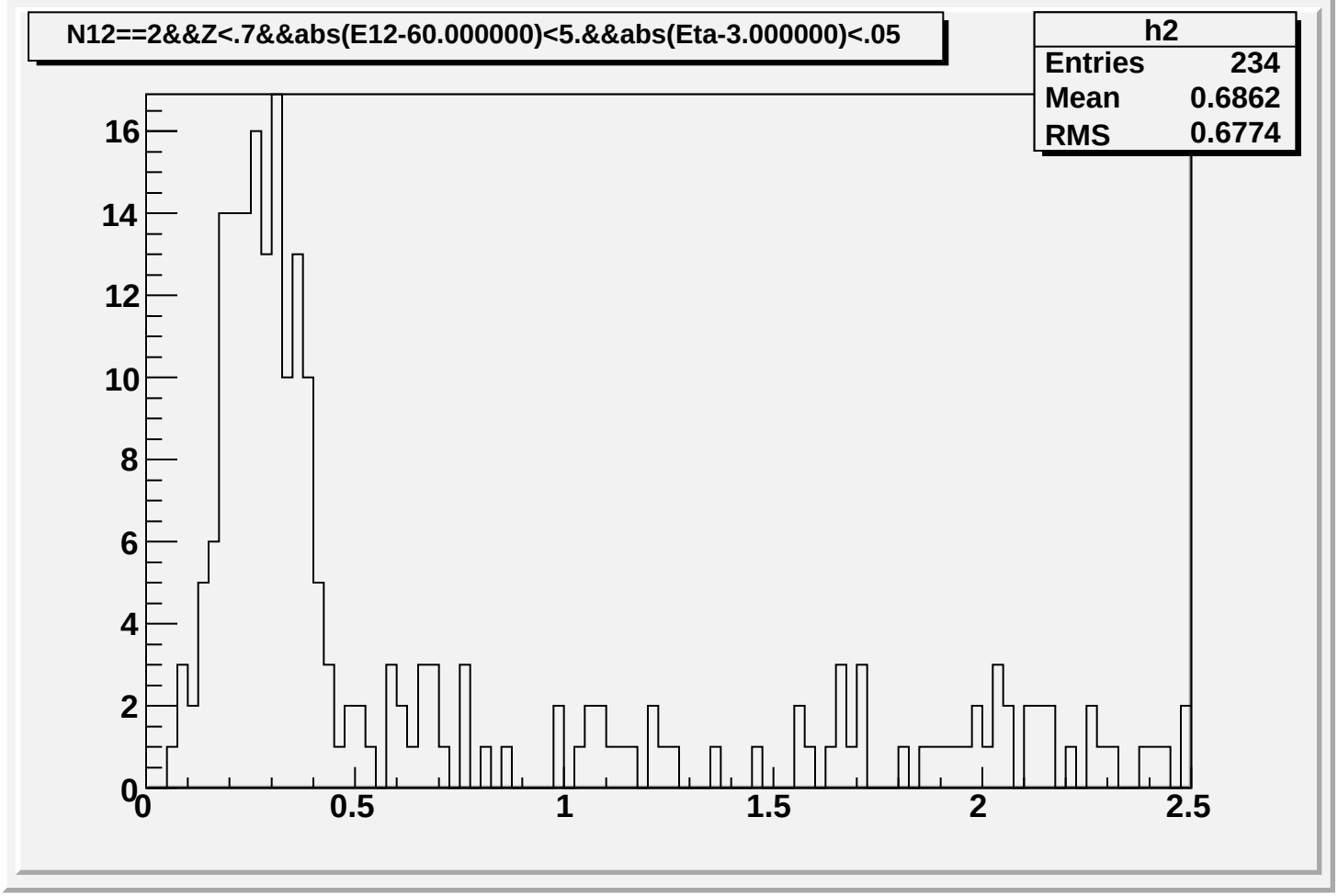

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 11004
Mean 0.4759
RMS 0.4309
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

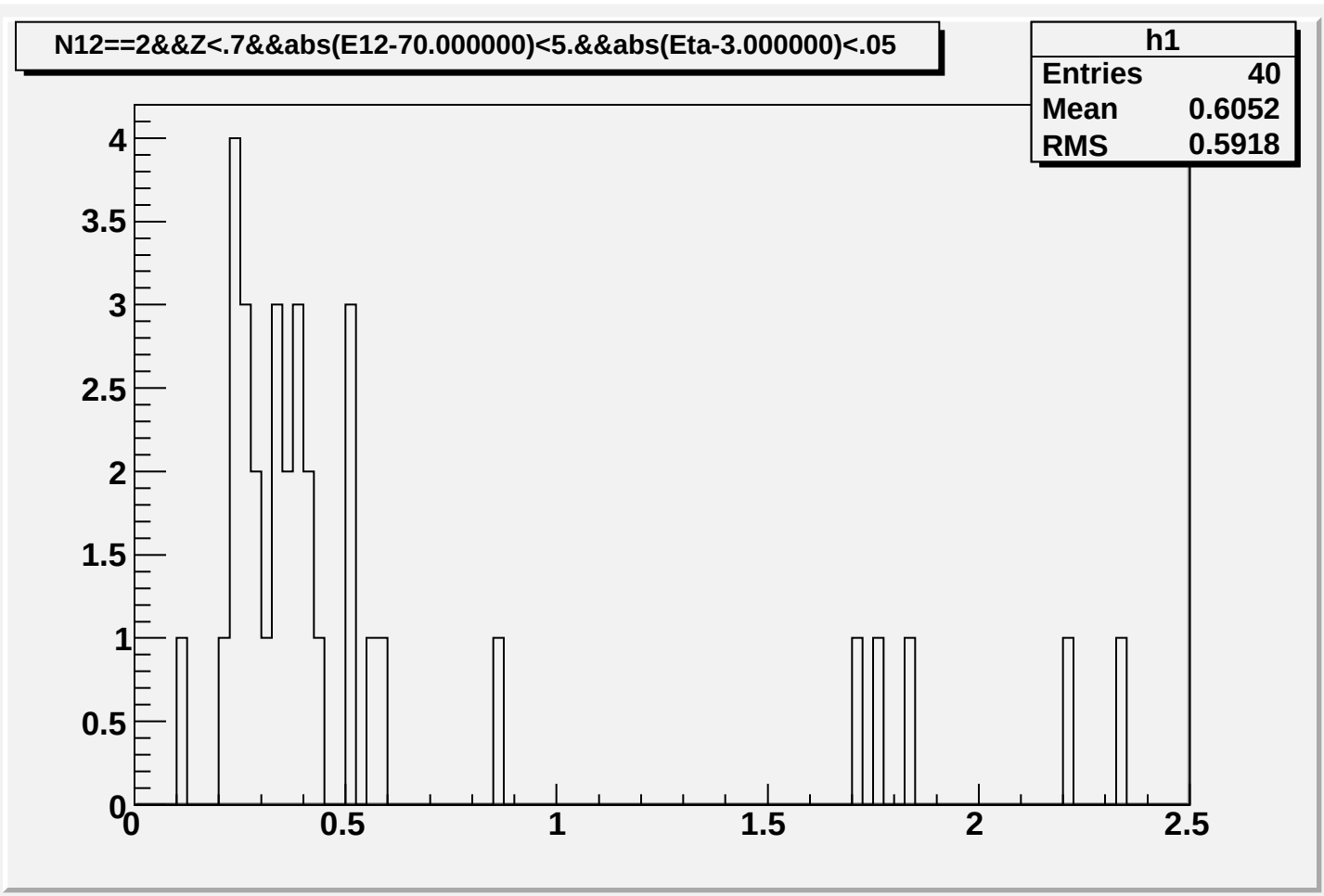

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 11004
Mean 0.4759
RMS 0.4309
200
180
160
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

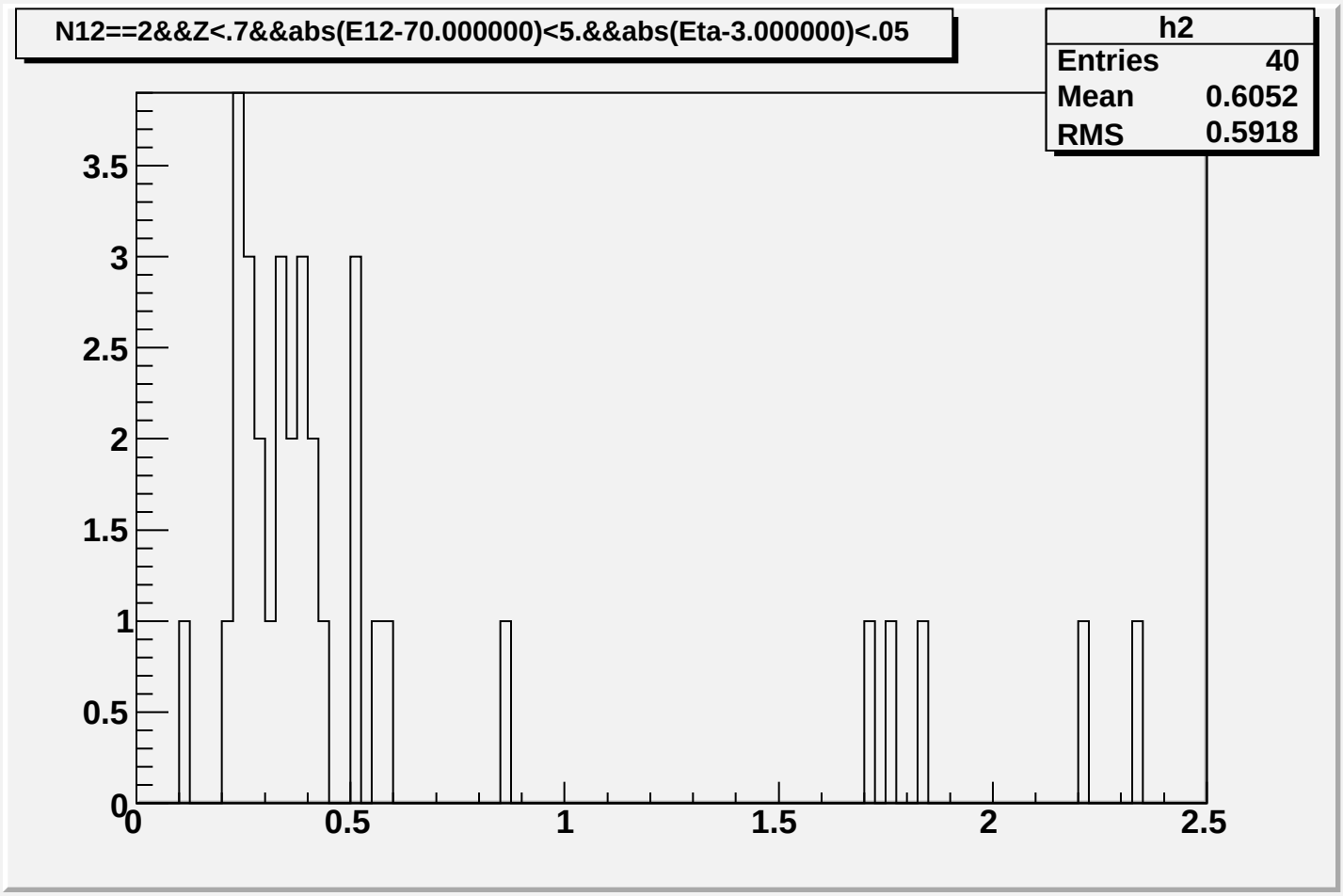

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 1471
Mean 0.5944
RMS 0.5739
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

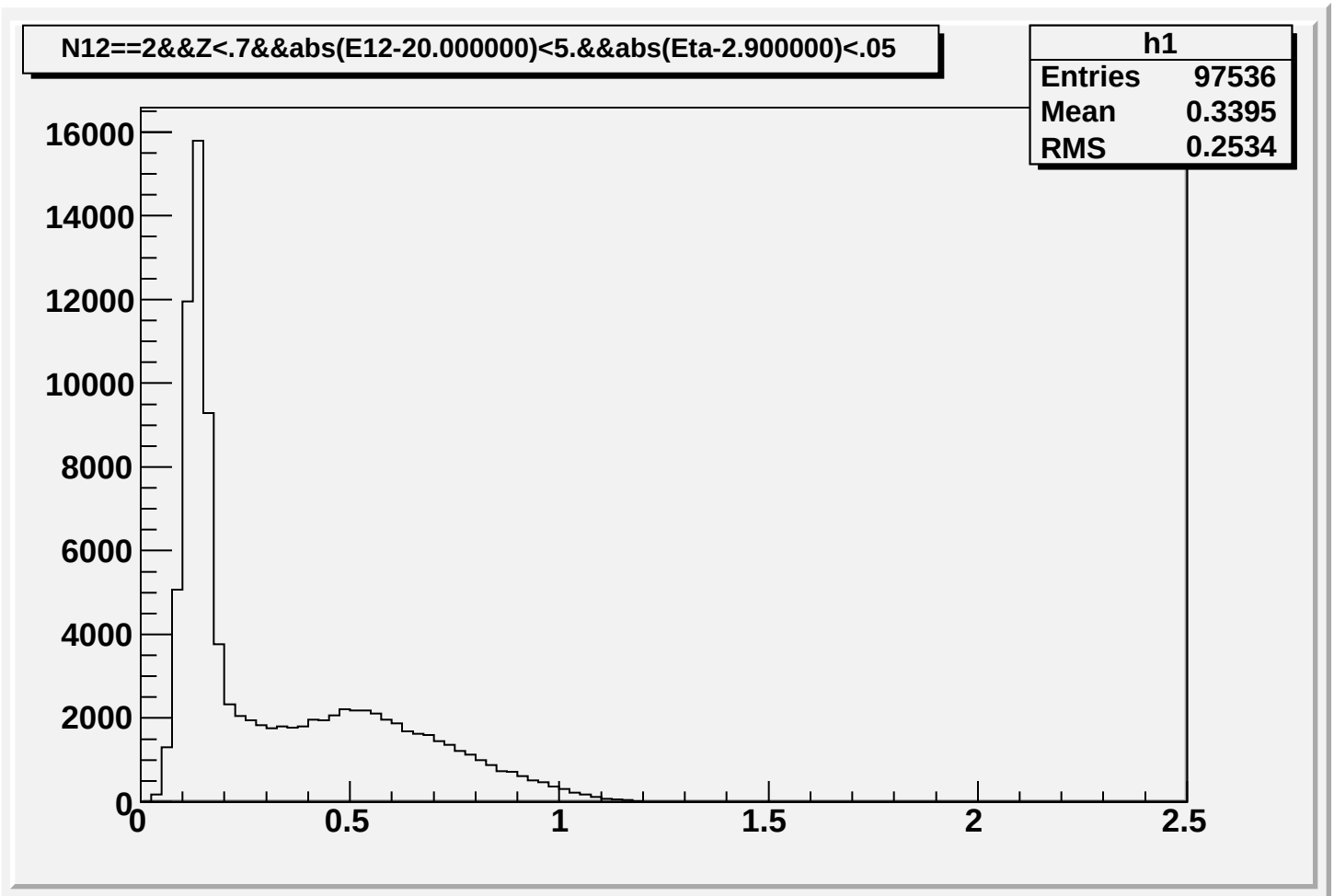

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 1471
Mean 0.5944
RMS 0.5739
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

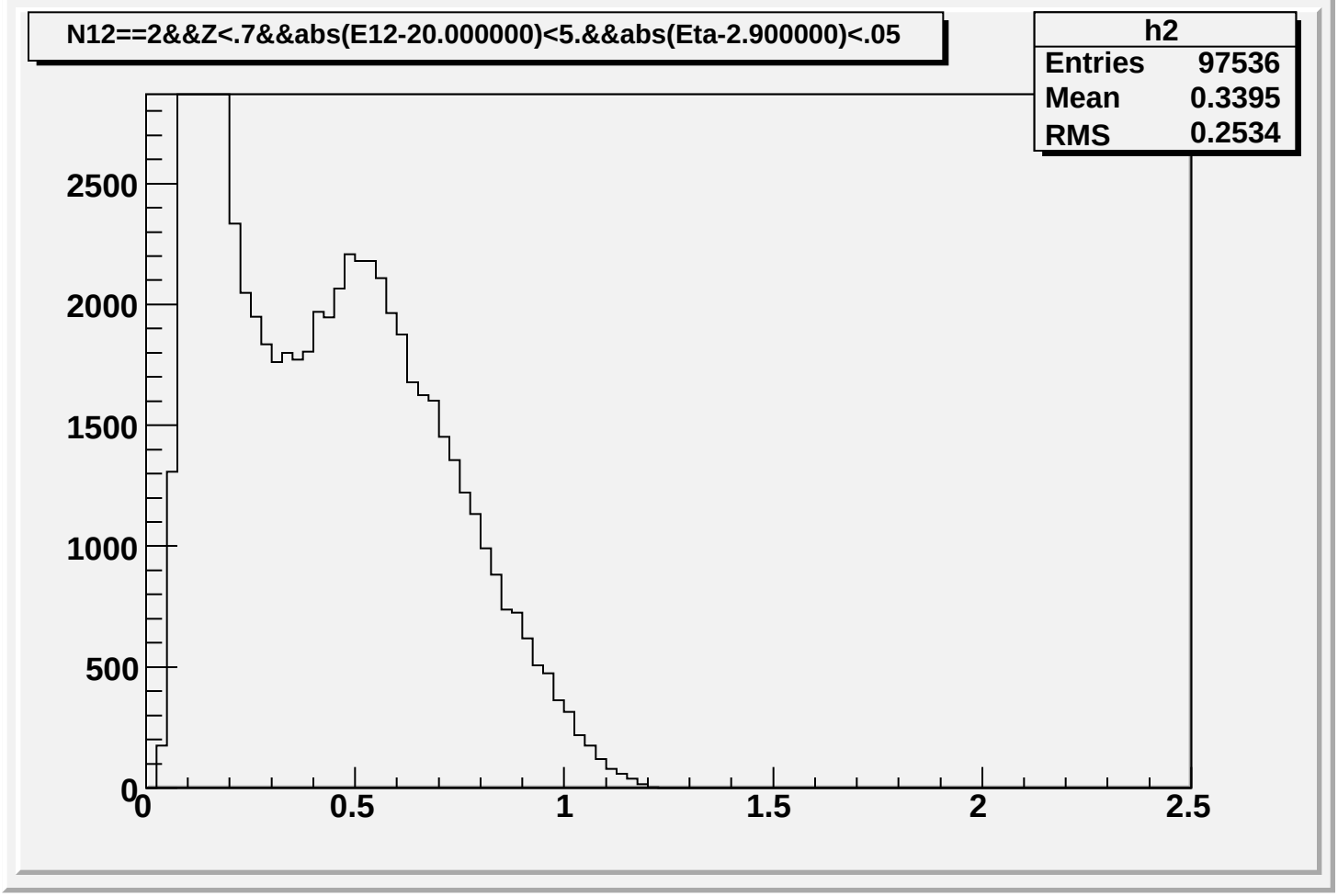

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 234
Mean 0.6862
RMS 0.6774
0
2
4
6
8
10
12
14
16
0
0.5
1
1.5
2
2.5

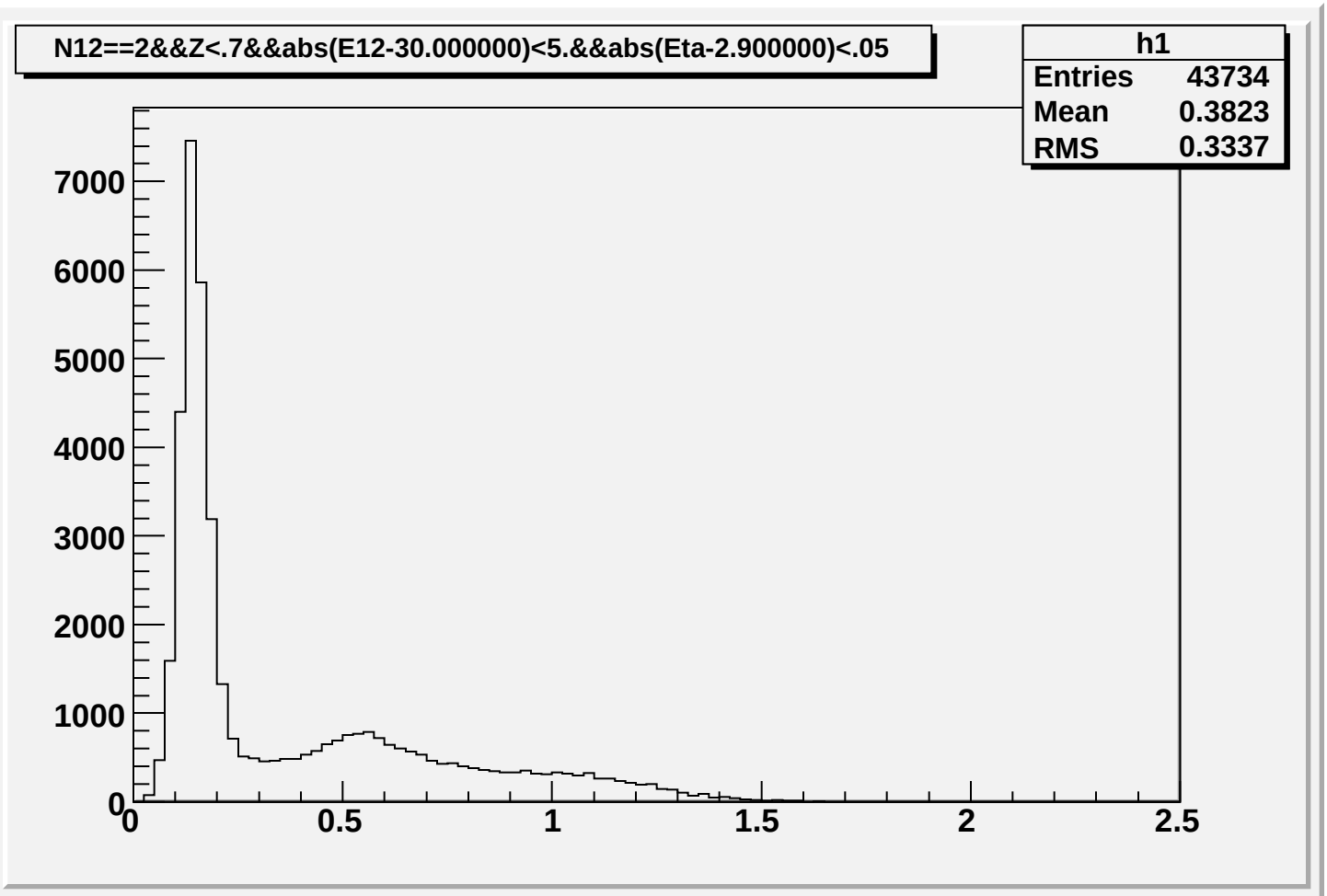

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 234
Mean 0.6862
RMS 0.6774
0
2
4
6
8
10
12
14
16
0
0.5
1
1.5
2
2.5

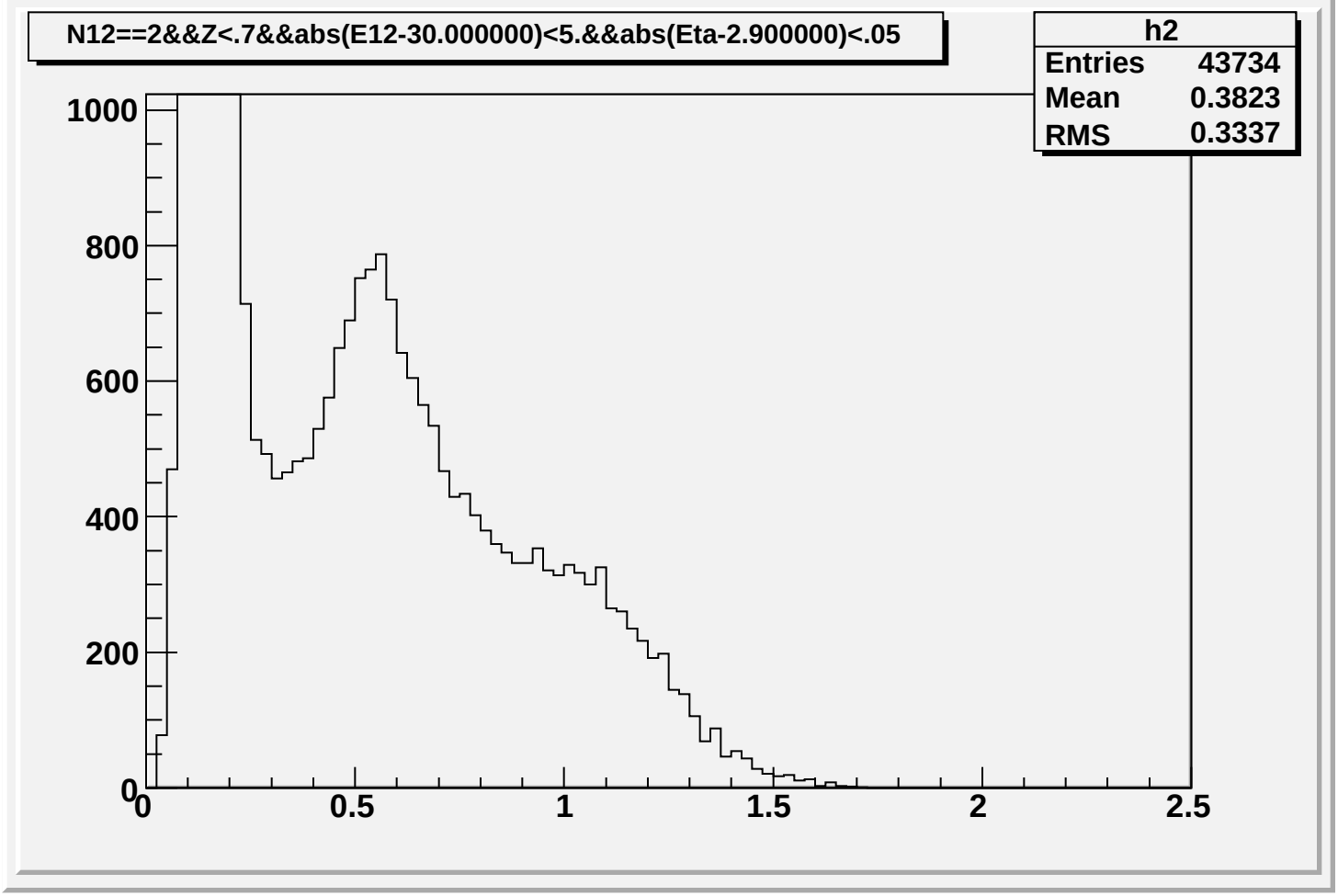

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.000000)<.05
h1
Entries 40
Mean 0.6052
RMS 0.5918
0
0.5
1
1.5
2
2.5
3
3.5
4

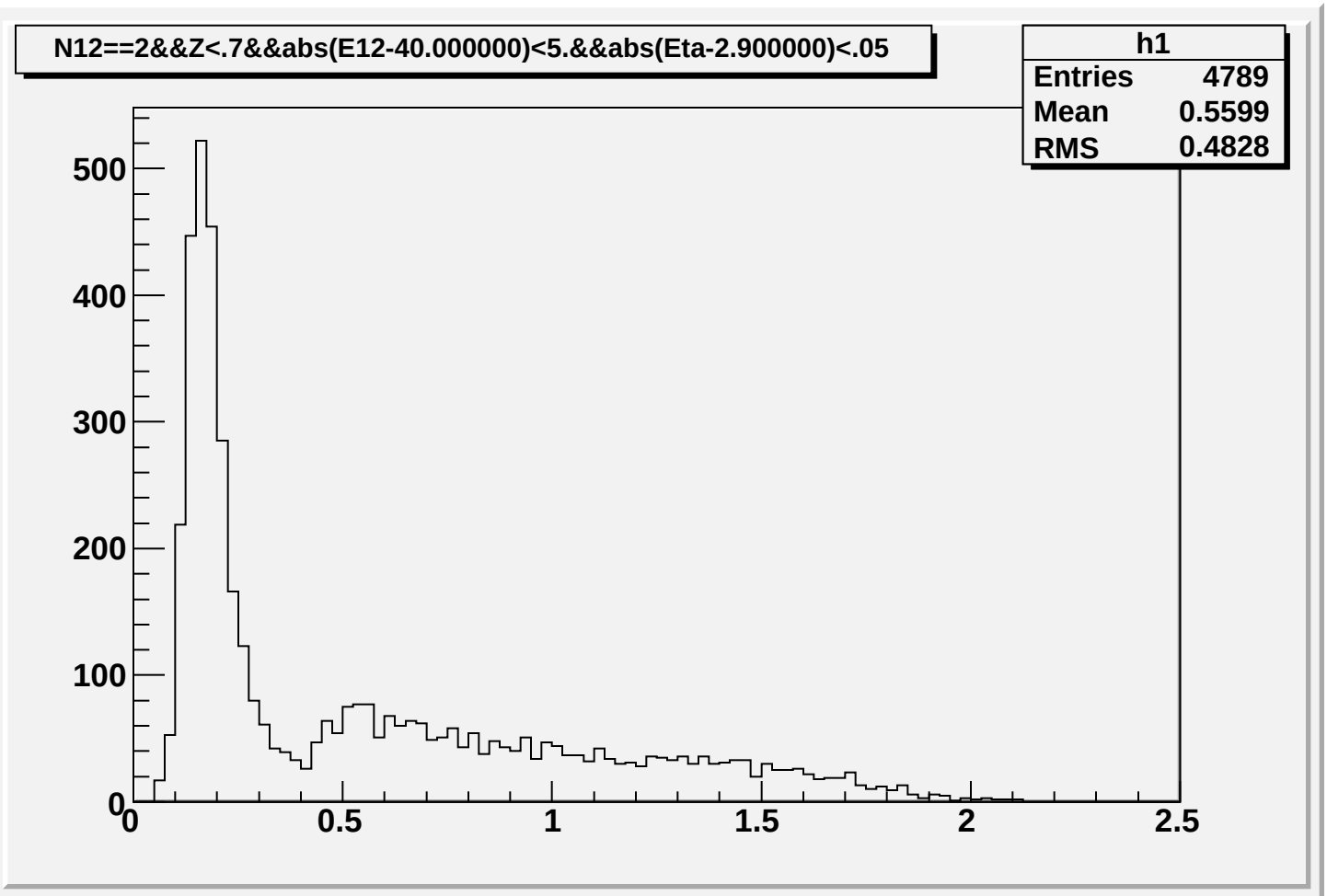

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-3.000000)<.05
h2
Entries 40
Mean 0.6052
RMS 0.5918
0
0.5
1
1.5
2
2.5
3
3.5

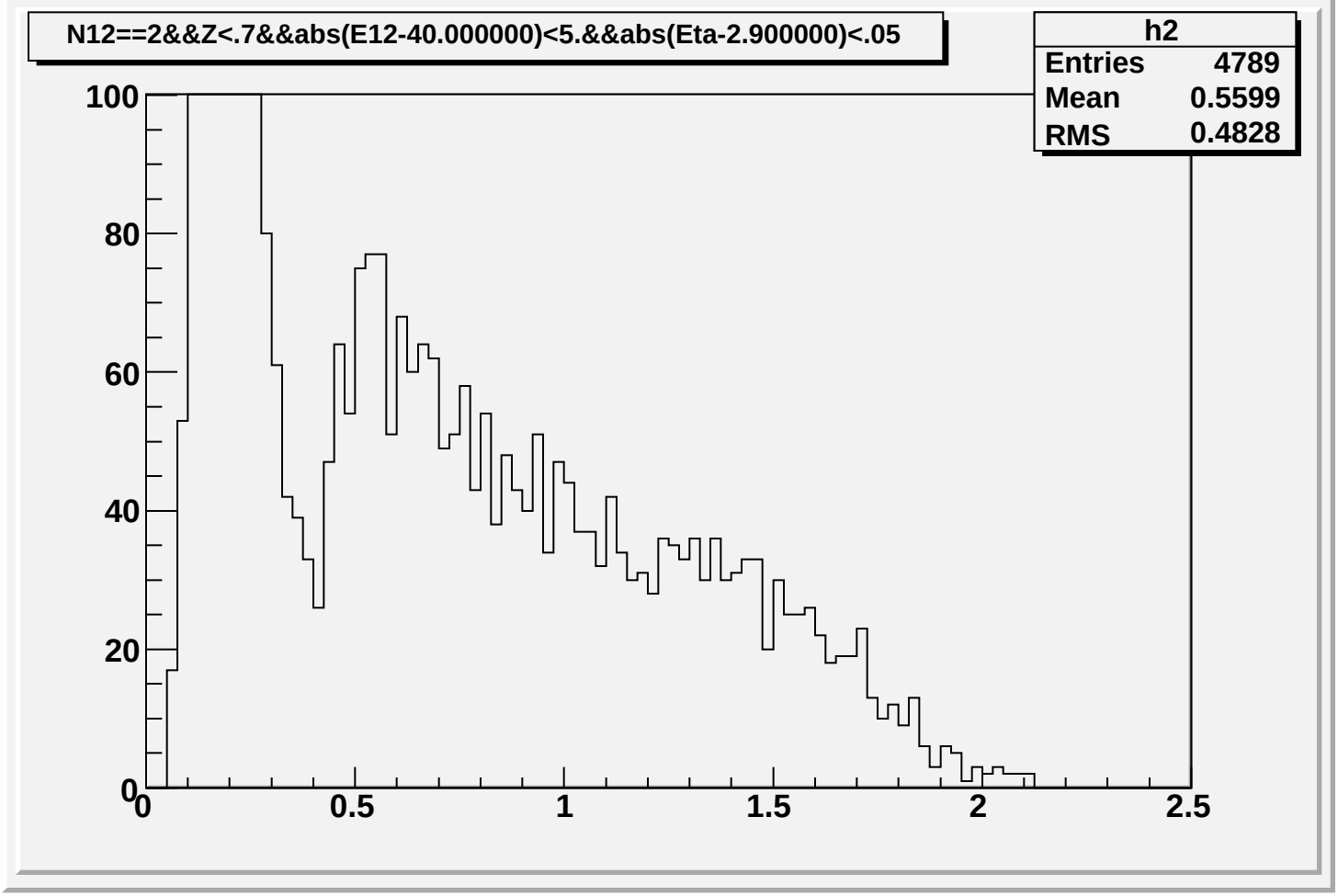

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 97536
Mean 0.3395
RMS 0.2534
16000
14000
12000
10000
8000
6000
4000
2000
0
0
0.5
1
1.5
2
2.5

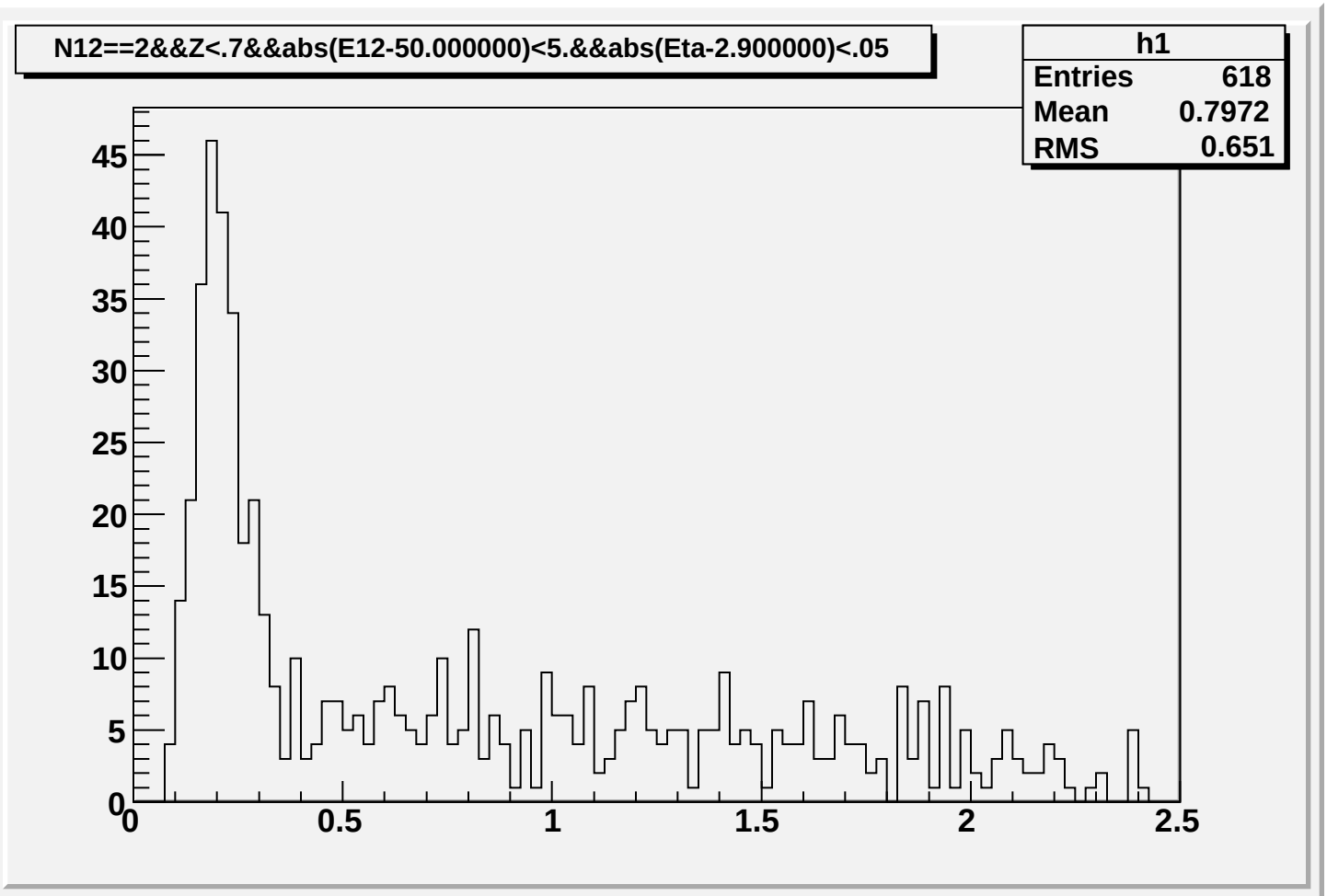

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 97536
Mean 0.3395
RMS 0.2534
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

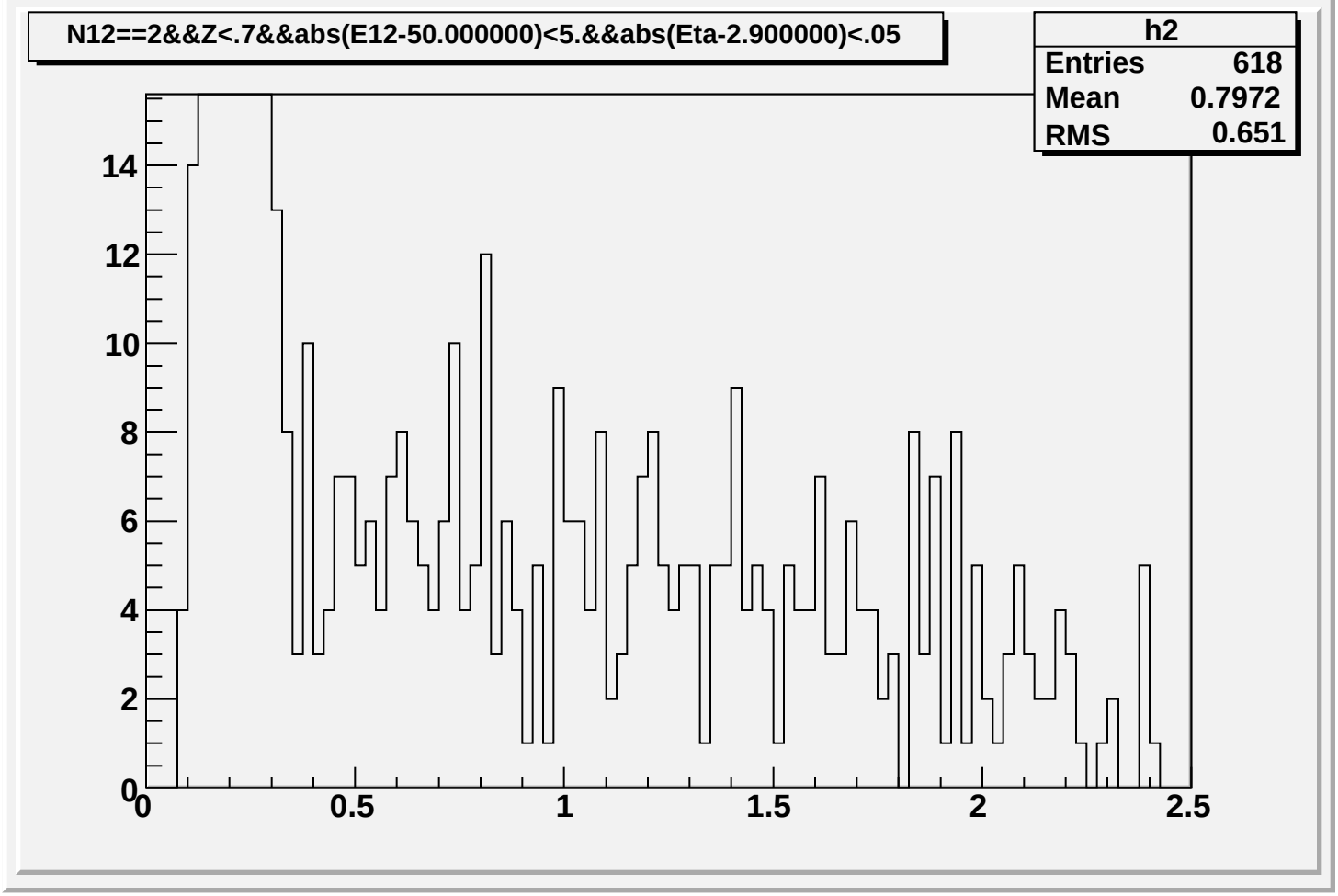

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 43734
Mean 0.3823
RMS 0.3337
7000
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

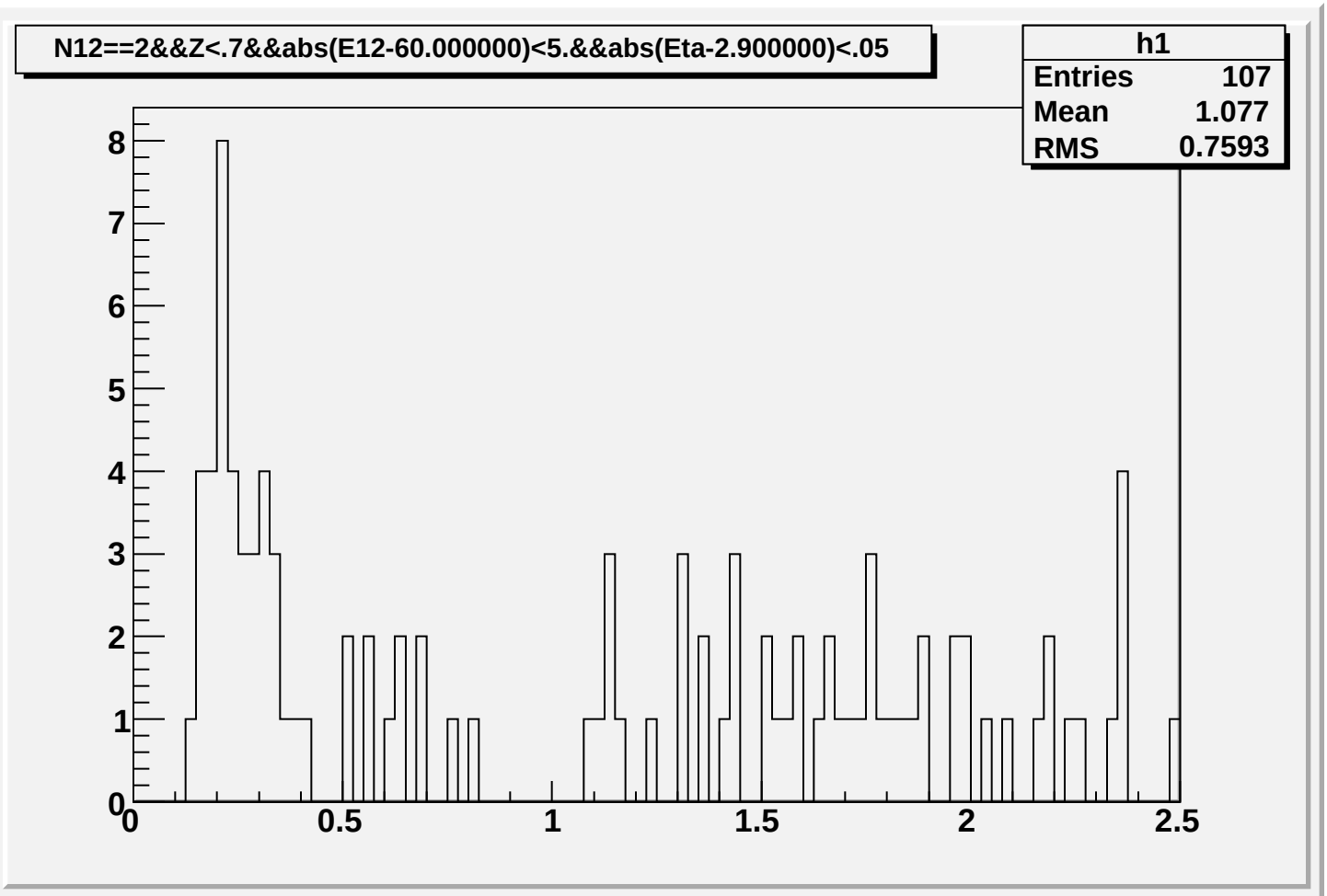

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 43734
Mean 0.3823
RMS 0.3337
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

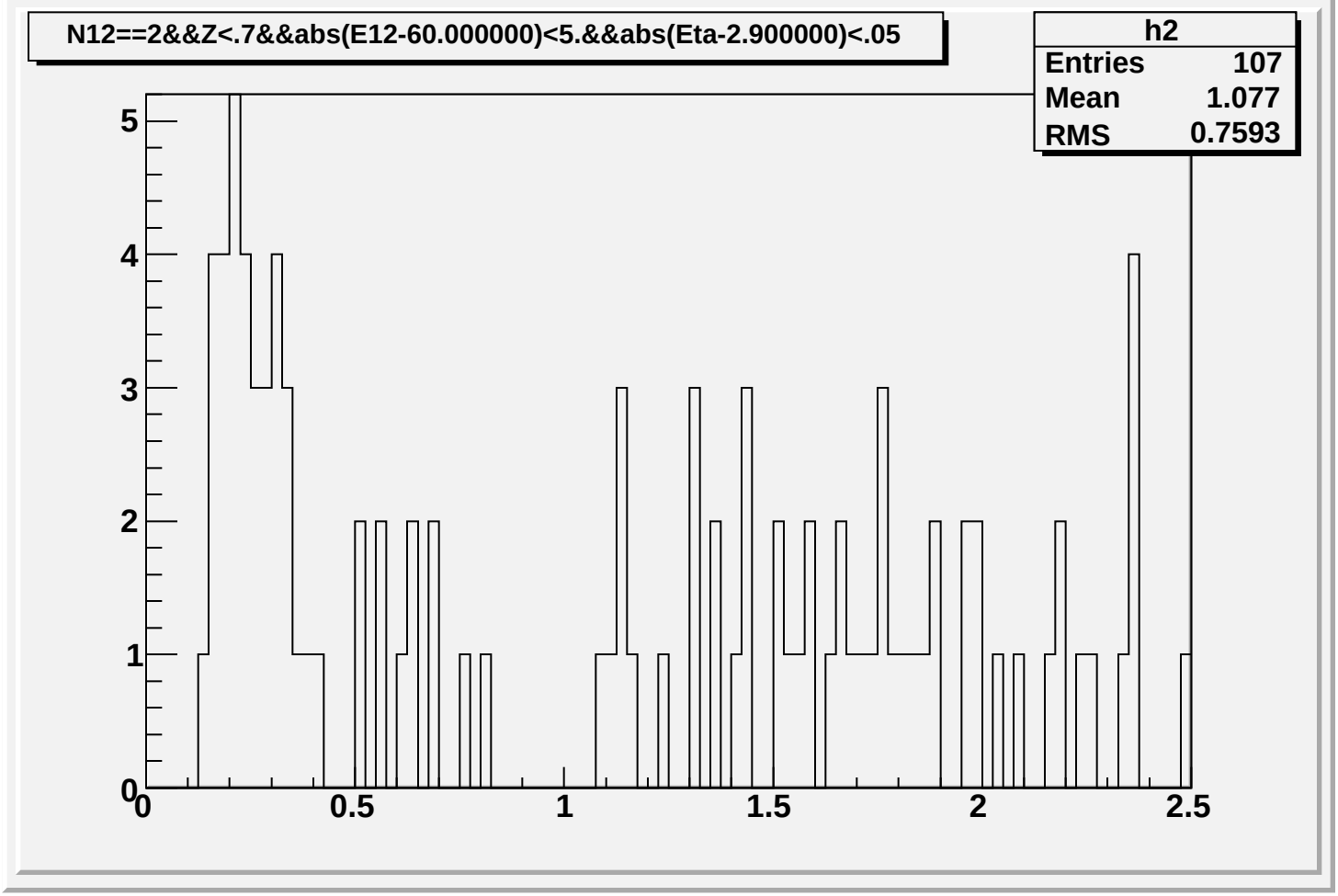

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 4789
Mean 0.5599
RMS 0.4828
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

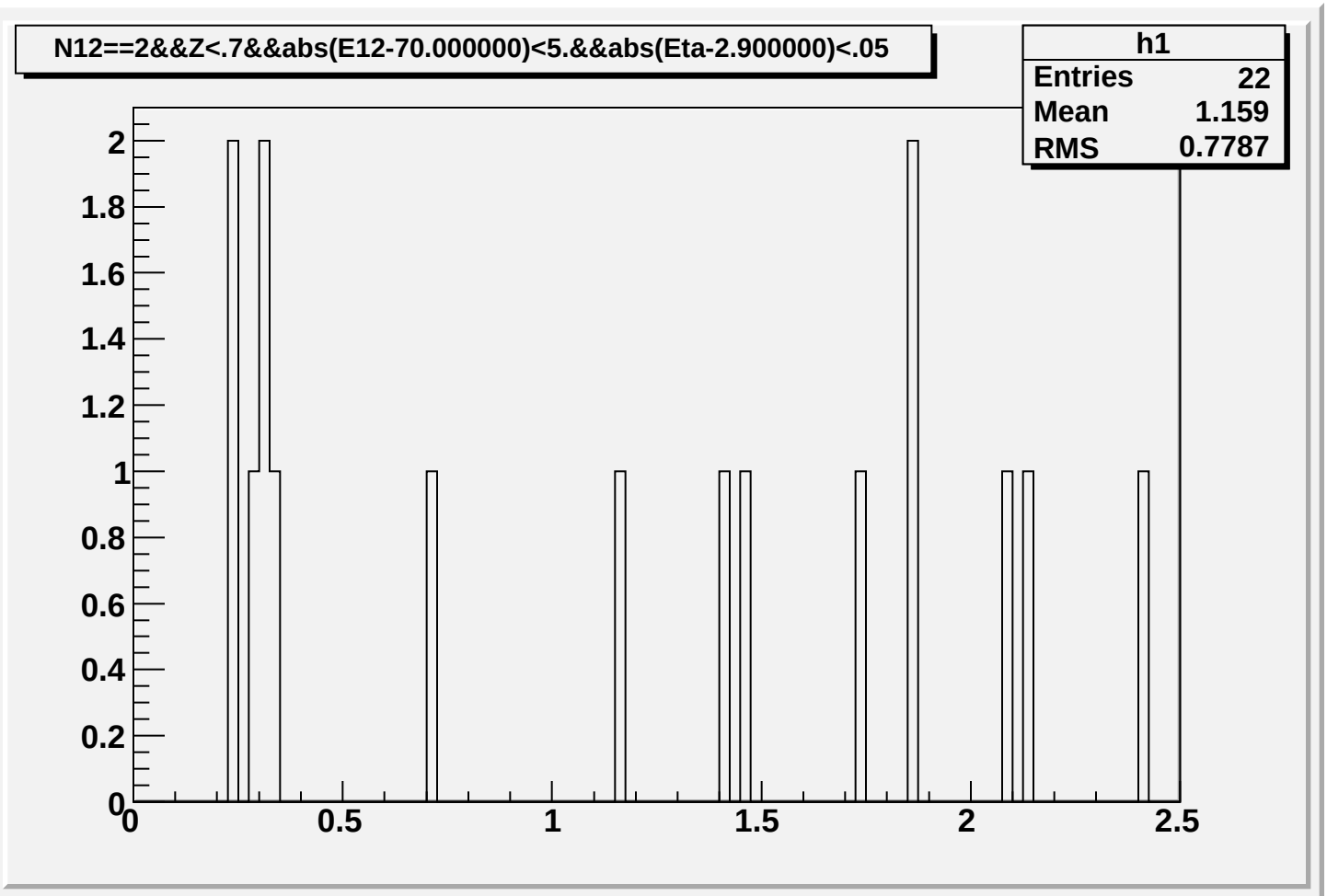

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 4789
Mean 0.5599
RMS 0.4828
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

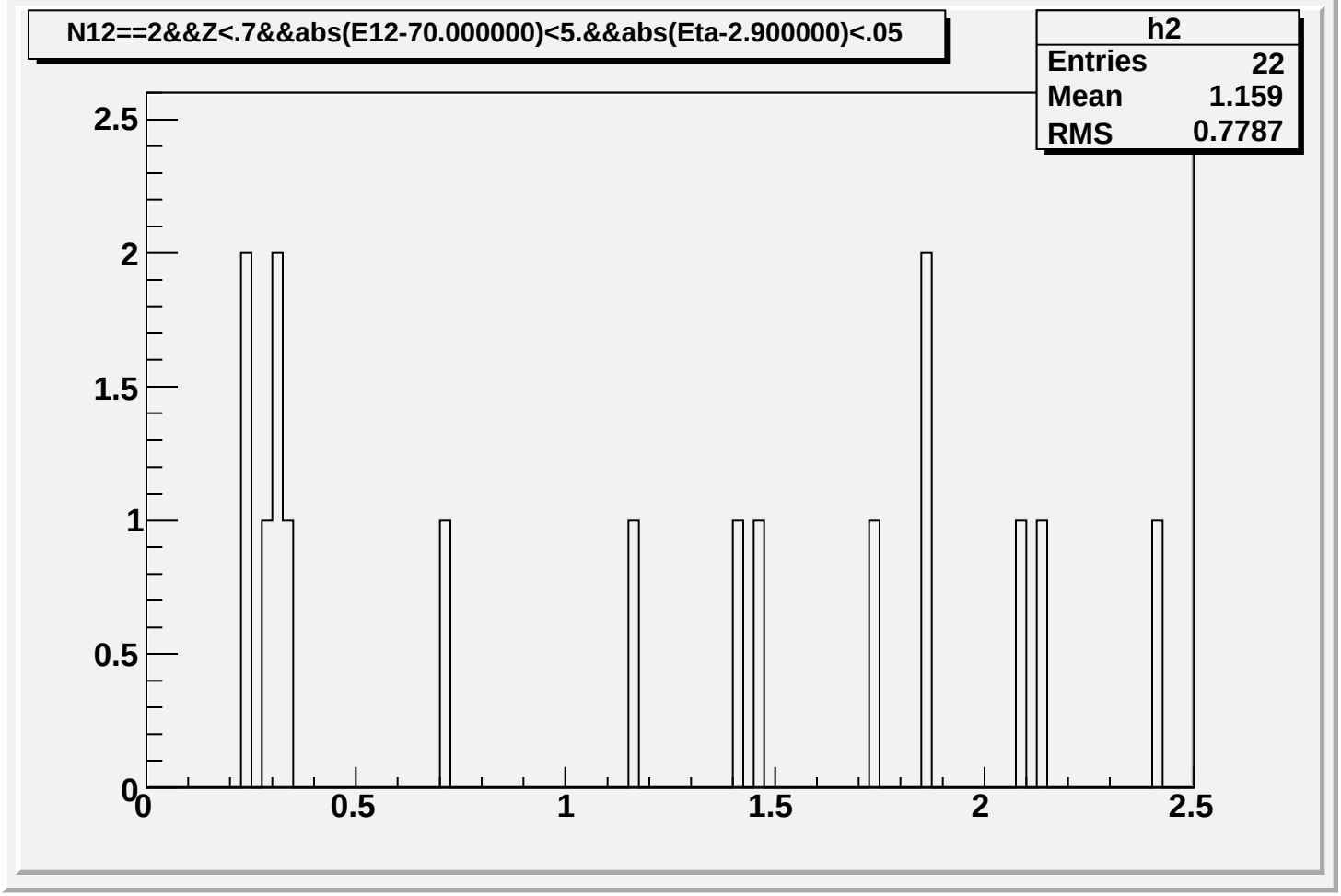

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 618
Mean 0.7972
RMS 0.651
0
5
10
15
20
25
30
35
40
45
0
0.5
1
1.5
2
2.5

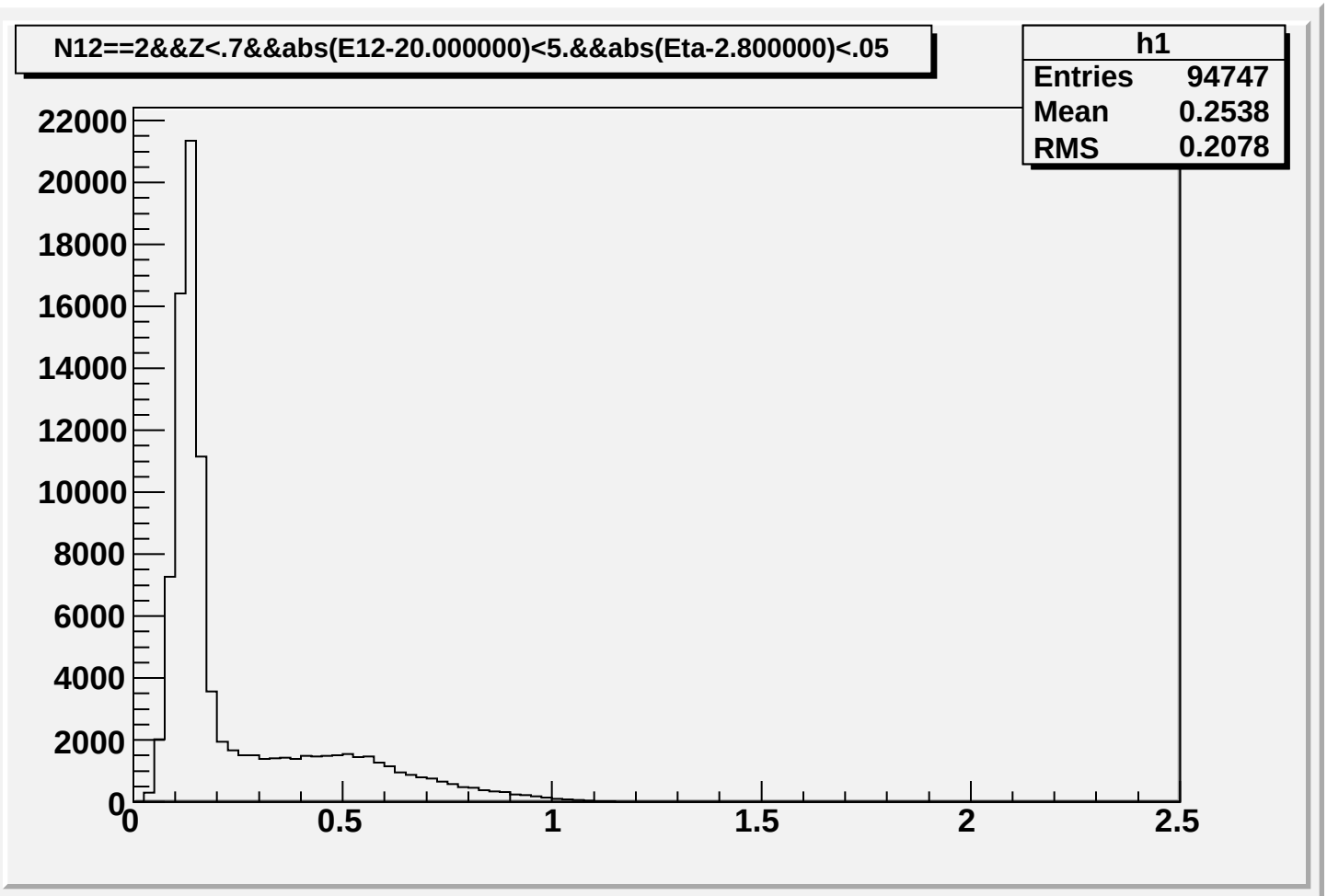

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 618
Mean 0.7972
RMS 0.651
0
2
4
6
8
10
12
14
0
0.5
1
1.5
2
2.5

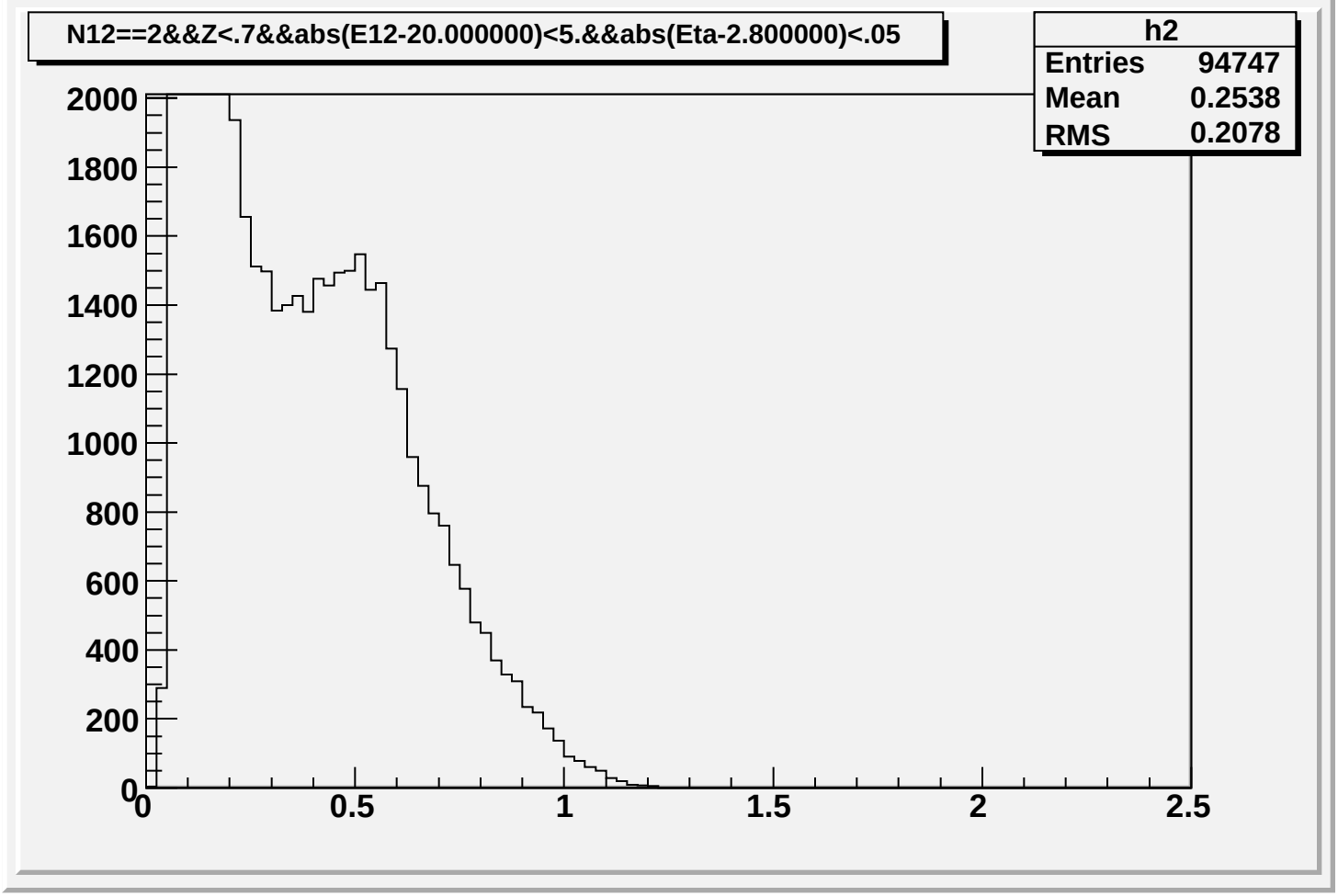

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 107
Mean 1.077
RMS 0.7593
0
1
2
3
4
5
6
7
8
0
0.5
1
1.5
2
2.5

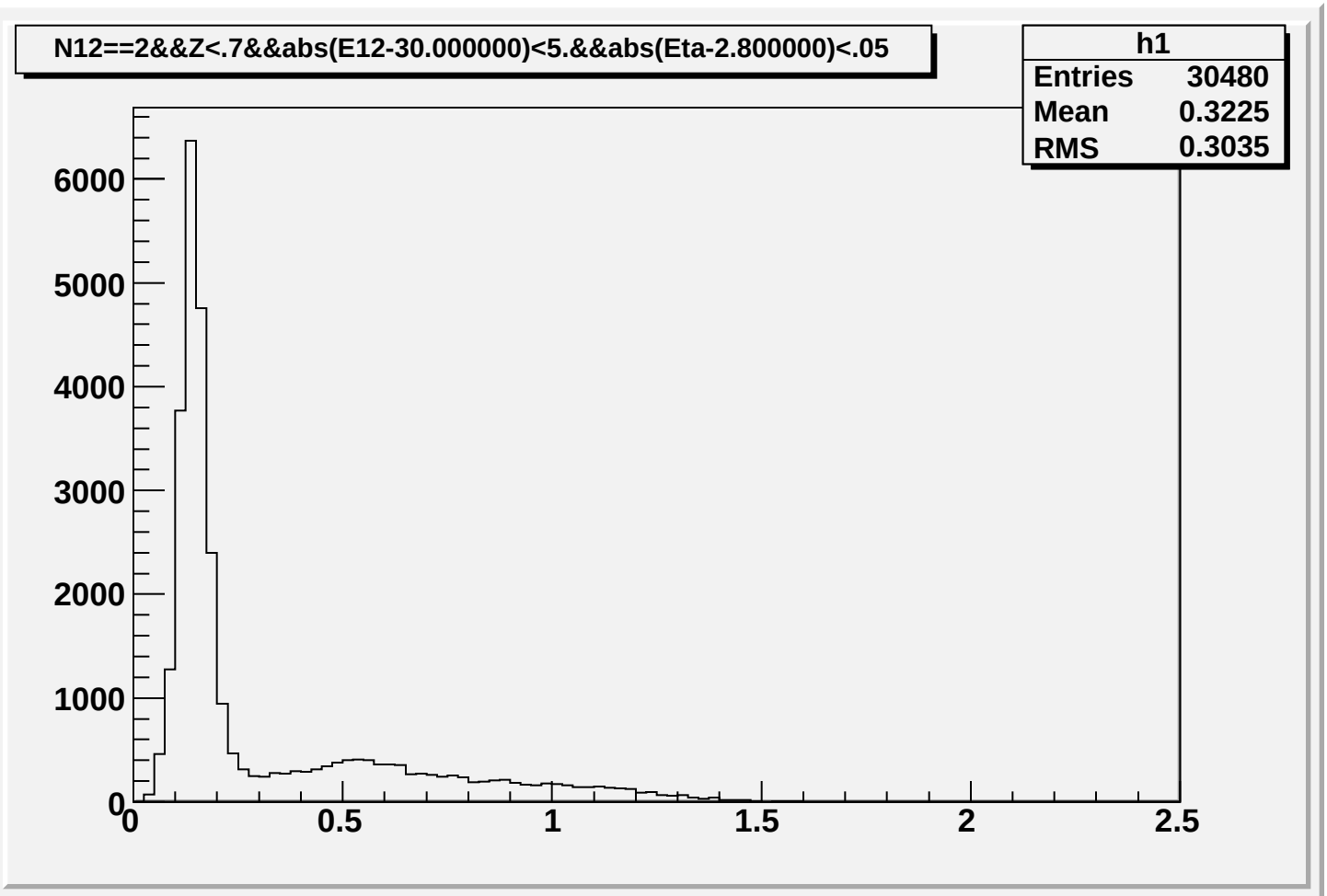

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 107
Mean 1.077
RMS 0.7593
0
1
2
3
4
5
0
0.5
1
1.5
2
2.5

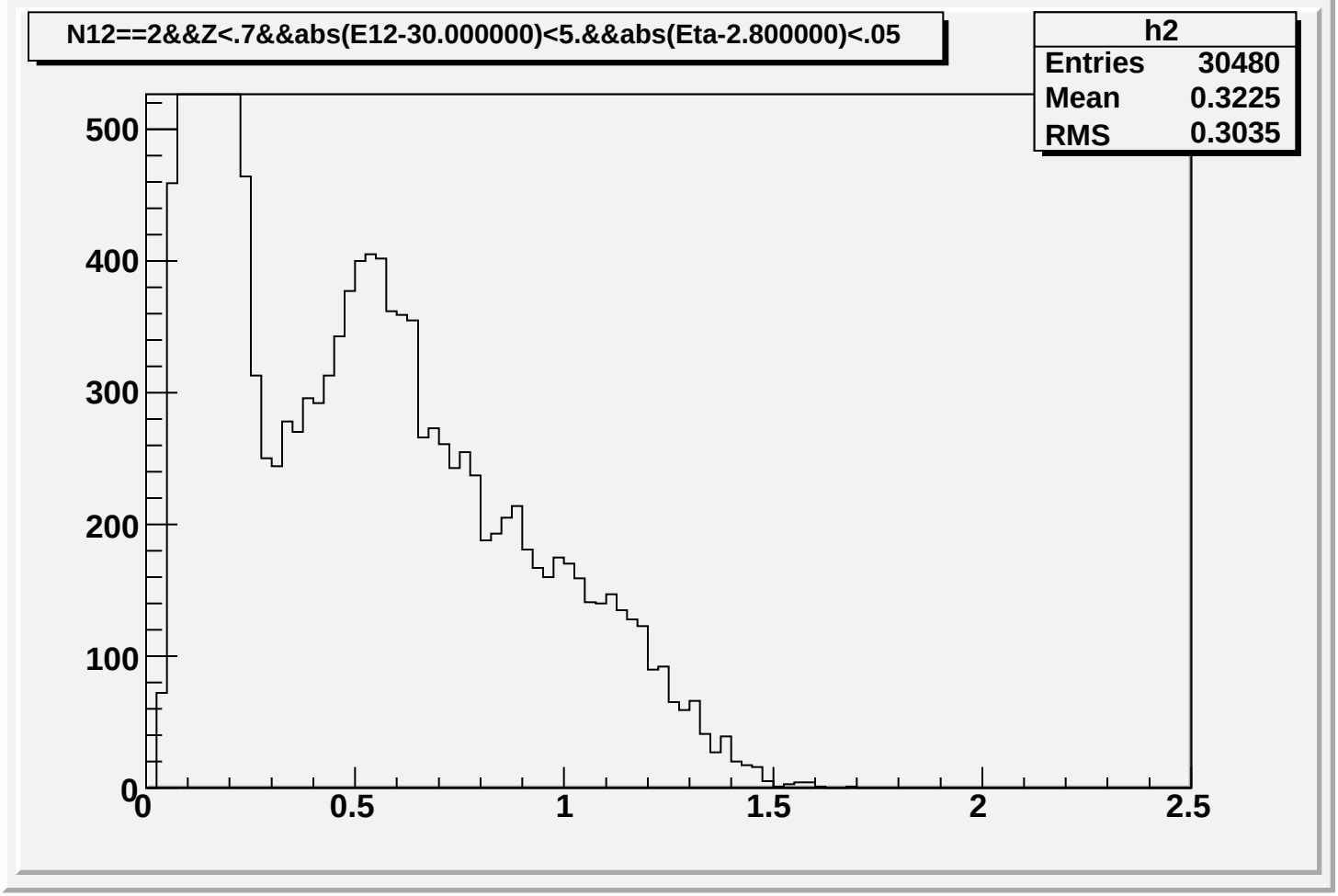

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.900000)<.05
h1
Entries 22
Mean 1.159
RMS 0.7787
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
0.5
1
1.5
2
2.5

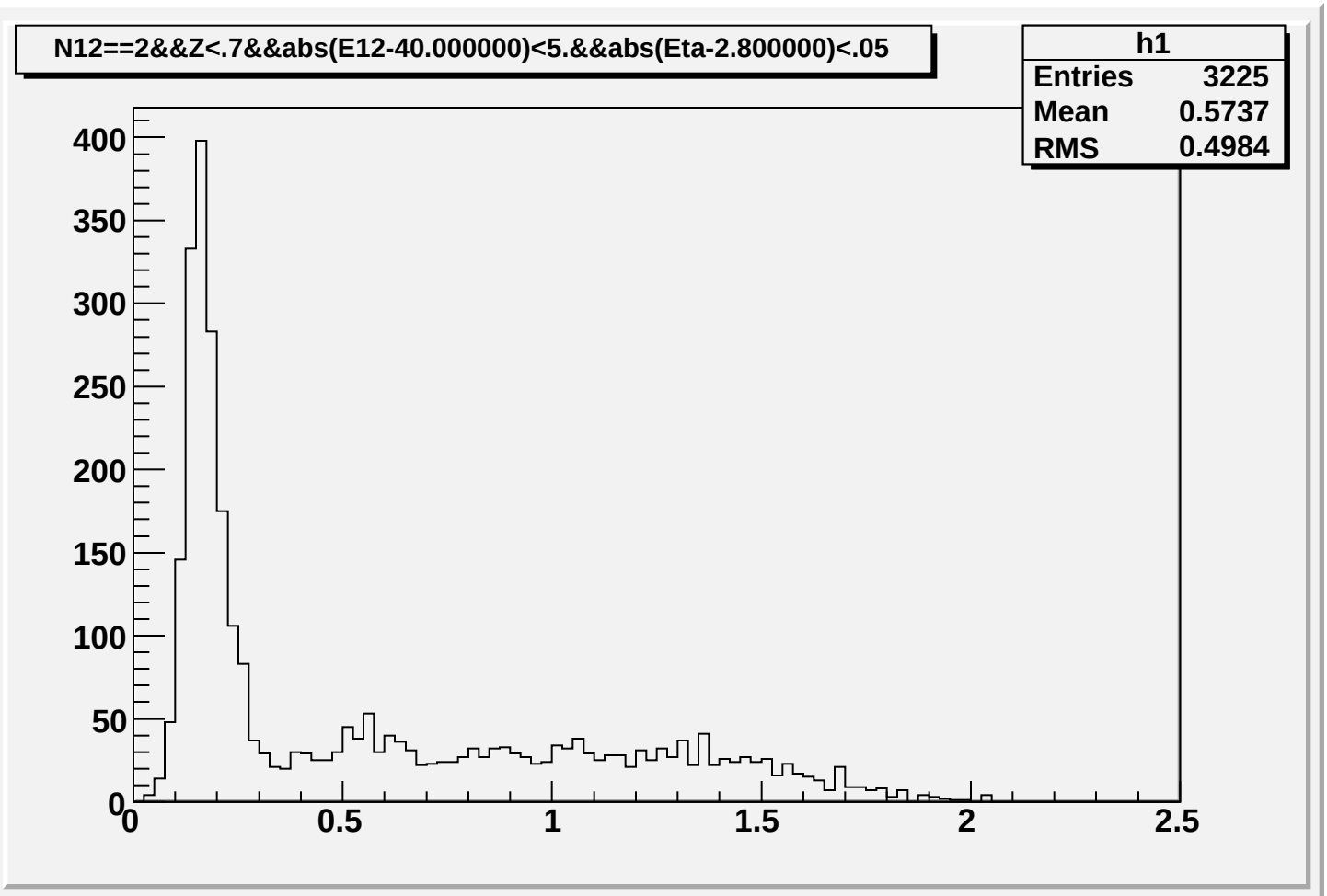

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.900000)<.05
h2
Entries 22
Mean 1.159
RMS 0.7787
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5
2
2.5

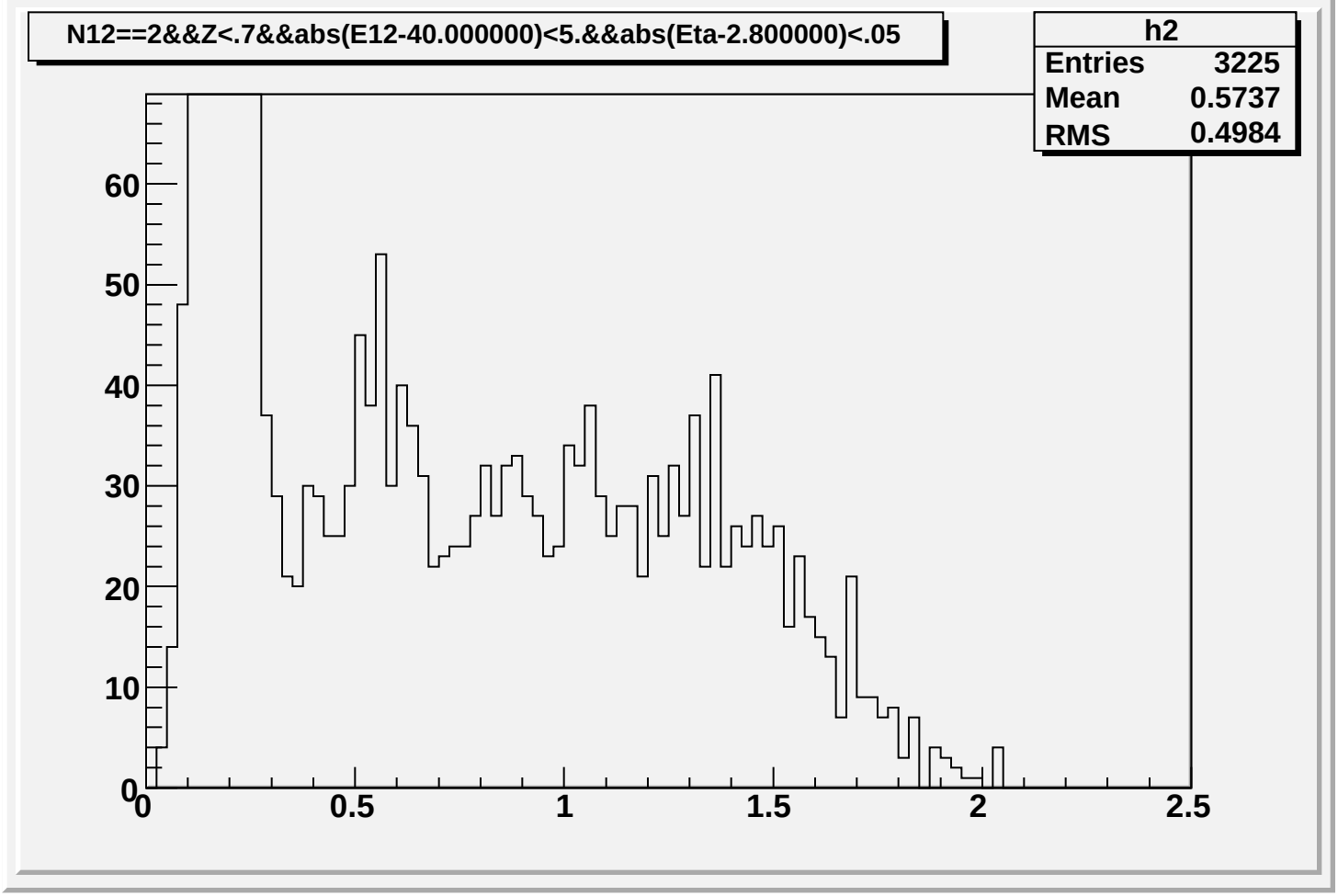

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 94747
Mean 0.2538
RMS 0.2078
22000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
0
0.5
1
1.5
2
2.5

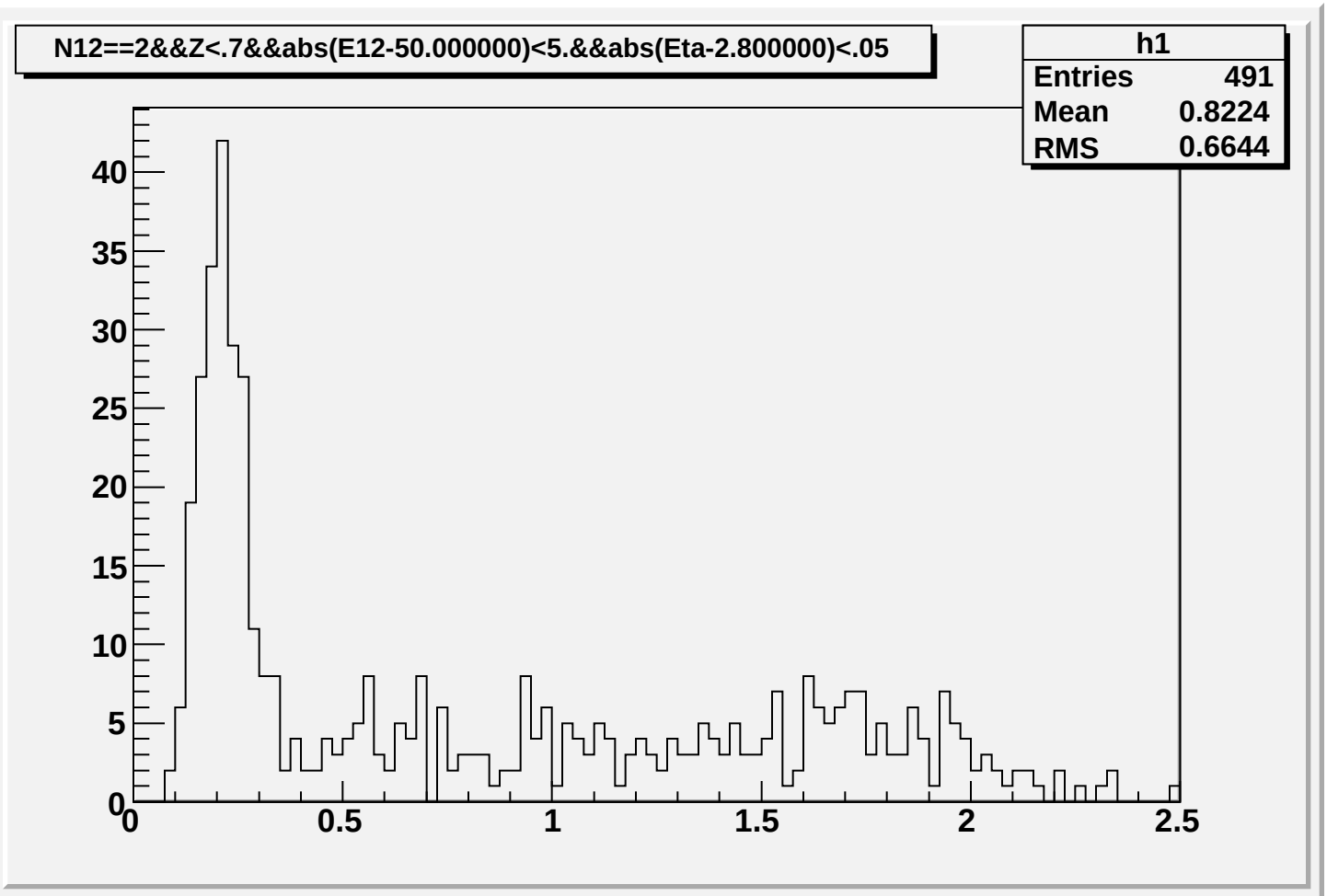

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 94747
Mean 0.2538
RMS 0.2078
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
0.5
1
1.5
2
2.5

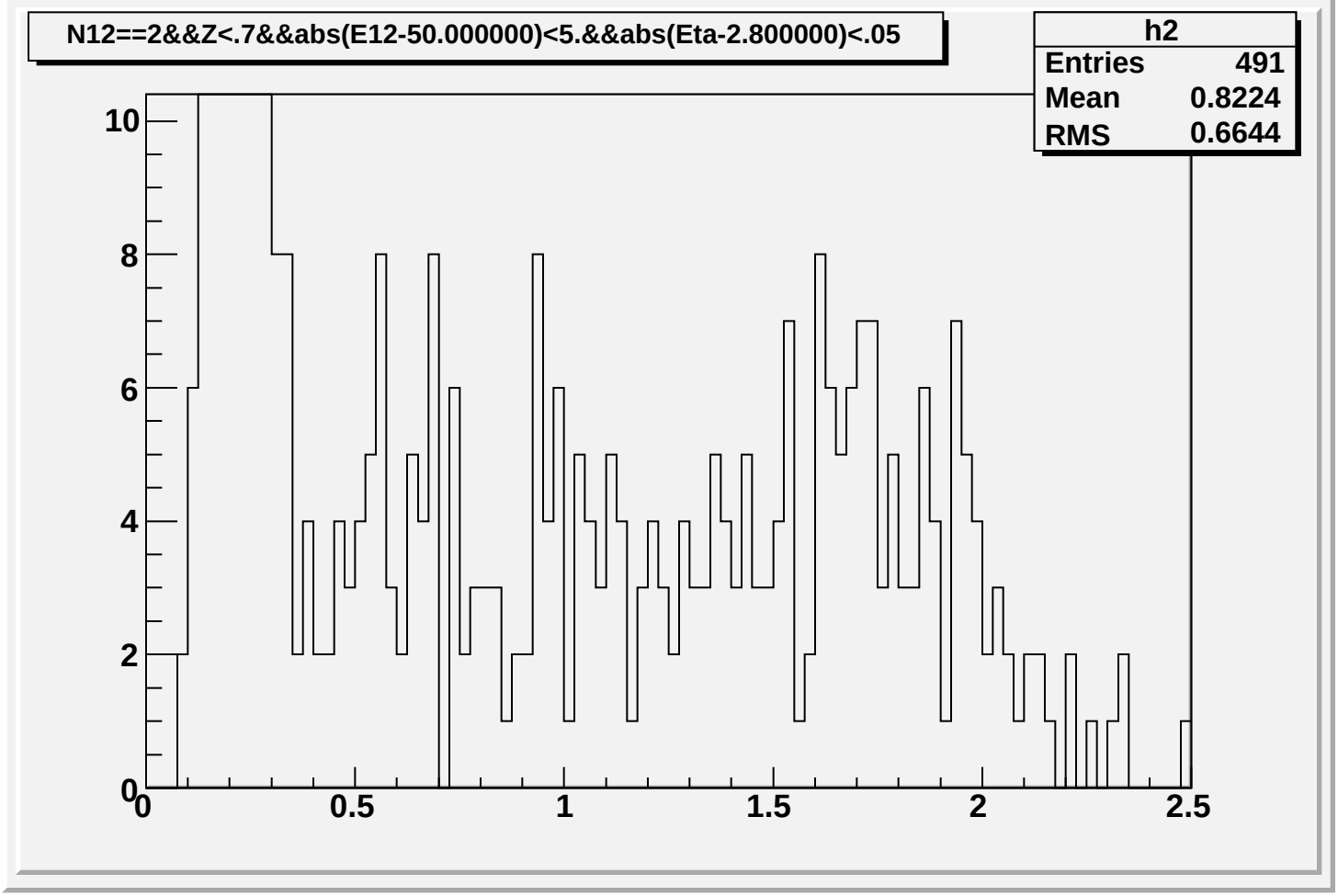

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 30480
Mean 0.3225
RMS 0.3035
6000
5000
4000
3000
2000
1000
0
0
0.5
1
1.5
2
2.5

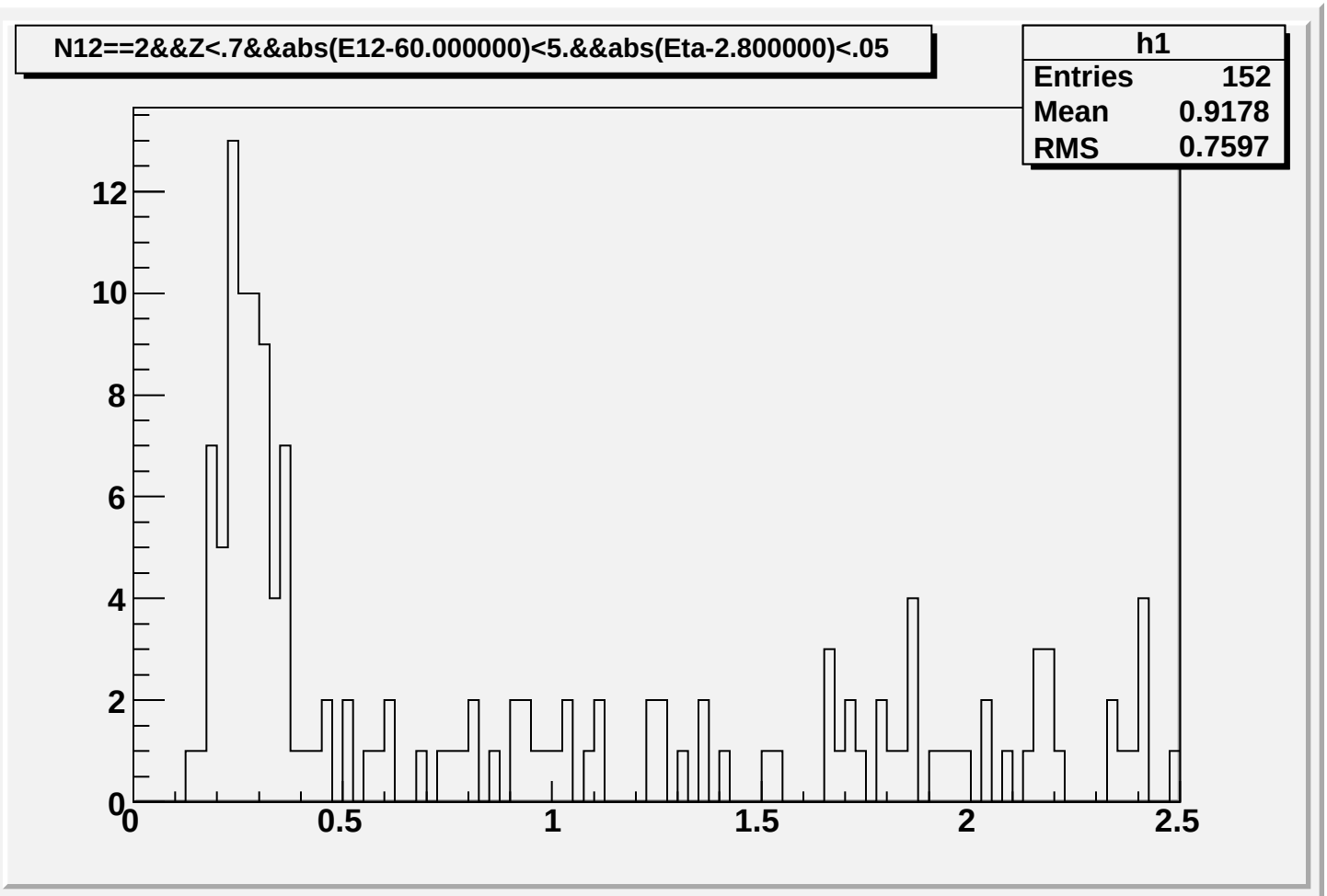

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 30480
Mean 0.3225
RMS 0.3035
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

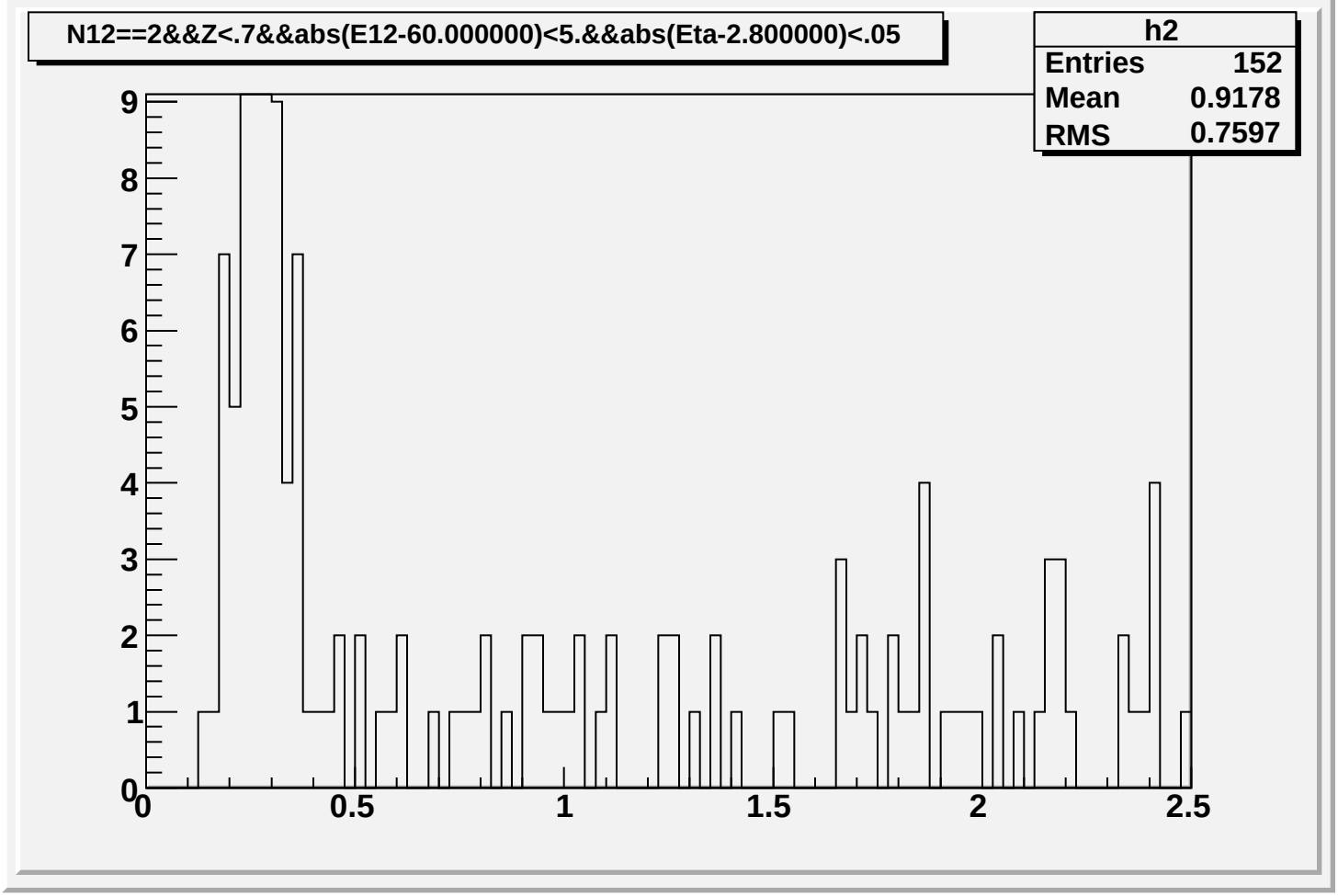

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 3225
Mean 0.5737
RMS 0.4984
400
350
300
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

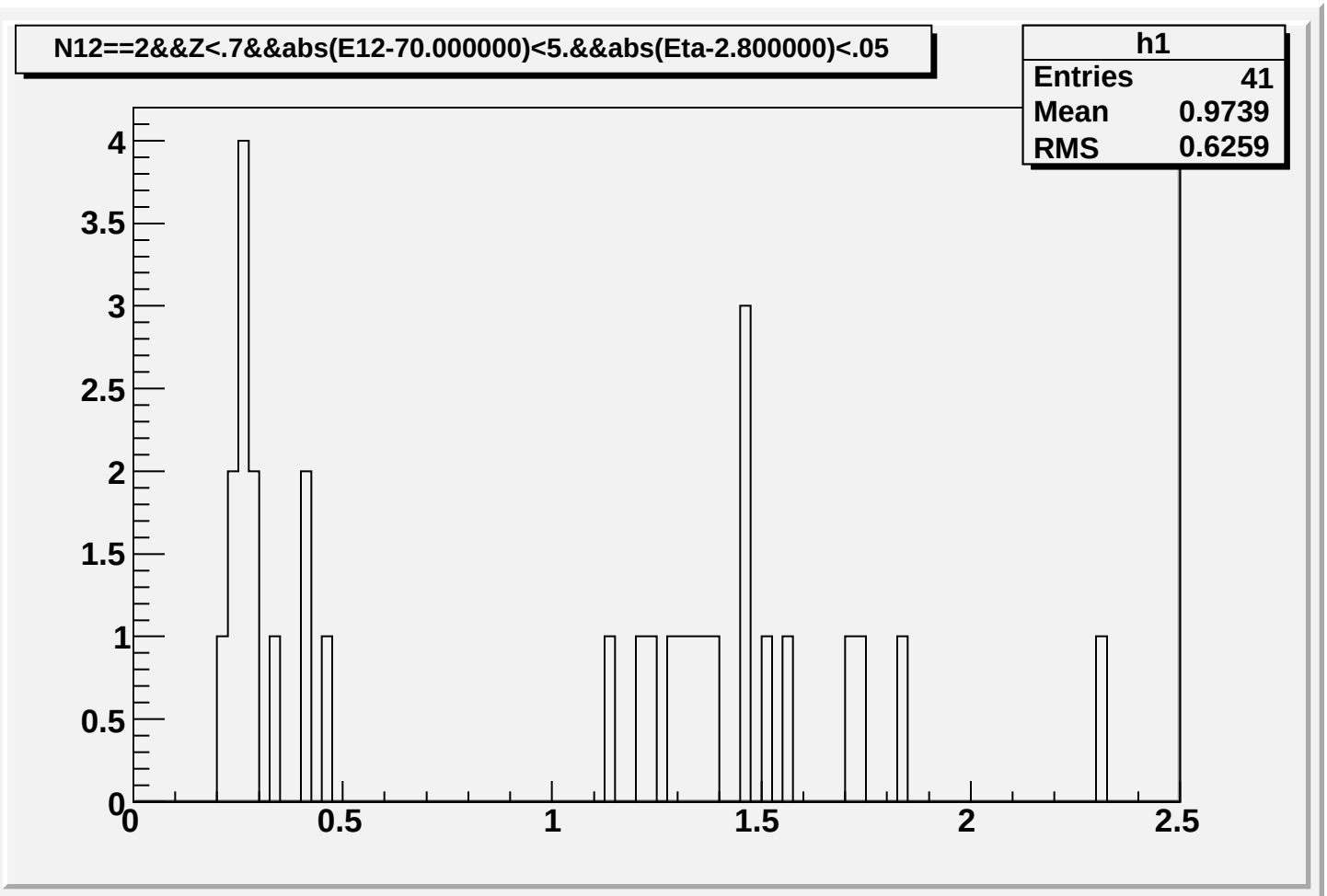

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 3225
Mean 0.5737
RMS 0.4984
60
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

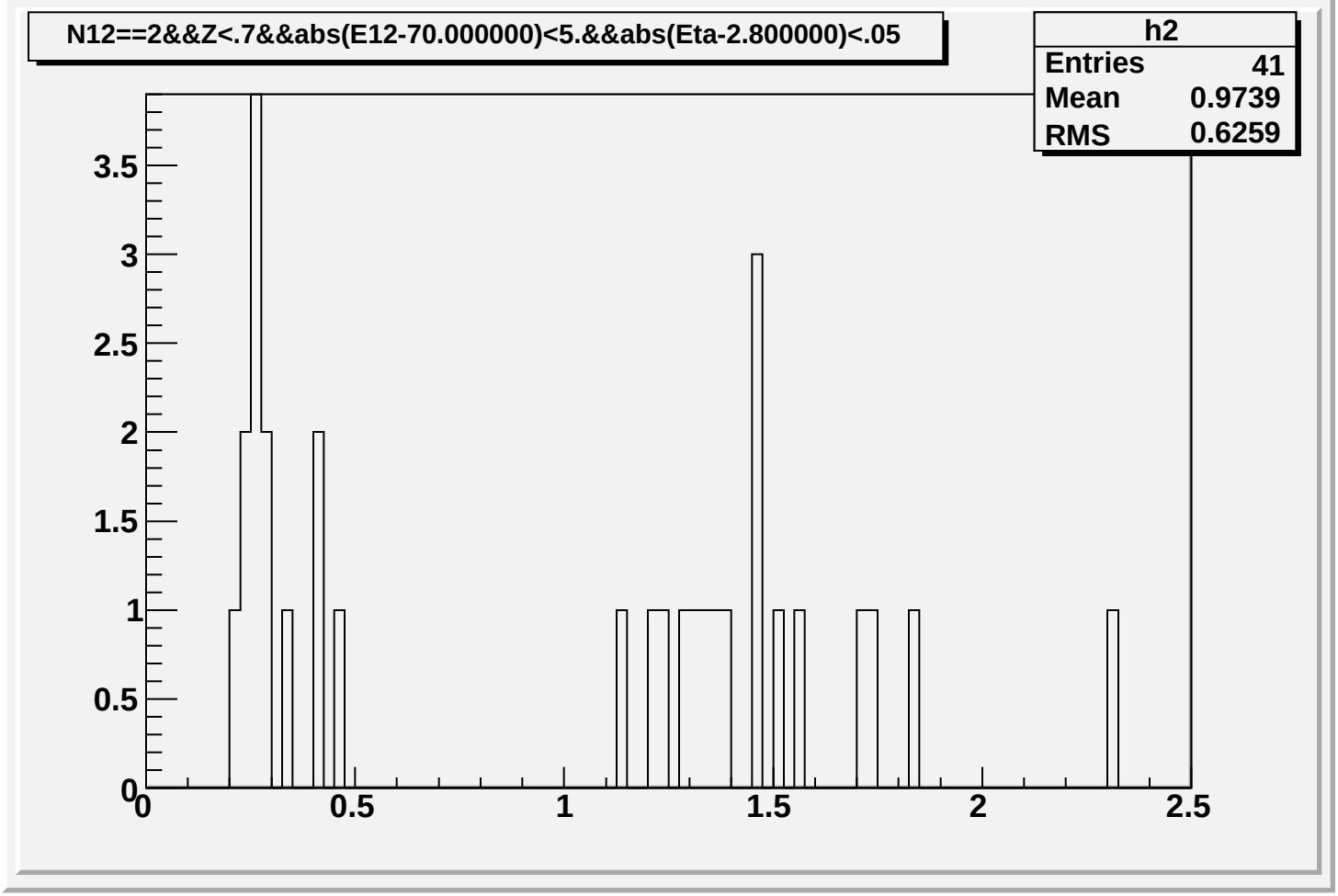

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 491
Mean 0.8224
RMS 0.6644
0
5
10
15
20
25
30
35
40
0
0.5
1
1.5
2
2.5

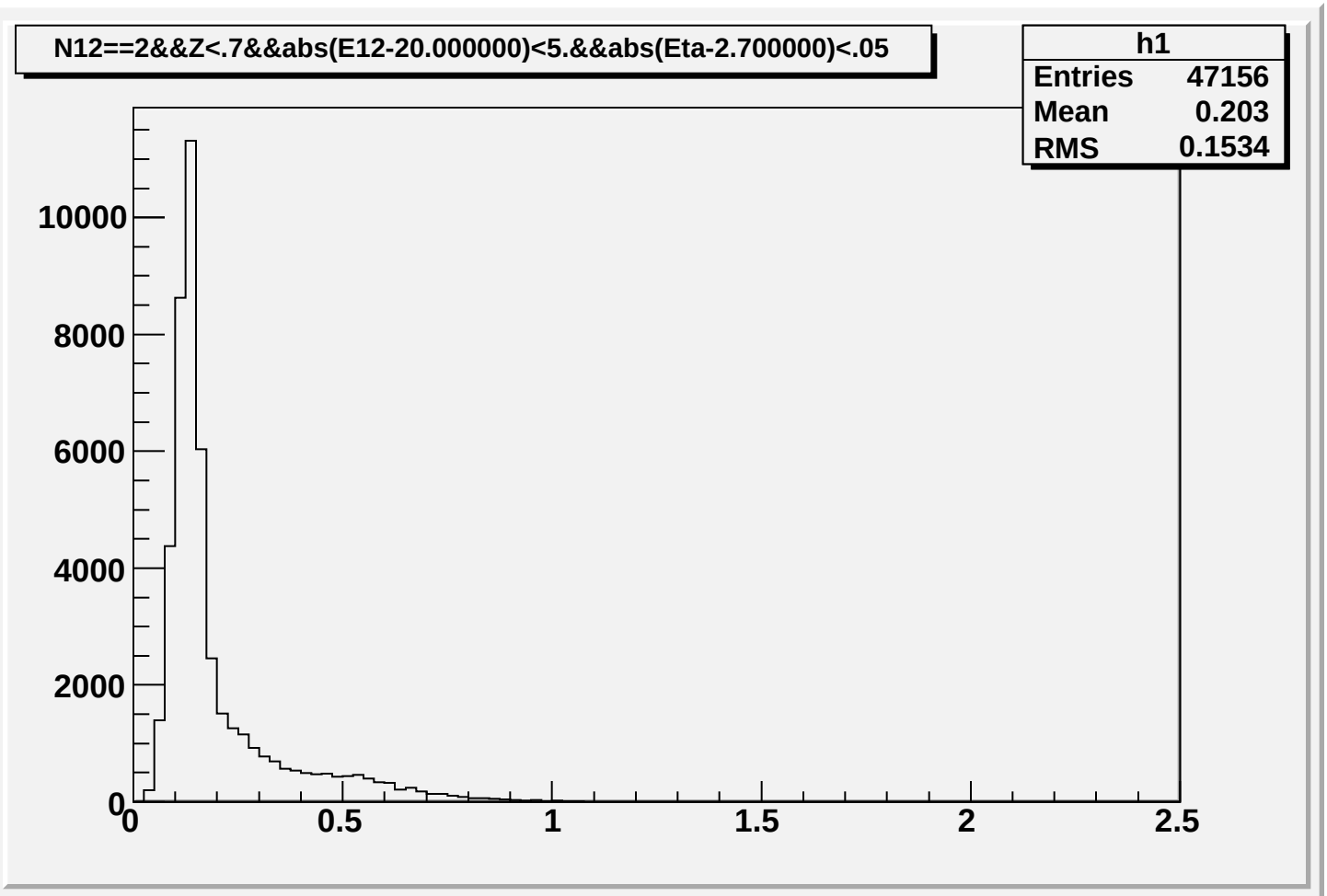

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 491
Mean 0.8224
RMS 0.6644
0
2
4
6
8
10
0
0.5
1
1.5
2
2.5

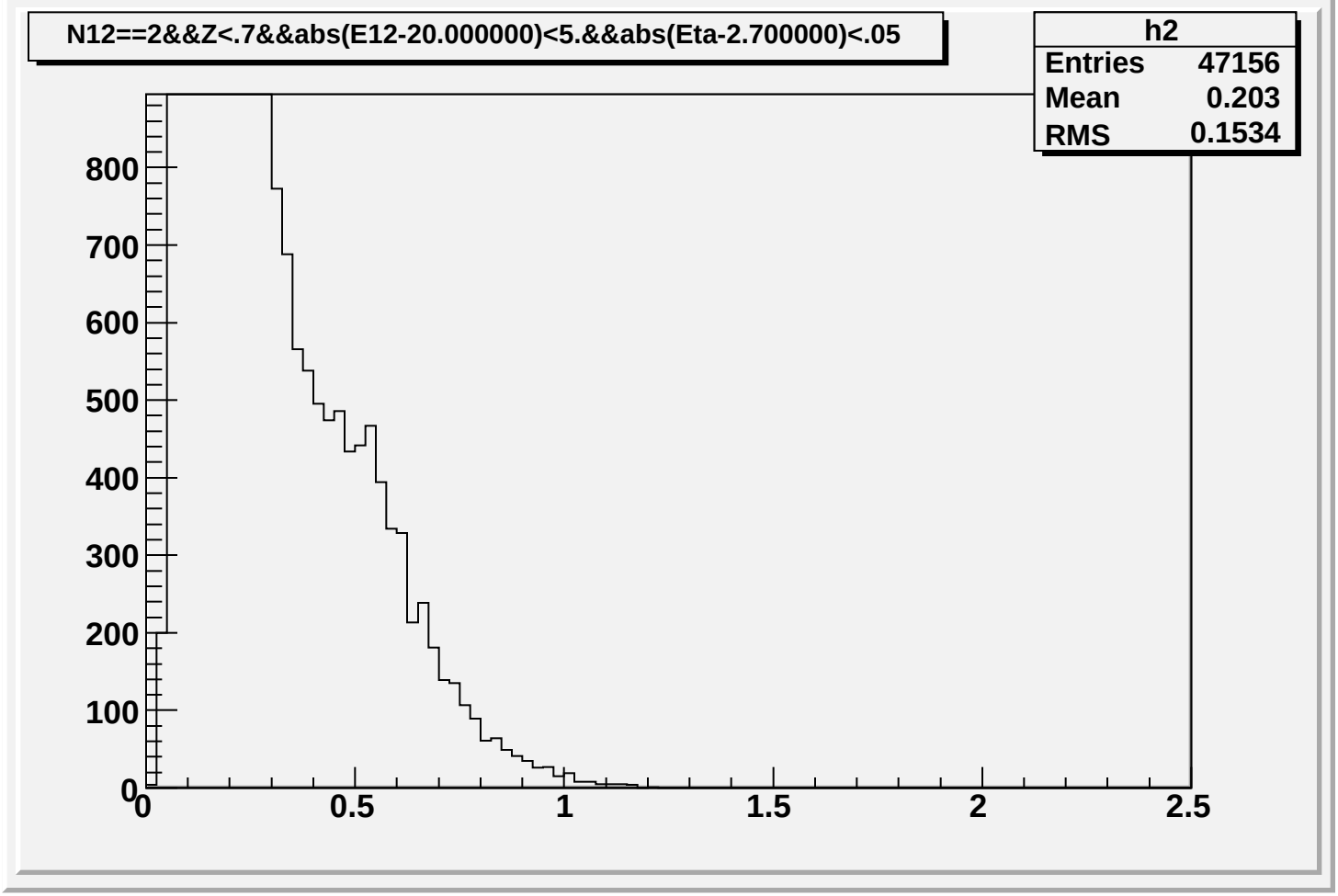

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 152
Mean 0.9178
RMS 0.7597
0
2
4
6
8
10
12
0
0.5
1
1.5
2
2.5

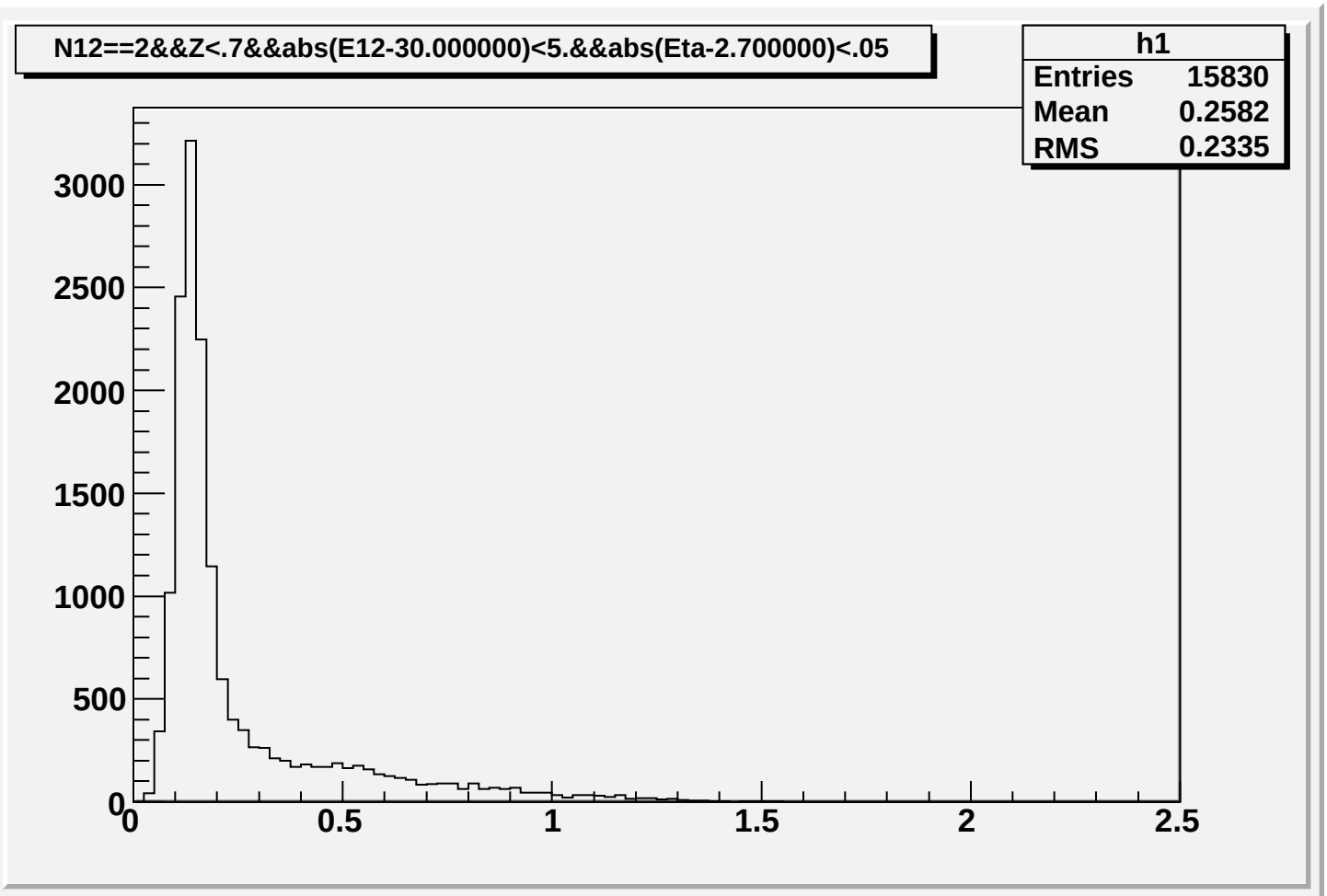

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 152
Mean 0.9178
RMS 0.7597
0
1
2
3
4
5
6
7
8
9
0
0.5
1
1.5
2
2.5

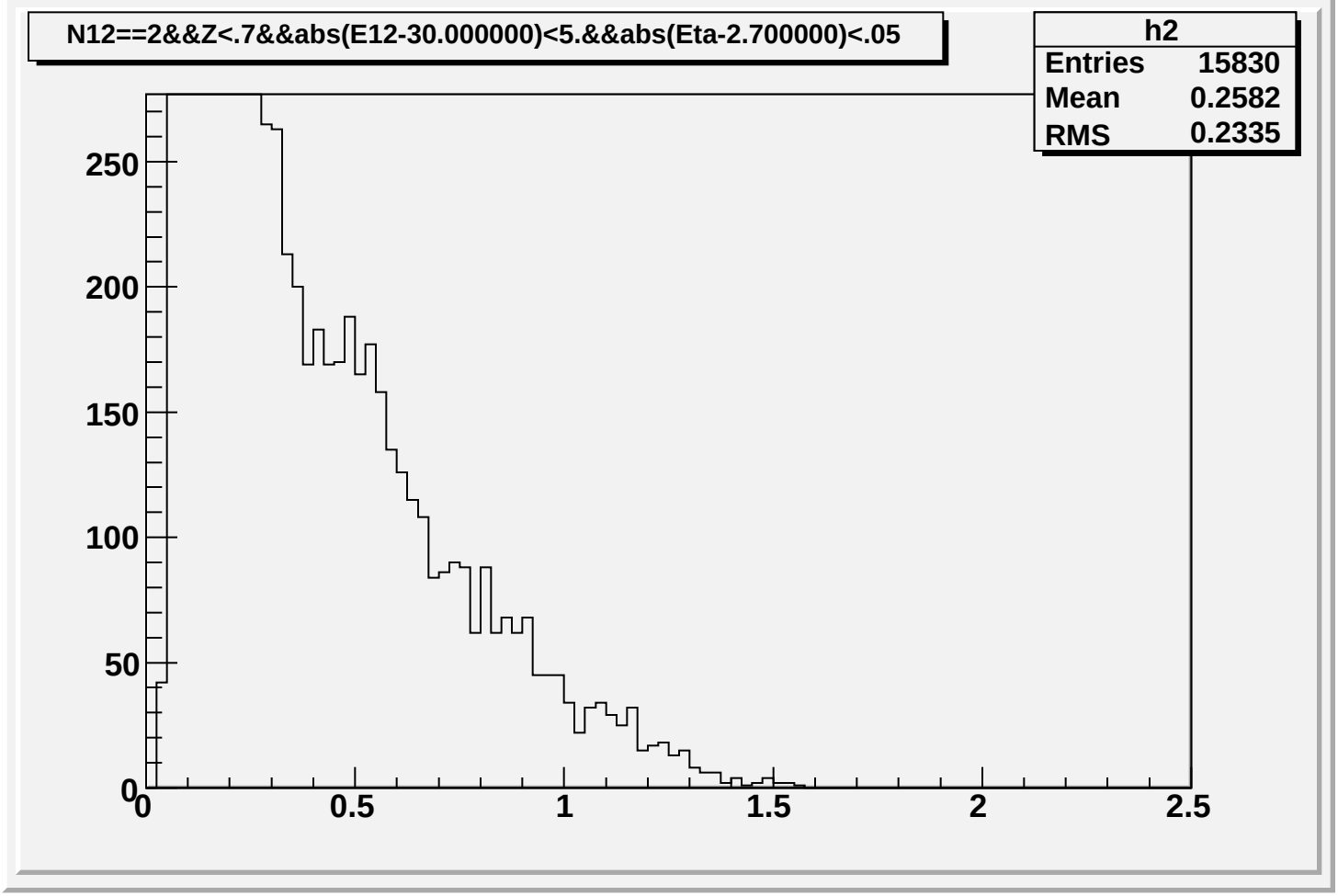

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.800000)<.05
h1
Entries 41
Mean 0.9739
RMS 0.6259
0
0.5
1
1.5
2
2.5
3
3.5
4

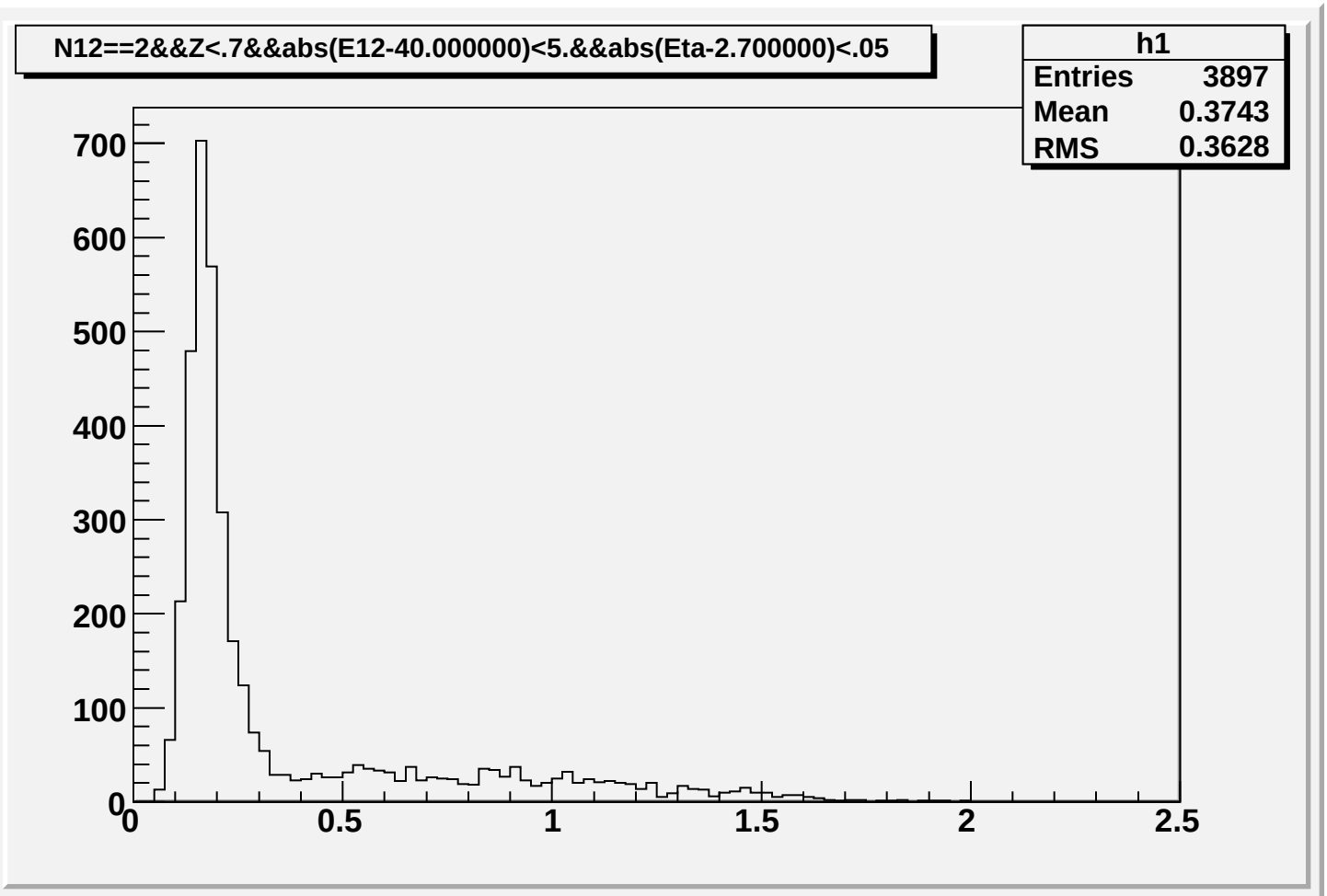

N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.800000)<.05
h2
Entries 41
Mean 0.9739
RMS 0.6259
0
0.5
1
1.5
2
2.5
3
3.5

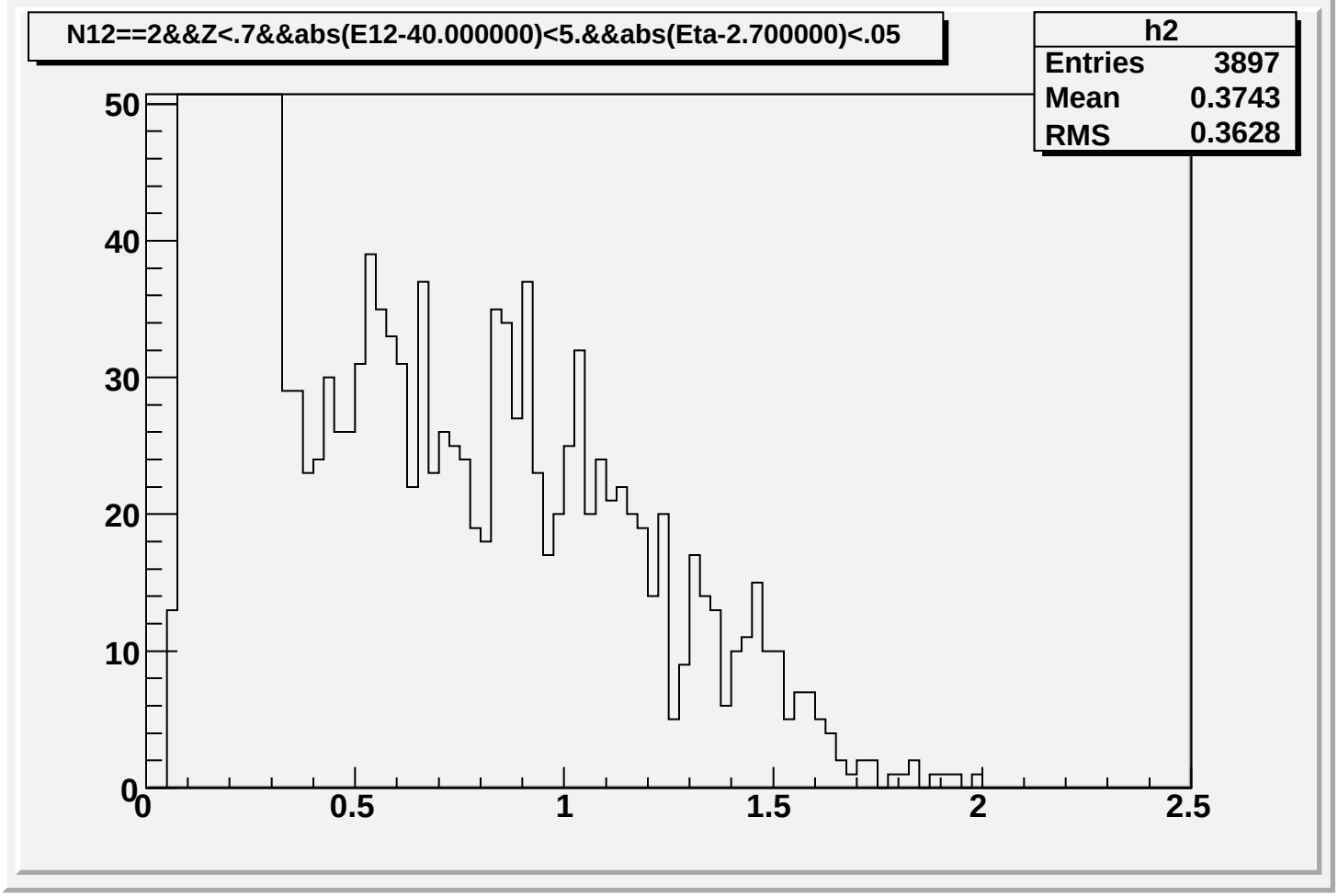

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 47156
Mean 0.203
RMS 0.1534
10000
8000
6000
4000
2000
0
0
0.5
1
1.5
2
2.5

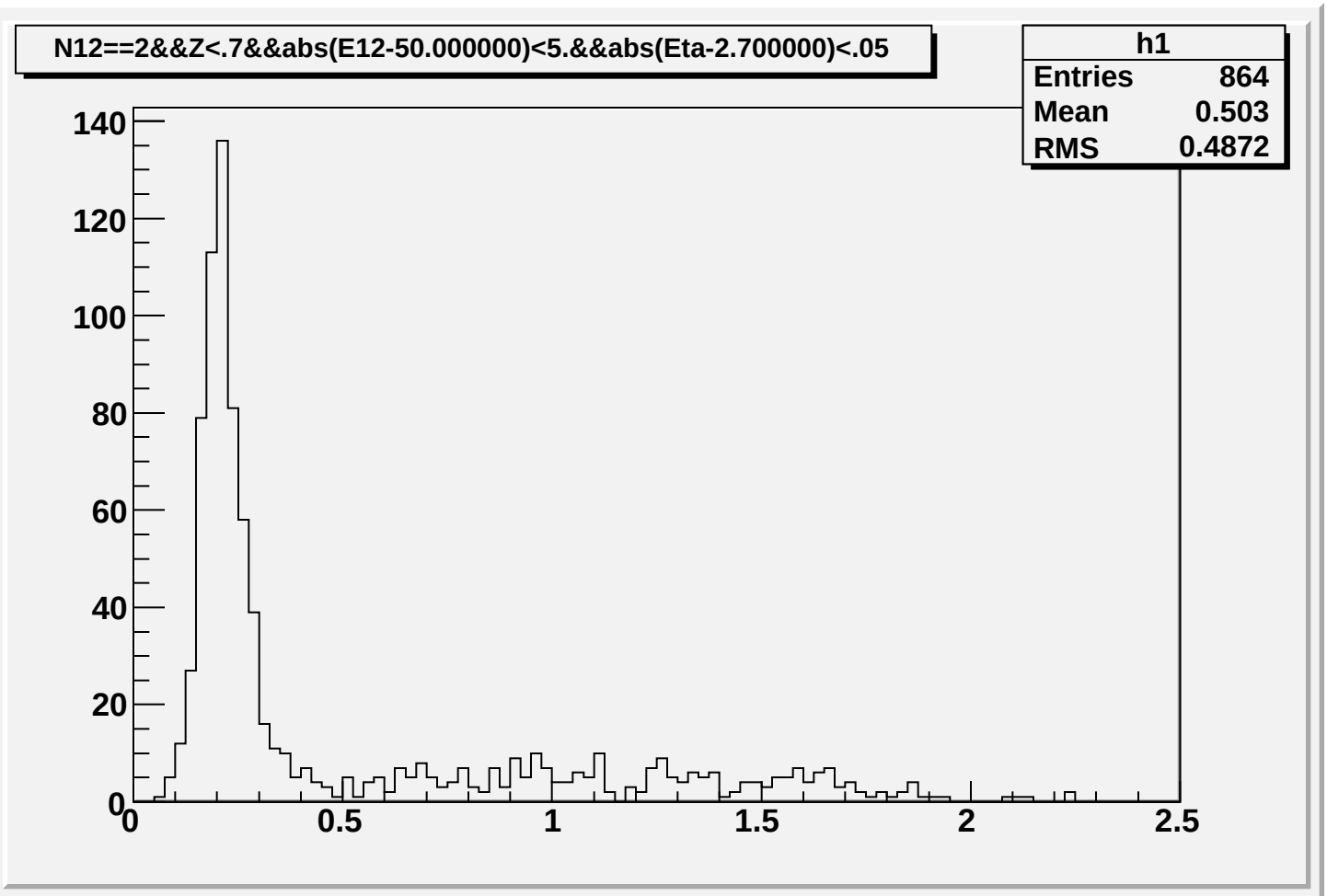

N12==2&&Z<.7&&abs(E12-20.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 47156
Mean 0.203
RMS 0.1534
800
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

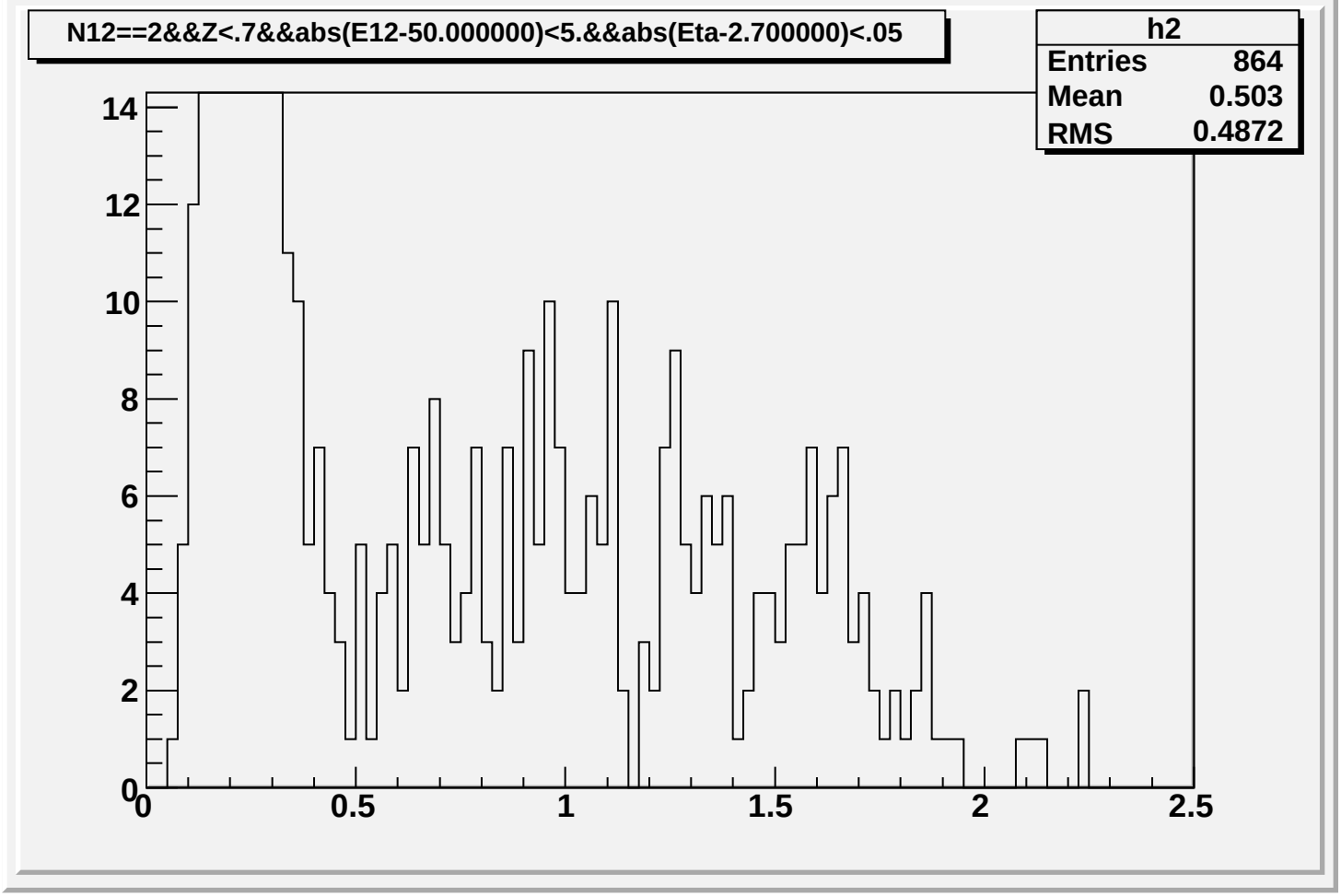

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 15830
Mean 0.2582
RMS 0.2335
3000
2500
2000
1500
1000
500
0
0
0.5
1
1.5
2
2.5

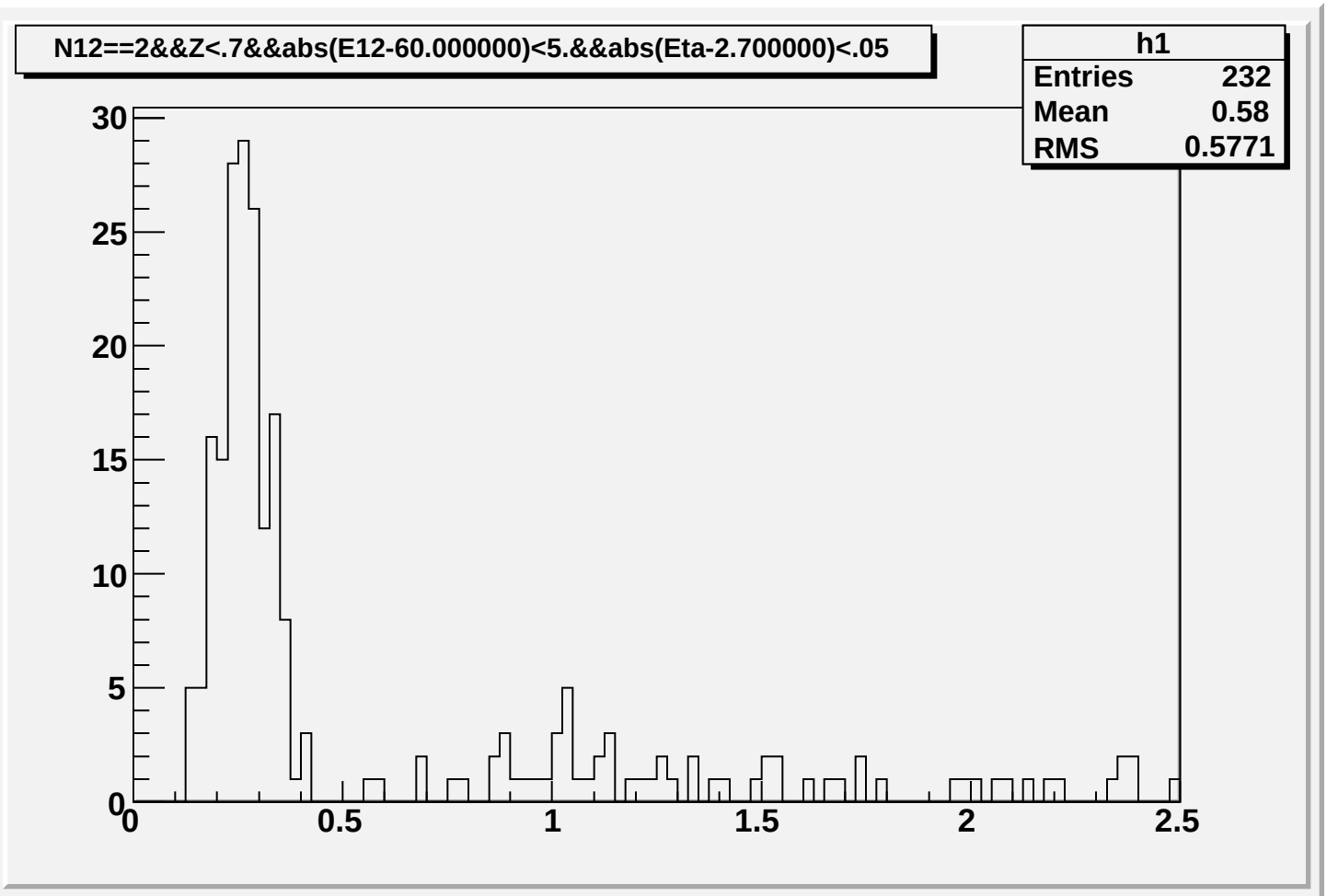

N12==2&&Z<.7&&abs(E12-30.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 15830
Mean 0.2582
RMS 0.2335
250
200
150
100
50
0
0
0.5
1
1.5
2
2.5

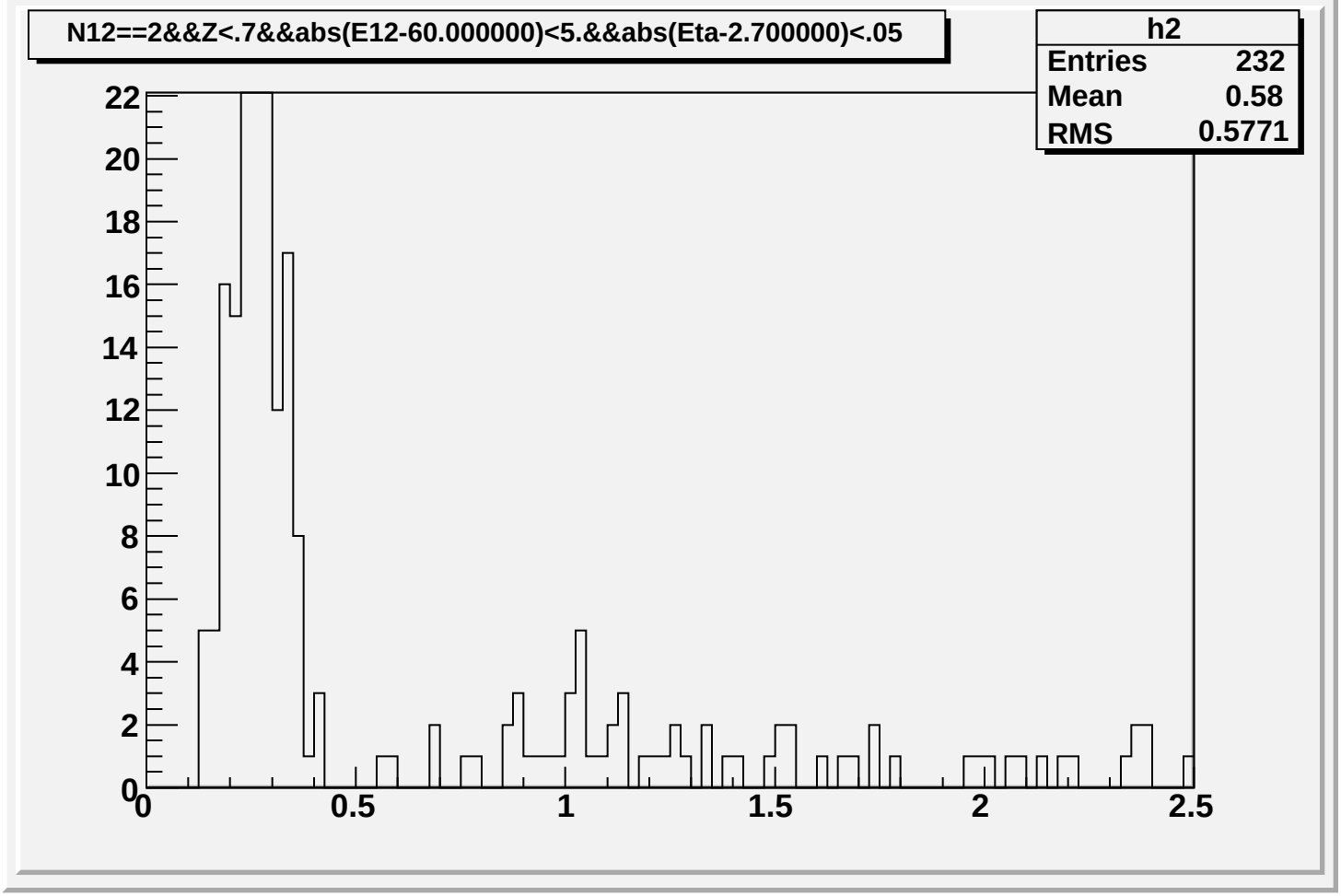

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 3897
Mean 0.3743
RMS 0.3628
700
600
500
400
300
200
100
0
0
0.5
1
1.5
2
2.5

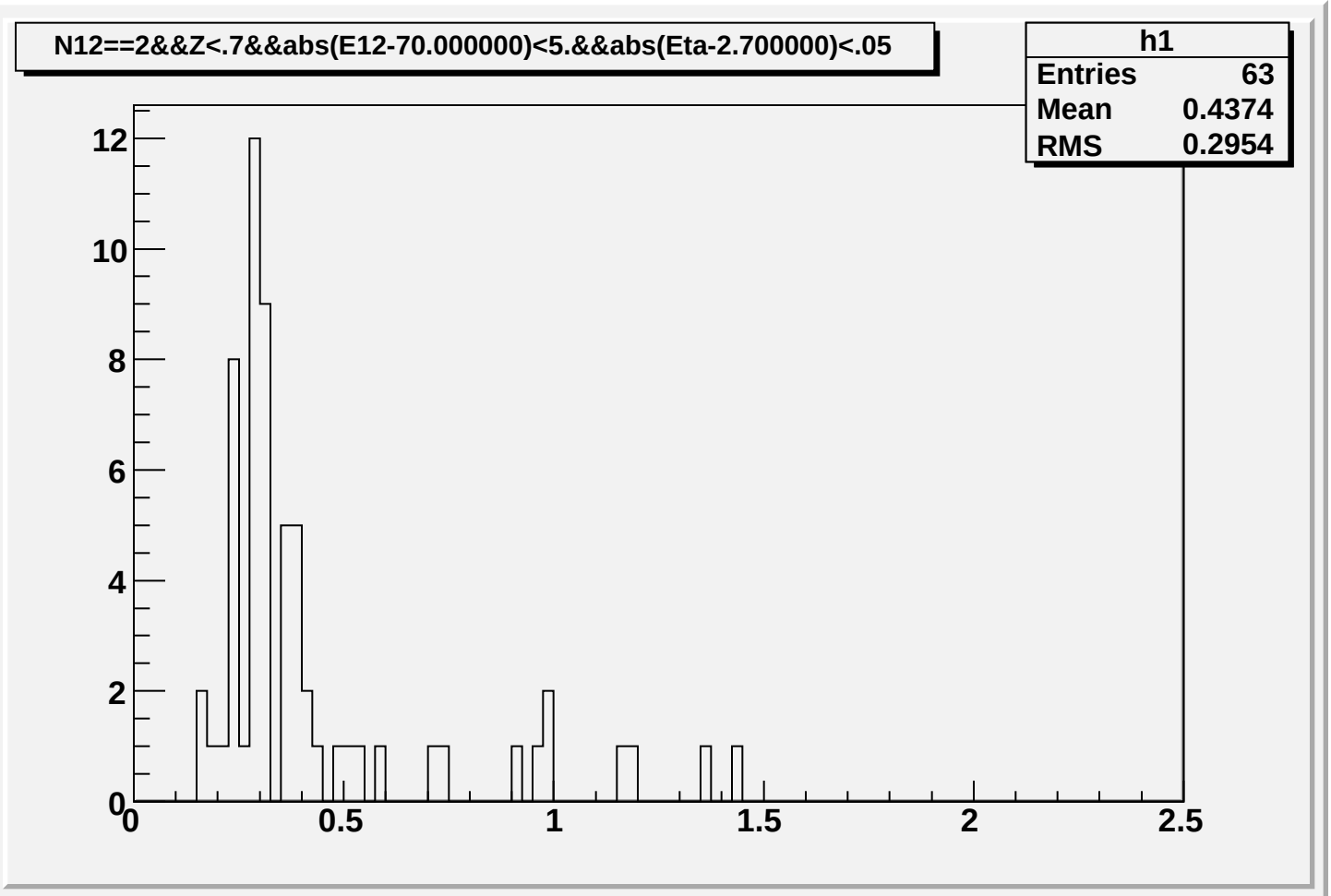

N12==2&&Z<.7&&abs(E12-40.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 3897
Mean 0.3743
RMS 0.3628
50
40
30
20
10
0
0
0.5
1
1.5
2
2.5

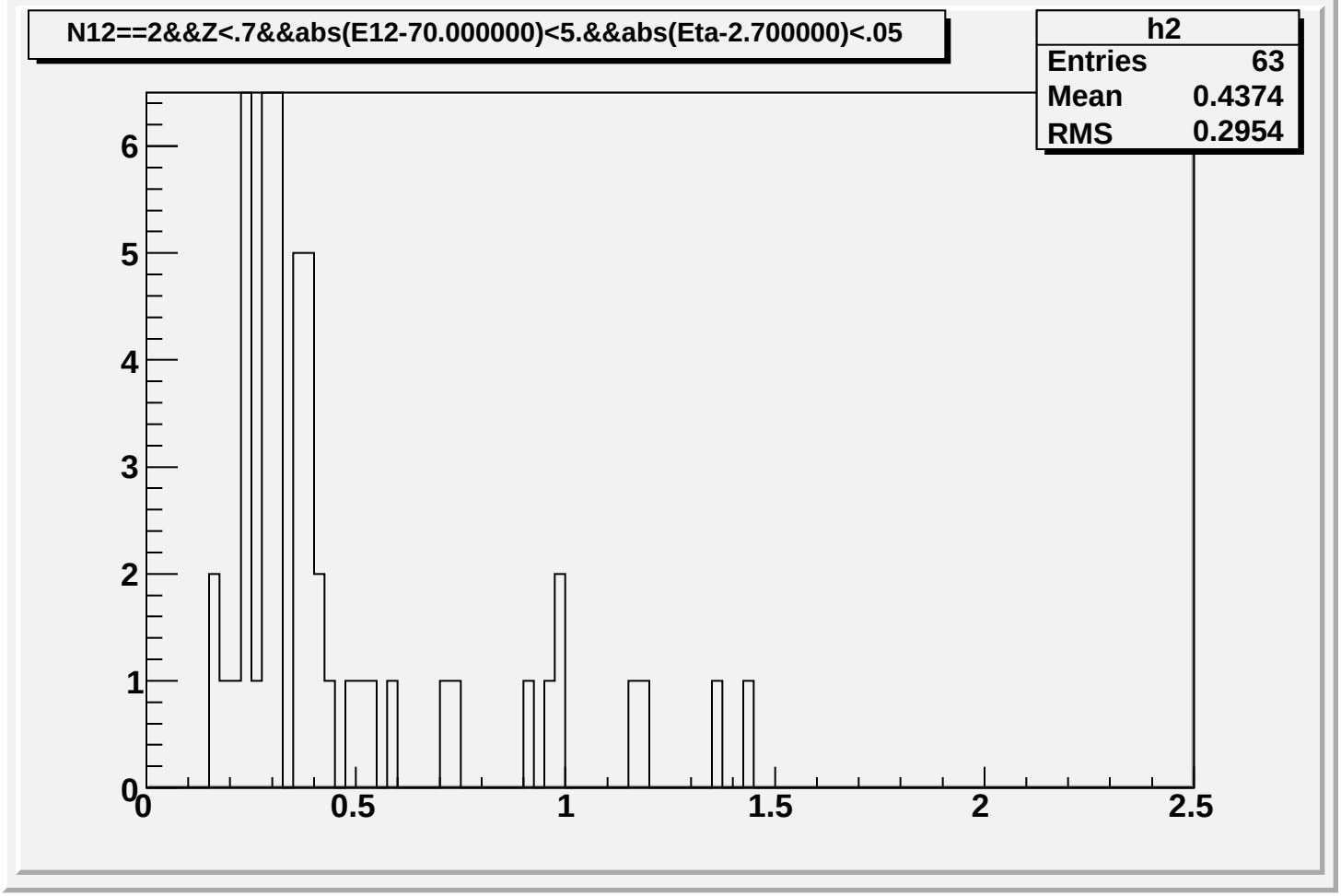

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 864
Mean 0.503
RMS 0.4872
140
120
100
80
60
40
20
0
0
0.5
1
1.5
2
2.5

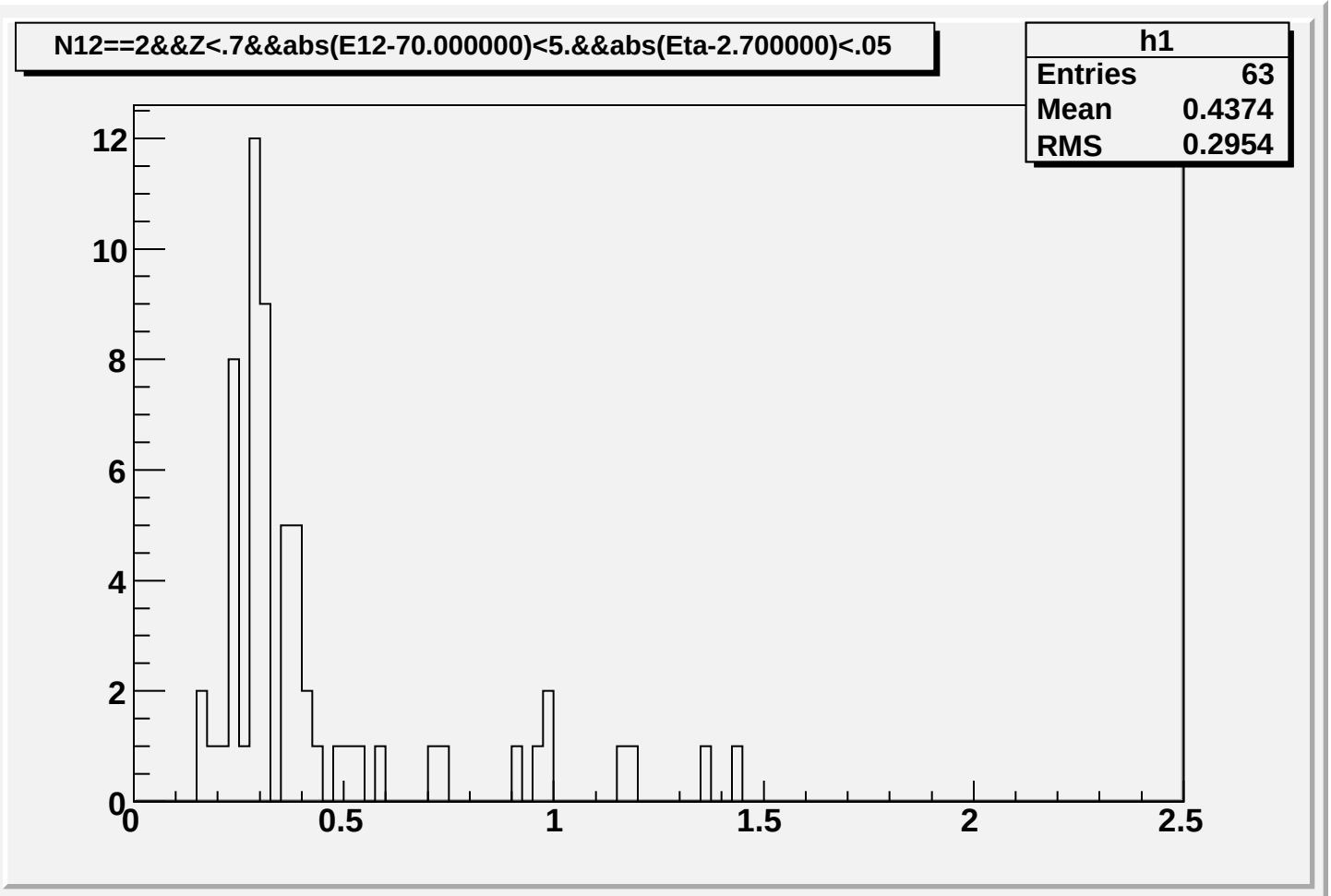

N12==2&&Z<.7&&abs(E12-50.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 864
Mean 0.503
RMS 0.4872
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5

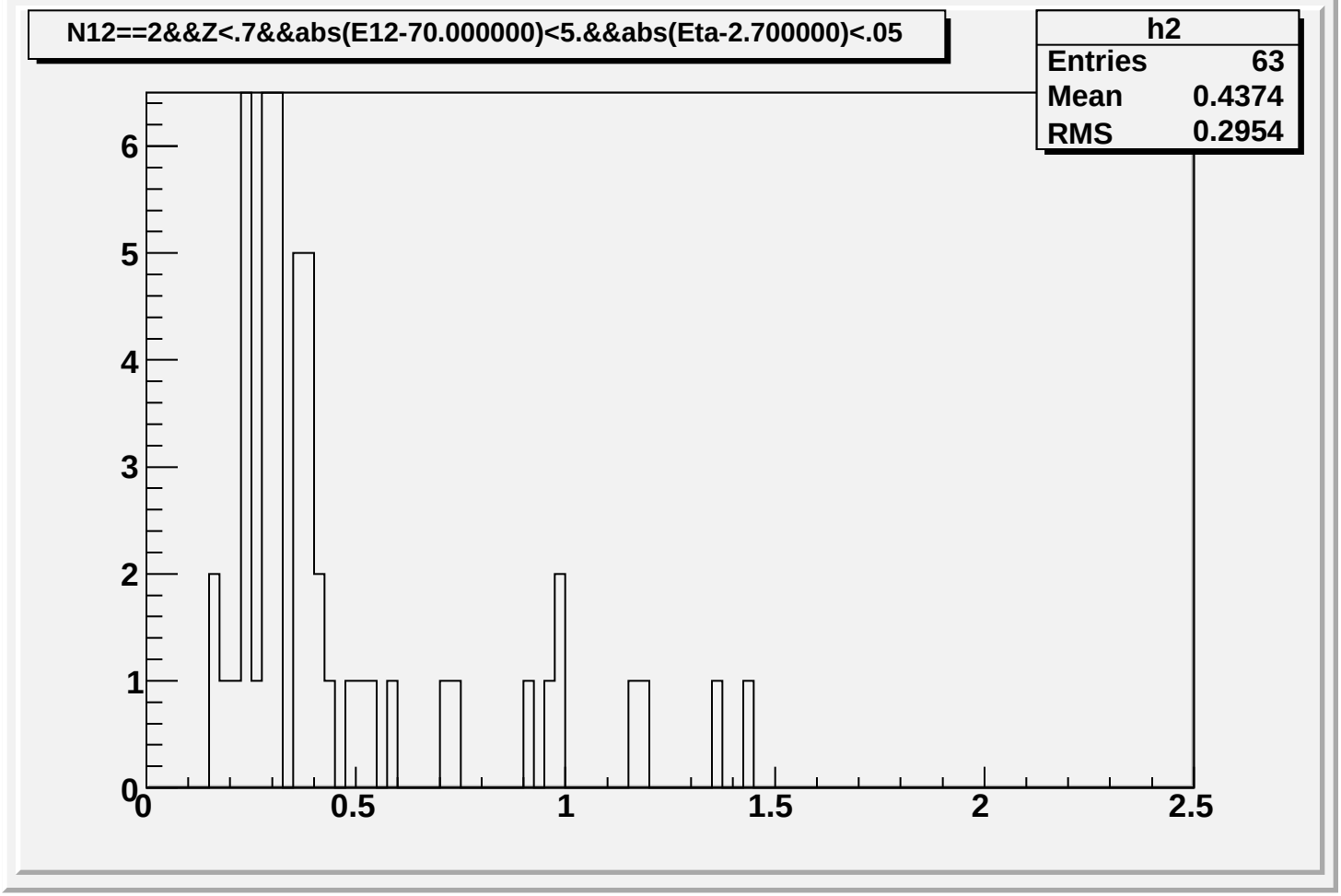

N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 232
Mean 0.58
RMS 0.5771
30
25
20
15
10
5
0
0
0.5
1
1.5
2
2.5


N12==2&&Z<.7&&abs(E12-60.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 232
Mean 0.58
RMS 0.5771
22
20
18
16
14
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5


N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 63
Mean 0.4374
RMS 0.2954
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5


N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 63
Mean 0.4374
RMS 0.2954
6
5
4
3
2
1
0
0
0.5
1
1.5
2
2.5


N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.700000)<.05
h1
Entries 63
Mean 0.4374
RMS 0.2954
12
10
8
6
4
2
0
0
0.5
1
1.5
2
2.5


N12==2&&Z<.7&&abs(E12-70.000000)<5.&&abs(Eta-2.700000)<.05
h2
Entries 63
Mean 0.4374
RMS 0.2954
6
5
4
3
2
1
0
0
0.5
1
1.5
2
2.5