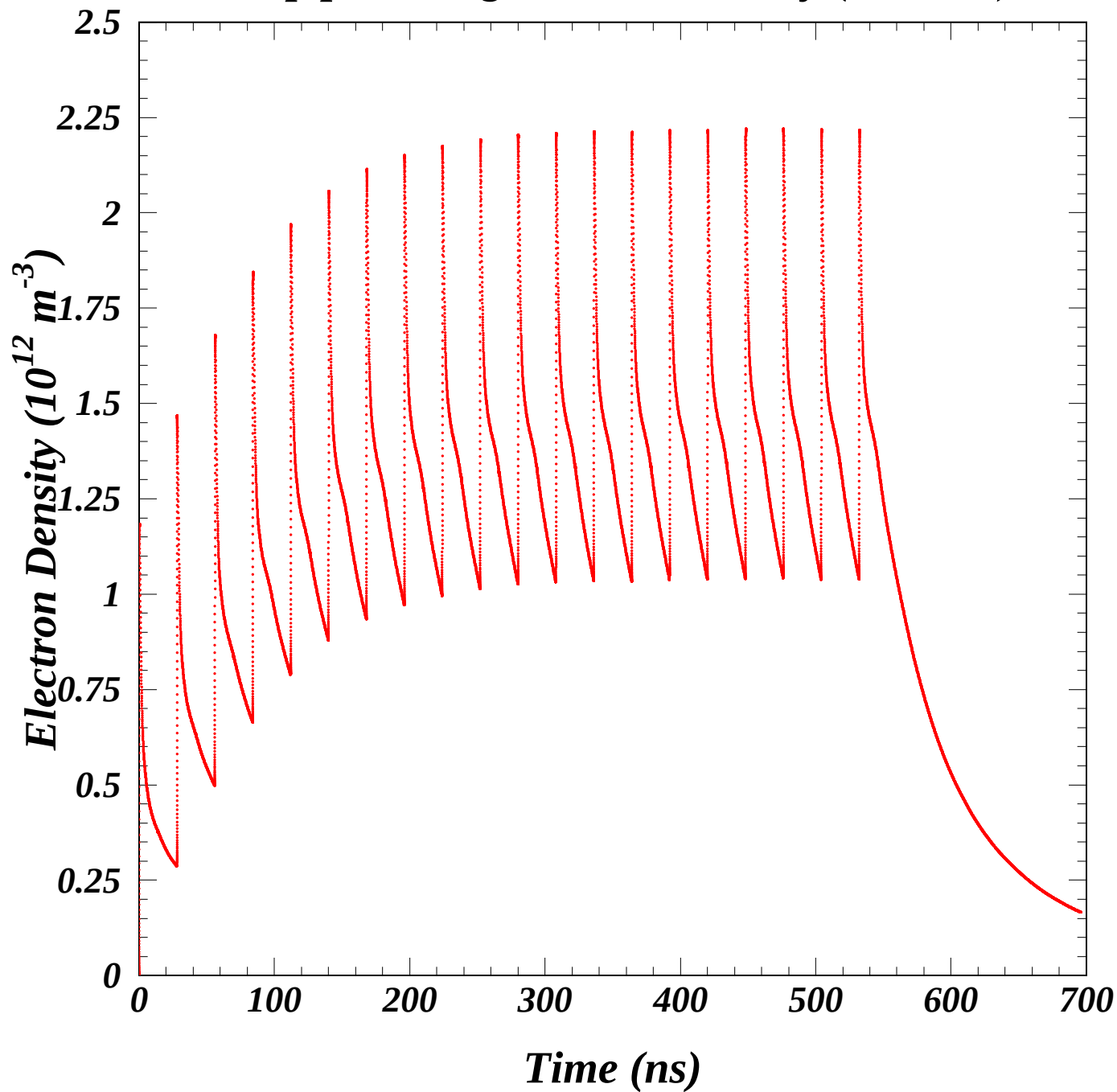
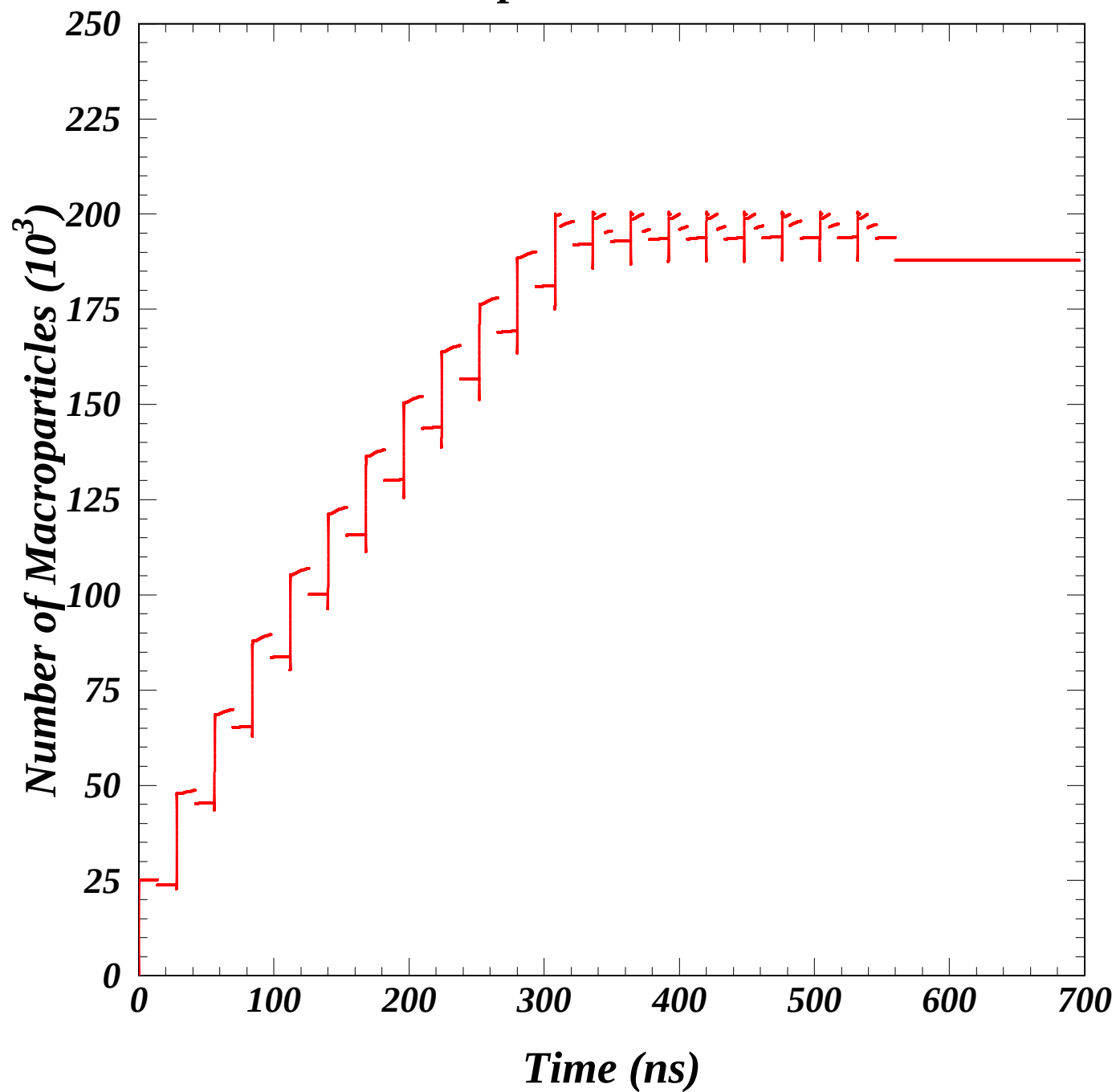
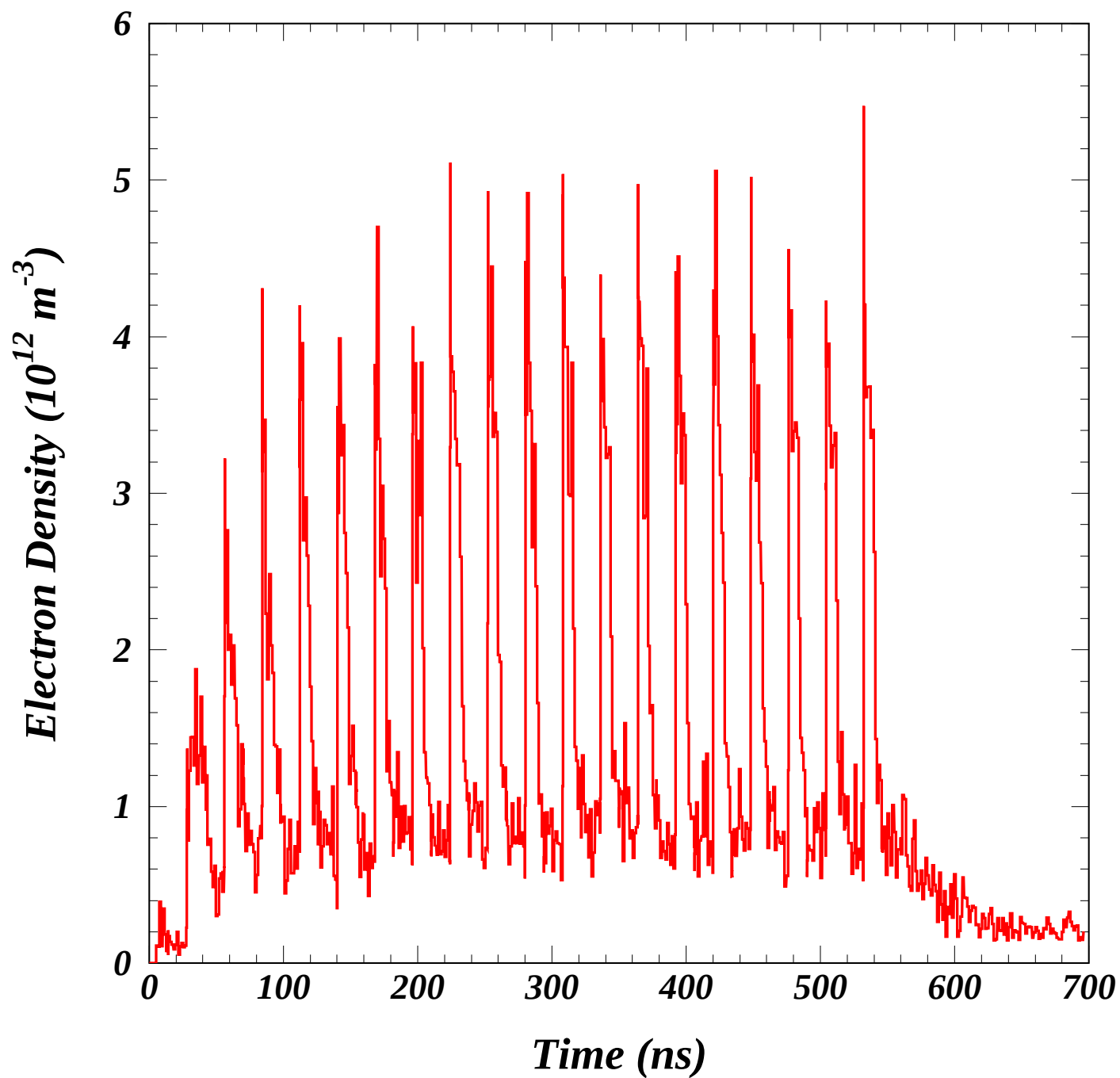


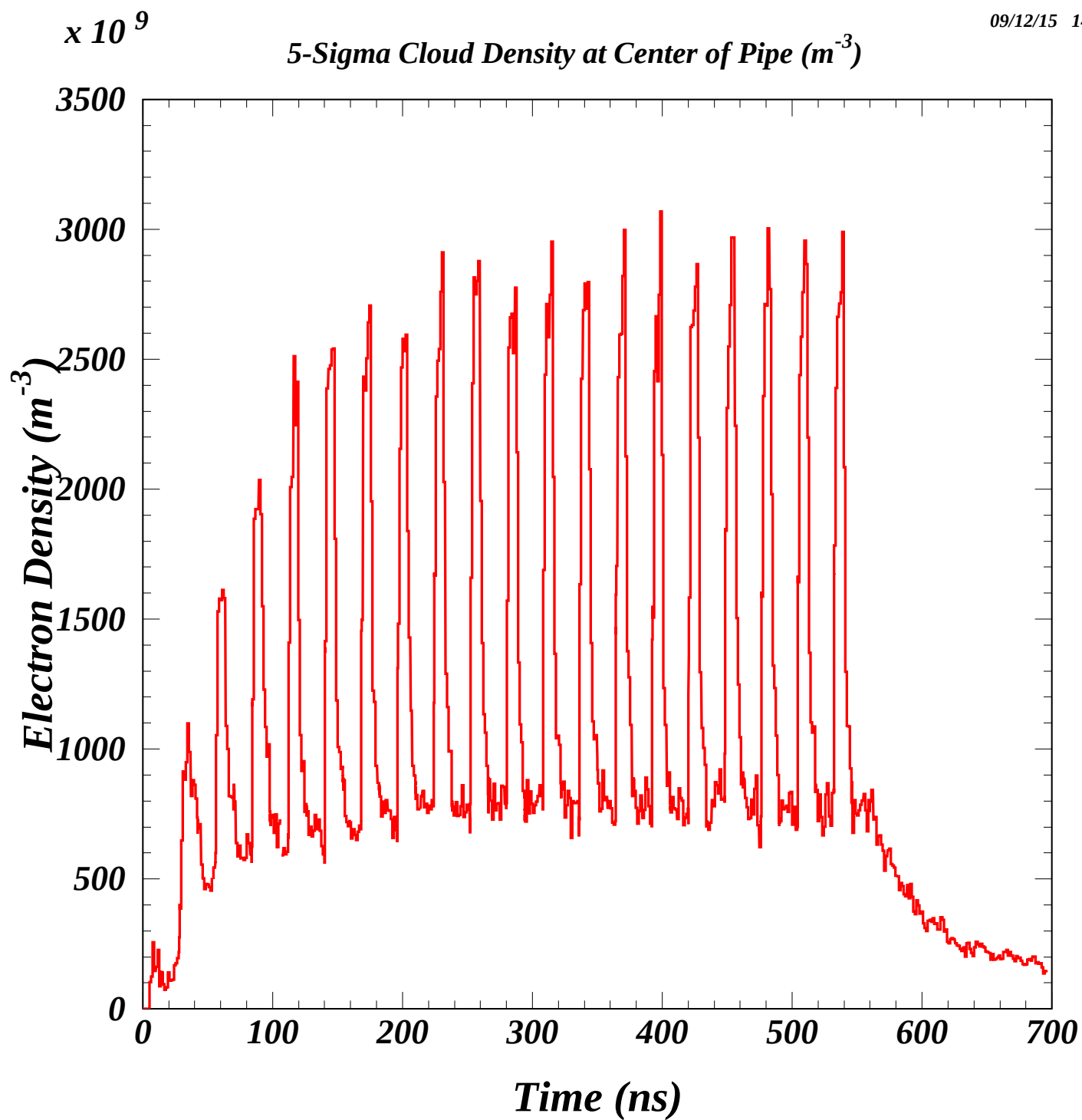
Beampipe-averaged Cloud Density (10^{12} m^{-3})

Macroparticle Statistics

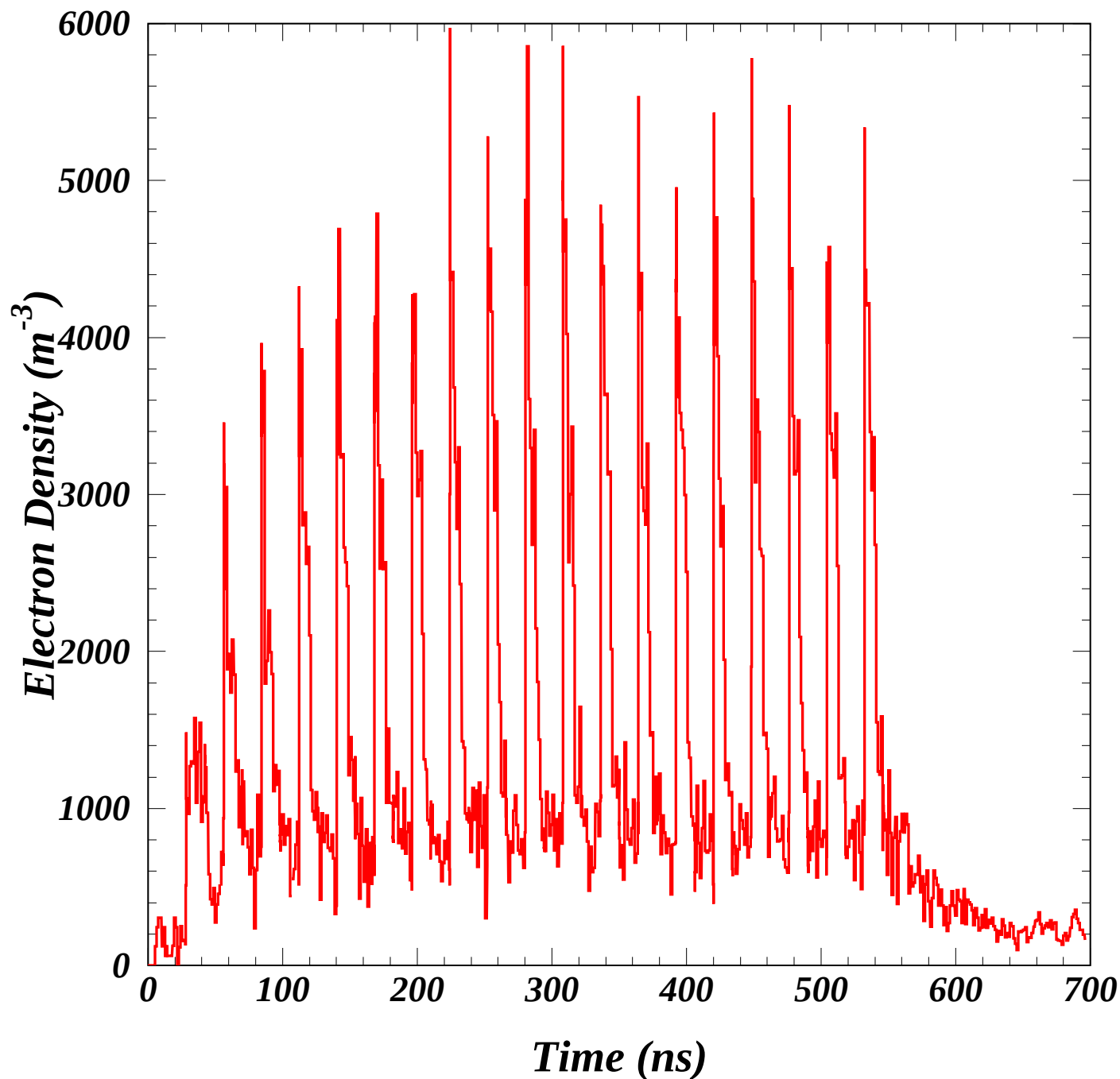


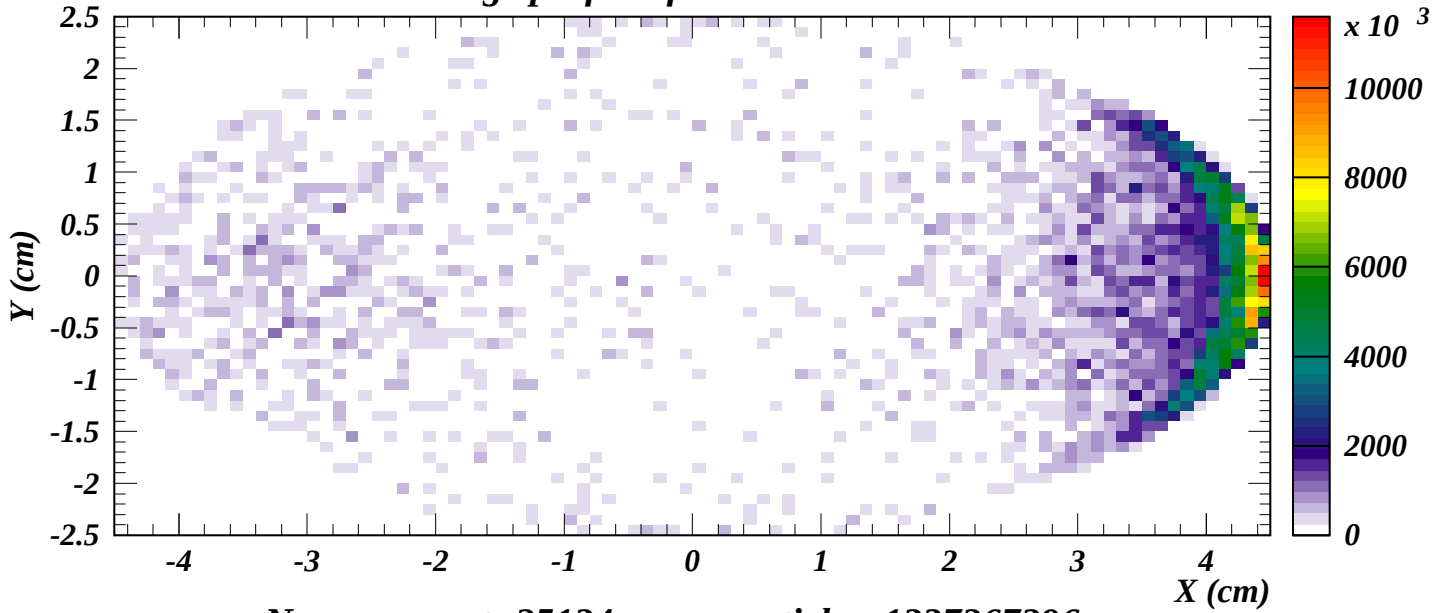
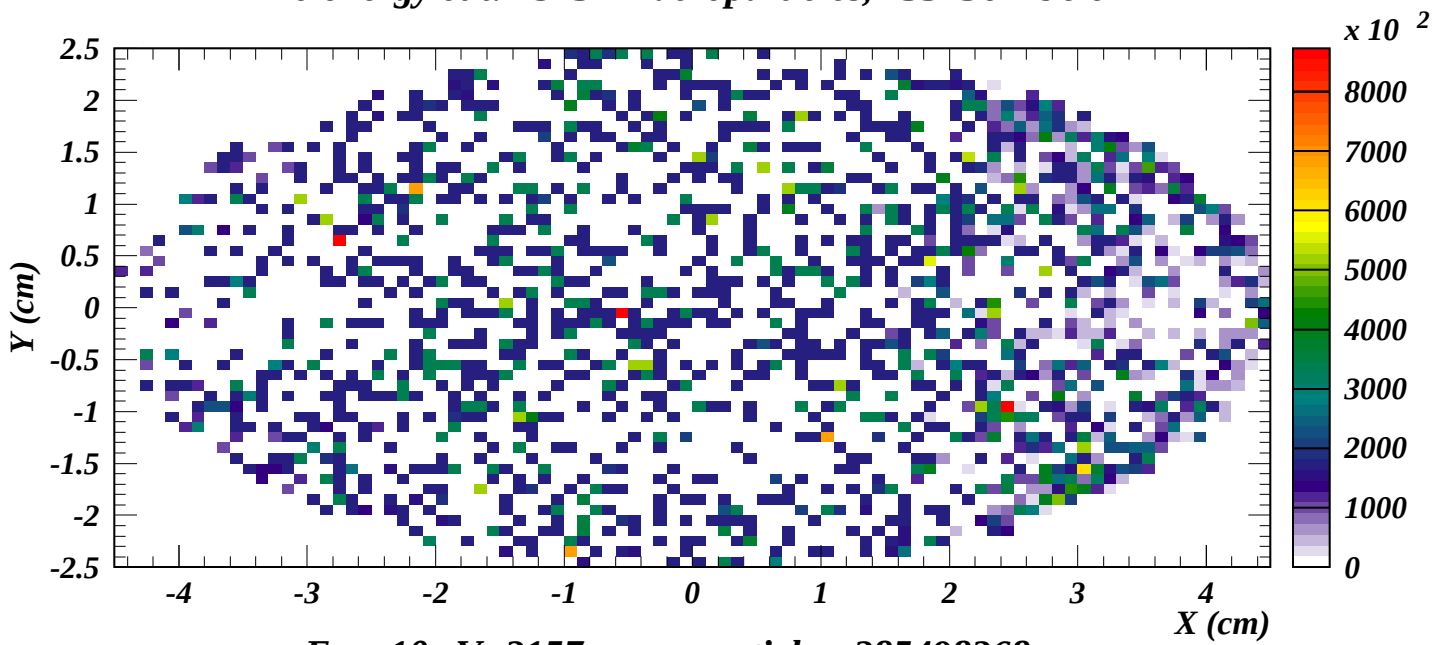
Beam-averaged Cloud Density (10^{12} m^{-3})

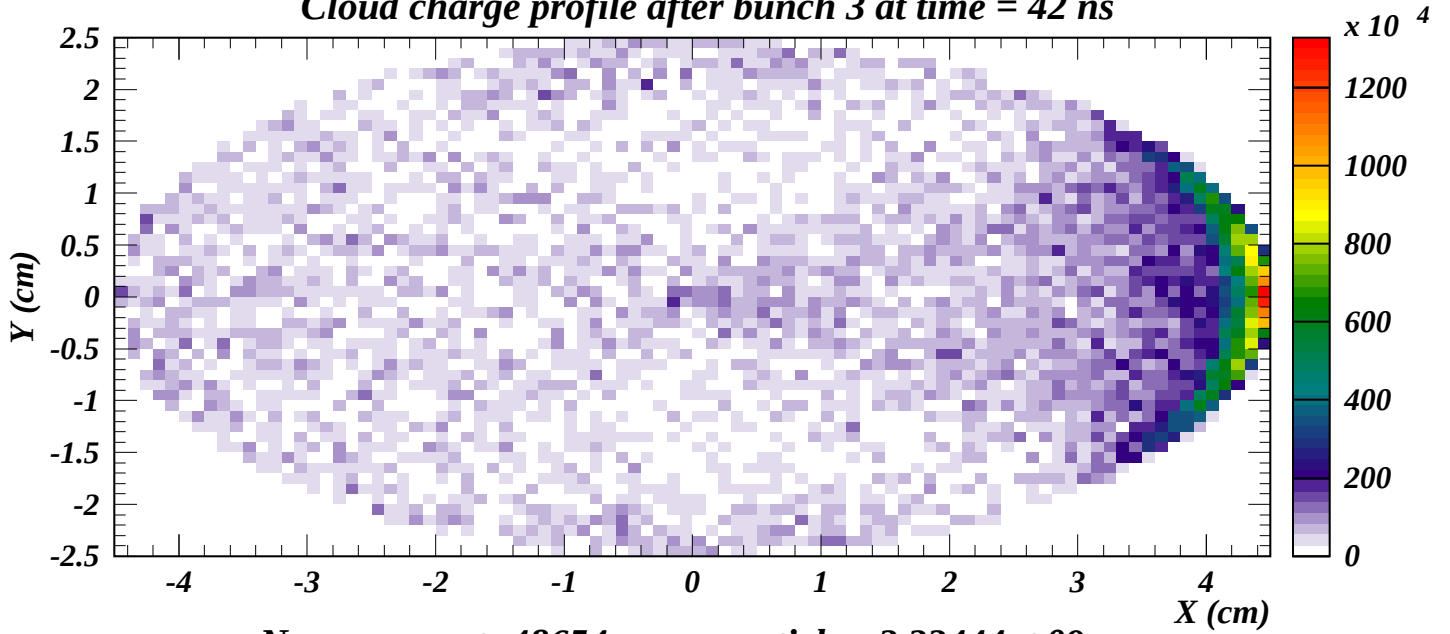
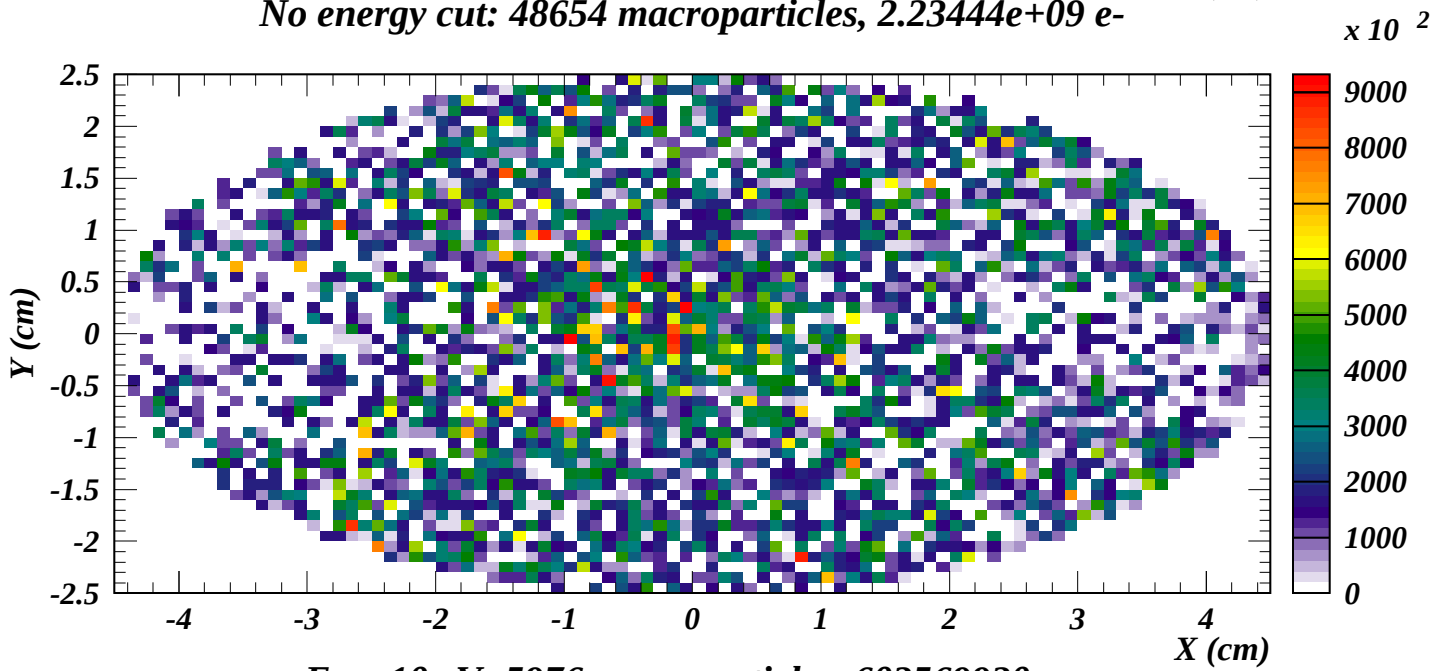


5-Sigma Cloud Density at Center of Pipe (m^{-3})

$\times 10^9$ 09/12/15 14.09
ECLLOUD-CesrTA_5_3GeV: Cloud Density in Central Grid Cell (m^{-3})

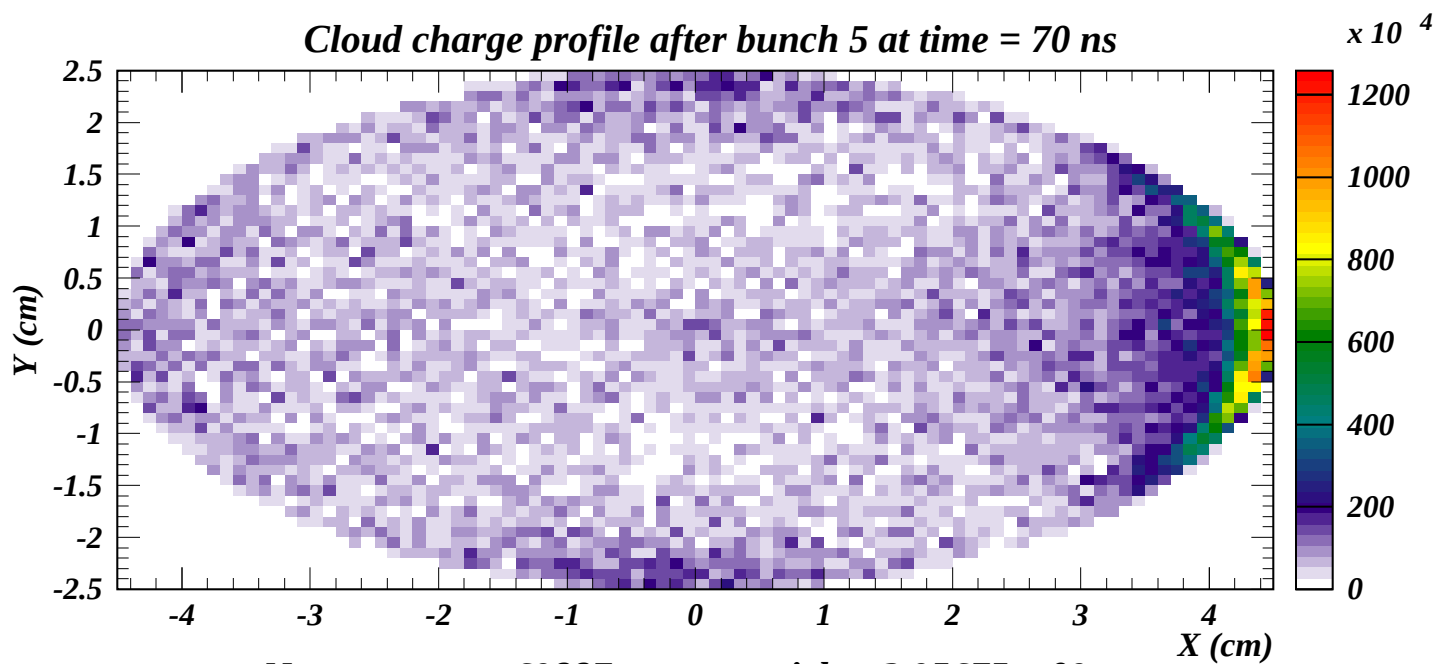


Cloud charge profile after bunch 1 at time = 14 ns*No energy cut: 25134 macroparticles, 1337367296 e-* *$E_{\text{kin}} > 10$ eV: 2157 macroparticles, 285498368 e-*

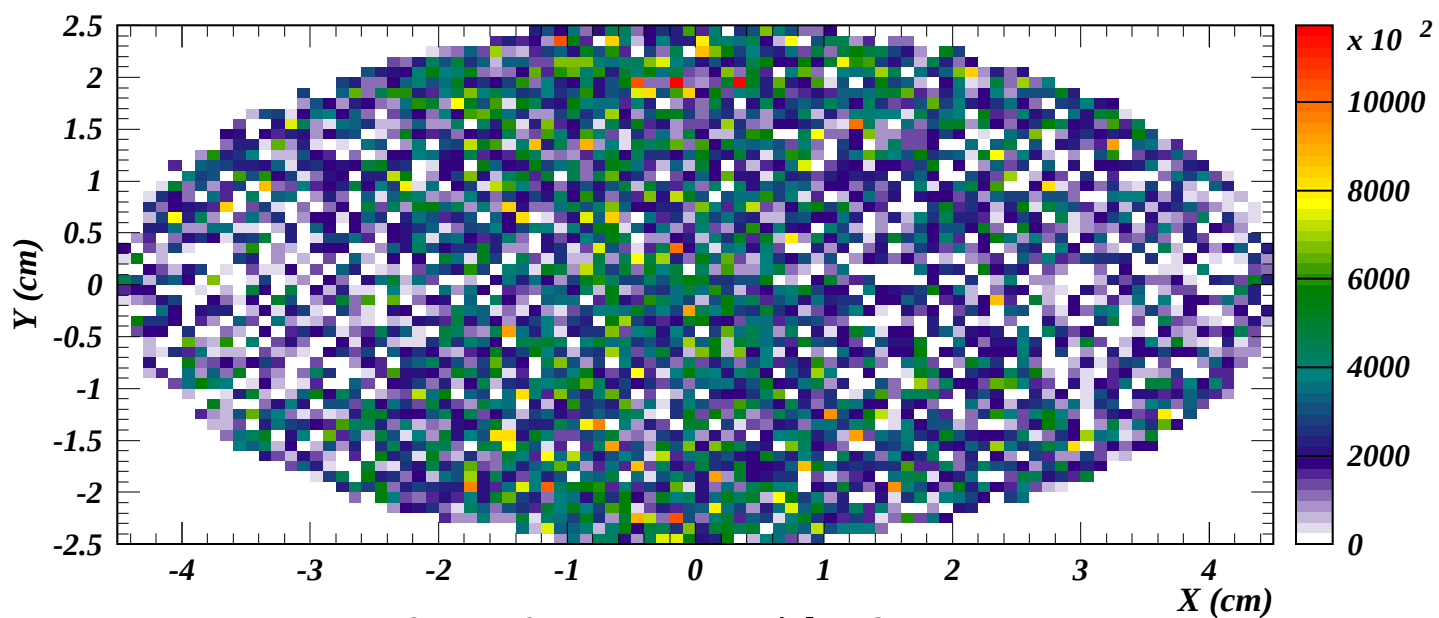
Cloud charge profile after bunch 3 at time = 42 ns*No energy cut: 48654 macroparticles, 2.23444e+09 e-* *$E_{kin} > 10$ eV: 5976 macroparticles, 603569920 e-*

09/12/15 14.10

Cloud charge profile after bunch 5 at time = 70 ns



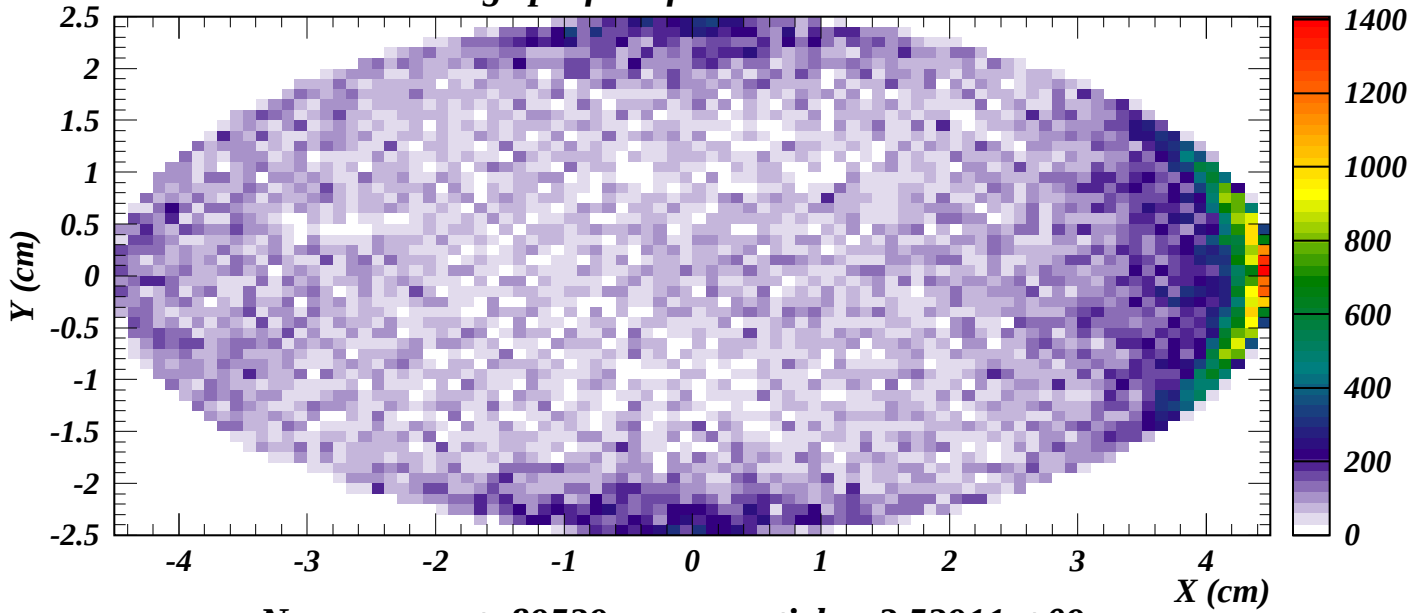
No energy cut: 69887 macroparticles, 2.95675e+09 e-



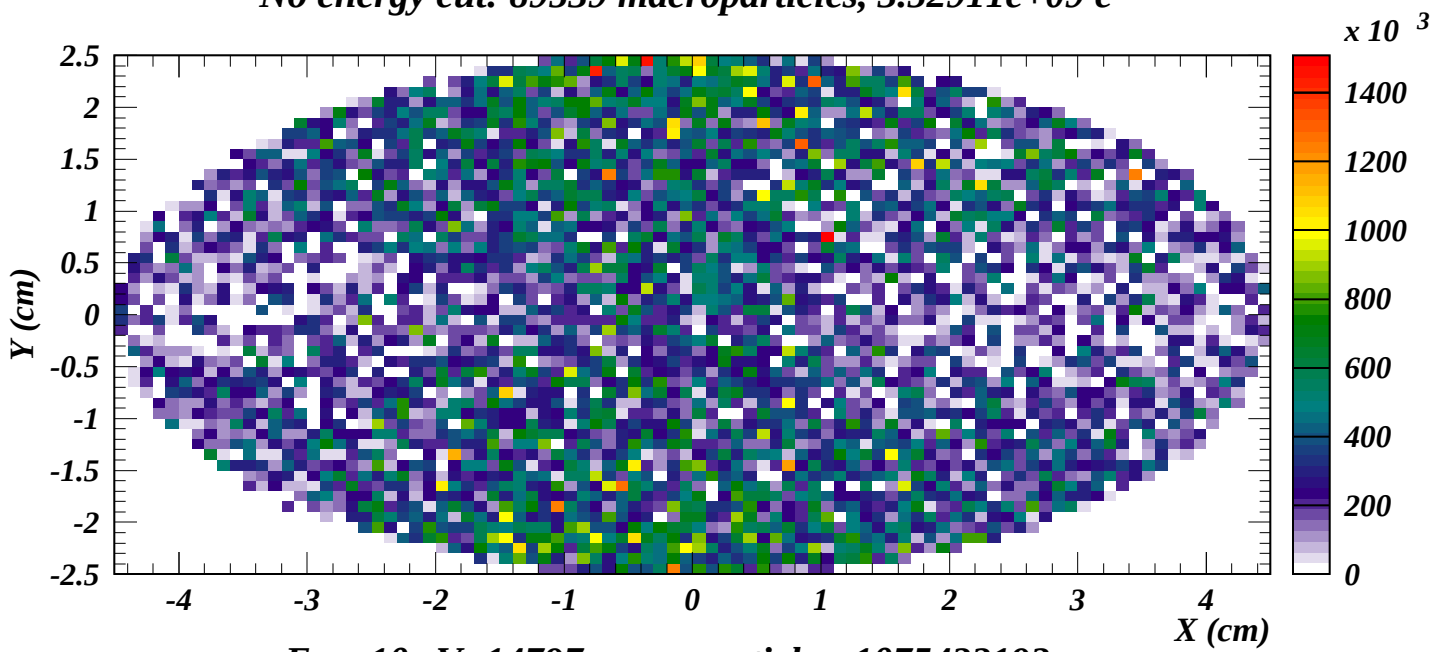
$E_{kin} > 10 \text{ eV}$: 10153 macroparticles, 853169152 e-

09/12/15 14.10
 $\times 10^{-4}$

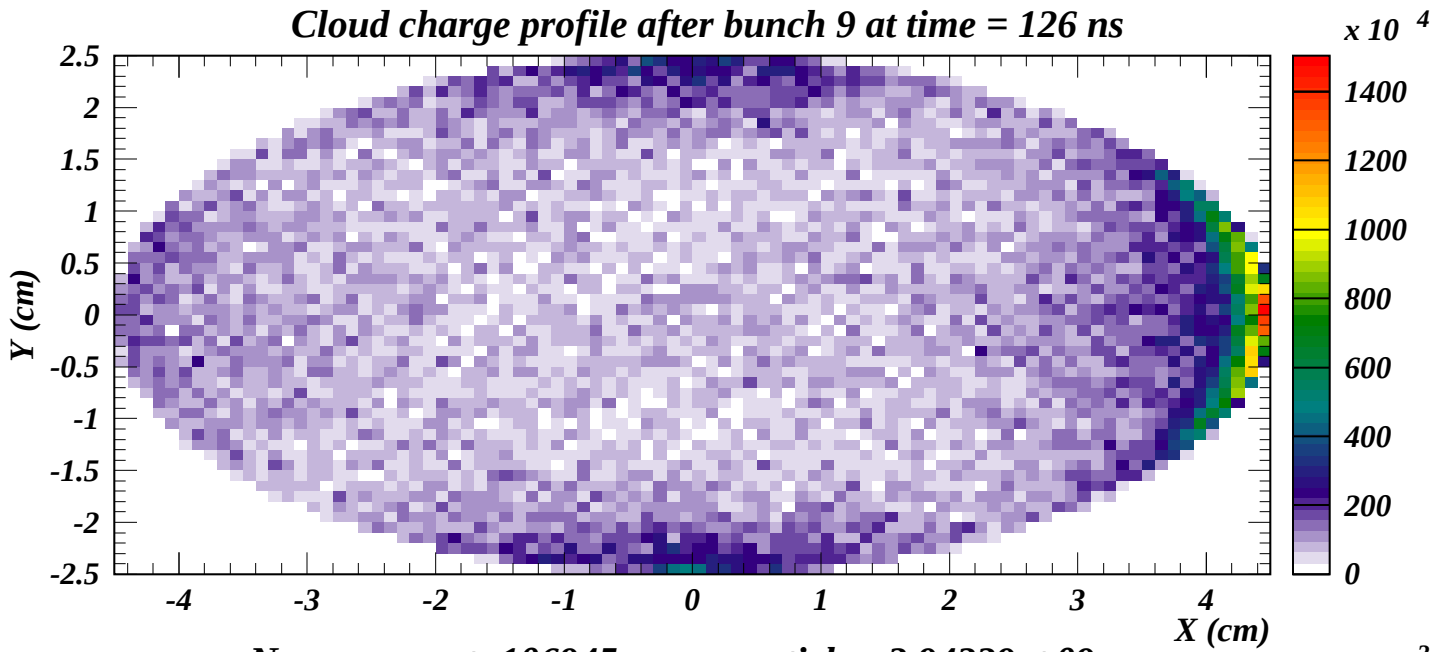
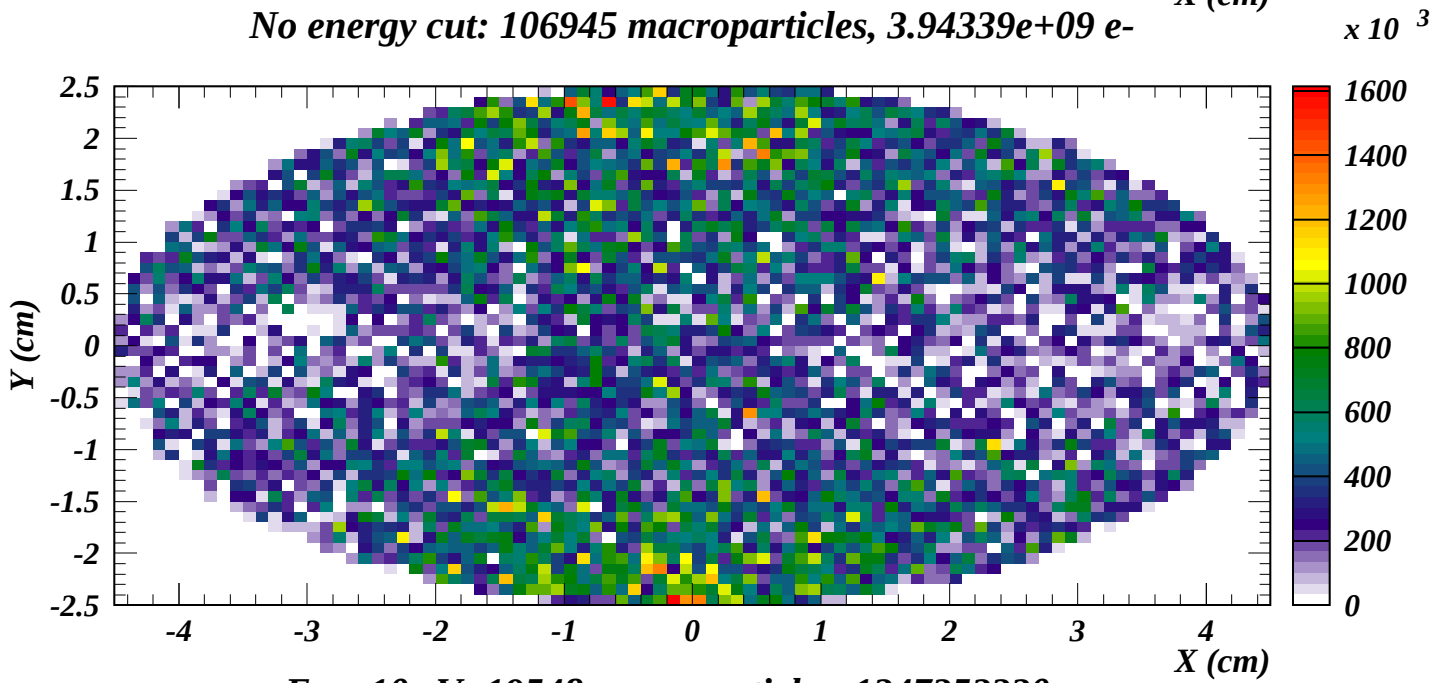
Cloud charge profile after bunch 7 at time = 98 ns



No energy cut: 89539 macroparticles, $3.52911e+09 \text{ e-}$

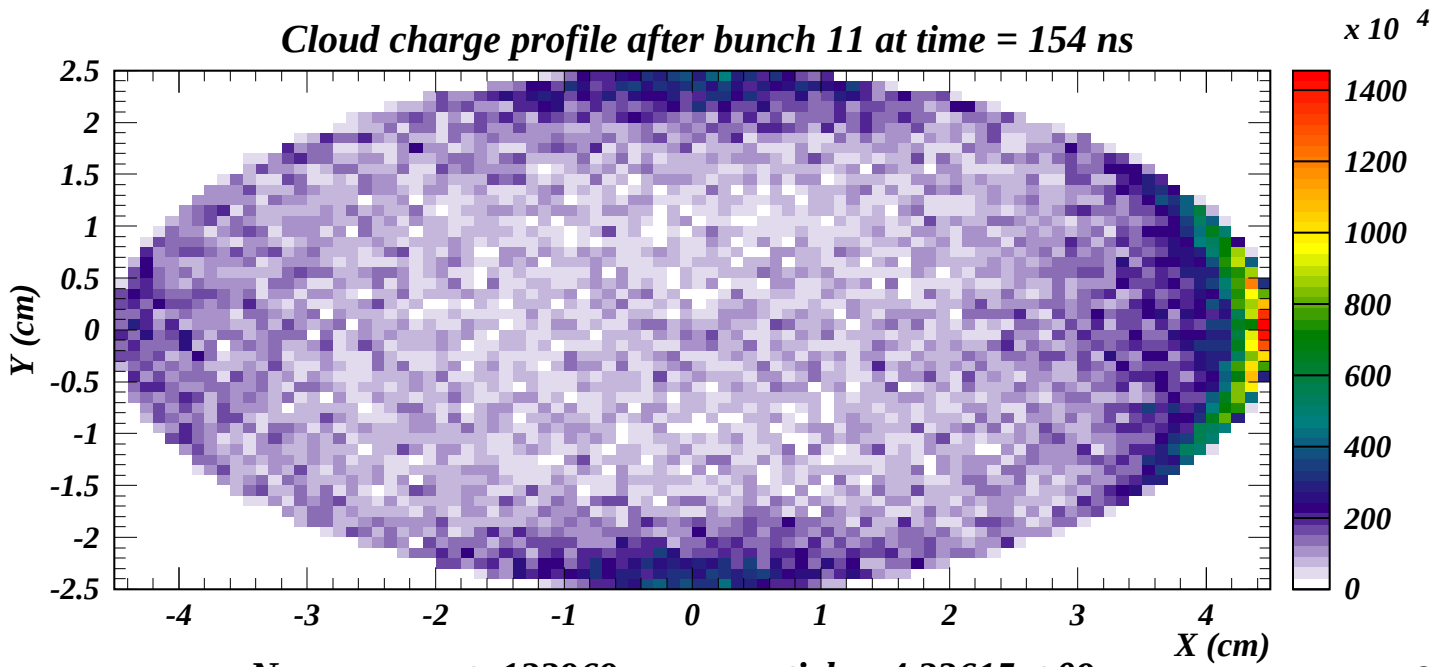


$E_{kin} > 10 \text{ eV}$: 14797 macroparticles, 1075432192 e-

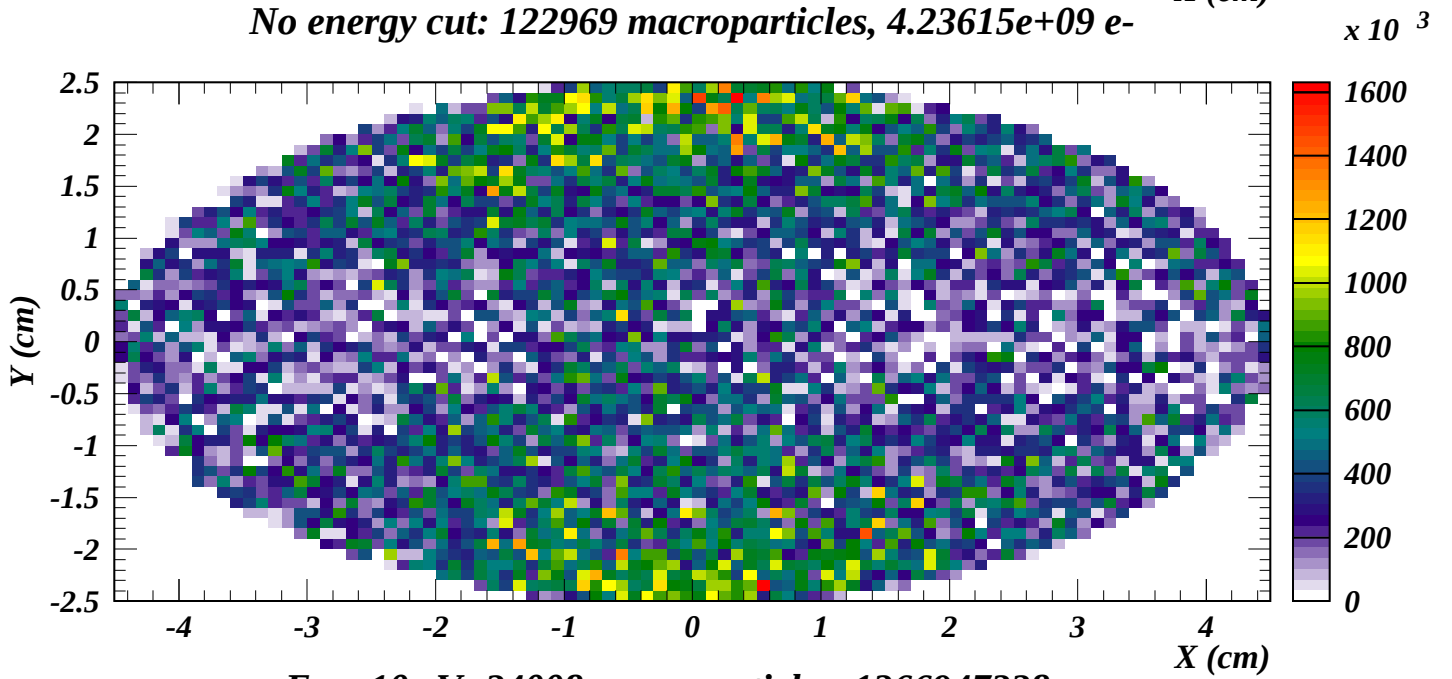
Cloud charge profile after bunch 9 at time = 126 ns*No energy cut: 106945 macroparticles, $3.94339\text{e}+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 19548 macroparticles, 1247352320 e-*

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Cloud charge profile after bunch 11 at time = 154 ns



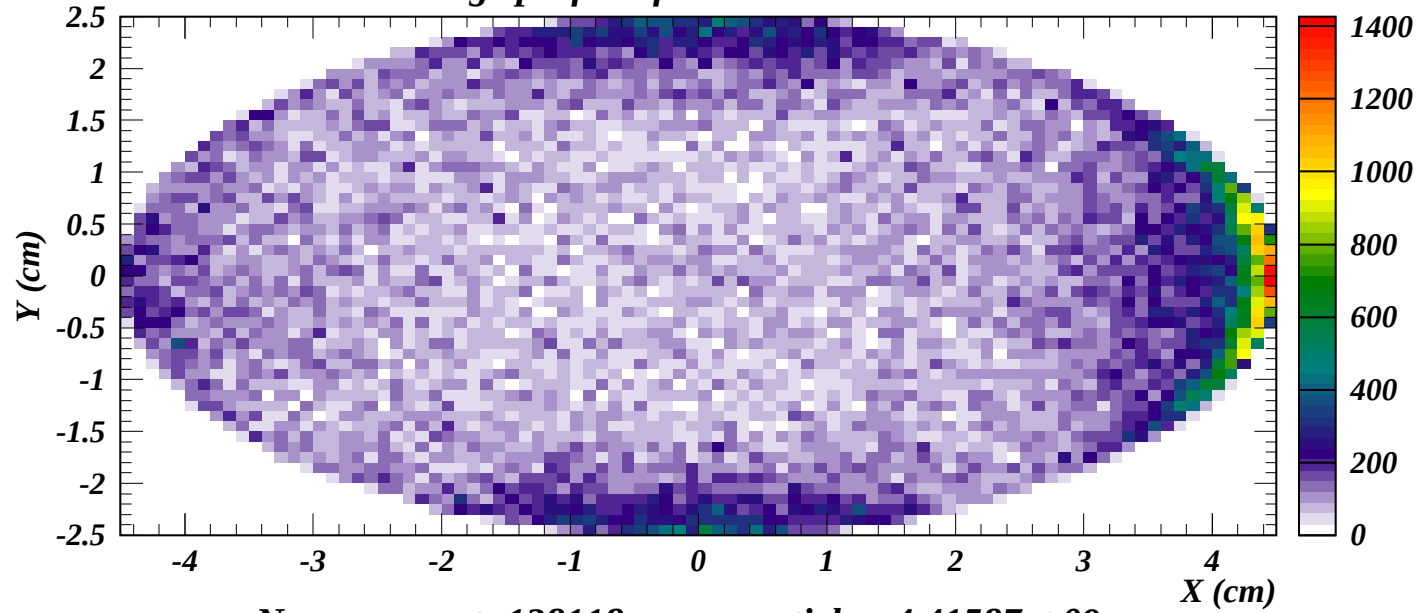
No energy cut: 122969 macroparticles, $4.23615e+09 \text{ e-}$



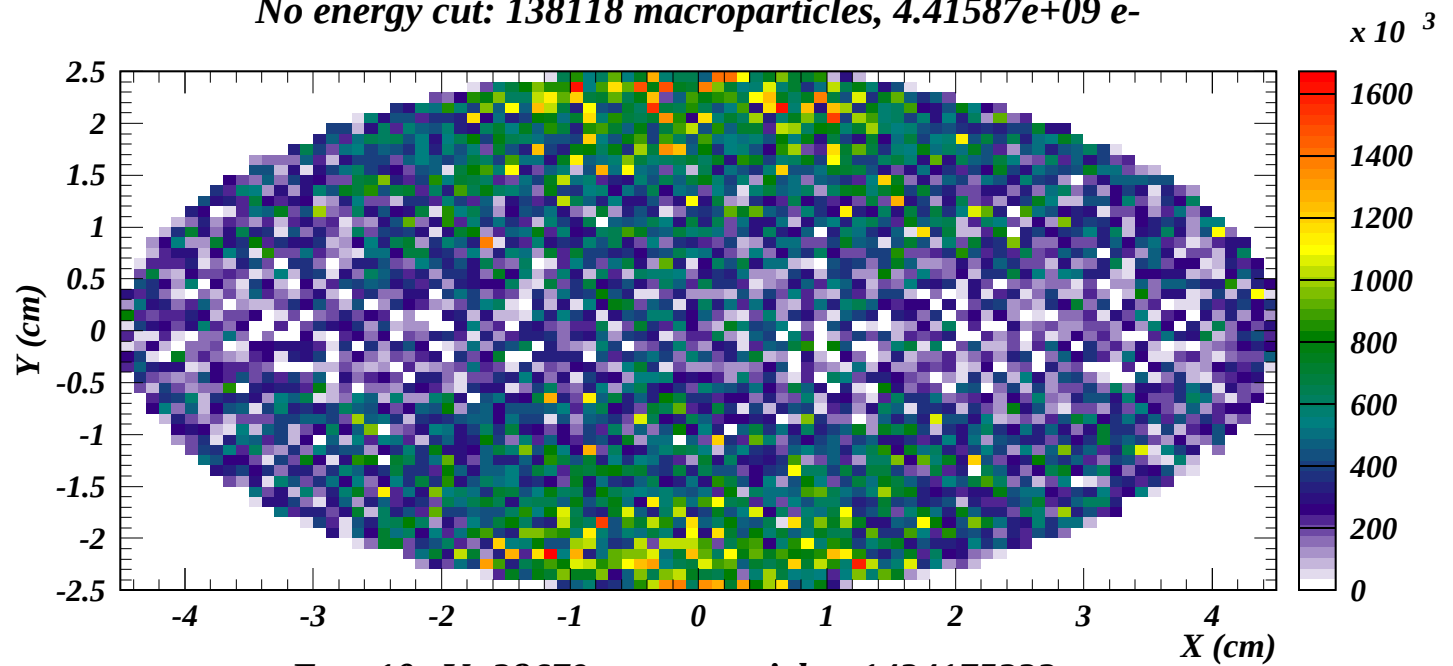
$E_{\text{kin}} > 10 \text{ eV}$: 24008 macroparticles, 1366947328 e-

09/12/15 14.10
x 10⁻⁴

Cloud charge profile after bunch 13 at time = 182 ns



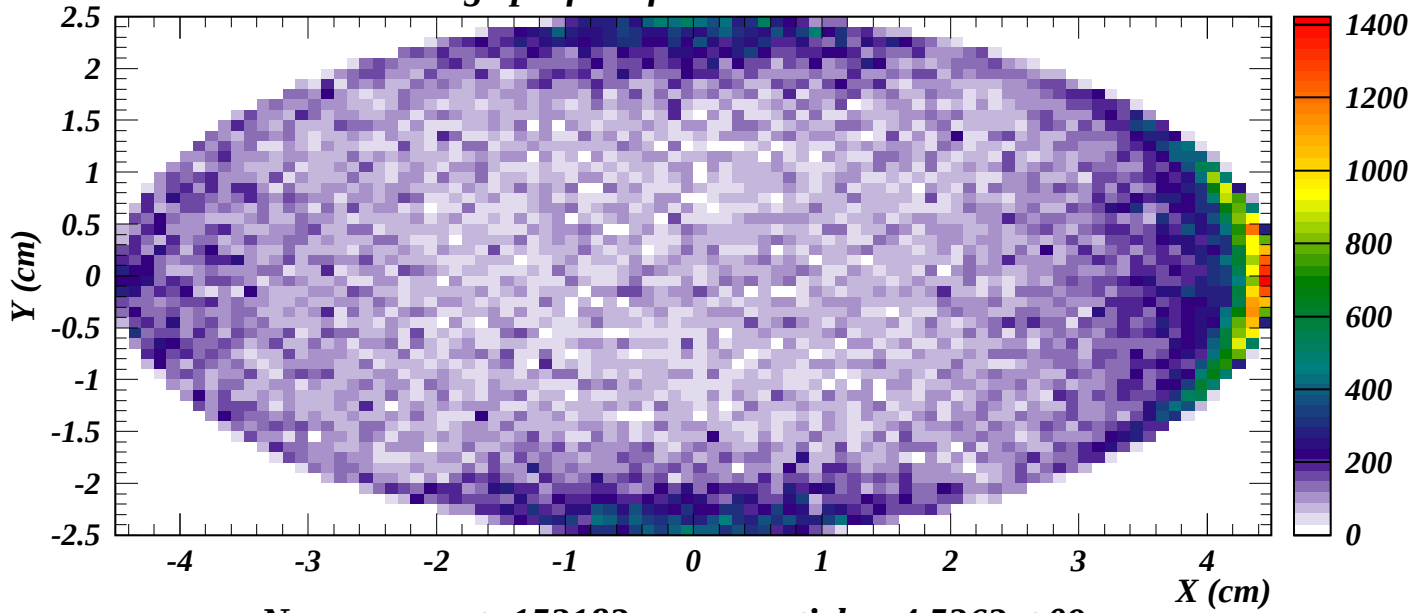
No energy cut: 138118 macroparticles, 4.41587e+09 e-



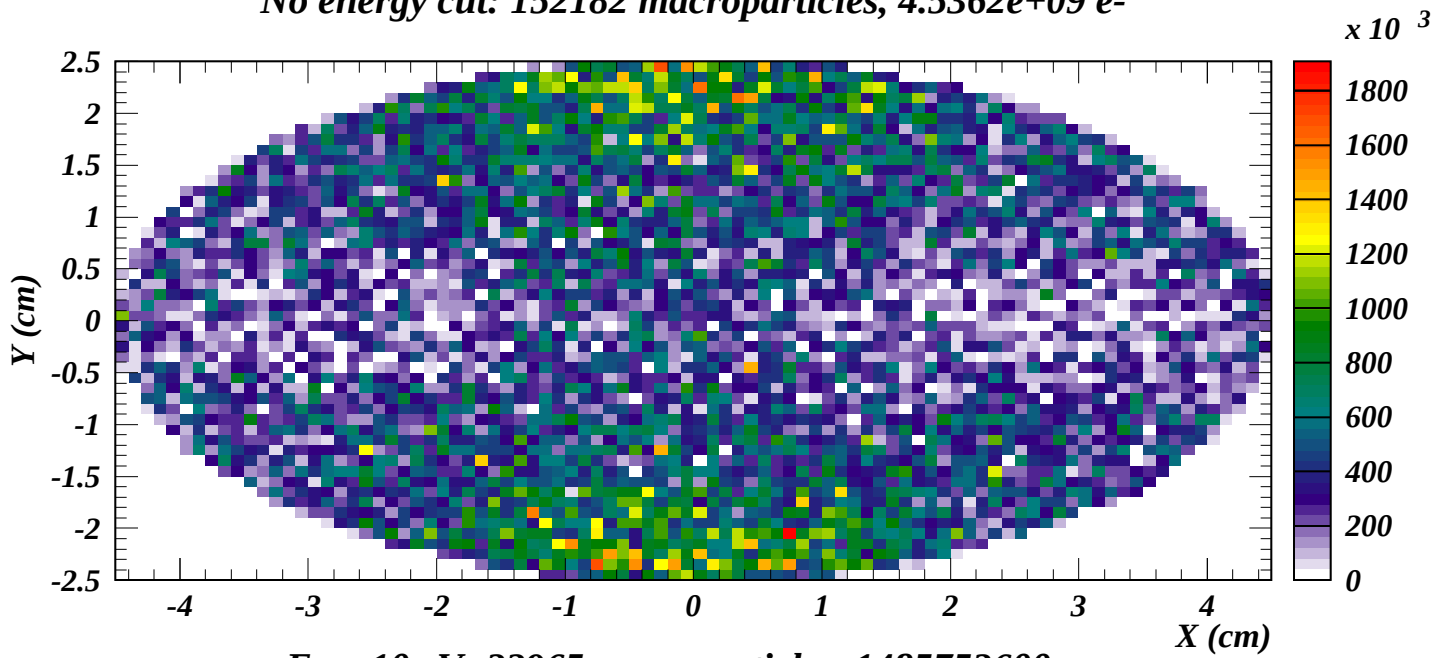
$E_{kin} > 10$ eV: 28679 macroparticles, 1434175232 e-

09/12/15 14.10
 $\times 10^4$

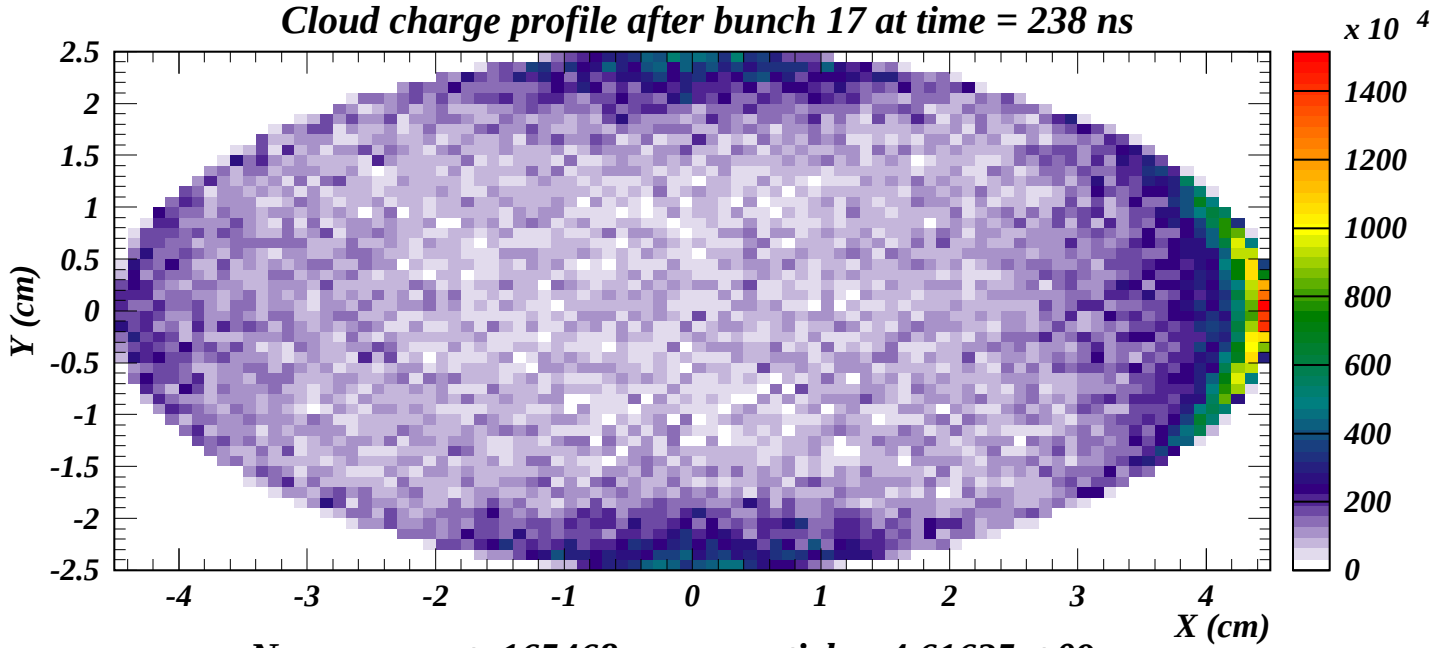
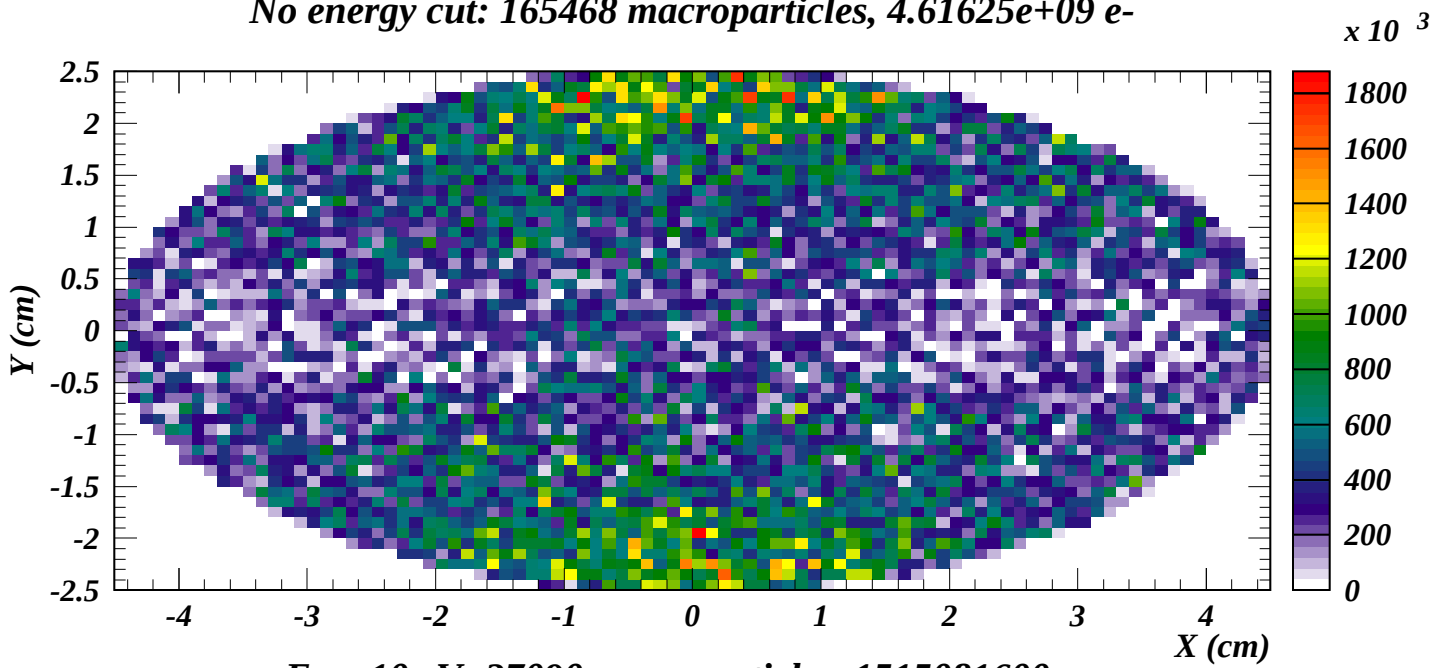
Cloud charge profile after bunch 15 at time = 210 ns

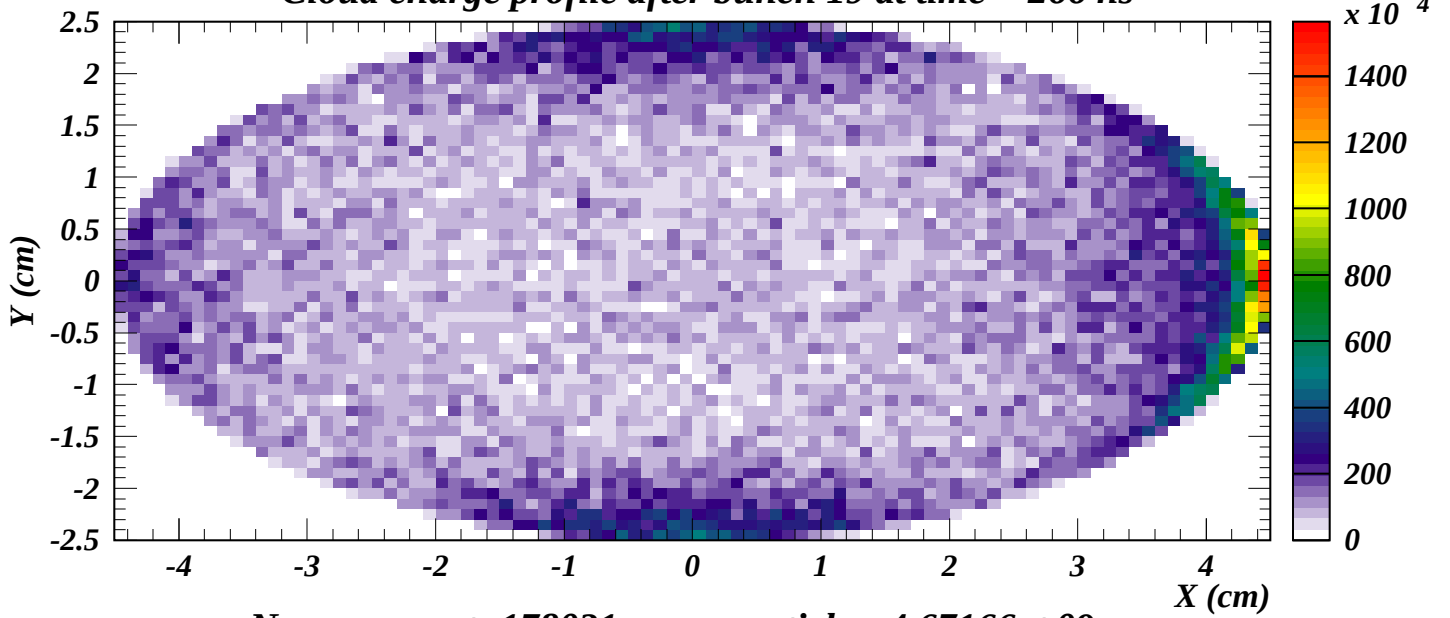
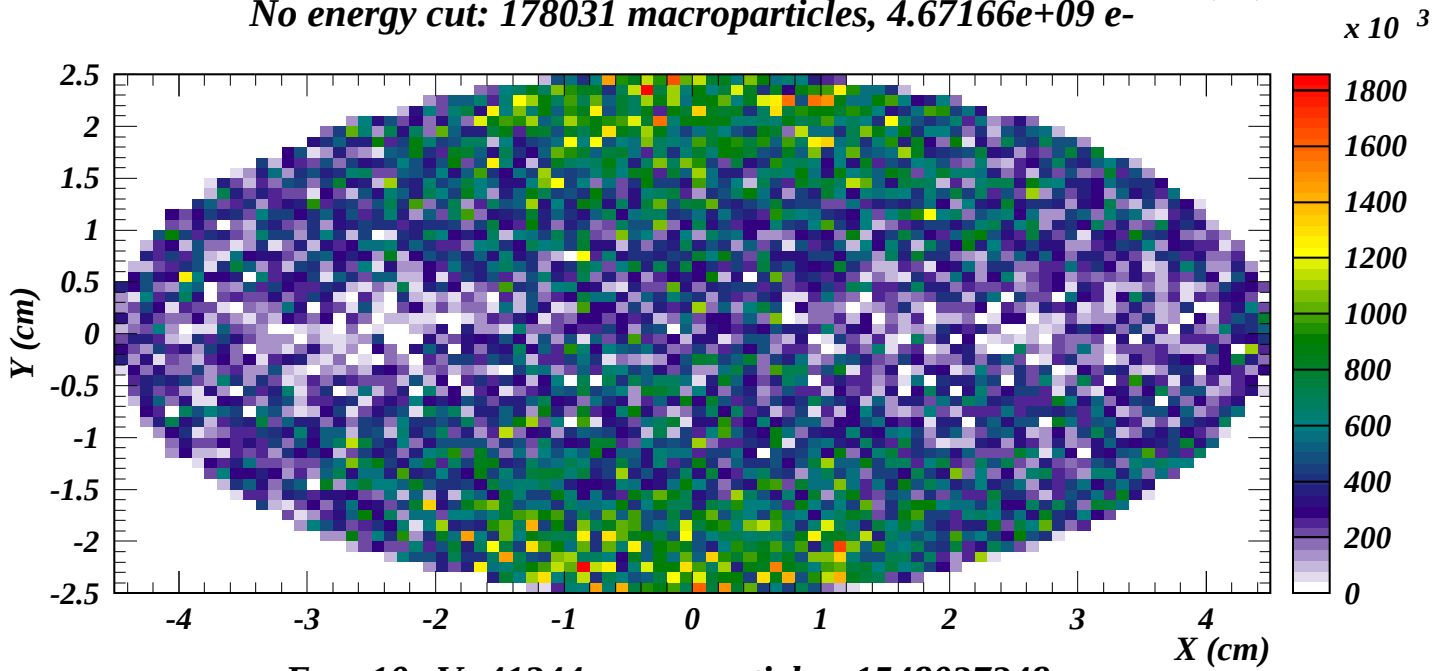


No energy cut: 152182 macroparticles, $4.5362e+09 \text{ e-}$



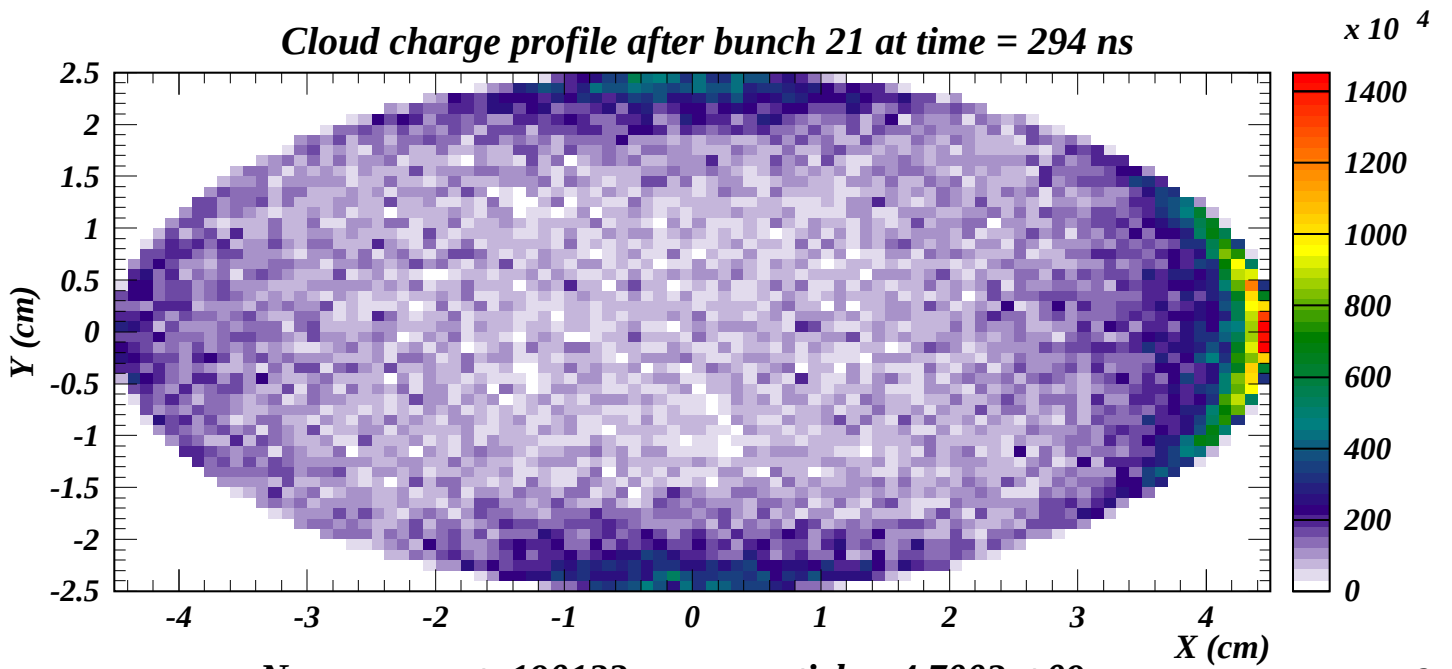
$E_{\text{kin}} > 10 \text{ eV}$: 32965 macroparticles, 1485753600 e-

Cloud charge profile after bunch 17 at time = 238 ns*No energy cut: 165468 macroparticles, $4.61625 \times 10^9 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 37090 macroparticles, 1515081600 e-*

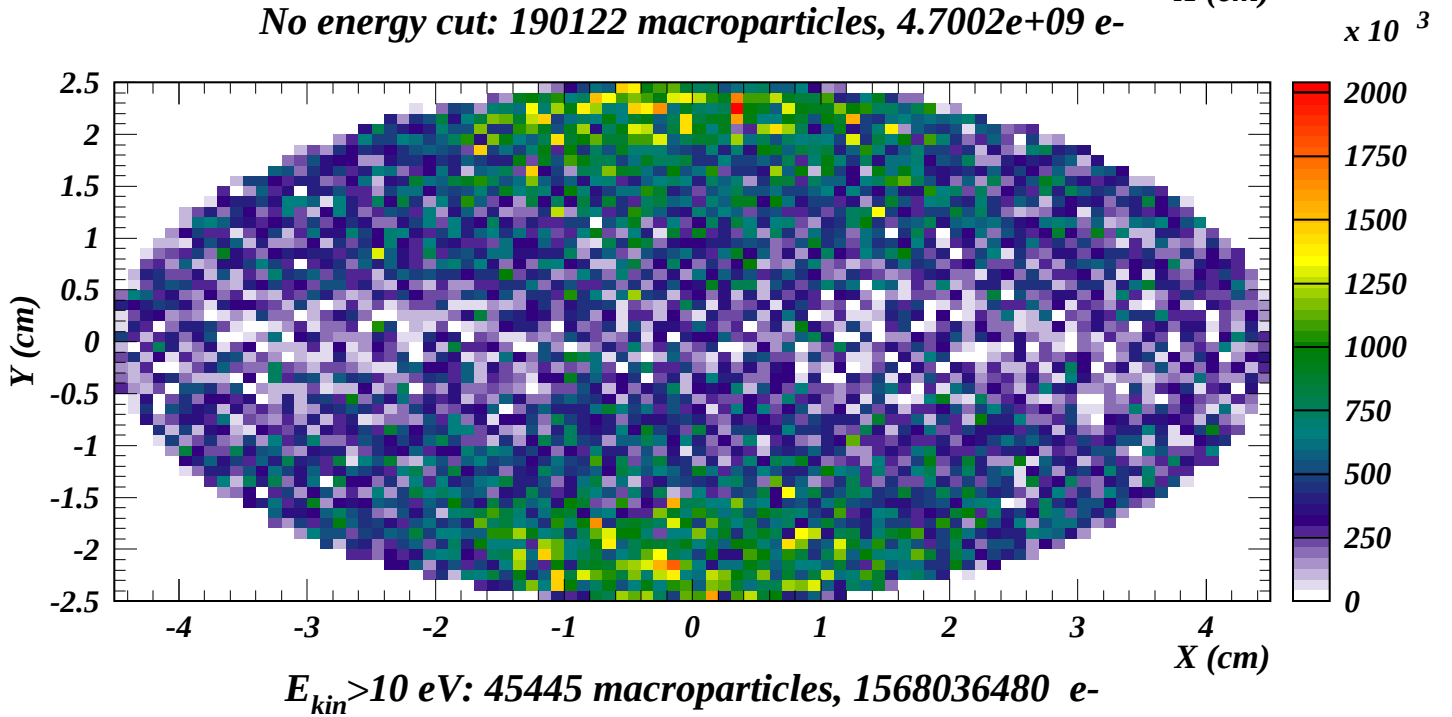
Cloud charge profile after bunch 19 at time = 266 ns*No energy cut: 178031 macroparticles, $4.67166e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 41344 macroparticles, 1548037248 e-*

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Cloud charge profile after bunch 21 at time = 294 ns

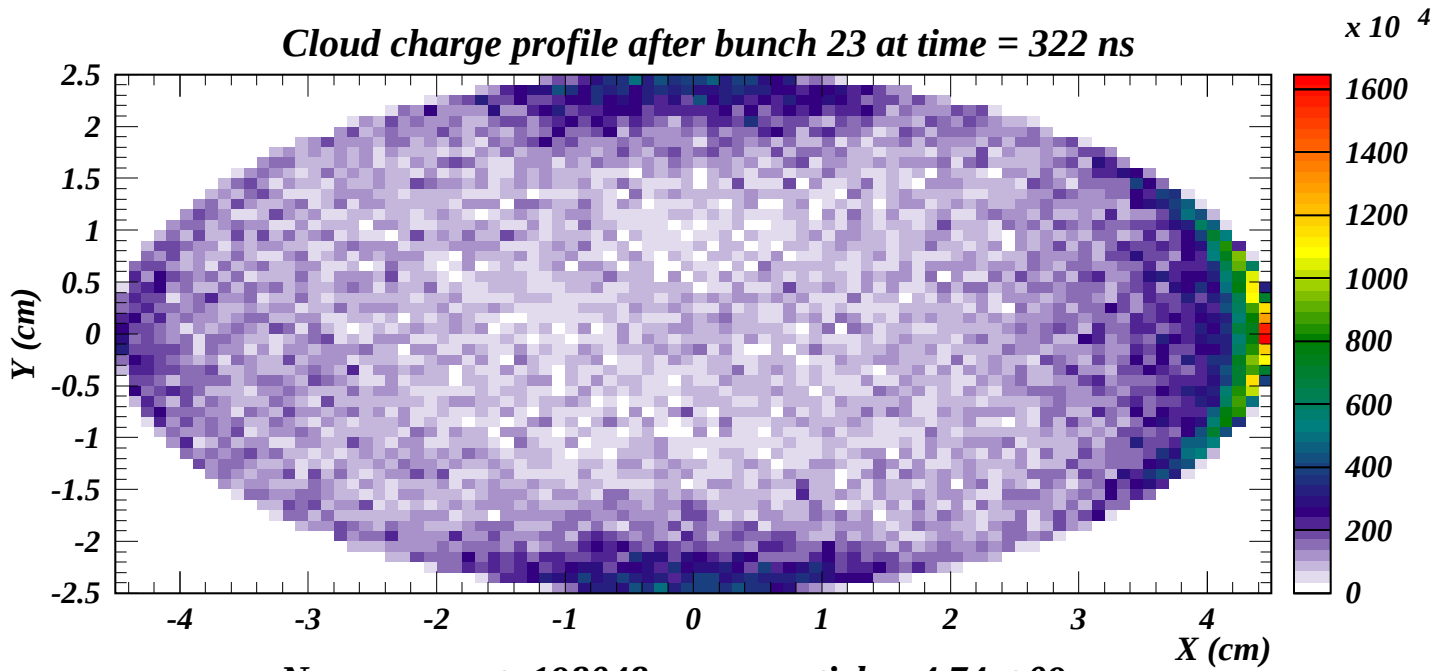


No energy cut: 190122 macroparticles, 4.7002e+09 e-

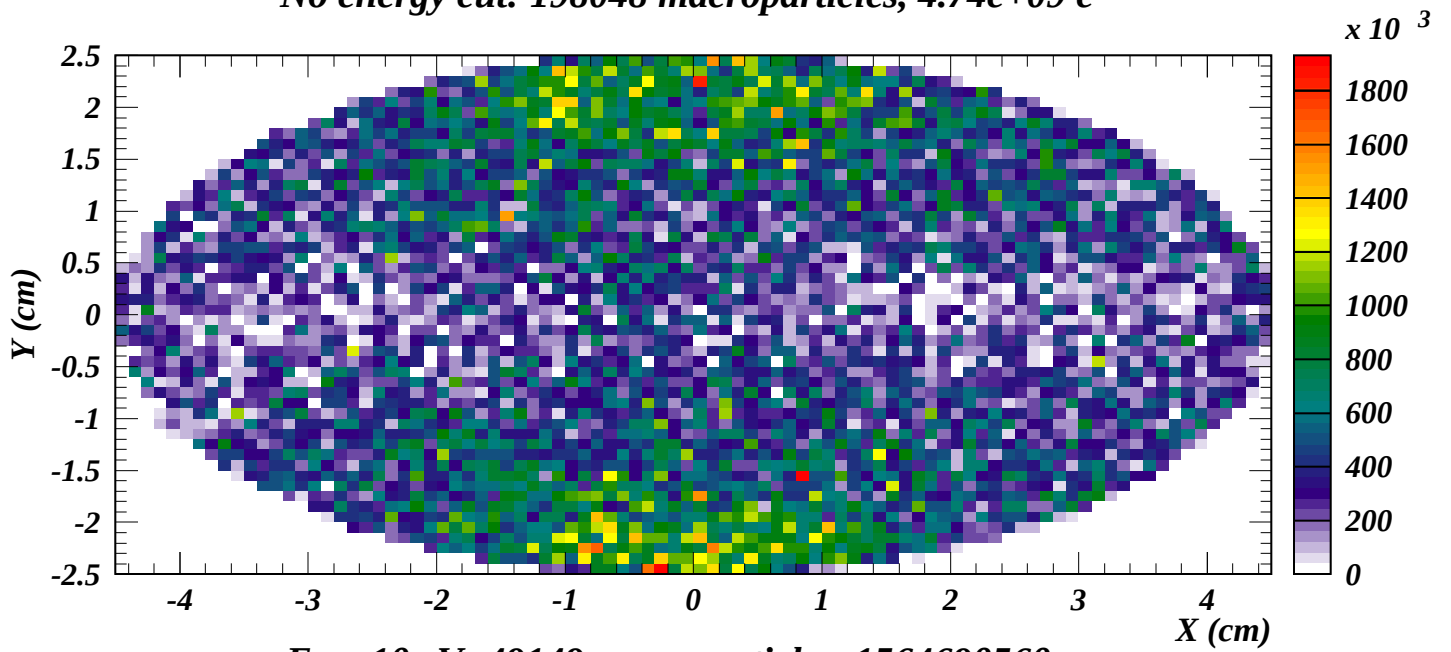


$E_{kin} > 10$ eV: 45445 macroparticles, 1568036480 e-

09/12/15 14.10



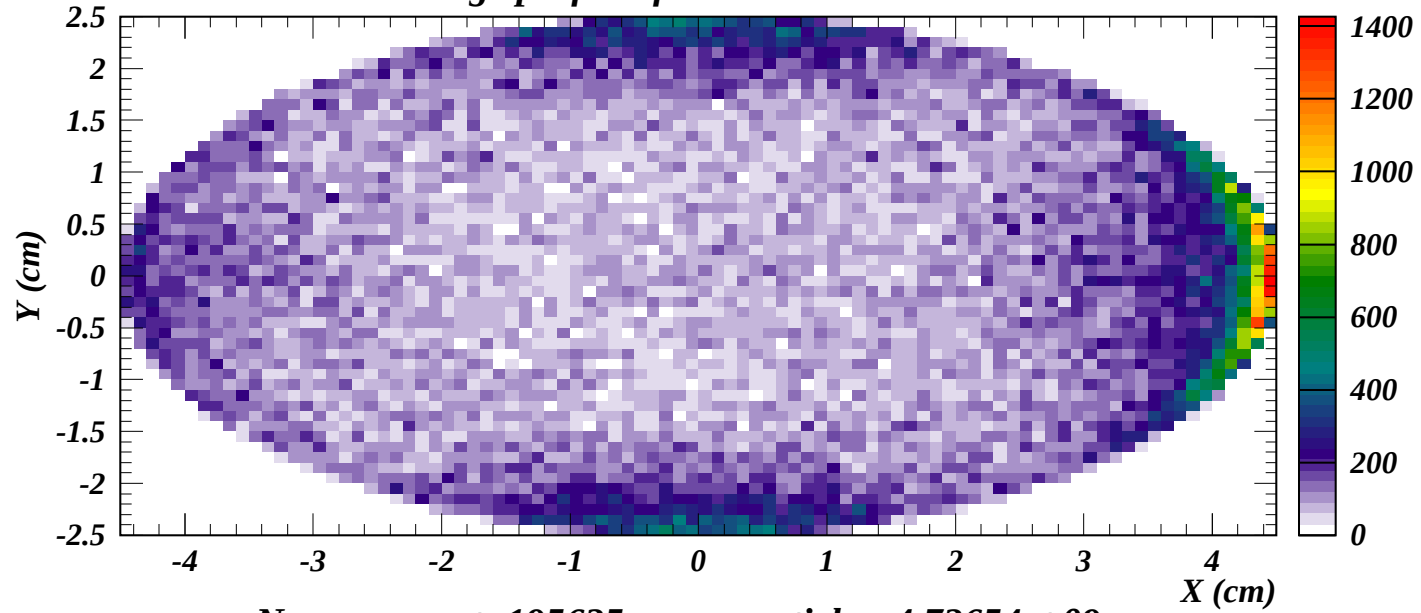
No energy cut: 198048 macroparticles, $4.74e+09 \text{ e-}$



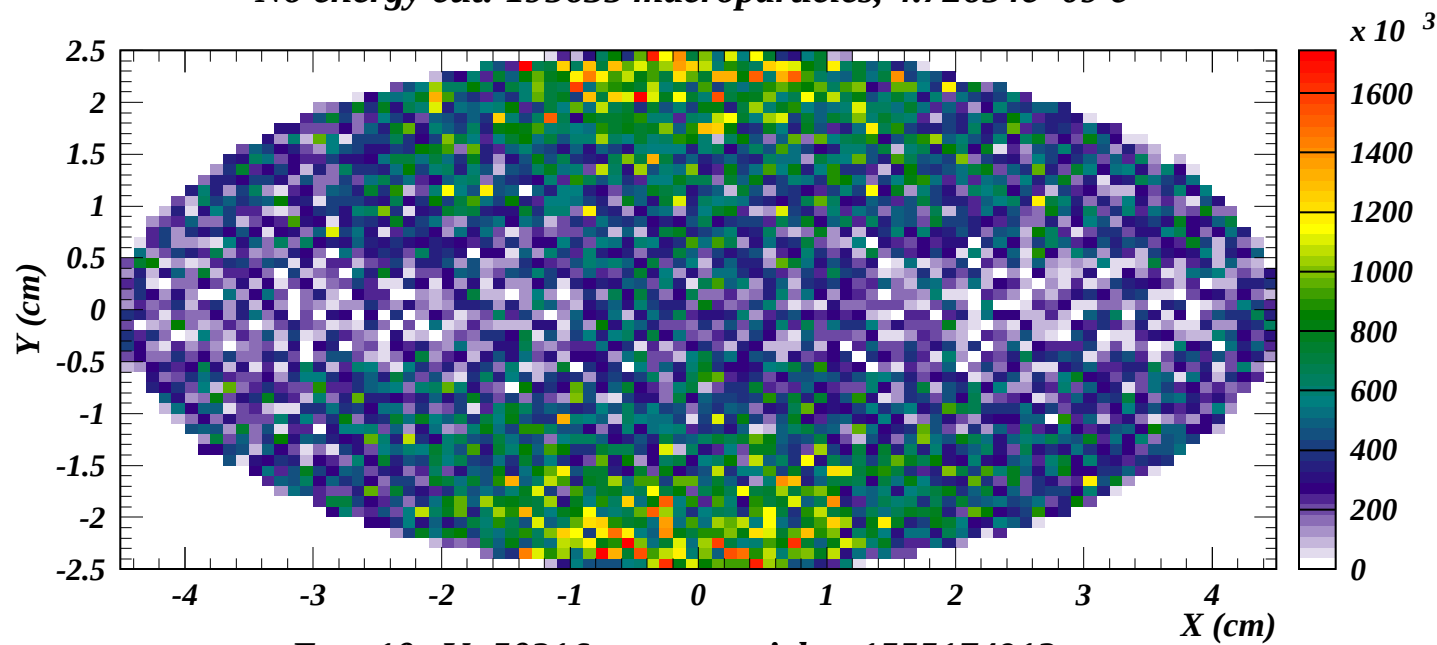
$E_{kin} > 10 \text{ eV}$: 49149 macroparticles, 1564690560 e-

09/12/15 14.10
 $\times 10^{-4}$

Cloud charge profile after bunch 25 at time = 350 ns



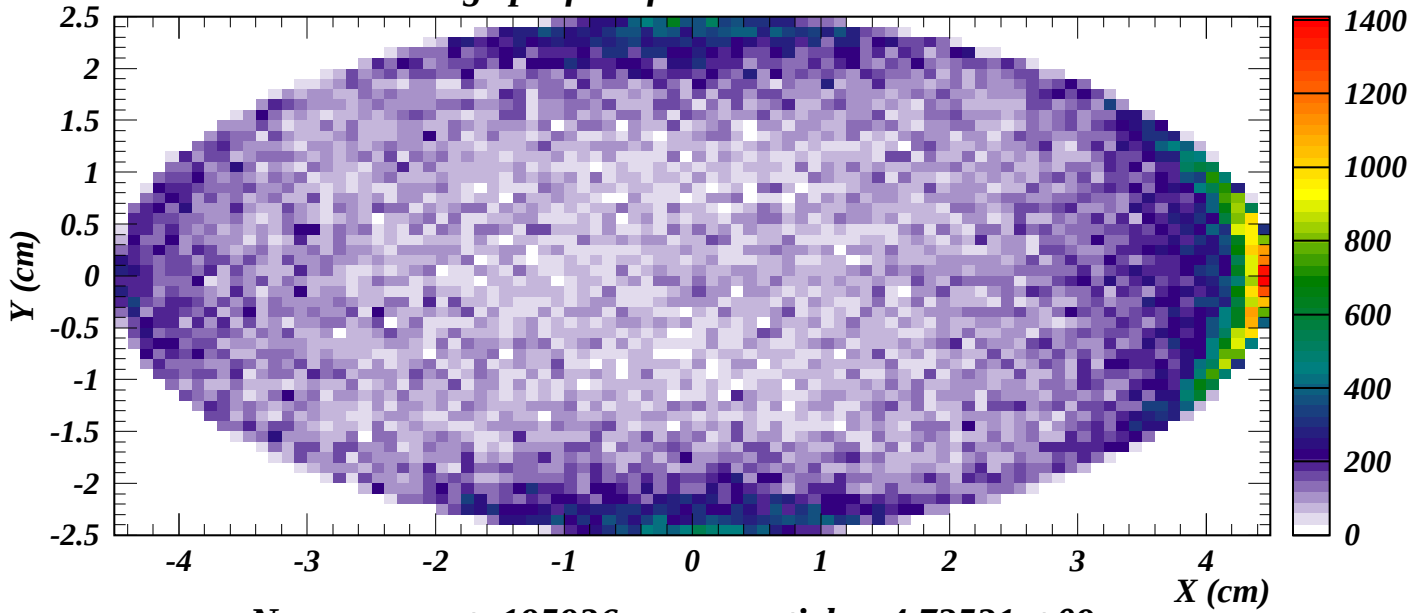
No energy cut: 195635 macroparticles, $4.72654e+09$ e-



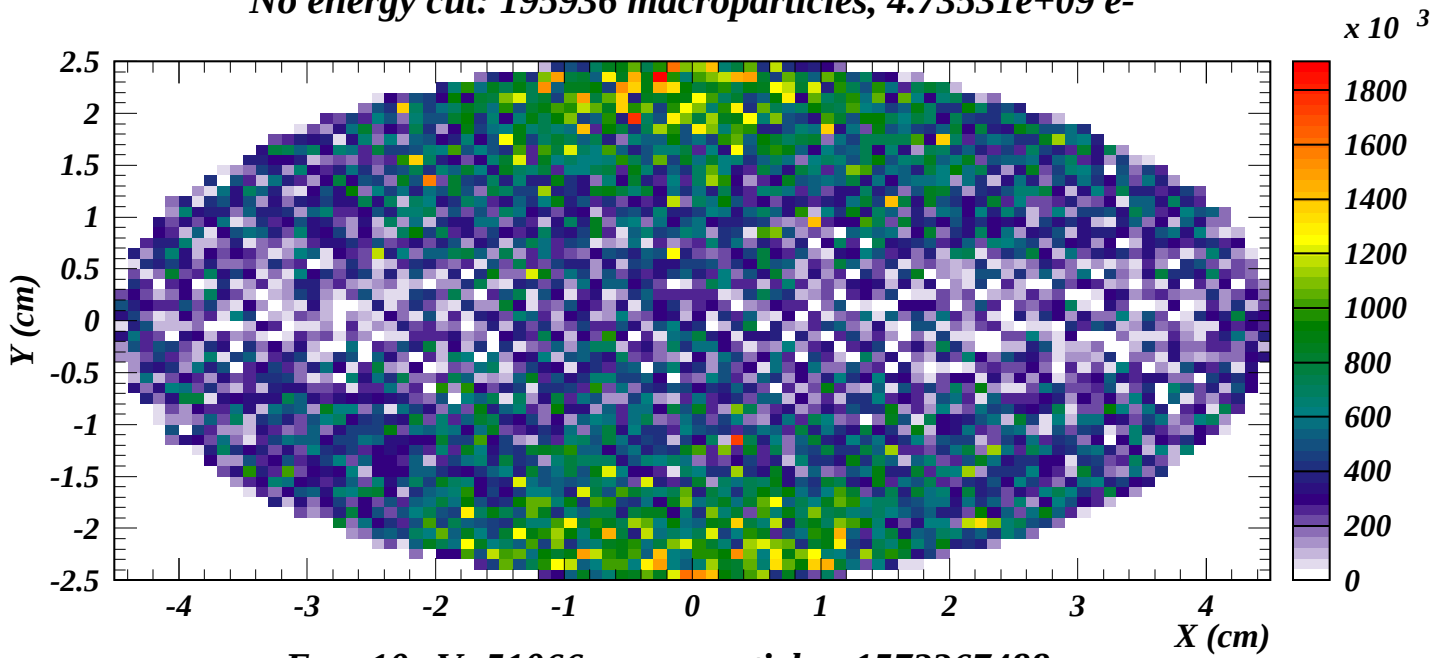
$E_{kin} > 10$ eV: 50216 macroparticles, 1555174912 e-

09/12/15 14.11
 $\times 10^{-4}$

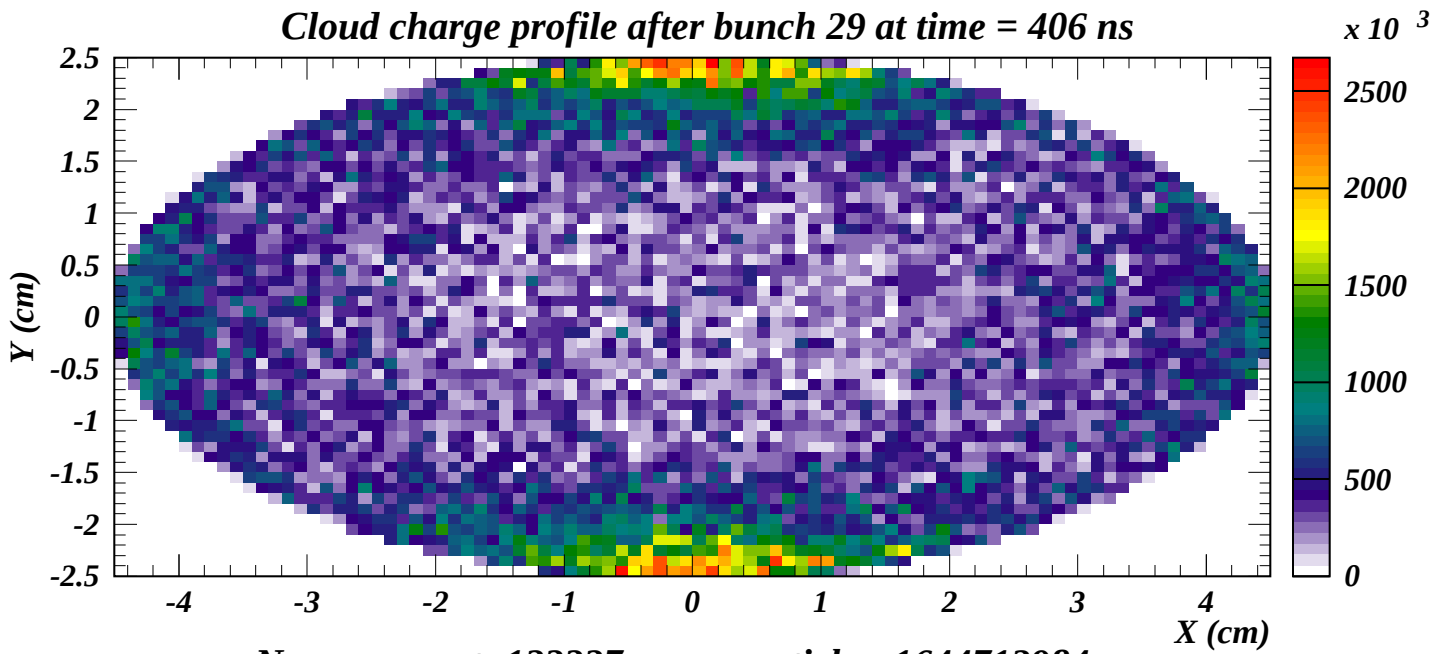
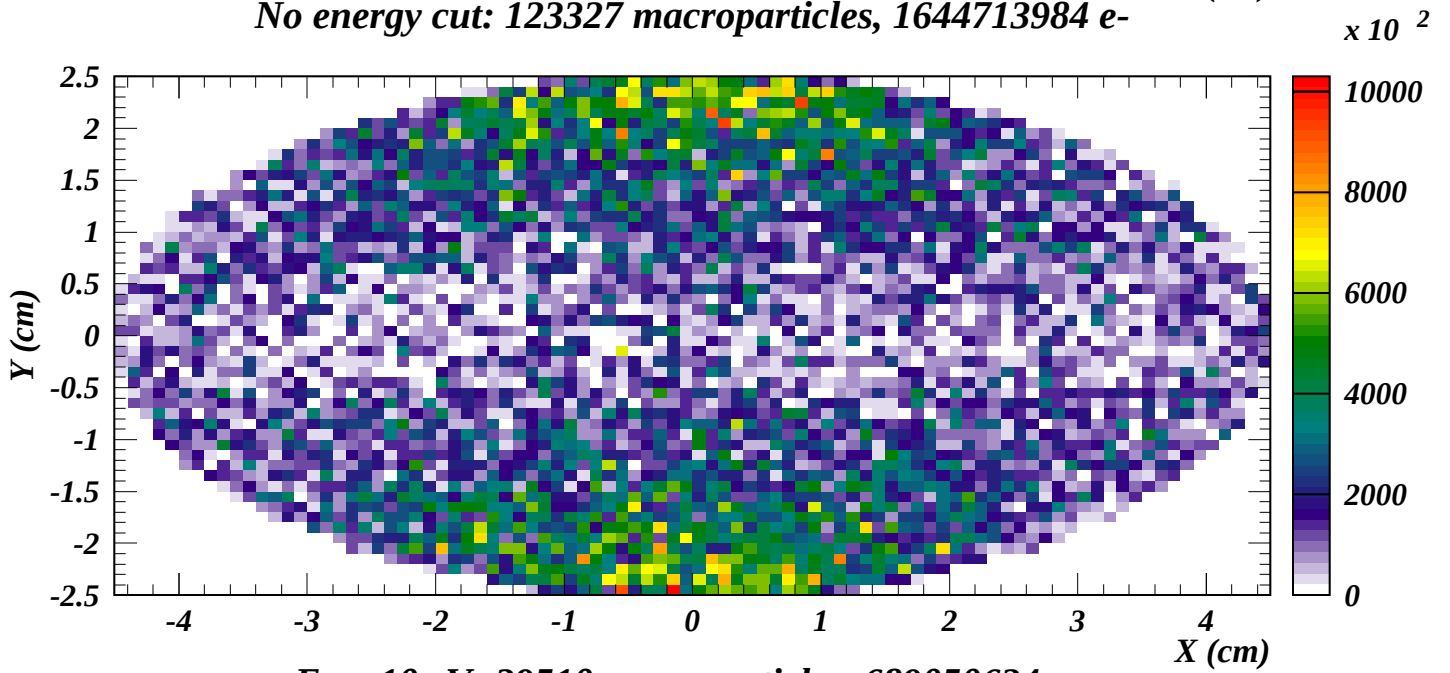
Cloud charge profile after bunch 27 at time = 378 ns

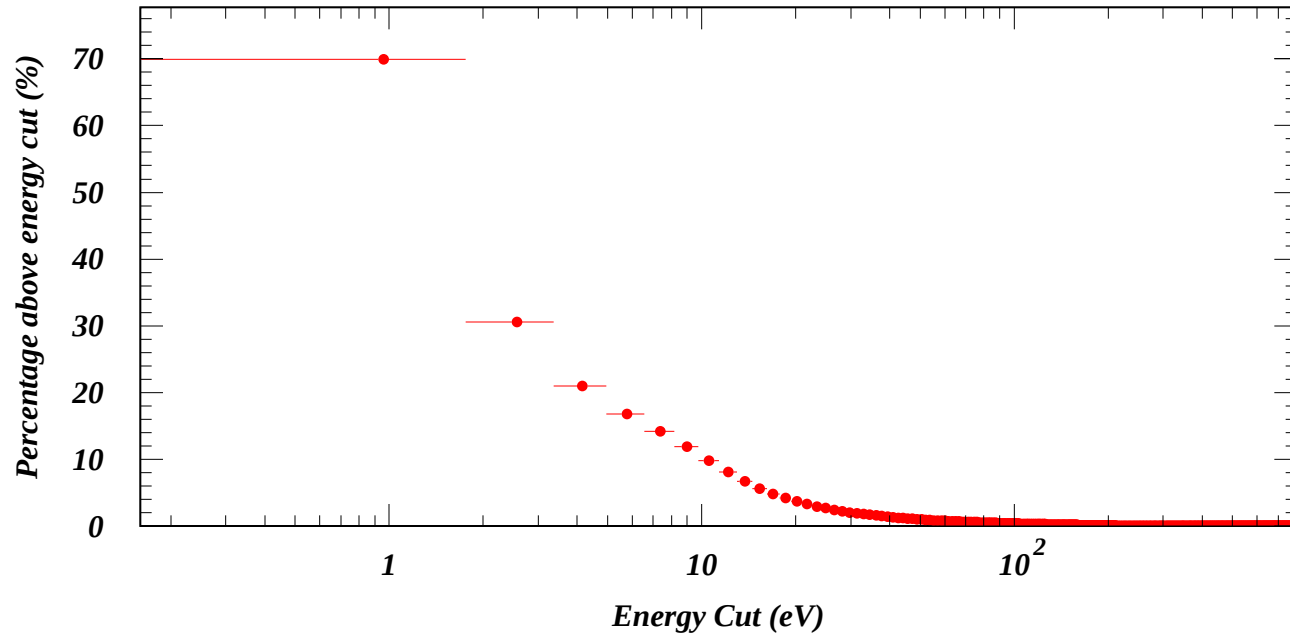
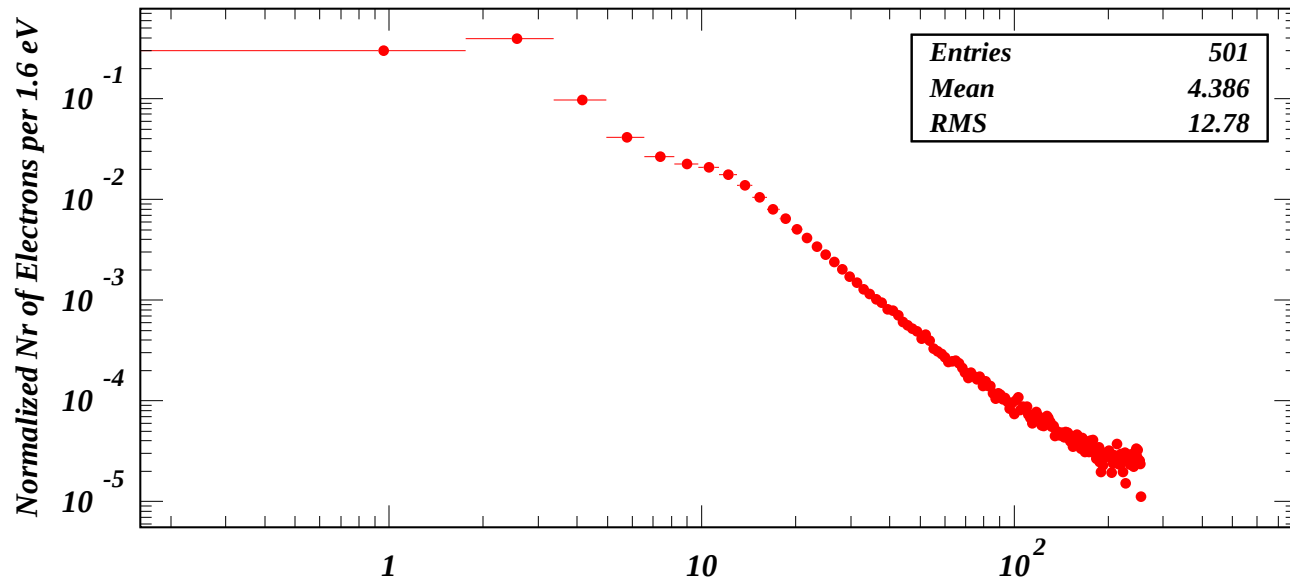


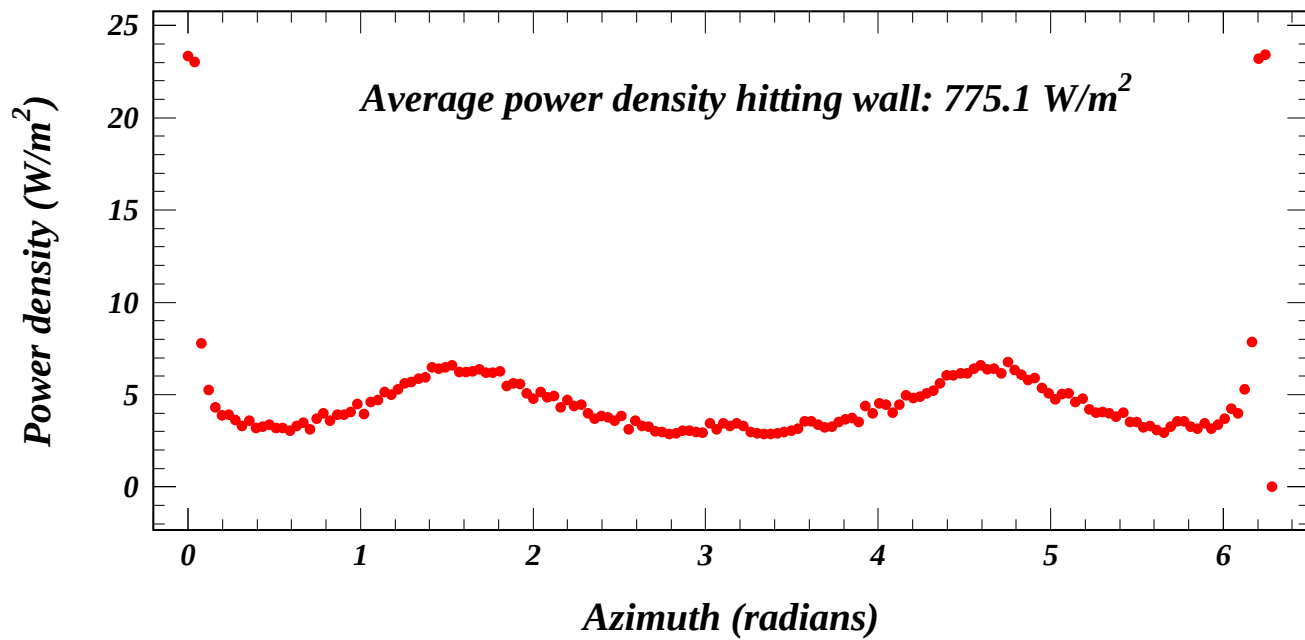
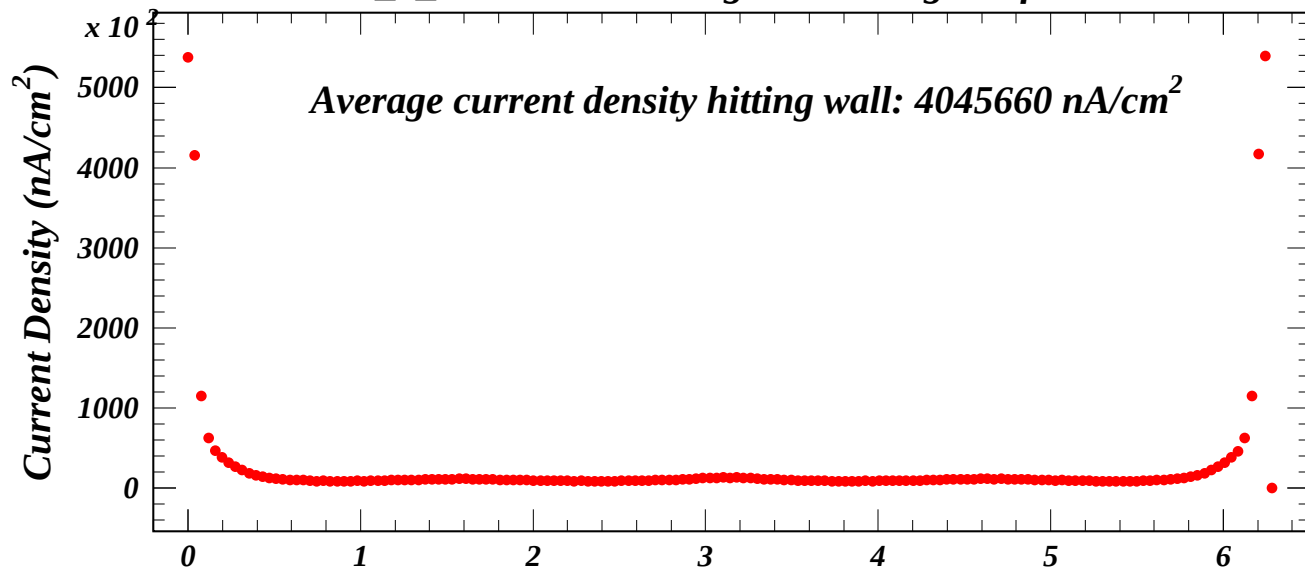
No energy cut: 195936 macroparticles, $4.73531e+09$ e-

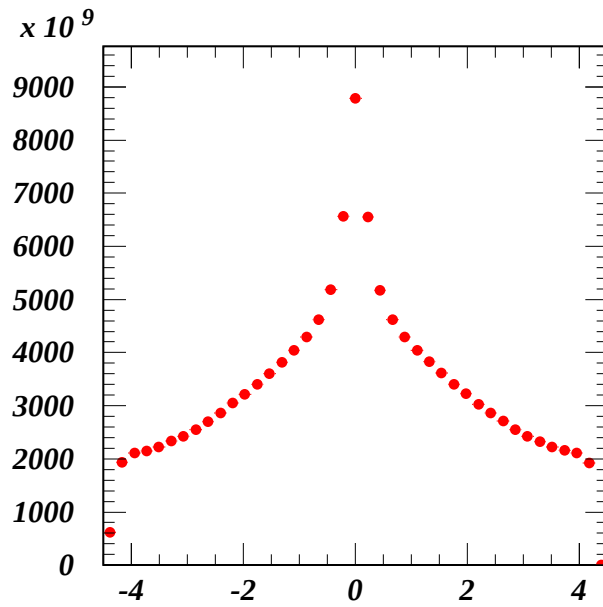
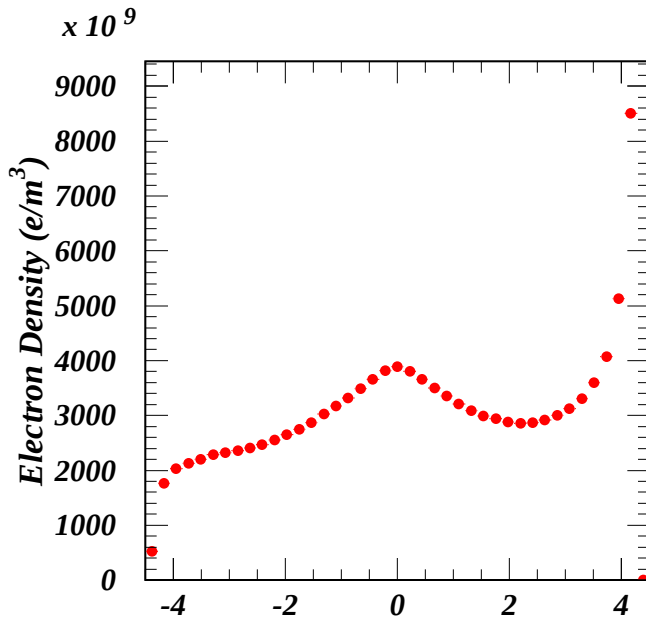
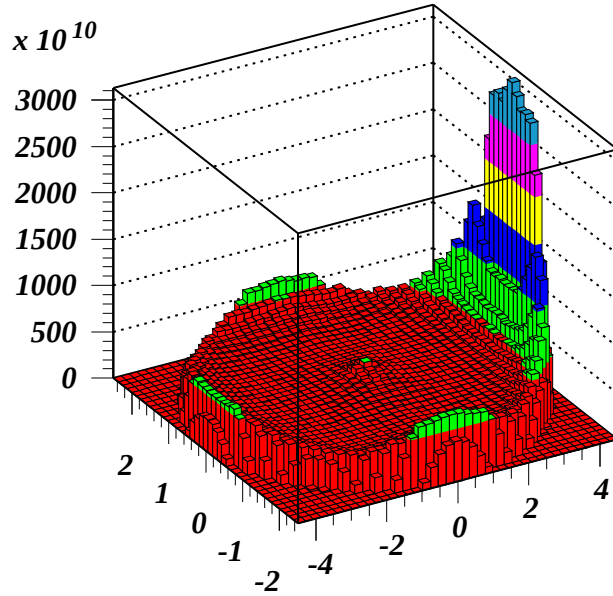
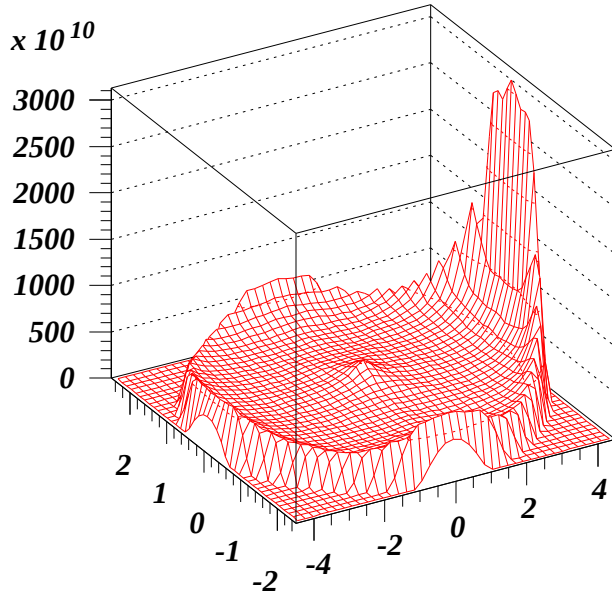


$E_{kin} > 10$ eV: 51066 macroparticles, 1572367488 e-

Cloud charge profile after bunch 29 at time = 406 ns*No energy cut: 123327 macroparticles, 1644713984 e-* *$E_{kin} > 10 \text{ eV}$: 39510 macroparticles, 689050624 e-*

ECLLOUD-CesrTA_5_3GeV: Time-Integrated Energies of Electrons Hitting Wall

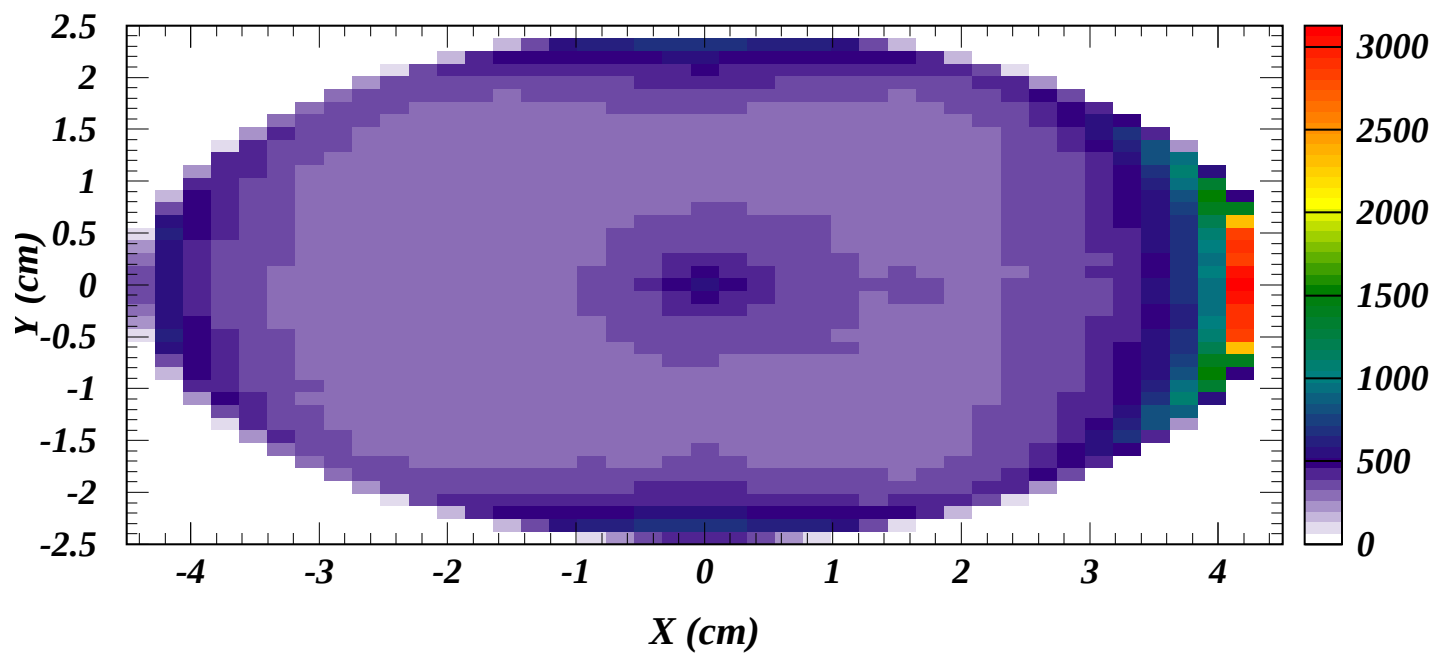
ECLLOUD-CesrTA_5_3GeV: Time-Integrated Energies of Electrons Hitting Wall

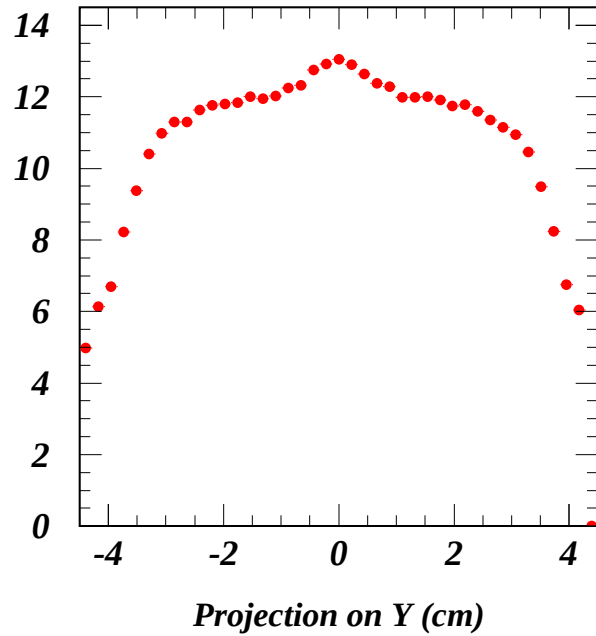
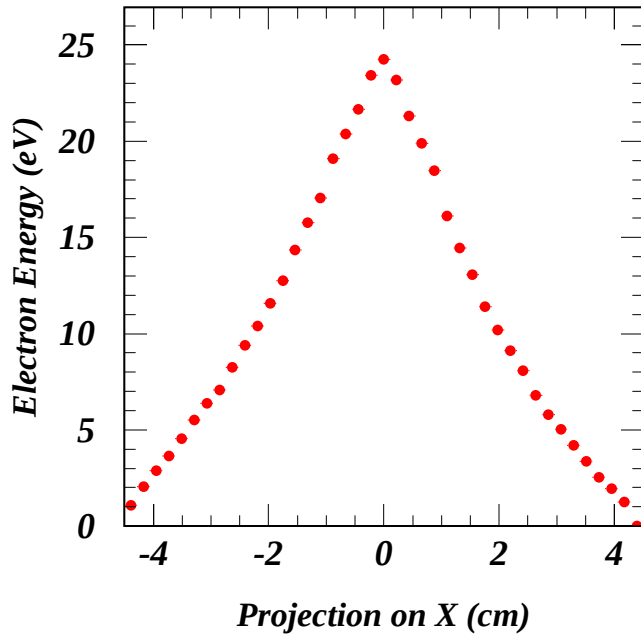
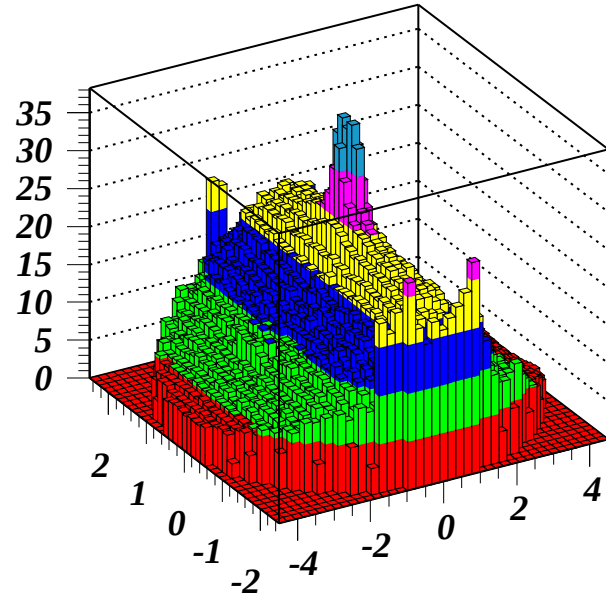
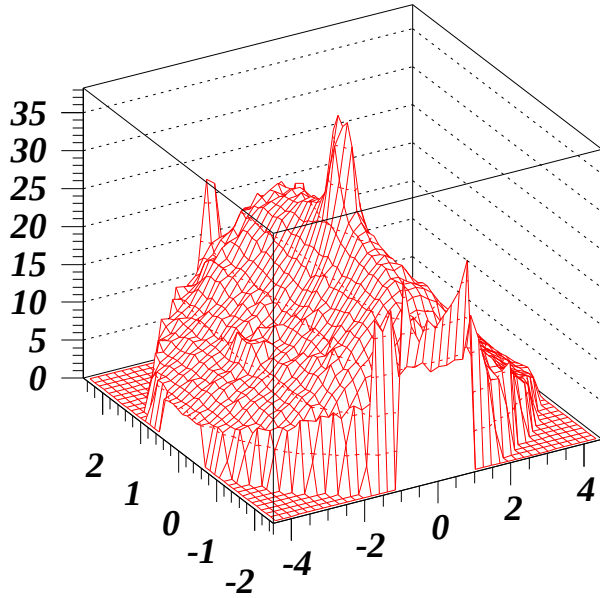
ECLOUD-CesrTA_5_3GeV: Cloud Density (e/m^3) Averaged Over 696.02 ns

Projection on X (cm)

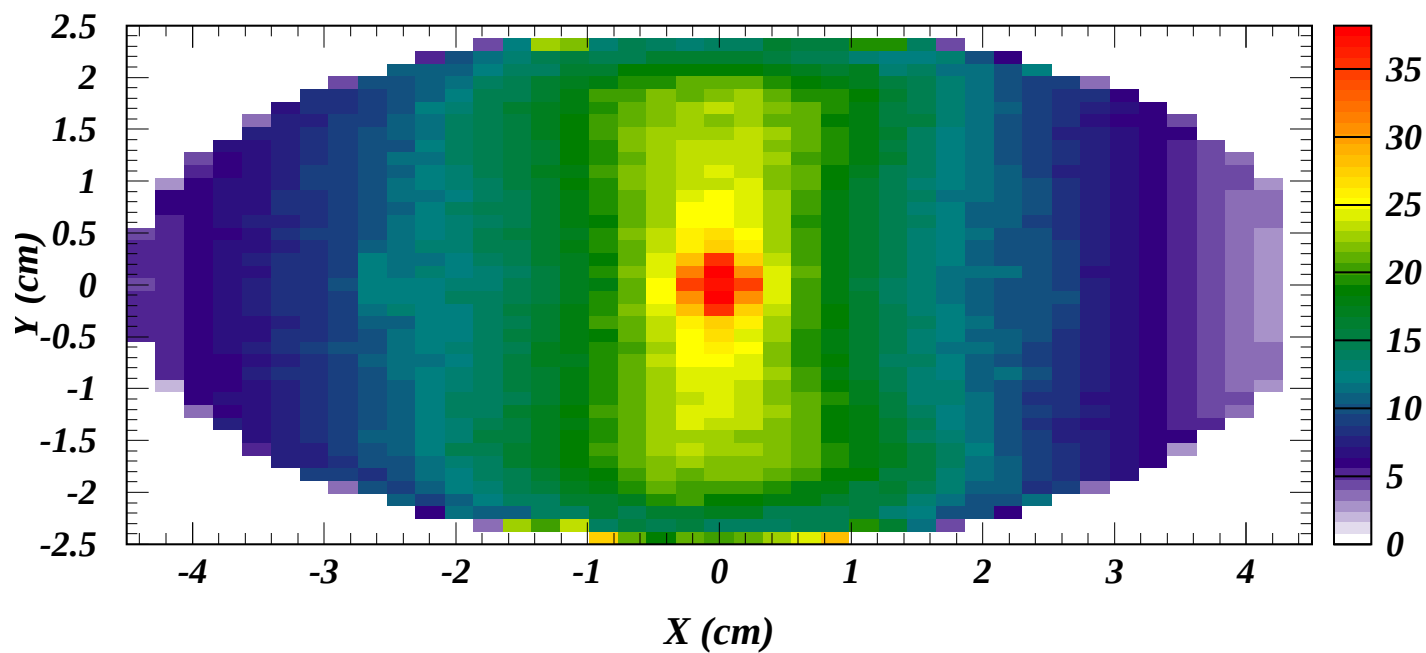
Projection on Y (cm)

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ECLOUD-CesrTA_5_3GeV: Cloud Density (e/m^3) Averaged Over 696.02 ns $\times 10^{10}$



ECLOUD-CesrTA_5_3GeV: Electron Energies (eV) Averaged Over 696.02 ns

09/12/15 14.11
ECLOUD-CesrTA_5_3GeV: Electron Energies (eV) Averaged Over 696.02 ns



CesrTA quadrupole 5.3 GeV - Simulated Chicane RFA Collector Currents (μA)