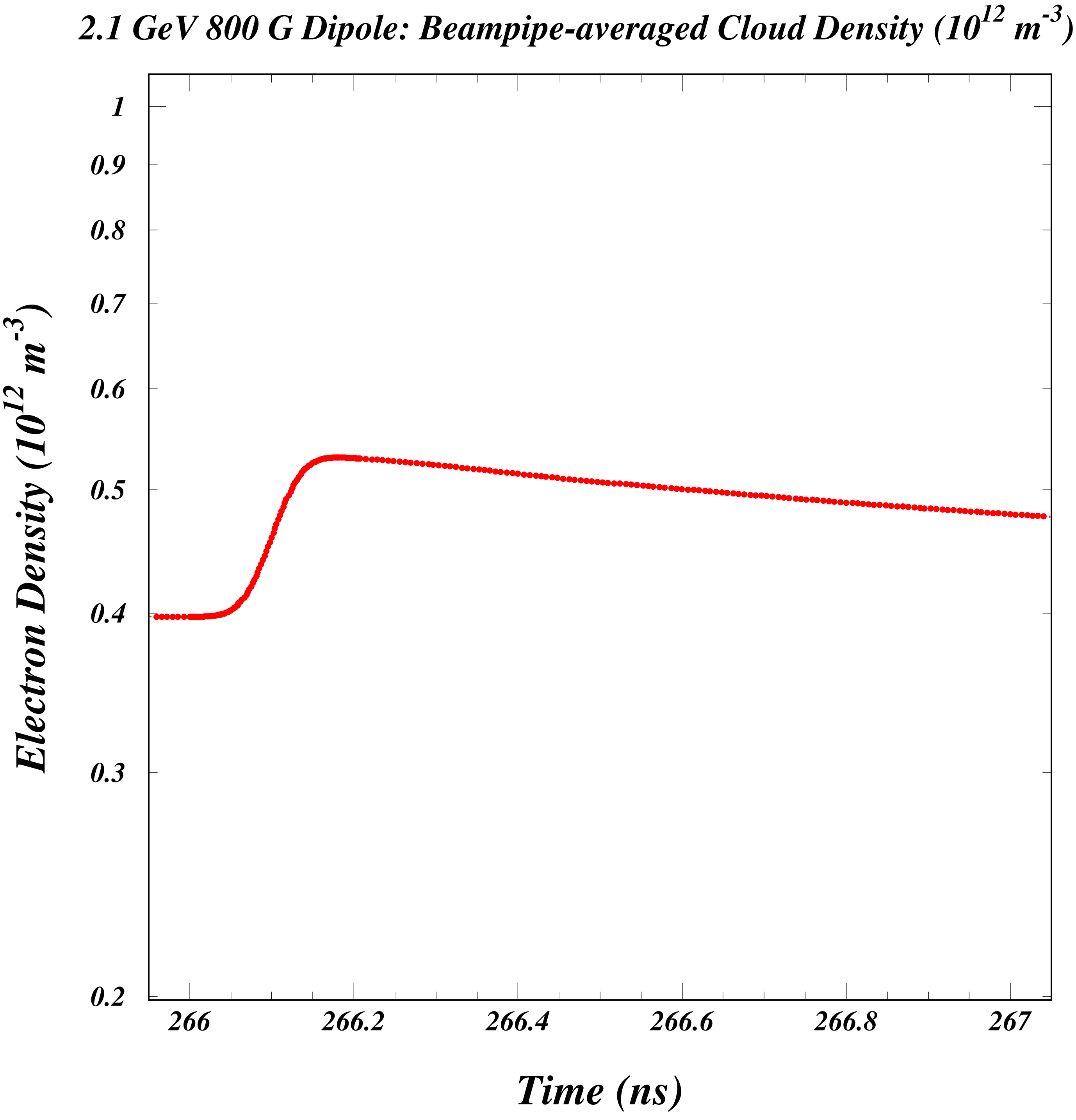
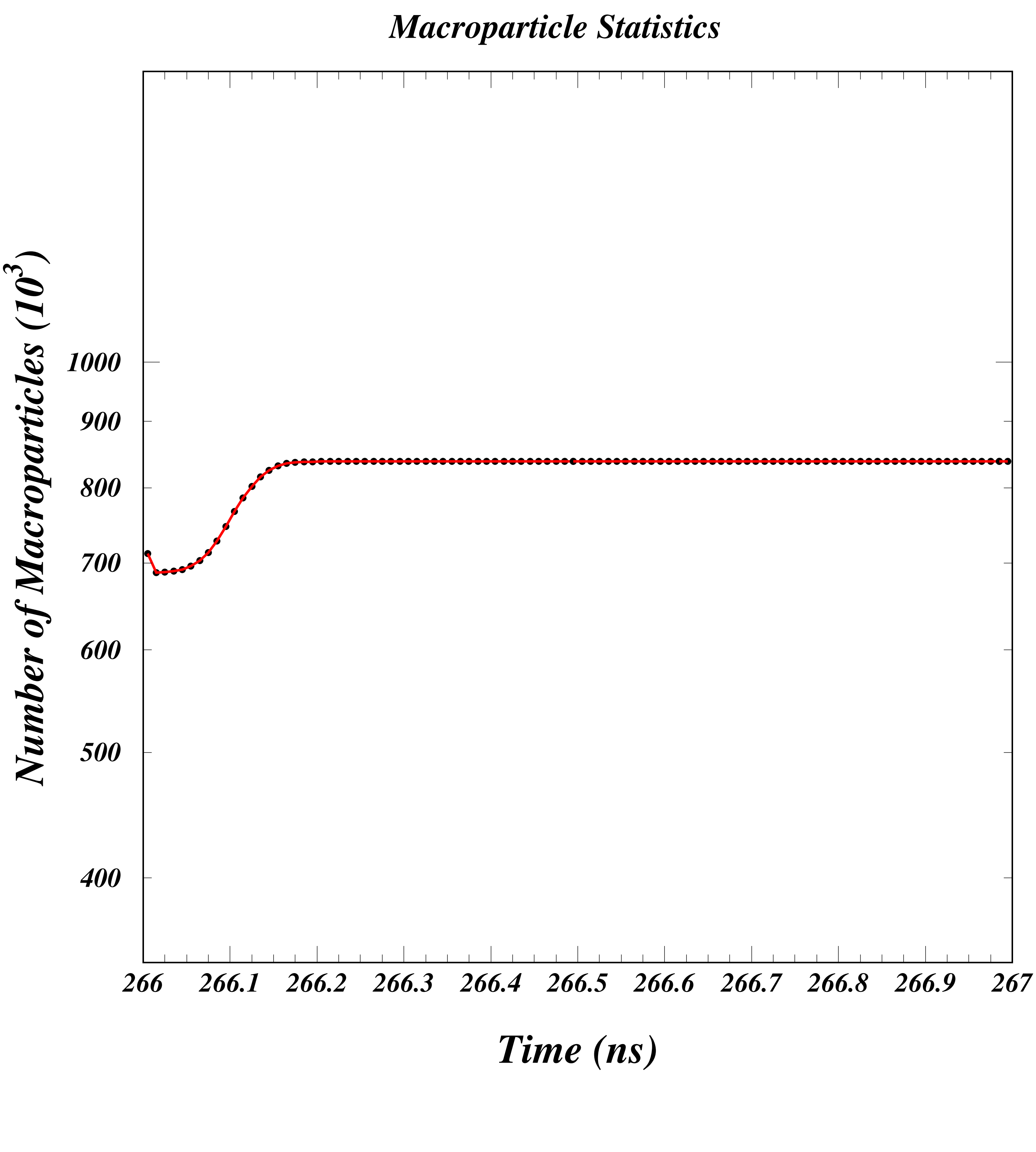

2.1 GeV 800 G Dipole: Beampipe-averaged Cloud Density (10^12 m^-3)
Electron Density (10^12 m^-3)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
266
266.2
266.4
266.6
266.8
267
Time (ns)


Macroparticle Statistics
Number of Macroparticles (10^3)
1000
900
800
700
600
500
400
266
266.1
266.2
266.3
266.4
266.5
266.6
266.7
266.8
266.9
267
Time (ns)

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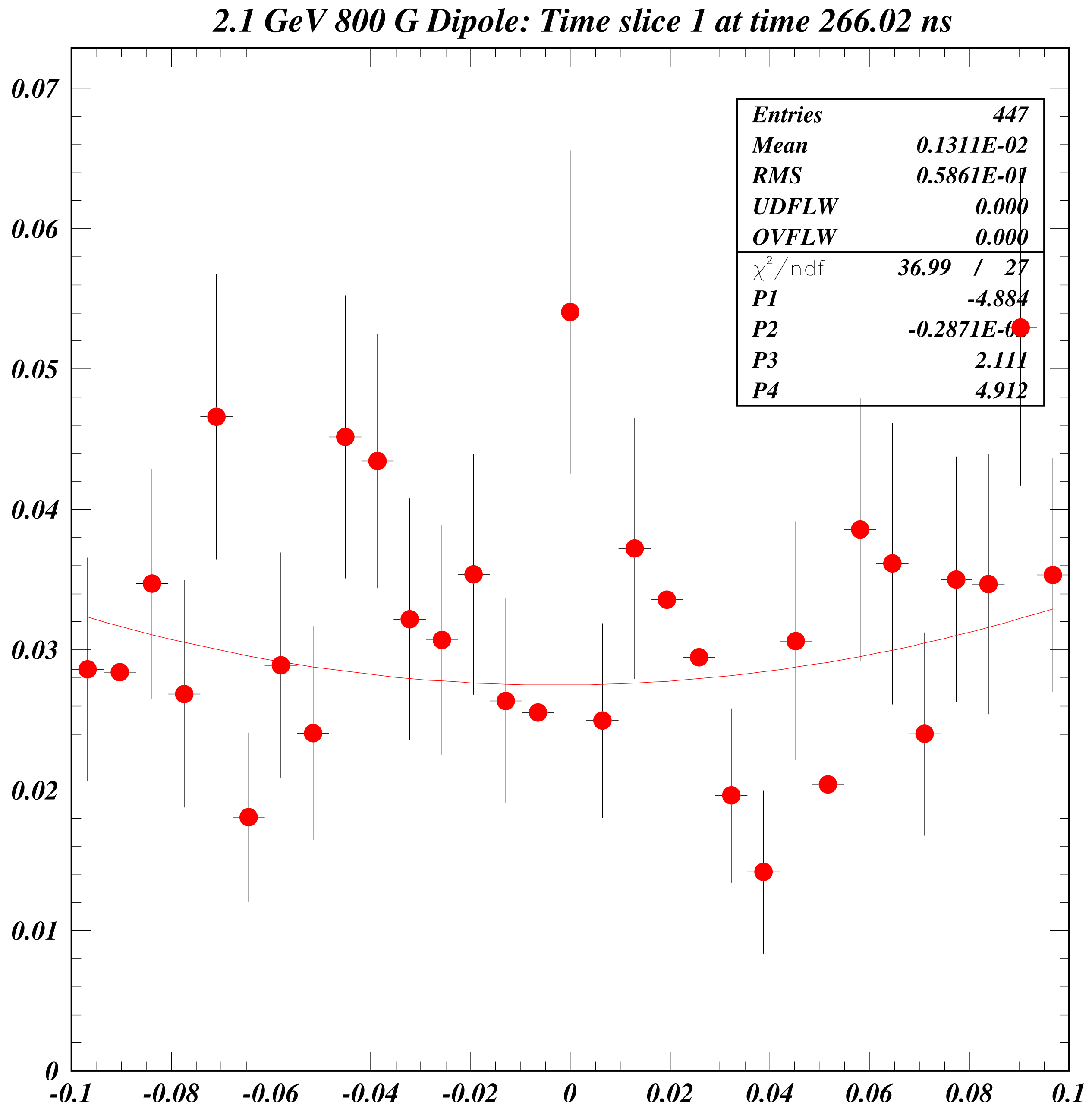
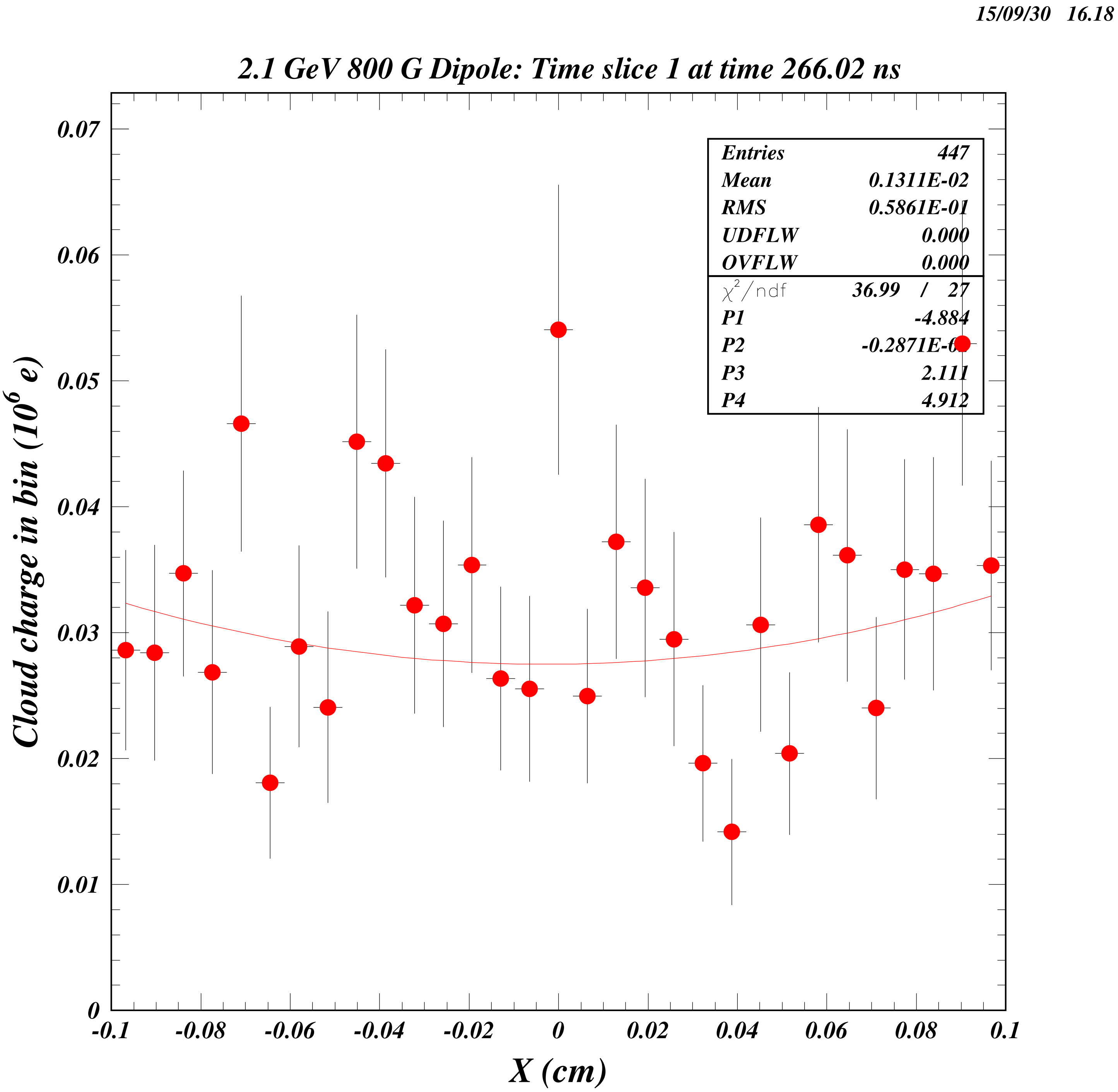
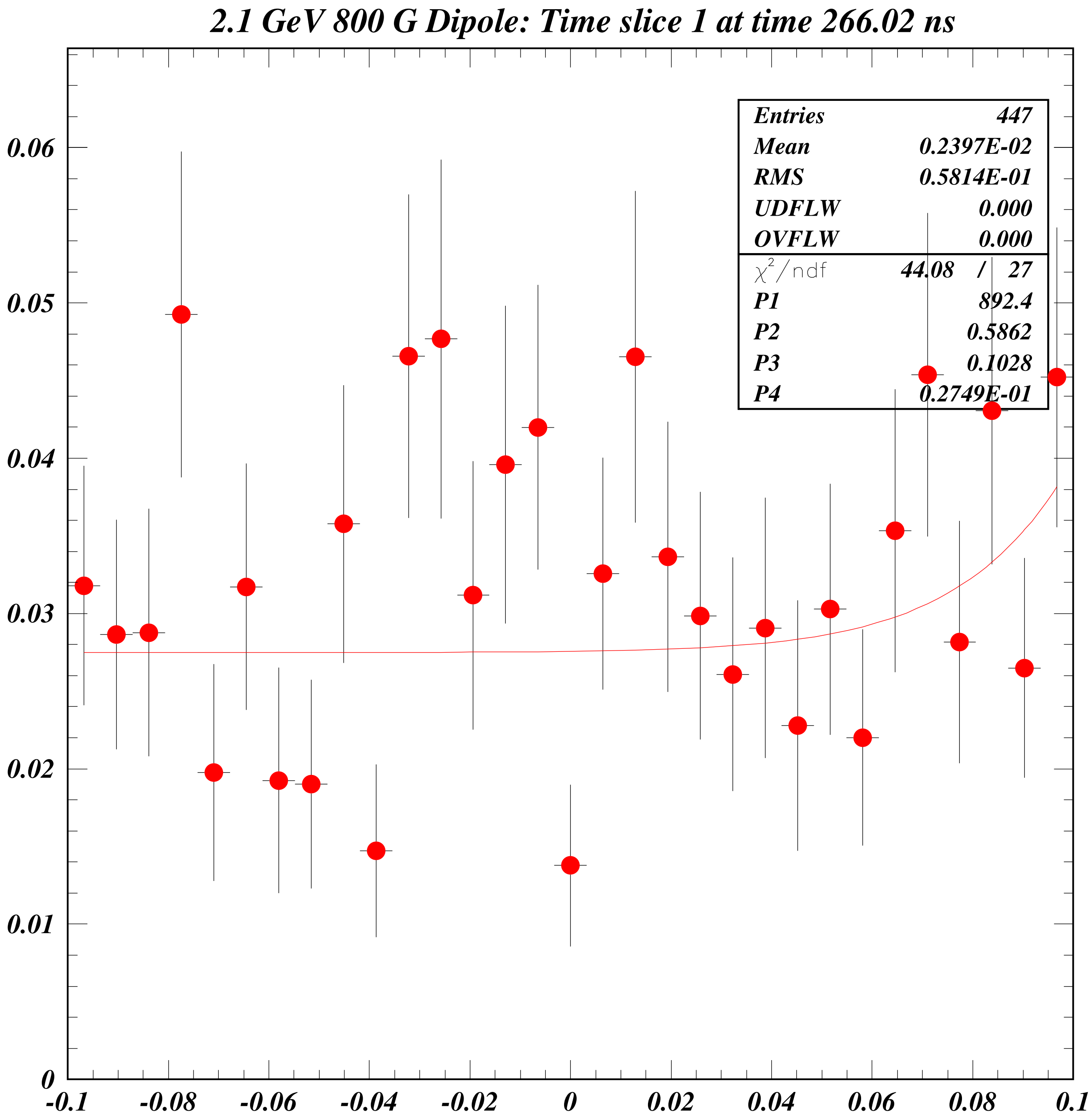

2.1 GeV 800 G Dipole: Time slice 1 at time 266.02 ns
Entries 447
Mean 0.1311E-02
RMS 0.5861E-01
UDFLW 0.000
OVFLW 0.000
χ^2/ndf 36.99 / 27
P1 -4.884
P2 -0.2871E-01
P3 2.111
P4 4.912
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1



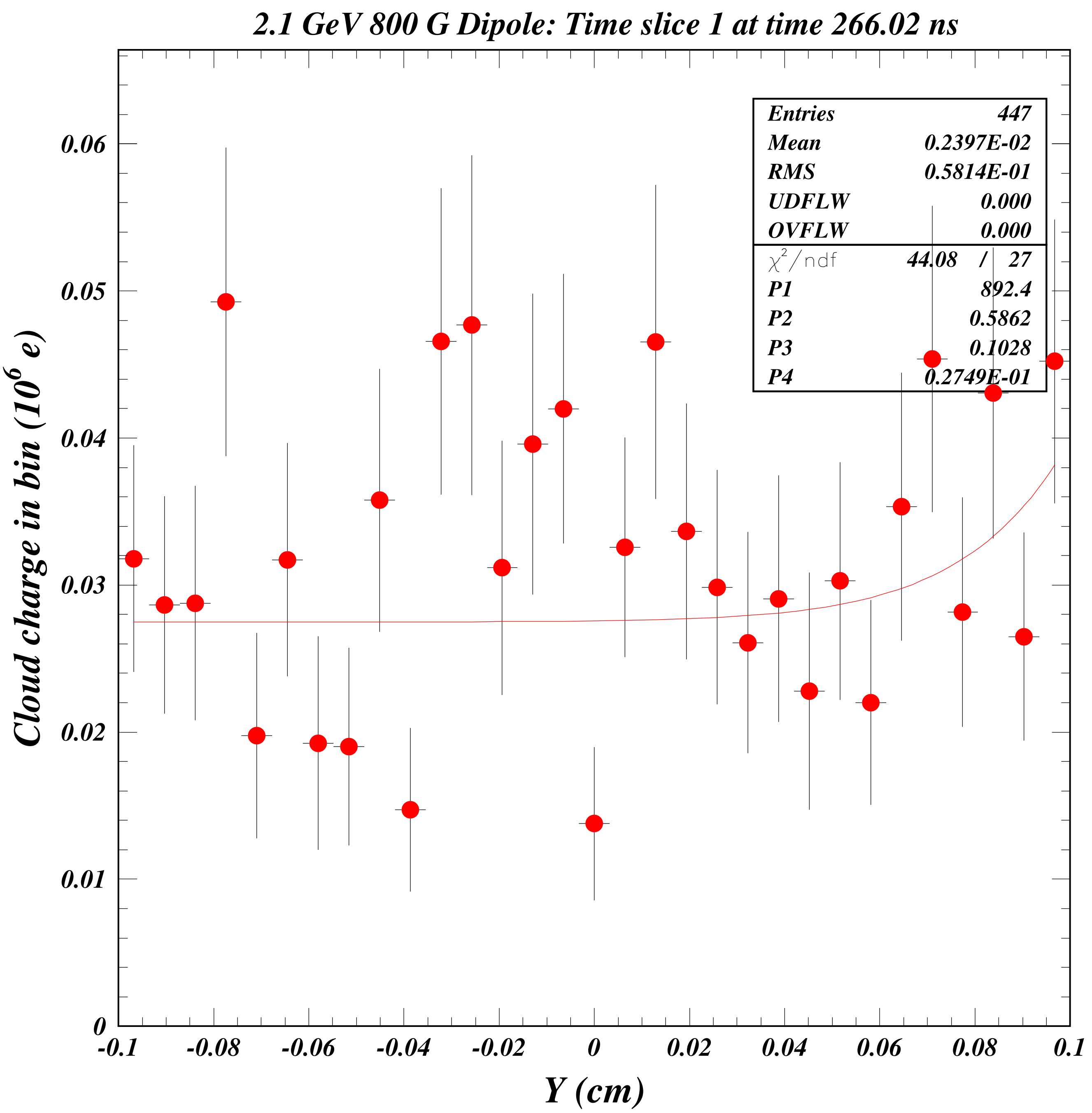
15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 1 at time 266.02 ns
Entries 447
Mean 0.1311E-02
RMS 0.5861E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 36.99 / 27
P1 -4.884
P2 -0.2871E-01
P3 2.111
P4 4.912
Cloud charge in bin (10⁶ e)
X (cm)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18

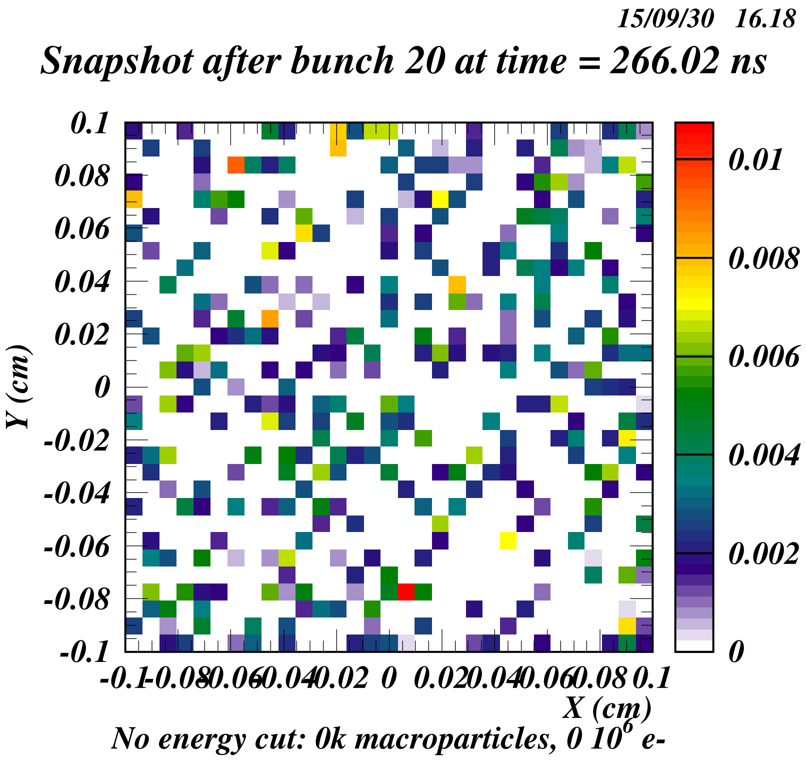


2.1 GeV 800 G Dipole: Time slice 1 at time 266.02 ns
Entries 447
Mean 0.2397E-02
RMS 0.5814E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 44.08 / 27
P1 892.4
P2 0.5862
P3 0.1028
P4 0.2749E-01
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

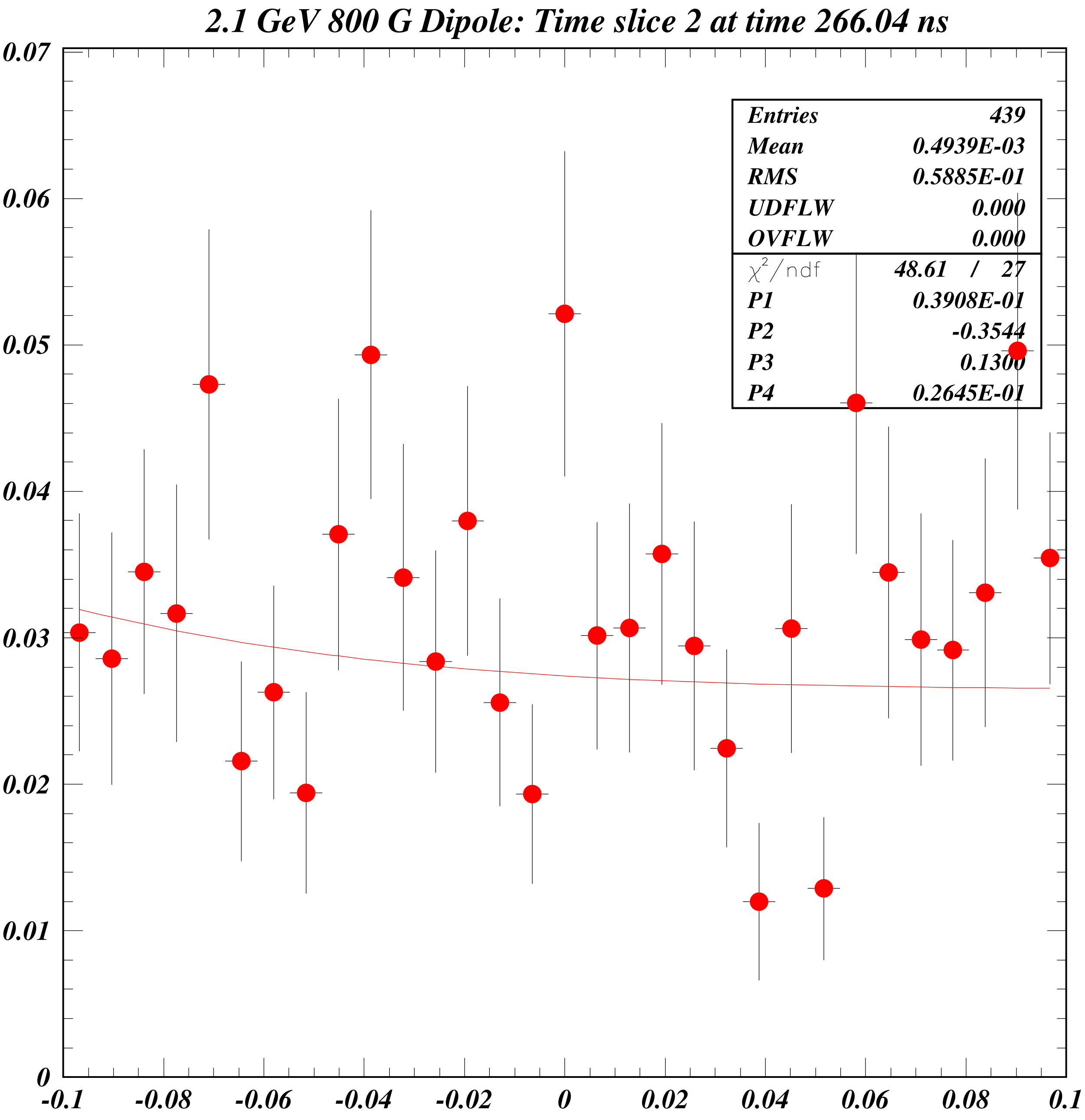
15/09/30 16.18



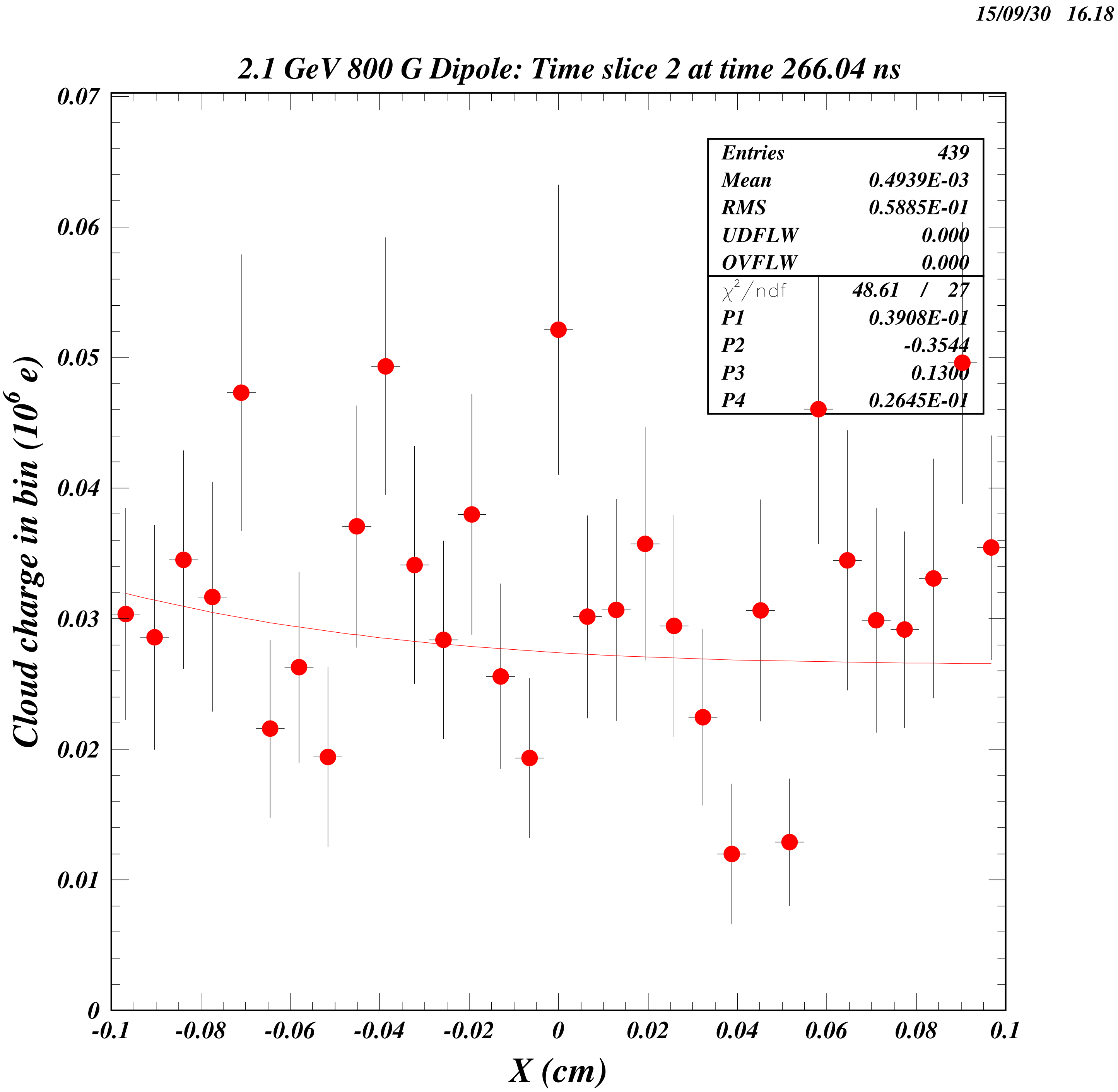
2.1 GeV 800 G Dipole: Time slice 1 at time 266.02 ns
Entries 447
Mean 0.2397E-02
RMS 0.5814E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 44.08 / 27
P1 892.4
P2 0.5862
P3 0.1028
P4 0.2749E-01
Cloud charge in bin (10⁶ e)
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
Y (cm)


15/09/30 16.18
Snapshot after bunch 20 at time = 266.02 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.01
0.008
0.006
0.004
0.002
No energy cut: 0k macroparticles, 0 10^6 e-

15/09/30 16.18



2.1 GeV 800 G Dipole: Time slice 2 at time 266.04 ns
Entries 439
Mean 0.4939E-03
RMS 0.5885E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 48.61 / 27
P1 0.3908E-01
P2 -0.3544
P3 0.1300
P4 0.2645E-01
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 2 at time 266.04 ns
Entries 439
Mean 0.4939E-03
RMS 0.5885E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 48.61 / 27
P1 0.3908E-01
P2 -0.3544
P3 0.1300
P4 0.2645E-01
Cloud charge in bin (10⁶ e)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
X (cm)

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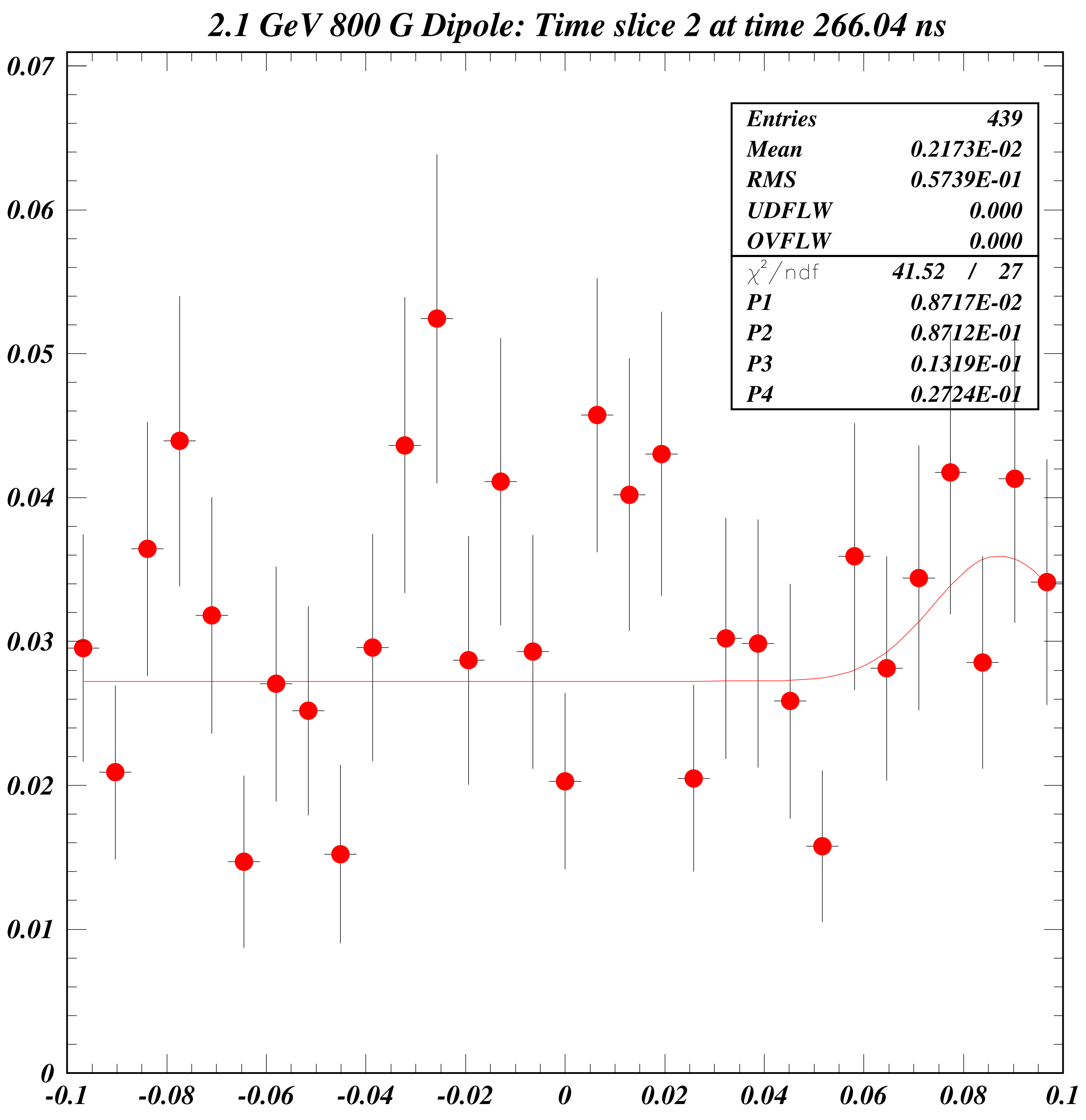
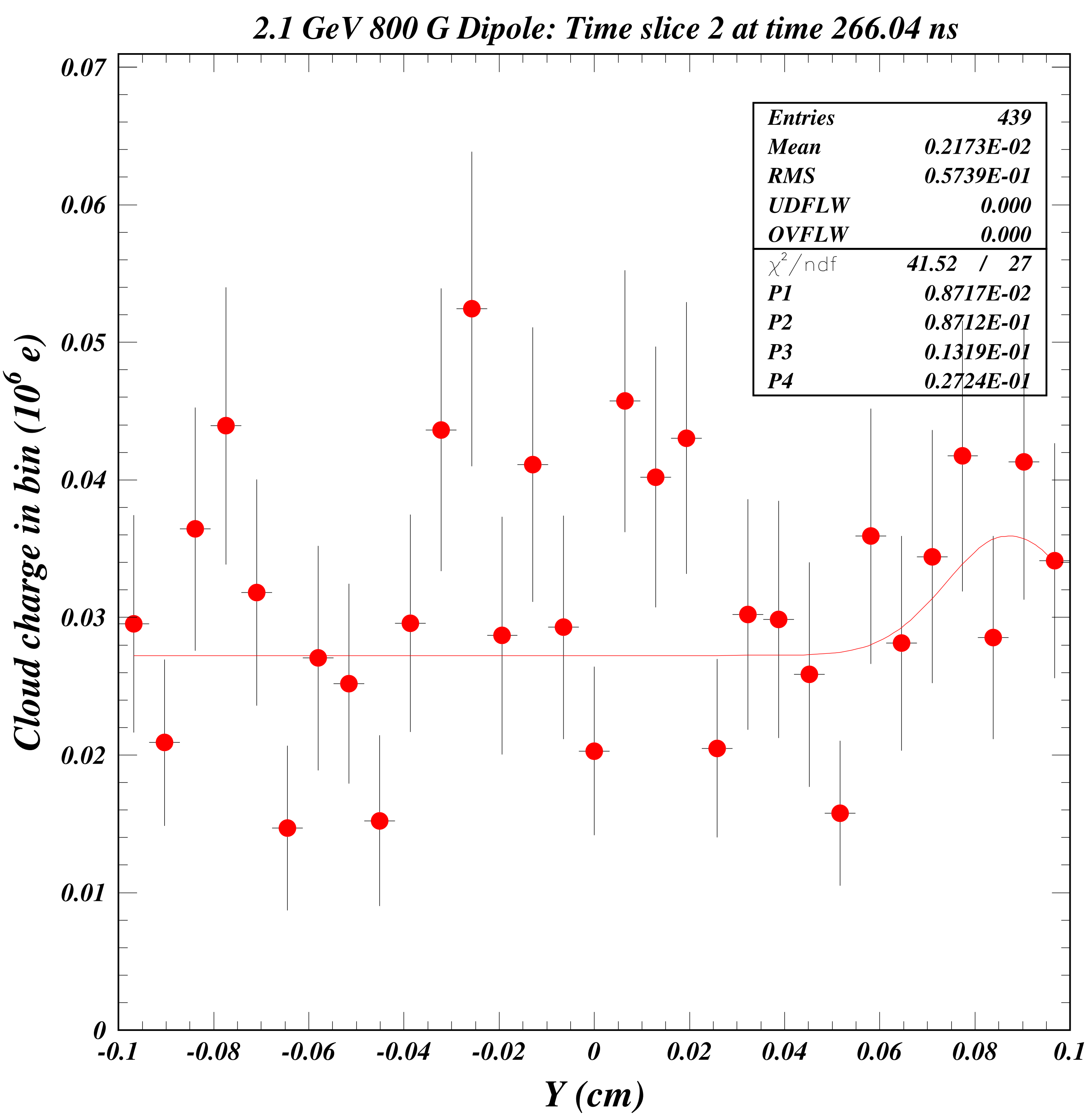
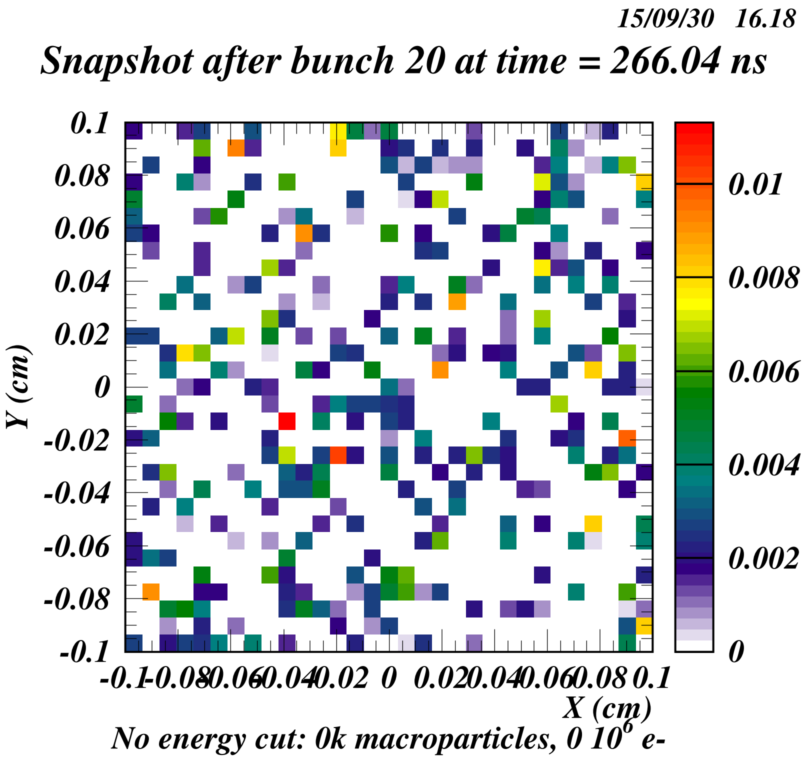
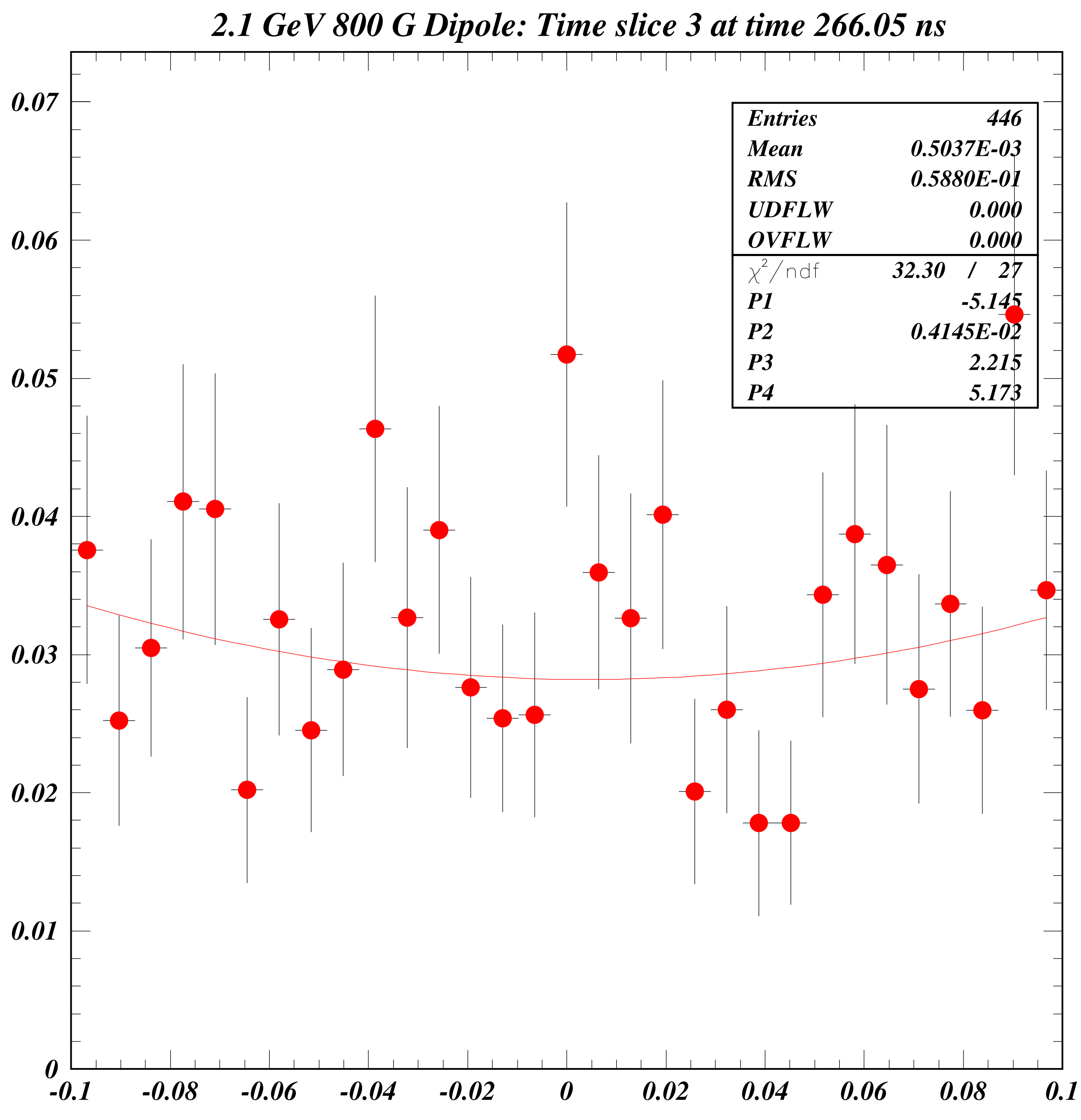

2.1 GeV 800 G Dipole: Time slice 2 at time 266.04 ns
Entries 439
Mean 0.2173E-02
RMS 0.5739E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 41.52 / 27
P1 0.8717E-02
P2 0.8712E-01
P3 0.1319E-01
P4 0.2724E-01
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30   16.18

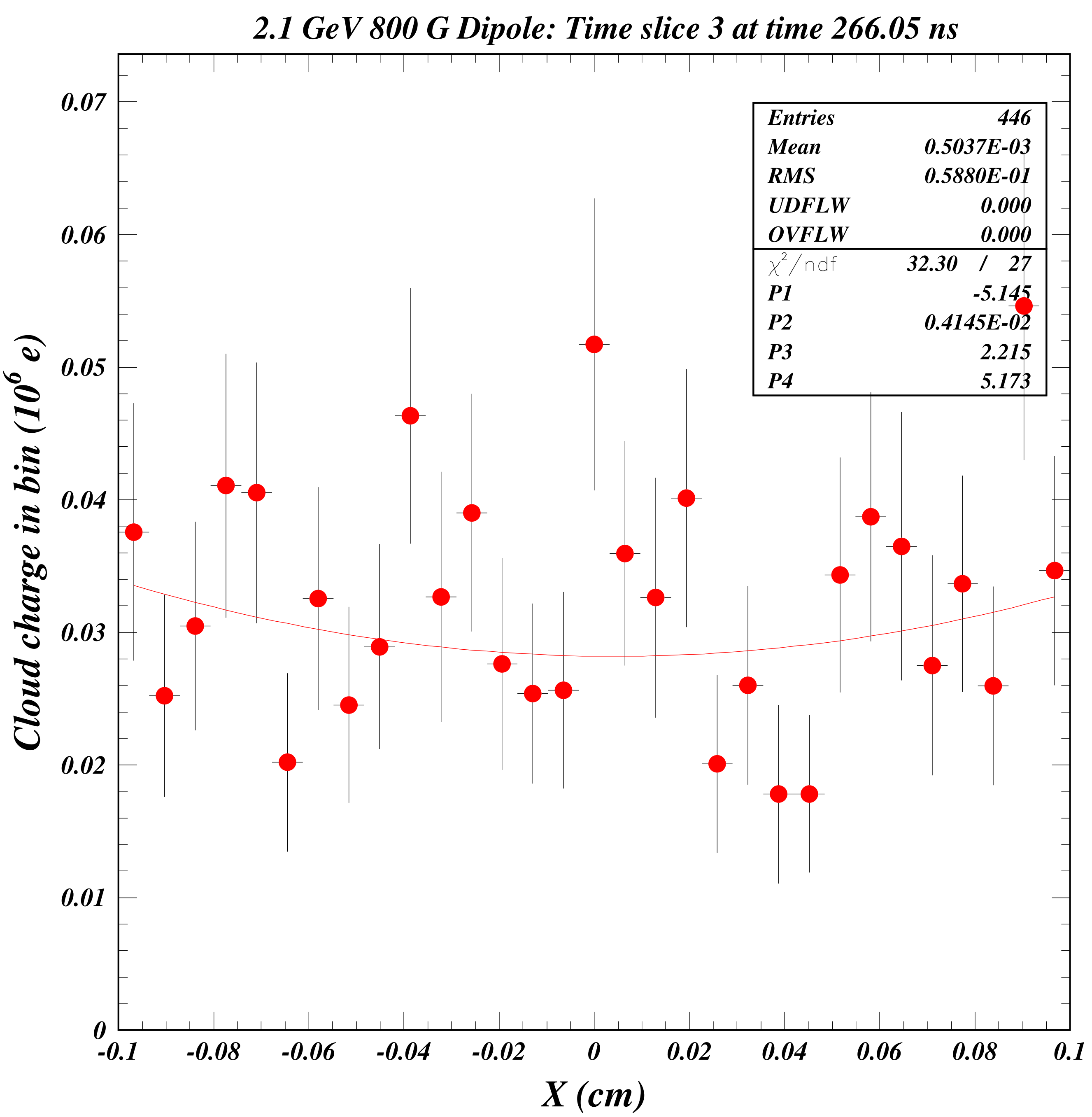

2.1 GeV 800 G Dipole: Time slice 2 at time 266.04 ns
Entries 439
Mean 0.2173E-02
RMS 0.5739E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 41.52 / 27
P1 0.8717E-02
P2 0.8712E-01
P3 0.1319E-01
P4 0.2724E-01
Cloud charge in bin (10⁶ e)
Y (cm)
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
Snapshot after bunch 20 at time = 266.04 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.01
0.008
0.006
0.004
0.002
No energy cut: 0k macroparticles, 0 10^6 e-

15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 3 at time 266.05 ns
Entries 446
Mean 0.5037E-03
RMS 0.5880E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 32.30 / 27
P1 -5.145
P2 0.4145E-02
P3 2.215
P4 5.173
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30   16.18


2.1 GeV 800 G Dipole: Time slice 3 at time 266.05 ns
Entries 446
Mean 0.5037E-03
RMS 0.5880E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 32.30 / 27
P1 -5.145
P2 0.4145E-02
P3 2.215
P4 5.173
Cloud charge in bin (10⁶ e)
X (cm)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

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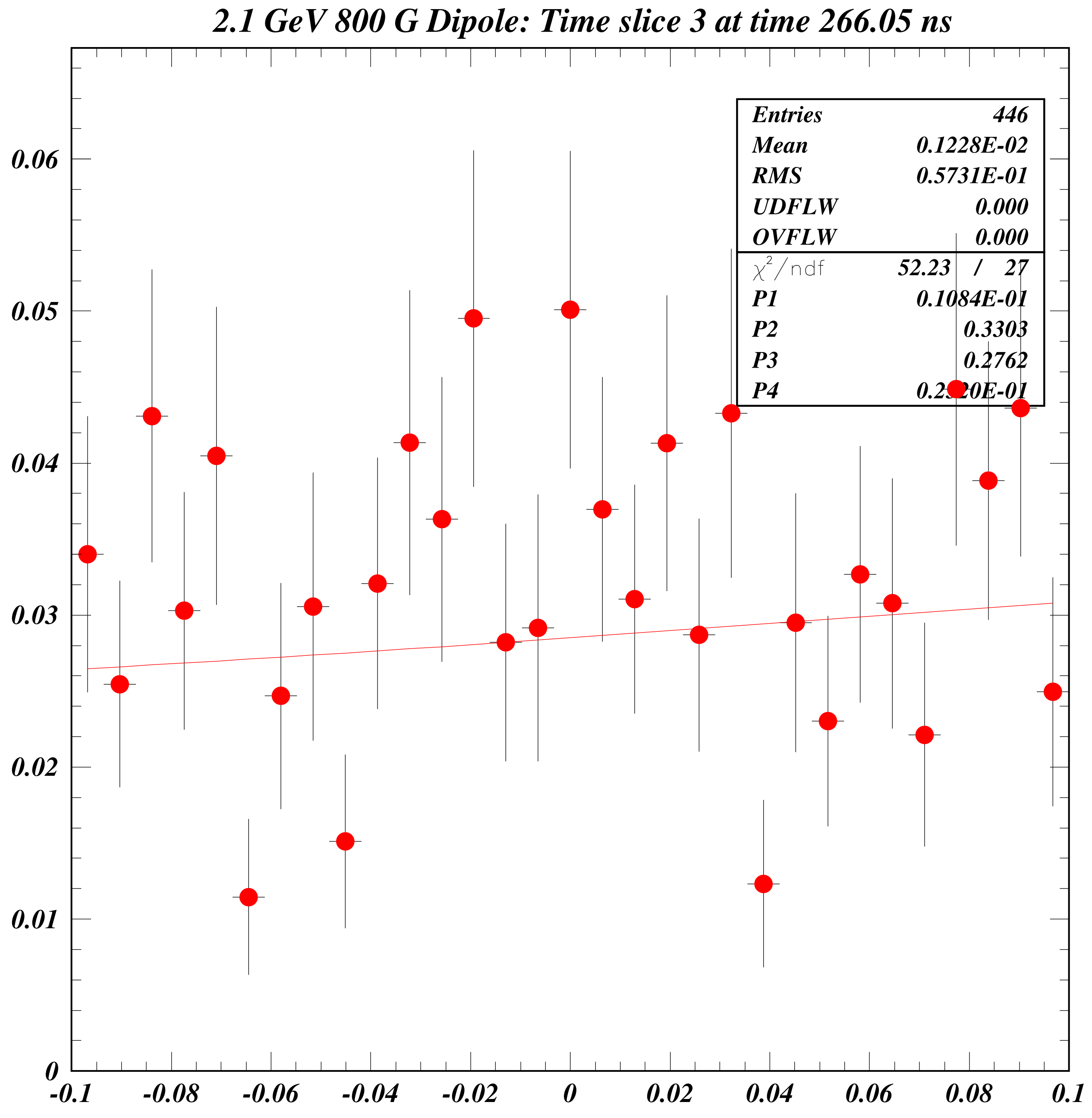
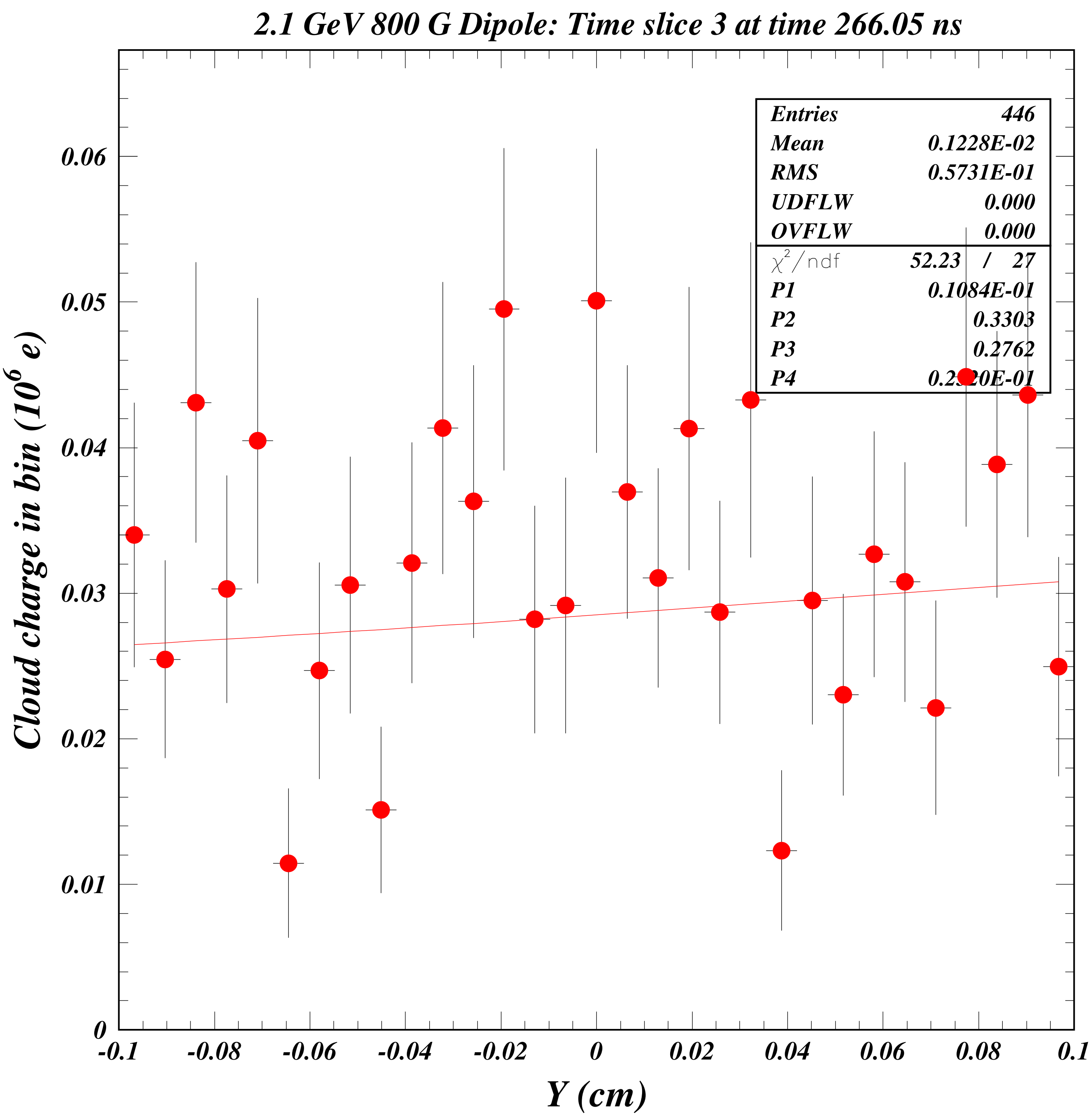
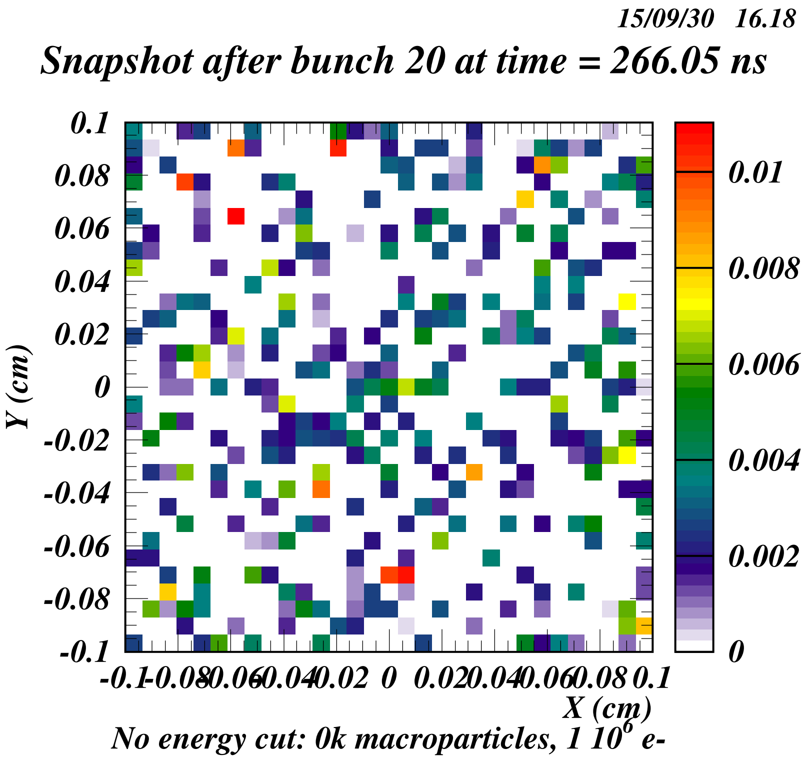


2.1 GeV 800 G Dipole: Time slice 3 at time 266.05 ns
Entries 446
Mean 0.1228E-02
RMS 0.5731E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 52.23 / 27
P1 0.1084E-01
P2 0.3303
P3 0.2762
P4 0.2920E-01
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18

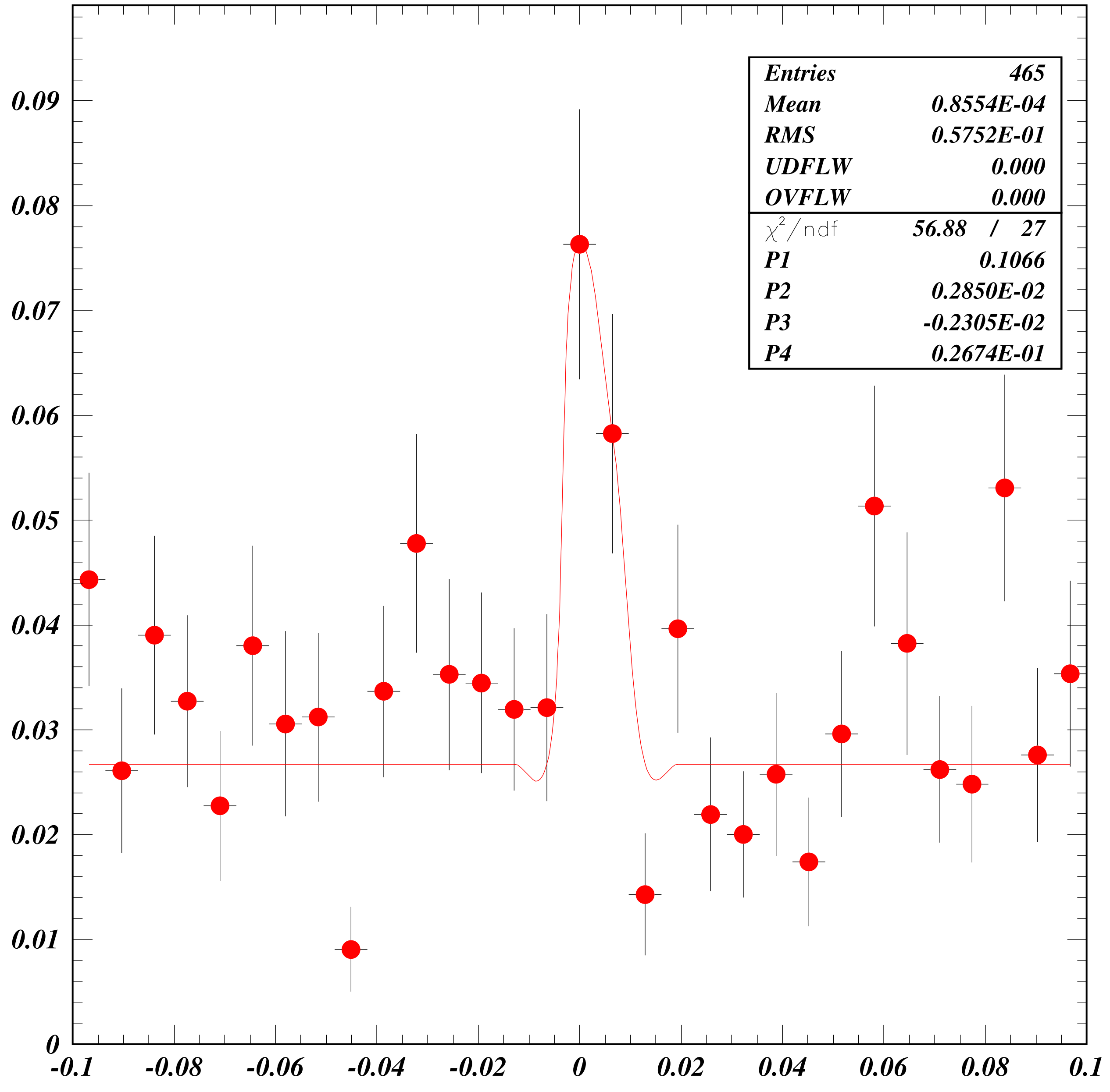


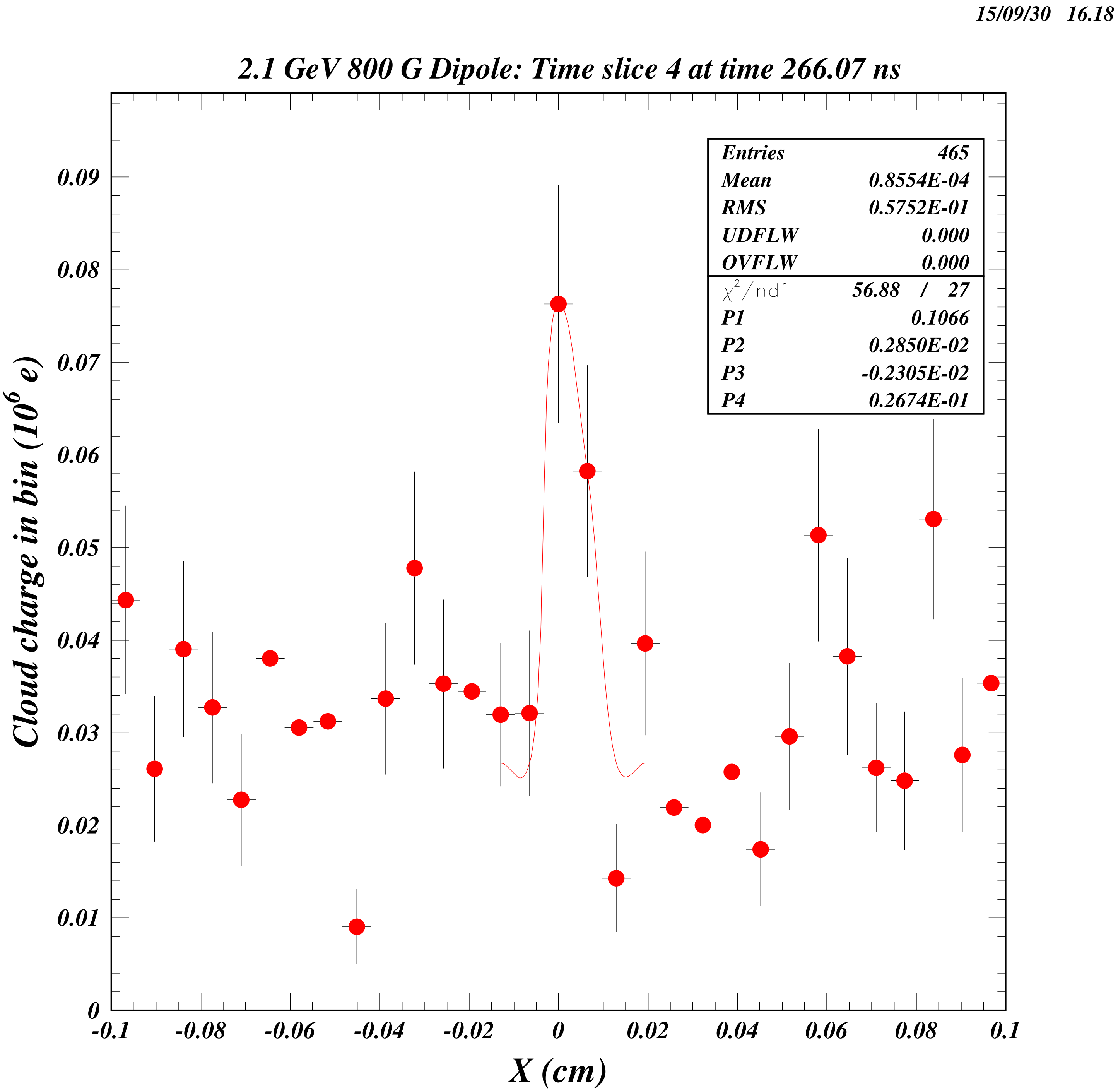
2.1 GeV 800 G Dipole: Time slice 3 at time 266.05 ns
Entries 446
Mean 0.1228E-02
RMS 0.5731E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 52.23 / 27
P1 0.1084E-01
P2 0.3303
P3 0.2762
P4 0.2?20E-01
Cloud charge in bin (10⁶ e)
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
Y (cm)


15/09/30 16.18
Snapshot after bunch 20 at time = 266.05 ns
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
Y (cm)
-0.1 -0.08 -0.06 -0.04 -0.02 0 0.02 0.04 0.06 0.08 0.1
X (cm)
0.01
0.008
0.006
0.004
0.002
0
No energy cut: 0k macroparticles, 1 10^6 e-

15/09/30 16.18

2.1 GeV 800 G Dipole: Time slice 4 at time 266.07 ns




15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 4 at time 266.07 ns
Entries 465
Mean 0.8554E-04
RMS 0.5752E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 56.88 / 27
P1 0.1066
P2 0.2850E-02
P3 -0.2305E-02
P4 0.2674E-01
Cloud charge in bin (10⁶ e)
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
X (cm)

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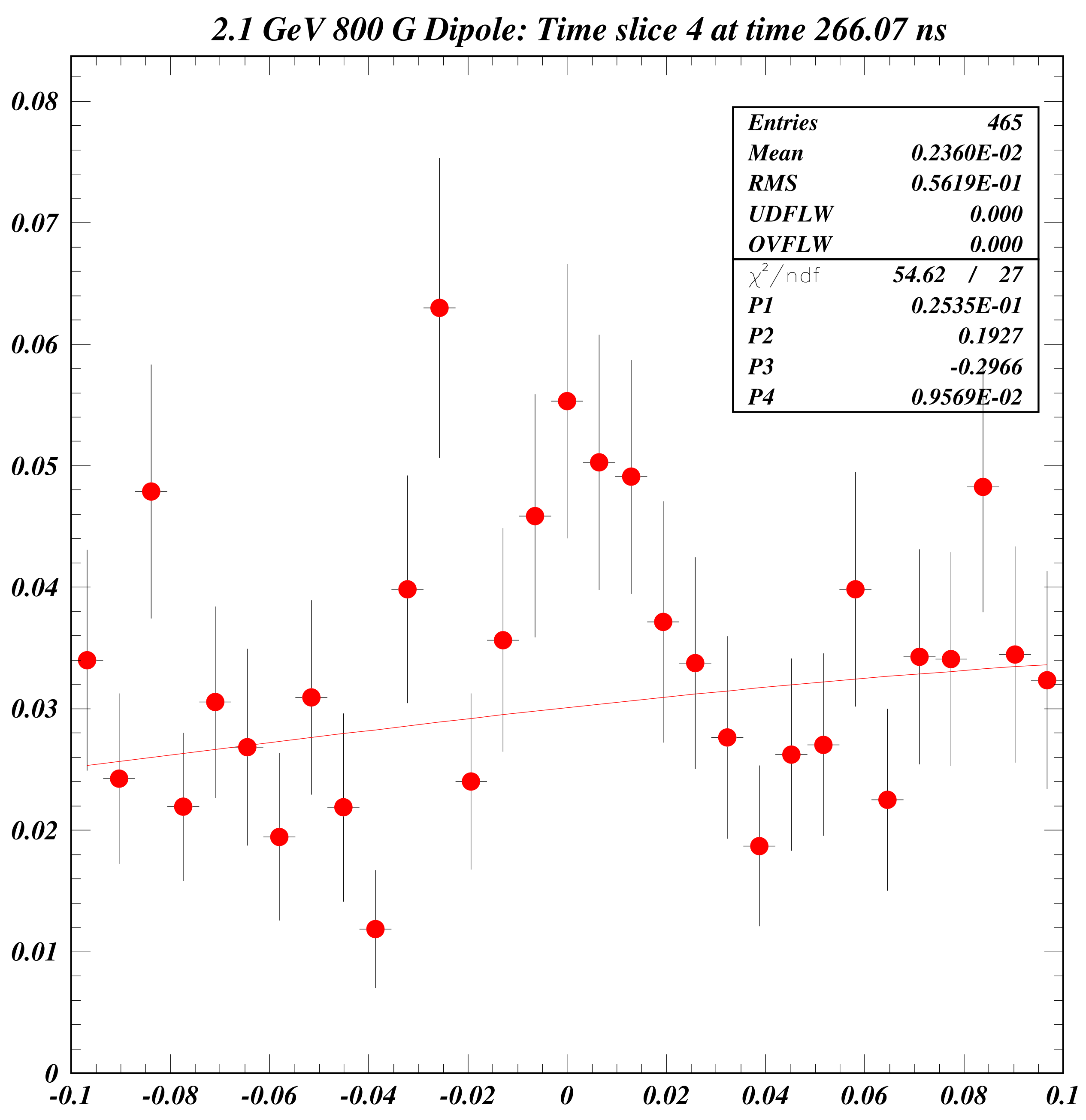
2.1 GeV 800 G Dipole: Time slice 4 at time 266.07 ns
Entries 465
Mean 0.2360E-02
RMS 0.5619E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 54.62 / 27
P1 0.2535E-01
P2 0.1927
P3 -0.2966
P4 0.9569E-02
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

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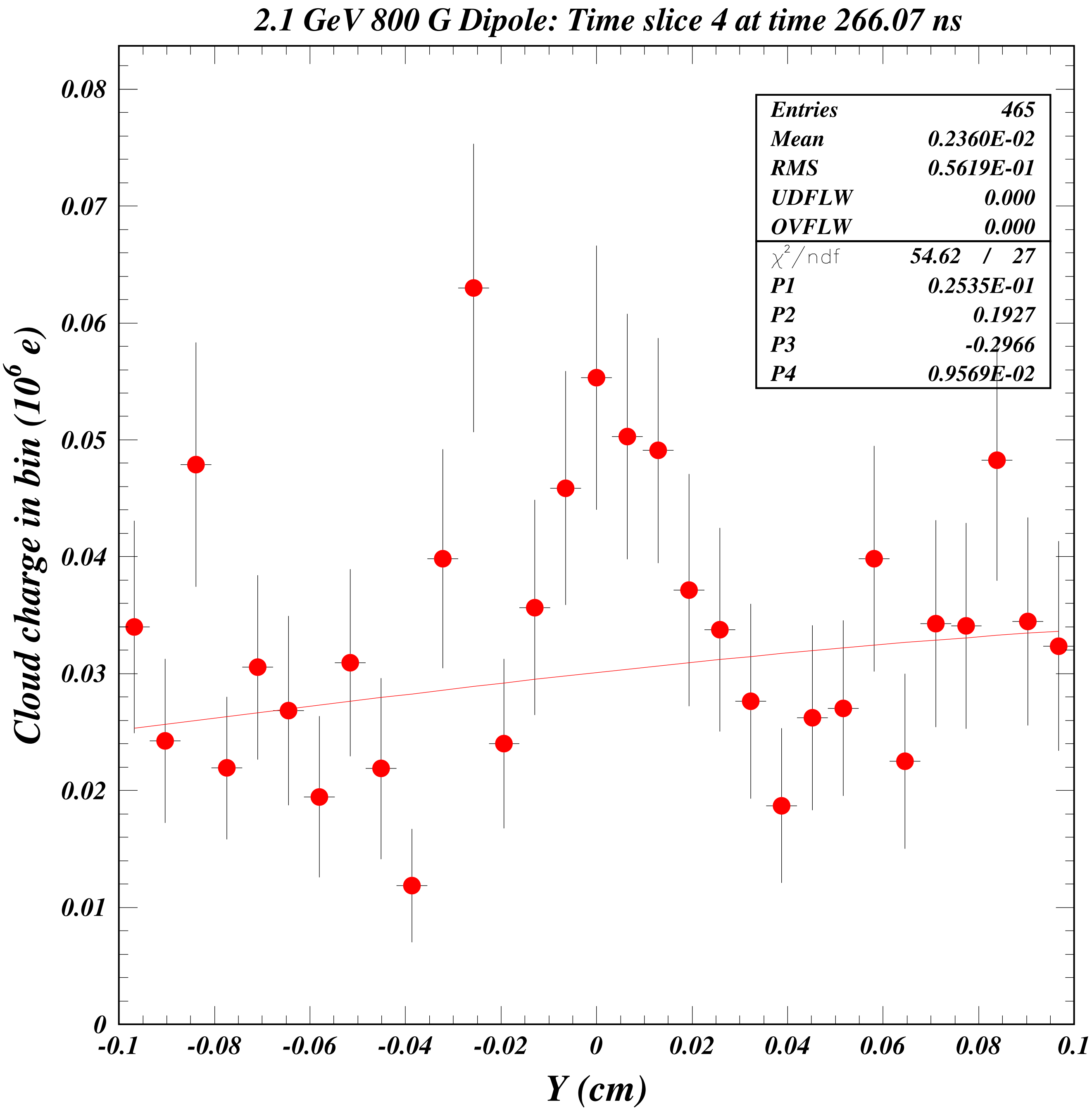
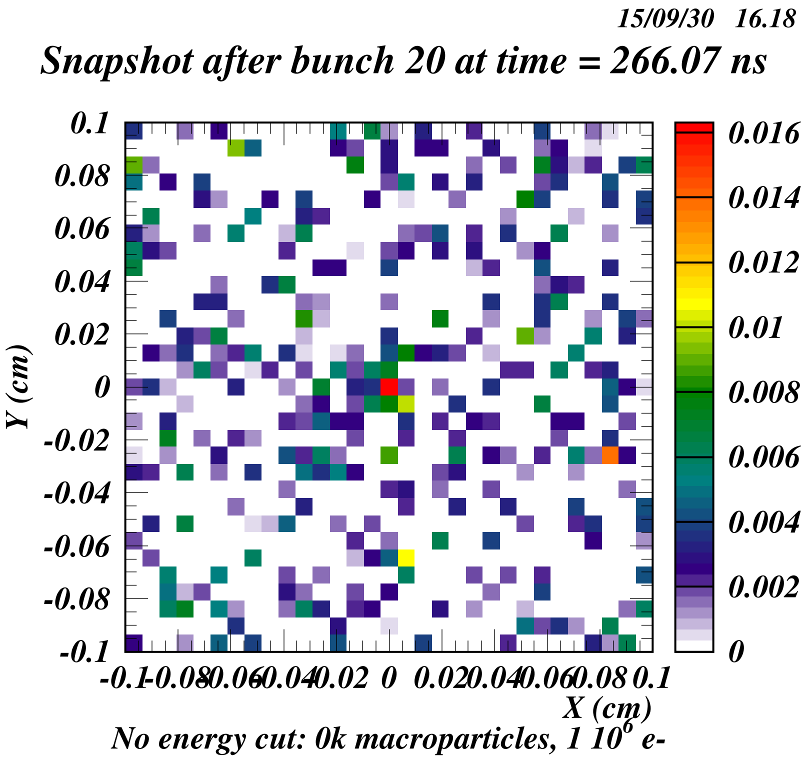
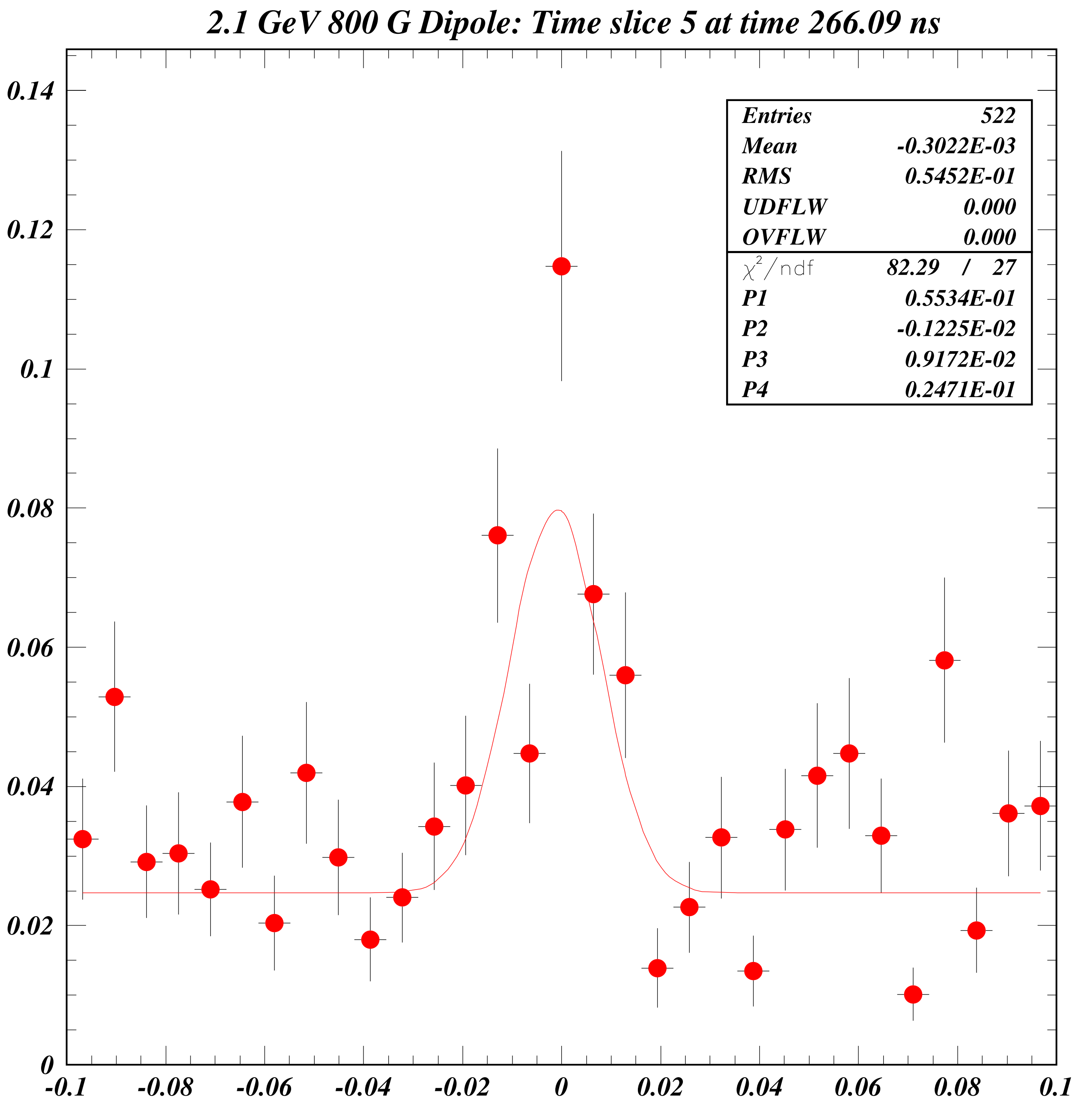
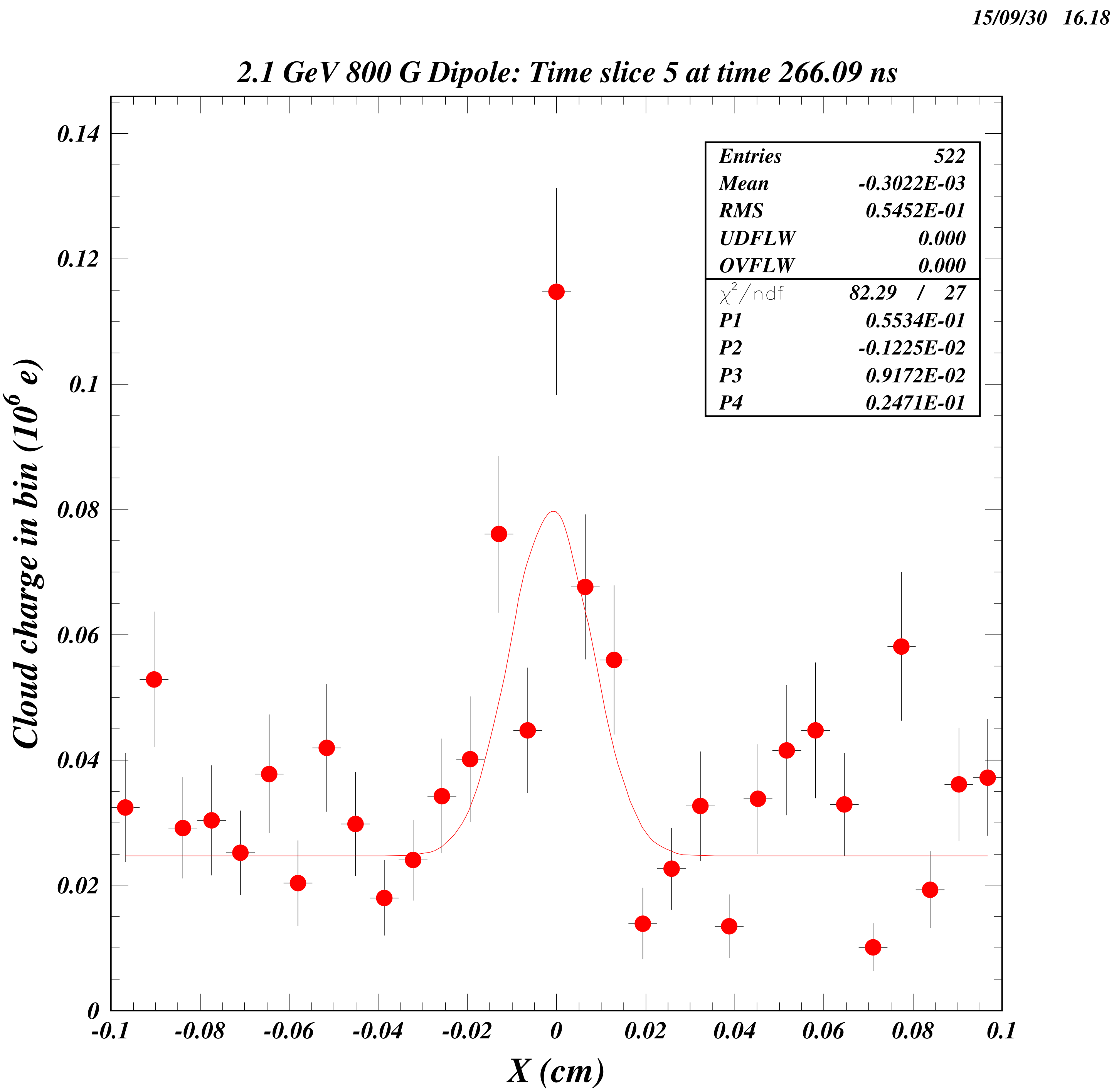


2.1 GeV 800 G Dipole: Time slice 4 at time 266.07 ns
Entries 465
Mean 0.2360E-02
RMS 0.5619E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 54.62 / 27
P1 0.2535E-01
P2 0.1927
P3 -0.2966
P4 0.9569E-02
Cloud charge in bin (10⁶ e)
Y (cm)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
Snapshot after bunch 20 at time = 266.07 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
No energy cut: 0k macroparticles, 1 10^6 e-

15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 5 at time 266.09 ns
Entries 522
Mean -0.3022E-03
RMS 0.5452E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 82.29 / 27
P1 0.5534E-01
P2 -0.1225E-02
P3 0.9172E-02
P4 0.2471E-01
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 5 at time 266.09 ns
Entries 522
Mean -0.3022E-03
RMS 0.5452E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 82.29 / 27
P1 0.5534E-01
P2 -0.1225E-02
P3 0.9172E-02
P4 0.2471E-01
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
Cloud charge in bin (10⁶ e)
X (cm)

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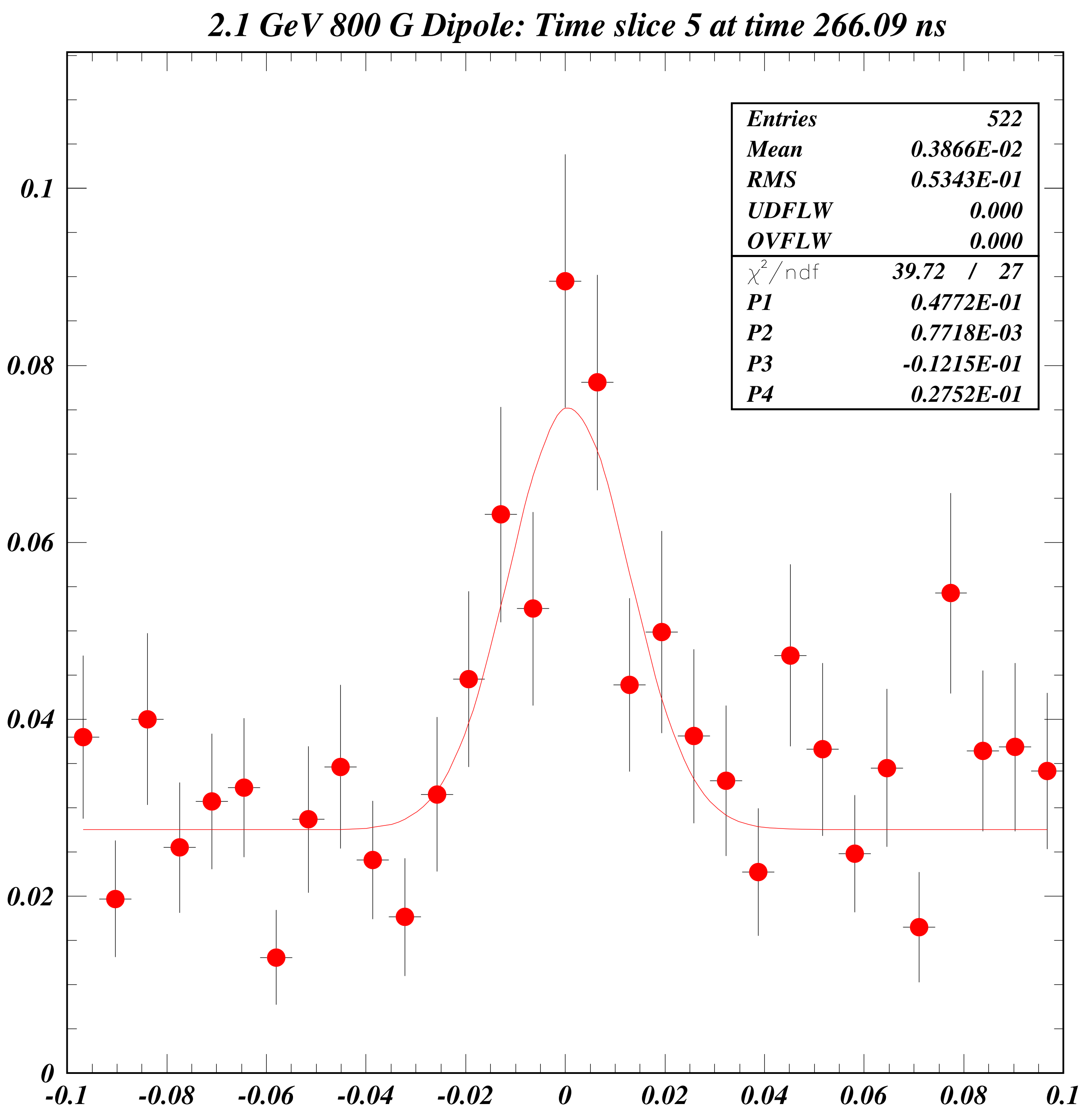
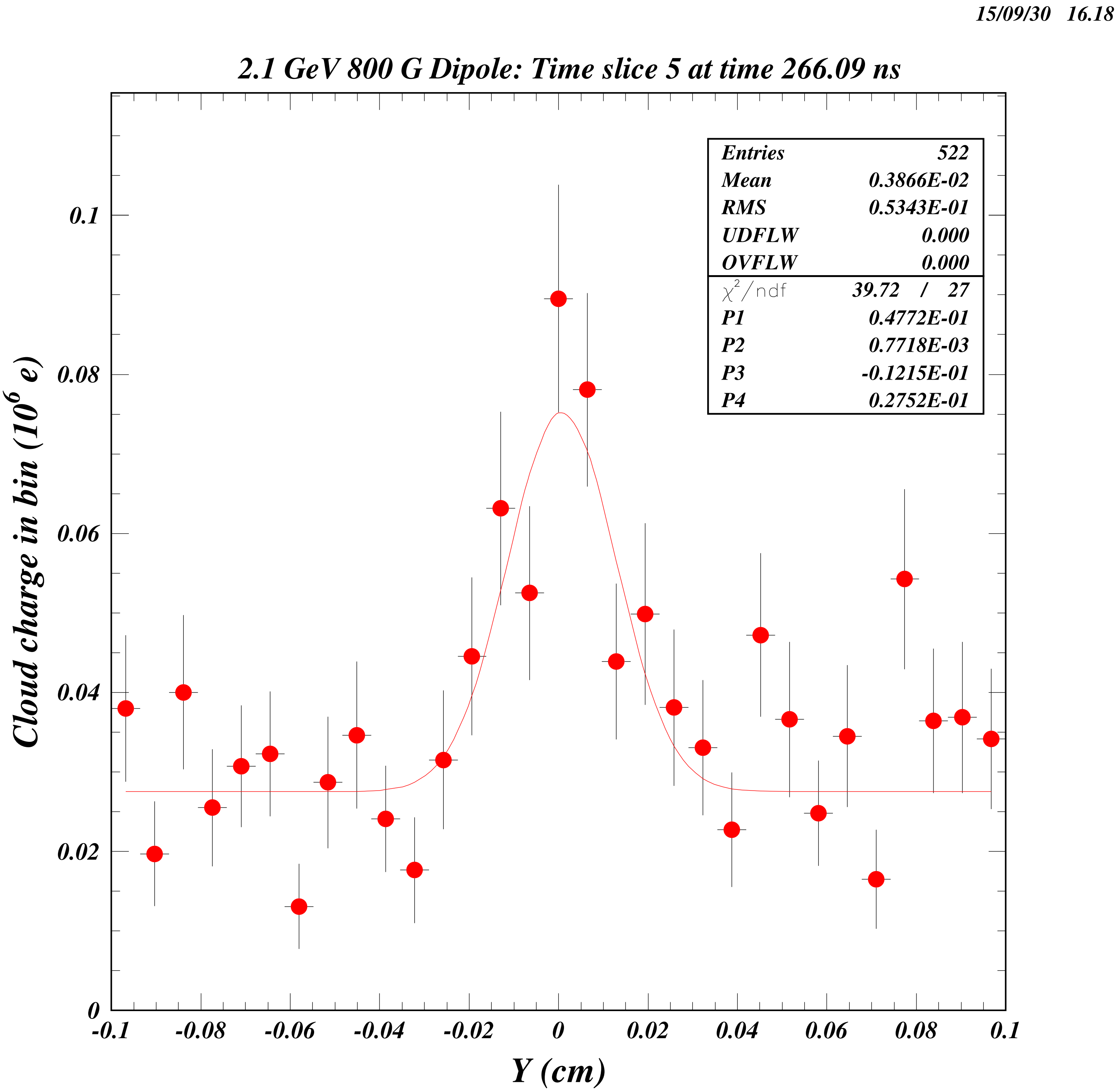

2.1 GeV 800 G Dipole: Time slice 5 at time 266.09 ns
Entries 522
Mean 0.3866E-02
RMS 0.5343E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 39.72 / 27
P1 0.4772E-01
P2 0.7718E-03
P3 -0.1215E-01
P4 0.2752E-01
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1



15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 5 at time 266.09 ns
Entries 522
Mean 0.3866E-02
RMS 0.5343E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 39.72 / 27
P1 0.4772E-01
P2 0.7718E-03
P3 -0.1215E-01
P4 0.2752E-01
Cloud charge in bin (10⁶ e)
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
Y (cm)

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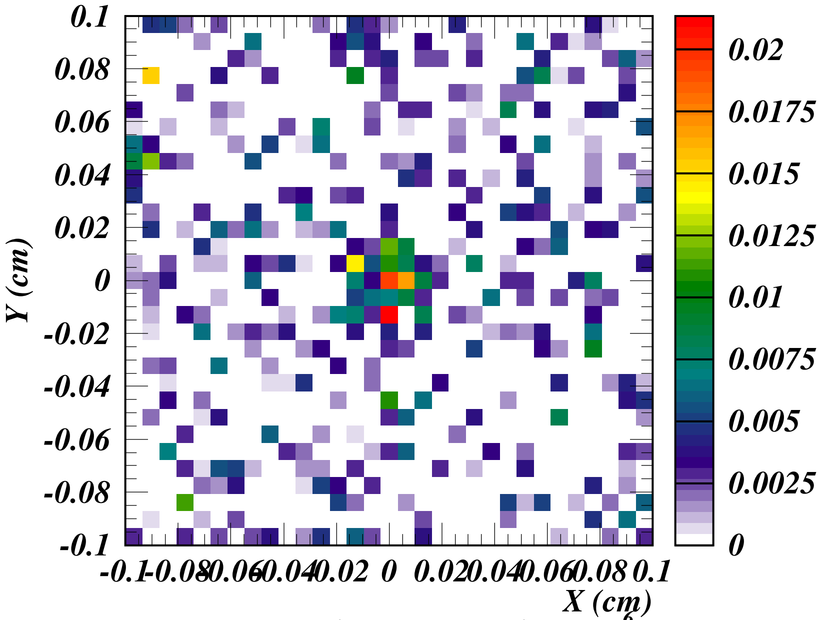
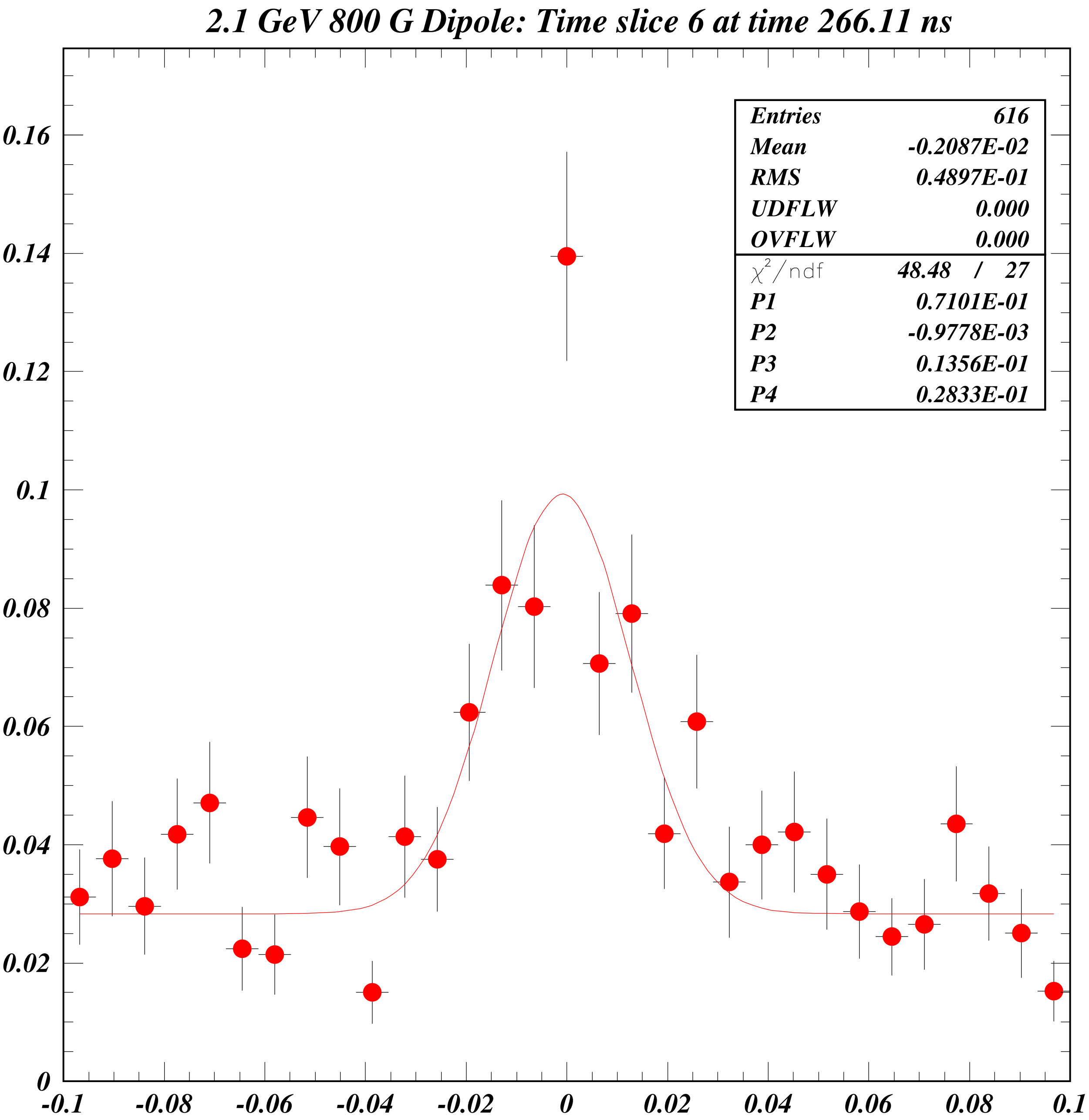
Snapshot after bunch 20 at time = 266.09 ns

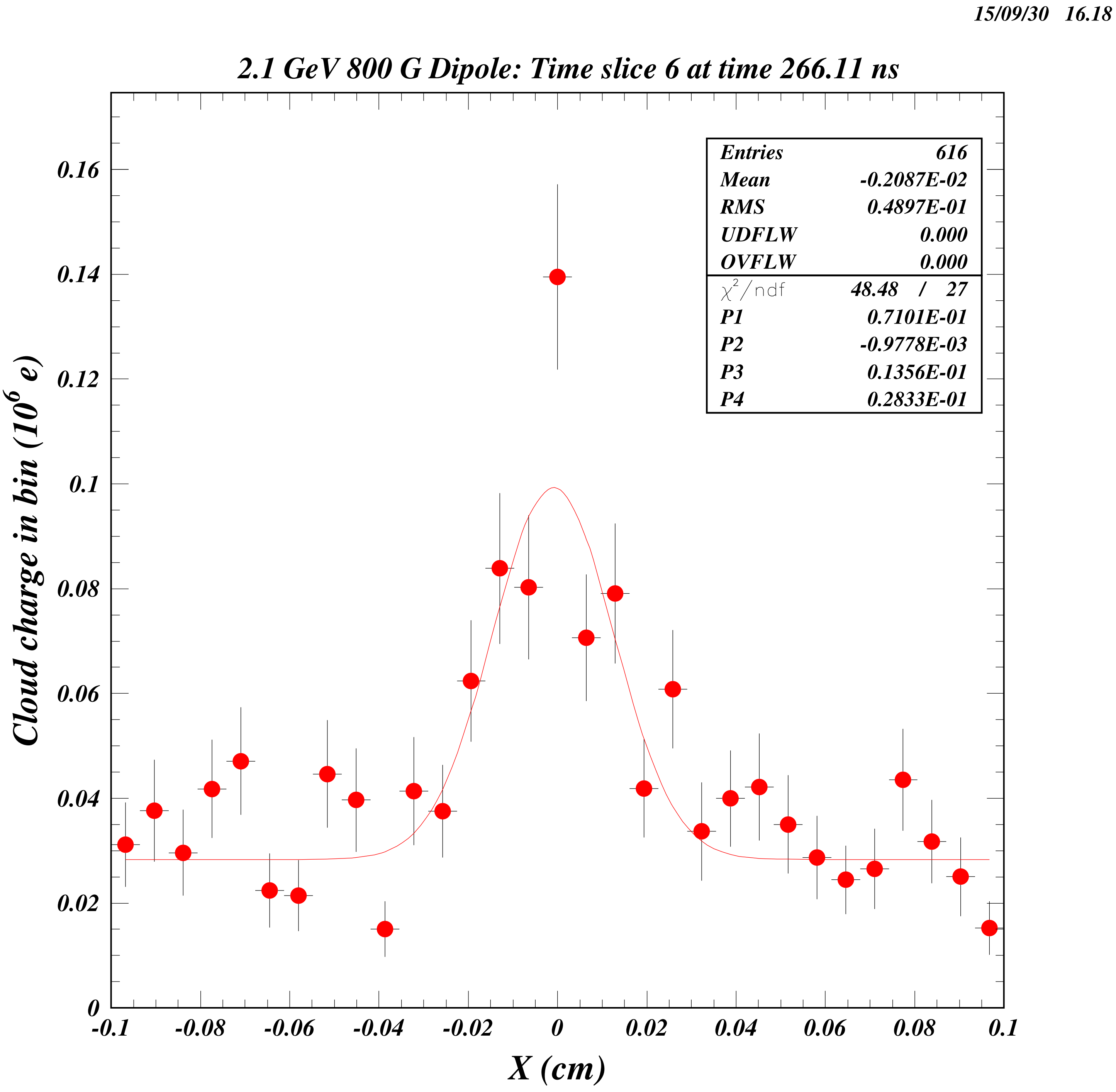


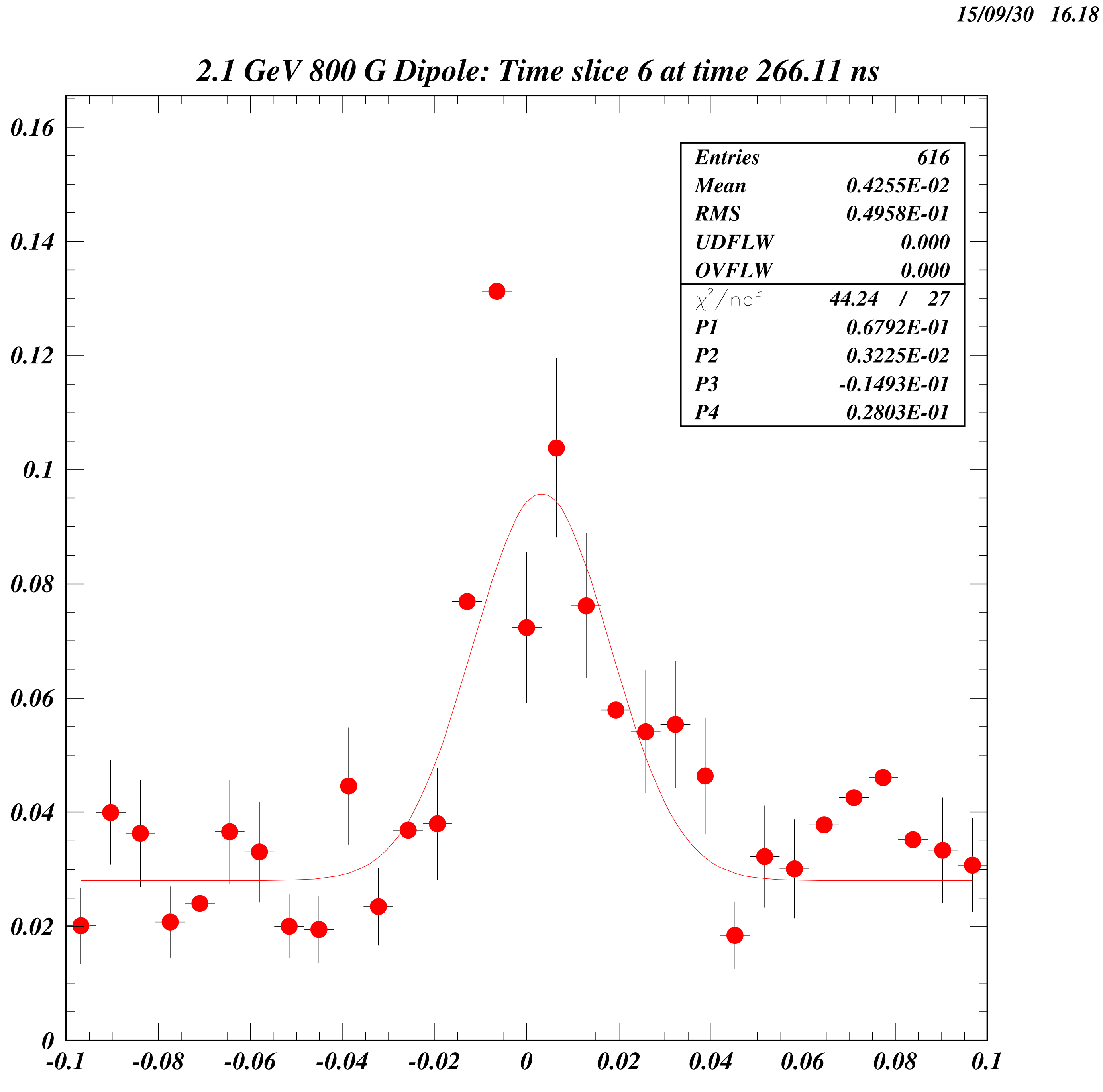
No energy cut: 0k macroparticles, 1 10^6 e-

15/09/30 16.18

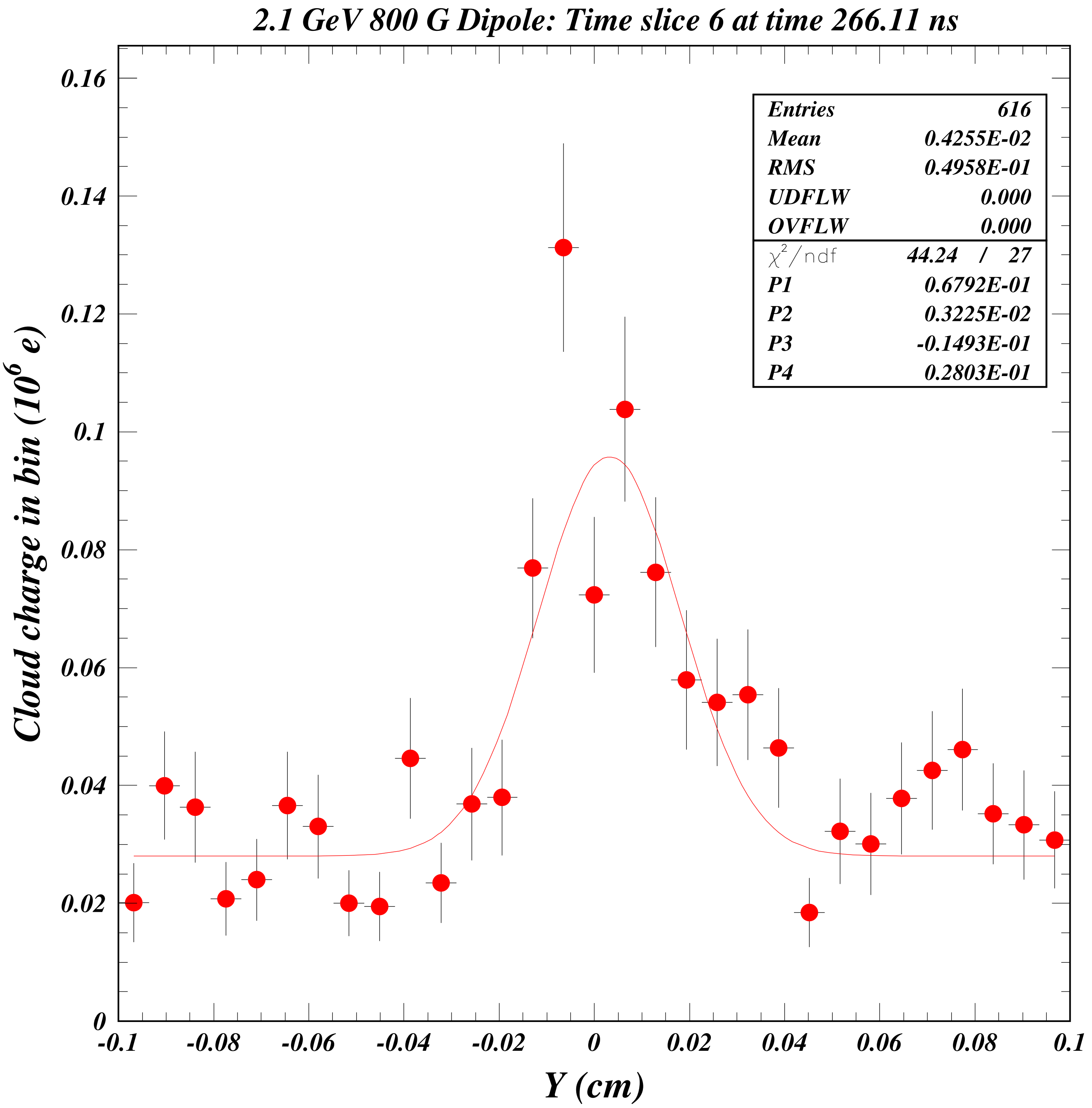


2.1 GeV 800 G Dipole: Time slice 6 at time 266.11 ns
Entries 616
Mean -0.2087E-02
RMS 0.4897E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 48.48 / 27
P1 0.7101E-01
P2 -0.9778E-03
P3 0.1356E-01
P4 0.2833E-01
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

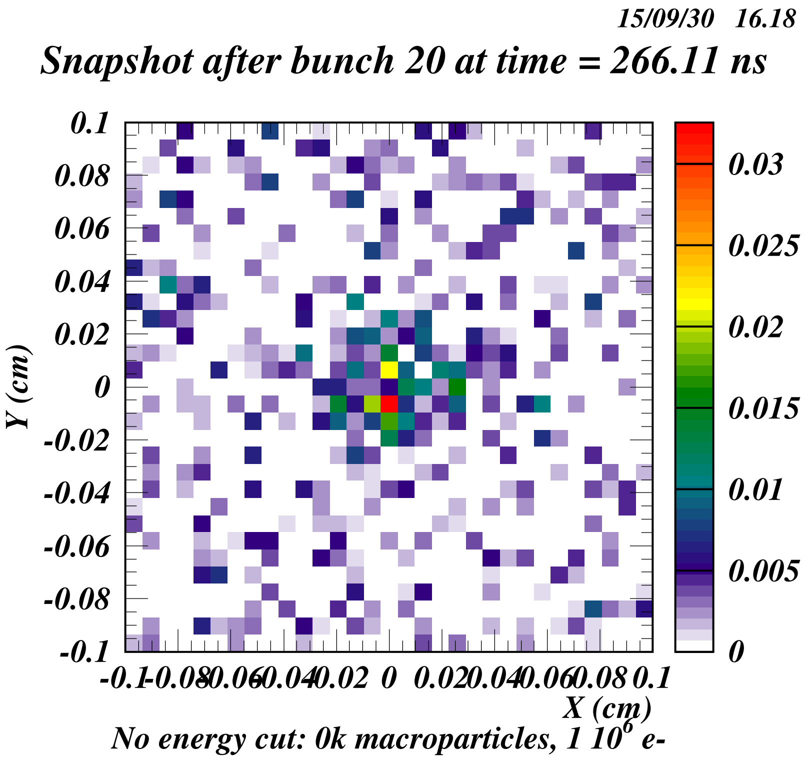

15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 6 at time 266.11 ns
Entries 616
Mean -0.2087E-02
RMS 0.4897E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 48.48 / 27
P1 0.7101E-01
P2 -0.9778E-03
P3 0.1356E-01
P4 0.2833E-01
Cloud charge in bin (10⁶ e)
X (cm)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 6 at time 266.11 ns
Entries 616
Mean 0.4255E-02
RMS 0.4958E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 44.24 / 27
P1 0.6792E-01
P2 0.3225E-02
P3 -0.1493E-01
P4 0.2803E-01
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

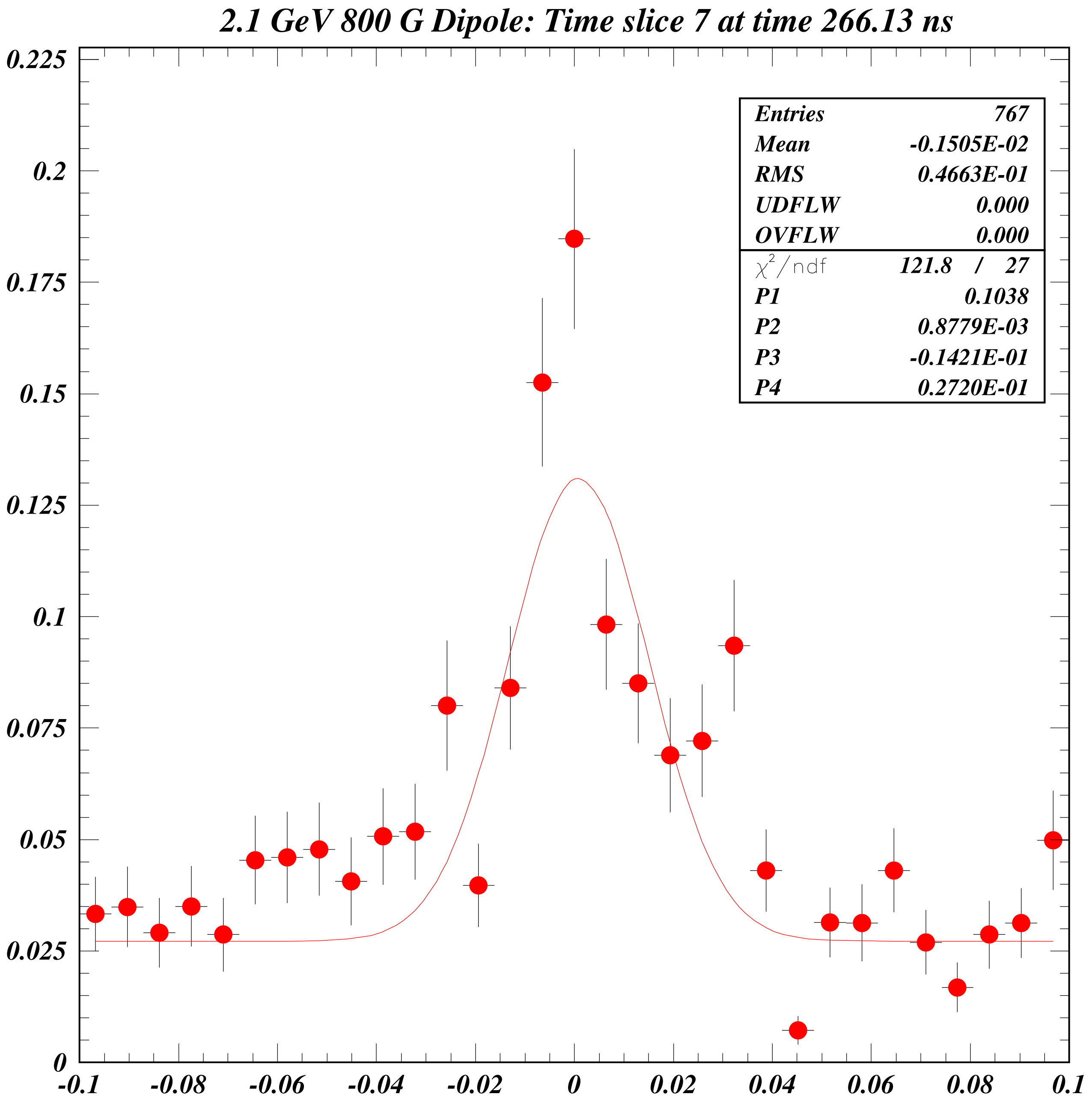
15/09/30 16.18



2.1 GeV 800 G Dipole: Time slice 6 at time 266.11 ns
Entries 616
Mean 0.4255E-02
RMS 0.4958E-01
UDFLW 0.000
OVFLW 0.000
χ^2/ndf 44.24 / 27
P1 0.6792E-01
P2 0.3225E-02
P3 -0.1493E-01
P4 0.2803E-01
Cloud charge in bin (10^6 e)
Y (cm)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

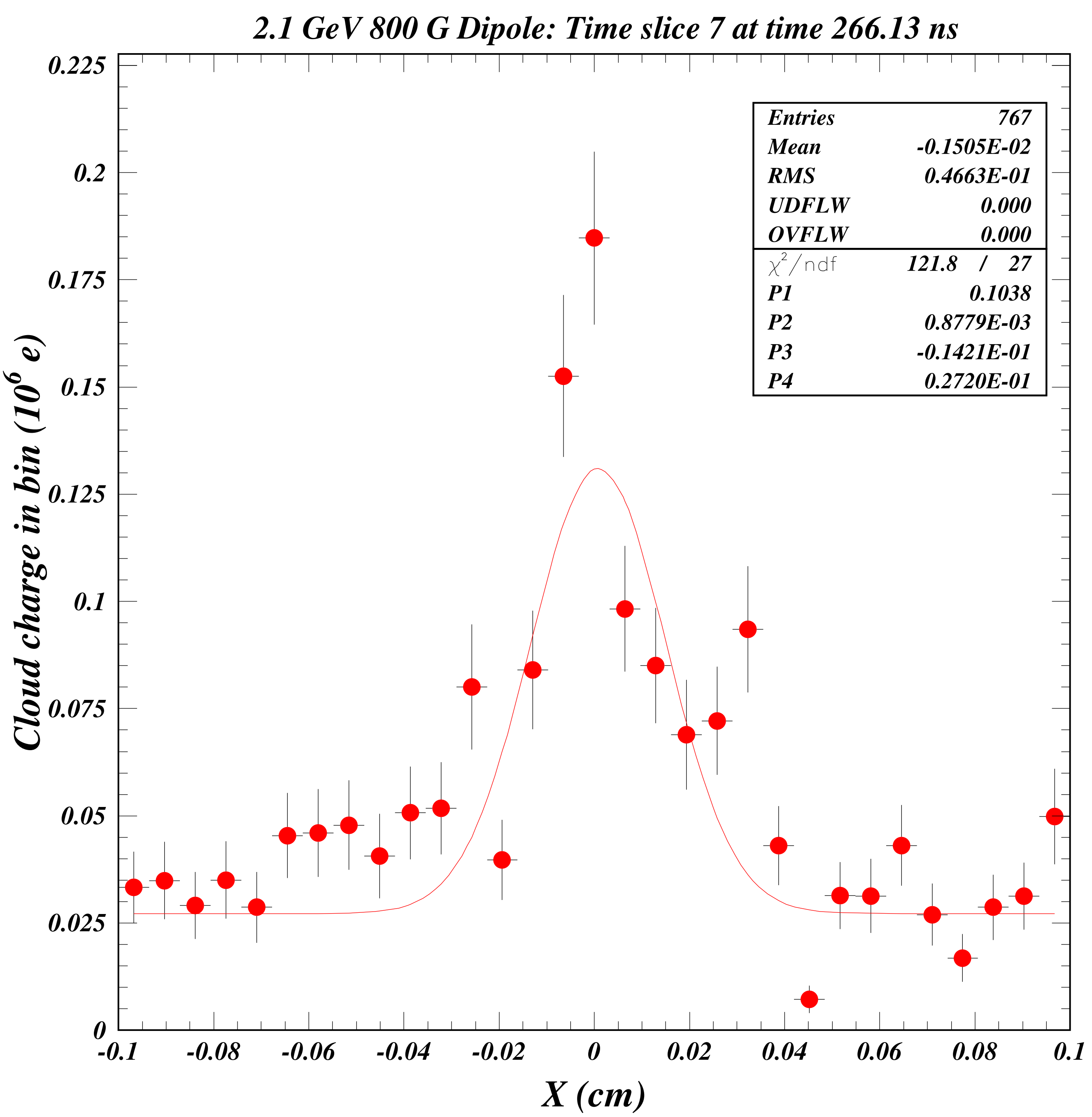

15/09/30 16.18
Snapshot after bunch 20 at time = 266.11 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.03
0.025
0.02
0.015
0.01
0.005
No energy cut: 0k macroparticles, 1 10^6 e-

15/09/30 16.18

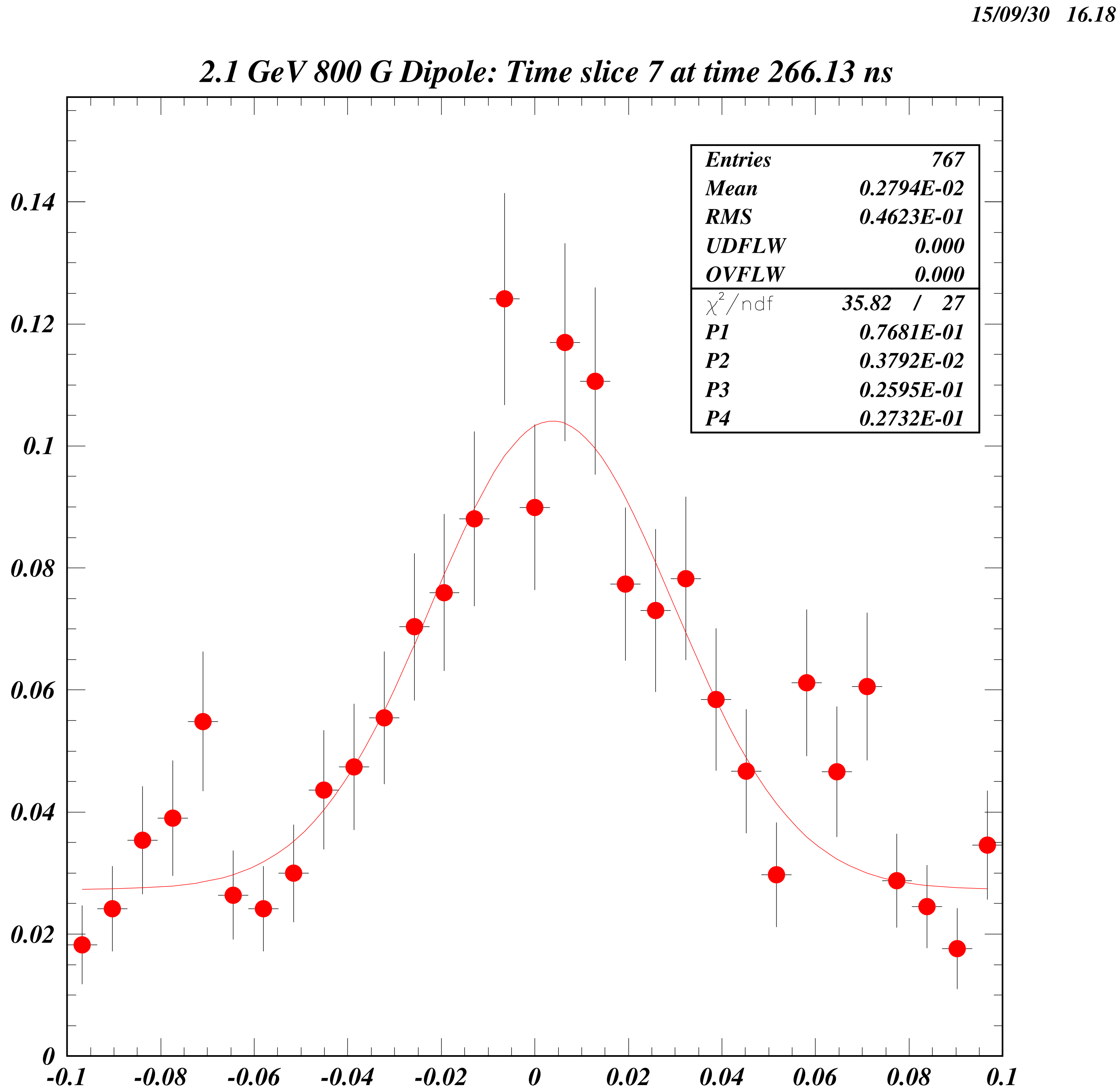


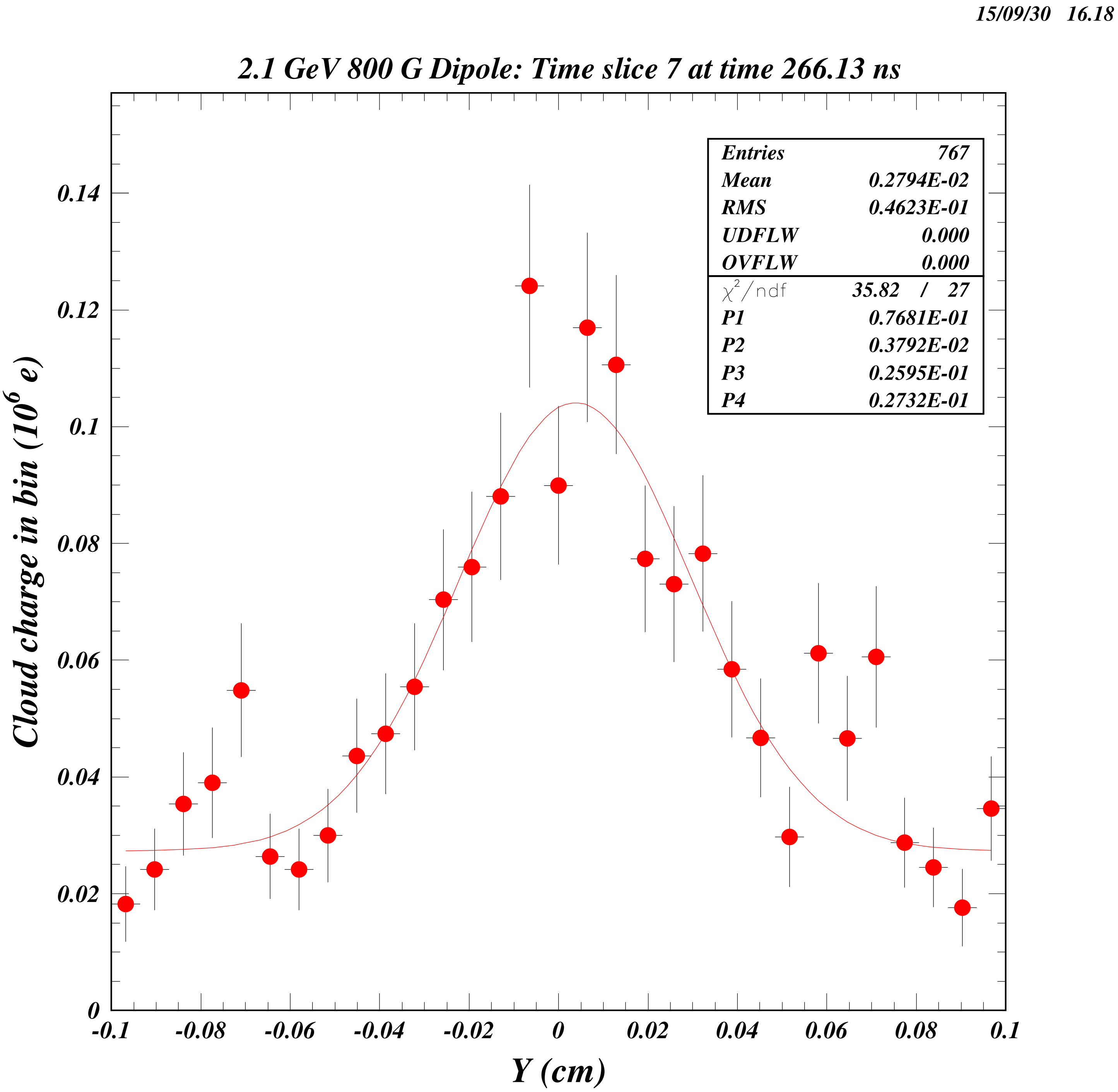
2.1 GeV 800 G Dipole: Time slice 7 at time 266.13 ns
Entries 767
Mean -0.1505E-02
RMS 0.4663E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 121.8 / 27
P1 0.1038
P2 0.8779E-03
P3 -0.1421E-01
P4 0.2720E-01
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18

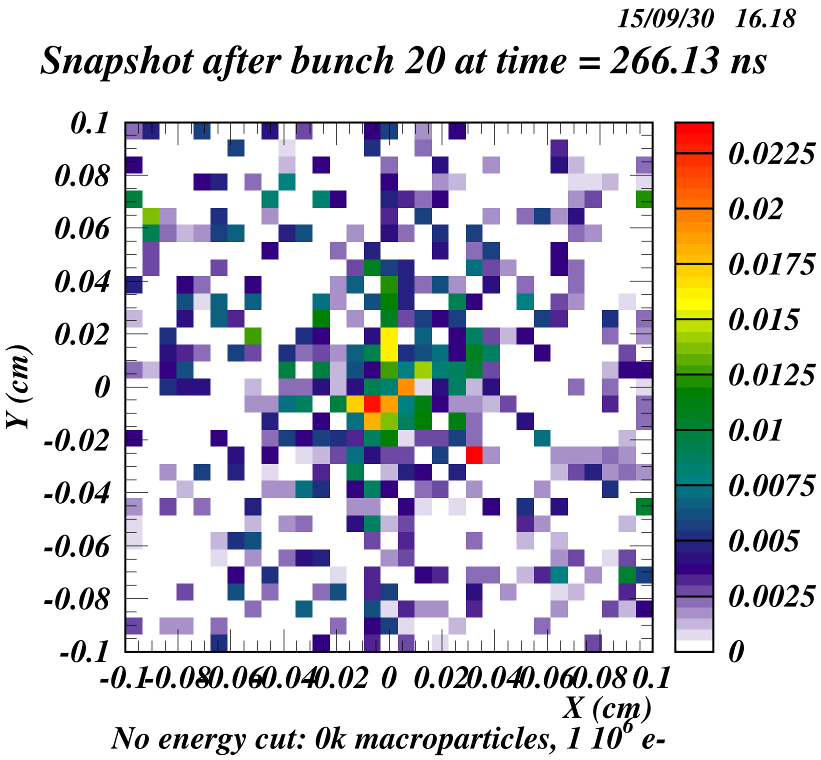


2.1 GeV 800 G Dipole: Time slice 7 at time 266.13 ns
Entries 767
Mean -0.1505E-02
RMS 0.4663E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 121.8 / 27
P1 0.1038
P2 0.8779E-03
P3 -0.1421E-01
P4 0.2720E-01
Cloud charge in bin (10⁶ e)
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
X (cm)

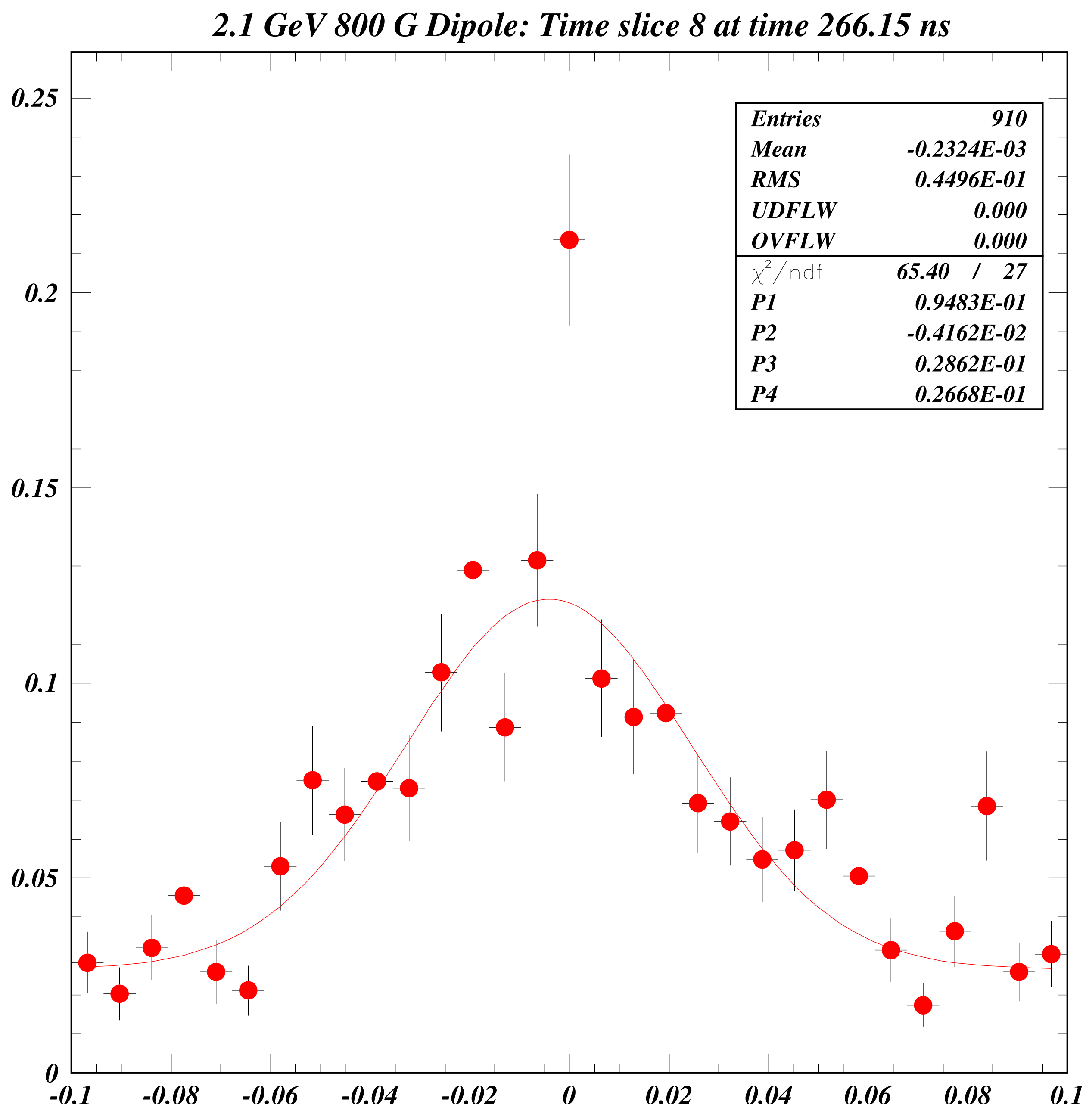

15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 7 at time 266.13 ns
Entries 767
Mean 0.2794E-02
RMS 0.4623E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 35.82 / 27
P1 0.7681E-01
P2 0.3792E-02
P3 0.2595E-01
P4 0.2732E-01
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

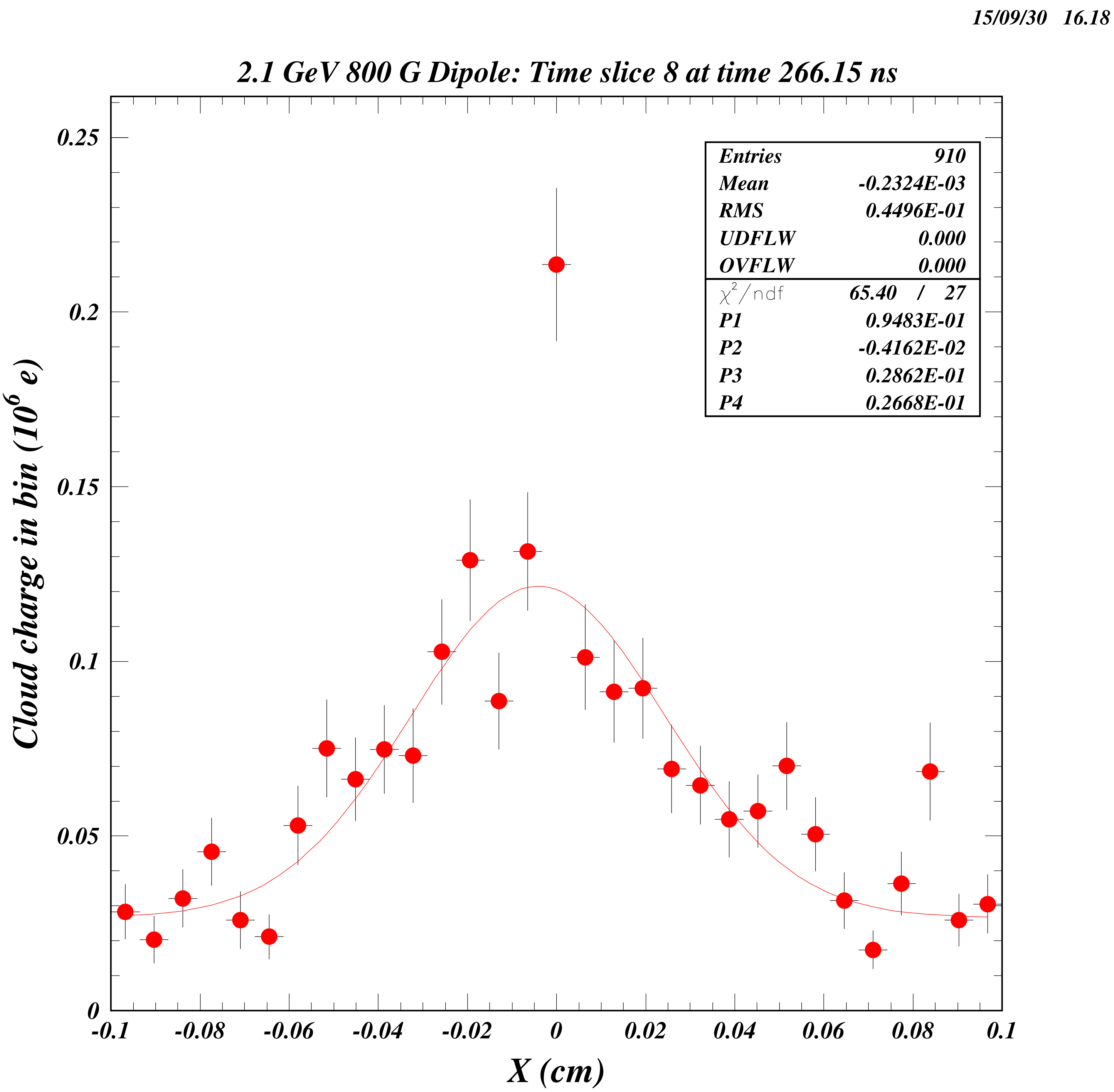


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 7 at time 266.13 ns
Entries 767
Mean 0.2794E-02
RMS 0.4623E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 35.82 / 27
P1 0.7681E-01
P2 0.3792E-02
P3 0.2595E-01
P4 0.2732E-01
Cloud charge in bin (10⁶ e)
Y (cm)
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
Snapshot after bunch 20 at time = 266.13 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.0225
0.02
0.0175
0.015
0.0125
0.01
0.0075
0.005
0.0025
No energy cut: 0k macroparticles, 1 10^6 e-

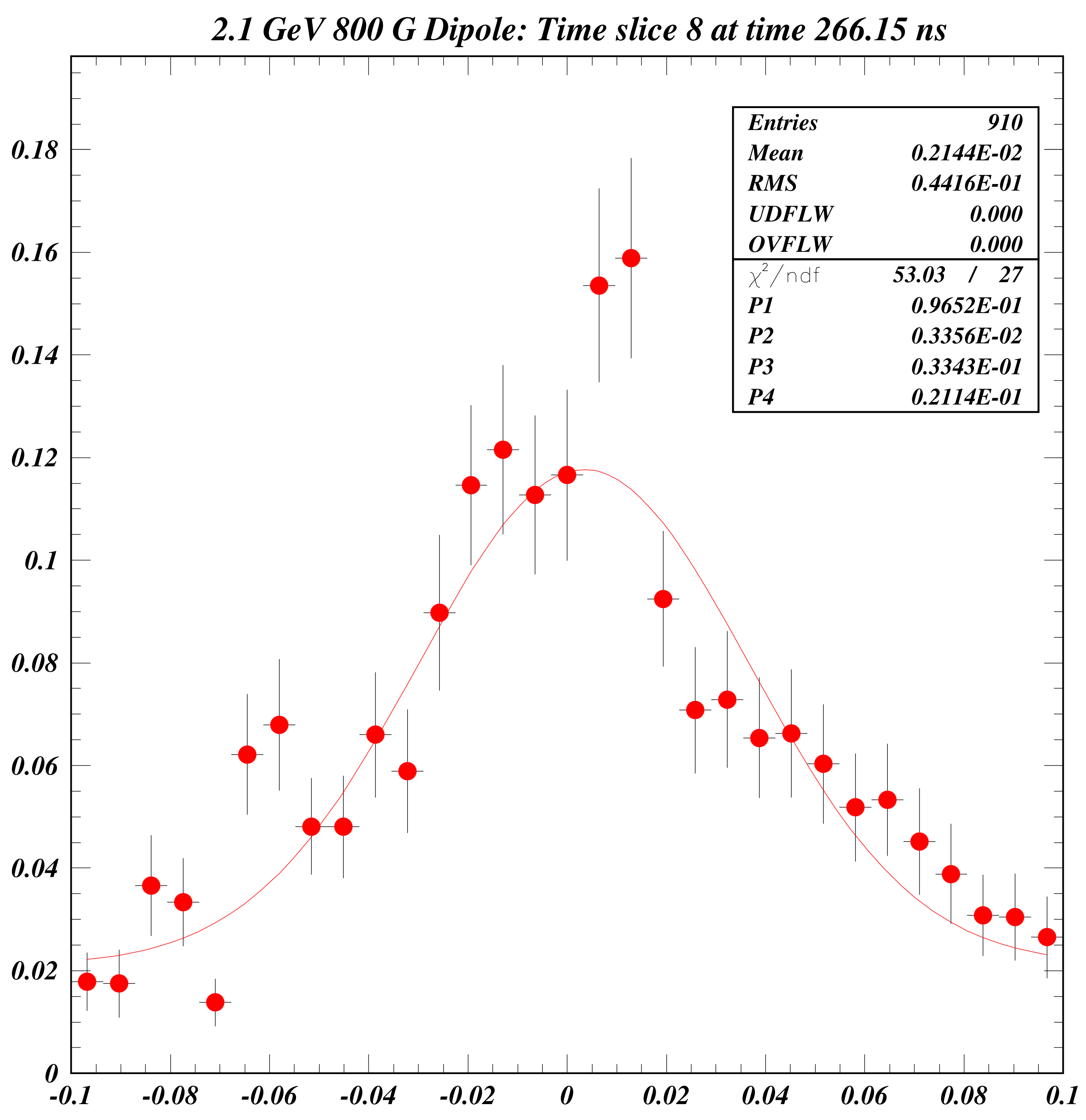
15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 8 at time 266.15 ns
Entries 910
Mean -0.2324E-03
RMS 0.4496E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 65.40 / 27
P1 0.9483E-01
P2 -0.4162E-02
P3 0.2862E-01
P4 0.2668E-01
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

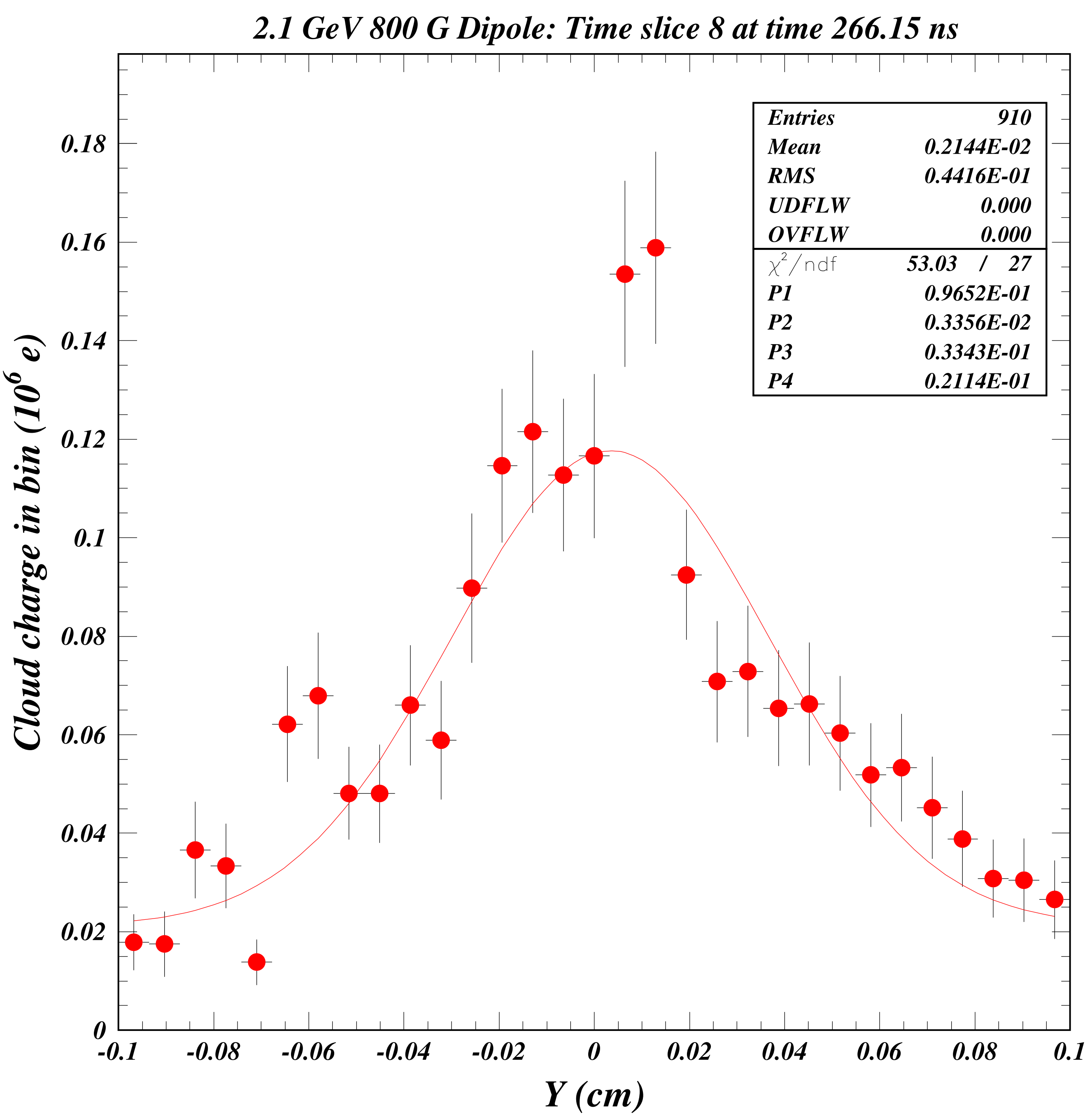


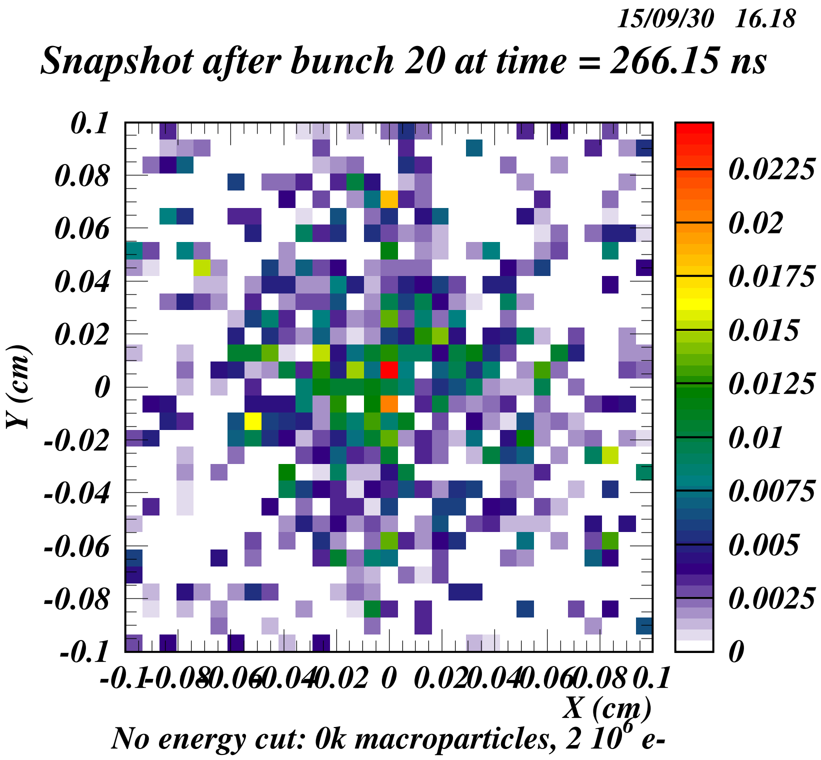
15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 8 at time 266.15 ns
Entries 910
Mean -0.2324E-03
RMS 0.4496E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 65.40 / 27
P1 0.9483E-01
P2 -0.4162E-02
P3 0.2862E-01
P4 0.2668E-01
Cloud charge in bin (10⁶ e)
X (cm)
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18

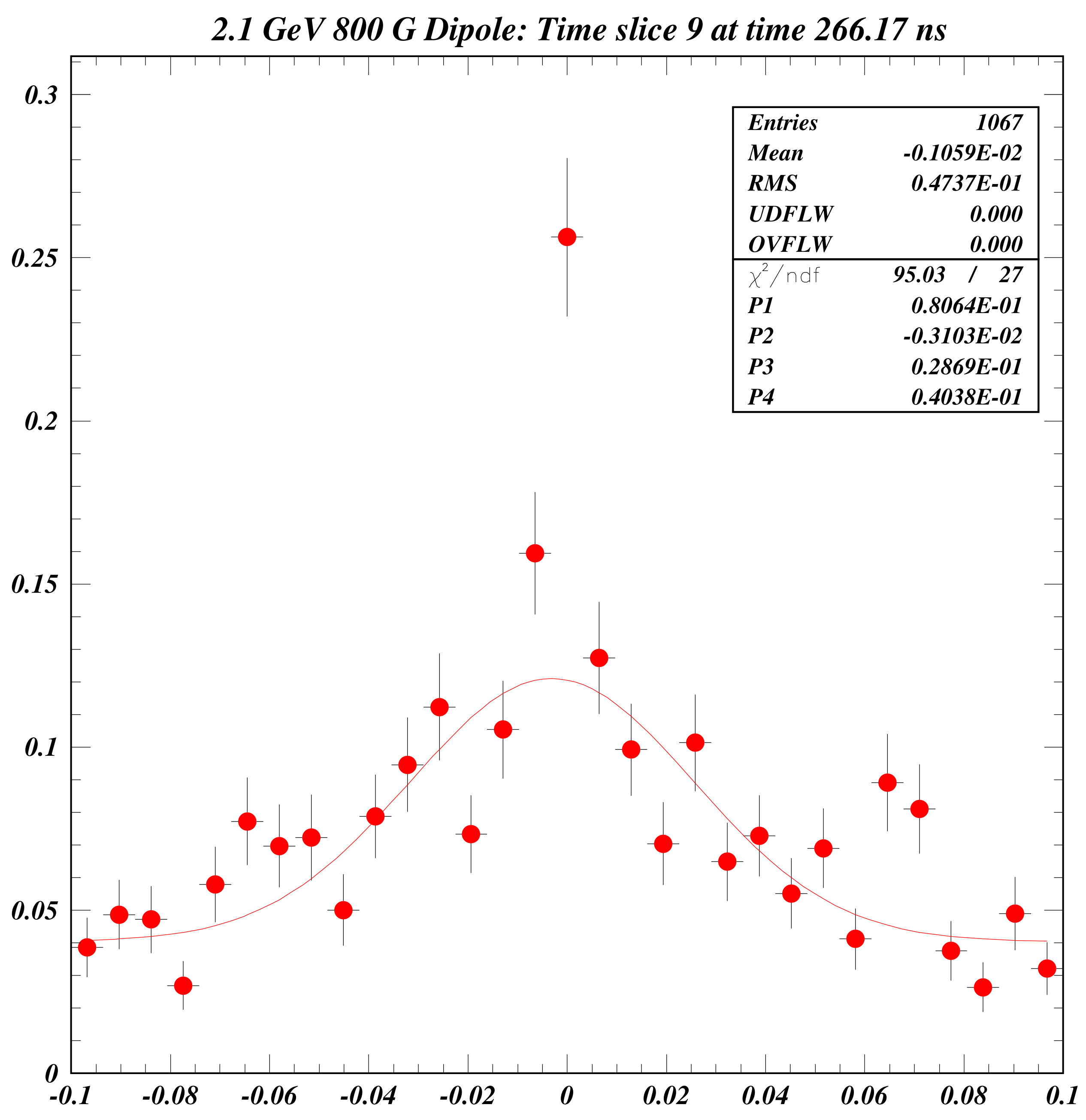

2.1 GeV 800 G Dipole: Time slice 8 at time 266.15 ns
Entries 910
Mean 0.2144E-02
RMS 0.4416E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 53.03 / 27
P1 0.9652E-01
P2 0.3356E-02
P3 0.3343E-01
P4 0.2114E-01
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 8 at time 266.15 ns
Entries 910
Mean 0.2144E-02
RMS 0.4416E-01
UDFLW 0.000
OVFLW 0.000
χ^2/ndf 53.03 / 27
P1 0.9652E-01
P2 0.3356E-02
P3 0.3343E-01
P4 0.2114E-01
Cloud charge in bin (10^6 e)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
Y (cm)

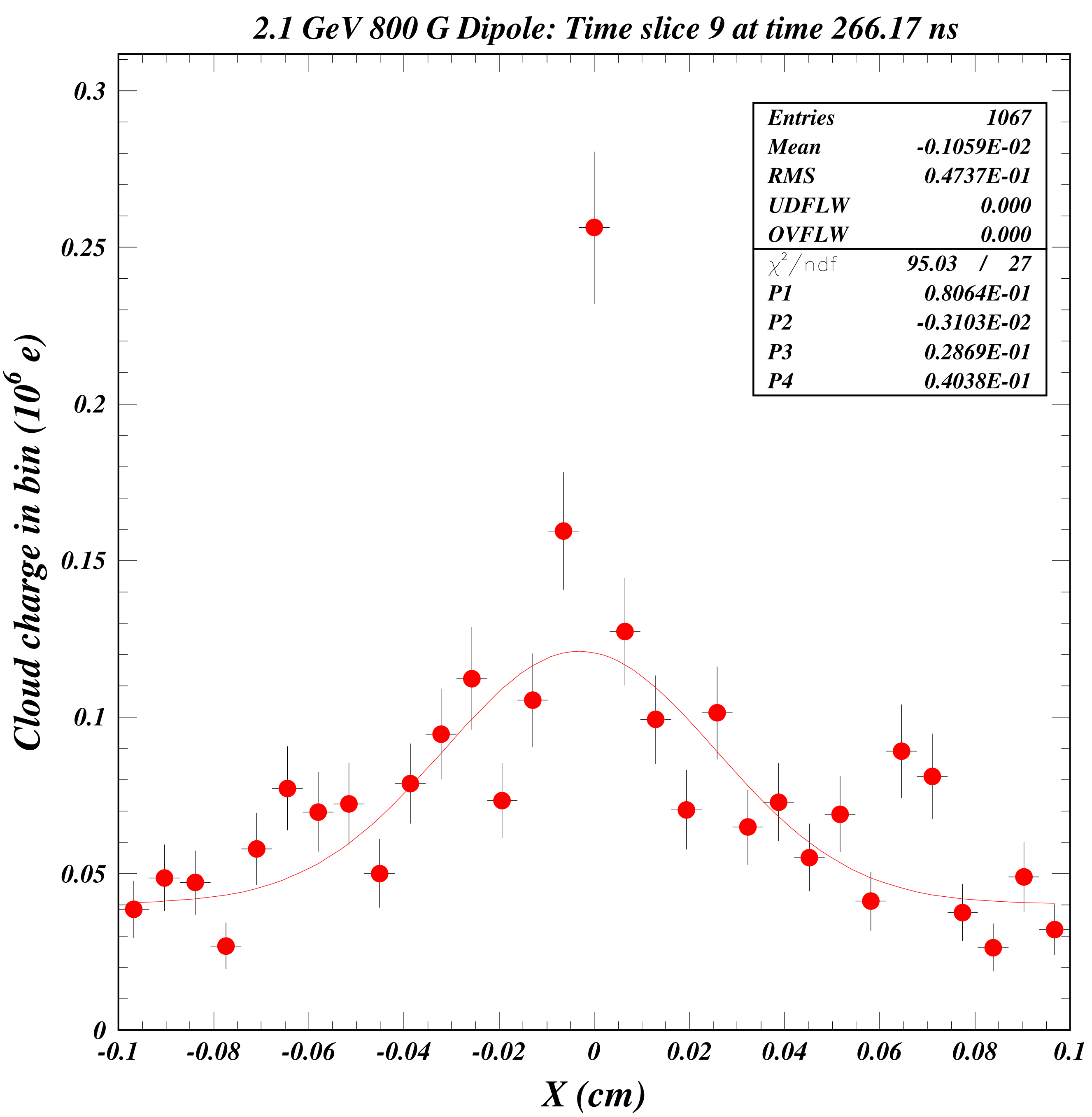

15/09/30 16.18
Snapshot after bunch 20 at time = 266.15 ns
Y (cm)
X (cm)
No energy cut: 0k macroparticles, 2 10^6 e-
0.0225
0.02
0.0175
0.015
0.0125
0.01
0.0075
0.005
0.0025
0

15/09/30 16.18

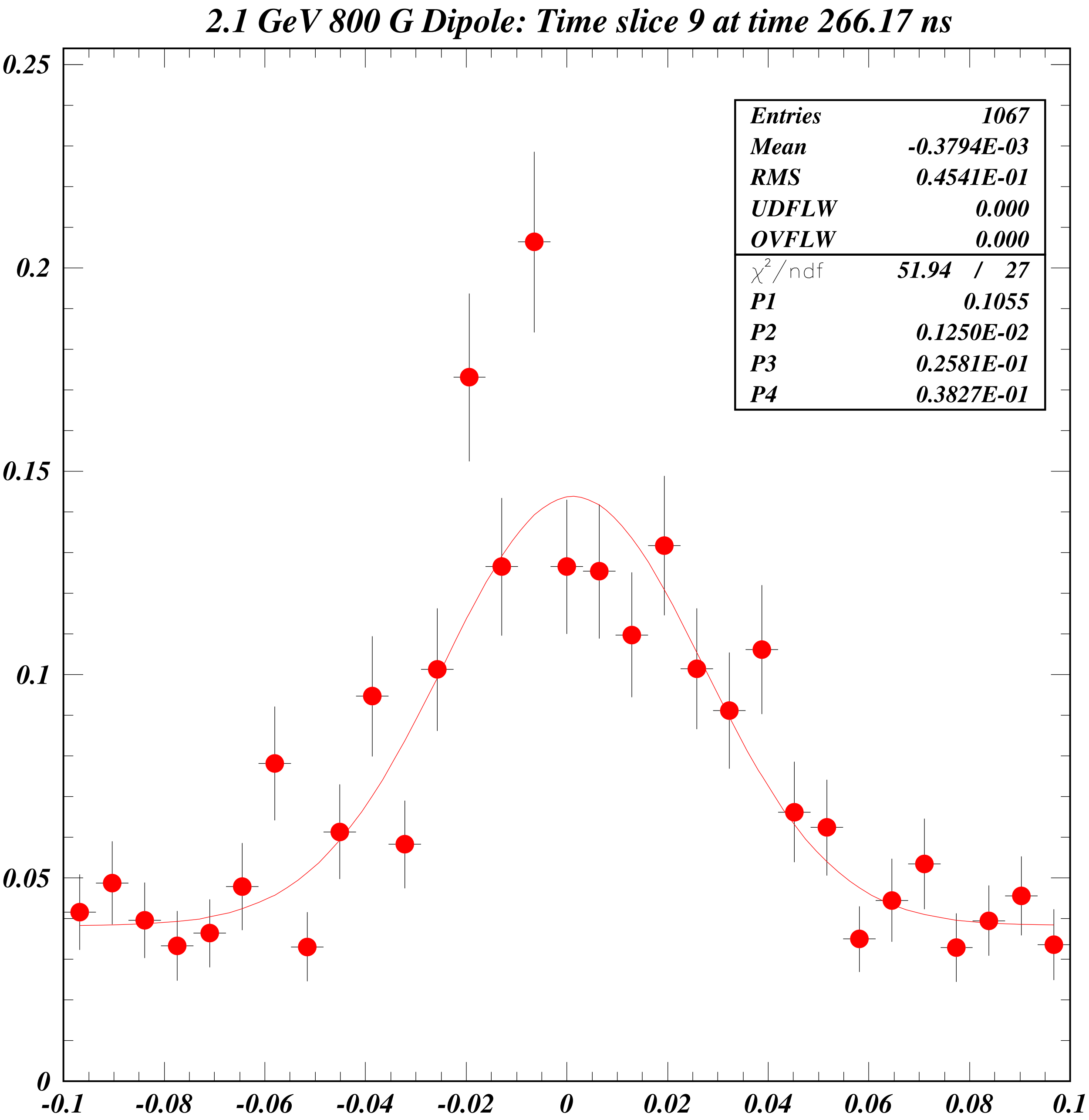


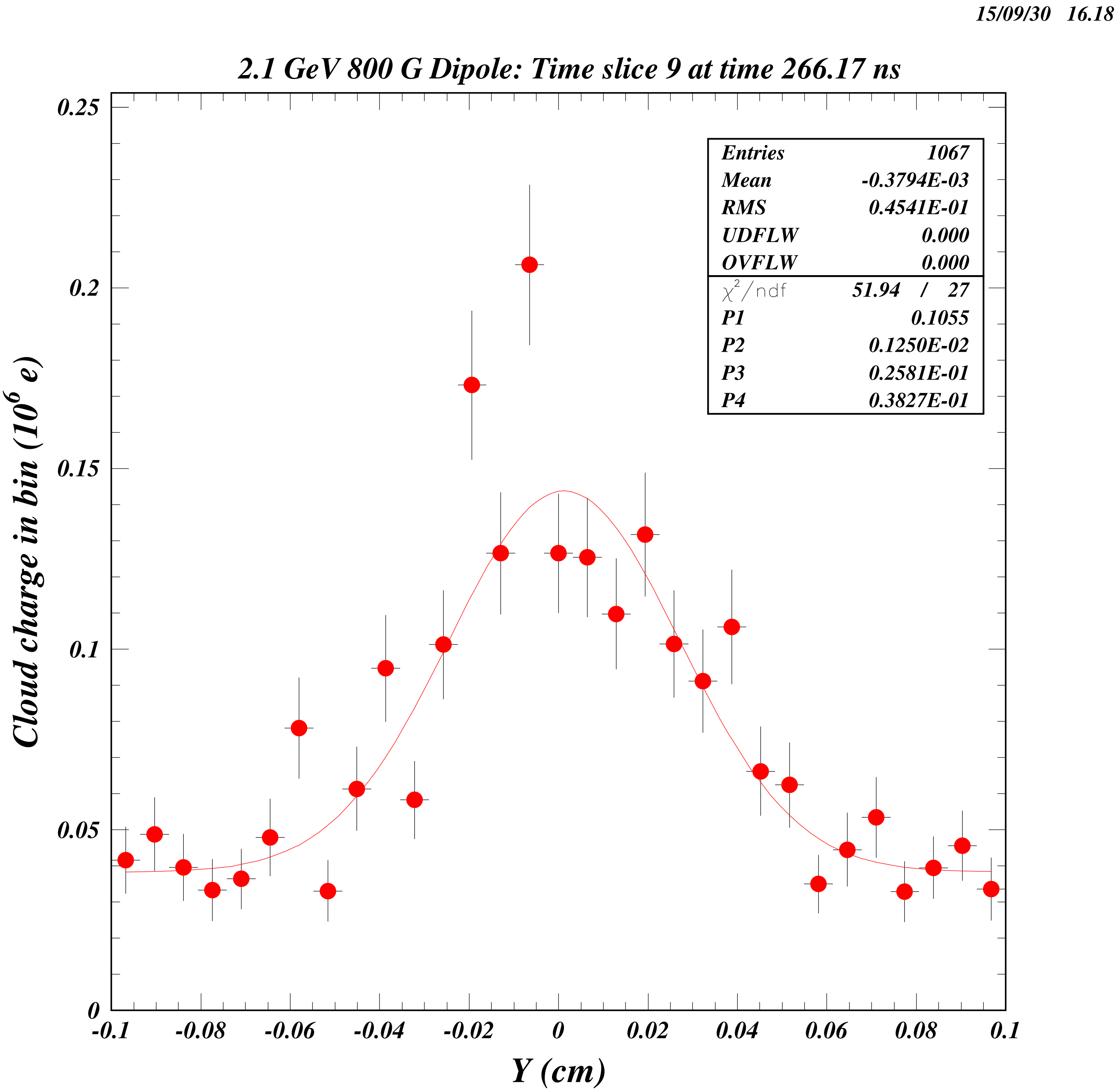
2.1 GeV 800 G Dipole: Time slice 9 at time 266.17 ns
Entries 1067
Mean -0.1059E-02
RMS 0.4737E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 95.03 / 27
P1 0.8064E-01
P2 -0.3103E-02
P3 0.2869E-01
P4 0.4038E-01
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

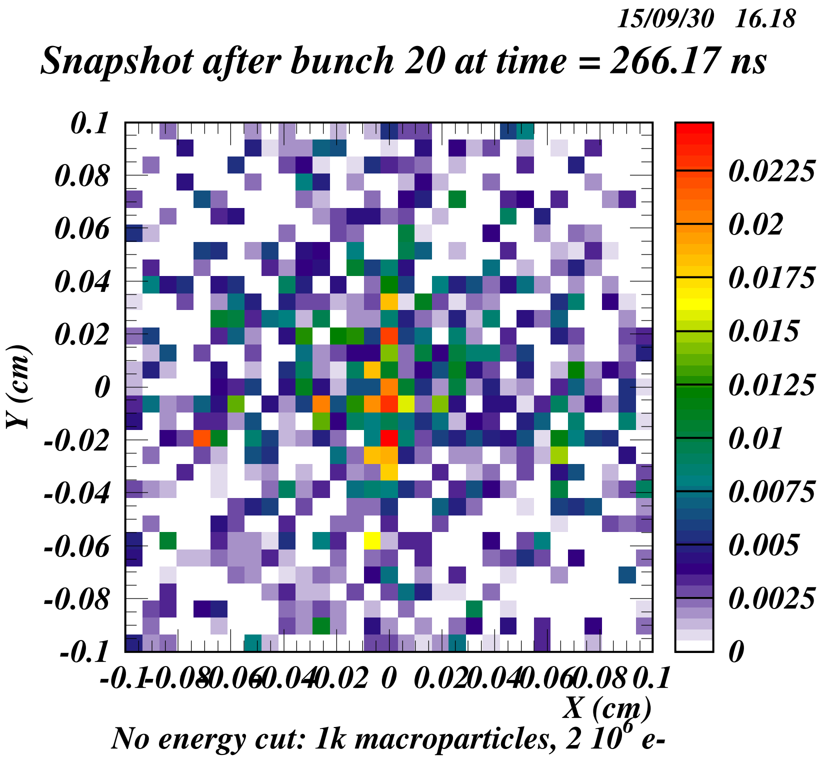
15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 9 at time 266.17 ns
Entries 1067
Mean -0.1059E-02
RMS 0.4737E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 95.03 / 27
P1 0.8064E-01
P2 -0.3103E-02
P3 0.2869E-01
P4 0.4038E-01
Cloud charge in bin (10⁶ e)
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1
X (cm)

15/09/30 16.18

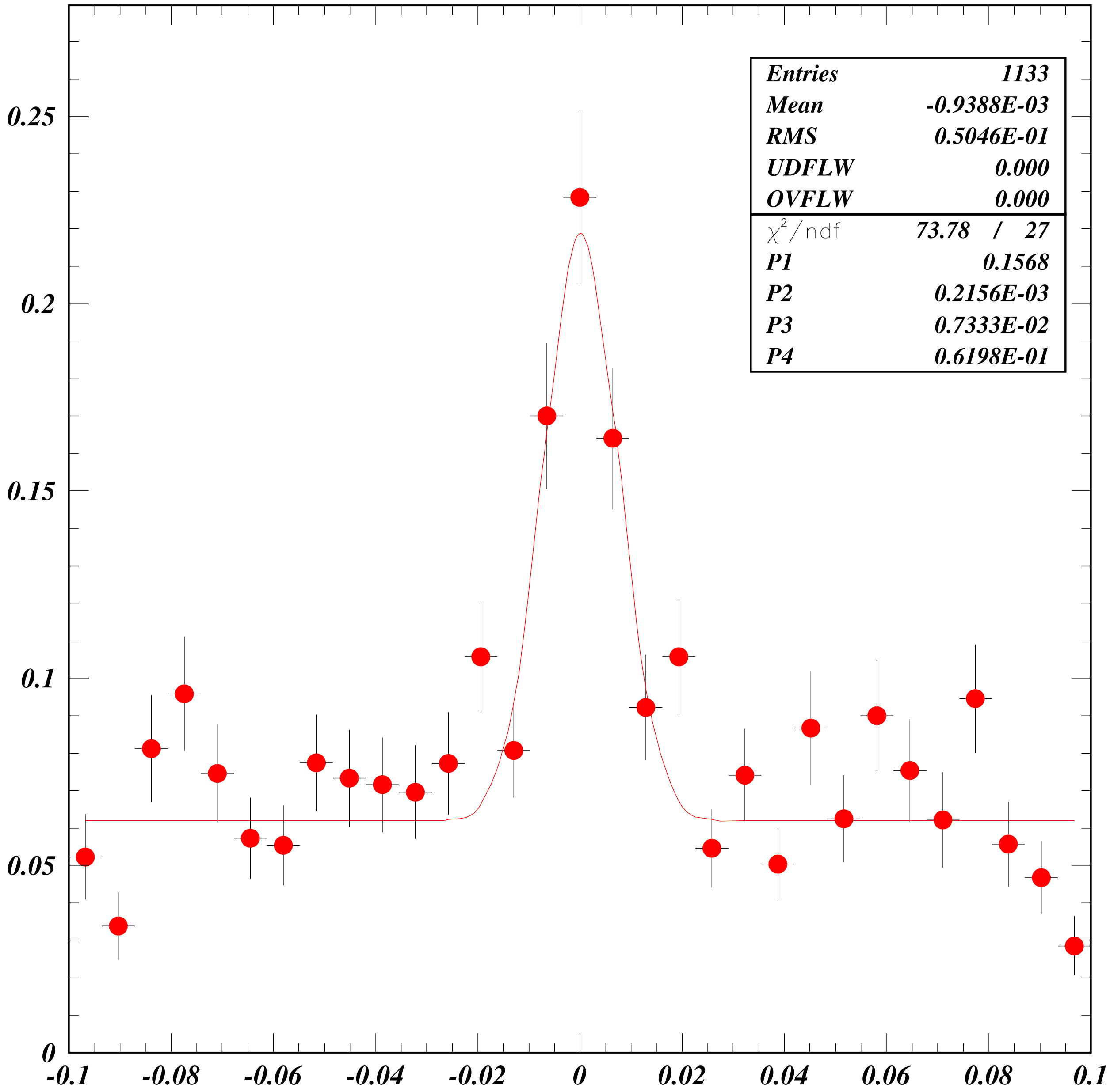

2.1 GeV 800 G Dipole: Time slice 9 at time 266.17 ns
Entries 1067
Mean -0.3794E-03
RMS 0.4541E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 51.94 / 27
P1 0.1055
P2 0.1250E-02
P3 0.2581E-01
P4 0.3827E-01
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

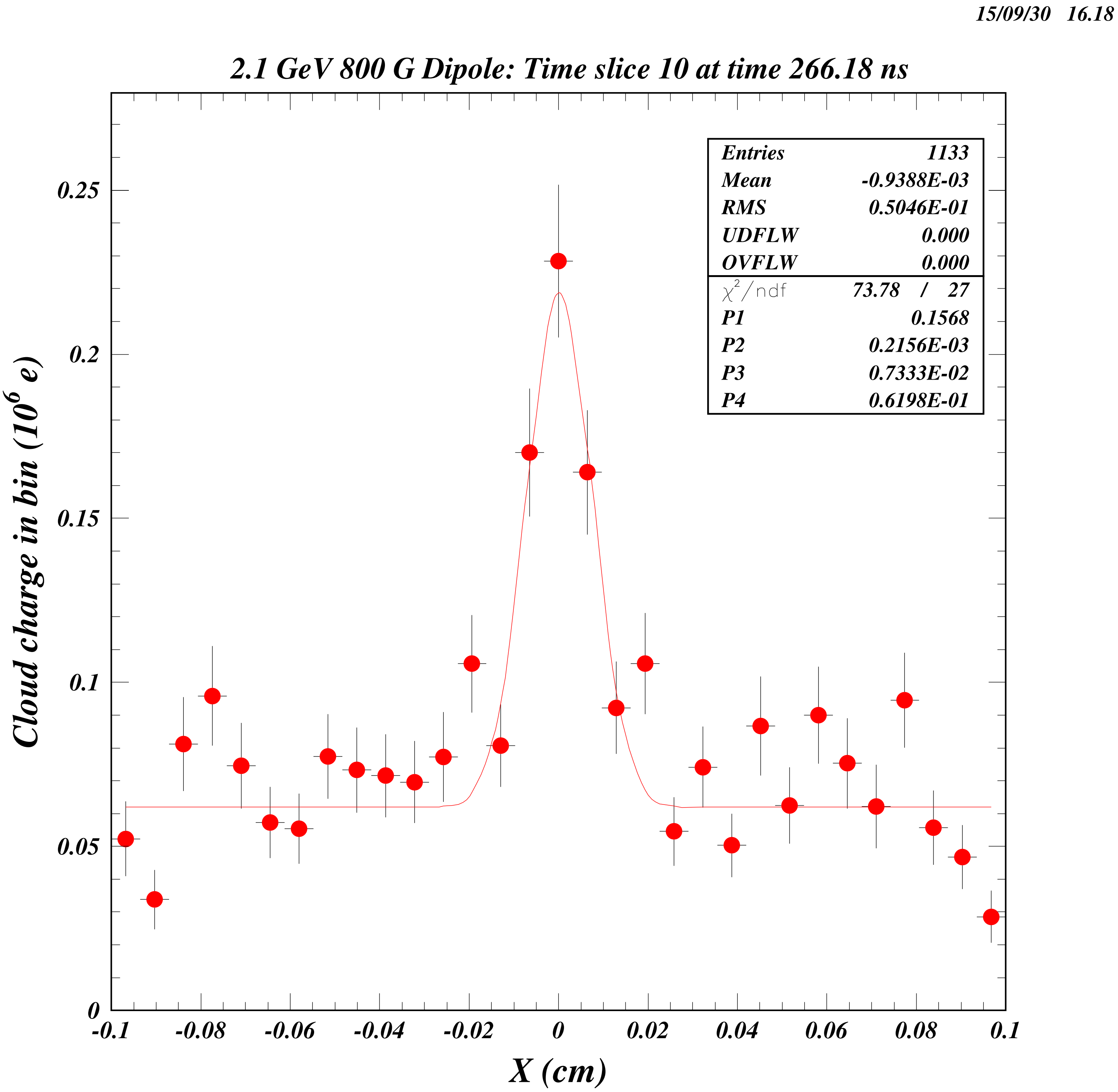

15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 9 at time 266.17 ns
Entries 1067
Mean -0.3794E-03
RMS 0.4541E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 51.94 / 27
P1 0.1055
P2 0.1250E-02
P3 0.2581E-01
P4 0.3827E-01
Cloud charge in bin (10⁶ e)
Y (cm)
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
Snapshot after bunch 20 at time = 266.17 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.0225
0.02
0.0175
0.015
0.0125
0.01
0.0075
0.005
0.0025
No energy cut: 1k macroparticles, 2 10^6 e-

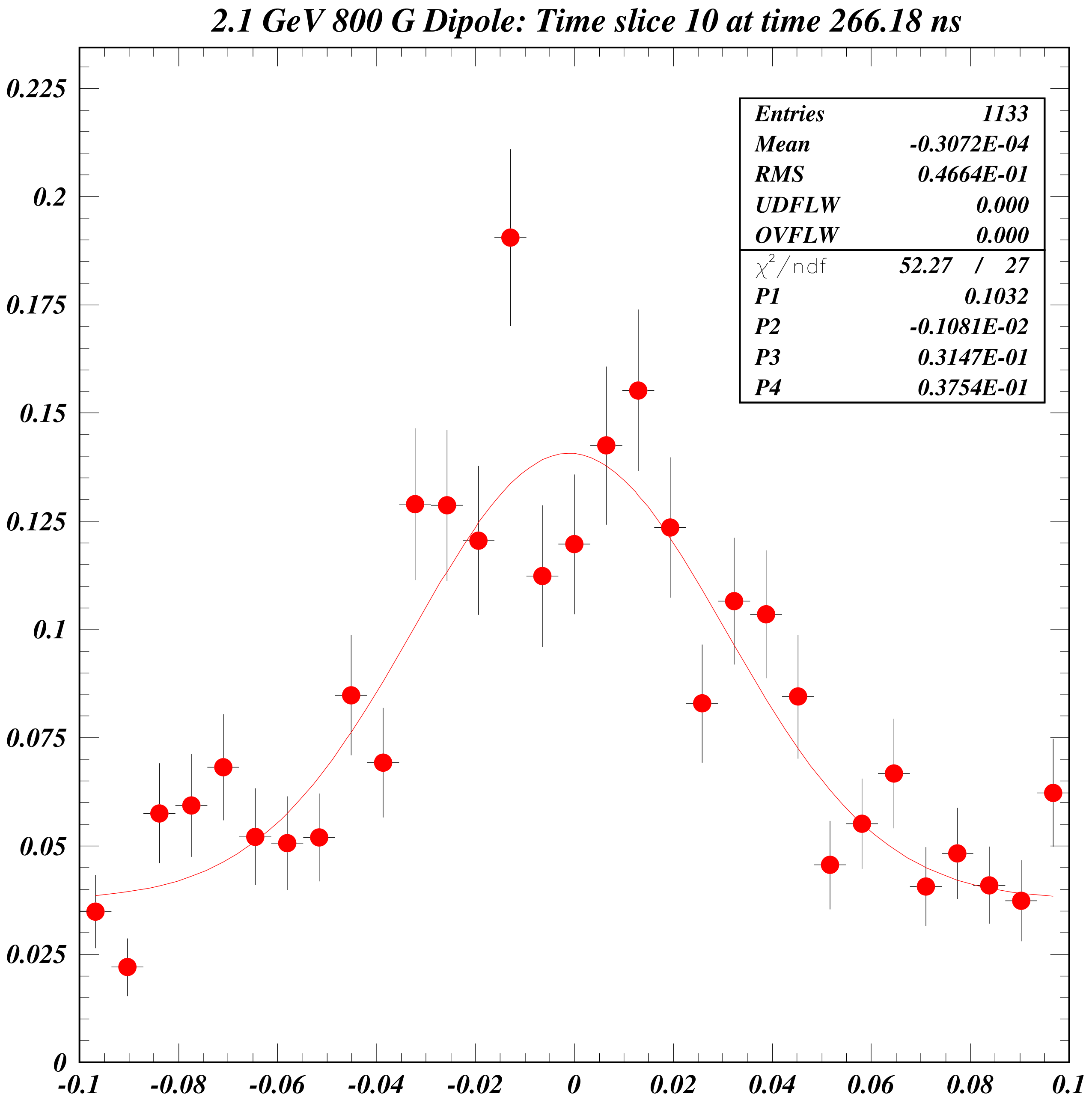
15/09/30 16.18

2.1 GeV 800 G Dipole: Time slice 10 at time 266.18 ns

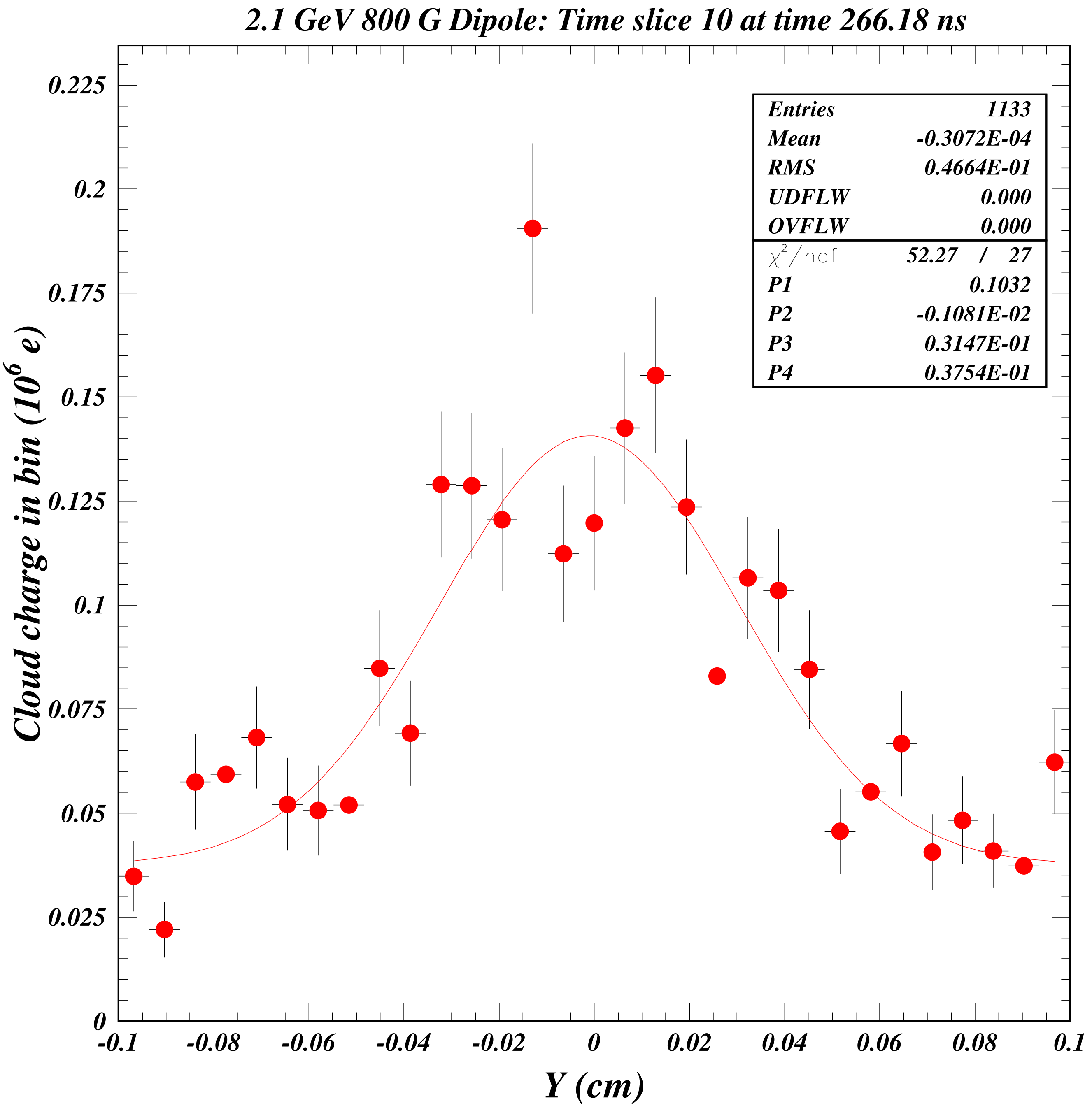


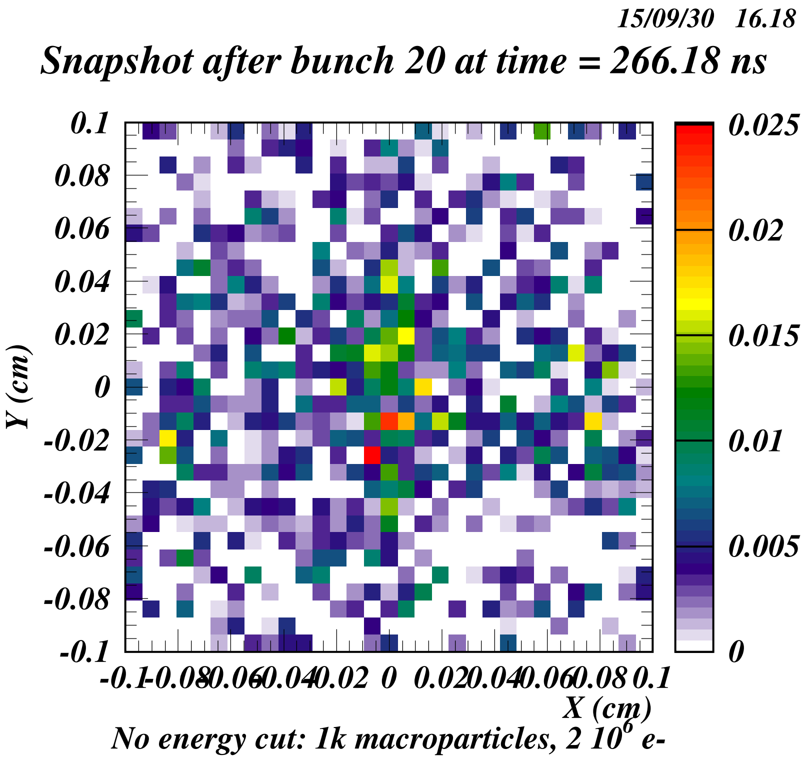

15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 10 at time 266.18 ns
Entries 1133
Mean -0.9388E-03
RMS 0.5046E-01
UDFLW 0.000
OVFLW 0.000
χ^2/ndf 73.78 / 27
P1 0.1568
P2 0.2156E-03
P3 0.7333E-02
P4 0.6198E-01
Cloud charge in bin (10^6 e)
X (cm)
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

15/09/30 16.18

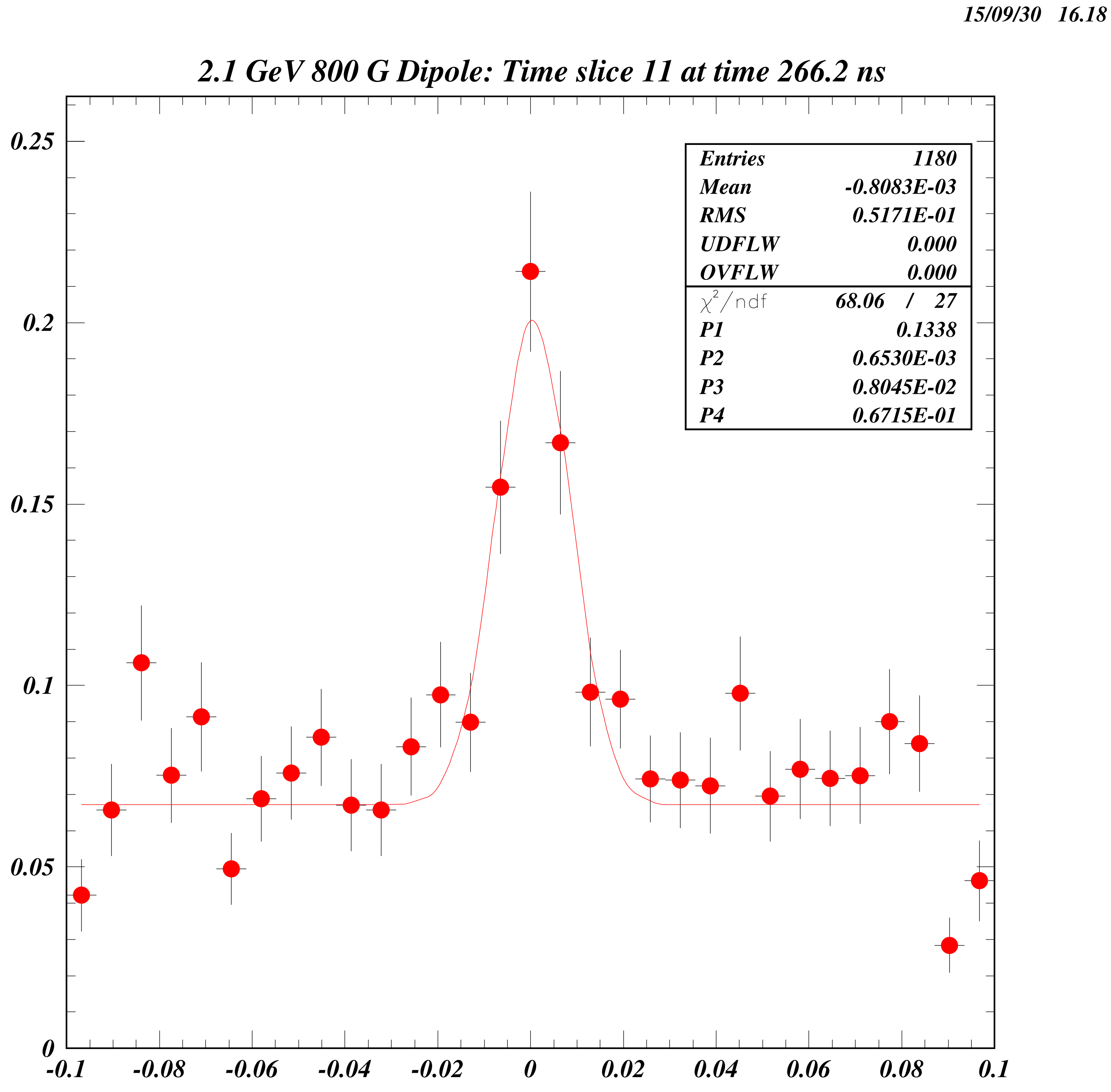

2.1 GeV 800 G Dipole: Time slice 10 at time 266.18 ns
Entries 1133
Mean -0.3072E-04
RMS 0.4664E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 52.27 / 27
P1 0.1032
P2 -0.1081E-02
P3 0.3147E-01
P4 0.3754E-01
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

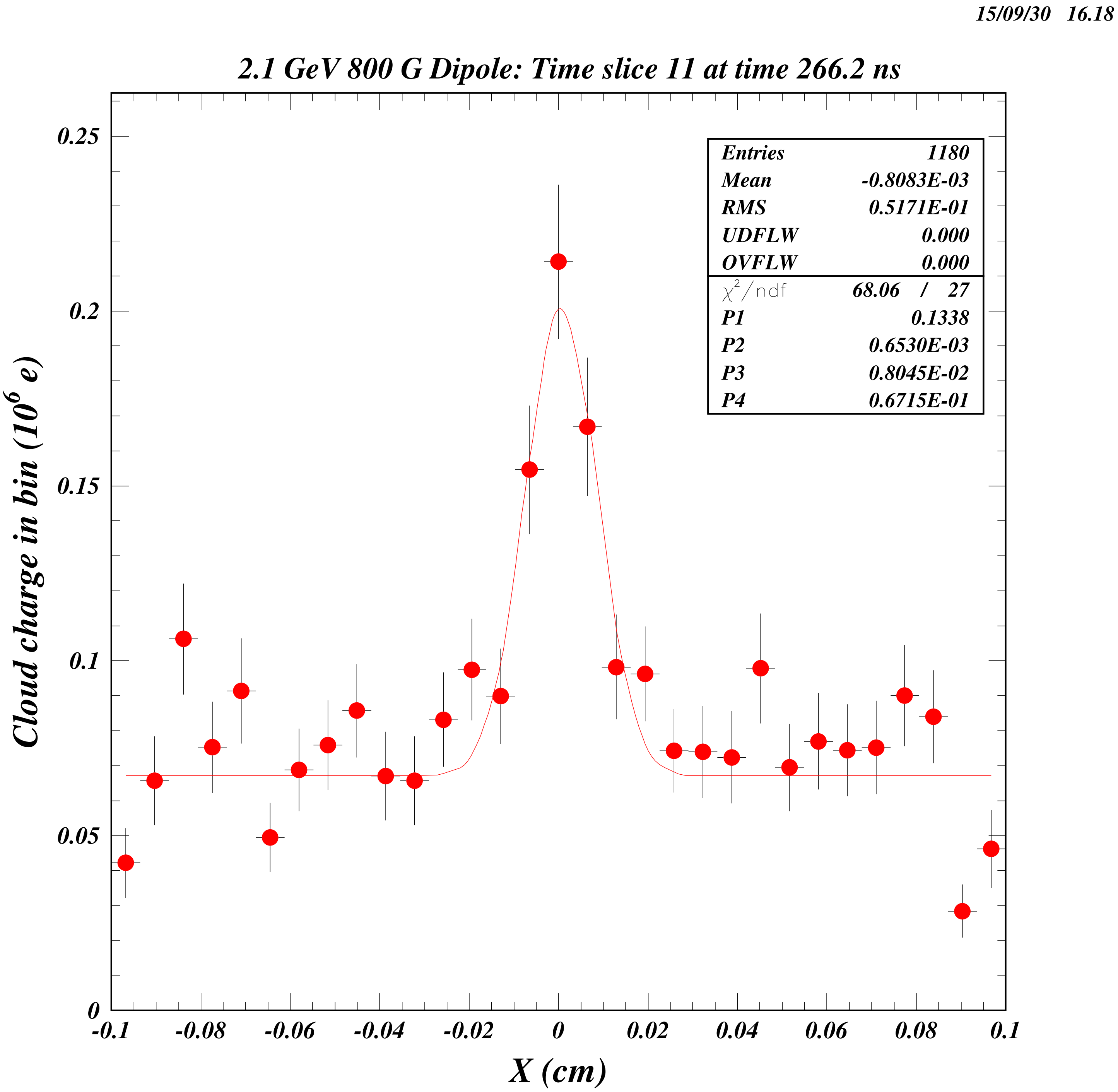
15/09/30   16.18


2.1 GeV 800 G Dipole: Time slice 10 at time 266.18 ns
Entries 1133
Mean -0.3072E-04
RMS 0.4664E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 52.27 / 27
P1 0.1032
P2 -0.1081E-02
P3 0.3147E-01
P4 0.3754E-01
Cloud charge in bin (10^6 e)
Y (cm)
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

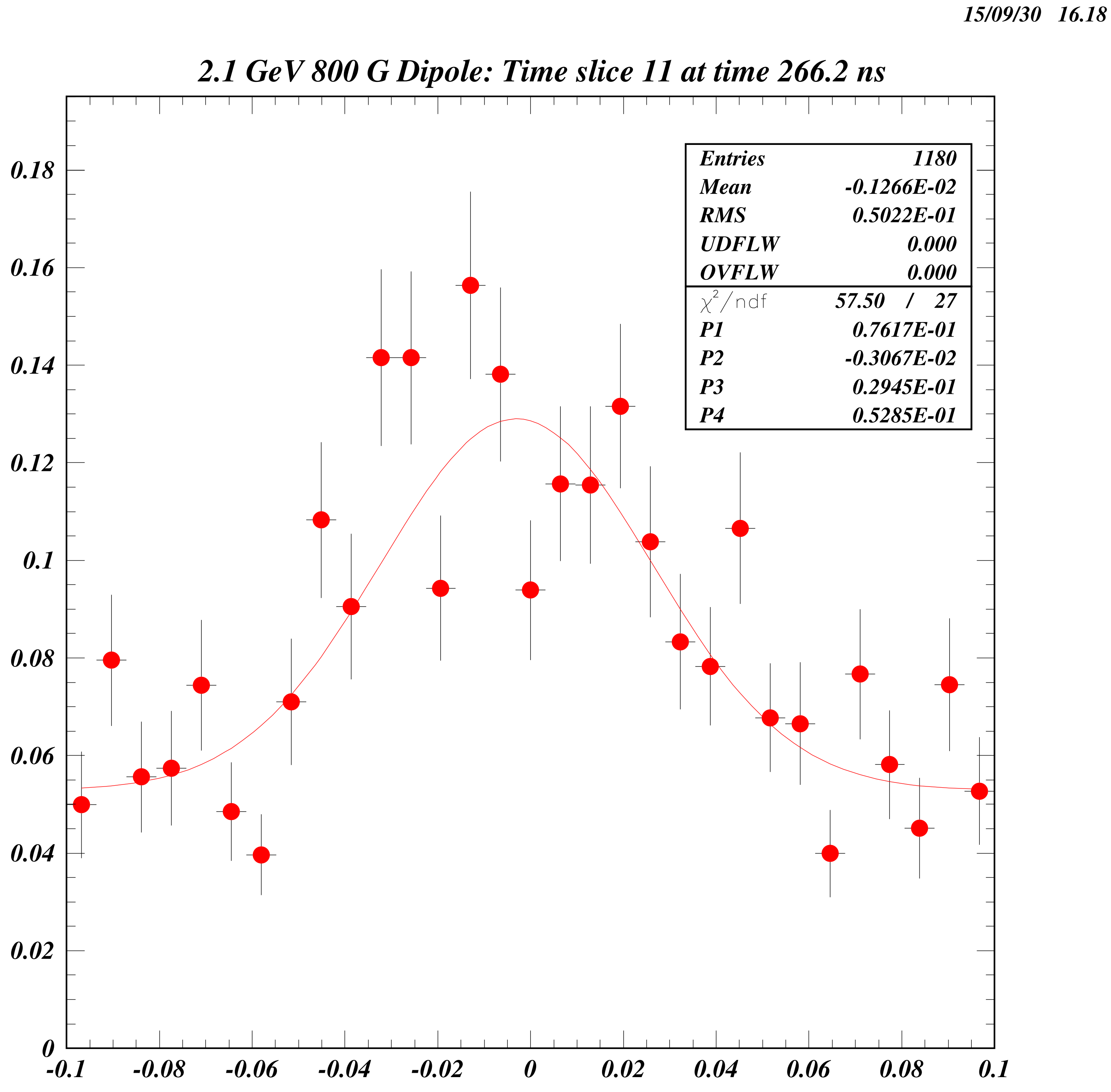


15/09/30 16.18
Snapshot after bunch 20 at time = 266.18 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.025
0.02
0.015
0.01
0.005
No energy cut: 1k macroparticles, 2 10^6 e-

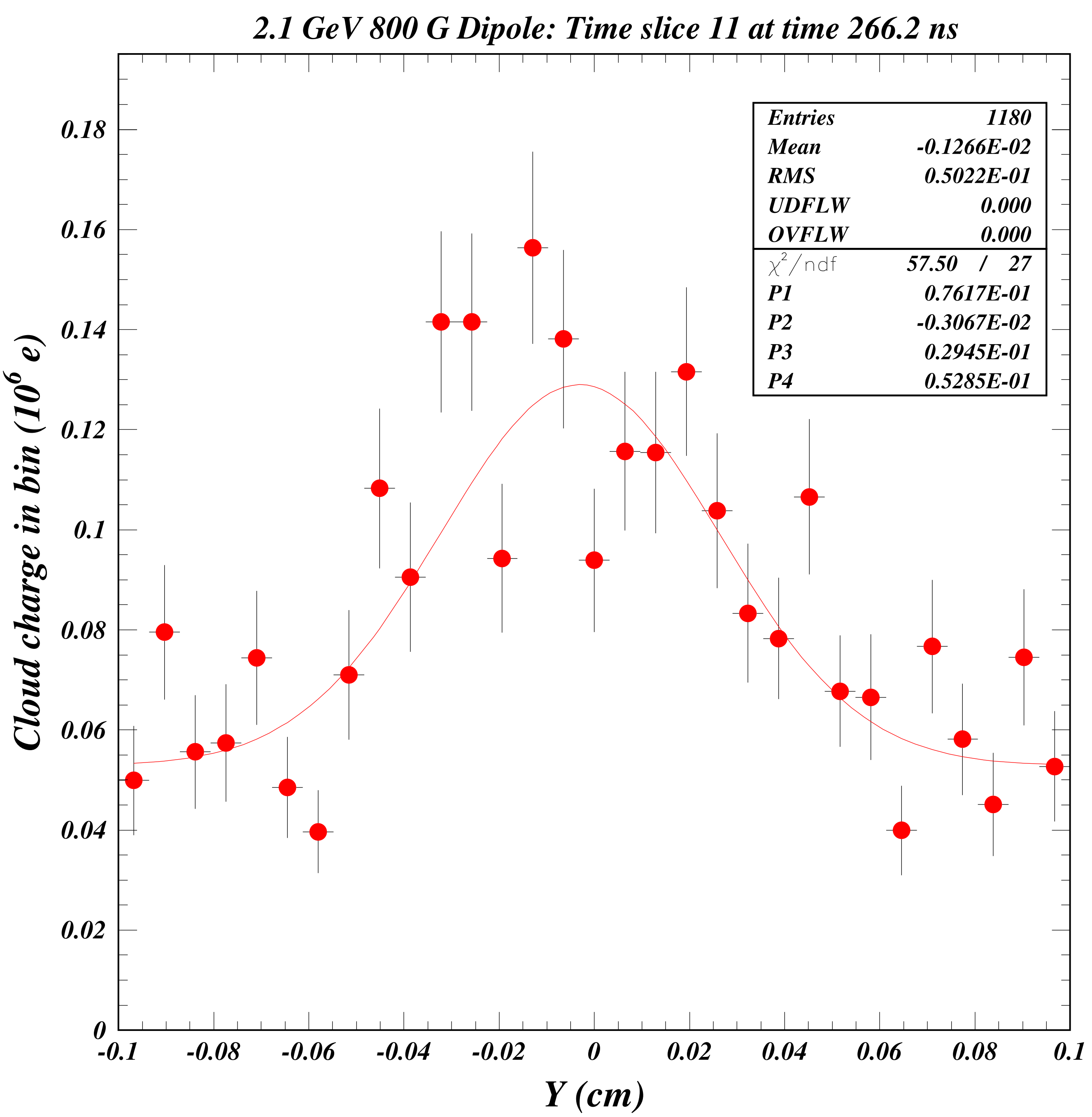

15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 11 at time 266.2 ns
Entries 1180
Mean -0.8083E-03
RMS 0.5171E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 68.06 / 27
P1 0.1338
P2 0.6530E-03
P3 0.8045E-02
P4 0.6715E-01
0.25
0.2
0.15
0.1
0.05
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

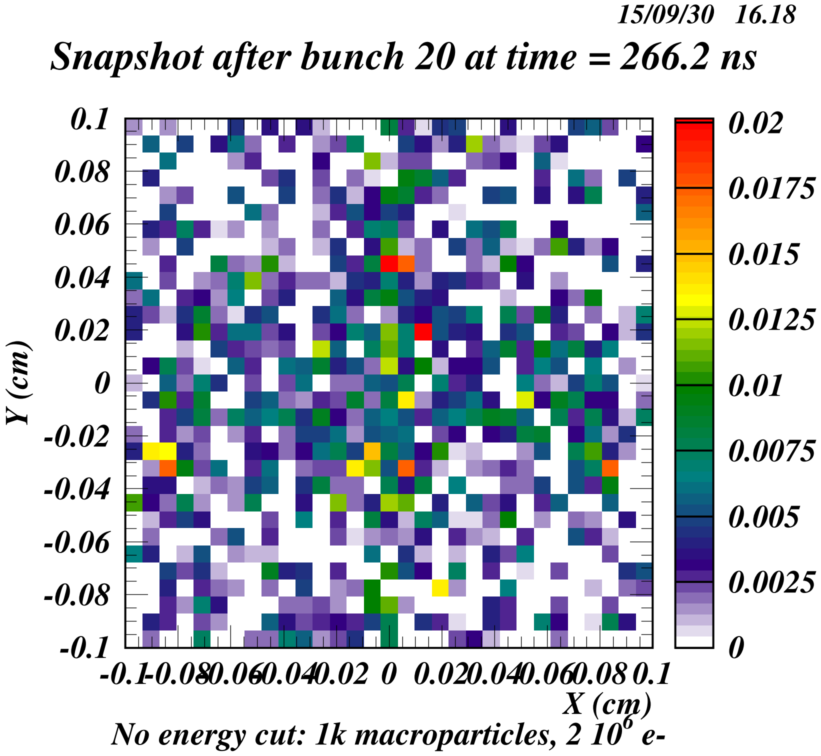


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 11 at time 266.2 ns
Entries 1180
Mean -0.8083E-03
RMS 0.5171E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 68.06 / 27
P1 0.1338
P2 0.6530E-03
P3 0.8045E-02
P4 0.6715E-01
Cloud charge in bin (10^6 e)
X (cm)
0
0.05
0.1
0.15
0.2
0.25
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
2.1 GeV 800 G Dipole: Time slice 11 at time 266.2 ns
Entries 1180
Mean -0.1266E-02
RMS 0.5022E-01
UDFLW 0.000
OVFLW 0.000
χ²/ndf 57.50 / 27
P1 0.7617E-01
P2 -0.3067E-02
P3 0.2945E-01
P4 0.5285E-01
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1

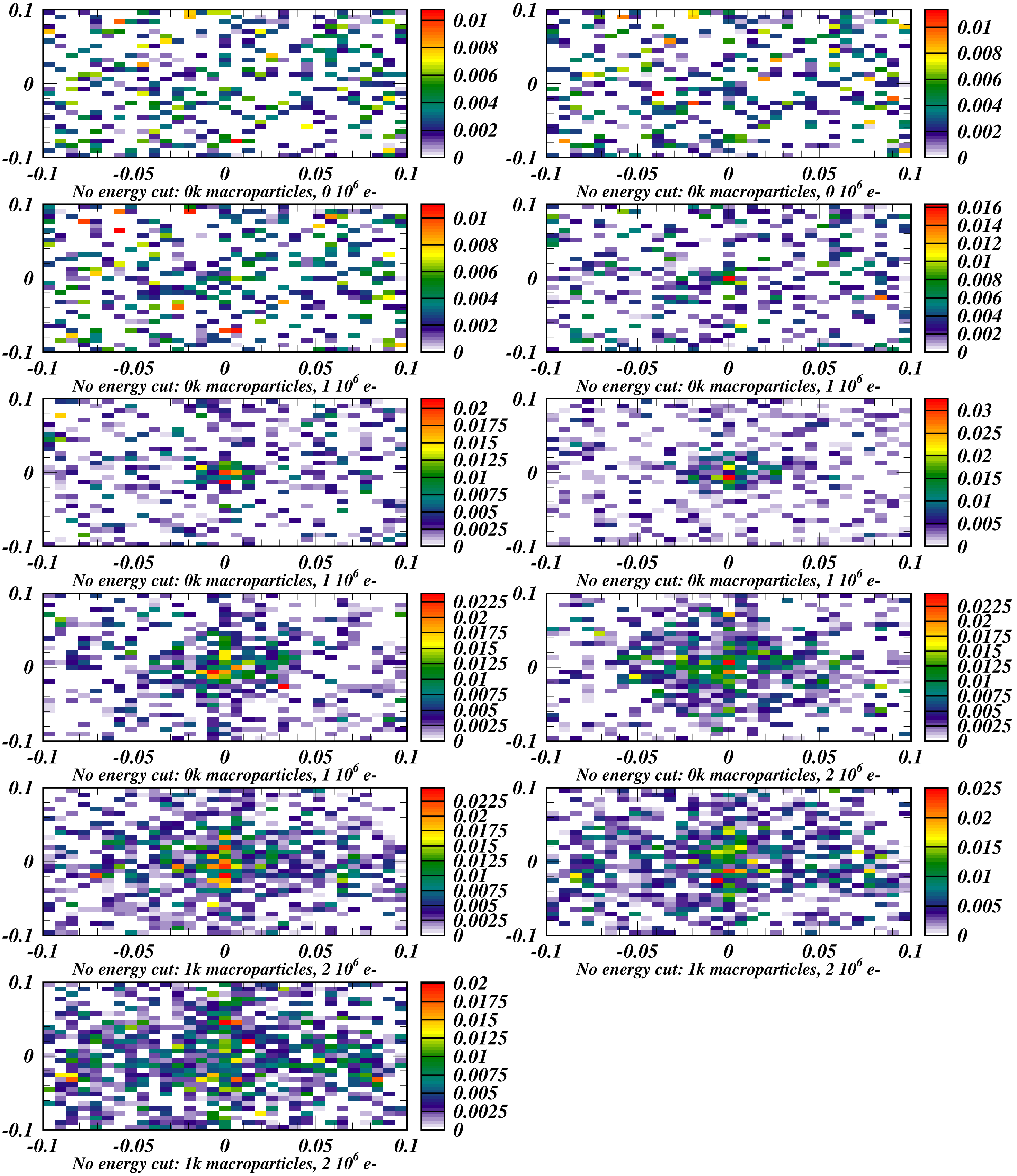
15/09/30 16.18


2.1 GeV 800 G Dipole: Time slice 11 at time 266.2 ns
Entries 1180
Mean -0.1266E-02
RMS 0.5022E-01
UDFLW 0.000
OVFLW 0.000
χ2/ndf 57.50 / 27
P1 0.7617E-01
P2 -0.3067E-02
P3 0.2945E-01
P4 0.5285E-01
Cloud charge in bin (10^6 e)
Y (cm)
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
-0.1
-0.08
-0.06
-0.04
-0.02
0
0.02
0.04
0.06
0.08
0.1


15/09/30 16.18
Snapshot after bunch 20 at time = 266.2 ns
Y (cm)
X (cm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
0.02
0.0175
0.015
0.0125
0.01
0.0075
0.005
0.0025
No energy cut: 1k macroparticles, 2 10^6 e-

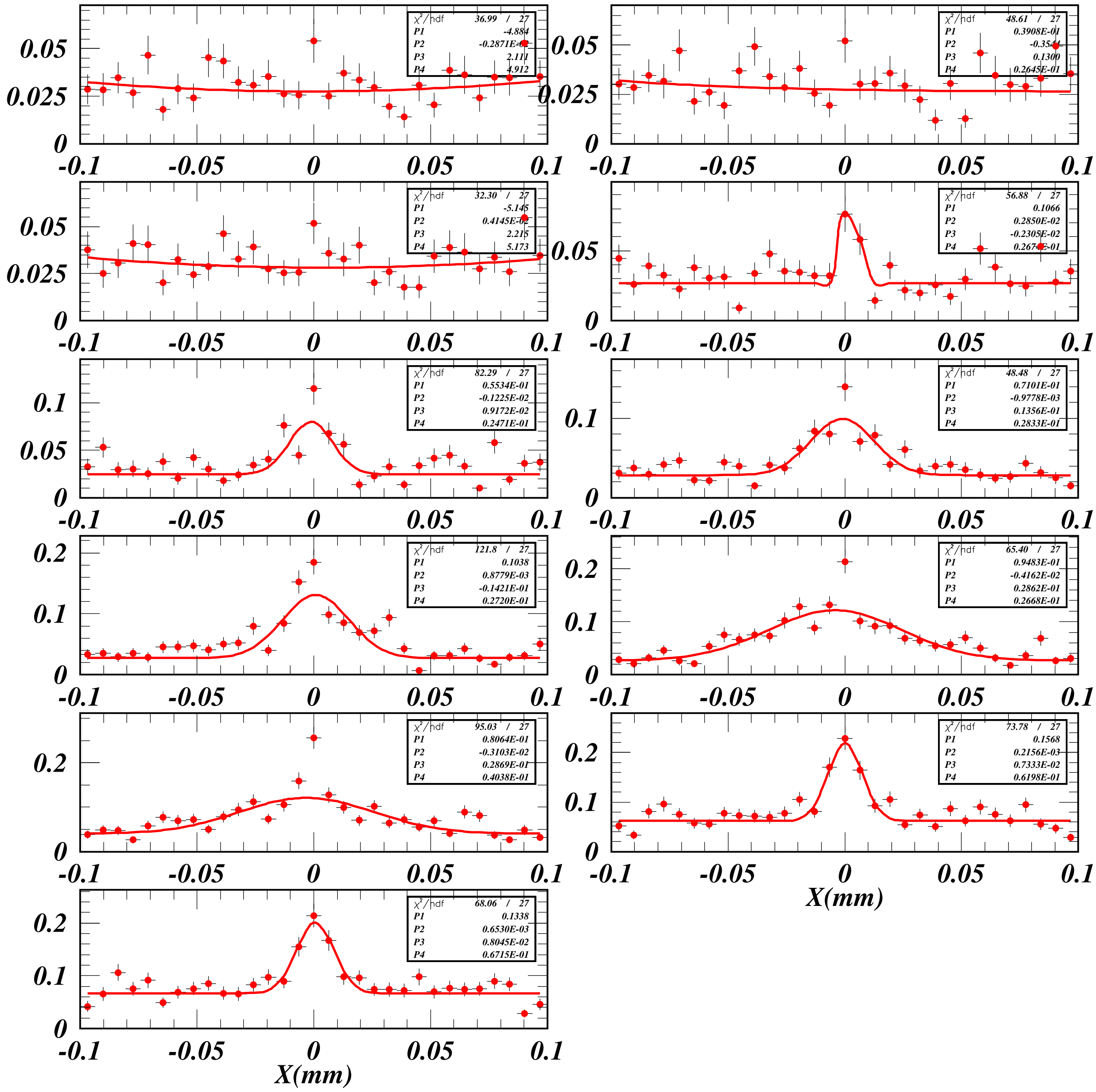
15/09/30 16.18

2.1 GeV 800 G Dipole: Cloud charge shapshots



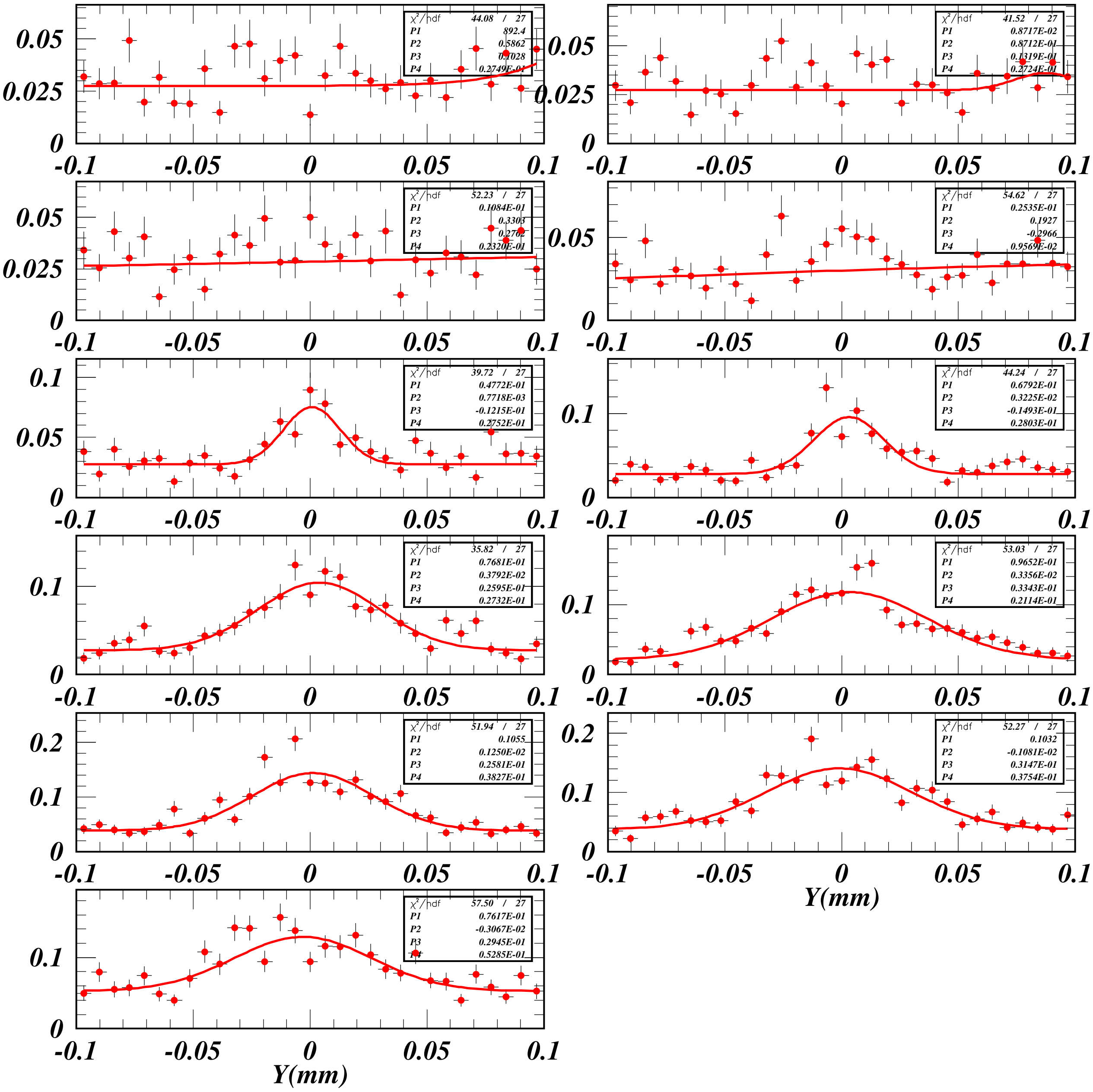
15/09/30 16.18

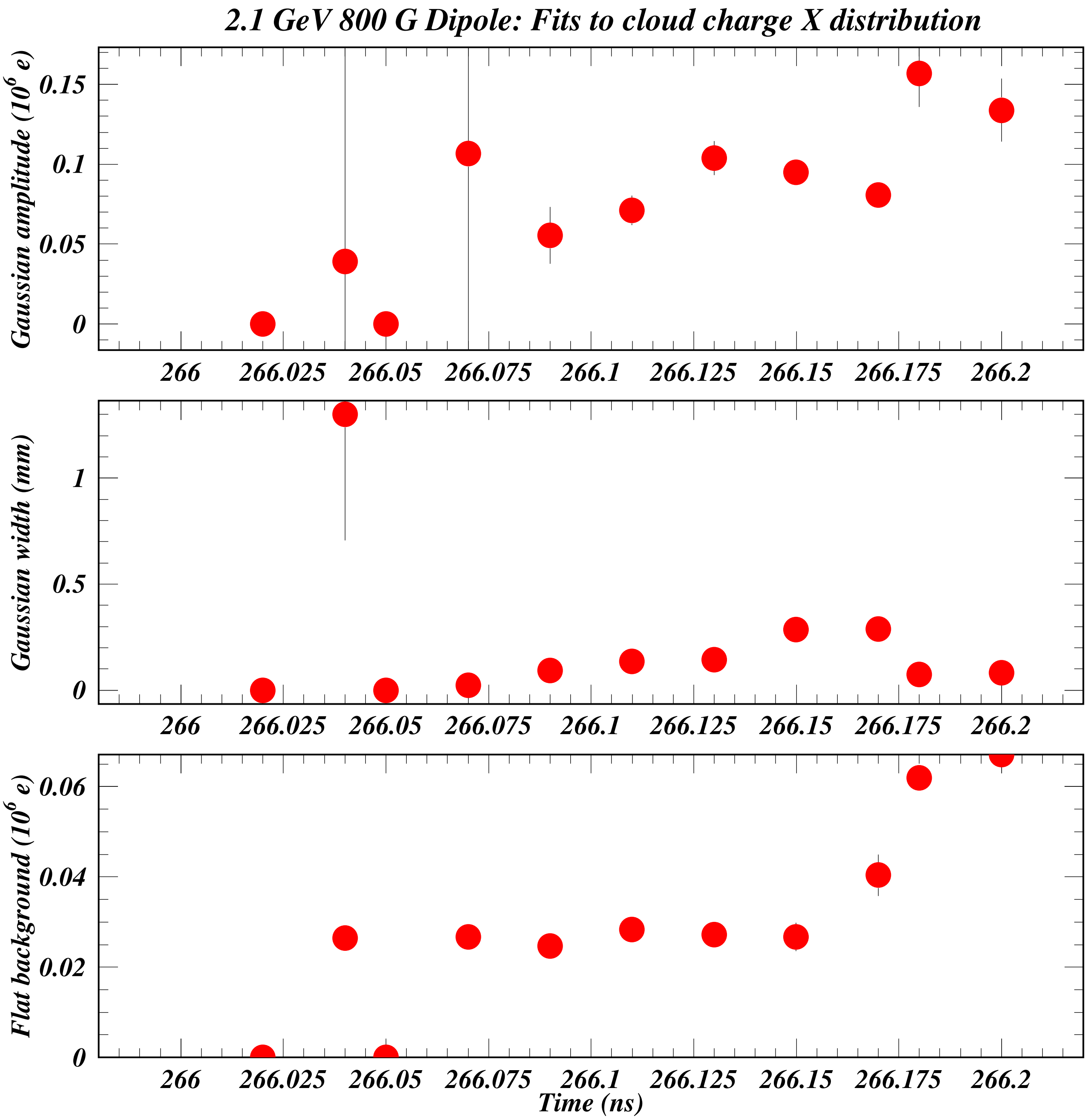
2.1 GeV 800 G Dipole: Fits to cloud charge X distribution

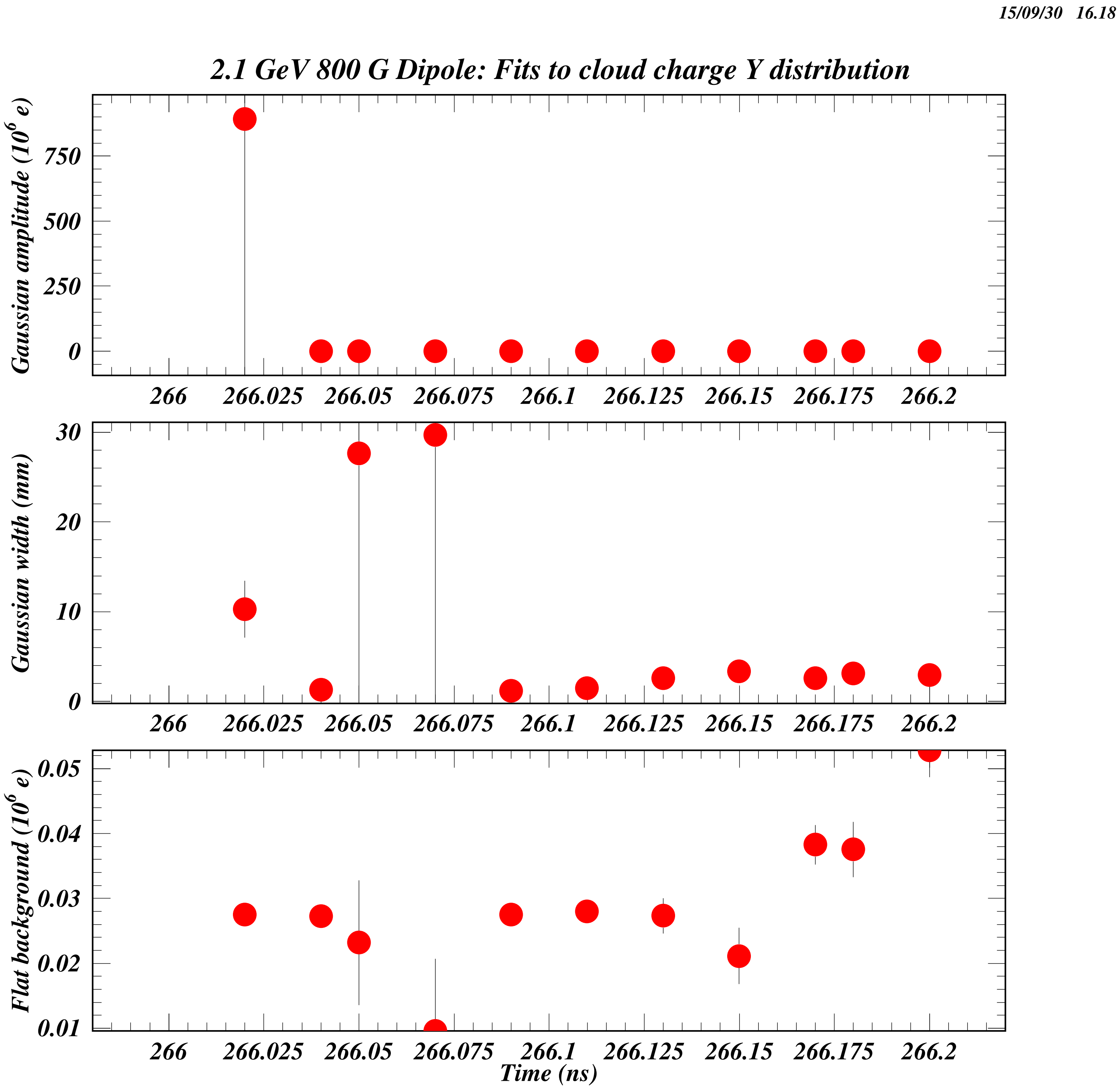


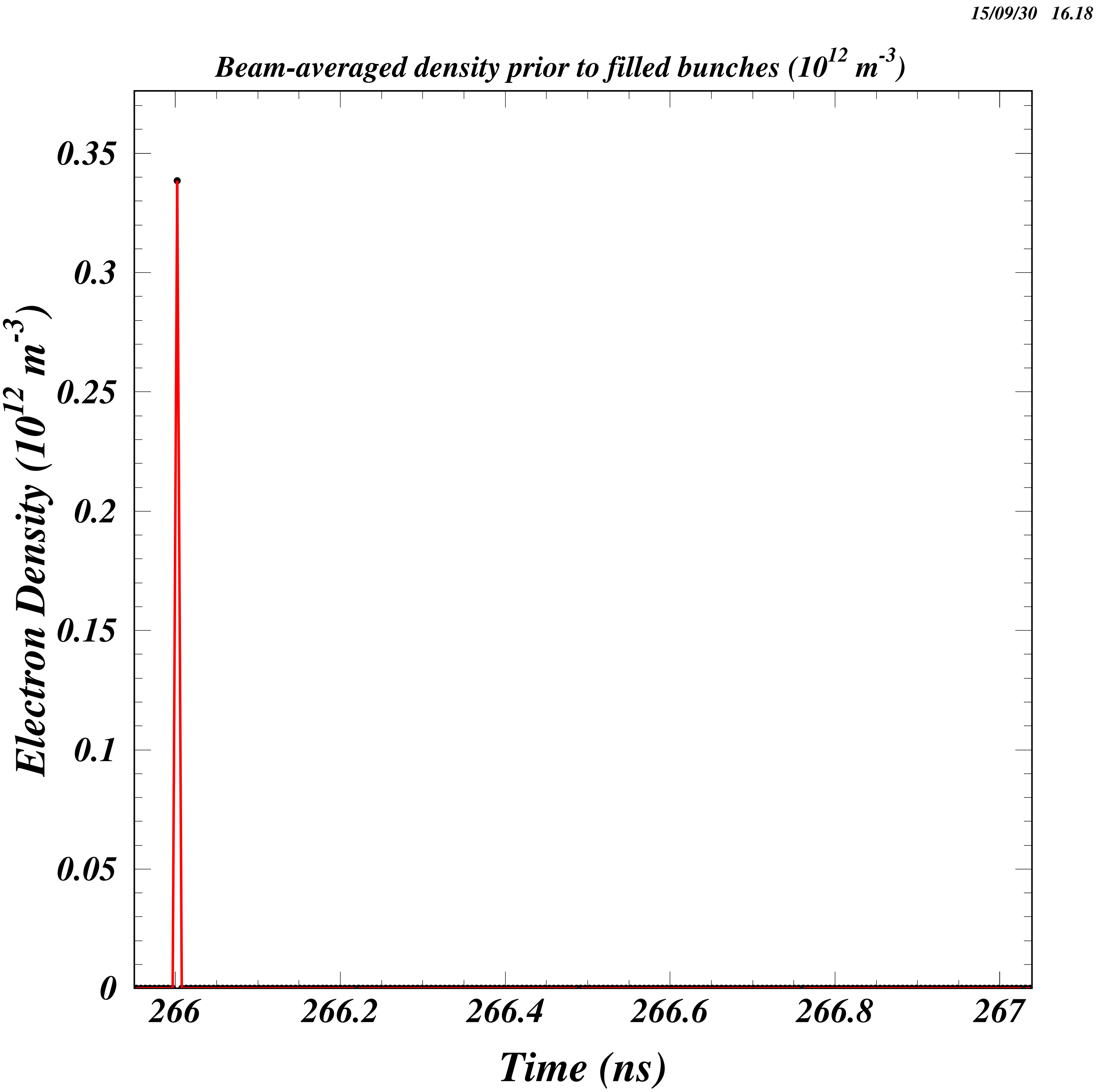
15/09/30 16.18

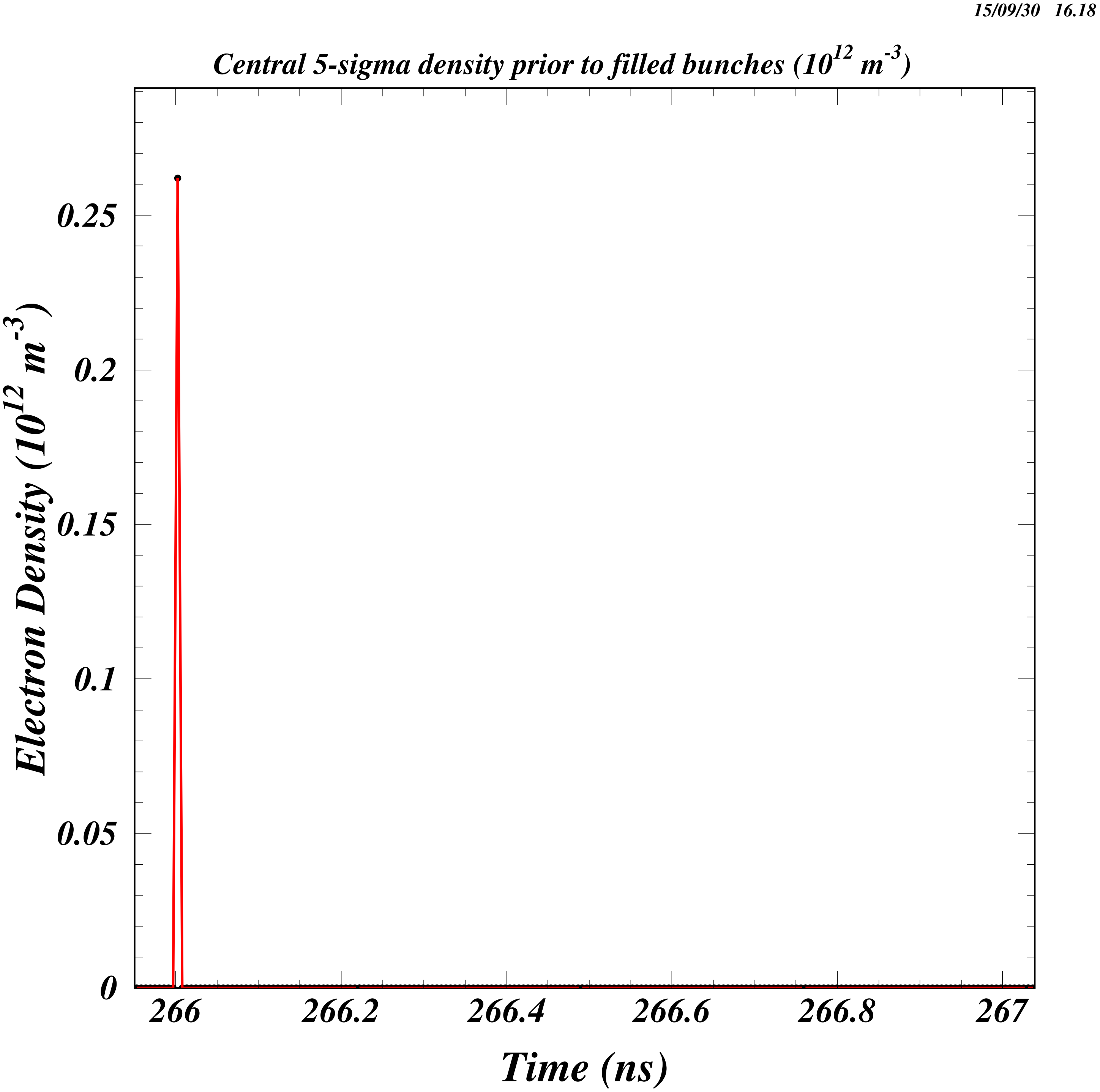
2.1 GeV 800 G Dipole: Fits to cloud charge Y distribution

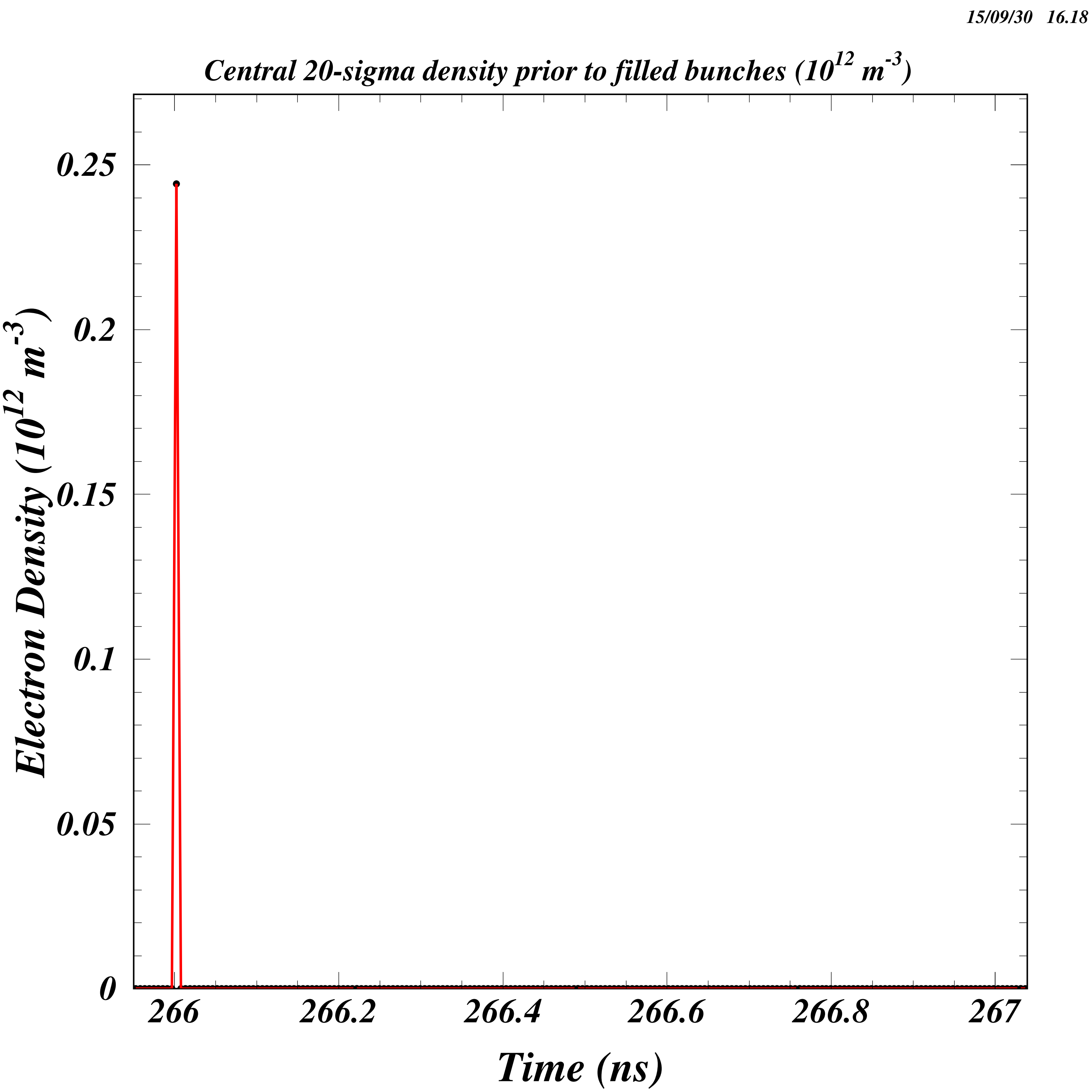



2.1 GeV 800 G Dipole: Fits to cloud charge X distribution
Gaussian amplitude (10^6 e)
Gaussian width (mm)
Flat background (10^6 e)
Time (ns)
0
0.05
0.1
0.15
0.5
1
0.02
0.04
0.06
266
266.025
266.05
266.075
266.1
266.125
266.15
266.175
266.2

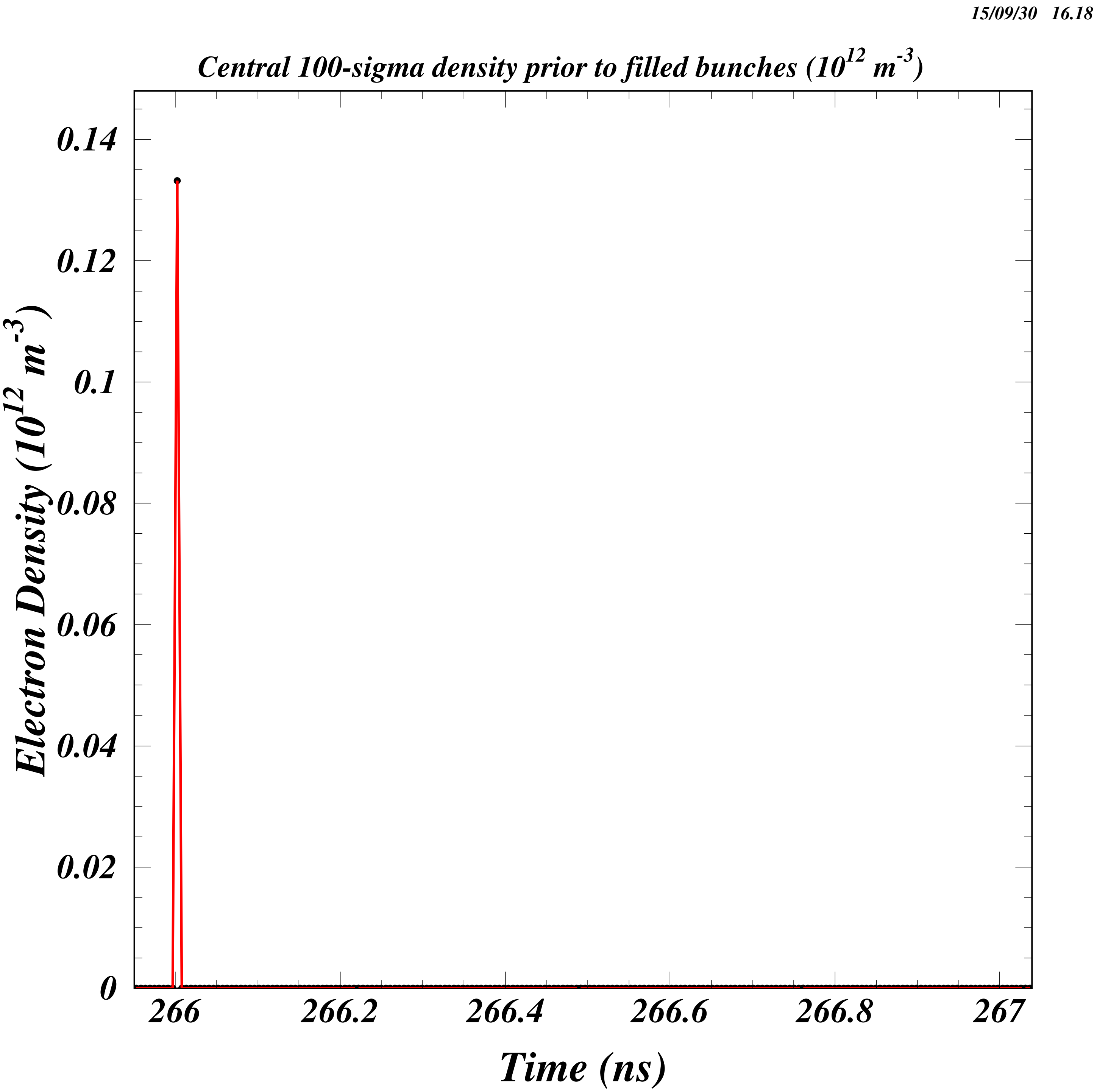

15/09/30 16.18
2.1 GeV 800 G Dipole: Fits to cloud charge Y distribution
Gaussian amplitude (10^6 e)
750
500
250
0
Gaussian width (mm)
30
20
10
0
Flat background (10^6 e)
0.05
0.04
0.03
0.02
0.01
266
266.025
266.05
266.075
266.1
266.125
266.15
266.175
266.2
Time (ns)

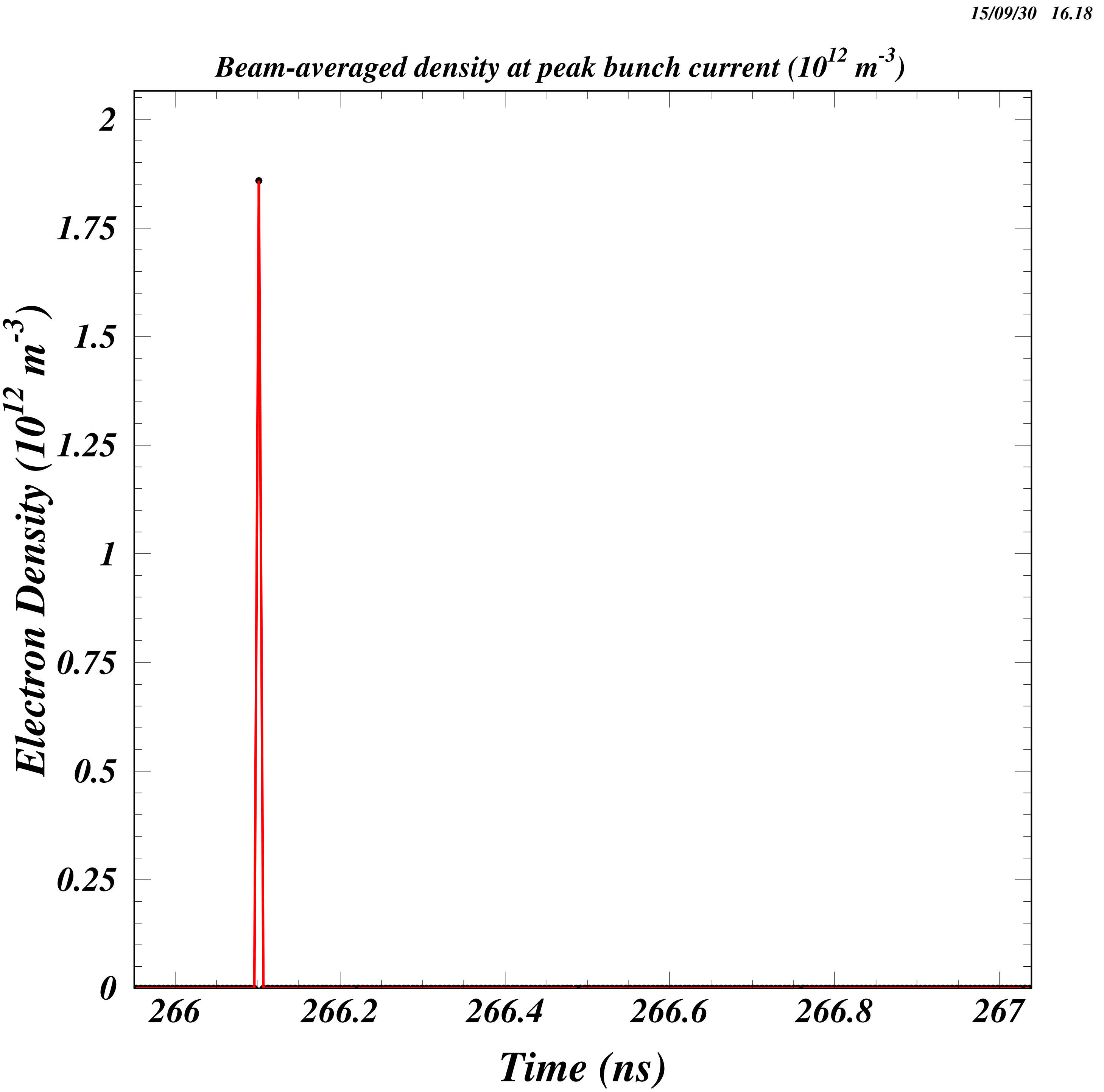

15/09/30 16.18
Beam-averaged density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
266
266.2
266.4
266.6
266.8
267
Time (ns)

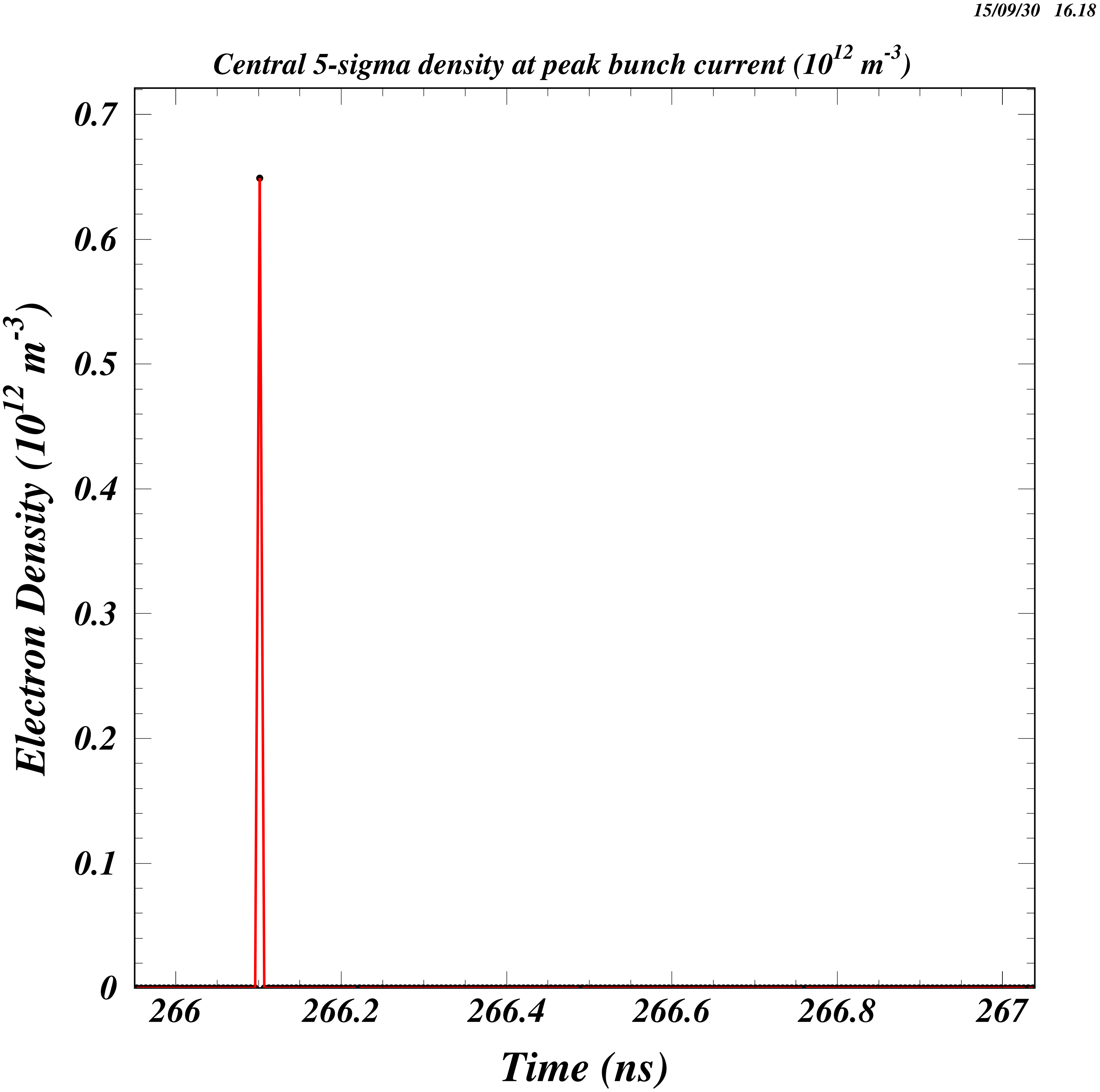

15/09/30 16.18
Central 5-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0
0.05
0.1
0.15
0.2
0.25
266
266.2
266.4
266.6
266.8
267
Time (ns)

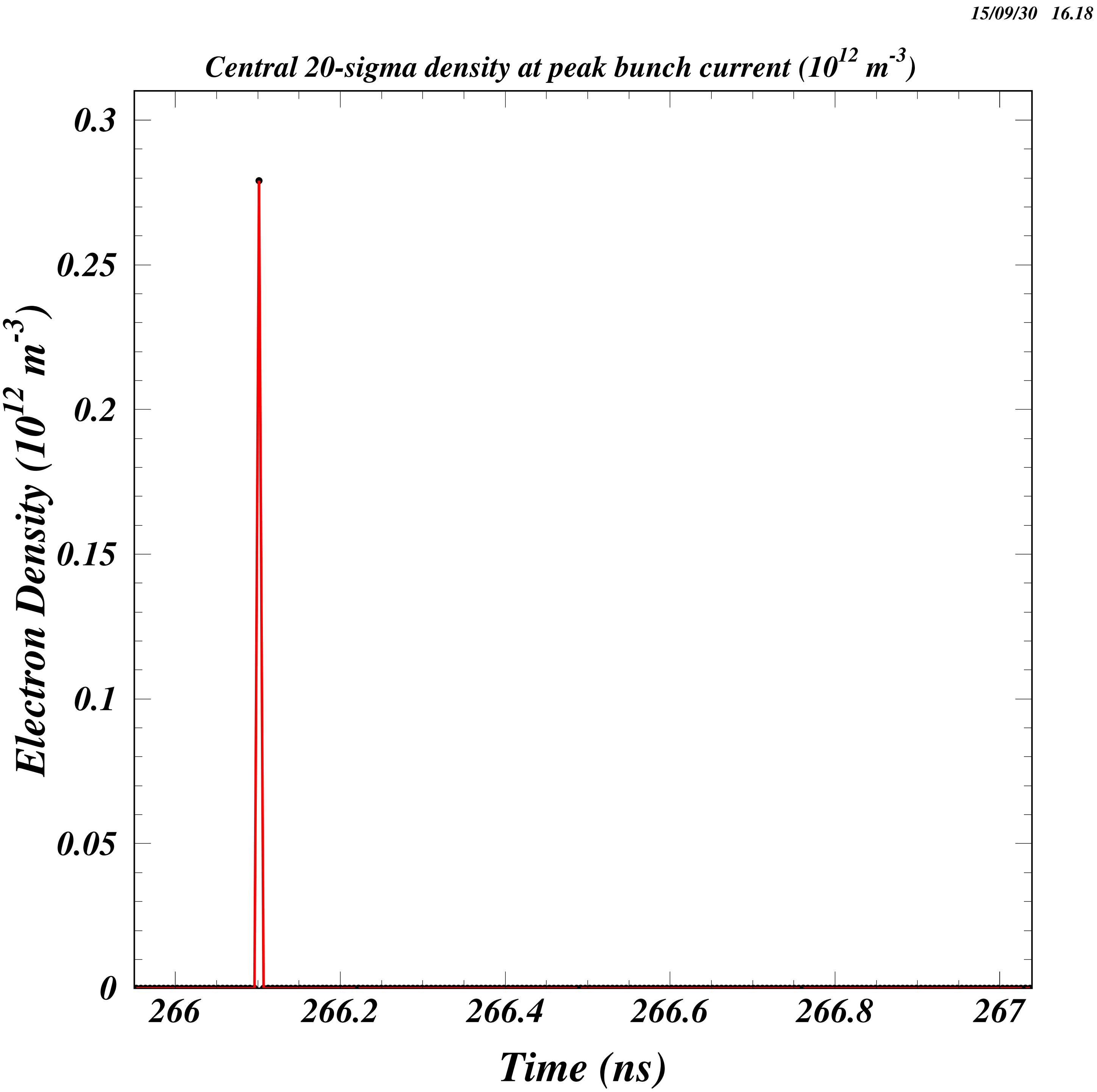


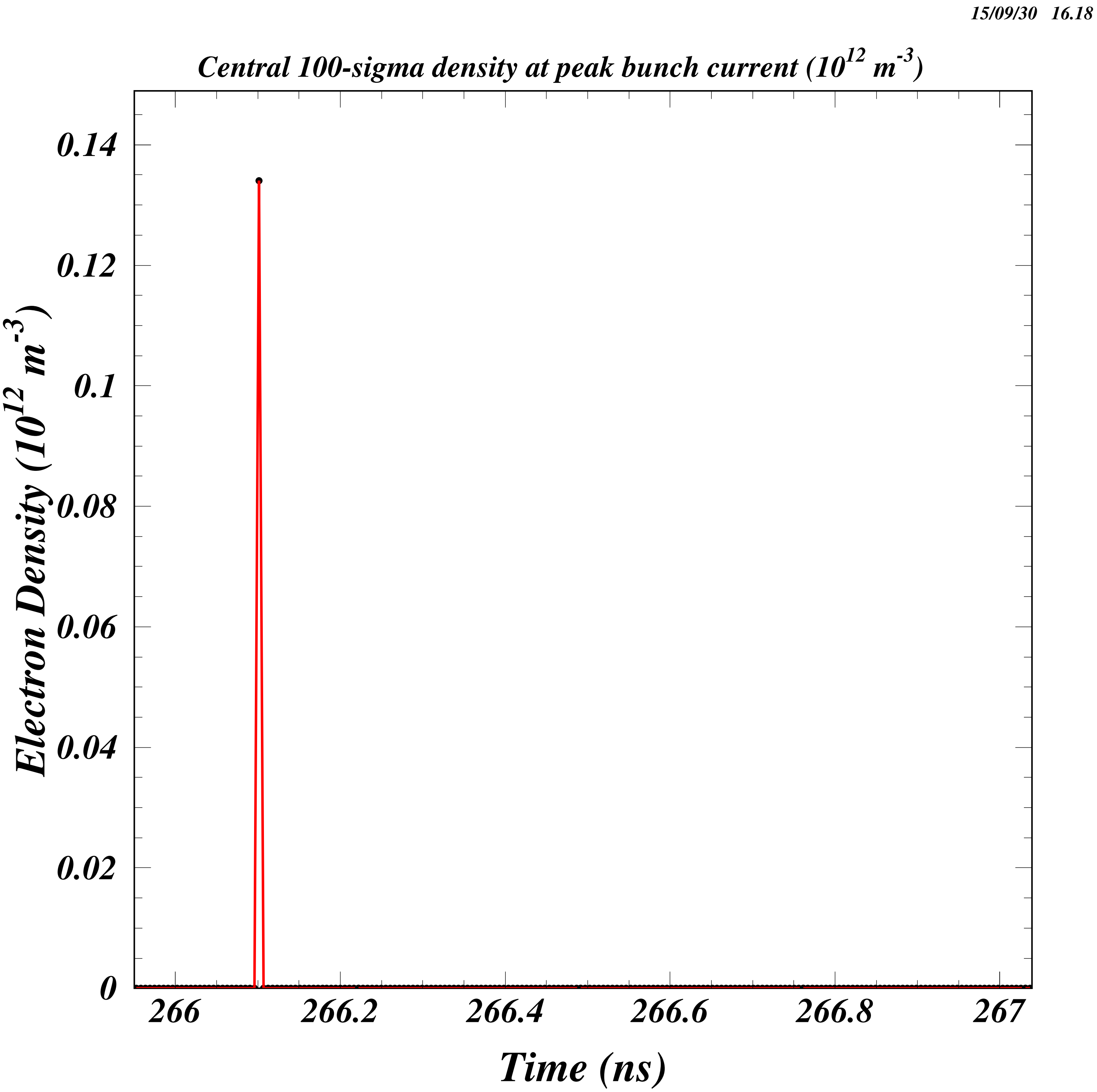
15/09/30 16.18
Central 20-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0
0.05
0.1
0.15
0.2
0.25
266
266.2
266.4
266.6
266.8
267
Time (ns)

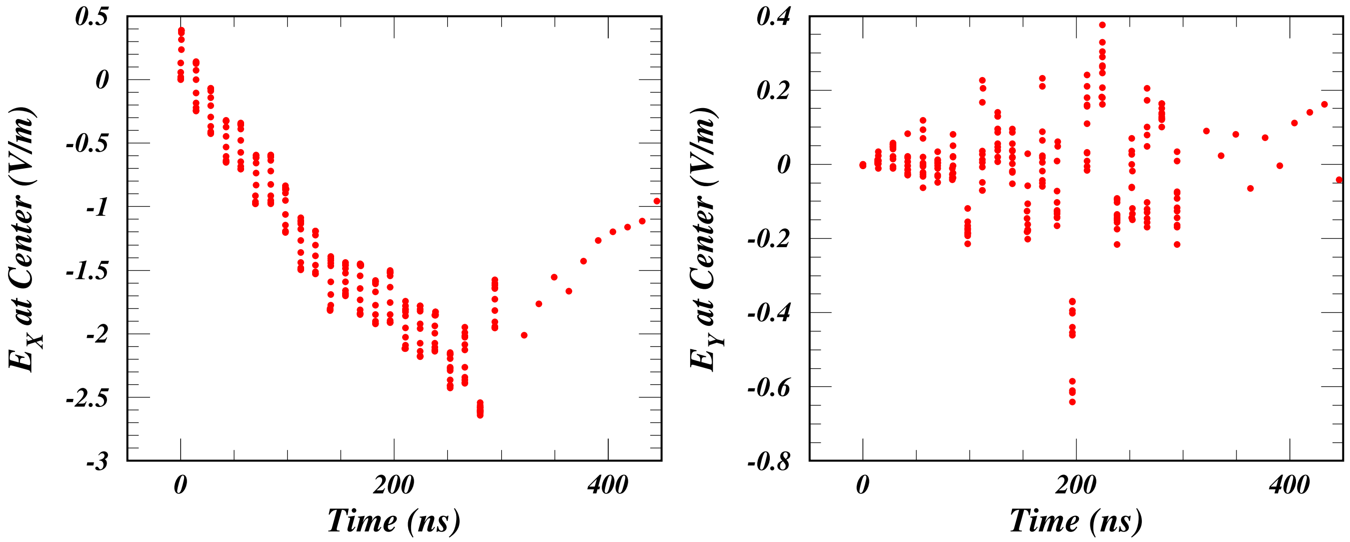

15/09/30 16.18
Central 100-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
266
266.2
266.4
266.6
266.8
267
Time (ns)


15/09/30 16.18
Beam-averaged density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
2
1.75
1.5
1.25
1
0.75
0.5
0.25
0
266
266.2
266.4
266.6
266.8
267
Time (ns)

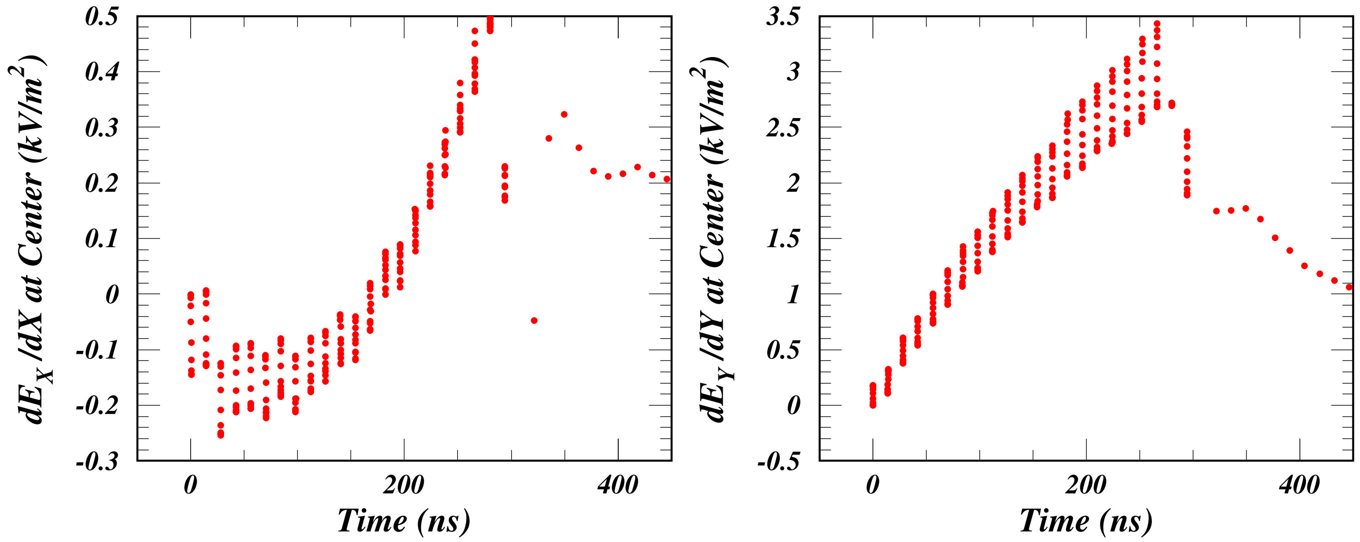

15/09/30 16.18
Central 5-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
266
266.2
266.4
266.6
266.8
267
Time (ns)


15/09/30 16.18
Central 20-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0
0.05
0.1
0.15
0.2
0.25
0.3
266
266.2
266.4
266.6
266.8
267
Time (ns)


15/09/30 16.18
Central 100-sigma density at peak bunch current (10^{12} m^{-3})
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Electron Density (10^{12} m^{-3})
266
266.2
266.4
266.6
266.8
267
Time (ns)

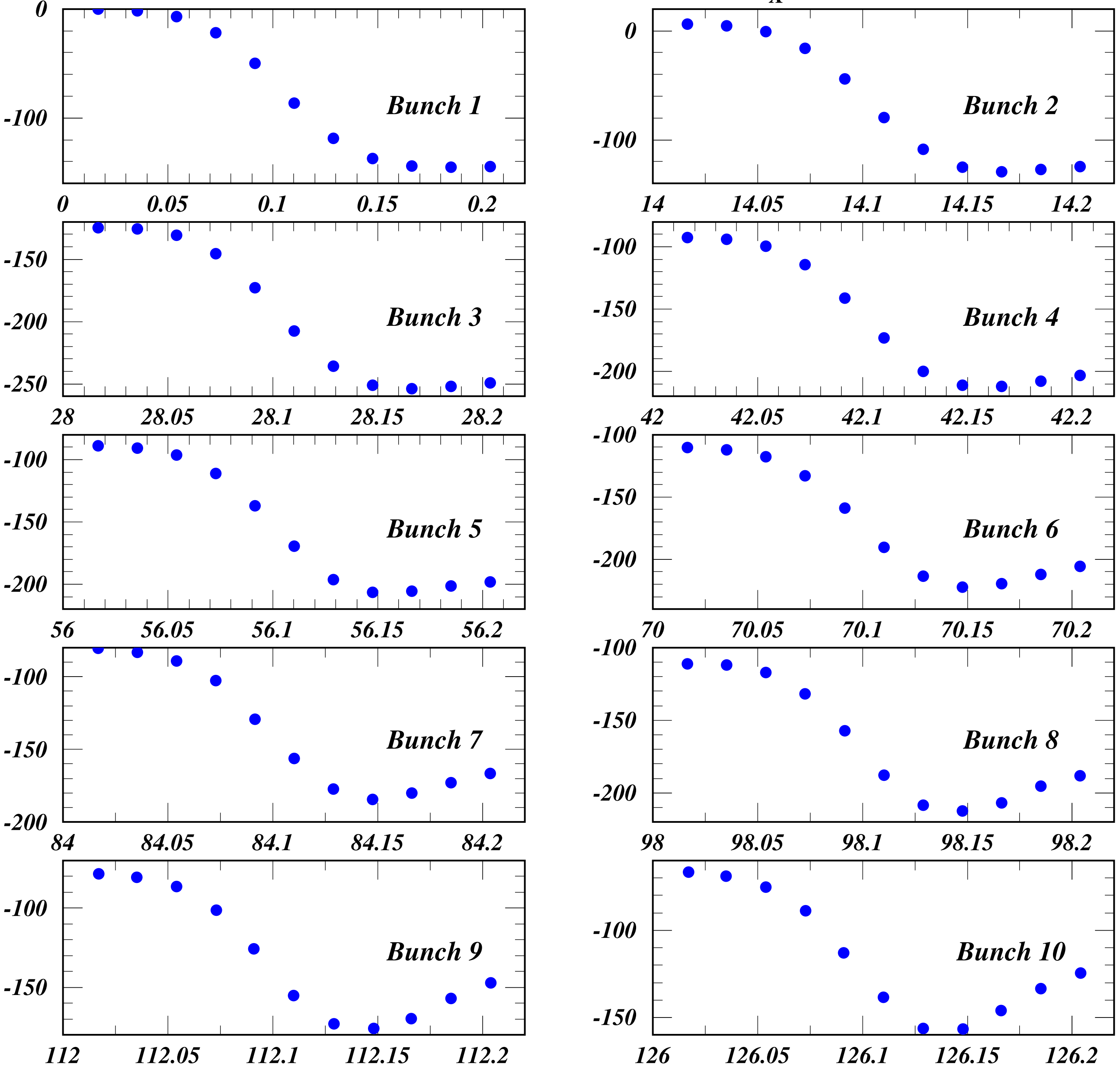


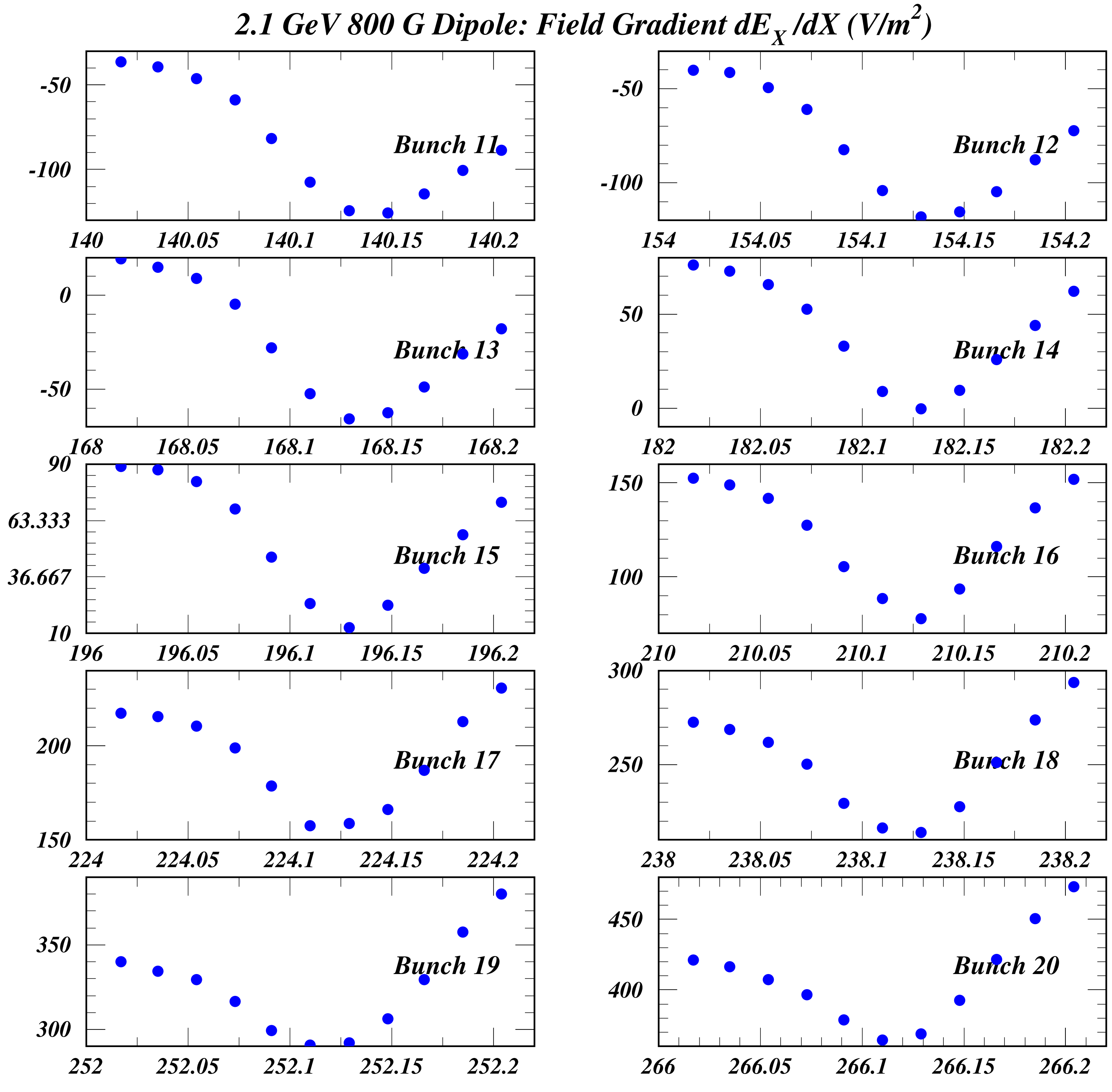
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
E_X at Center (V/m)
0
200
400
Time (ns)
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
E_Y at Center (V/m)
0
200
400
Time (ns)



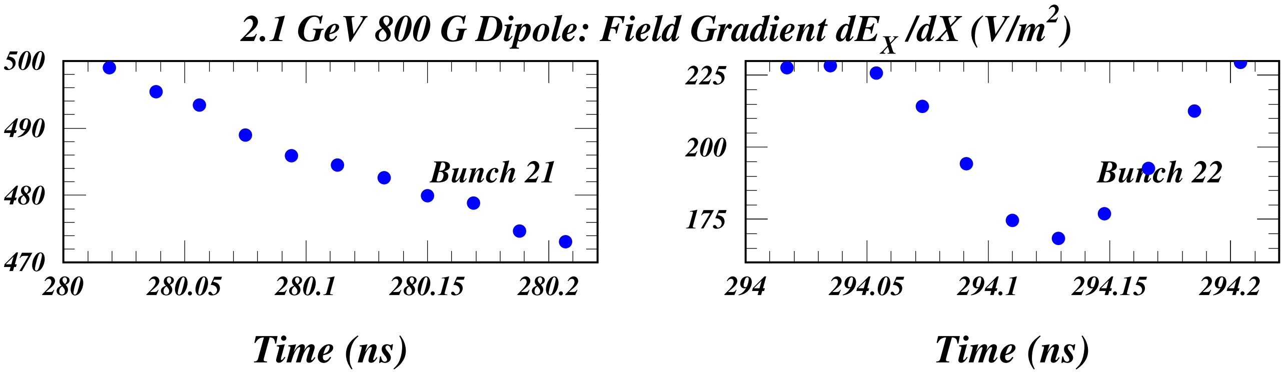
0.5
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
dE_X/dX at Center (kV/m^2)
0
200
400
Time (ns)
3.5
3
2.5
2
1.5
1
0.5
0
-0.5
dE_Y/dY at Center (kV/m^2)
0
200
400
Time (ns)

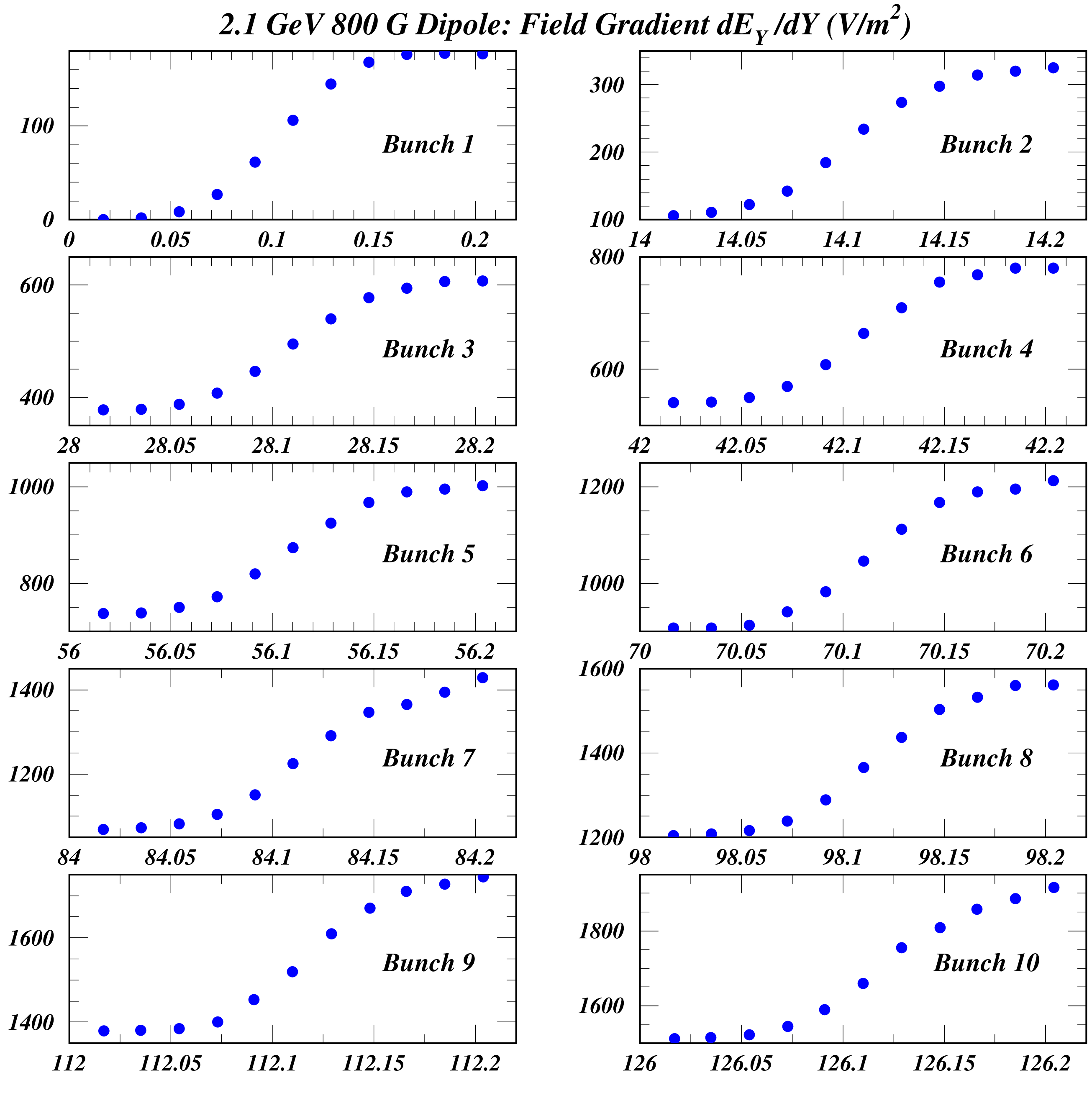
2.1 GeV 800 G Dipole: Field Gradient dE_X/dX (V/m^2)

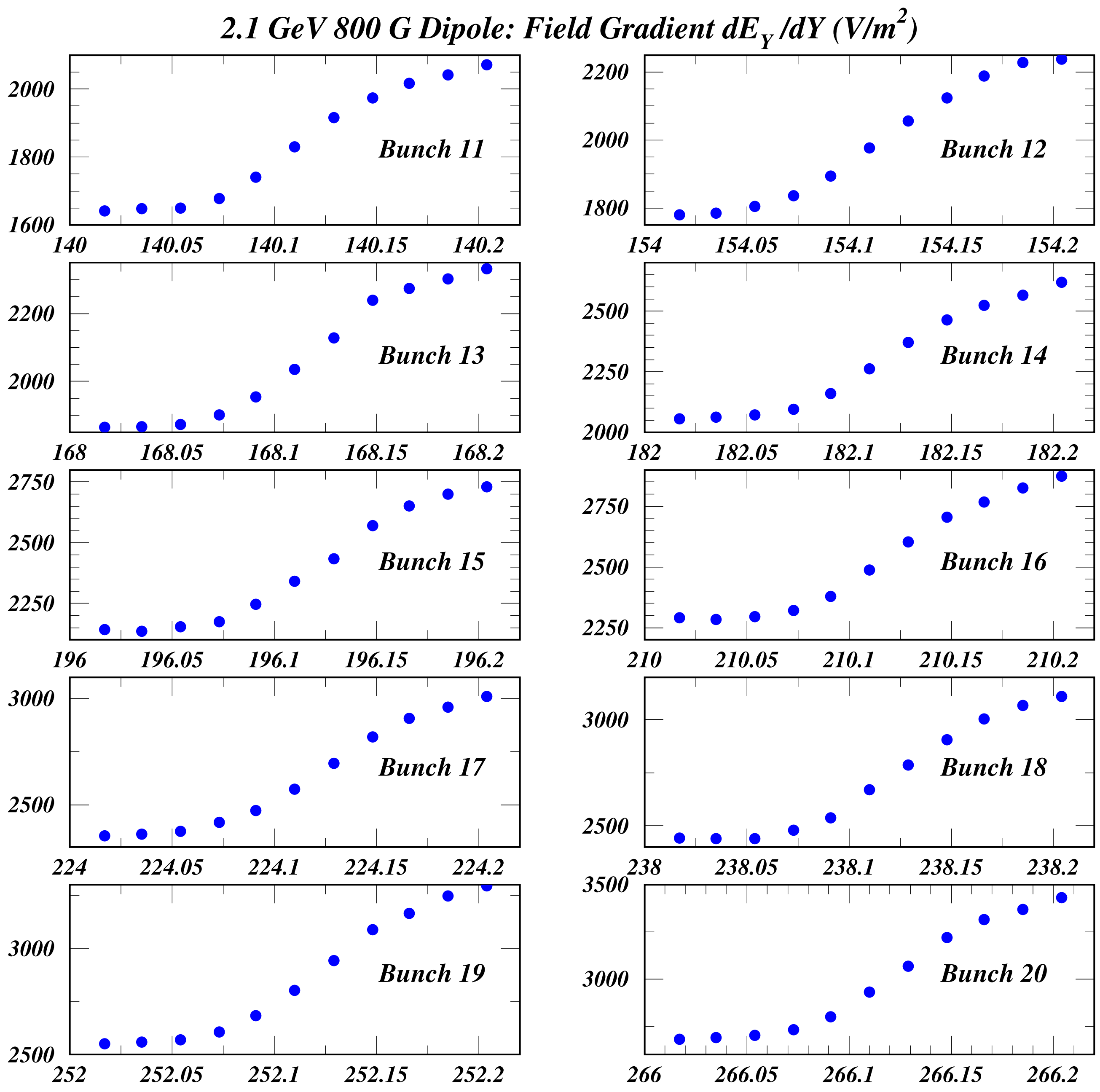


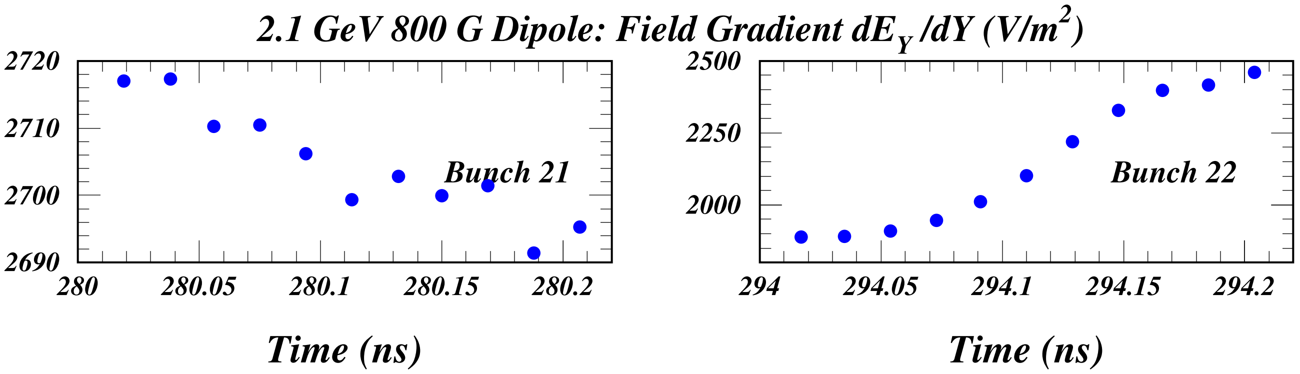


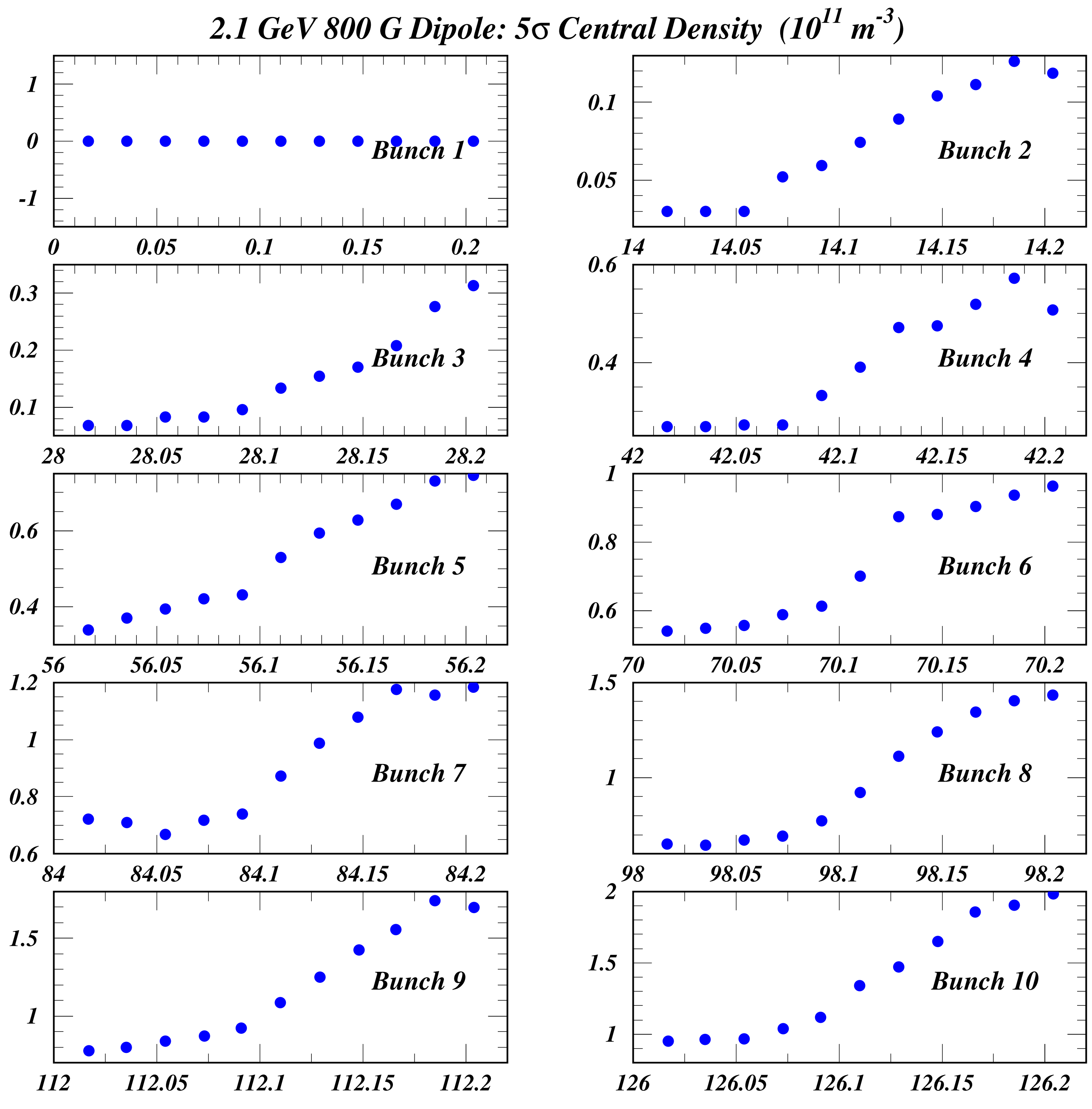
2.1 GeV 800 G Dipole: Field Gradient dE_X /dX (V/m^2)
Bunch 11
Bunch 12
Bunch 13
Bunch 14
Bunch 15
Bunch 16
Bunch 17
Bunch 18
Bunch 19
Bunch 20


2.1 GeV 800 G Dipole: Field Gradient dE_X /dX (V/m^2)
500
490
480
470
280
280.05
280.1
280.15
280.2
Bunch 21
Time (ns)
225
200
175
294
294.05
294.1
294.15
294.2
Bunch 22
Time (ns)

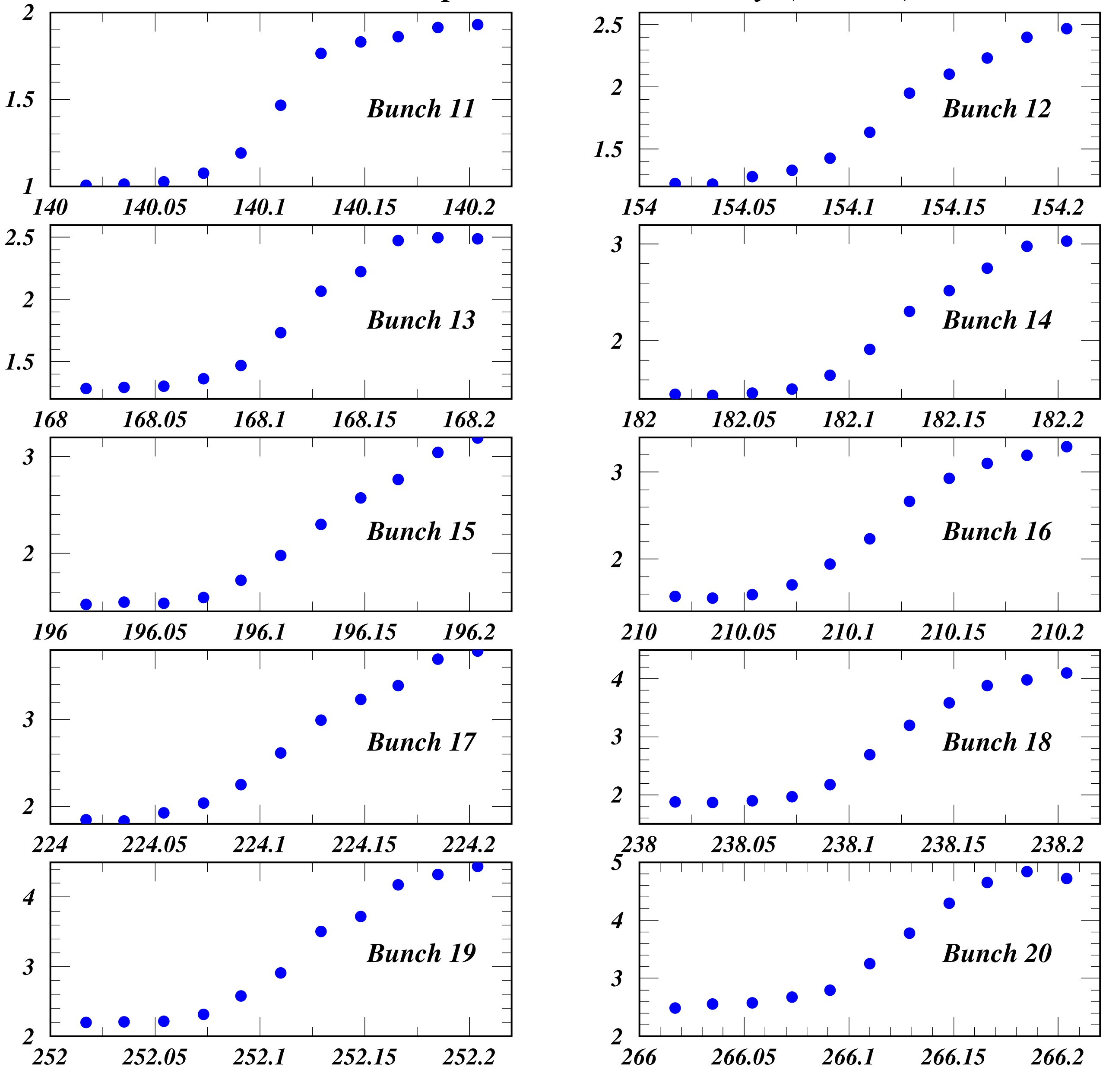

2.1 GeV 800 G Dipole: Field Gradient dE_Y/dY (V/m^2)
Bunch 1
Bunch 2
Bunch 3
Bunch 4
Bunch 5
Bunch 6
Bunch 7
Bunch 8
Bunch 9
Bunch 10

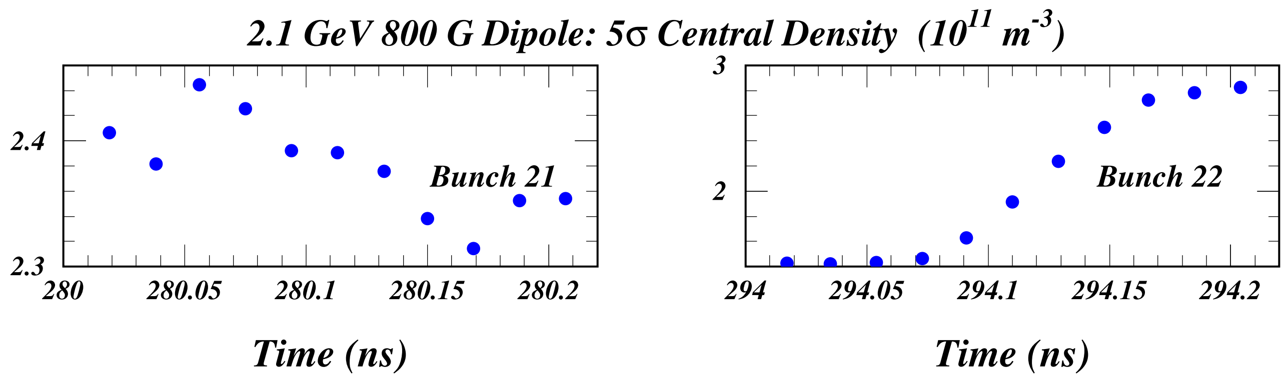

2.1 GeV 800 G Dipole: Field Gradient dE_Y /dY (V/m^2)
Bunch 11
Bunch 12
Bunch 13
Bunch 14
Bunch 15
Bunch 16
Bunch 17
Bunch 18
Bunch 19
Bunch 20

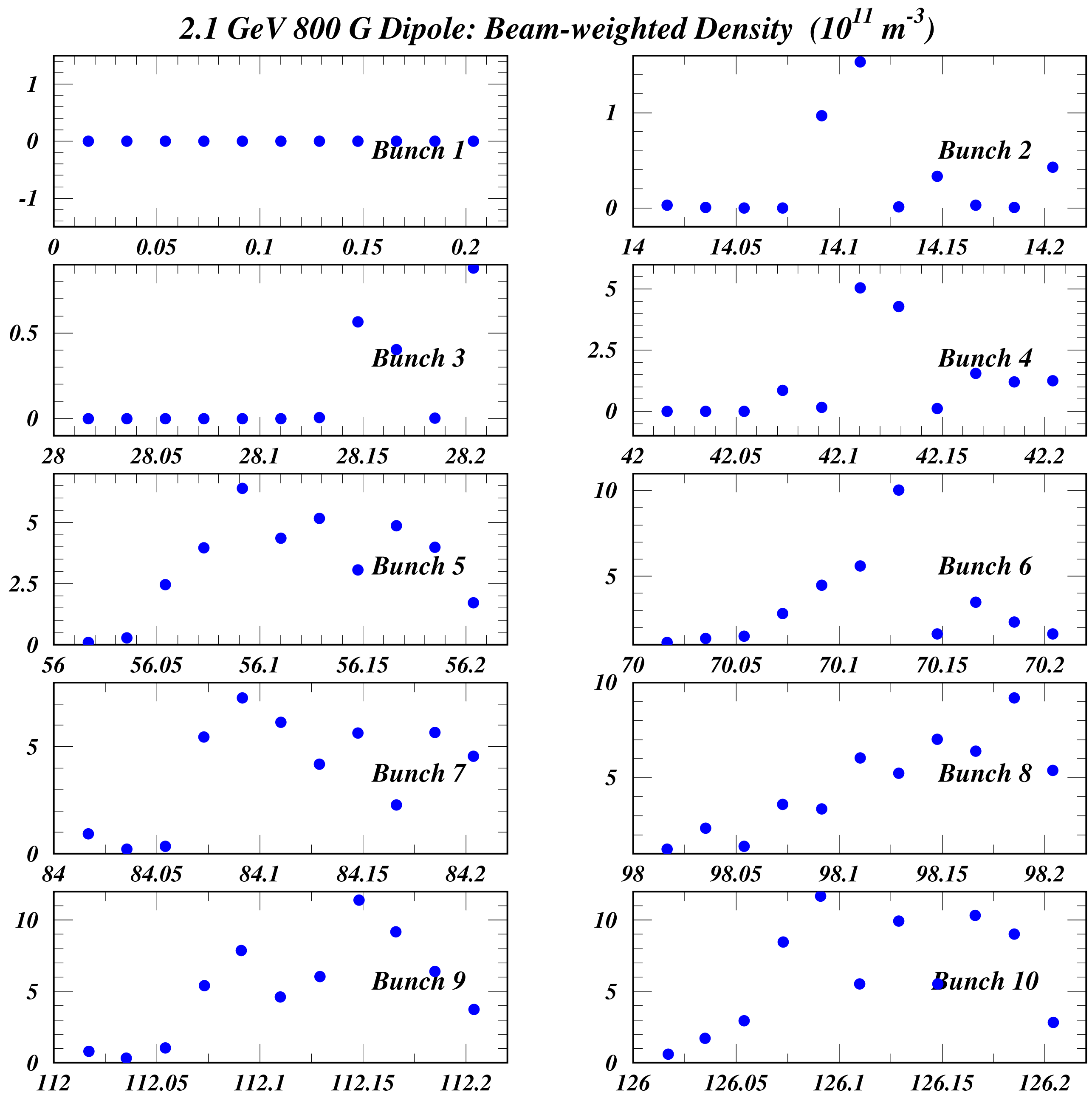

2.1 GeV 800 G Dipole: Field Gradient dE_Y /dY (V/m^2)
2720
2710
2700
2690
280
280.05
280.1
280.15
280.2
Bunch 21
Time (ns)
2500
2250
2000
294
294.05
294.1
294.15
294.2
Bunch 22
Time (ns)

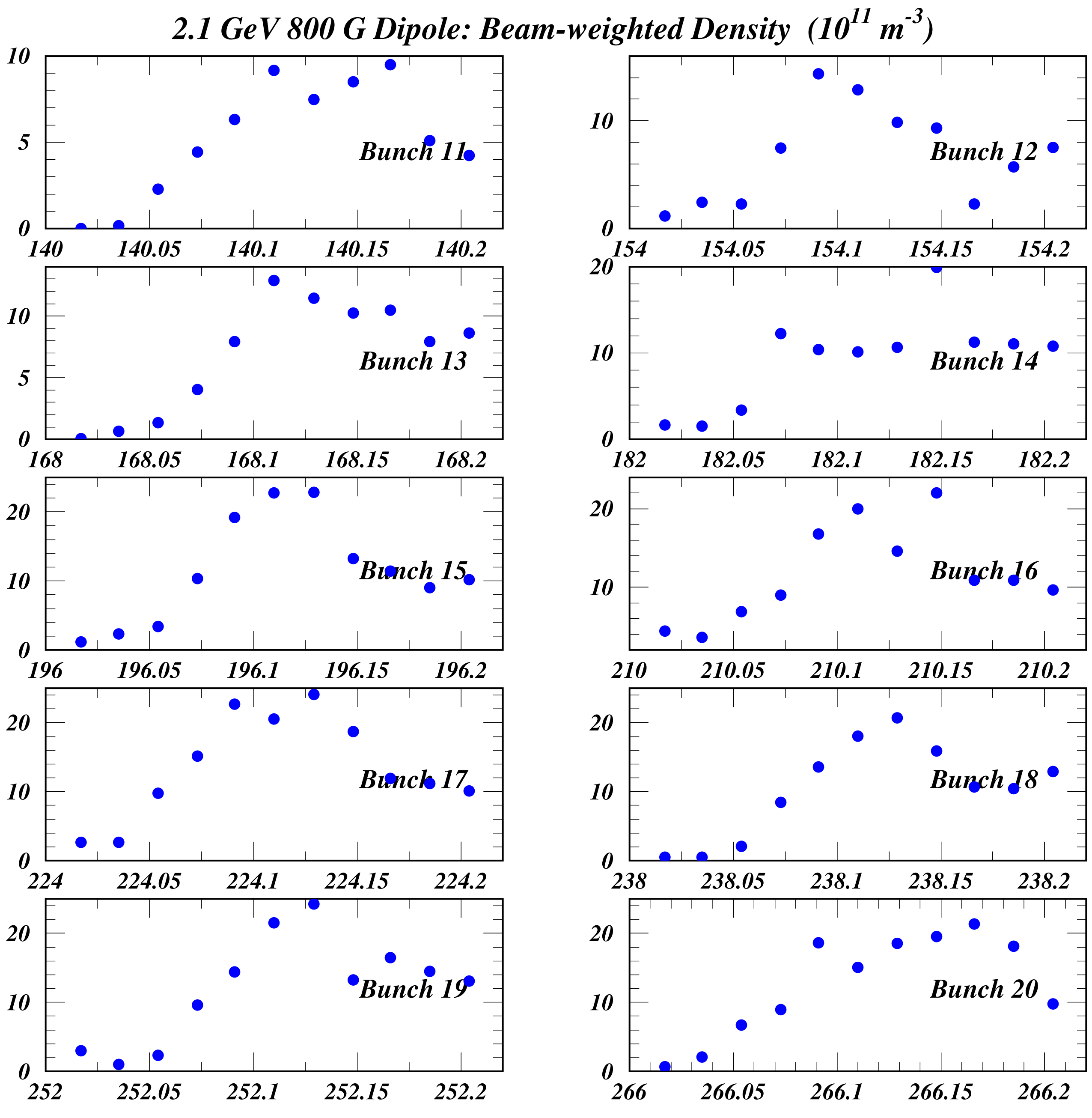

2.1 GeV 800 G Dipole: 5σ Central Density (10^11 m^-3)
Bunch 1
Bunch 2
Bunch 3
Bunch 4
Bunch 5
Bunch 6
Bunch 7
Bunch 8
Bunch 9
Bunch 10

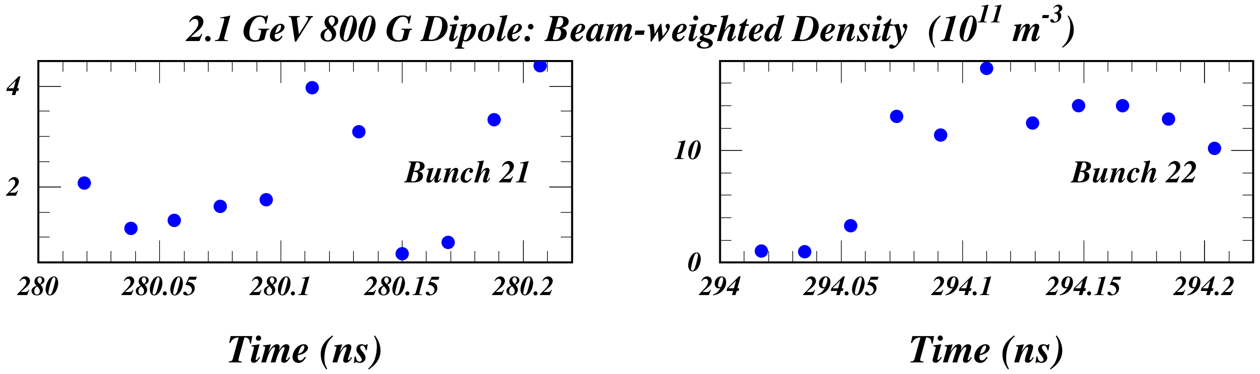
2.1 GeV 800 G Dipole: 5σ Central Density $(10^{11}\ m^{-3})$




2.1 GeV 800 G Dipole: 5σ Central Density (10^11 m^-3)
Bunch 21
2.4
2.3
280
280.05
280.1
280.15
280.2
Time (ns)
Bunch 22
3
2
294
294.05
294.1
294.15
294.2
Time (ns)


2.1 GeV 800 G Dipole: Beam-weighted Density (10^11 m^-3)
Bunch 1
Bunch 2
Bunch 3
Bunch 4
Bunch 5
Bunch 6
Bunch 7
Bunch 8
Bunch 9
Bunch 10


2.1 GeV 800 G Dipole: Beam-weighted Density (10^11 m^-3)
Bunch 11
Bunch 12
Bunch 13
Bunch 14
Bunch 15
Bunch 16
Bunch 17
Bunch 18
Bunch 19
Bunch 20



2.1 GeV 800 G Dipole: Beam-weighted Density (10^11 m^-3)
4
2
Bunch 21
280
280.05
280.1
280.15
280.2
Time (ns)
10
0
Bunch 22
294
294.05
294.1
294.15
294.2
Time (ns)