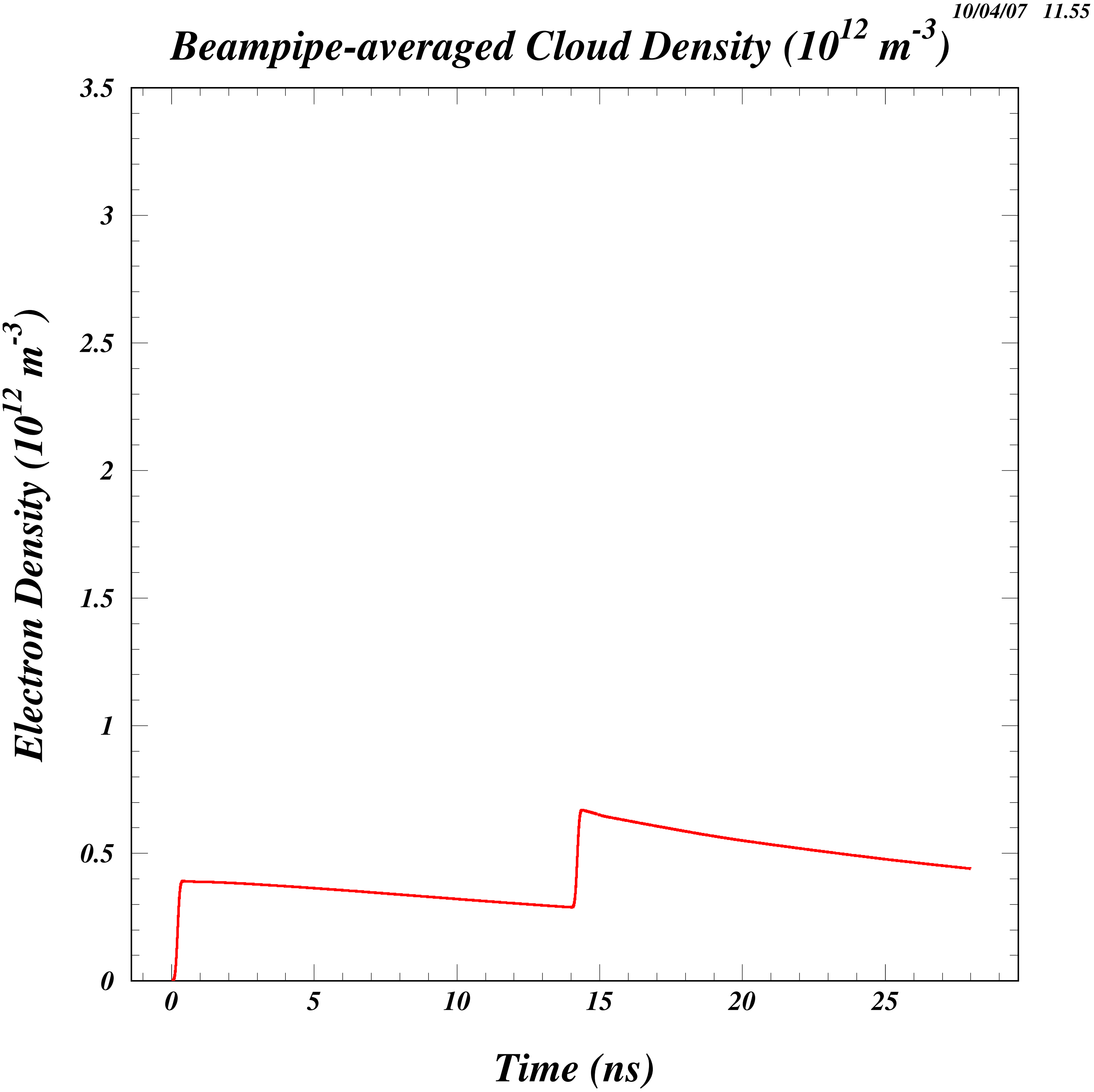
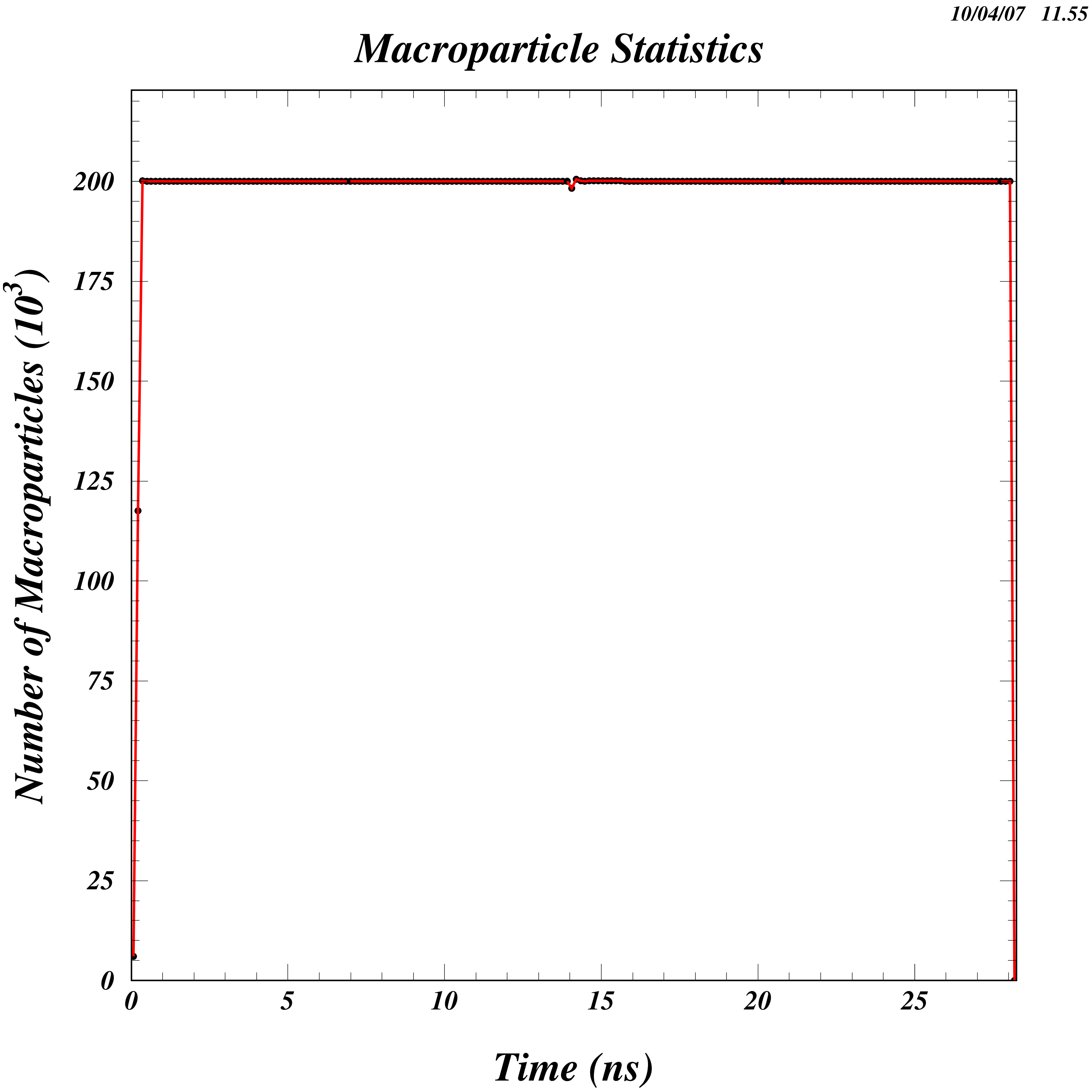
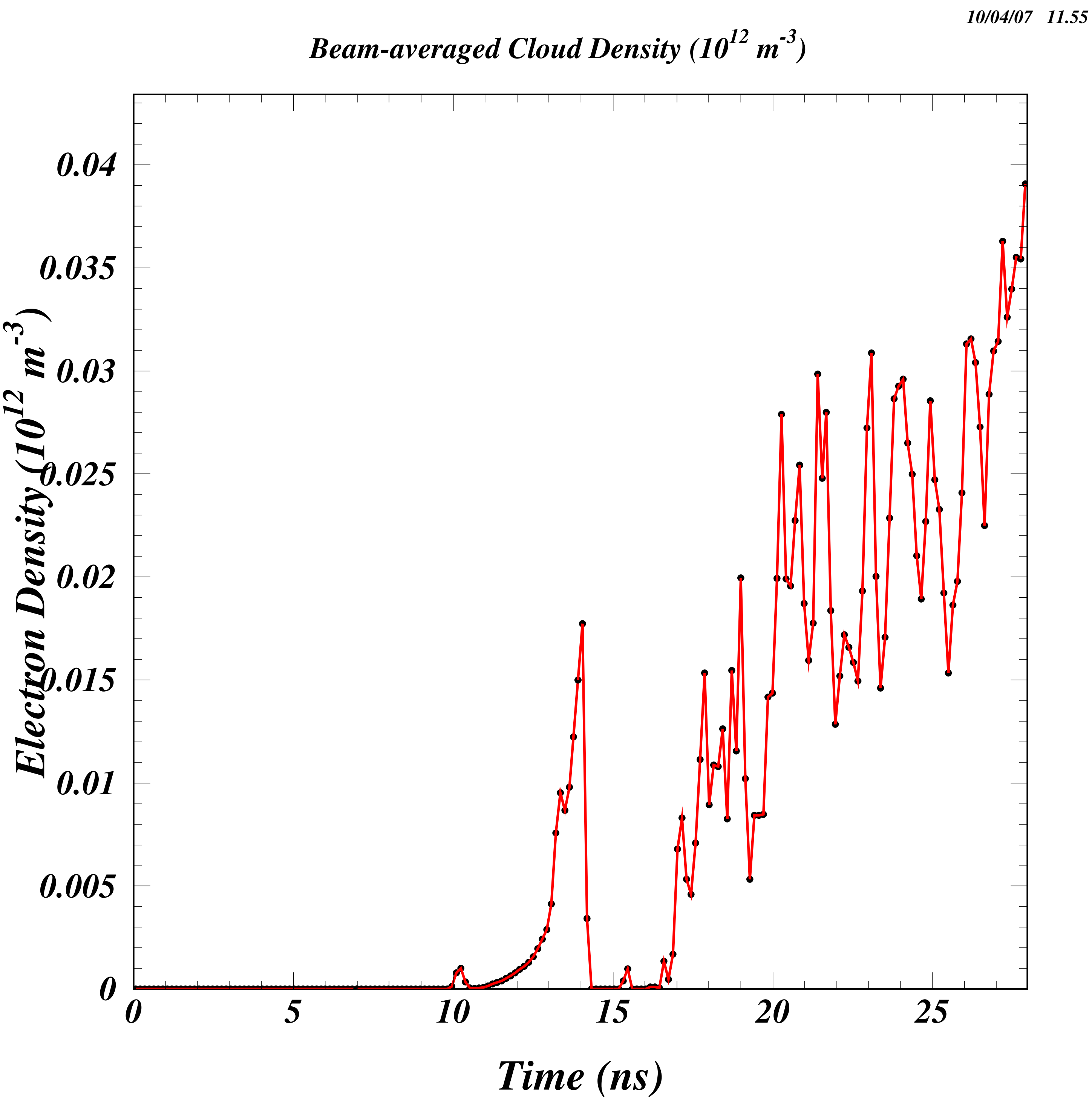
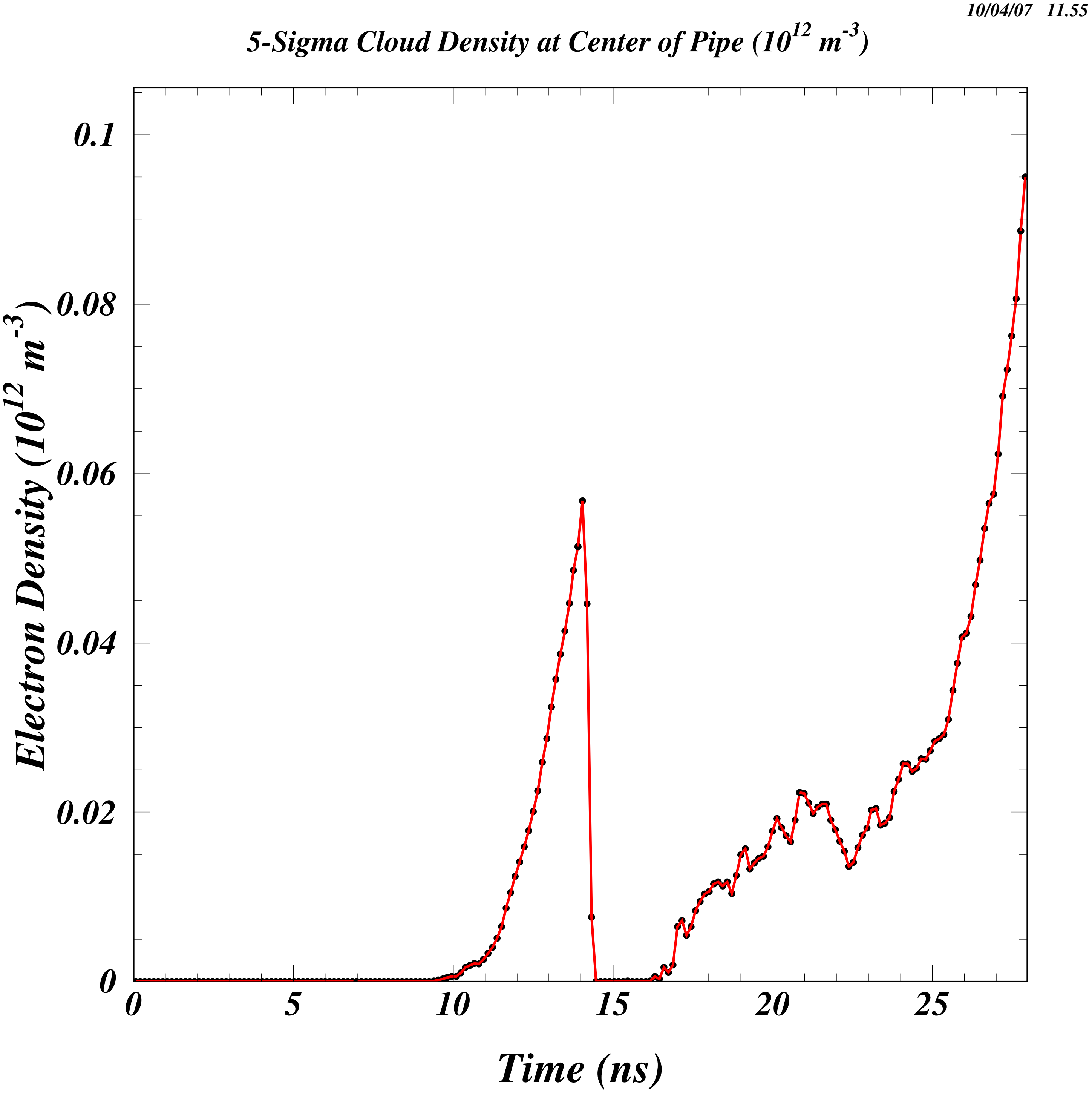
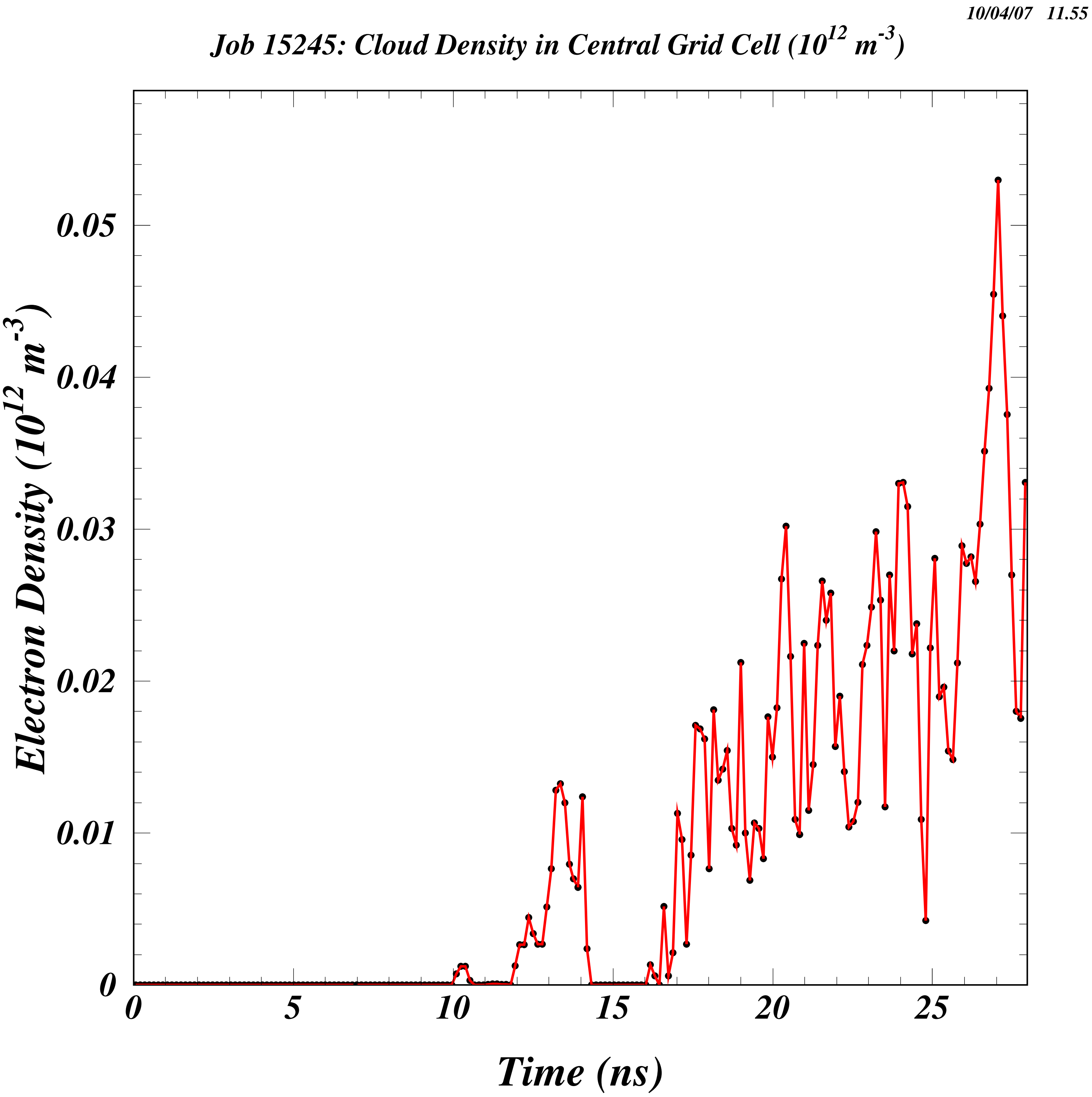

10/04/07 11.55
Beampipe-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
Time (ns)
0
0.5
1
1.5
2
2.5
3
3.5
0
5
10
15
20
25

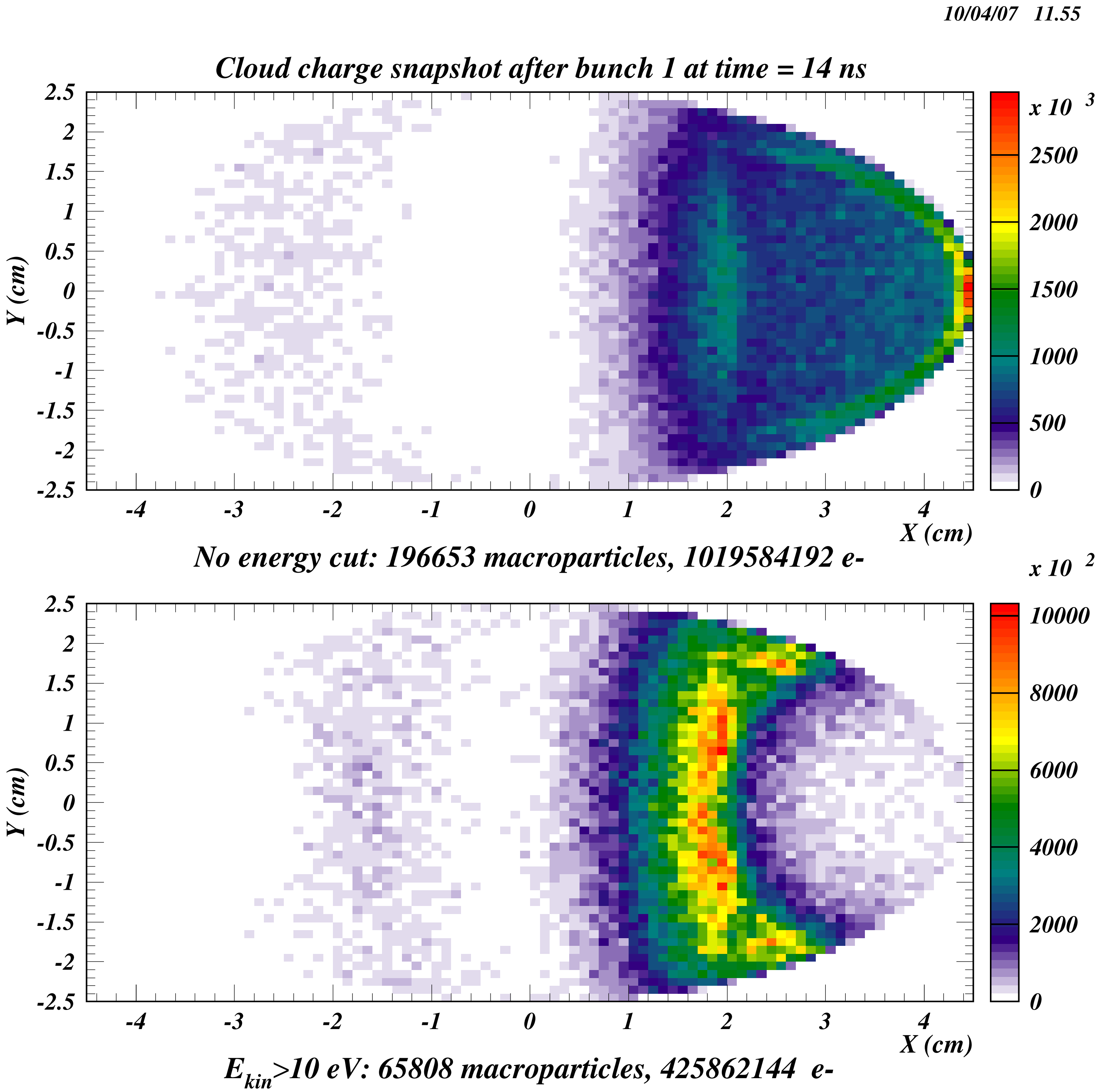

10/04/07 11.55
Macroparticle Statistics
Number of Macroparticles (10^3)
Time (ns)
0
25
50
75
100
125
150
175
200
5
10
15
20
25



10/04/07 11.55
Beam-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
5
10
15
20
25
Time (ns)

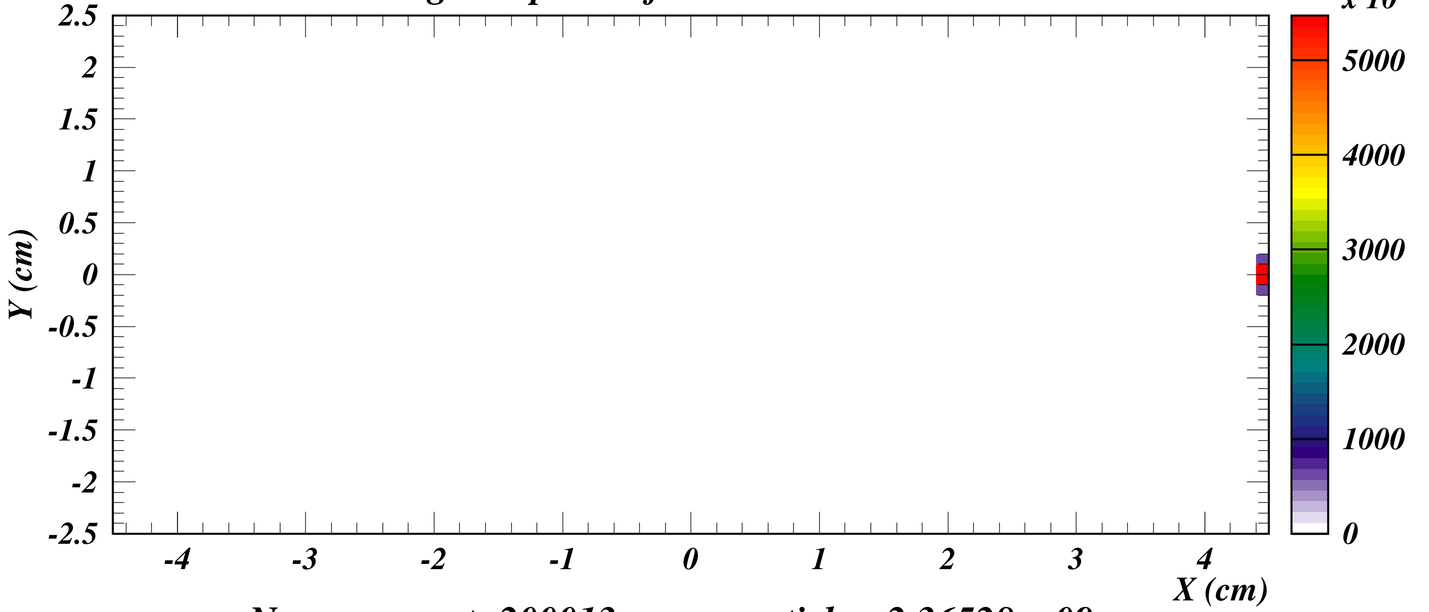

10/04/07 11.55
5-Sigma Cloud Density at Center of Pipe (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.1
0.08
0.06
0.04
0.02
0
0
5
10
15
20
25
Time (ns)


10/04/07 11.55
Job 15245: Cloud Density in Central Grid Cell (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
Time (ns)
0
0.01
0.02
0.03
0.04
0.05
0
5
10
15
20
25

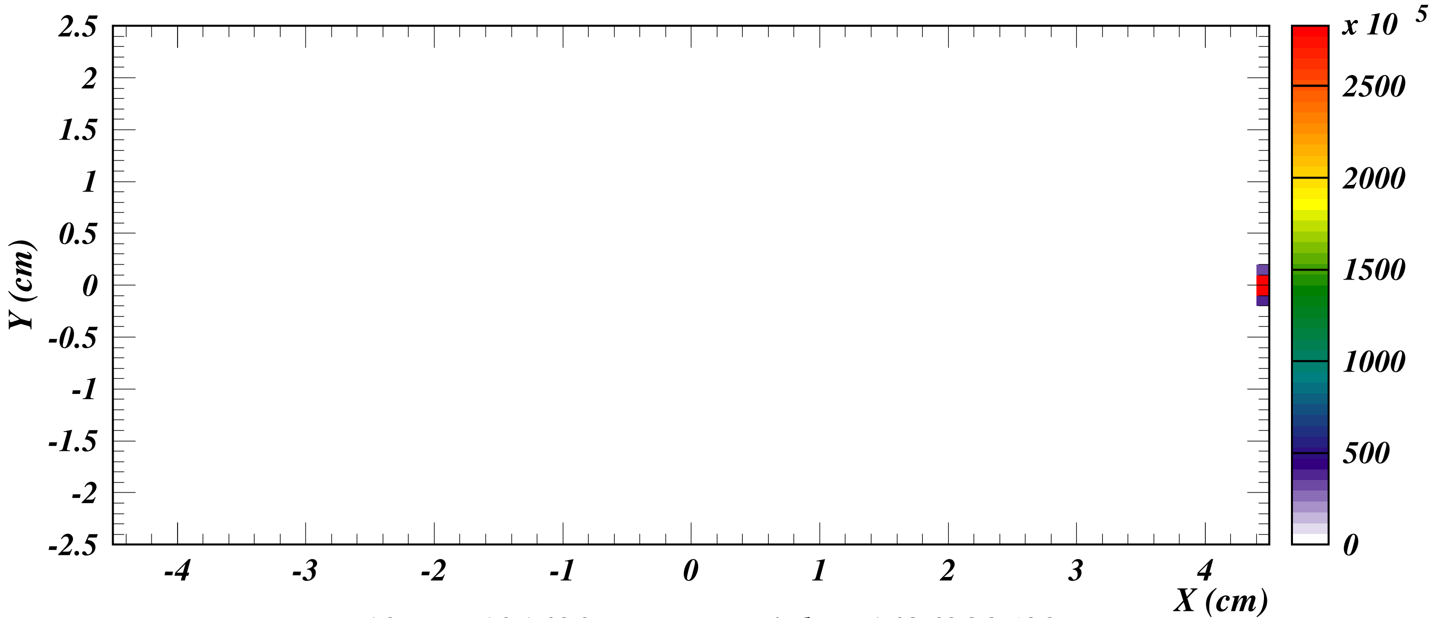

10/04/07 11.55
Cloud charge snapshot after bunch 1 at time = 14 ns
Y (cm)
X (cm)
x 10^3
2500
2000
1500
1000
500
0
No energy cut: 196653 macroparticles, 1019584192 e-
x 10^2
10000
8000
6000
4000
2000
0
Y (cm)
X (cm)
E_{kin}>10 eV: 65808 macroparticles, 425862144 e-

10/04/07 11.55

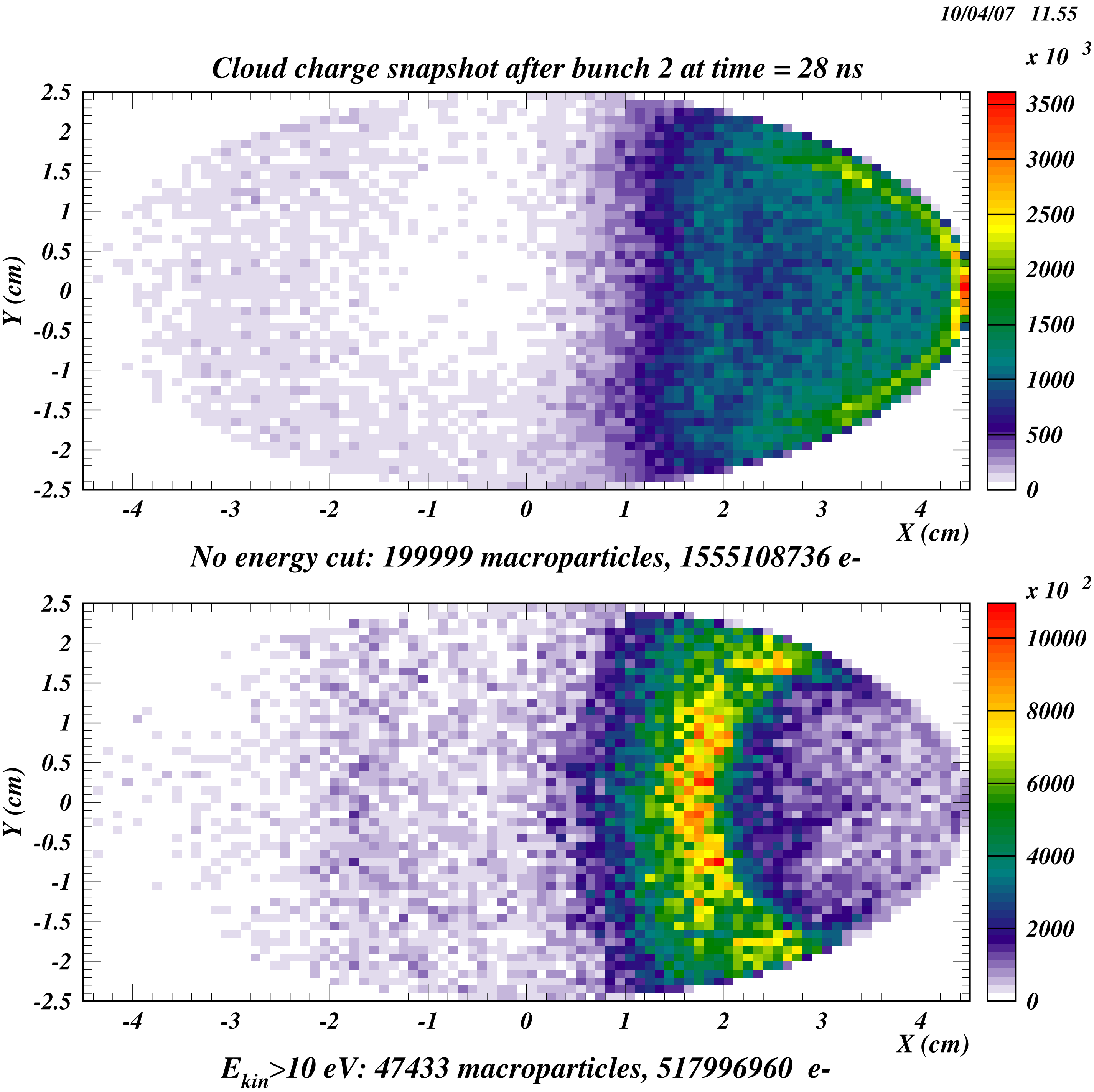
Cloud charge snapshot after bunch 2 at time = 14.434 ns

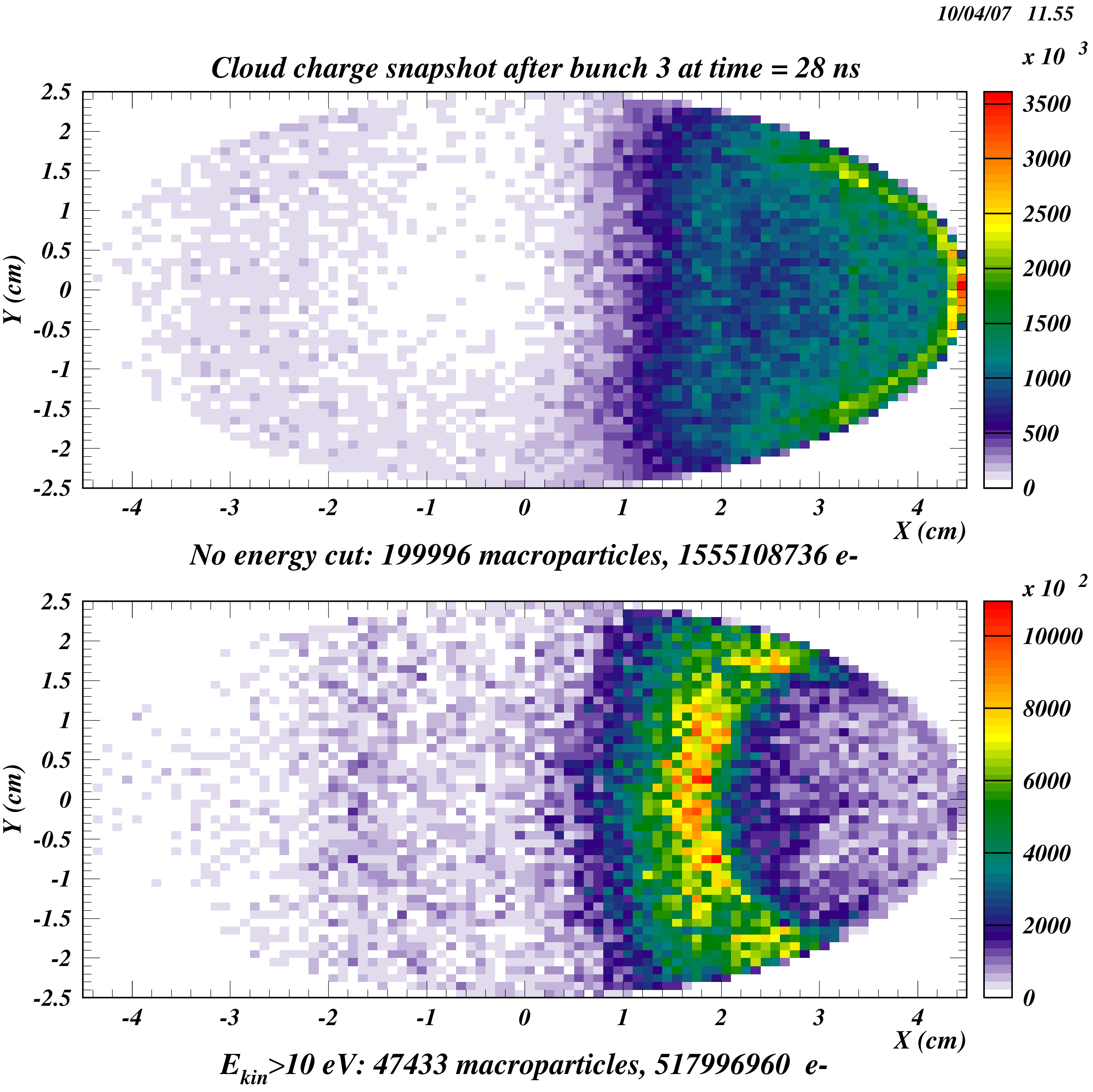


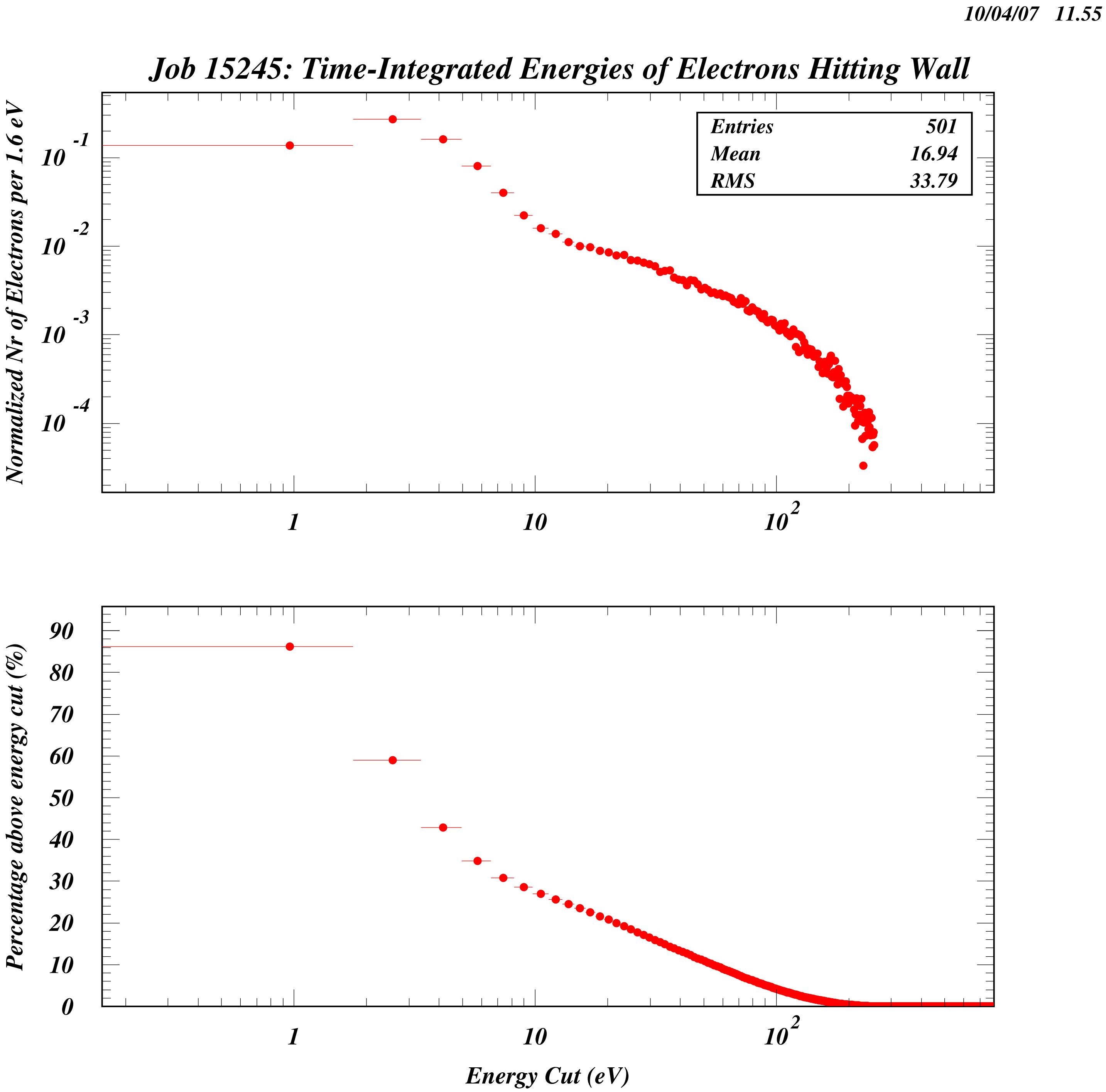
No energy cut: 200013 macroparticles, 2.36528e+09 e-



E_{kin}>10 eV: 101430 macroparticles, 1494293632 e-

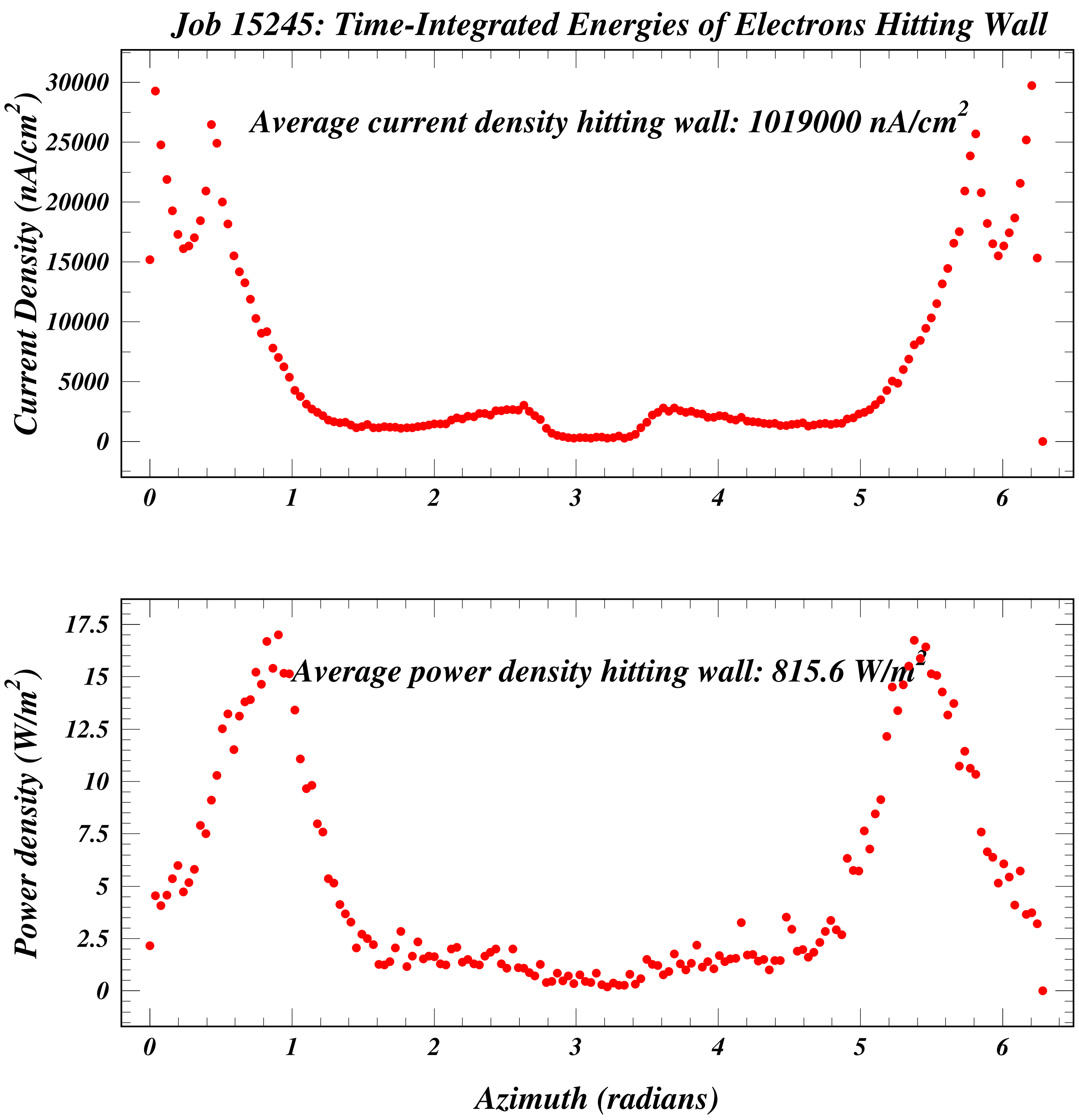

10/04/07 11.55
Cloud charge snapshot after bunch 2 at time = 28 ns
x 10 3
Y (cm)
X (cm)
No energy cut: 199999 macroparticles, 1555108736 e-
x 10 2
Y (cm)
X (cm)
E kin >10 eV: 47433 macroparticles, 517996960 e-

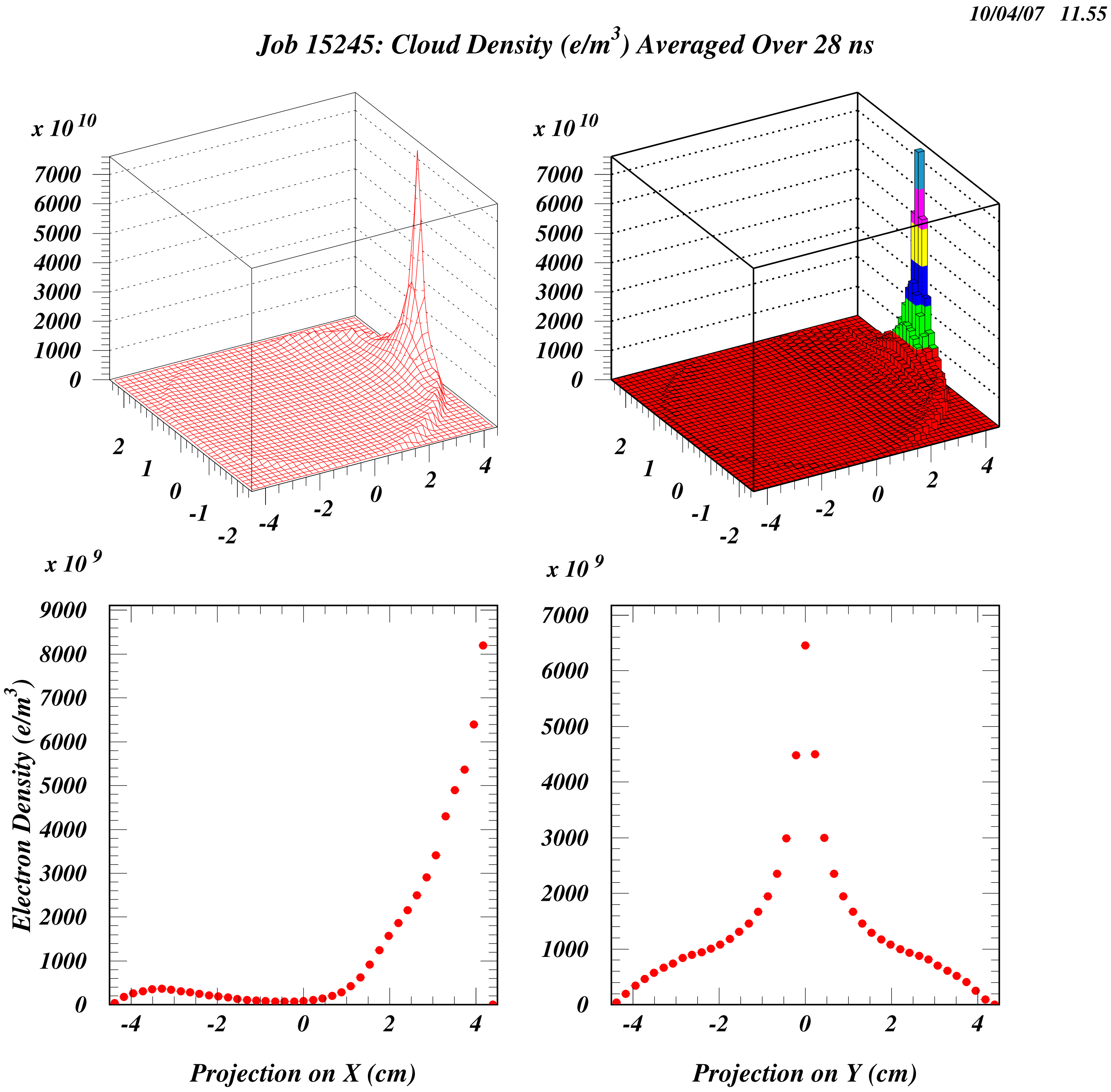

10/04/07 11.55
Cloud charge snapshot after bunch 3 at time = 28 ns
x 10 3
3500
3000
2500
2000
1500
1000
500
0
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)
No energy cut: 199996 macroparticles, 1555108736 e-
x 10 2
10000
8000
6000
4000
2000
0
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)
E_{kin}>10 eV: 47433 macroparticles, 517996960 e-



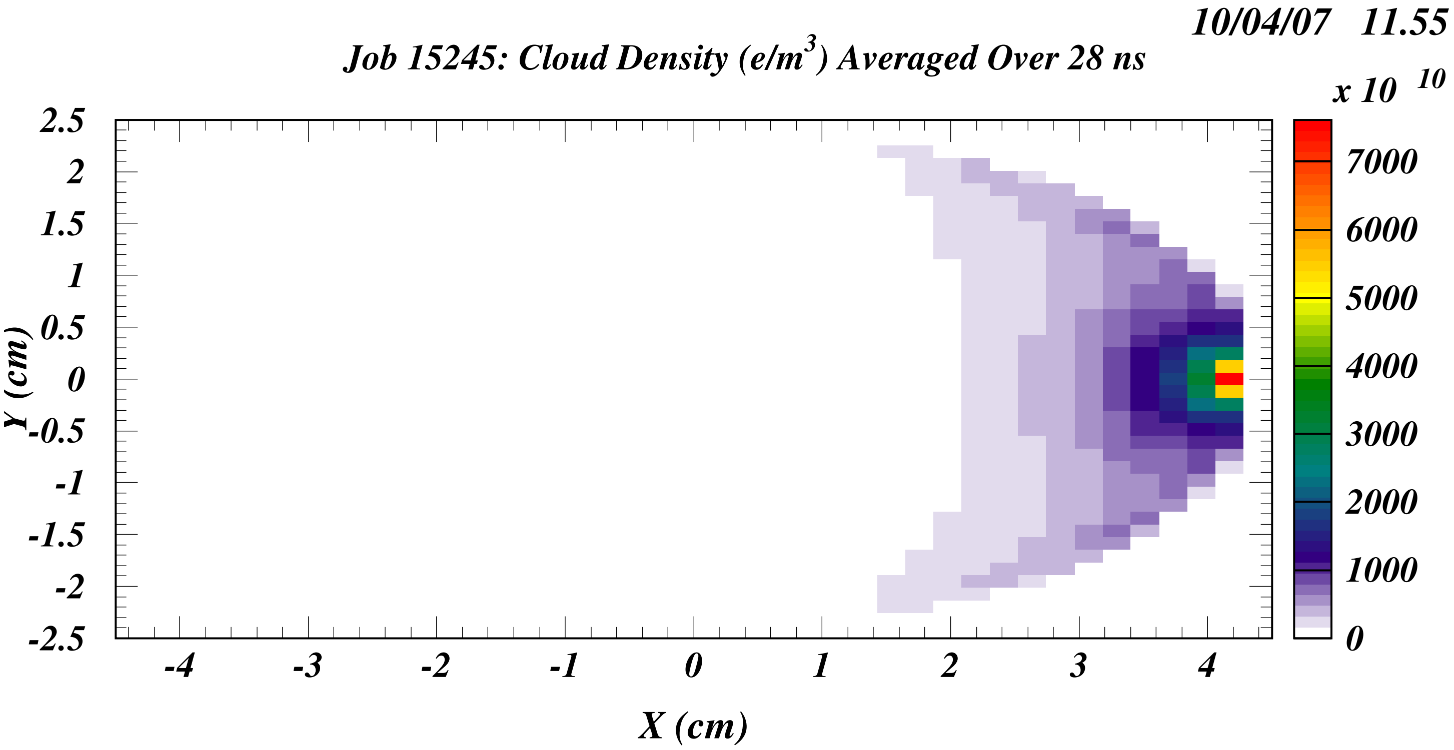
10/04/07 11.55
Job 15245: Time-Integrated Energies of Electrons Hitting Wall
Entries 501
Mean 16.94
RMS 33.79
Normalized Nr of Electrons per 1.6 eV
10^-1
10^-2
10^-3
10^-4
1
10
10^2
Percentage above energy cut (%)
90
80
70
60
50
40
30
20
10
0
1
10
10^2
Energy Cut (eV)

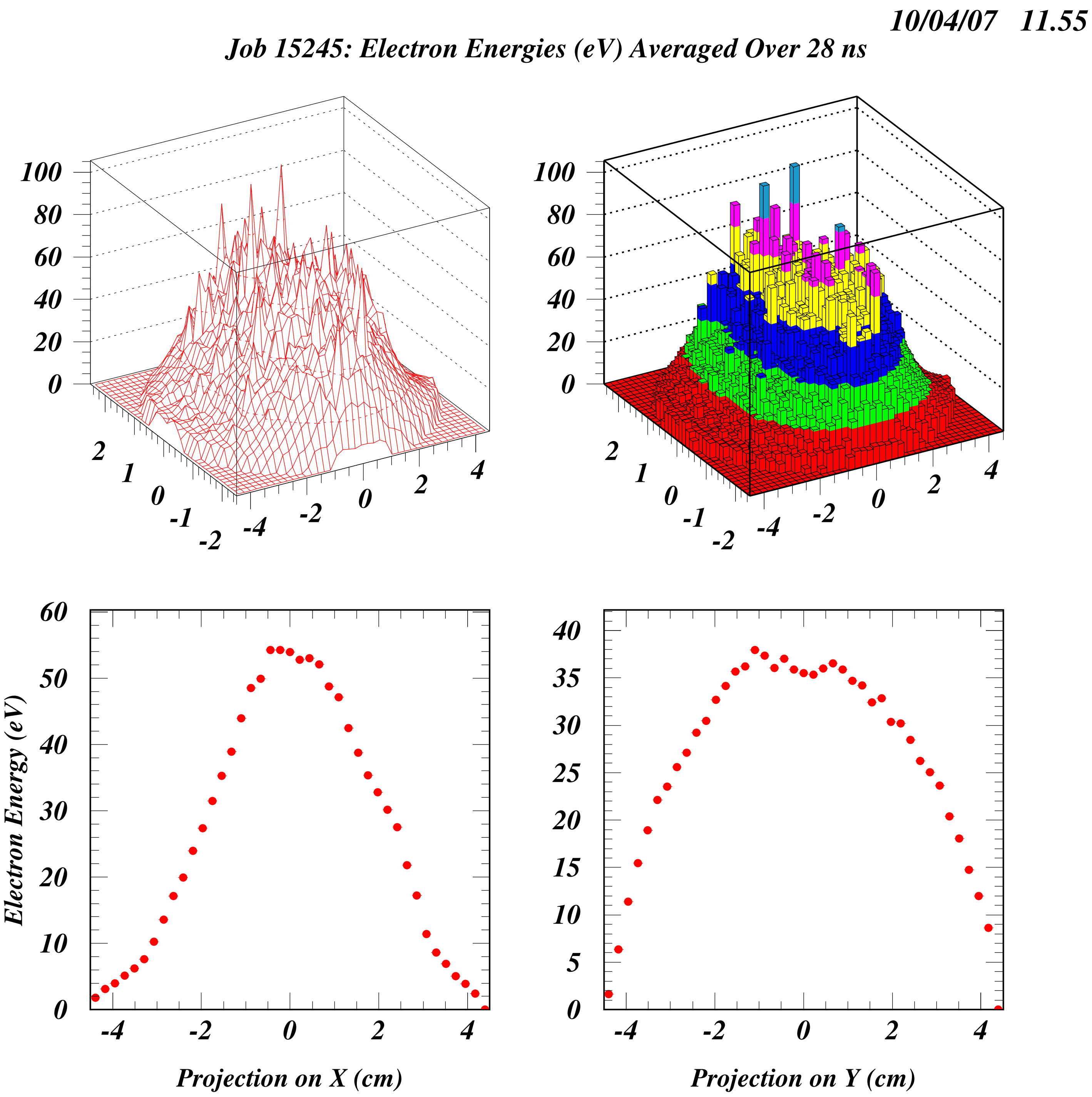
10/04/07 11.55

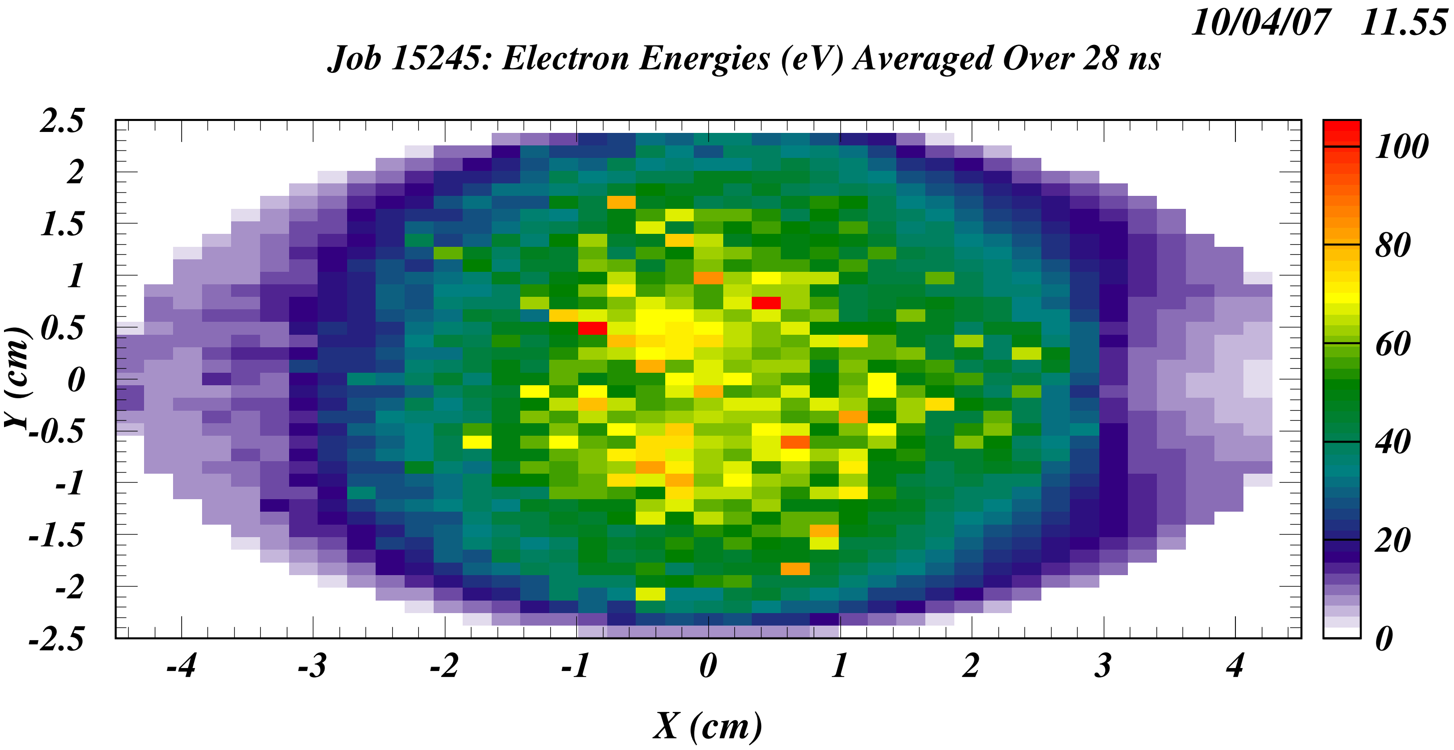

Job 15245: Time-Integrated Energies of Electrons Hitting Wall
Average current density hitting wall: 1019000 nA/cm2
Current Density (nA/cm2)
30000
25000
20000
15000
10000
5000
0
Average power density hitting wall: 815.6 W/m2
Power density (W/m2)
17.5
15
12.5
10
7.5
5
2.5
0
0
1
2
3
4
5
6
Azimuth (radians)



10/04/07 11.55
Job 15245: Cloud Density (e/m3) Averaged Over 28 ns
x 10 10
7000
6000
5000
4000
3000
2000
1000
0
2
1
0
-1
-2
-4
-2
0
2
4
x 10 10
7000
6000
5000
4000
3000
2000
1000
0
2
1
0
-1
-2
-4
-2
0
2
4
x 10 9
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Electron Density (e/m3)
-4
-2
0
2
4
Projection on X (cm)
x 10 9
7000
6000
5000
4000
3000
2000
1000
0
-4
-2
0
2
4
Projection on Y (cm)

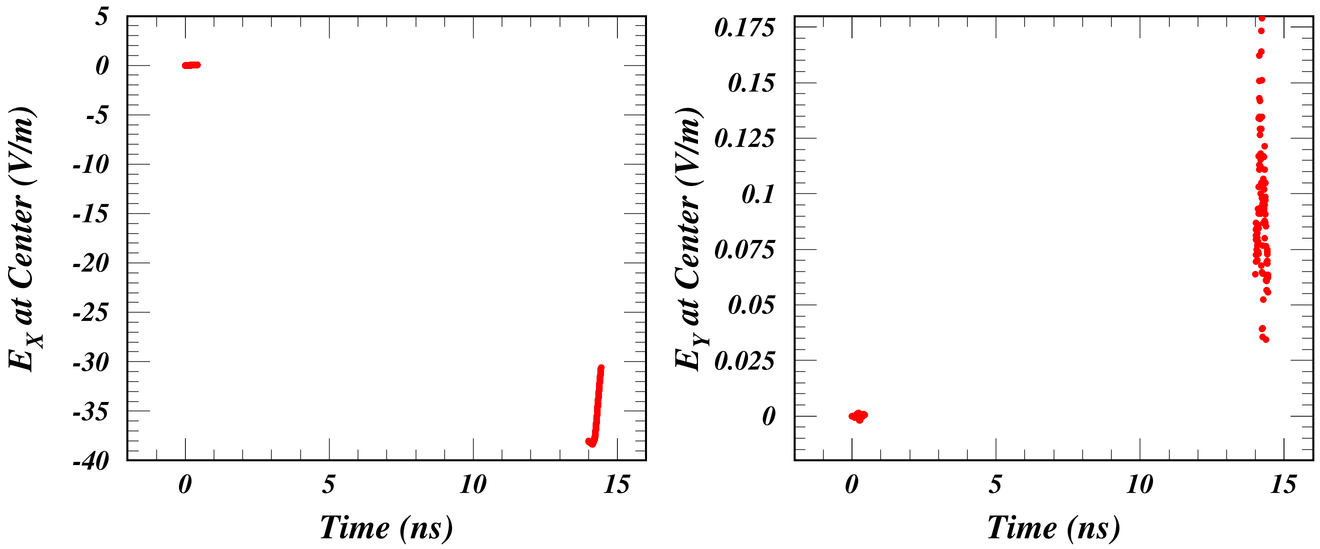

10/04/07 11.55
Job 15245: Cloud Density (e/m^3) Averaged Over 28 ns
x 10^{10}
7000
6000
5000
4000
3000
2000
1000
0
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)


10/04/07 11.55
Job 15245: Electron Energies (eV) Averaged Over 28 ns
Electron Energy (eV)
Projection on X (cm)
Projection on Y (cm)

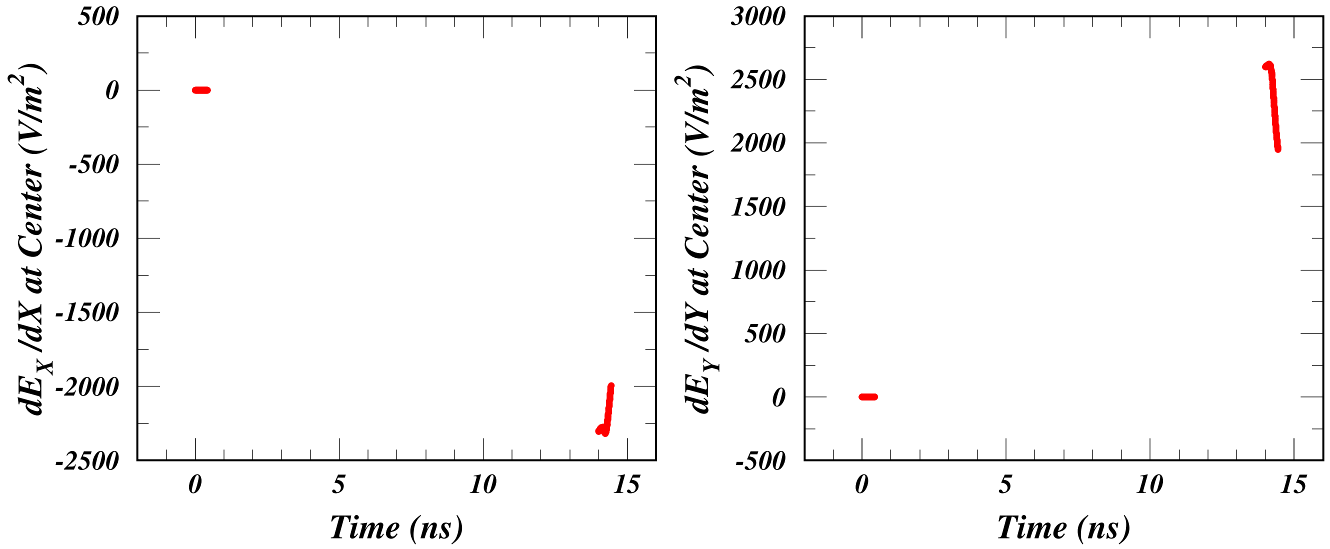


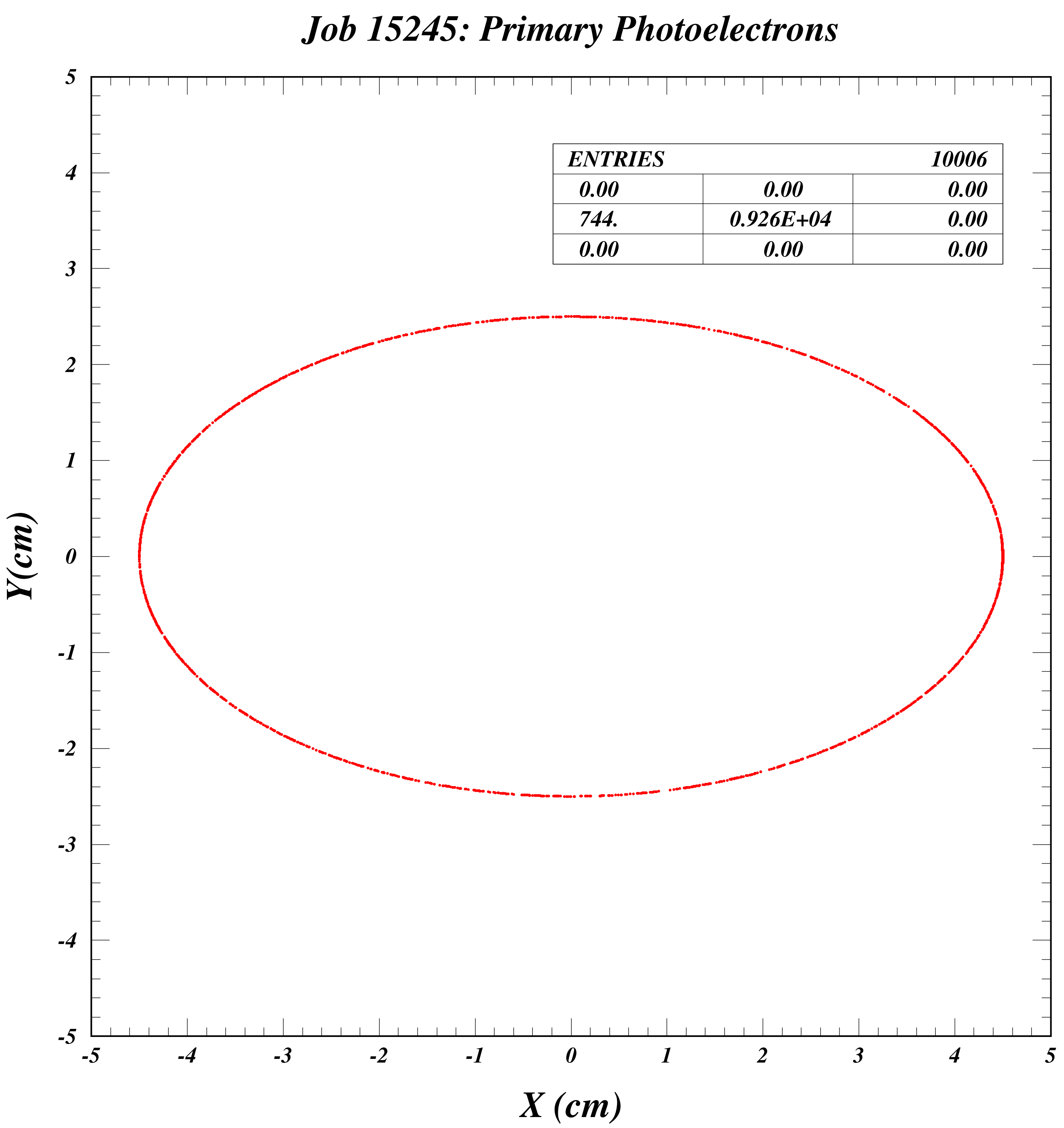
10/04/07 11.55
Job 15245: Electron Energies (eV) Averaged Over 28 ns
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)
100
80
60
40
20
0

Job 15245: Electric Field at Beam



Job 15245Electric Field Gradients at Beam




Job 15245: Primary Photoelectrons
ENTRIES 10006
0.00 0.00 0.00
744. 0.926E+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 15245: Primary Photoelectrons