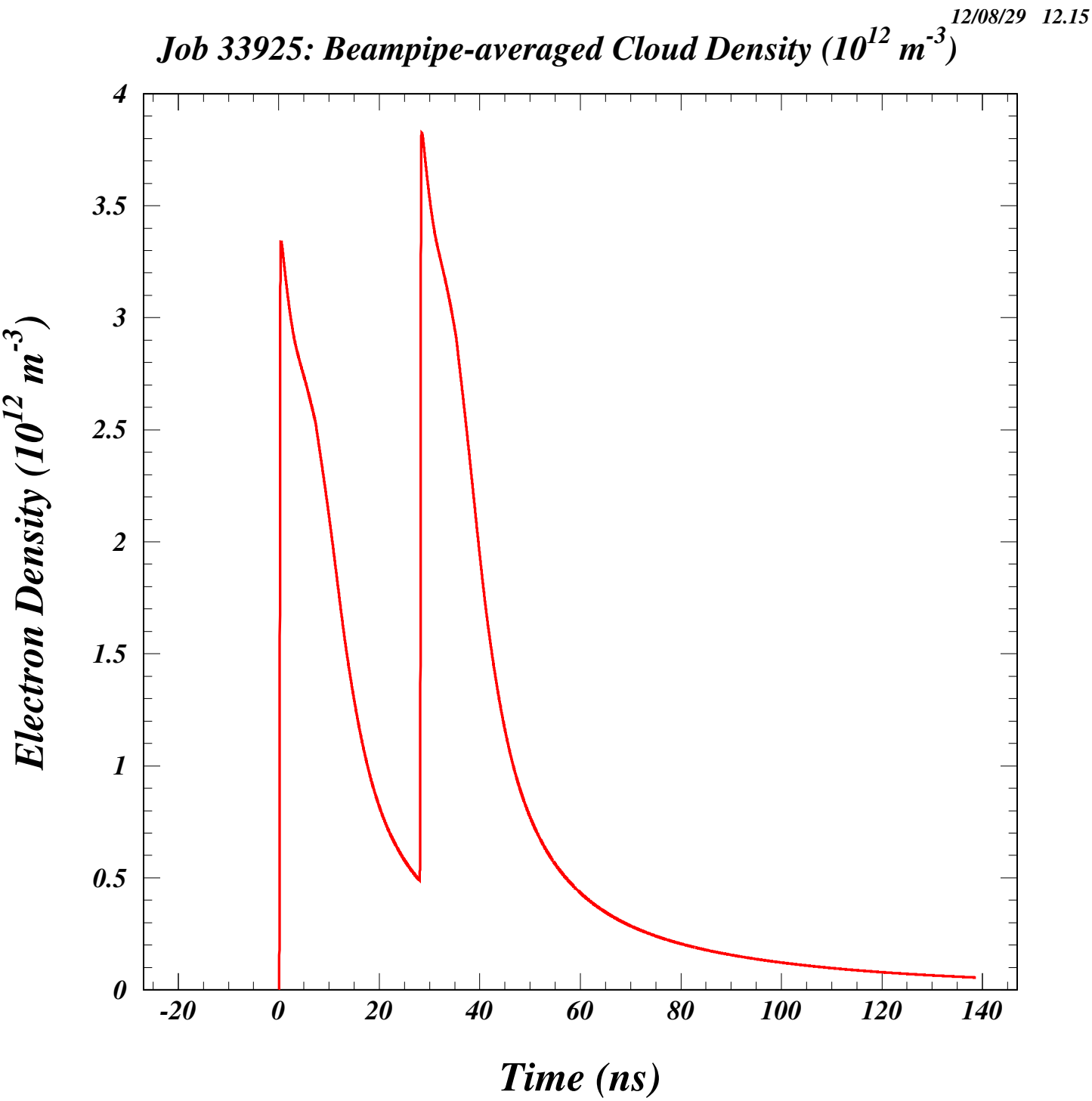
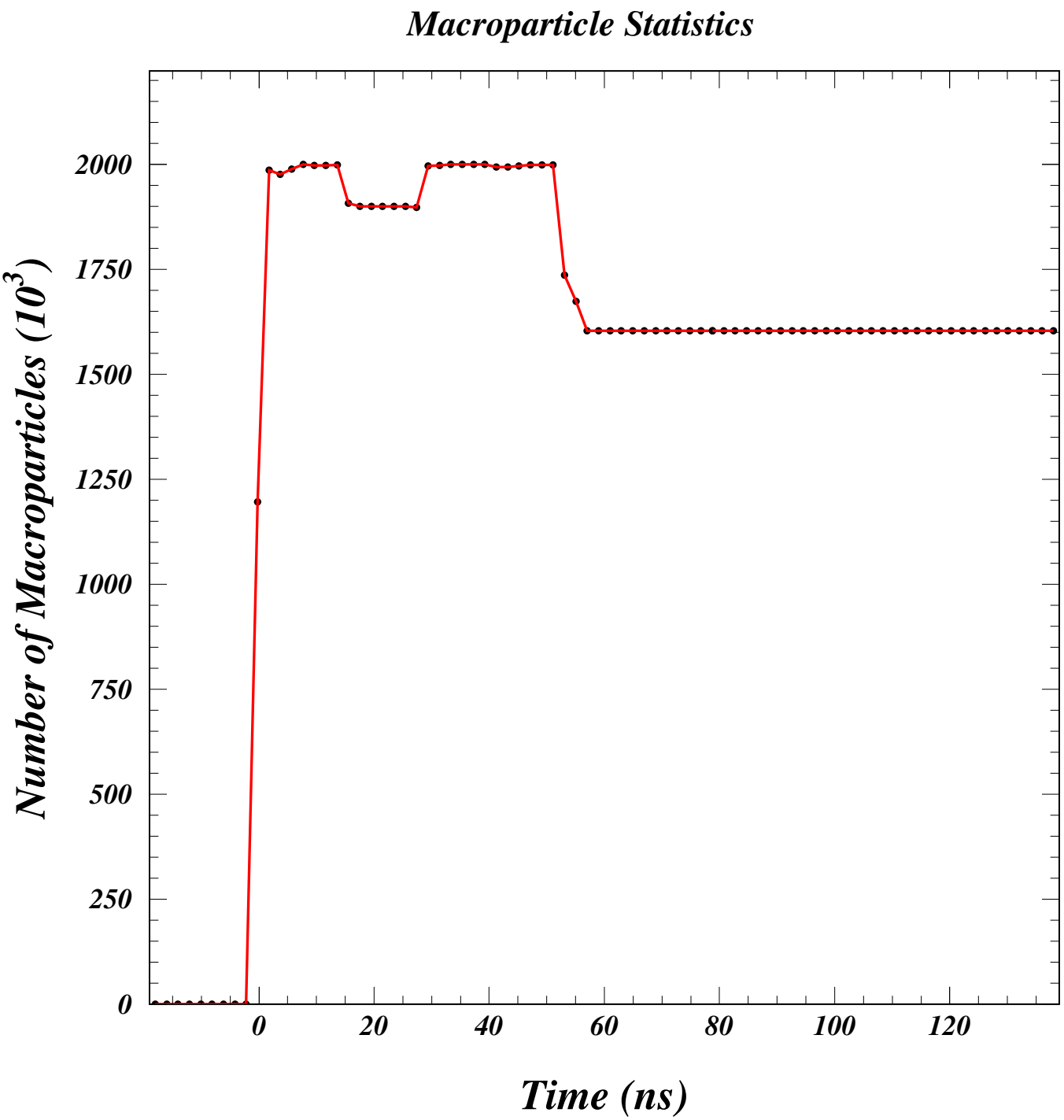
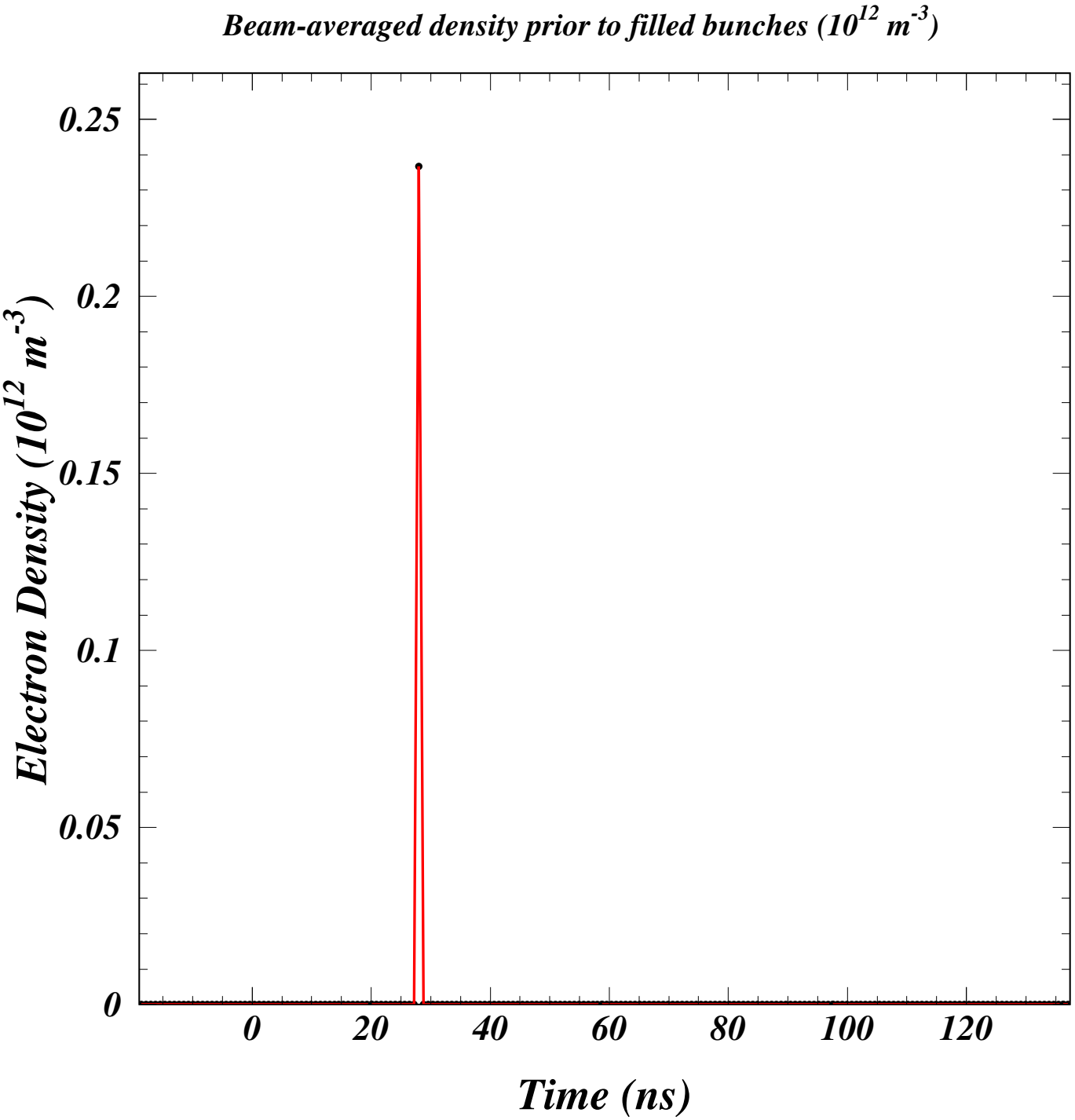
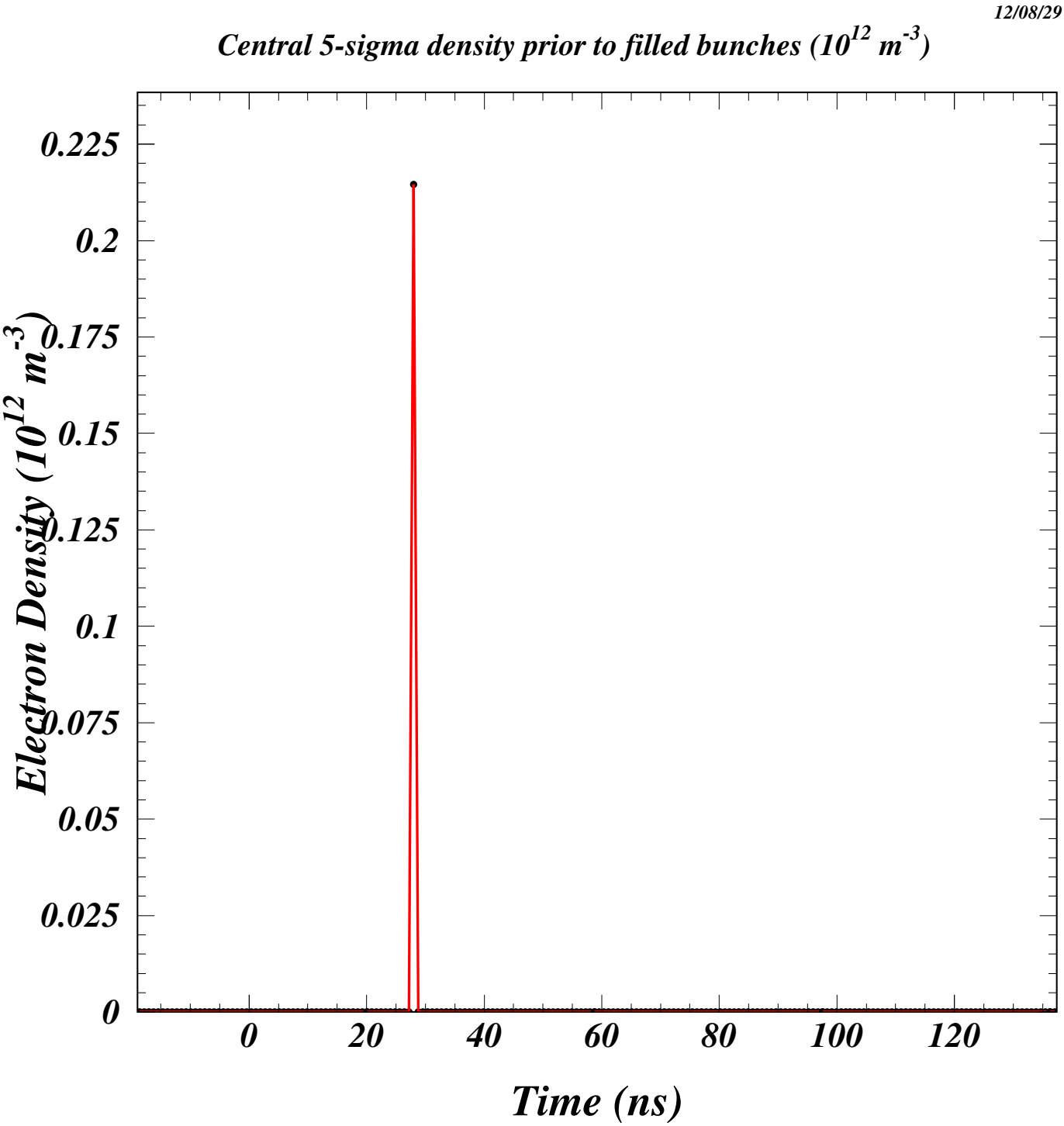

12/08/29 12.15
Job 33925: Beampipe-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
4
3.5
3
2.5
2
1.5
1
0.5
0
-20
0
20
40
60
80
100
120
140
Time (ns)

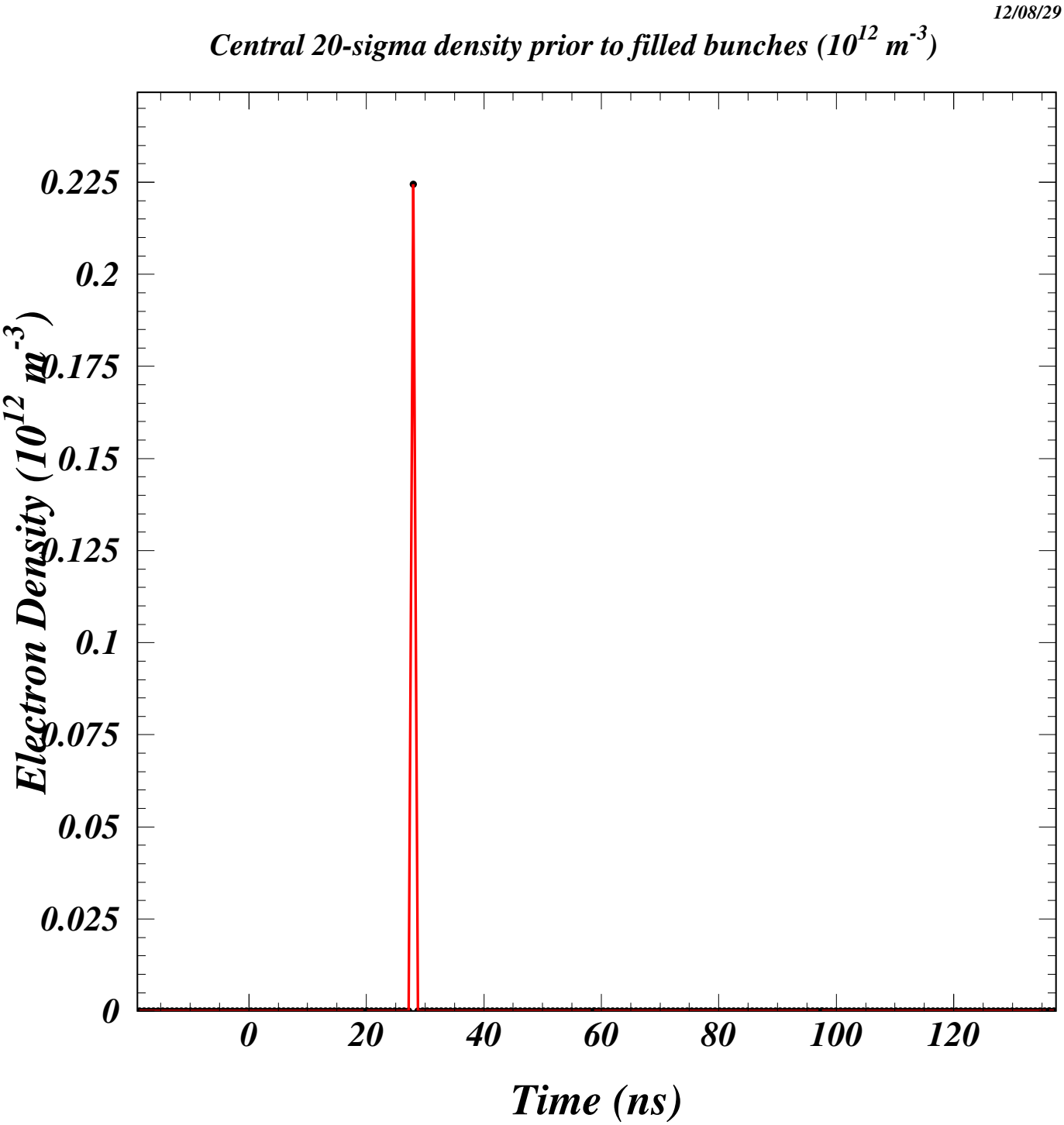

Macroparticle Statistics
Number of Macroparticles (10^3)
2000
1750
1500
1250
1000
750
500
250
0
0
20
40
60
80
100
120
Time (ns)


Beam-averaged density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
Time (ns)

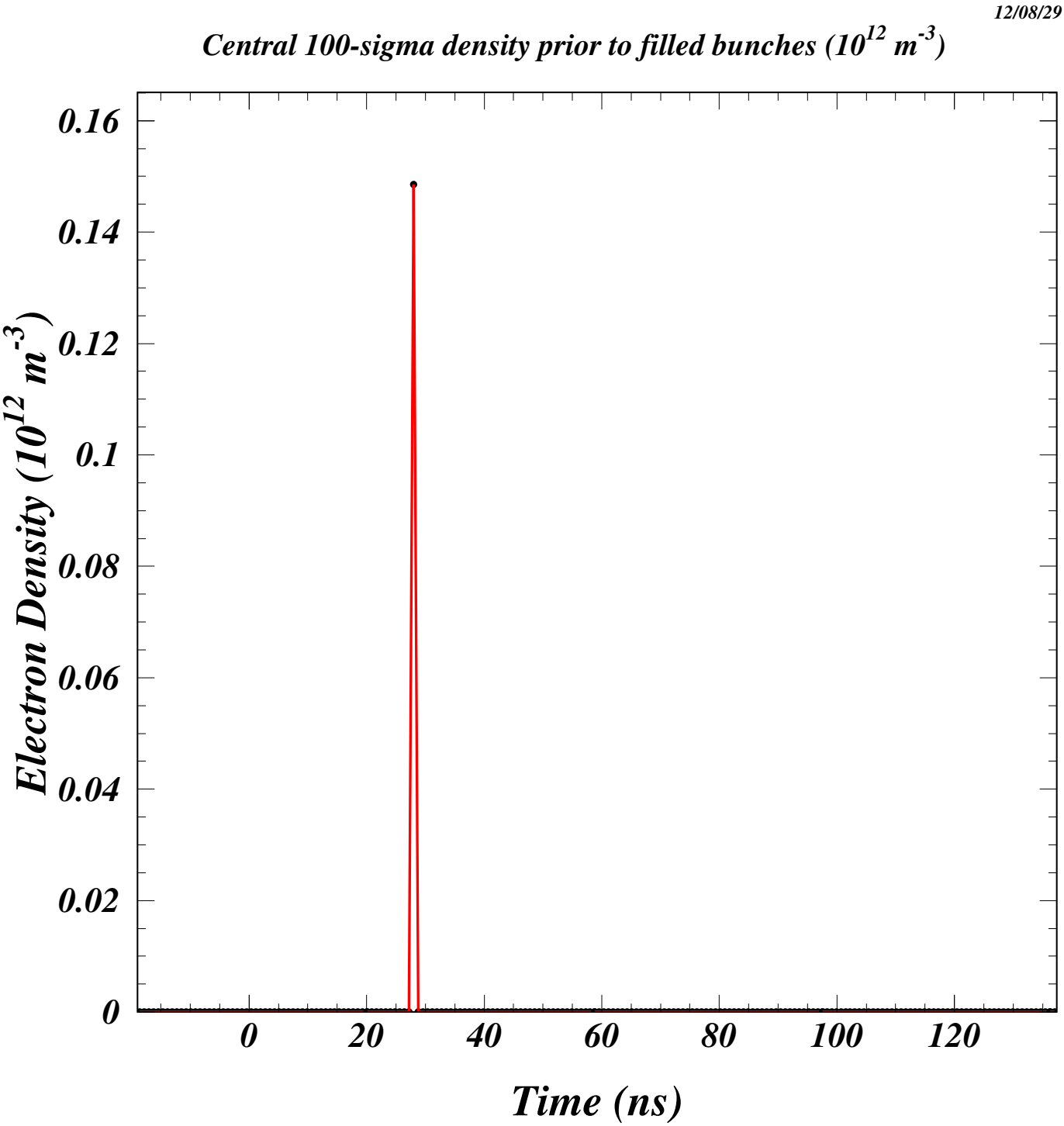
12/08/29 12.15

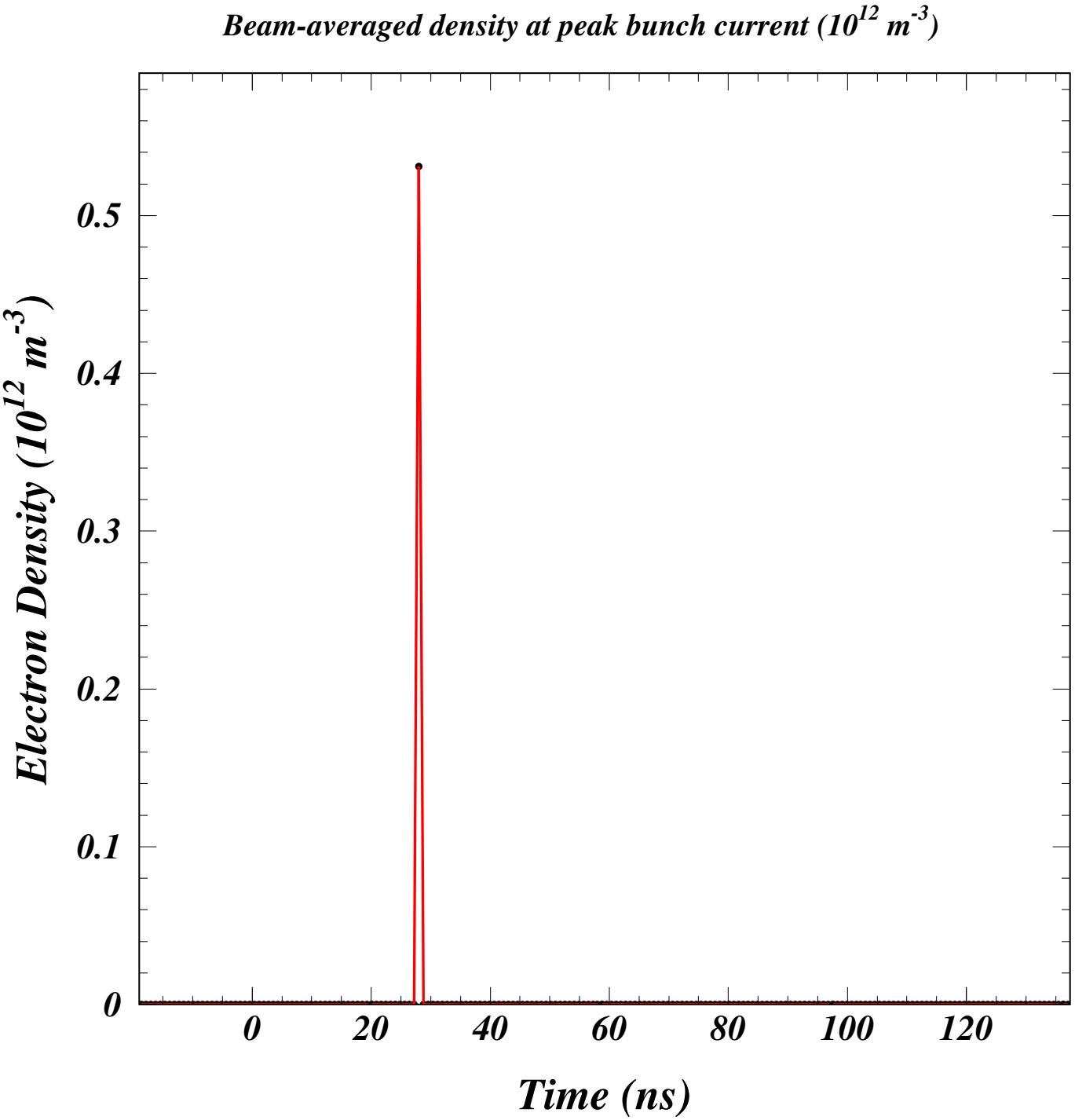

Central 5-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
0
20
40
60
80
100
120
Time (ns)

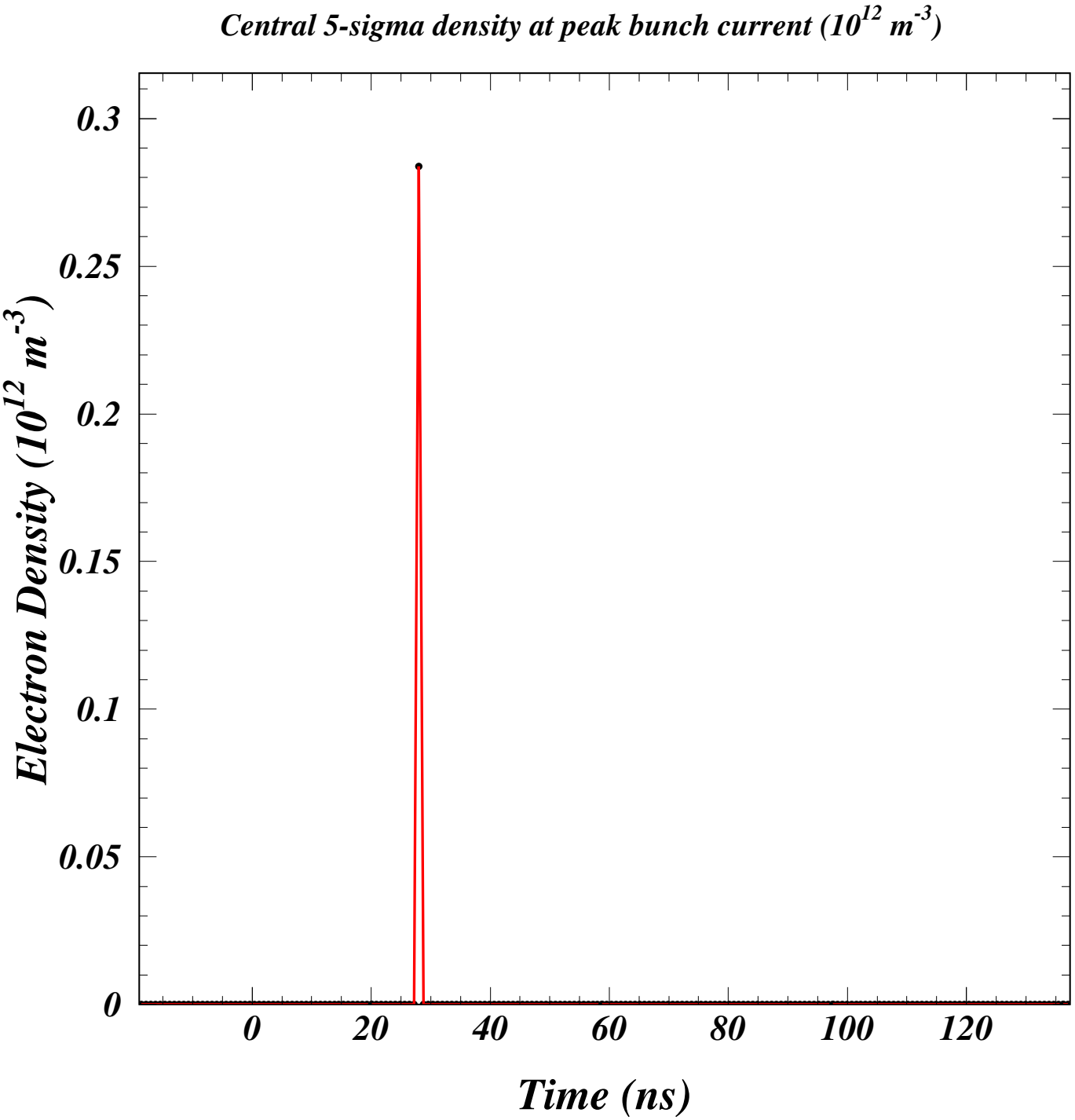
12/08/29 12.15


Central 20-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.225
0.2
0.175
0.15
0.125
0.1
0.075
0.05
0.025
0
0
20
40
60
80
100
120
Time (ns)

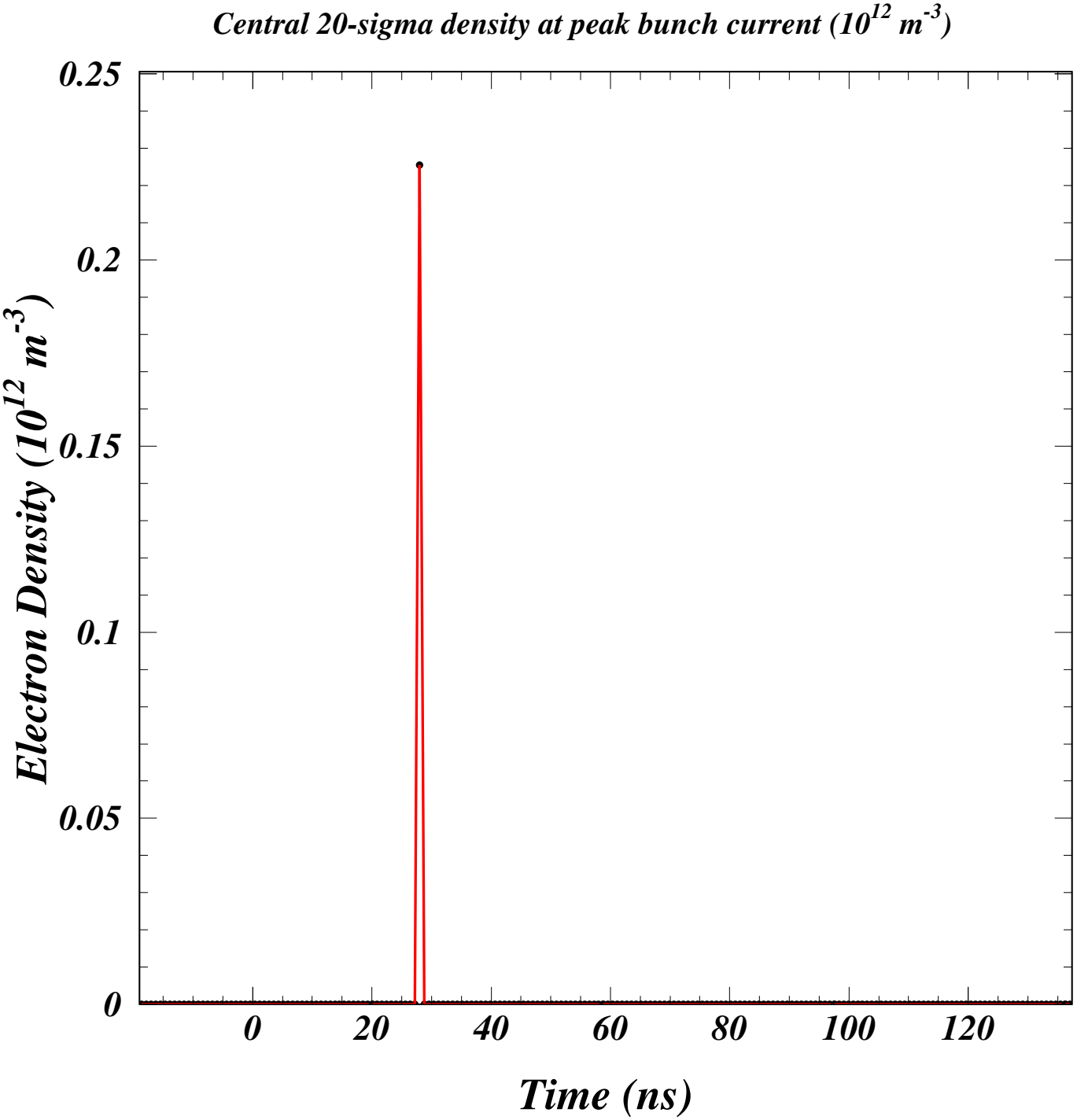
12/08/29 12.15


Central 100-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
20
40
60
80
100
120
Time (ns)

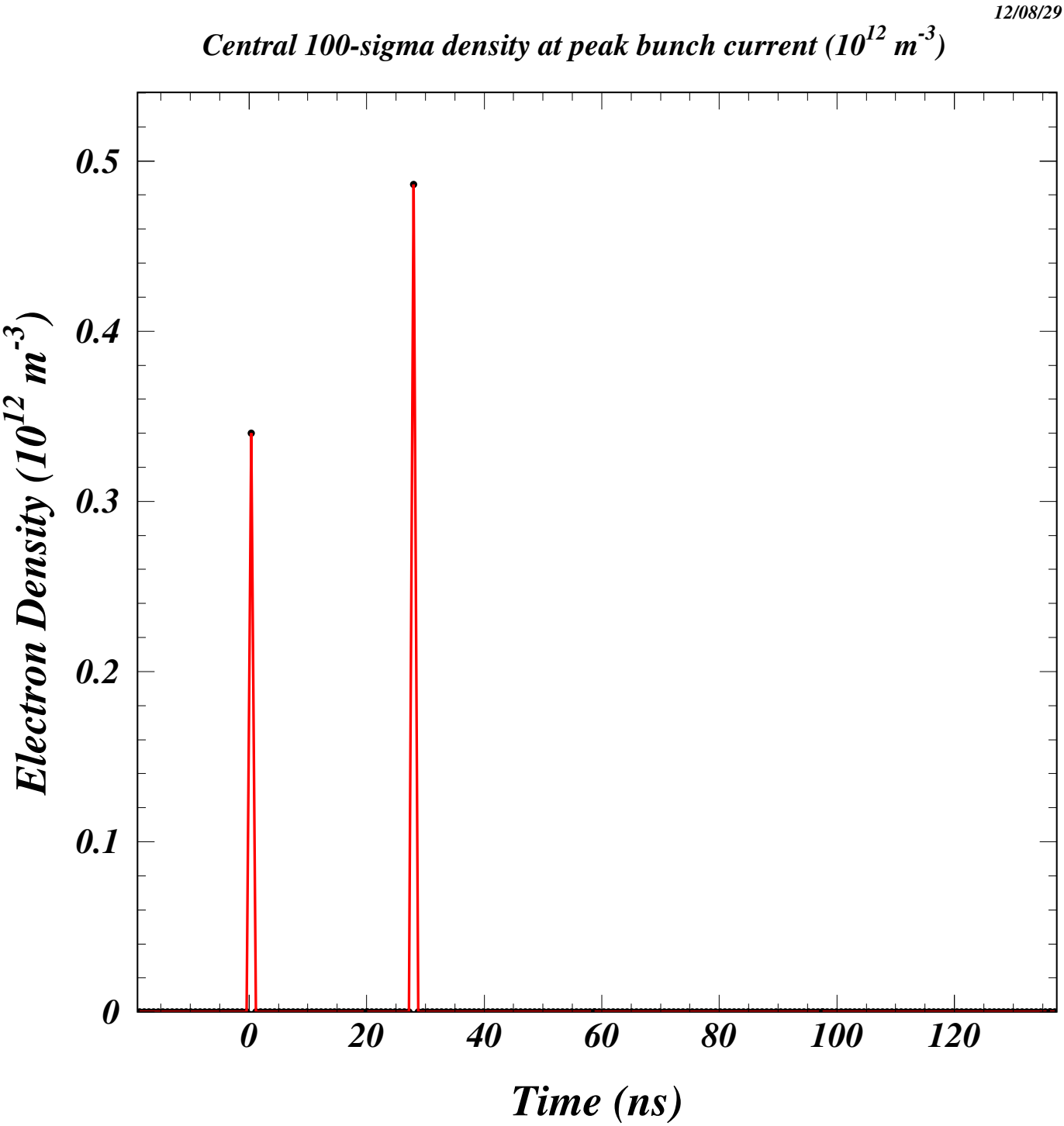

Beam-averaged density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0
0.1
0.2
0.3
0.4
0.5
0
20
40
60
80
100
120
Time (ns)


Central 5-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.3
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
Time (ns)

12/08/29 12.15

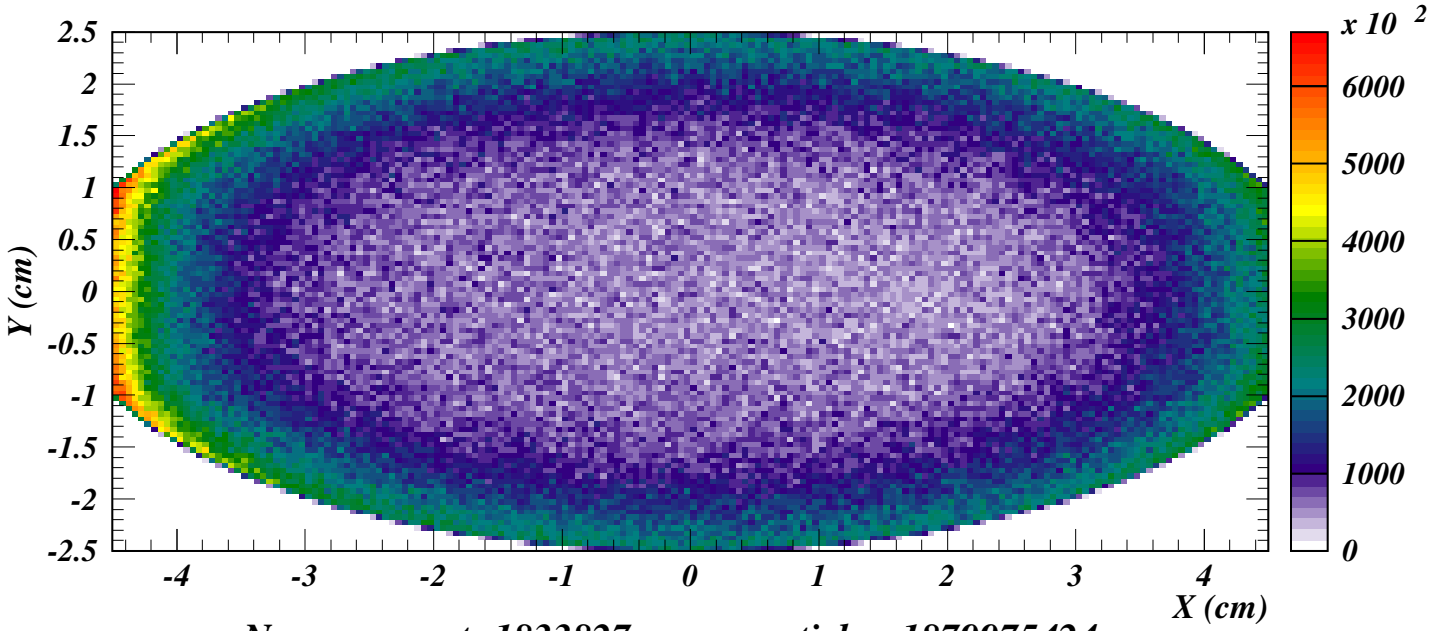

Central 20-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.25
0.2
0.15
0.1
0.05
0
0
20
40
60
80
100
120
Time (ns)

12/08/29 12.15

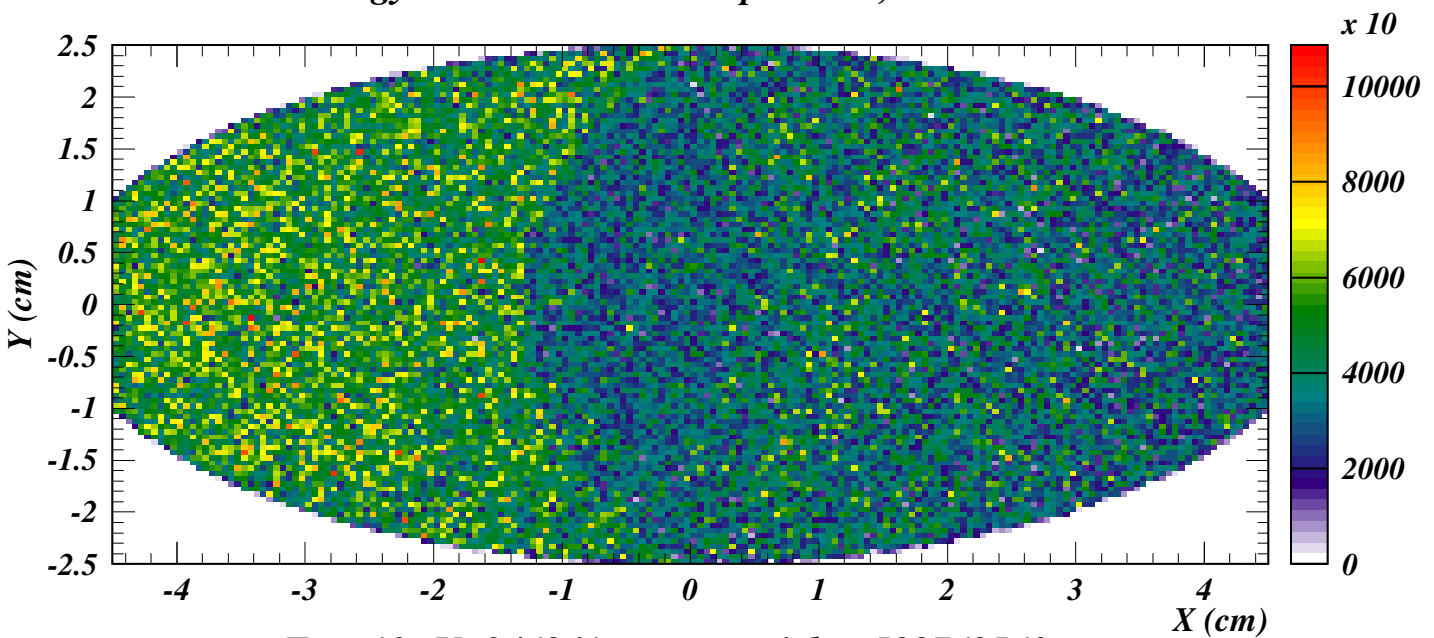

Central 100-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.5
0.4
0.3
0.2
0.1
0
0
20
40
60
80
100
120
Time (ns)

12/08/29 12.15

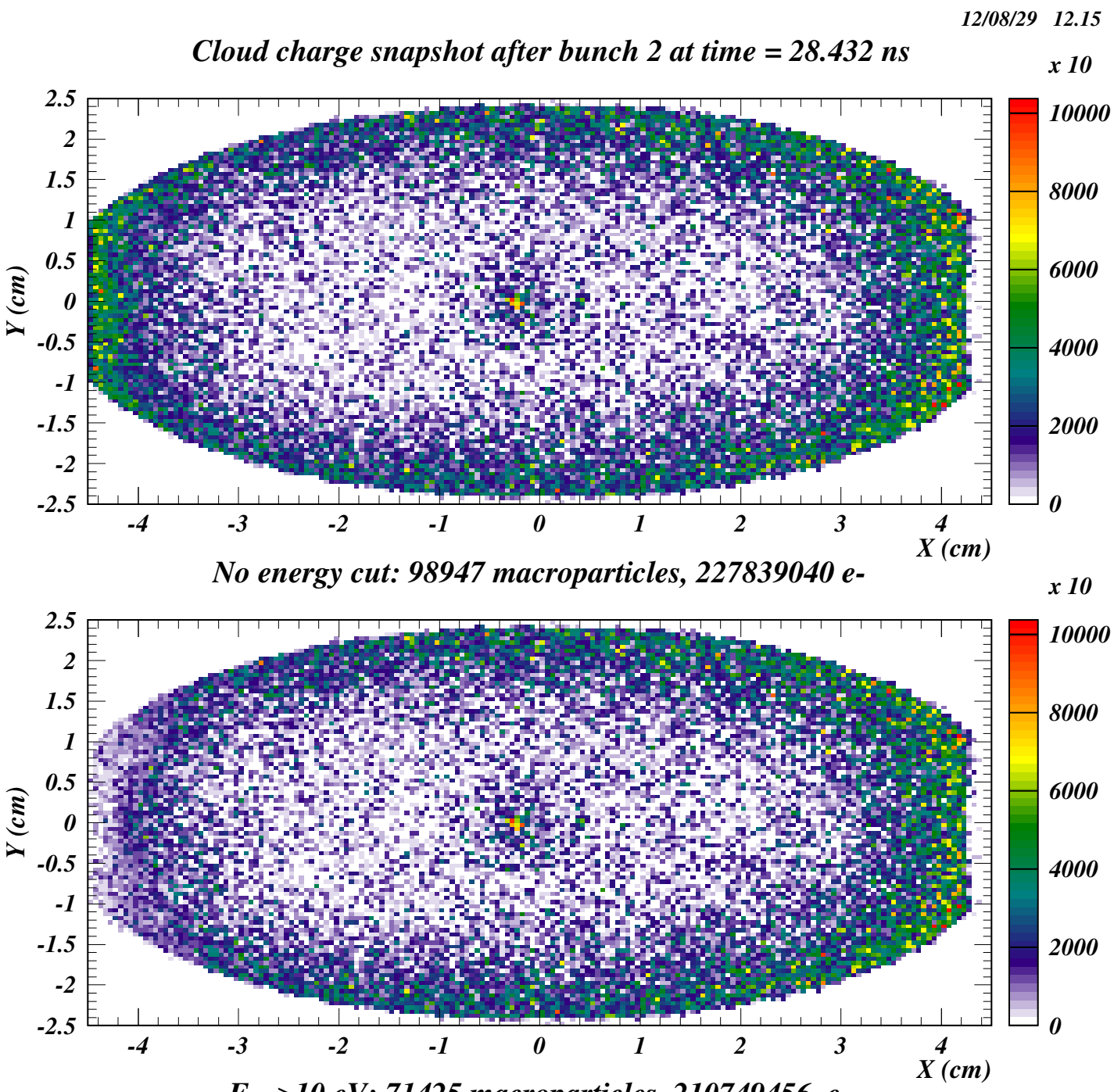
Cloud charge snapshot after bunch 1 at time = 28 ns

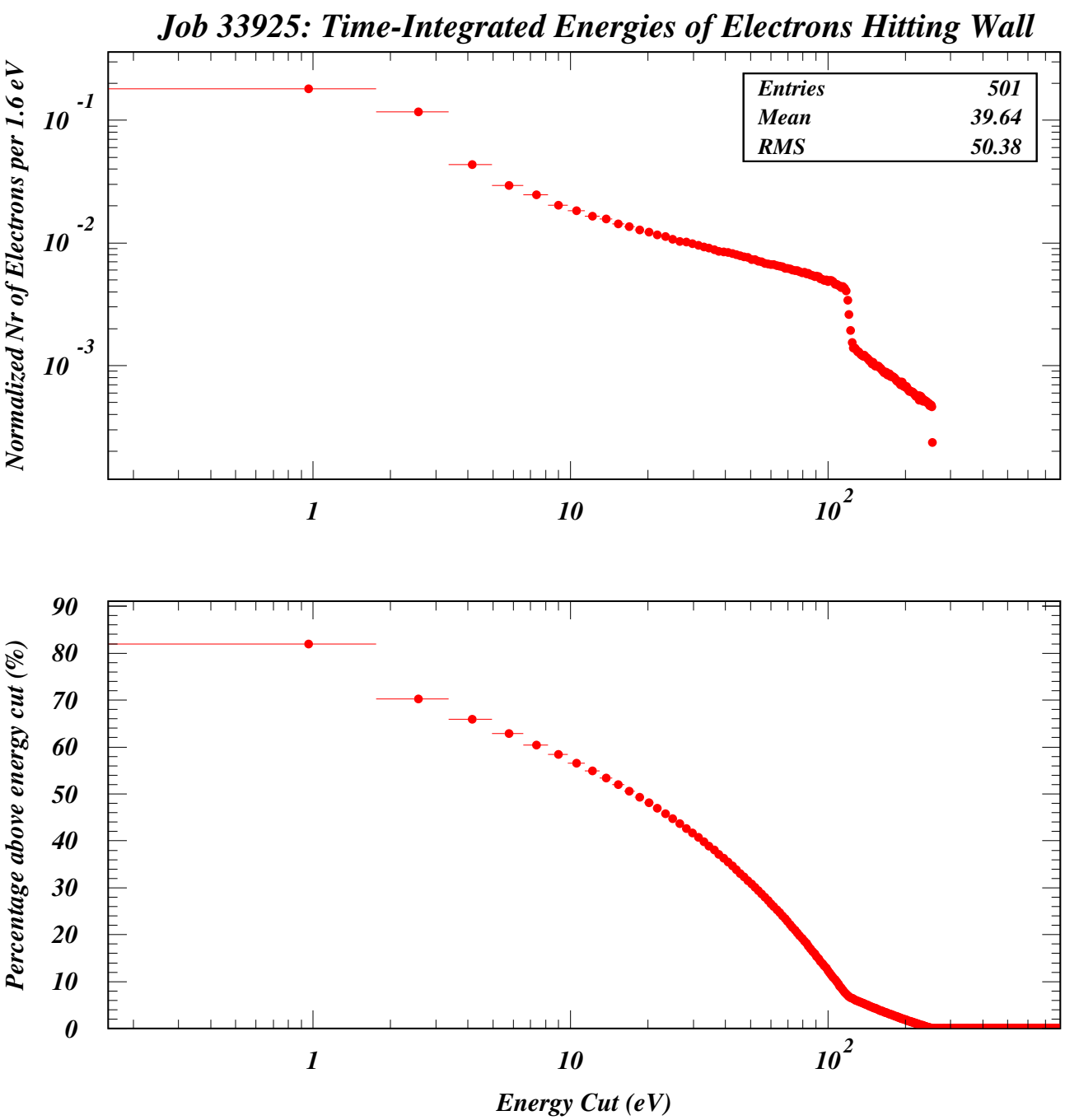


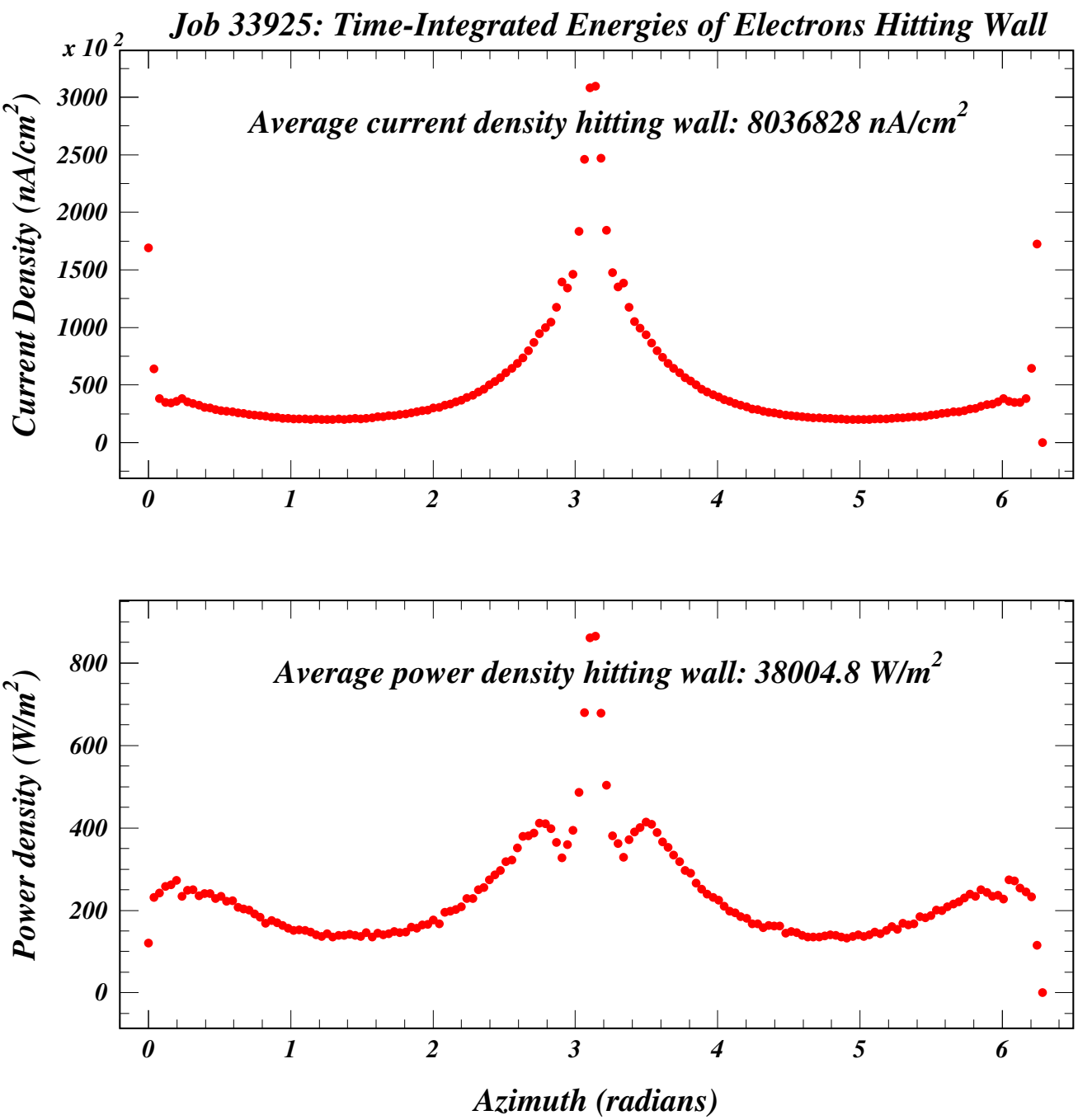
No energy cut: 1833827 macroparticles, 1879975424 e-



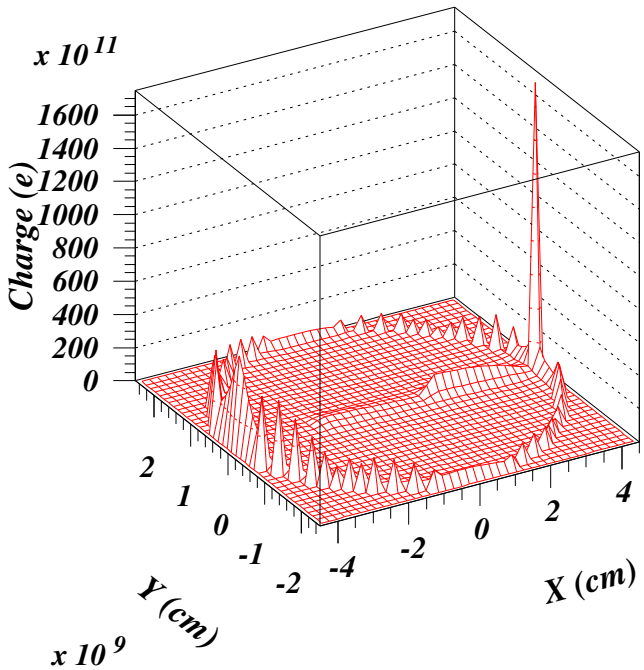
E_{kin}>10 eV: 246941 macroparticles, 599762560 e-

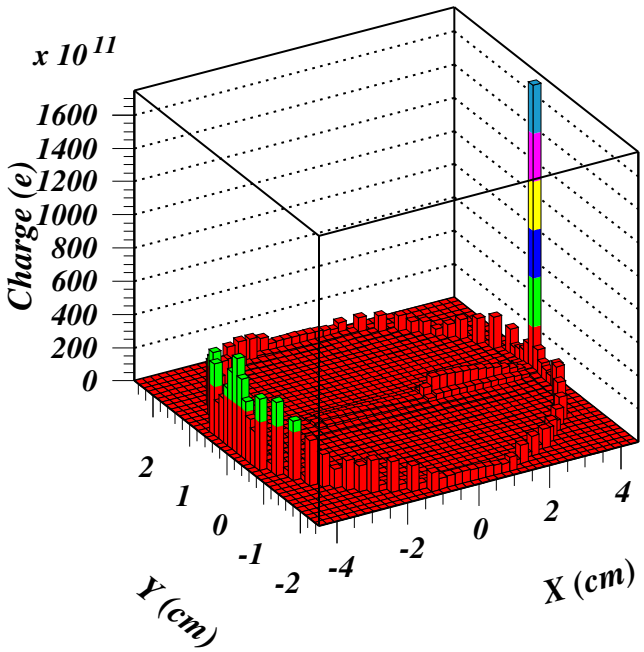

12/08/29 12.15
Cloud charge snapshot after bunch 2 at time = 28.432 ns
x 10
10000
8000
6000
4000
2000
0
Y (cm)
X (cm)
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-4
-3
-2
-1
0
1
2
3
4
No energy cut: 98947 macroparticles, 227839040 e-
x 10
10000
8000
6000
4000
2000
0
Y (cm)
X (cm)
E_kin>10 eV: 71425 macroparticles, 210749456 e-

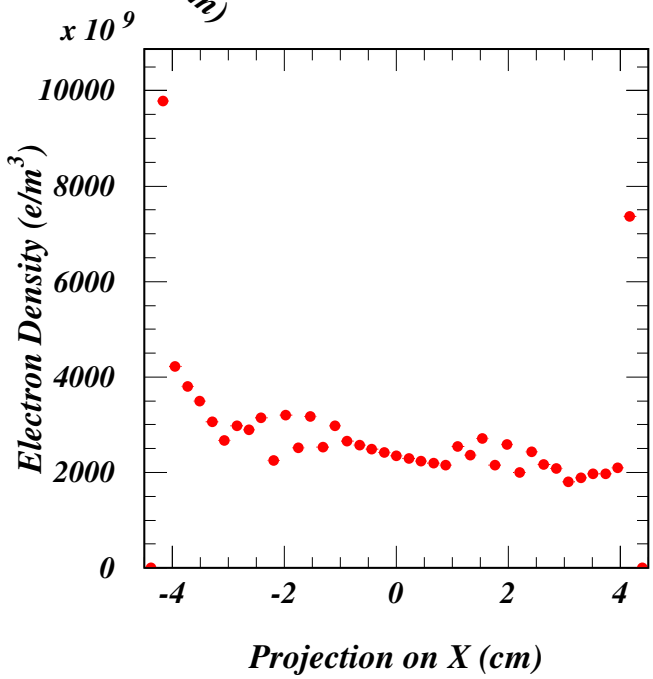

Job 33925: Time-Integrated Energies of Electrons Hitting Wall
Entries 501
Mean 39.64
RMS 50.38
Normalized Nr of Electrons per 1.6 eV
10 -1
10 -2
10 -3
1
10
10 2
Percentage above energy cut (%)
90
80
70
60
50
40
30
20
10
0
1
10
10 2
Energy Cut (eV)

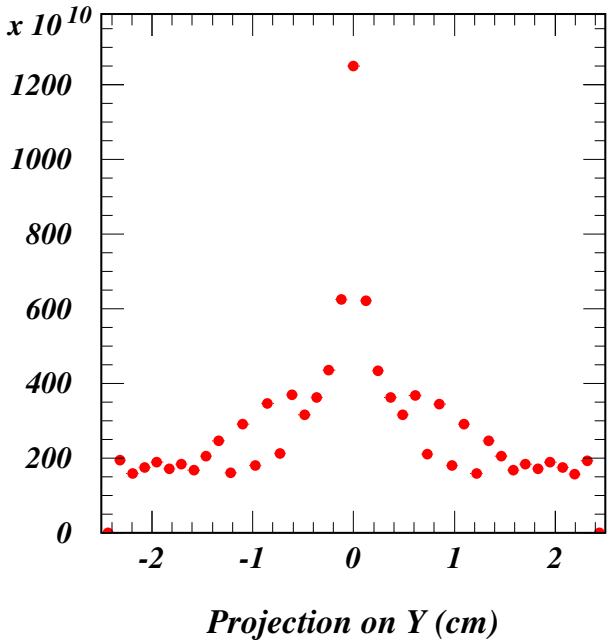

Job 33925: Time-Integrated Energies of Electrons Hitting Wall
x 10 2
Current Density (nA/cm2)
Average current density hitting wall: 8036828 nA/cm2
3000
2500
2000
1500
1000
500
0
0
1
2
3
4
5
6
Power density (W/m2)
Average power density hitting wall: 38004.8 W/m2
800
600
400
200
0
0
1
2
3
4
5
6
Azimuth (radians)

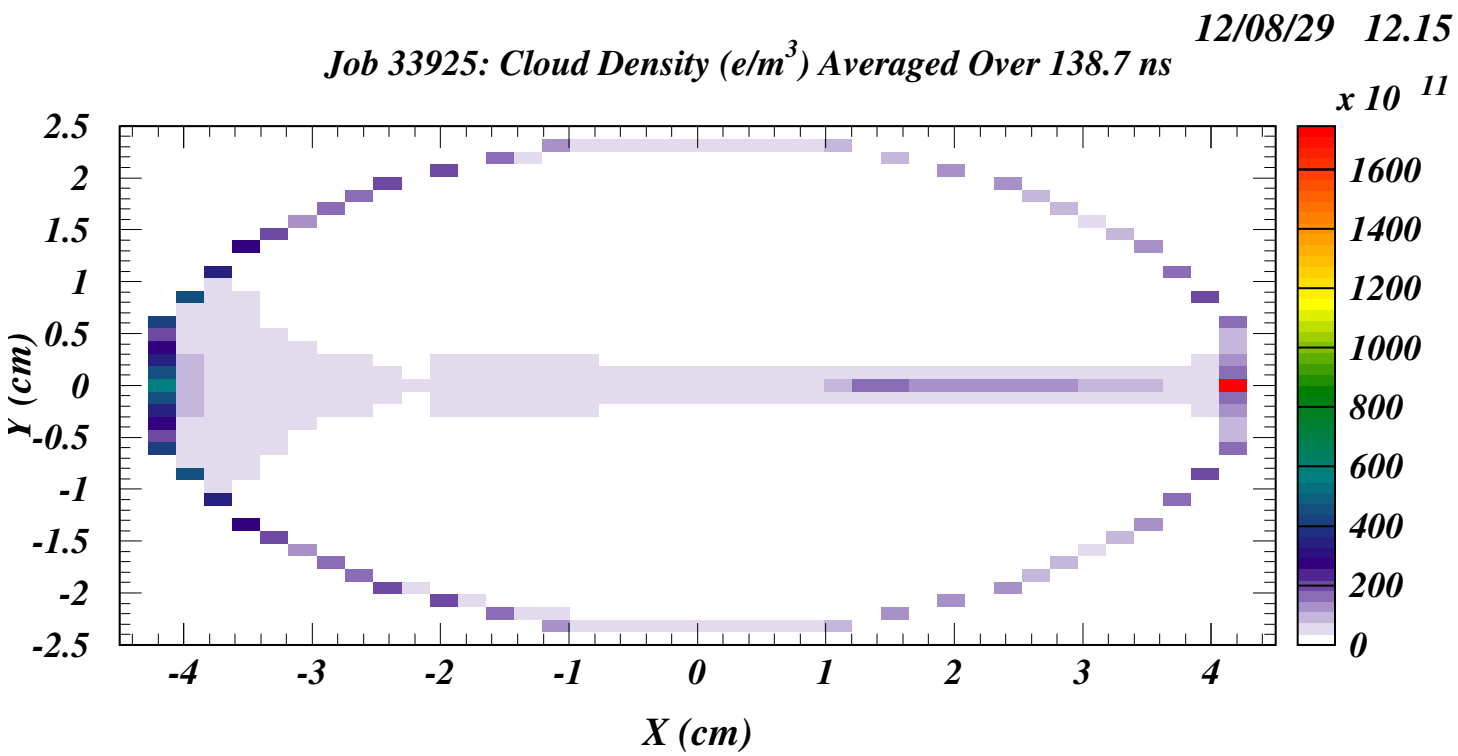
Job 33925: Cloud Density (e/m^3) Averaged Over 138.7 ns





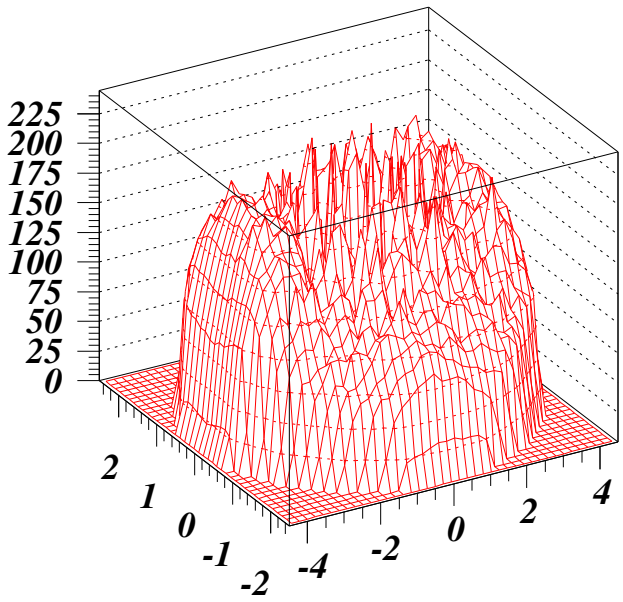


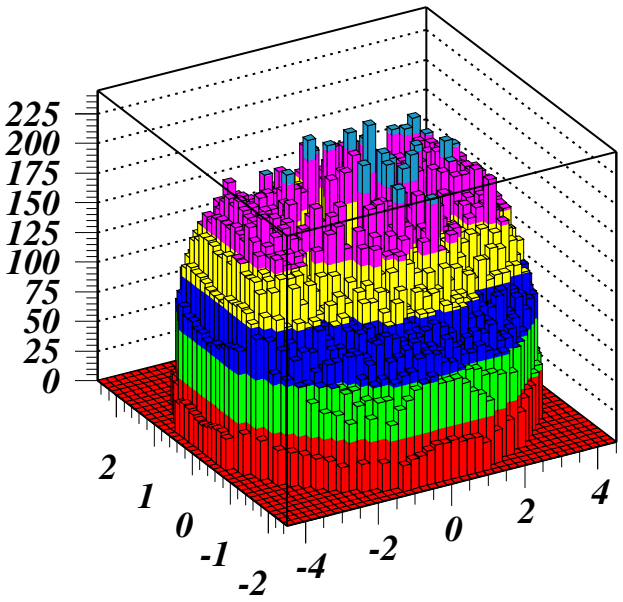


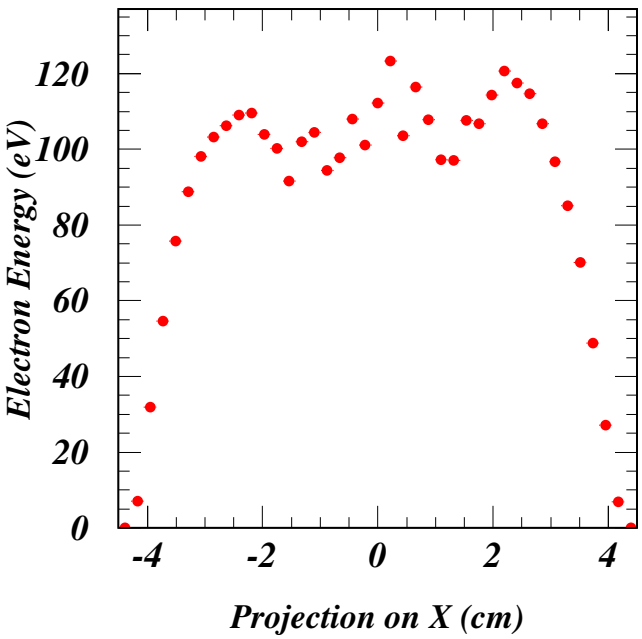

12/08/29 12.15
Job 33925: Cloud Density (e/m3) Averaged Over 138.7 ns
x 10 11
1600
1400
1200
1000
800
600
400
200
0
2.5
2
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
Y (cm)
-4
-3
-2
-1
0
1
2
3
4
X (cm)

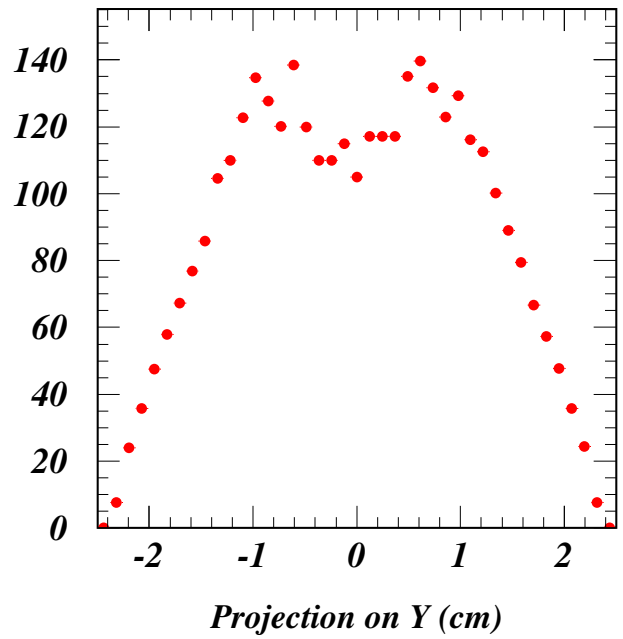
12/08/29 12.15

Job 33925: Electron Energies (eV) Averaged Over 138.7 ns



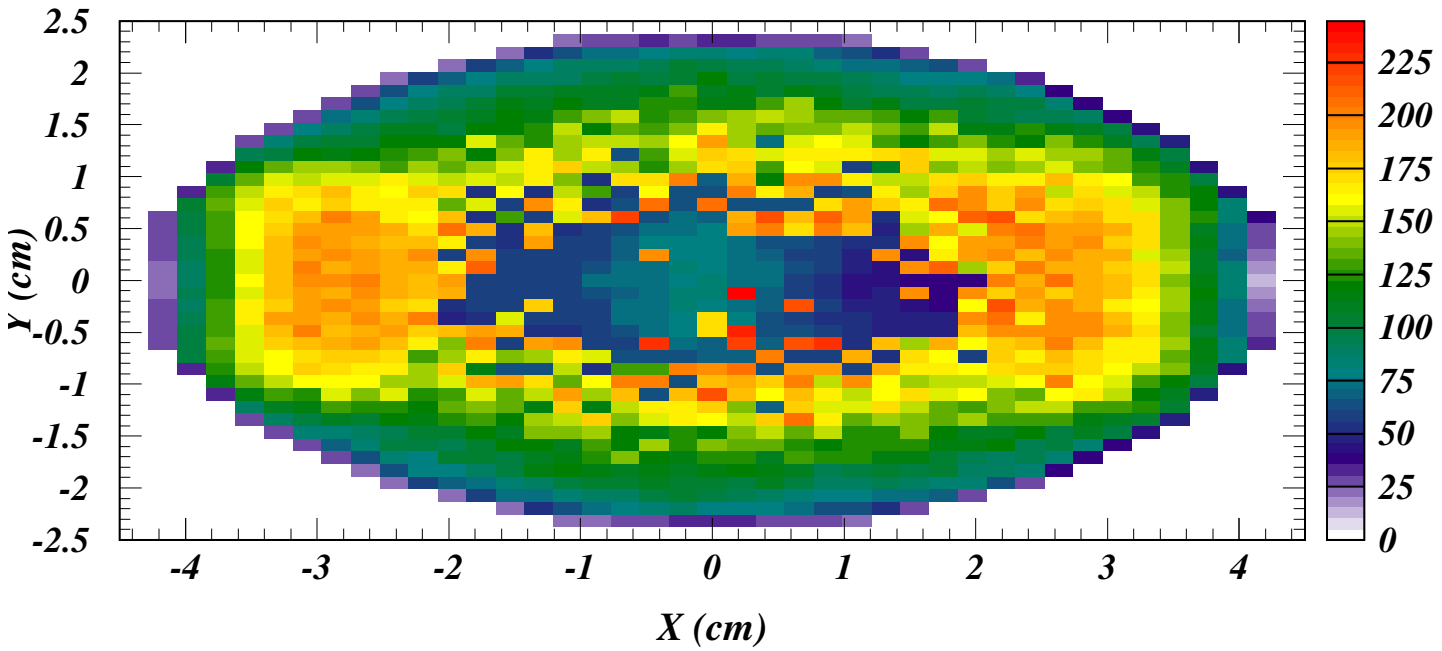






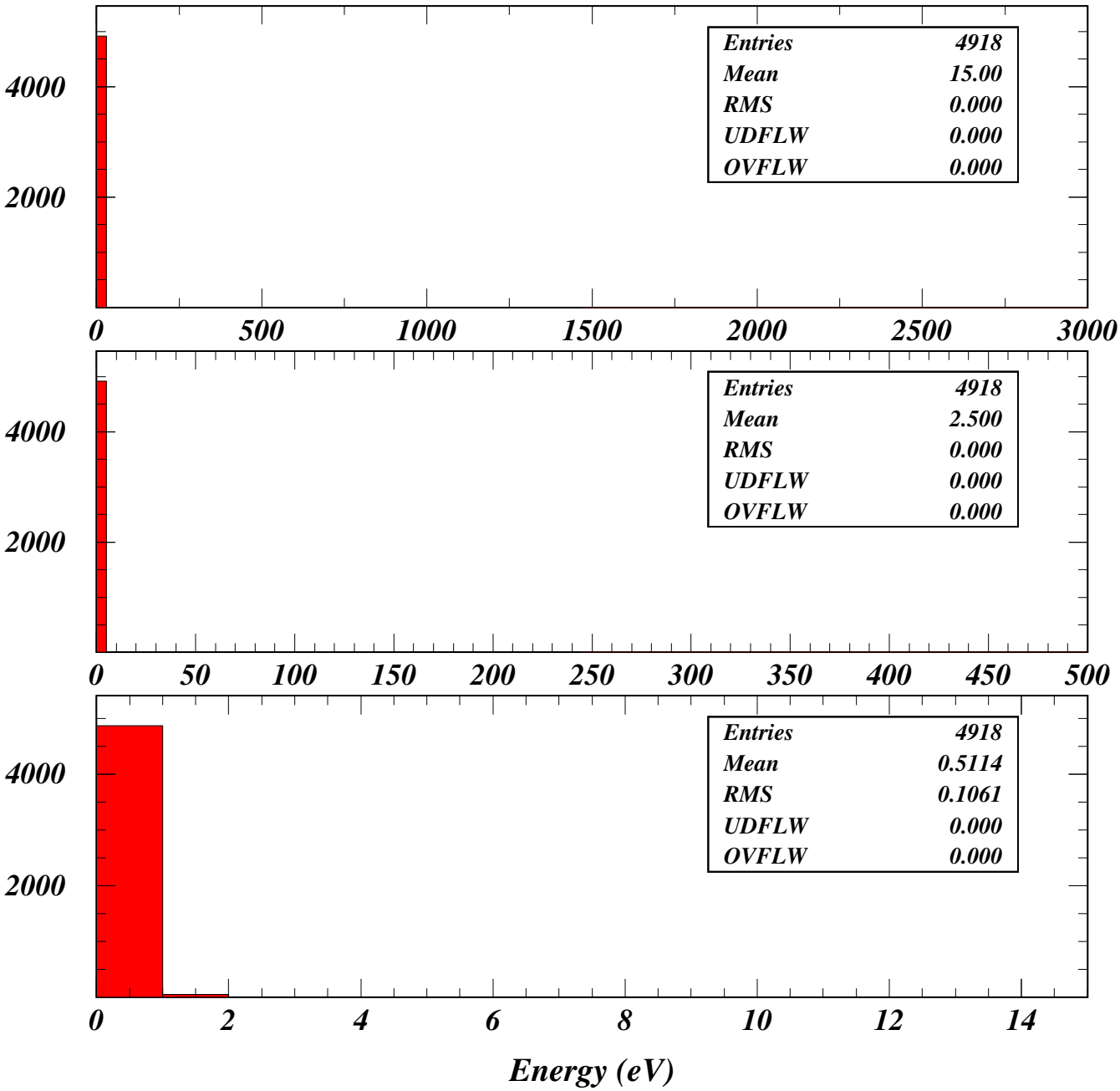
12/08/29 12.15

Job 33925: Electron Energies (eV) Averaged Over 138.7 ns



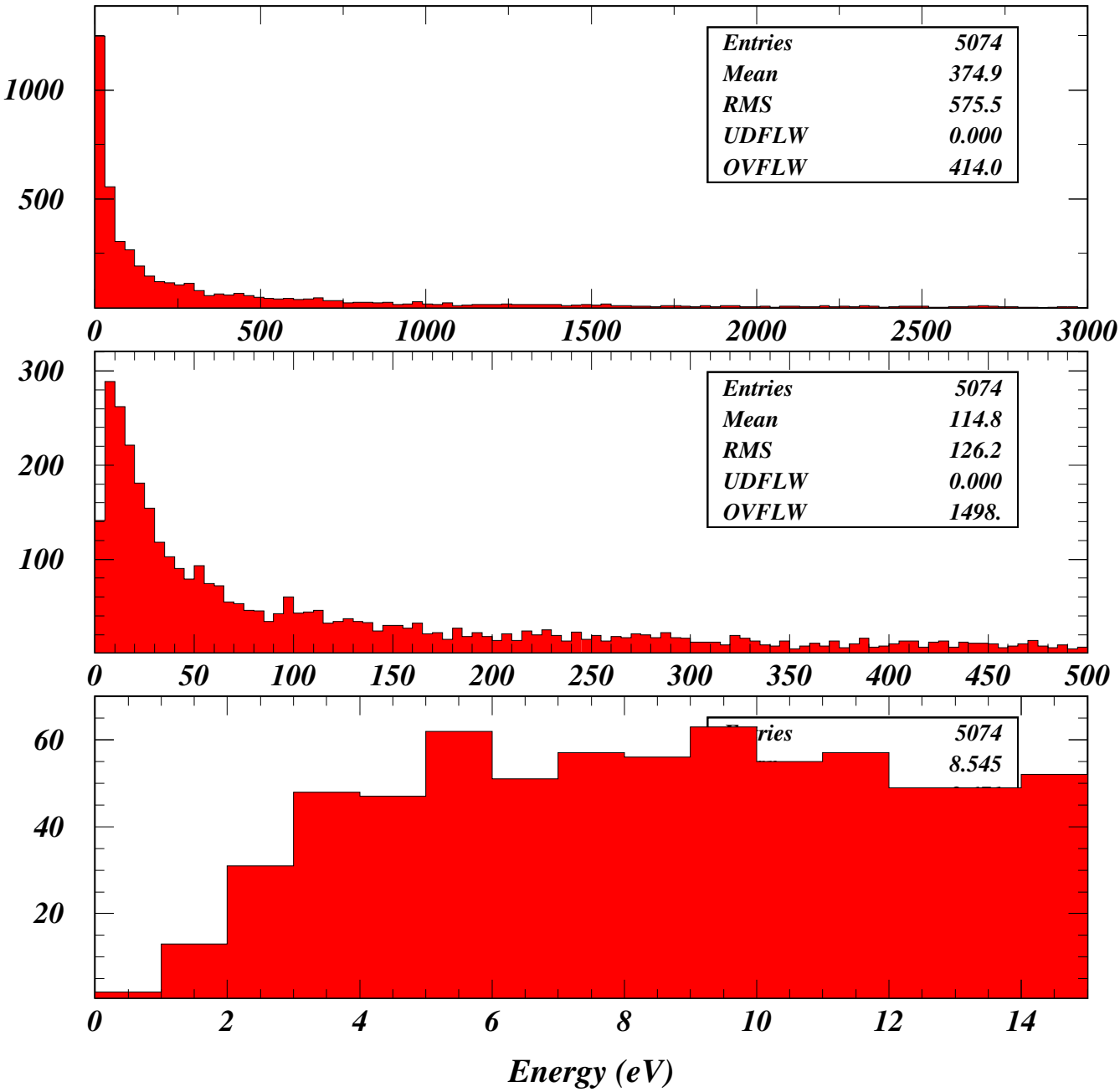
12/08/29 12.15

Job 33925: Photoelectrons from Direct Photons



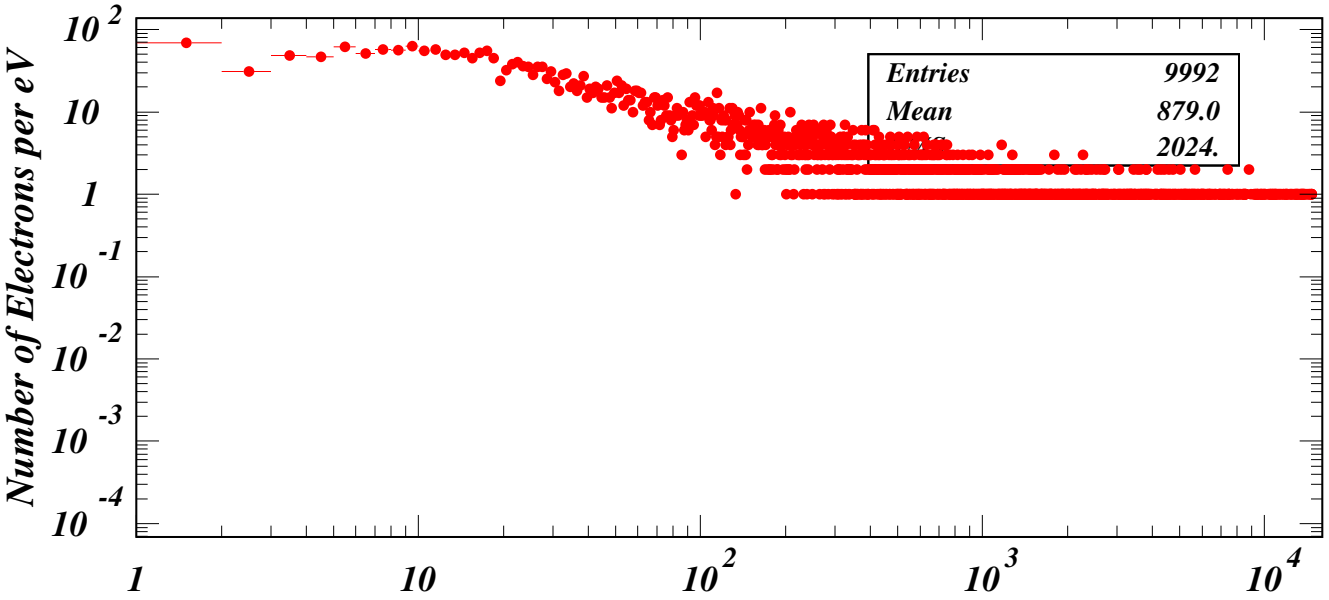
12/08/29 12.15

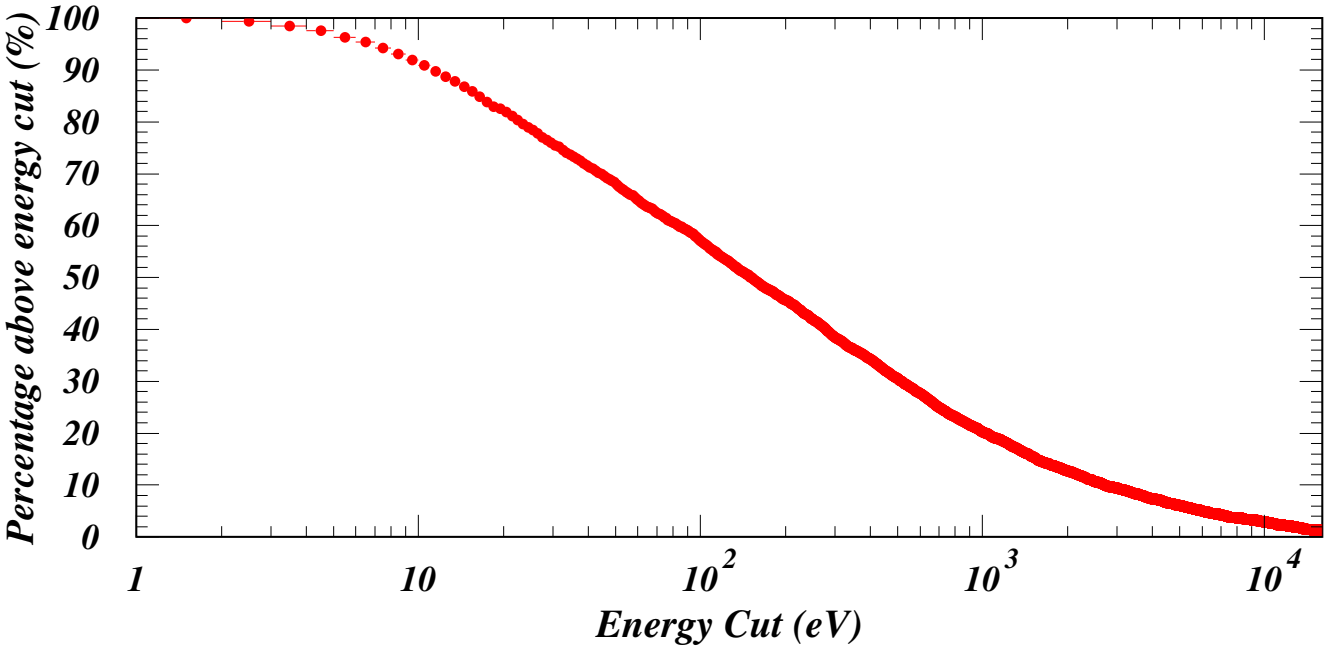
Job 33925: Photoelectrons from Reflected Photons



12/08/29 12.15

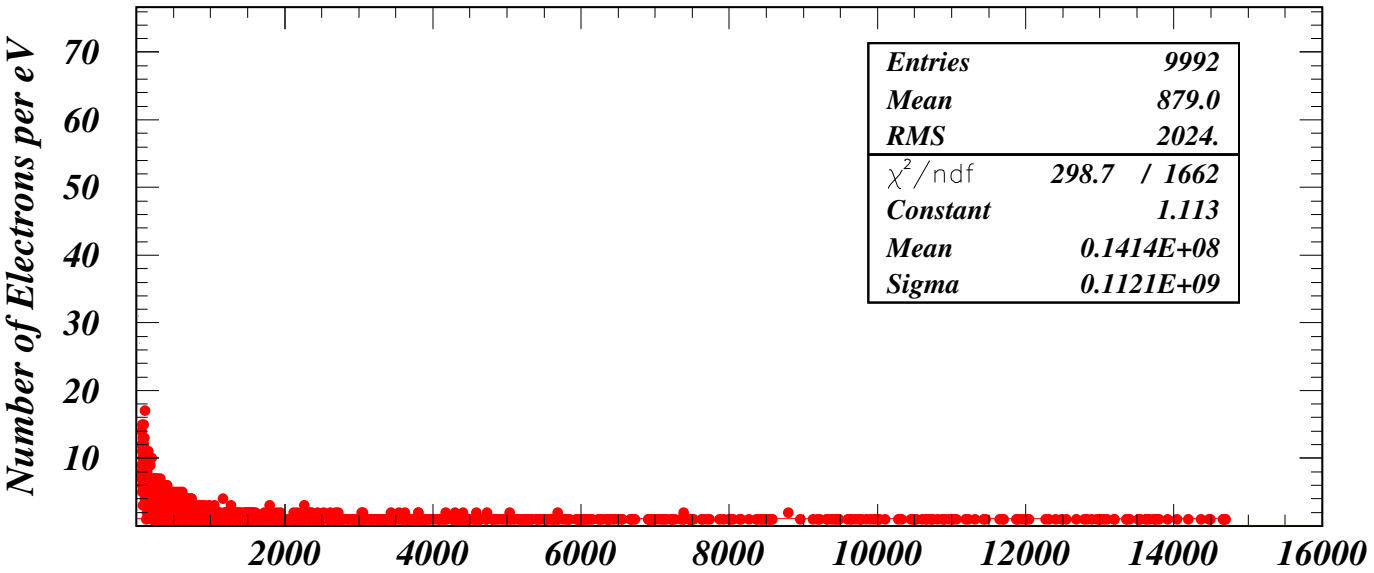
Job 33925: Photoelectron Energies

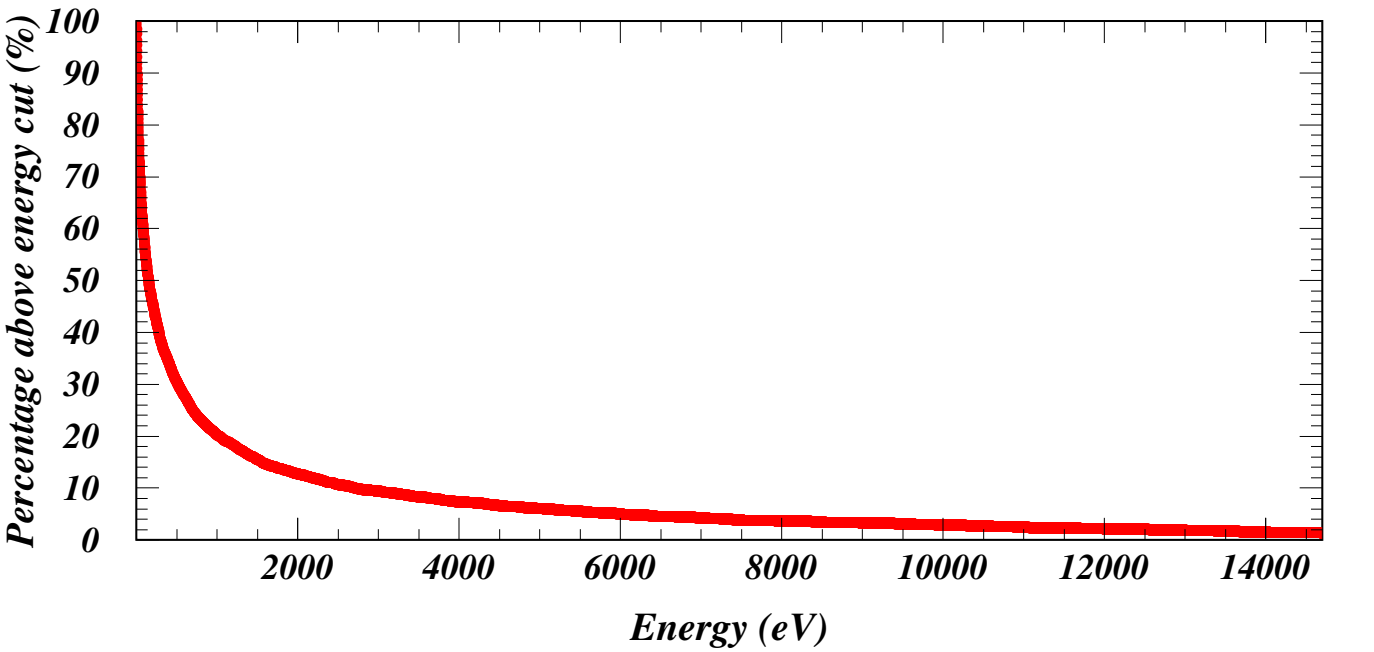




12/08/29 12.15

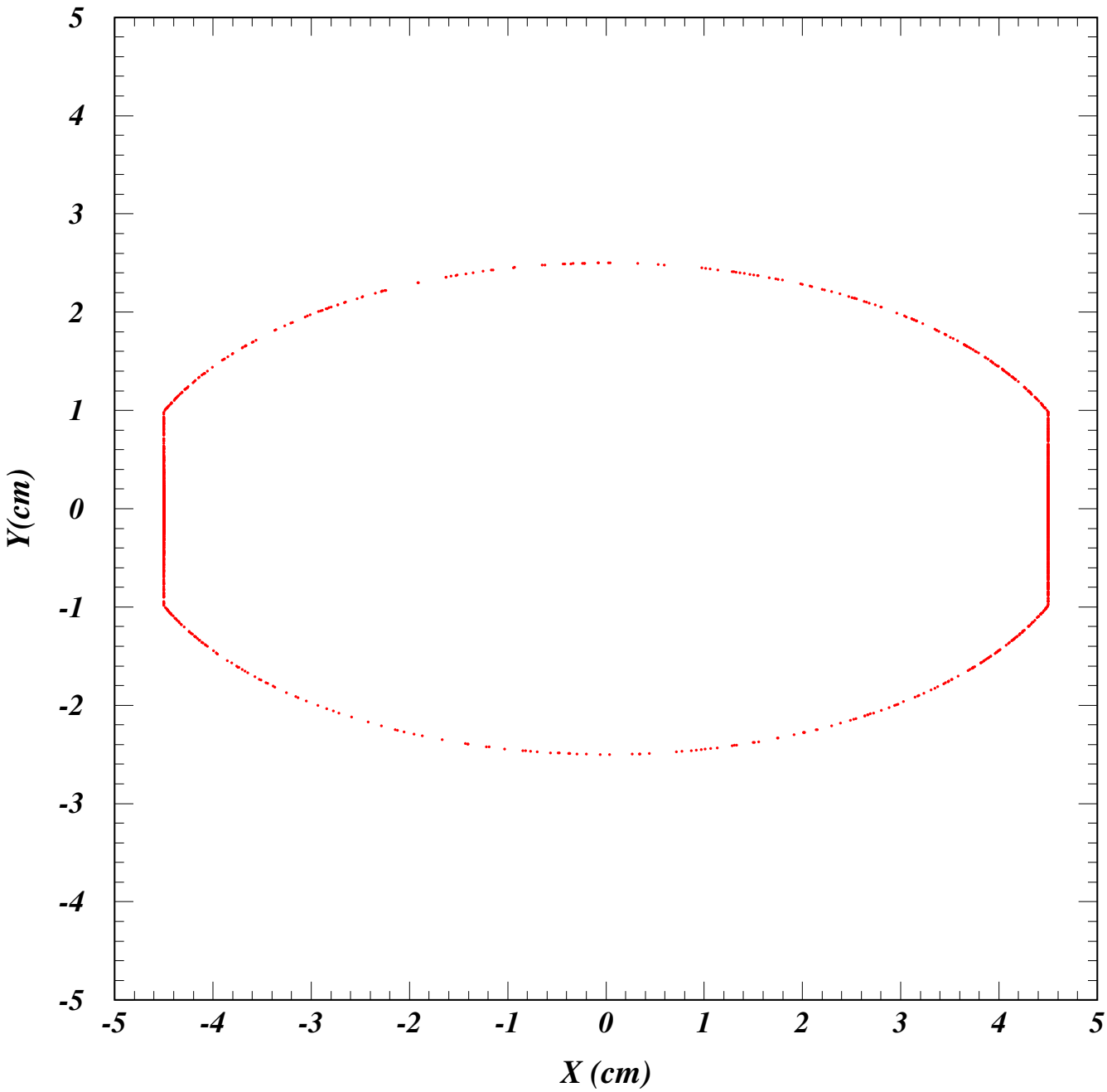
Job 33925: Photoelectron Energies



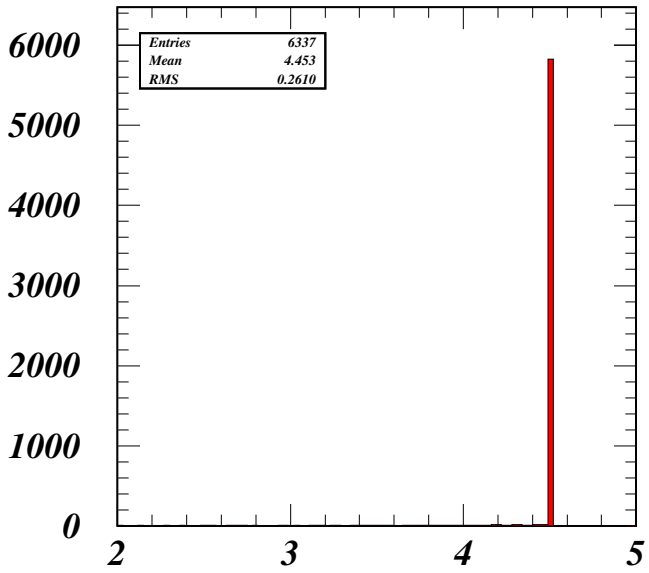


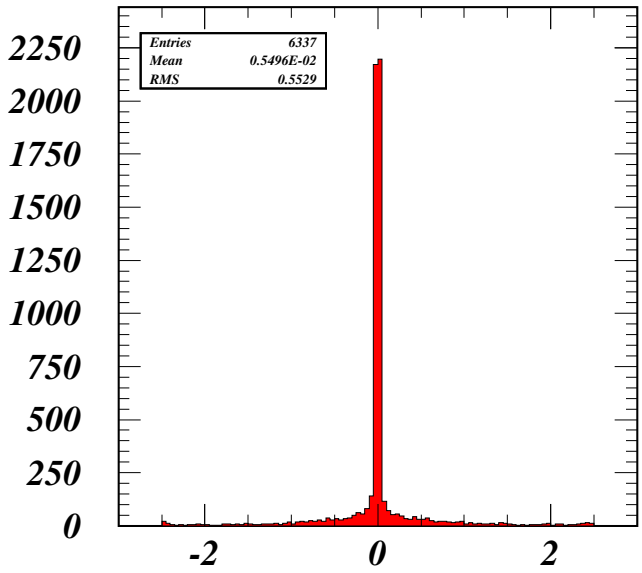
12/08/29 12.15

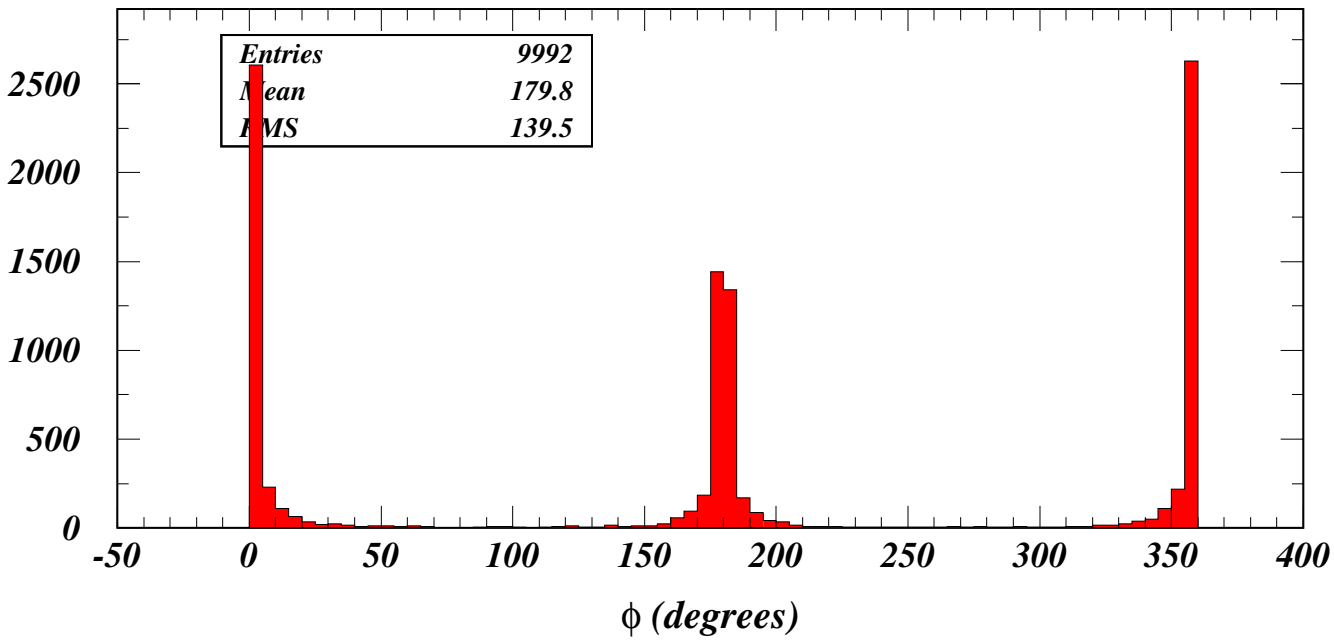
Job 33925: Photoelectron Production Distributions



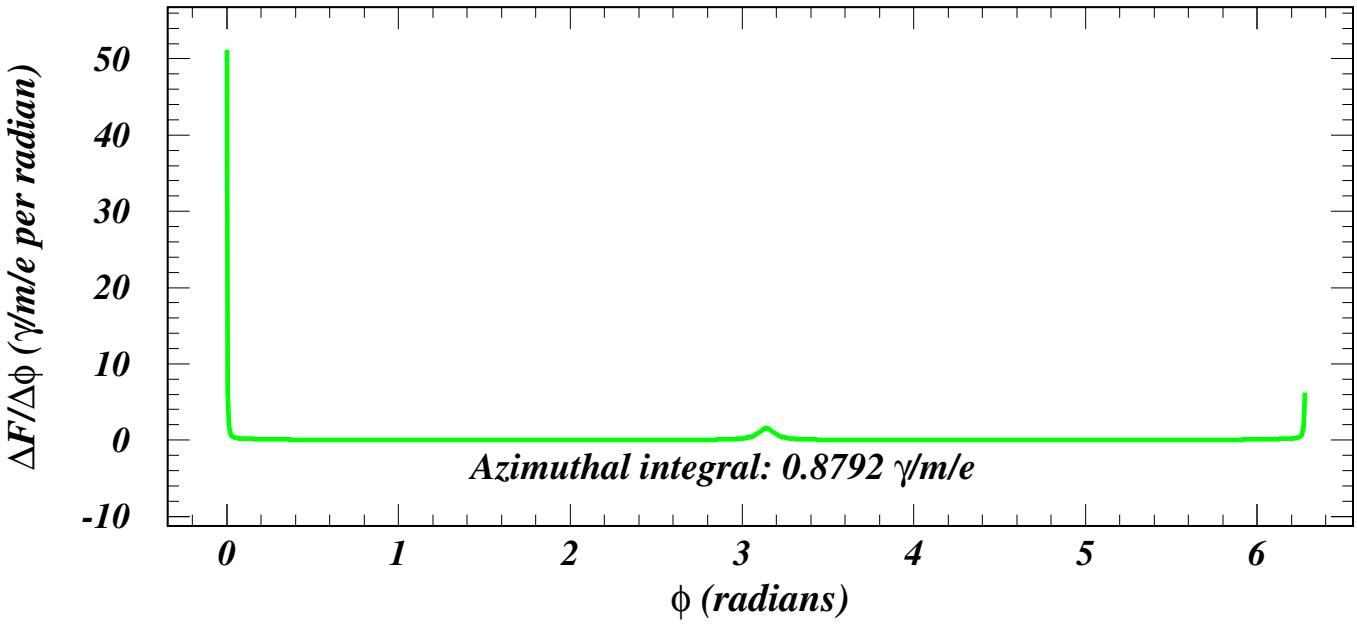
Job 33925: Photoelectron Production Distributions

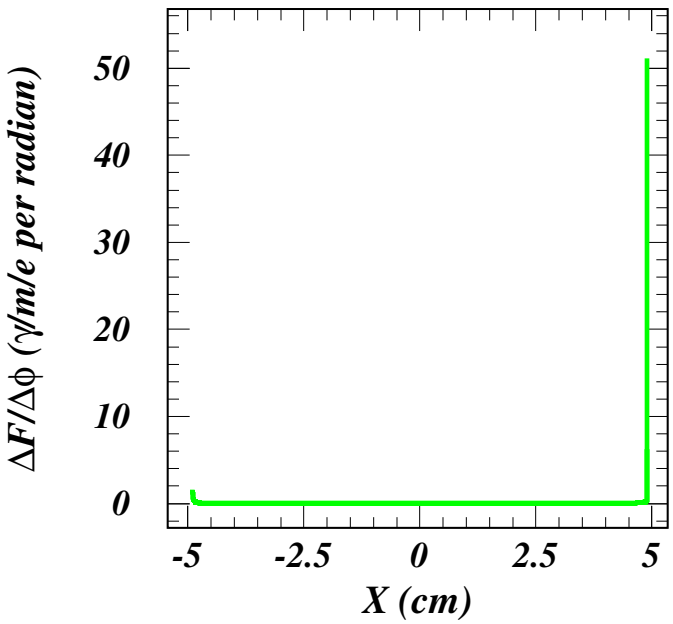


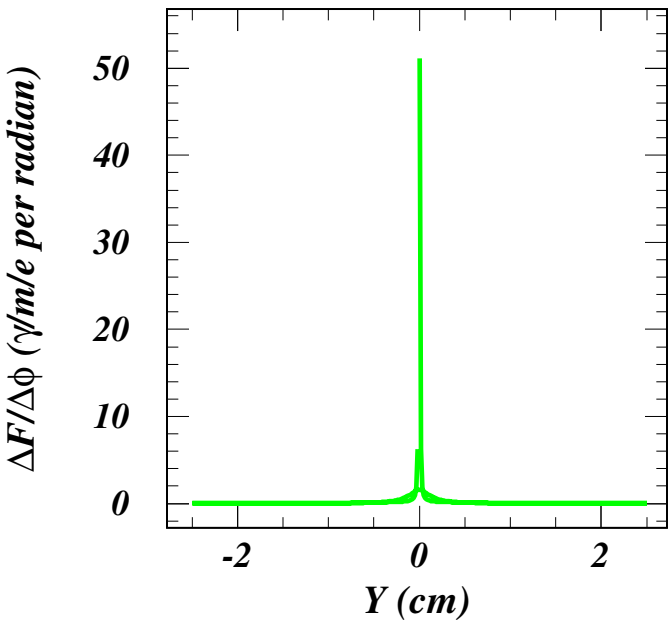


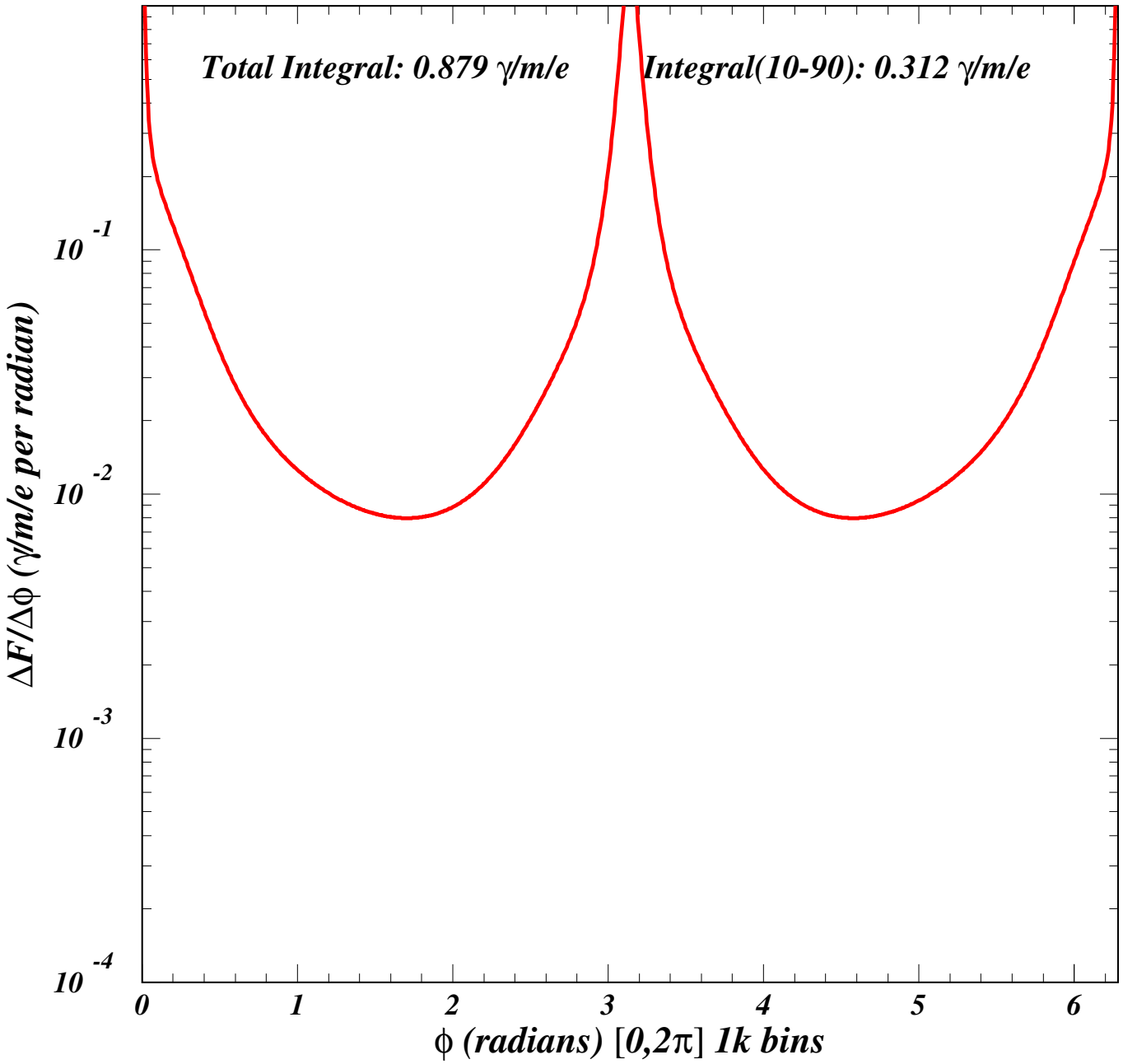


Job 33925: Photoelectron Production Distributions







12/08/29 12.15

Job 33925: Photoelectron Production Distributions