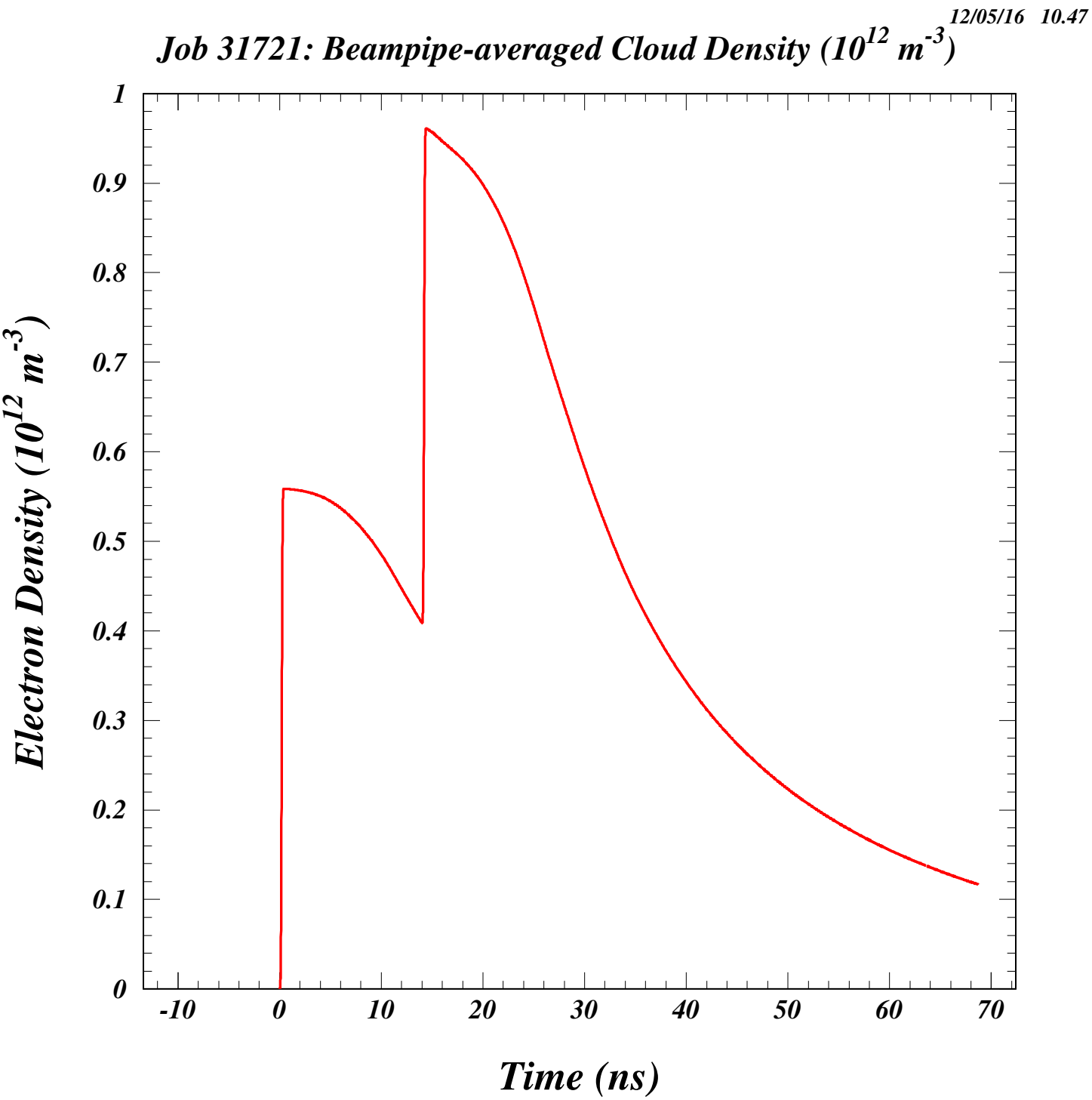
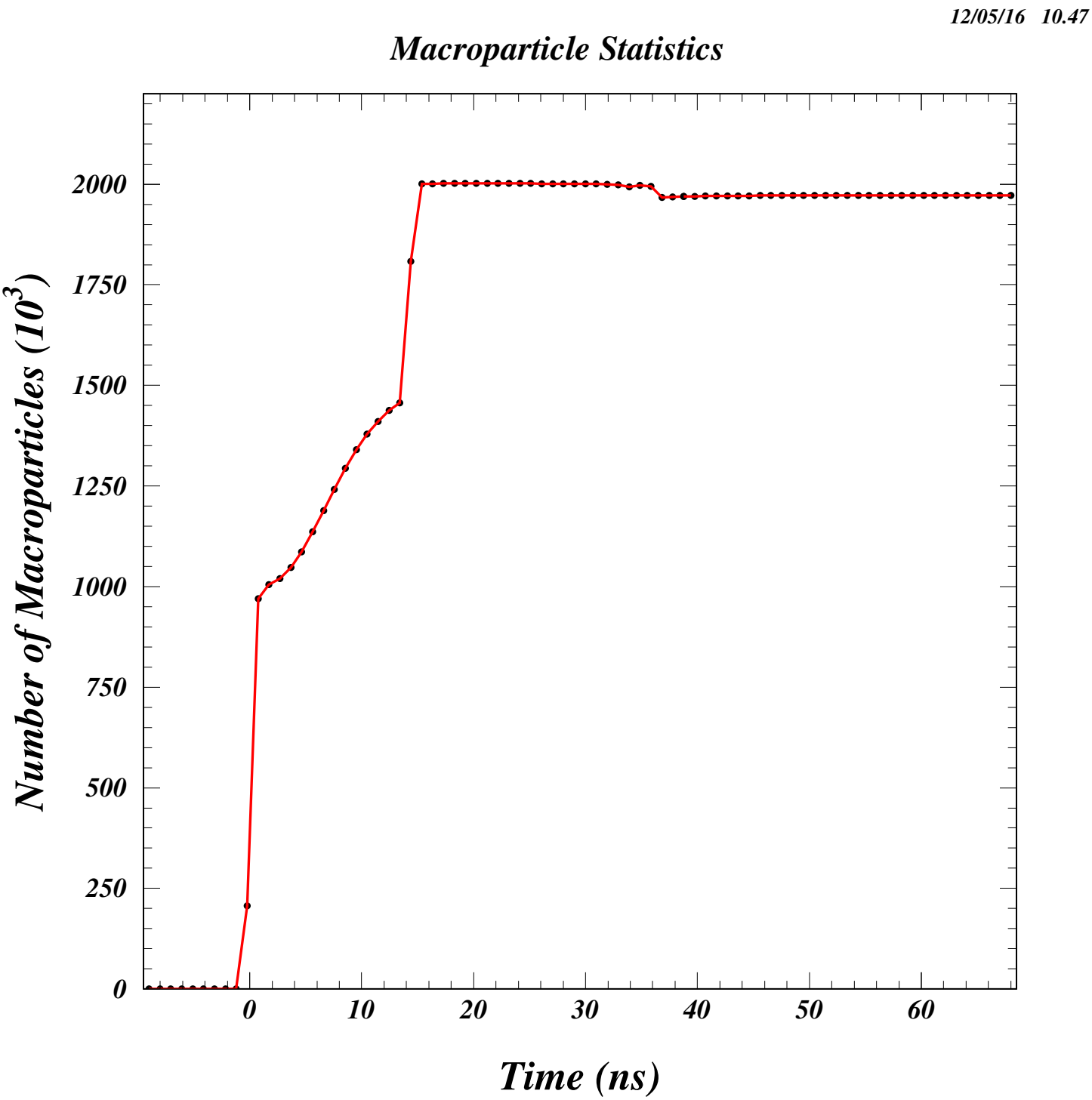
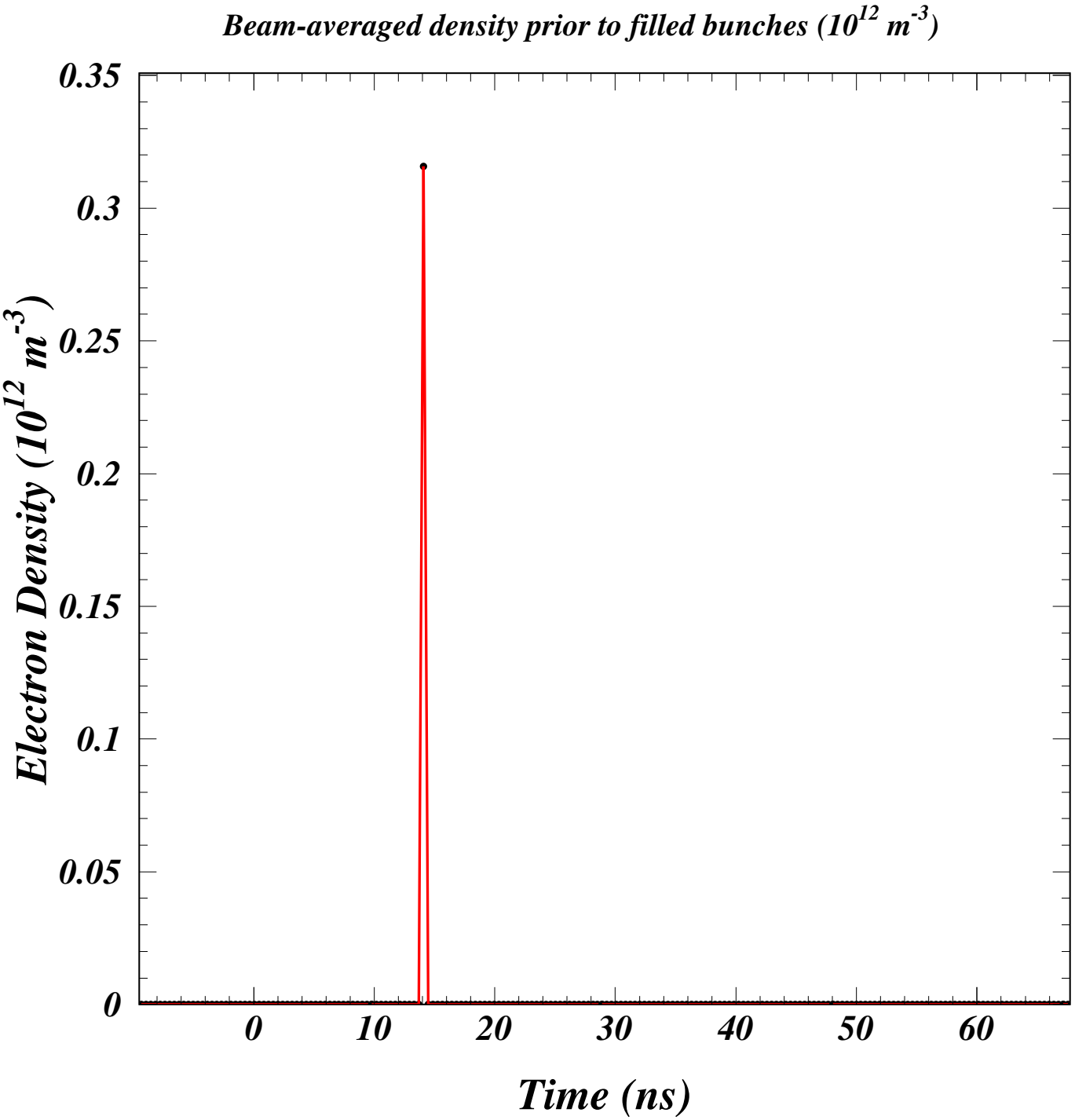
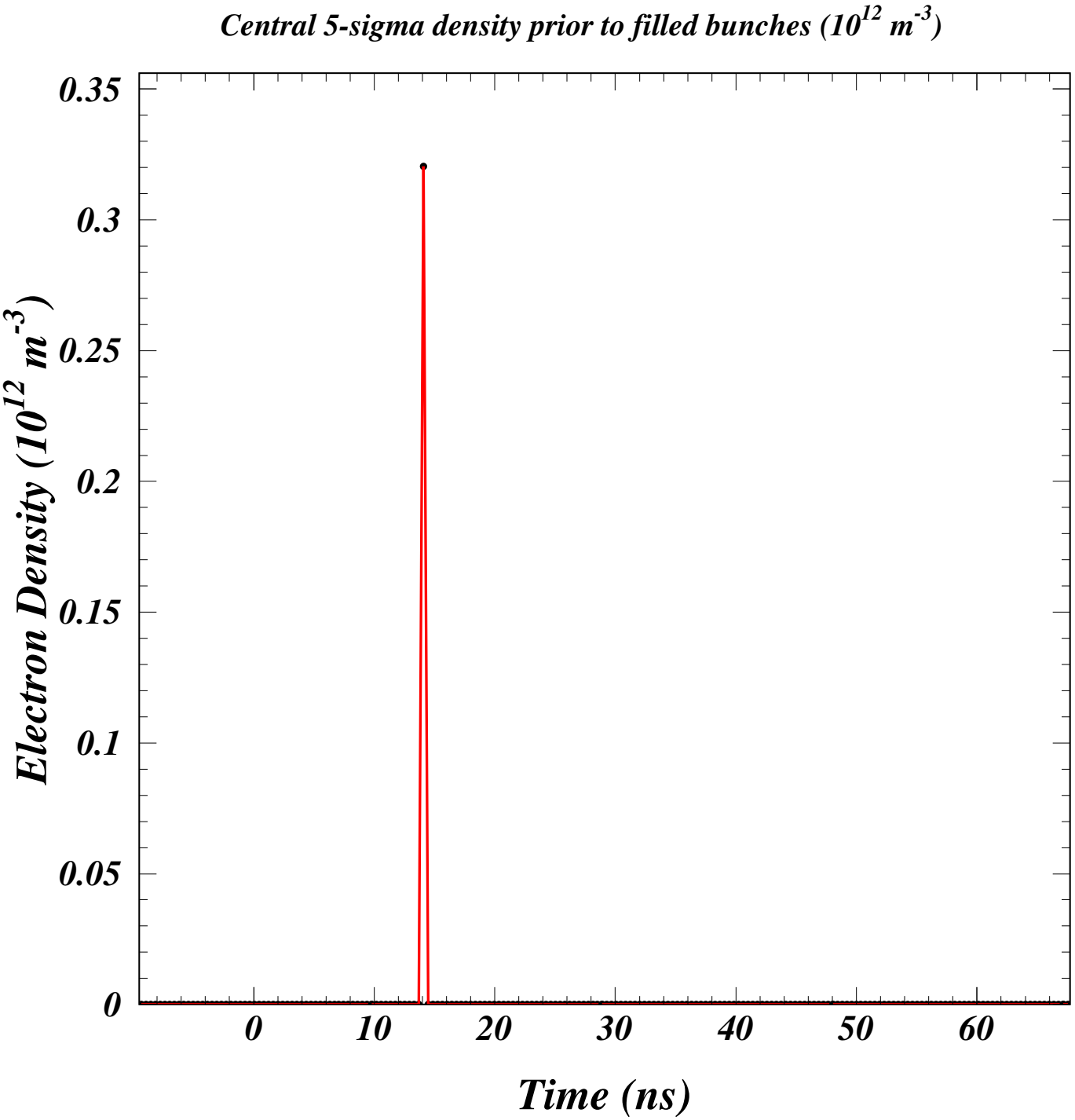
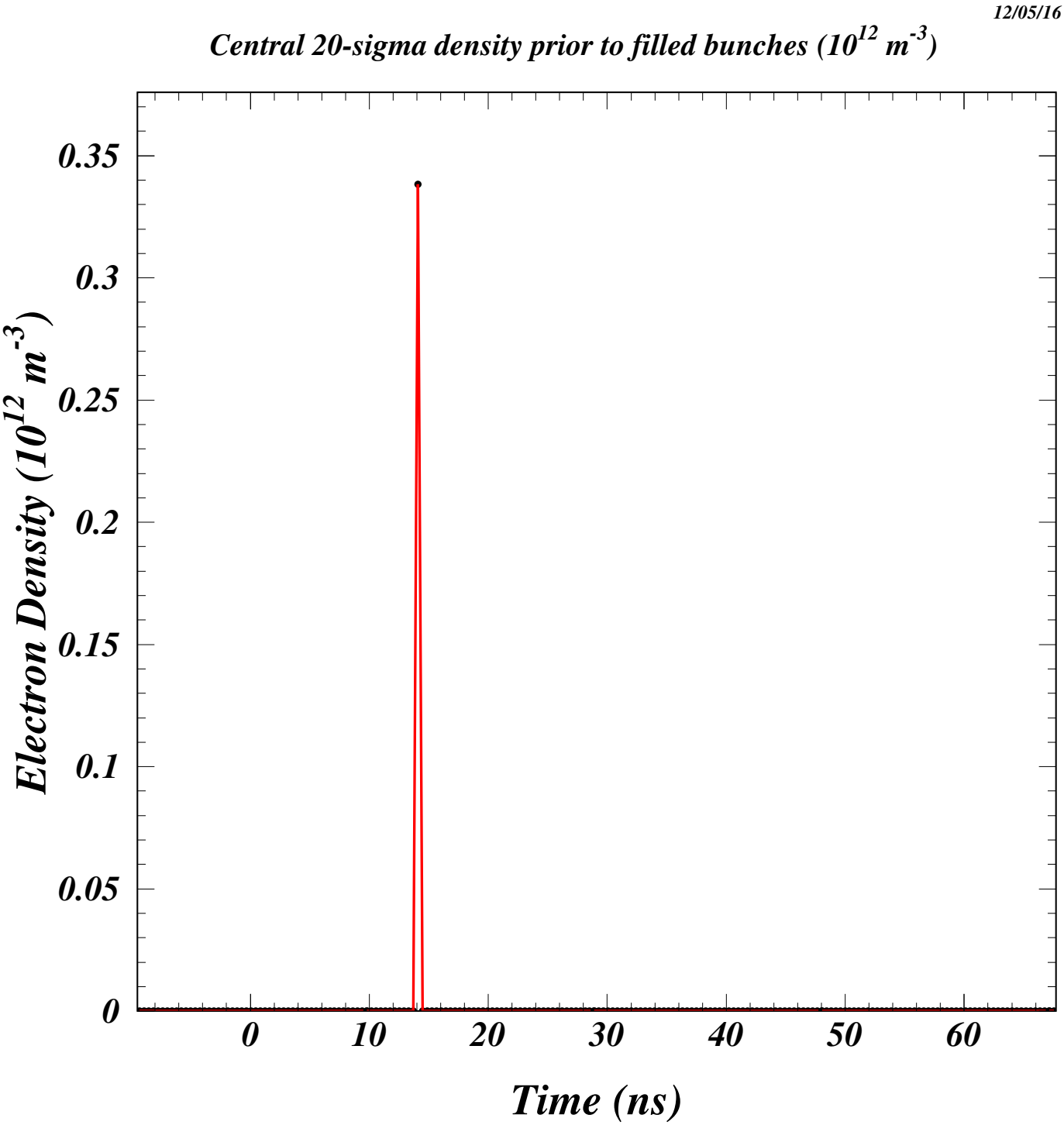

12/05/16 10.47
Job 31721: Beampipe-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-10
0
10
20
30
40
50
60
70
Time (ns)

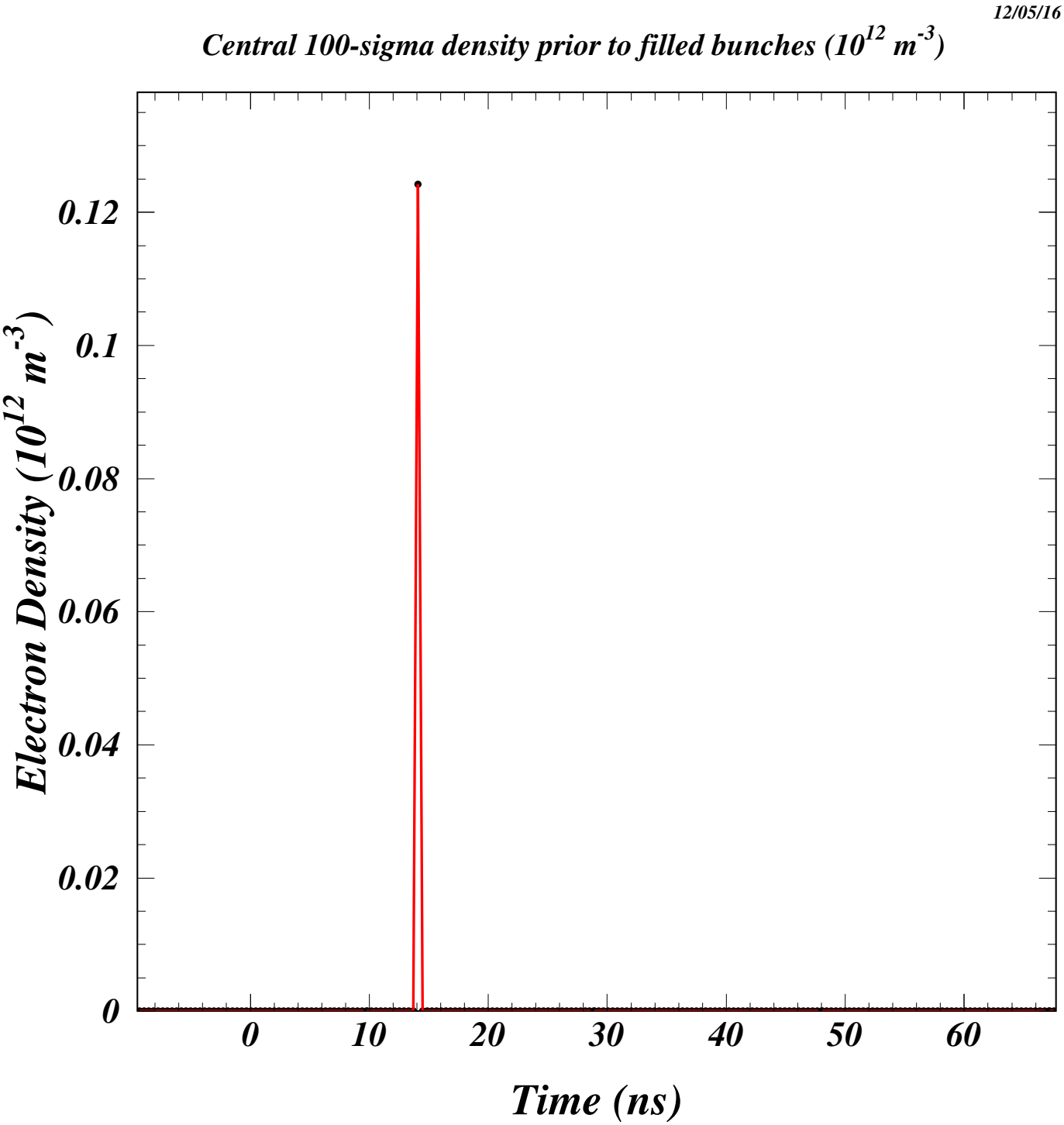

12/05/16 10.47
Macroparticle Statistics
Number of Macroparticles (10^3)
2000
1750
1500
1250
1000
750
500
250
0
0
10
20
30
40
50
60
Time (ns)

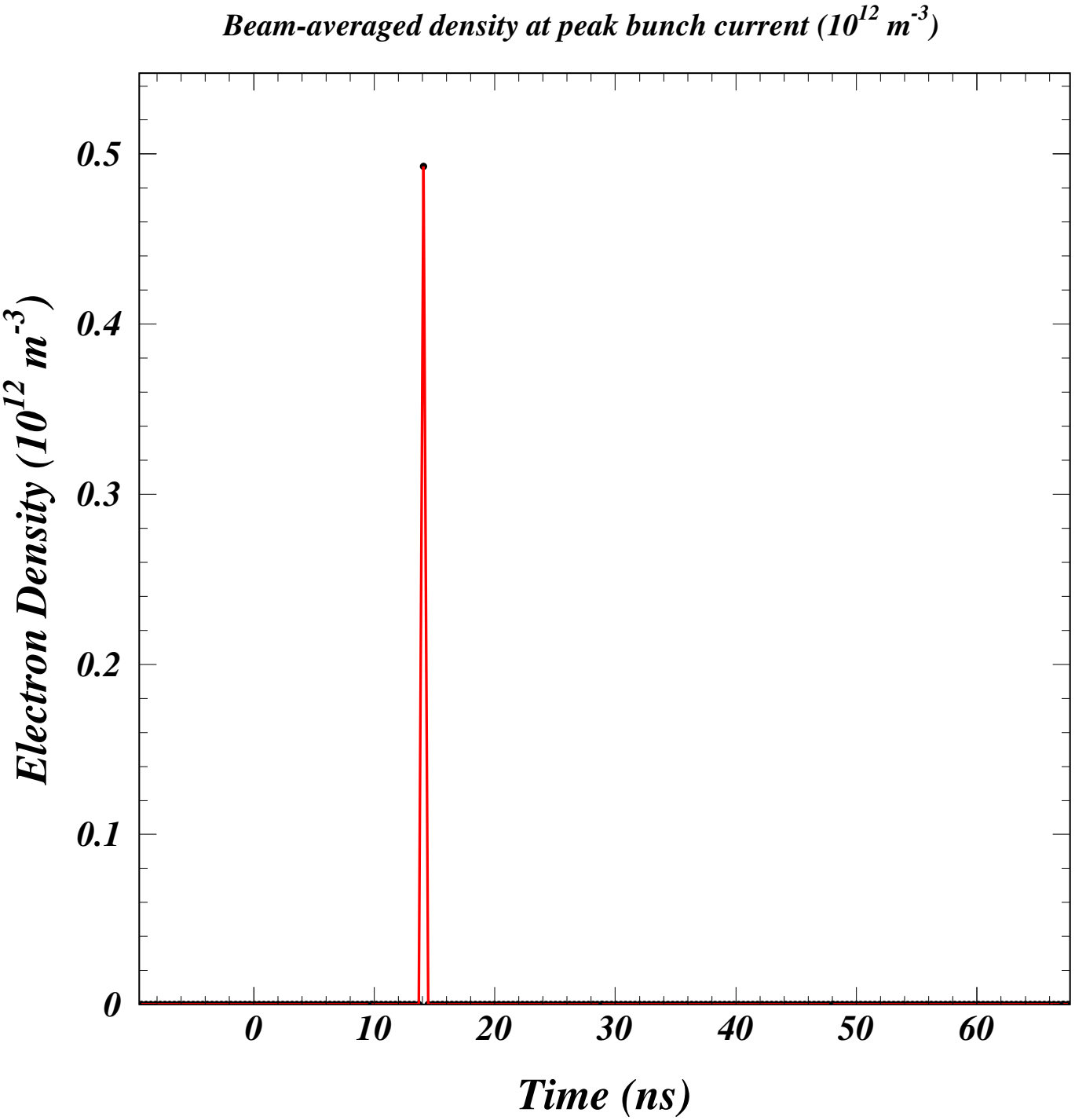

Beam-averaged density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
10
20
30
40
50
60
Time (ns)


Central 5-sigma 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
0
10
20
30
40
50
60
Time (ns)

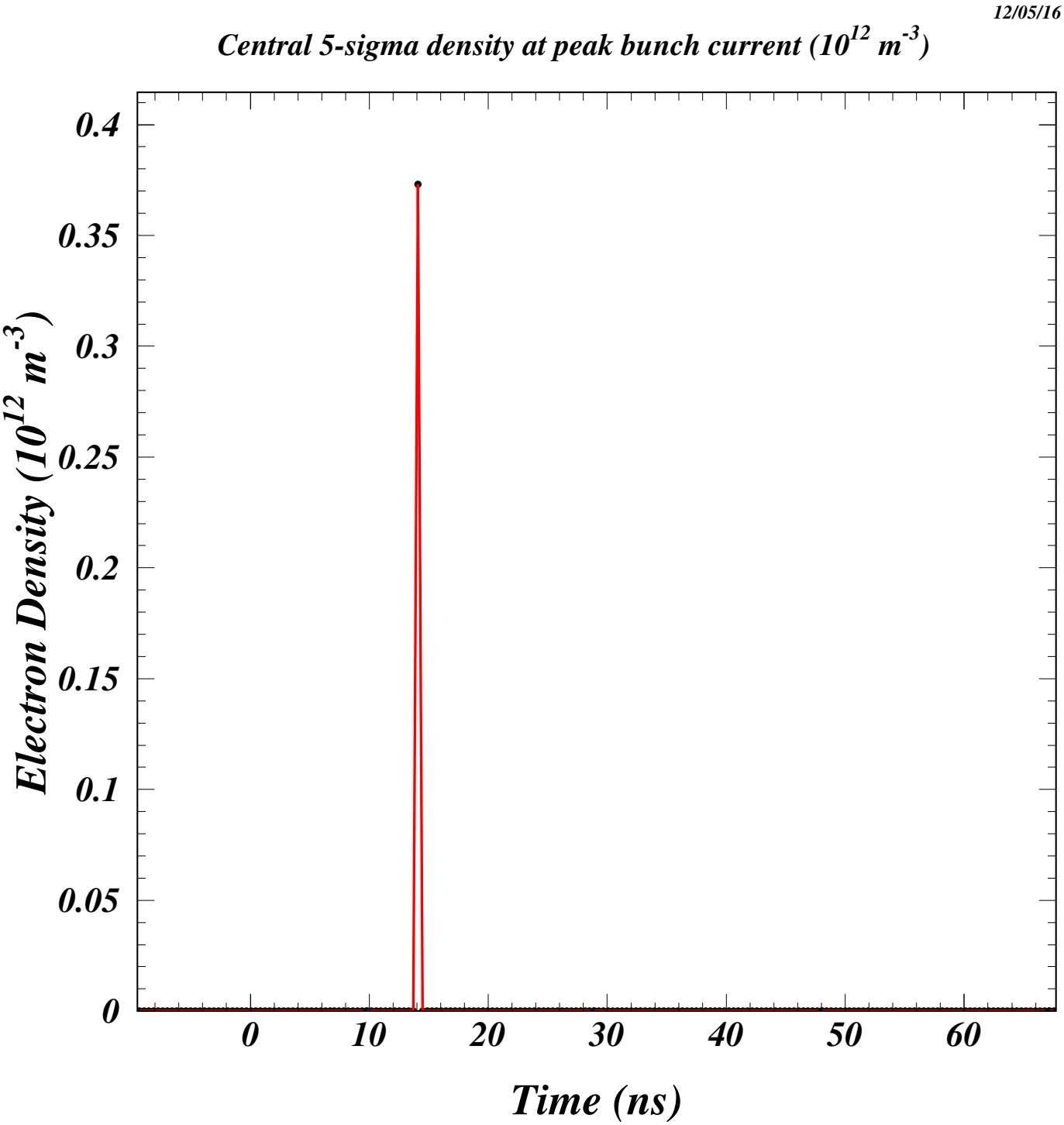
12/05/16 10.47

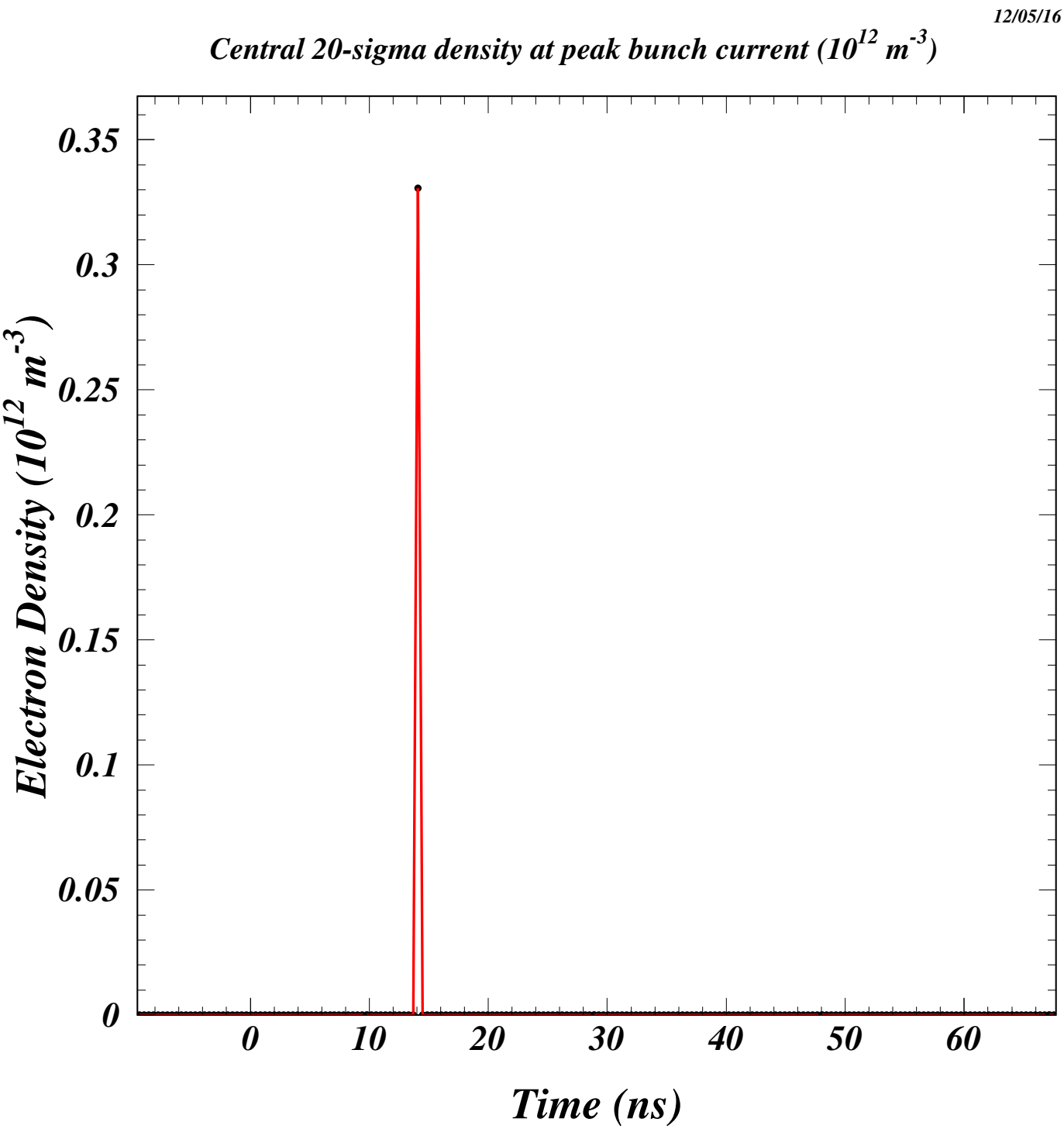

Central 20-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
10
20
30
40
50
60
Time (ns)


Central 100-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.12
0.1
0.08
0.06
0.04
0.02
0
0
10
20
30
40
50
60
Time (ns)

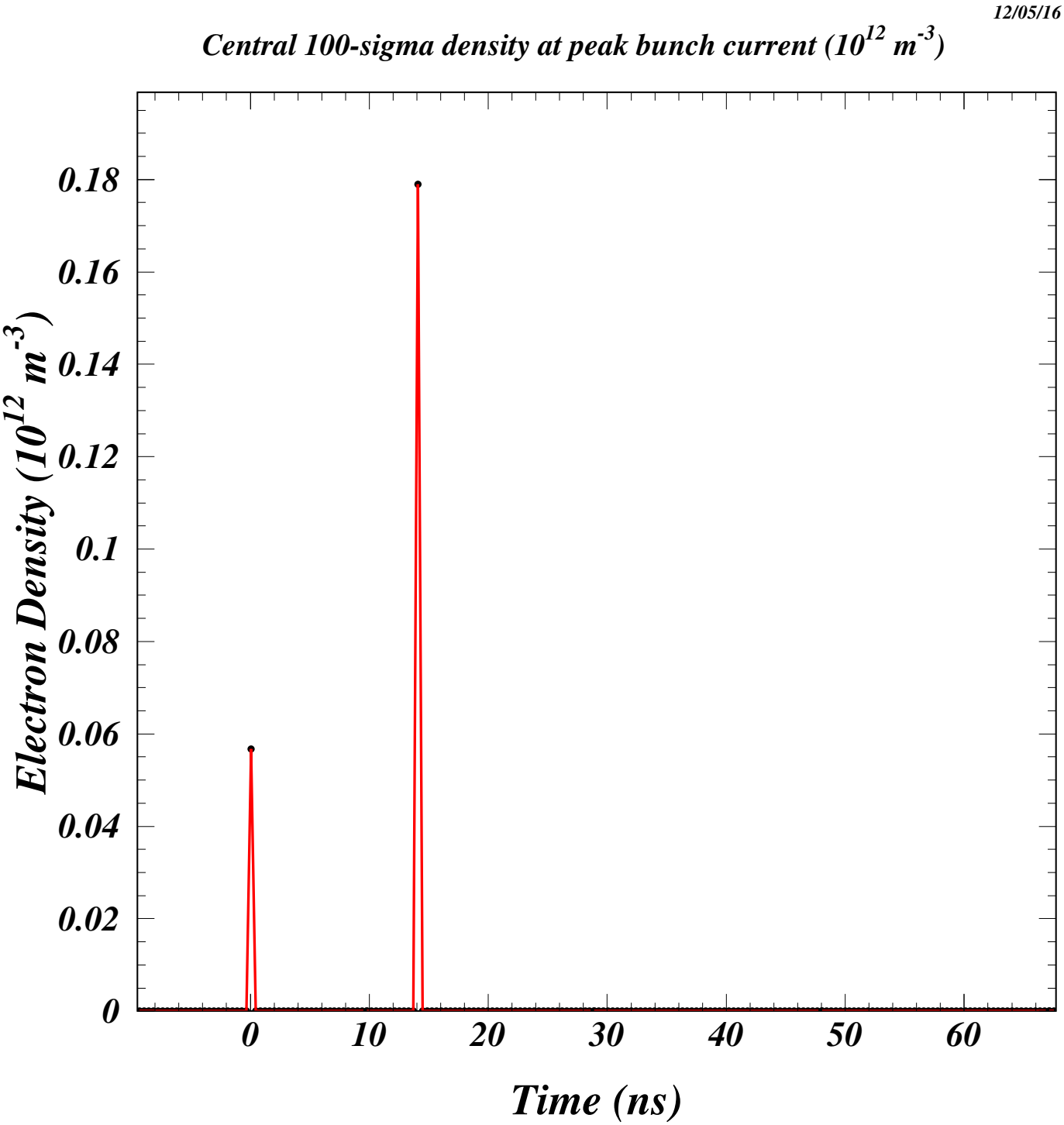

Beam-averaged density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.5
0.4
0.3
0.2
0.1
0
0
10
20
30
40
50
60
Time (ns)

12/05/16 10.47

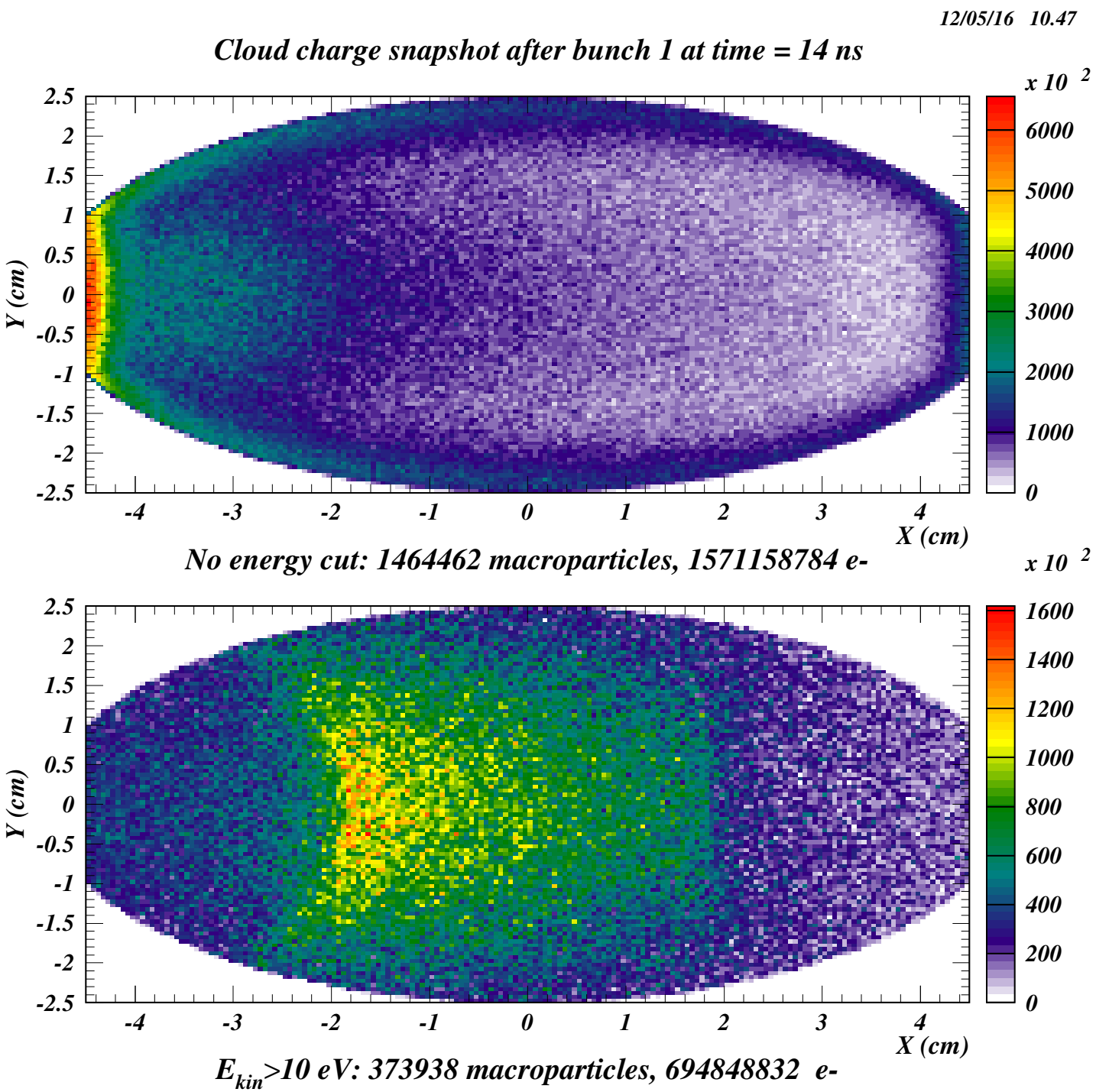

Central 5-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
10
20
30
40
50
60
Time (ns)

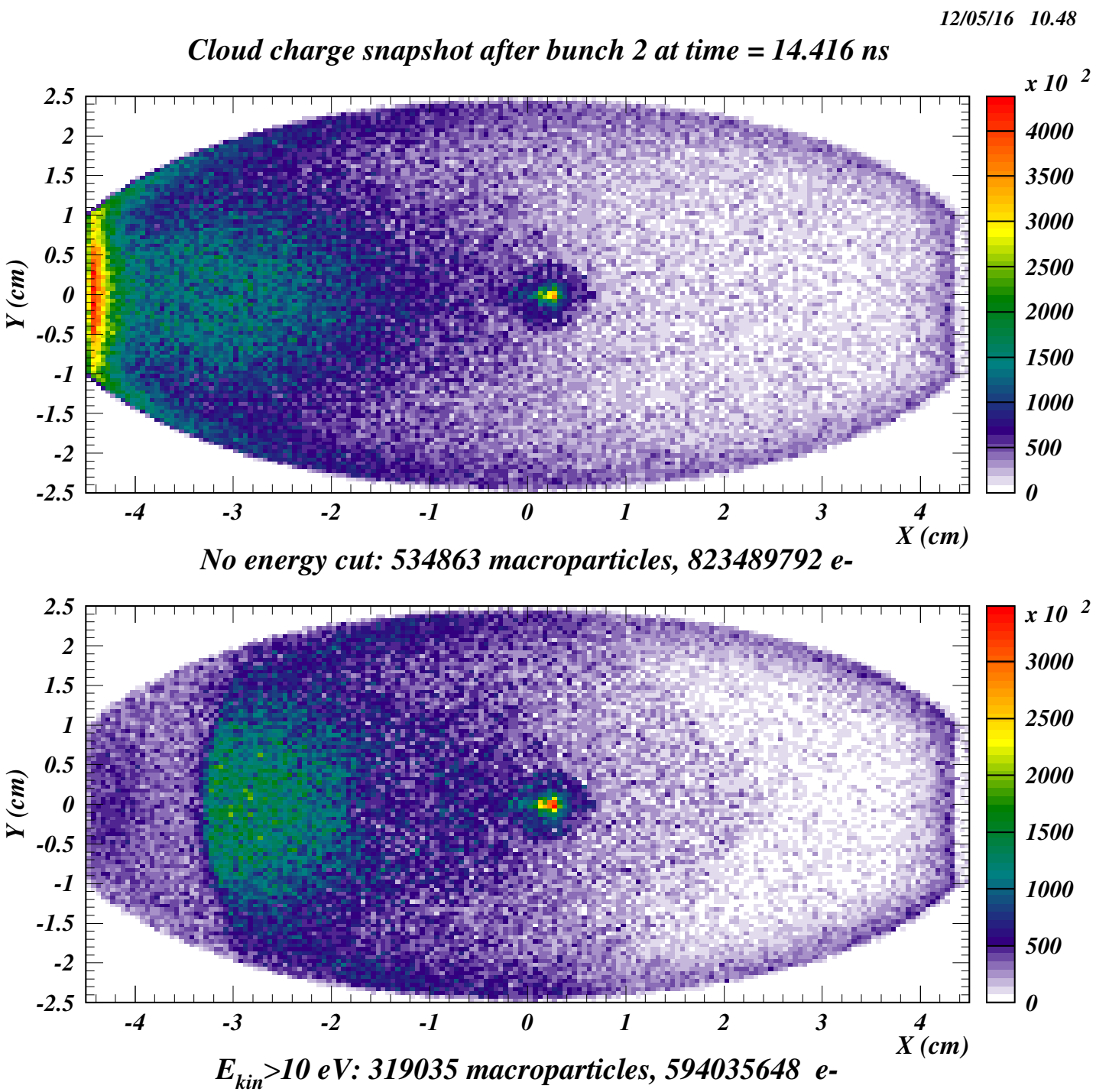

12/05/16 10.47
Central 20-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
10
20
30
40
50
60
Time (ns)

12/05/16 10.47

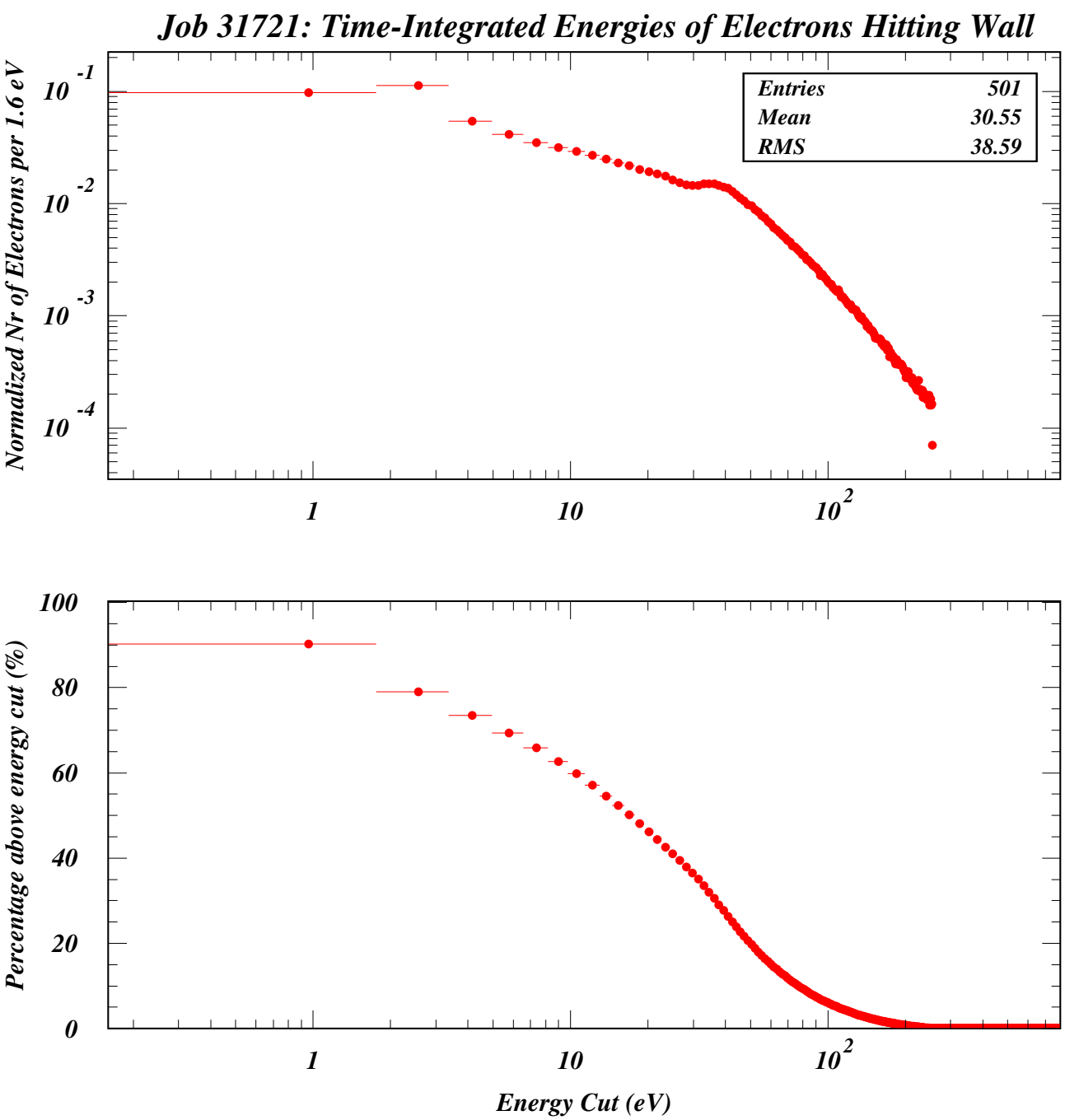

Central 100-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
10
20
30
40
50
60
Time (ns)

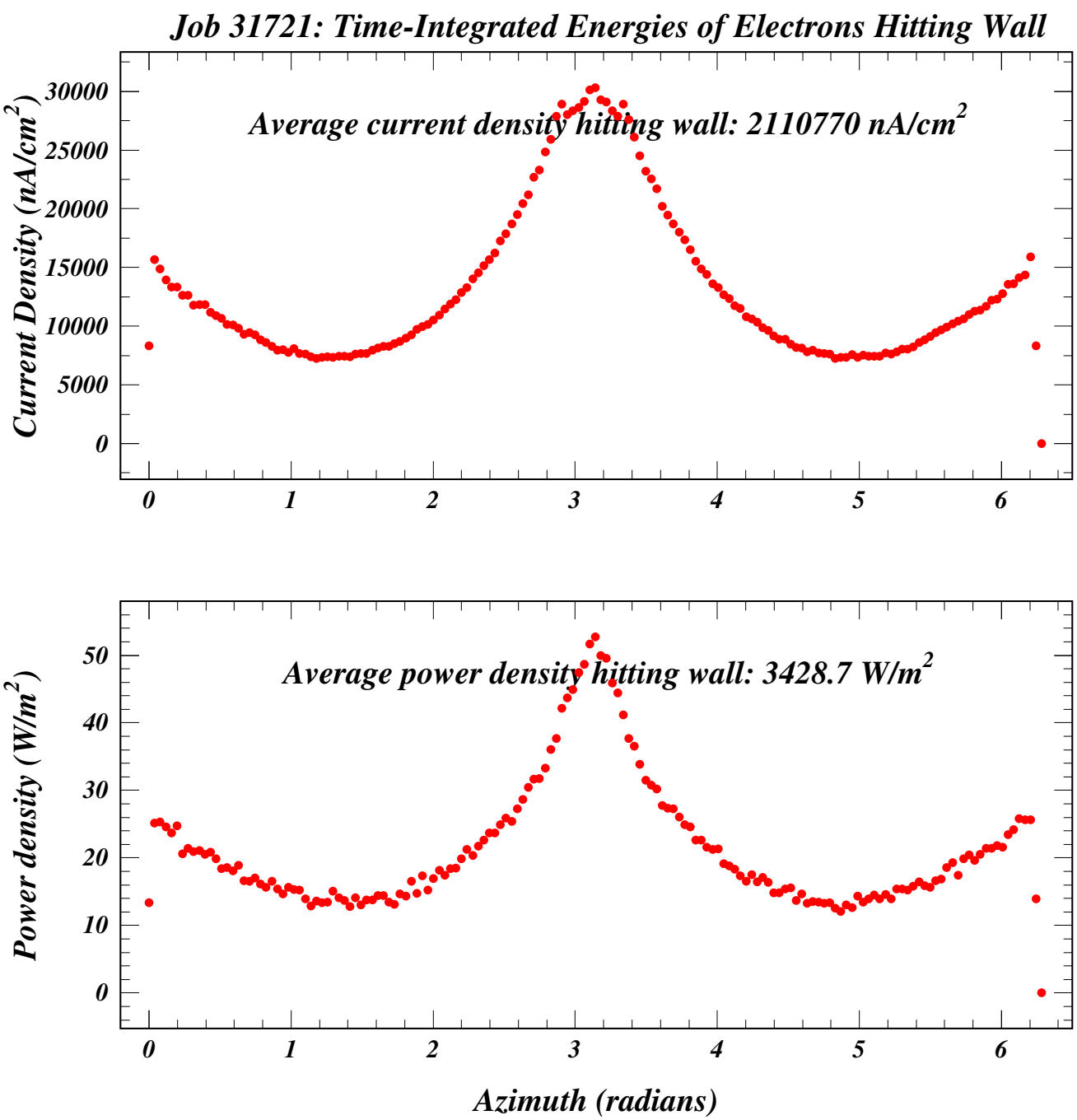
12/05/16 10.47


Cloud charge snapshot after bunch 1 at time = 14 ns
x 10 2
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)
No energy cut: 1464462 macroparticles, 1571158784 e-
x 10 2
1600
1400
1200
1000
800
600
400
200
0
E_kin>10 eV: 373938 macroparticles, 694848832 e-


12/05/16 10.48
Cloud charge snapshot after bunch 2 at time = 14.416 ns
x 10 2
4000
3500
3000
2500
2000
1500
1000
500
0
Y (cm)
X (cm)
No energy cut: 534863 macroparticles, 823489792 e-
x 10 2
3000
2500
2000
1500
1000
500
0
Y (cm)
X (cm)
E_kin>10 eV: 319035 macroparticles, 594035648 e-

12/05/16 10.48


Job 31721: Time-Integrated Energies of Electrons Hitting Wall
Entries 501
Mean 30.55
RMS 38.59
Normalized Nr of Electrons per 1.6 eV
10 -1
10 -2
10 -3
10 -4
1
10
10 2
Percentage above energy cut (%)
100
80
60
40
20
0
1
10
10 2
Energy Cut (eV)


Job 31721: Time-Integrated Energies of Electrons Hitting Wall
Average current density hitting wall: 2110770 nA/cm^2
Current Density (nA/cm^2)
30000
25000
20000
15000
10000
5000
0
0
1
2
3
4
5
6
Average power density hitting wall: 3428.7 W/m^2
Power density (W/m^2)
50
40
30
20
10
0
0
1
2
3
4
5
6
Azimuth (radians)

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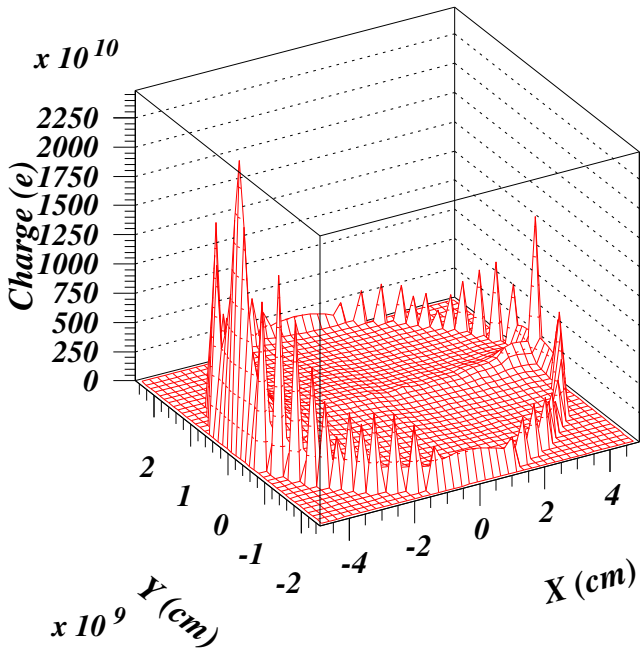
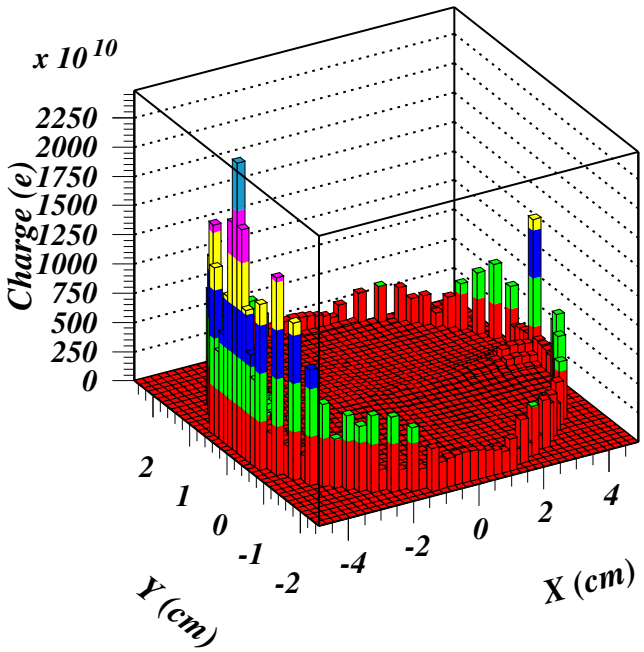
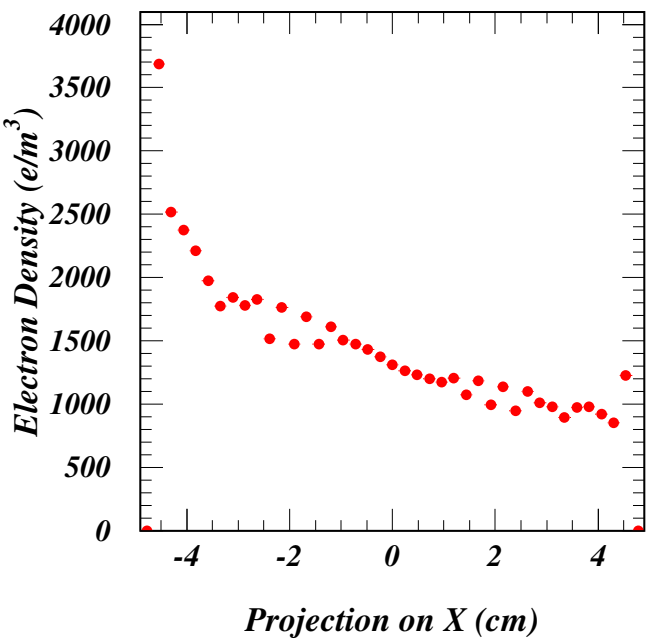
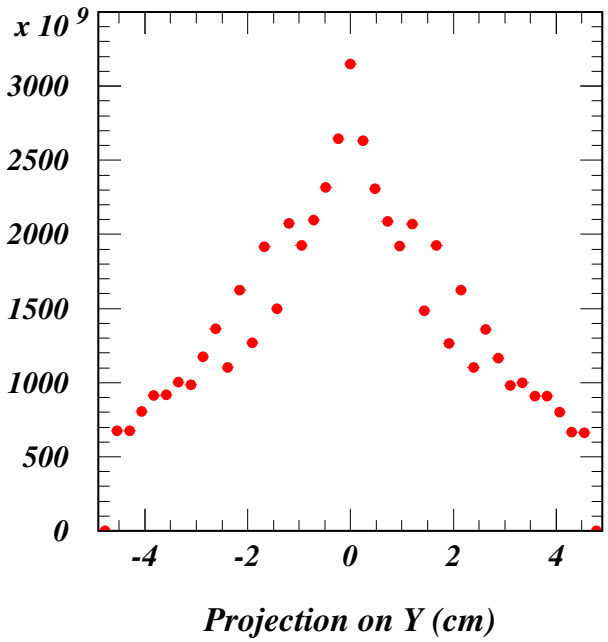
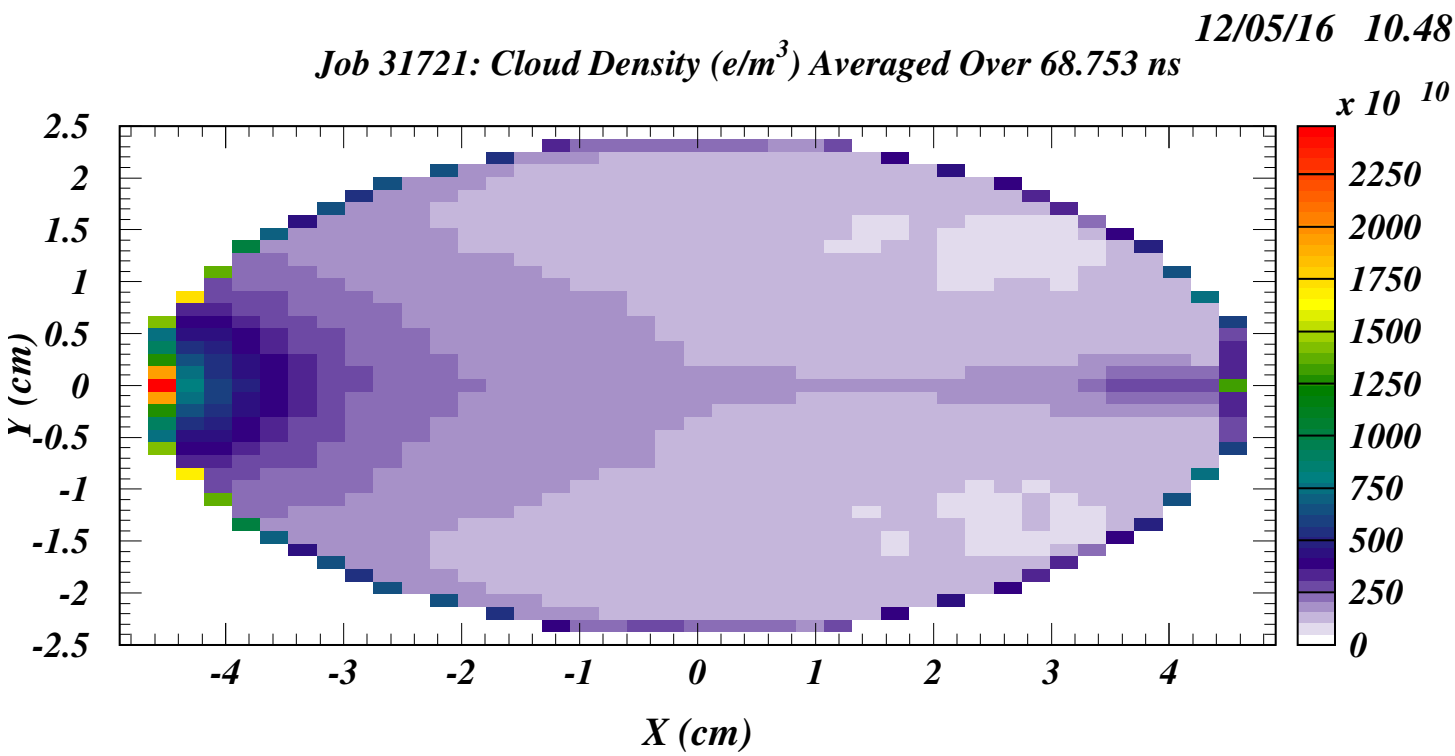
Job 31721: Cloud Density (e/m^3) Averaged Over 68.753 ns










12/05/16 10.48
Job 31721: Cloud Density (e/m3) Averaged Over 68.753 ns
x 10 10
2250
2000
1750
1500
1250
1000
750
500
250
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)

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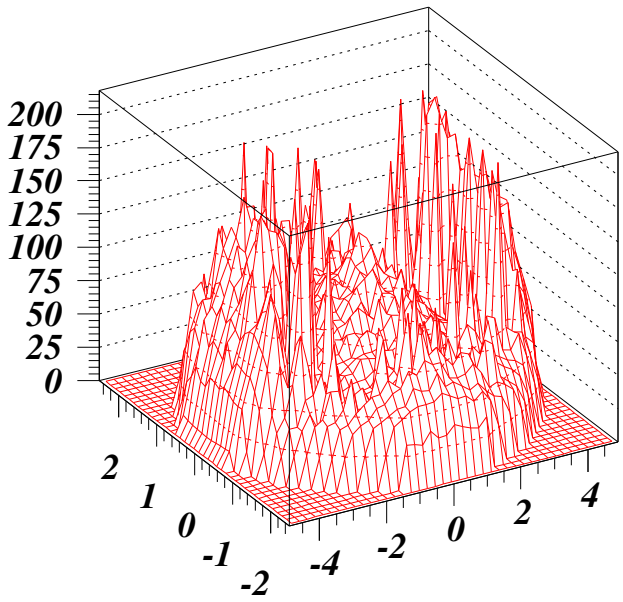
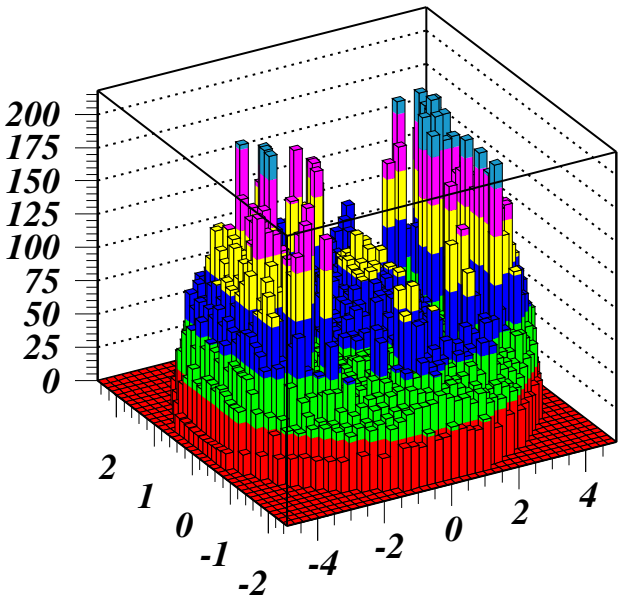
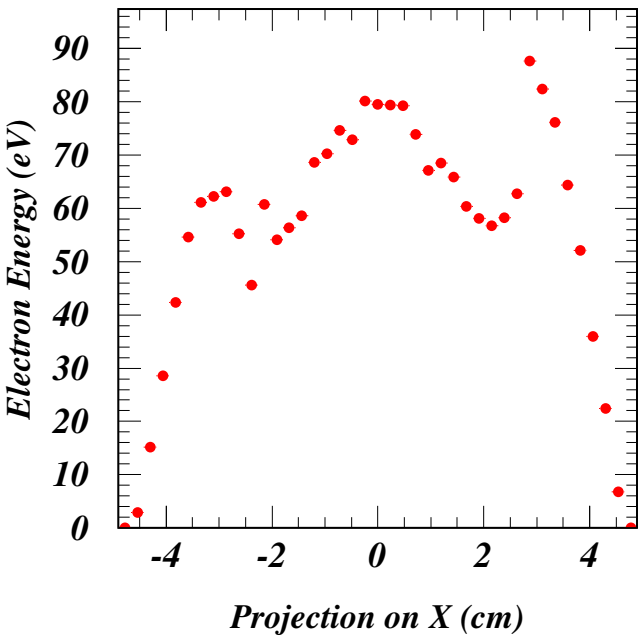
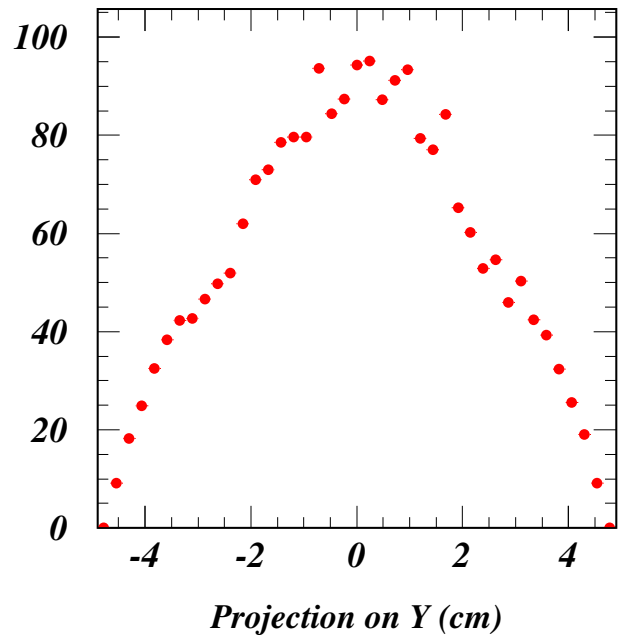
Job 31721: Electron Energies (eV) Averaged Over 68.753 ns



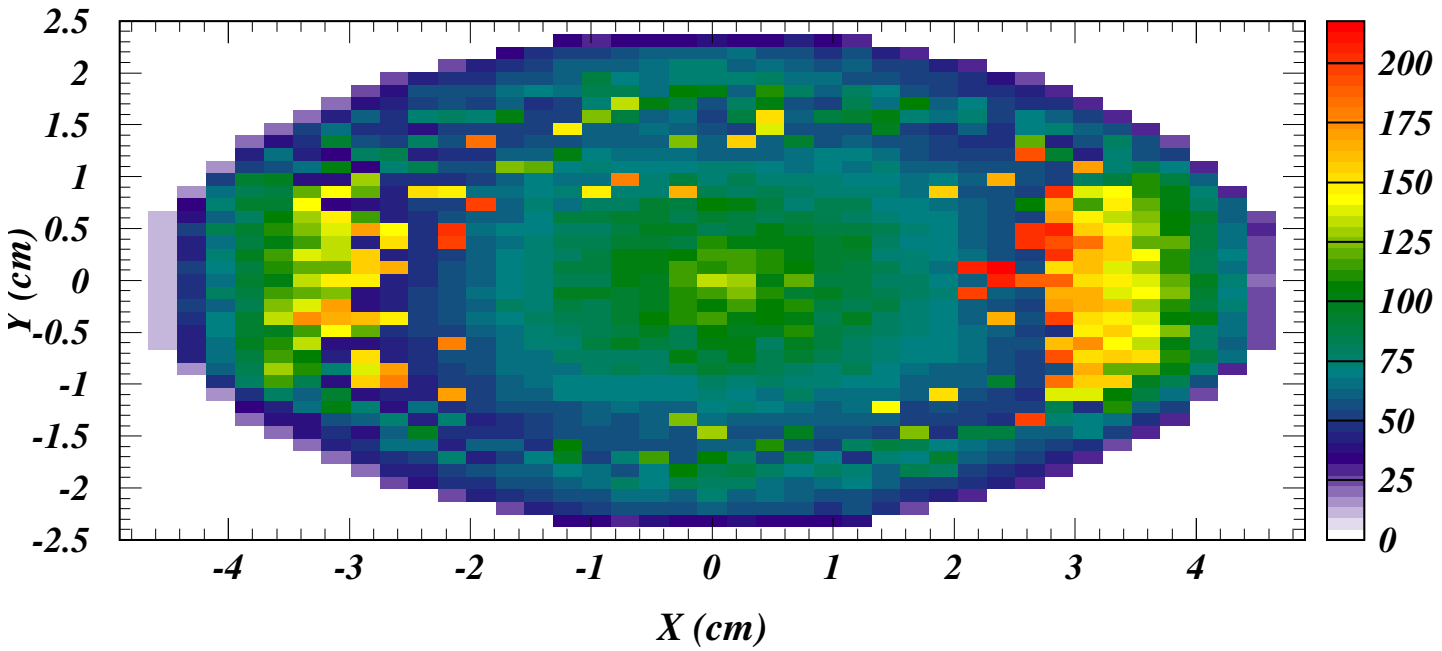






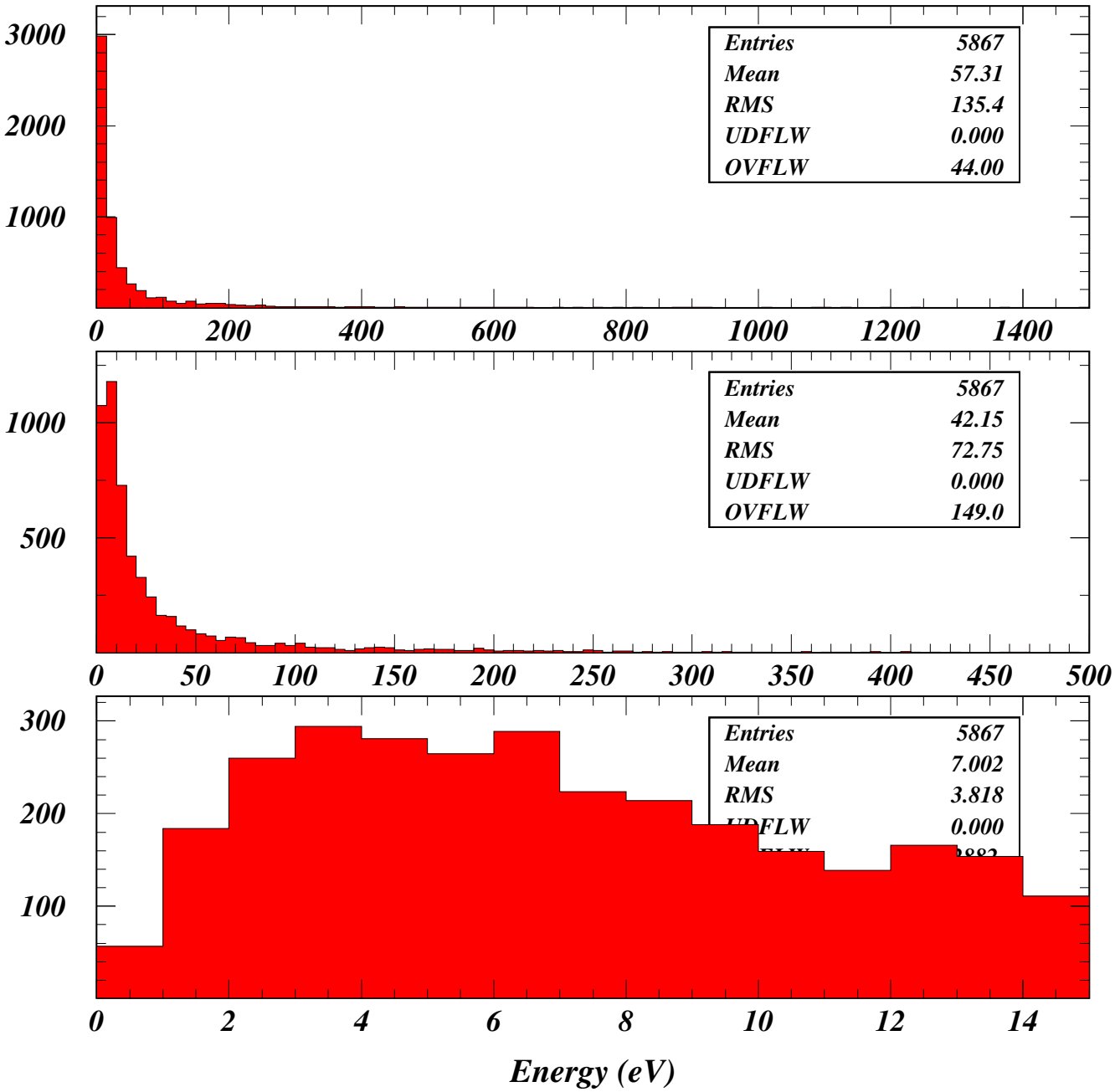
12/05/16 10.48

Job 31721: Electron Energies (eV) Averaged Over 68.753 ns



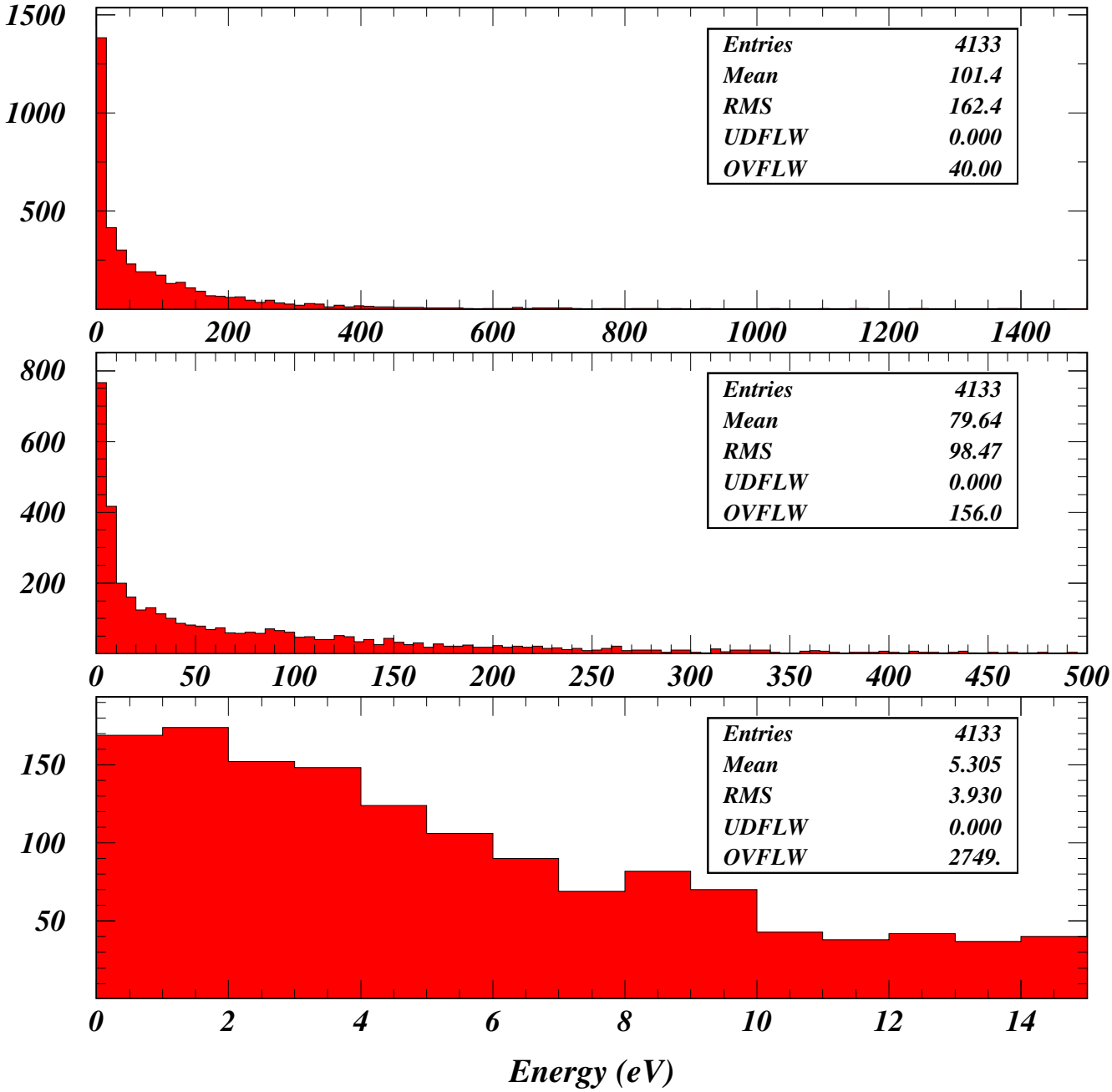
12/05/16 10.48

Job 31721: Photoelectrons from Direct Photons



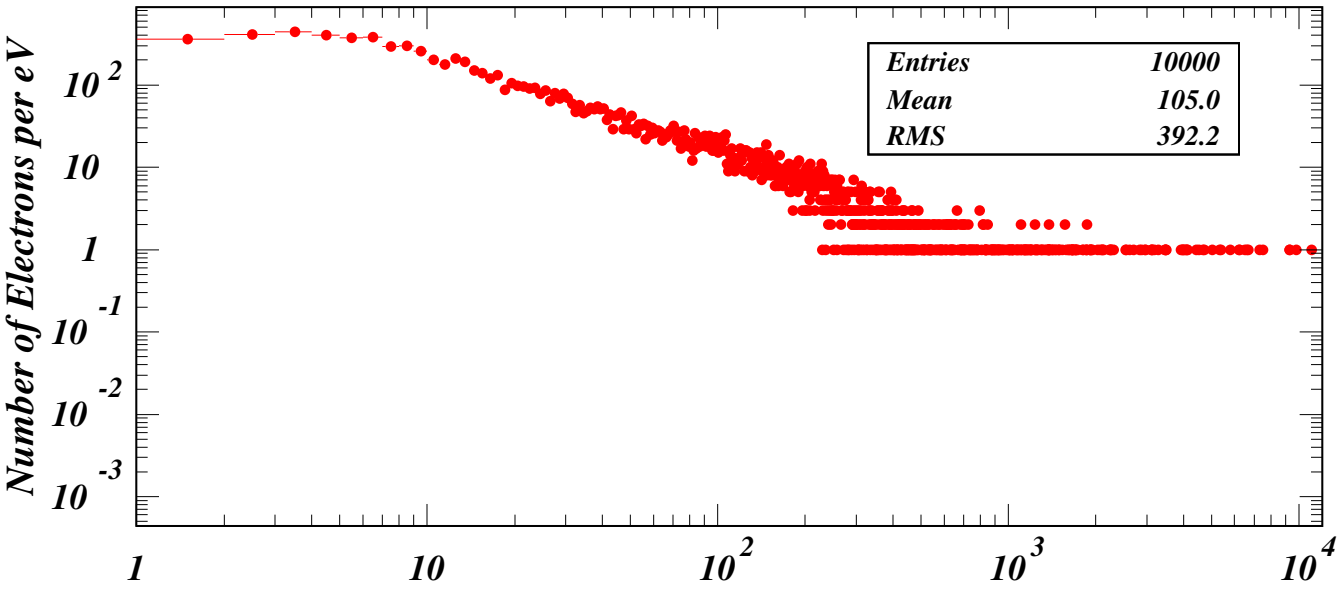
12/05/16 10.48

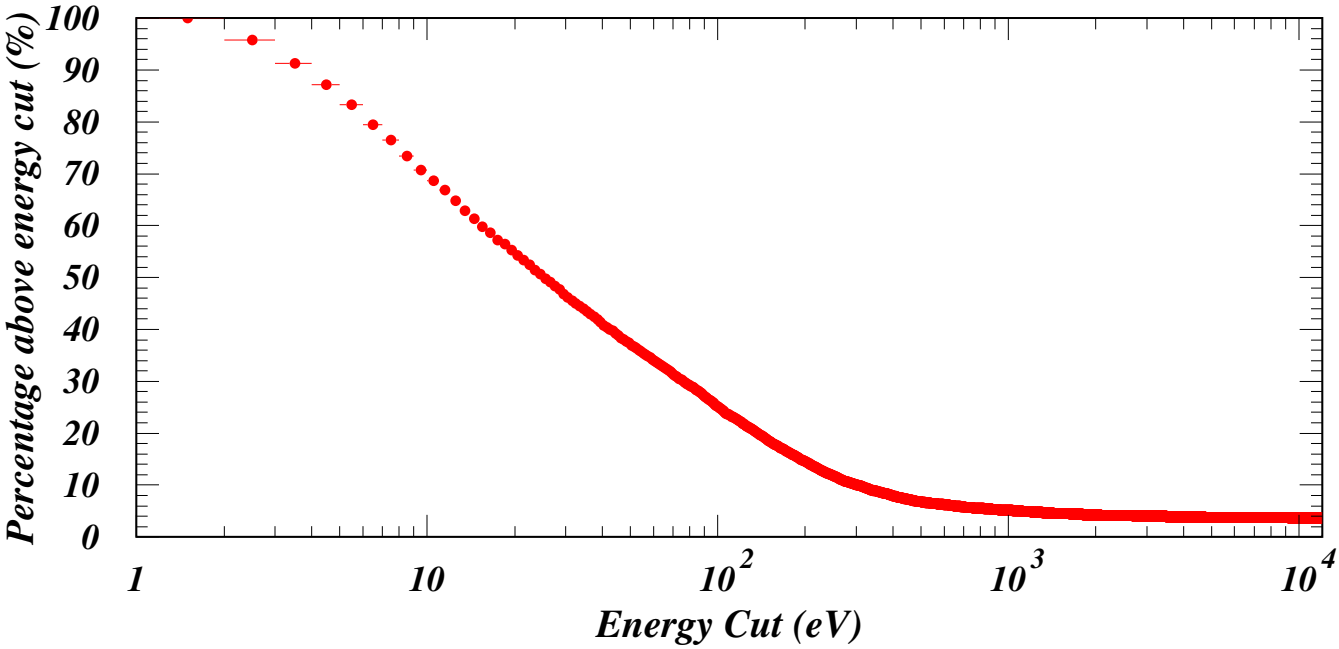
Job 31721: Photoelectrons from Reflected Photons



12/05/16 10.48

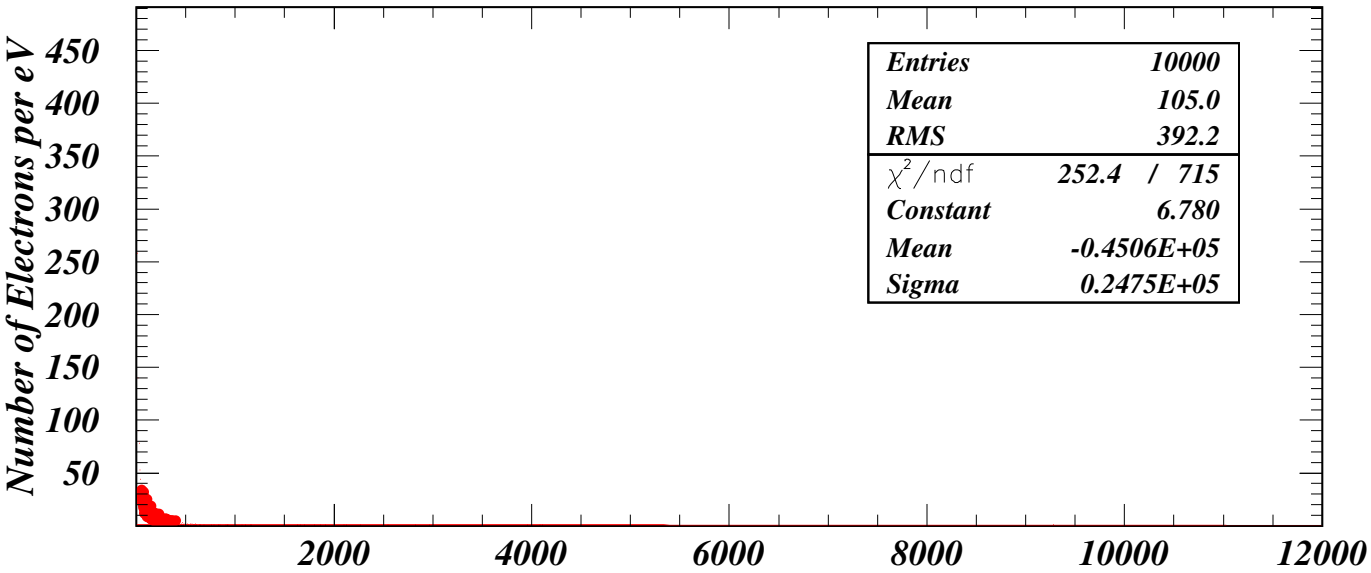
Job 31721: Photoelectron Energies

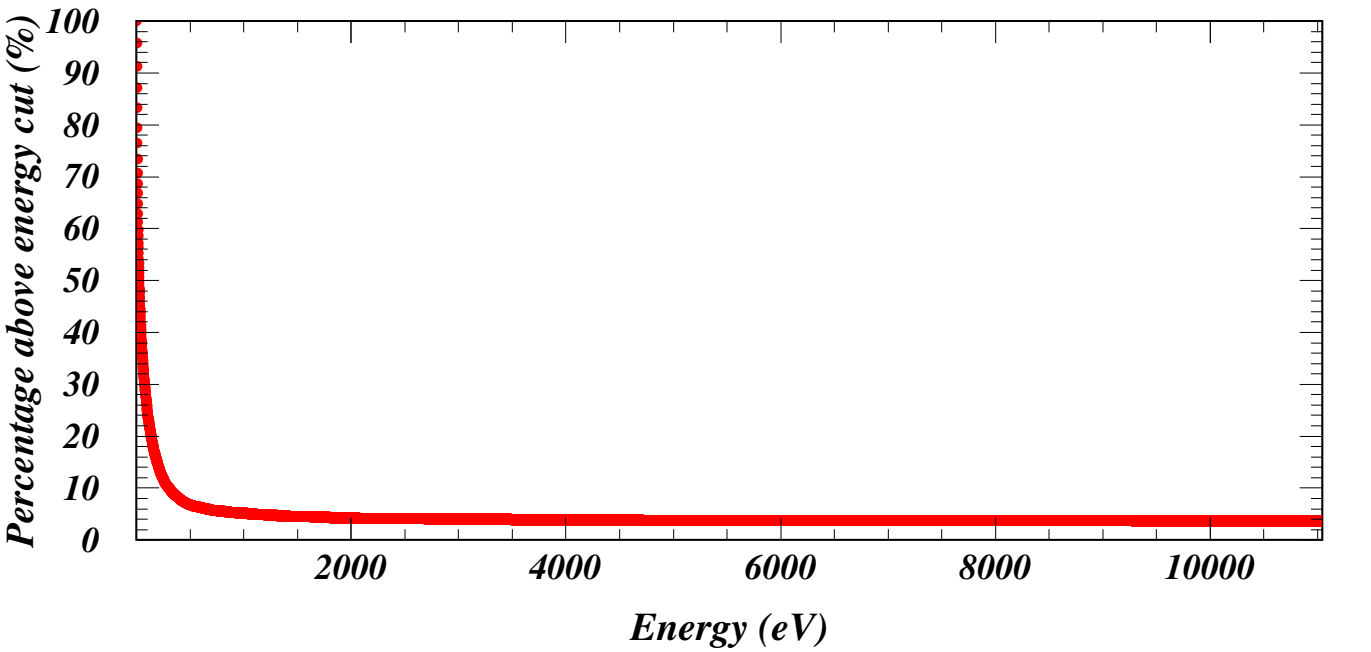




12/05/16 10.48

Job 31721: Photoelectron Energies





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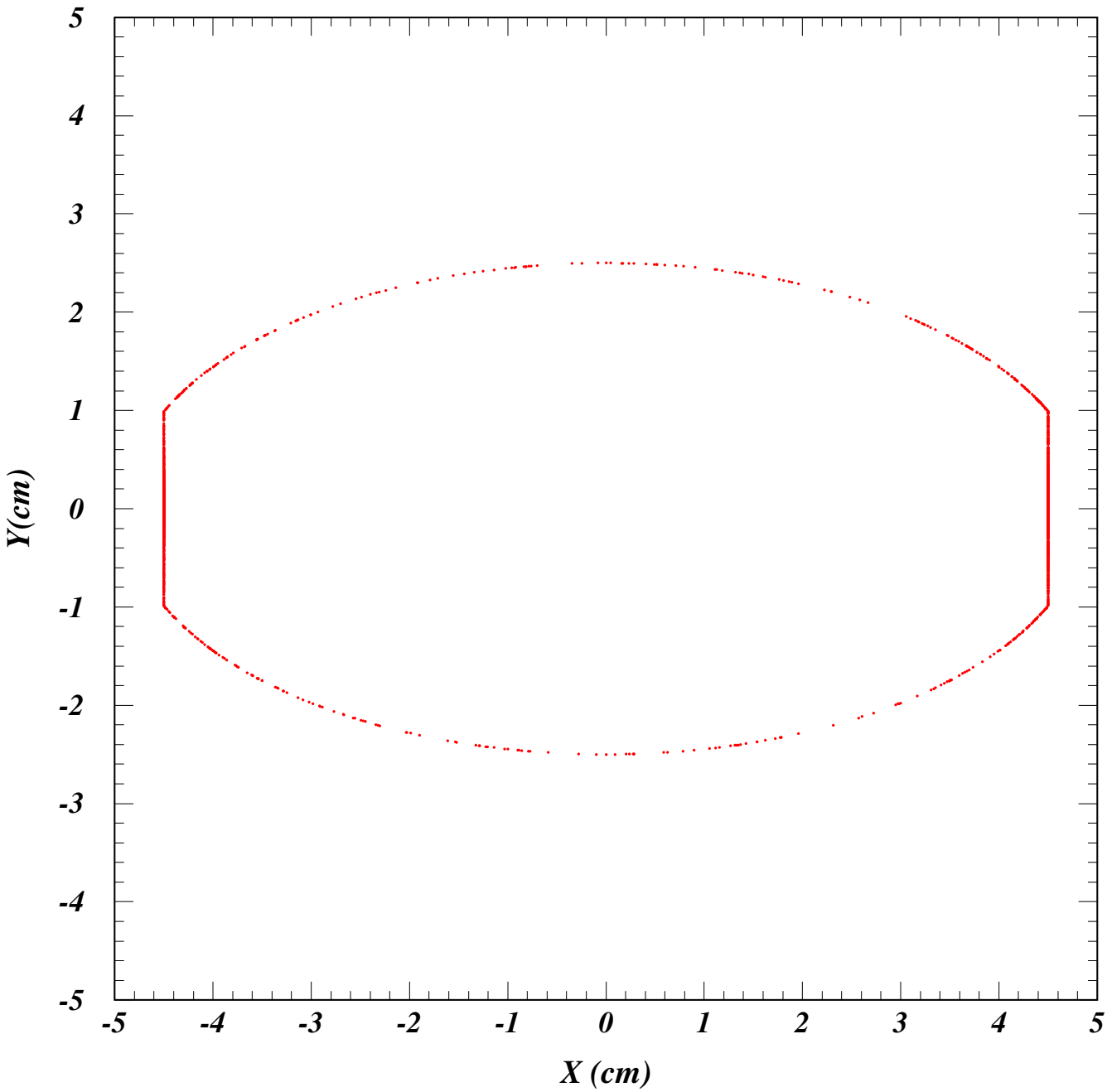
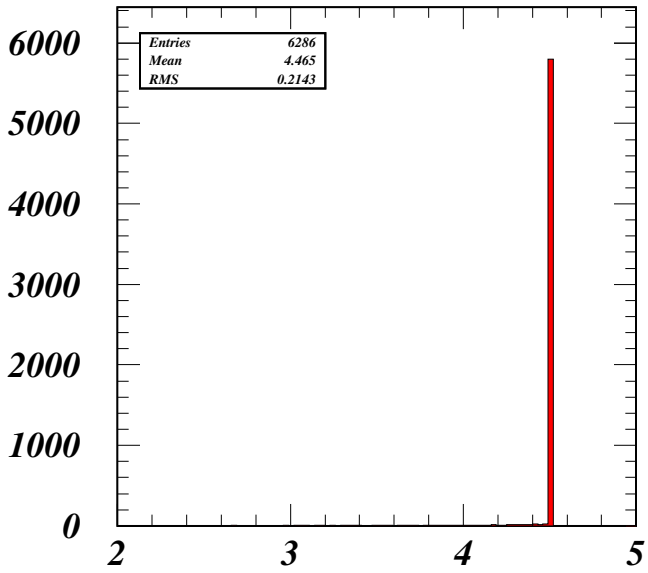
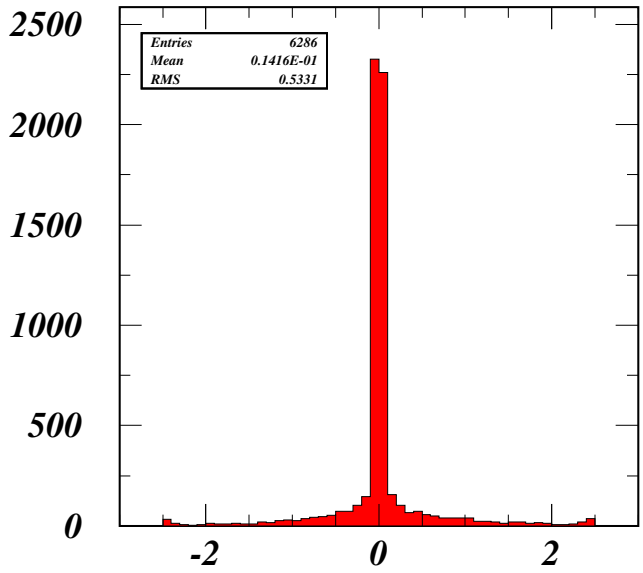
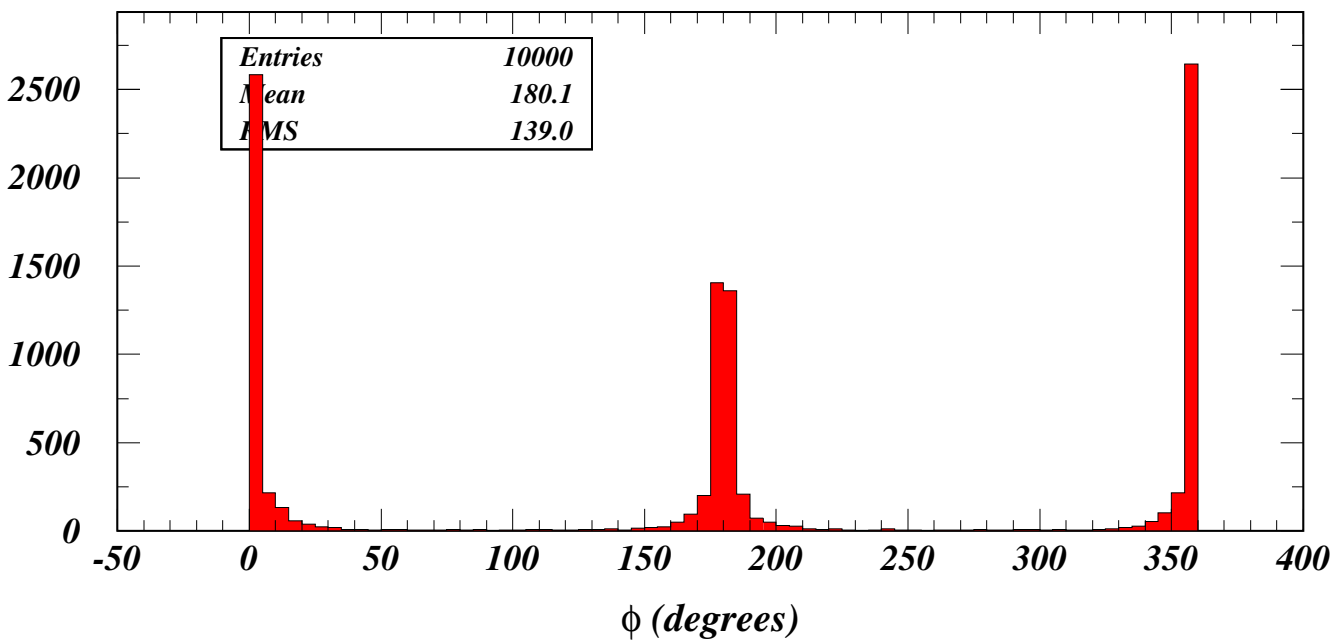
Job 31721: Photoelectron Production Distributions



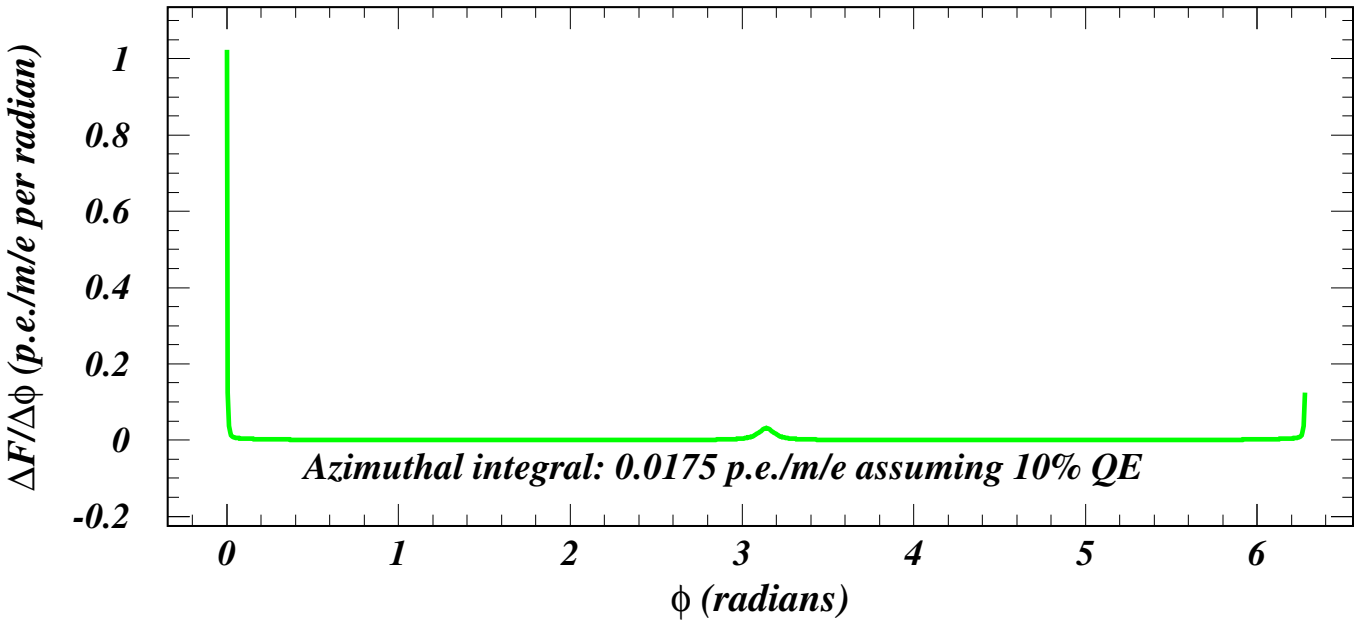
Job 31721: Photoelectron Production Distributions

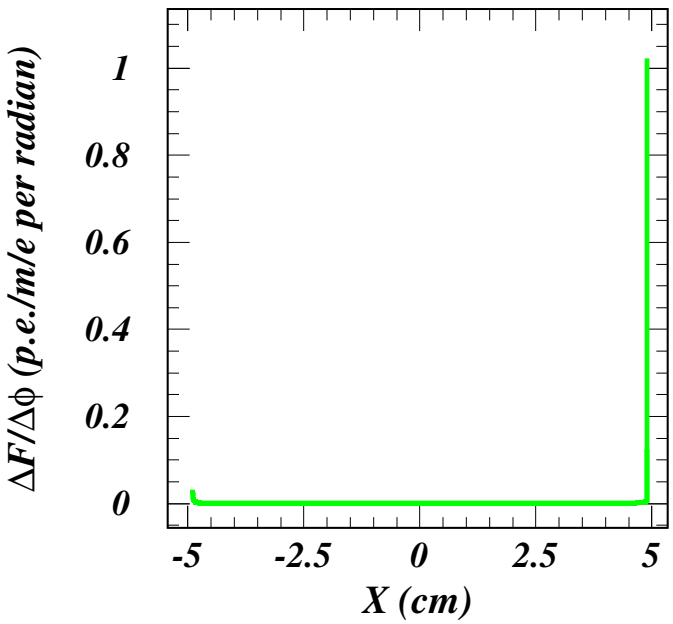


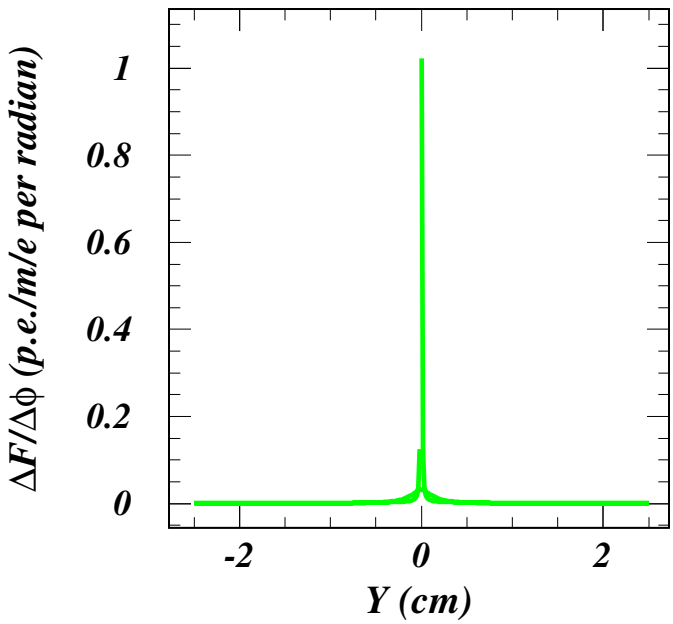


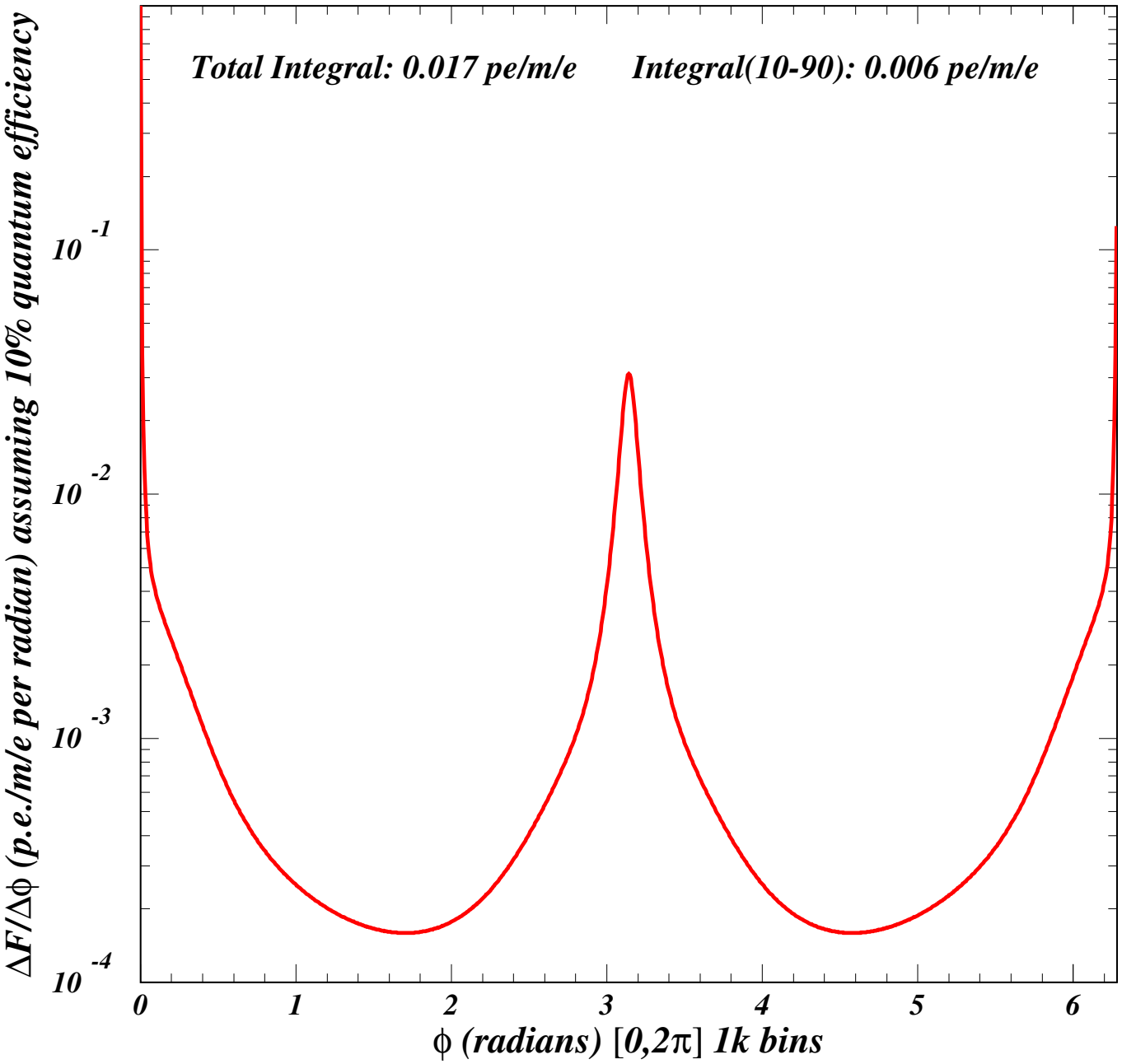


Job 31721: Photoelectron Production Distributions







12/05/16 10.48

Job 31721: Photoelectron Production Distributions