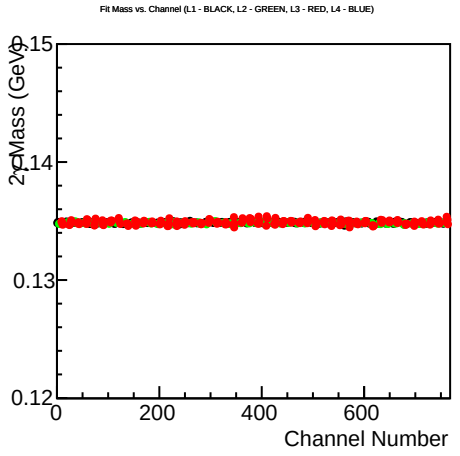
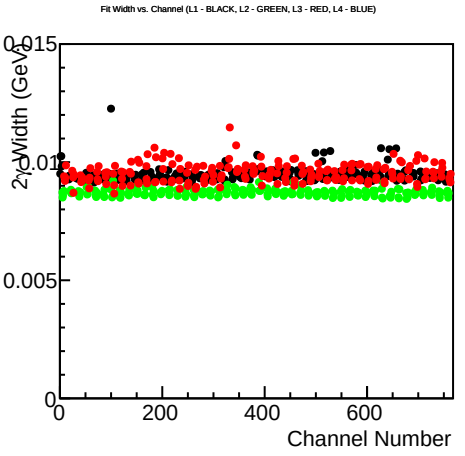
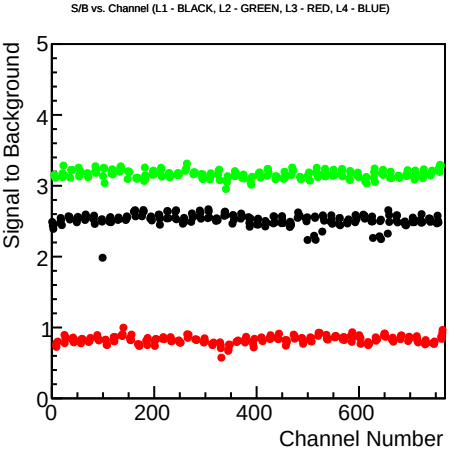
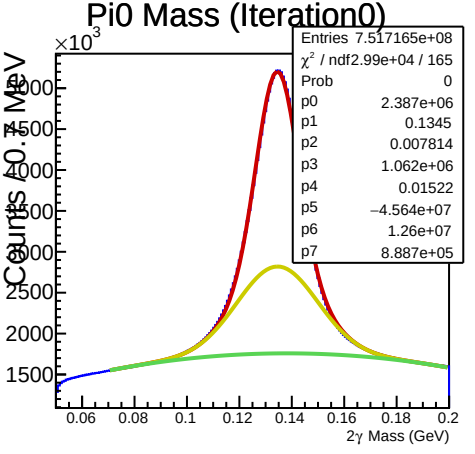
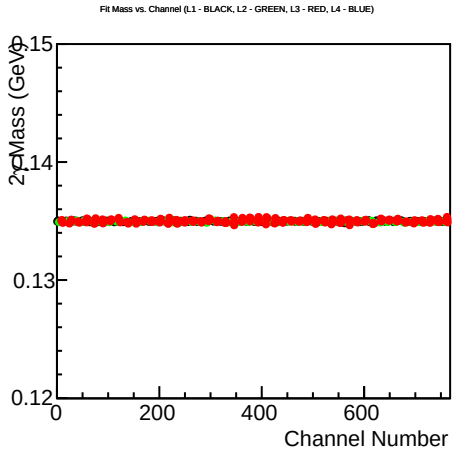
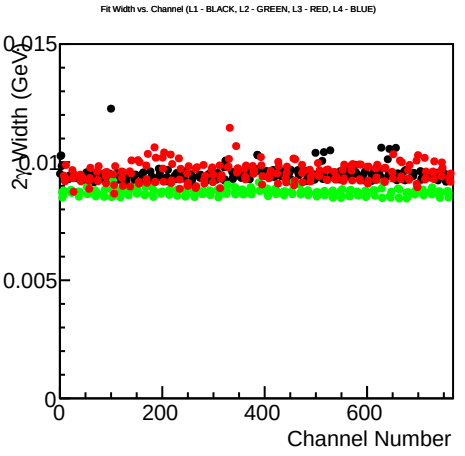

Fit Mass vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
2γ Mass (GeV)
0.15
0.14
0.13
0.12
0
200
400
600
Channel Number

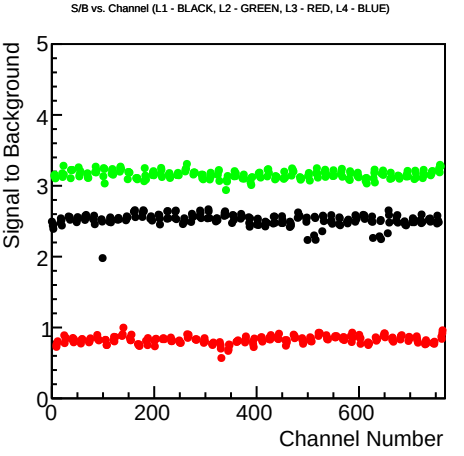

Fit Width vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
2γ Width (GeV)
0.015
0.01
0.005
0
200
400
600
Channel Number

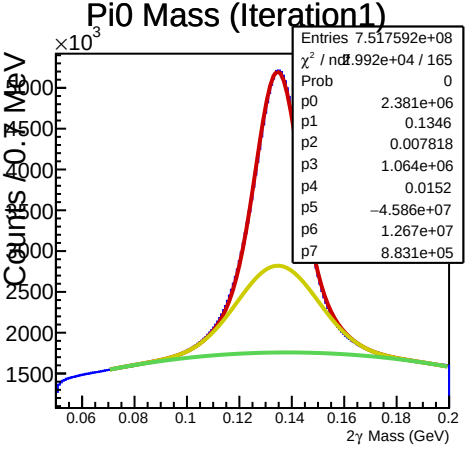

S/B vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
Signal to Background
5
4
3
2
1
0
0
200
400
600
Channel Number


Pi0 Mass (Iteration0)
×10³
Counts / 0.5 MeV
3500
3000
2500
2000
1500
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
2γ Mass (GeV)
Entries 7.517165e+08
χ² / ndf 2.99e+04 / 165
Prob 0
p0 2.387e+06
p1 0.1345
p2 0.007814
p3 1.062e+06
p4 0.01522
p5 −4.564e+07
p6 1.26e+07
p7 8.887e+05

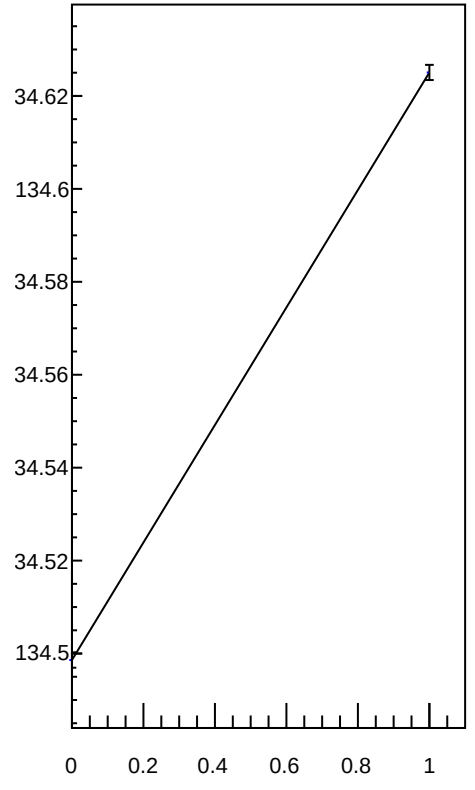

Fit Mass vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
2γ Mass (GeV)
0.15
0.14
0.13
0.12
0
200
400
600
Channel Number


Fit Width vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
2γ Width (GeV)
0.015
0.01
0.005
0
200
400
600
Channel Number

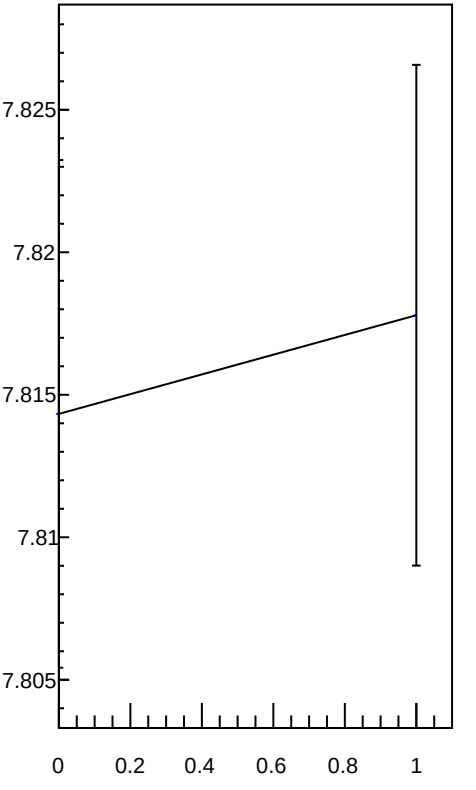

S/B vs. Channel (L1 - BLACK, L2 - GREEN, L3 - RED, L4 - BLUE)
Signal to Background
5
4
3
2
1
0
0
200
400
600
Channel Number


Pi0 Mass (Iteration1)
Counts / 0.5 MeV
×10³
3500
3000
2500
2000
1500
0.06
0.08
0.1
0.12
0.14
0.16
0.18
0.2
2γ Mass (GeV)
Entries 7.517592e+08
χ² / ndf 1.992e+04 / 165
Prob 0
p0 2.381e+06
p1 0.1346
p2 0.007818
p3 1.064e+06
p4 0.0152
p5 −4.586e+07
p6 1.267e+07
p7 8.831e+05

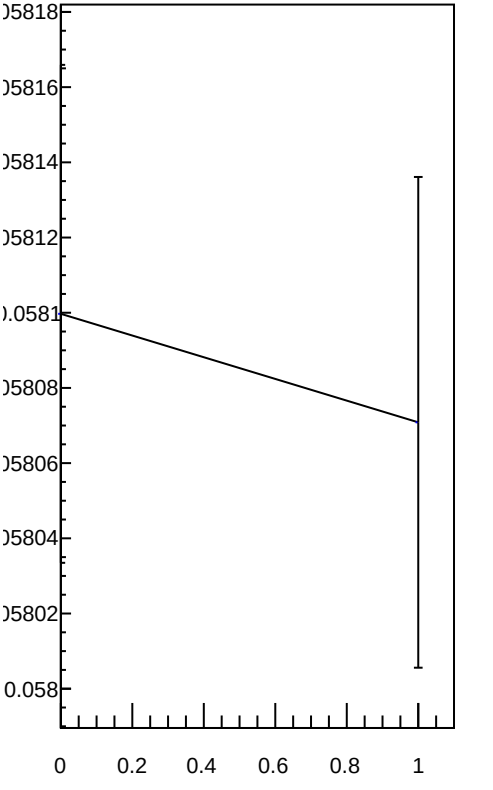
2γ fit mean vs. Iteration



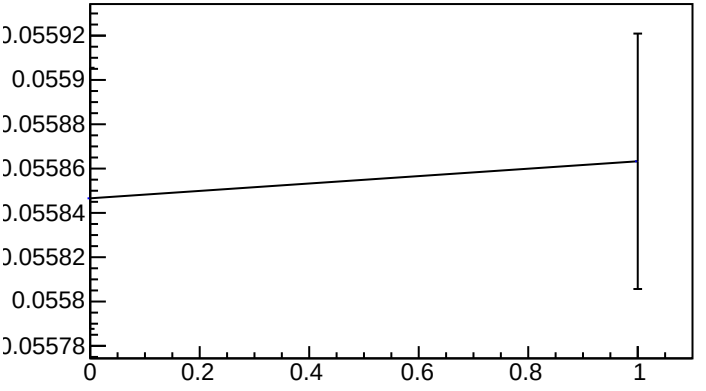
2γ fit sigma vs. Iteration



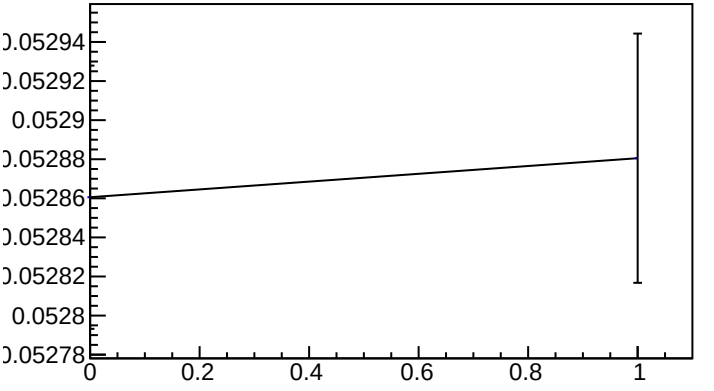
2γ fit sigma over mean vs. Iteration



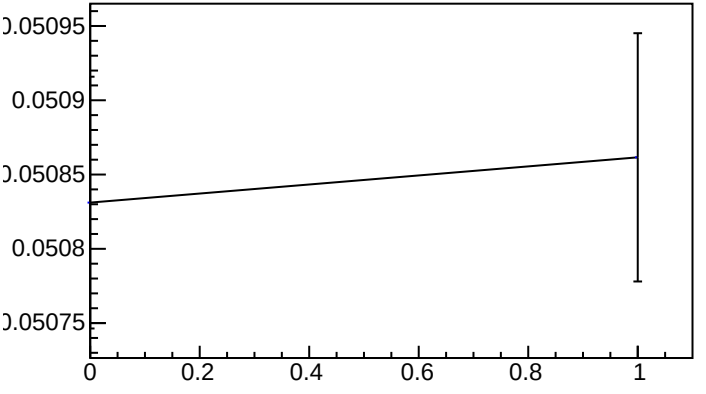
σ/μ vs. Iteration (E1, E2 > 500 MeV)



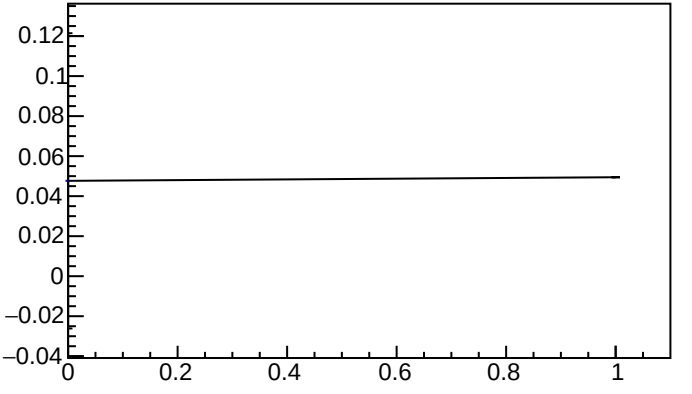
σ/μ vs. Iteration (E1, E2 > 700 MeV)

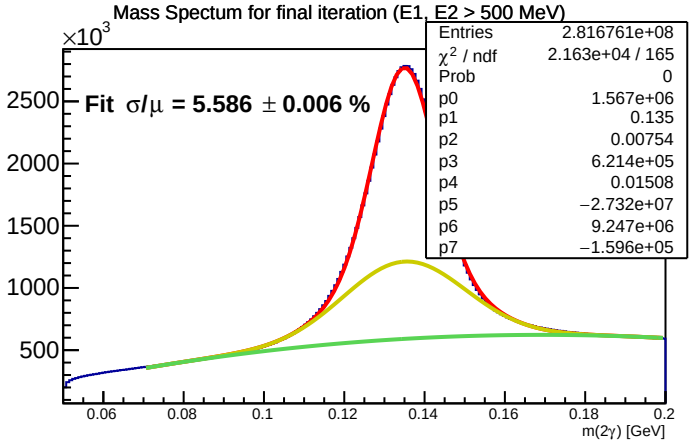


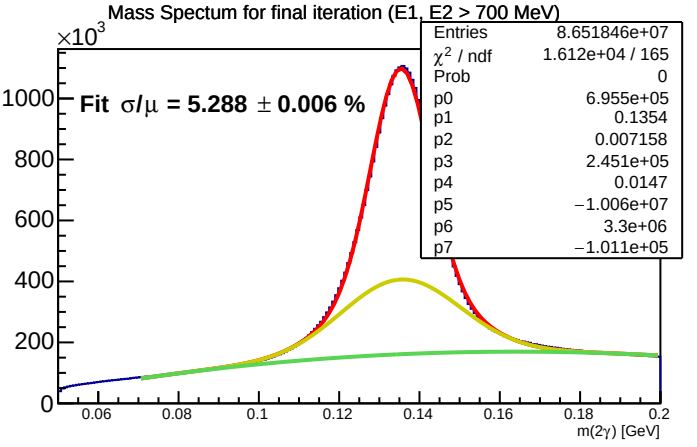
σ/μ vs. Iteration (E1, E2 > 900 MeV)

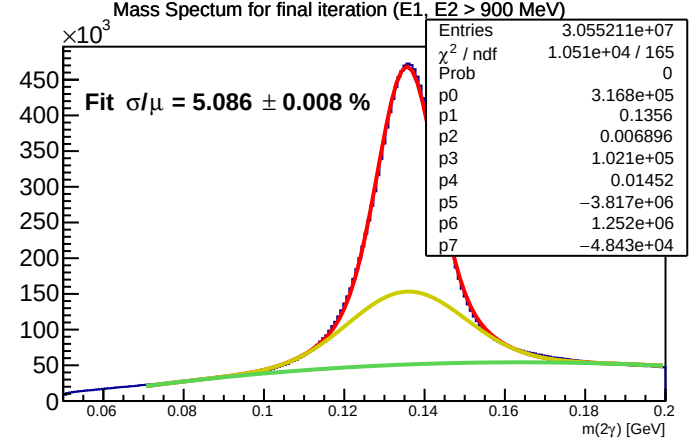


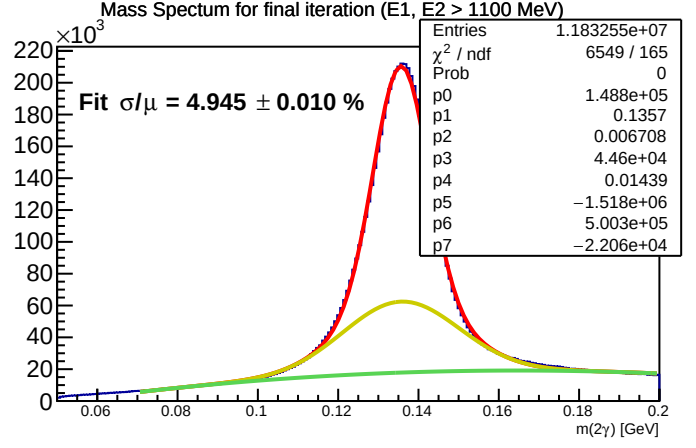
σ/μ vs. Iteration (E1, E2 > 1100 MeV)

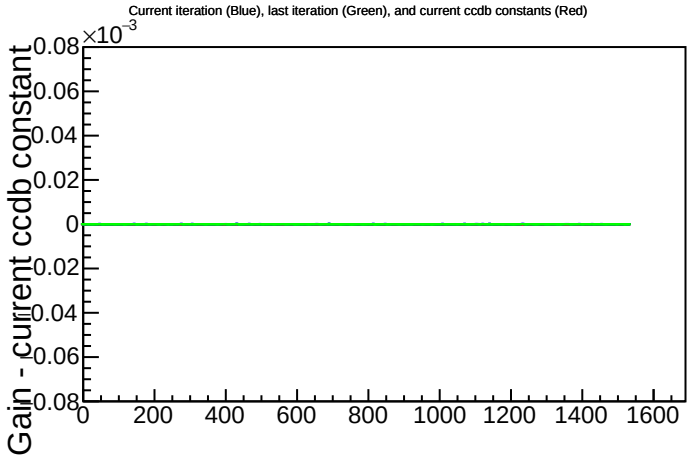


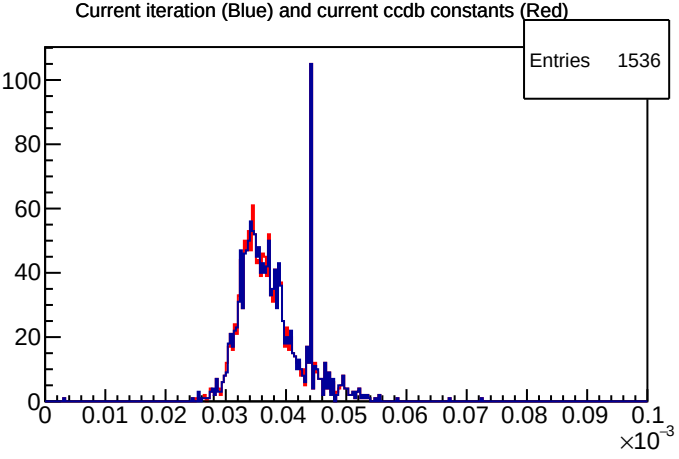

Mass Spectum for final iteration (E1, E2 > 500 MeV)
×10^3
Fit σ/μ = 5.586 ± 0.006 %
Entries 2.816761e+08
χ² / ndf 2.163e+04 / 165
Prob 0
p0 1.567e+06
p1 0.135
p2 0.00754
p3 6.214e+05
p4 0.01508
p5 −2.732e+07
p6 9.247e+06
p7 −1.596e+05
m(2γ) [GeV]

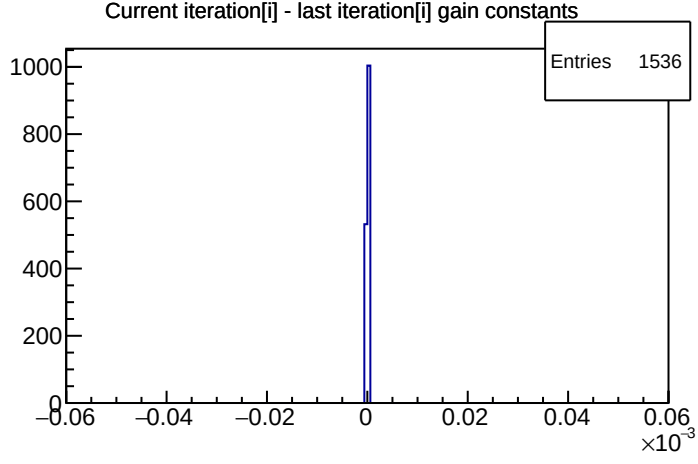

Mass Spectum for final iteration (E1, E2 > 700 MeV)
×10^3
Fit σ/μ = 5.288 ± 0.006 %
Entries 8.651846e+07
χ² / ndf 1.612e+04 / 165
Prob 0
p0 6.955e+05
p1 0.1354
p2 0.007158
p3 2.451e+05
p4 0.0147
p5 −1.006e+07
p6 3.3e+06
p7 −1.011e+05
m(2γ) [GeV]

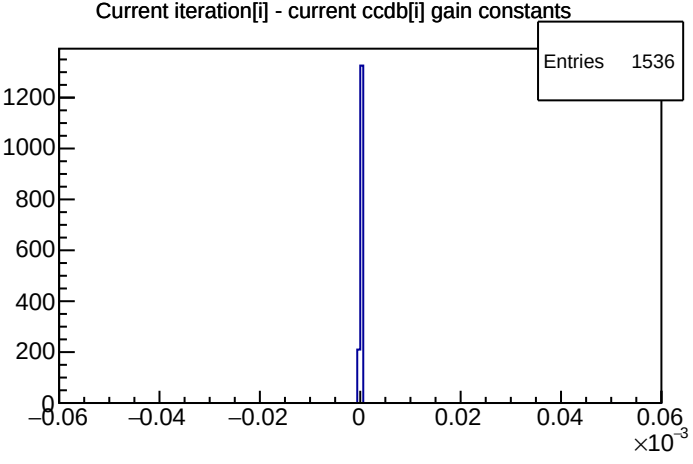

Mass Spectum for final iteration (E1, E2 > 900 MeV)
×10^3
Fit σ/μ = 5.086 ± 0.008 %
Entries 3.055211e+07
χ² / ndf 1.051e+04 / 165
Prob 0
p0 3.168e+05
p1 0.1356
p2 0.006896
p3 1.021e+05
p4 0.01452
p5 −3.817e+06
p6 1.252e+06
p7 −4.843e+04
m(2γ) [GeV]


Mass Spectum for final iteration (E1, E2 > 1100 MeV)
×10^3
Fit σ/μ = 4.945 ± 0.010 %
Entries 1.183255e+07
χ² / ndf 6549 / 165
Prob 0
p0 1.488e+05
p1 0.1357
p2 0.006708
p3 4.46e+04
p4 0.01439
p5 −1.518e+06
p6 5.003e+05
p7 −2.206e+04
m(2γ) [GeV]


Current iteration (Blue), last iteration (Green), and current ccdb constants (Red)
Gain - current ccdb constant
×10⁻³
0.08
0.06
0.04
0.02
0
0.02
0.04
0.06
0.08
0
200
400
600
800
1000
1200
1400
1600


Current iteration (Blue) and current ccdb constants (Red)
Entries 1536
100
80
60
40
20
0
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
×10⁻³


Current iteration[i] - last iteration[i] gain constants
Entries 1536
1000
800
600
400
200
0
−0.06
−0.04
−0.02
0
0.02
0.04
0.06
×10⁻³


Current iteration[i] - current ccdb[i] gain constants
Entries 1536
1200
1000
800
600
400
200
0
−0.06
−0.04
−0.02
0
0.02
0.04
0.06
×10⁻³