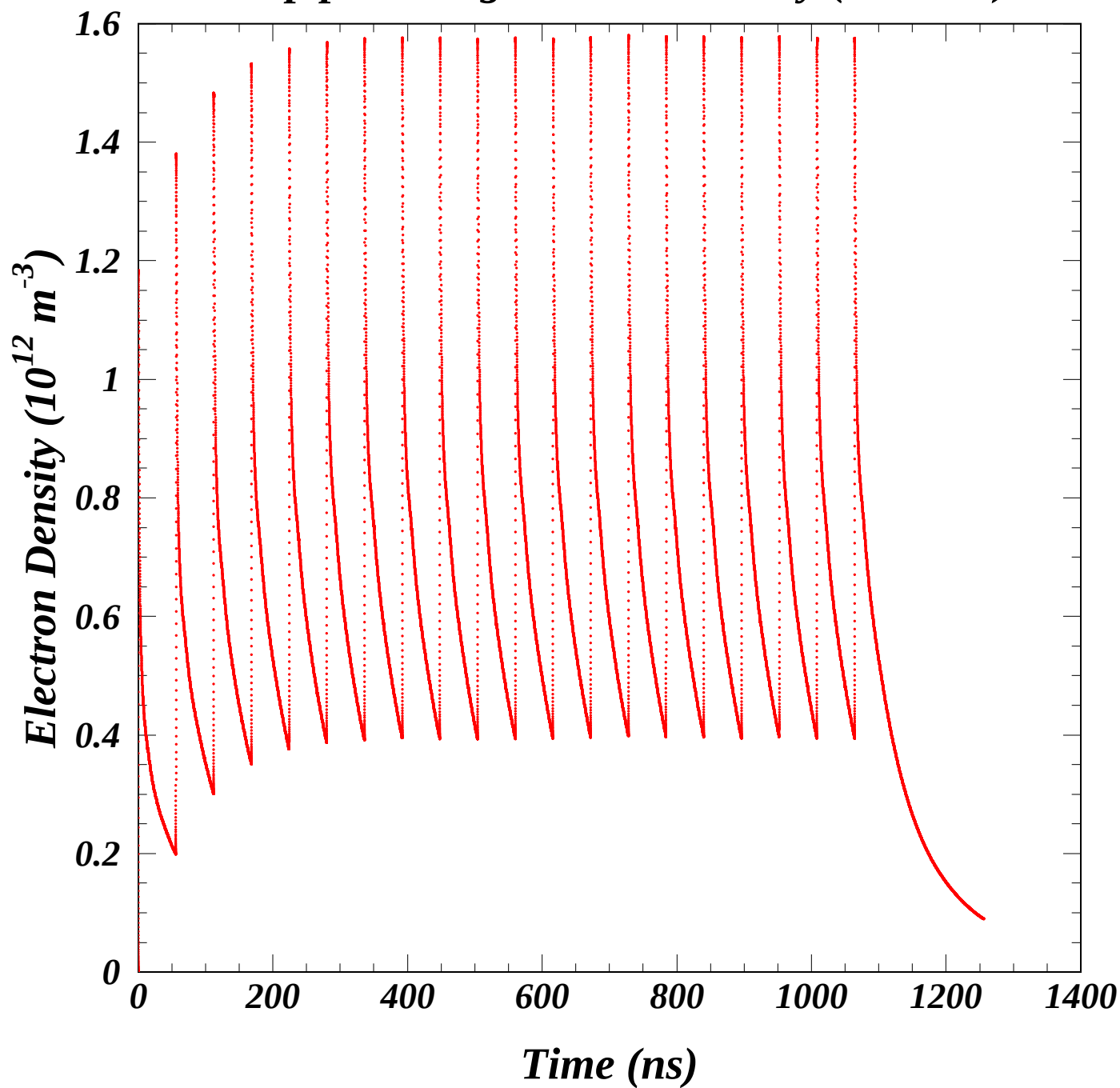
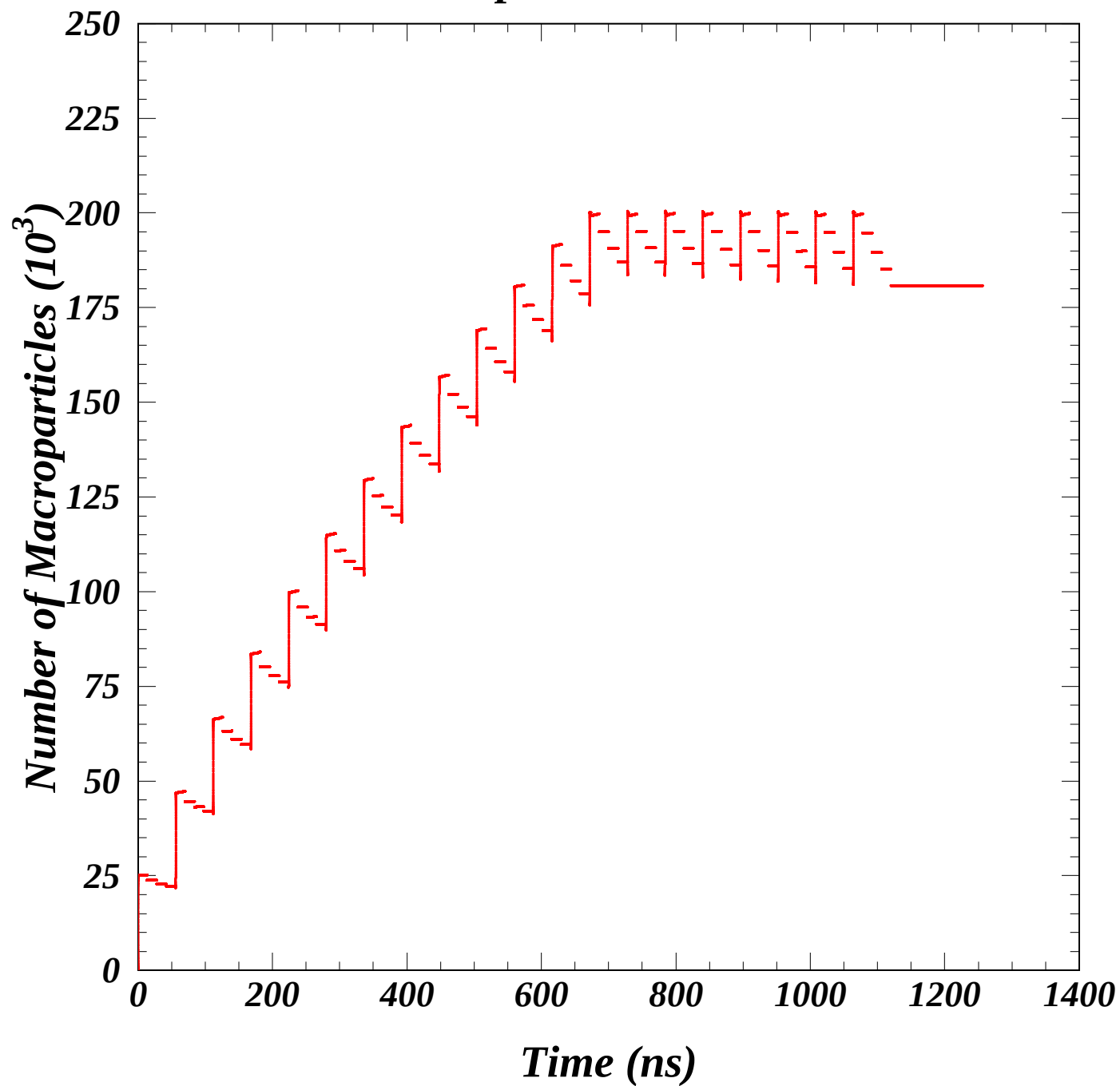
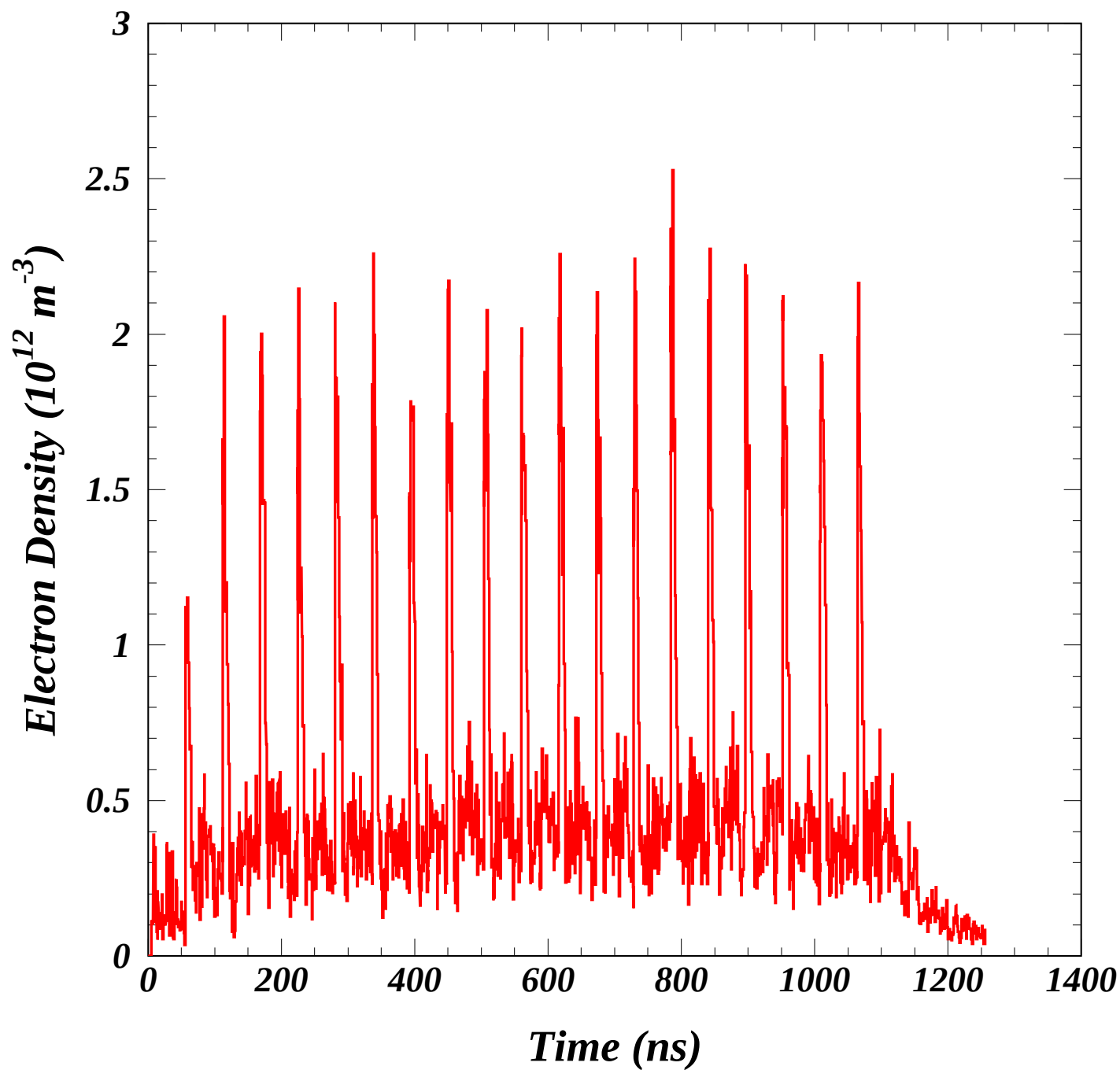


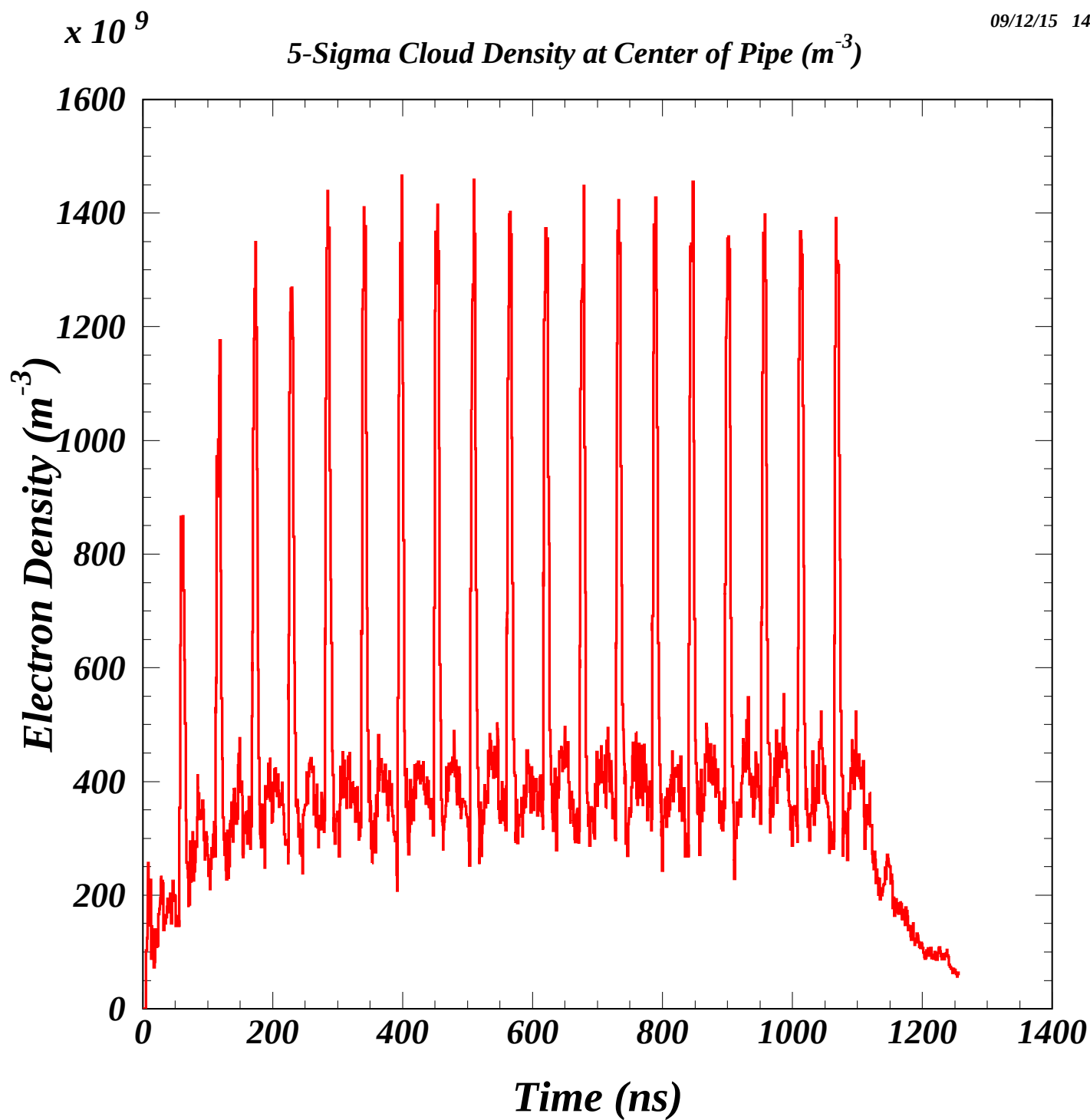
Beampipe-averaged Cloud Density (10^{12} m^{-3})

Macroparticle Statistics

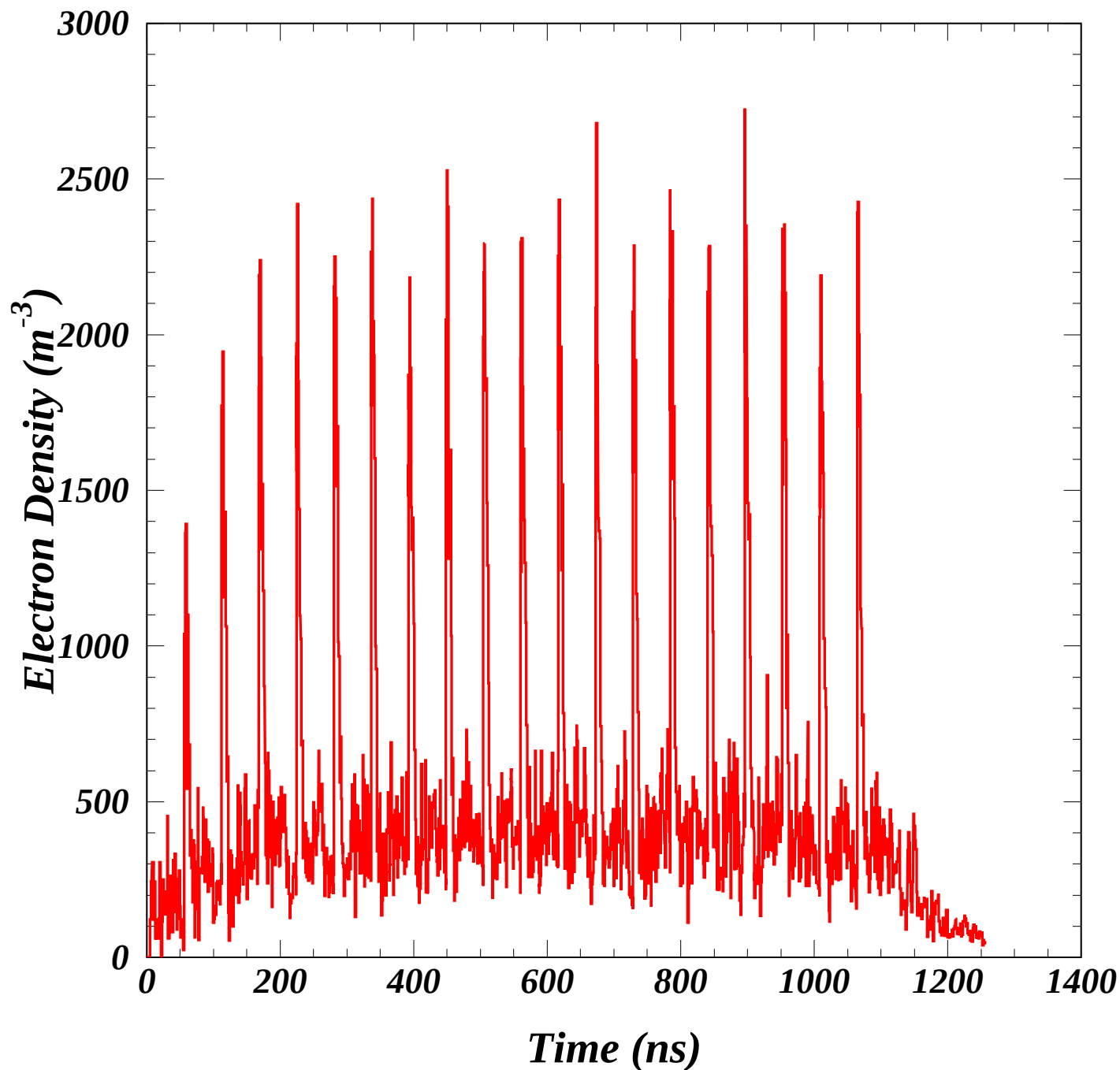


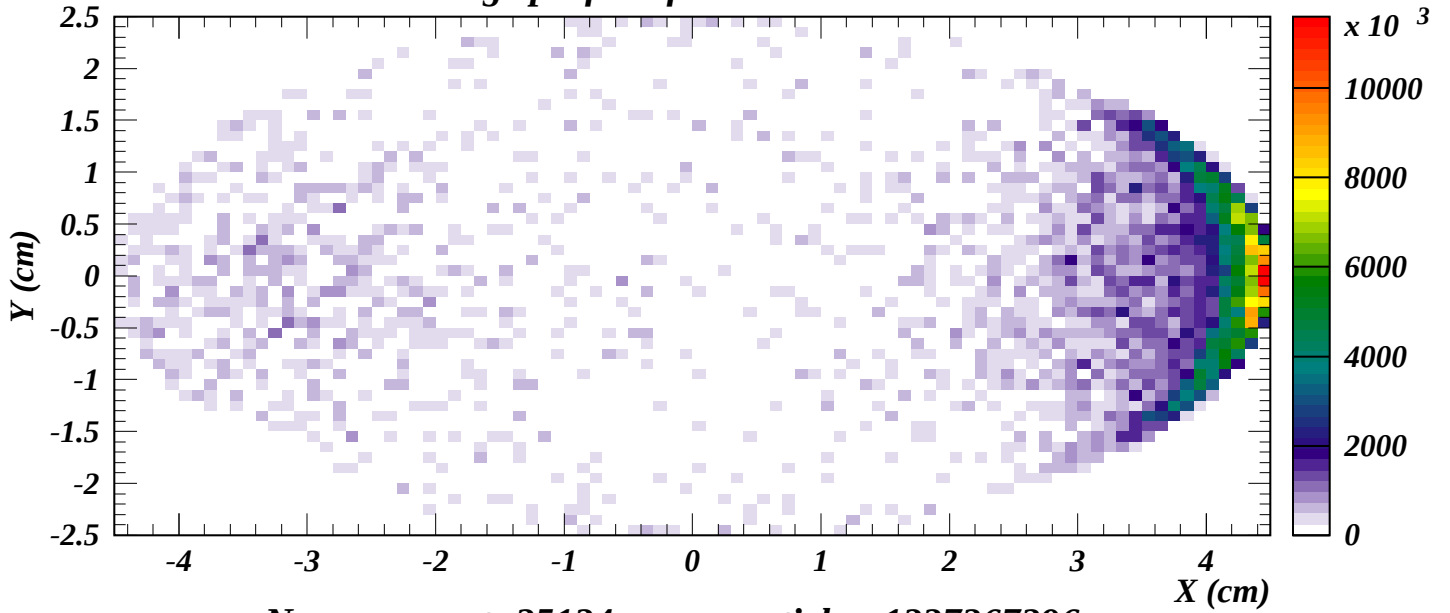
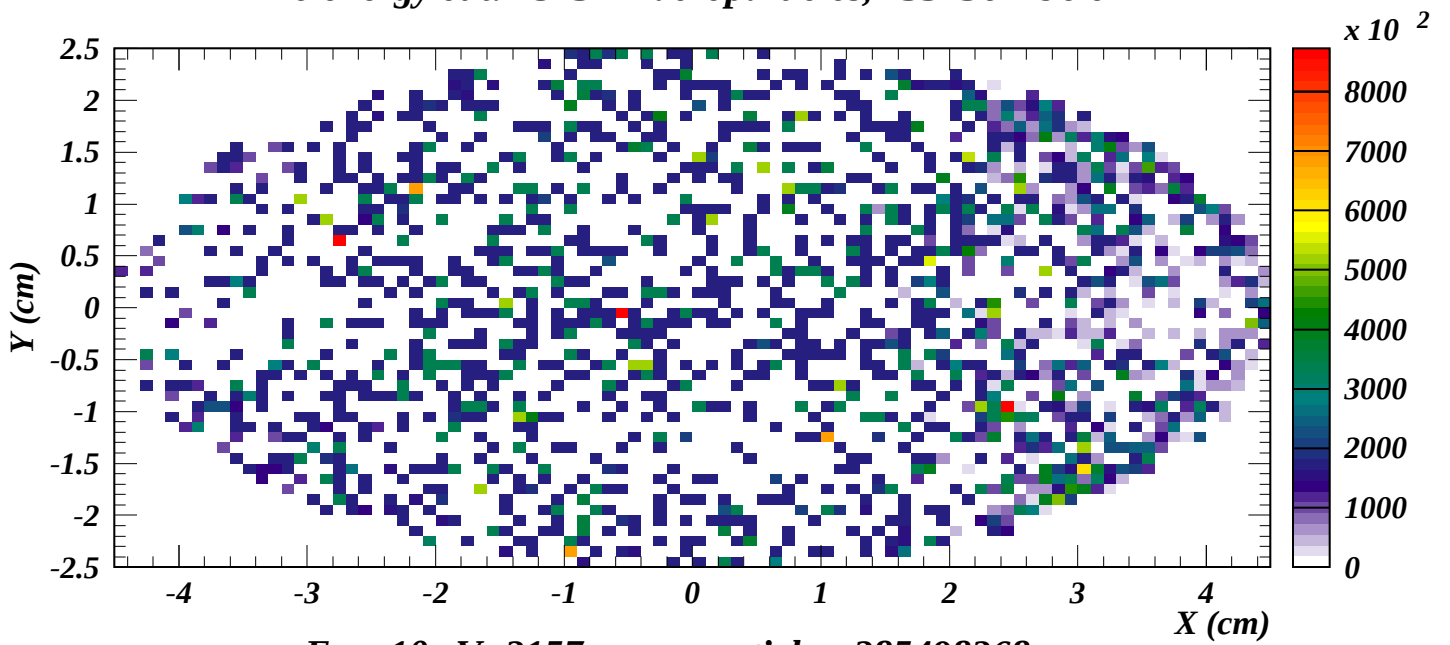
Beam-averaged Cloud Density (10^{12} m^{-3})



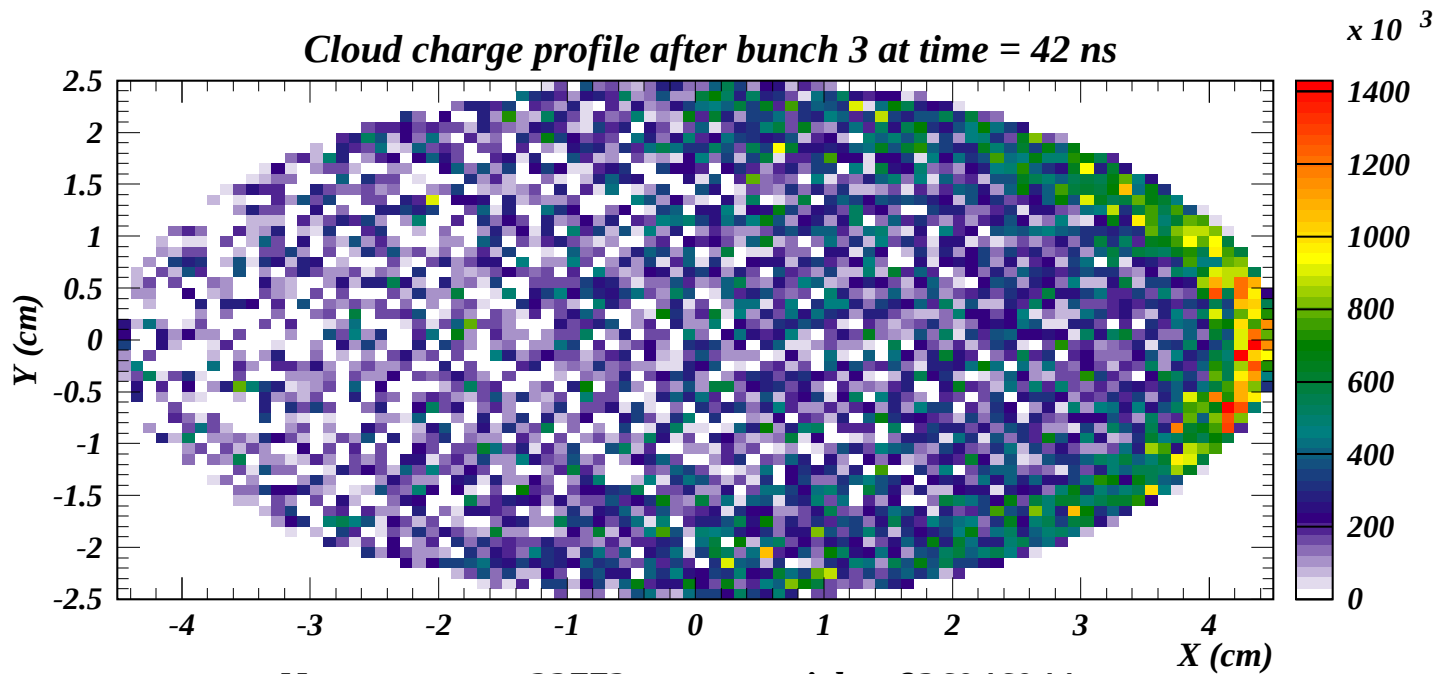
5-Sigma Cloud Density at Center of Pipe (m^{-3})

$\times 10^9$ 09/12/15 14.33
ECLOUD-CesrTA_4_0GeV: Cloud Density in Central Grid Cell (m^{-3})

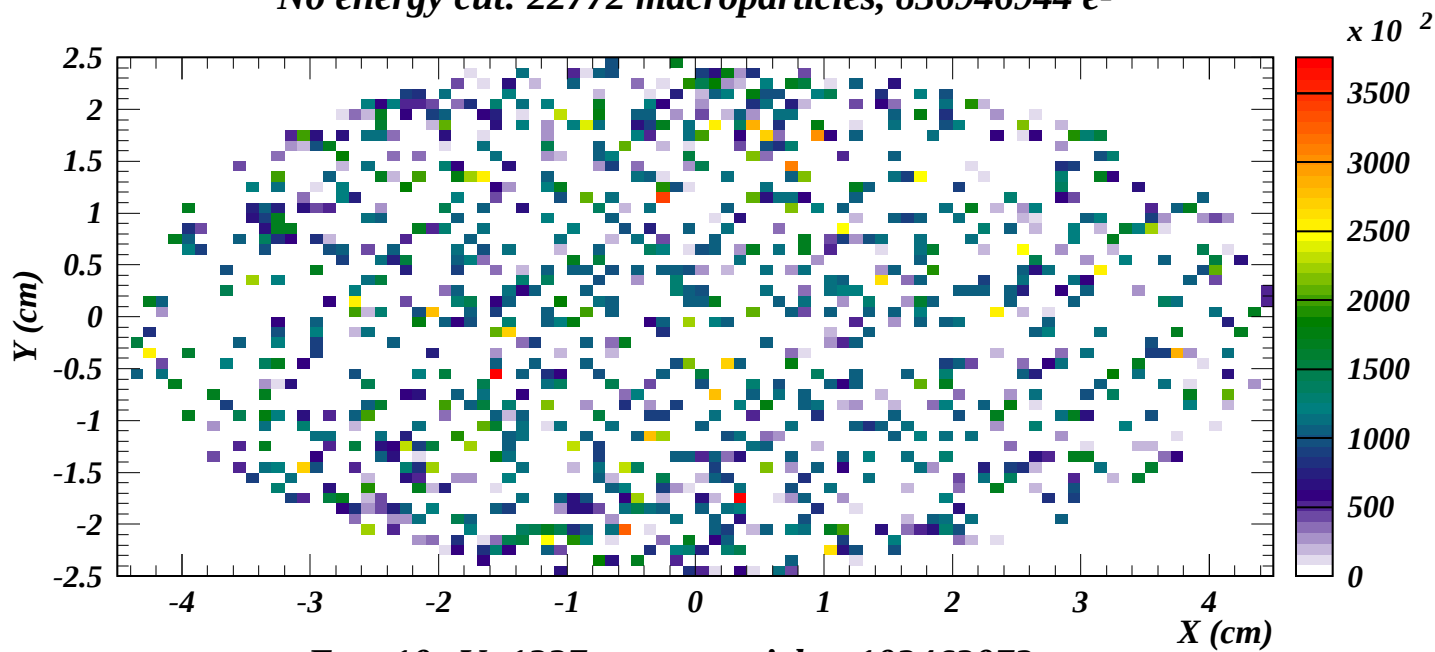


Cloud charge profile after bunch 1 at time = 14 ns*No energy cut: 25134 macroparticles, 1337367296 e-* *$E_{kin} > 10$ eV: 2157 macroparticles, 285498368 e-*

09/12/15 14.34



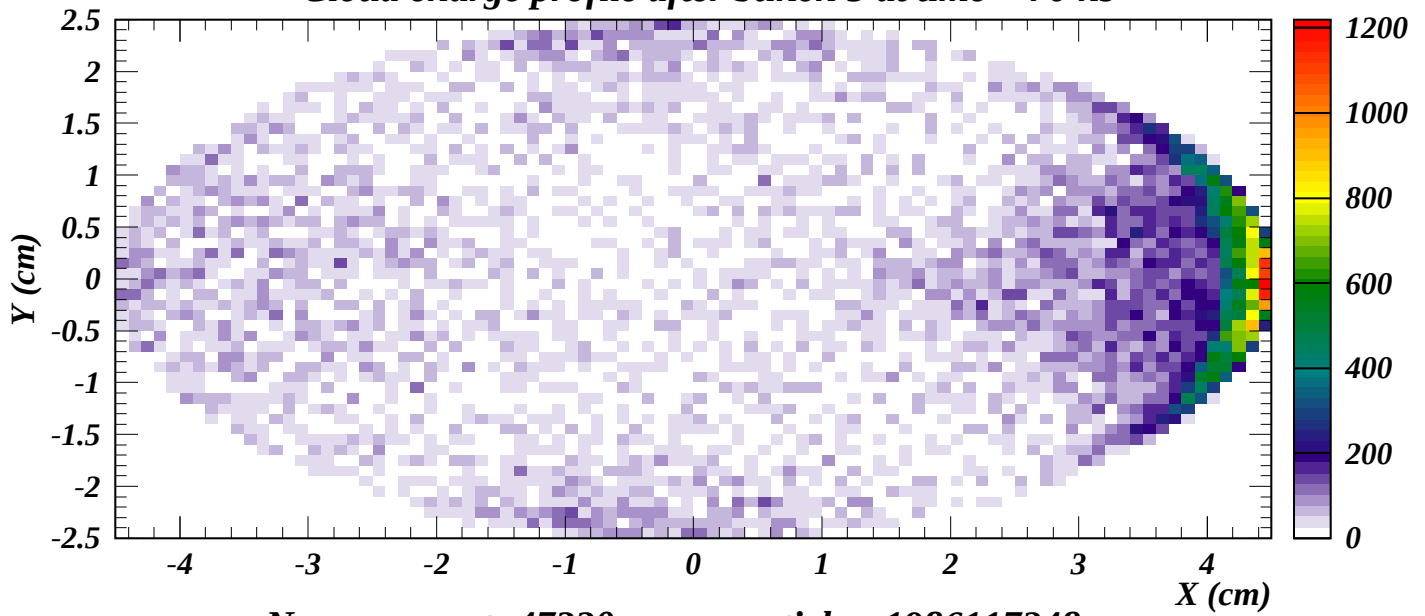
No energy cut: 22772 macroparticles, 836946944 e-



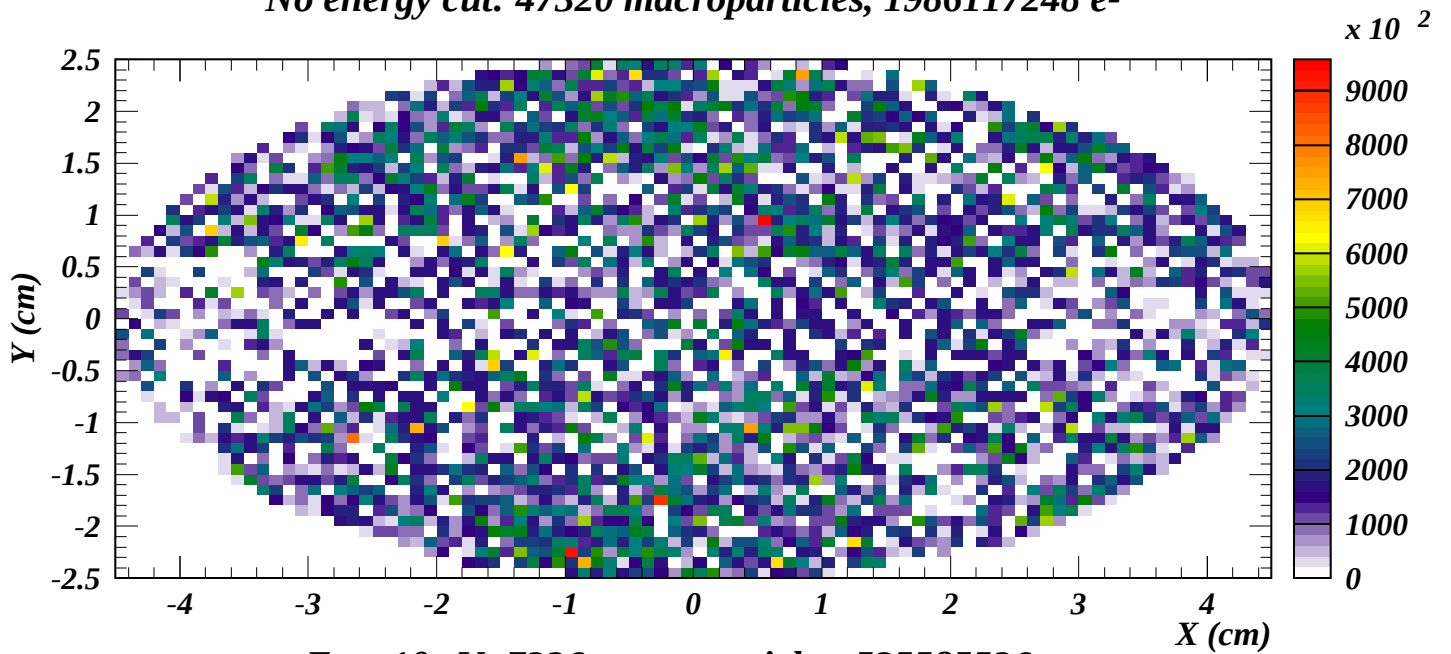
$E_{\text{kin}} > 10$ eV: 1337 macroparticles, 102463072 e-

09/12/15 14.34
 $\times 10^{-4}$

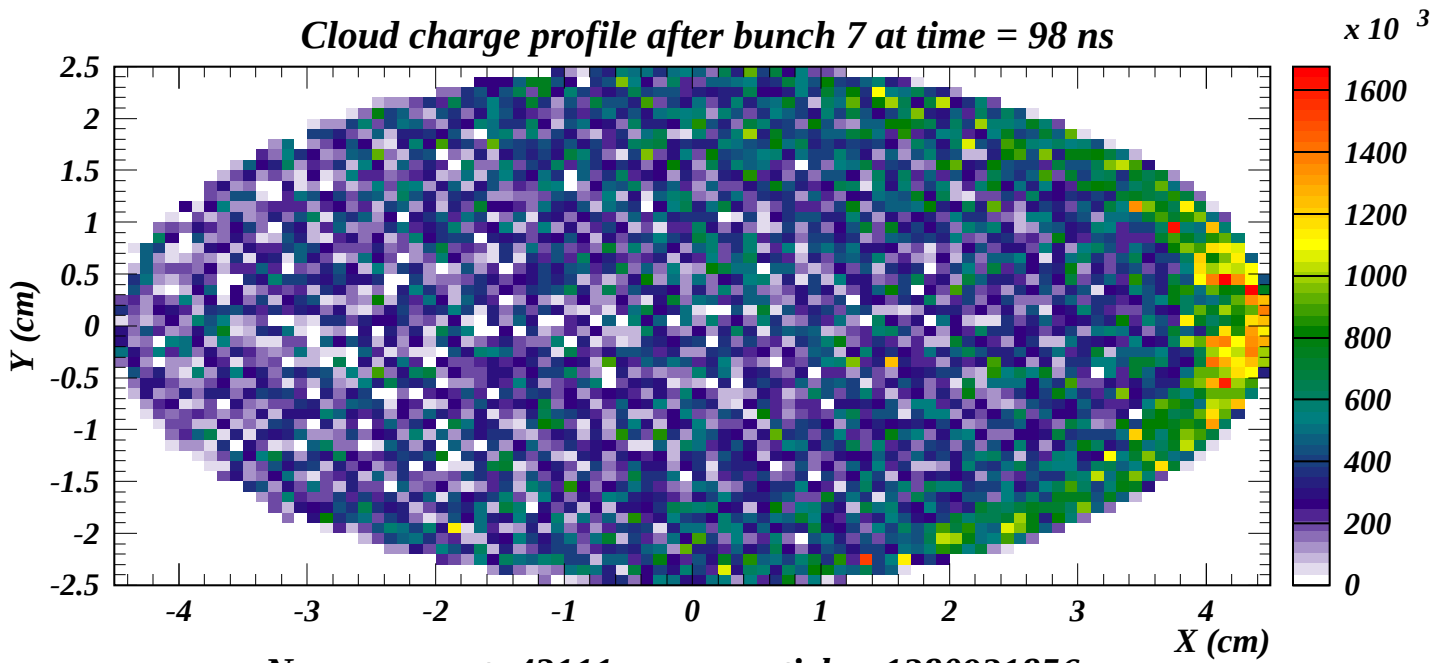
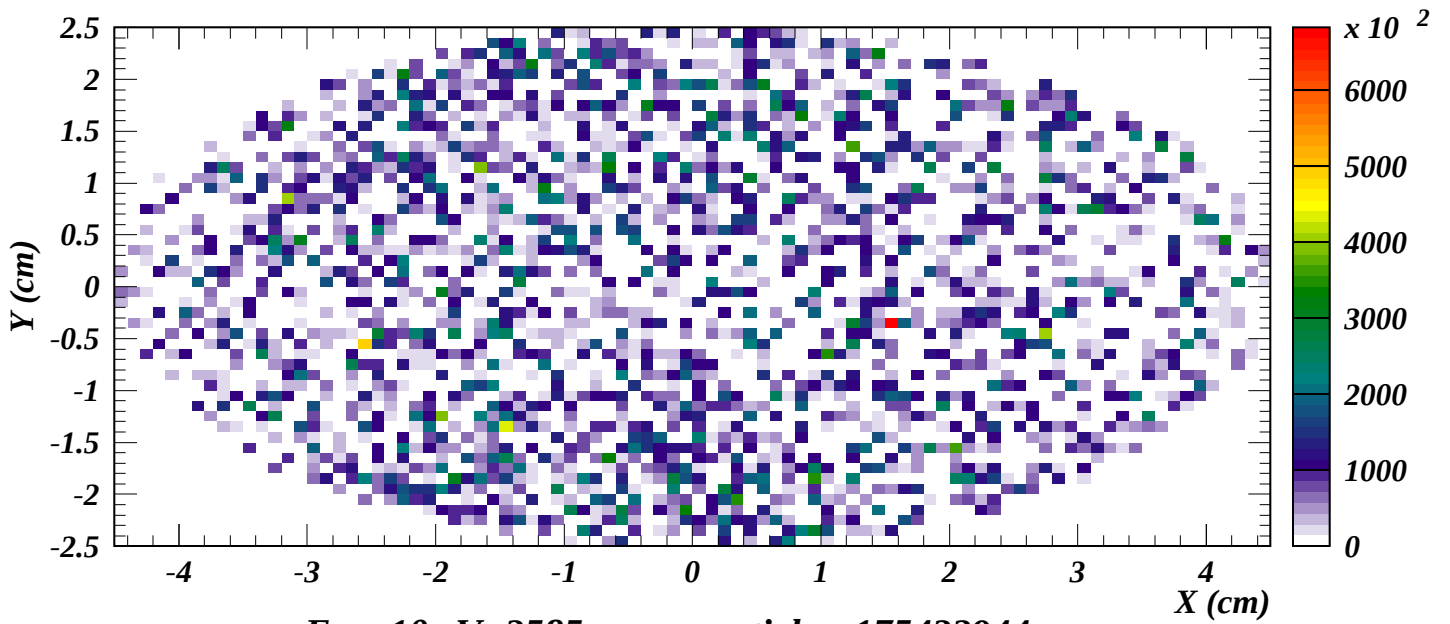
Cloud charge profile after bunch 5 at time = 70 ns

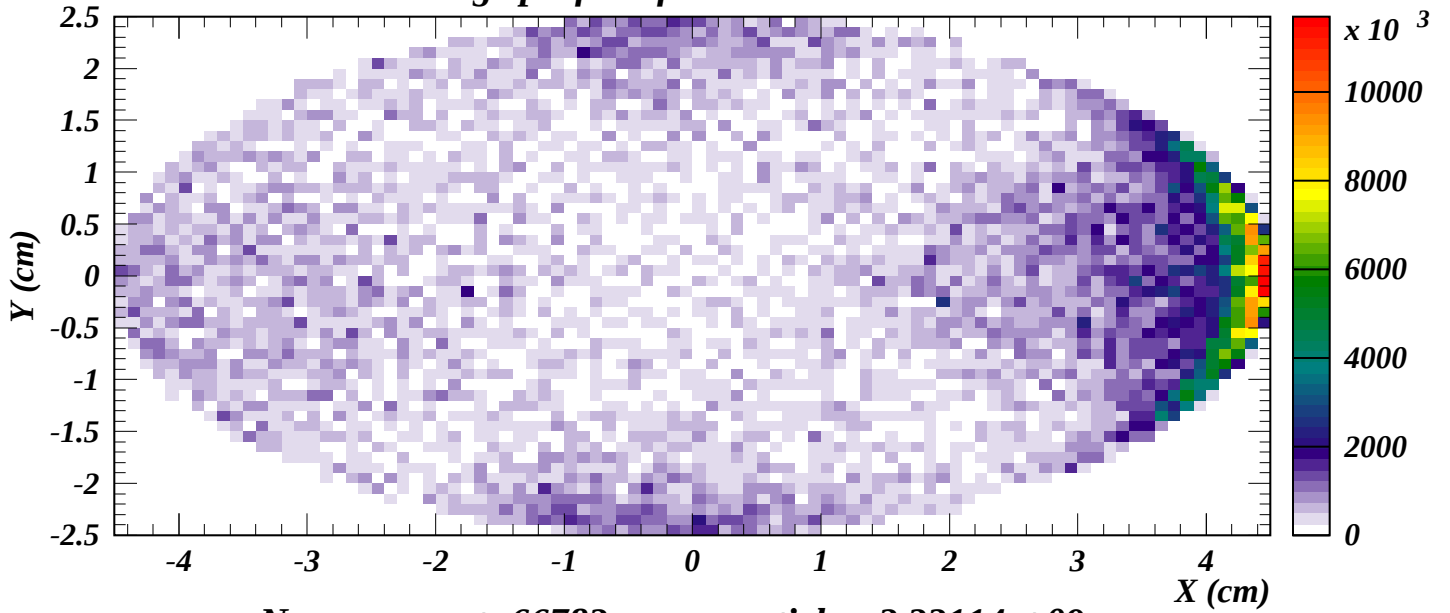
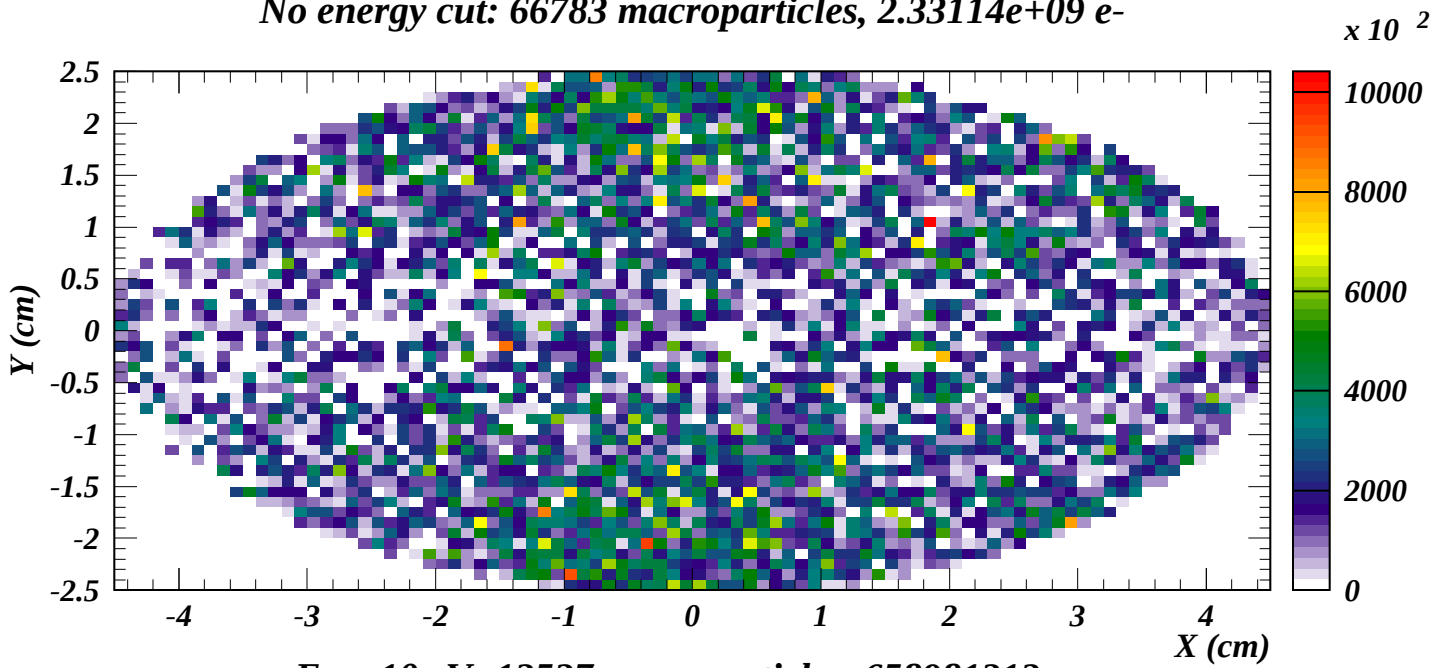


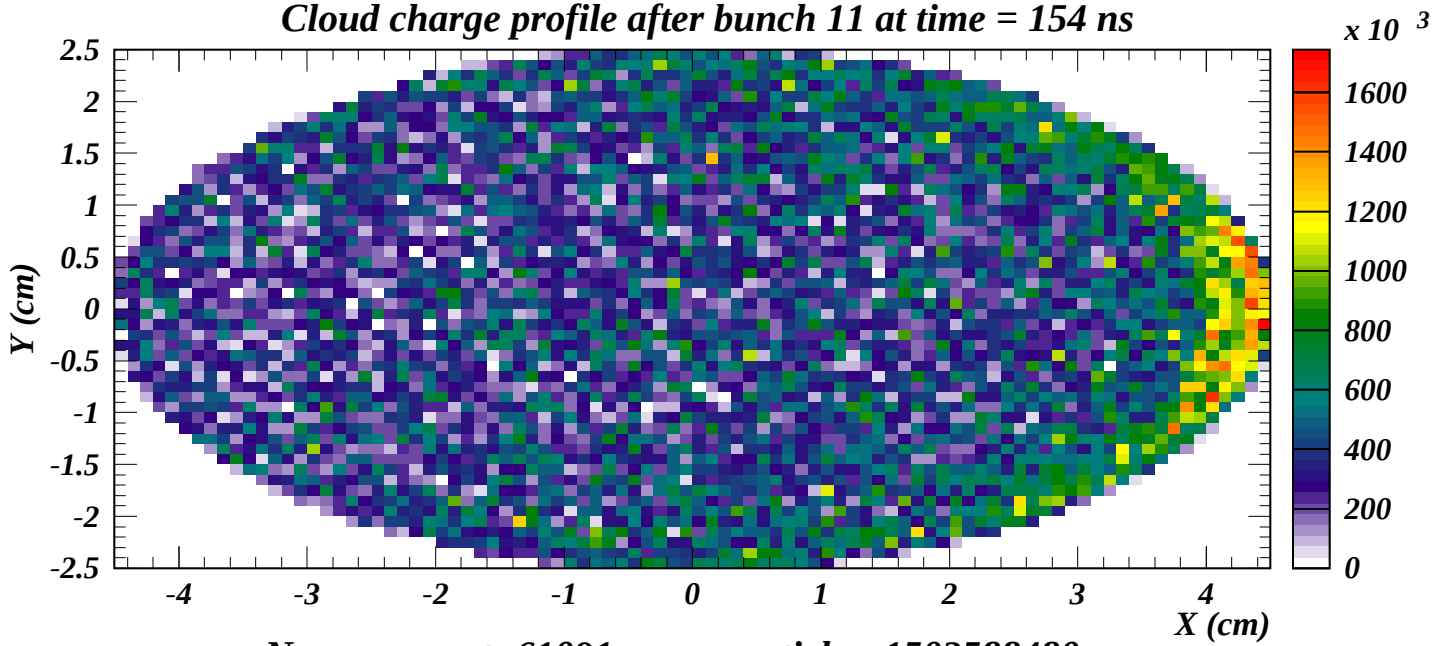
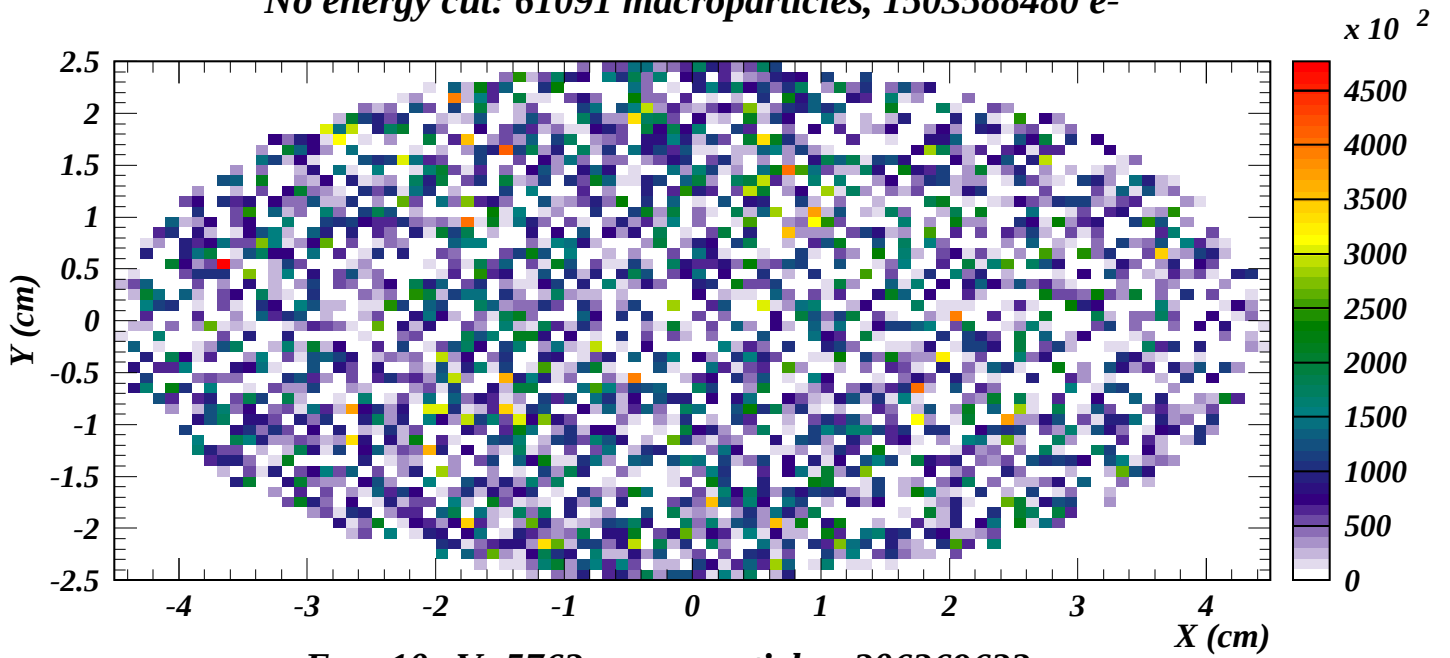
No energy cut: 47320 macroparticles, 1986117248 e-

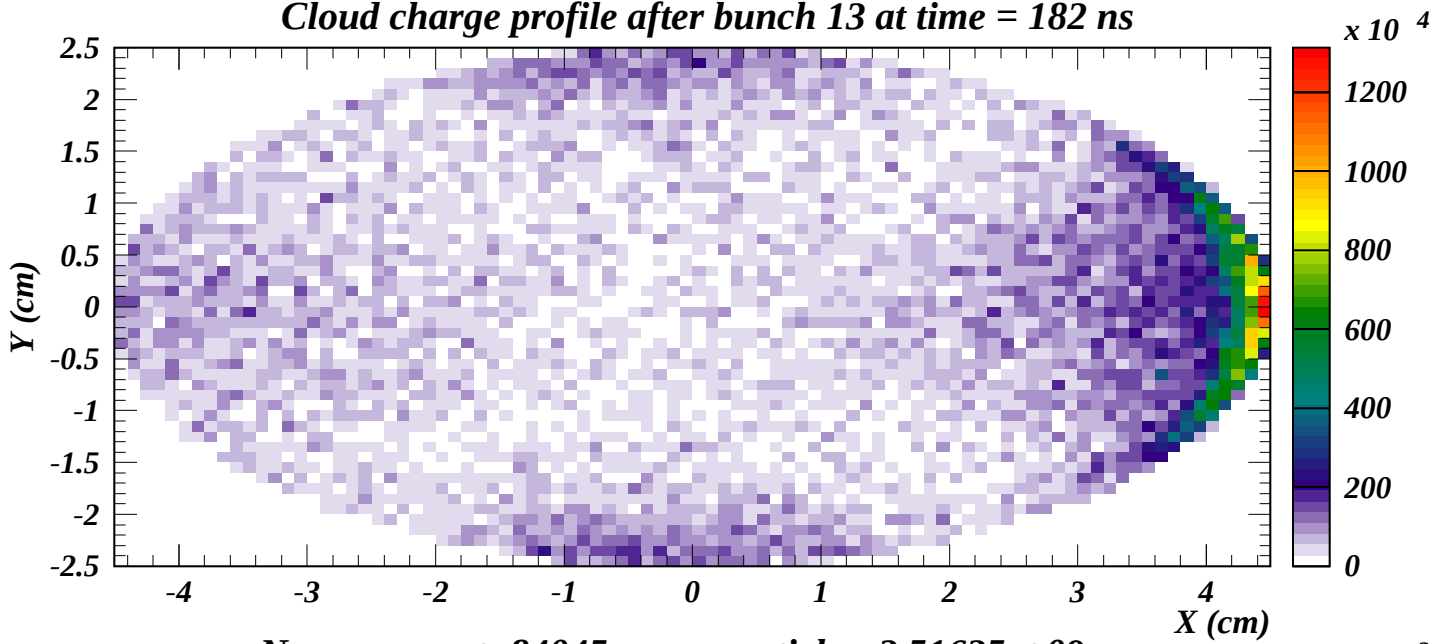
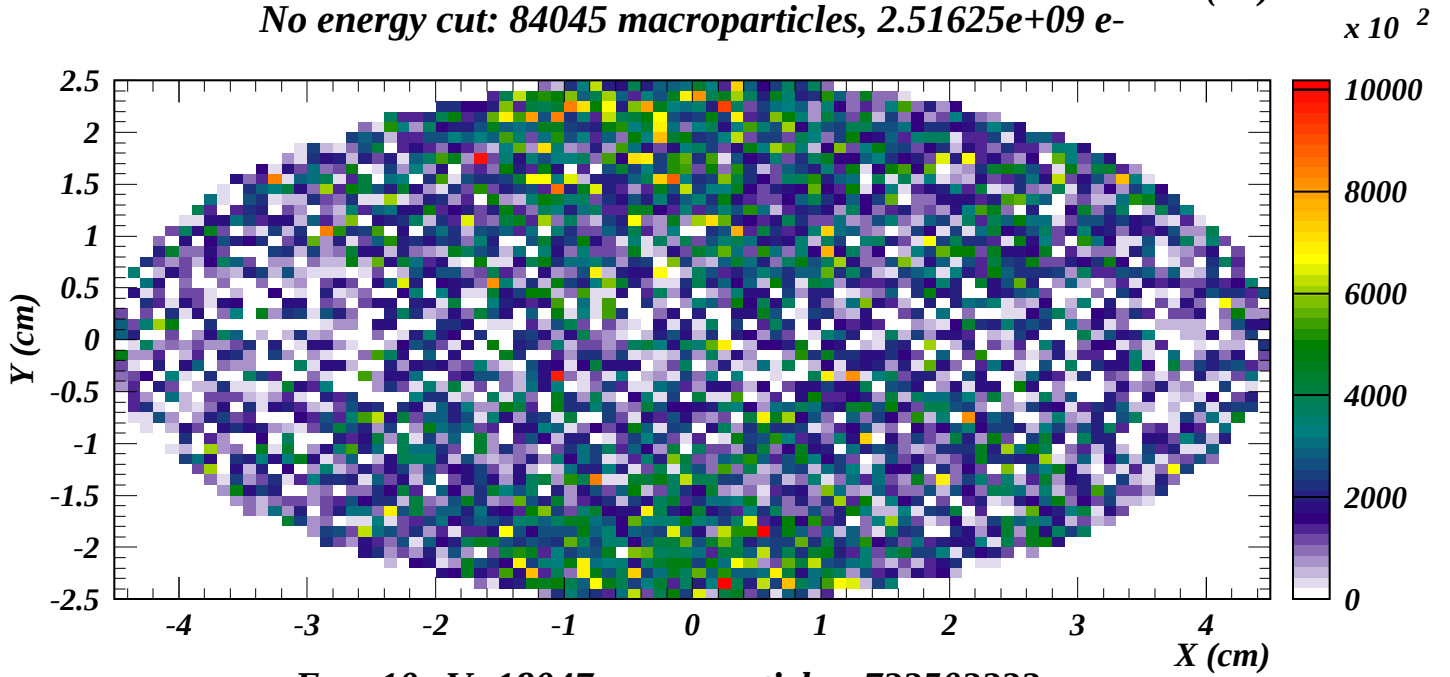


$E_{kin} > 10$ eV: 7326 macroparticles, 535585536 e-

Cloud charge profile after bunch 7 at time = 98 ns*No energy cut: 43111 macroparticles, 1280921856 e-* *$E_{\text{kin}} > 10 \text{ eV}$: 3585 macroparticles, 175432944 e-*

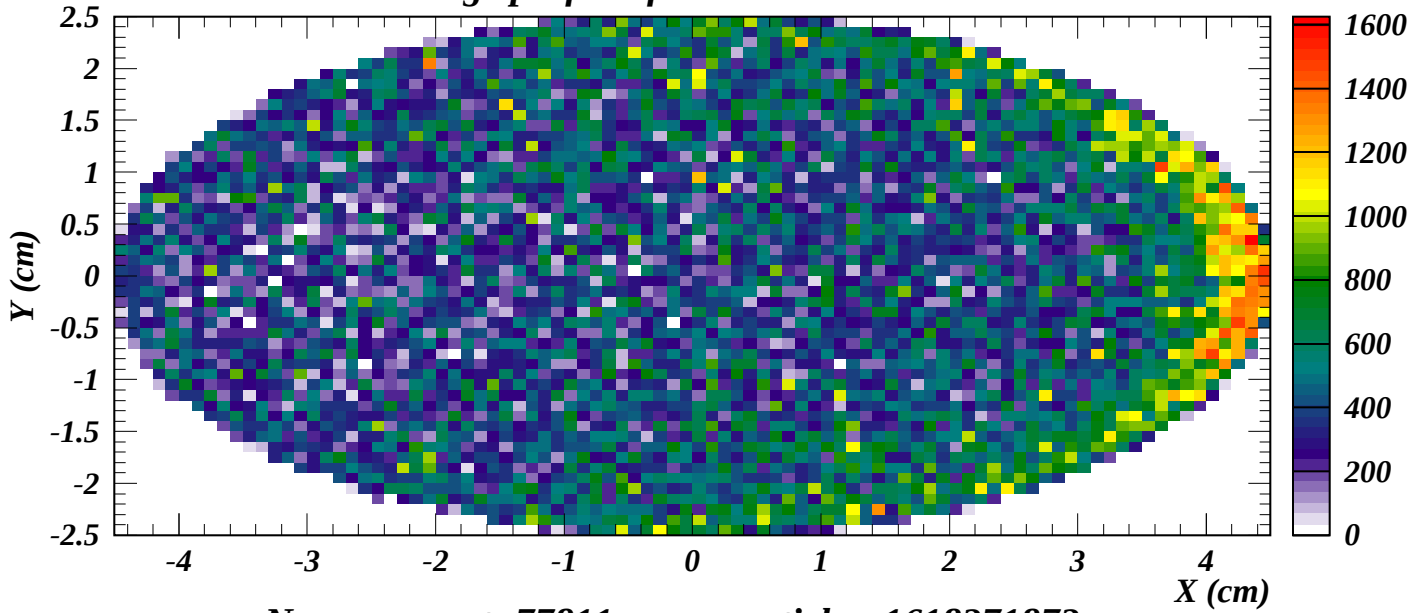
Cloud charge profile after bunch 9 at time = 126 ns*No energy cut: 66783 macroparticles, $2.33114e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$: 12527 macroparticles, 658981312 e-*

Cloud charge profile after bunch 11 at time = 154 ns*No energy cut: 61091 macroparticles, 1503588480 e-* *$E_{\text{kin}} > 10$ eV: 5763 macroparticles, 206369632 e-*

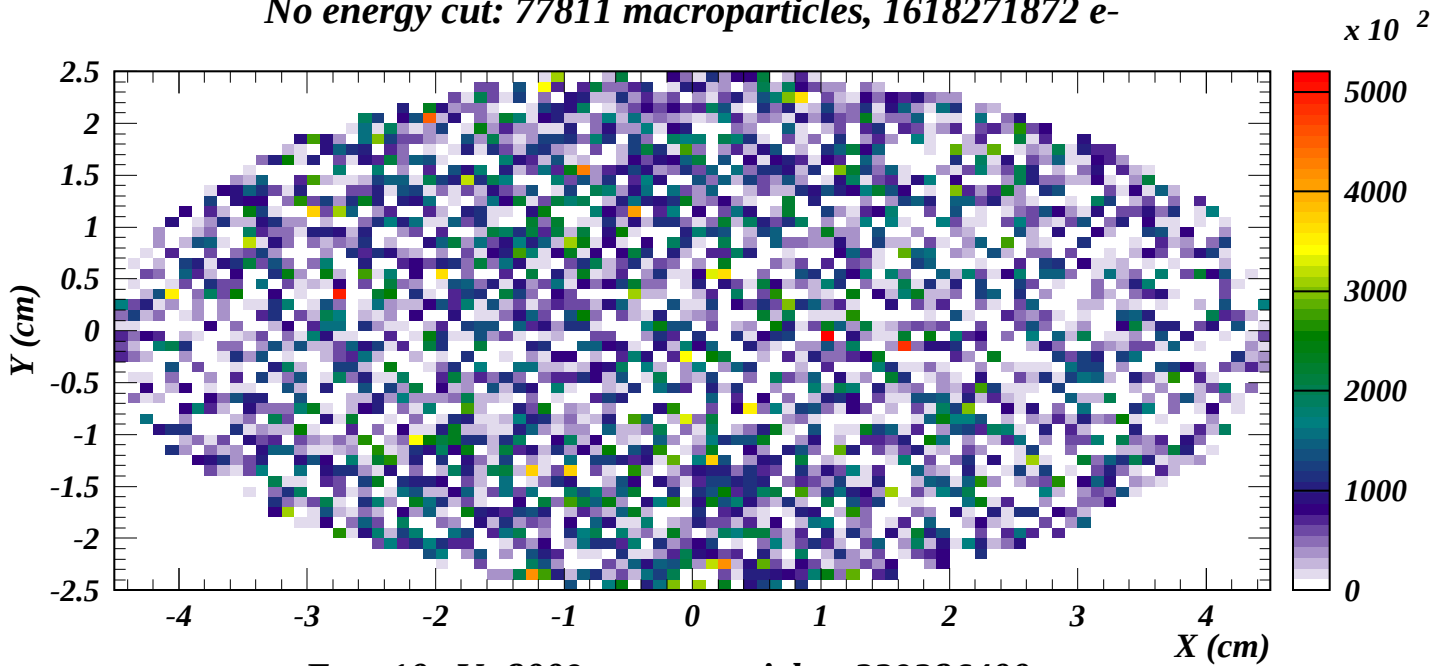
Cloud charge profile after bunch 13 at time = 182 ns*No energy cut: 84045 macroparticles, $2.51625e+09$ e-* *$E_{kin} > 10$ eV: 18047 macroparticles, 733503232 e-*

09/12/15 14.34
 $\times 10^3$

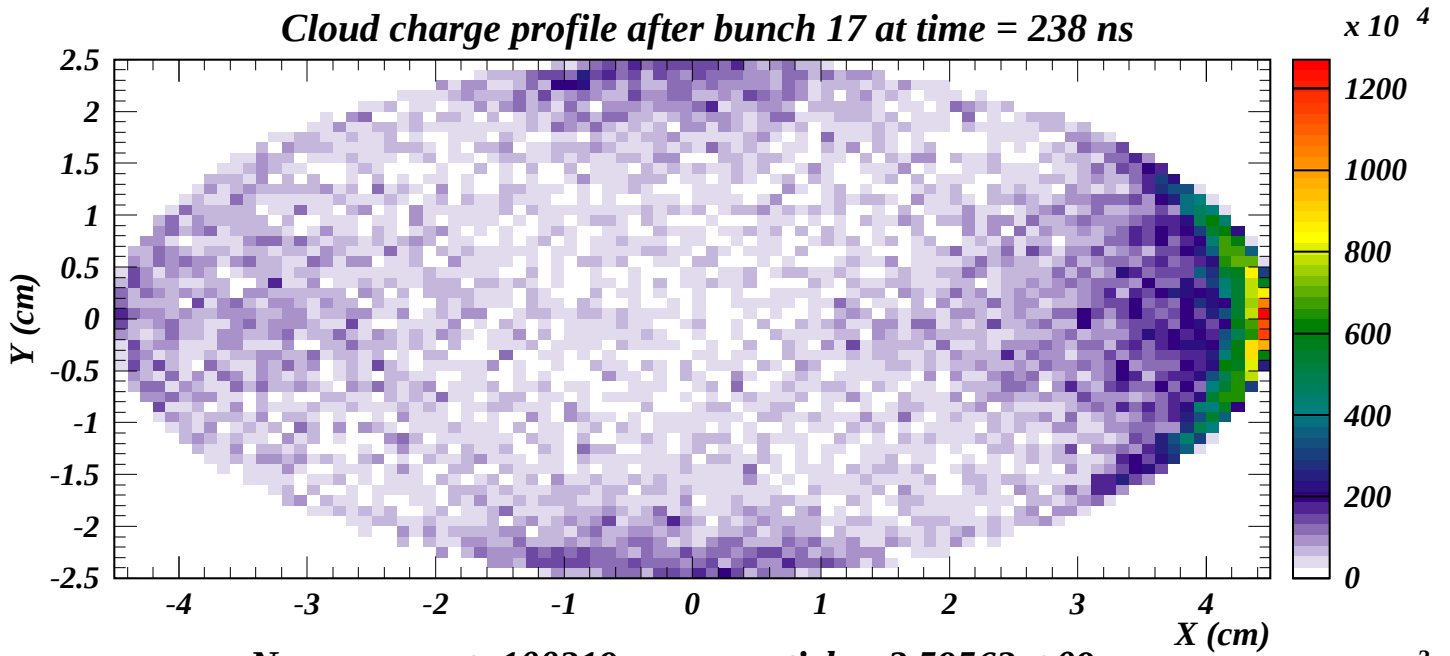
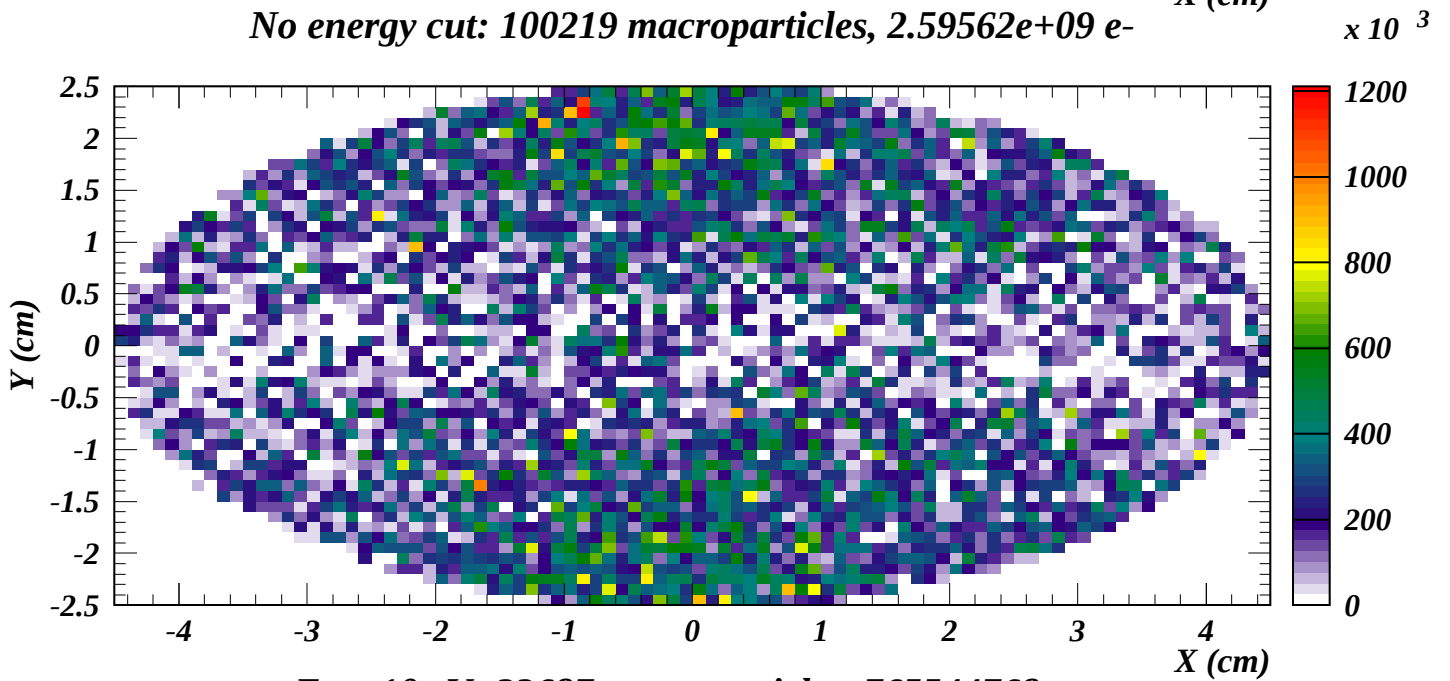
Cloud charge profile after bunch 15 at time = 210 ns

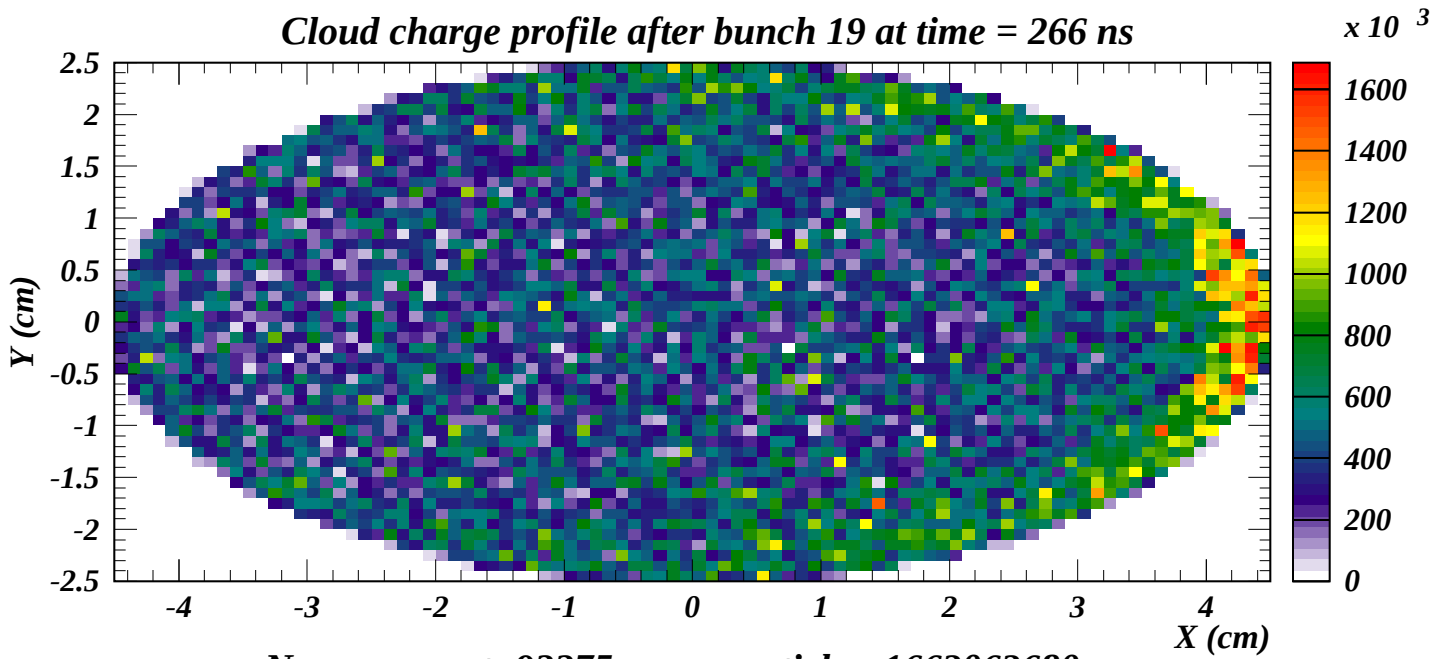
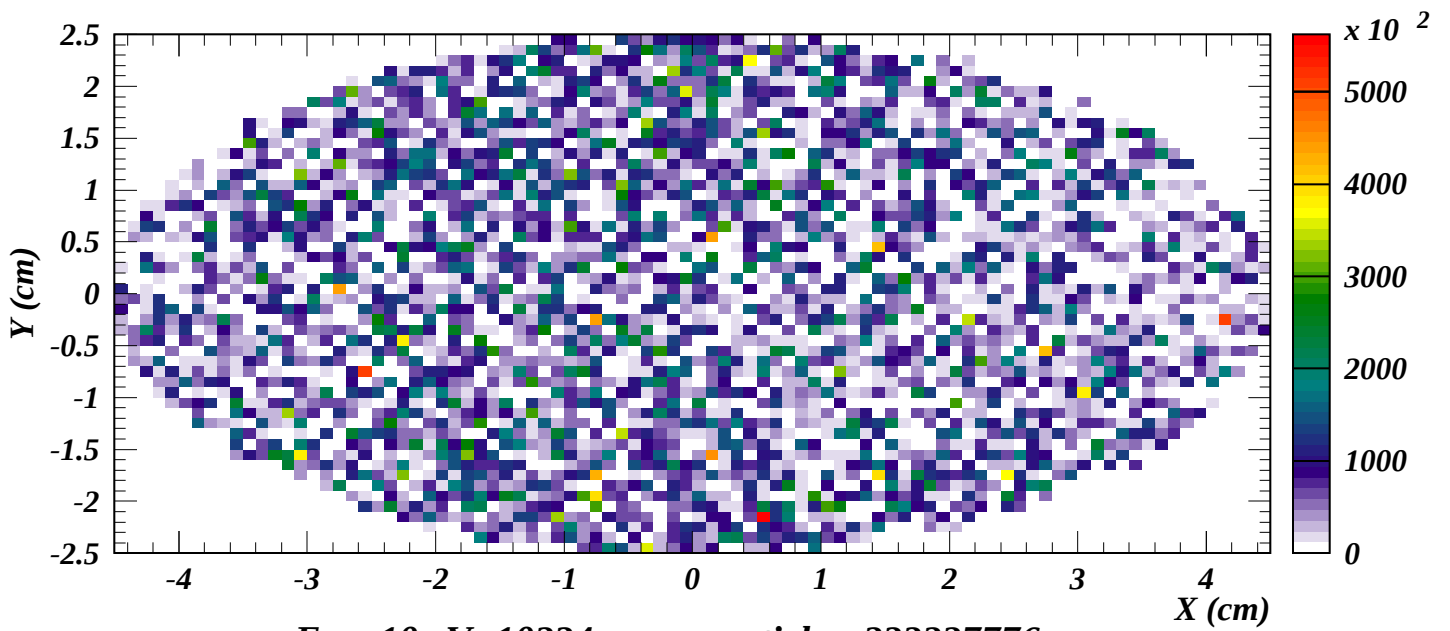


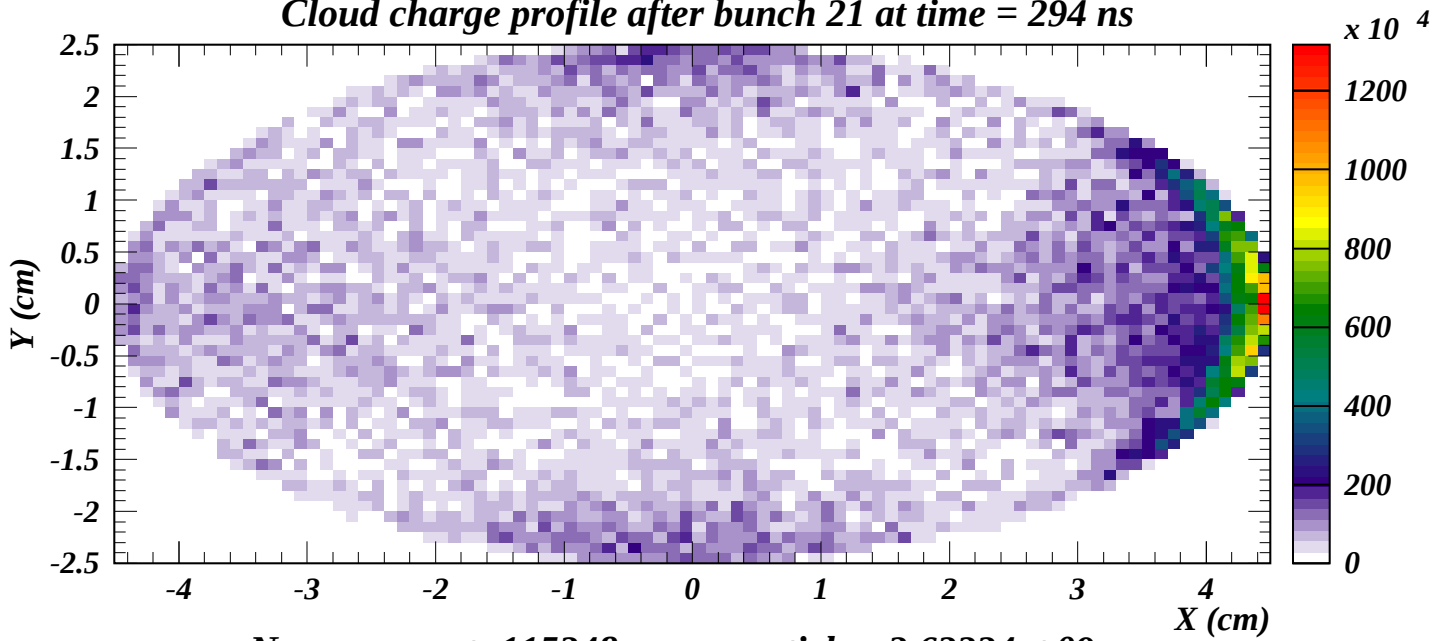
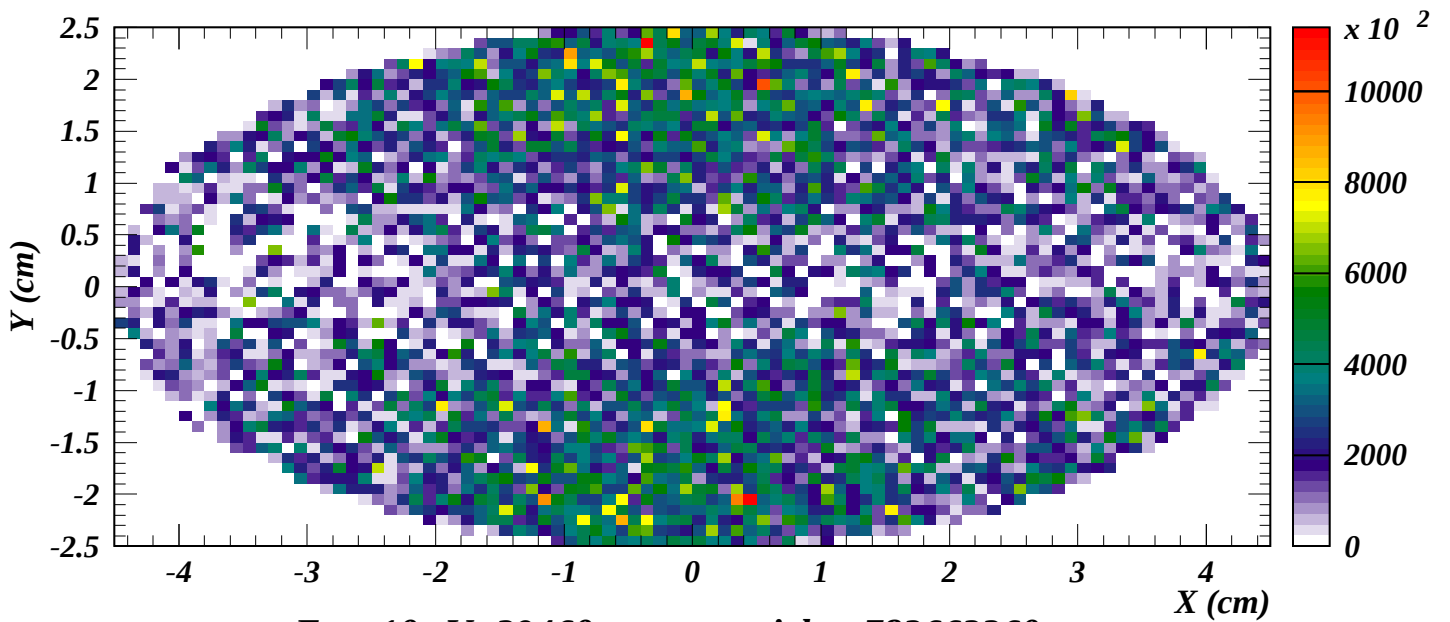
No energy cut: 77811 macroparticles, 1618271872 e-

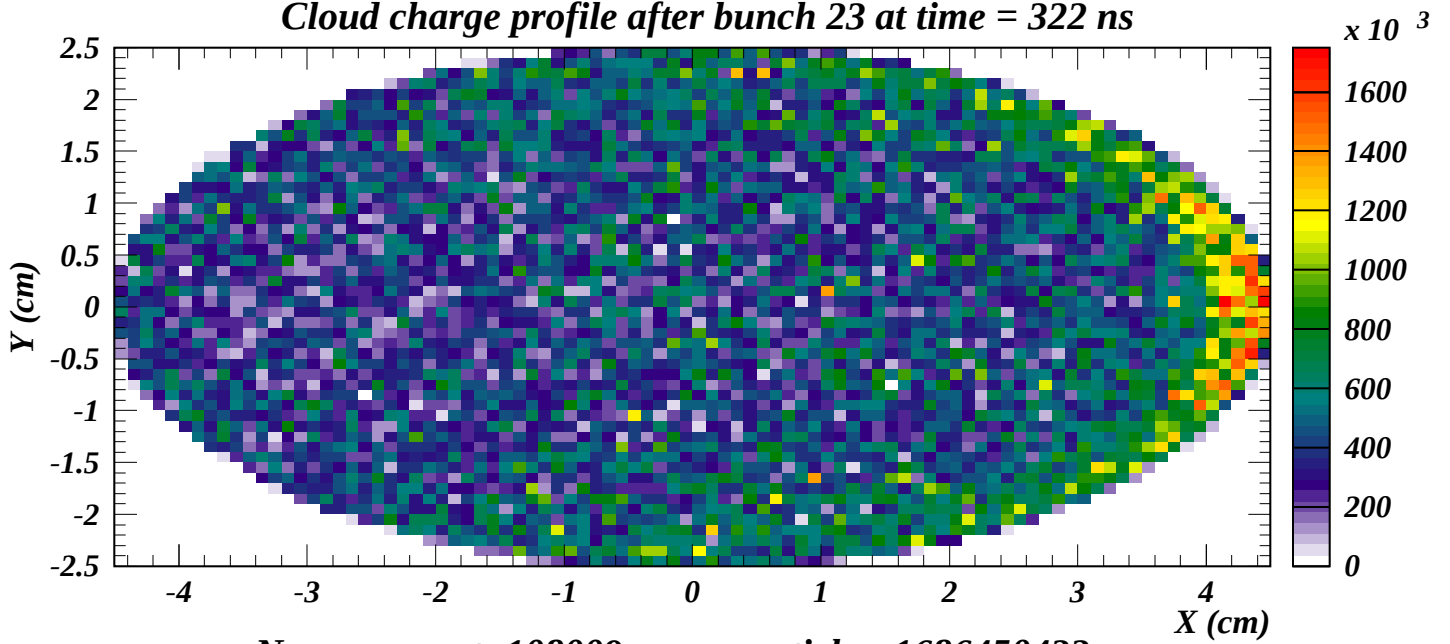
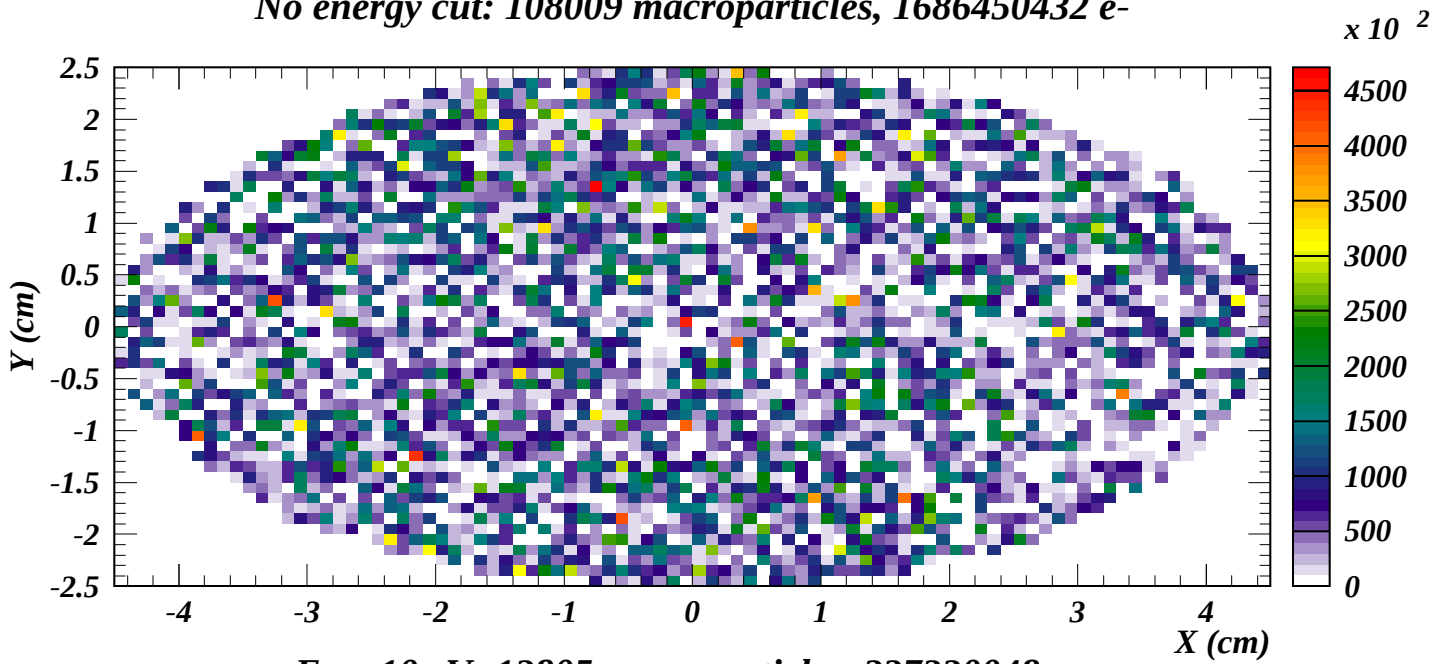


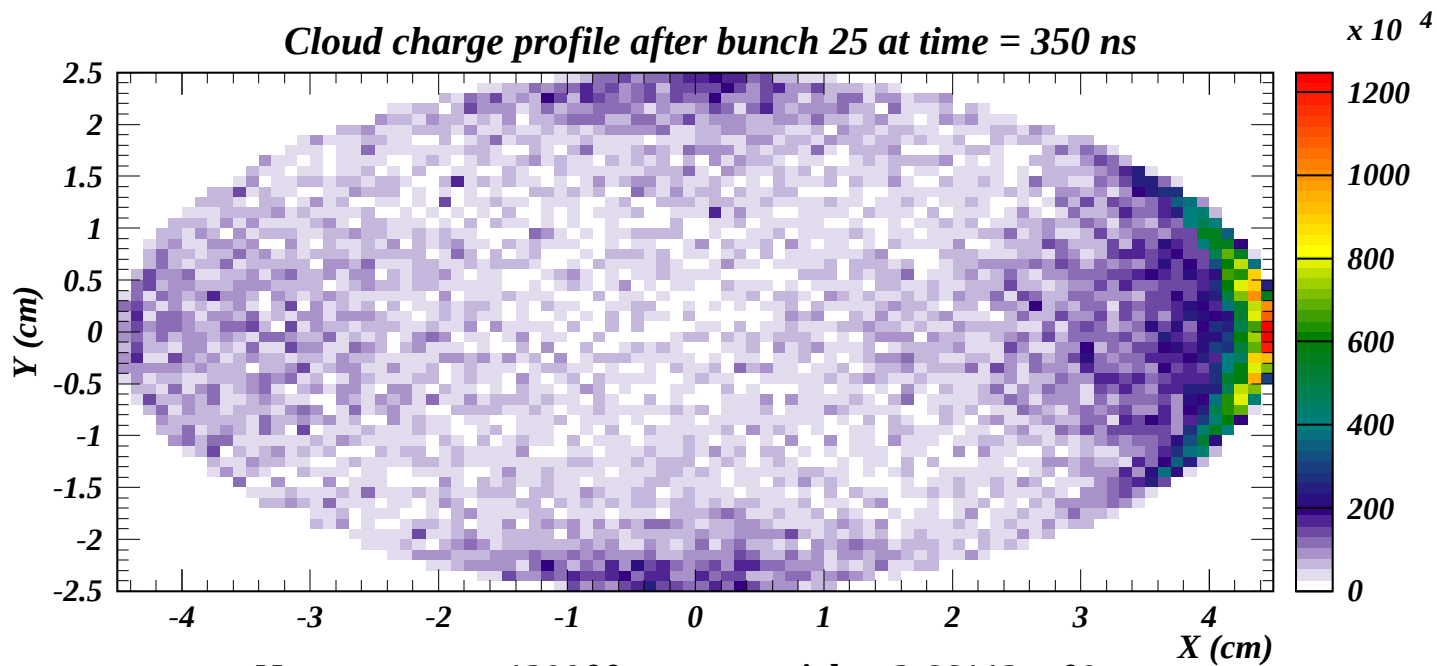
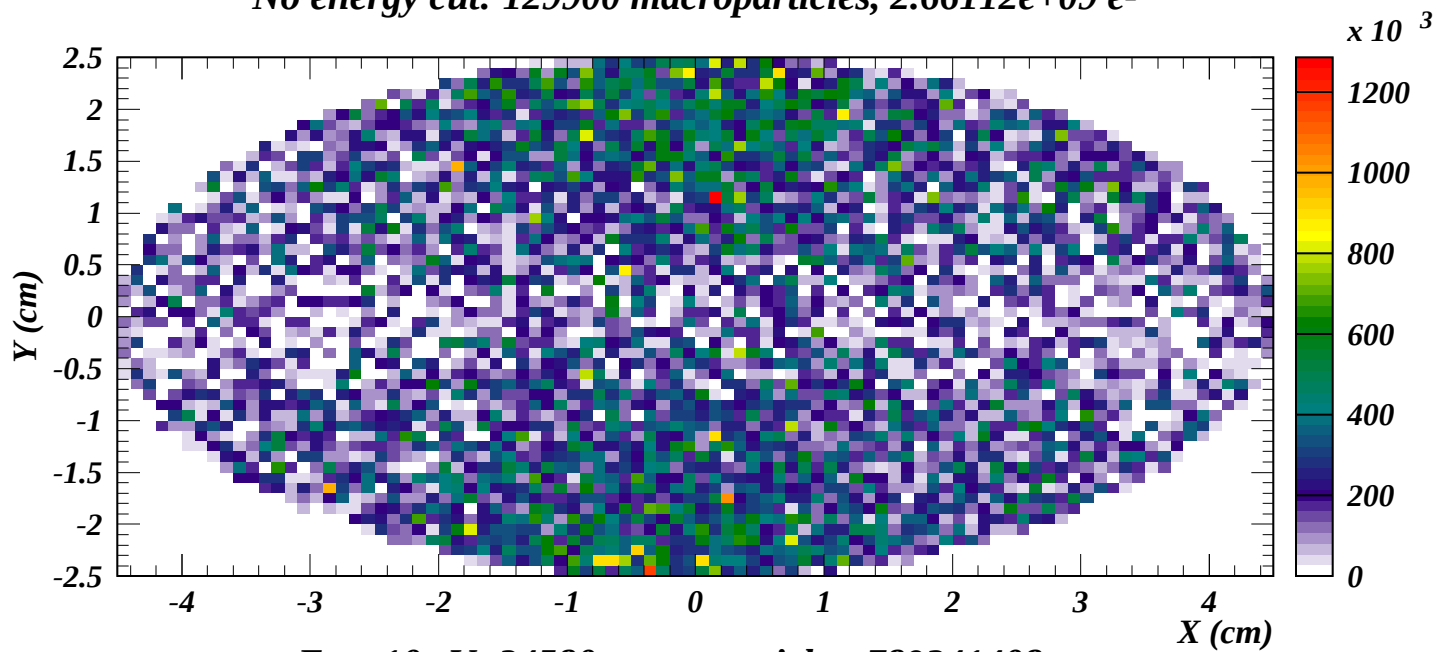
$E_{kin} > 10$ eV: 8009 macroparticles, 229286400 e-

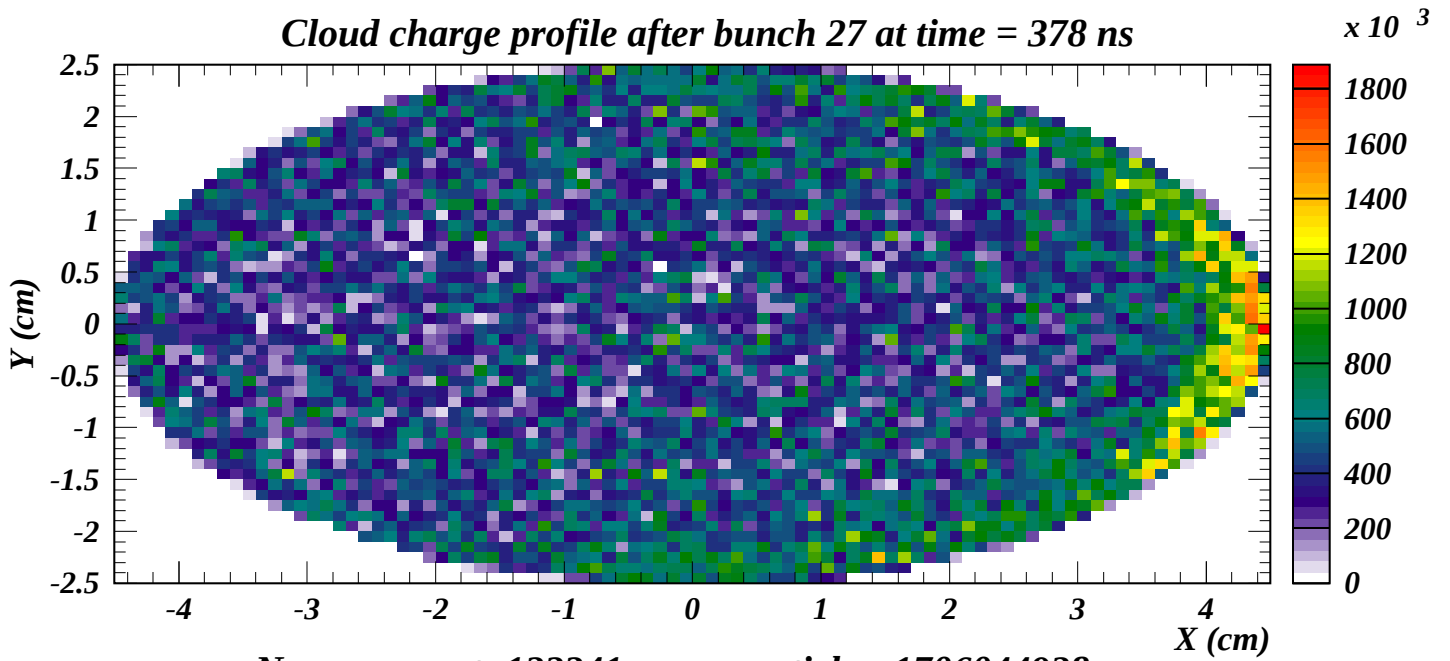
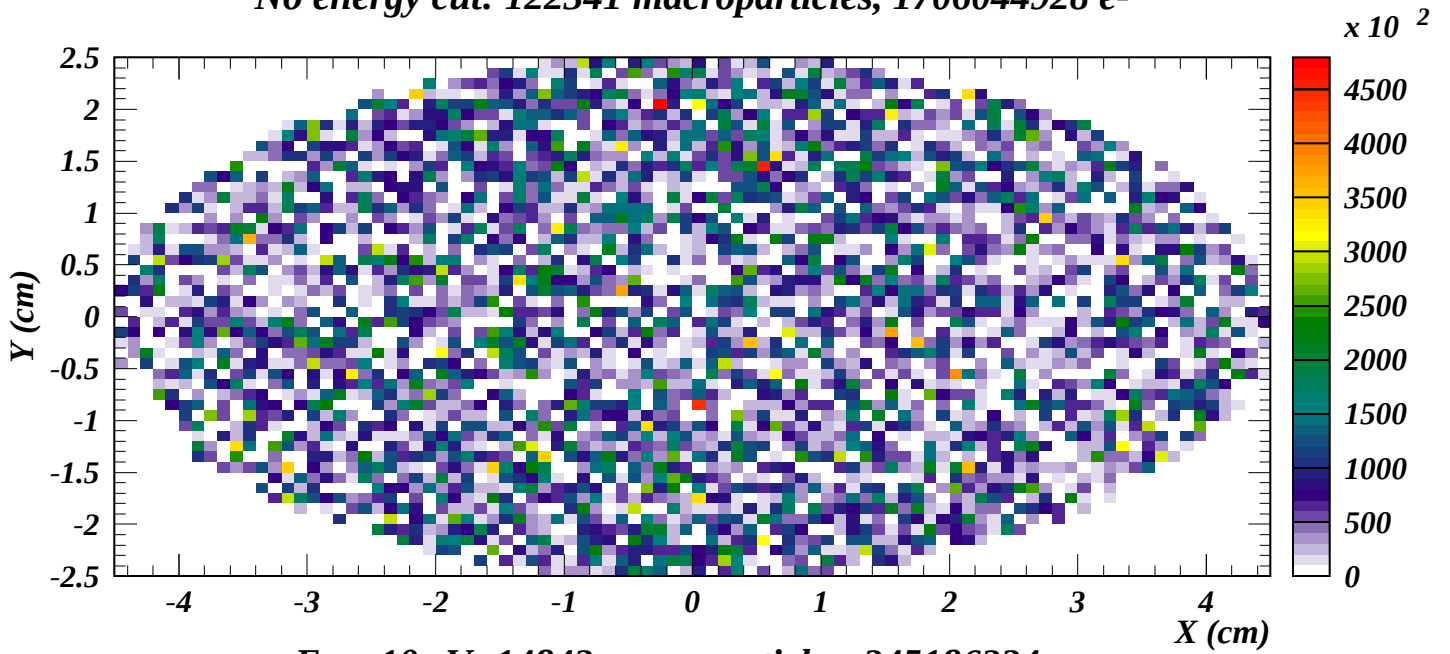
Cloud charge profile after bunch 17 at time = 238 ns*No energy cut: 100219 macroparticles, $2.59562e+09 e^-$*  *$E_{kin} > 10 \text{ eV}$: 23687 macroparticles, $765544768 e^-$*

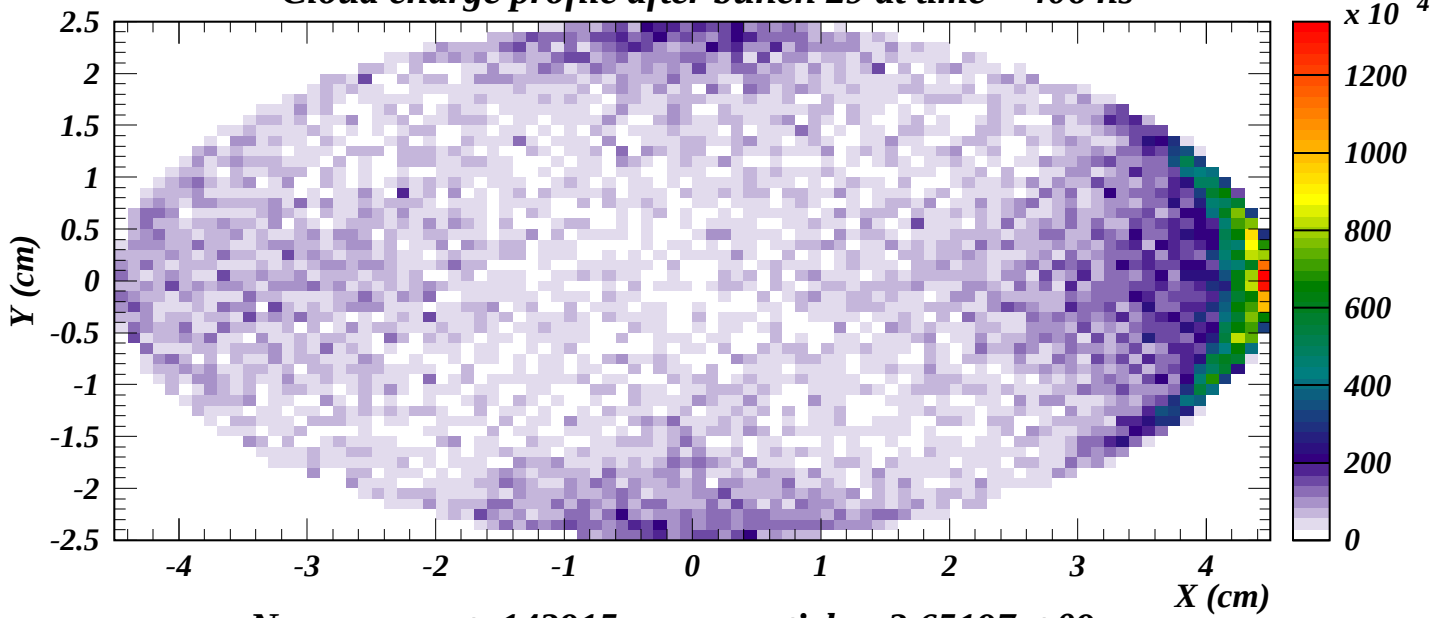
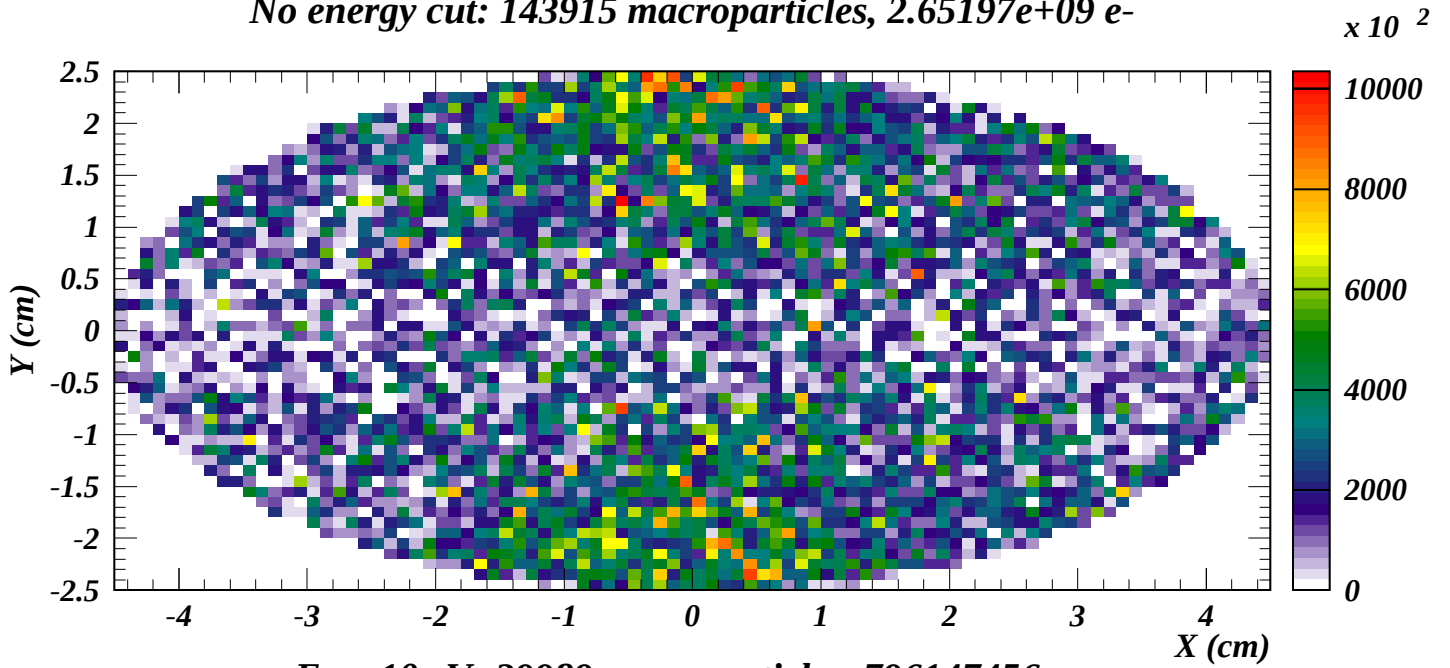
Cloud charge profile after bunch 19 at time = 266 ns*No energy cut: 93275 macroparticles, 1663063680 e-* *$E_{kin} > 10$ eV: 10234 macroparticles, 233227776 e-*

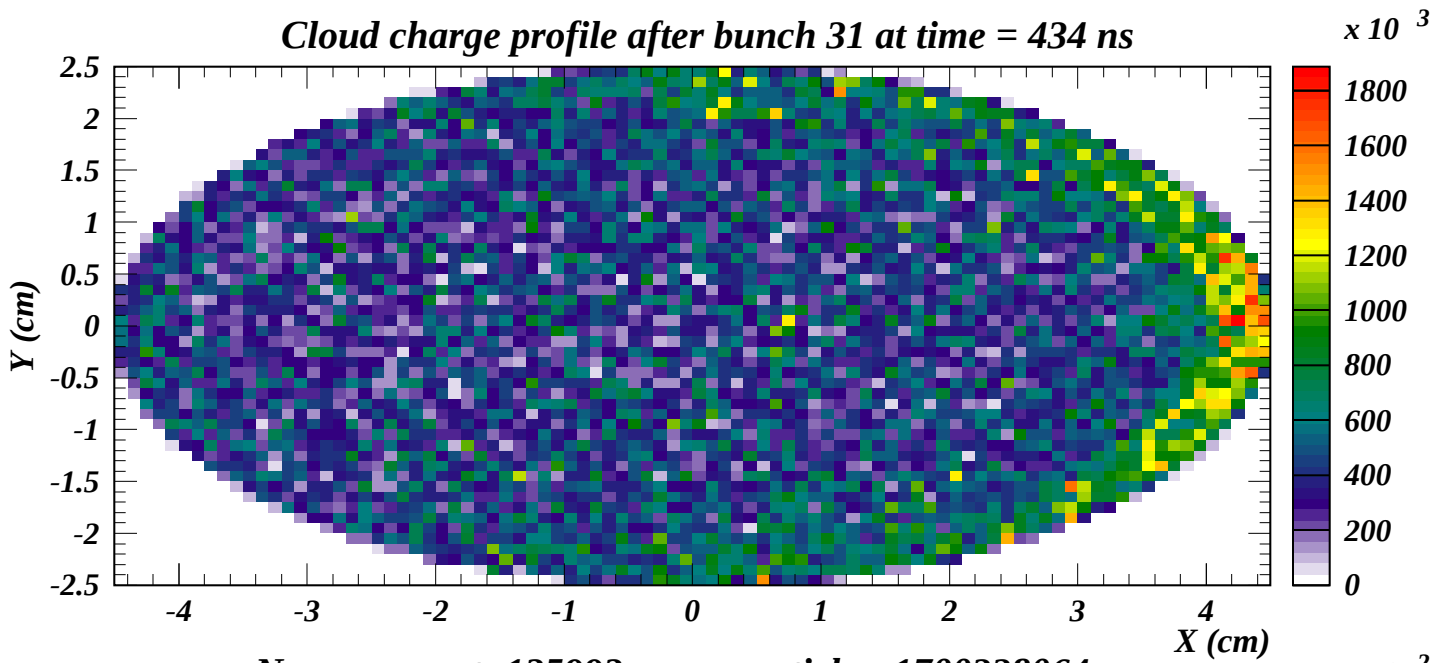
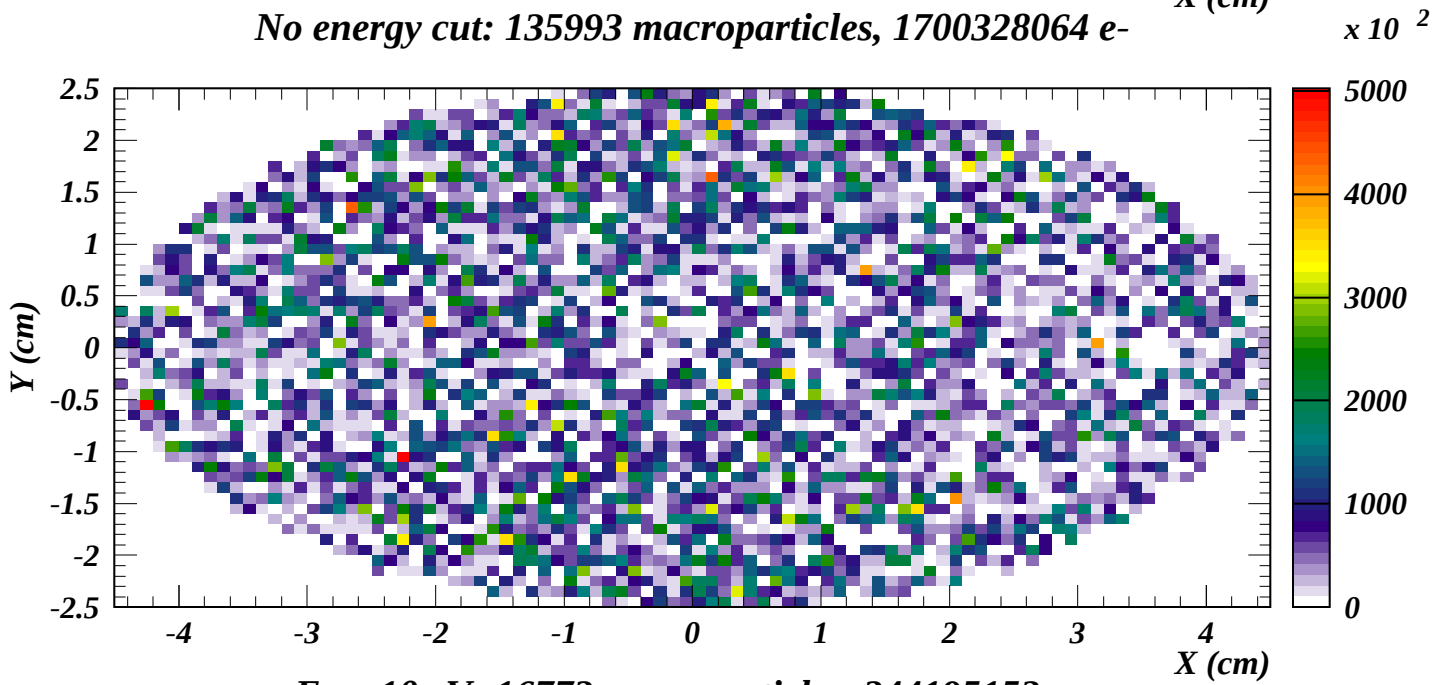
Cloud charge profile after bunch 21 at time = 294 ns*No energy cut: 115348 macroparticles, $2.63334e+09$ e-* *$E_{kin} > 10$ eV: 29460 macroparticles, 782663360 e-*

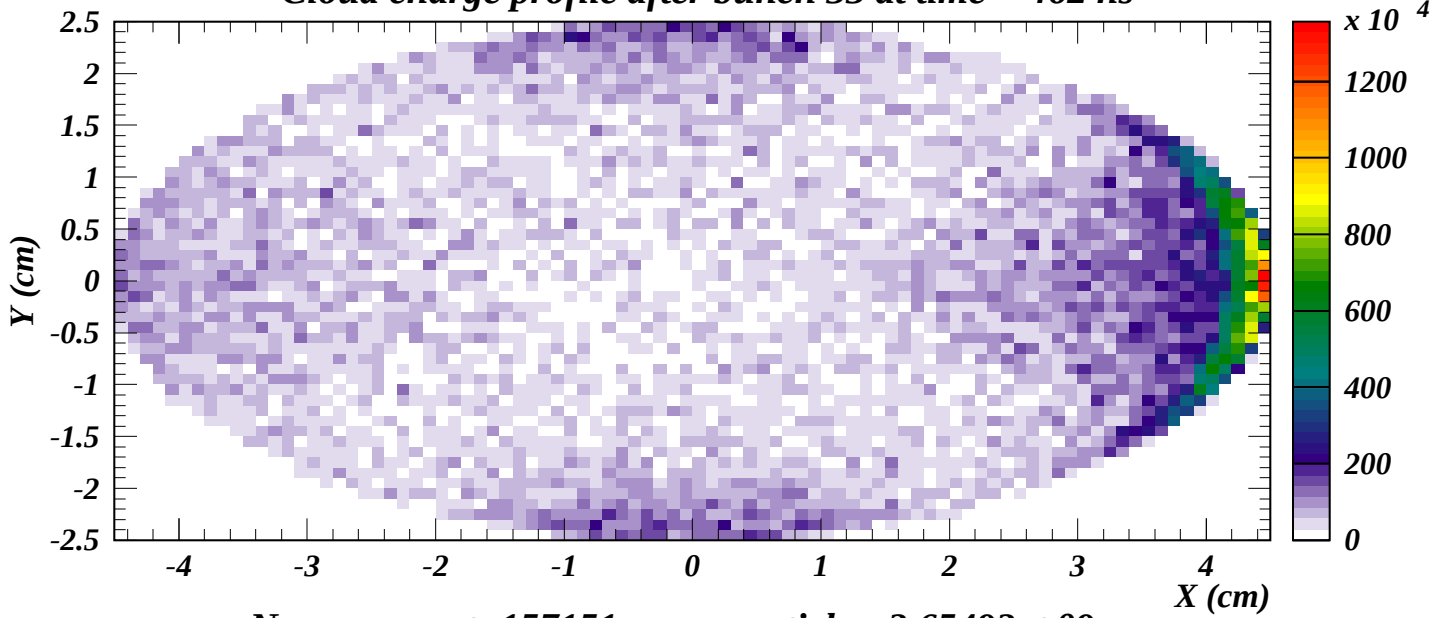
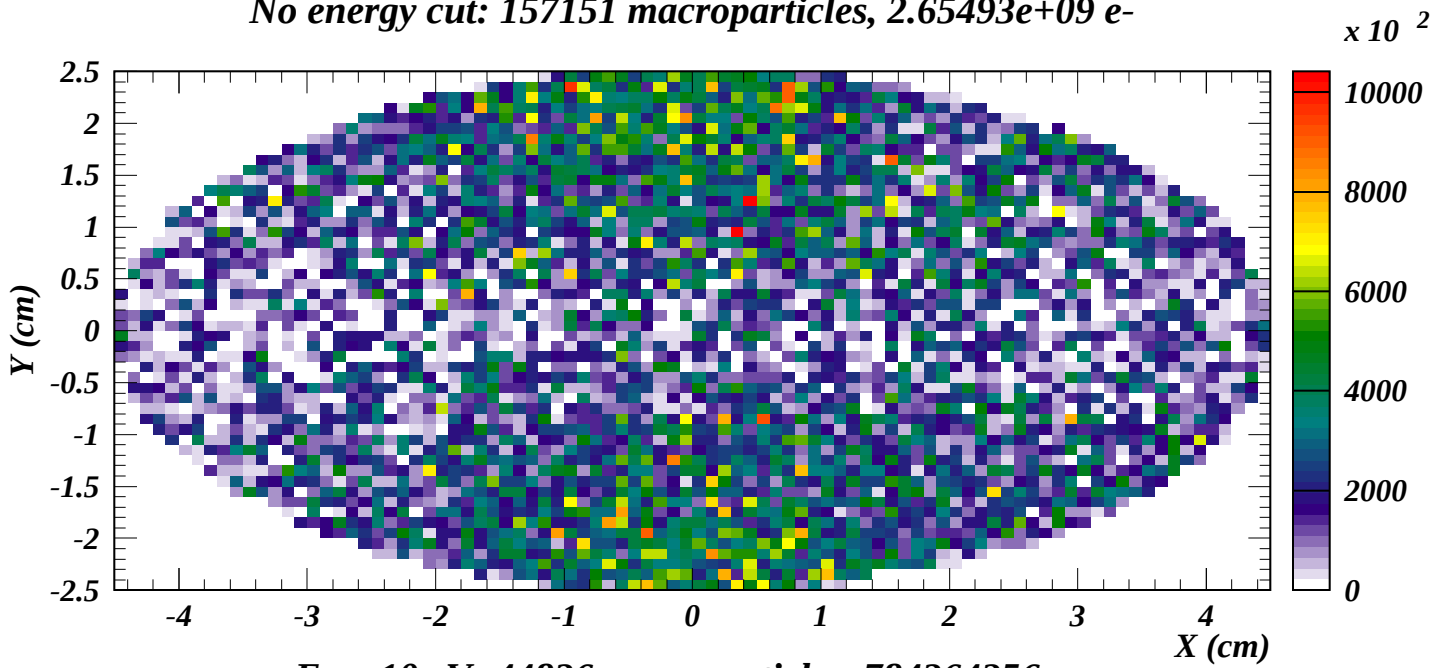
Cloud charge profile after bunch 23 at time = 322 ns*No energy cut: 108009 macroparticles, 1686450432 e-* *$E_{kin} > 10$ eV: 12805 macroparticles, 237330048 e-*

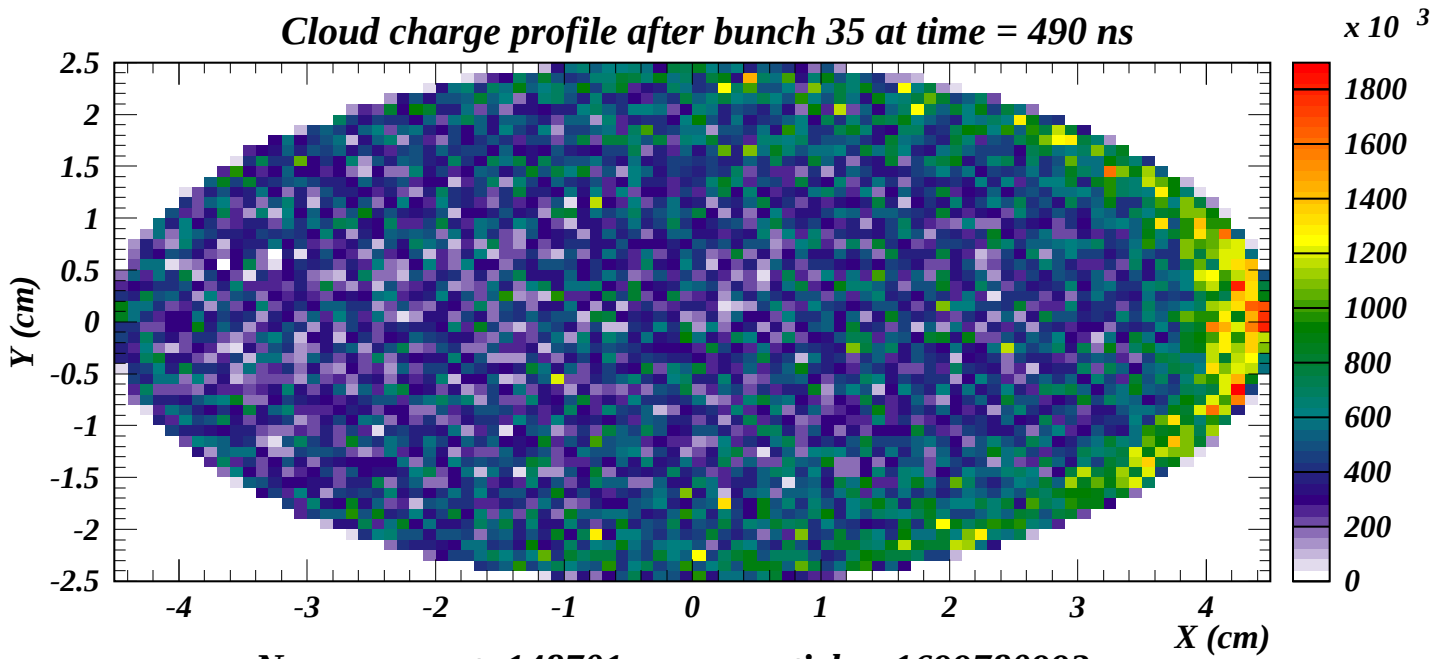
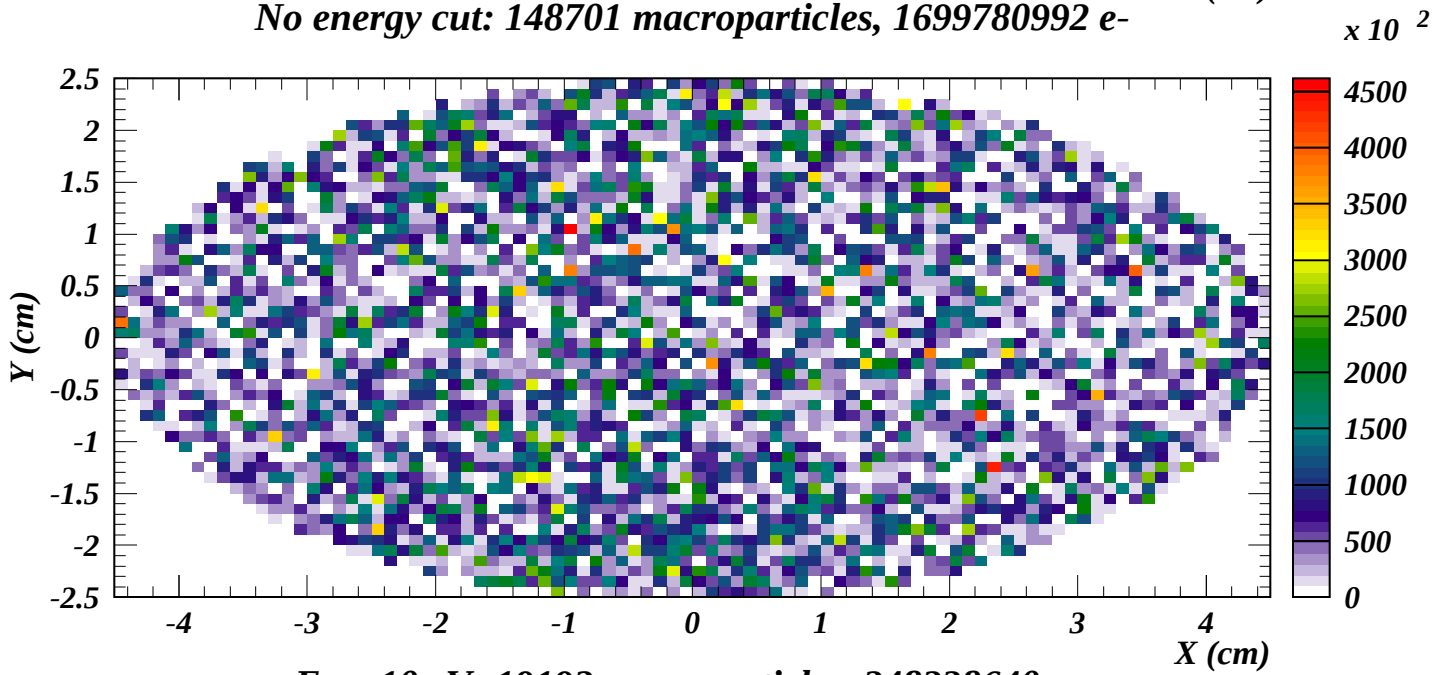
Cloud charge profile after bunch 25 at time = 350 ns*No energy cut: 129900 macroparticles, $2.66112e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 34580 macroparticles, 789241408 e-*

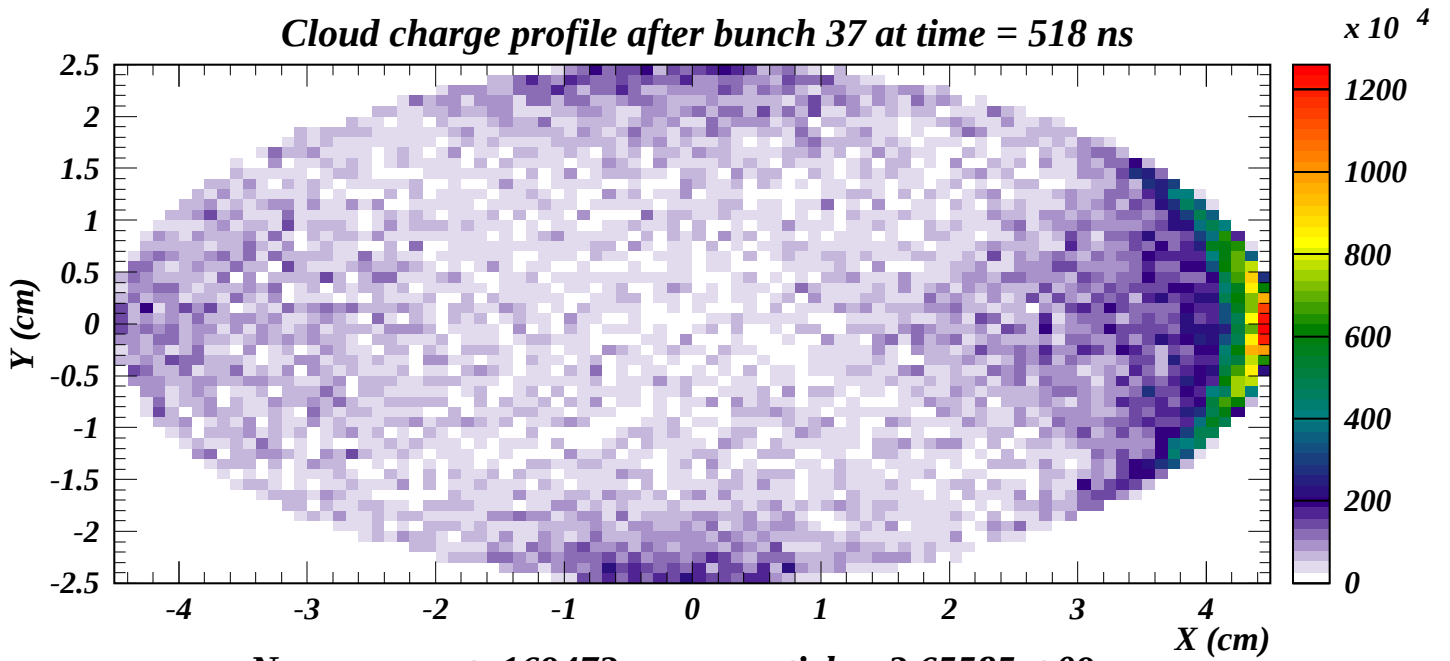
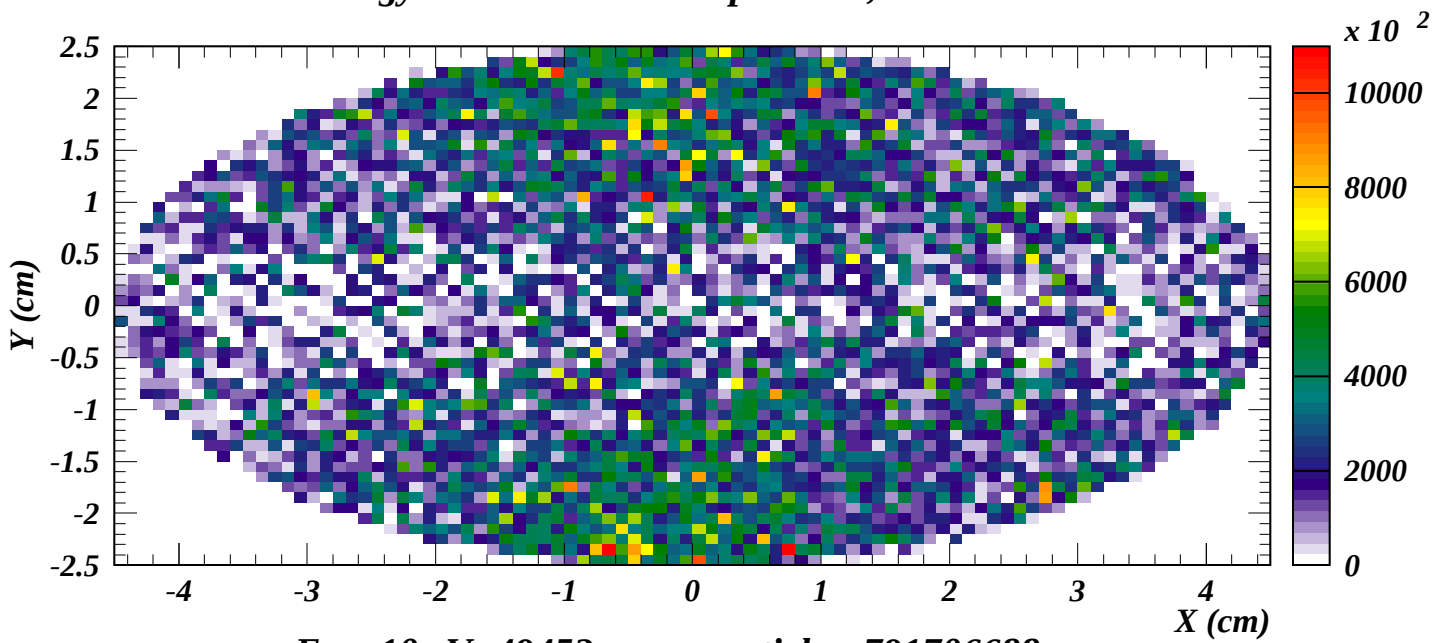
Cloud charge profile after bunch 27 at time = 378 ns*No energy cut: 122341 macroparticles, 1706044928 e-* *$E_{\text{kin}} > 10 \text{ eV}$: 14842 macroparticles, 245186224 e-*

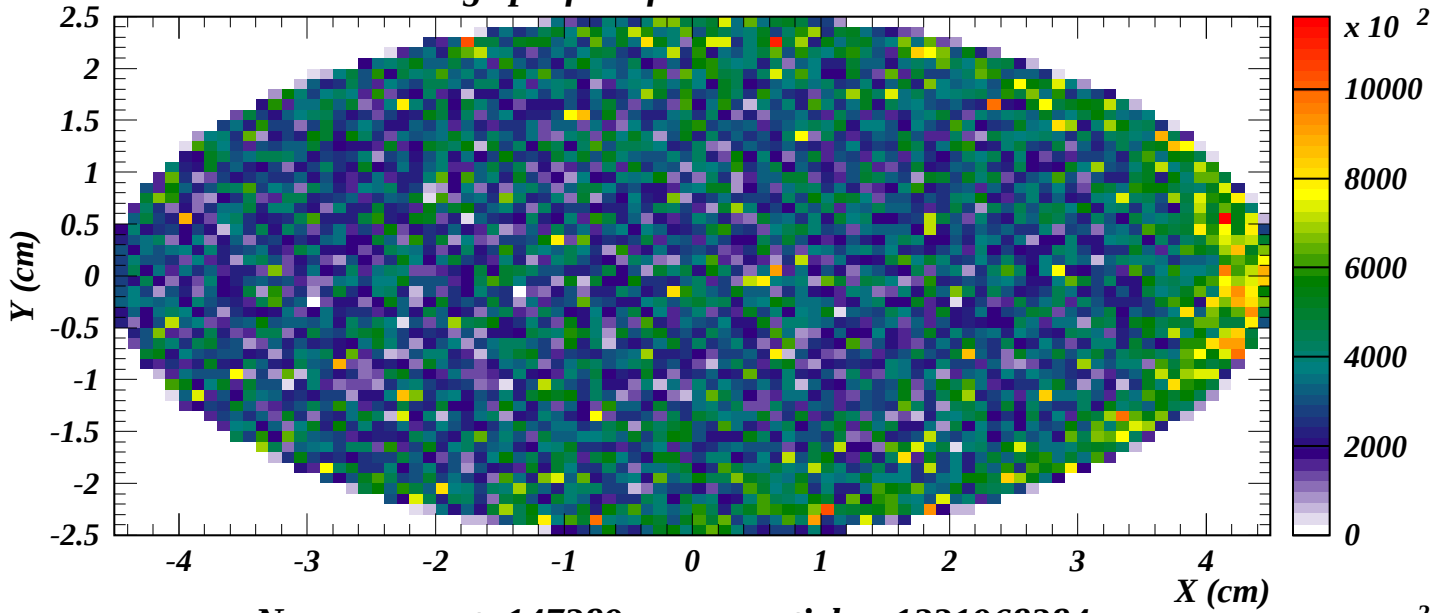
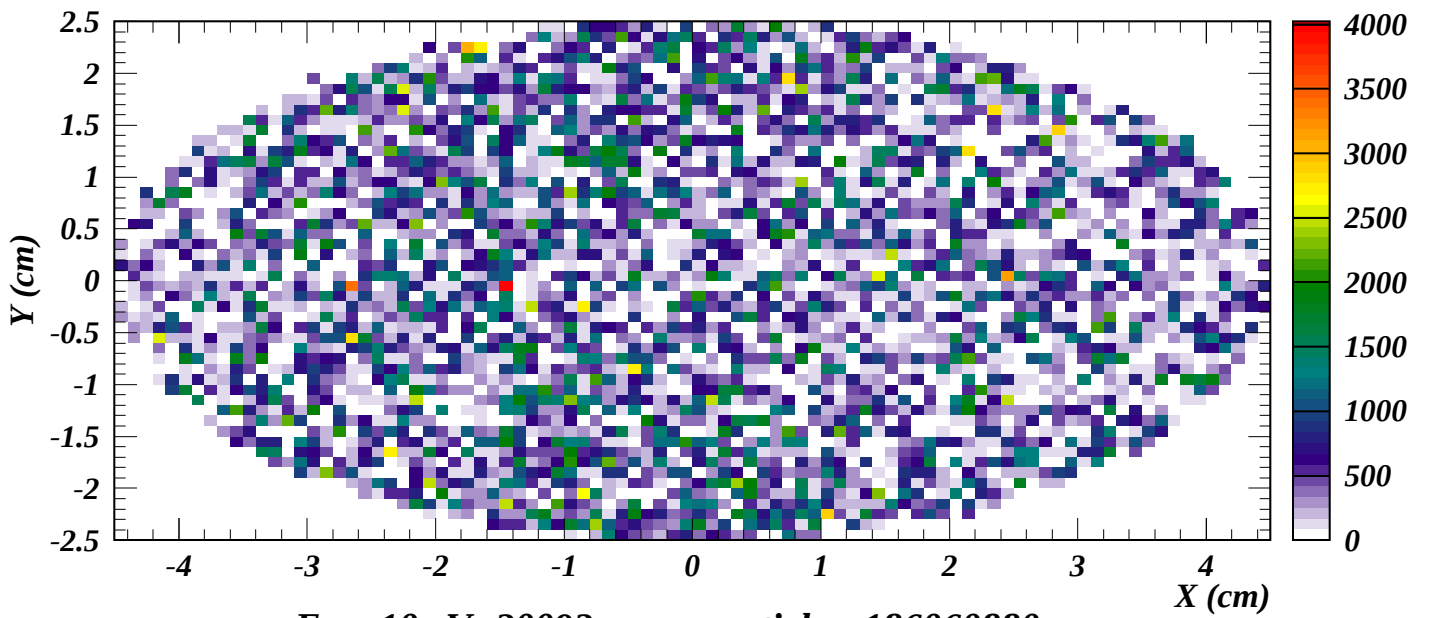
Cloud charge profile after bunch 29 at time = 406 ns*No energy cut: 143915 macroparticles, $2.65197e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 39989 macroparticles, 796147456 e-*

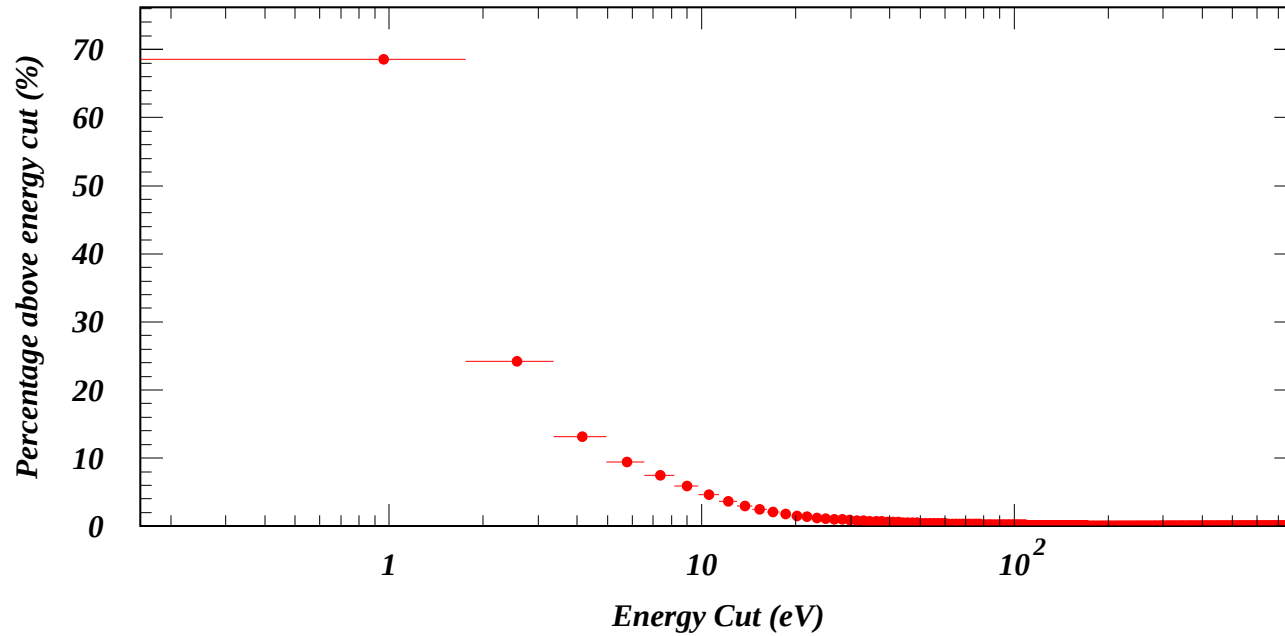
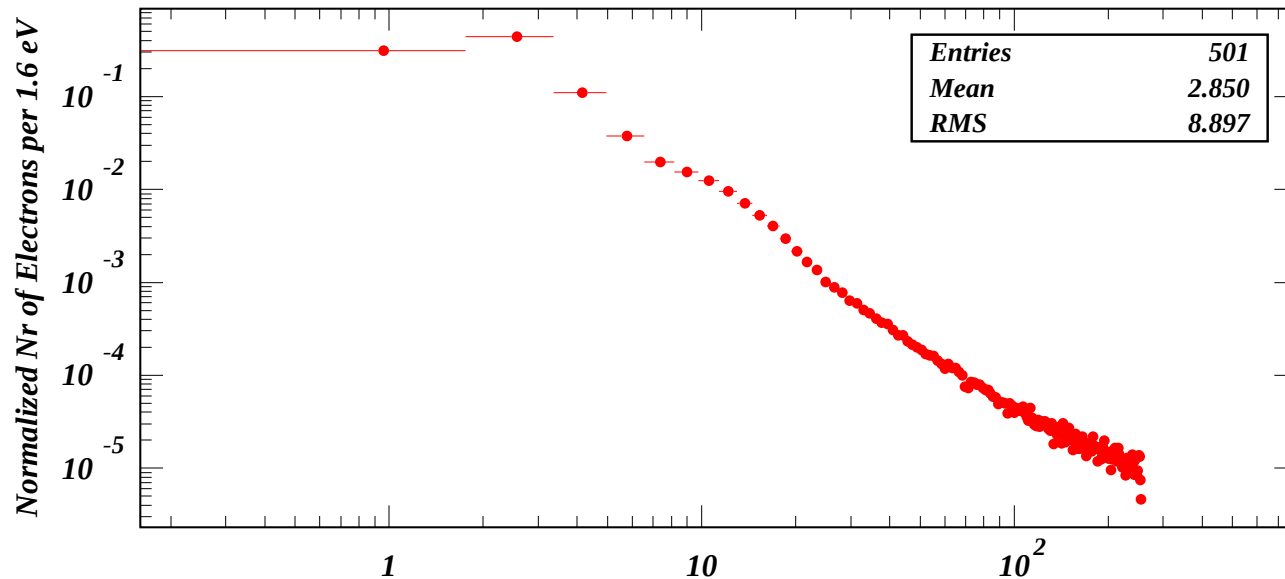
Cloud charge profile after bunch 31 at time = 434 ns*No energy cut: 135993 macroparticles, 1700328064 e-* *$E_{\text{kin}} > 10 \text{ eV}$: 16773 macroparticles, 244195152 e-*

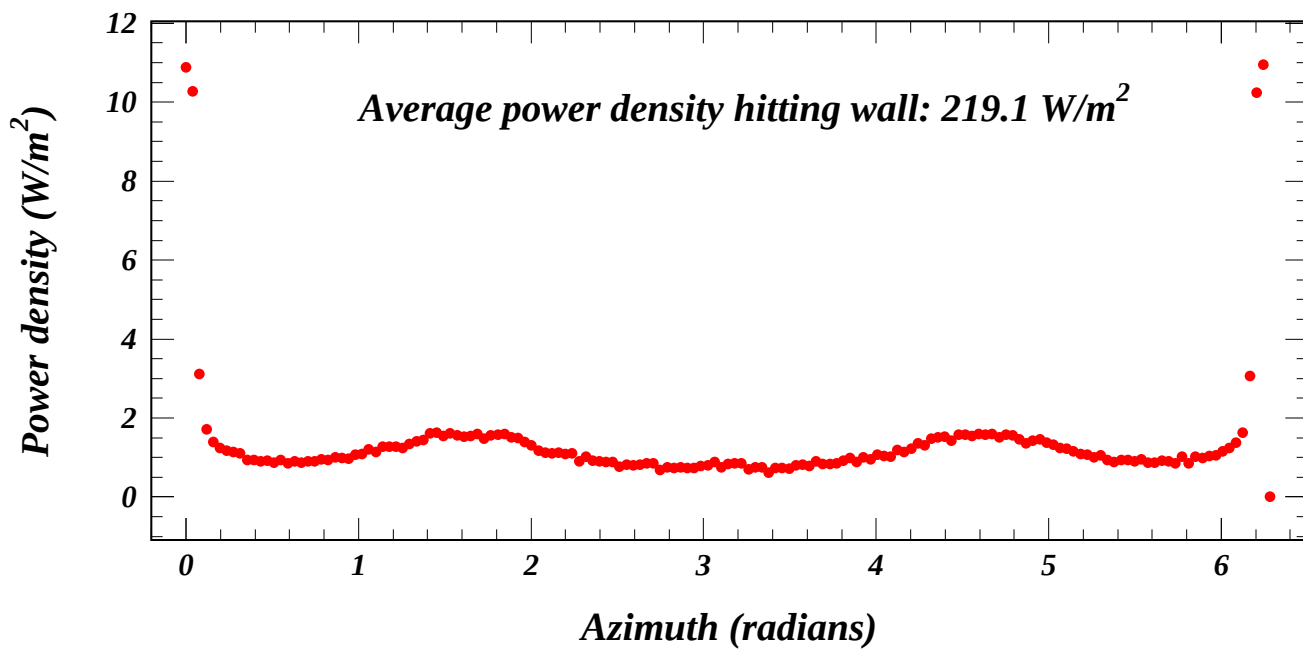
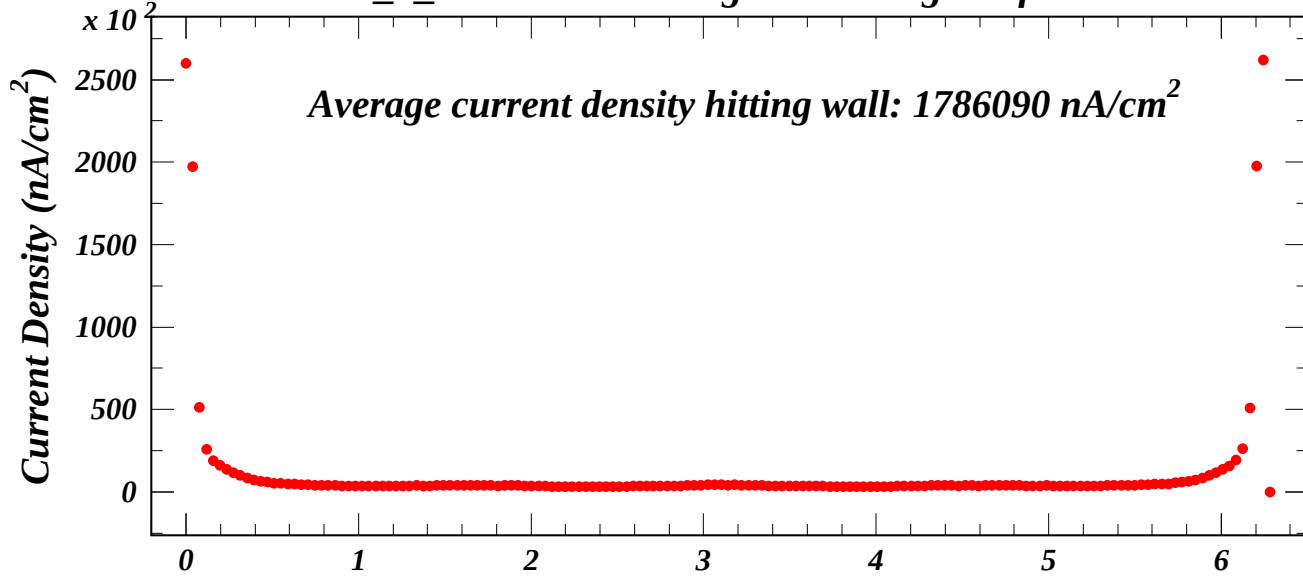
Cloud charge profile after bunch 33 at time = 462 ns*No energy cut: 157151 macroparticles, 2.65493×10^9 e-* *$E_{kin} > 10$ eV: 44826 macroparticles, 784264256 e-*

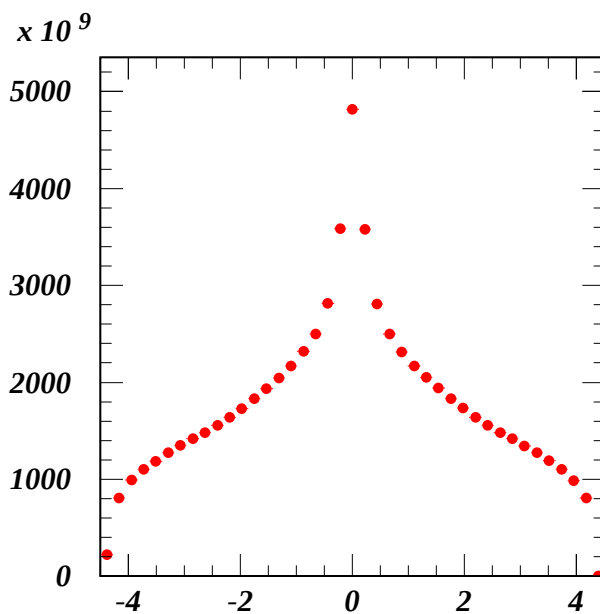
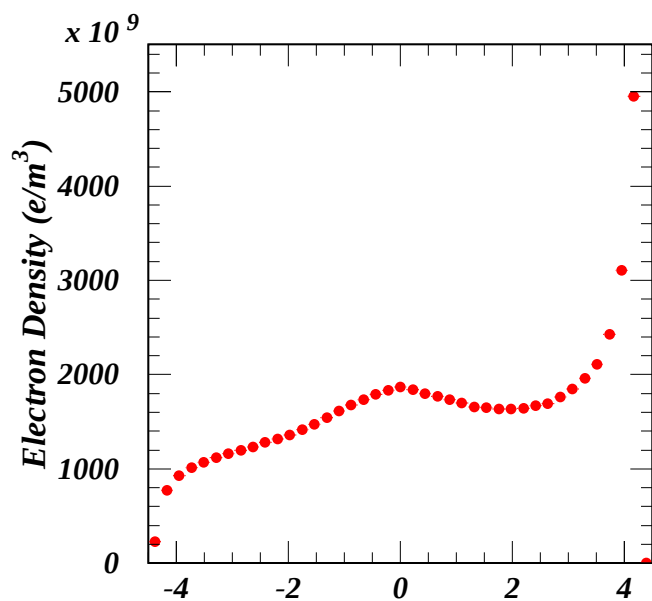
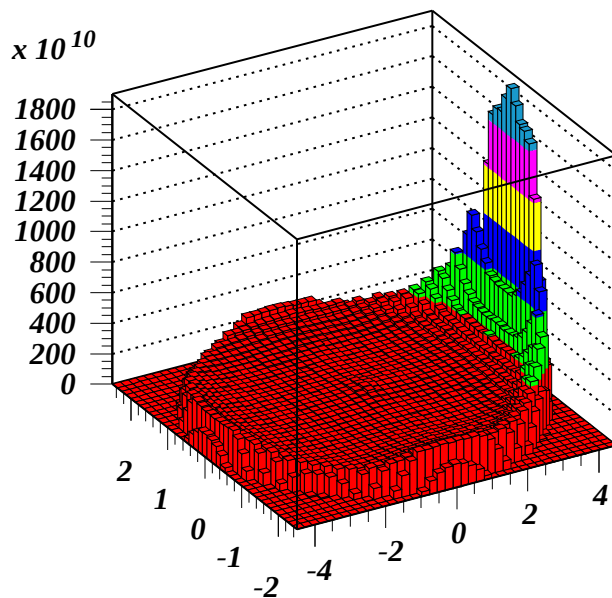
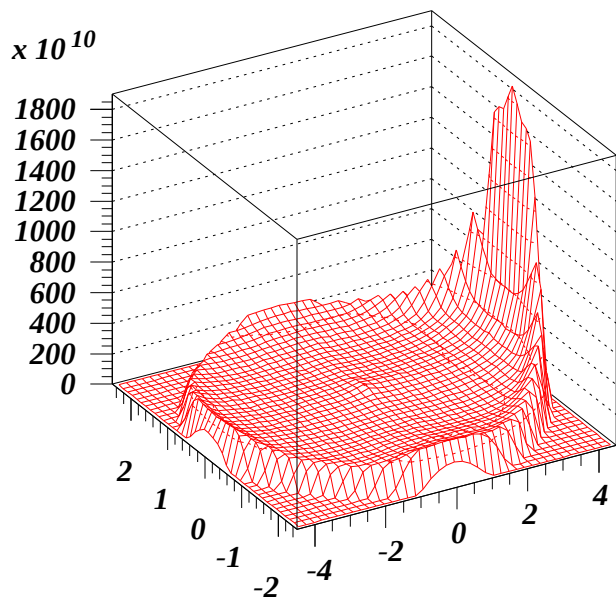
Cloud charge profile after bunch 35 at time = 490 ns*No energy cut: 148701 macroparticles, 1699780992 e-* *$E_{kin} > 10 \text{ eV}$: 19192 macroparticles, 248238640 e-*

Cloud charge profile after bunch 37 at time = 518 ns*No energy cut: 169472 macroparticles, $2.65585e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 49452 macroparticles, 791706688 e-*

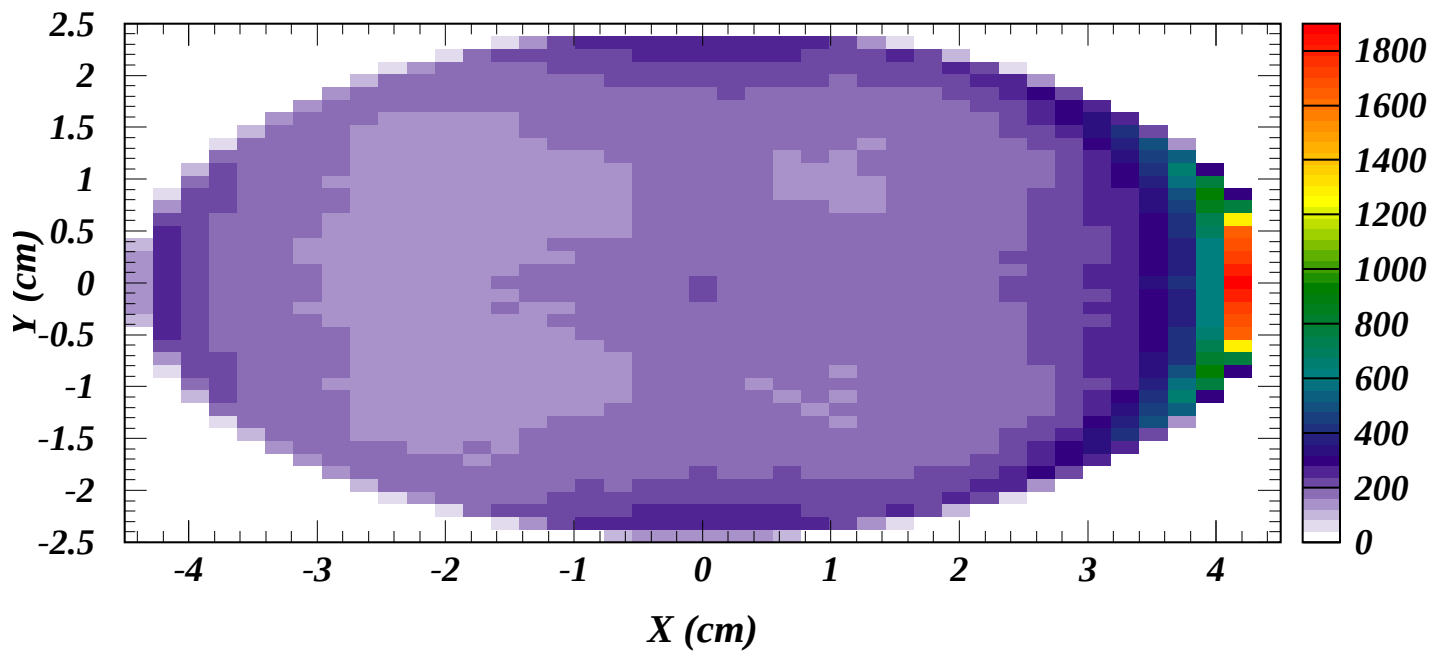
Cloud charge profile after bunch 39 at time = 546 ns*No energy cut: 147389 macroparticles, 1231968384 e-* *$E_{kin} > 10$ eV: 20093 macroparticles, 186060880 e-*

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

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

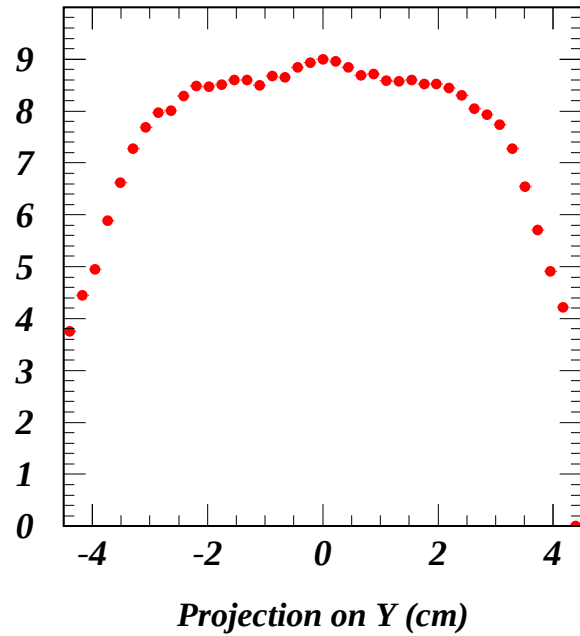
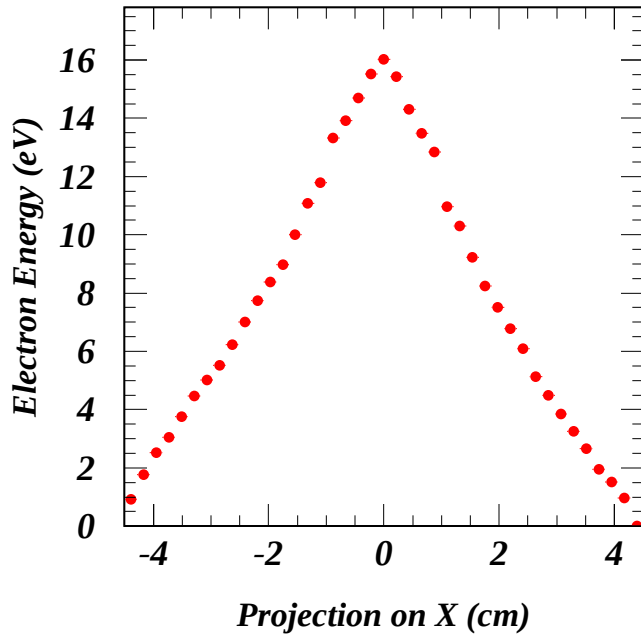
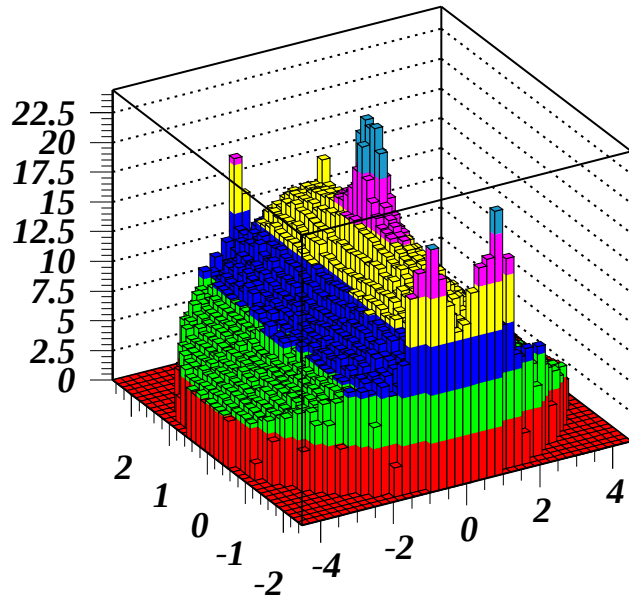
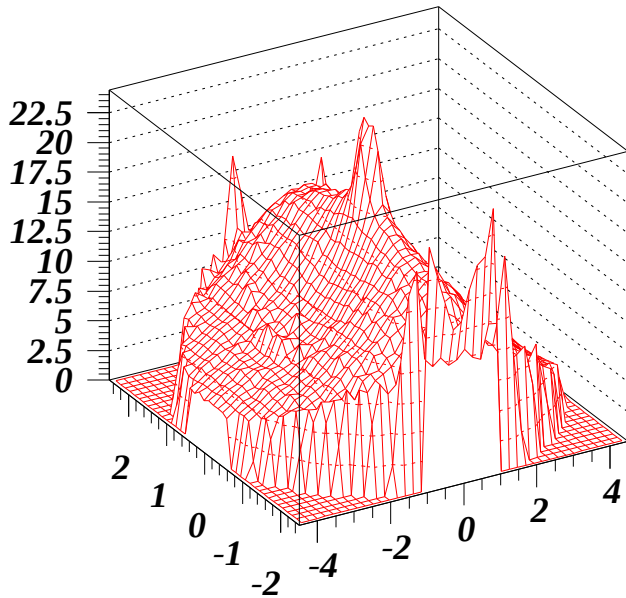
ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 1256 ns***Projection on X (cm)******Projection on Y (cm)***

ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 1256 ns **09/12/15 14.35**
 $\times 10^{10}$



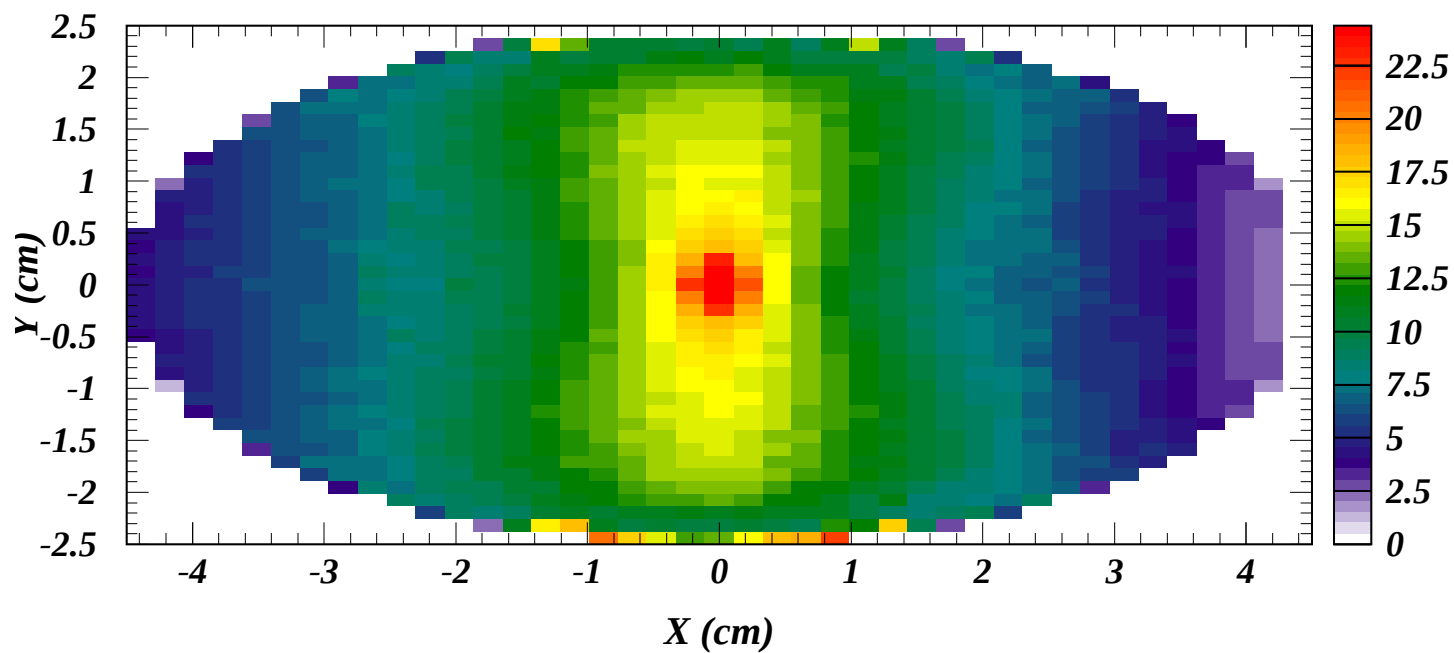
09/12/15 14.35

ECLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 1256 ns



09/12/15 14.35

ECLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 1256 ns



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