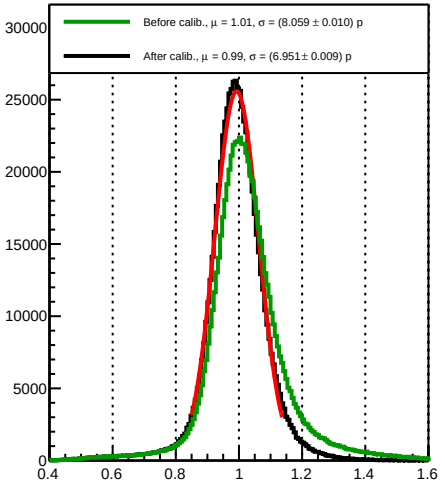
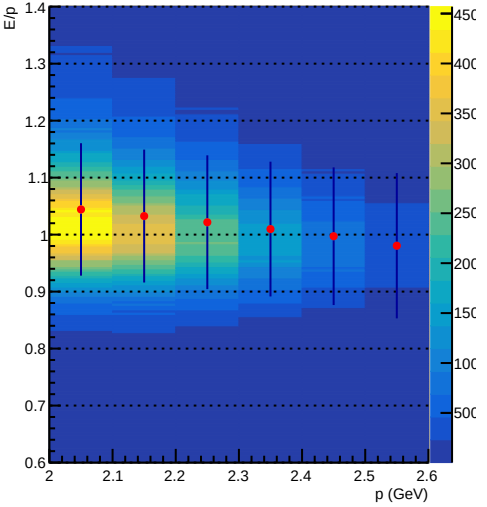
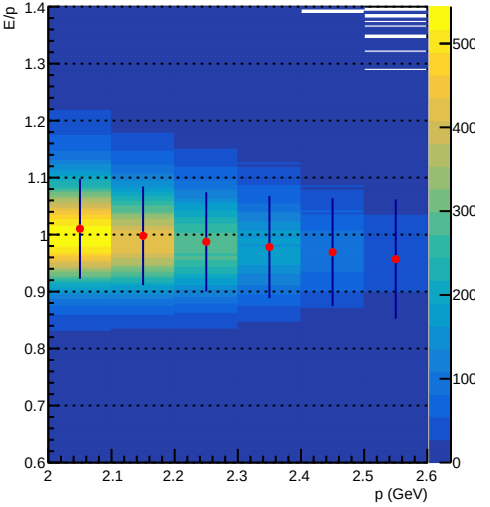
E/p



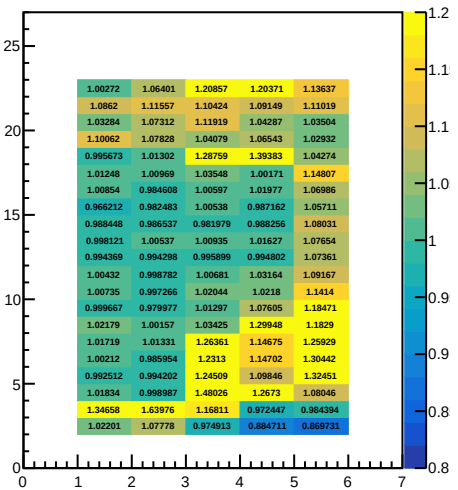
E/p vs p



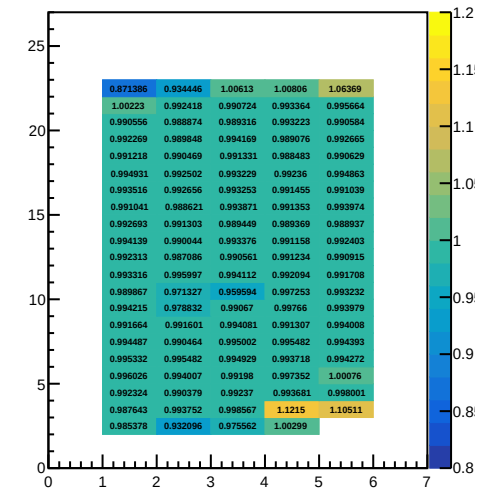
E/p vs p | After Calib.



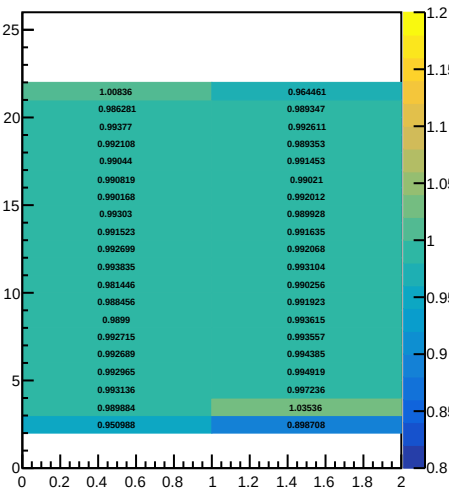
E/p per SH block



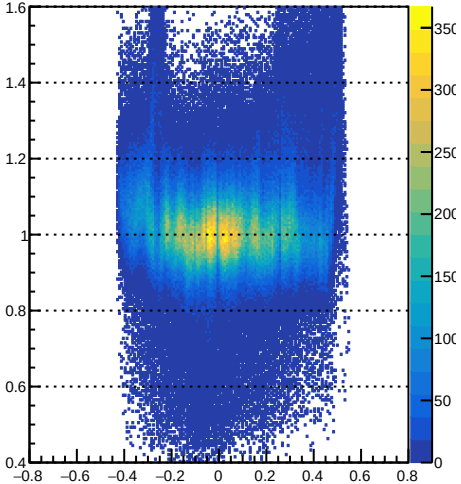
E/p per SH block | After Calib.



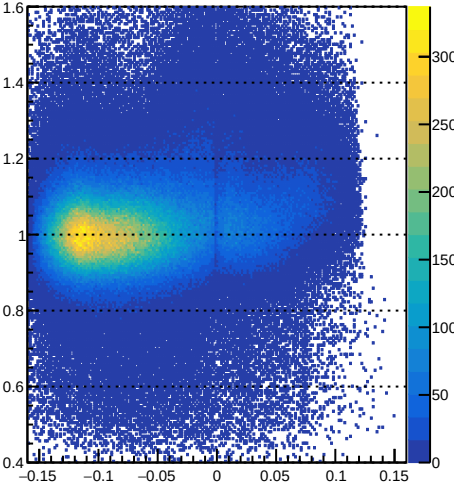
E/p per PS block | After Calib.



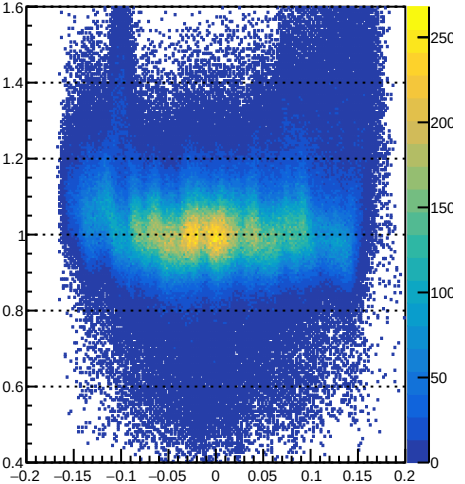
E/p vs Track x



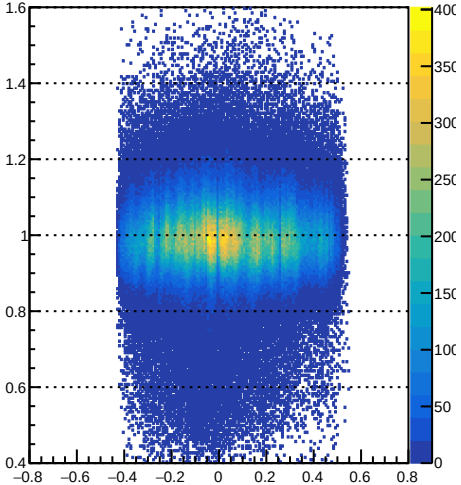
E/p vs Track y



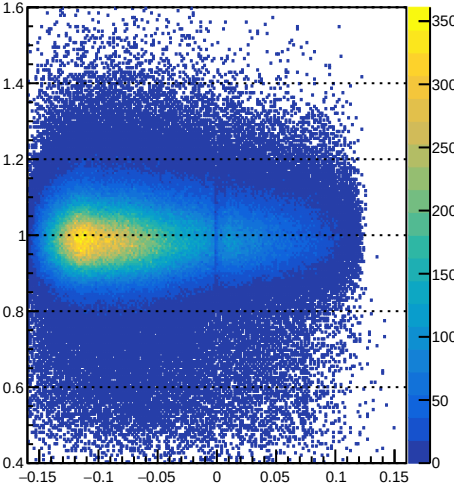
E/p vs Track theta



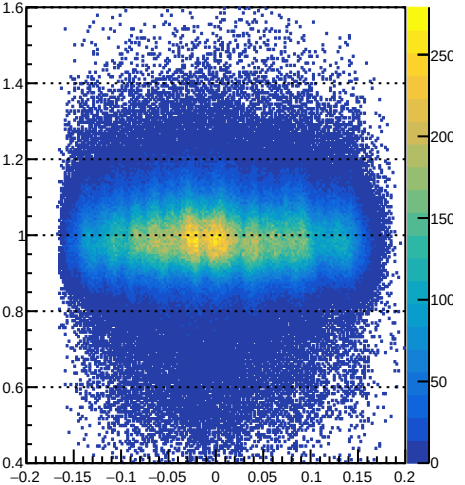
E/p vs Track x | After Calib.



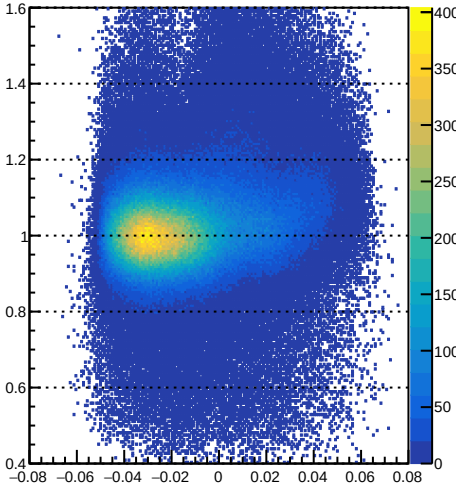
E/p vs Track y | After Calib.



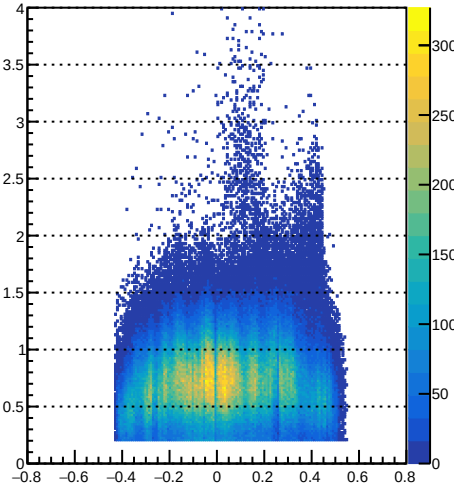
E/p vs Track theta | After Calib.



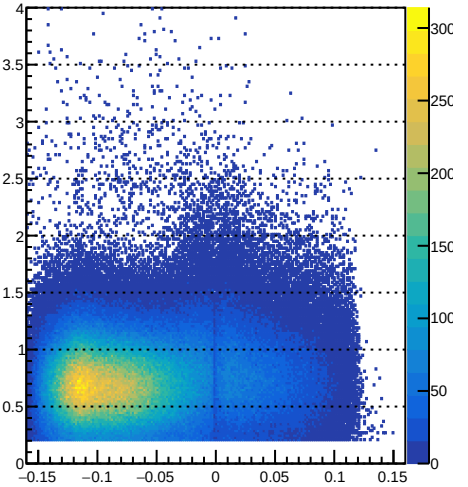
E/p vs Track phi



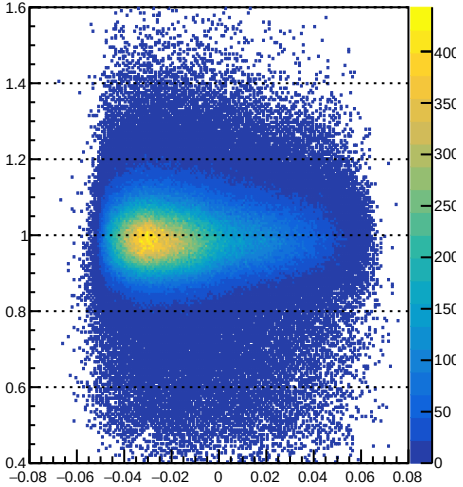
PS energy vs Track x



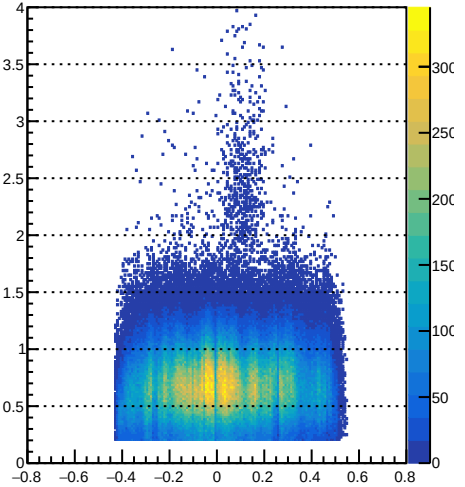
PS energy vs Track y



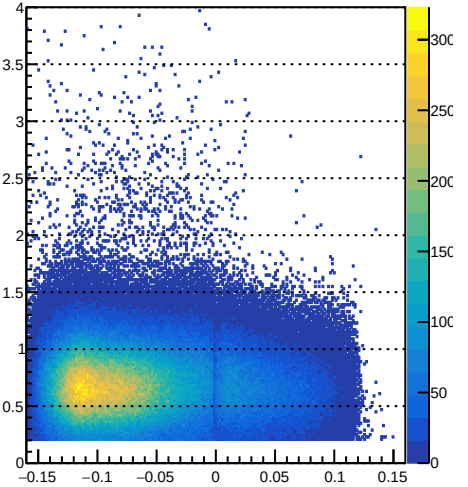
E/p vs Track phi | After Calib.

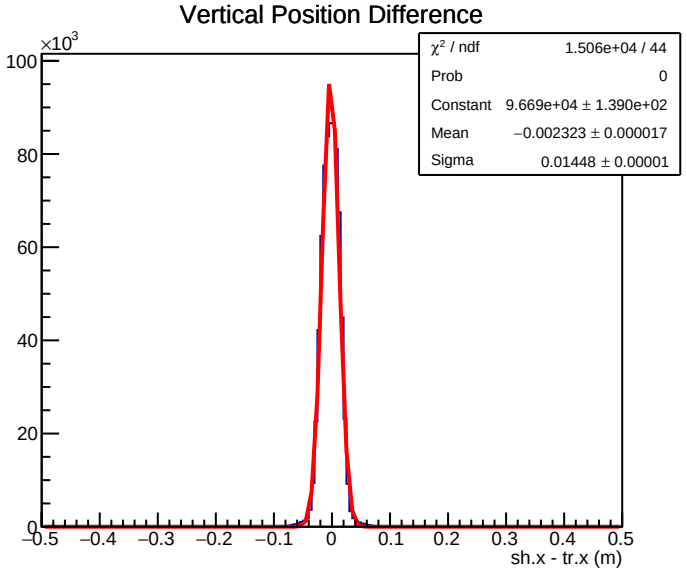


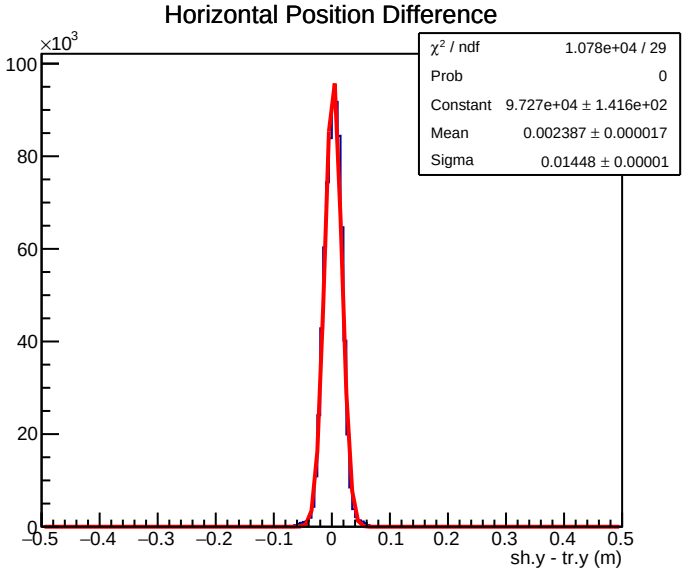
PS energy vs Track x | After Calib.

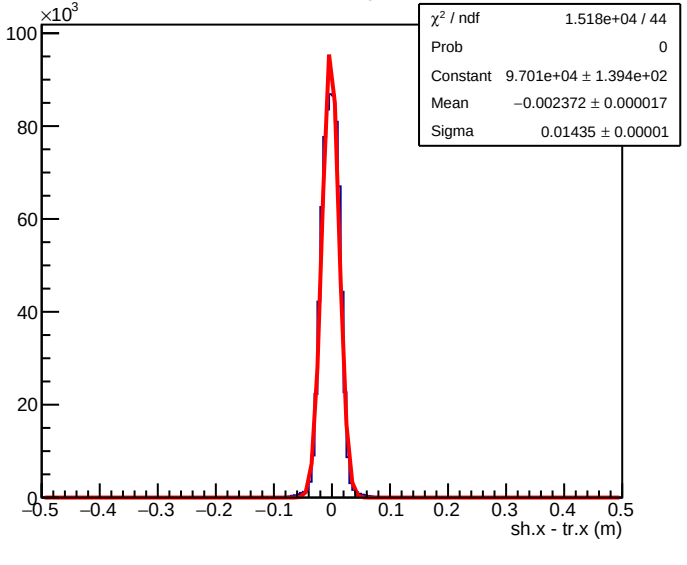


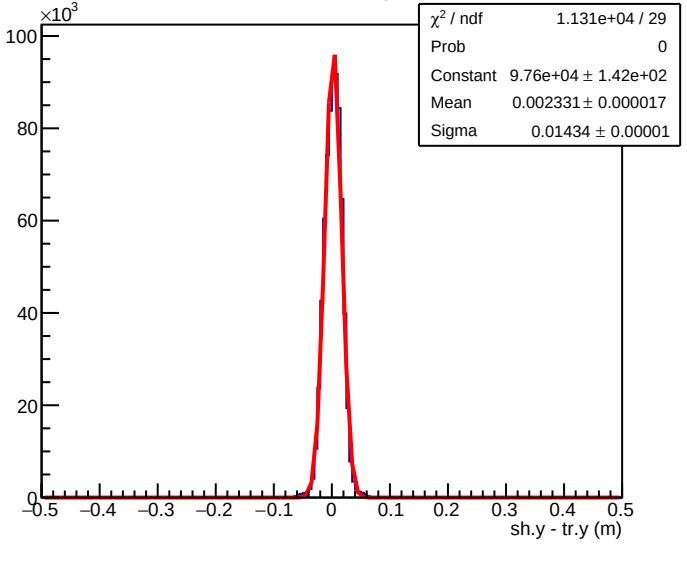
PS energy vs Track y | After Calib.

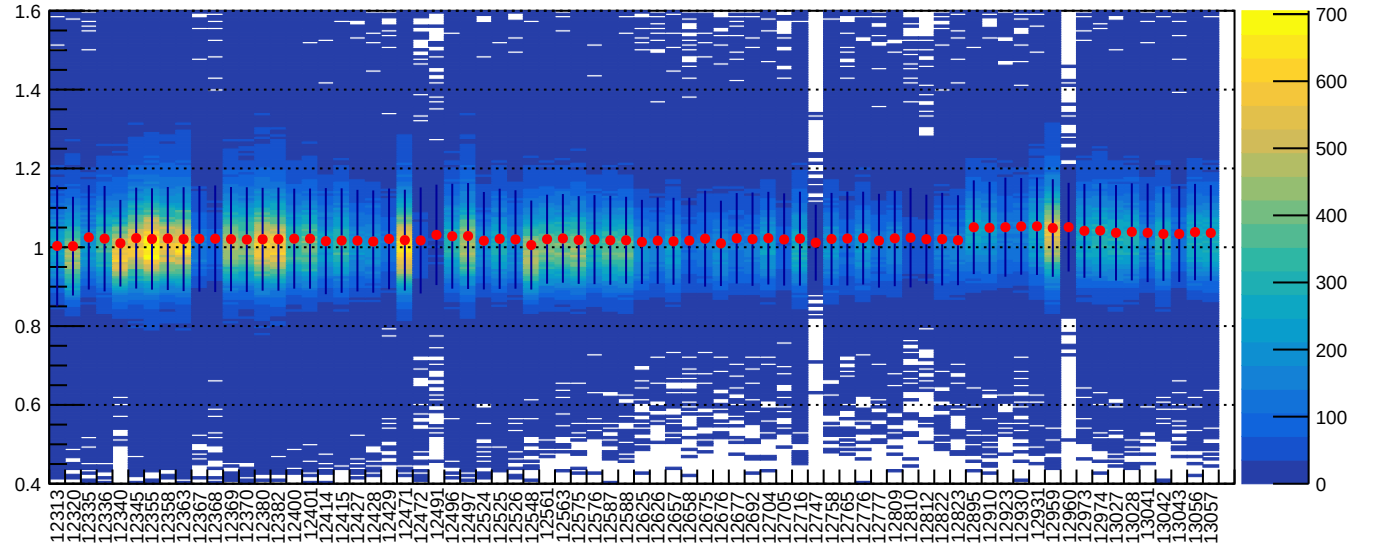


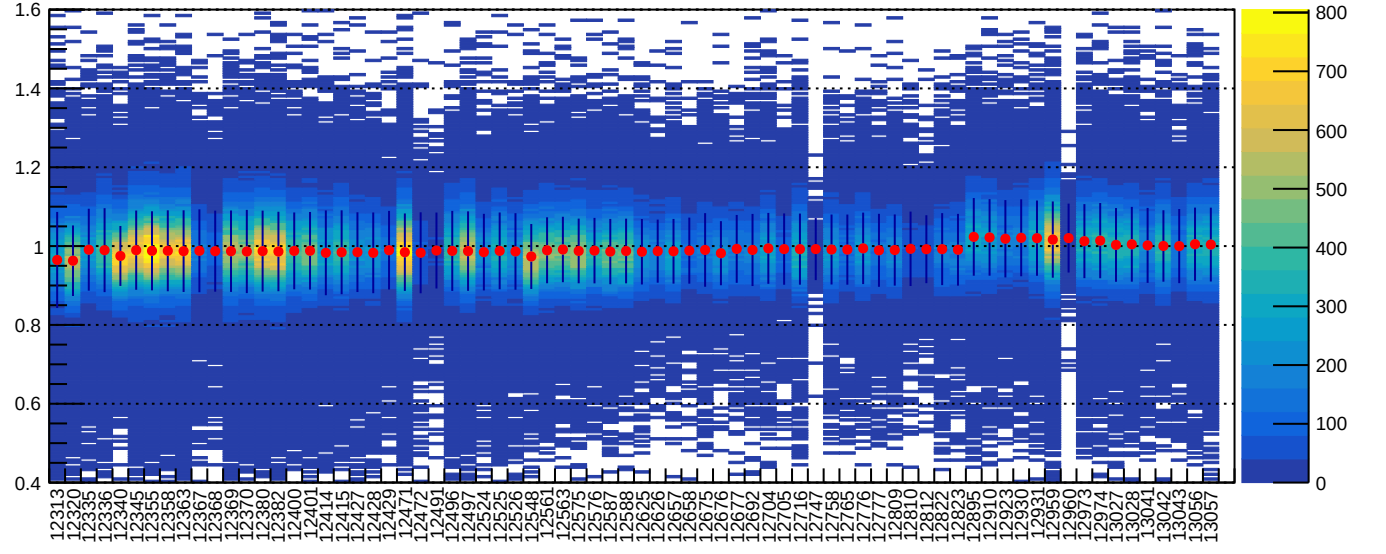

Vertical Position Difference
×10^3
100
80
60
40
20
0
−0.5 −0.4 −0.3 −0.2 −0.1 0 0.1 0.2 0.3 0.4 0.5
sh.x - tr.x (m)
χ² / ndf 1.506e+04 / 44
Prob 0
Constant 9.669e+04 ± 1.390e+02
Mean −0.002323 ± 0.000017
Sigma 0.01448 ± 0.00001


Horizontal Position Difference
×10^3
100
80
60
40
20
0
−0.5 −0.4 −0.3 −0.2 −0.1 0 0.1 0.2 0.3 0.4 0.5
sh.y - tr.y (m)
χ² / ndf 1.078e+04 / 29
Prob 0
Constant 9.727e+04 ± 1.416e+02
Mean 0.002387 ± 0.000017
Sigma 0.01448 ± 0.00001

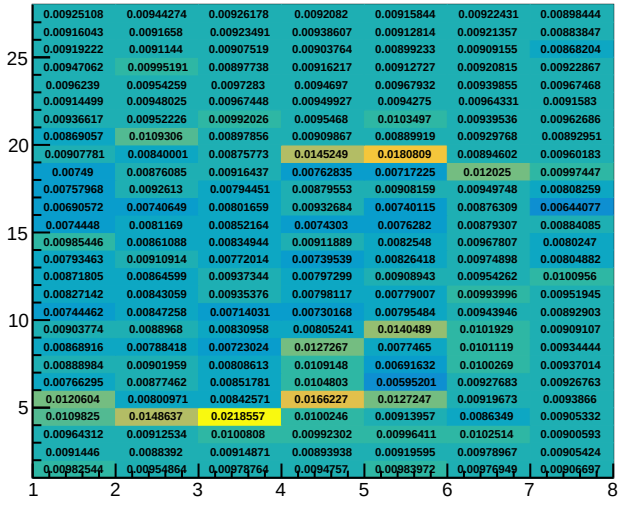

Vertical Pos. Diff. | After Calib.
×10^3
100
80
60
40
20
0
−0.5 −0.4 −0.3 −0.2 −0.1 0 0.1 0.2 0.3 0.4 0.5
sh.x - tr.x (m)
χ² / ndf 1.518e+04 / 44
Prob 0
Constant 9.701e+04 ± 1.394e+02
Mean −0.002372 ± 0.000017
Sigma 0.01435 ± 0.00001


Horizontal Pos. Diff. | After Calib.
×10^3
100
80
60
40
20
0
−0.5 −0.4 −0.3 −0.2 −0.1 0 0.1 0.2 0.3 0.4 0.5
sh.y - tr.y (m)
χ² / ndf 1.131e+04 / 29
Prob 0
Constant 9.76e+04 ± 1.42e+02
Mean 0.002331 ± 0.000017
Sigma 0.01434 ± 0.00001

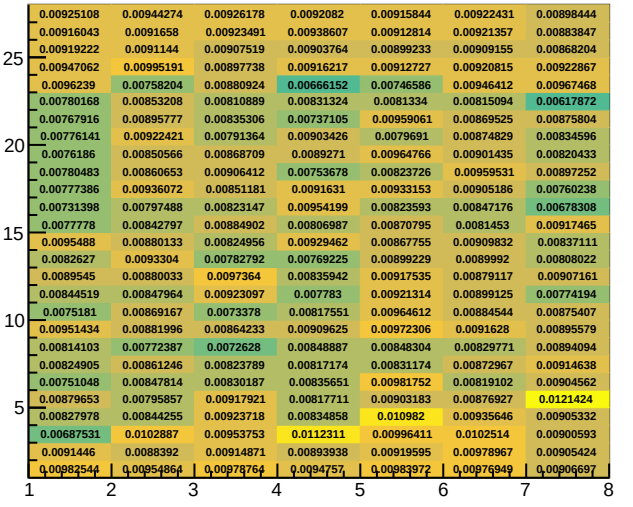

E/p vs Run no.
1.6
1.4
1.2
1
0.8
0.6
0.4
700
600
500
400
300
200
100
0
12313 12320 12335 12336 12340 12345 12355 12358 12363 12367 12368 12369 12370 12380 12382 12400 12401 12414 12415 12427 12428 12429 12471 12472 12491 12496 12497 12524 12525 12526 12548 12561 12563 12575 12576 12587 12588 12625 12626 12657 12658 12675 12676 12677 12692 12704 12705 12716 12747 12758 12765 12776 12777 12809 12810 12812 12822 12823 12895 12910 12923 12930 12931 12959 12960 12973 12974 13027 13028 13041 13042 13043 13056 13057


E/p vs Run no. | After Calib.
1.6
1.4
1.2
1
0.8
0.6
0.4
800
700
600
500
400
300
200
100
0
12313 12320 12335 12336 12340 12345 12355 12358 12363 12367 12368 12369 12370 12380 12382 12400 12401 12414 12415 12427 12428 12429 12471 12472 12491 12496 12497 12524 12525 12526 12548 12561 12563 12575 12576 12587 12588 12625 12626 12657 12658 12675 12676 12677 12692 12704 12705 12716 12747 12758 12765 12776 12777 12809 12810 12812 12822 12823 12895 12910 12923 12930 12931 12959 12960 12973 12974 13027 13028 13041 13042 13043 13056 13057

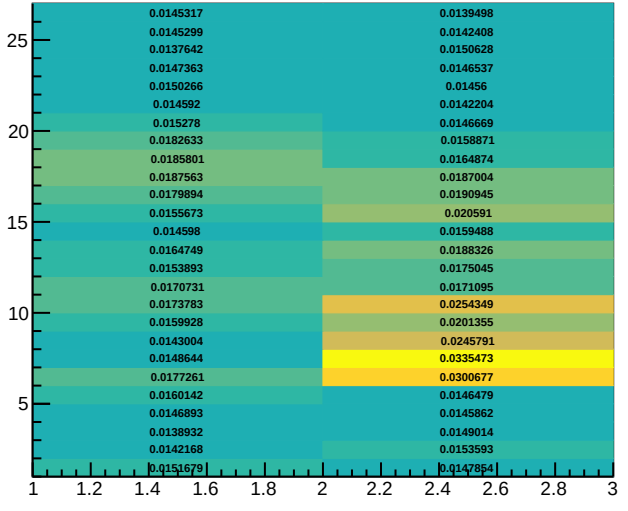
Old ADC Gain Coefficients | SH



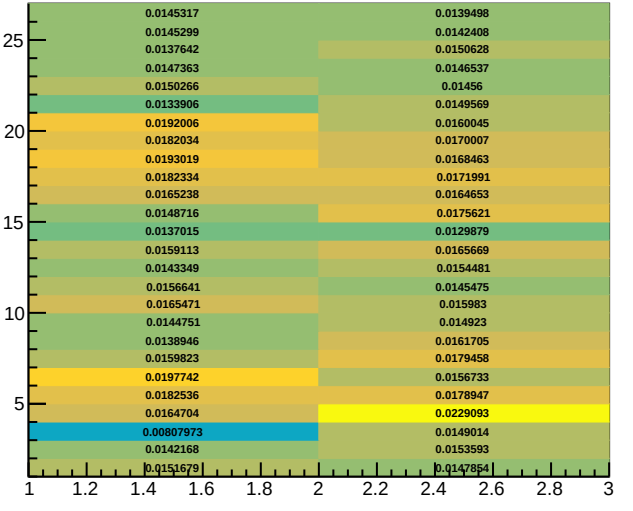
New ADC Gain Coefficients | SH



Old ADC Gain Coefficients | PS



New ADC Gain Coefficients | PS



Date of creation: 8/16/2023

Configfile: BBCal_replay/macros/Combined_macros/cfg/sbs11-sbs100p.cfg

Total # events analyzed: 13546584, Preparing for replay pass: 2

E/p (before calib.) | μ = 1.01, σ = (8.059 $\pm$ 0.010) p

E/p (after calib.) | μ = 0.99, σ = (6.951 $\pm$ 0.009) p

Global cuts:

bb.tr.n==1, abs(bb.tr.vz[0])<0.08, bb.gem.track.nhits>3,

abs(bb.tr.r_x[0]-0.9*bb.tr.r_th[0])<0.32,

PS cluster energy > 0.2 GeV

p_recon > 2.0 GeV/c

 # events passed global cuts: 970908

Other cuts:

Minimum # events per block: 400, (Cluster) hit threshold: 0.02 GeV

Various offsets:

Momentum fudge factor: 1.00, BBCAL cluster energy scale factor: 1.00

Momentum calibration factors: A = 0.273110000, B = 0.721663000, C = 0.0, θ_{pitch}^{GEM} = 10.0^{o}, d_{BB} = 1.5515 m

Macro processing time: CPU 1580.3s | Real 2278.4s