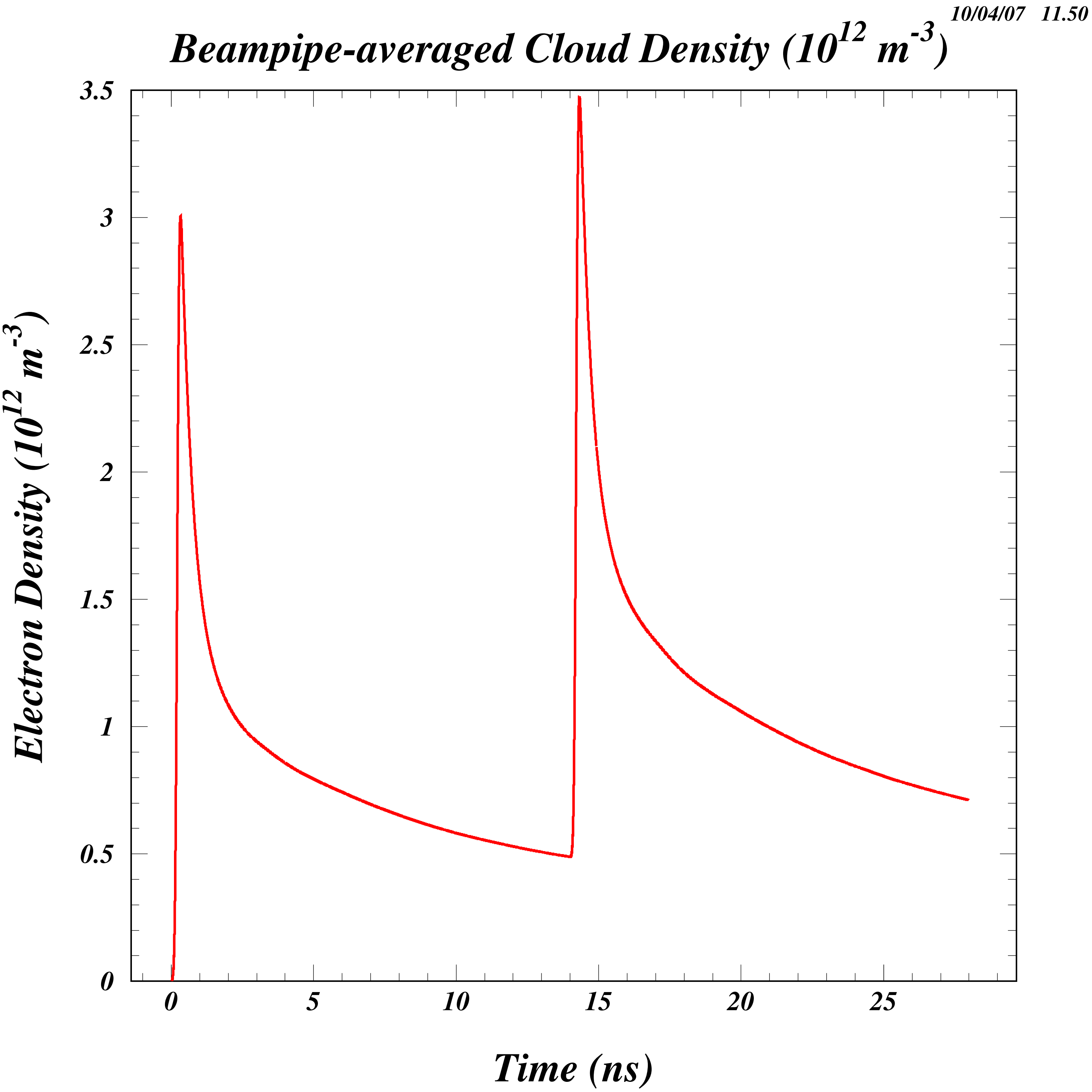
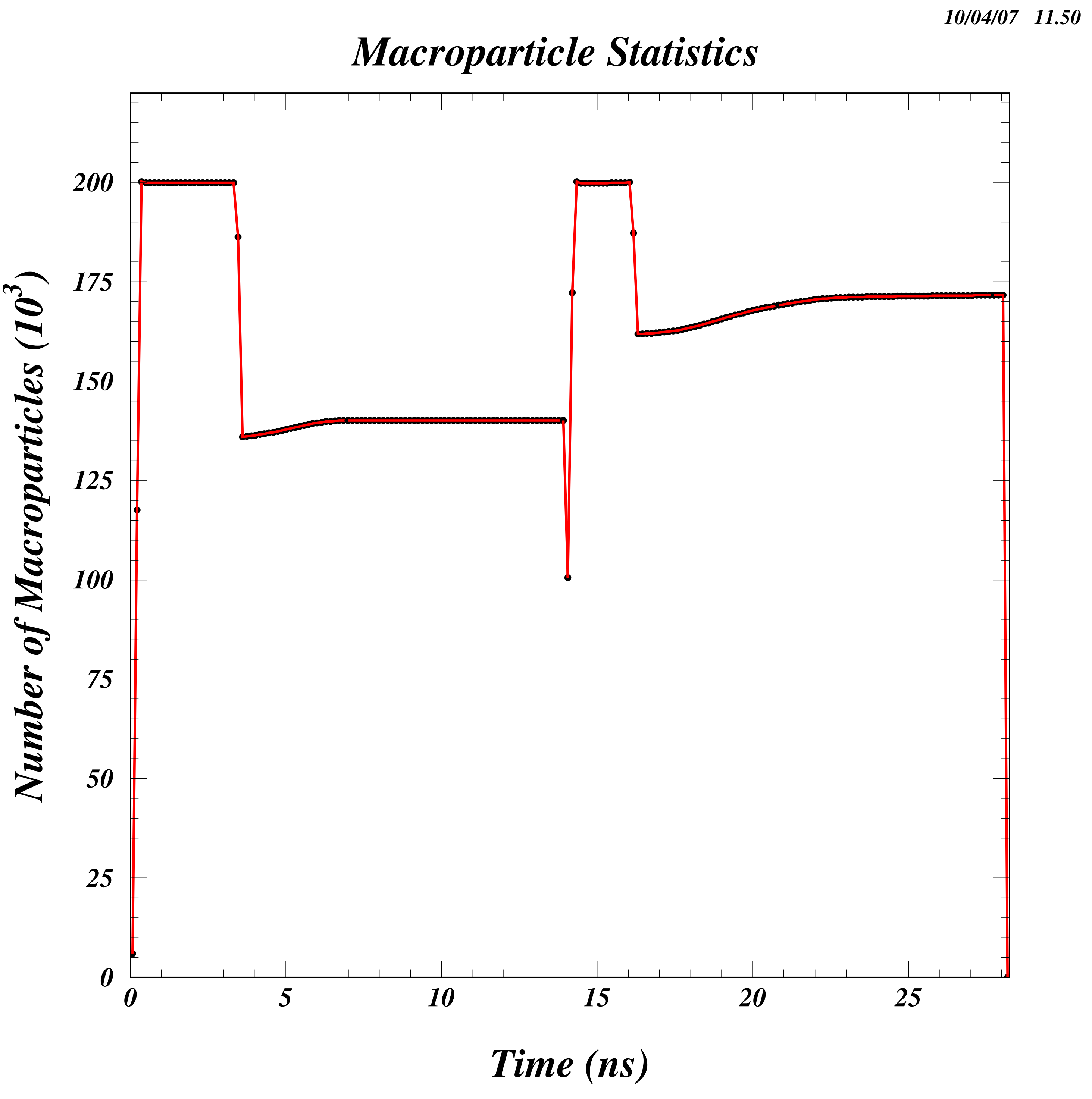
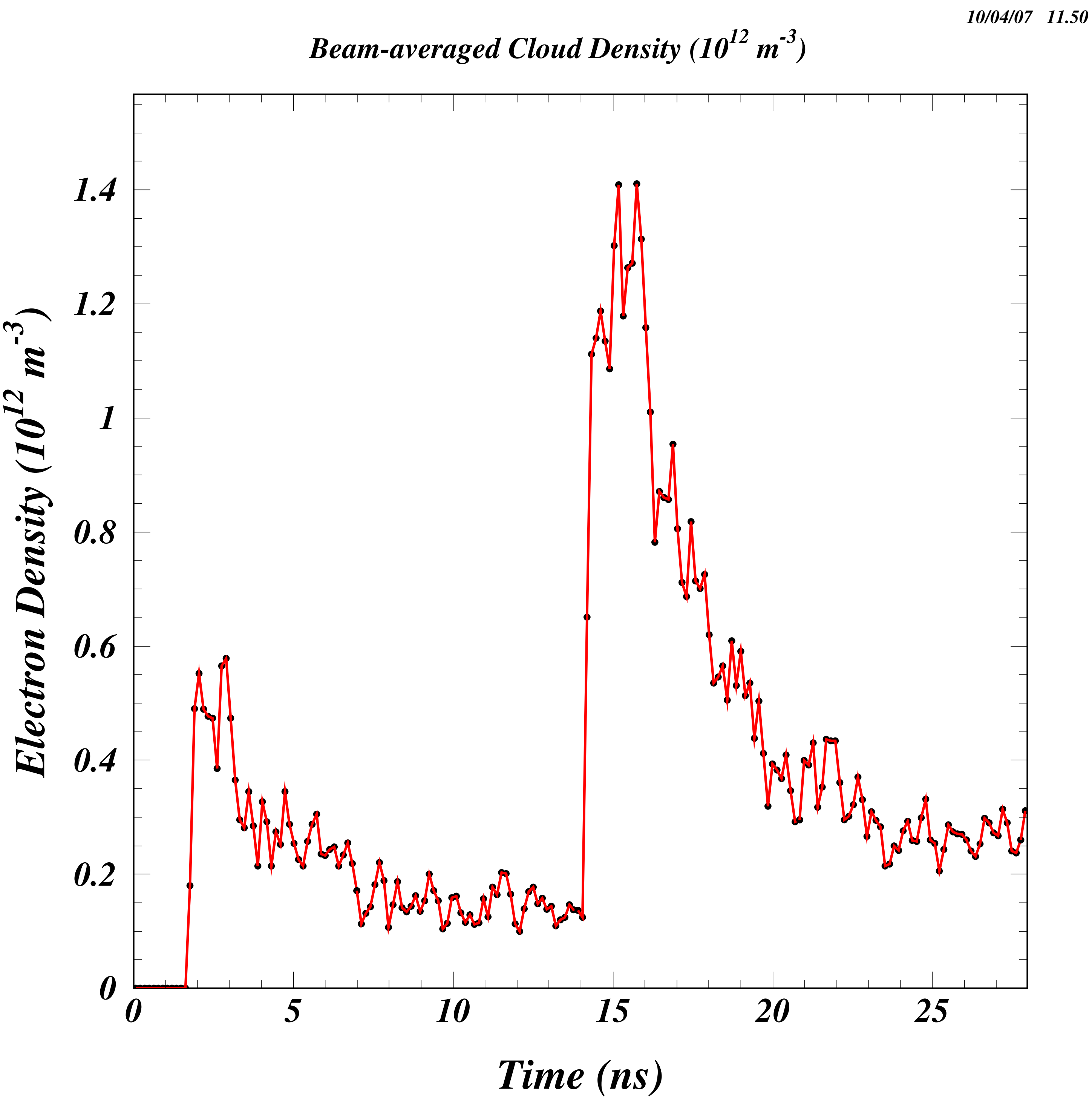
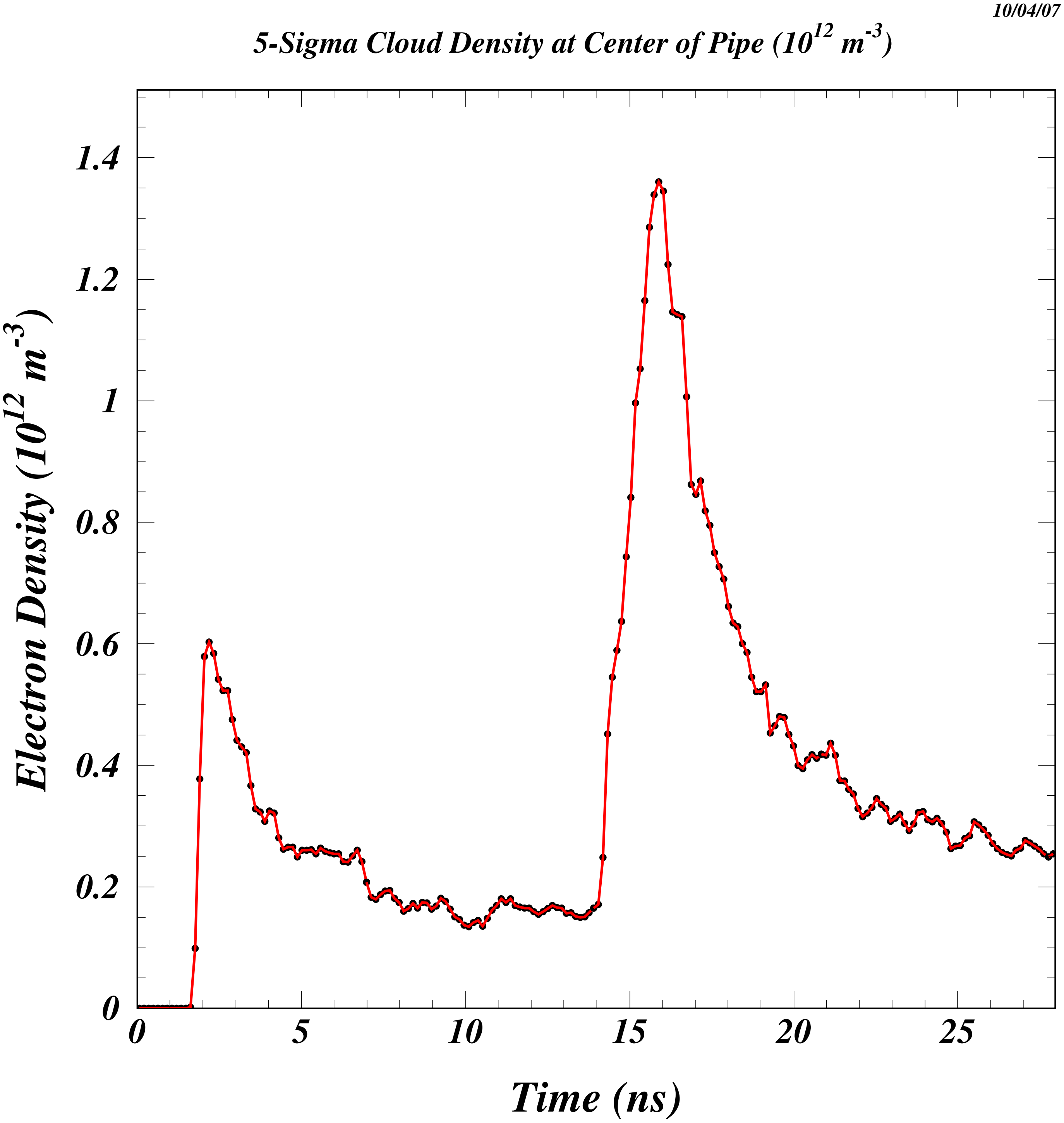


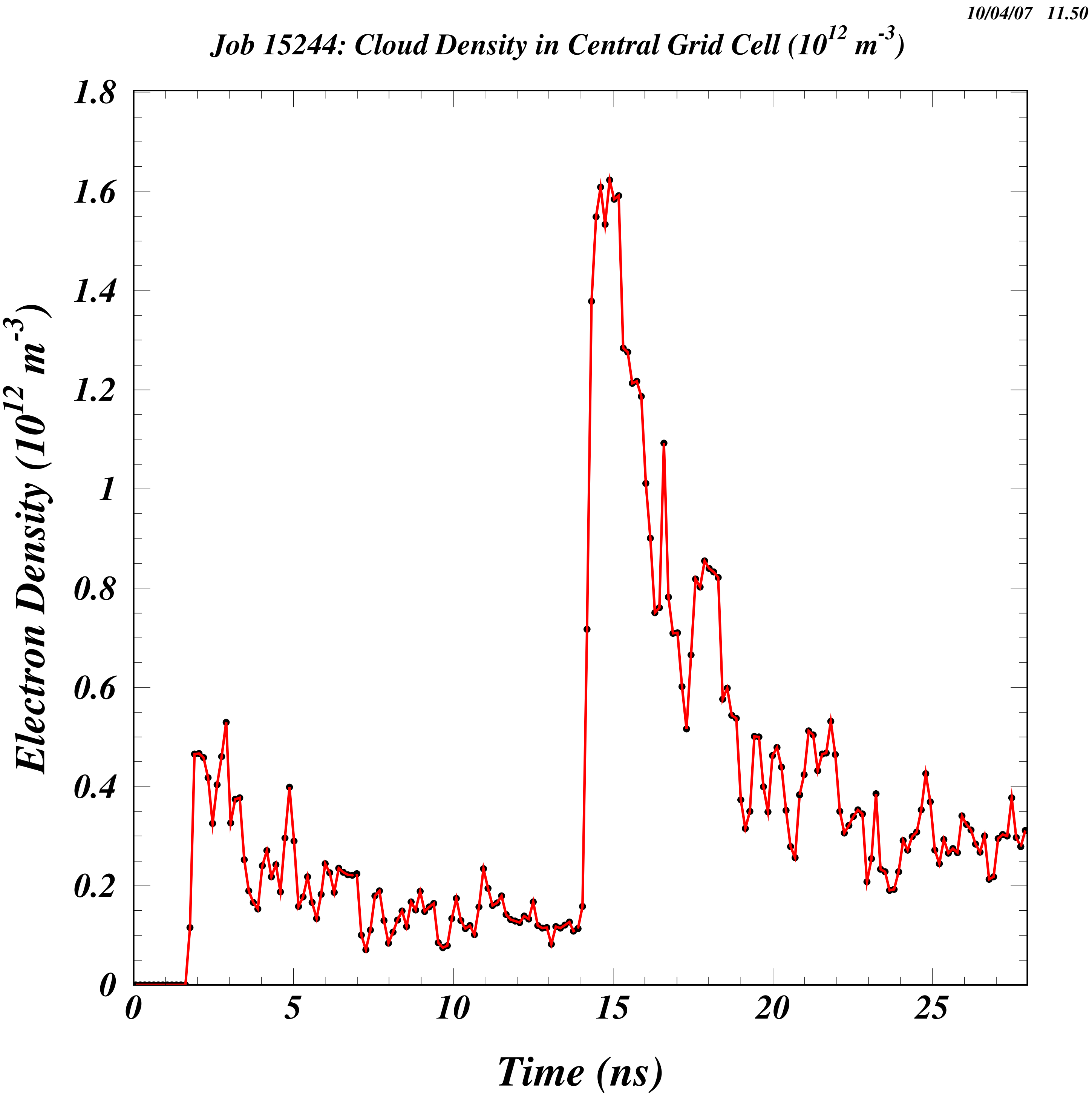
10/04/07 11.50
Beampipe-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
Time (ns)
0
0.5
1
1.5
2
2.5
3
3.5
0
5
10
15
20
25

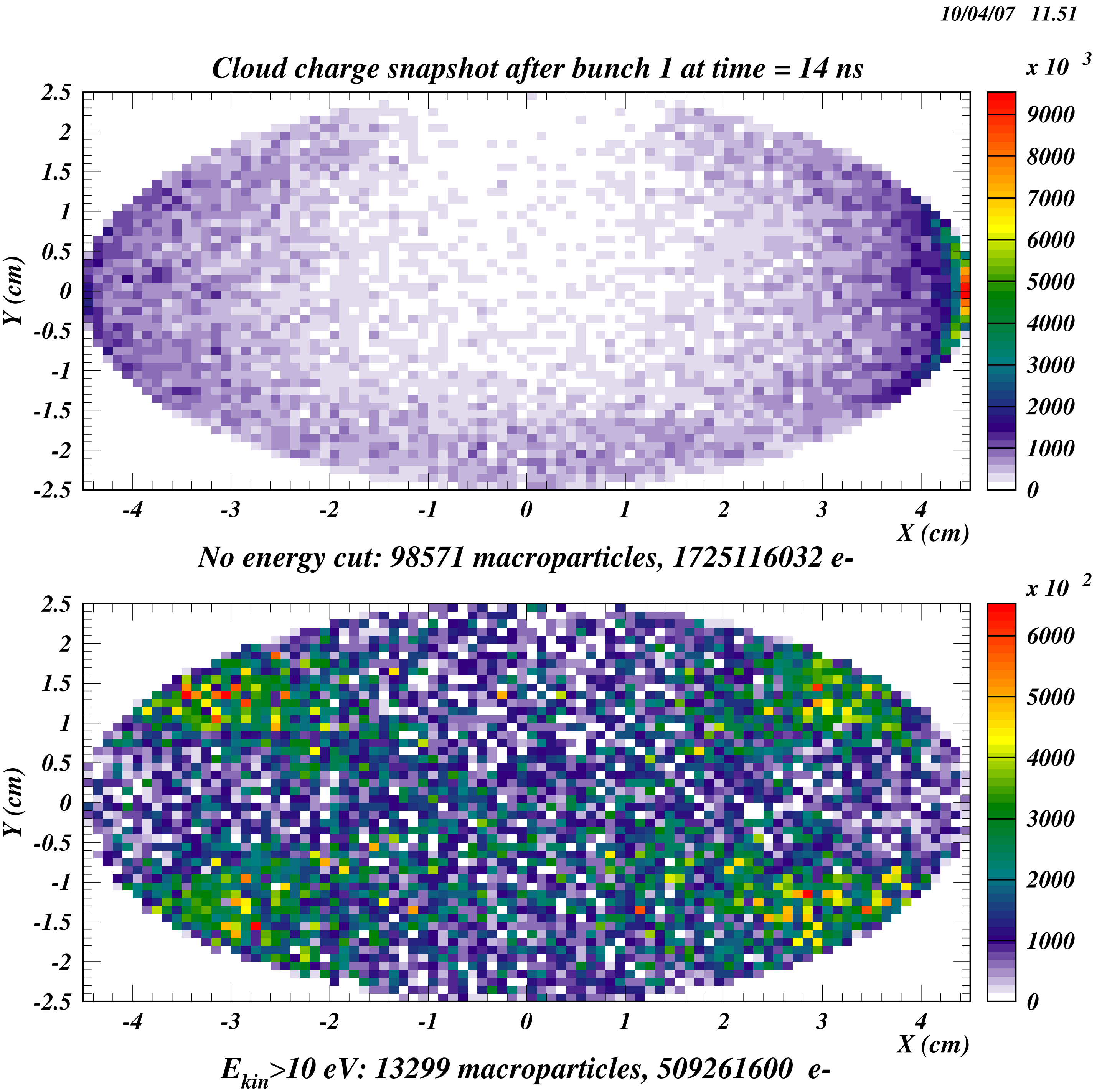

10/04/07 11.50
Macroparticle Statistics
Number of Macroparticles (10^3)
0
25
50
75
100
125
150
175
200
0
5
10
15
20
25
Time (ns)

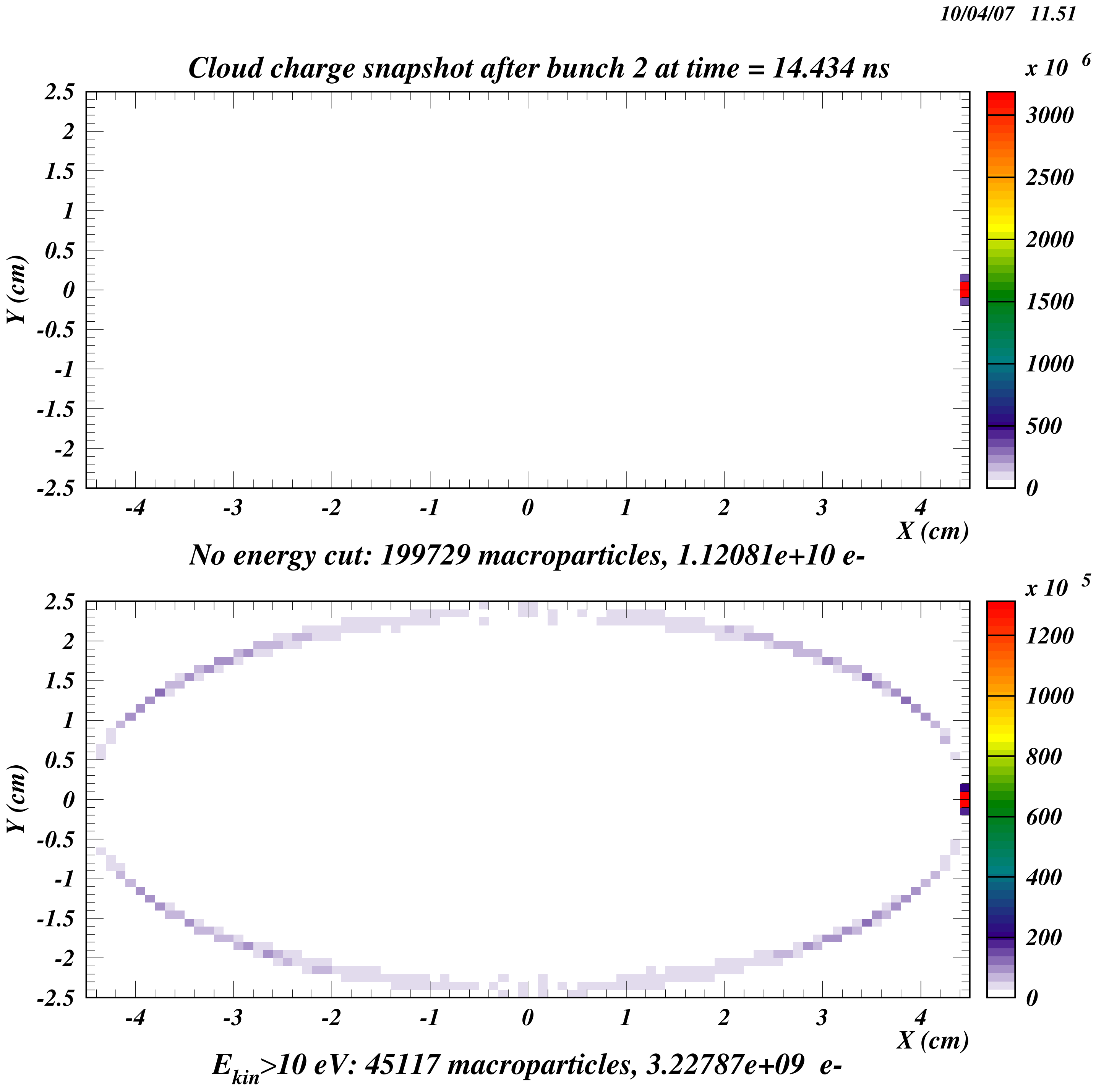

10/04/07 11.50
Beam-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
5
10
15
20
25
Time (ns)

10/04/07 11.50

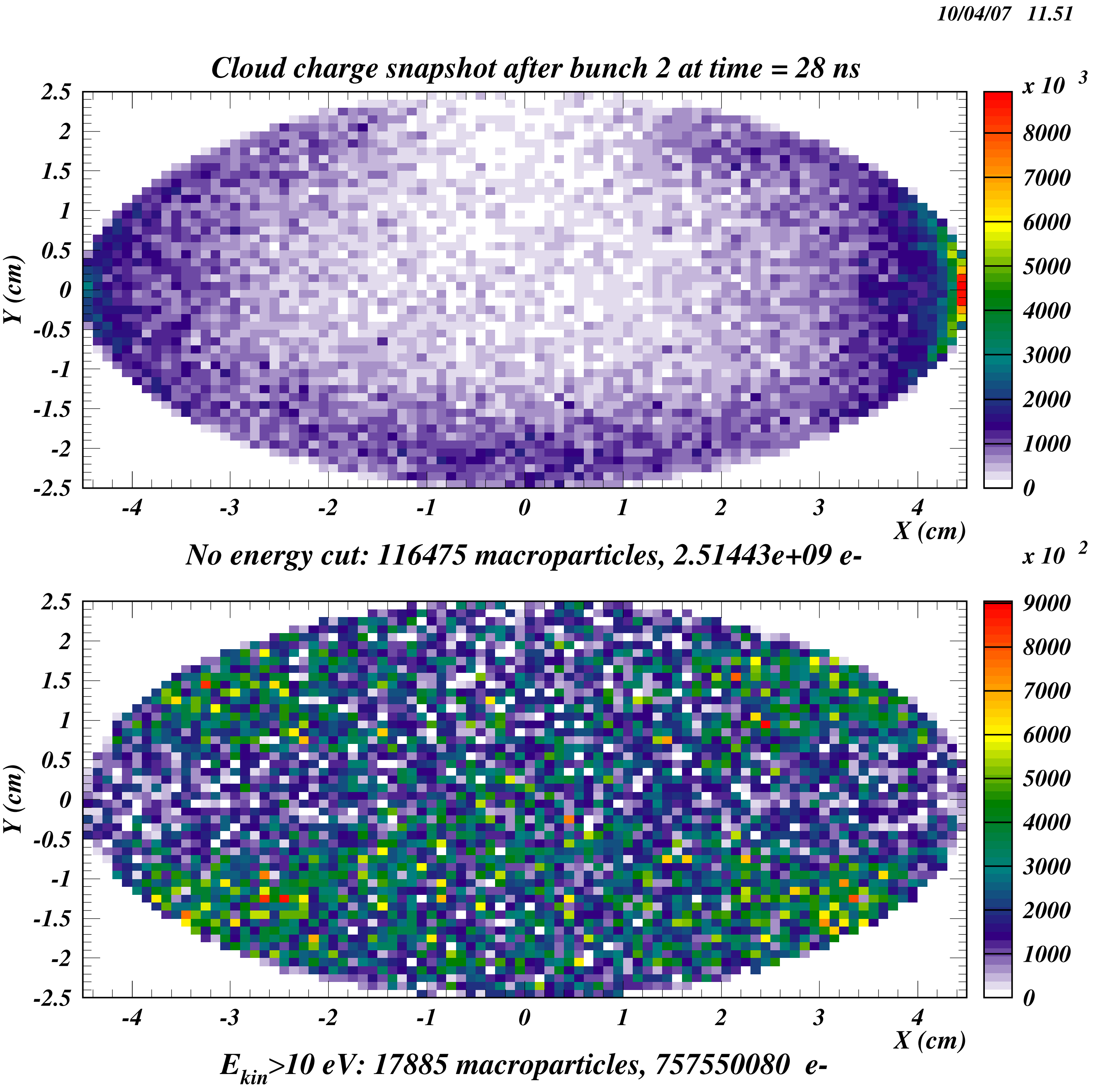

5-Sigma Cloud Density at Center of Pipe (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
Time (ns)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
5
10
15
20
25

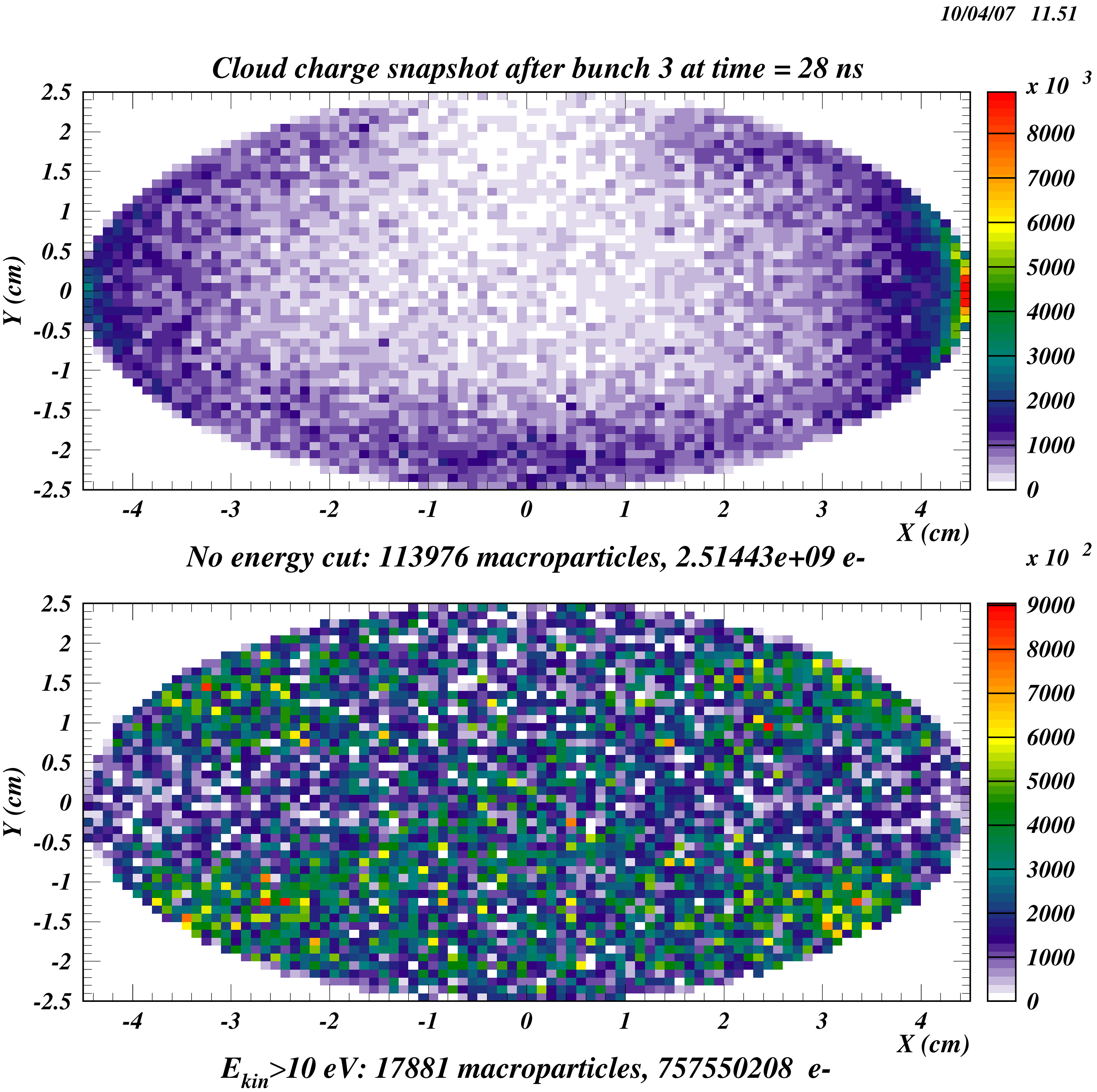

10/04/07 11.50
Job 15244: Cloud Density in Central Grid Cell (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
Time (ns)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
0
5
10
15
20
25


10/04/07 11.51
Cloud charge snapshot after bunch 1 at time = 14 ns
x 10 3
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Y (cm)
X (cm)
No energy cut: 98571 macroparticles, 1725116032 e-
x 10 2
6000
5000
4000
3000
2000
1000
0
Y (cm)
X (cm)
E_kin>10 eV: 13299 macroparticles, 509261600 e-



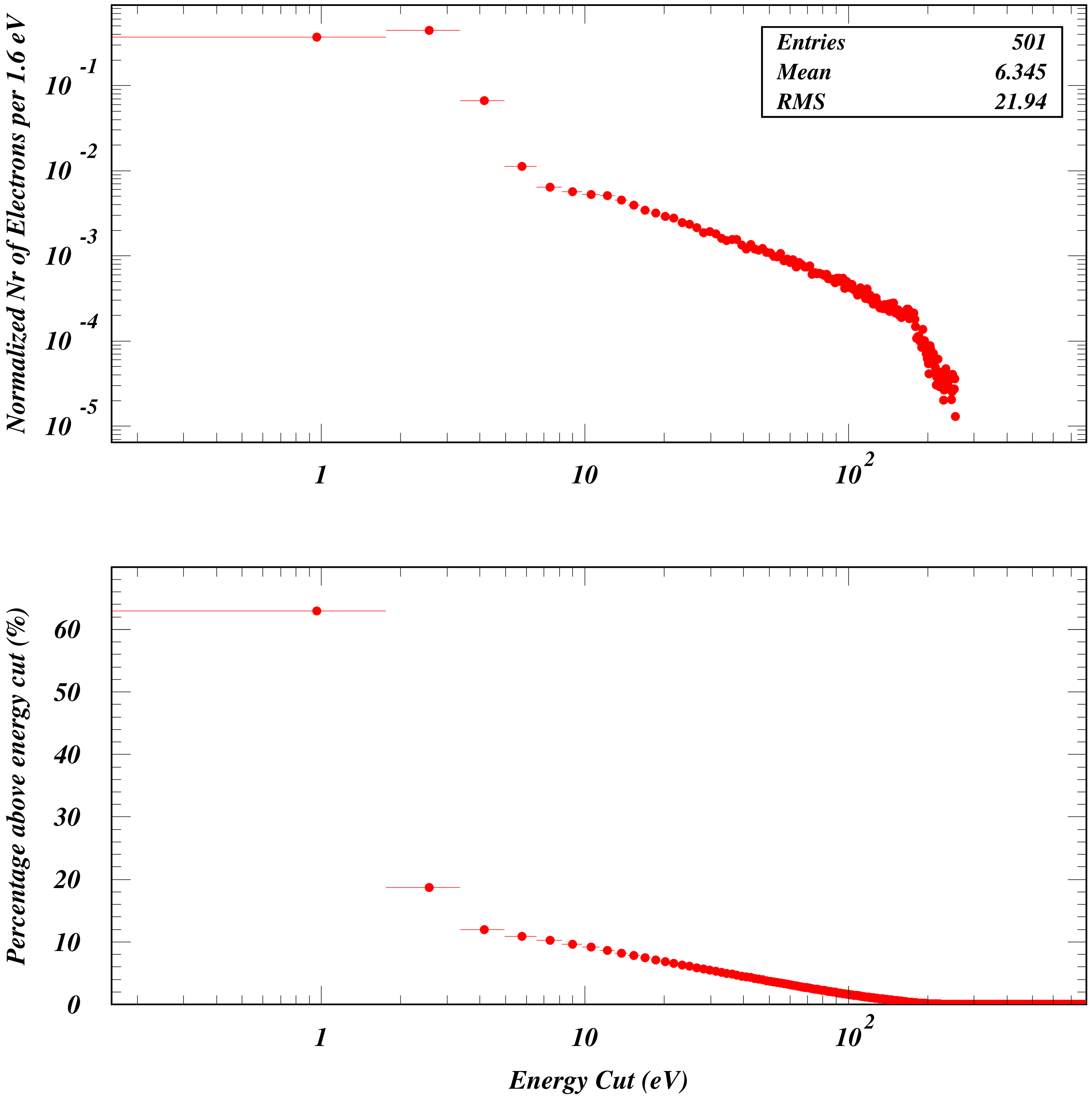
10/04/07 11.51
Cloud charge snapshot after bunch 2 at time = 14.434 ns
x 10 6
3000
2500
2000
1500
1000
500
0
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)
No energy cut: 199729 macroparticles, 1.12081e+10 e-
x 10 5
1200
1000
800
600
400
200
0
Y (cm)
X (cm)
E_kin>10 eV: 45117 macroparticles, 3.22787e+09 e-


10/04/07 11.51
Cloud charge snapshot after bunch 2 at time = 28 ns
x 10 3
Y (cm)
X (cm)
No energy cut: 116475 macroparticles, 2.51443e+09 e-
x 10 2
Y (cm)
X (cm)
E_kin>10 eV: 17885 macroparticles, 757550080 e-

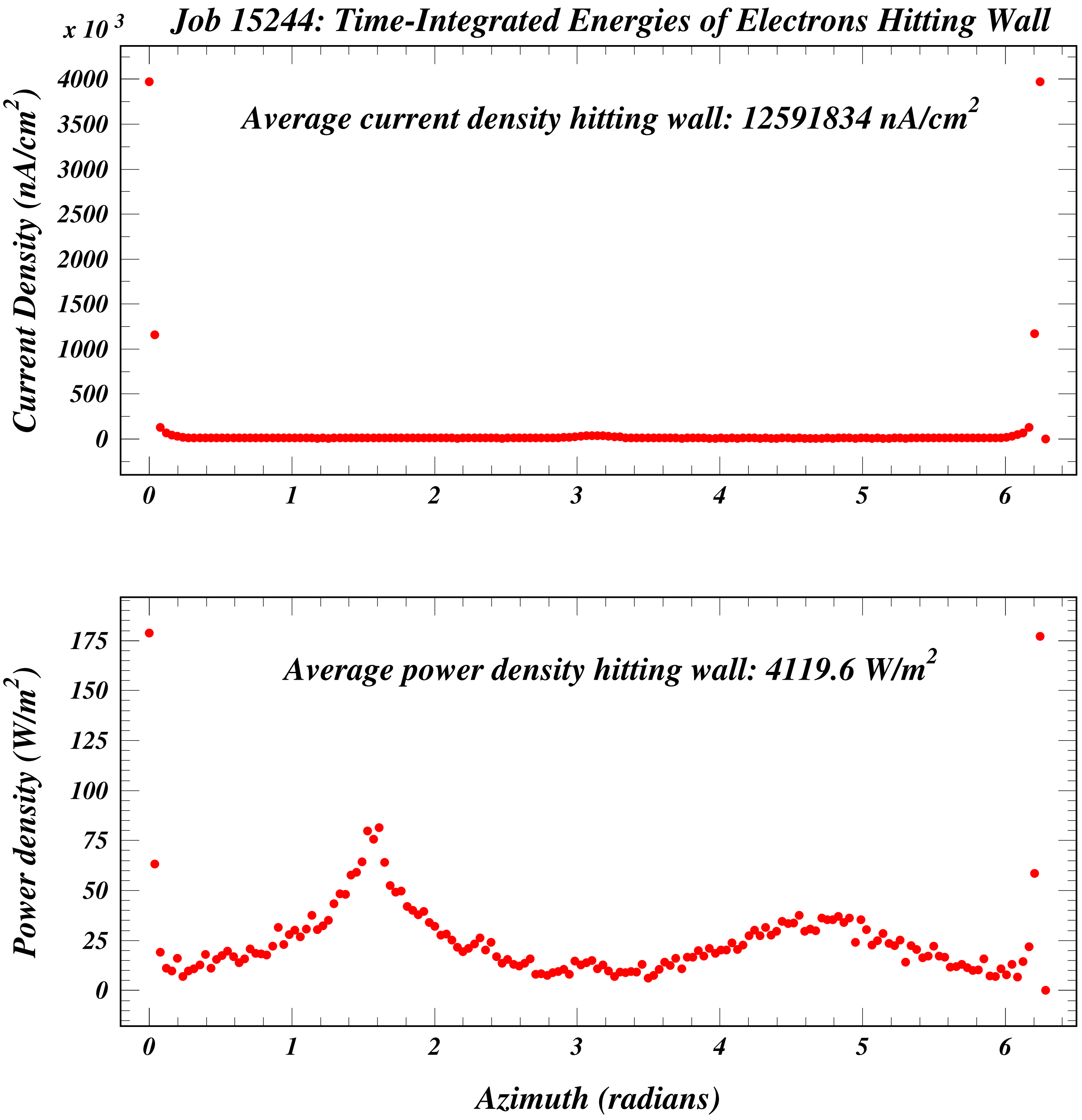

10/04/07 11.51
Cloud charge snapshot after bunch 3 at time = 28 ns
x 10 3
8000
7000
6000
5000
4000
3000
2000
1000
0
Y (cm)
X (cm)
No energy cut: 113976 macroparticles, 2.51443e+09 e-
x 10 2
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Y (cm)
X (cm)
E_kin>10 eV: 17881 macroparticles, 757550208 e-

10/04/07 11.51

Job 15244: Time-Integrated Energies of Electrons Hitting Wall

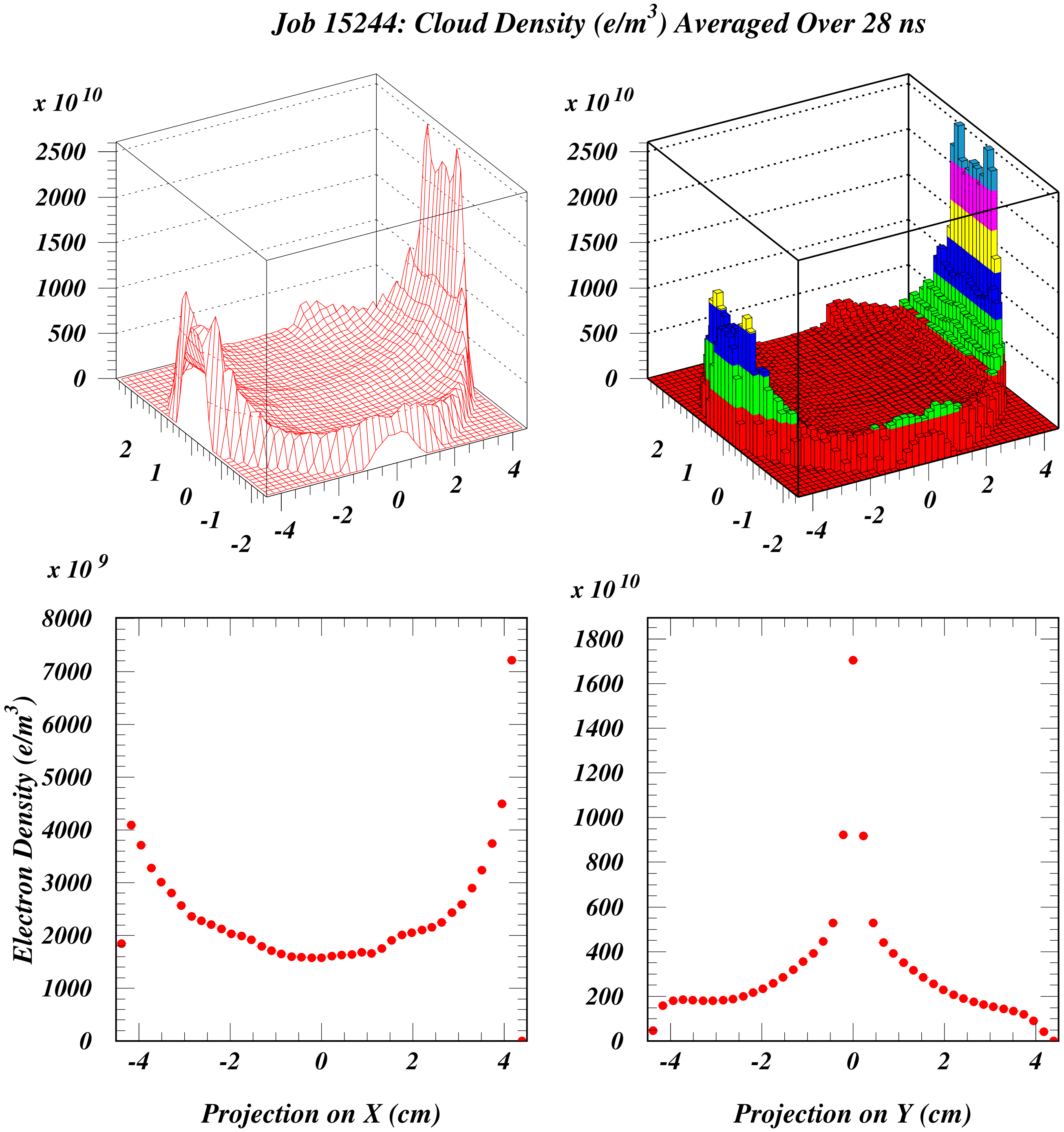


10/04/07 11.51

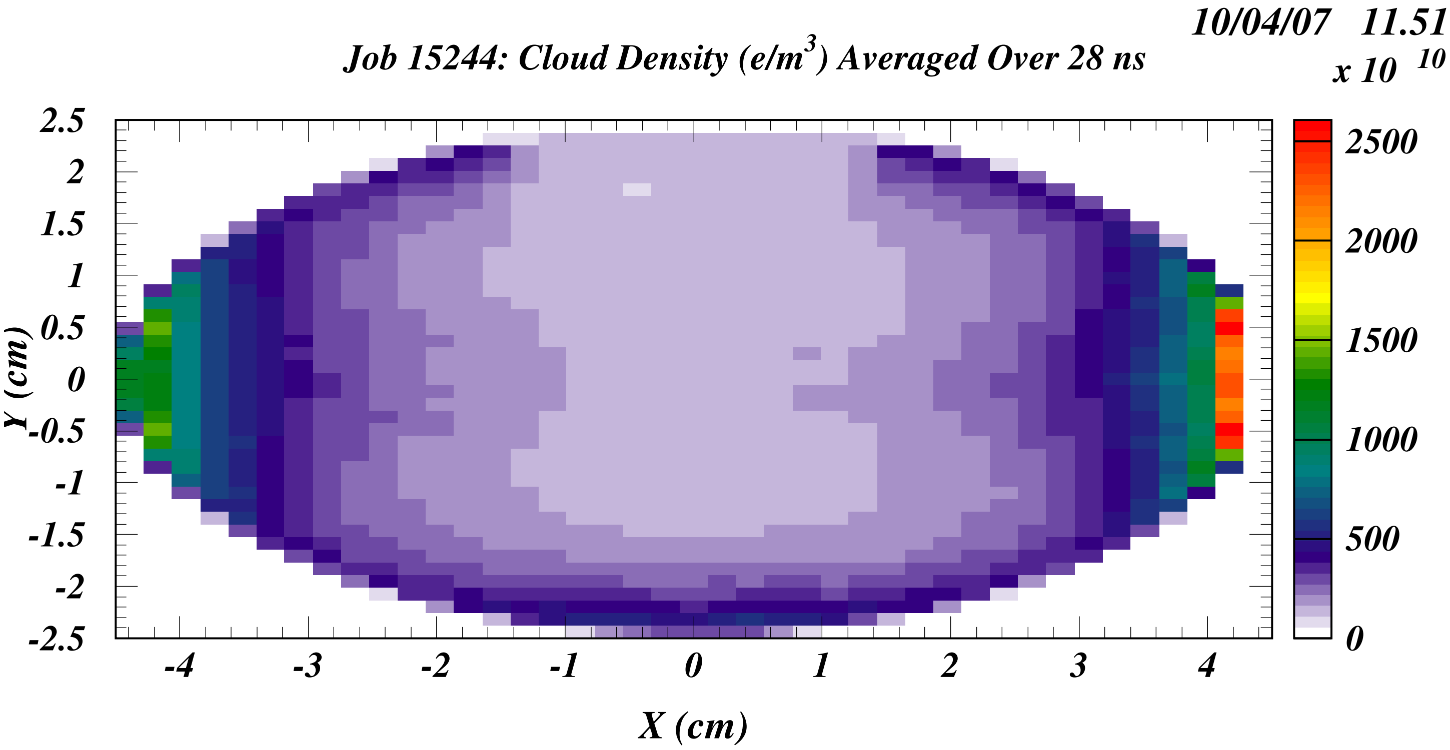


Job 15244: Time-Integrated Energies of Electrons Hitting Wall
x 10^3
Current Density (nA/cm^2)
Average current density hitting wall: 12591834 nA/cm^2
4000
3500
3000
2500
2000
1500
1000
500
0
0
1
2
3
4
5
6
Power density (W/m^2)
Average power density hitting wall: 4119.6 W/m^2
175
150
125
100
75
50
25
0
Azimuth (radians)

10/04/07 11.51

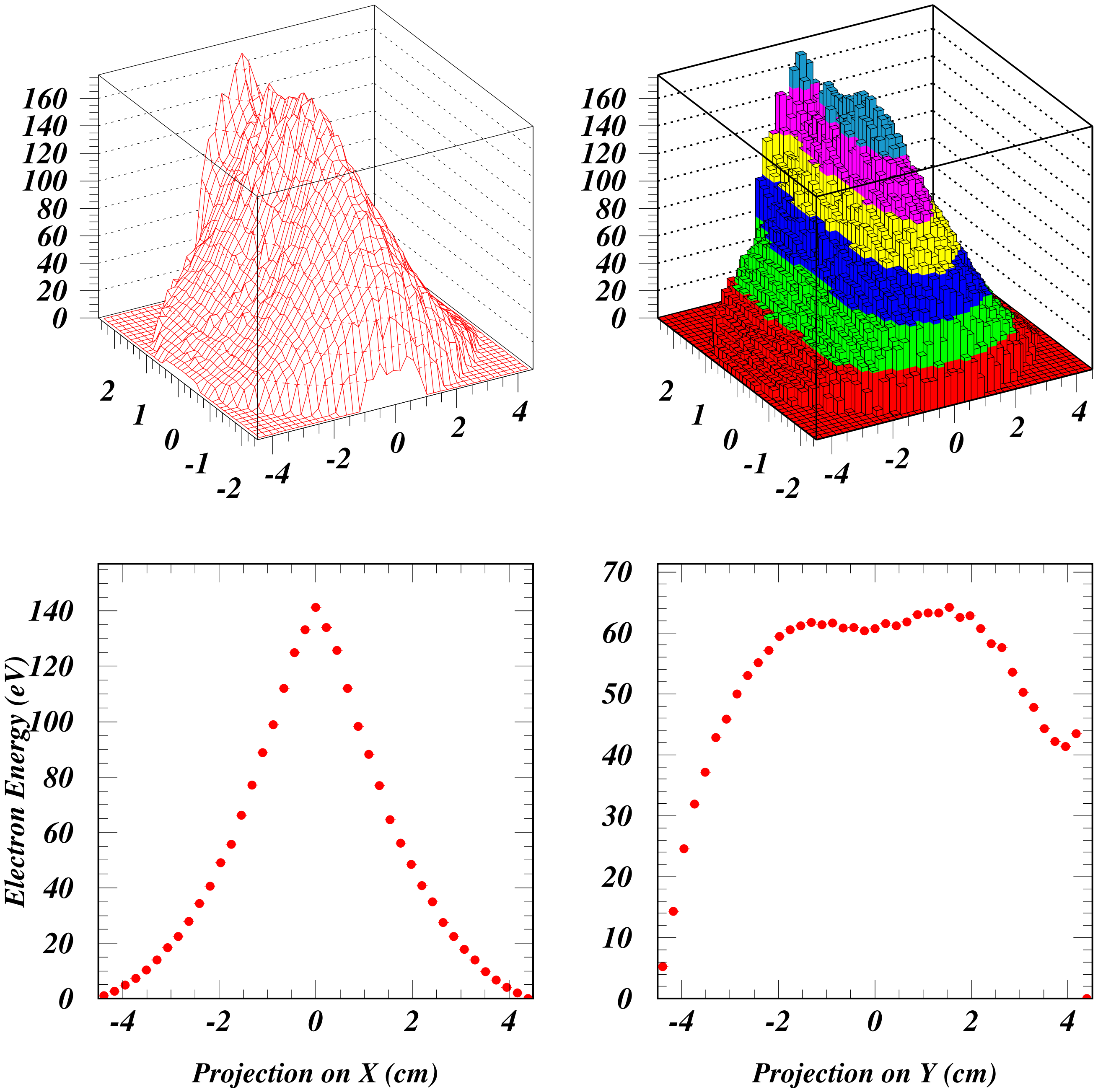


Job 15244: Cloud Density (e/m^3) Averaged Over 28 ns
x 10^10
2500
2000
1500
1000
500
0
2
1
0
-1
-2
-4
-2
0
2
4
x 10^10
2500
2000
1500
1000
500
0
2
1
0
-1
-2
-4
-2
0
2
4
x 10^9
8000
7000
6000
5000
4000
3000
2000
1000
0
Electron Density (e/m^3)
-4
-2
0
2
4
Projection on X (cm)
x 10^10
1800
1600
1400
1200
1000
800
600
400
200
0
-4
-2
0
2
4
Projection on Y (cm)

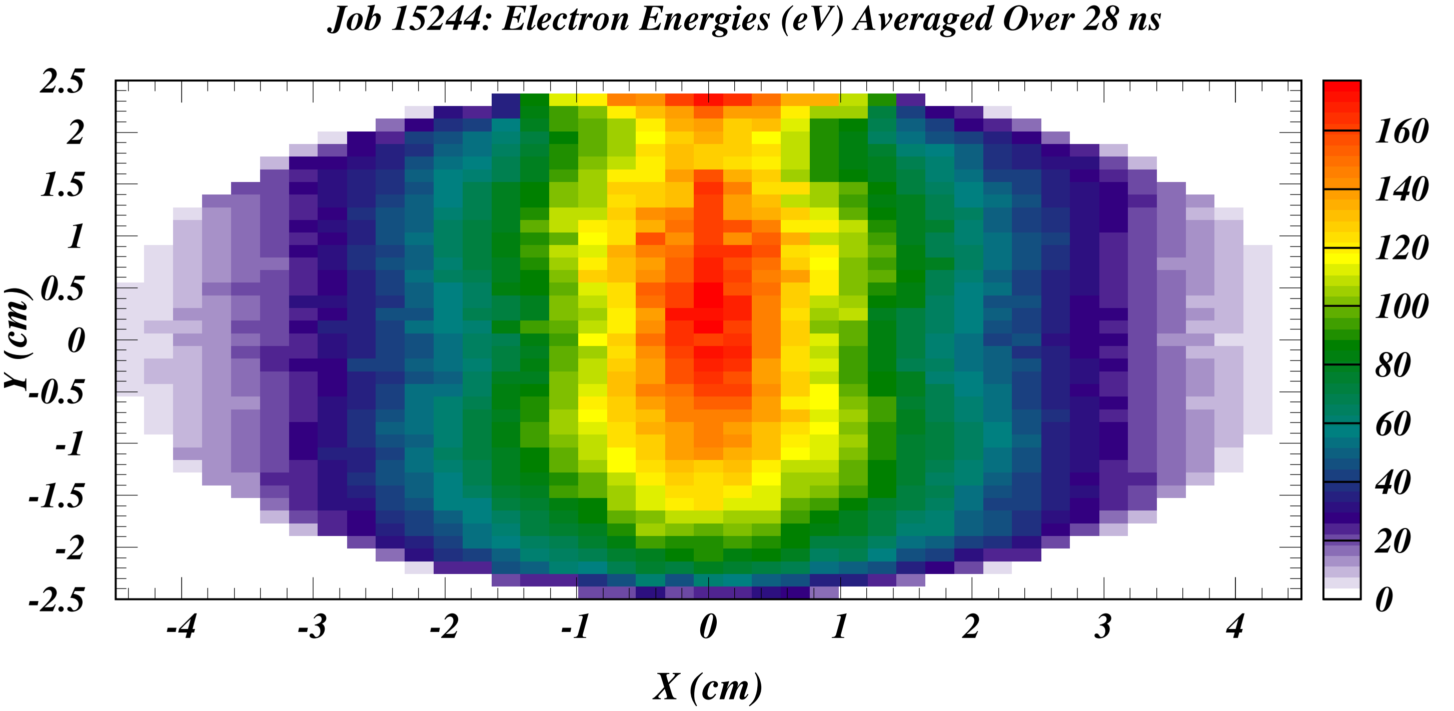

10/04/07 11.51
Job 15244: Cloud Density (e/m^3) Averaged Over 28 ns
x 10 ^{10}
Y (cm)
X (cm)
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-4
-3
-2
-1
0
1
2
3
4
2500
2000
1500
1000
500
0

10/04/07 11.51

Job 15244: Electron Energies (eV) Averaged Over 28 ns

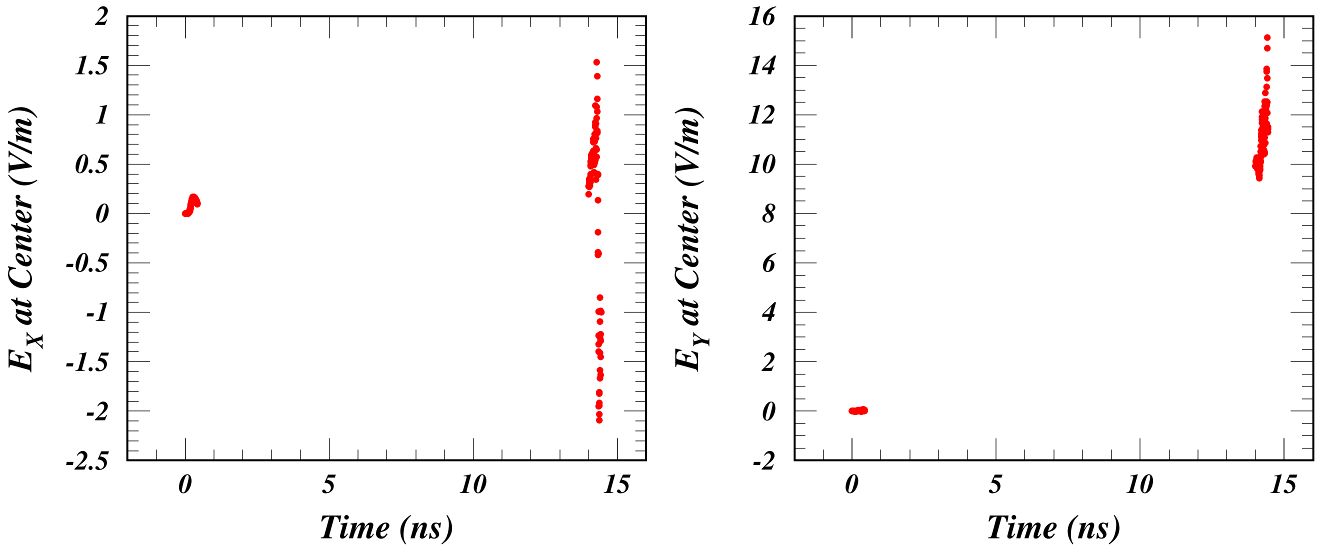


10/04/07 11.51

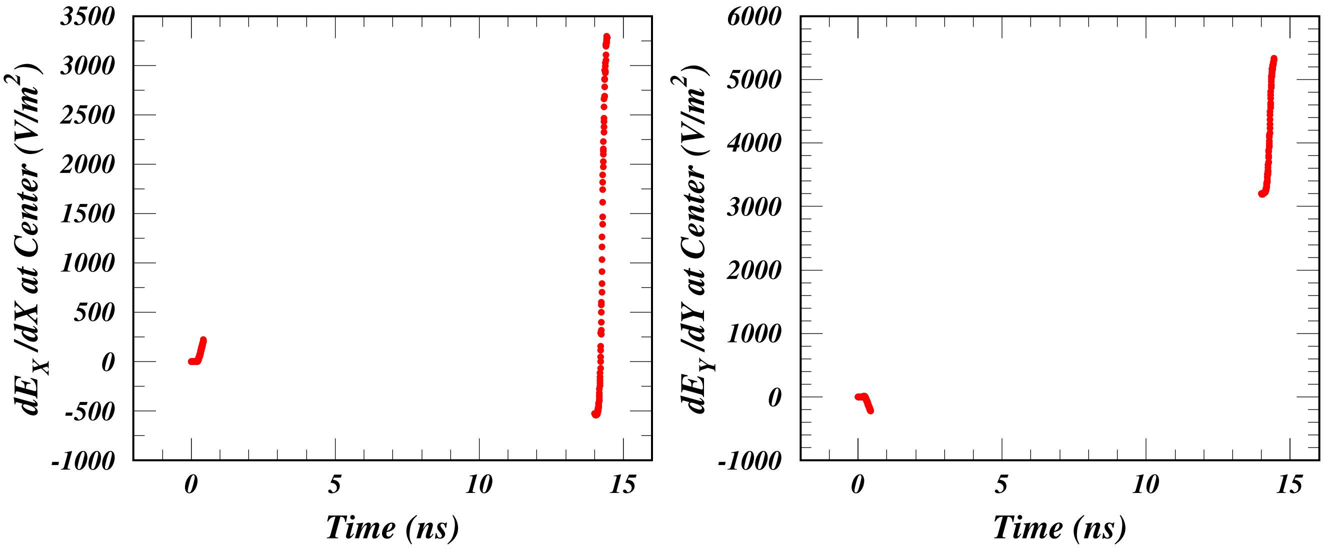


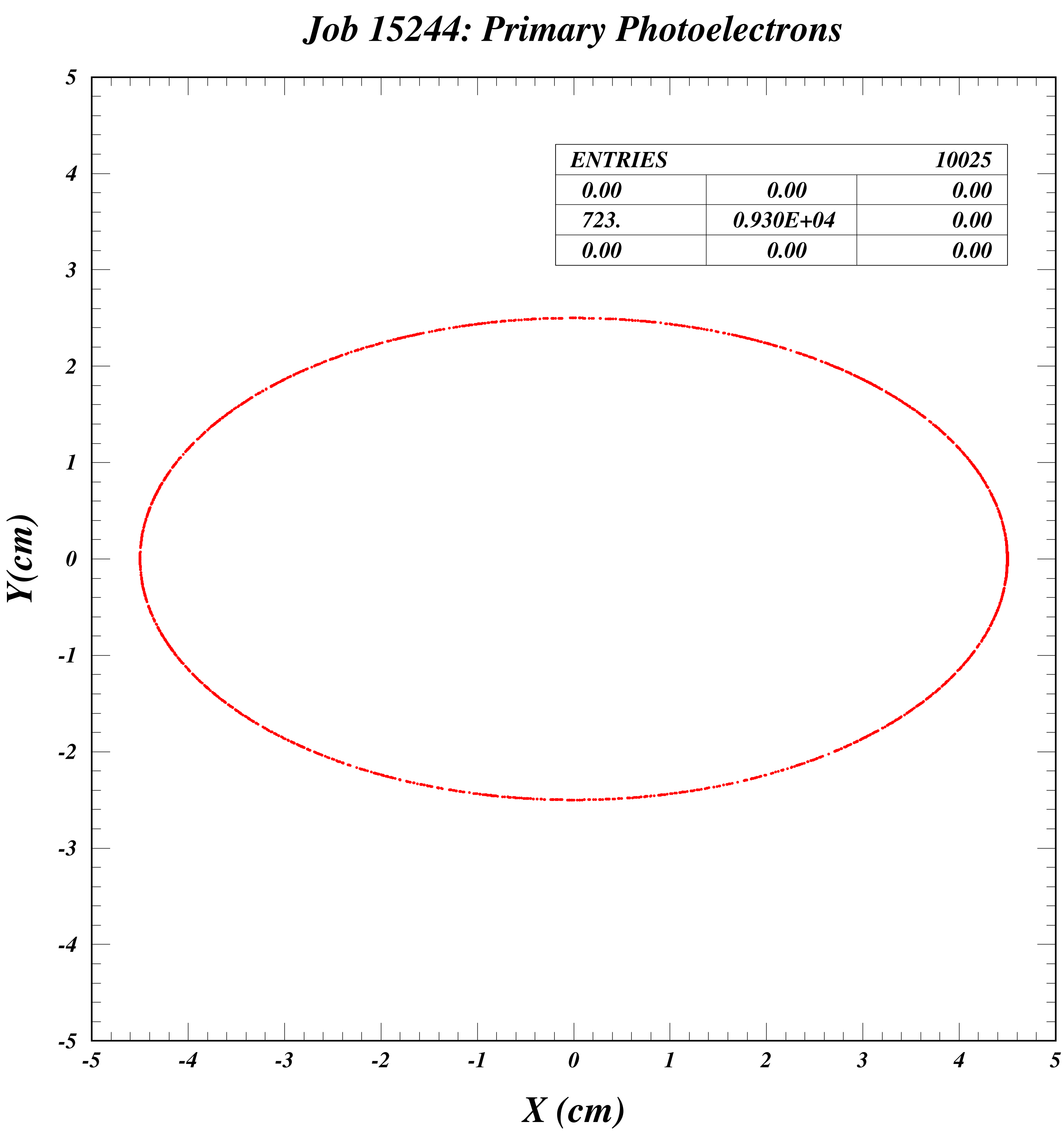
Job 15244: Electron Energies (eV) Averaged Over 28 ns
Y (cm)
X (cm)
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-4
-3
-2
-1
0
1
2
3
4
160
140
120
100
80
60
40
20
0

Job 15244: Electric Field at Beam



Job 15244Electric Field Gradients at Beam





Job 15244: Primary Photoelectrons
ENTRIES 10025
0.00 0.00 0.00
723. 0.930E+04 0.00
0.00 0.00 0.00
Y(cm)
X (cm)
5
4
3
2
1
0
-1
-2
-3
-4
-5

Job 15244: Primary Photoelectrons