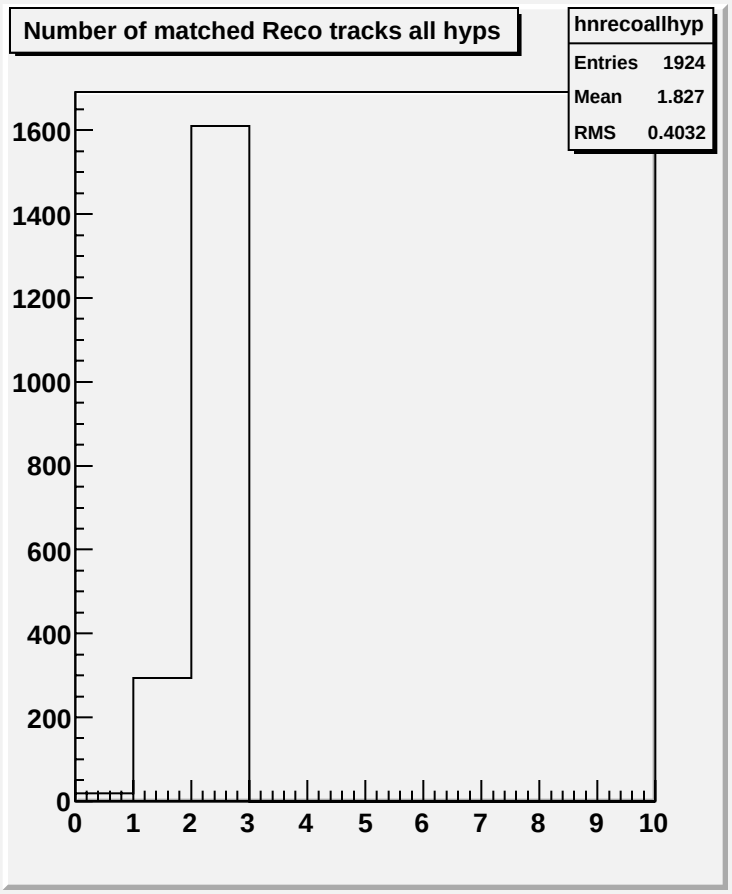
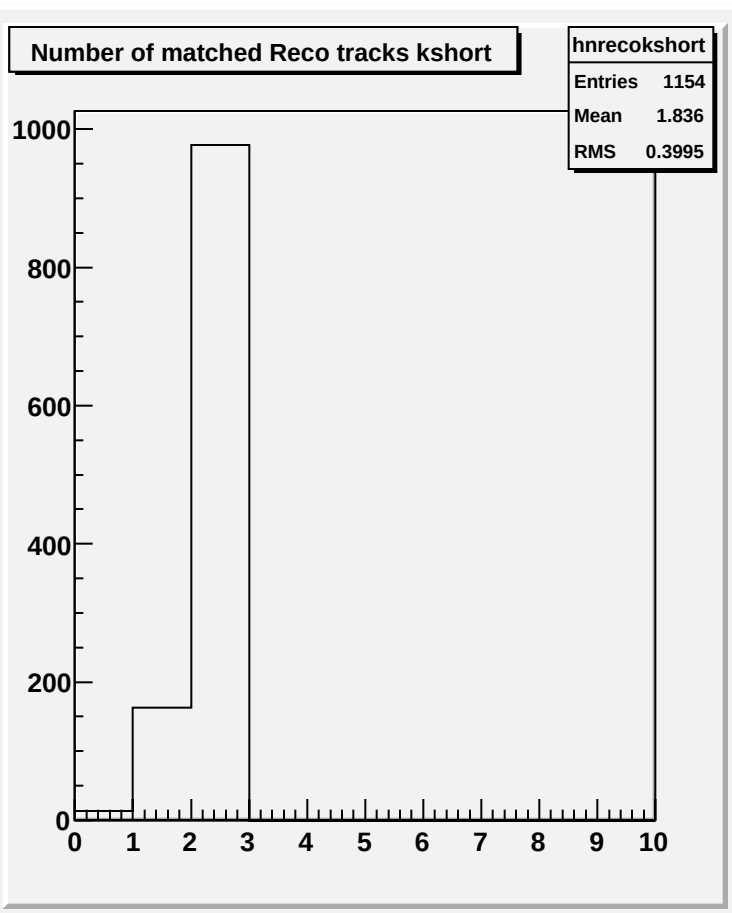
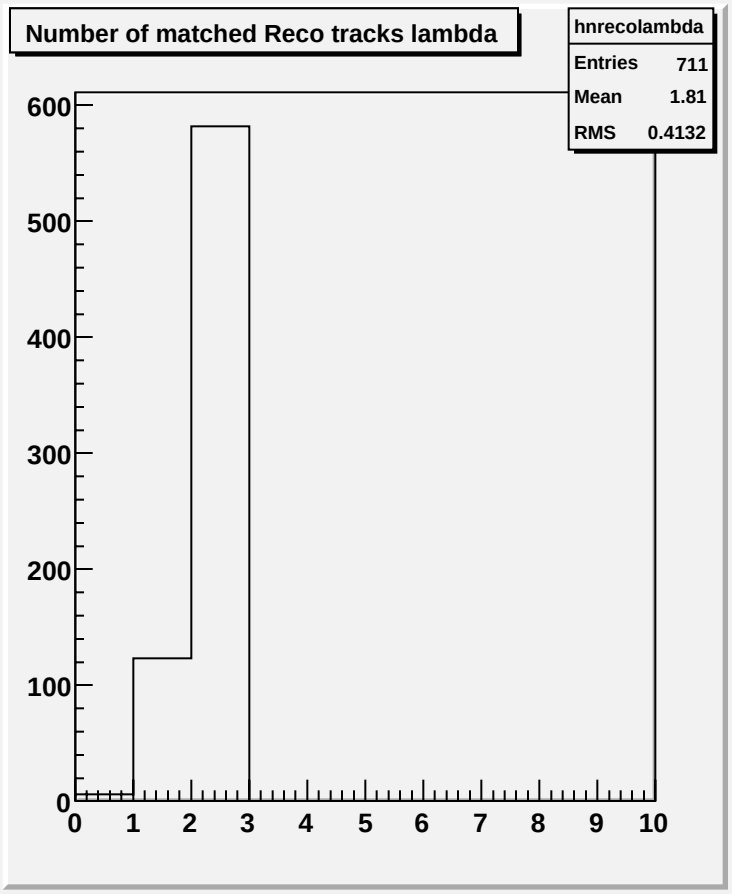
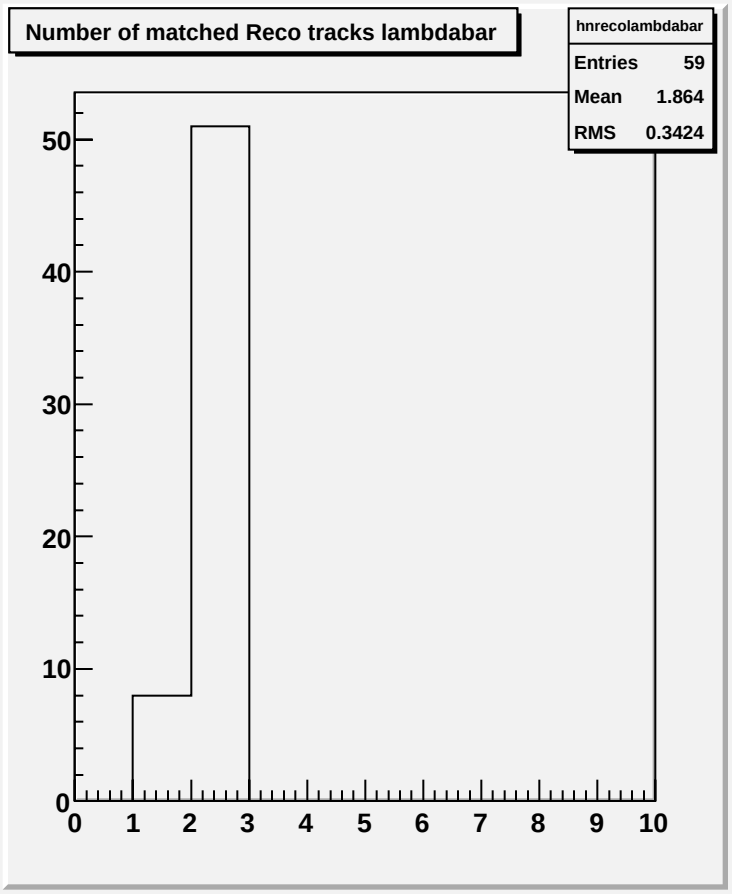
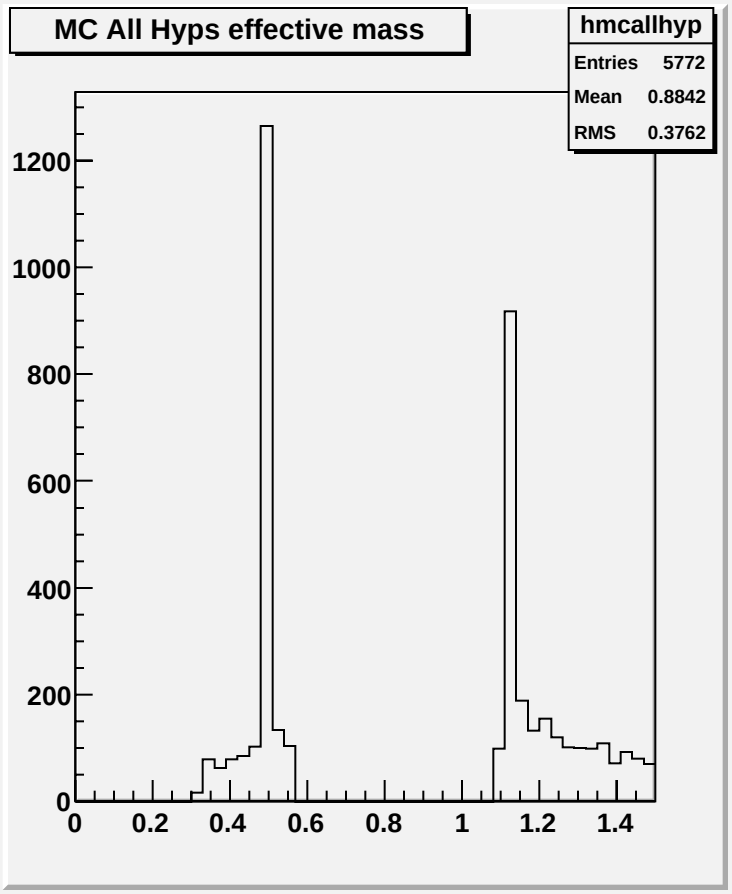
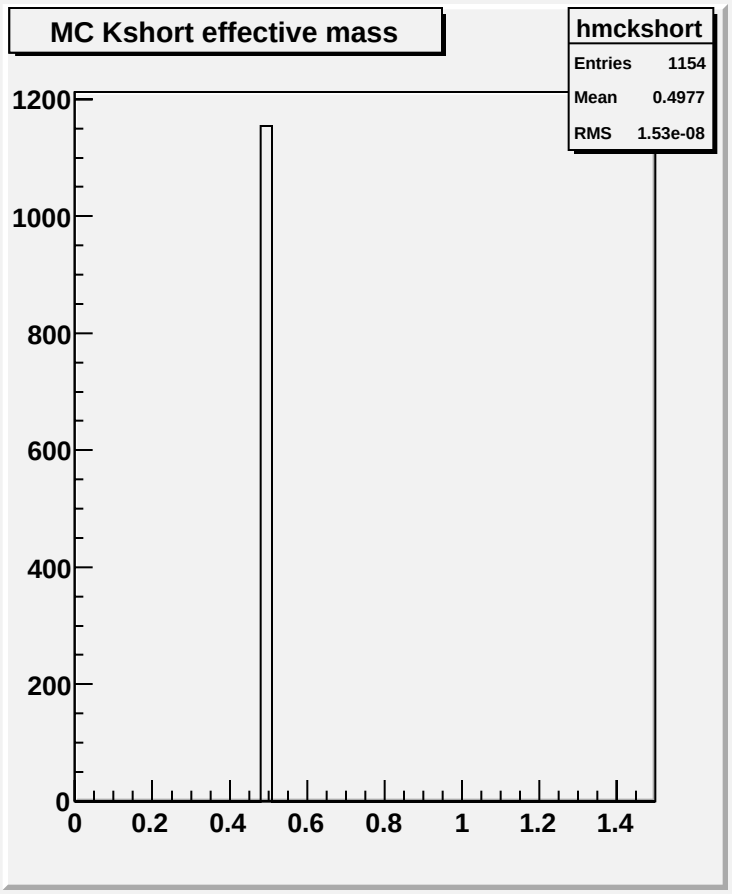

Number of matched Reco tracks all hyps
hnrecoallhyp
Entries 1924
Mean 1.827
RMS 0.4032
0
200
400
600
800
1000
1200
1400
1600
0 1 2 3 4 5 6 7 8 9 10

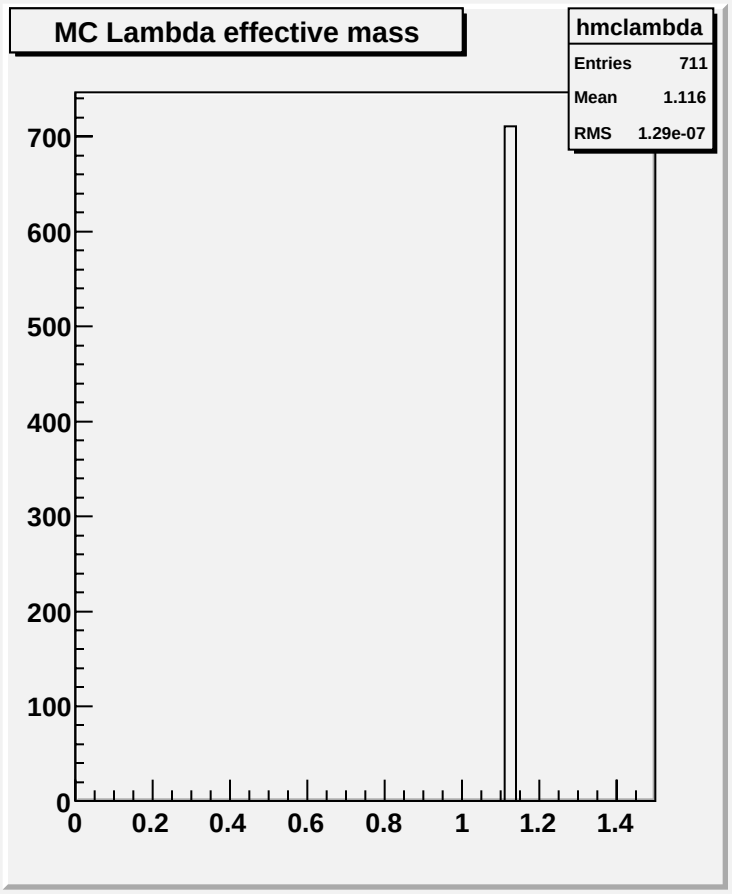

Number of matched Reco tracks kshort
hnrecokshort
Entries 1154
Mean 1.836
RMS 0.3995
0
200
400
600
800
1000
0 1 2 3 4 5 6 7 8 9 10

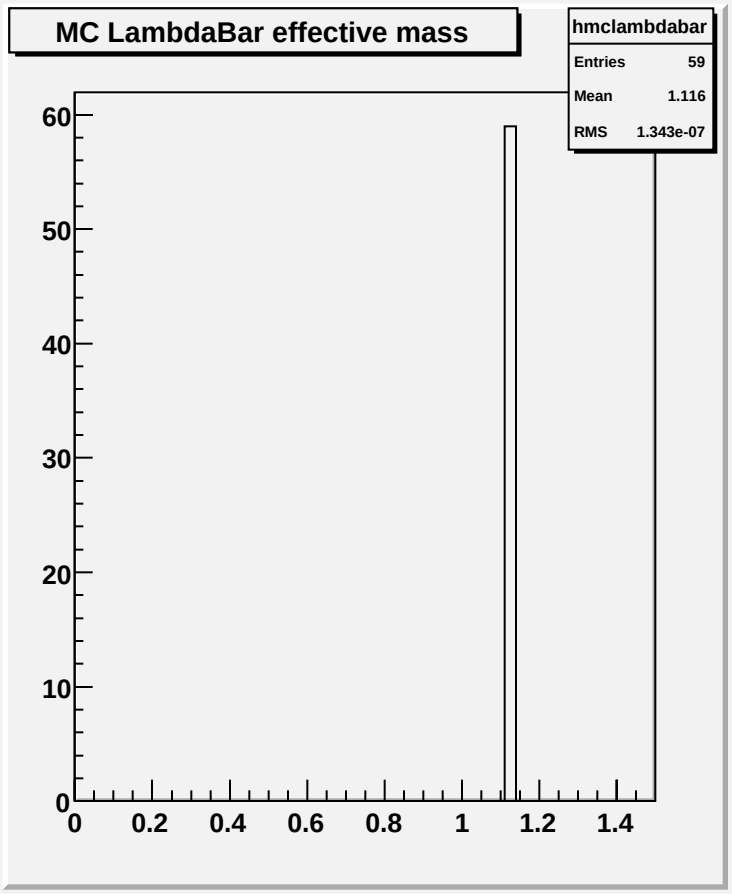

Number of matched Reco tracks lambda
hnrecolambda
Entries 711
Mean 1.81
RMS 0.4132
0
100
200
300
400
500
600
0 1 2 3 4 5 6 7 8 9 10

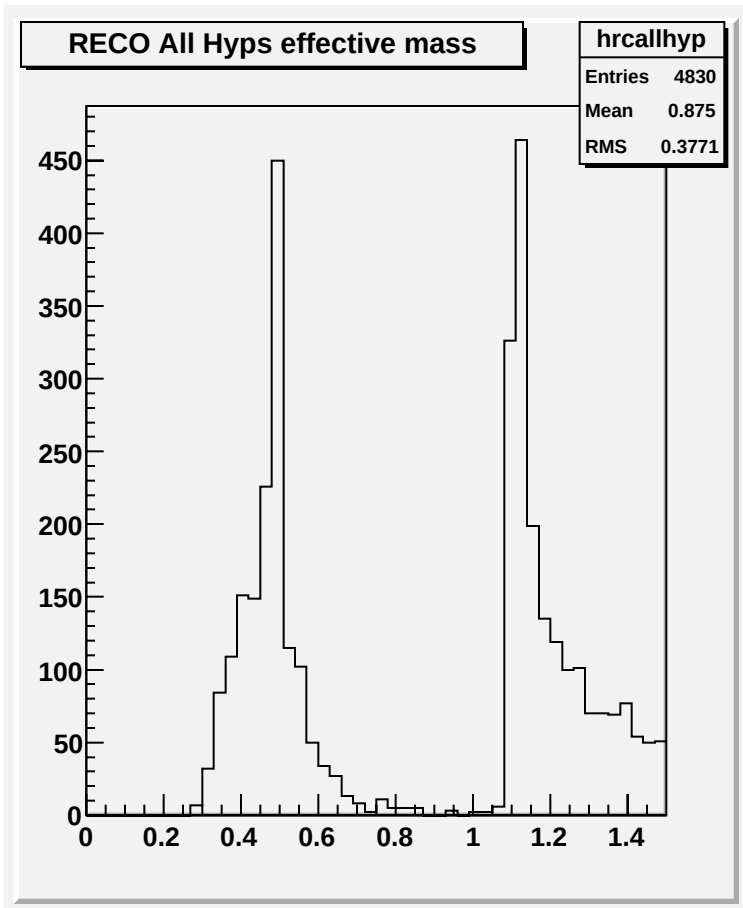

Number of matched Reco tracks lambdabar
hnrecolambdabar
Entries 59
Mean 1.864
RMS 0.3424
0
10
20
30
40
50
0 1 2 3 4 5 6 7 8 9 10

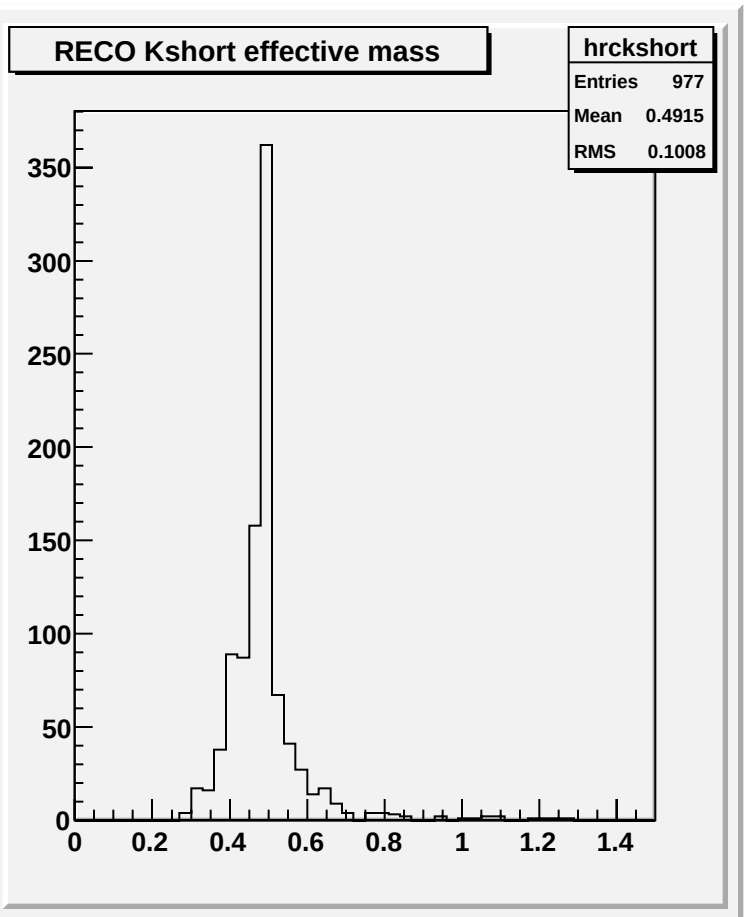

MC All Hyps effective mass
hmcallhyp
Entries 5772
Mean 0.8842
RMS 0.3762
0
200
400
600
800
1000
1200
0
0.2
0.4
0.6
0.8
1
1.2
1.4

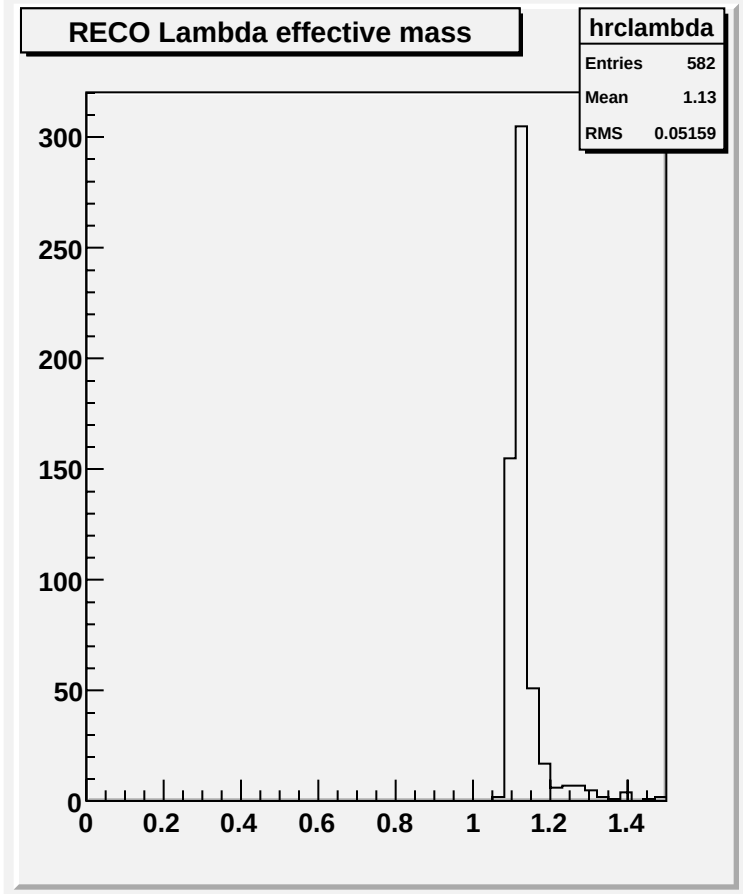

MC Kshort effective mass
hmckshort
Entries 1154
Mean 0.4977
RMS 1.53e-08
0
200
400
600
800
1000
1200
0
0.2
0.4
0.6
0.8
1
1.2
1.4

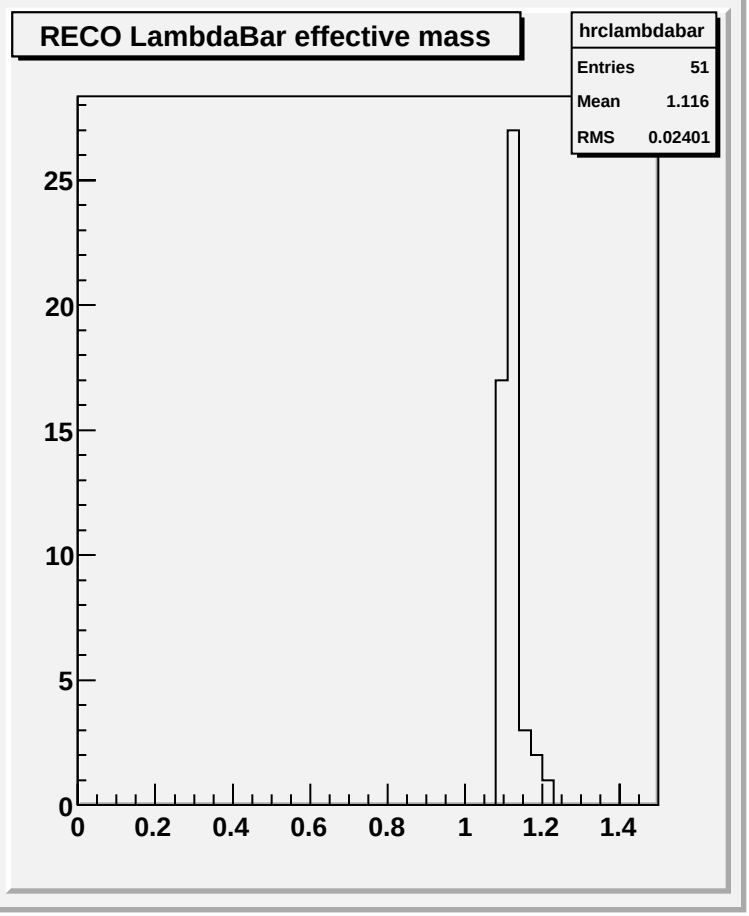

MC Lambda effective mass
hmclambda
Entries 711
Mean 1.116
RMS 1.29e-07
0
100
200
300
400
500
600
700
0
0.2
0.4
0.6
0.8
1
1.2
1.4

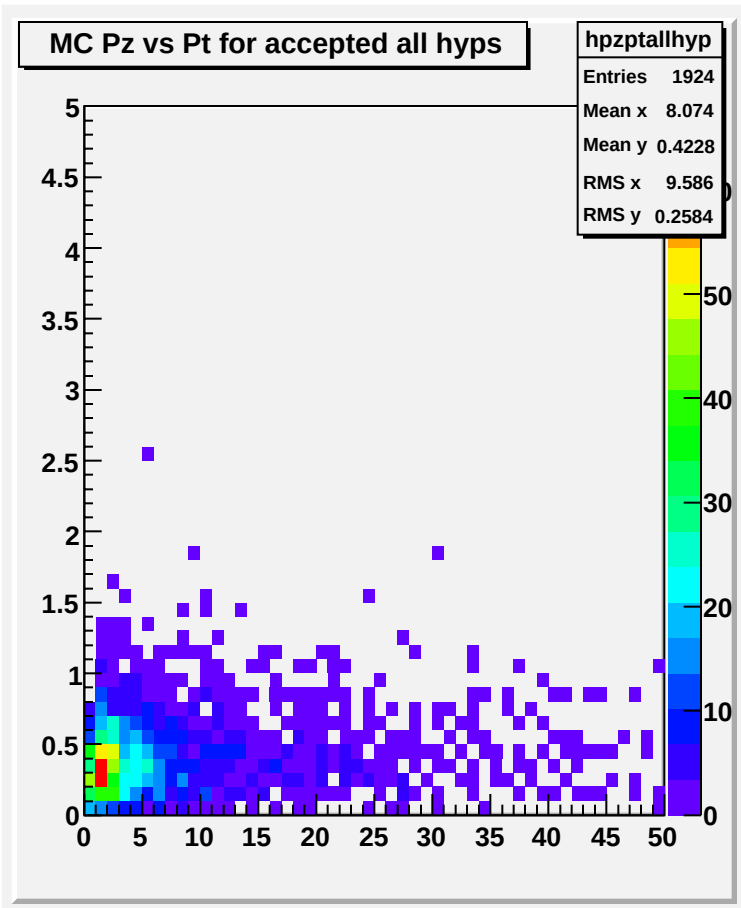

MC LambdaBar effective mass
hmclambdabar
Entries 59
Mean 1.116
RMS 1.343e-07
0
10
20
30
40
50
60
0
0.2
0.4
0.6
0.8
1
1.2
1.4

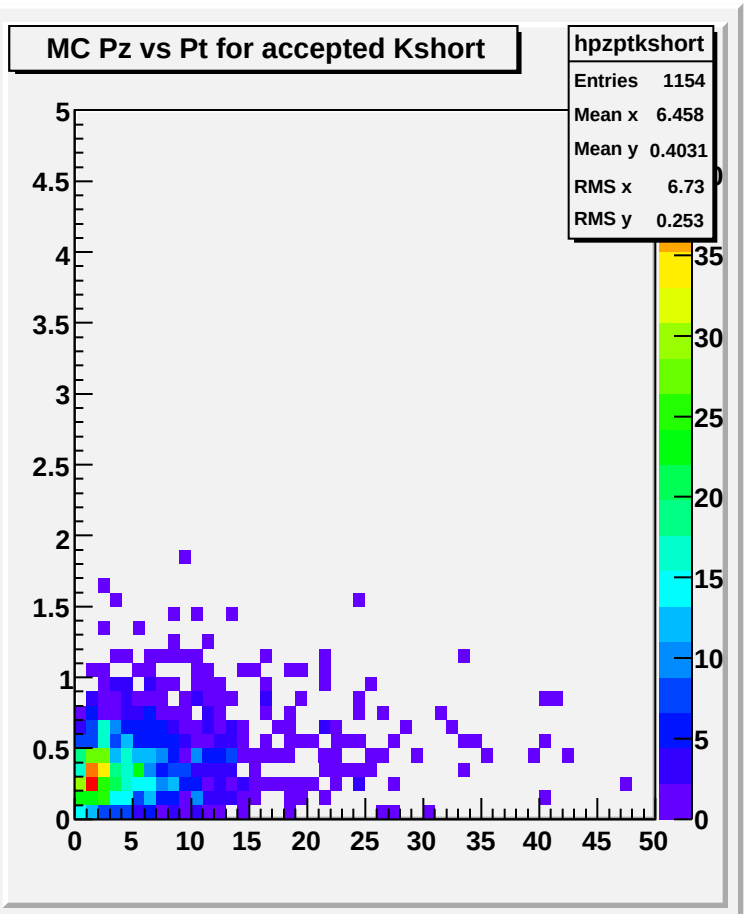

RECO All Hyps effective mass
hrcallhyp
Entries 4830
Mean 0.875
RMS 0.3771
0 50 100 150 200 250 300 350 400 450
0 0.2 0.4 0.6 0.8 1 1.2 1.4

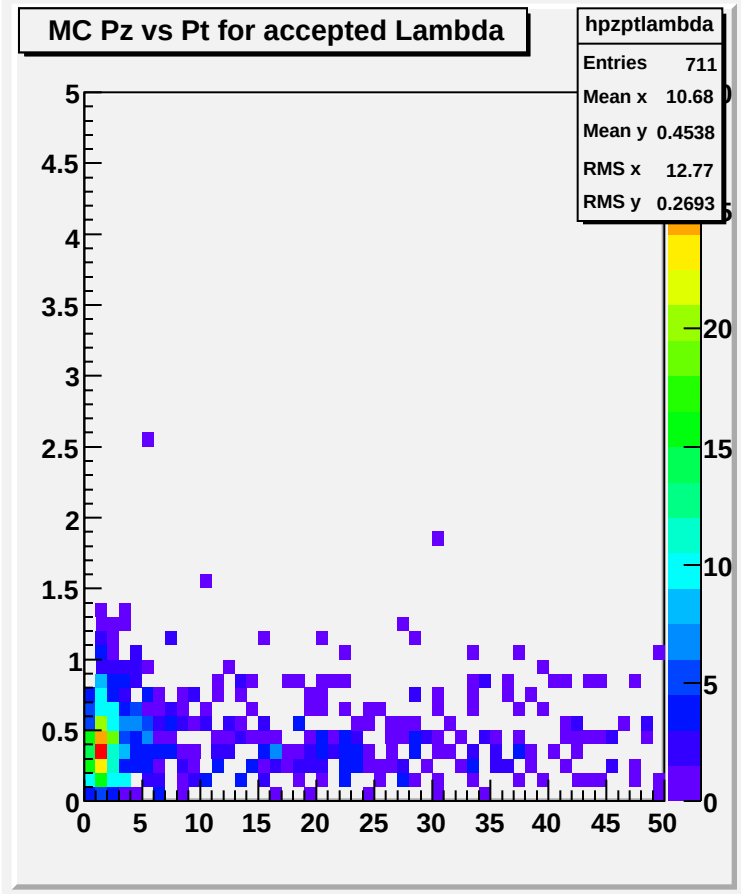

RECO Kshort effective mass
hrckshort
Entries 977
Mean 0.4915
RMS 0.1008
0 50 100 150 200 250 300 350
0 0.2 0.4 0.6 0.8 1 1.2 1.4

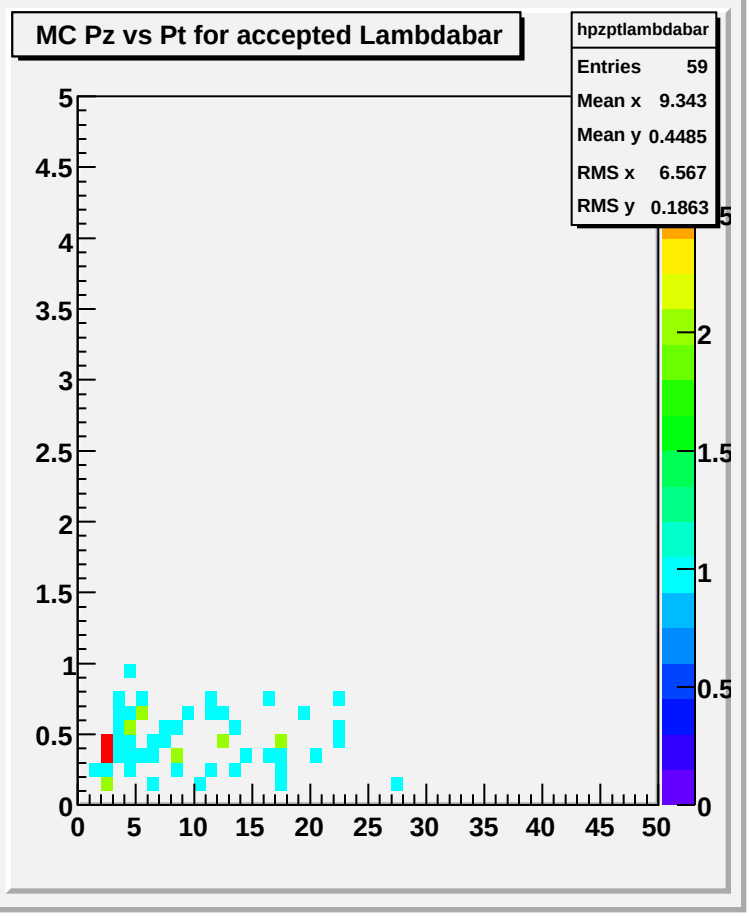

RECO Lambda effective mass
hrclambda
Entries 582
Mean 1.13
RMS 0.05159
0 50 100 150 200 250 300
0 0.2 0.4 0.6 0.8 1 1.2 1.4

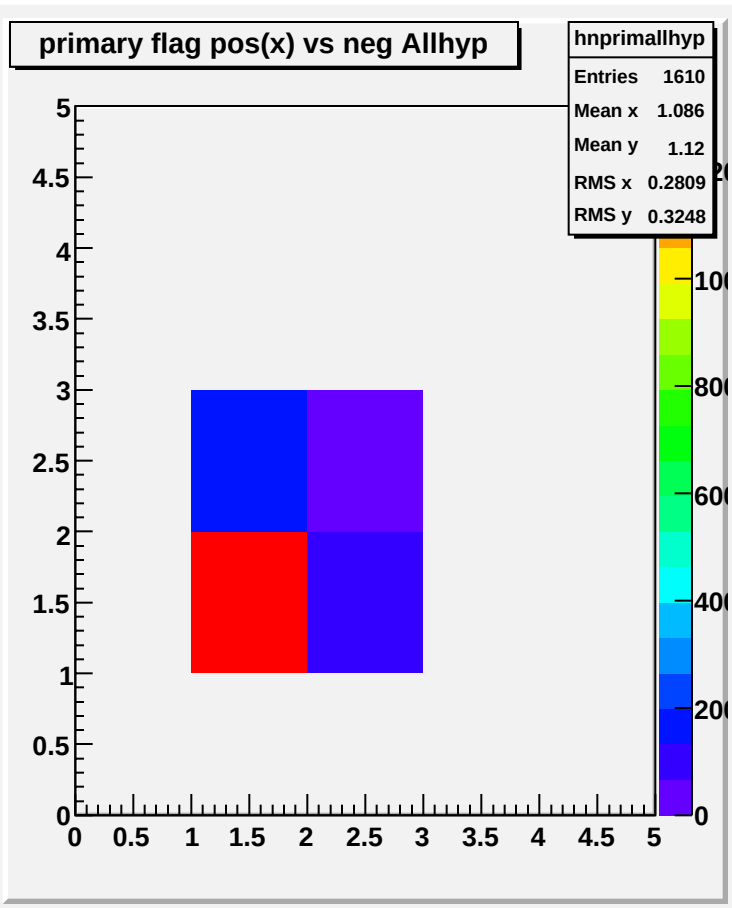

RECO LambdaBar effective mass
hrclambdabar
Entries 51
Mean 1.116
RMS 0.02401
0 5 10 15 20 25
0 0.2 0.4 0.6 0.8 1 1.2 1.4

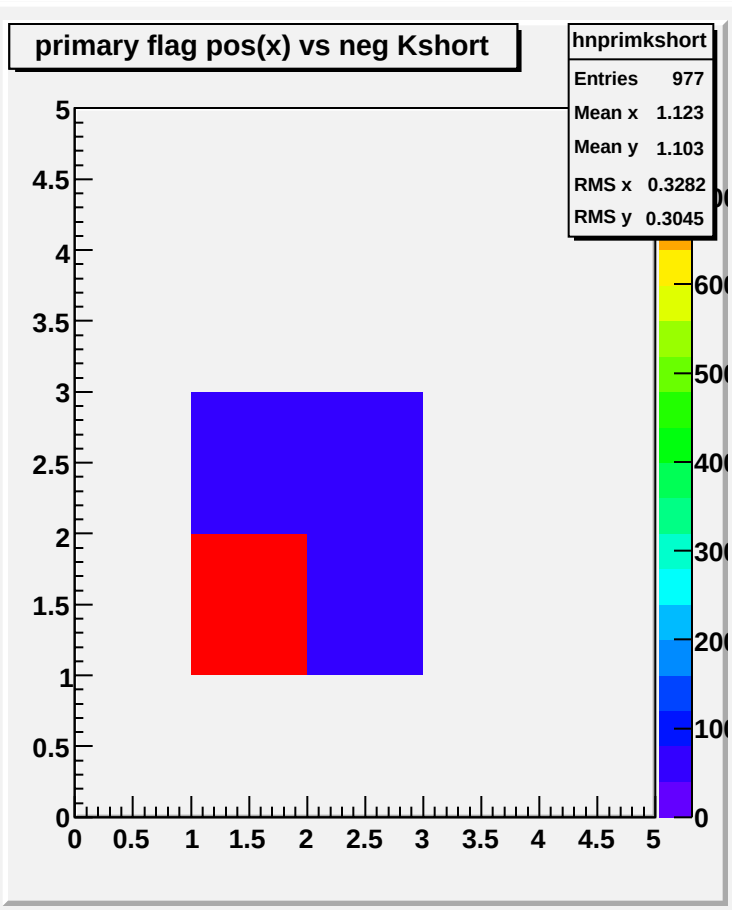

MC Pz vs Pt for accepted all hyps
hpzptallhyp
Entries 1924
Mean x 8.074
Mean y 0.4228
RMS x 9.586
RMS y 0.2584

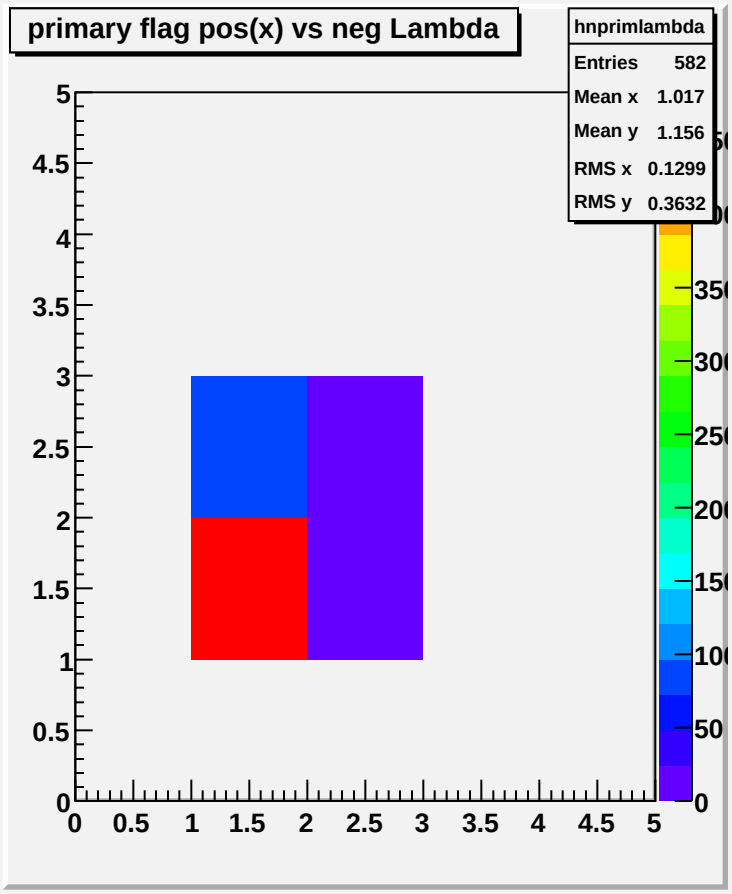

MC Pz vs Pt for accepted Kshort
hpzptkshort
Entries 1154
Mean x 6.458
Mean y 0.4031
RMS x 6.73
RMS y 0.253

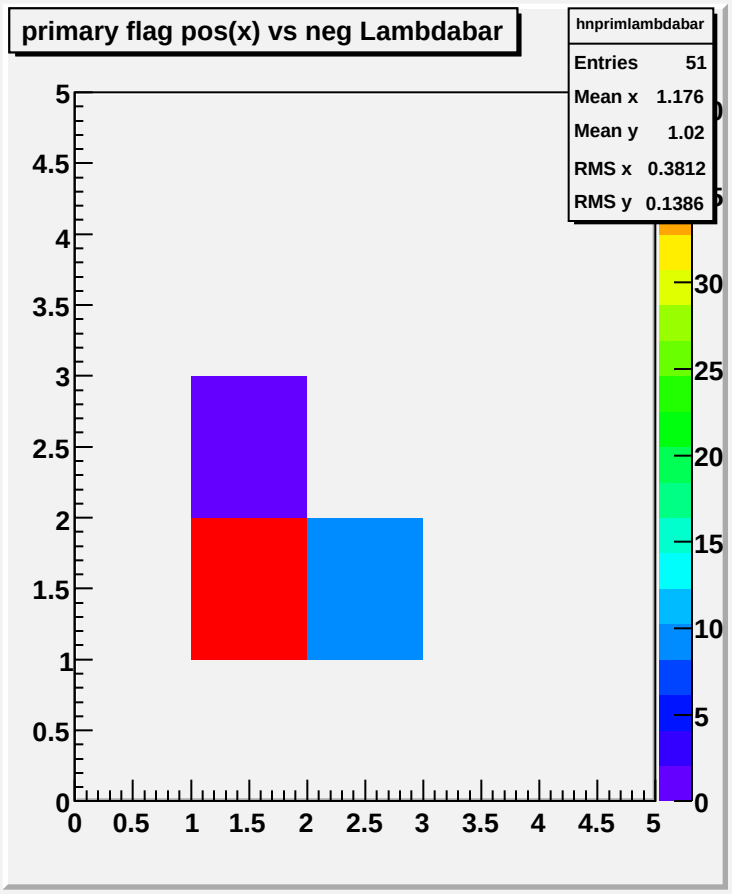

MC Pz vs Pt for accepted Lambda
hpzptlambda
Entries 711
Mean x 10.68
Mean y 0.4538
RMS x 12.77
RMS y 0.2693

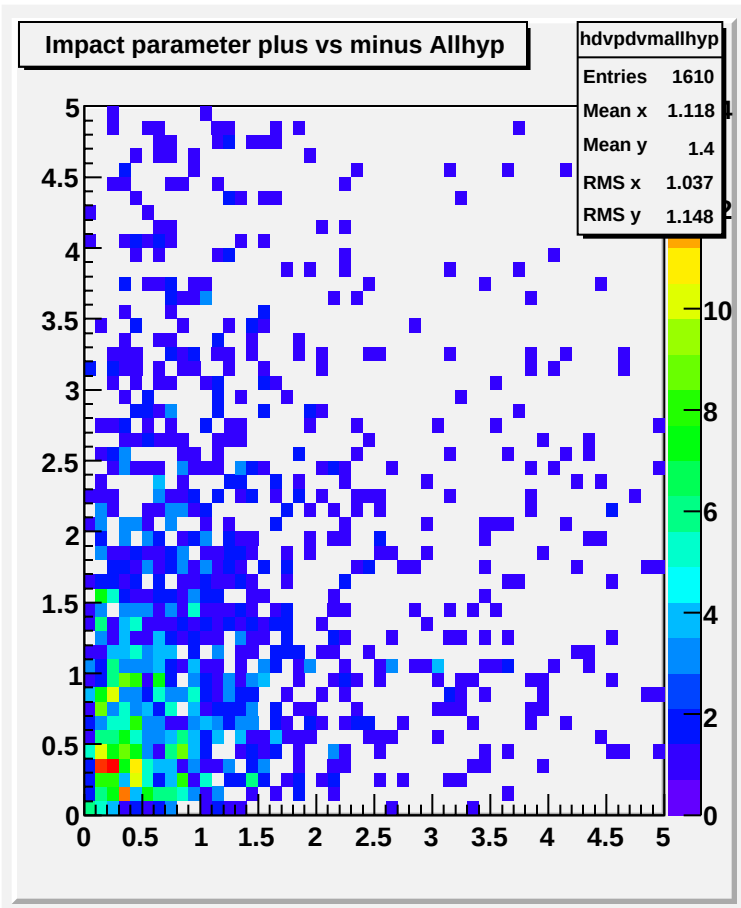

MC Pz vs Pt for accepted Lambdabar
hpzptlambdabar
Entries 59
Mean x 9.343
Mean y 0.4485
RMS x 6.567
RMS y 0.1863

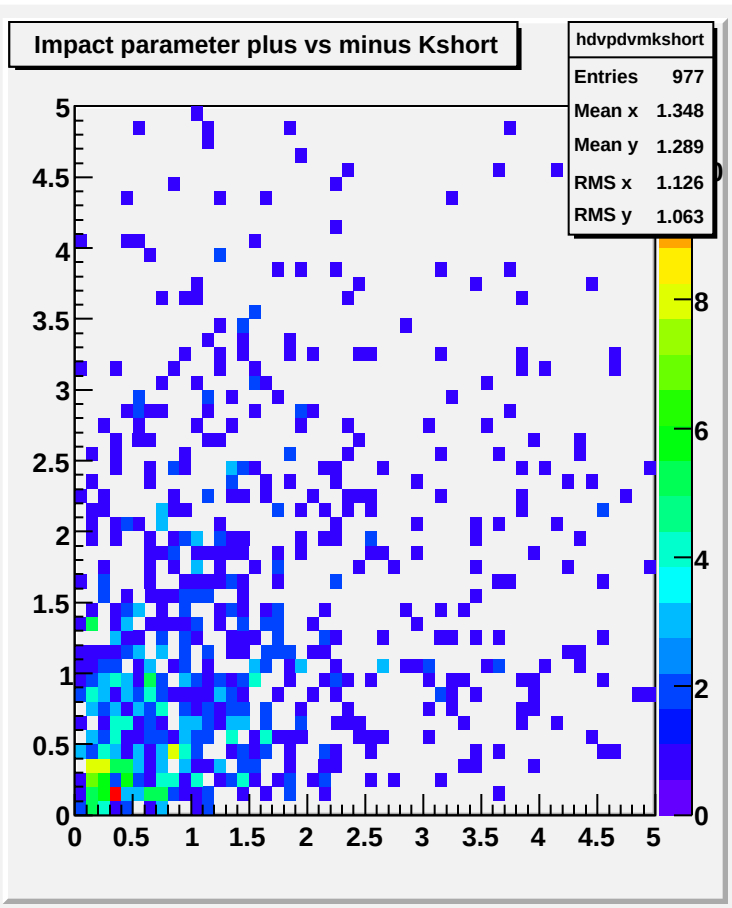

primary flag pos(x) vs neg Allhyp
hnprimallhyp
Entries 1610
Mean x 1.086
Mean y 1.12
RMS x 0.2809
RMS y 0.3248

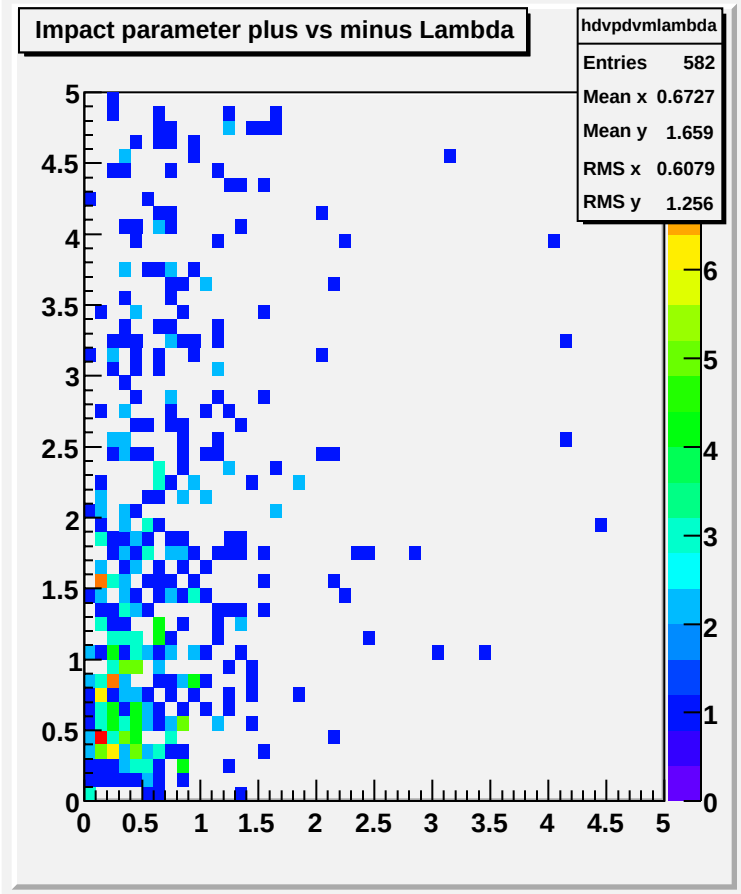

primary flag pos(x) vs neg Kshort
hnprimkshort
Entries 977
Mean x 1.123
Mean y 1.103
RMS x 0.3282
RMS y 0.3045

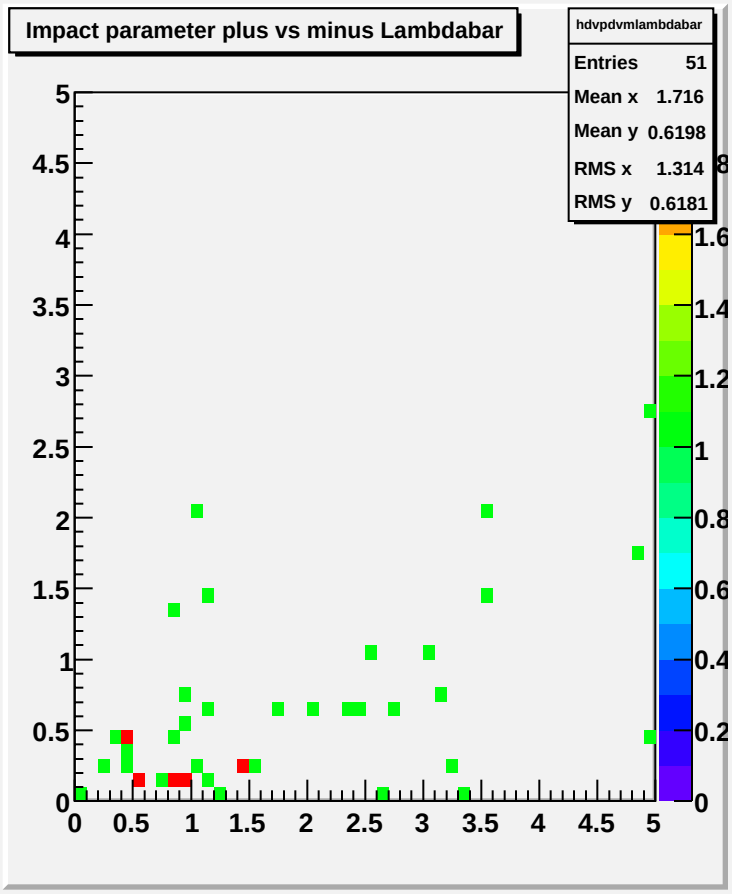

primary flag pos(x) vs neg Lambda
hnprimlambda
Entries 582
Mean x 1.017
Mean y 1.156
RMS x 0.1299
RMS y 0.3632

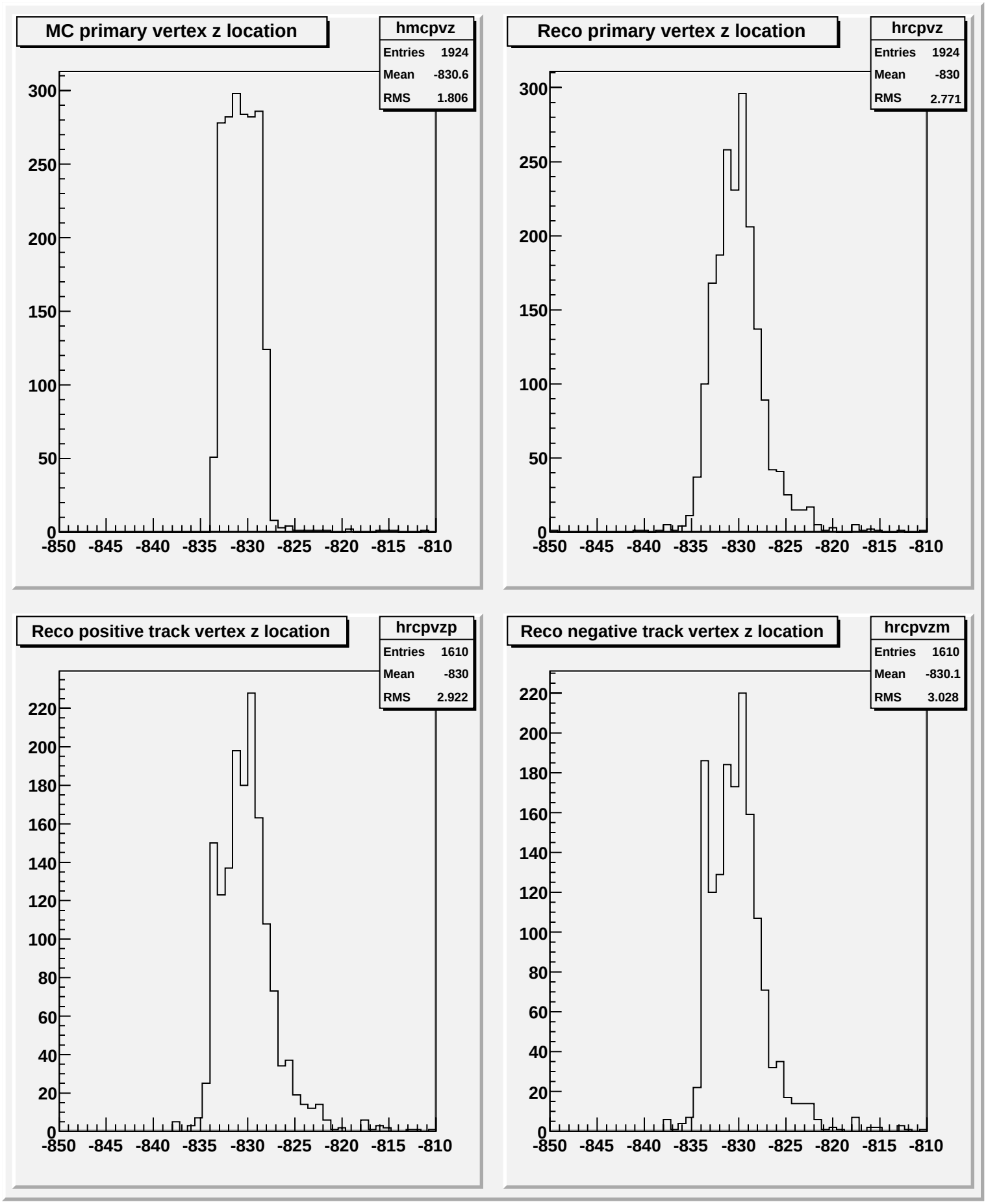

primary flag pos(x) vs neg Lambdabar
hnprimlambdabar
Entries 51
Mean x 1.176
Mean y 1.02
RMS x 0.3812
RMS y 0.1386

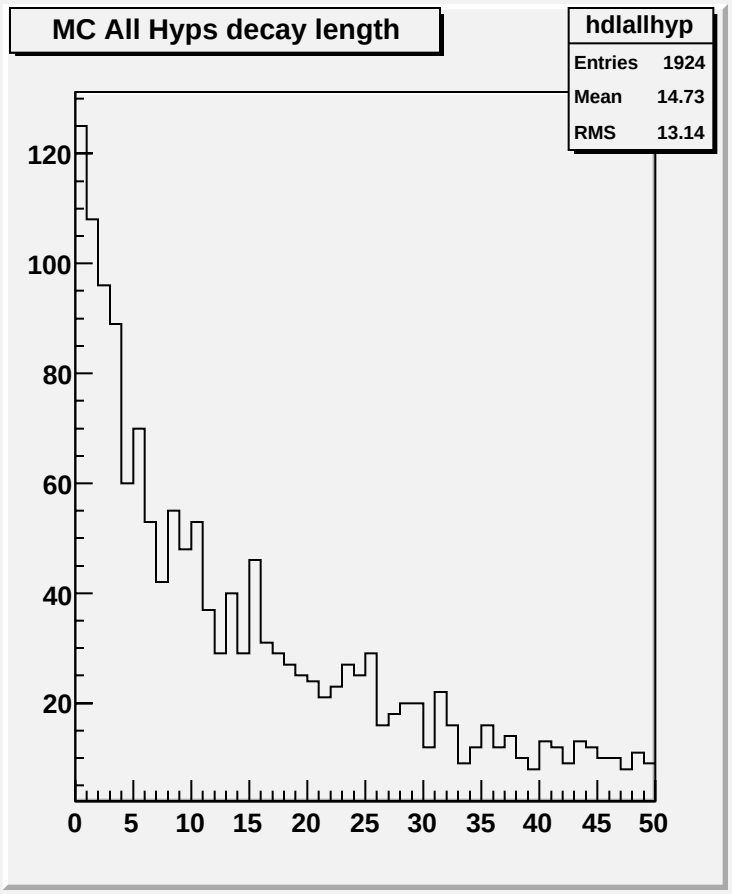

Impact parameter plus vs minus Allhyp
hdvpdvmallhyp
Entries 1610
Mean x 1.118
Mean y 1.4
RMS x 1.037
RMS y 1.148

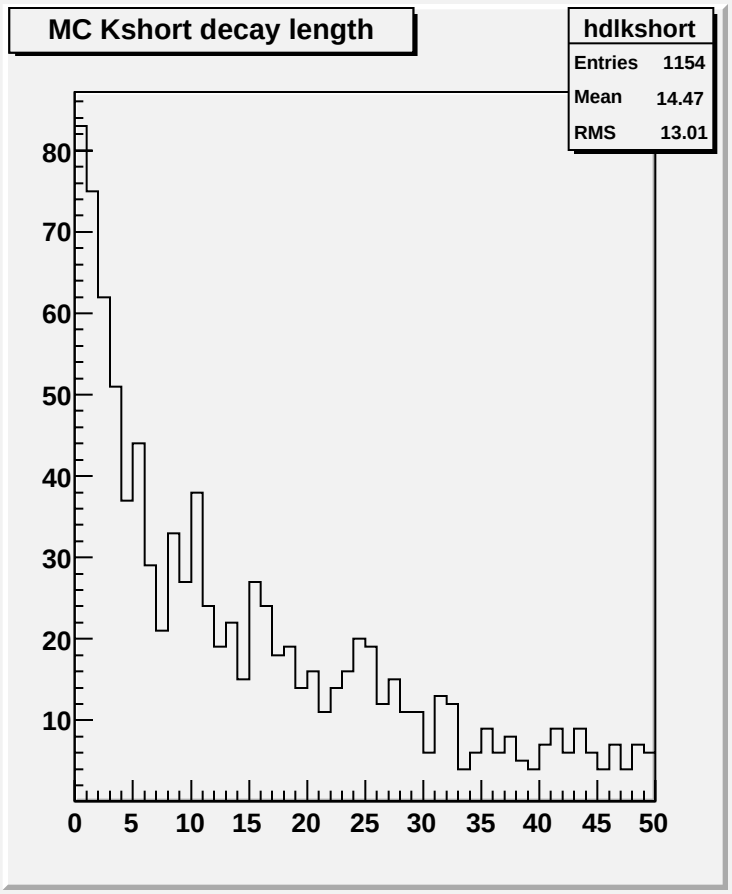

Impact parameter plus vs minus Kshort
hdvpdvmkshort
Entries 977
Mean x 1.348
Mean y 1.289
RMS x 1.126
RMS y 1.063

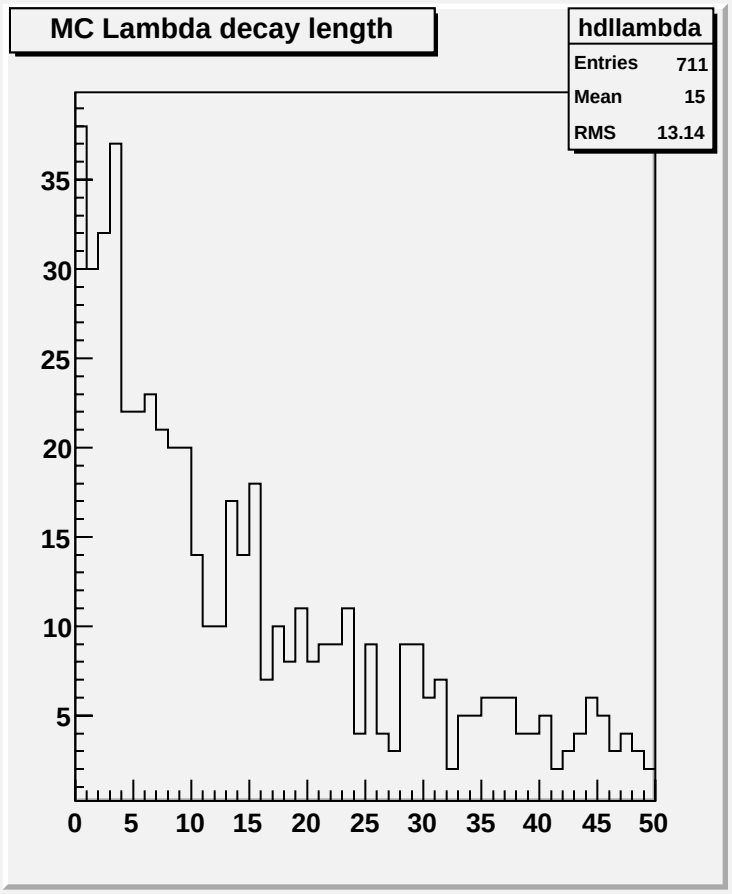

Impact parameter plus vs minus Lambda
hdvpdvmlambda
Entries 582
Mean x 0.6727
Mean y 1.659
RMS x 0.6079
RMS y 1.256

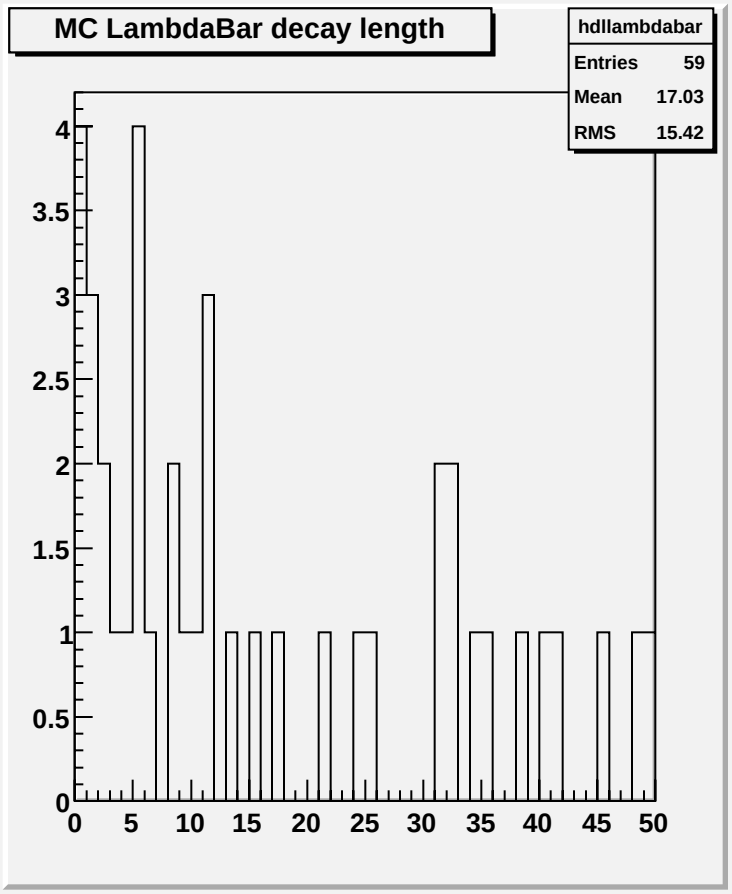

Impact parameter plus vs minus Lambdabar
hdvpdvmlambdabar
Entries 51
Mean x 1.716
Mean y 0.6198
RMS x 1.314
RMS y 0.6181

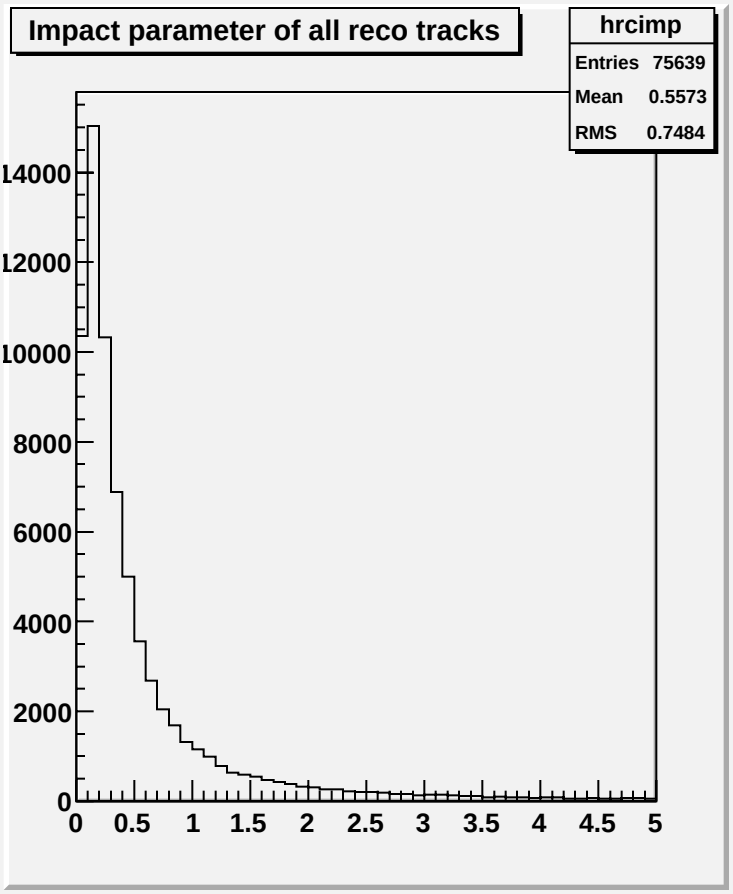

MC primary vertex z location
hmcpvz
Entries 1924
Mean -830.6
RMS 1.806
Reco primary vertex z location
hrcpvz
Entries 1924
Mean -830
RMS 2.771
Reco positive track vertex z location
hrcpvzp
Entries 1610
Mean -830
RMS 2.922
Reco negative track vertex z location
hrcpvzm
Entries 1610
Mean -830.1
RMS 3.028

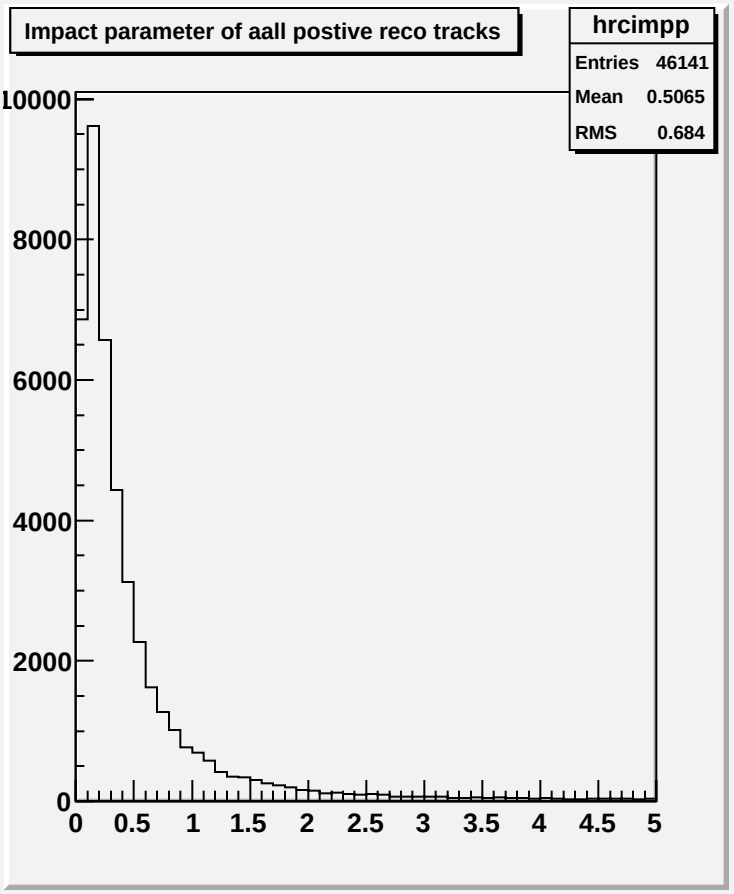

MC All Hyps decay length
hdlallhyp
Entries 1924
Mean 14.73
RMS 13.14
120
100
80
60
40
20
0 5 10 15 20 25 30 35 40 45 50

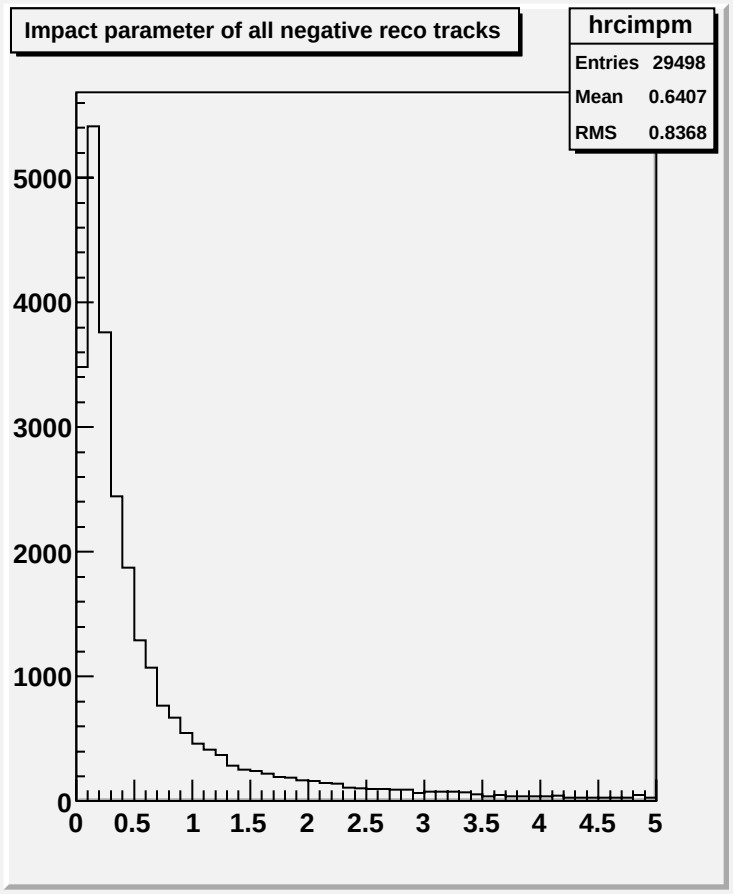

MC Kshort decay length
hdlkshort
Entries 1154
Mean 14.47
RMS 13.01
80
70
60
50
40
30
20
10
0 5 10 15 20 25 30 35 40 45 50

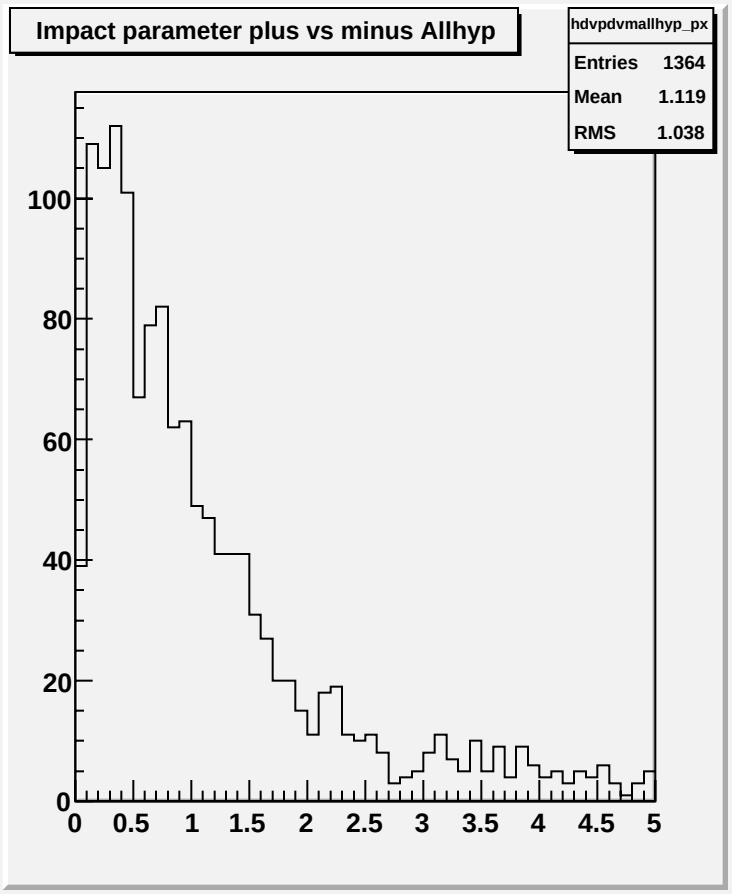

MC Lambda decay length
hdllambda
Entries 711
Mean 15
RMS 13.14
35
30
25
20
15
10
5
0 5 10 15 20 25 30 35 40 45 50

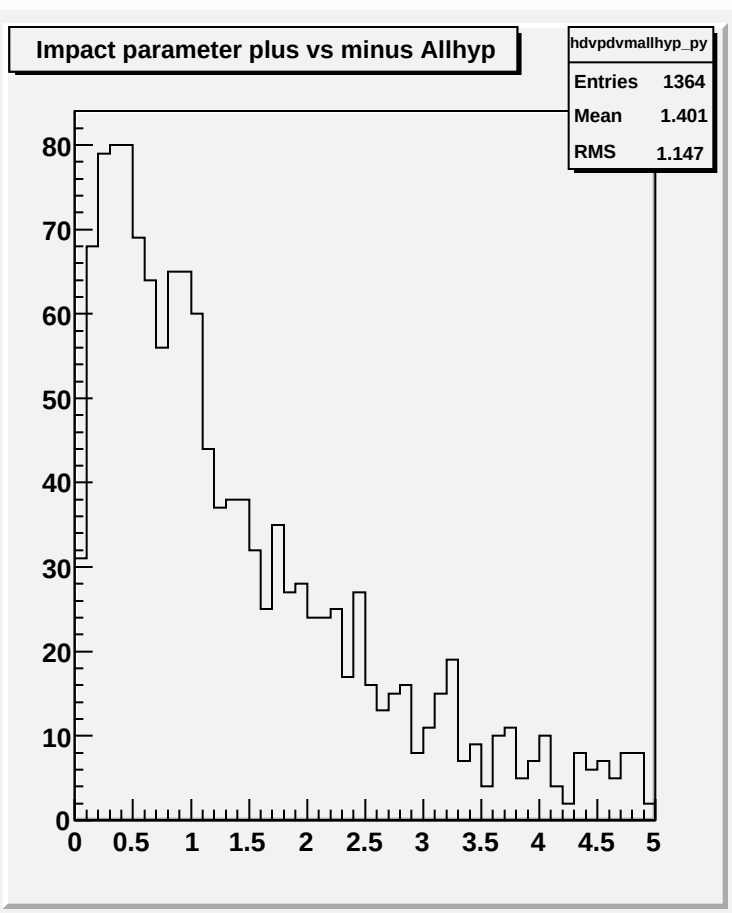

MC LambdaBar decay length
hdllambdabar
Entries 59
Mean 17.03
RMS 15.42
4
3.5
3
2.5
2
1.5
1
0.5
0
0 5 10 15 20 25 30 35 40 45 50

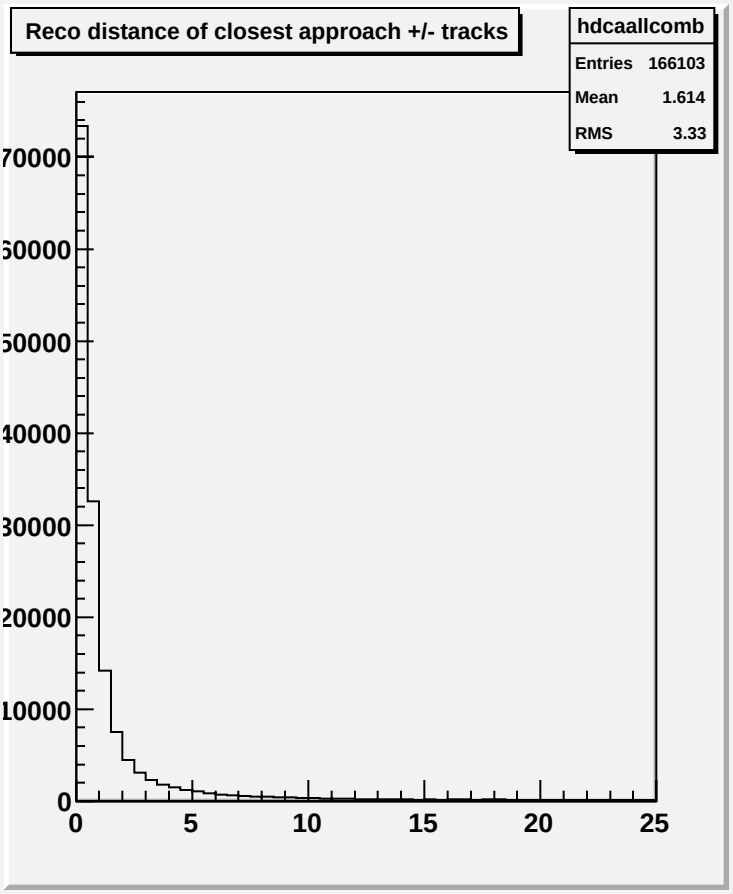

Impact parameter of all reco tracks
hrcimp
Entries 75639
Mean 0.5573
RMS 0.7484
14000
12000
10000
8000
6000
4000
2000
0
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

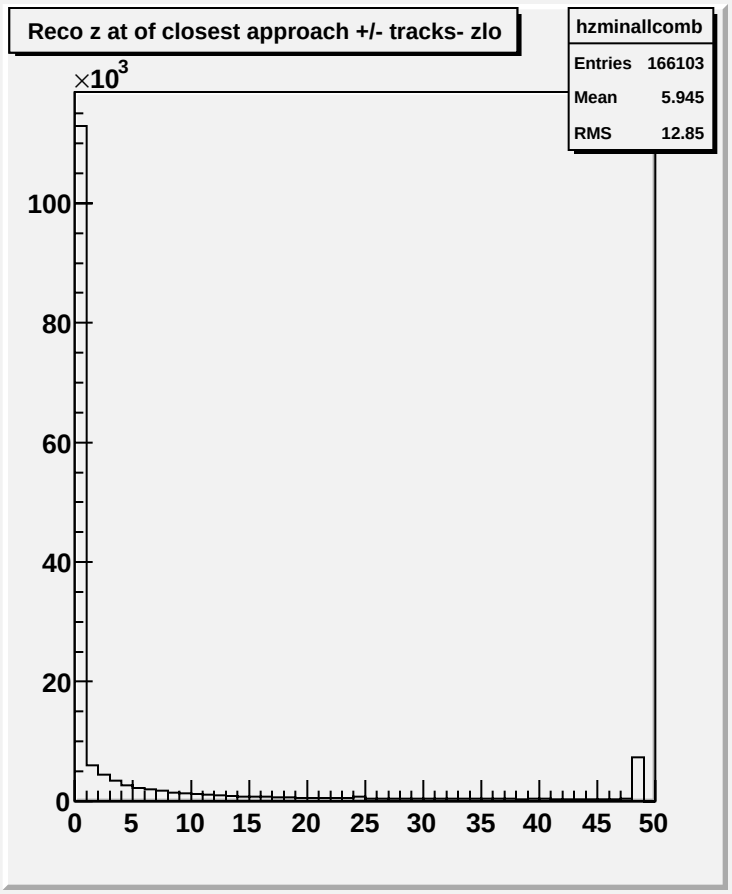

Impact parameter of aall postive reco tracks
hrcimpp
Entries 46141
Mean 0.5065
RMS 0.684
10000
8000
6000
4000
2000
0
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

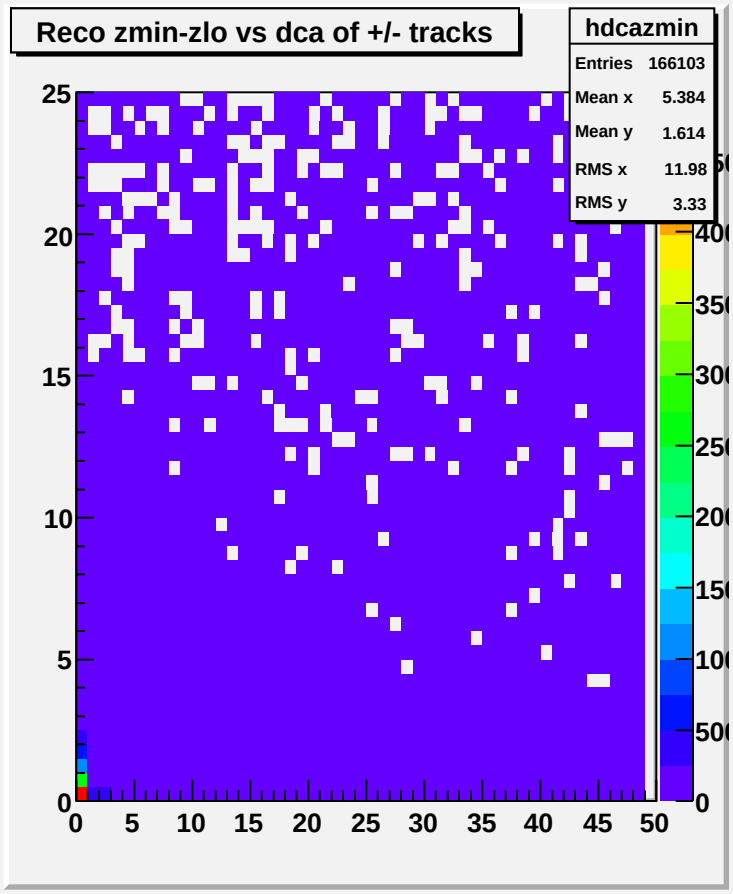

Impact parameter of all negative reco tracks
hrcimpm
Entries 29498
Mean 0.6407
RMS 0.8368
5000
4000
3000
2000
1000
0
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

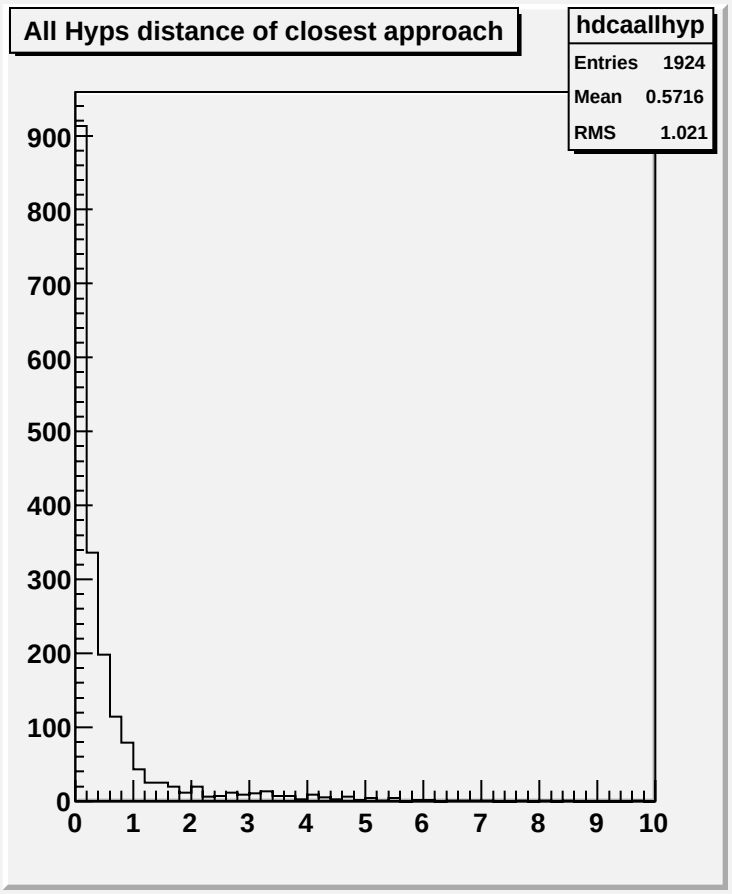

Impact parameter plus vs minus Allhyp
hdvpdvmallhyp_px
Entries 1364
Mean 1.119
RMS 1.038
0
20
40
60
80
100
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

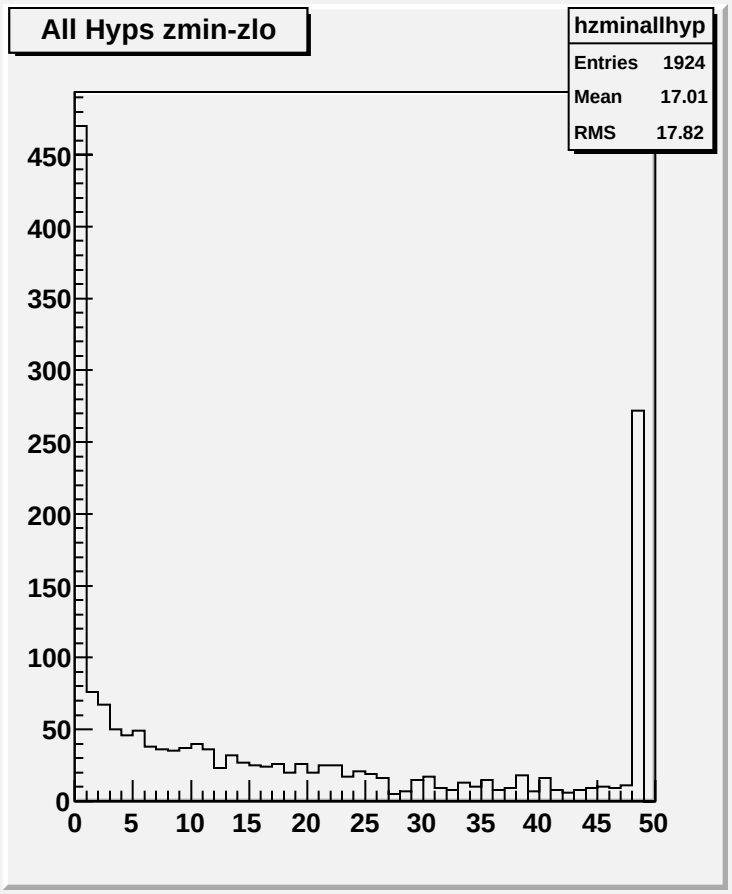

Impact parameter plus vs minus Allhyp
hdvpdvmallhyp_py
Entries 1364
Mean 1.401
RMS 1.147
0
10
20
30
40
50
60
70
80
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

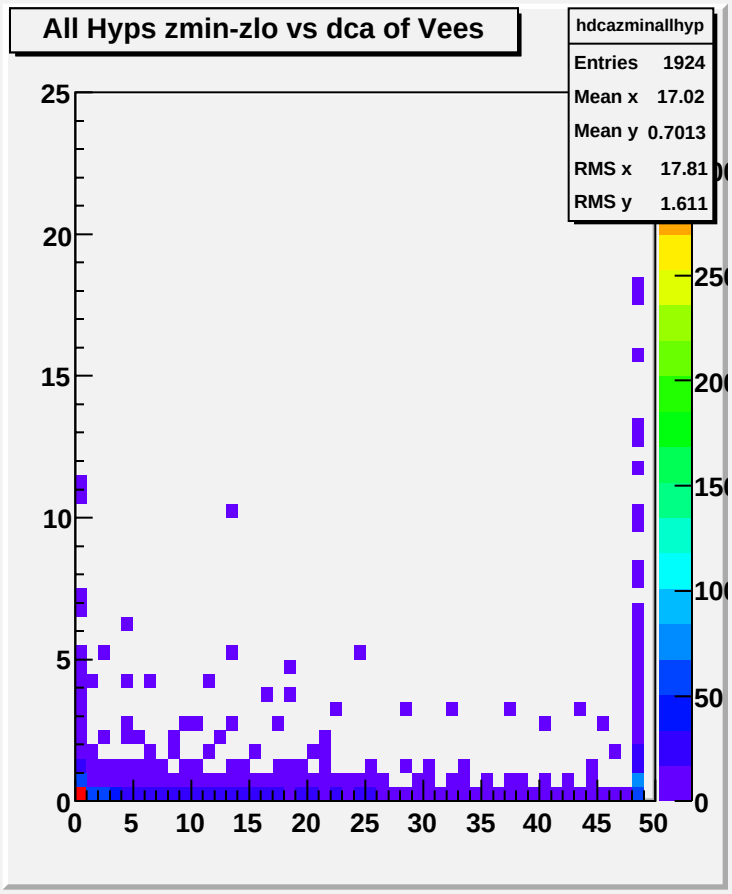

Reco distance of closest approach +/- tracks
hdcaallcomb
Entries 166103
Mean 1.614
RMS 3.33
70000
60000
50000
40000
30000
20000
10000
0
0 5 10 15 20 25

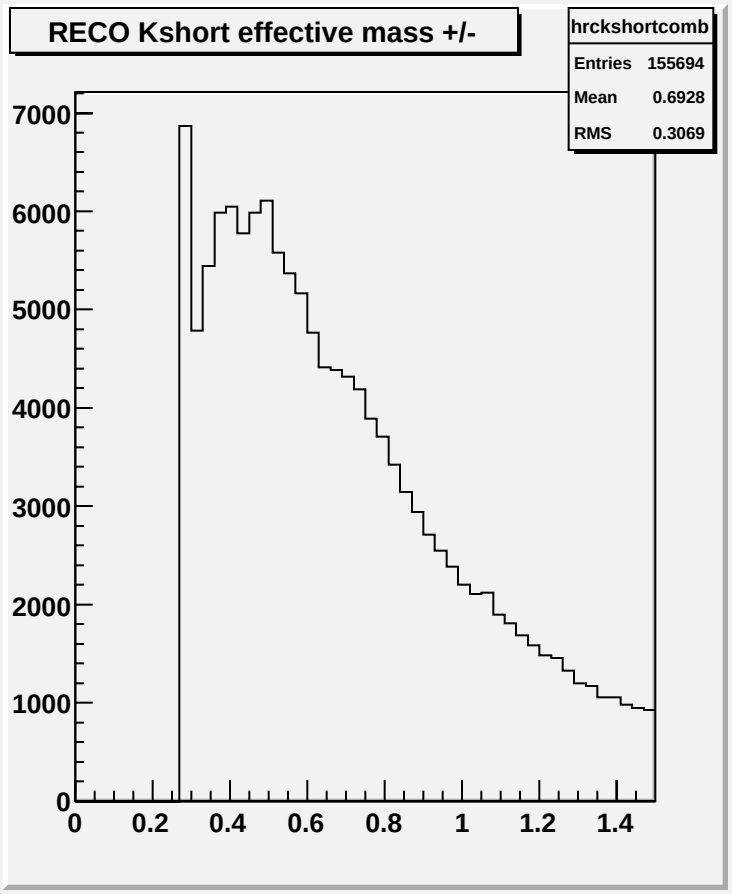

Reco z at of closest approach +/- tracks- zlo
hzminallcomb
Entries 166103
Mean 5.945
RMS 12.85
×10^3
100
80
60
40
20
0
0 5 10 15 20 25 30 35 40 45 50

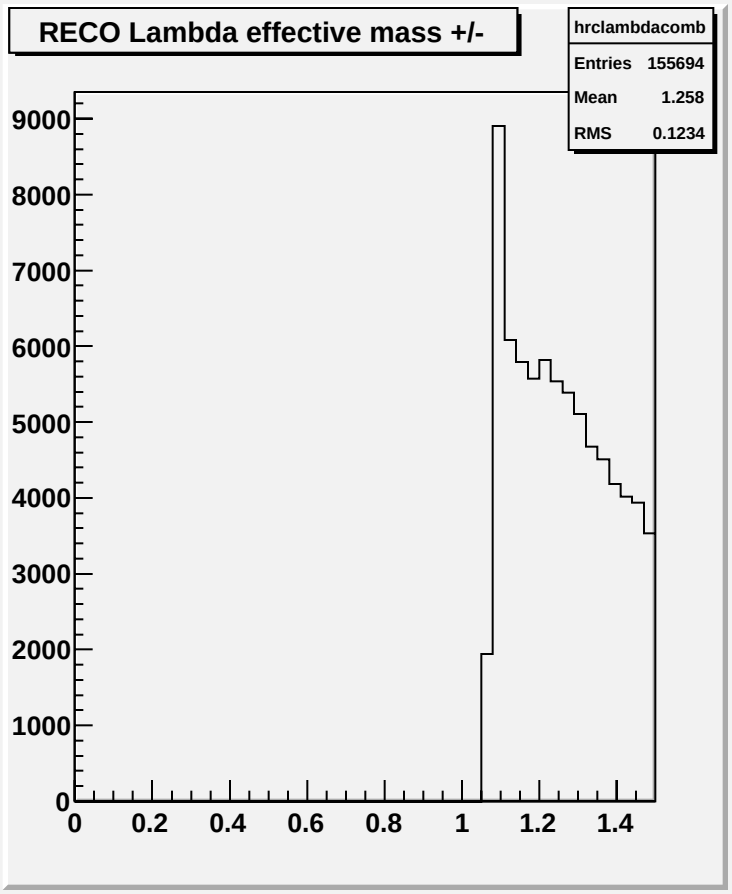

Reco zmin-zlo vs dca of +/- tracks
hdcazmin
Entries 166103
Mean x 5.384
Mean y 1.614
RMS x 11.98
RMS y 3.33
25
20
15
10
5
0
0 5 10 15 20 25 30 35 40 45 50


All Hyps distance of closest approach
hdcaallhyp
Entries 1924
Mean 0.5716
RMS 1.021
0 100 200 300 400 500 600 700 800 900
0 1 2 3 4 5 6 7 8 9 10


All Hyps zmin-zlo
hzminallhyp
Entries 1924
Mean 17.01
RMS 17.82
0 50 100 150 200 250 300 350 400 450
0 5 10 15 20 25 30 35 40 45 50


All Hyps zmin-zlo vs dca of Vees
hdcazminallhyp
Entries 1924
Mean x 17.02
Mean y 0.7013
RMS x 17.81
RMS y 1.611
0 5 10 15 20 25
0 5 10 15 20 25 30 35 40 45 50
0 50


RECO Kshort effective mass +/-
hrckshortcomb
Entries 155694
Mean 0.6928
RMS 0.3069
7000
6000
5000
4000
3000
2000
1000
0
0
0.2
0.4
0.6
0.8
1
1.2
1.4


RECO Lambda effective mass +/-
hrclambdacomb
Entries 155694
Mean 1.258
RMS 0.1234
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
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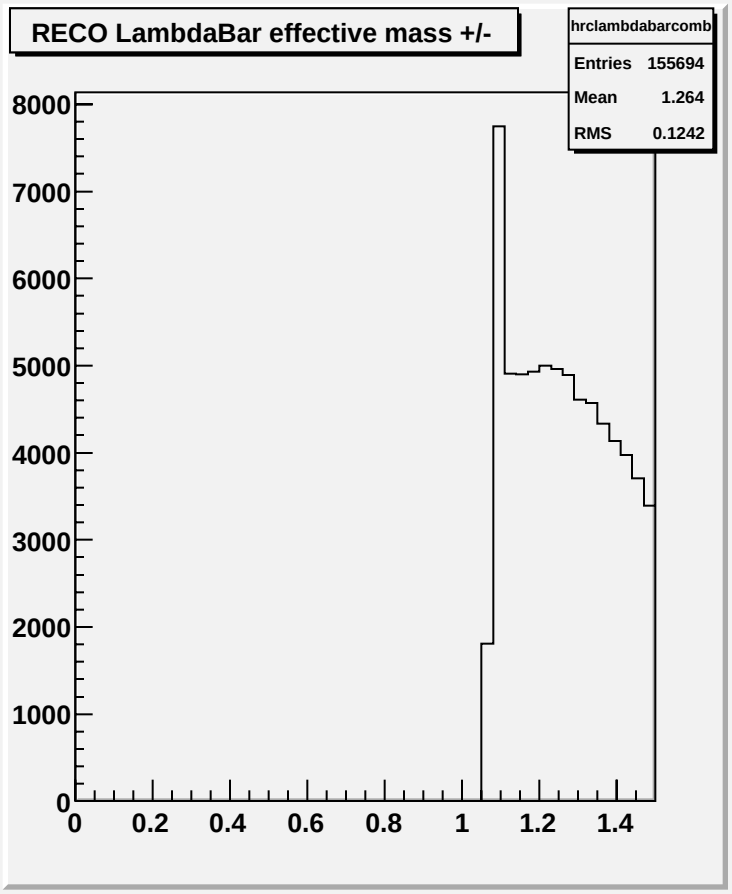
0.2
0.4
0.6
0.8
1
1.2
1.4


RECO LambdaBar effective mass +/-
hrclambdabarcomb
Entries 155694
Mean 1.264
RMS 0.1242
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7000
6000
5000
4000
3000
2000
1000
0
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0.4
0.6
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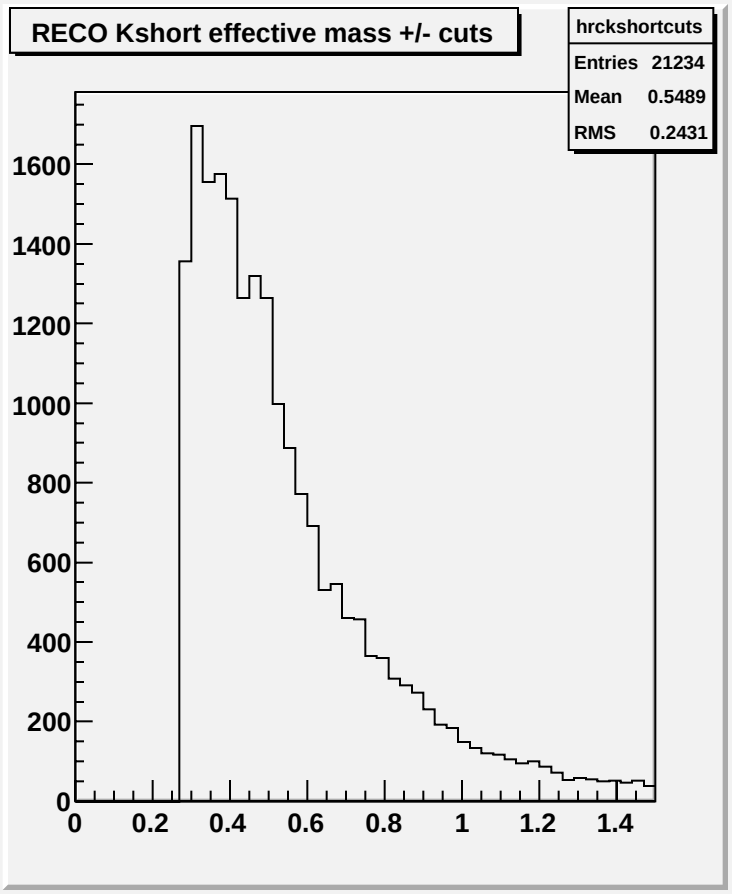
1.2
1.4


RECO Kshort effective mass +/- cuts
hrckshortcuts
Entries 21234
Mean 0.5489
RMS 0.2431
0
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400
600
800
1000
1200
1400
1600
0
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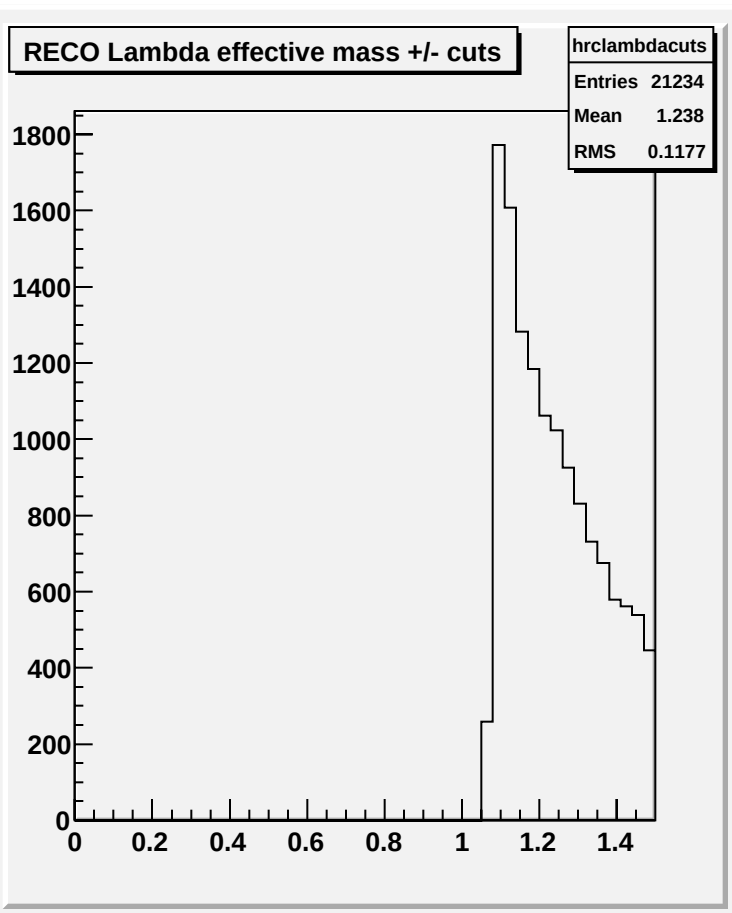
0.4
0.6
0.8
1
1.2
1.4


RECO Lambda effective mass +/- cuts
hrclambdacuts
Entries 21234
Mean 1.238
RMS 0.1177
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800
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1200
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1600
1800
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0.8
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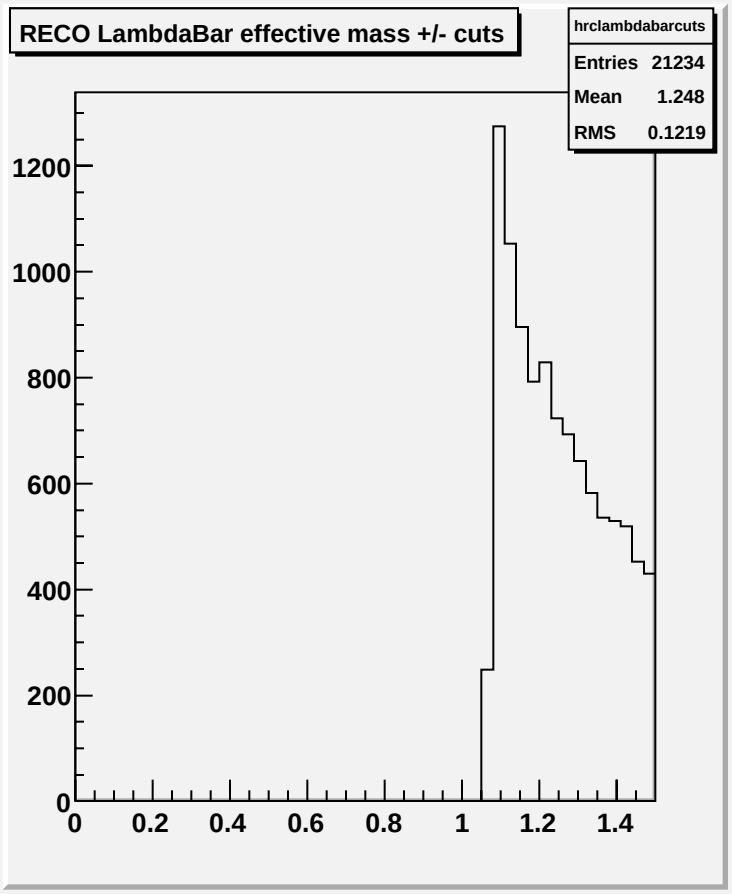
1.2
1.4


RECO LambdaBar effective mass +/- cuts
hrclambdabarcuts
Entries 21234
Mean 1.248
RMS 0.1219
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200
400
600
800
1000
1200
0
0.2
0.4
0.6
0.8
1
1.2
1.4