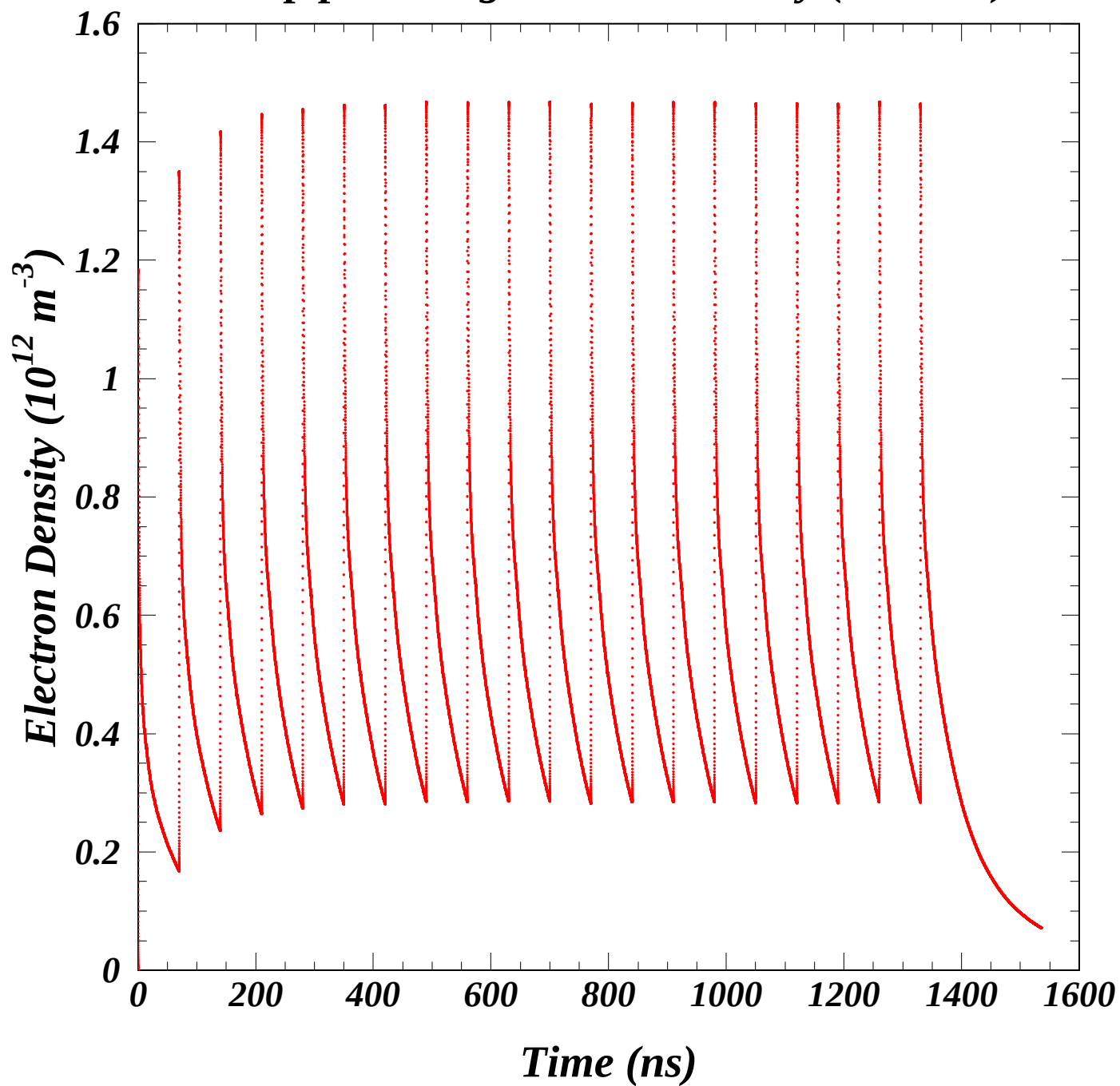
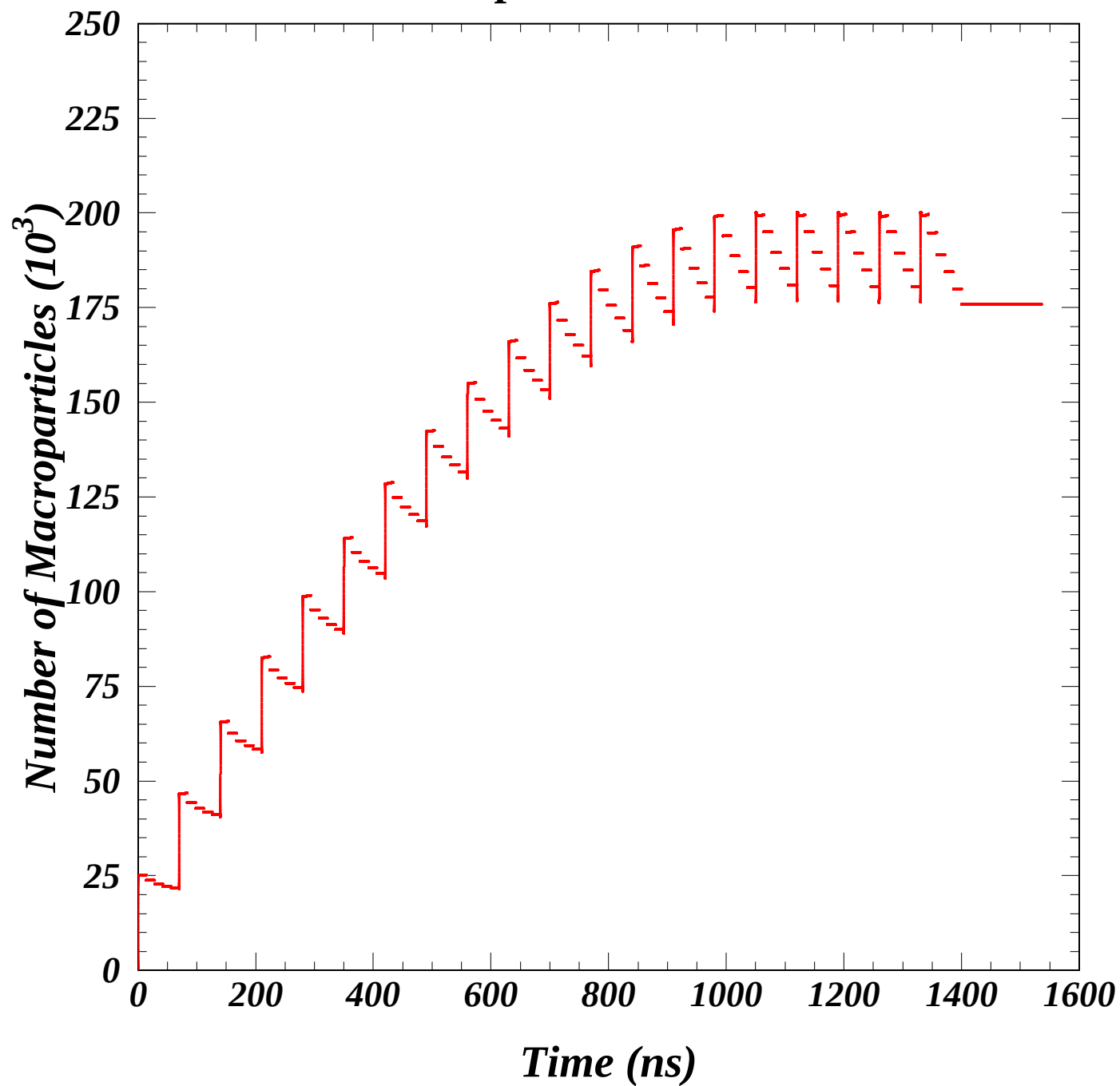
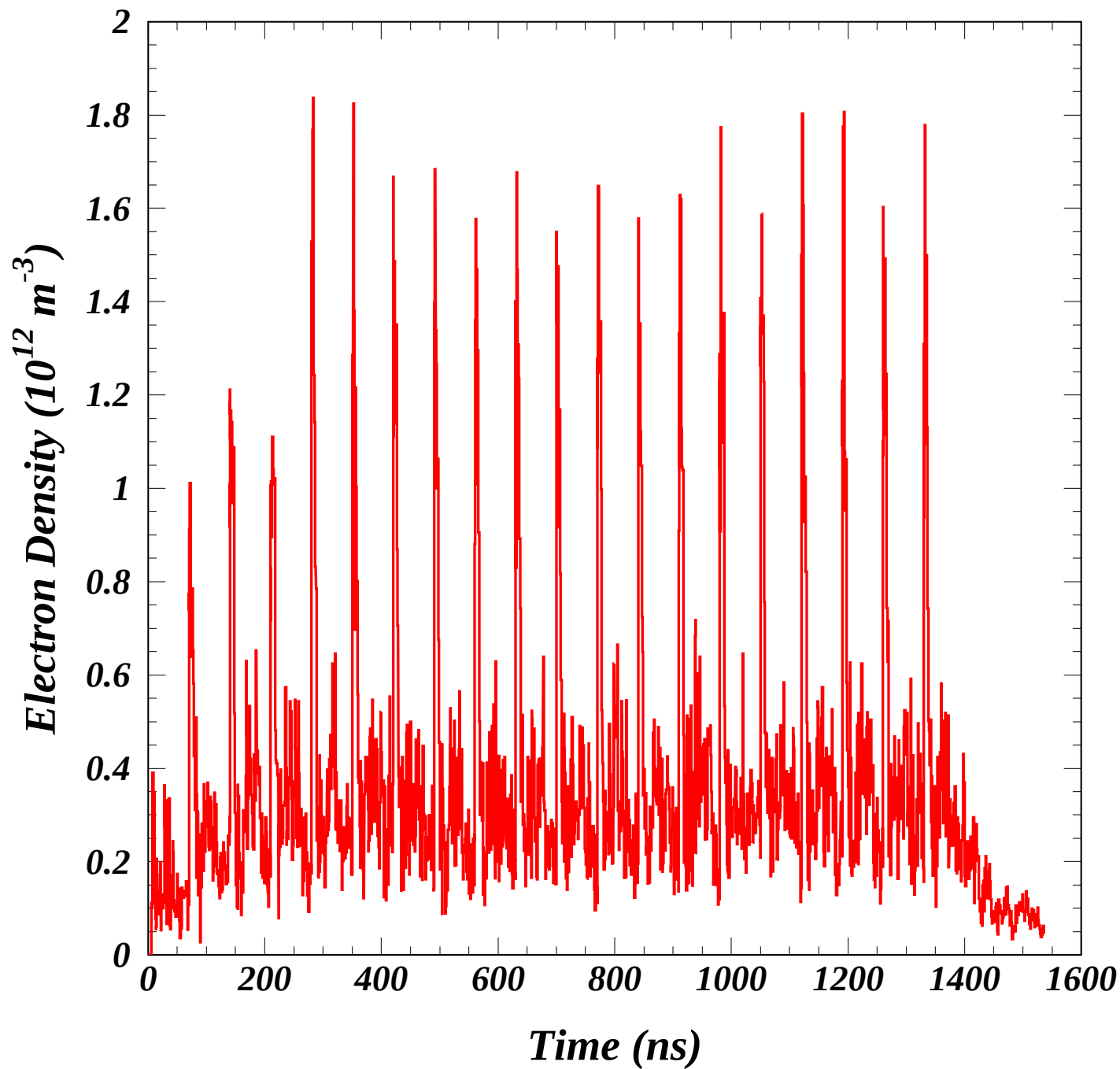
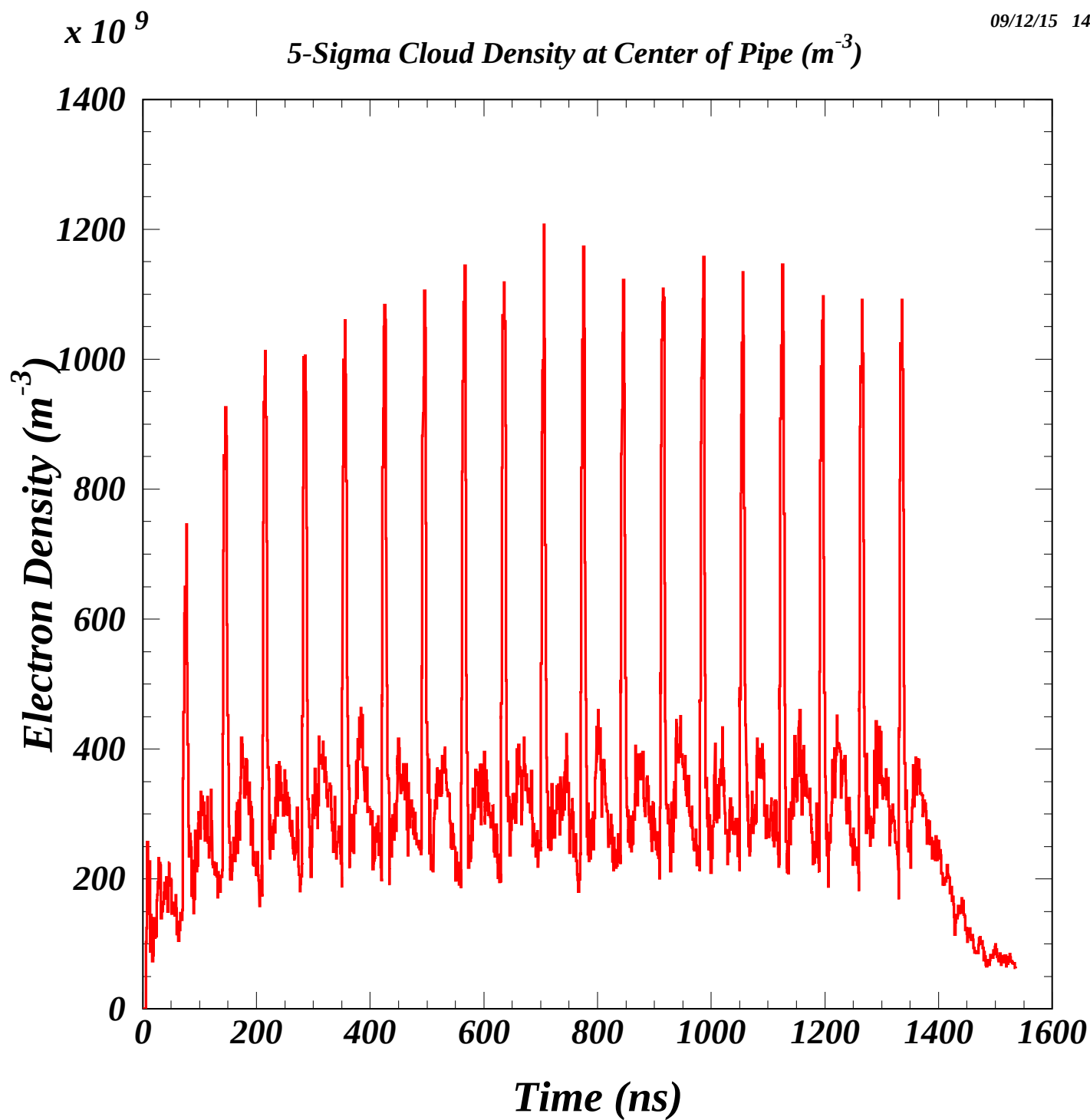


Beampipe-averaged Cloud Density (10^{12} m^{-3})

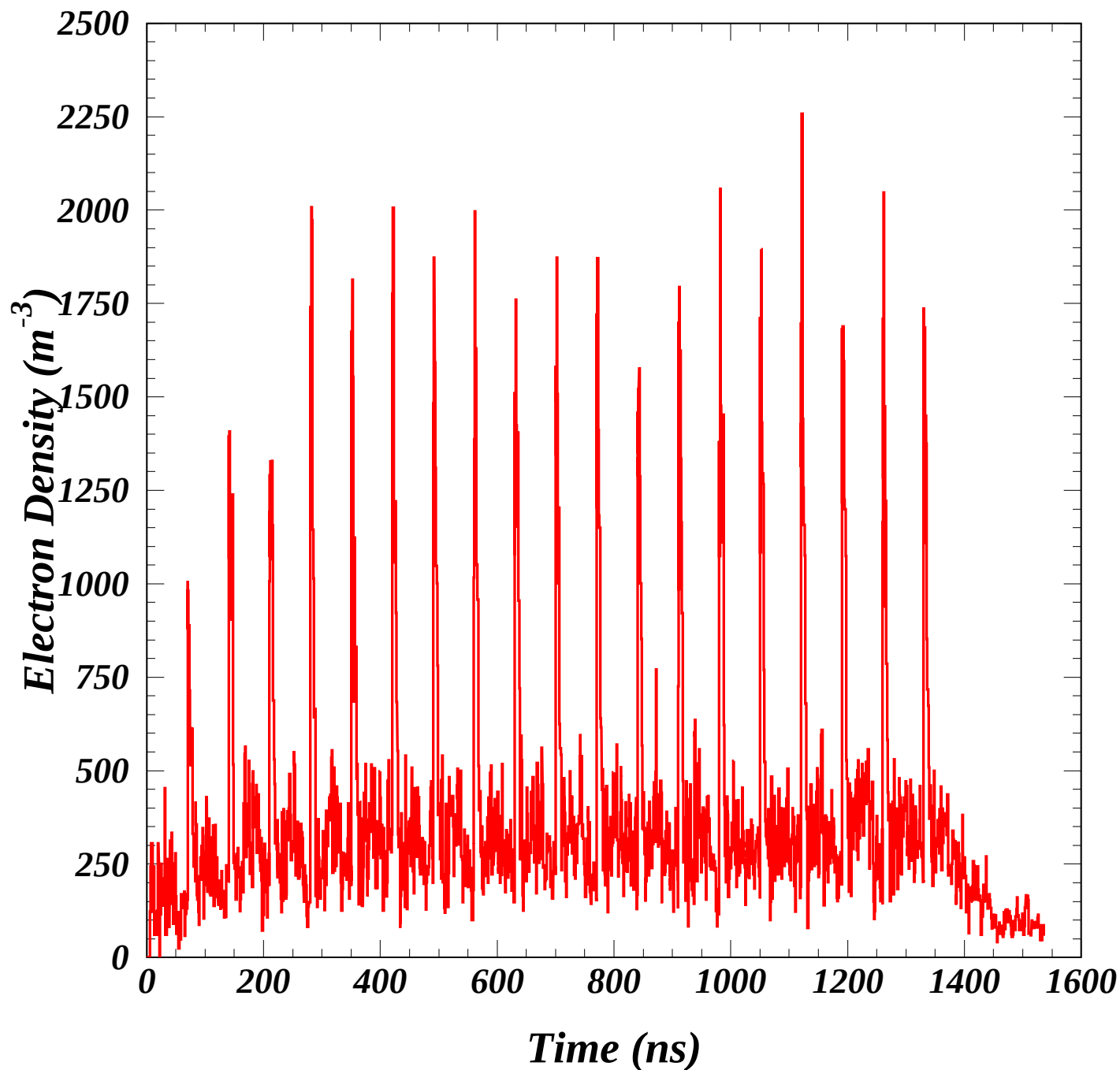
Macroparticle Statistics

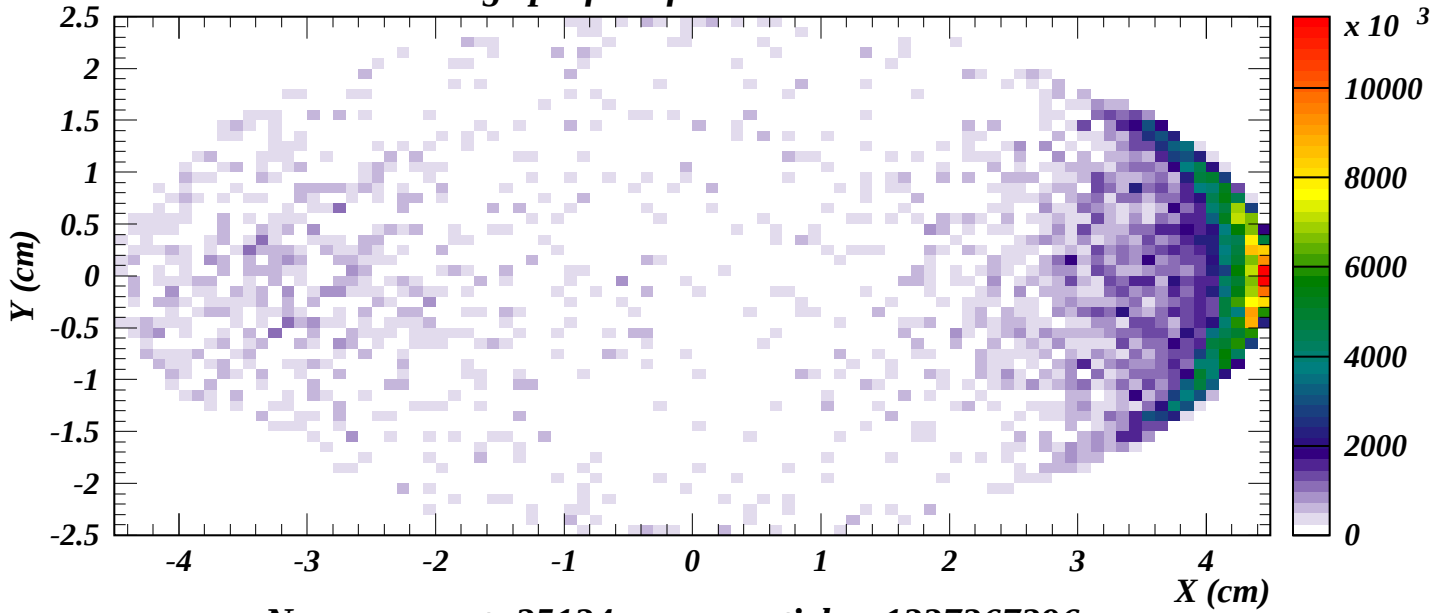
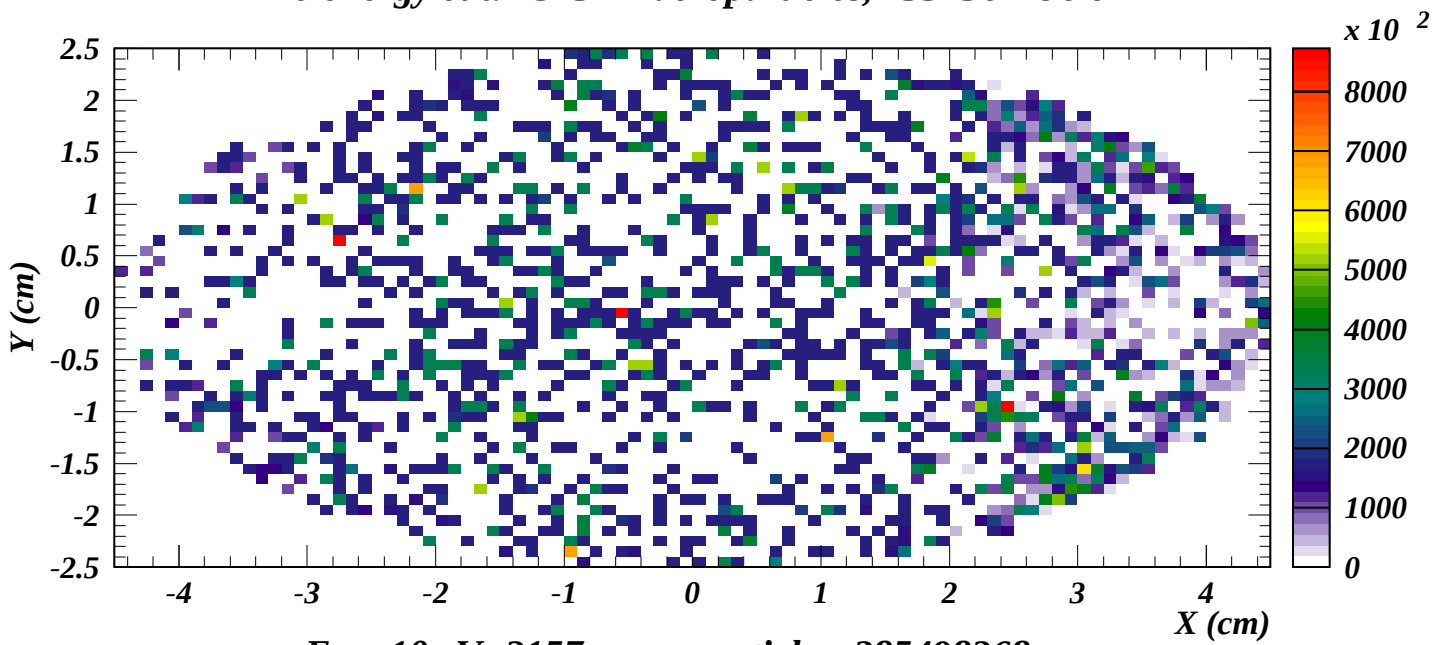


Beam-averaged Cloud Density (10^{12} m^{-3})

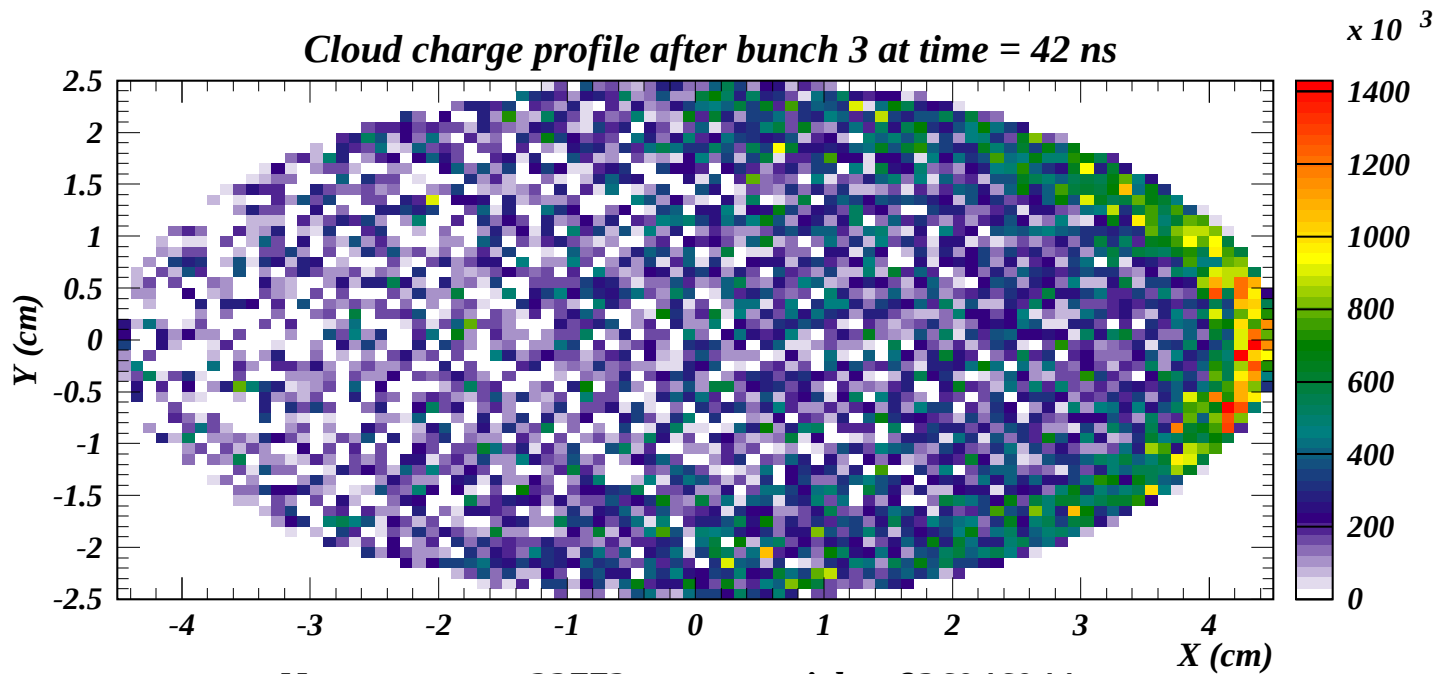
5-Sigma Cloud Density at Center of Pipe (m^{-3})

$\times 10^9$ 09/12/15 14.37
ECLOUD-CesrTA_4_0GeV: Cloud Density in Central Grid Cell (m^{-3})

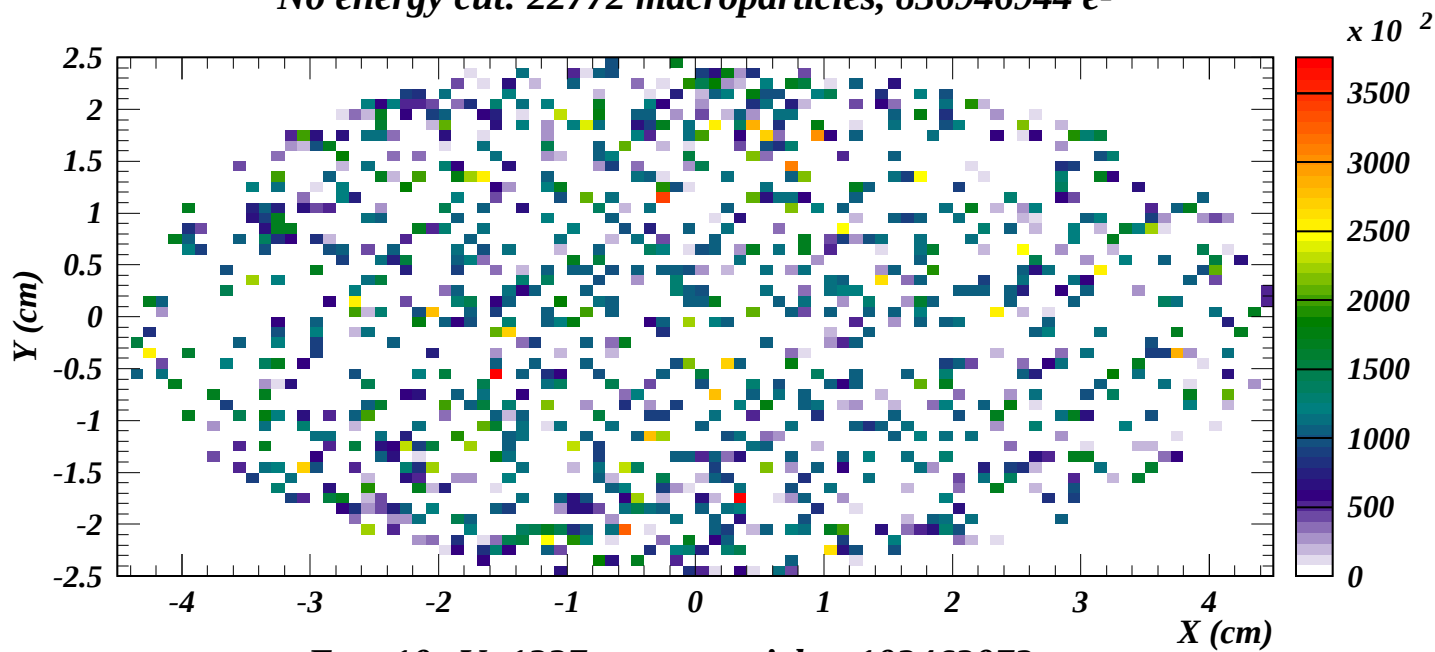


Cloud charge profile after bunch 1 at time = 14 ns*No energy cut: 25134 macroparticles, 1337367296 e-* *$E_{\text{kin}} > 10$ eV: 2157 macroparticles, 285498368 e-*

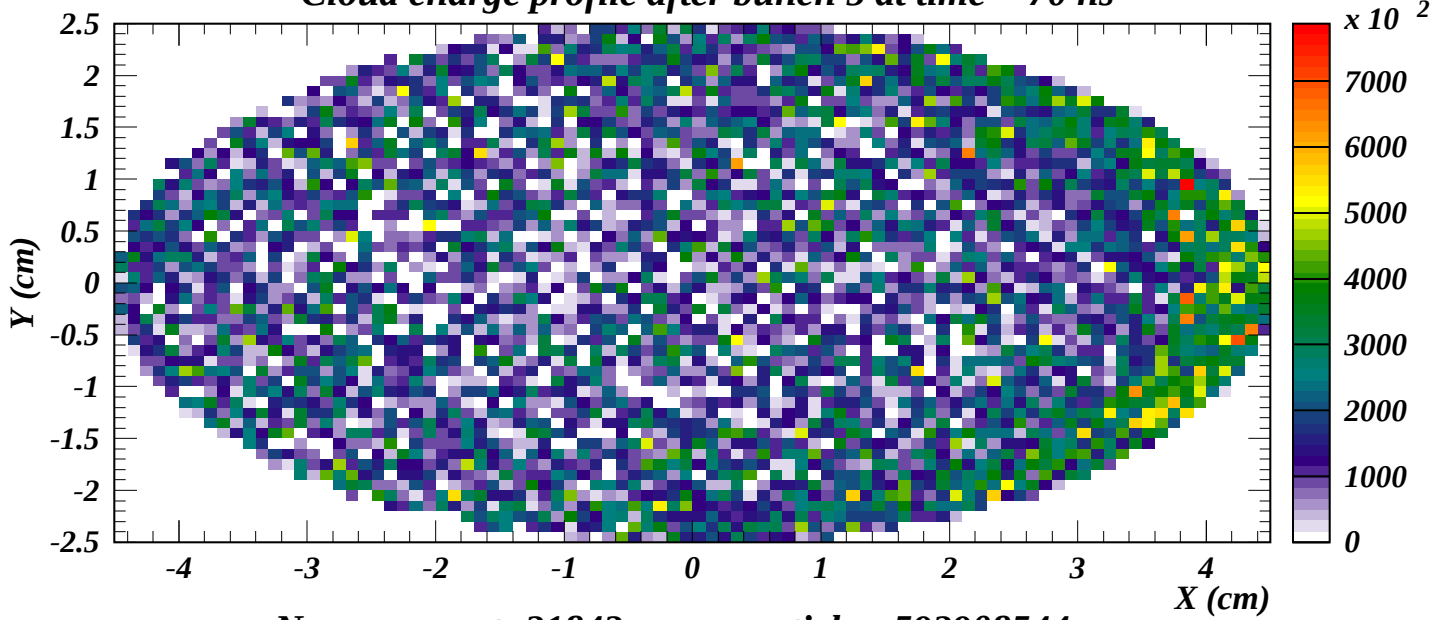
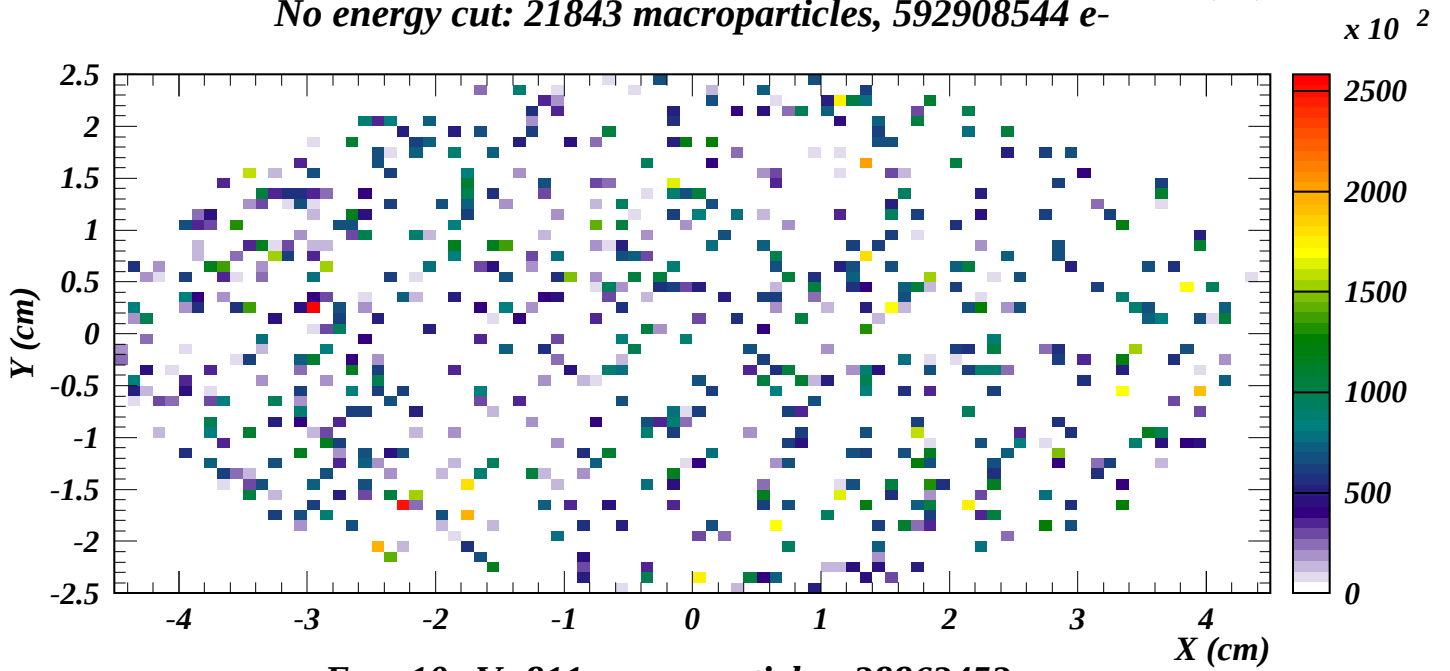
09/12/15 14.37

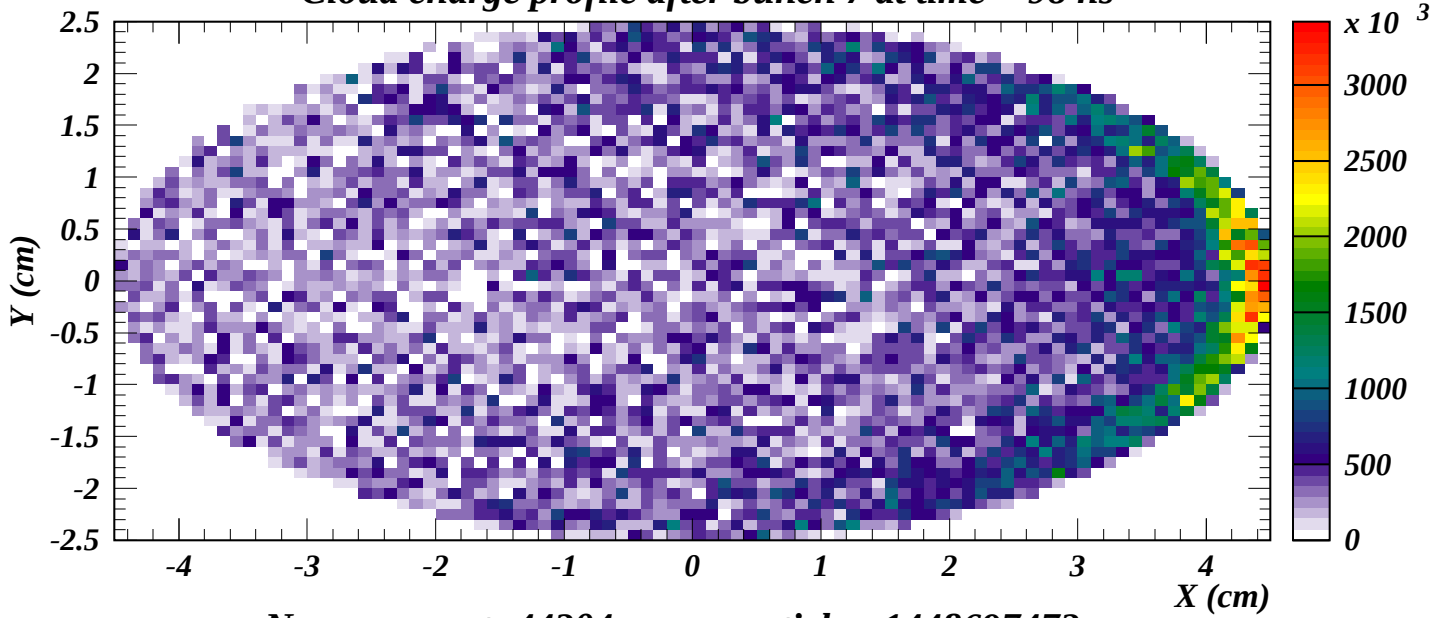
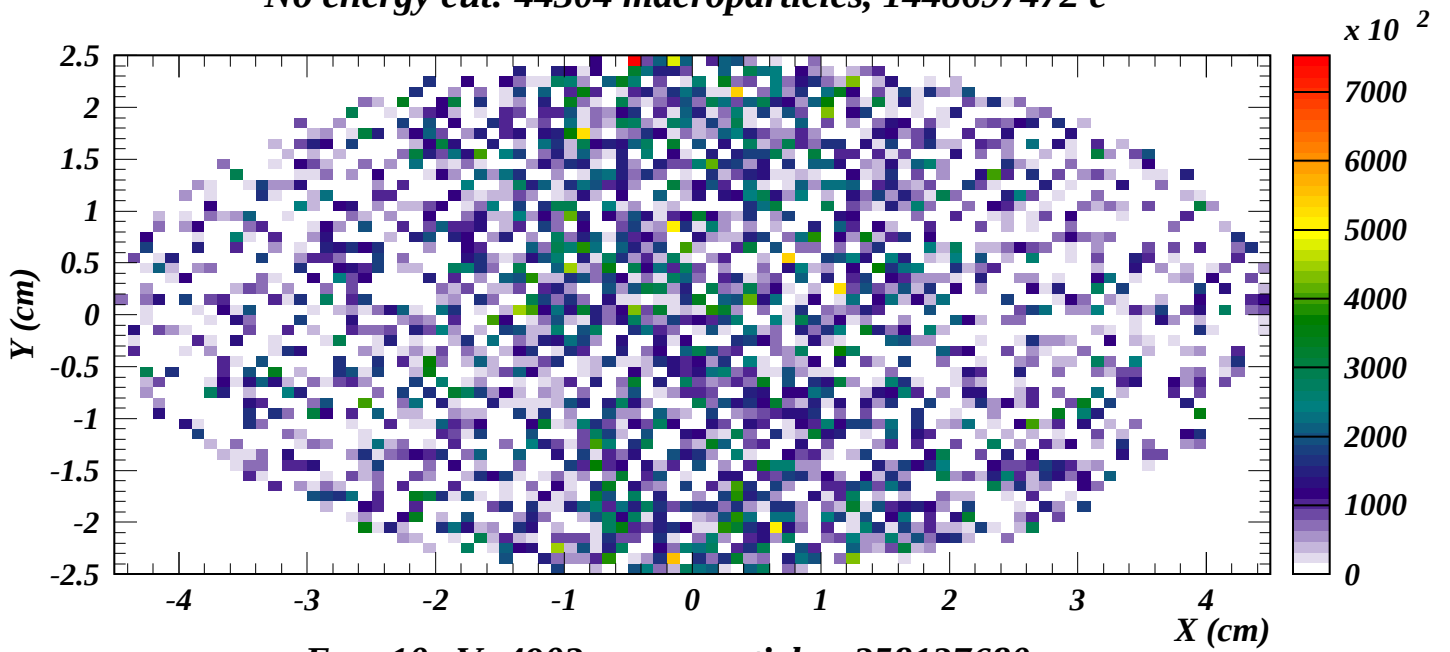


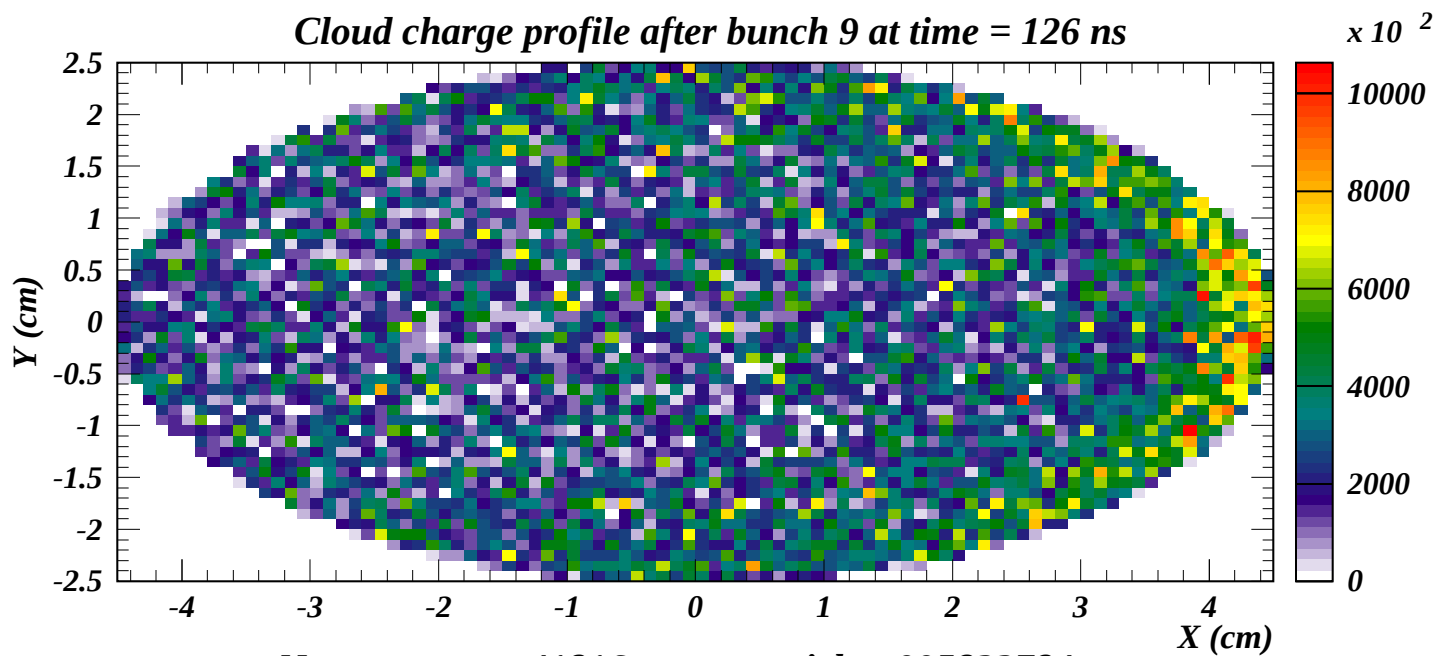
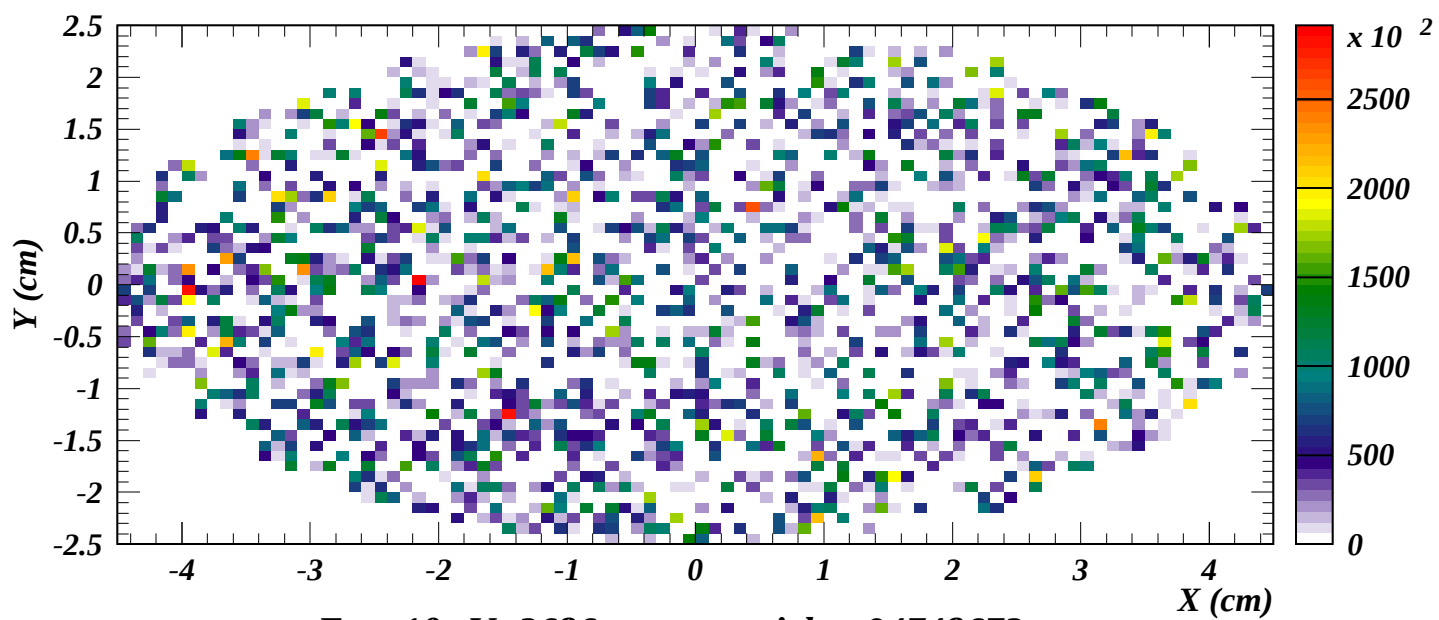
No energy cut: 22772 macroparticles, 836946944 e-

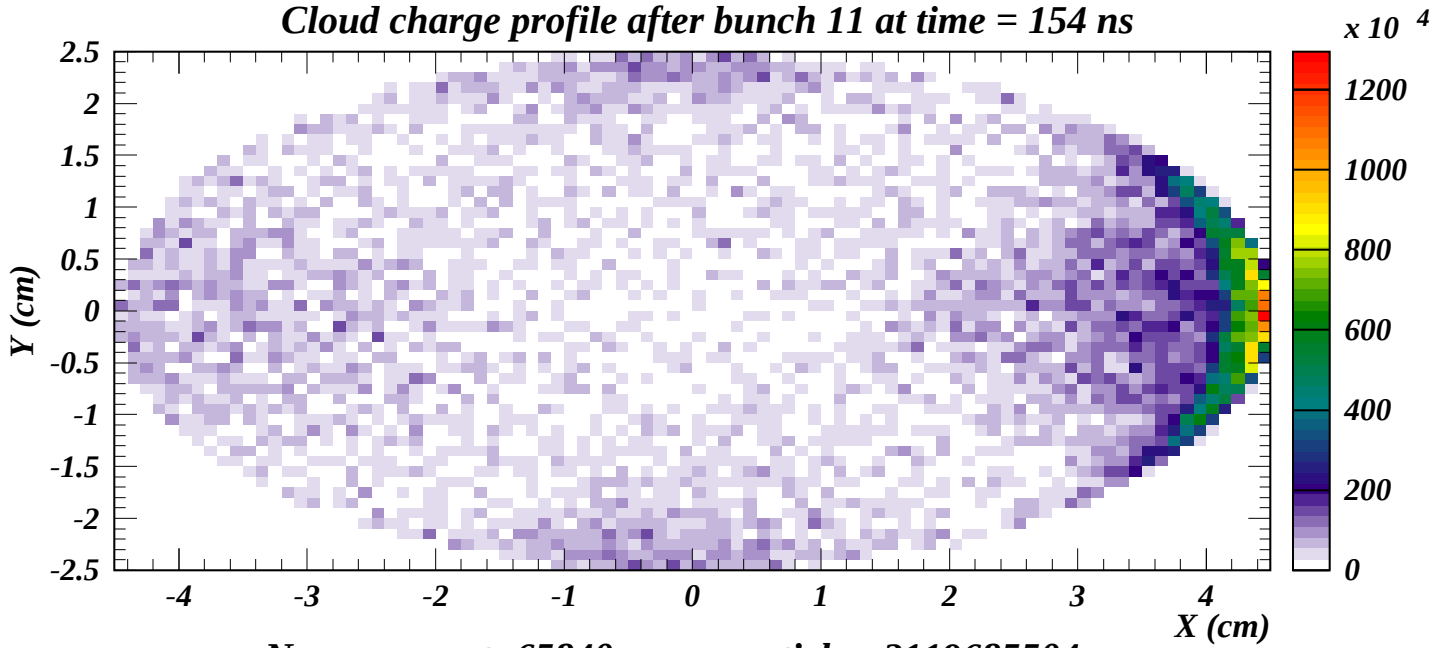
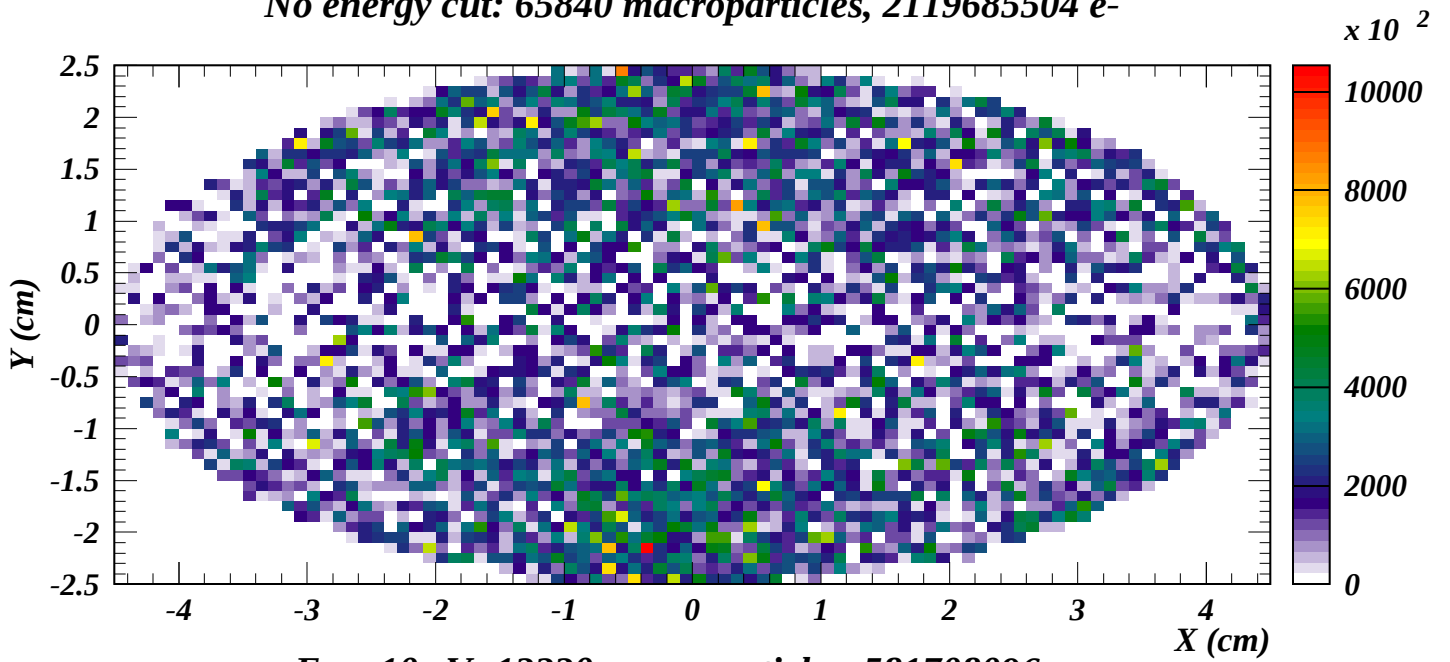


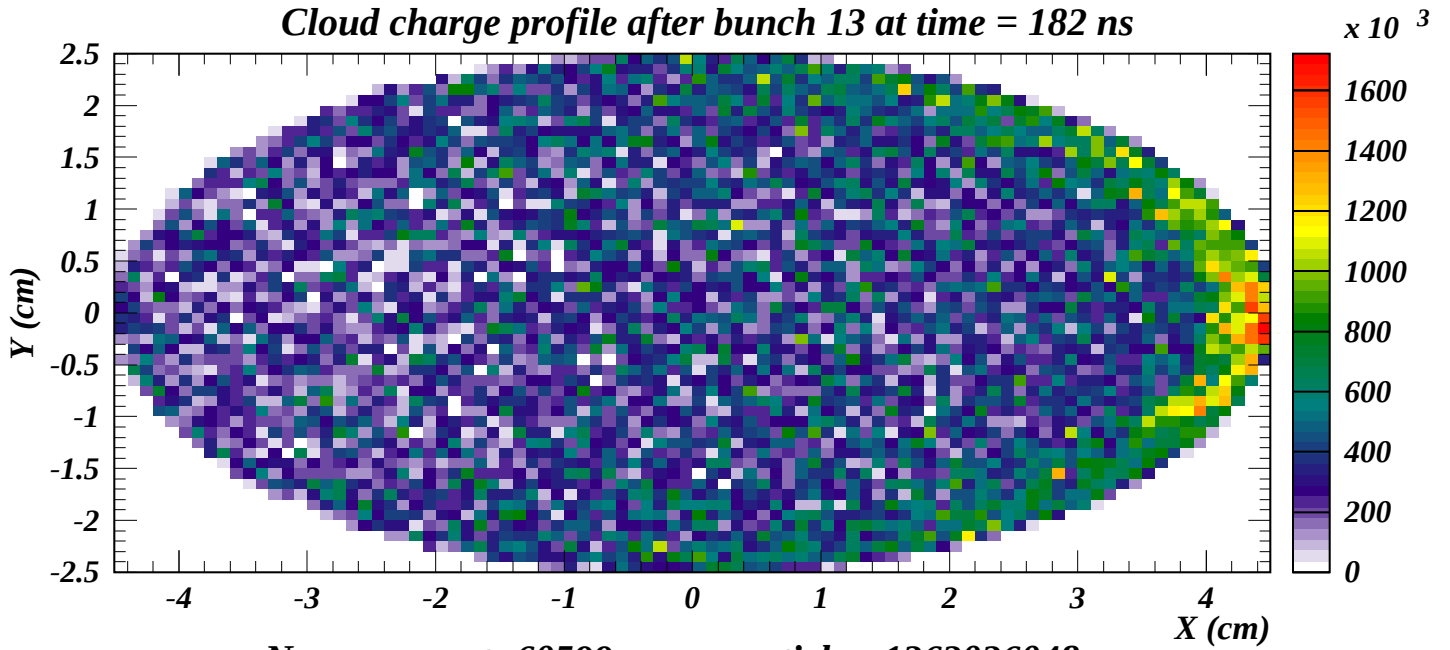
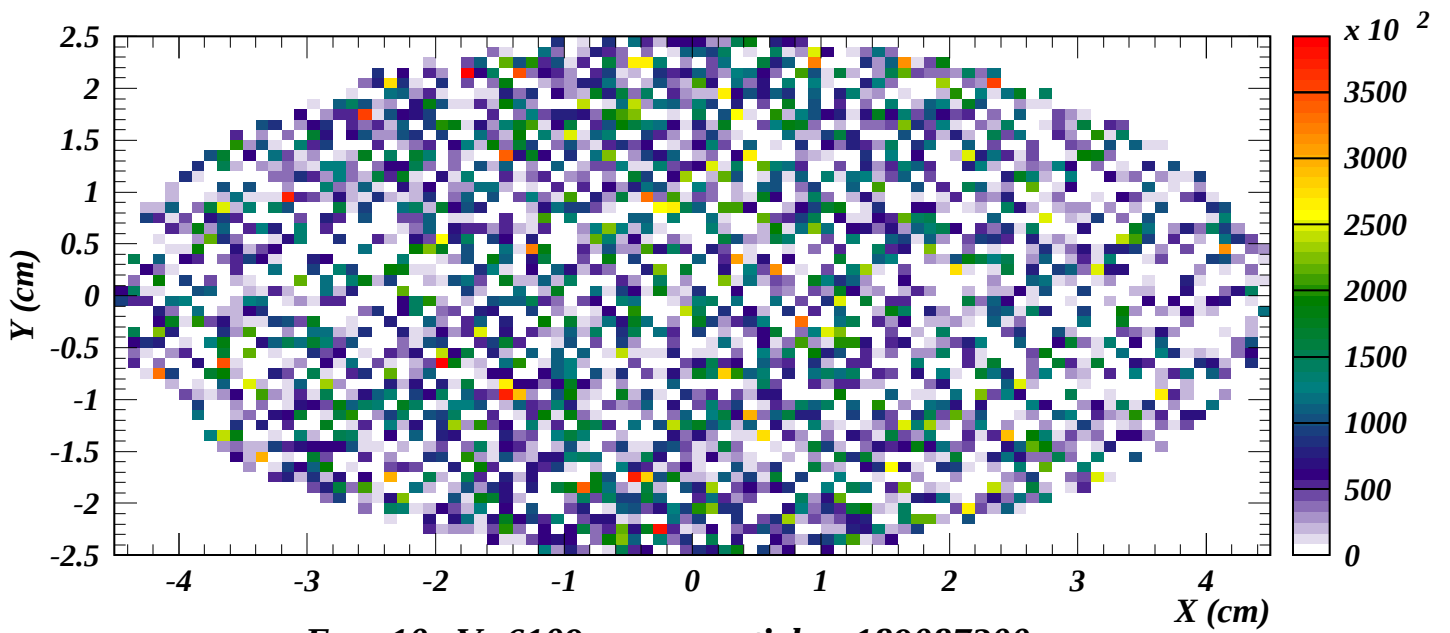
$E_{\text{kin}} > 10$ eV: 1337 macroparticles, 102463072 e-

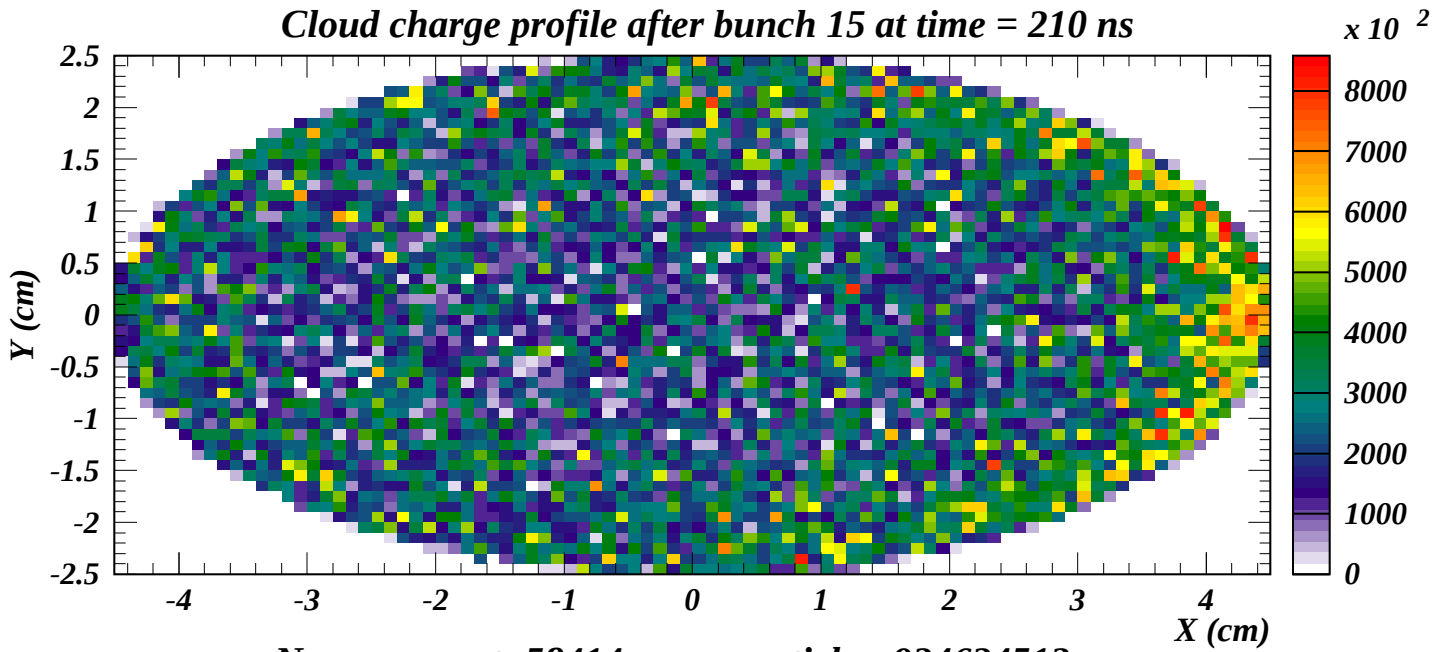
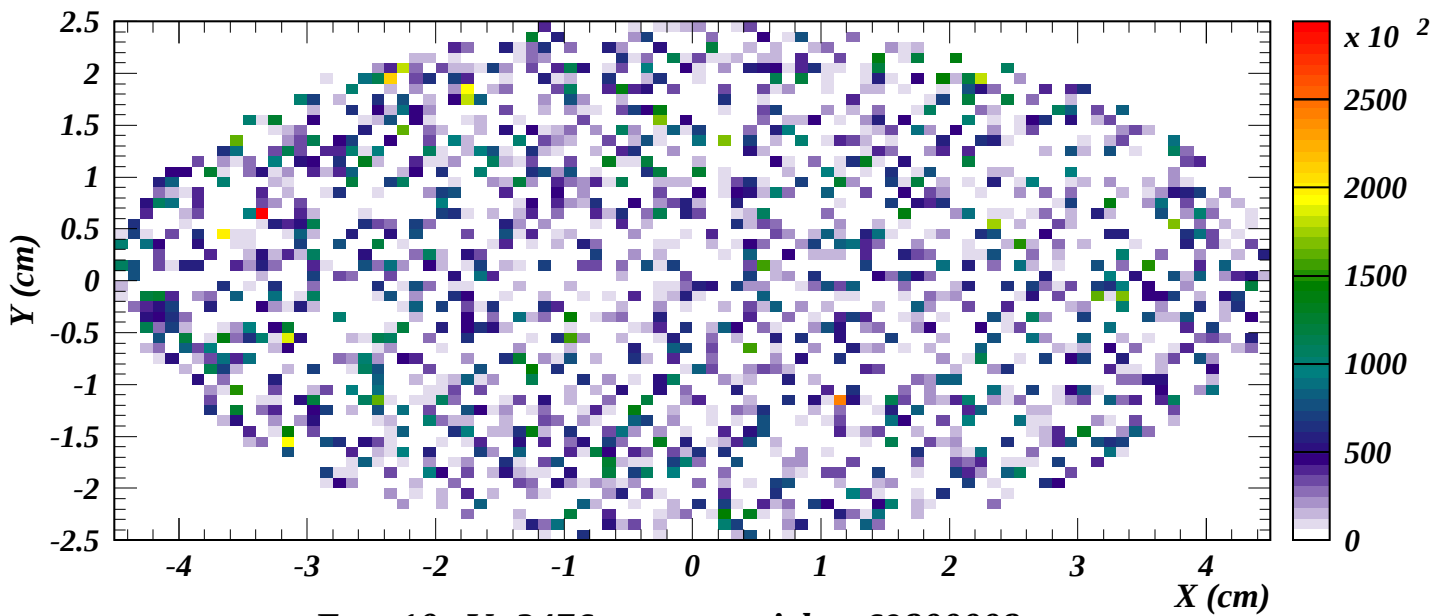
Cloud charge profile after bunch 5 at time = 70 ns*No energy cut: 21843 macroparticles, 592908544 e-* *$E_{kin} > 10 \text{ eV}$: 811 macroparticles, 38863452 e-*

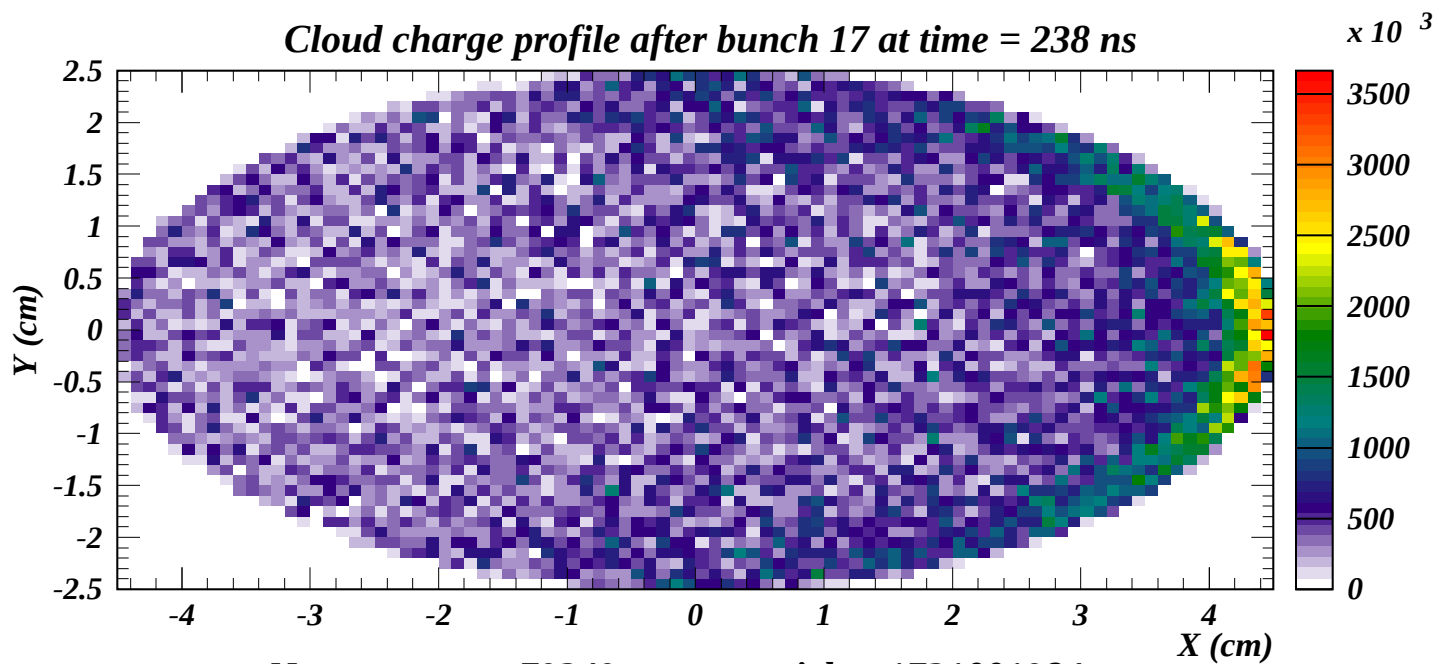
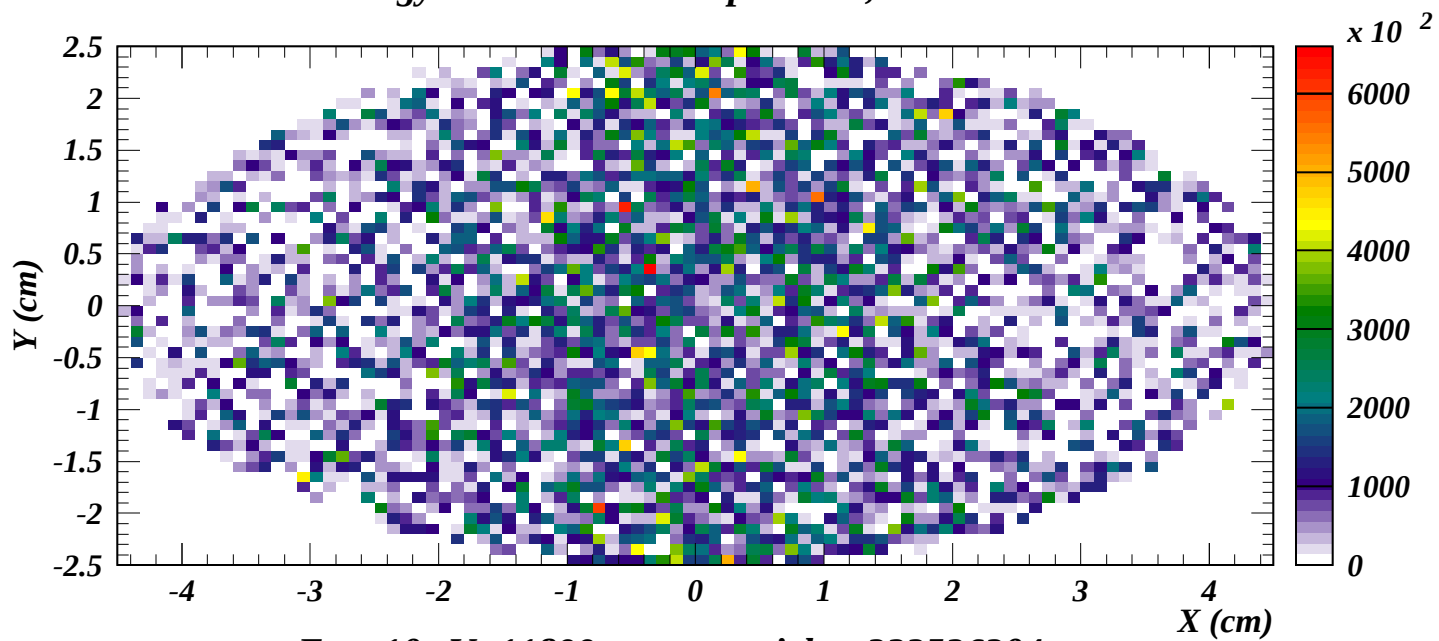
Cloud charge profile after bunch 7 at time = 98 ns*No energy cut: 44304 macroparticles, 1448697472 e-* *$E_{\text{kin}} > 10$ eV: 4902 macroparticles, 258137680 e-*

Cloud charge profile after bunch 9 at time = 126 ns*No energy cut: 41816 macroparticles, 995822784 e-* *$E_{kin} > 10 \text{ eV}$: 2686 macroparticles, 94748672 e-*

Cloud charge profile after bunch 11 at time = 154 ns*No energy cut: 65840 macroparticles, 2119685504 e-* *$E_{kin} > 10 \text{ eV}$: 13230 macroparticles, 581708096 e-*

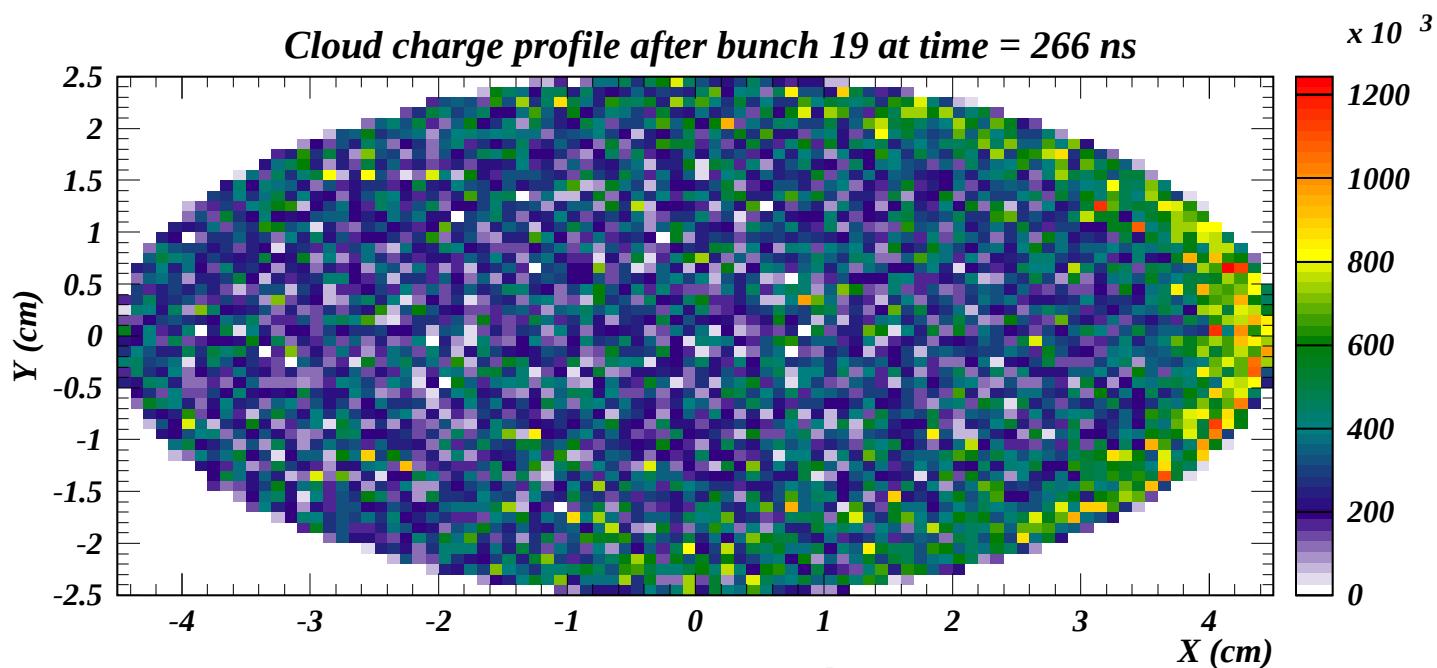
Cloud charge profile after bunch 13 at time = 182 ns*No energy cut: 60599 macroparticles, 1363026048 e-* *$E_{kin} > 10$ eV: 6109 macroparticles, 189087200 e-*

Cloud charge profile after bunch 15 at time = 210 ns*No energy cut: 58414 macroparticles, 934624512 e-* *$E_{kin} > 10$ eV: 3476 macroparticles, 69800008 e-*

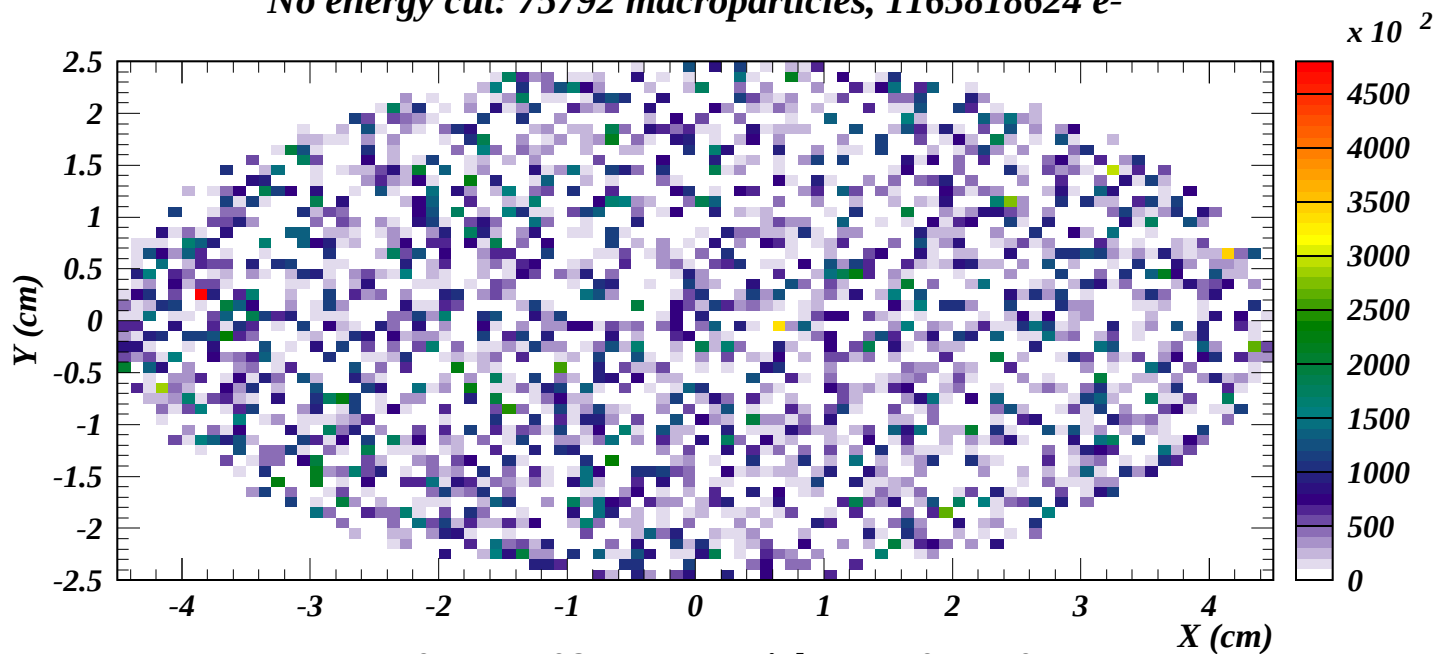
Cloud charge profile after bunch 17 at time = 238 ns*No energy cut: 79349 macroparticles, 1721001984 e-* *$E_{kin} > 10 \text{ eV}$: 11899 macroparticles, 323526304 e-*

09/12/15 14.38

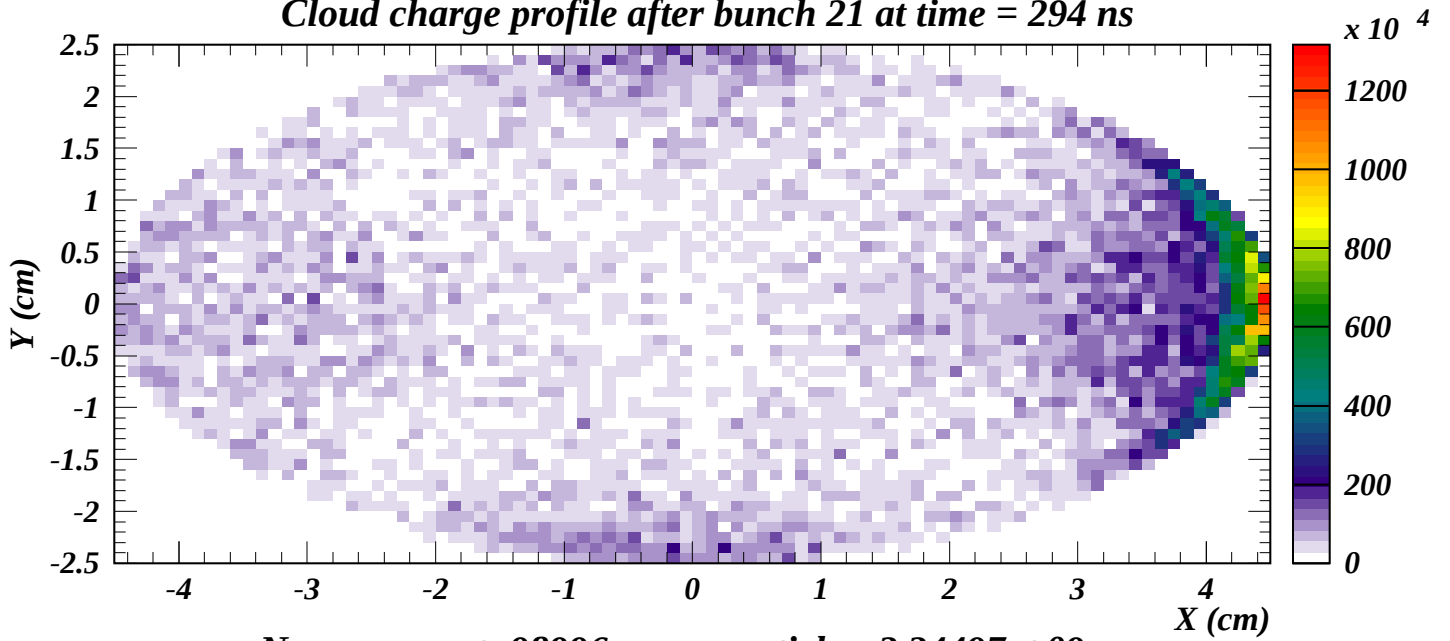
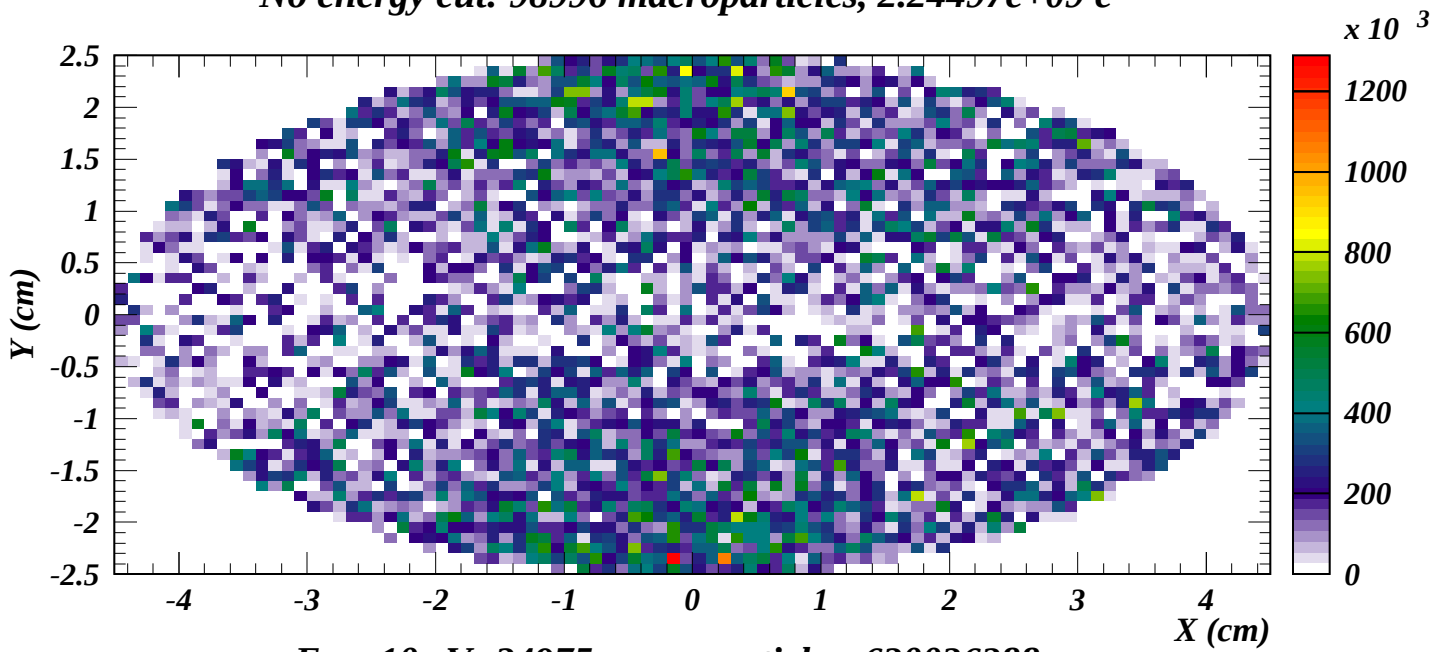
Cloud charge profile after bunch 19 at time = 266 ns

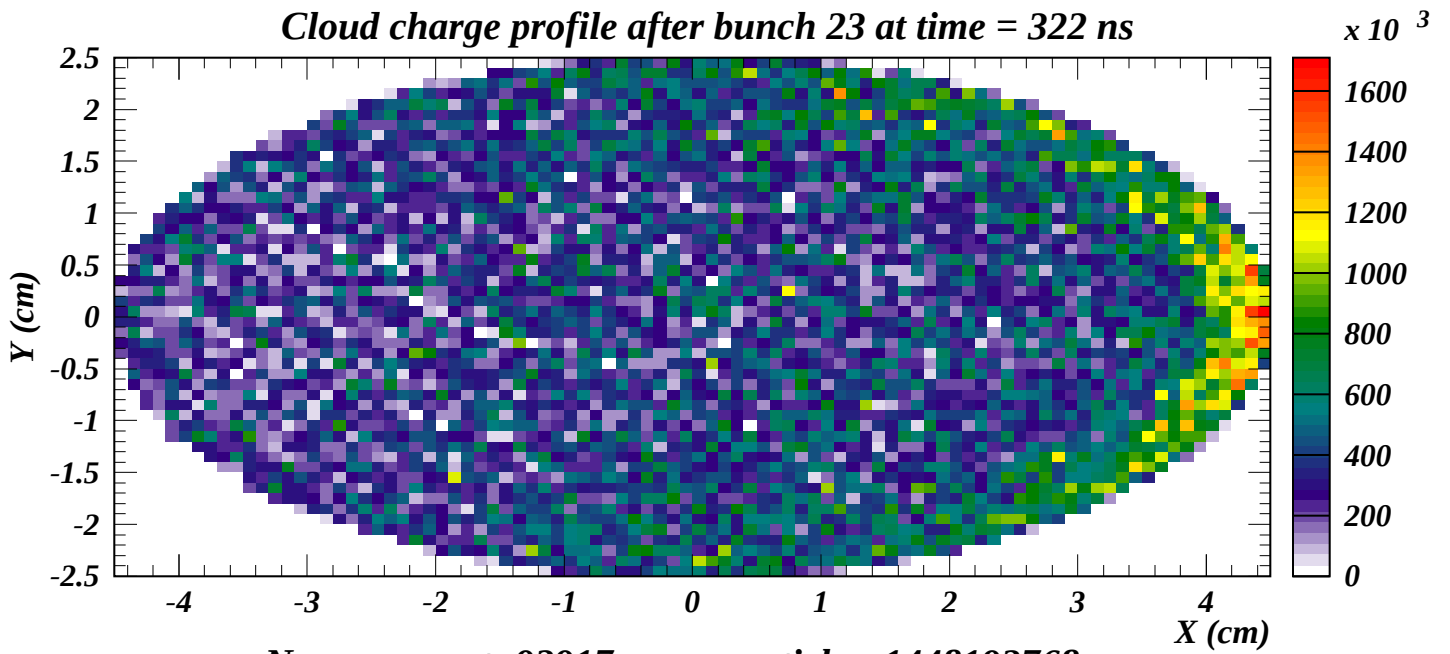
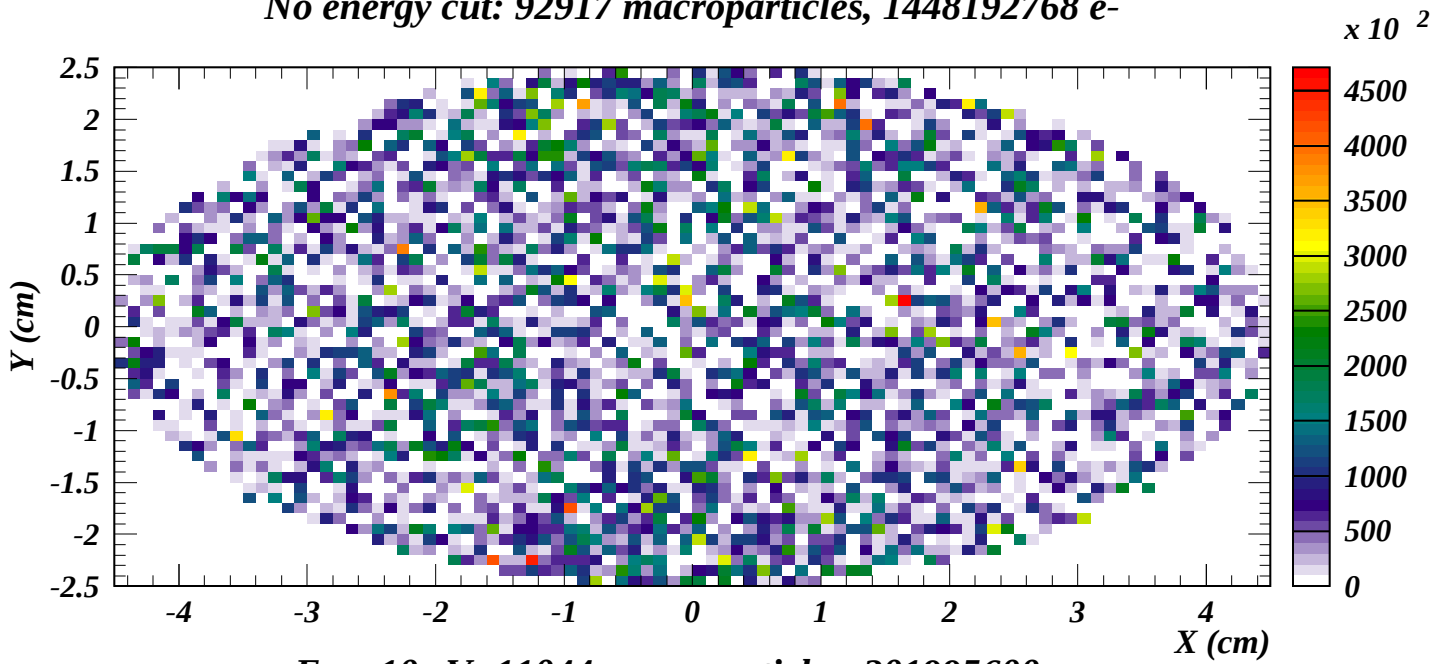


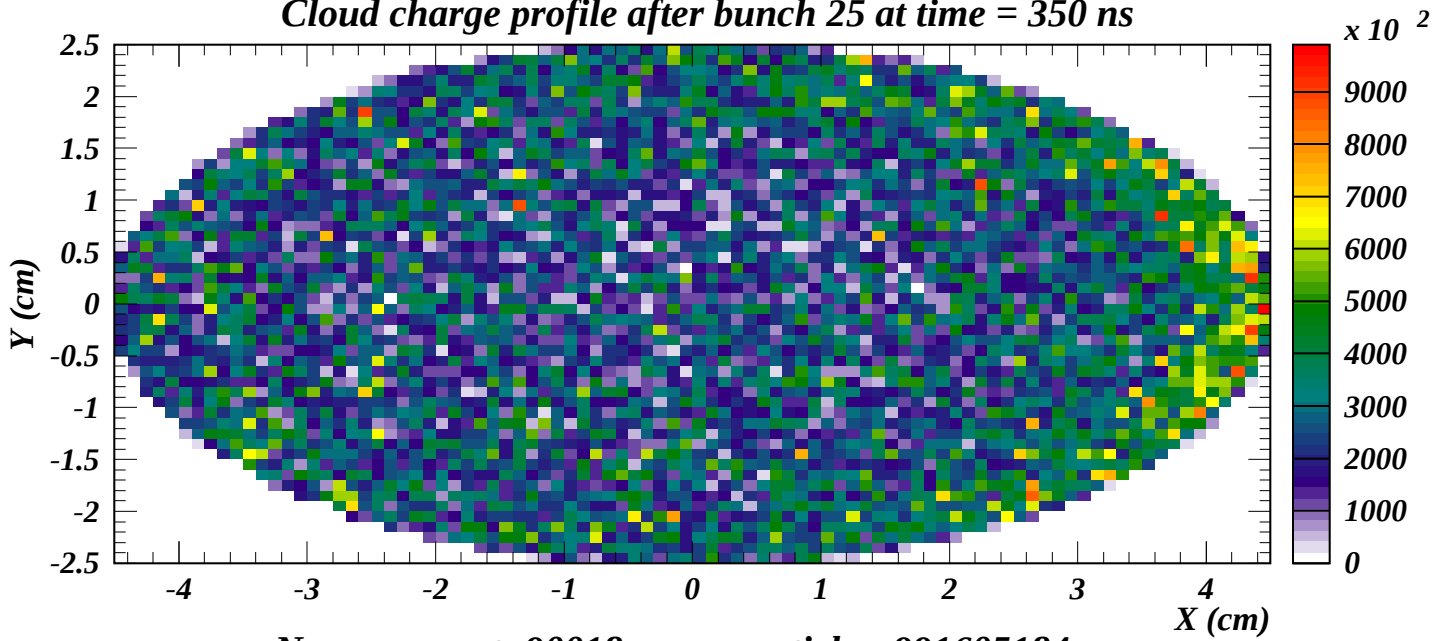
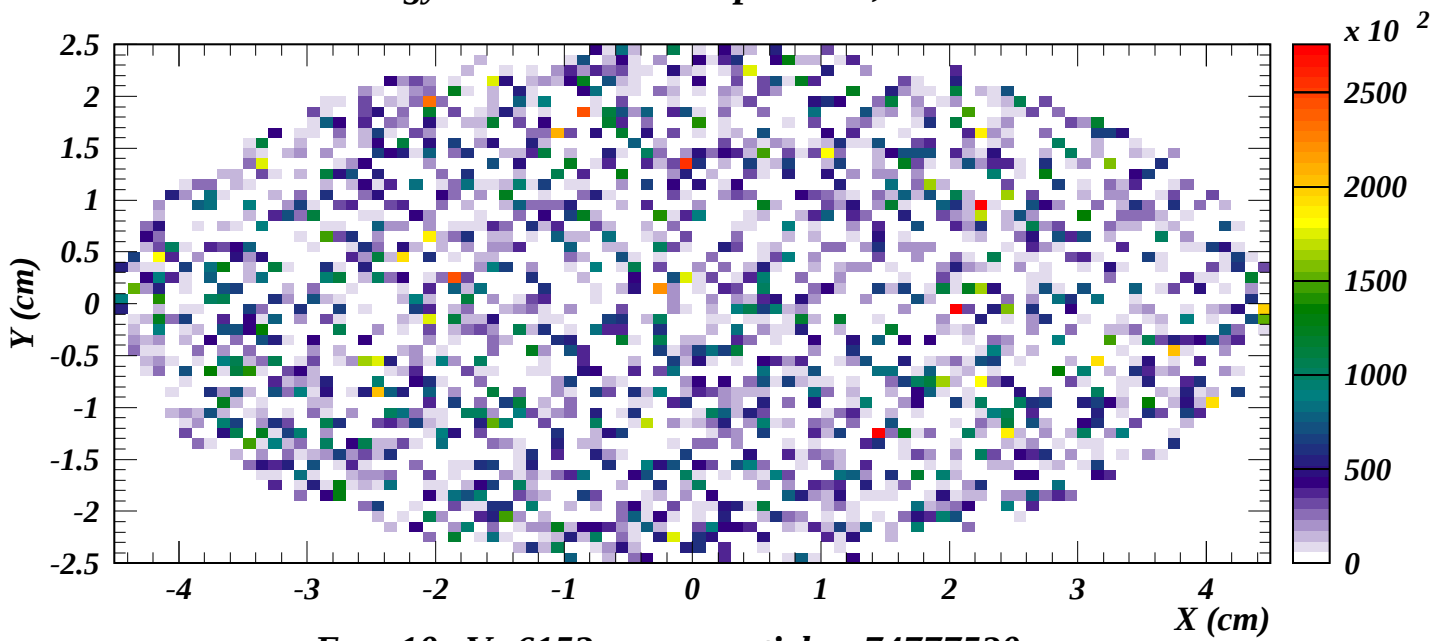
No energy cut: 75792 macroparticles, 1165818624 e-

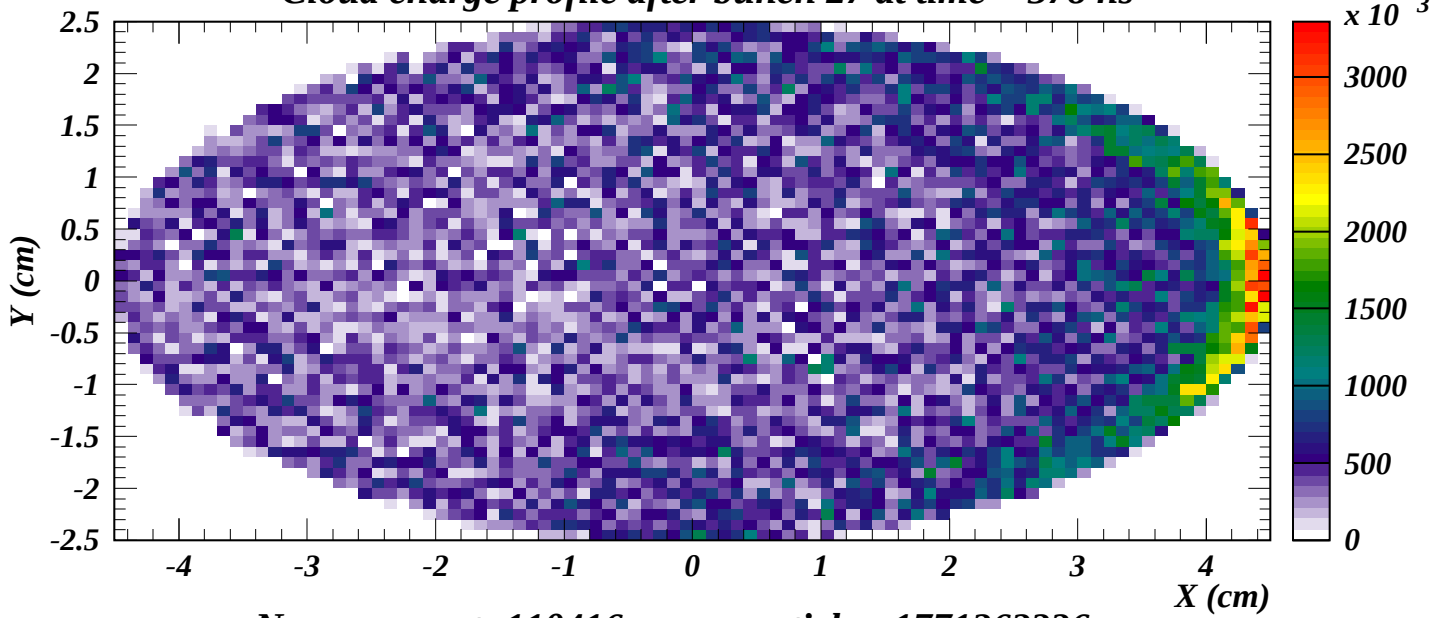
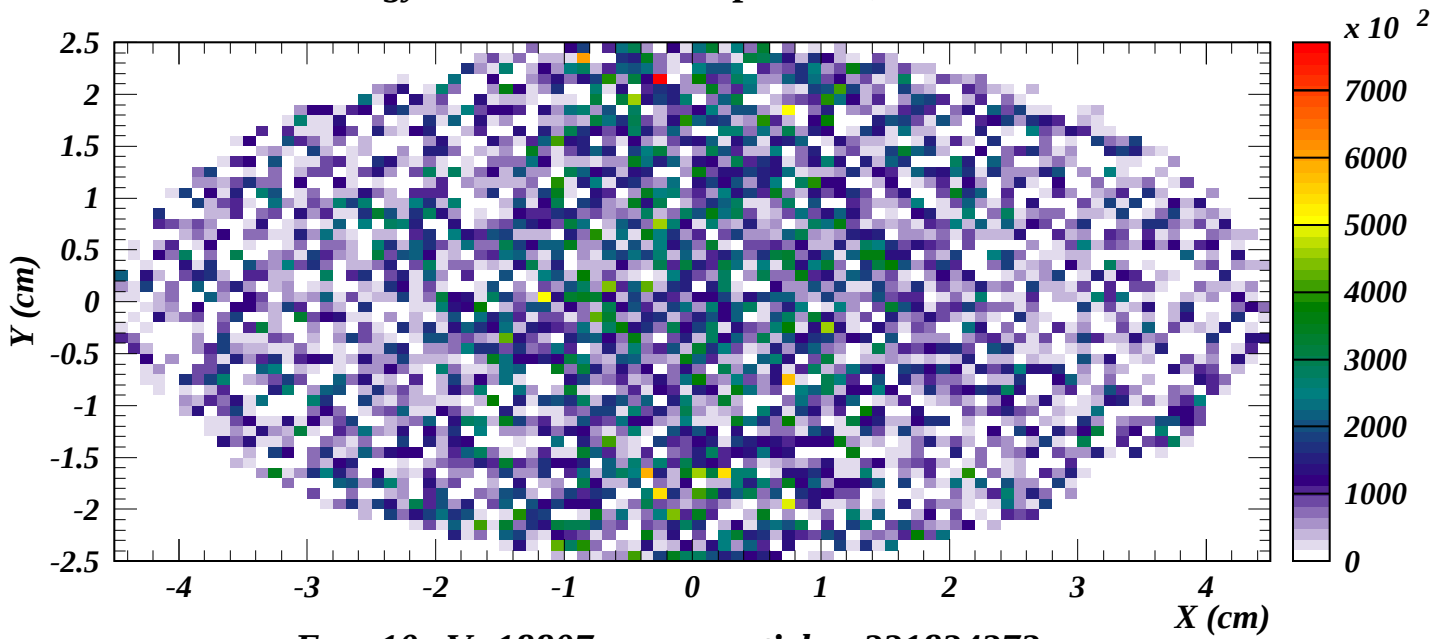


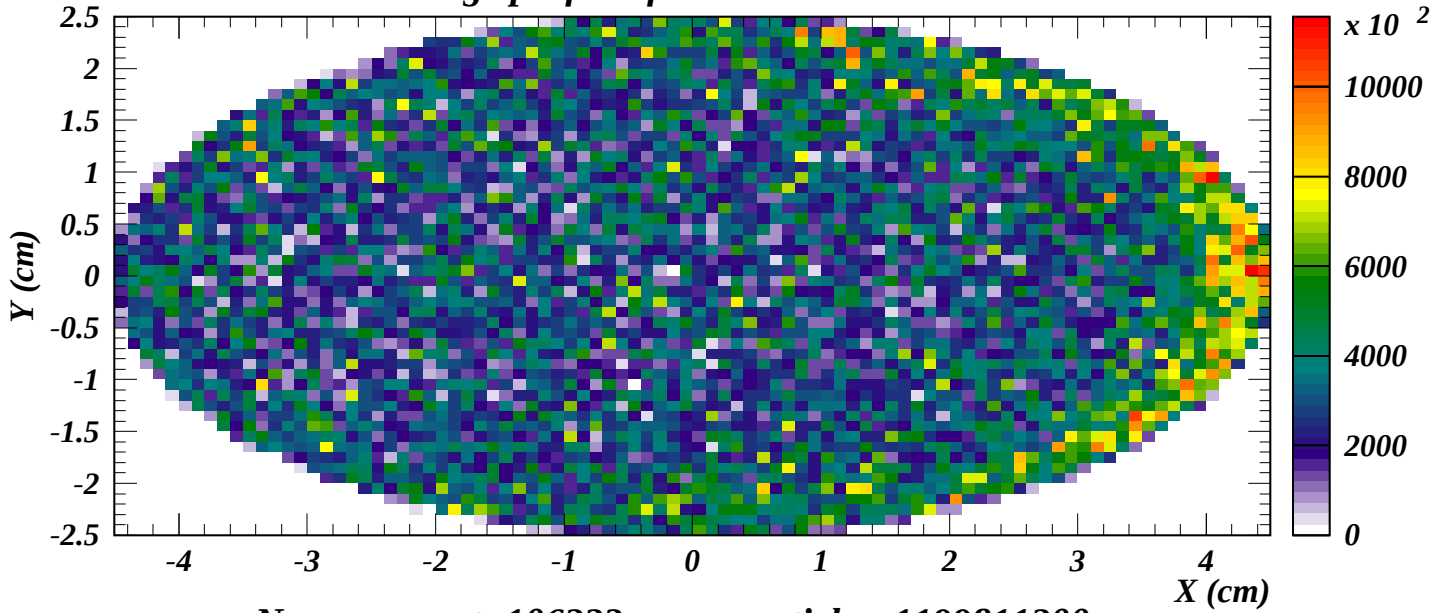
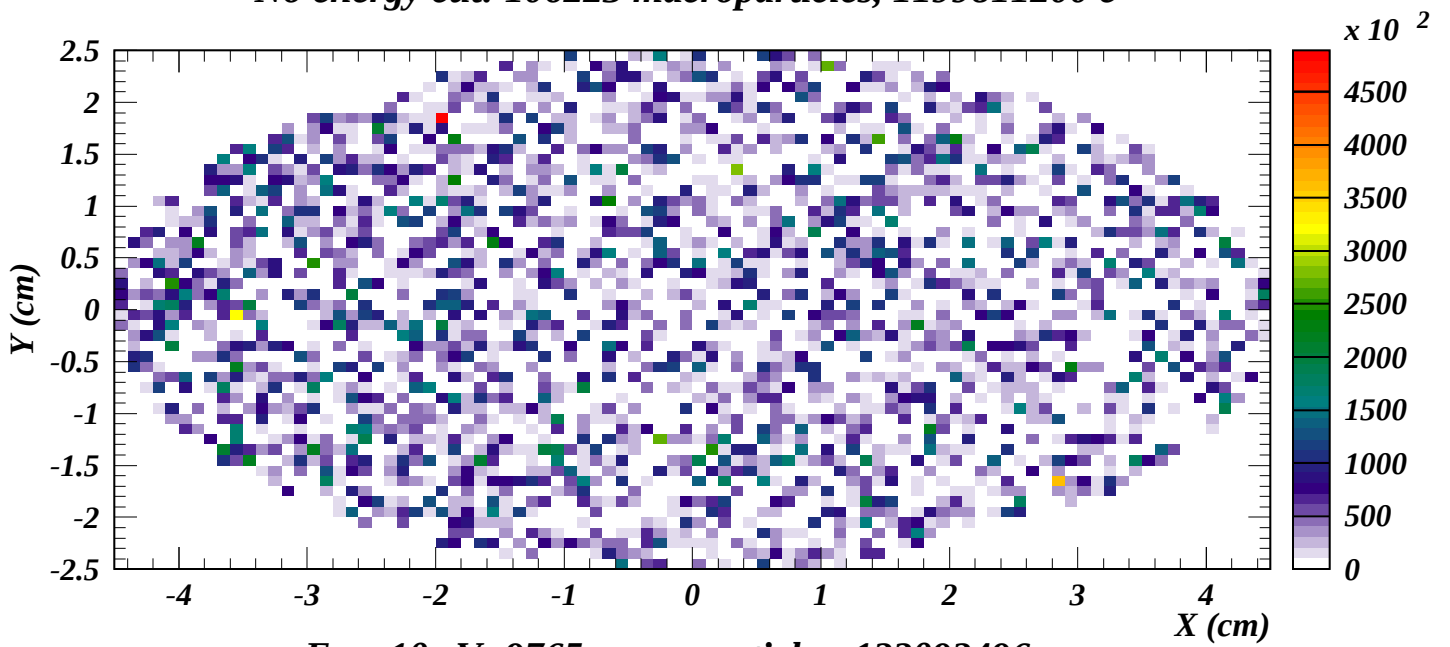
$E_{kin} > 10$ eV: 6308 macroparticles, 121012760 e-

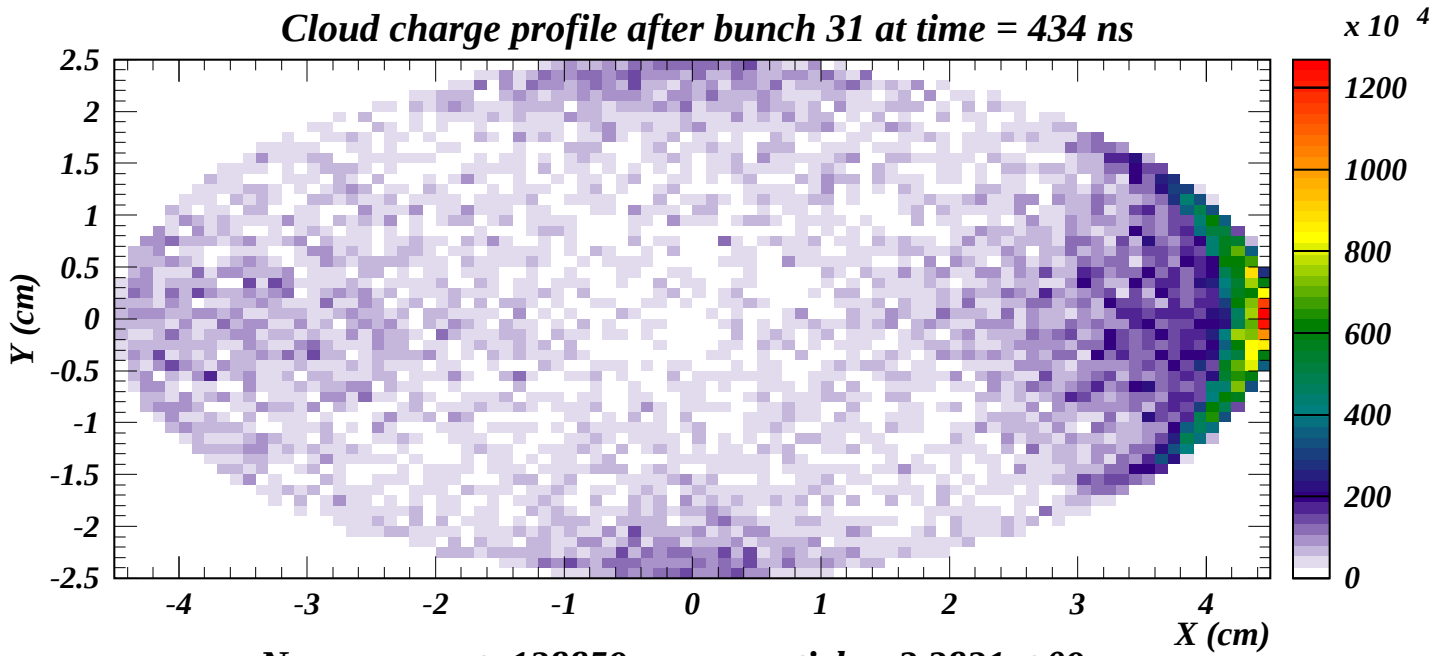
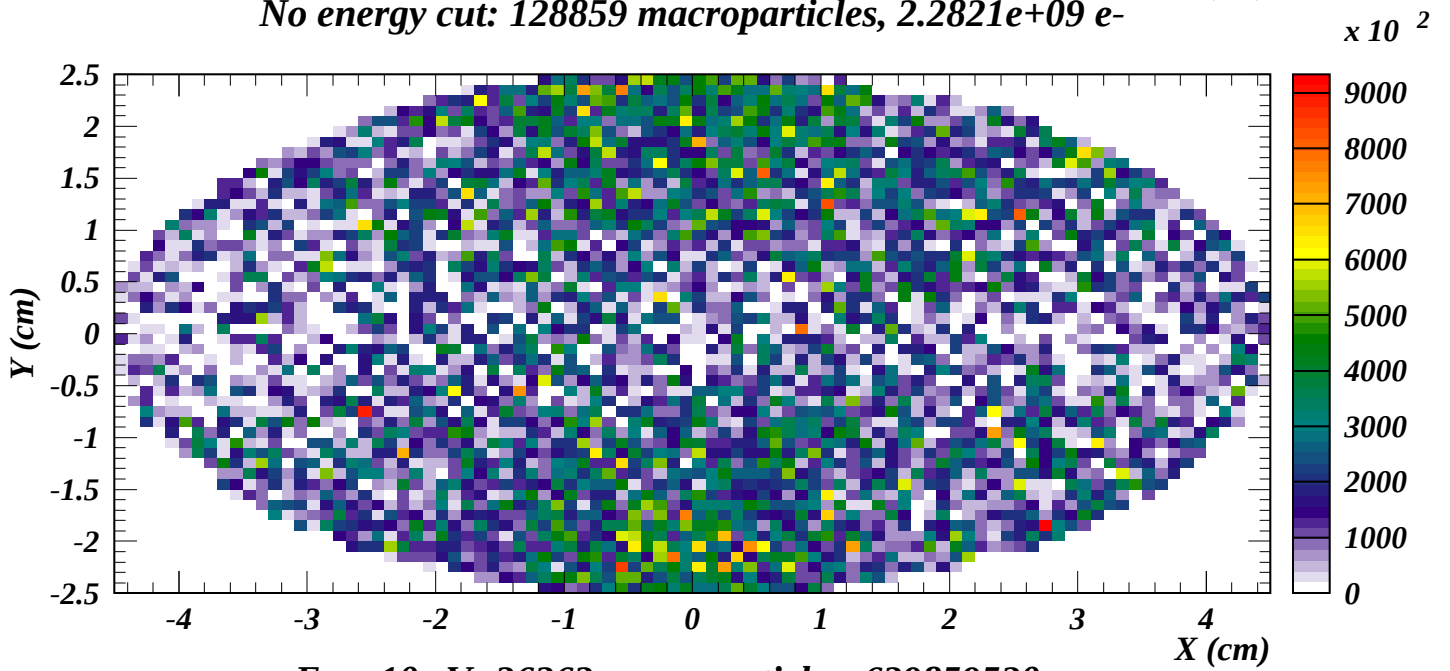
Cloud charge profile after bunch 21 at time = 294 ns*No energy cut: 98996 macroparticles, 2.24497e+09 e-* *$E_{kin} > 10$ eV: 24975 macroparticles, 630036288 e-*

Cloud charge profile after bunch 23 at time = 322 ns*No energy cut: 92917 macroparticles, 1448192768 e-* *$E_{kin} > 10$ eV: 11044 macroparticles, 201995600 e-*

Cloud charge profile after bunch 25 at time = 350 ns*No energy cut: 90018 macroparticles, 991605184 e-* *$E_{kin} > 10$ eV: 6152 macroparticles, 74777520 e-*

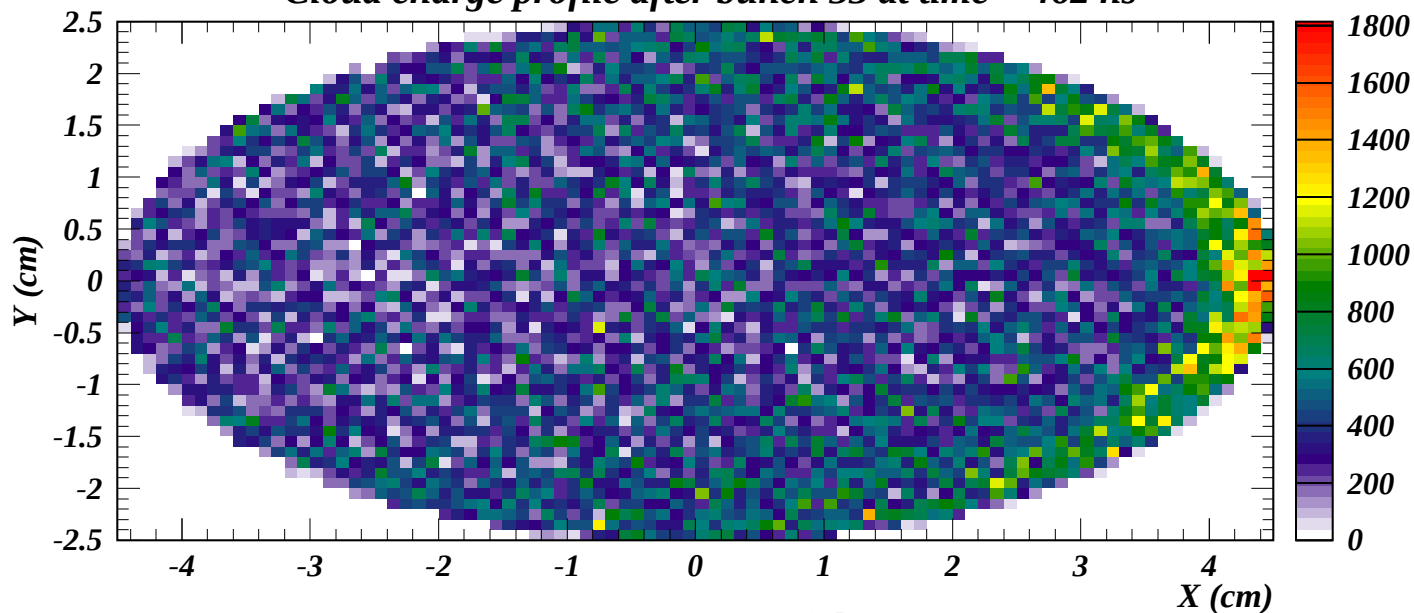
Cloud charge profile after bunch 27 at time = 378 ns*No energy cut: 110416 macroparticles, 1771262336 e-* *$E_{kin} > 10$ eV: 18807 macroparticles, 331834272 e-*

Cloud charge profile after bunch 29 at time = 406 ns*No energy cut: 106223 macroparticles, 1199811200 e-* *$E_{kin} > 10$ eV: 9765 macroparticles, 122092496 e-*

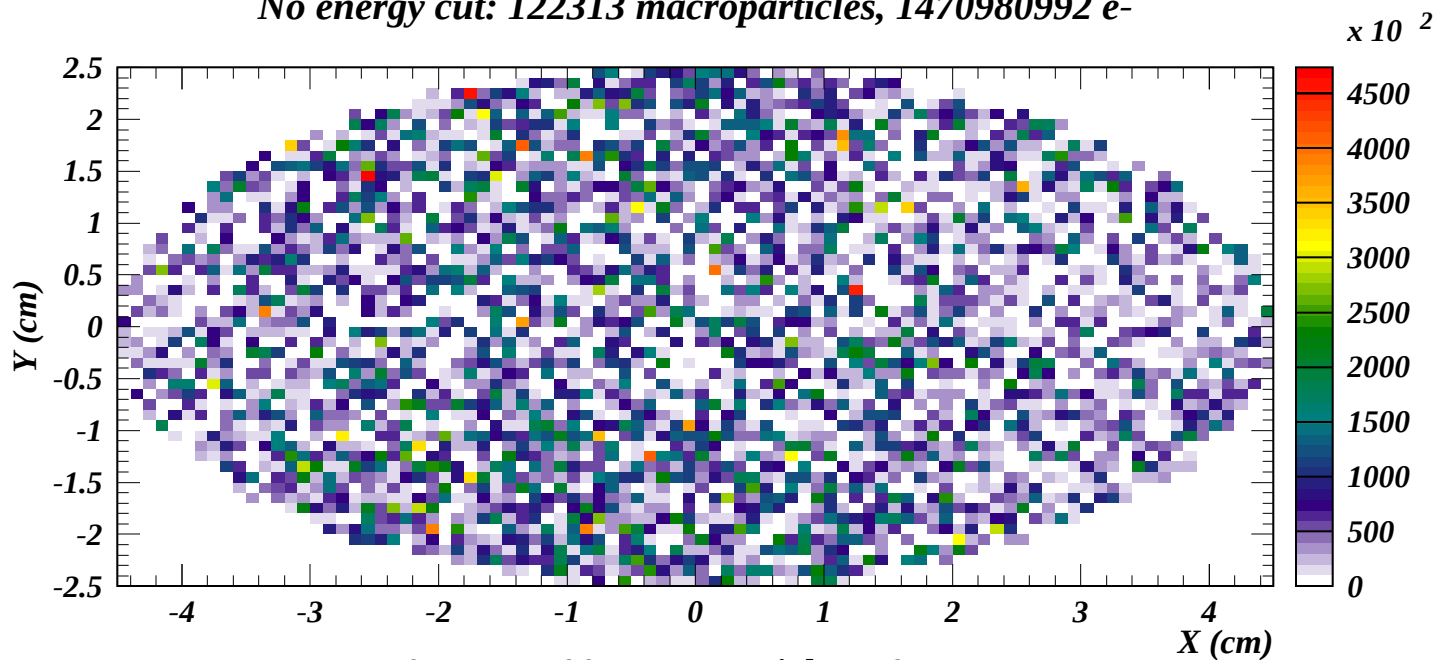
Cloud charge profile after bunch 31 at time = 434 ns*No energy cut: 128859 macroparticles, $2.2821e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$: 36263 macroparticles, 639859520 e-*

09/12/15 14.39
 $\times 10^3$

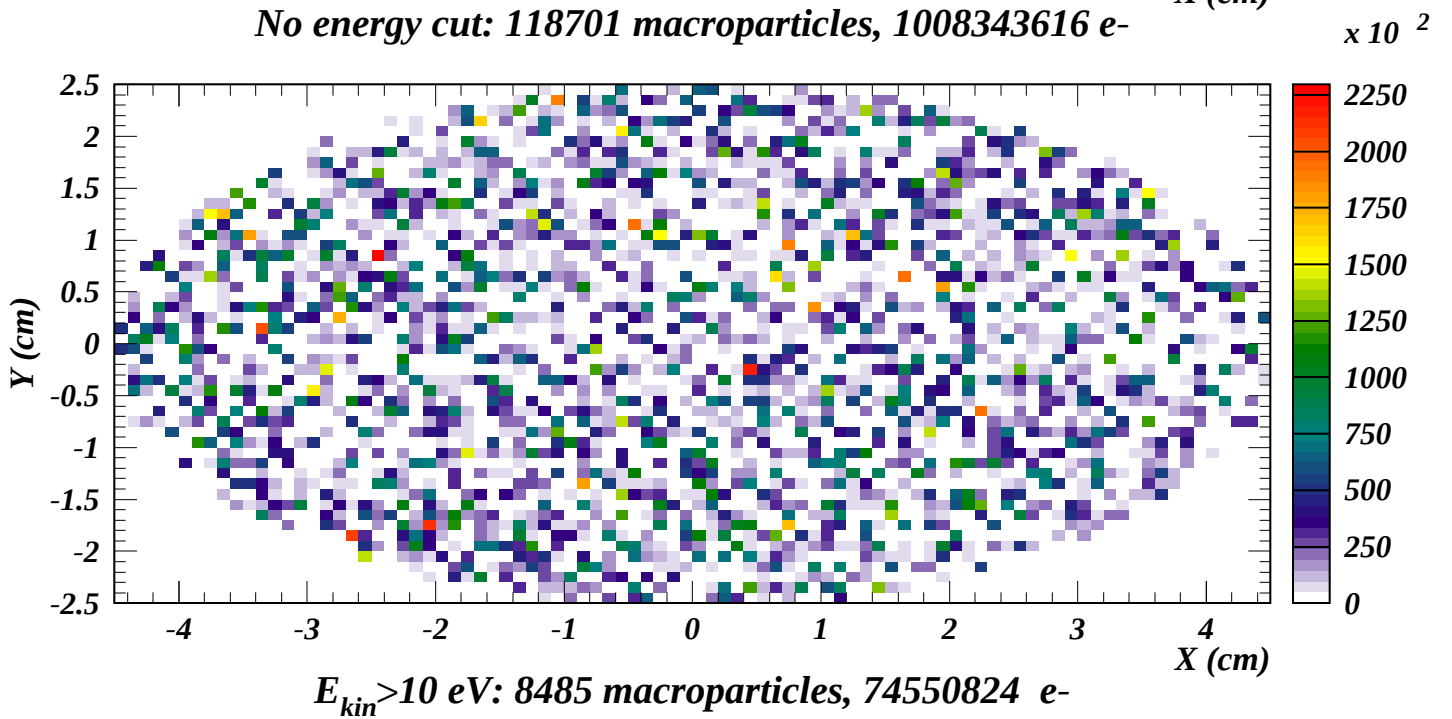
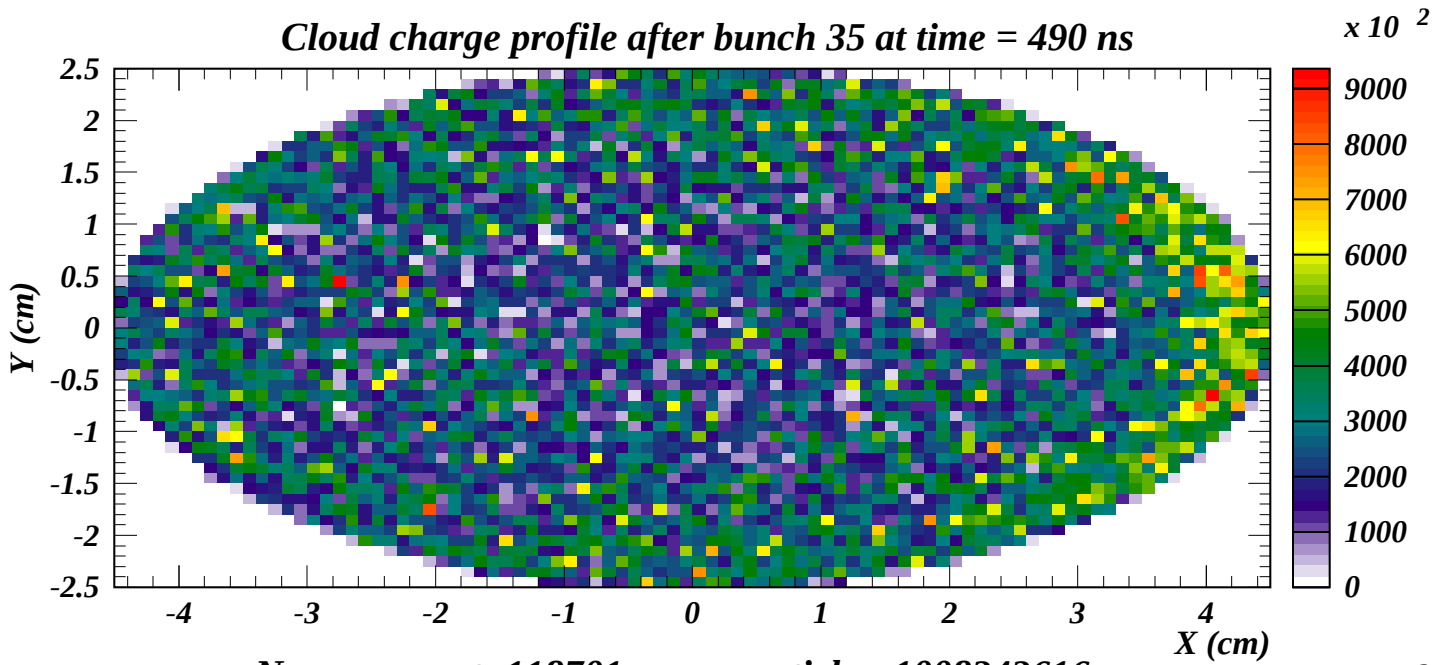
Cloud charge profile after bunch 33 at time = 462 ns

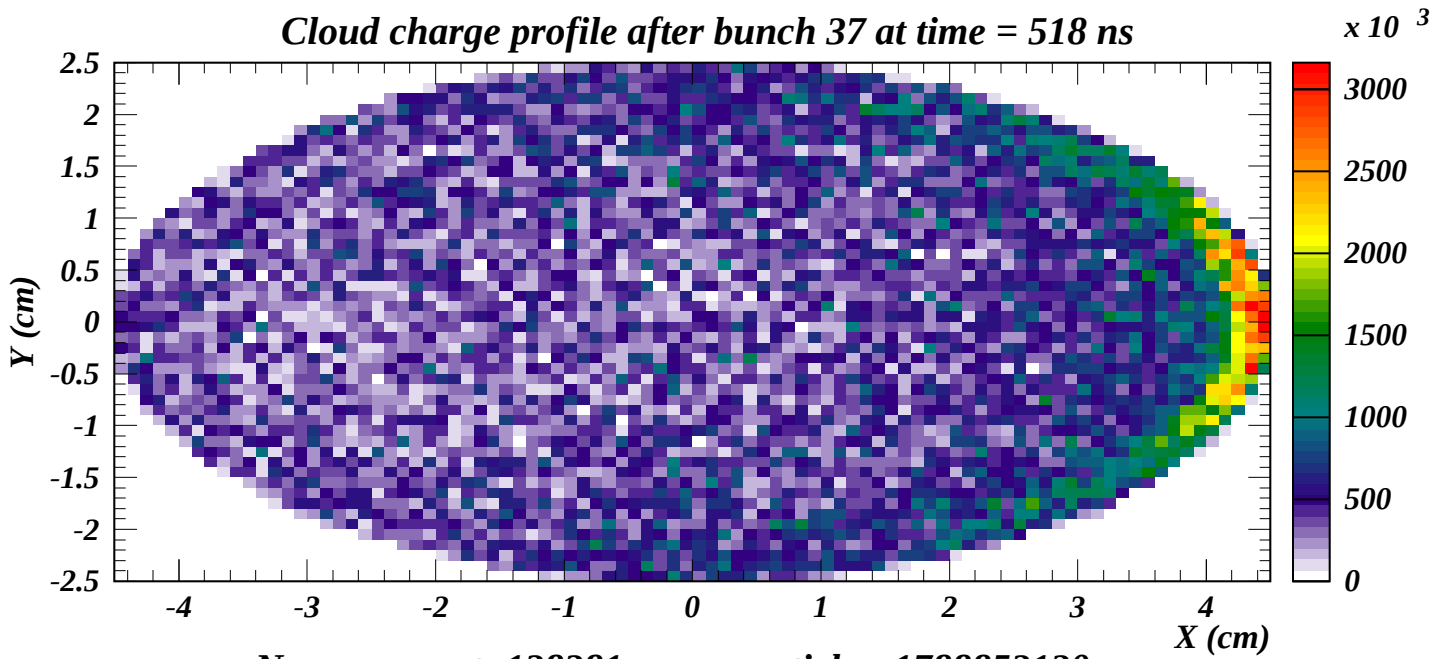
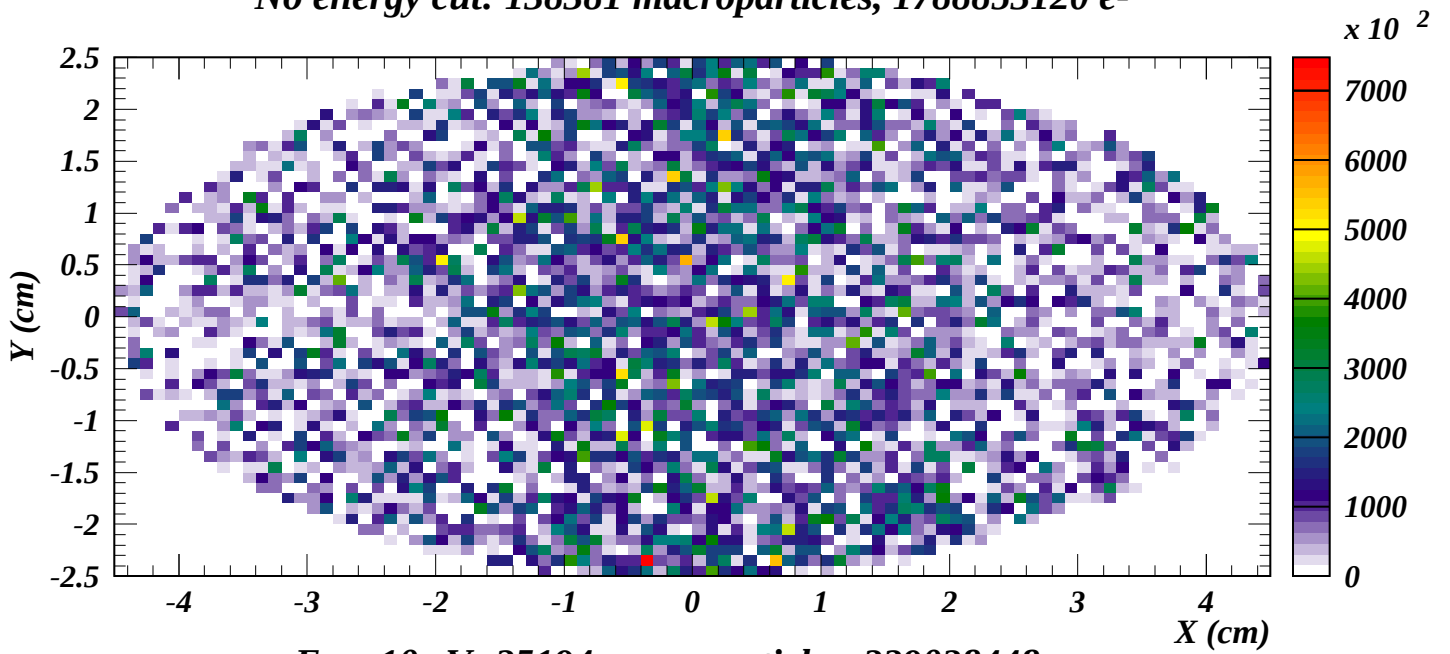


No energy cut: 122313 macroparticles, 1470980992 e⁻

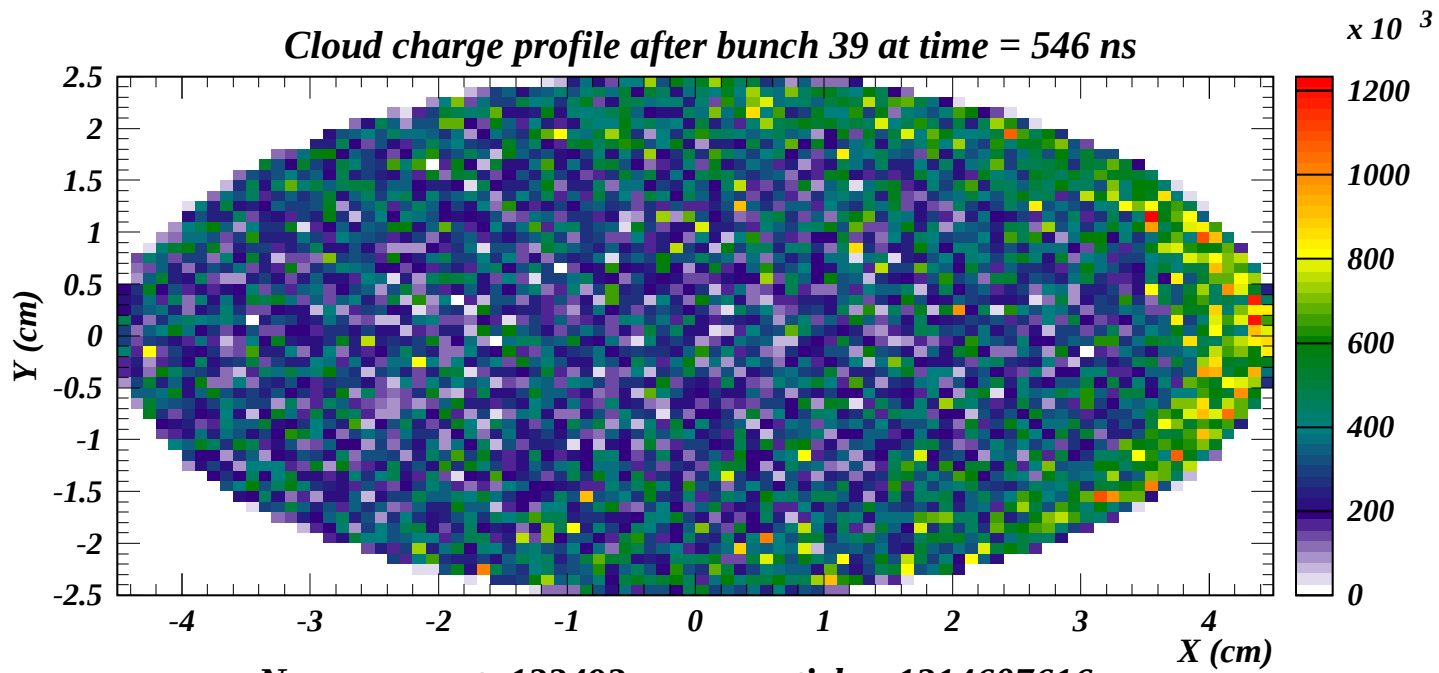


$E_{kin} > 10$ eV: 15700 macroparticles, 203936432 e⁻

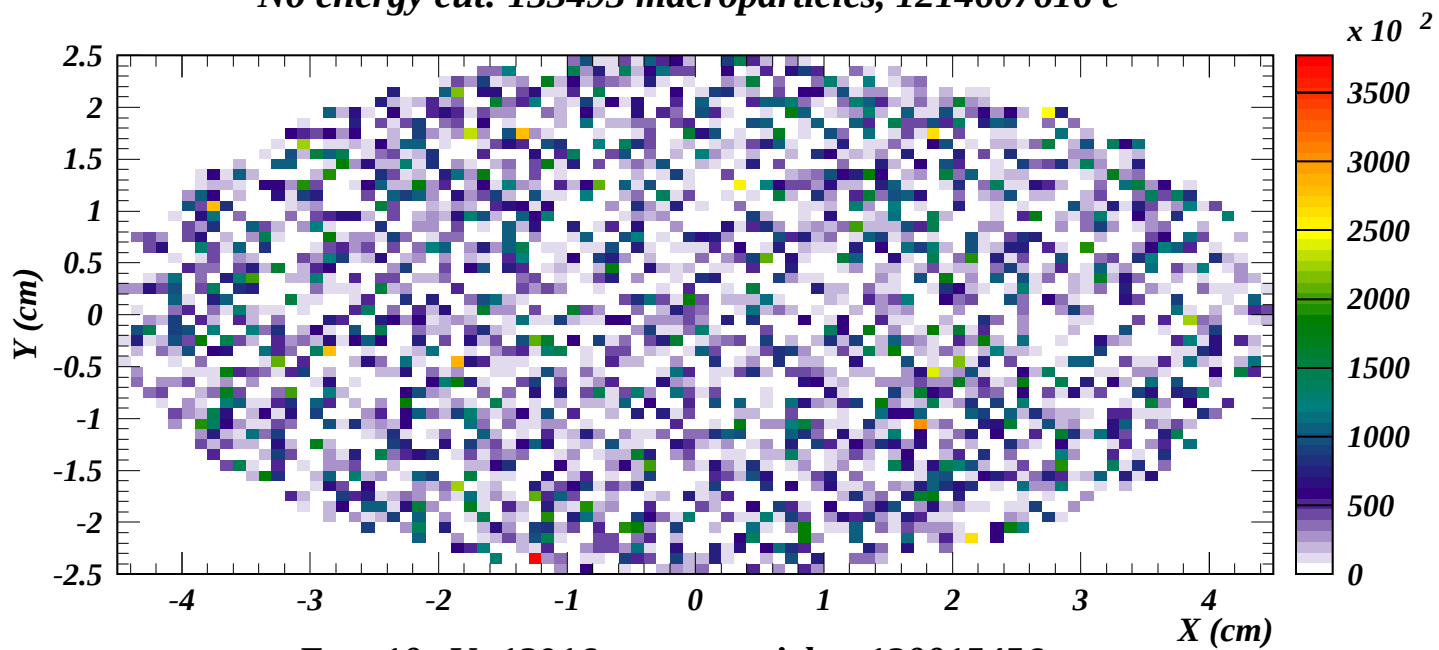


Cloud charge profile after bunch 37 at time = 518 ns*No energy cut: 138381 macroparticles, 1788853120 e-* *$E_{kin} > 10 \text{ eV}$: 25194 macroparticles, 329028448 e-*

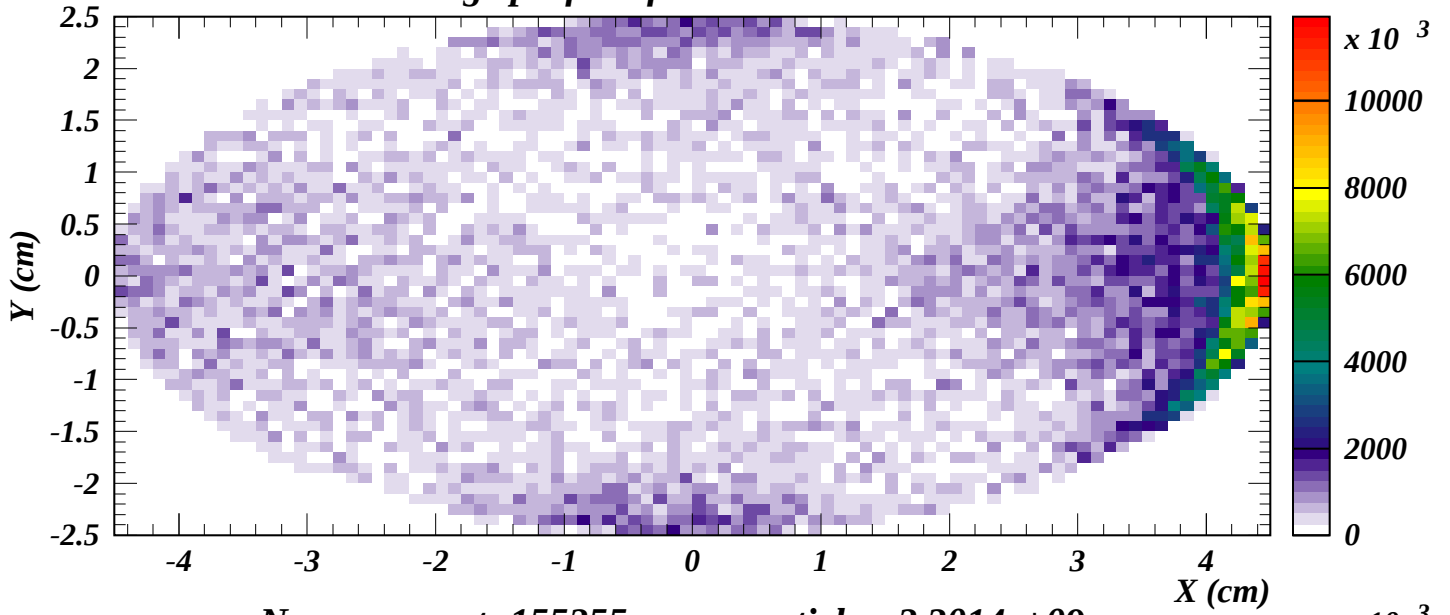
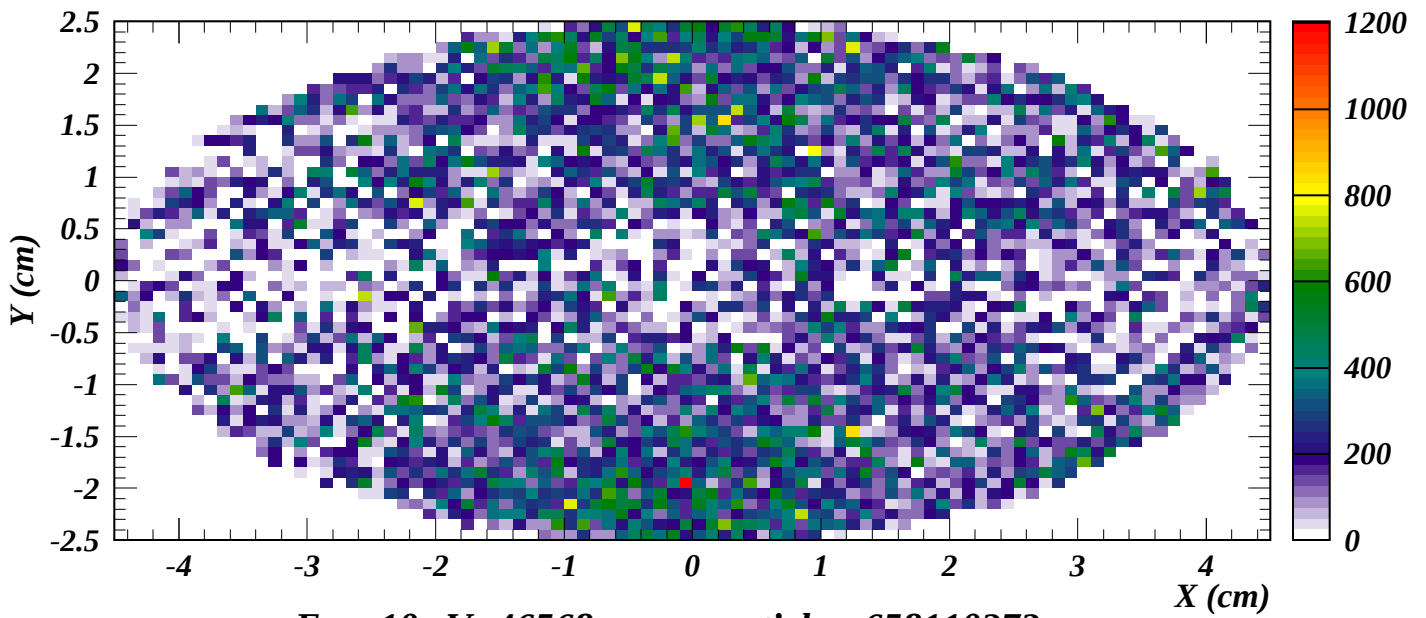
09/12/15 14.39

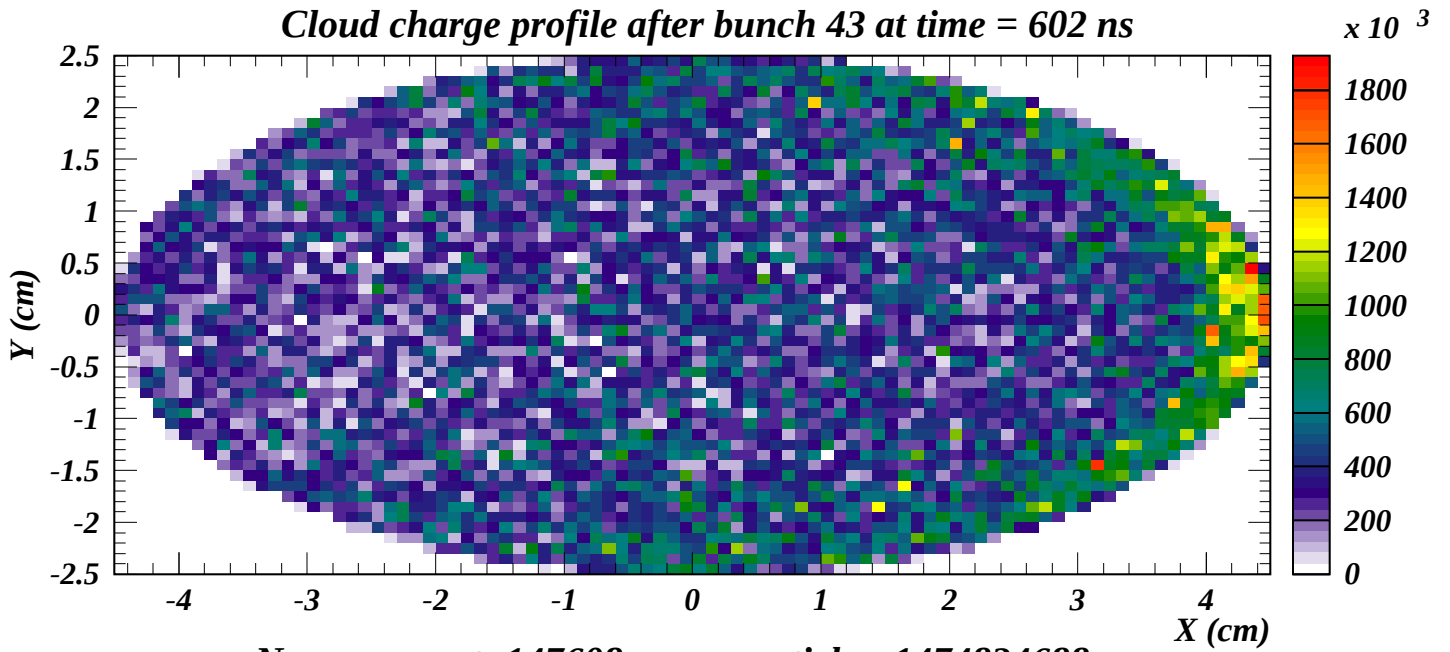
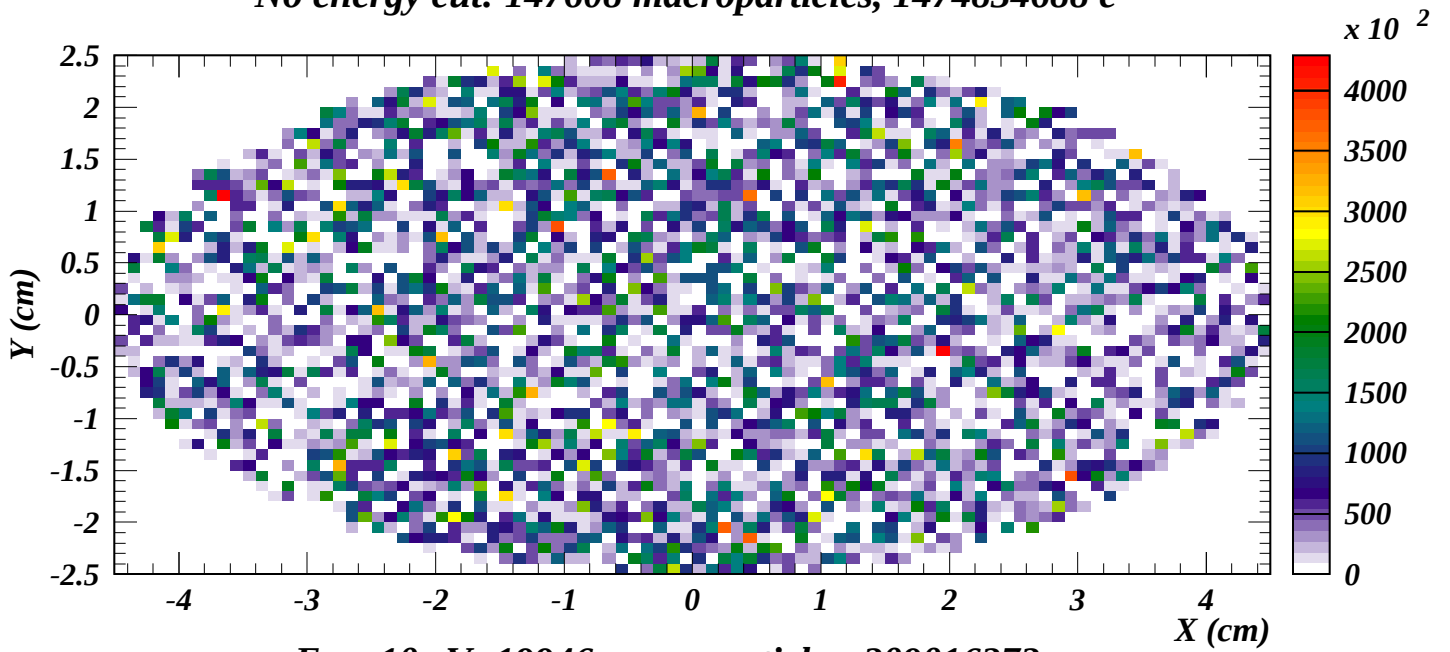


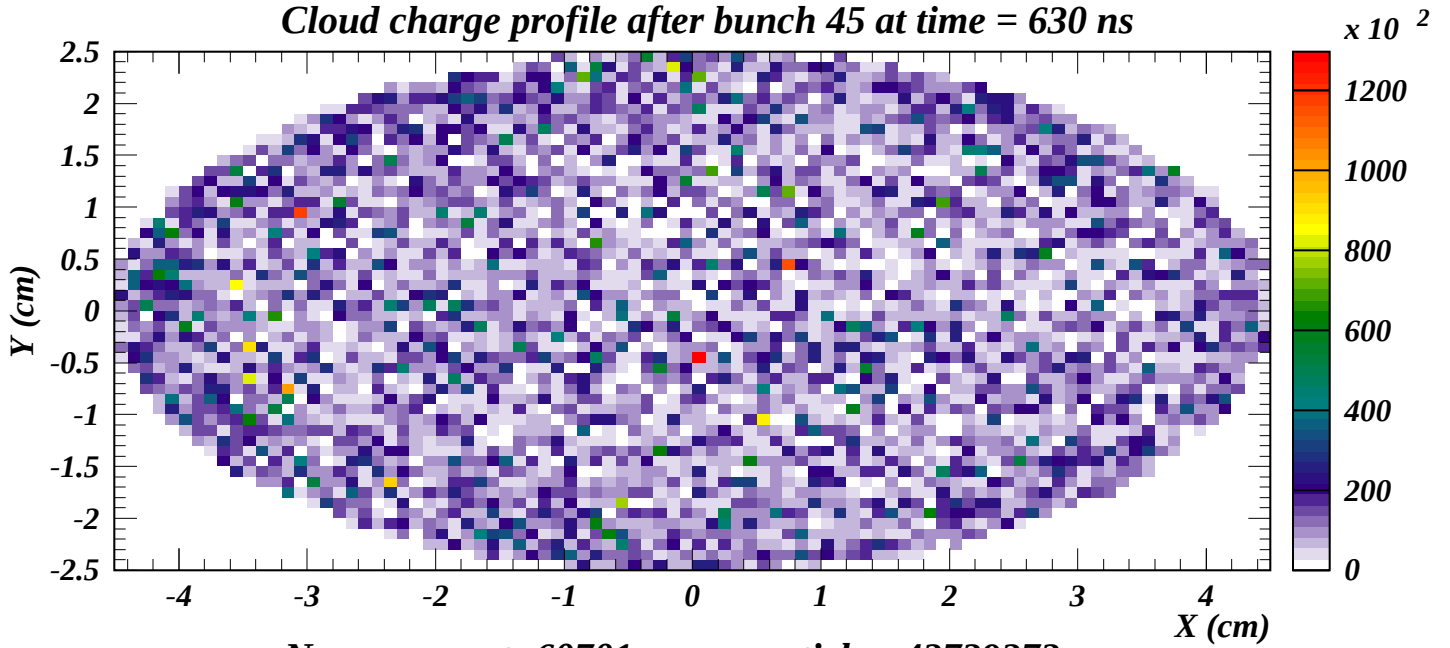
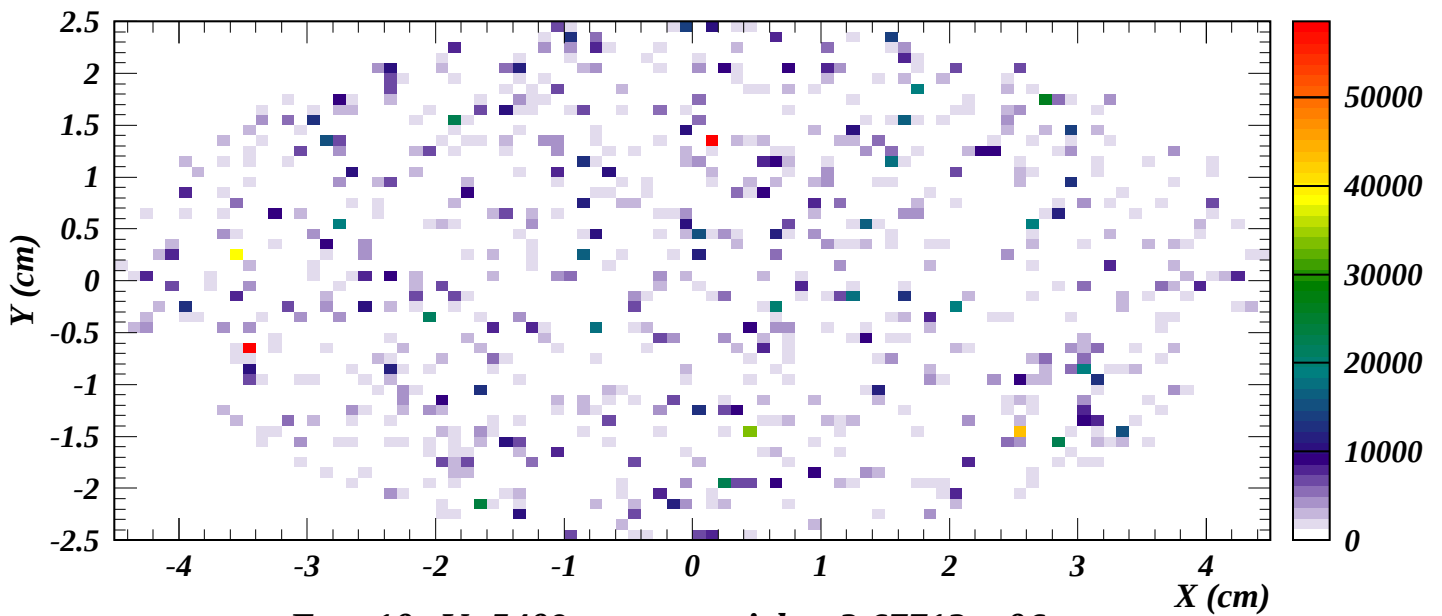
No energy cut: 133493 macroparticles, 1214607616 e-

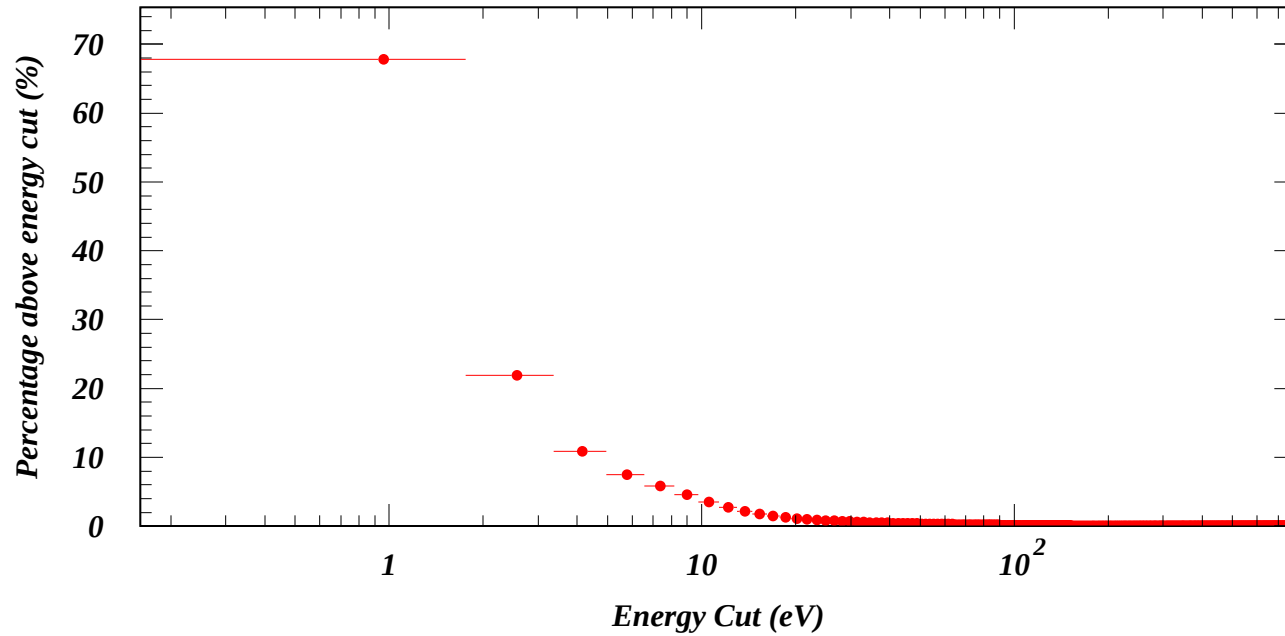
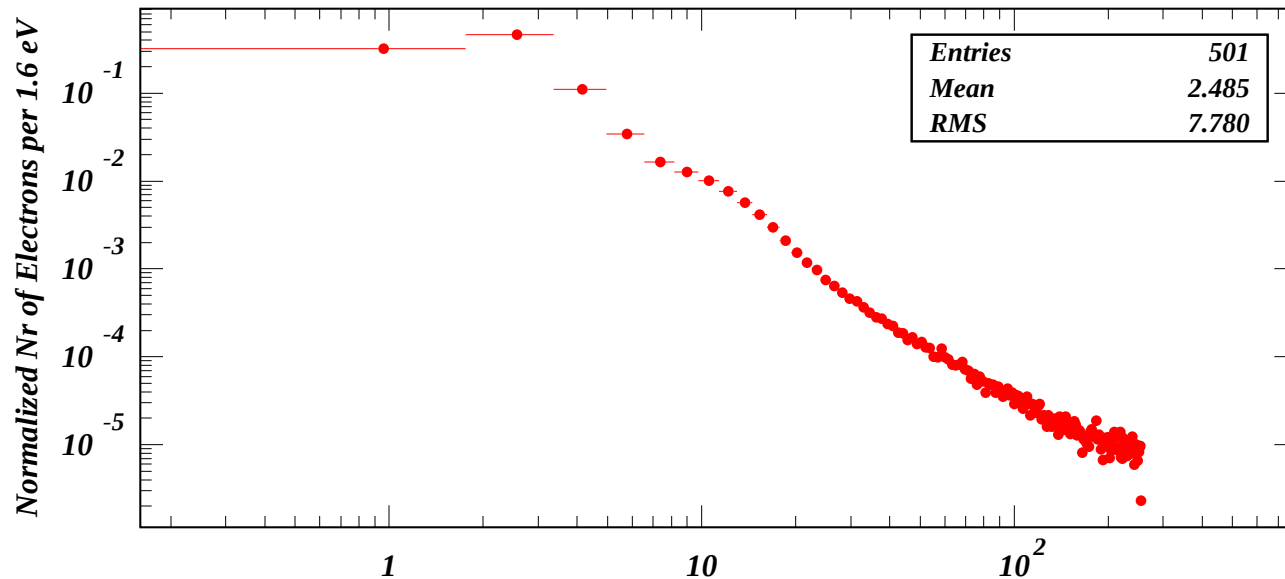


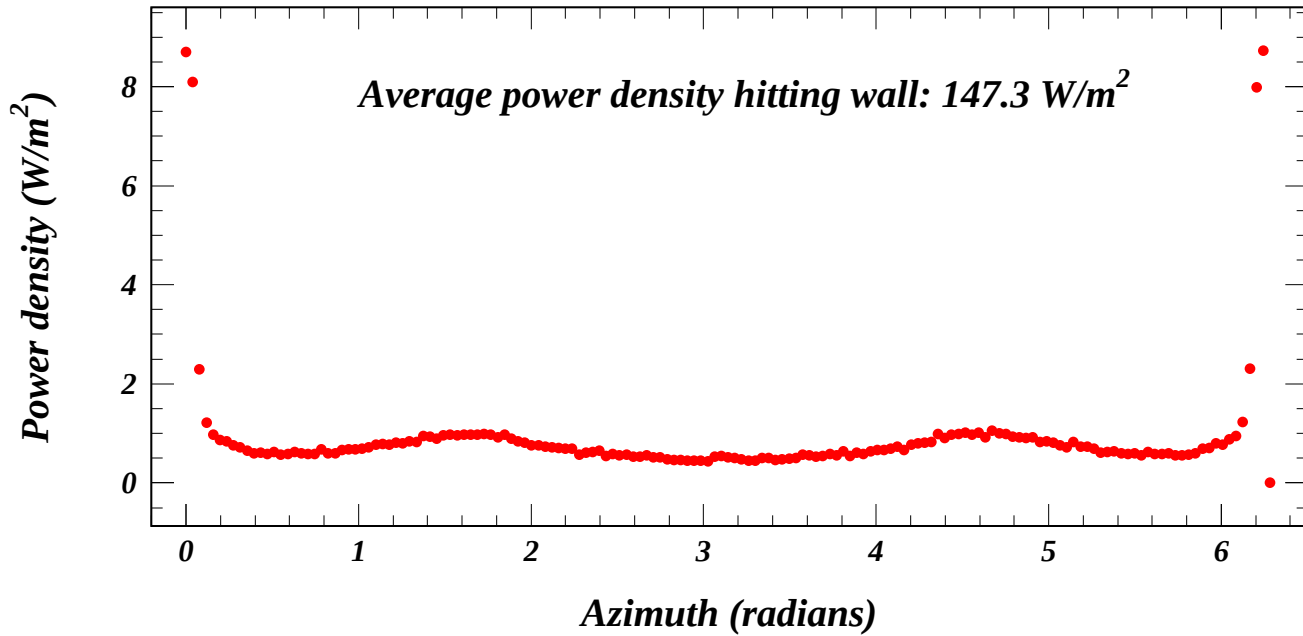
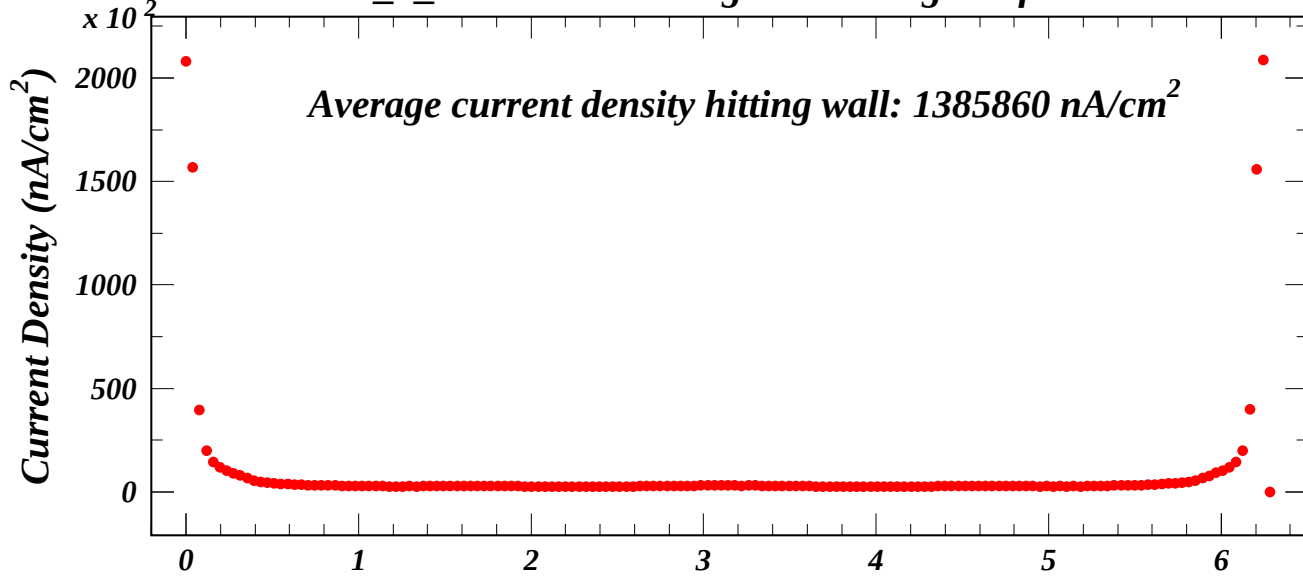
$E_{kin} > 10$ eV: 12916 macroparticles, 120015456 e-

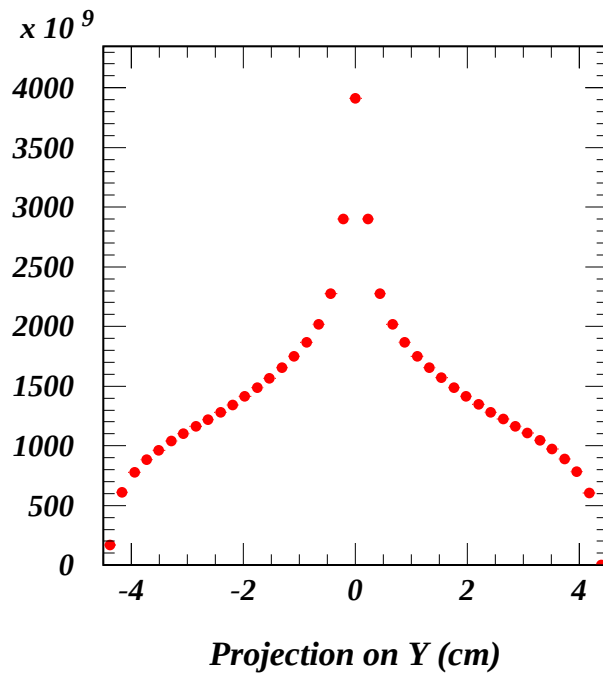
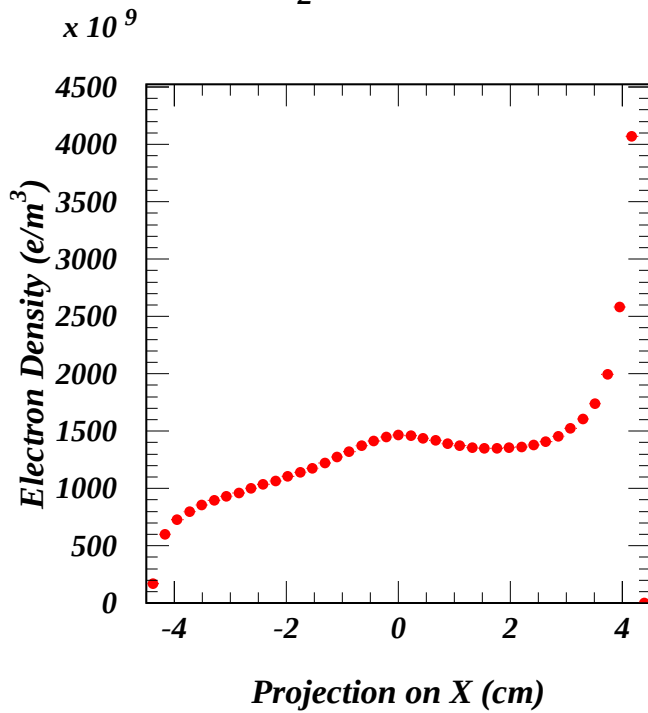
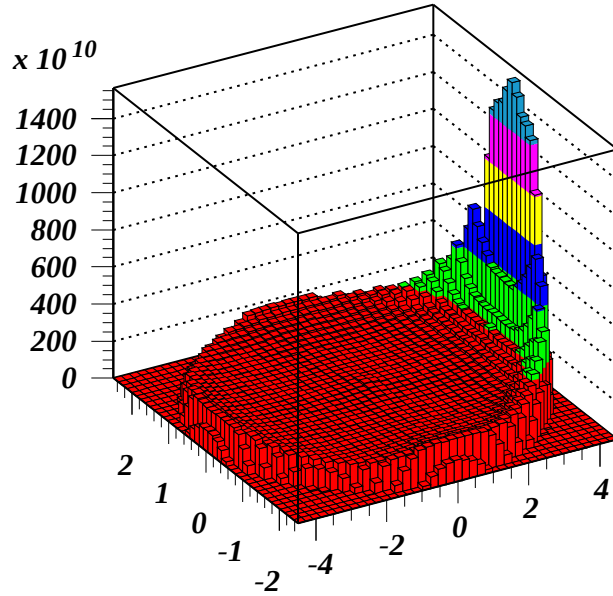
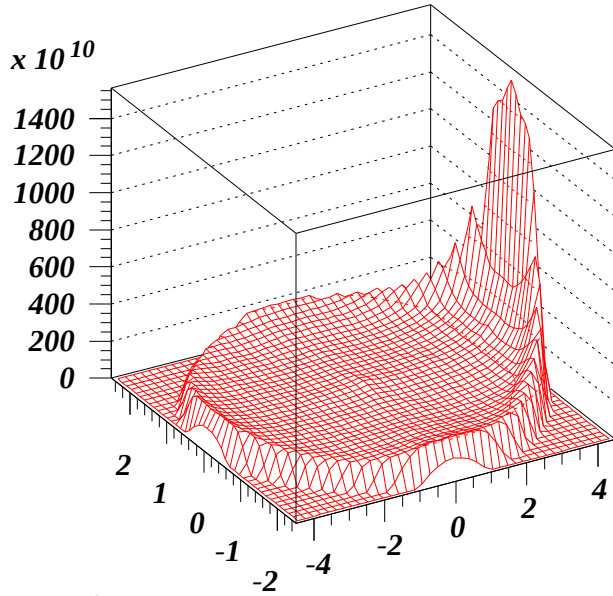
Cloud charge profile after bunch 41 at time = 574 ns*No energy cut: 155255 macroparticles, $2.3014e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$: 46568 macroparticles, 658110272 e-*

Cloud charge profile after bunch 43 at time = 602 ns*No energy cut: 147608 macroparticles, 1474834688 e-* *$E_{kin} > 10$ eV: 19946 macroparticles, 209016272 e-*

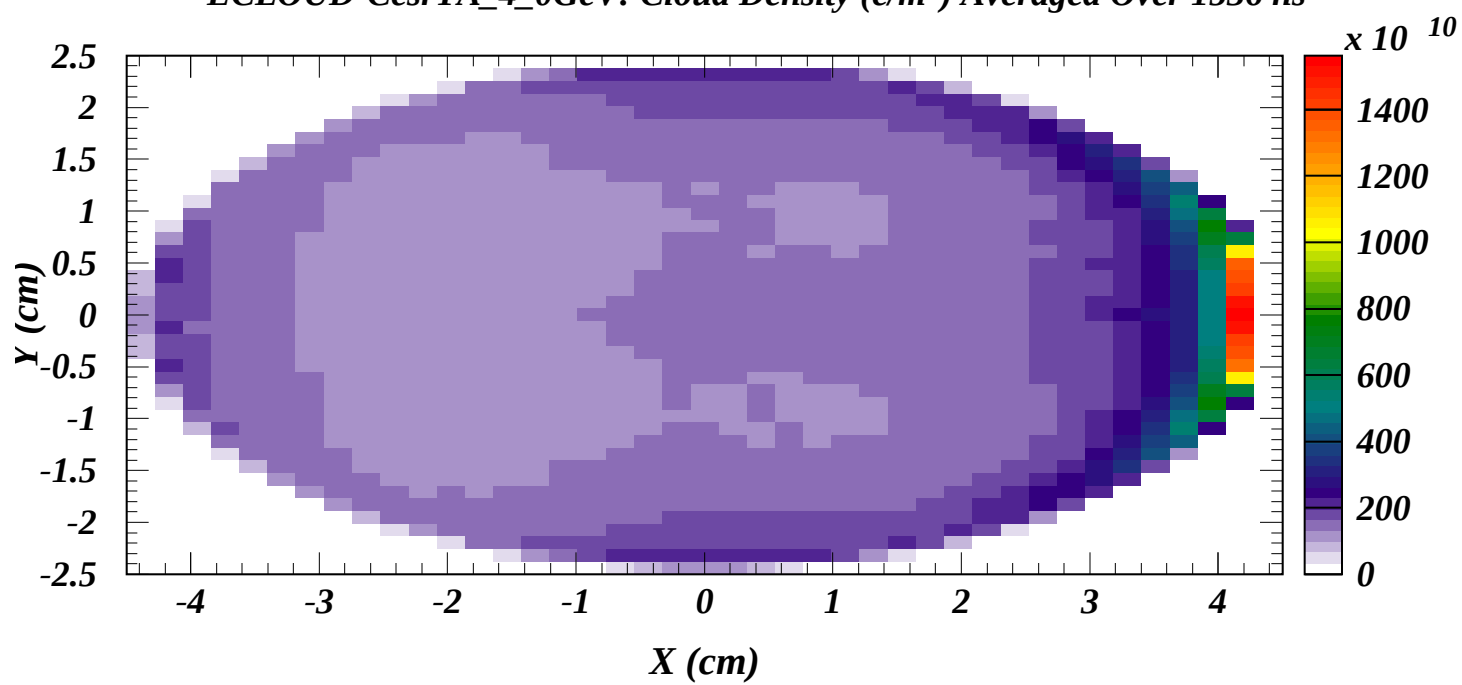
Cloud charge profile after bunch 45 at time = 630 ns*No energy cut: 60701 macroparticles, 42739272 e-* *$E_{\text{kin}} > 10 \text{ eV}$: 5409 macroparticles, 3.67712e+06 e-*

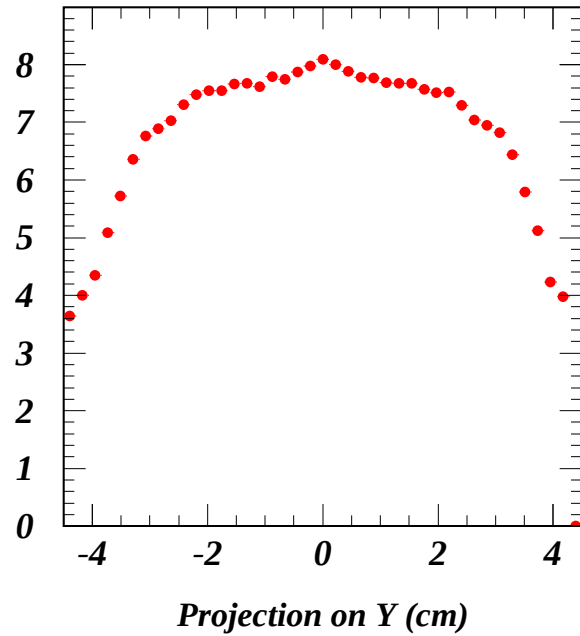
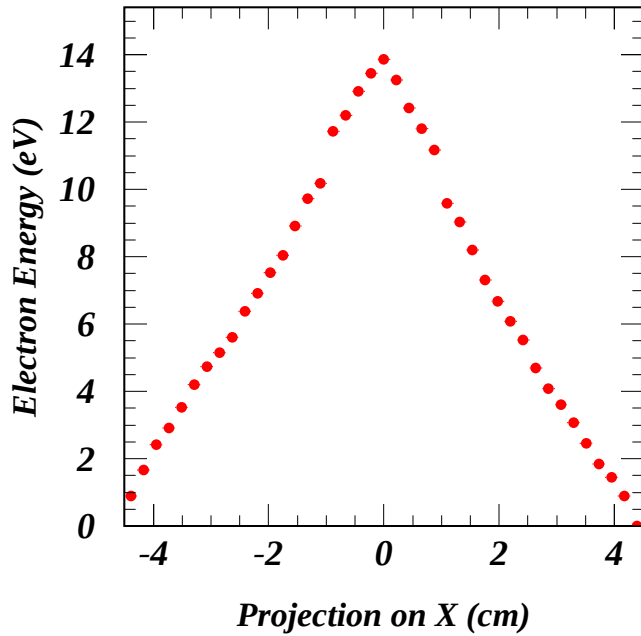
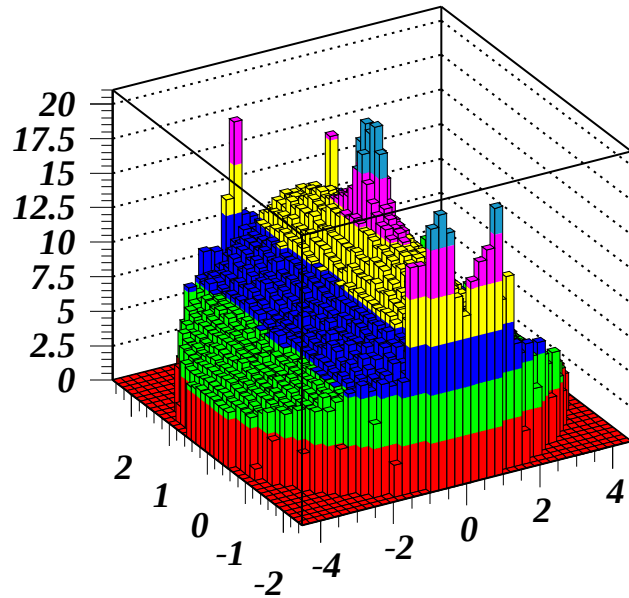
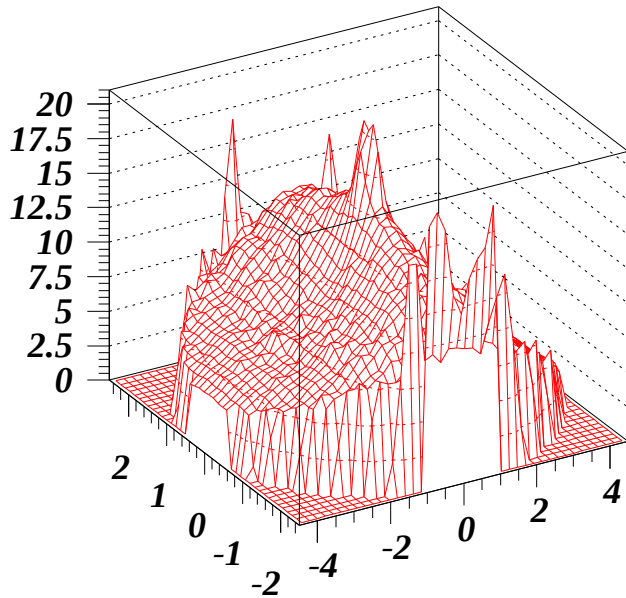
ECLOUD-CesrTA_4_0GeV: Time-Integrated Energies of Electrons Hitting Wall

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

ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 1536 ns

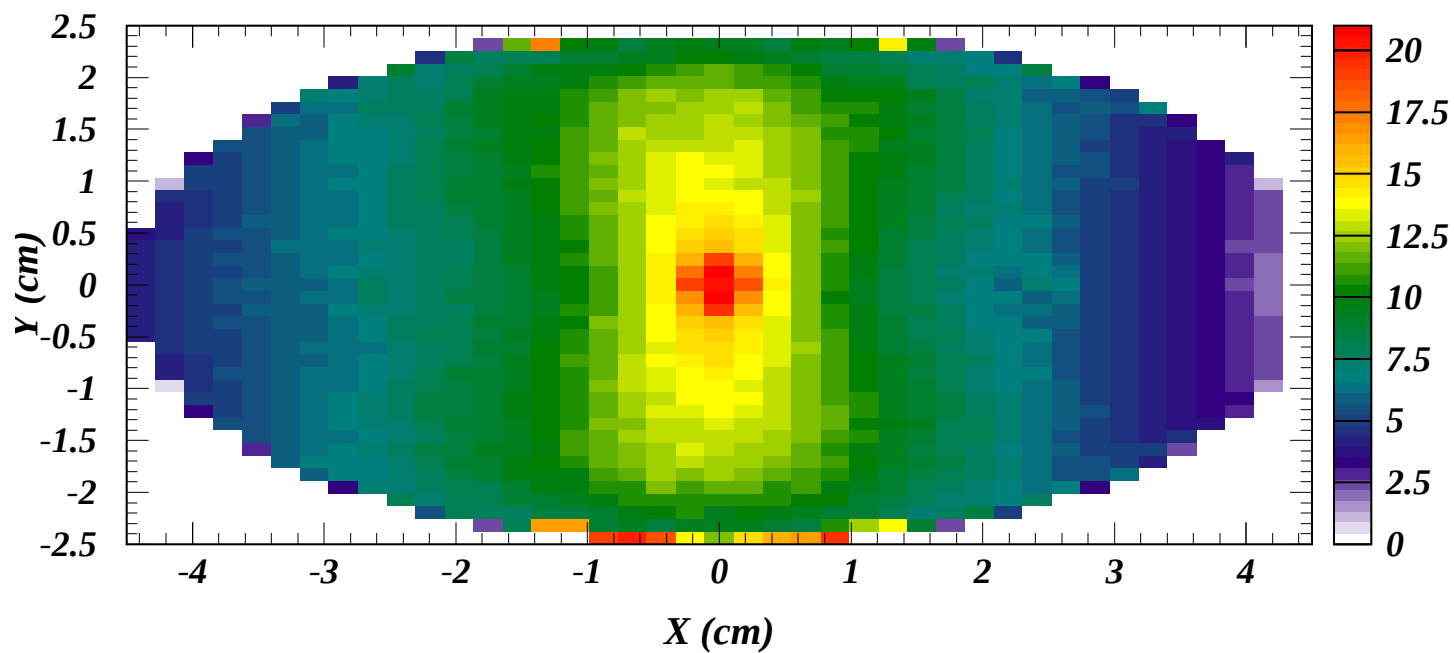
09/12/15 14.39
ECLOUD-CesrTA_4_0GeV: Cloud Density (e/m^3) Averaged Over 1536 ns



ECLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 1536 ns

09/12/15 14.39

ECLOUD-CesrTA_4_0GeV: Electron Energies (eV) Averaged Over 1536 ns



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