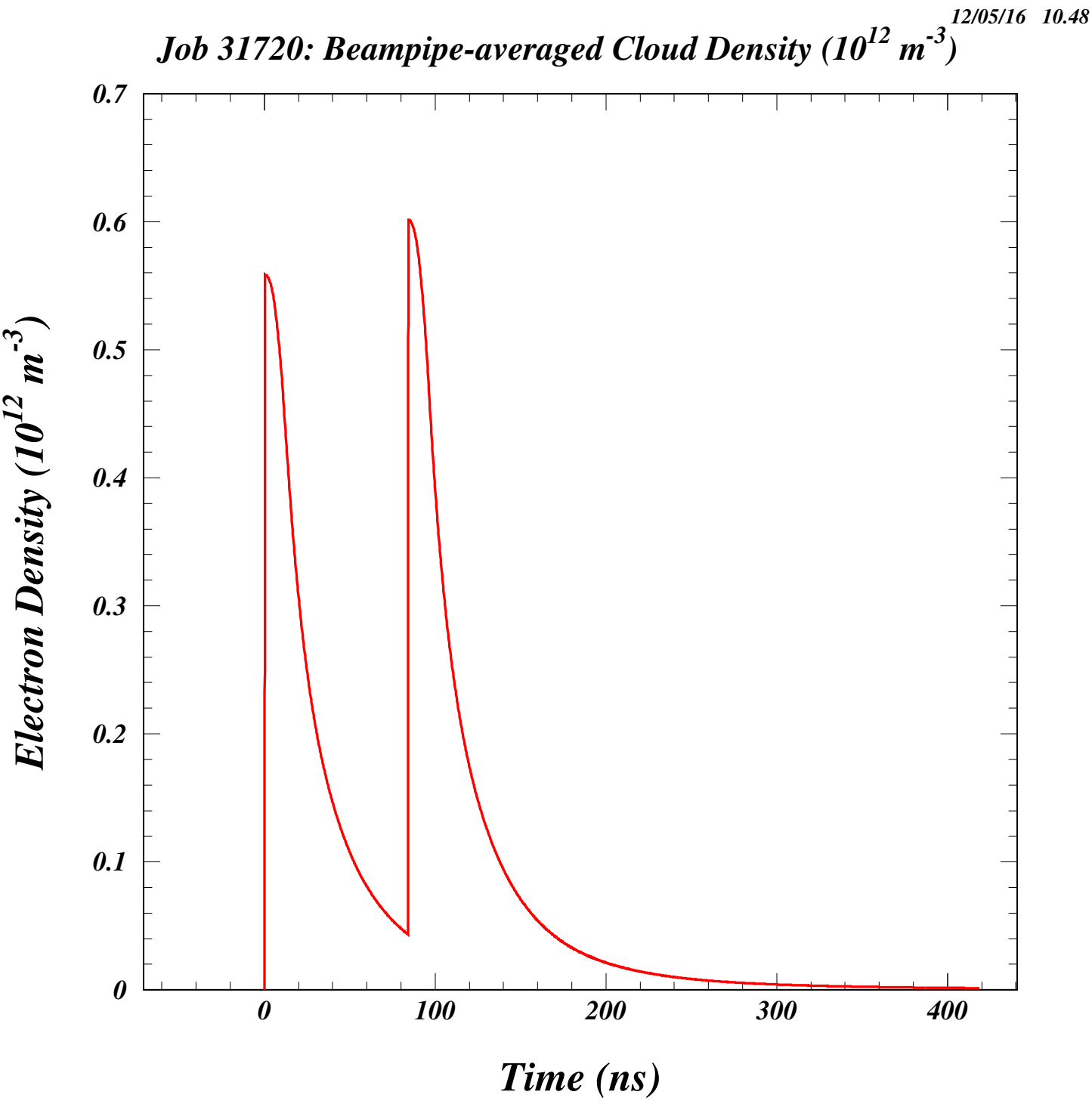
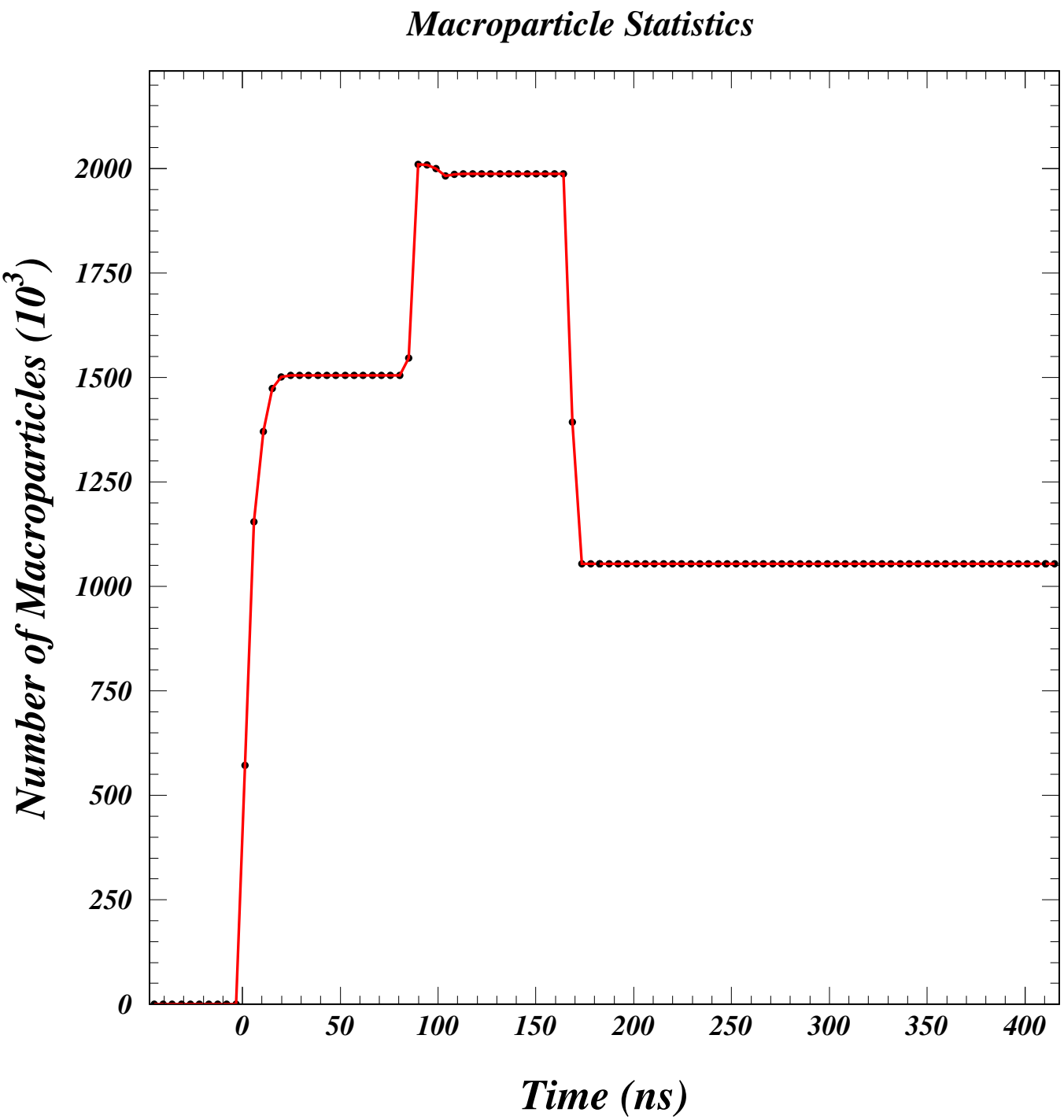

12/05/16 10.48
Job 31720: Beampipe-averaged Cloud Density (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
100
200
300
400
Time (ns)

12/05/16 10.48


Macroparticle Statistics
Number of Macroparticles (10^3)
2000
1750
1500
1250
1000
750
500
250
0
0
50
100
150
200
250
300
350
400
Time (ns)

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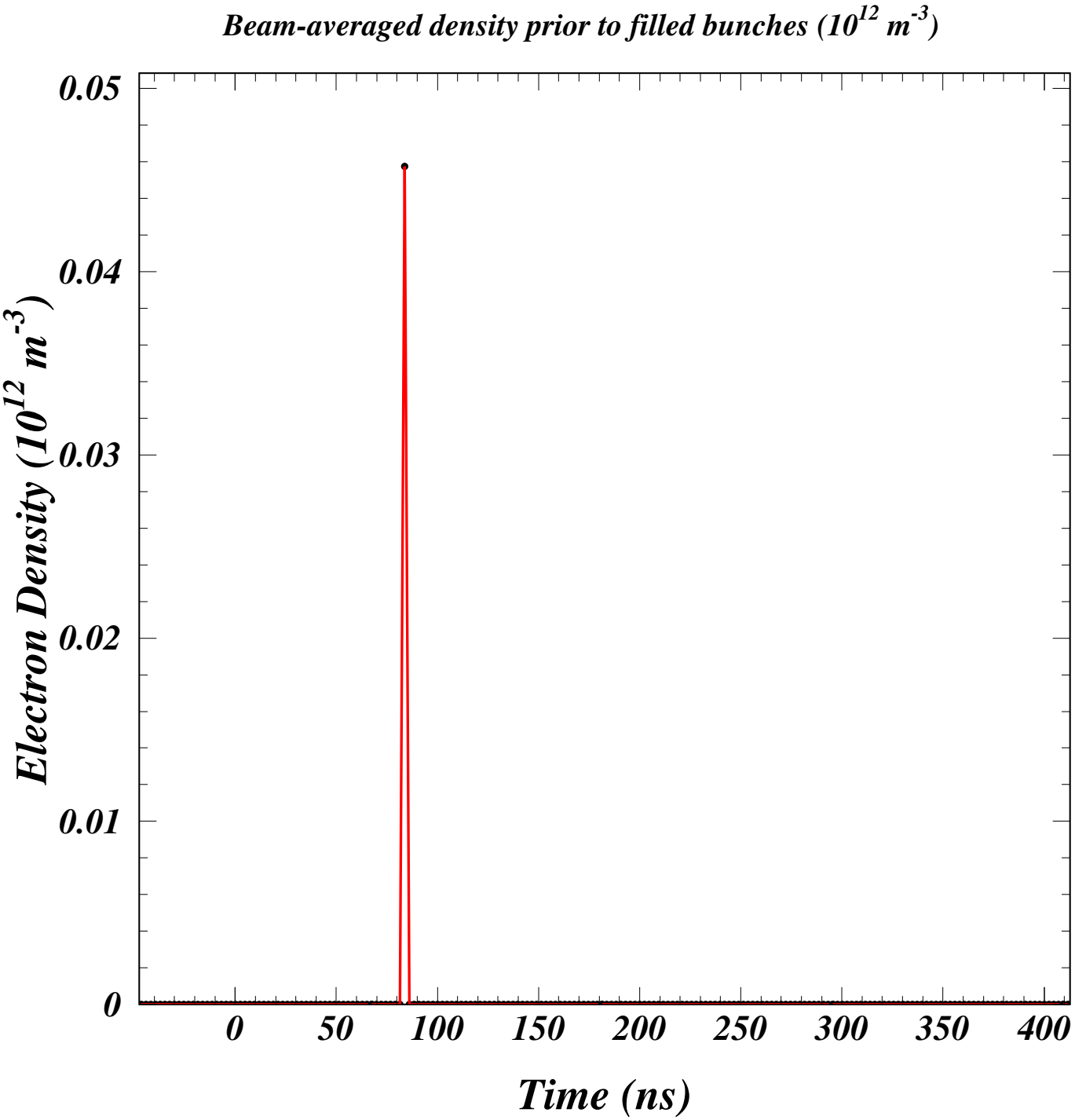
Beam-averaged density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)

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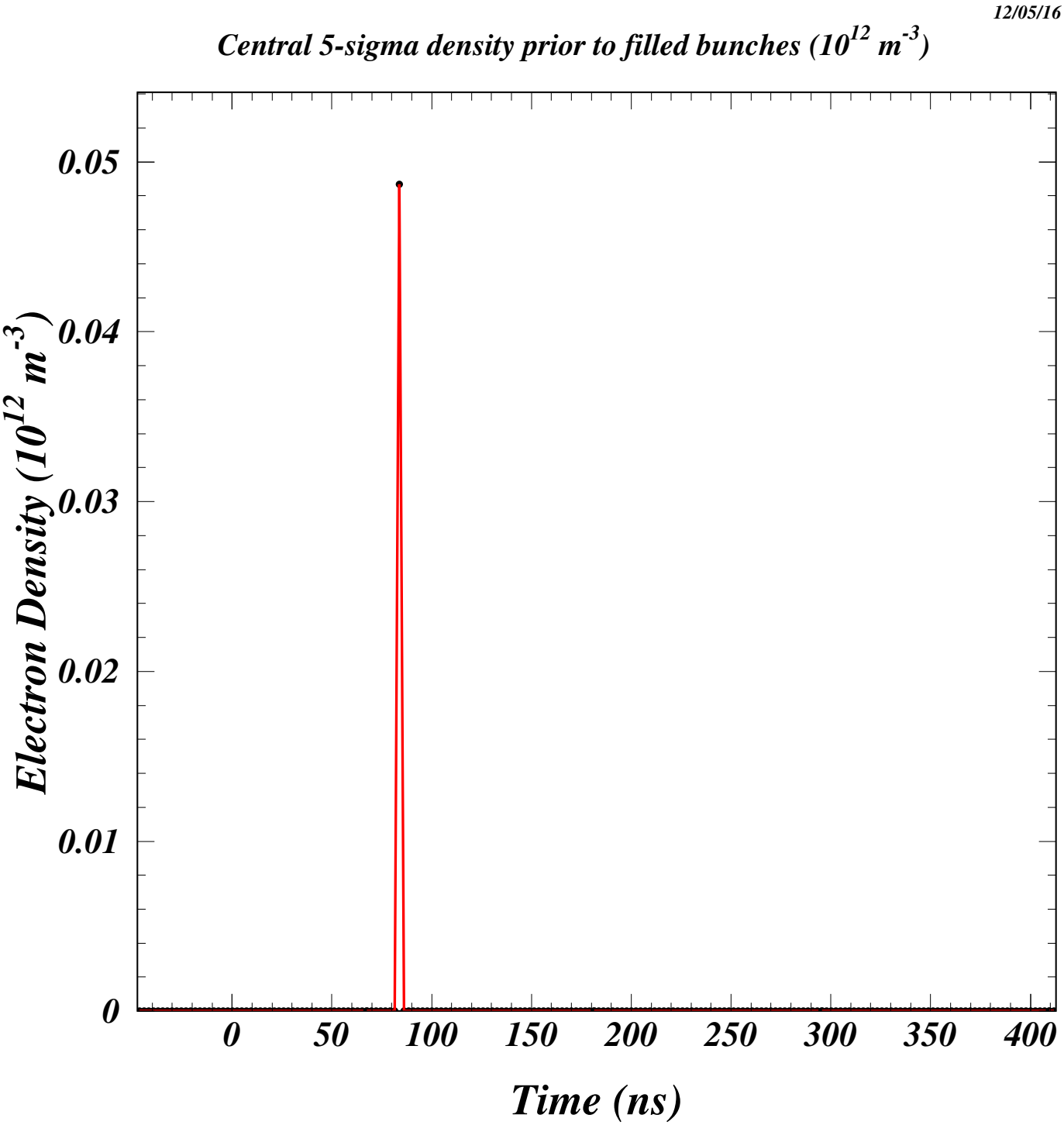
Central 5-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)

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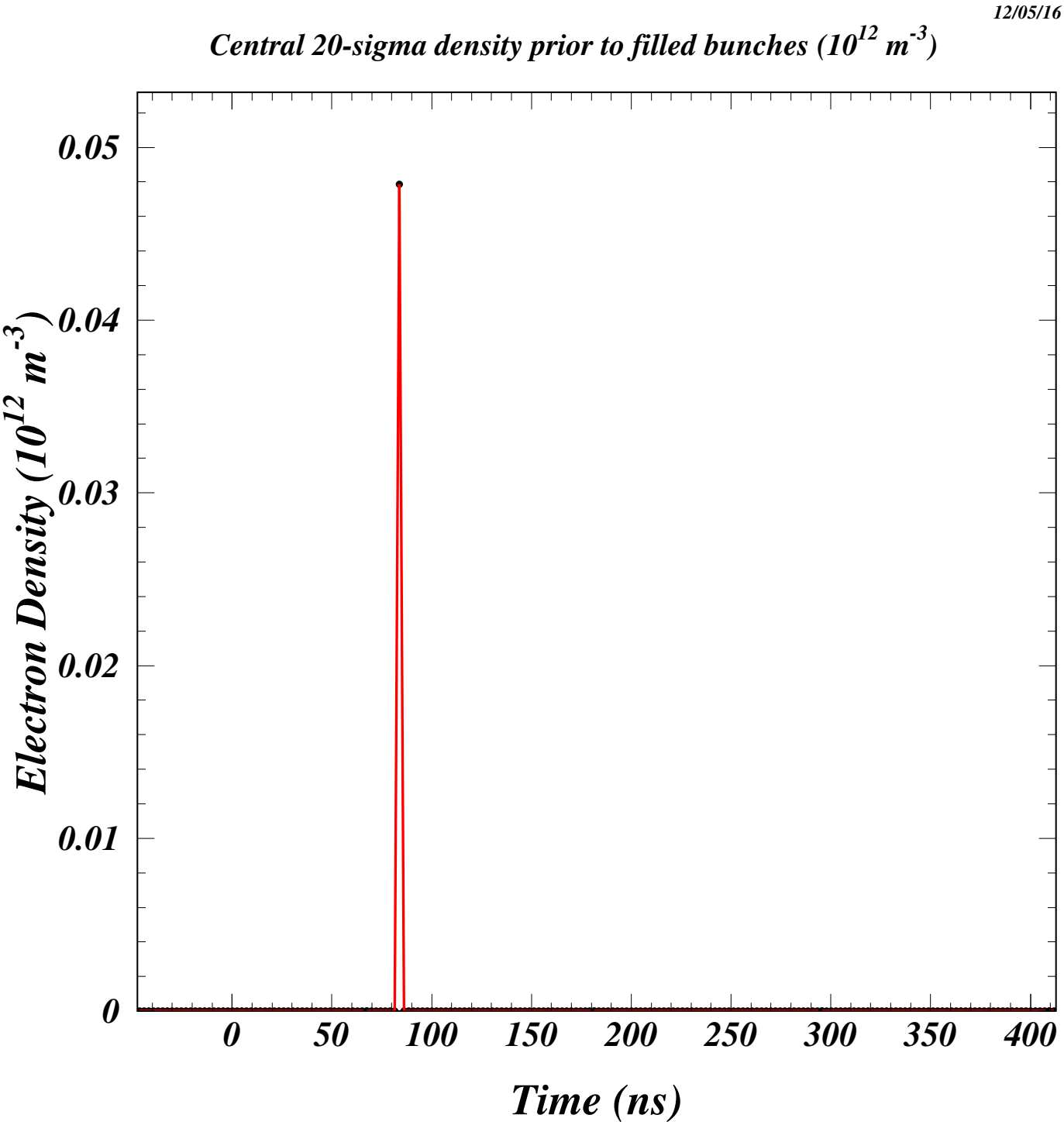
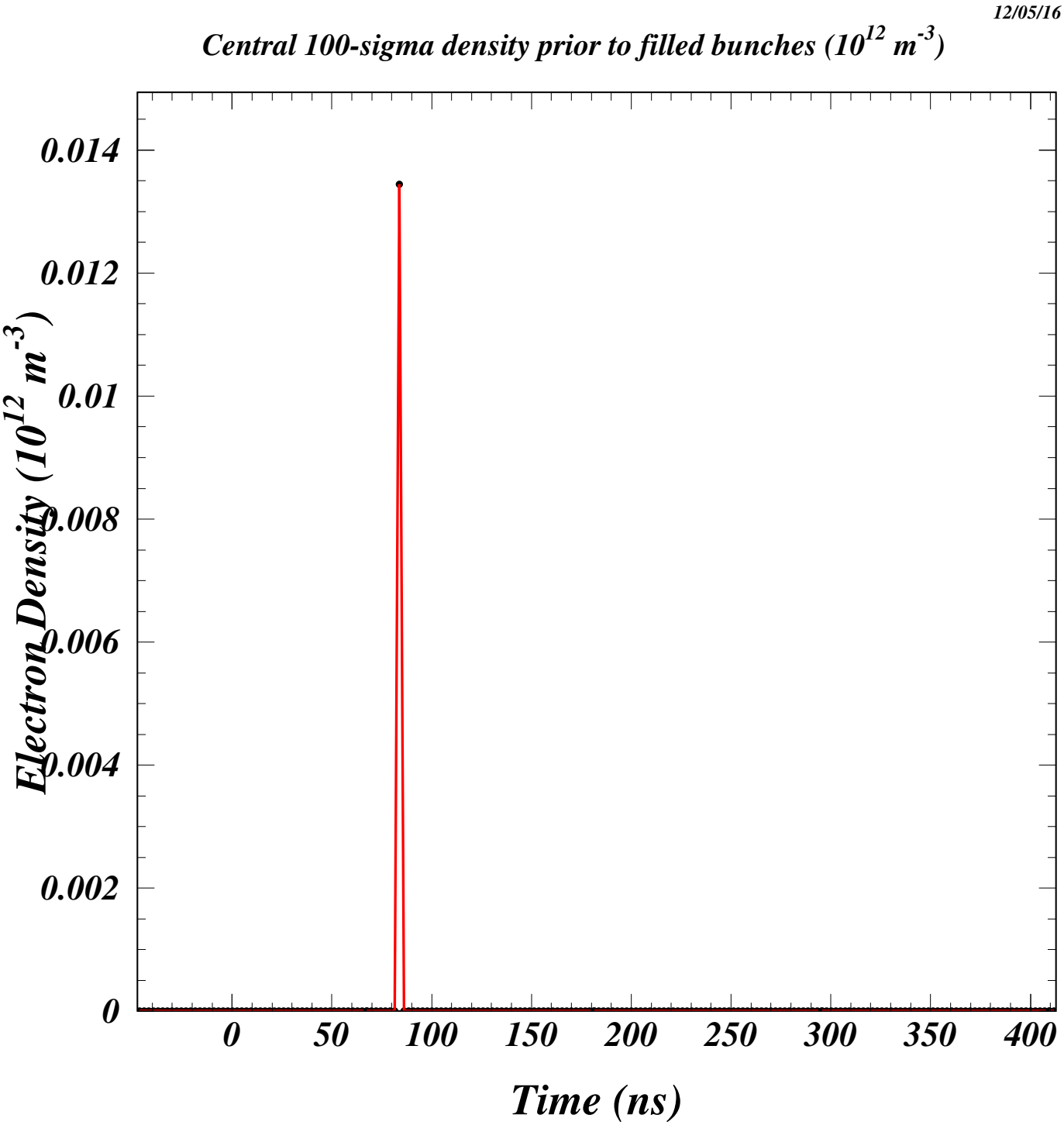
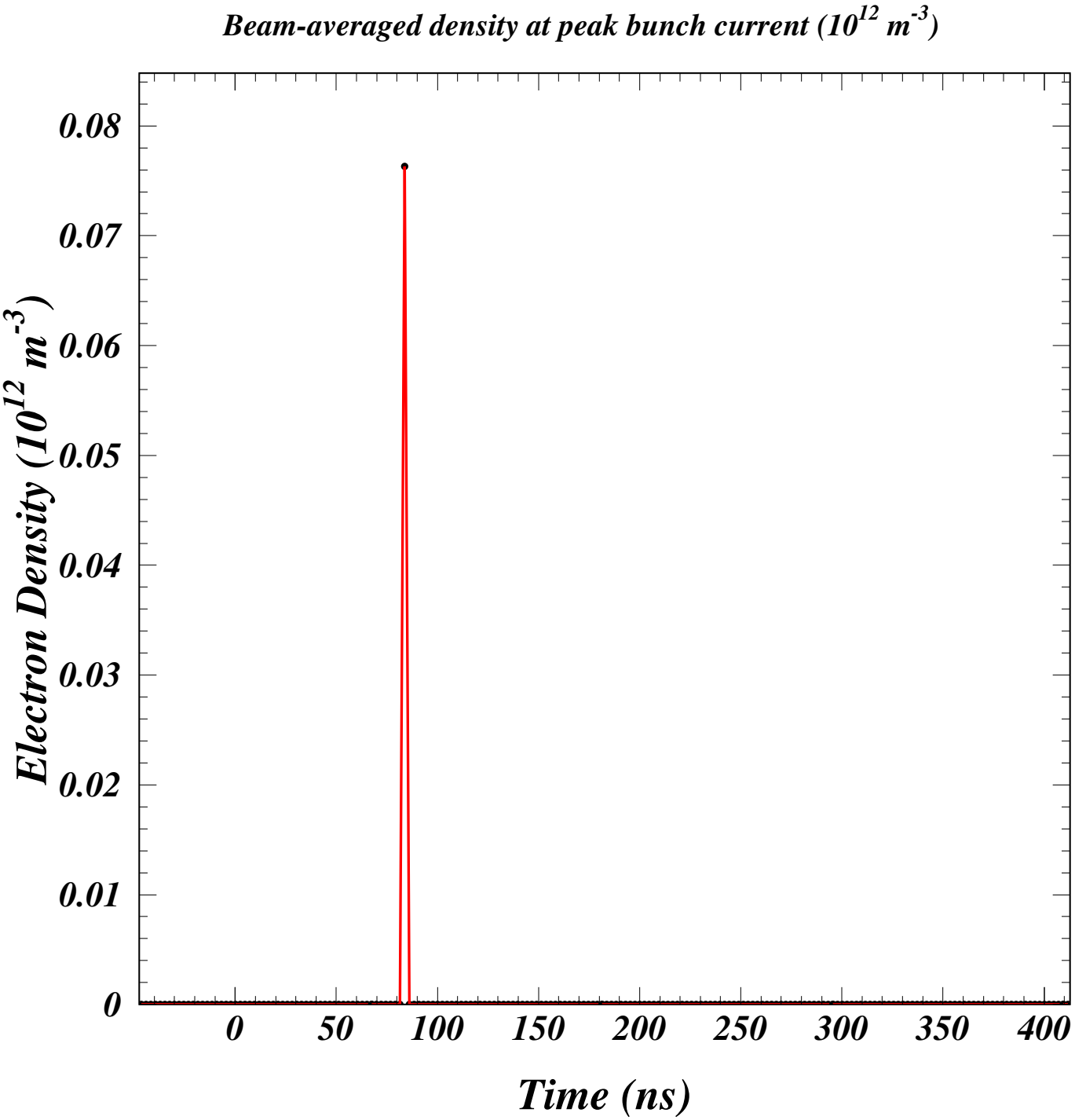
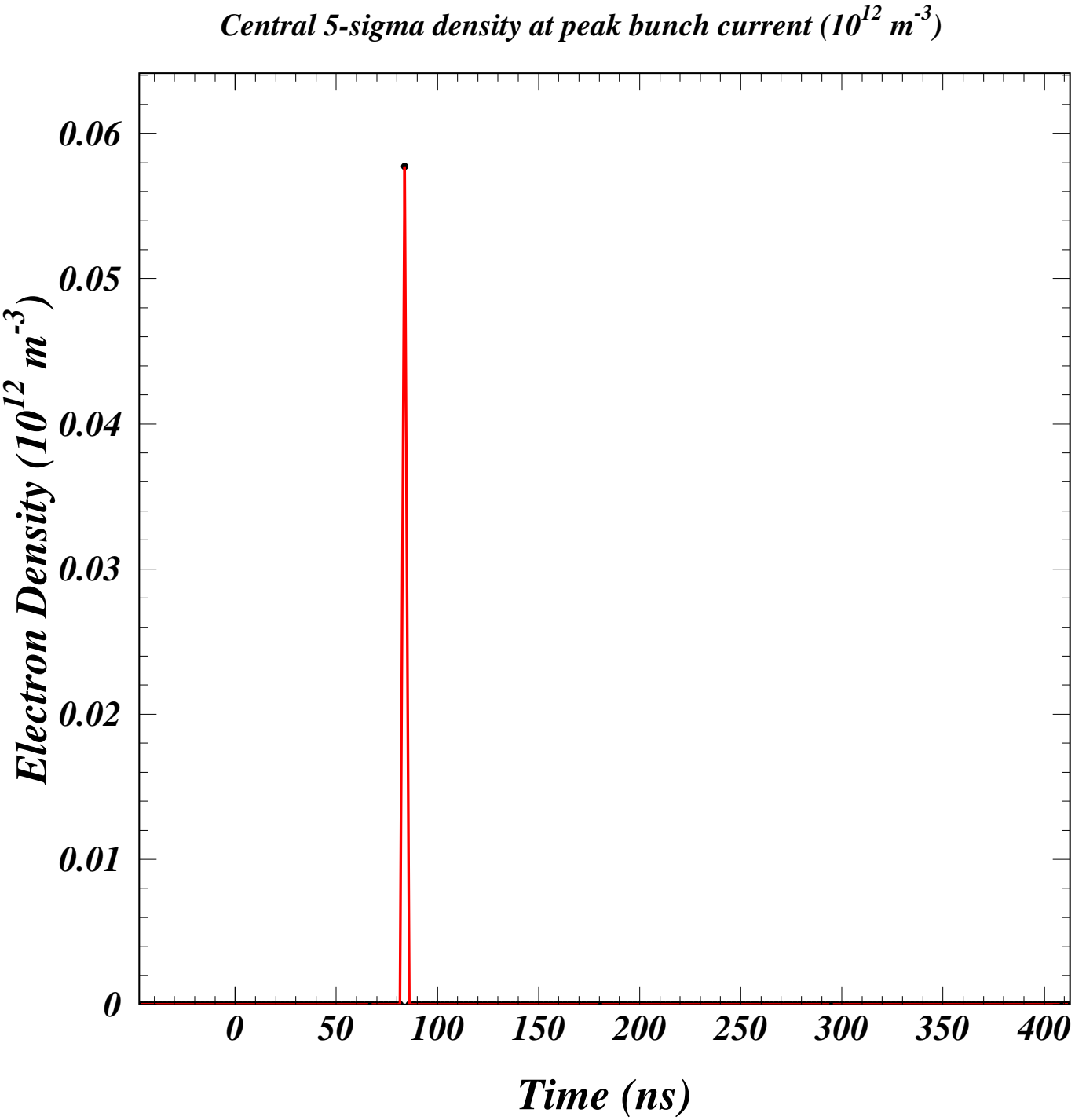
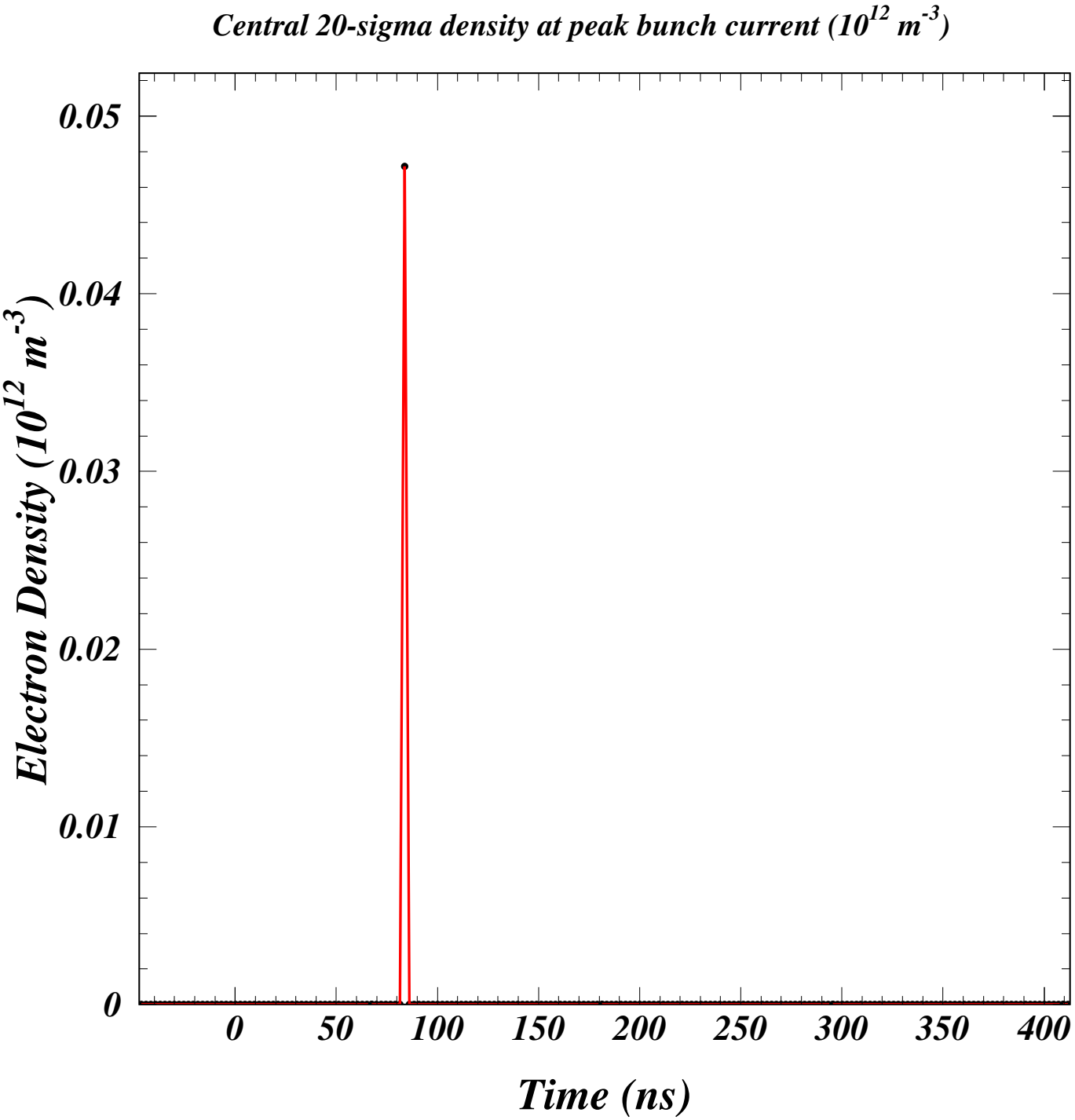

Central 20-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)


Central 100-sigma density prior to filled bunches (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0
50
100
150
200
250
300
350
400
Time (ns)


Beam-averaged density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)


Central 5-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.06
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)


Central 20-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)

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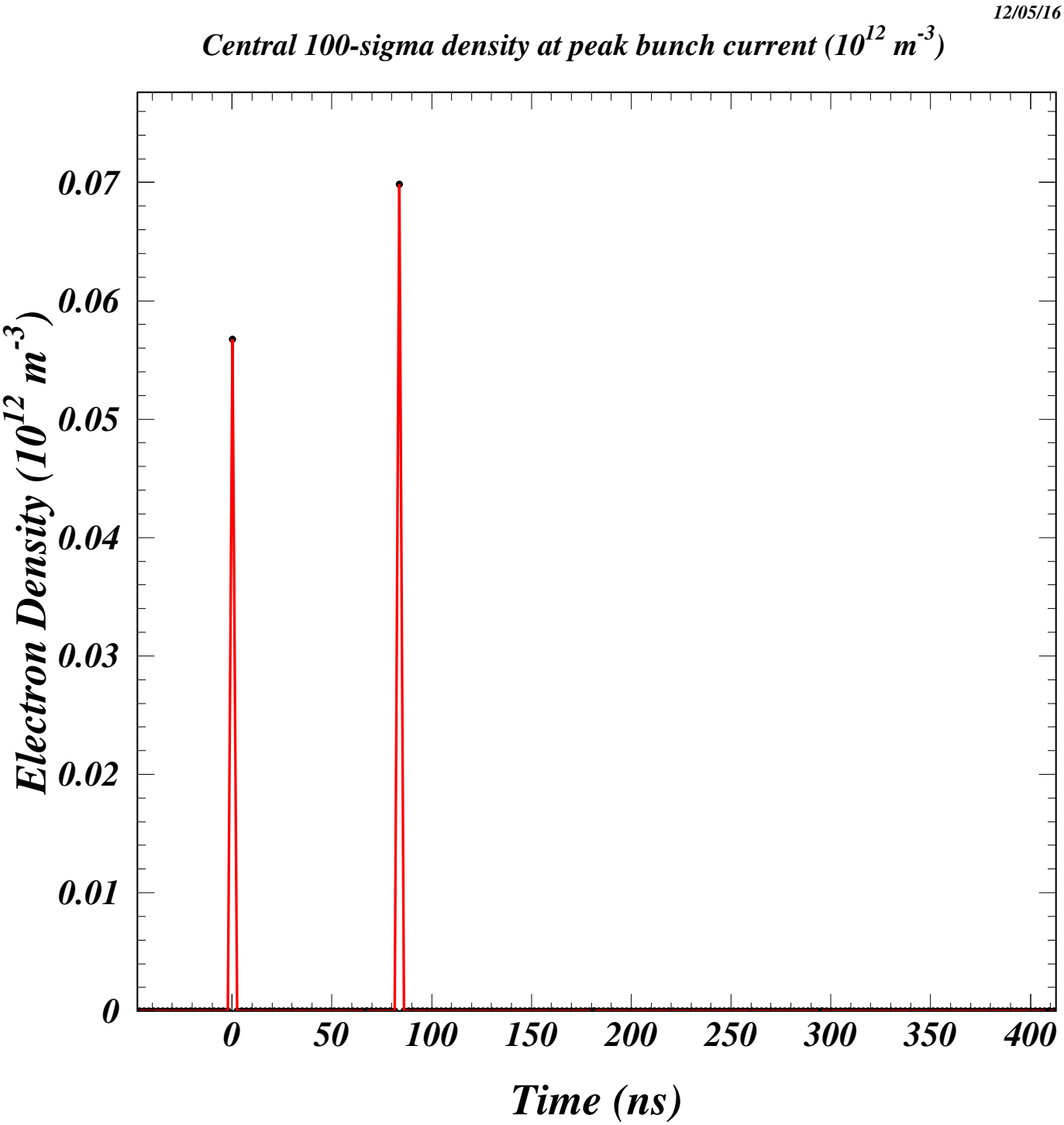
Central 100-sigma density at peak bunch current (10^{12} m^{-3})
Electron Density (10^{12} m^{-3})
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
50
100
150
200
250
300
350
400
Time (ns)

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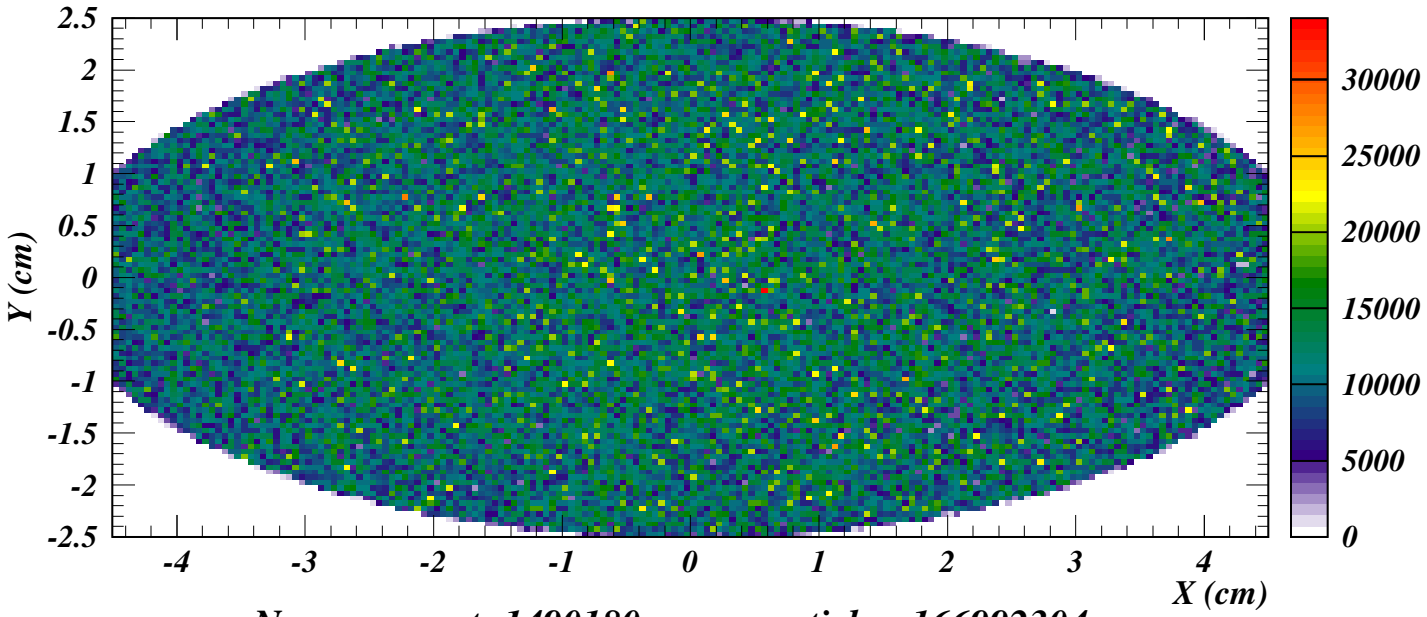
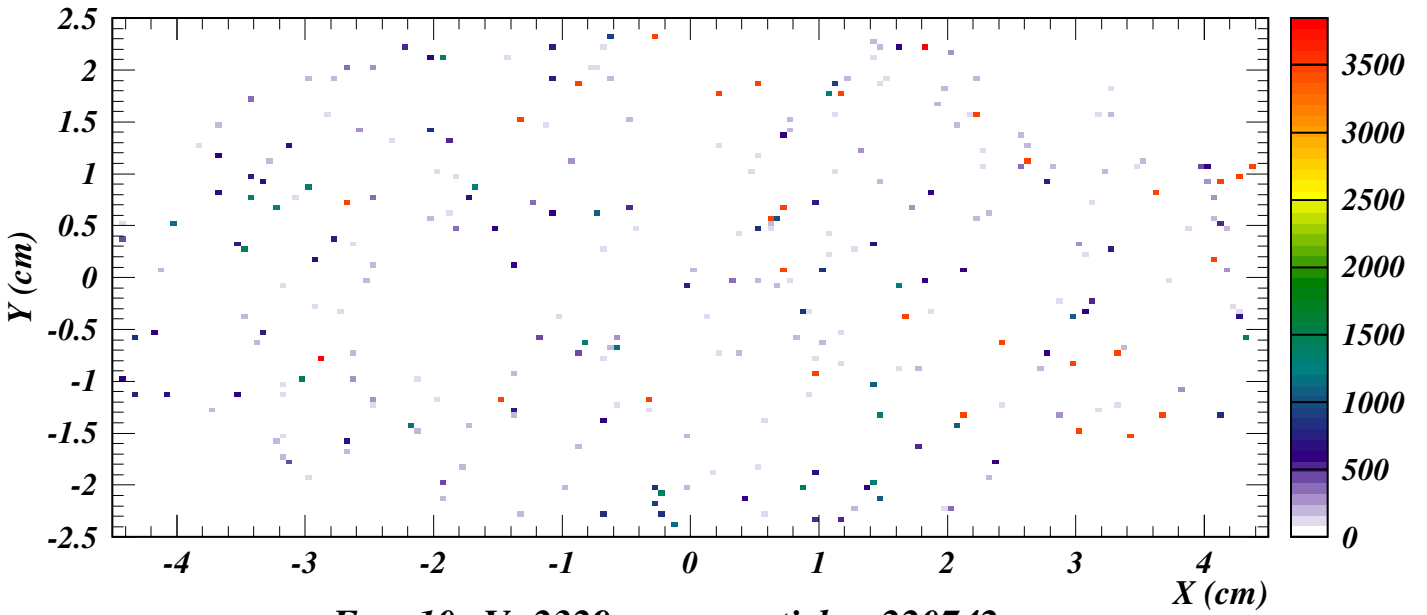
Cloud charge snapshot after bunch 1 at time = 84 ns



No energy cut: 1490180 macroparticles, 166992304 e-



E_{kin}>10 eV: 2329 macroparticles, 220742 e-

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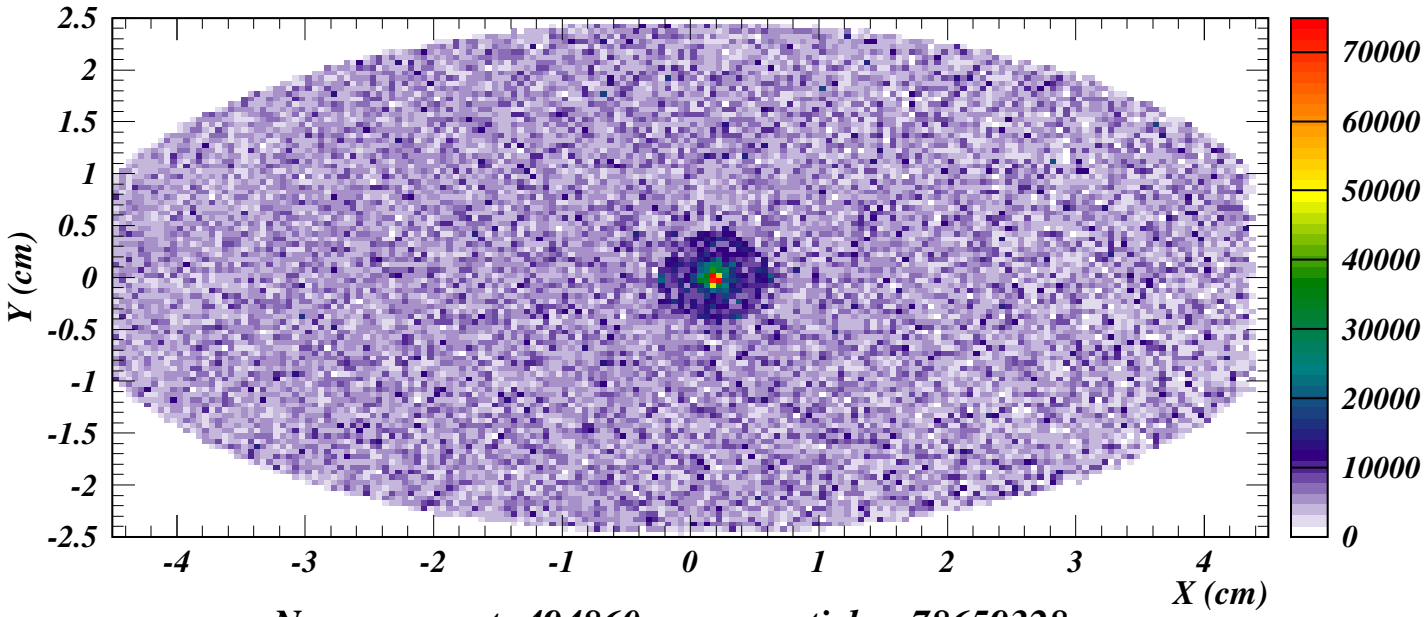
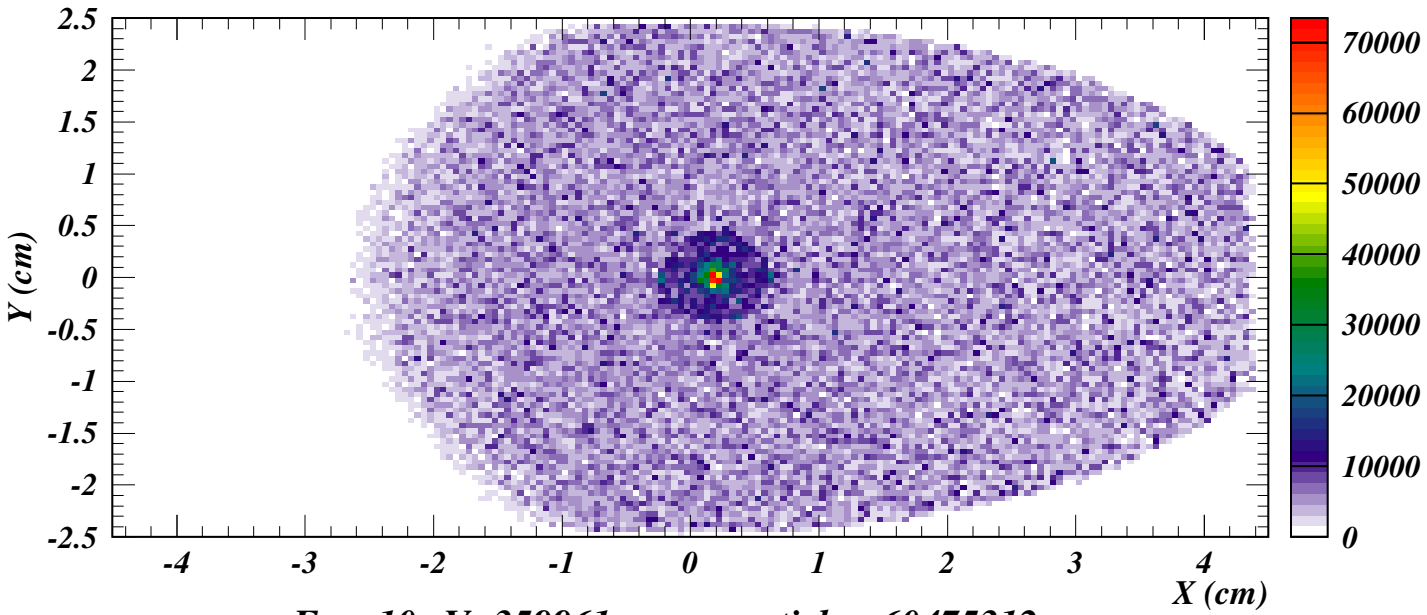
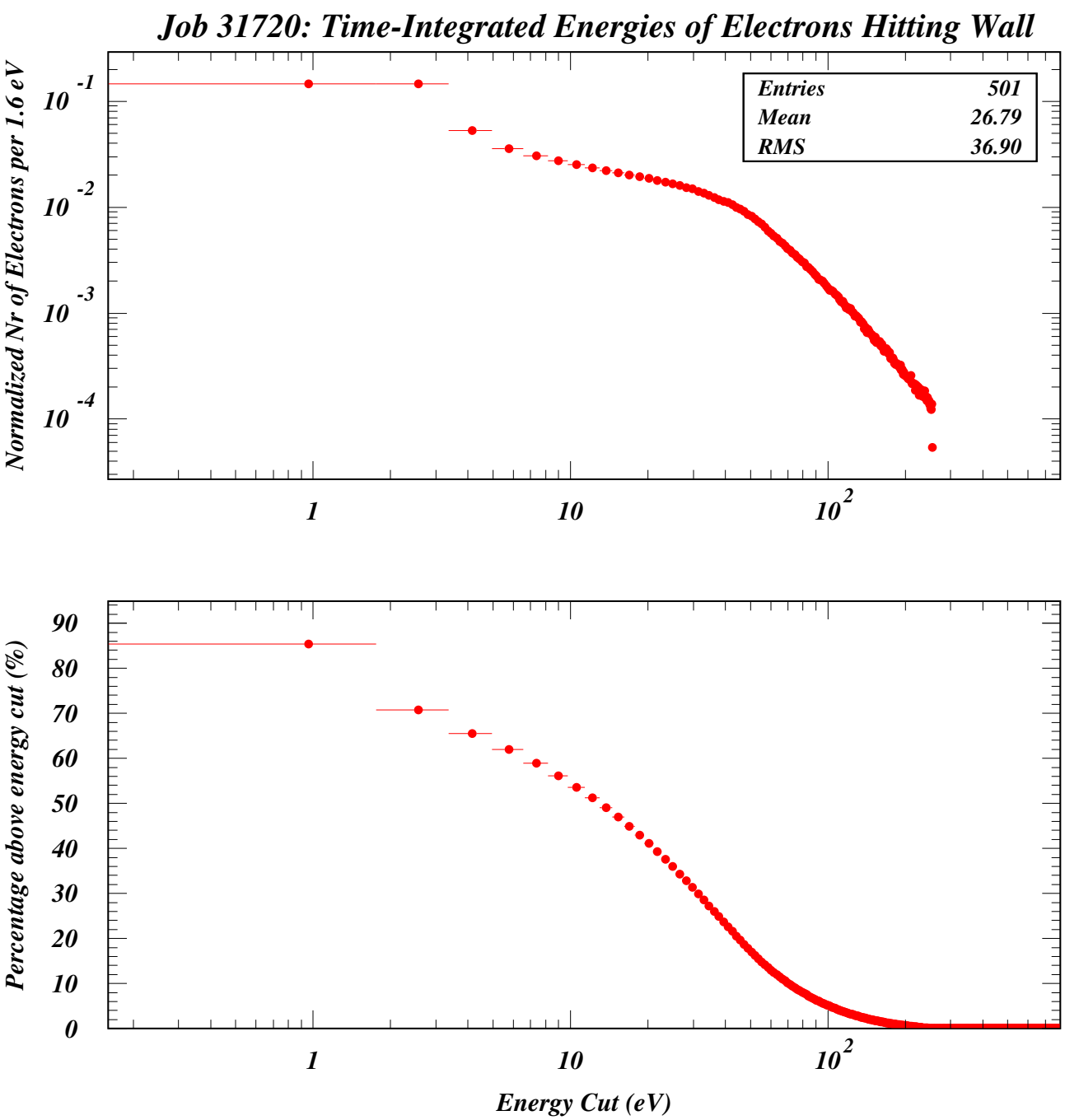
Cloud charge snapshot after bunch 2 at time = 84.416 ns

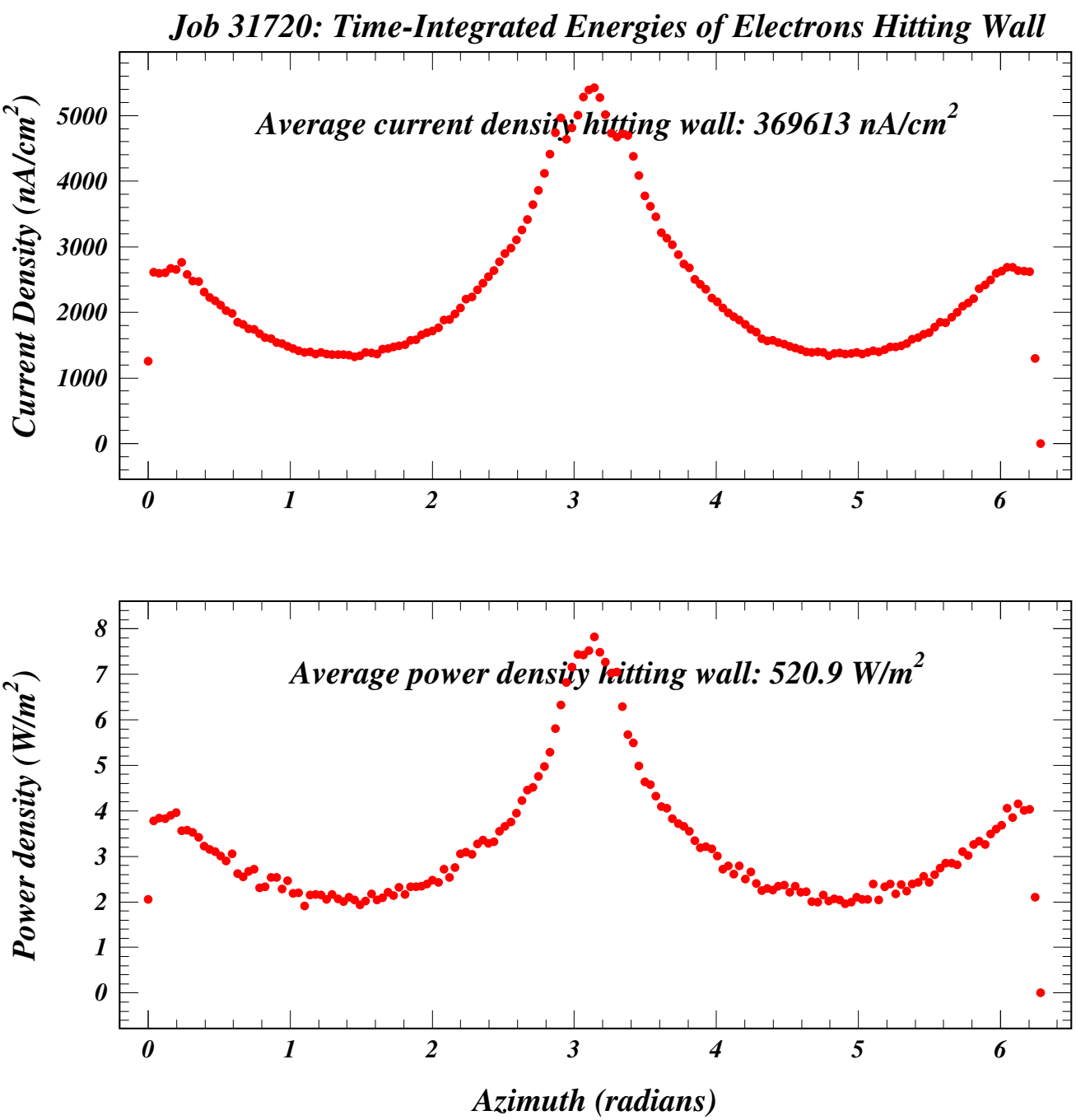


No energy cut: 494860 macroparticles, 78659328 e-



E_{kin}>10 eV: 359961 macroparticles, 60475312 e-


Job 31720: Time-Integrated Energies of Electrons Hitting Wall
Entries 501
Mean 26.79
RMS 36.90
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)


Job 31720: Time-Integrated Energies of Electrons Hitting Wall
Average current density hitting wall: 369613 nA/cm^2
Current Density (nA/cm^2)
0
1000
2000
3000
4000
5000
0
1
2
3
4
5
6
Average power density hitting wall: 520.9 W/m^2
Power density (W/m^2)
0
1
2
3
4
5
6
7
8
Azimuth (radians)

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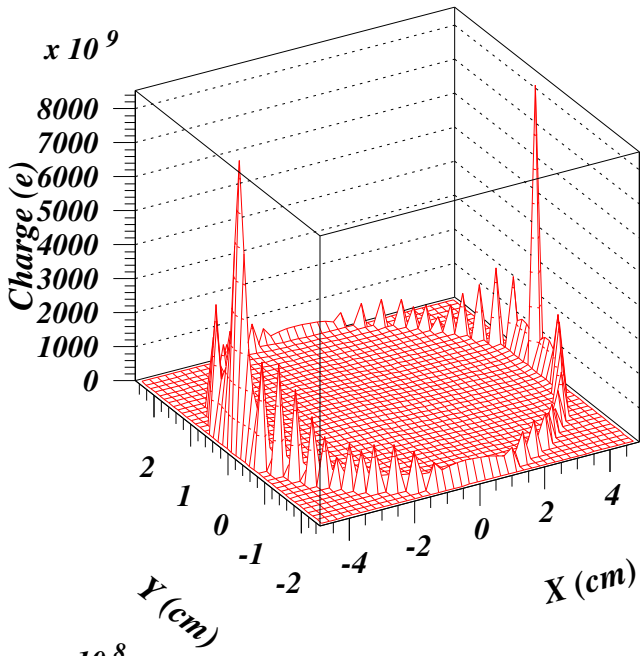
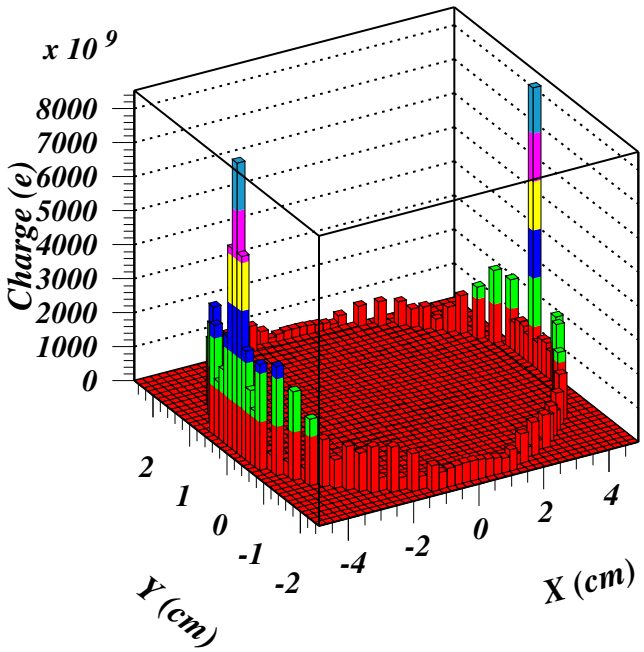
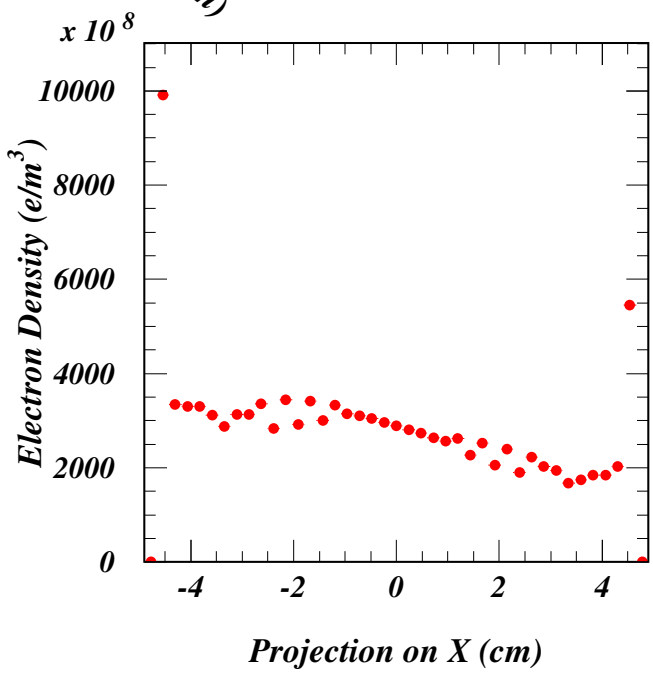
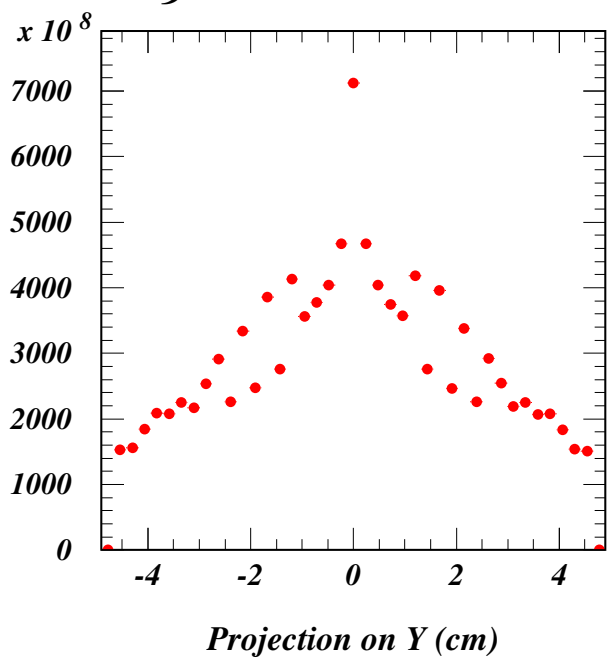
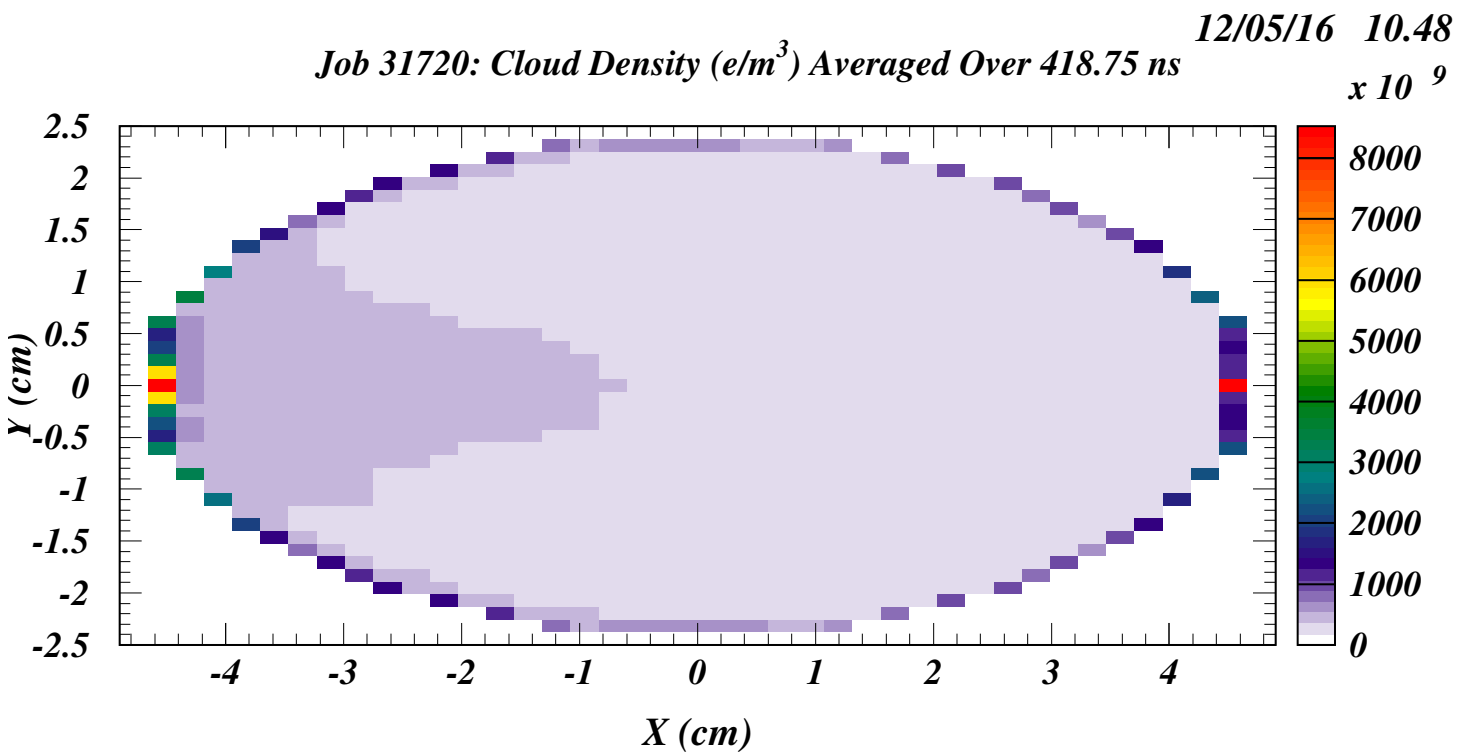
Job 31720: Cloud Density (e/m^3) Averaged Over 418.75 ns










12/05/16 10.48
Job 31720: Cloud Density (e/m3) Averaged Over 418.75 ns
x 10 9
8000
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)

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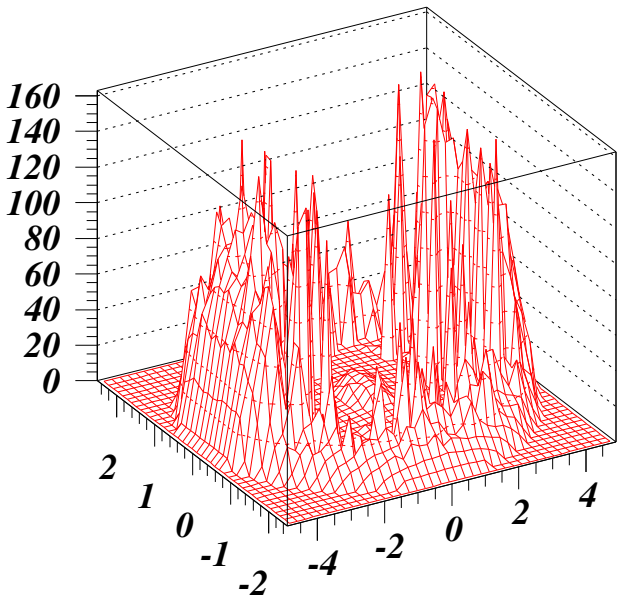
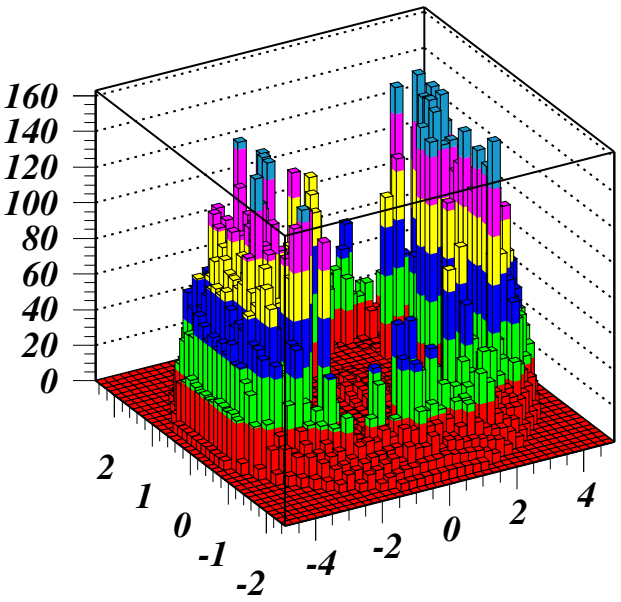
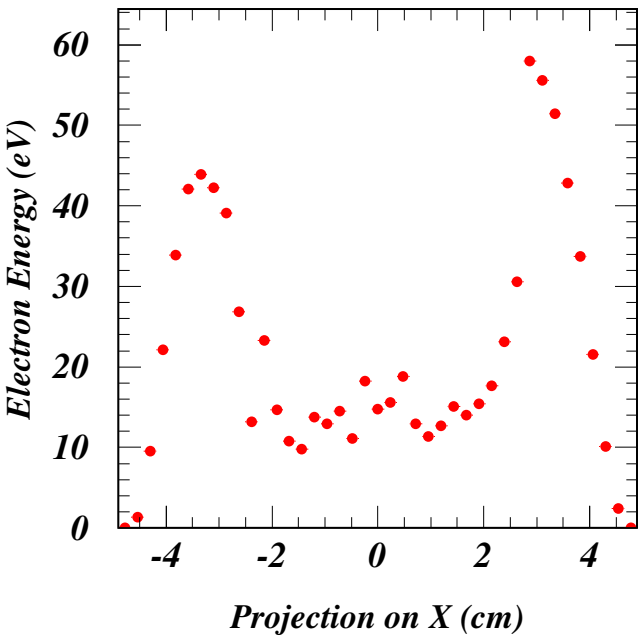
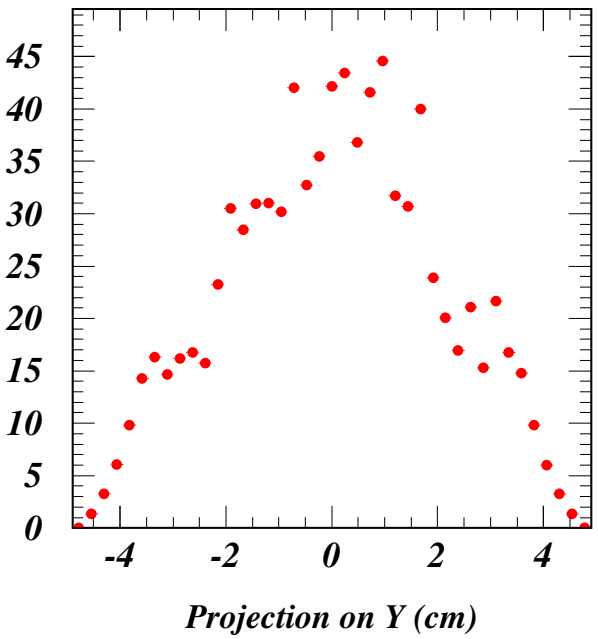
Job 31720: Electron Energies (eV) Averaged Over 418.75 ns









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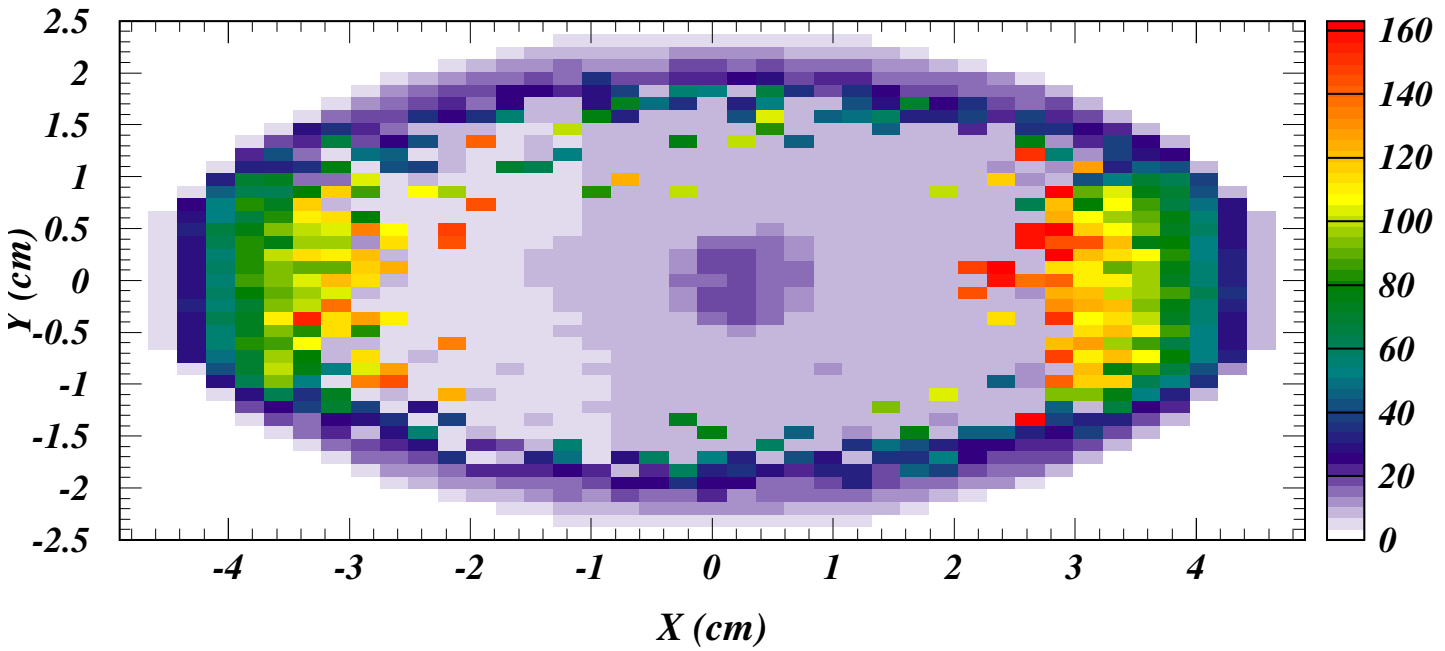
Job 31720: Electron Energies (eV) Averaged Over 418.75 ns



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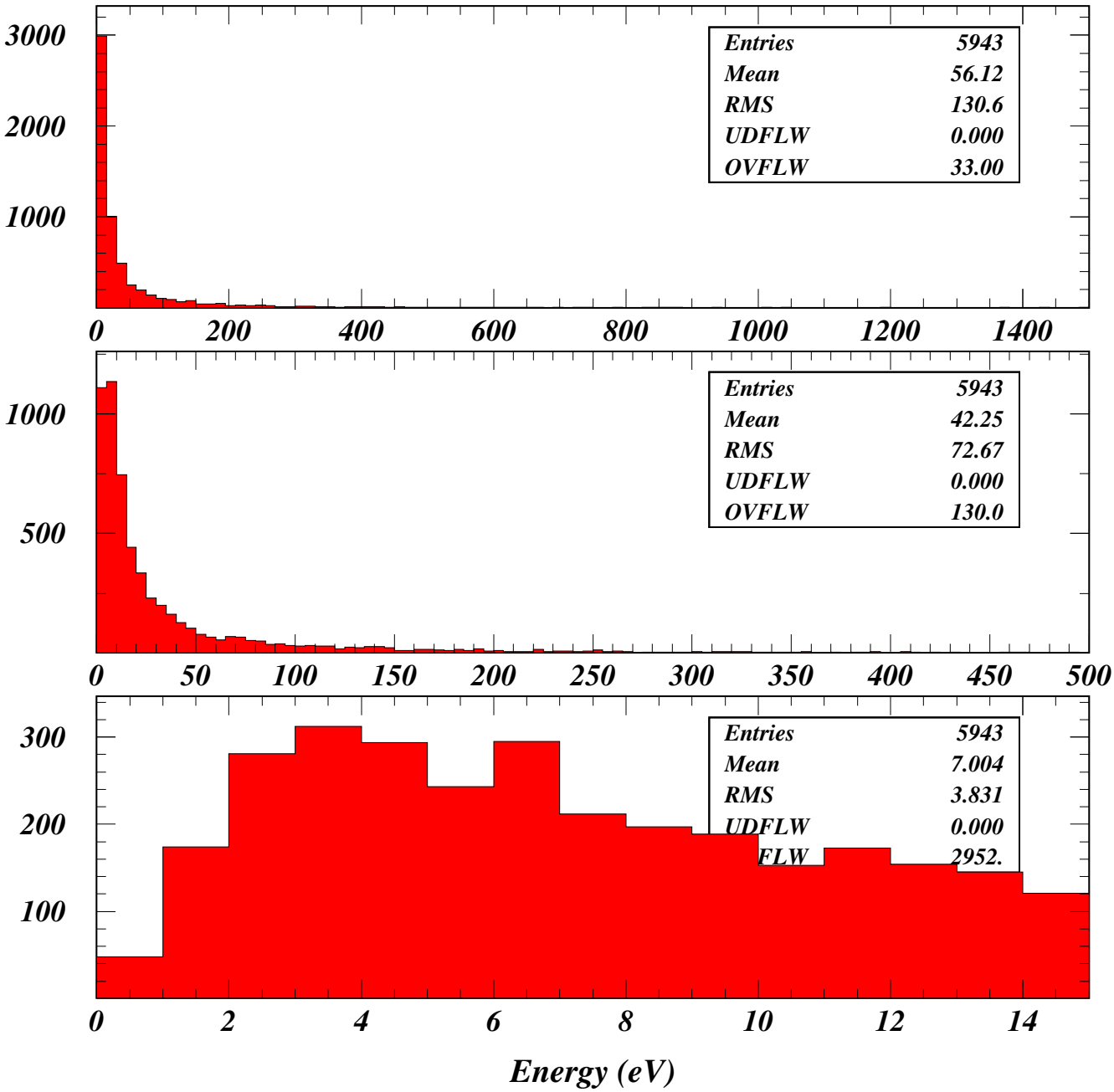
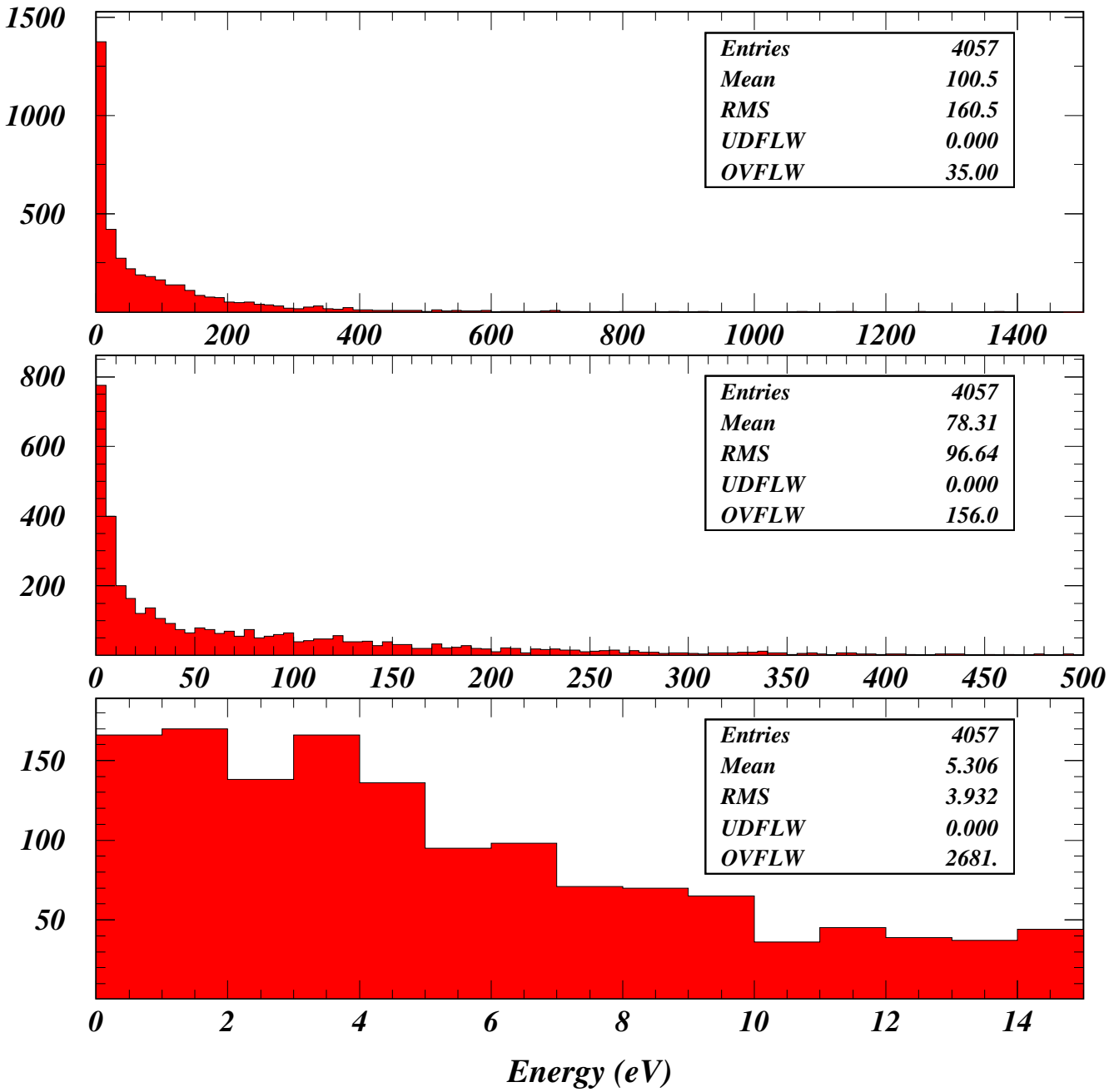
Job 31720: Photoelectrons from Direct Photons



12/05/16 10.48

Job 31720: Photoelectrons from Reflected Photons



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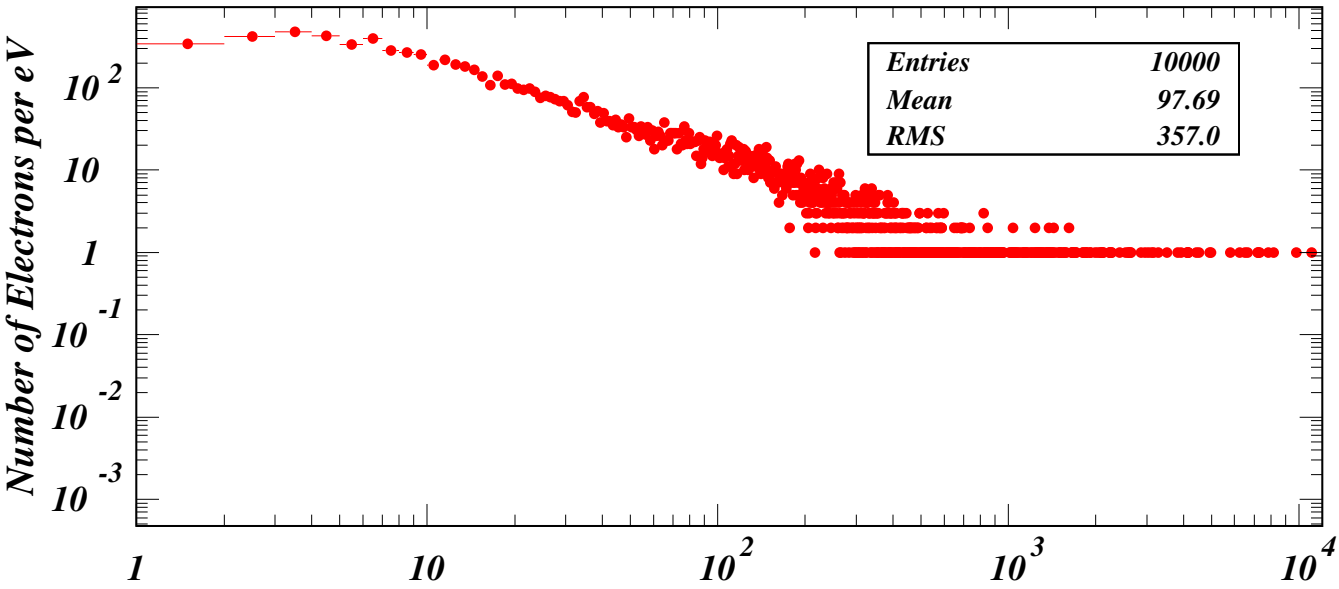
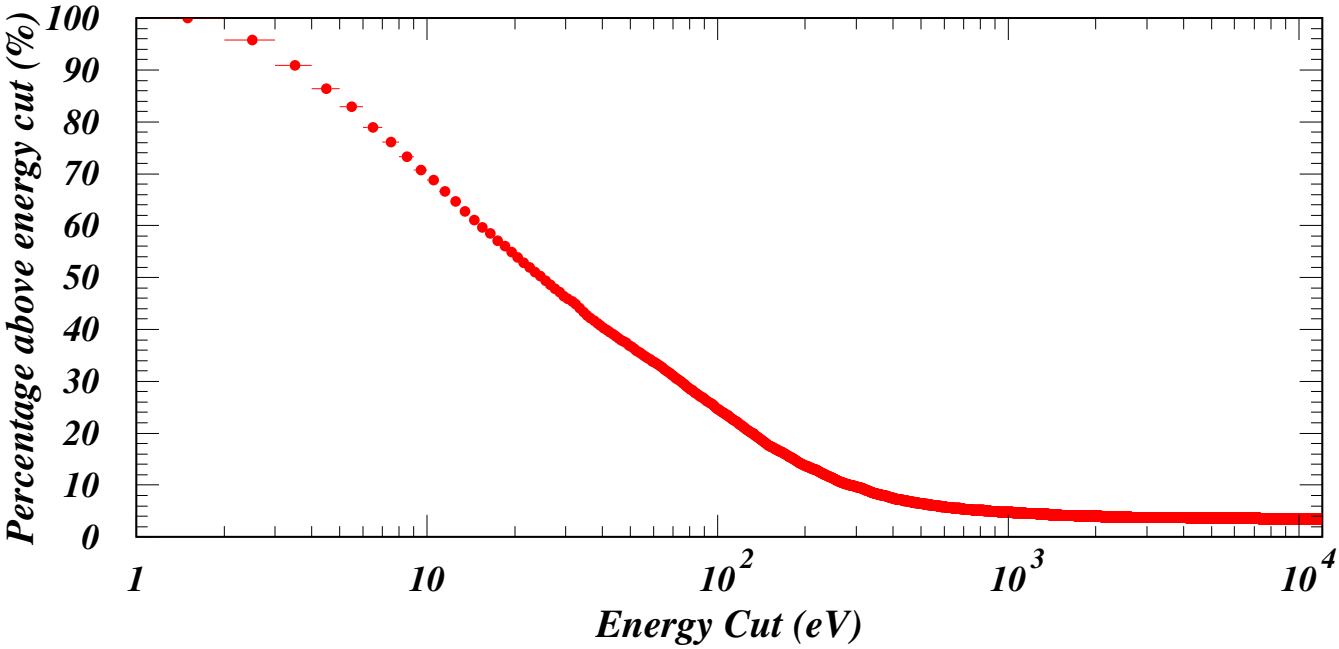
Job 31720: Photoelectron Energies





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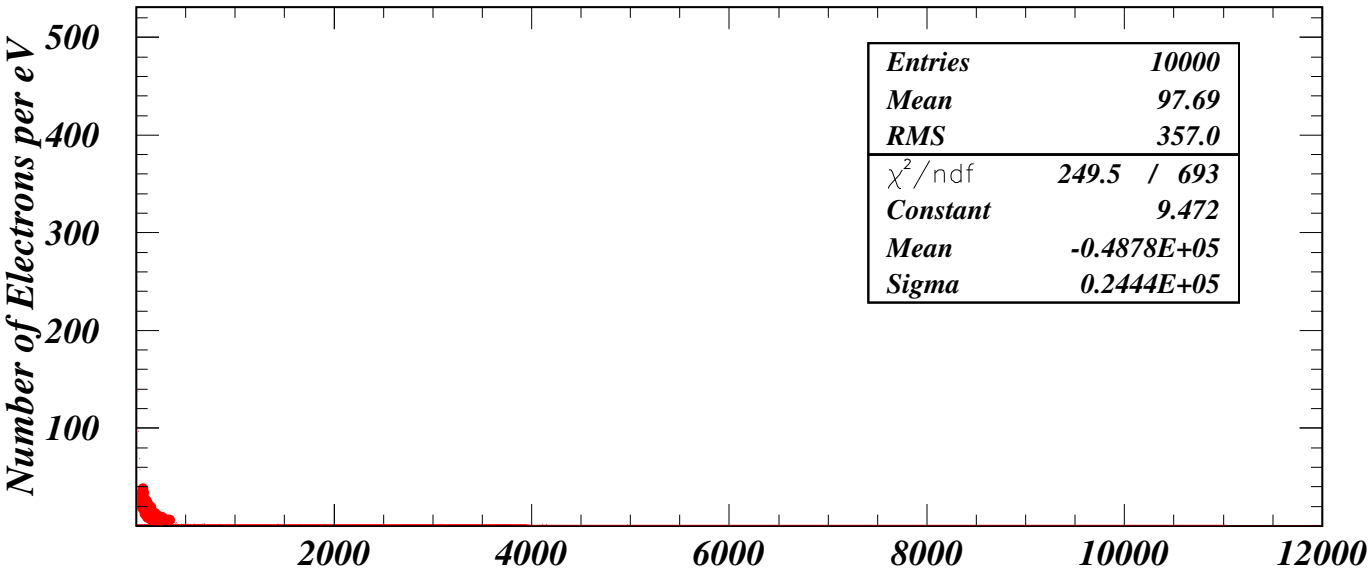
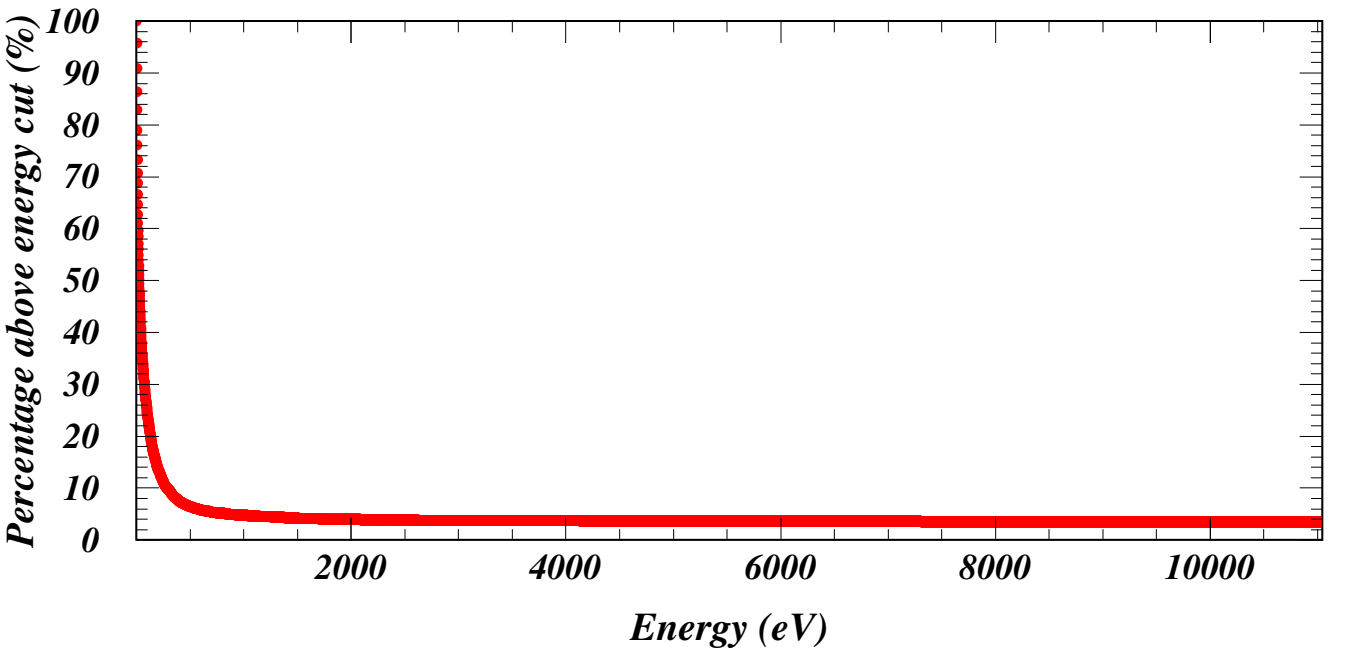
Job 31720: Photoelectron Energies





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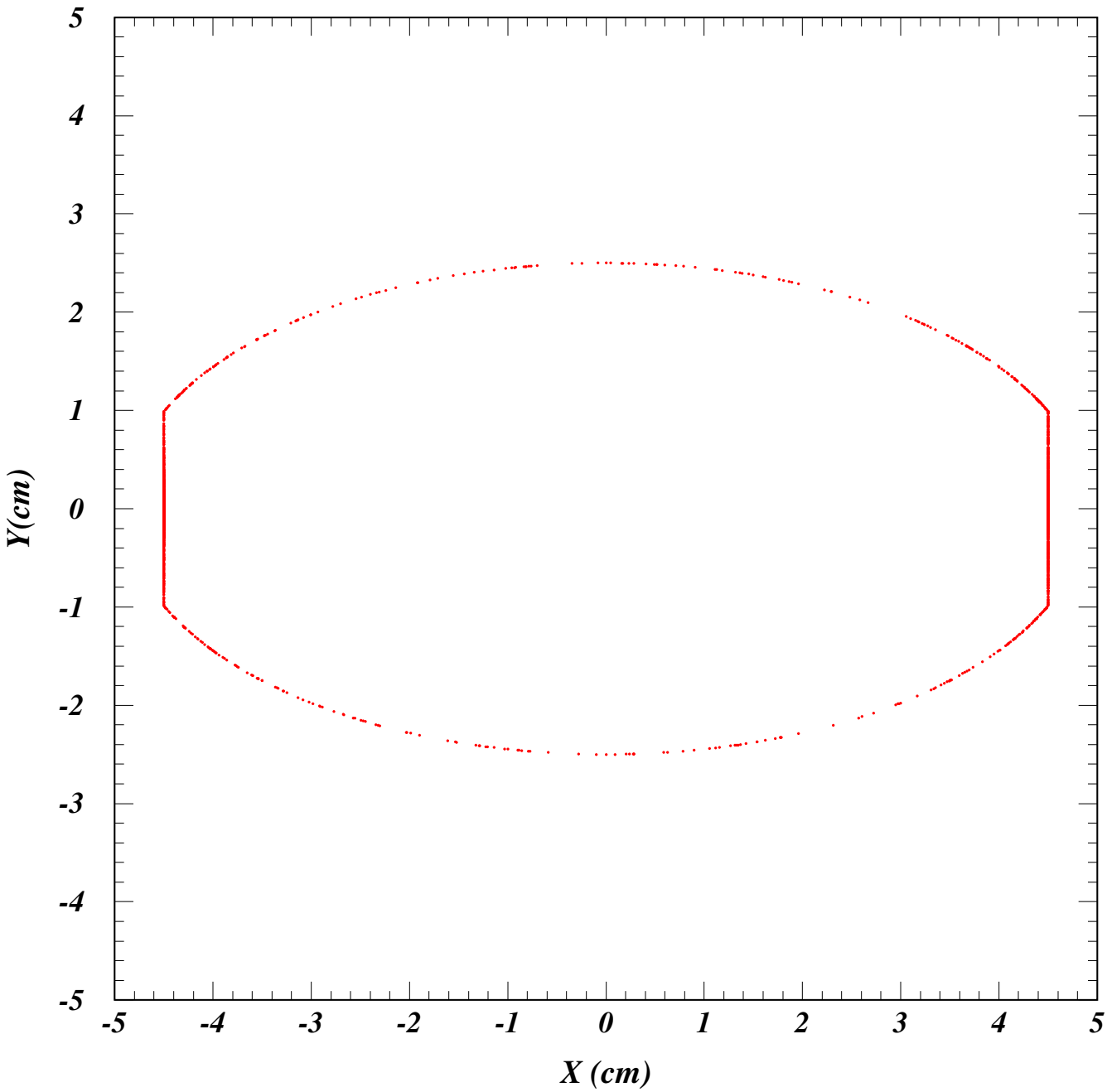
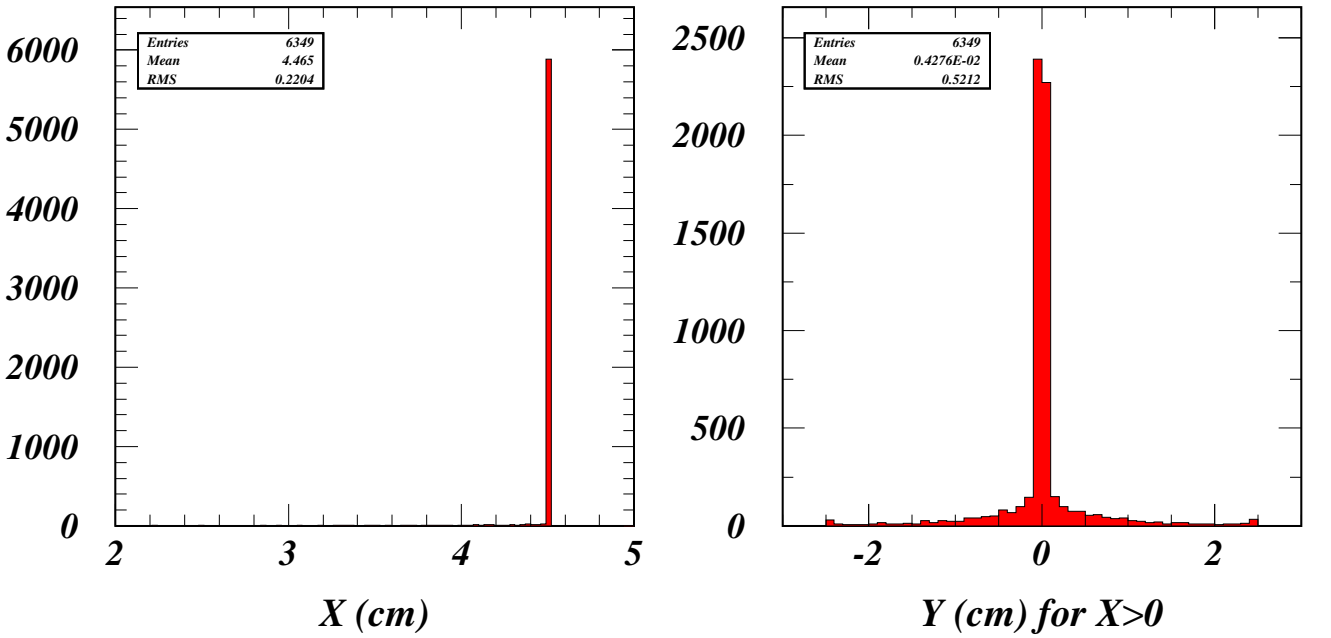
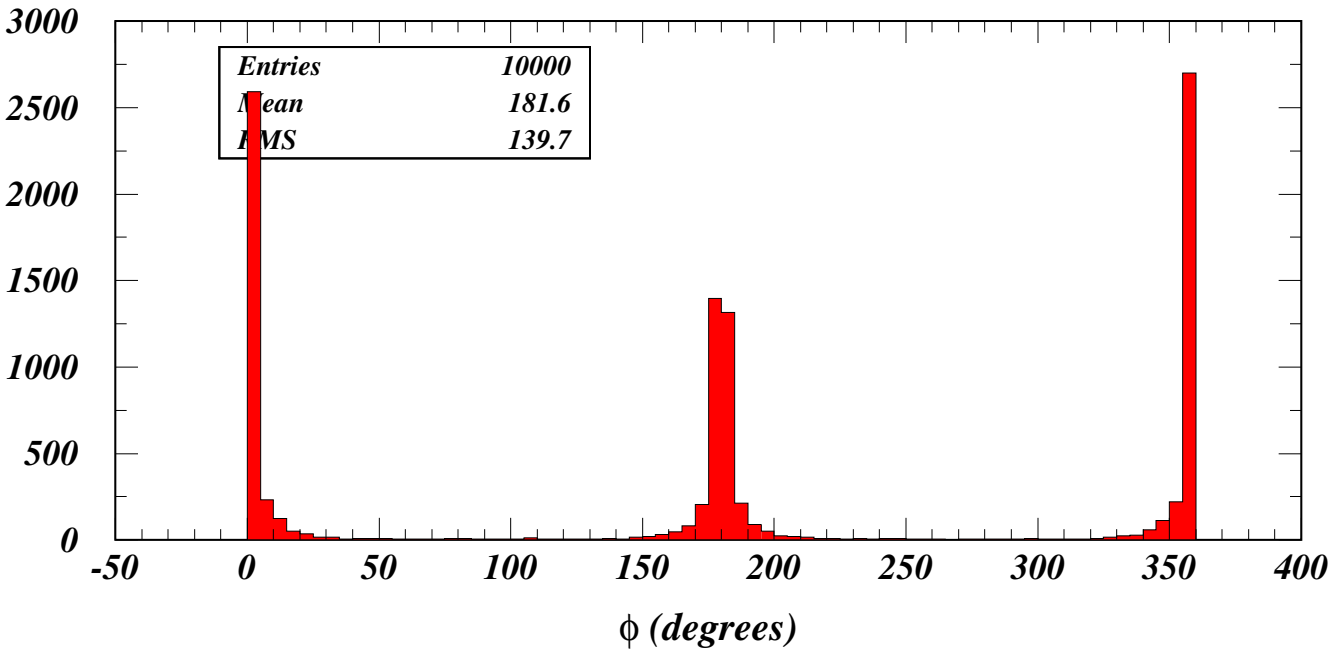
Job 31720: Photoelectron Production Distributions



12/05/16 10.48

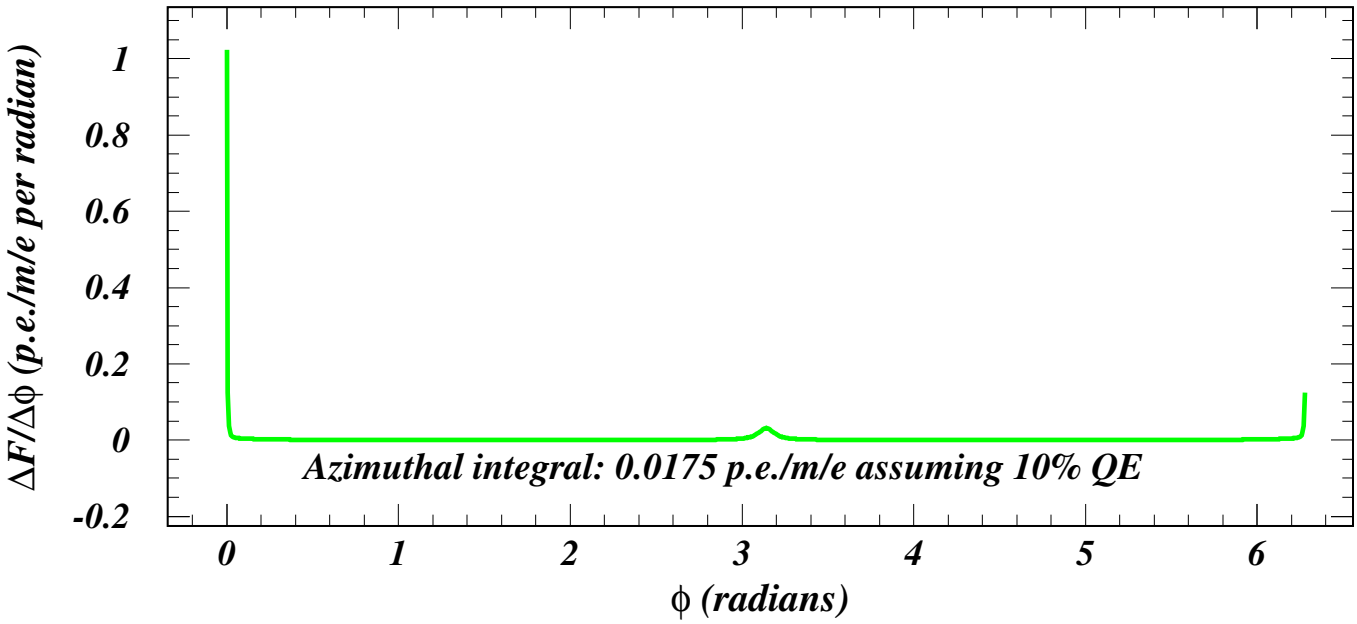
Job 31720: Photoelectron Production Distributions

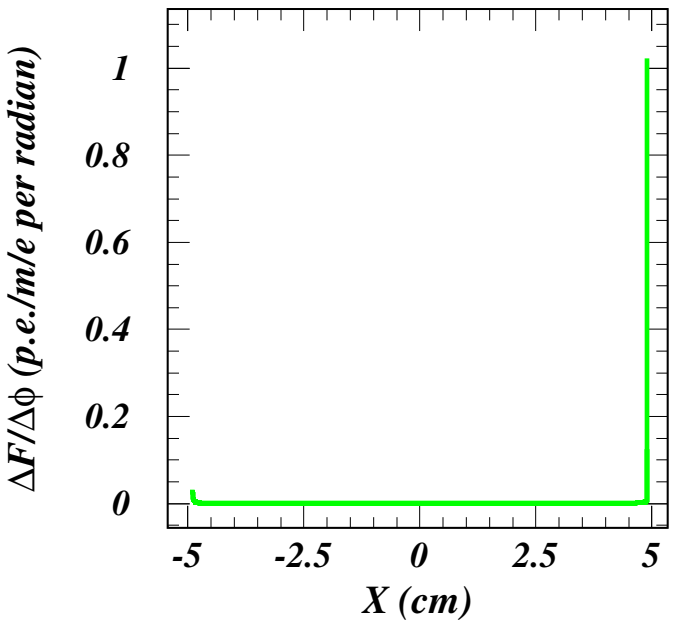


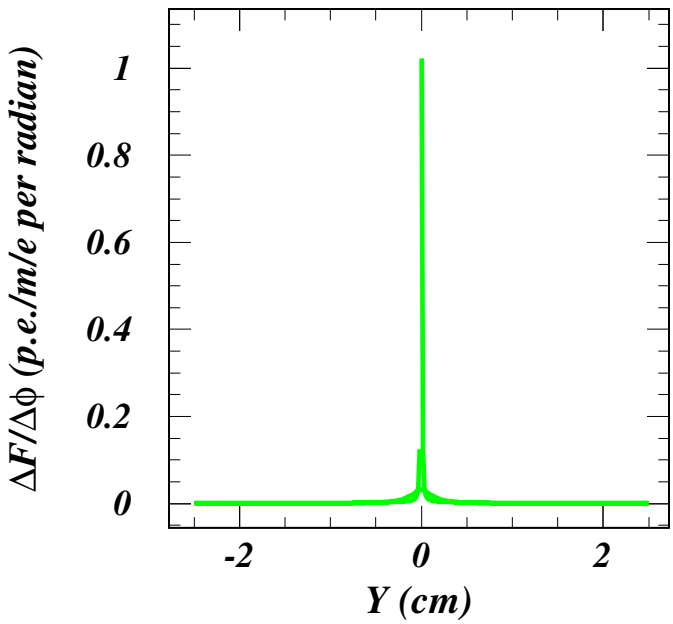


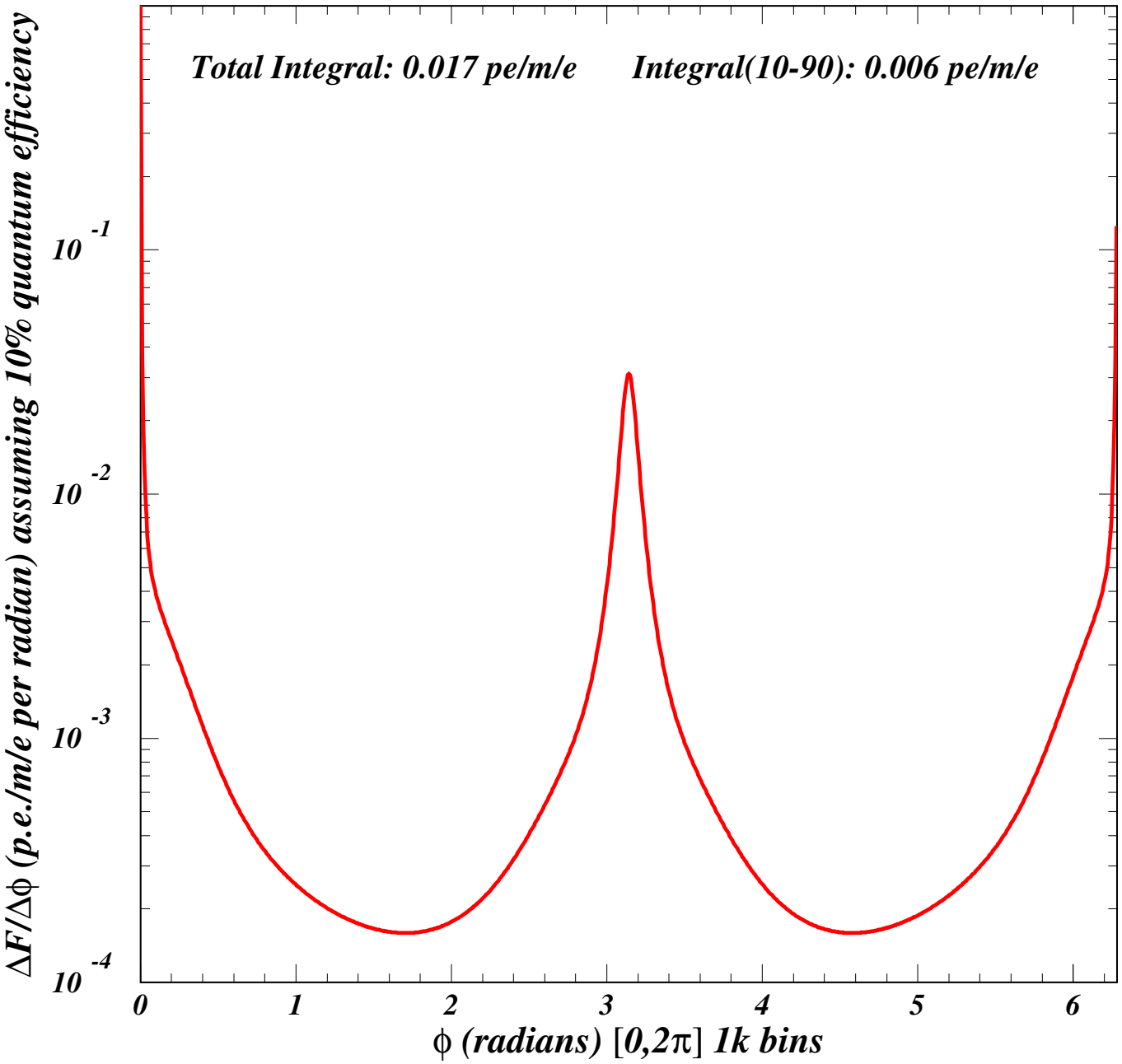
12/05/16 10.48

Job 31720: Photoelectron Production Distributions







12/05/16 10.48

Job 31720: Photoelectron Production Distributions