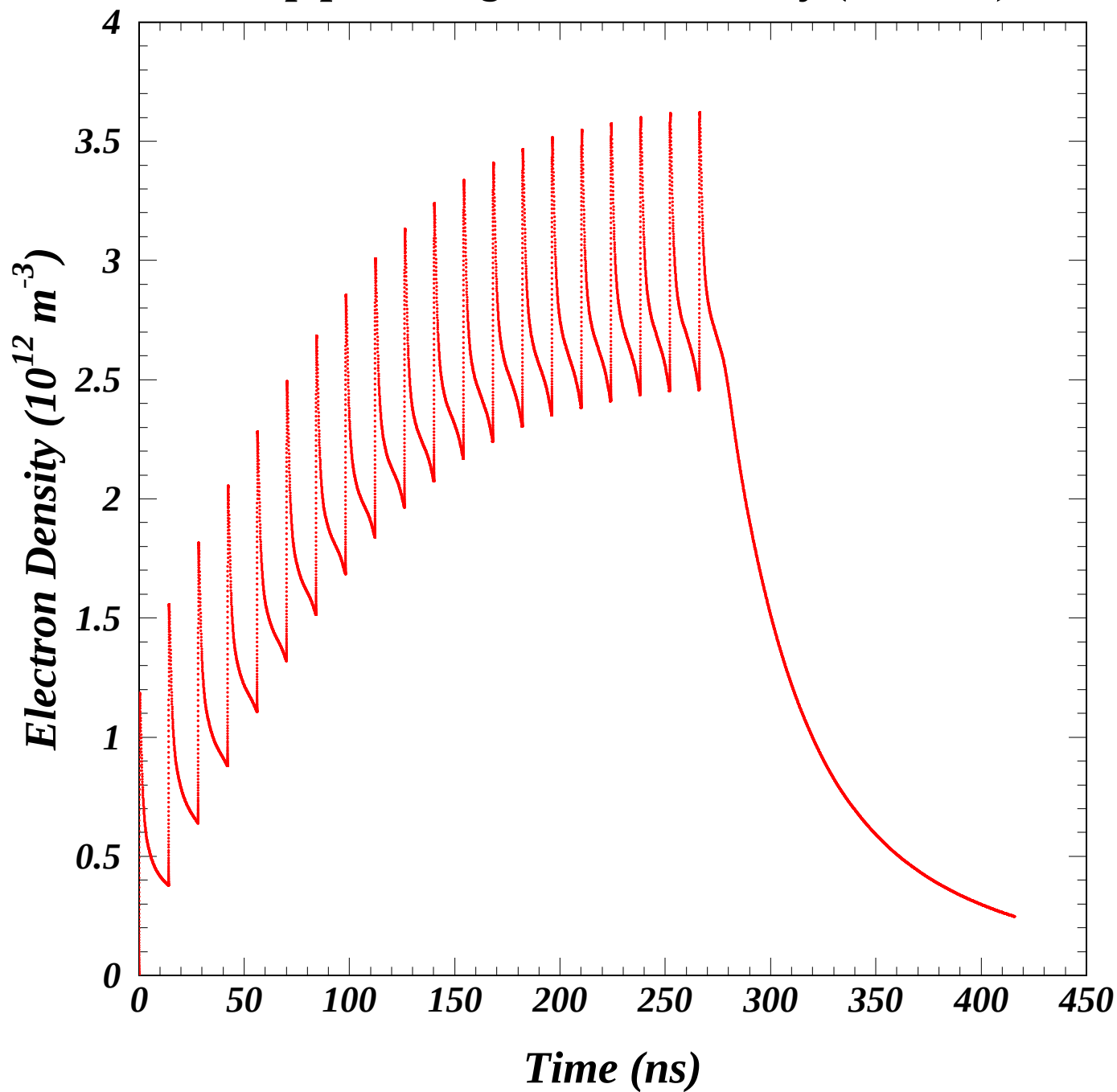
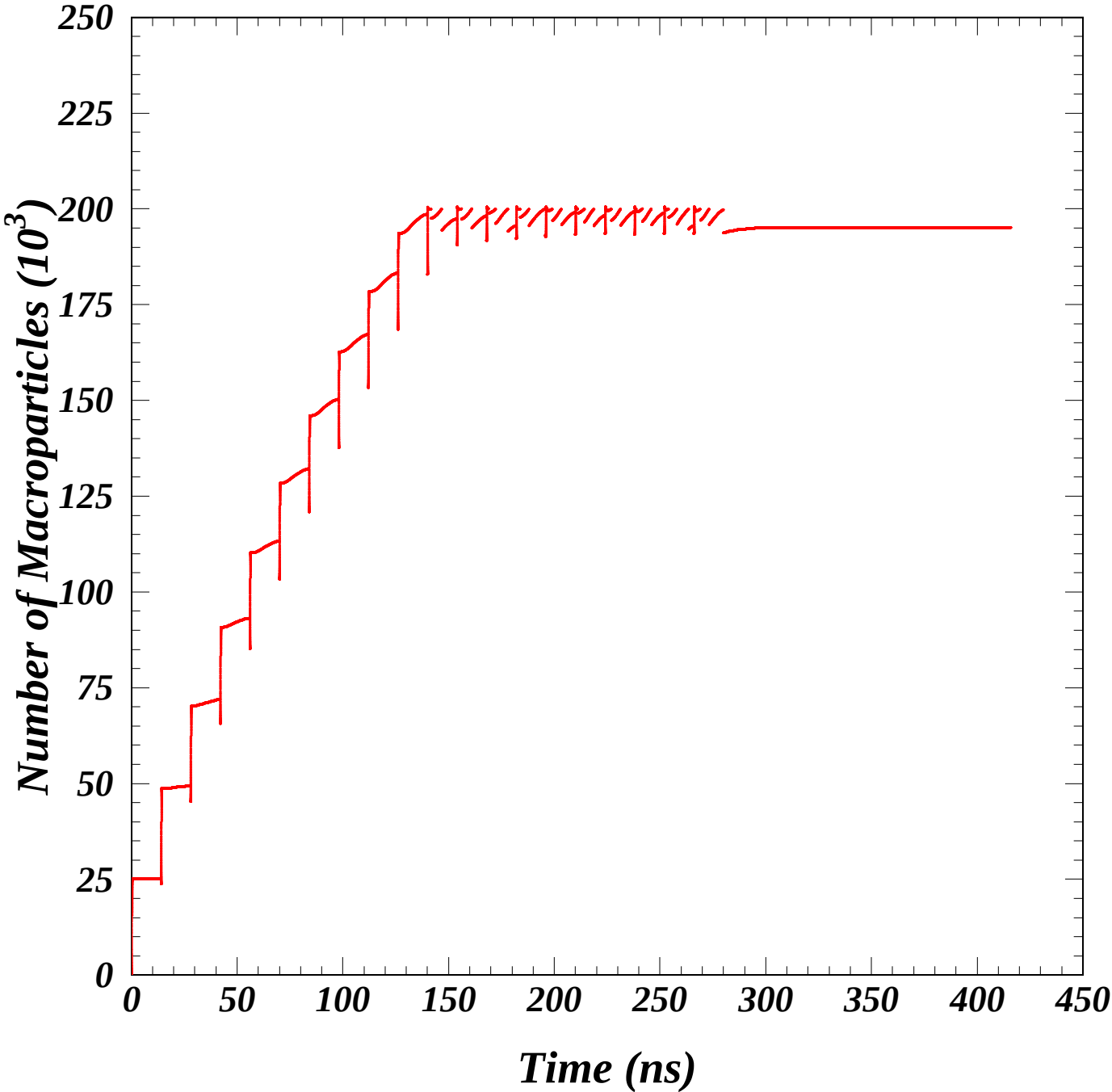
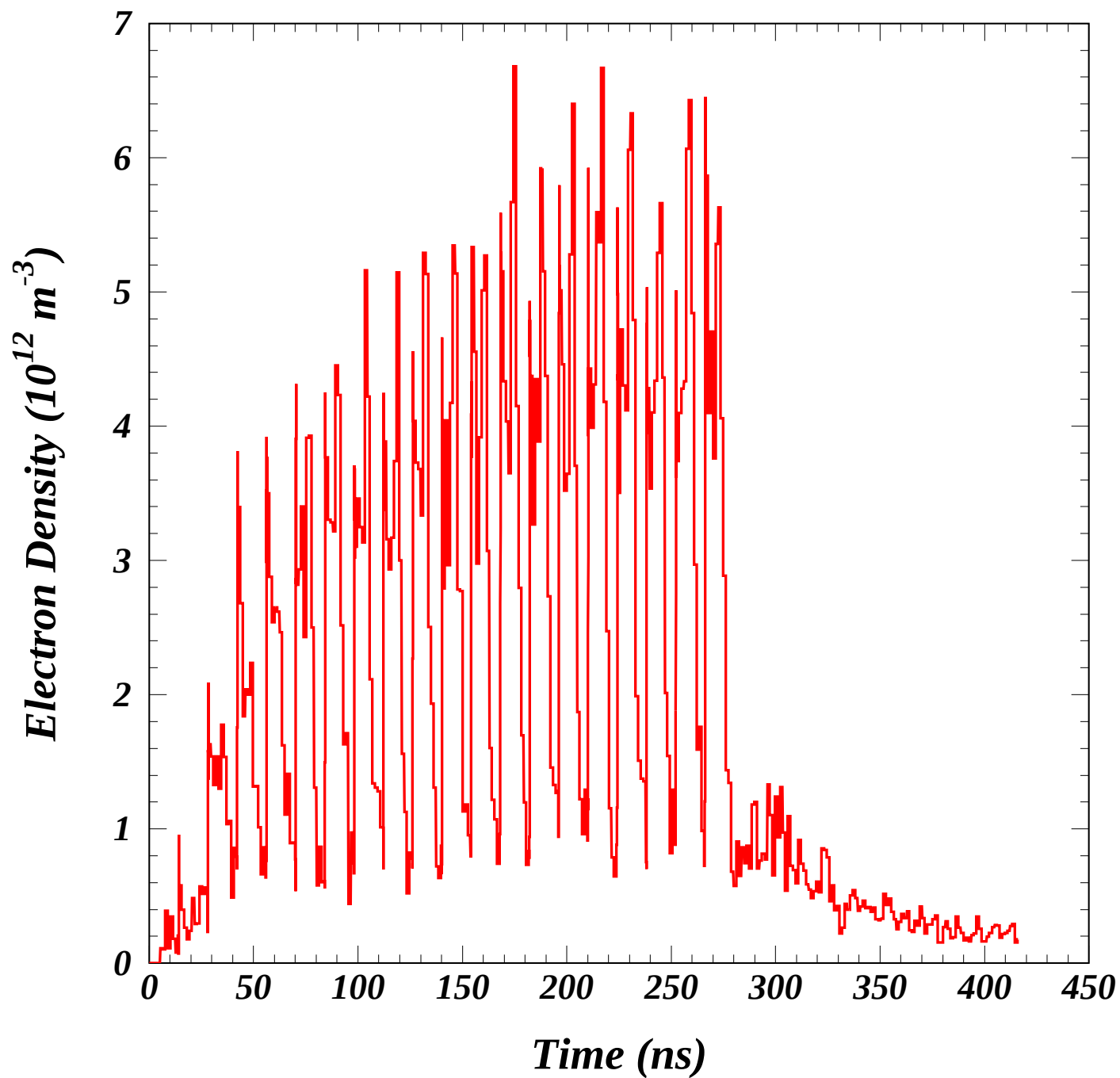


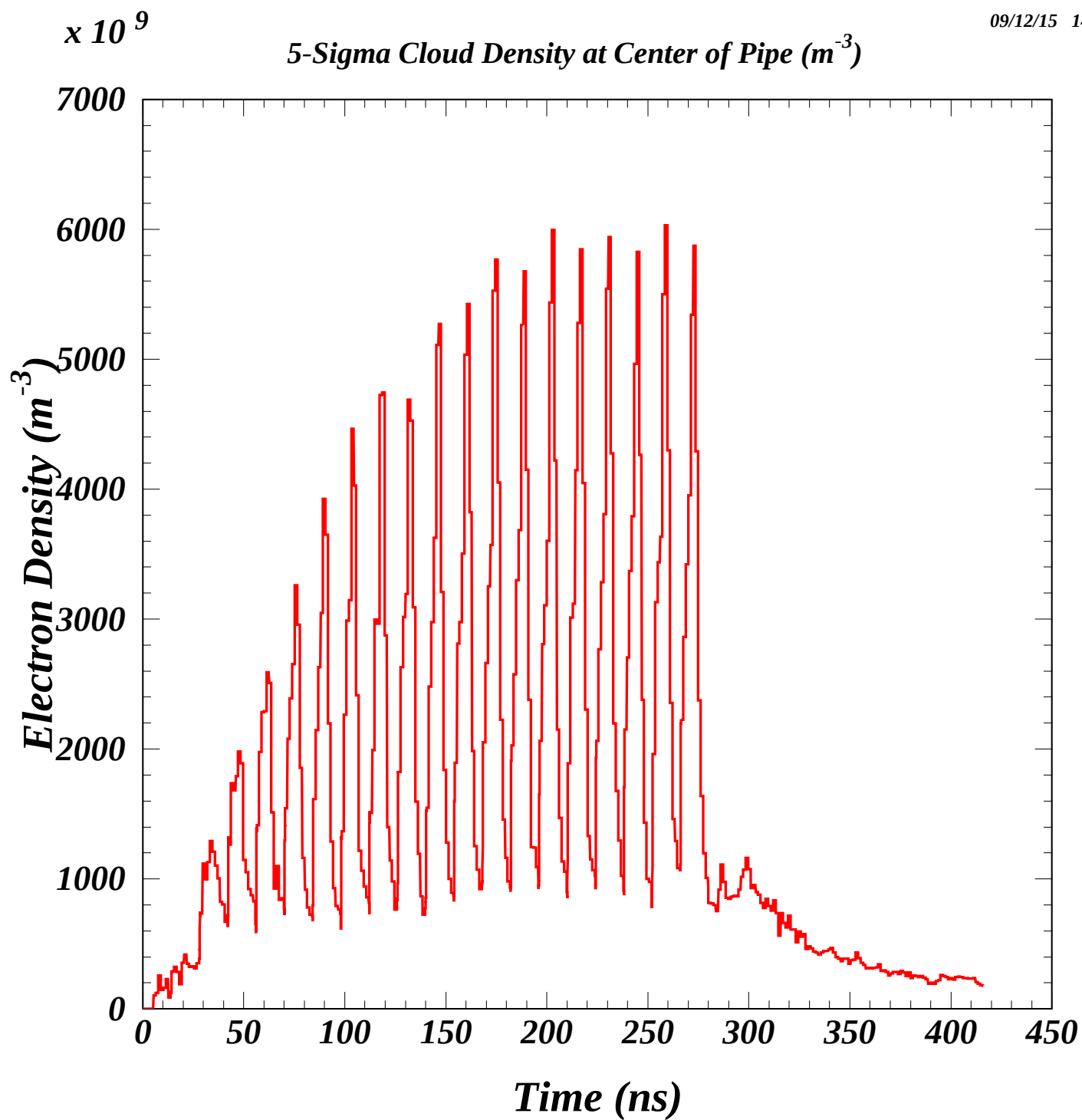
Beampipe-averaged Cloud Density (10^{12} m^{-3})

Macroparticle Statistics

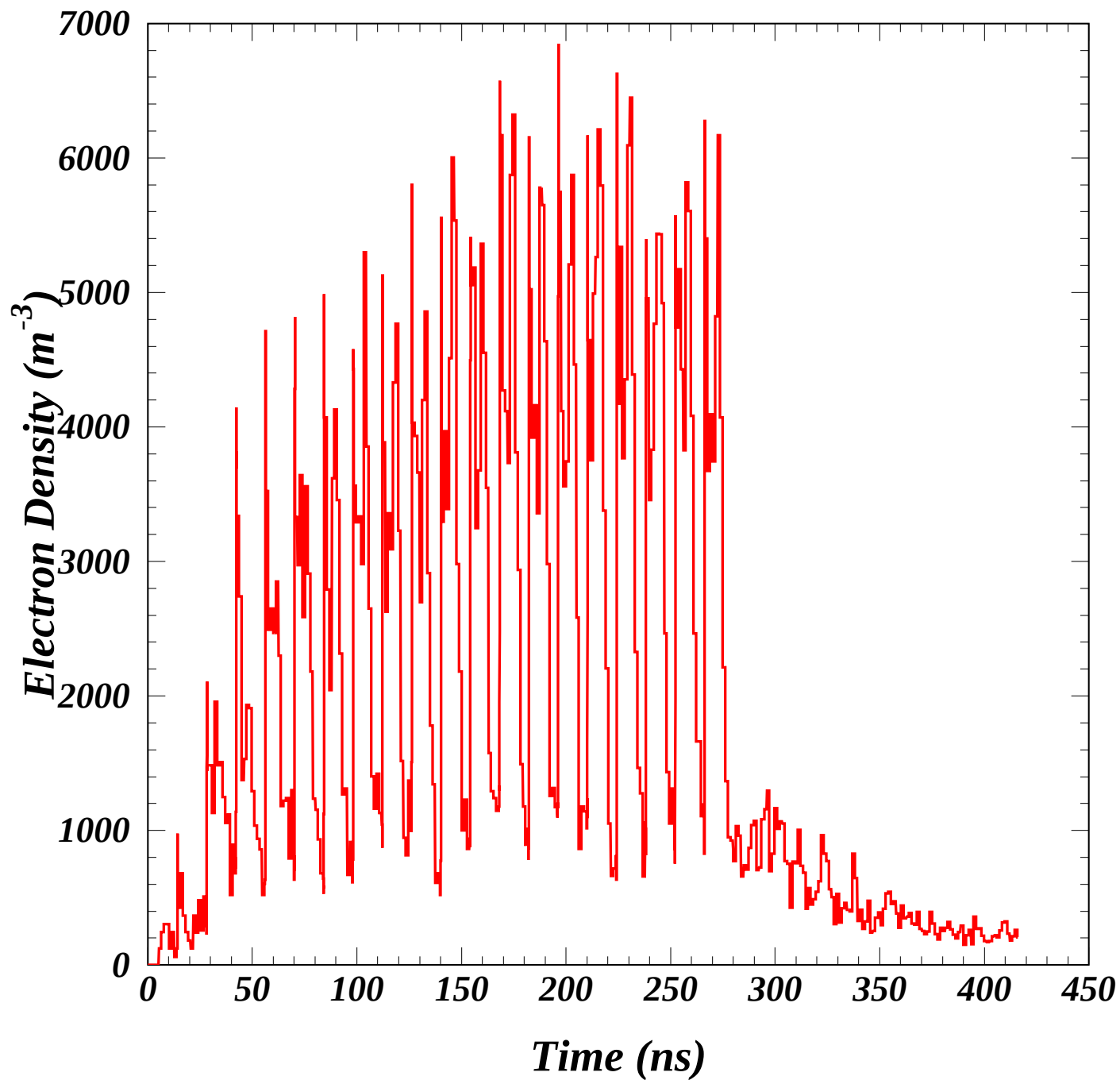


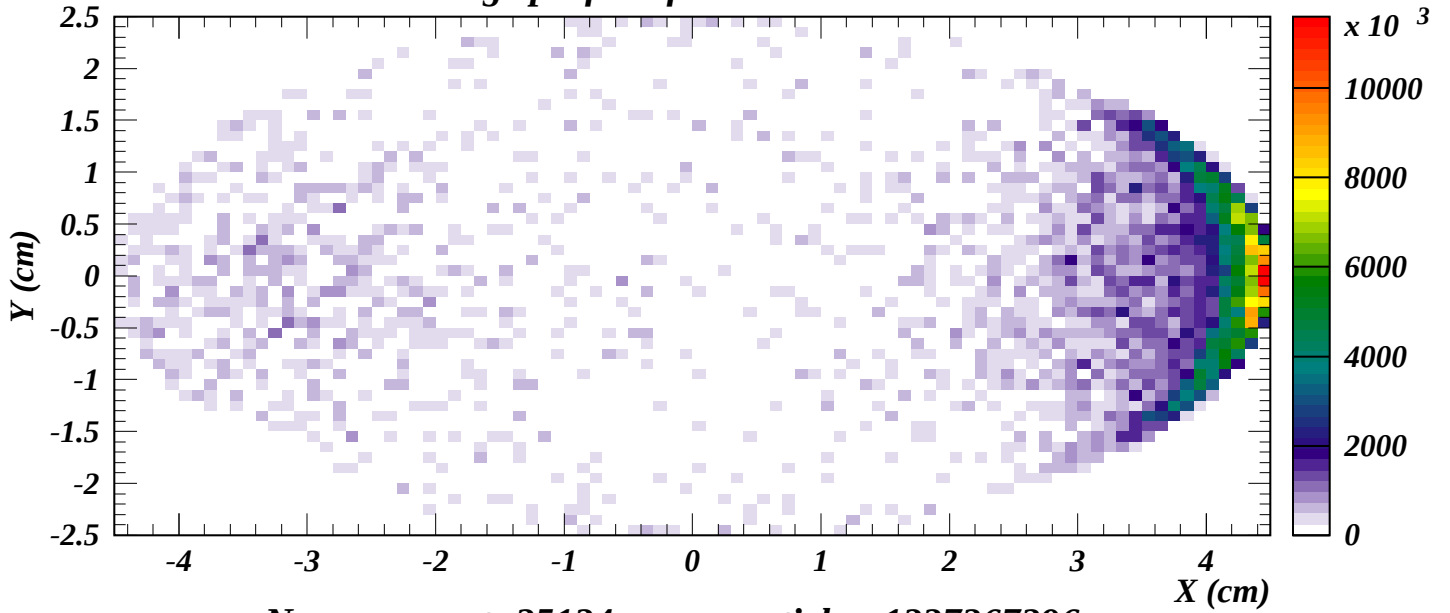
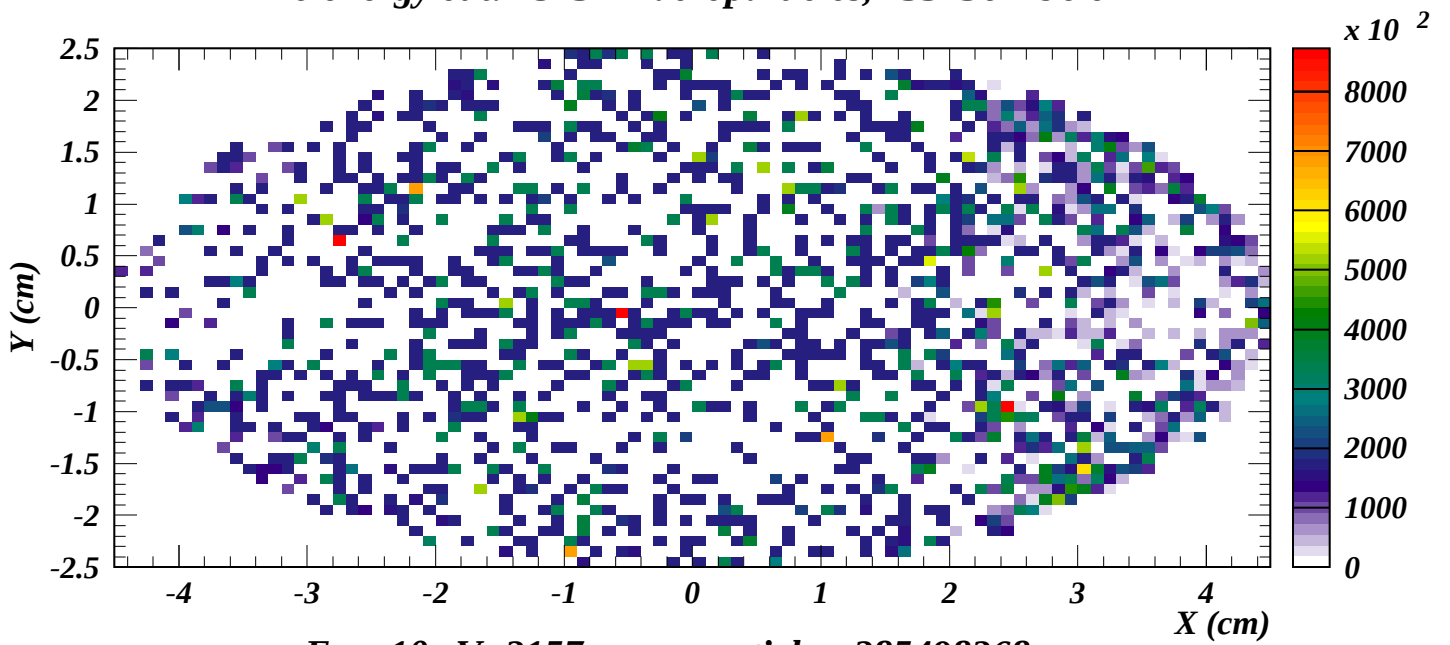
Beam-averaged Cloud Density (10^{12} m^{-3})

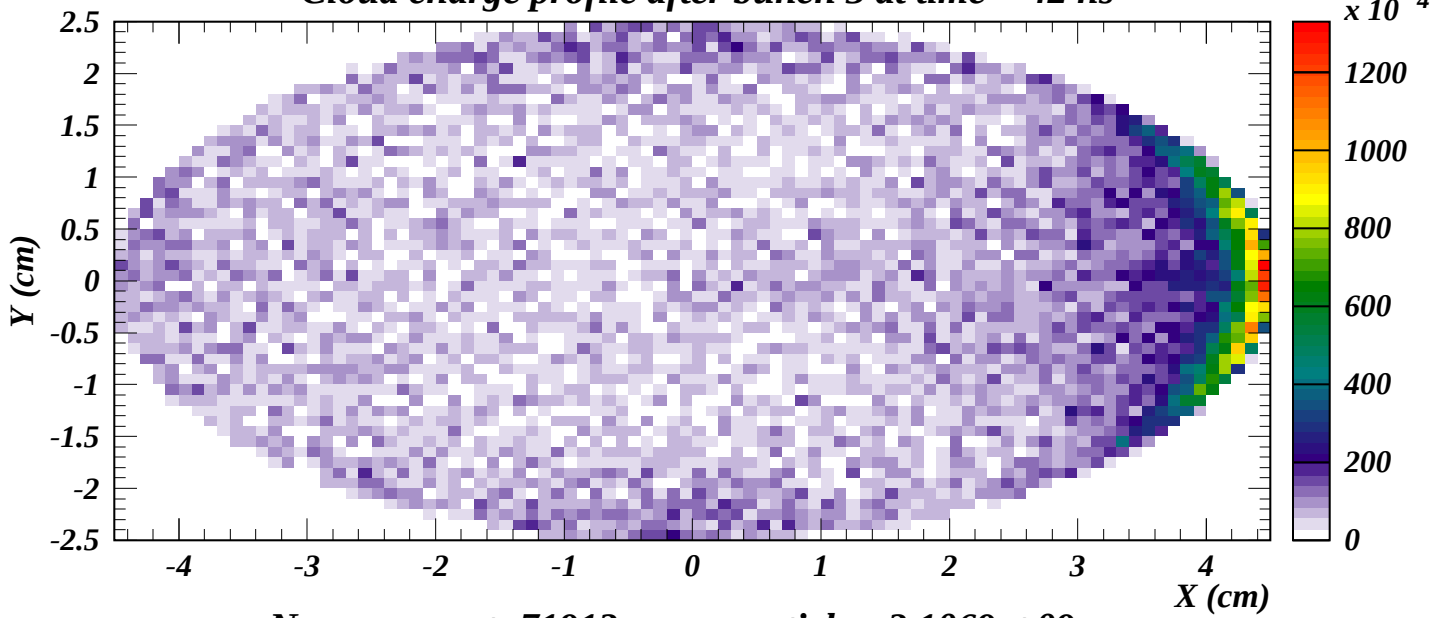
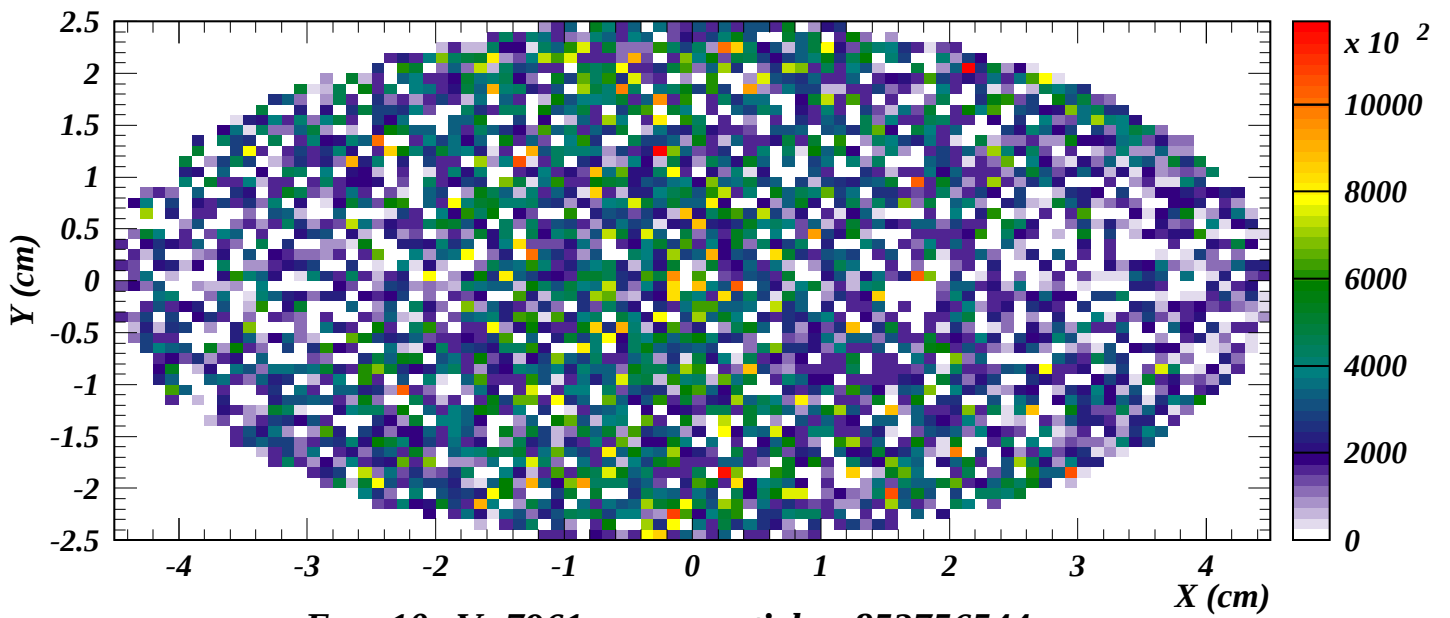


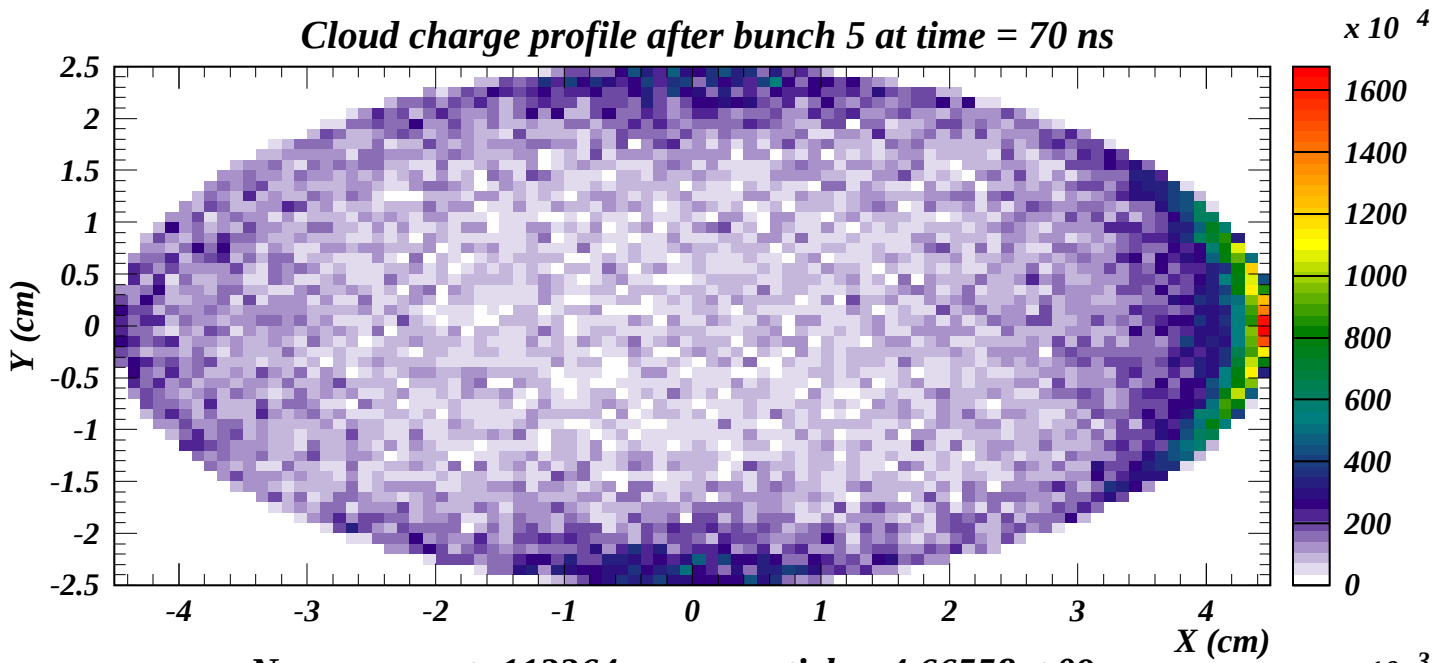
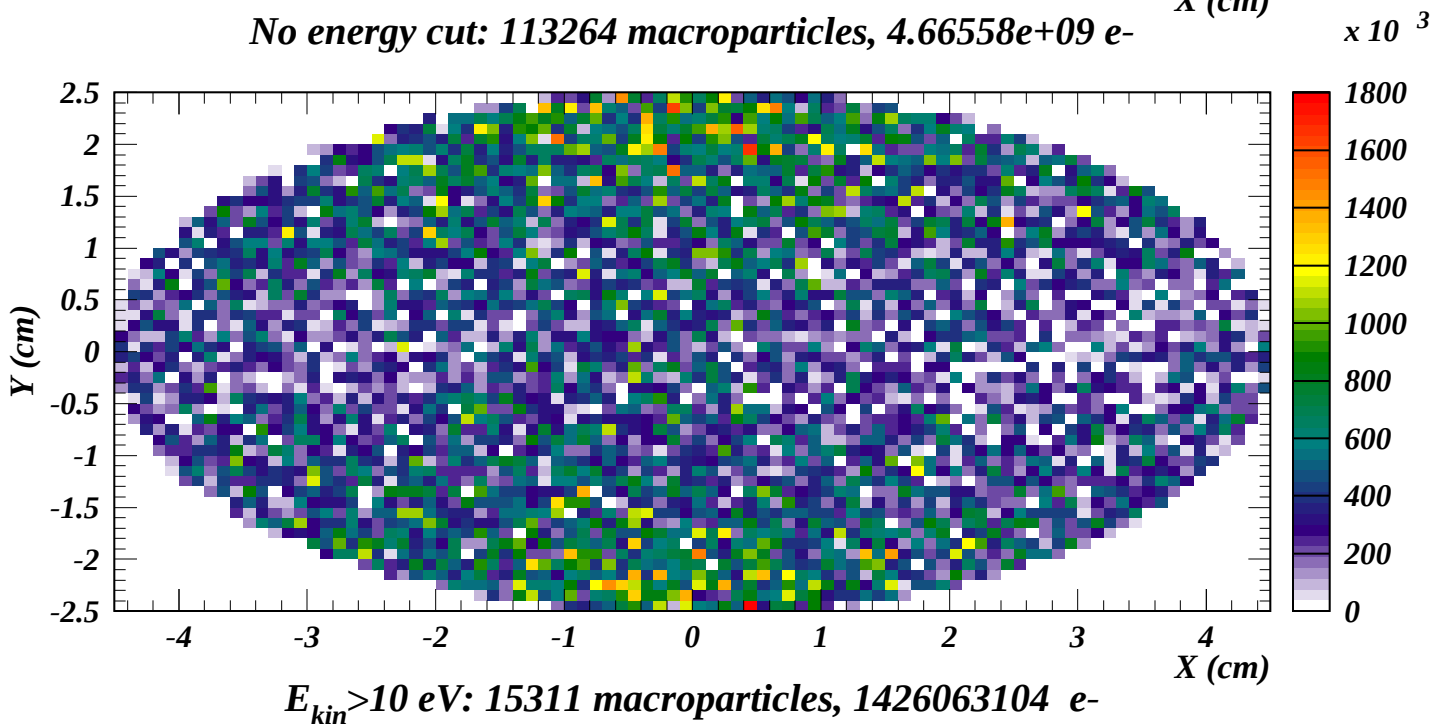
5-Sigma Cloud Density at Center of Pipe (m^{-3})

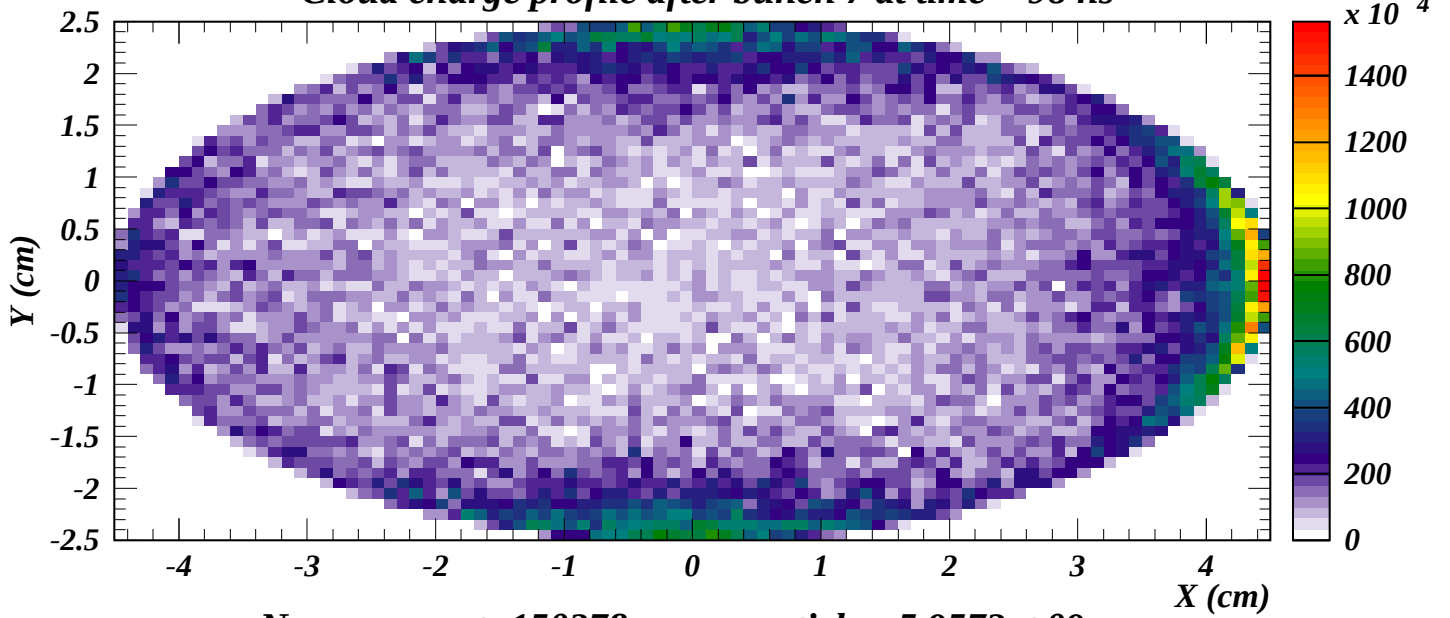
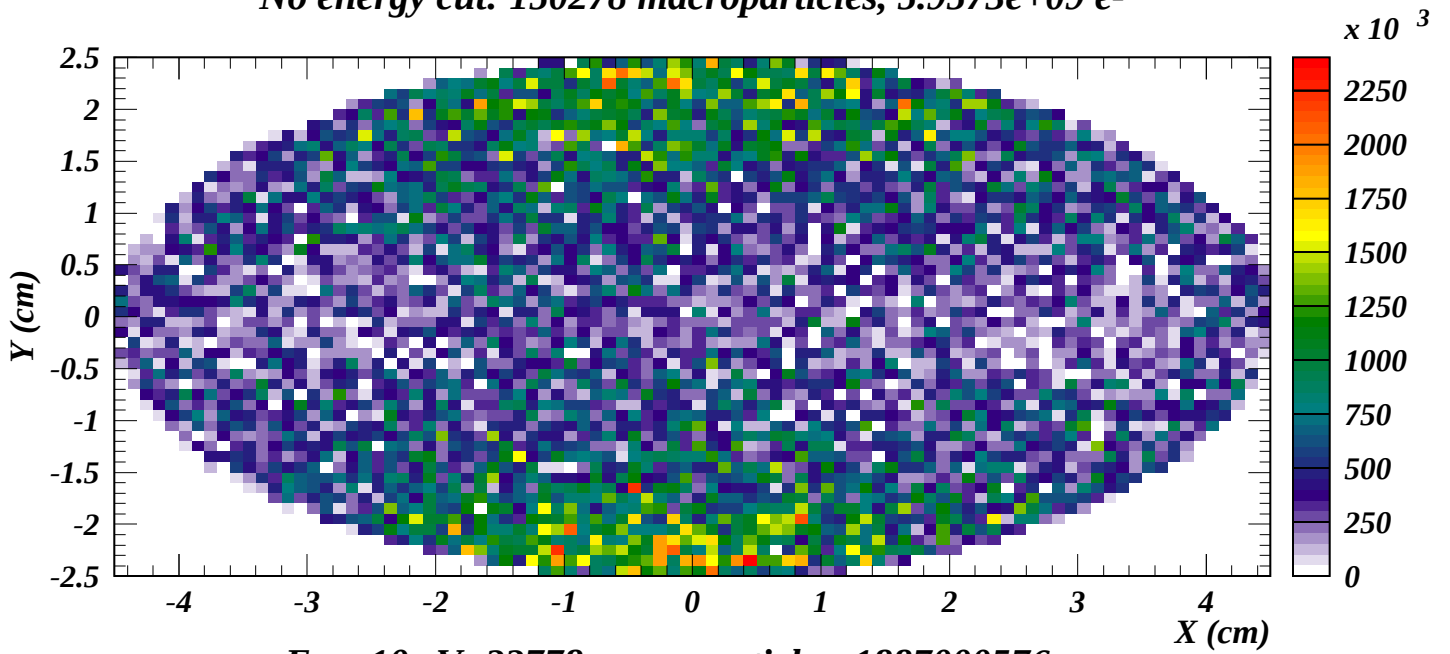
$\times 10^9$ 09/12/15 14.23
ECLOUD-CesrTA_4_0GeV: Cloud Density in Central Grid Cell (m^{-3})

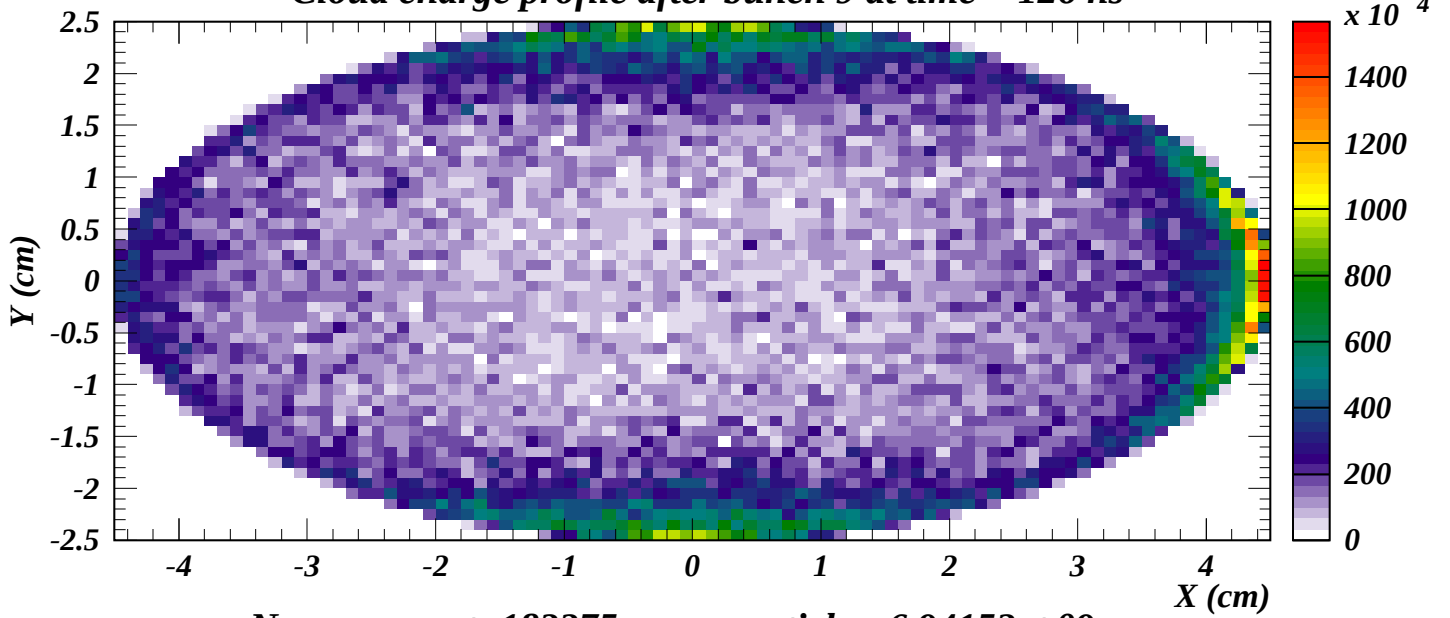
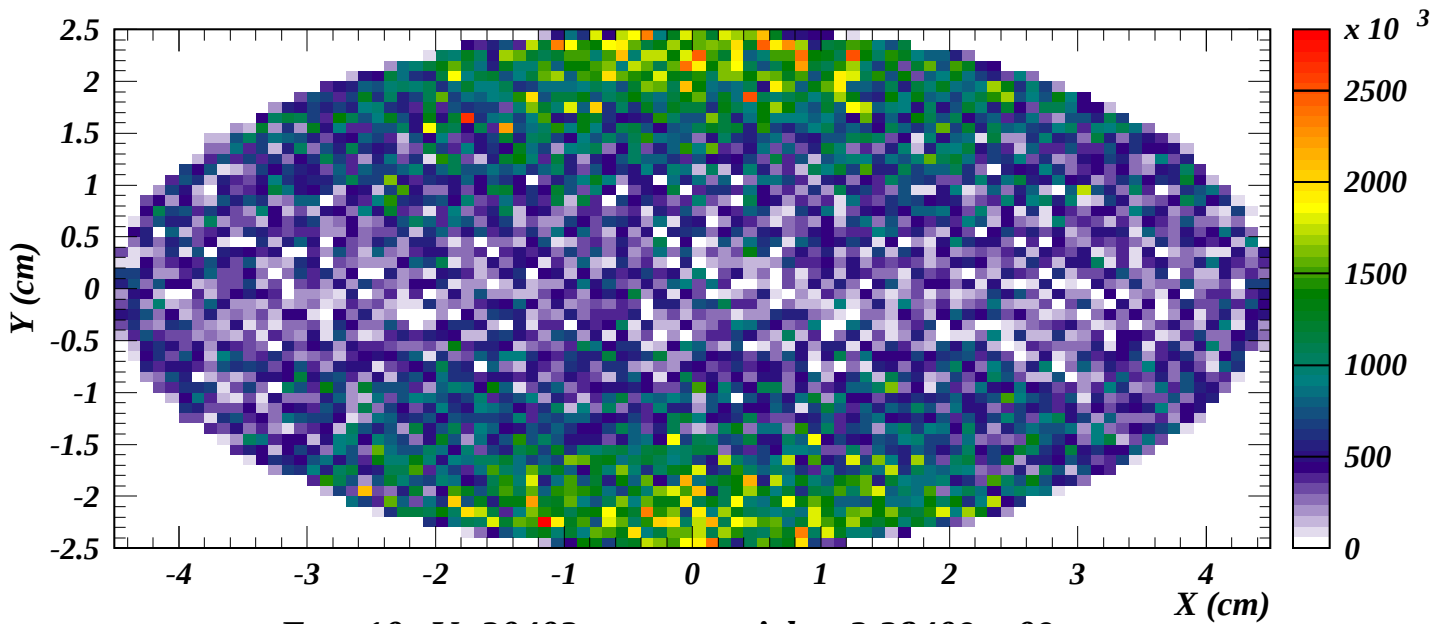


Cloud charge profile after bunch 1 at time = 14 ns*No energy cut: 25134 macroparticles, 1337367296 e-* *$E_{\text{kin}} > 10$ eV: 2157 macroparticles, 285498368 e-*

Cloud charge profile after bunch 3 at time = 42 ns*No energy cut: 71913 macroparticles, $3.1069\text{e}+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 7961 macroparticles, 852756544 e-*

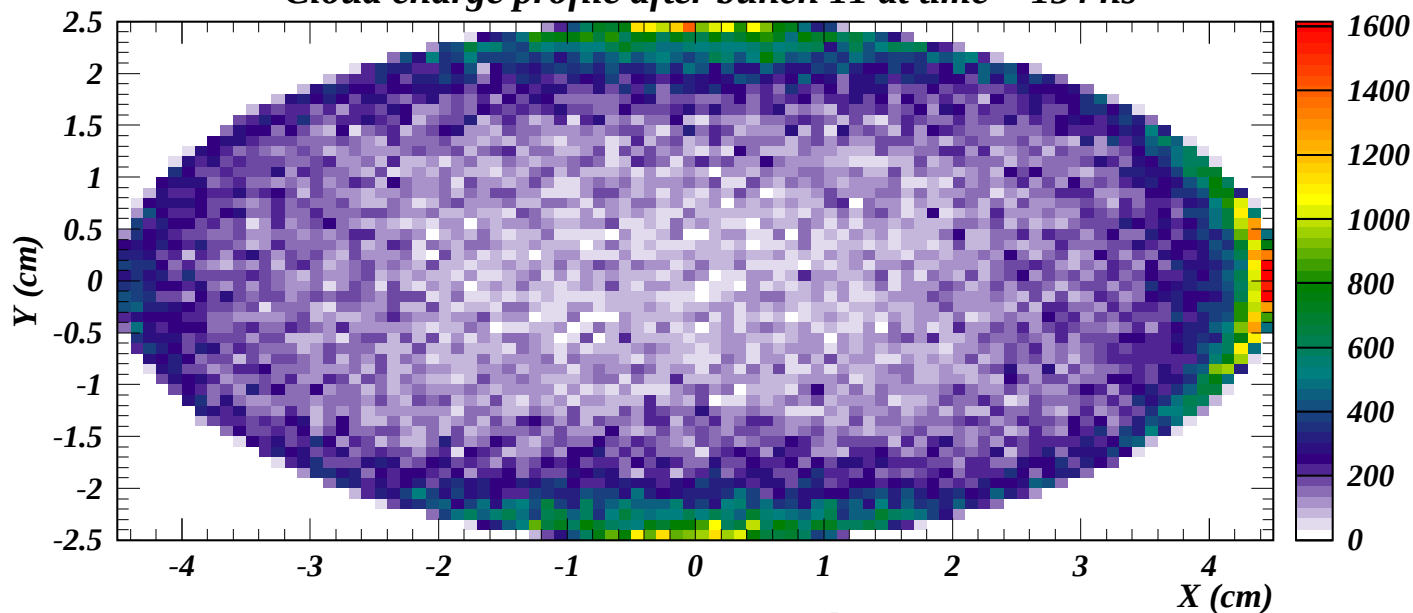
Cloud charge profile after bunch 5 at time = 70 ns*No energy cut: 113264 macroparticles, $4.66558e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 15311 macroparticles, 1426063104 e-*

Cloud charge profile after bunch 7 at time = 98 ns*No energy cut: 150278 macroparticles, $5.9573e+09$ e-* *$E_{kin} > 10$ eV: 22778 macroparticles, 1887000576 e-*

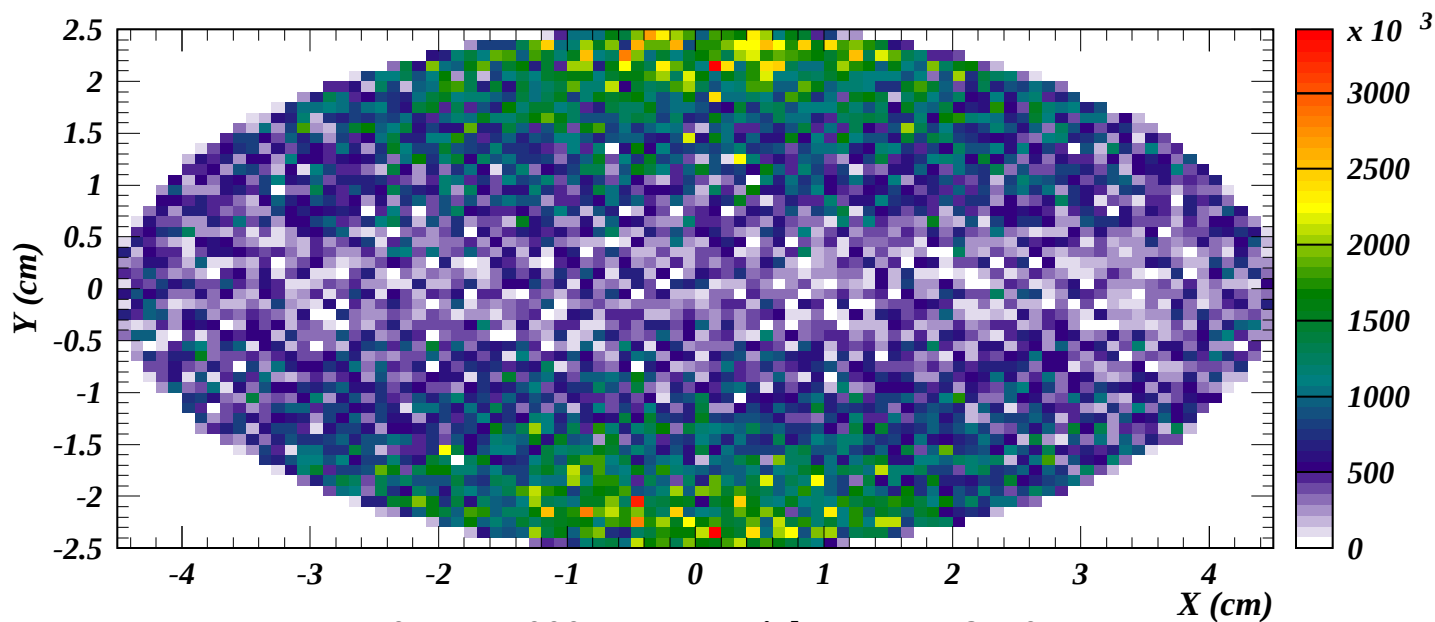
Cloud charge profile after bunch 9 at time = 126 ns*No energy cut: 183275 macroparticles, $6.94152e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 30403 macroparticles, $2.28409e+09 \text{ e-}$*

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 $\times 10^{-4}$

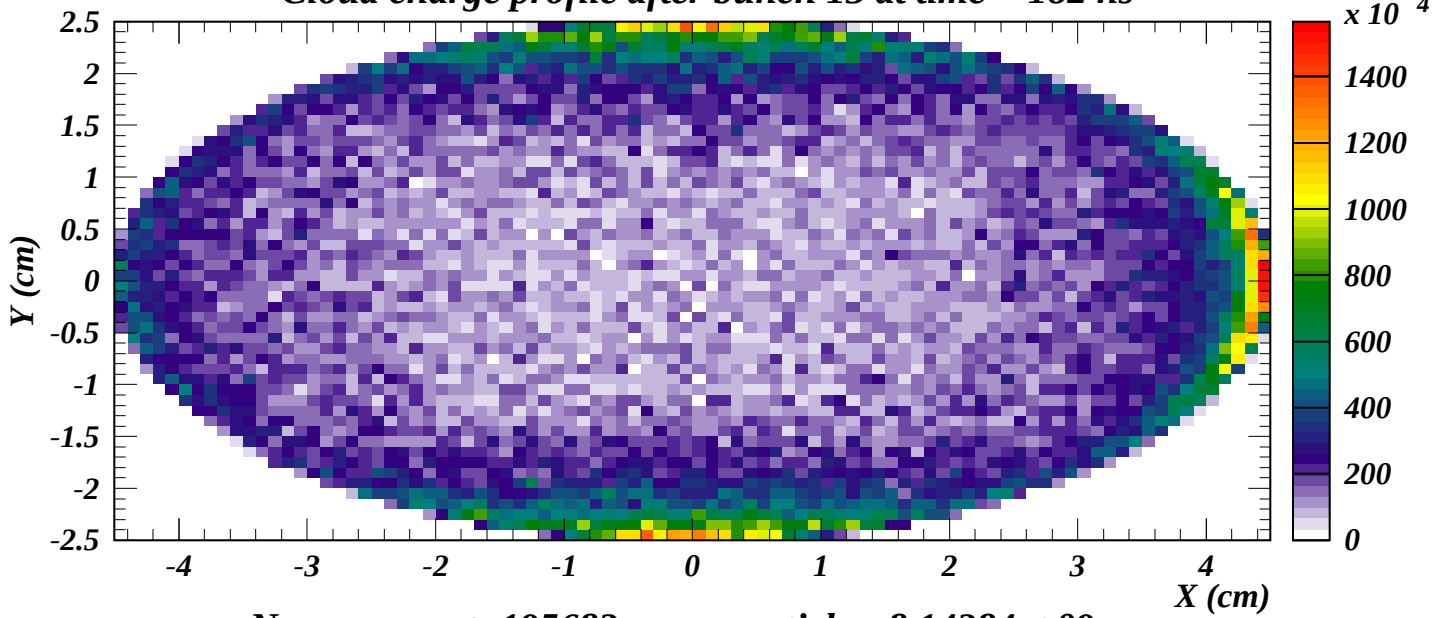
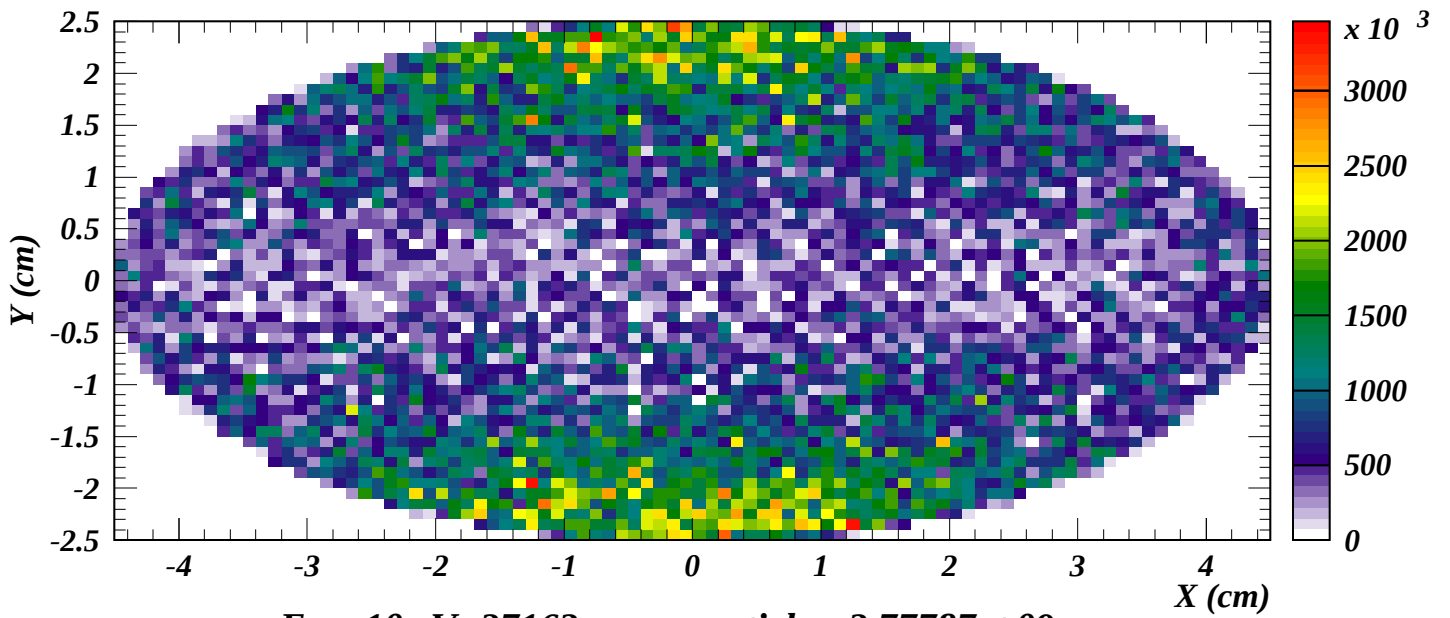
Cloud charge profile after bunch 11 at time = 154 ns

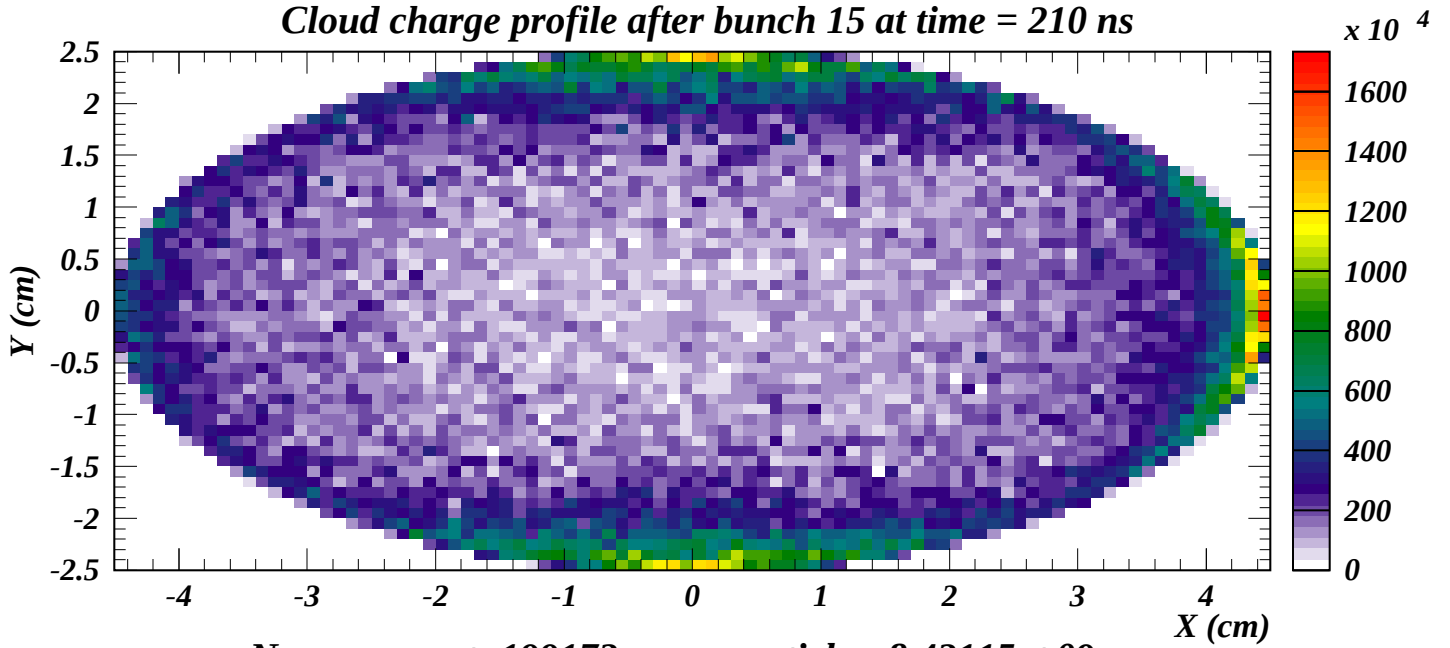
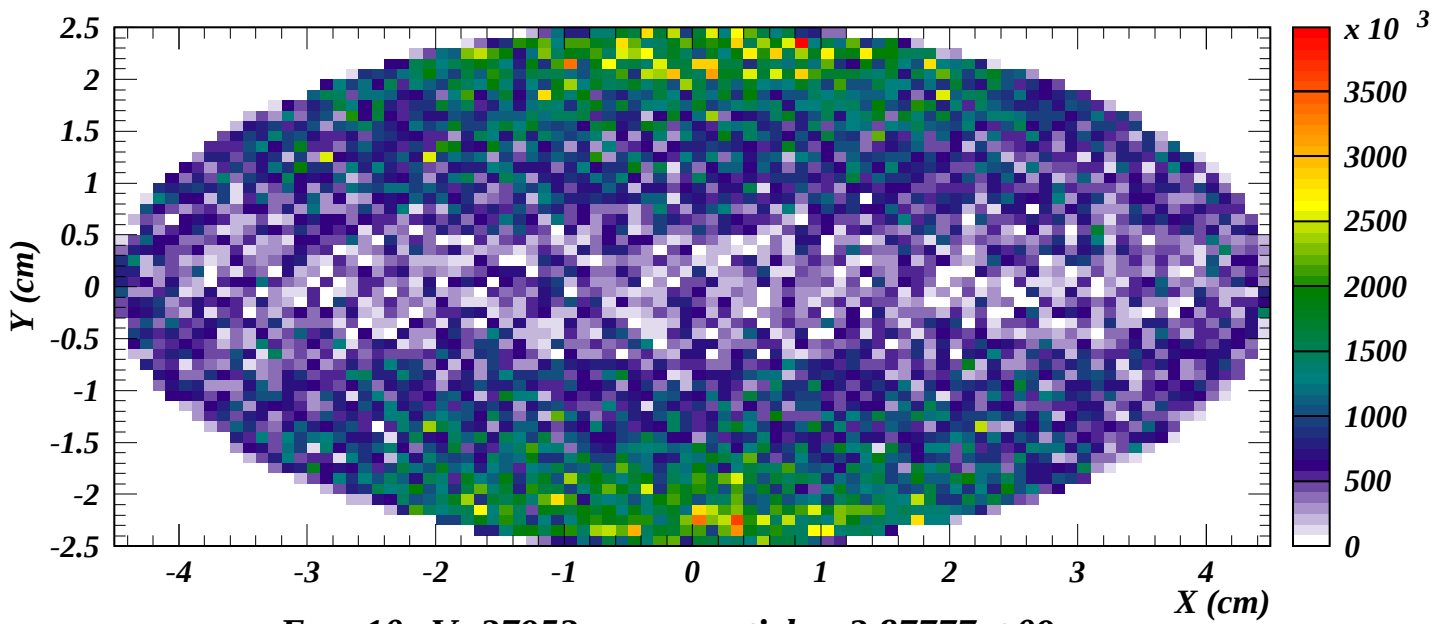


No energy cut: 197442 macroparticles, $7.66537e+09 \text{ e-}$

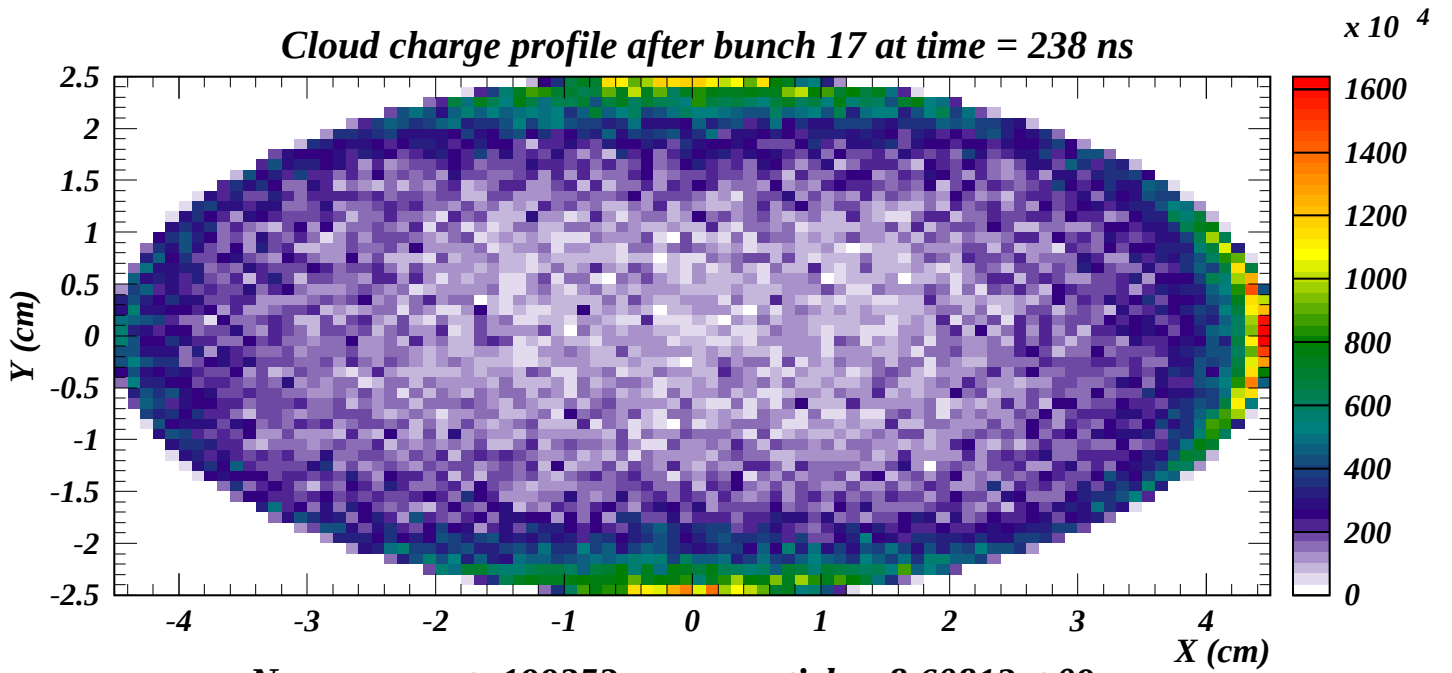


$E_{\text{kin}} > 10 \text{ eV}$: 36000 macroparticles, $2.57948e+09 \text{ e-}$

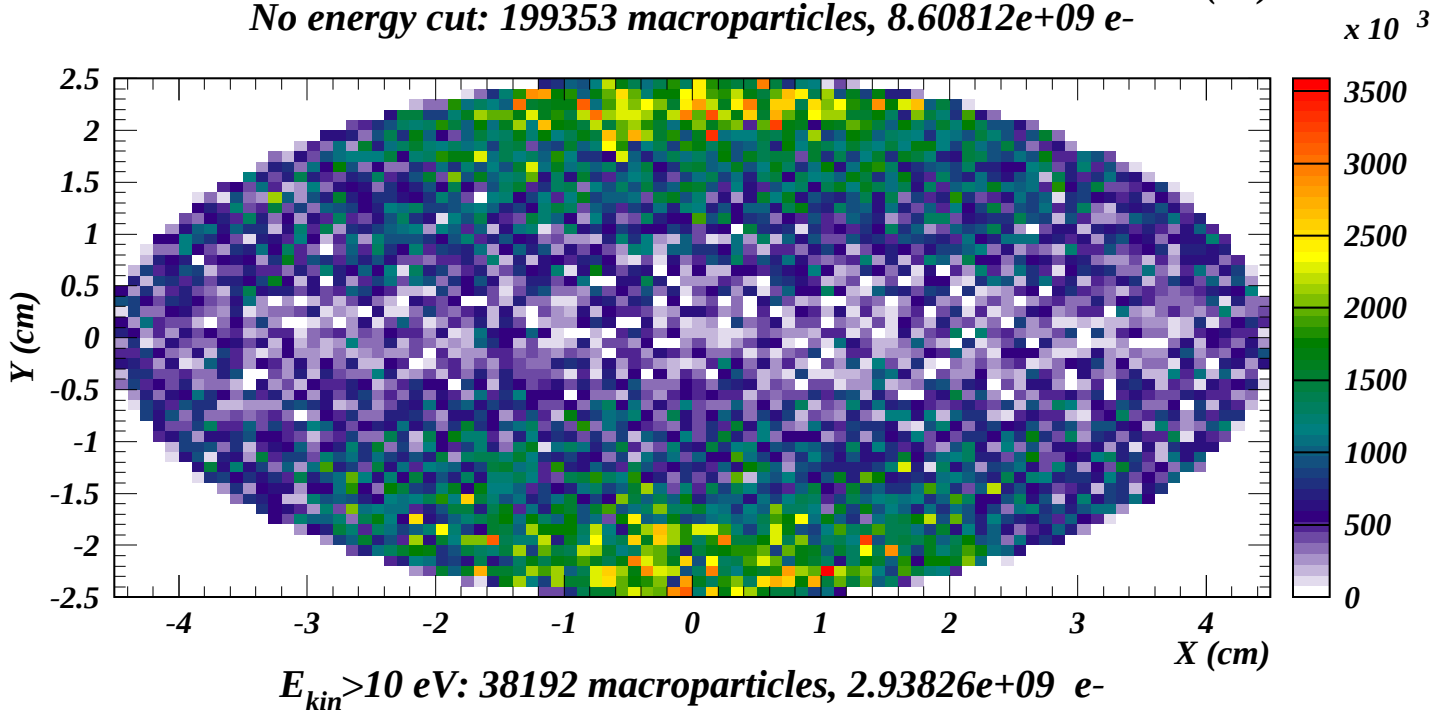
Cloud charge profile after bunch 13 at time = 182 ns*No energy cut: 195683 macroparticles, $8.14384e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 37162 macroparticles, $2.77787e+09 \text{ e-}$*

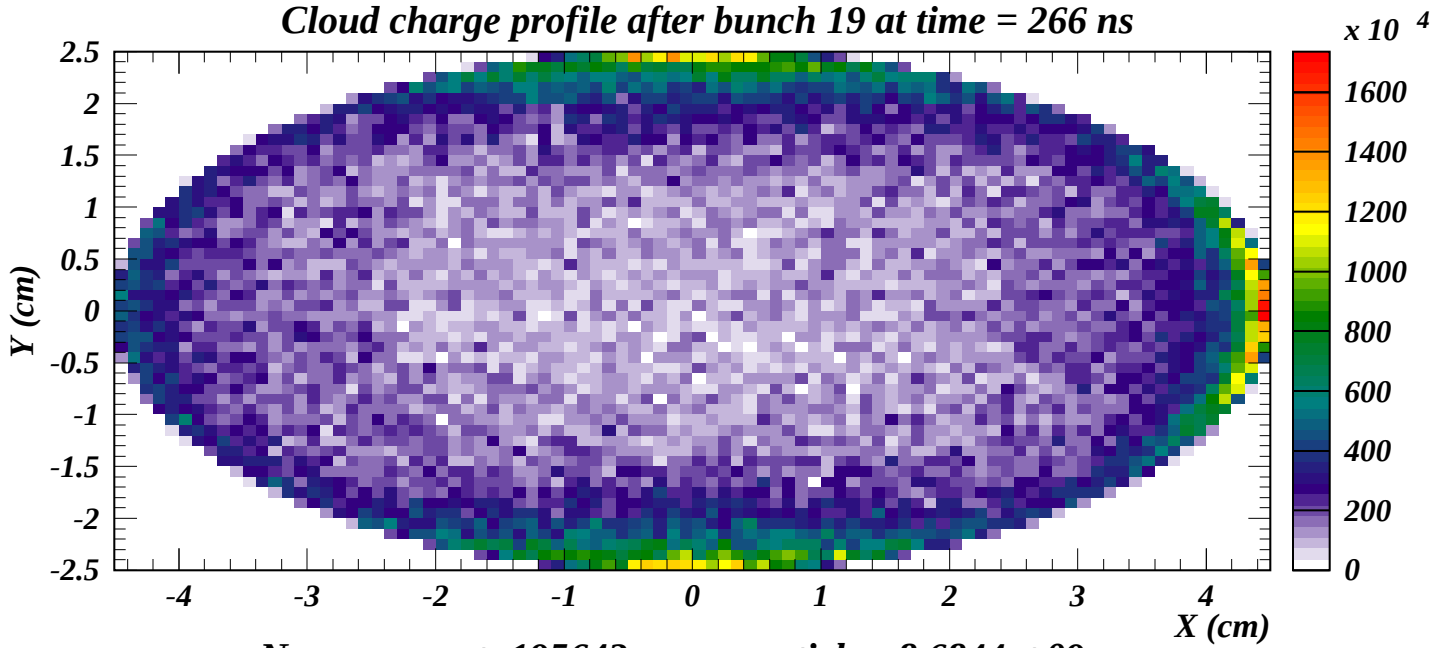
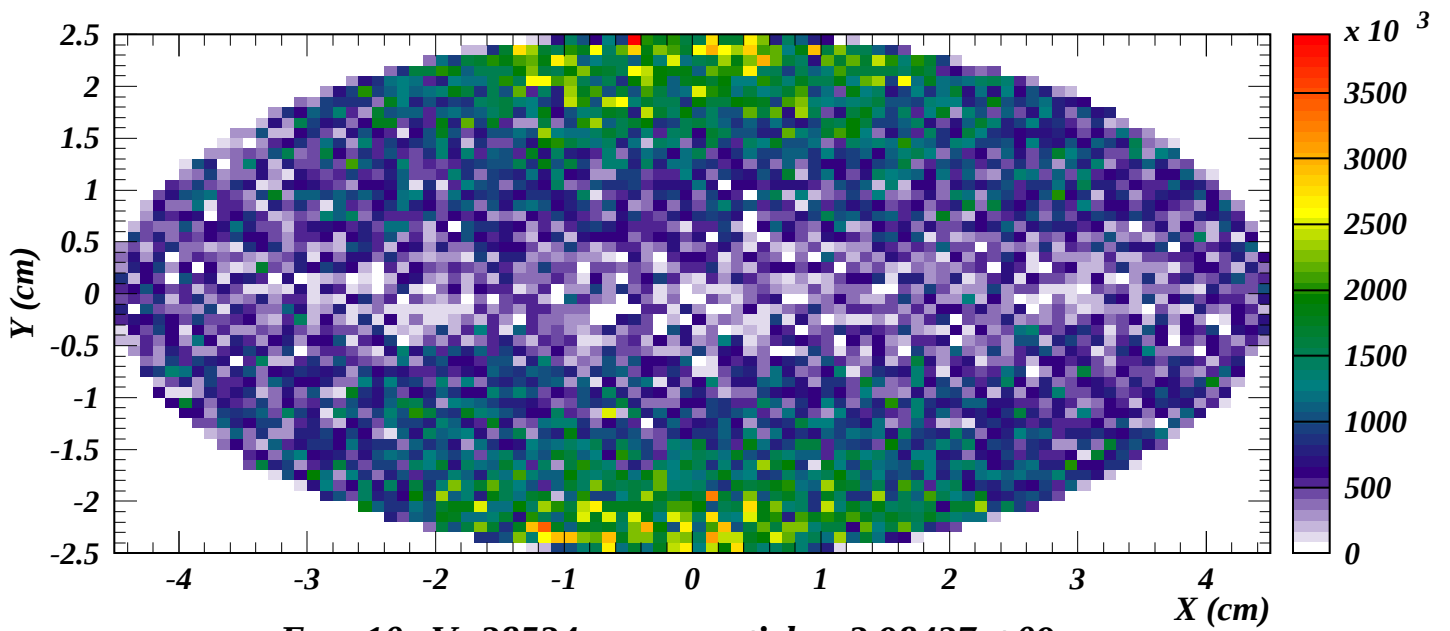
Cloud charge profile after bunch 15 at time = 210 ns*No energy cut: 199172 macroparticles, $8.42115e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 37953 macroparticles, $2.87777e+09 \text{ e-}$*

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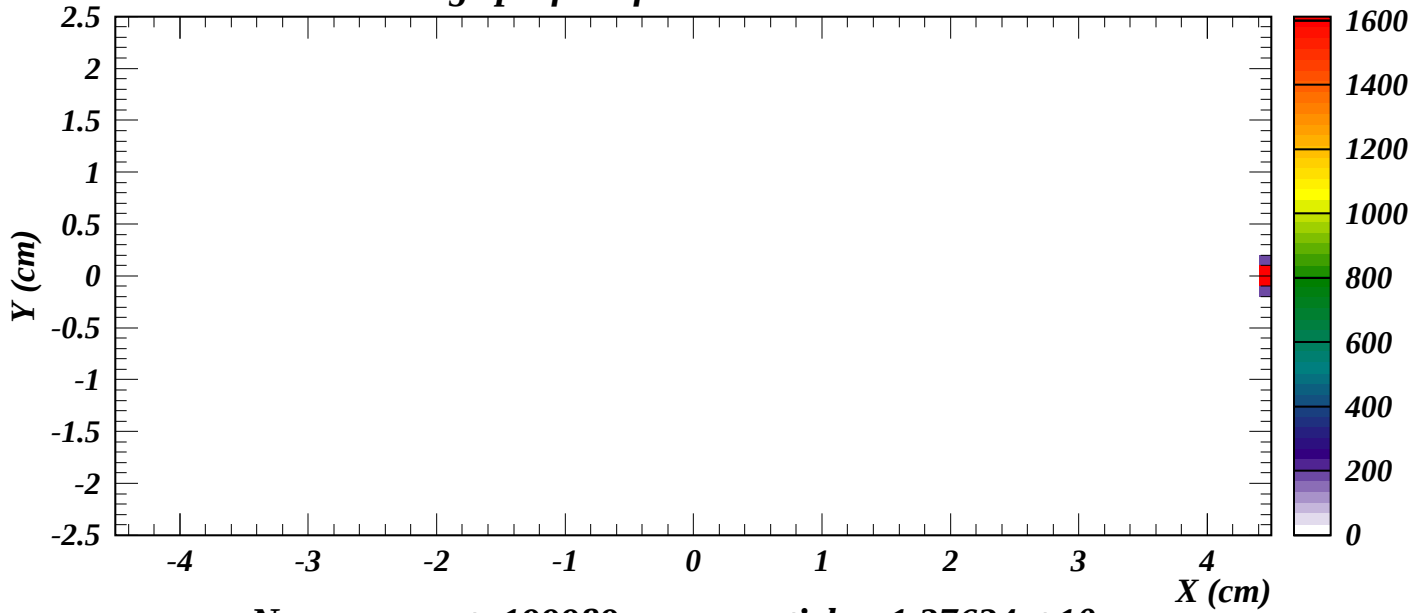
No energy cut: 199353 macroparticles, $8.60812e+09 e^-$



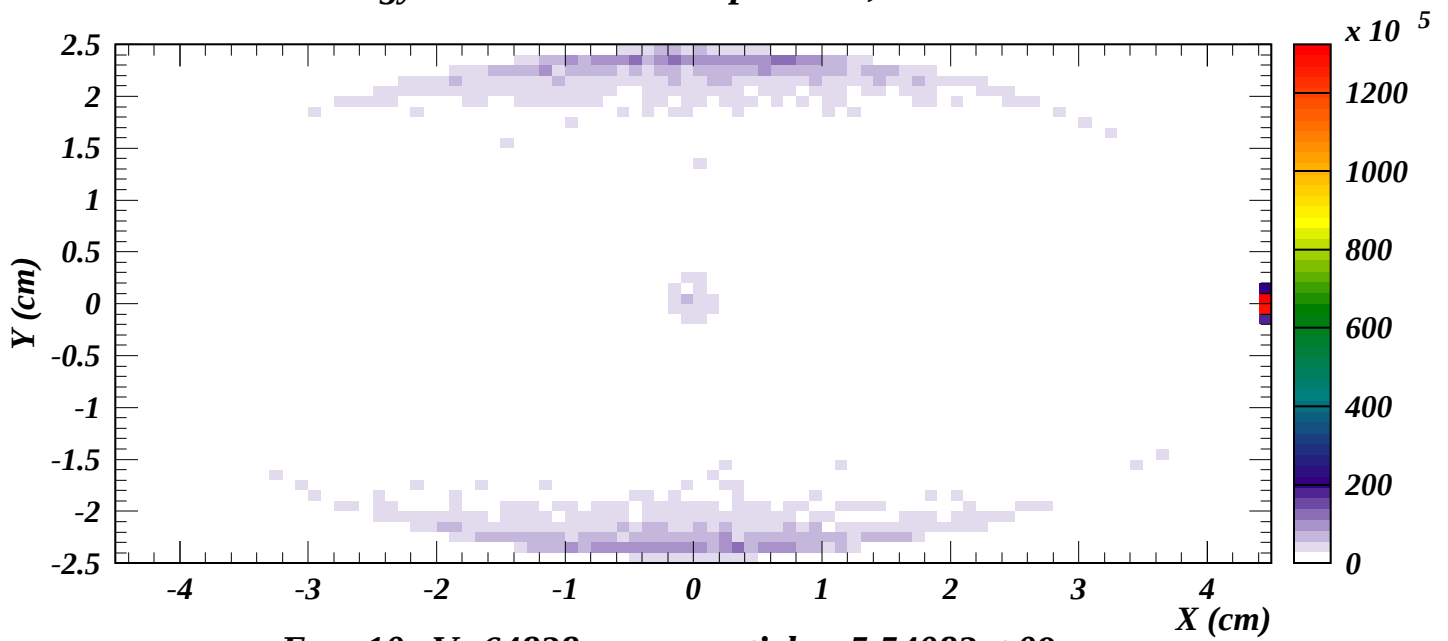
Cloud charge profile after bunch 19 at time = 266 ns*No energy cut: 195642 macroparticles, $8.6844e+09$ e-* *$E_{kin} > 10$ eV: 38534 macroparticles, $2.98427e+09$ e-*

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 $\times 10^6$

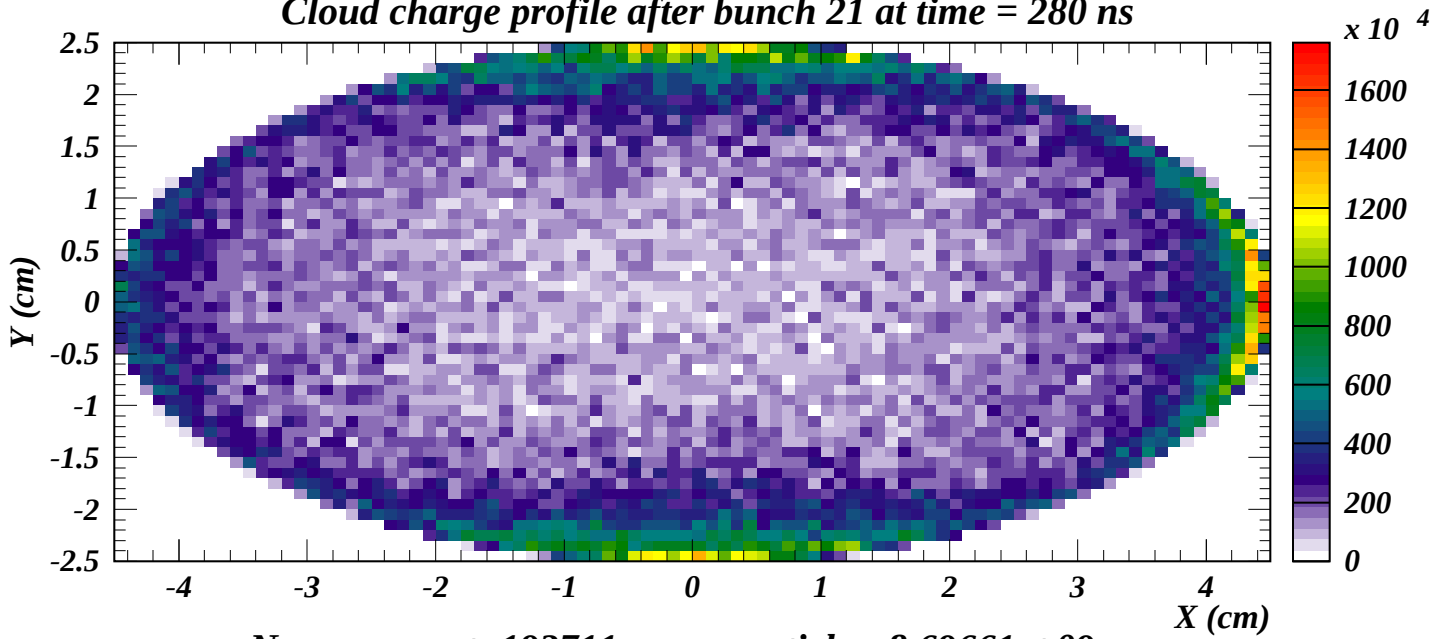
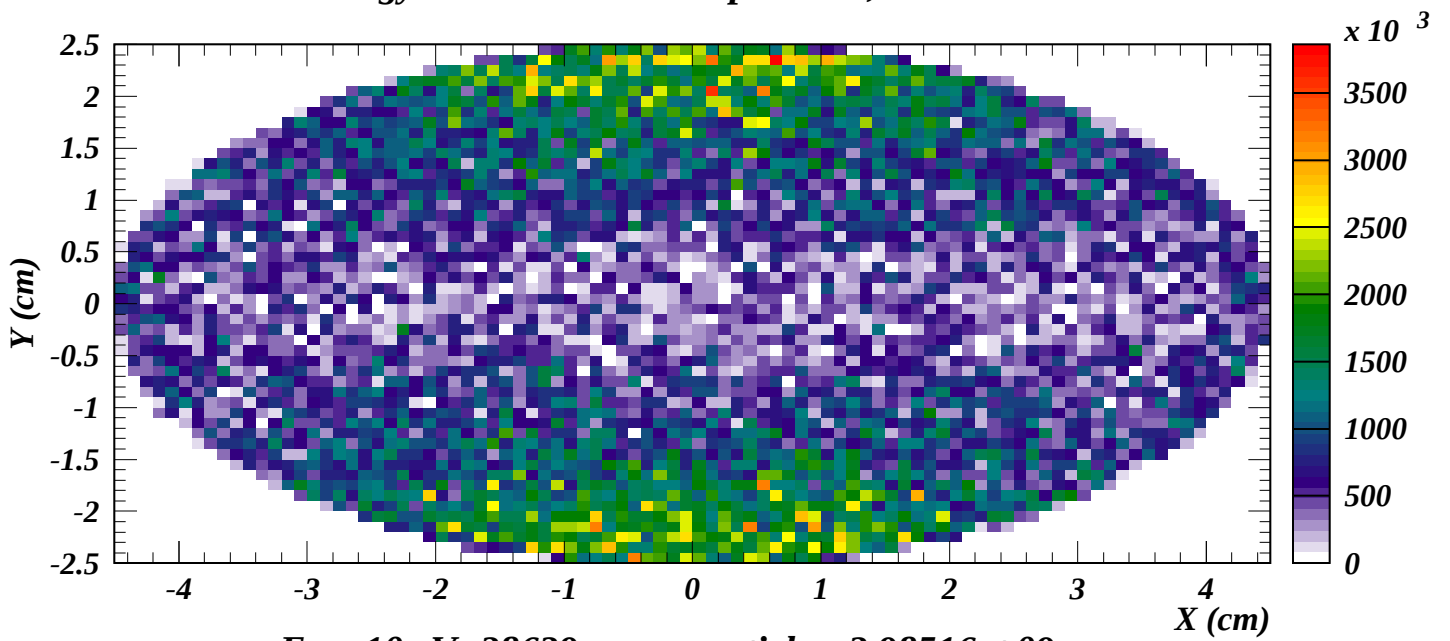
Cloud charge profile after bunch 20 at time = 266.4 ns

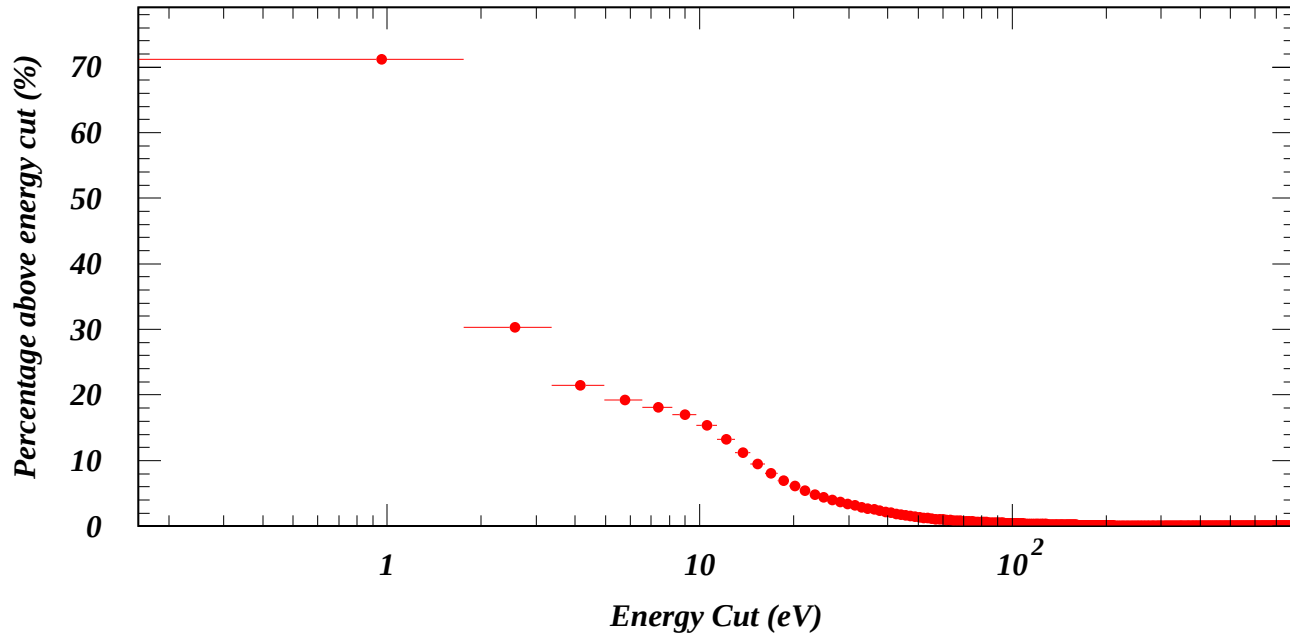
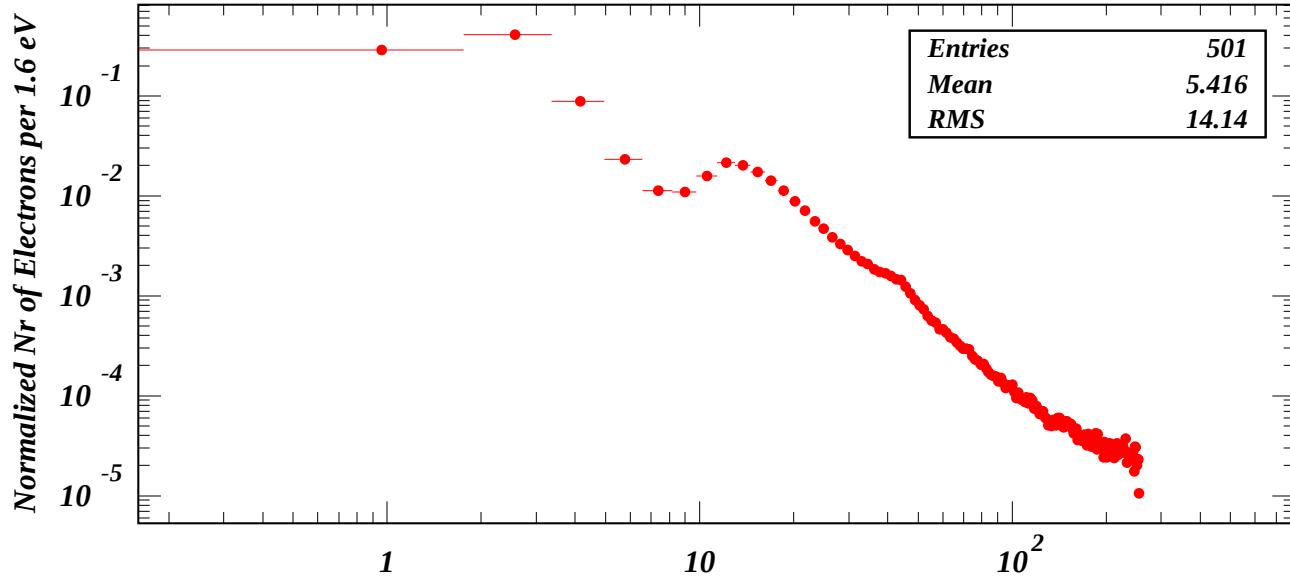


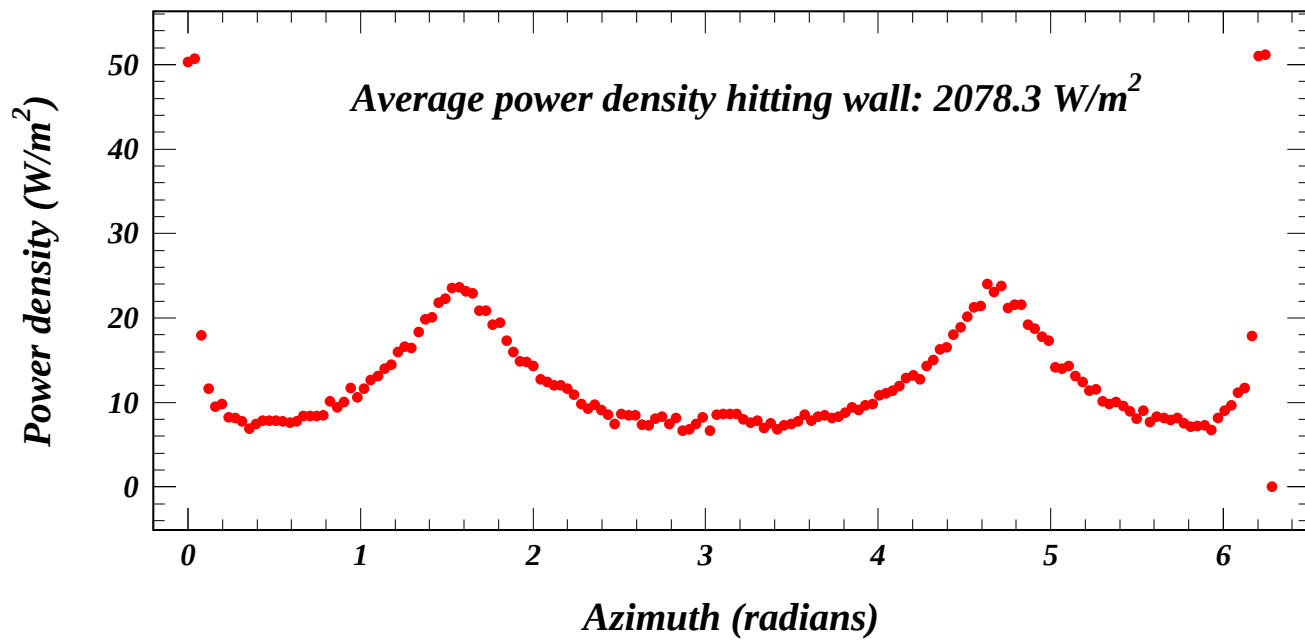
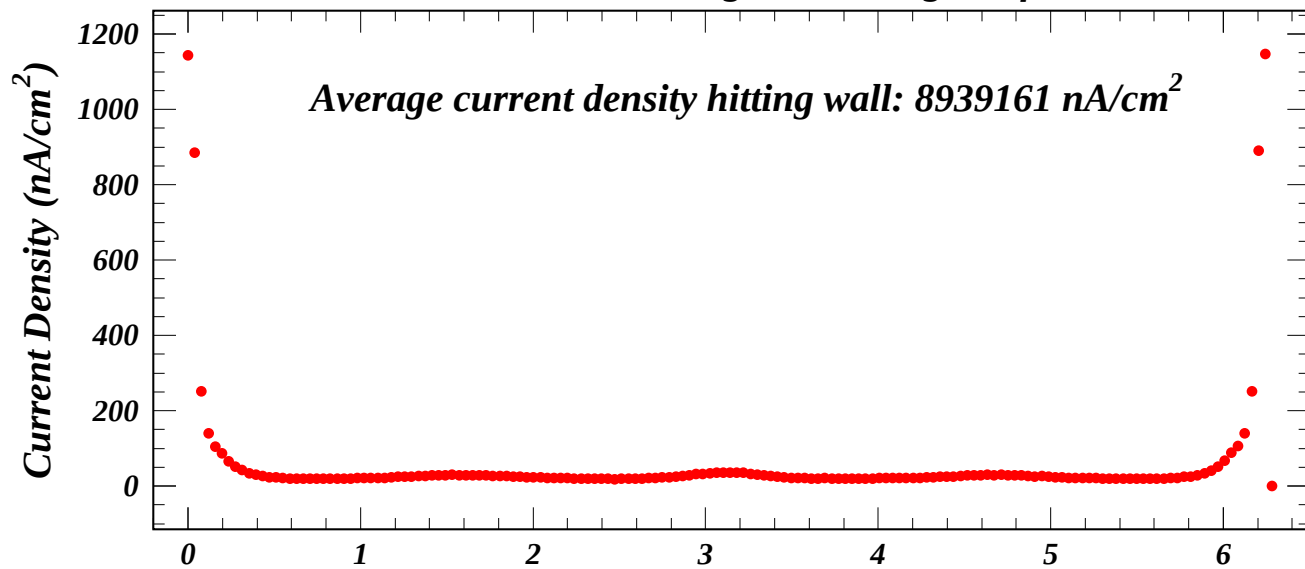
No energy cut: 199989 macroparticles, $1.27624e+10$ e-

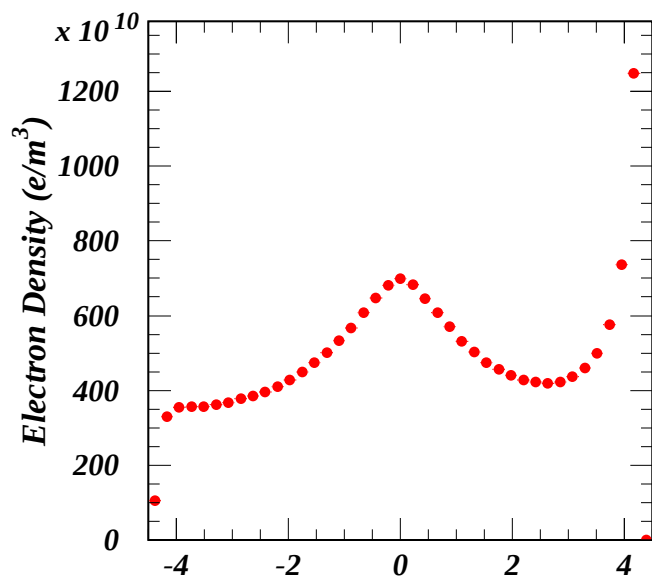
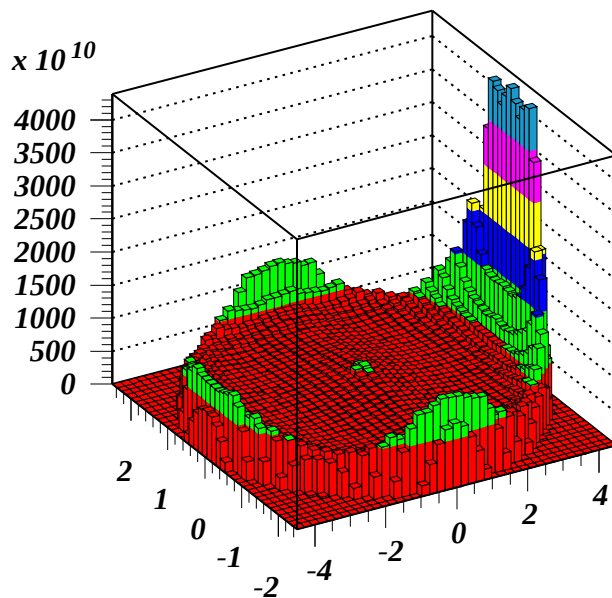
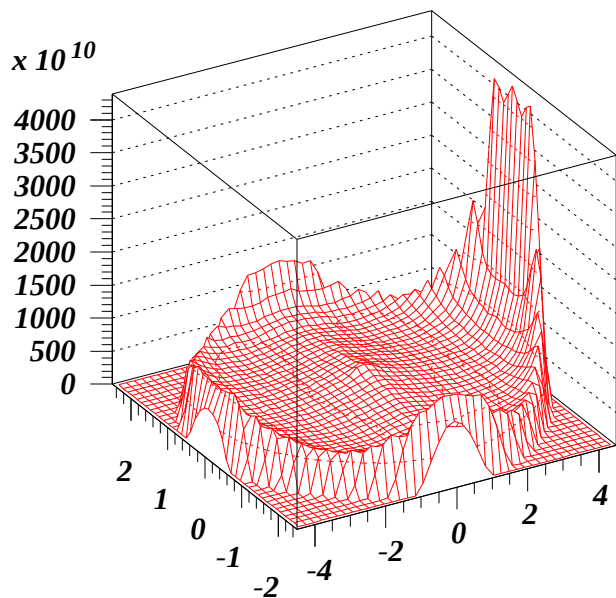
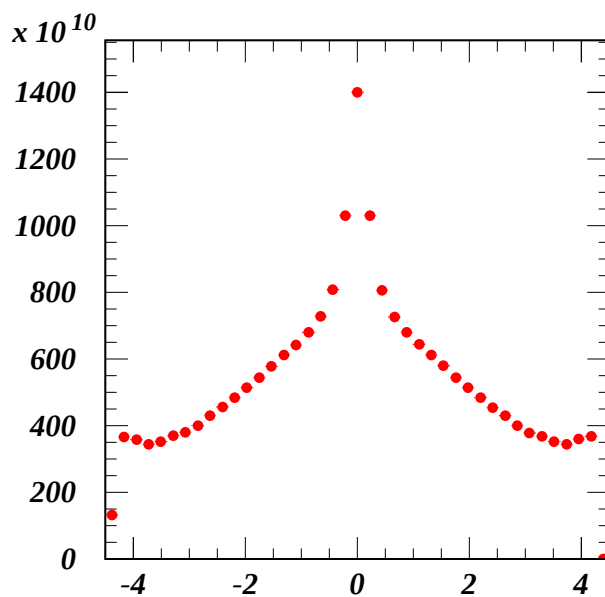


$E_{kin} > 10$ eV: 64828 macroparticles, $5.54082e+09$ e-

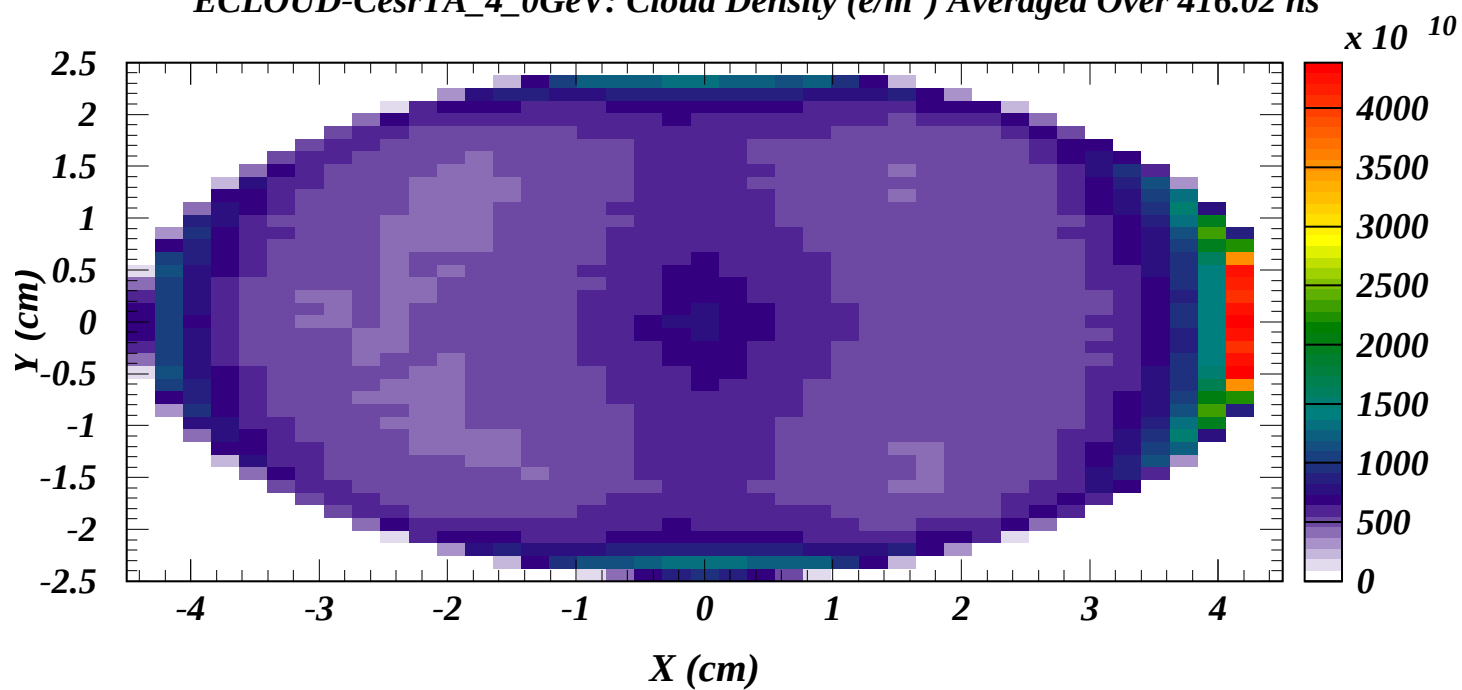
Cloud charge profile after bunch 21 at time = 280 ns*No energy cut: 193711 macroparticles, $8.69661e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 38639 macroparticles, $2.98516e+09 \text{ e-}$*

ECLLOUD-CesrTA_4_0GeV: Time-Integrated Energies of Electrons Hitting Wall

ECLLOUD-CesrTA_4_0GeV: Time-Integrated Energies of Electrons Hitting Wall

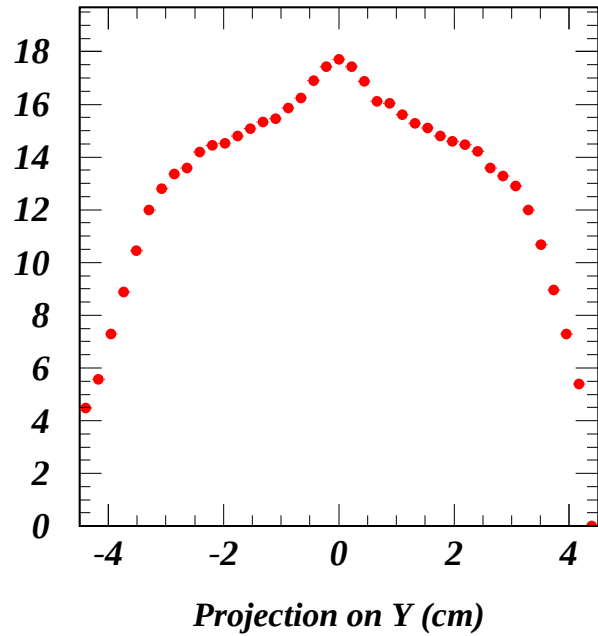
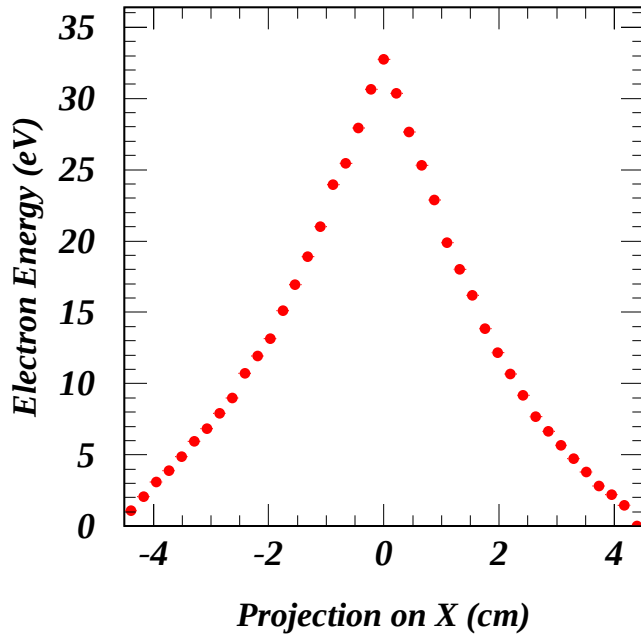
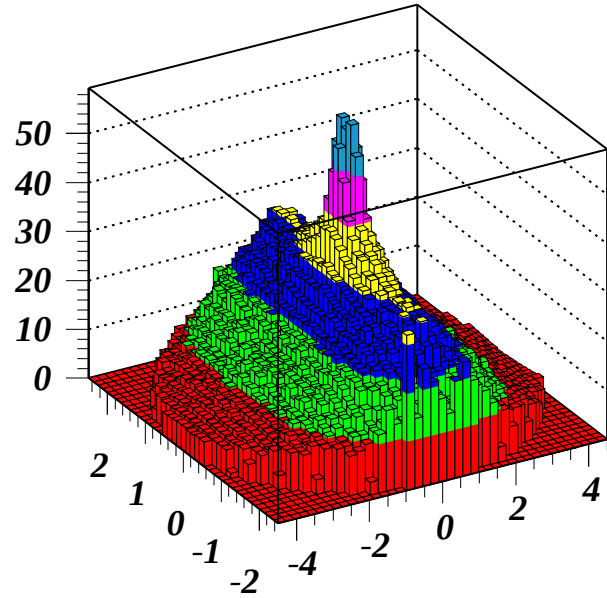
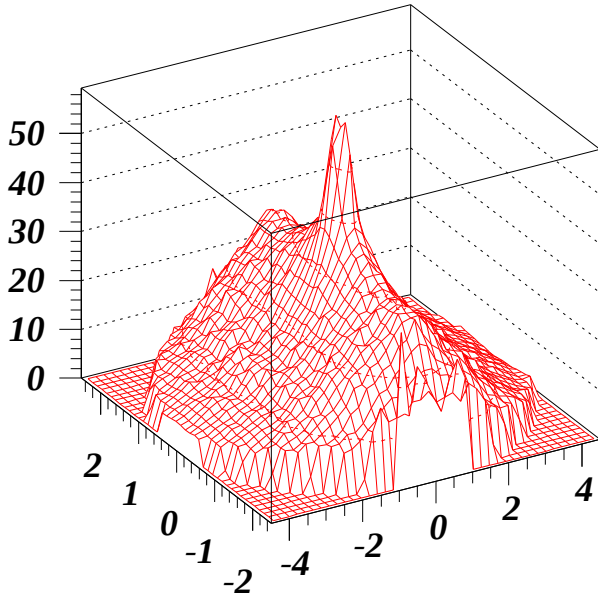
ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 416.02 ns**Projection on X (cm)****Projection on Y (cm)**

09/12/15 14.25
ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 416.02 ns

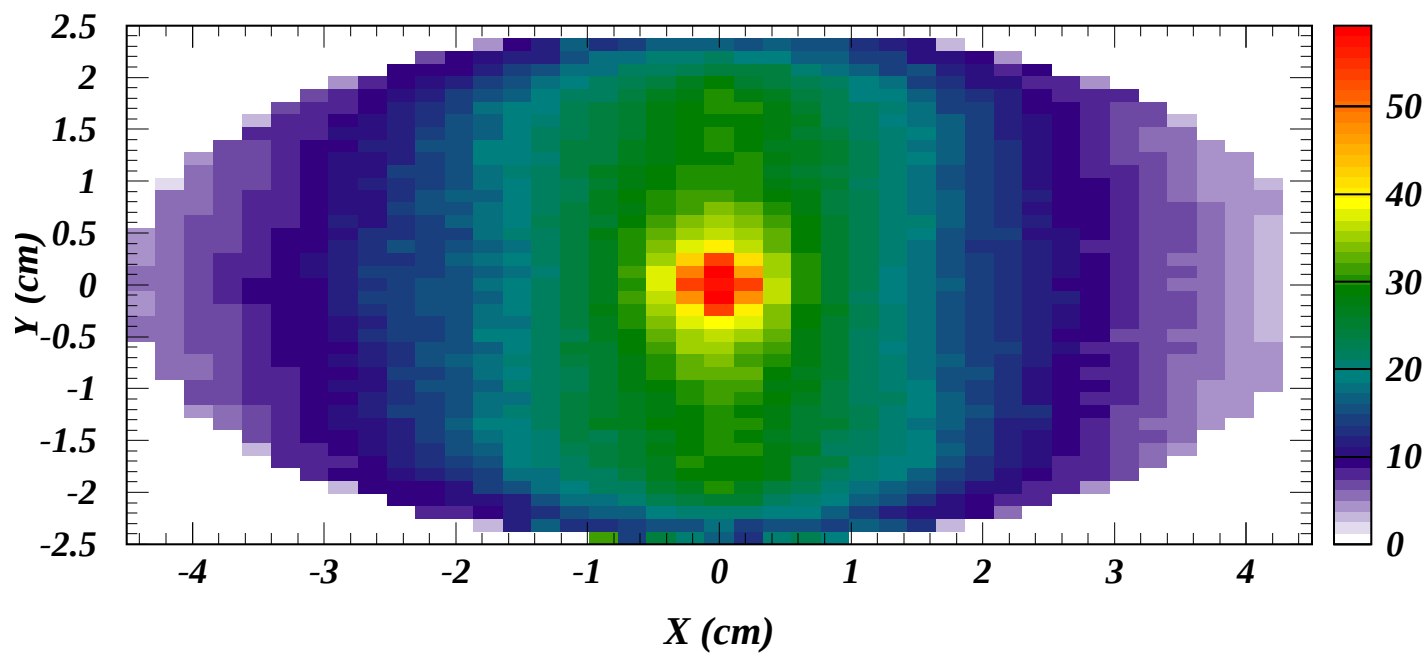


09/12/15 14.25

ECLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 416.02 ns



09/12/15 14.25
ECLLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 416.02 ns



CesrTA quadrupole 4 GeV - Simulated Chicane RFA Collector Currents (μA)