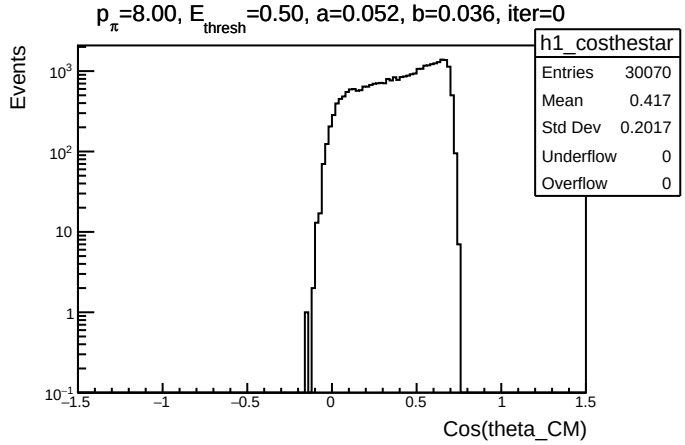
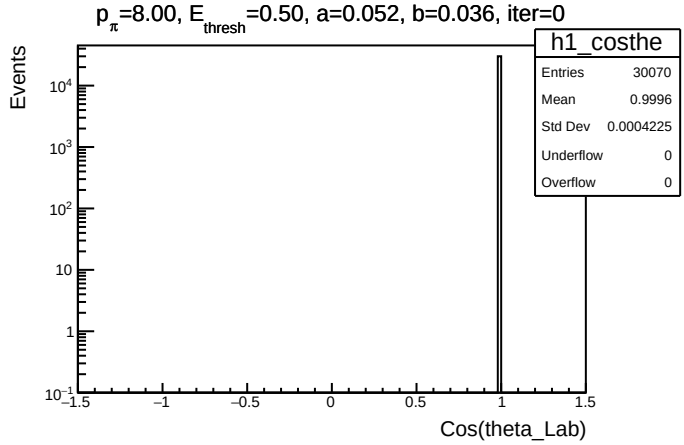
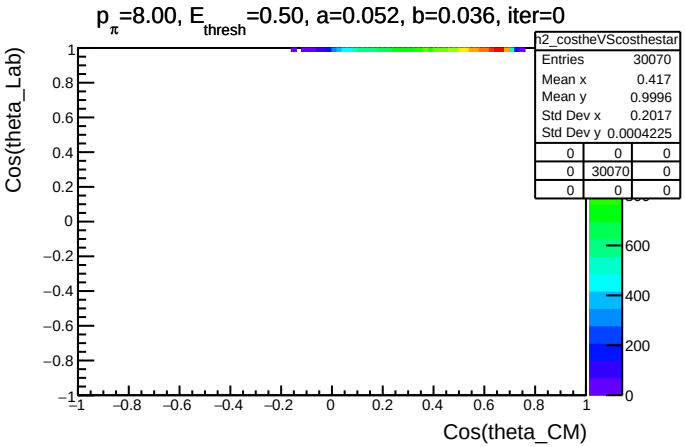
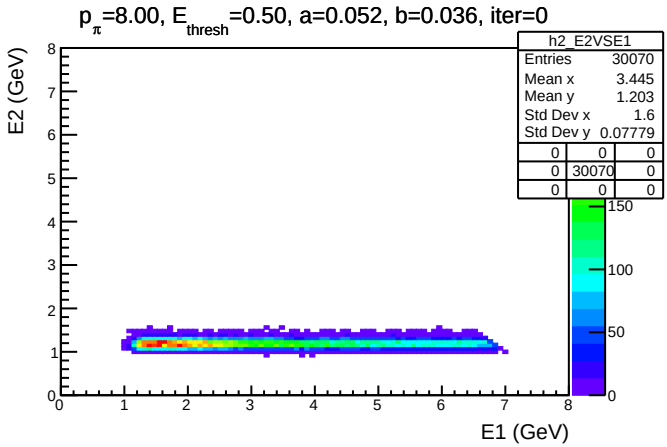
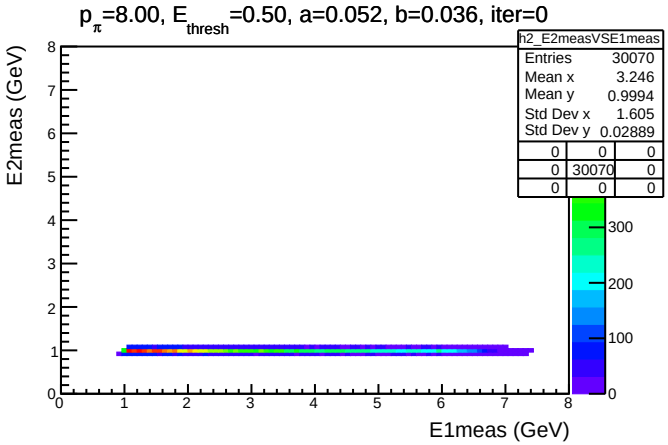
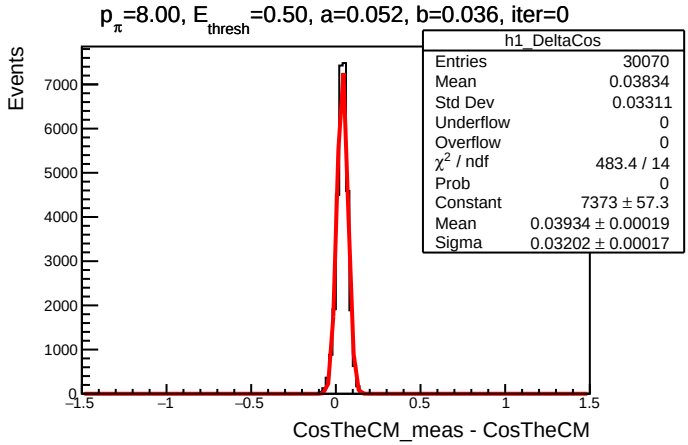

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_costhestar
Entries 30070
Mean 0.417
Std Dev 0.2017
Underflow 0
Overflow 0
Events
Cos(theta_CM)

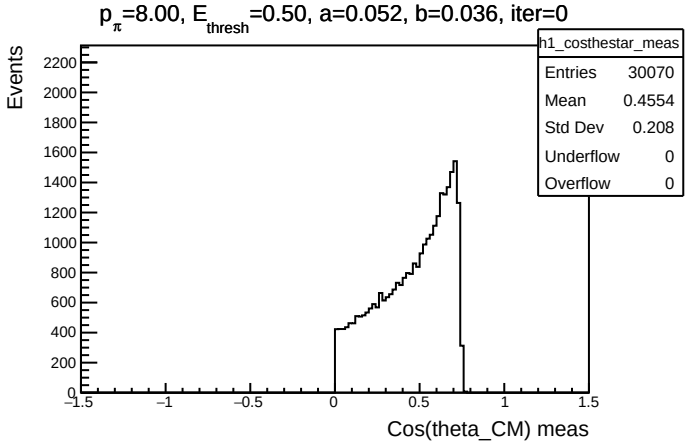

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_costhe
Entries 30070
Mean 0.9996
Std Dev 0.0004225
Underflow 0
Overflow 0
Events
Cos(theta_Lab)

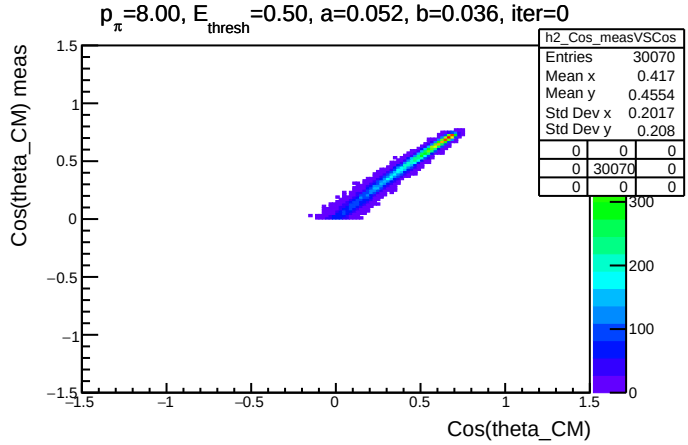

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_costheVScosthestar
Entries 30070
Mean x 0.417
Mean y 0.9996
Std Dev x 0.2017
Std Dev y 0.0004225
Cos(theta_Lab)
Cos(theta_CM)

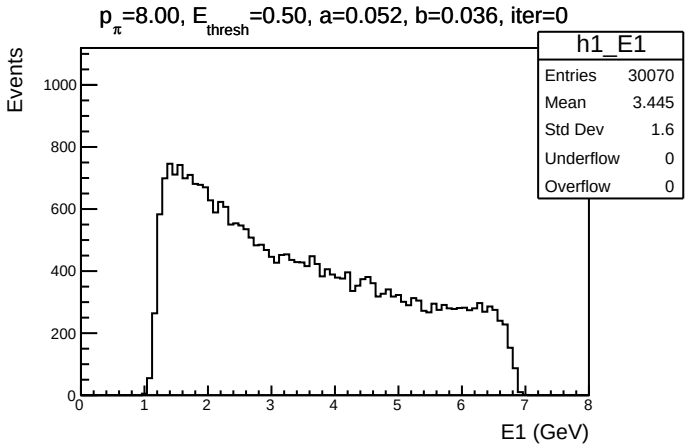

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_E2VSE1
Entries 30070
Mean x 3.445
Mean y 1.203
Std Dev x 1.6
Std Dev y 0.07779
E2 (GeV)
E1 (GeV)

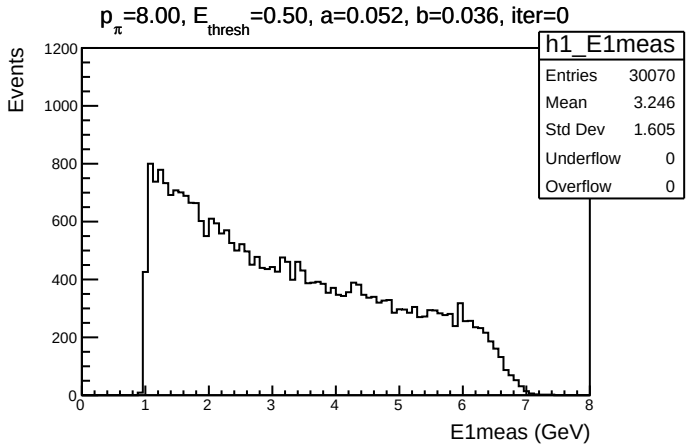

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_E2measVSE1meas
Entries 30070
Mean x 3.246
Mean y 0.9994
Std Dev x 1.605
Std Dev y 0.02889
E2meas (GeV)
E1meas (GeV)

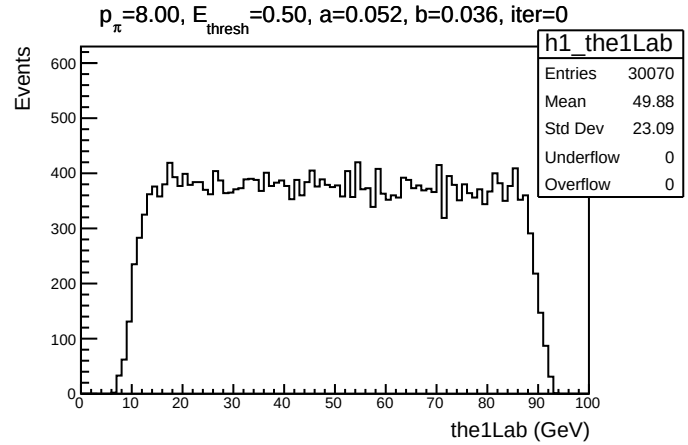

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_DeltaCos
Entries 30070
Mean 0.03834
Std Dev 0.03311
Underflow 0
Overflow 0
χ² / ndf 483.4 / 14
Prob 0
Constant 7373 ± 57.3
Mean 0.03934 ± 0.00019
Sigma 0.03202 ± 0.00017
Events
CosTheCM_meas - CosTheCM

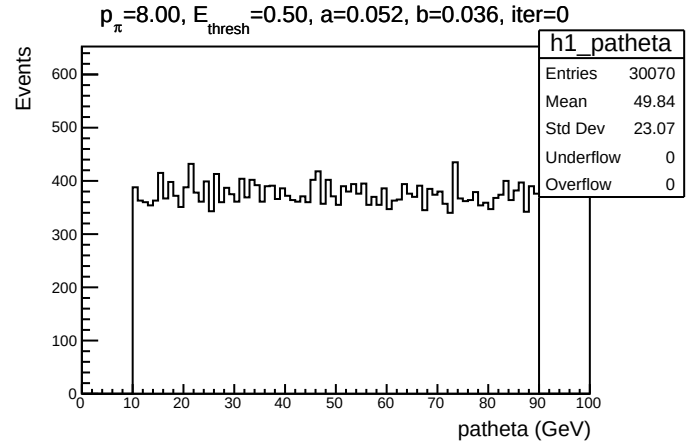

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_costhestar_meas
Entries 30070
Mean 0.4554
Std Dev 0.208
Underflow 0
Overflow 0
Events
Cos(theta_CM) meas

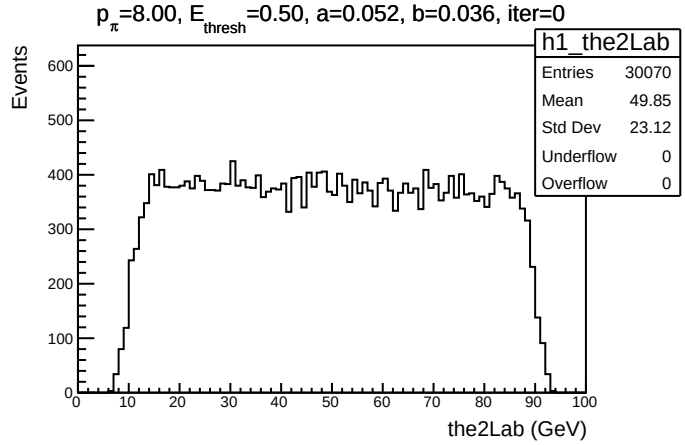

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_Cos_measVSCos
Entries 30070
Mean x 0.417
Mean y 0.4554
Std Dev x 0.2017
Std Dev y 0.208
Cos(theta_CM) meas
Cos(theta_CM)

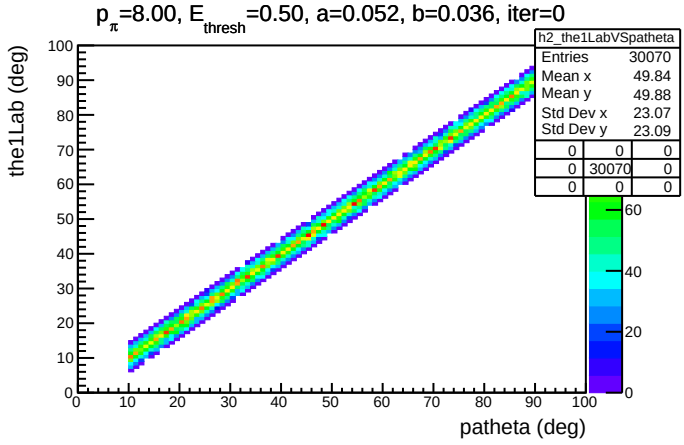

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_E1
Entries 30070
Mean 3.445
Std Dev 1.6
Underflow 0
Overflow 0
Events
E1 (GeV)

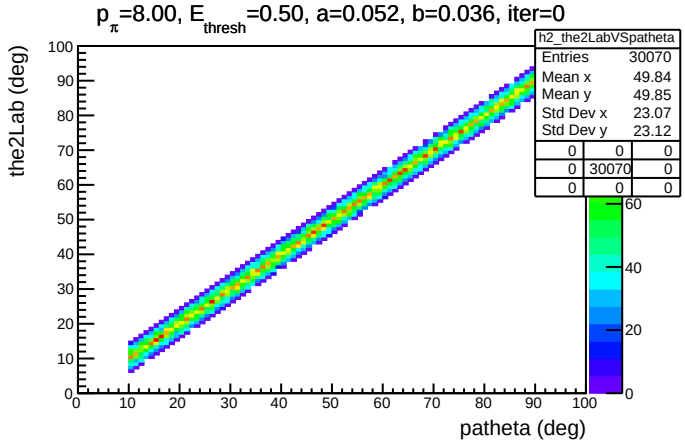

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_E1meas
Entries 30070
Mean 3.246
Std Dev 1.605
Underflow 0
Overflow 0
Events
E1meas (GeV)

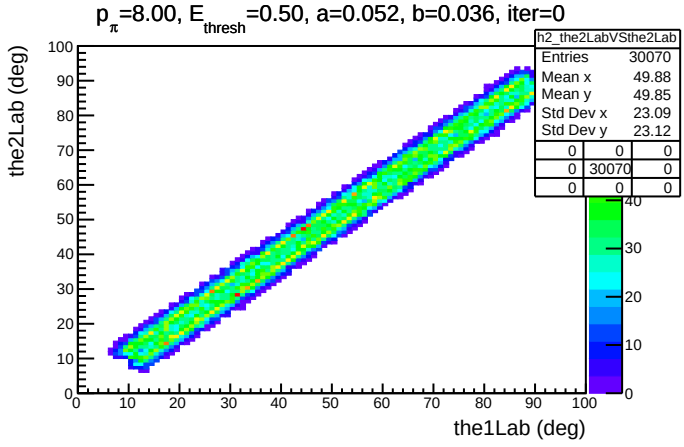

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_the1Lab
Entries 30070
Mean 49.88
Std Dev 23.09
Underflow 0
Overflow 0
Events
the1Lab (GeV)

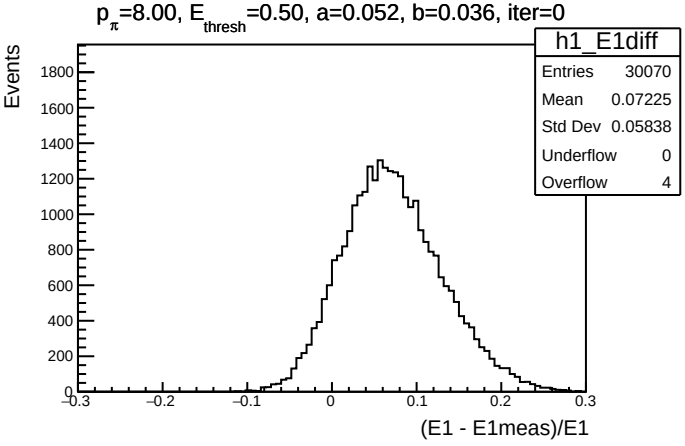

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_patheta
Entries 30070
Mean 49.84
Std Dev 23.07
Underflow 0
Overflow 0
Events
patheta (GeV)

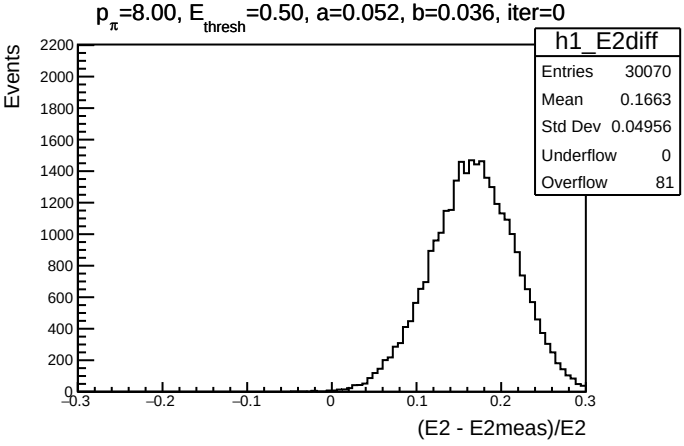

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_the2Lab
Entries 30070
Mean 49.85
Std Dev 23.12
Underflow 0
Overflow 0
Events
the2Lab (GeV)

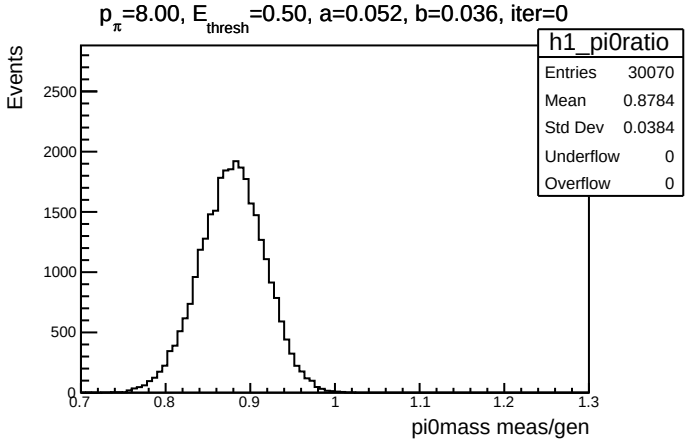

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_the1LabVSpatheta
Entries 30070
Mean x 49.84
Mean y 49.88
Std Dev x 23.07
Std Dev y 23.09
the1Lab (deg)
patheta (deg)

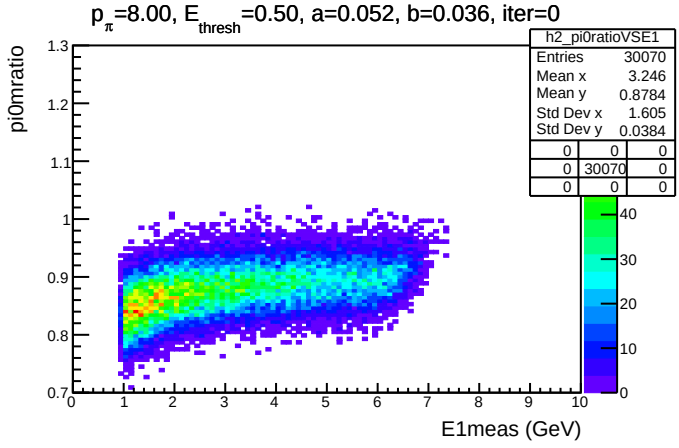

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_the2LabVSpatheta
Entries 30070
Mean x 49.84
Mean y 49.85
Std Dev x 23.07
Std Dev y 23.12
the2Lab (deg)
patheta (deg)

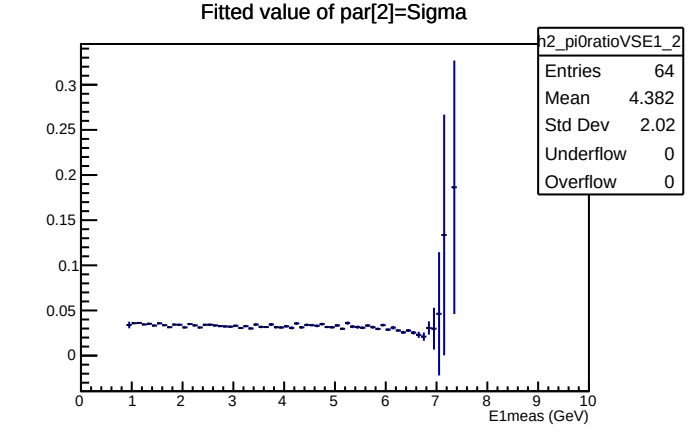

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_the2LabVSthe2Lab
Entries 30070
Mean x 49.88
Mean y 49.85
Std Dev x 23.09
Std Dev y 23.12
the2Lab (deg)
the1Lab (deg)

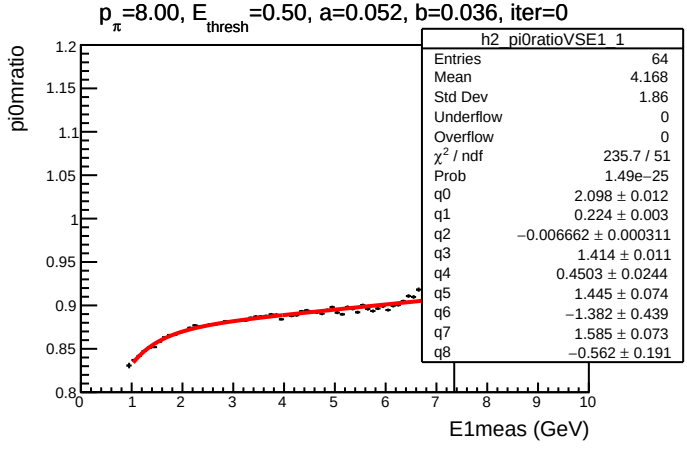

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_E1diff
Entries 30070
Mean 0.07225
Std Dev 0.05838
Underflow 0
Overflow 4
Events
(E1 - E1meas)/E1

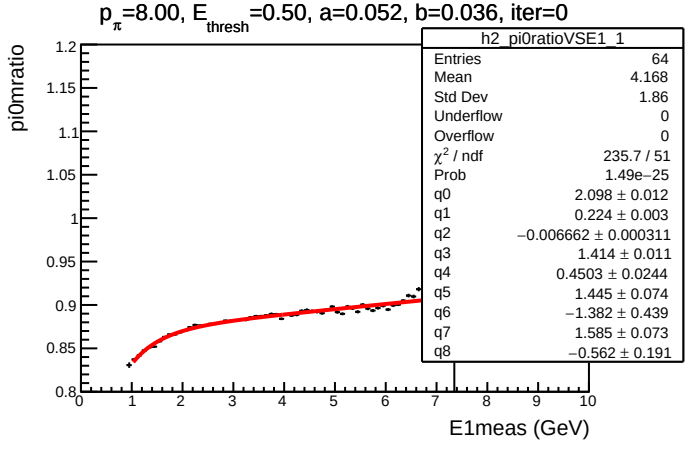

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_E2diff
Entries 30070
Mean 0.1663
Std Dev 0.04956
Underflow 0
Overflow 81
Events
(E2 - E2meas)/E2

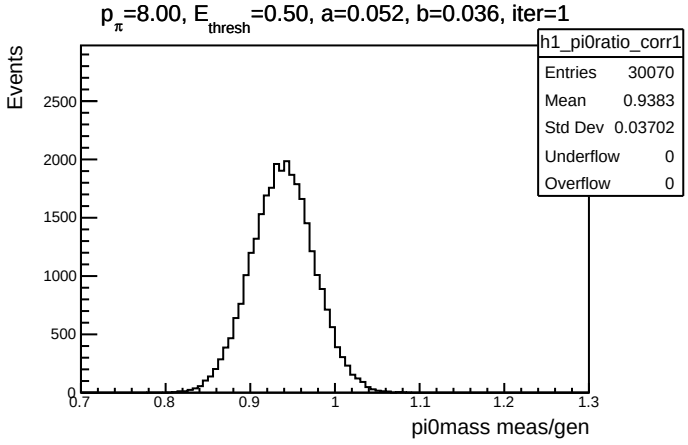

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h1_pi0ratio
Entries 30070
Mean 0.8784
Std Dev 0.0384
Underflow 0
Overflow 0
Events
pi0mass meas/gen

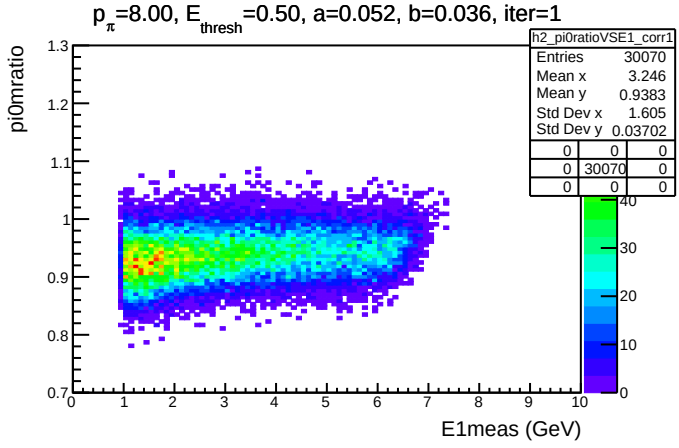

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_pi0ratioVSE1
Entries 30070
Mean x 3.246
Mean y 0.8784
Std Dev x 1.605
Std Dev y 0.0384
pi0mratio
E1meas (GeV)

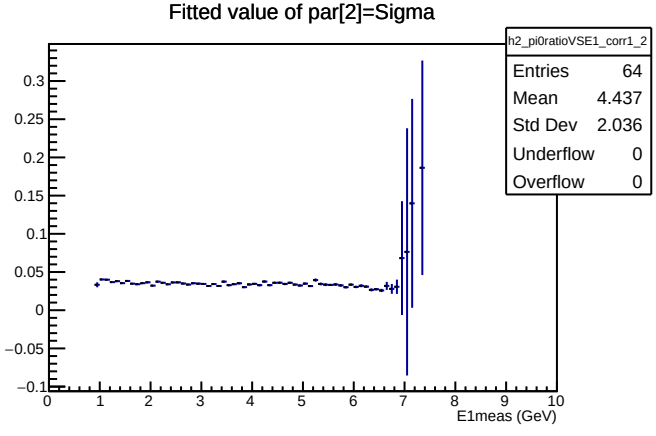

Fitted value of par[2]=Sigma
h2_pi0ratioVSE1_2
Entries 64
Mean 4.382
Std Dev 2.02
Underflow 0
Overflow 0
E1meas (GeV)

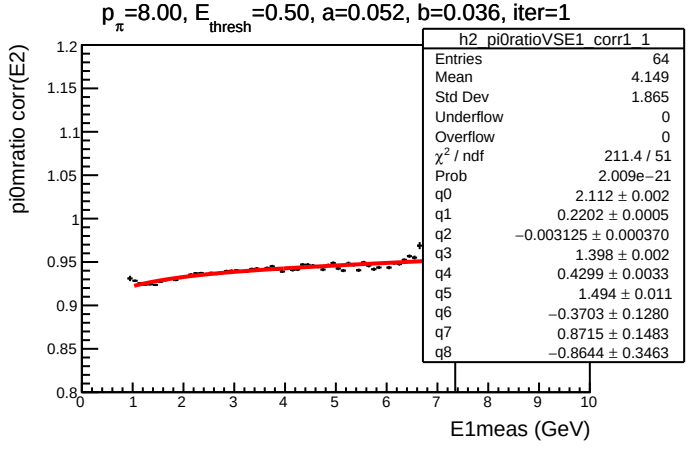

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_pi0ratioVSE1_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 235.7 / 51
Prob 1.49e−25
q0 2.098 ± 0.012
q1 0.224 ± 0.003
q2 −0.006662 ± 0.000311
q3 1.414 ± 0.011
q4 0.4503 ± 0.0244
q5 1.445 ± 0.074
q6 −1.382 ± 0.439
q7 1.585 ± 0.073
q8 −0.562 ± 0.191
pi0mratio
E1meas (GeV)

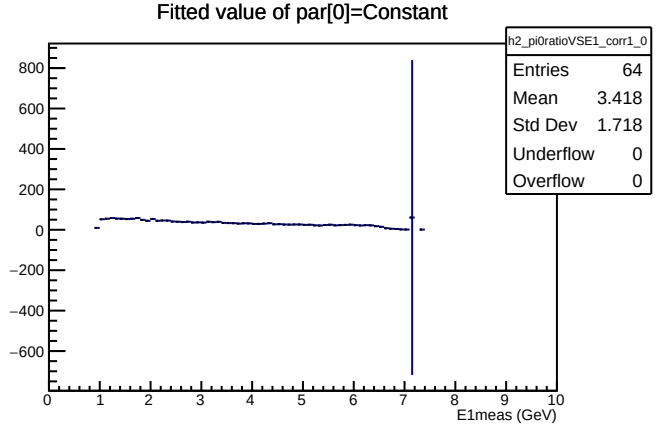

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_pi0ratioVSE1_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 235.7 / 51
Prob 1.49e−25
q0 2.098 ± 0.012
q1 0.224 ± 0.003
q2 −0.006662 ± 0.000311
q3 1.414 ± 0.011
q4 0.4503 ± 0.0244
q5 1.445 ± 0.074
q6 −1.382 ± 0.439
q7 1.585 ± 0.073
q8 −0.562 ± 0.191
pi0mratio
E1meas (GeV)

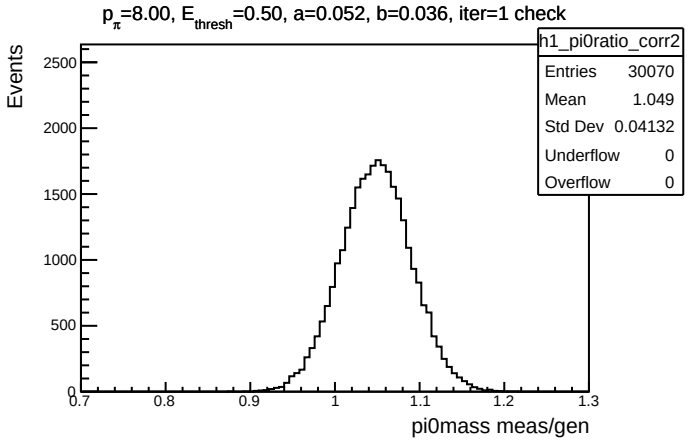

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1
h1_pi0ratio_corr1
Entries 30070
Mean 0.9383
Std Dev 0.03702
Underflow 0
Overflow 0
Events
pi0mass meas/gen

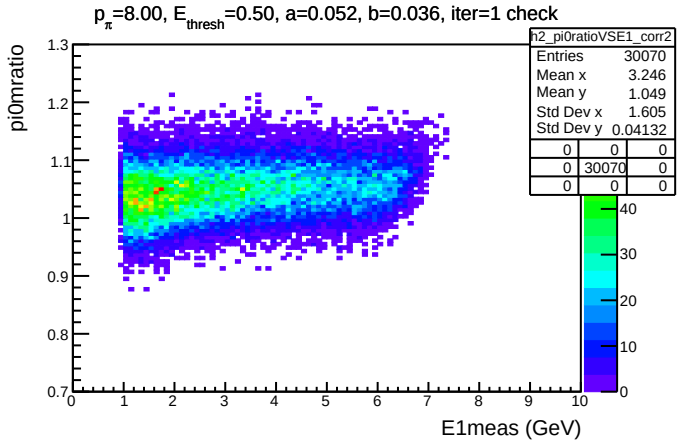

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1
h2_pi0ratioVSE1_corr1
Entries 30070
Mean x 3.246
Mean y 0.9383
Std Dev x 1.605
Std Dev y 0.03702
pi0mratio
E1meas (GeV)

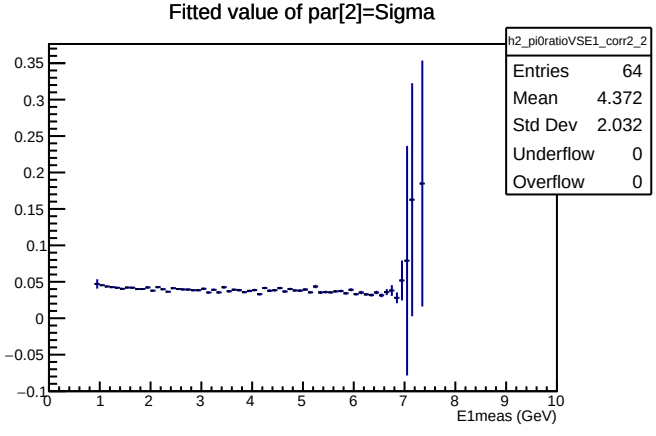

Fitted value of par[2]=Sigma
h2_pi0ratioVSE1_corr1_2
Entries 64
Mean 4.437
Std Dev 2.036
Underflow 0
Overflow 0
E1meas (GeV)

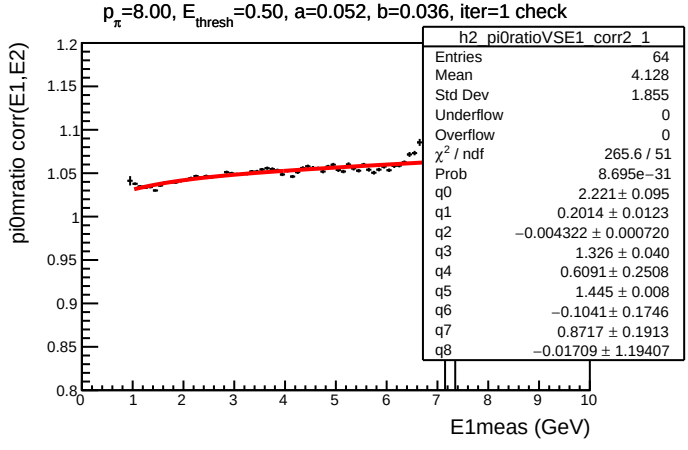

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1
h2_pi0ratioVSE1_corr1_1
Entries 64
Mean 4.149
Std Dev 1.865
Underflow 0
Overflow 0
χ² / ndf 211.4 / 51
Prob 2.009e−21
q0 2.112 ± 0.002
q1 0.2202 ± 0.0005
q2 −0.003125 ± 0.000370
q3 1.398 ± 0.002
q4 0.4299 ± 0.0033
q5 1.494 ± 0.011
q6 −0.3703 ± 0.1280
q7 0.8715 ± 0.1483
q8 −0.8644 ± 0.3463
pi0mratio corr(E2)
E1meas (GeV)

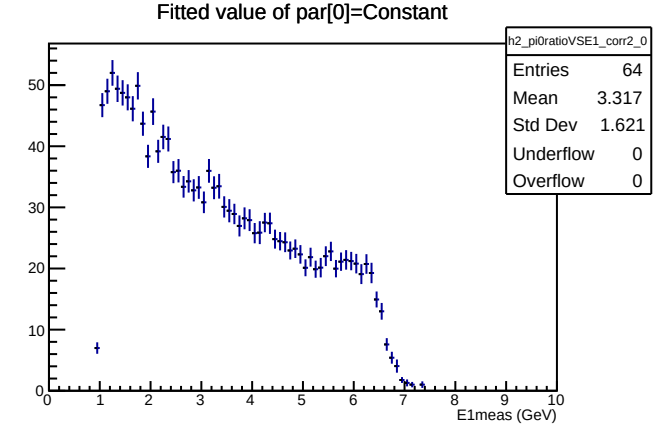

Fitted value of par[0]=Constant
h2_pi0ratioVSE1_corr1_0
Entries 64
Mean 3.418
Std Dev 1.718
Underflow 0
Overflow 0
E1meas (GeV)

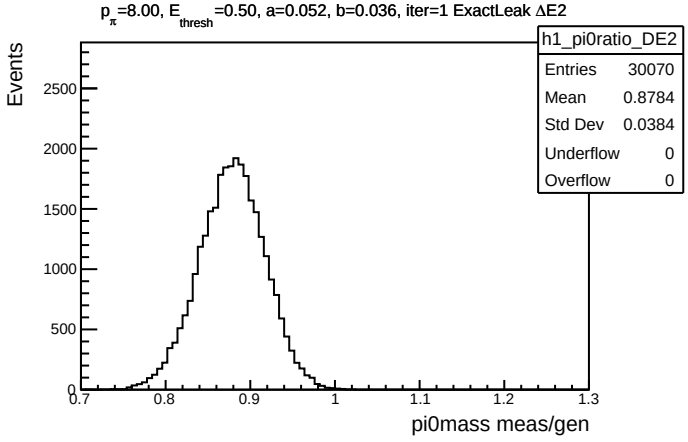

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 check
h1_pi0ratio_corr2
Entries 30070
Mean 1.049
Std Dev 0.04132
Underflow 0
Overflow 0
Events
pi0mass meas/gen

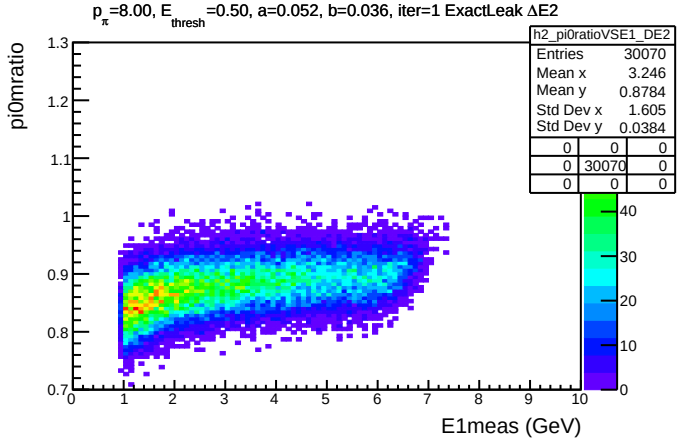

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 check
h2_pi0ratioVSE1_corr2
Entries 30070
Mean x 3.246
Mean y 1.049
Std Dev x 1.605
Std Dev y 0.04132
pi0mratio
E1meas (GeV)

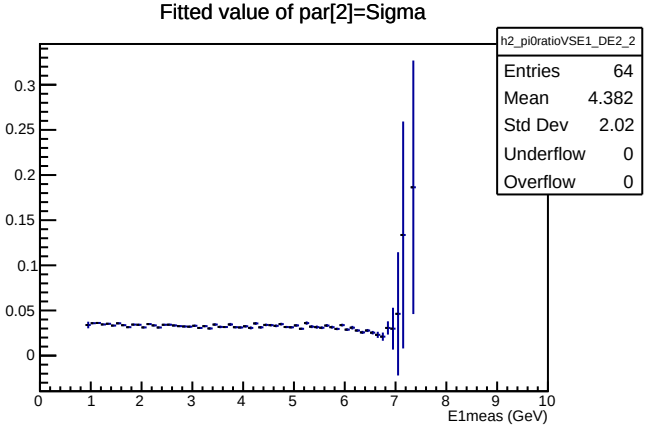

Fitted value of par[2]=Sigma
h2_pi0ratioVSE1_corr2_2
Entries 64
Mean 4.372
Std Dev 2.032
Underflow 0
Overflow 0
E1meas (GeV)

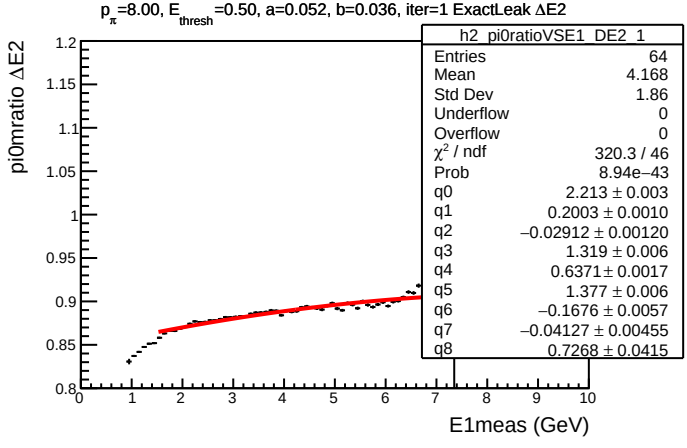

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 check
h2_pi0ratioVSE1_corr2_1
Entries 64
Mean 4.128
Std Dev 1.855
Underflow 0
Overflow 0
χ² / ndf 265.6 / 51
Prob 8.695e−31
q0 2.221 ± 0.095
q1 0.2014 ± 0.0123
q2 −0.004322 ± 0.000720
q3 1.326 ± 0.040
q4 0.6091 ± 0.2508
q5 1.445 ± 0.008
q6 −0.1041 ± 0.1746
q7 0.8717 ± 0.1913
q8 −0.01709 ± 1.19407
pi0mratio corr(E1,E2)
E1meas (GeV)

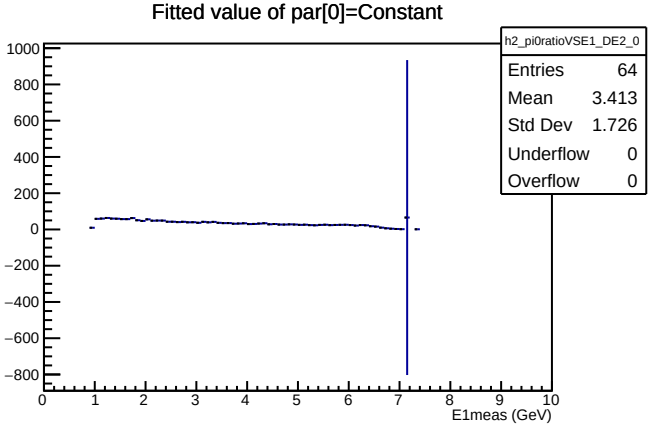

Fitted value of par[0]=Constant
h2_pi0ratioVSE1_corr2_0
Entries 64
Mean 3.317
Std Dev 1.621
Underflow 0
Overflow 0
E1meas (GeV)

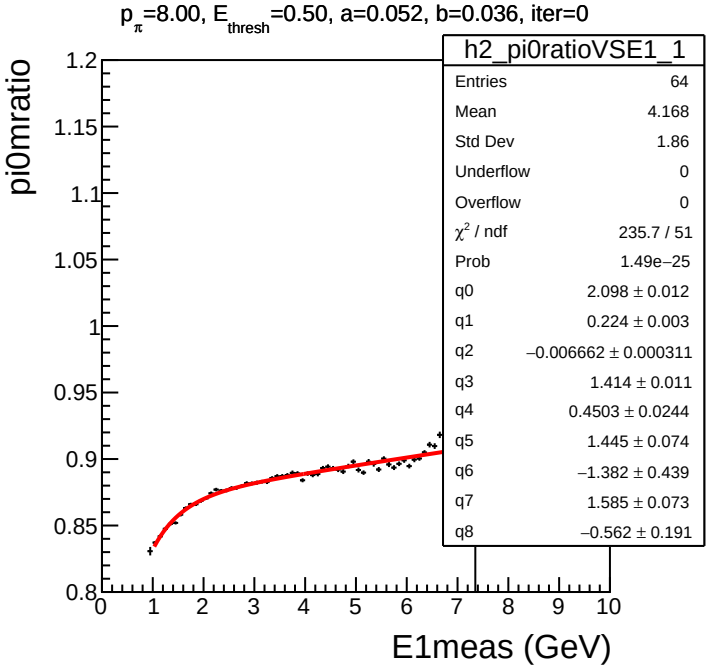

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 ExactLeak ΔE2
h1_pi0ratio_DE2
Entries 30070
Mean 0.8784
Std Dev 0.0384
Underflow 0
Overflow 0
Events
pi0mass meas/gen

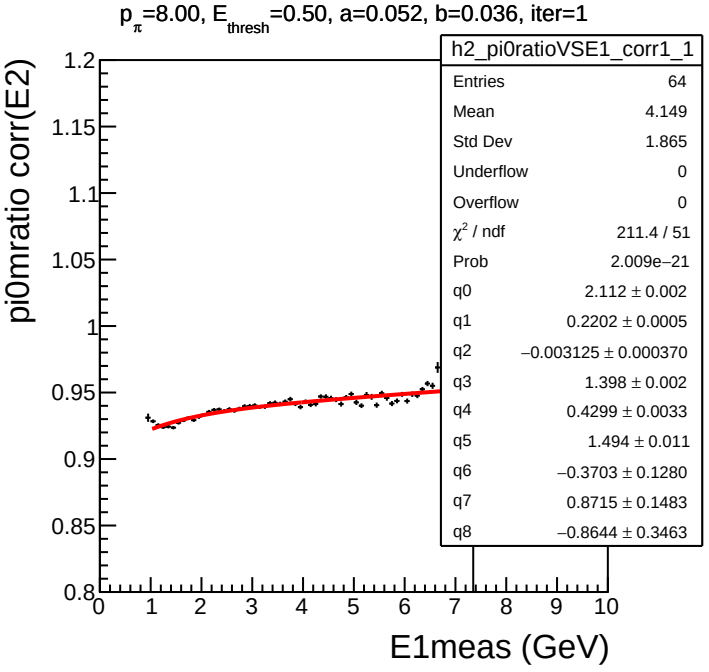

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 ExactLeak ΔE2
h2_pi0ratioVSE1_DE2
Entries 30070
Mean x 3.246
Mean y 0.8784
Std Dev x 1.605
Std Dev y 0.0384
pi0mratio
E1meas (GeV)

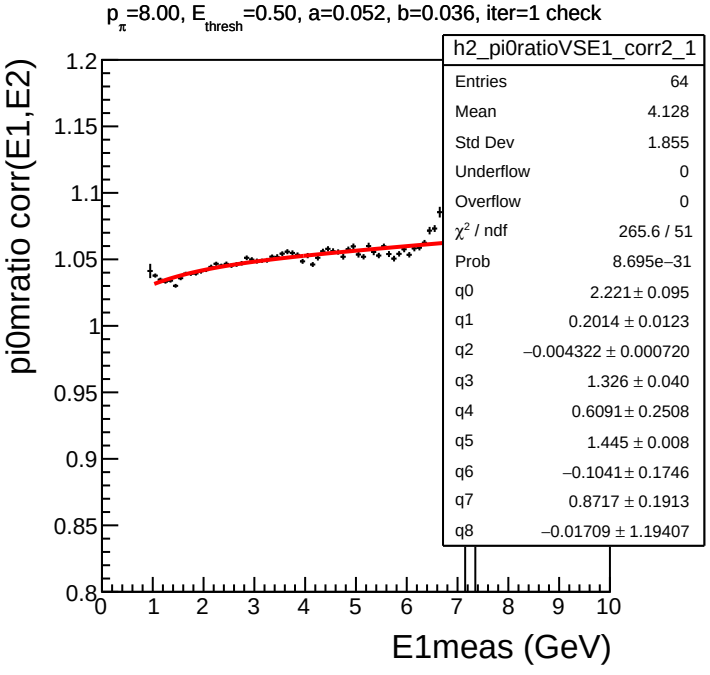

Fitted value of par[2]=Sigma
h2_pi0ratioVSE1_DE2_2
Entries 64
Mean 4.382
Std Dev 2.02
Underflow 0
Overflow 0
E1meas (GeV)

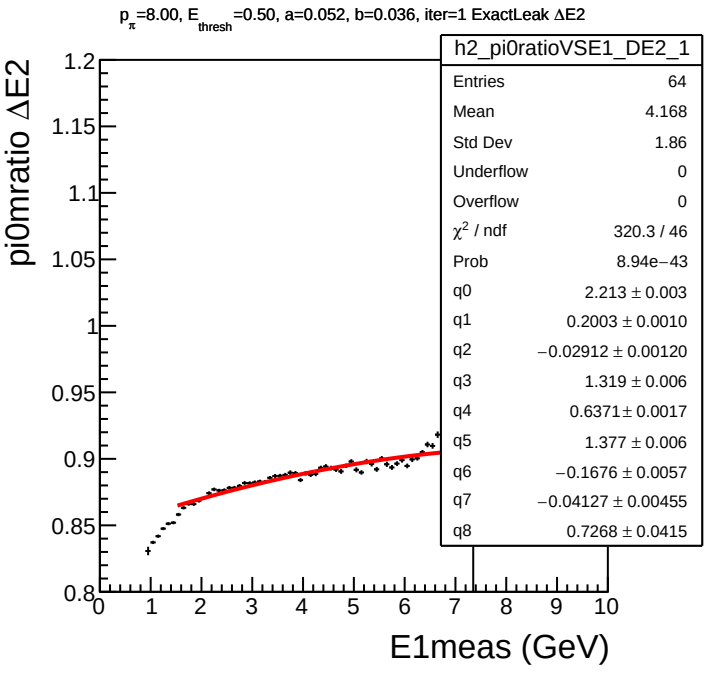

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 ExactLeak ΔE2
h2_pi0ratioVSE1_DE2_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 320.3 / 46
Prob 8.94e−43
q0 2.213 ± 0.003
q1 0.2003 ± 0.0010
q2 −0.02912 ± 0.00120
q3 1.319 ± 0.006
q4 0.6371 ± 0.0017
q5 1.377 ± 0.006
q6 −0.1676 ± 0.0057
q7 −0.04127 ± 0.00455
q8 0.7268 ± 0.0415
pi0mratio ΔE2
E1meas (GeV)

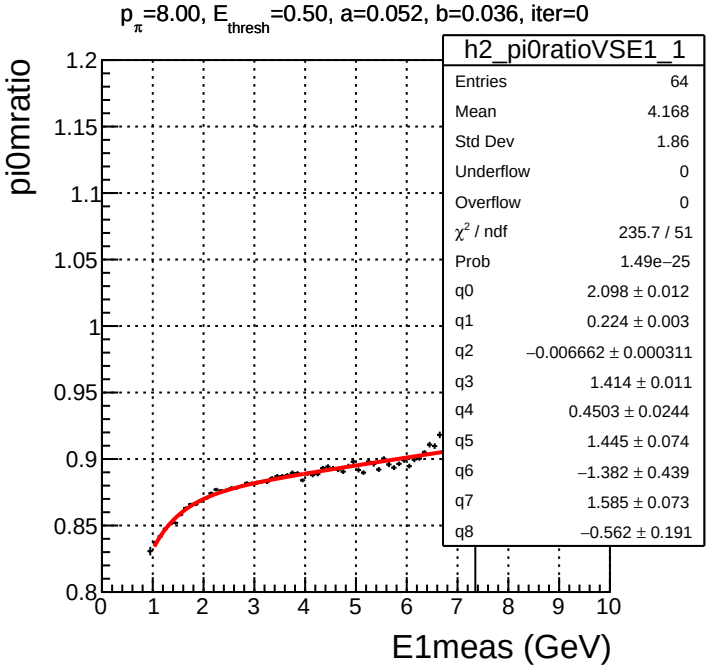

Fitted value of par[0]=Constant
h2_pi0ratioVSE1_DE2_0
Entries 64
Mean 3.413
Std Dev 1.726
Underflow 0
Overflow 0
E1meas (GeV)

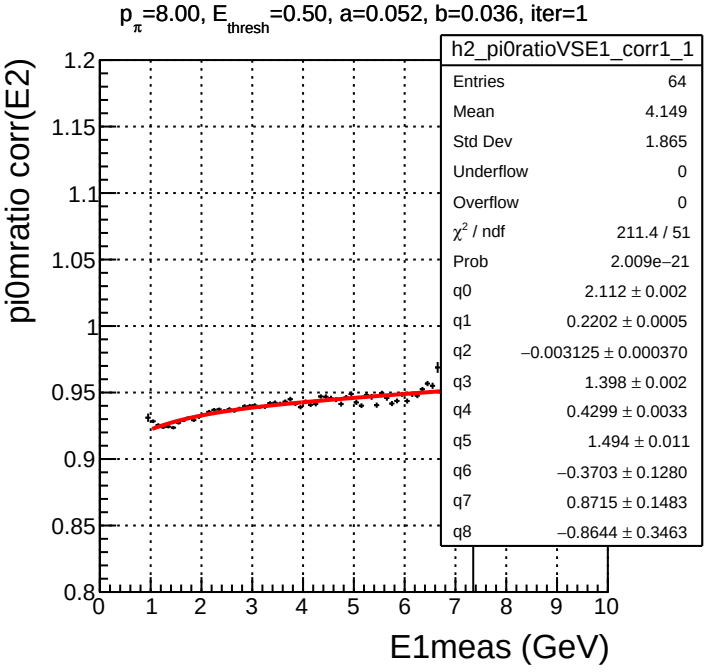

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_pi0ratioVSE1_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 235.7 / 51
Prob 1.49e−25
q0 2.098 ± 0.012
q1 0.224 ± 0.003
q2 −0.006662 ± 0.000311
q3 1.414 ± 0.011
q4 0.4503 ± 0.0244
q5 1.445 ± 0.074
q6 −1.382 ± 0.439
q7 1.585 ± 0.073
q8 −0.562 ± 0.191
pi0mratio
E1meas (GeV)

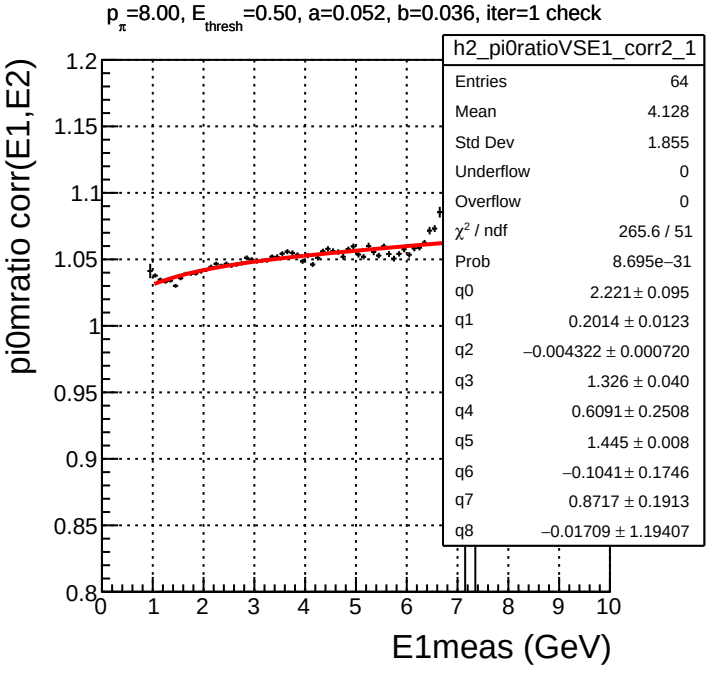

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1
h2_pi0ratioVSE1_corr1_1
Entries 64
Mean 4.149
Std Dev 1.865
Underflow 0
Overflow 0
χ² / ndf 211.4 / 51
Prob 2.009e−21
q0 2.112 ± 0.002
q1 0.2202 ± 0.0005
q2 −0.003125 ± 0.000370
q3 1.398 ± 0.002
q4 0.4299 ± 0.0033
q5 1.494 ± 0.011
q6 −0.3703 ± 0.1280
q7 0.8715 ± 0.1483
q8 −0.8644 ± 0.3463
pi0mratio corr(E2)
E1meas (GeV)

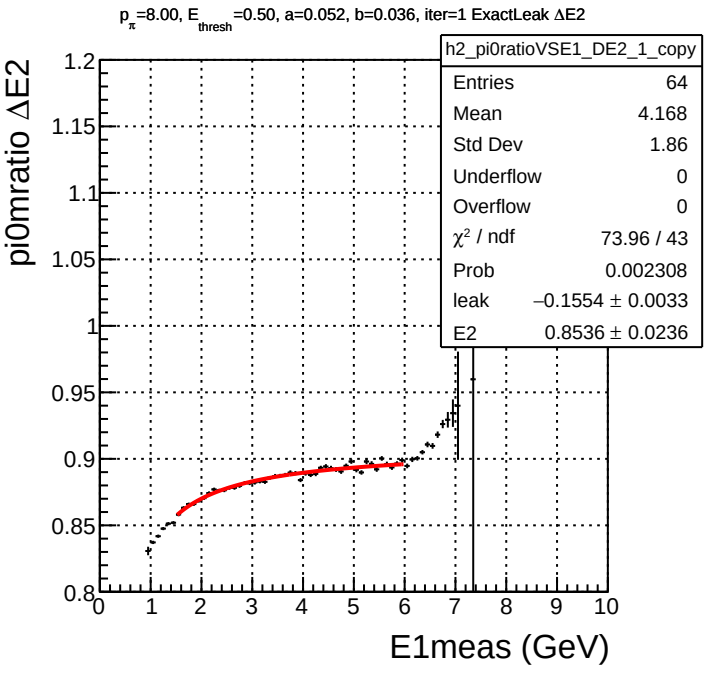

p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 check
h2_pi0ratioVSE1_corr2_1
Entries 64
Mean 4.128
Std Dev 1.855
Underflow 0
Overflow 0
χ² / ndf 265.6 / 51
Prob 8.695e−31
q0 2.221 ± 0.095
q1 0.2014 ± 0.0123
q2 −0.004322 ± 0.000720
q3 1.326 ± 0.040
q4 0.6091 ± 0.2508
q5 1.445 ± 0.008
q6 −0.1041 ± 0.1746
q7 0.8717 ± 0.1913
q8 −0.01709 ± 1.19407
pi0mratio corr(E1,E2)
E1meas (GeV)


p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 ExactLeak ΔE2
h2_pi0ratioVSE1_DE2_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 320.3 / 46
Prob 8.94e−43
q0 2.213 ± 0.003
q1 0.2003 ± 0.0010
q2 −0.02912 ± 0.00120
q3 1.319 ± 0.006
q4 0.6371 ± 0.0017
q5 1.377 ± 0.006
q6 −0.1676 ± 0.0057
q7 −0.04127 ± 0.00455
q8 0.7268 ± 0.0415
pi0mratio ΔE2
E1meas (GeV)


p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=0
h2_pi0ratioVSE1_1
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 235.7 / 51
Prob 1.49e−25
q0 2.098 ± 0.012
q1 0.224 ± 0.003
q2 −0.006662 ± 0.000311
q3 1.414 ± 0.011
q4 0.4503 ± 0.0244
q5 1.445 ± 0.074
q6 −1.382 ± 0.439
q7 1.585 ± 0.073
q8 −0.562 ± 0.191
pi0mratio
E1meas (GeV)


p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1
h2_pi0ratioVSE1_corr1_1
Entries 64
Mean 4.149
Std Dev 1.865
Underflow 0
Overflow 0
χ² / ndf 211.4 / 51
Prob 2.009e−21
q0 2.112 ± 0.002
q1 0.2202 ± 0.0005
q2 −0.003125 ± 0.000370
q3 1.398 ± 0.002
q4 0.4299 ± 0.0033
q5 1.494 ± 0.011
q6 −0.3703 ± 0.1280
q7 0.8715 ± 0.1483
q8 −0.8644 ± 0.3463
pi0mratio corr(E2)
E1meas (GeV)


p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 check
h2_pi0ratioVSE1_corr2_1
Entries 64
Mean 4.128
Std Dev 1.855
Underflow 0
Overflow 0
χ² / ndf 265.6 / 51
Prob 8.695e−31
q0 2.221 ± 0.095
q1 0.2014 ± 0.0123
q2 −0.004322 ± 0.000720
q3 1.326 ± 0.040
q4 0.6091 ± 0.2508
q5 1.445 ± 0.008
q6 −0.1041 ± 0.1746
q7 0.8717 ± 0.1913
q8 −0.01709 ± 1.19407
pi0mratio corr(E1,E2)
E1meas (GeV)


p_π=8.00, E_thresh=0.50, a=0.052, b=0.036, iter=1 ExactLeak ΔE2
h2_pi0ratioVSE1_DE2_1_copy
Entries 64
Mean 4.168
Std Dev 1.86
Underflow 0
Overflow 0
χ² / ndf 73.96 / 43
Prob 0.002308
leak −0.1554 ± 0.0033
E2 0.8536 ± 0.0236
pi0mratio ΔE2
E1meas (GeV)