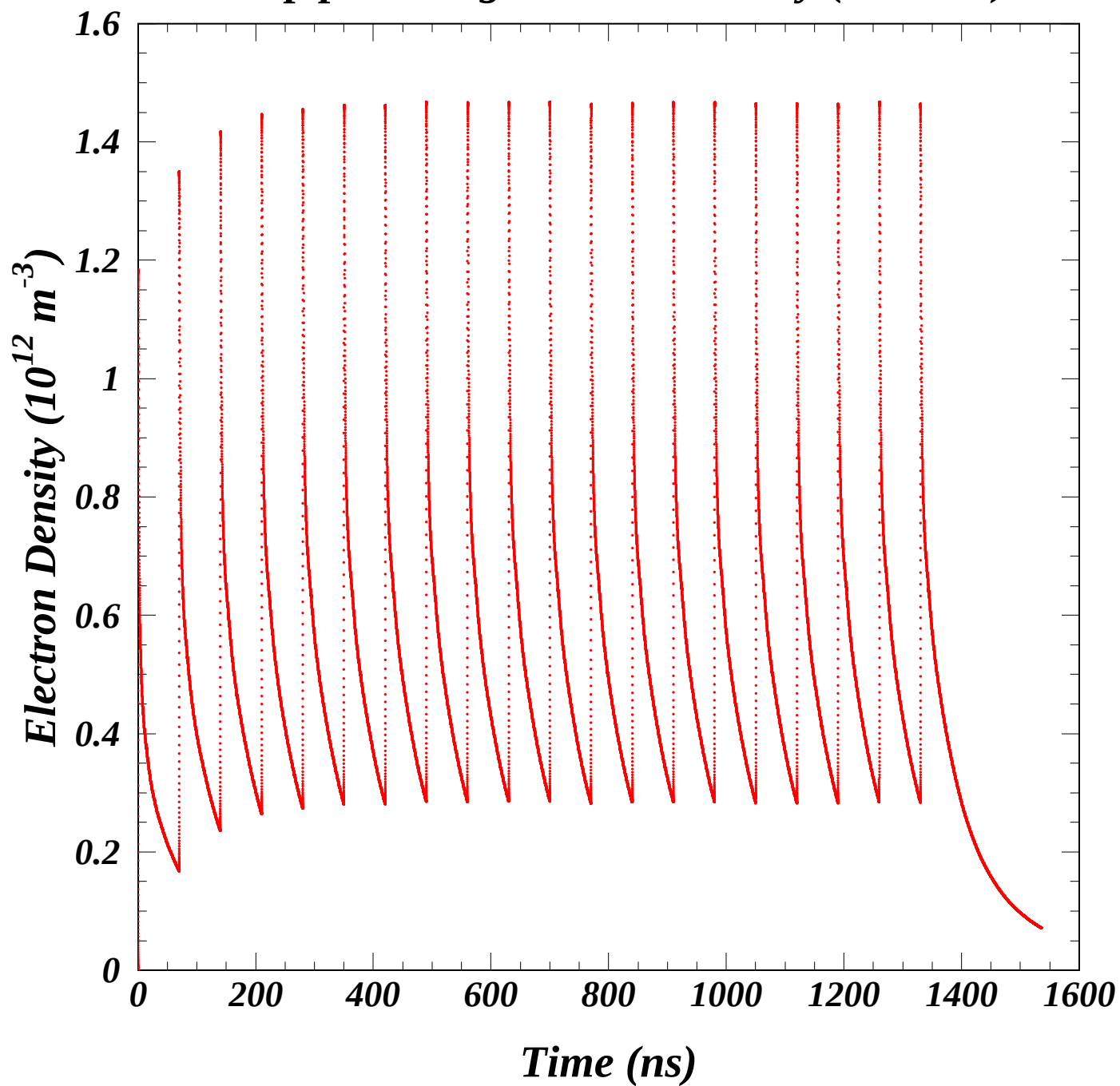
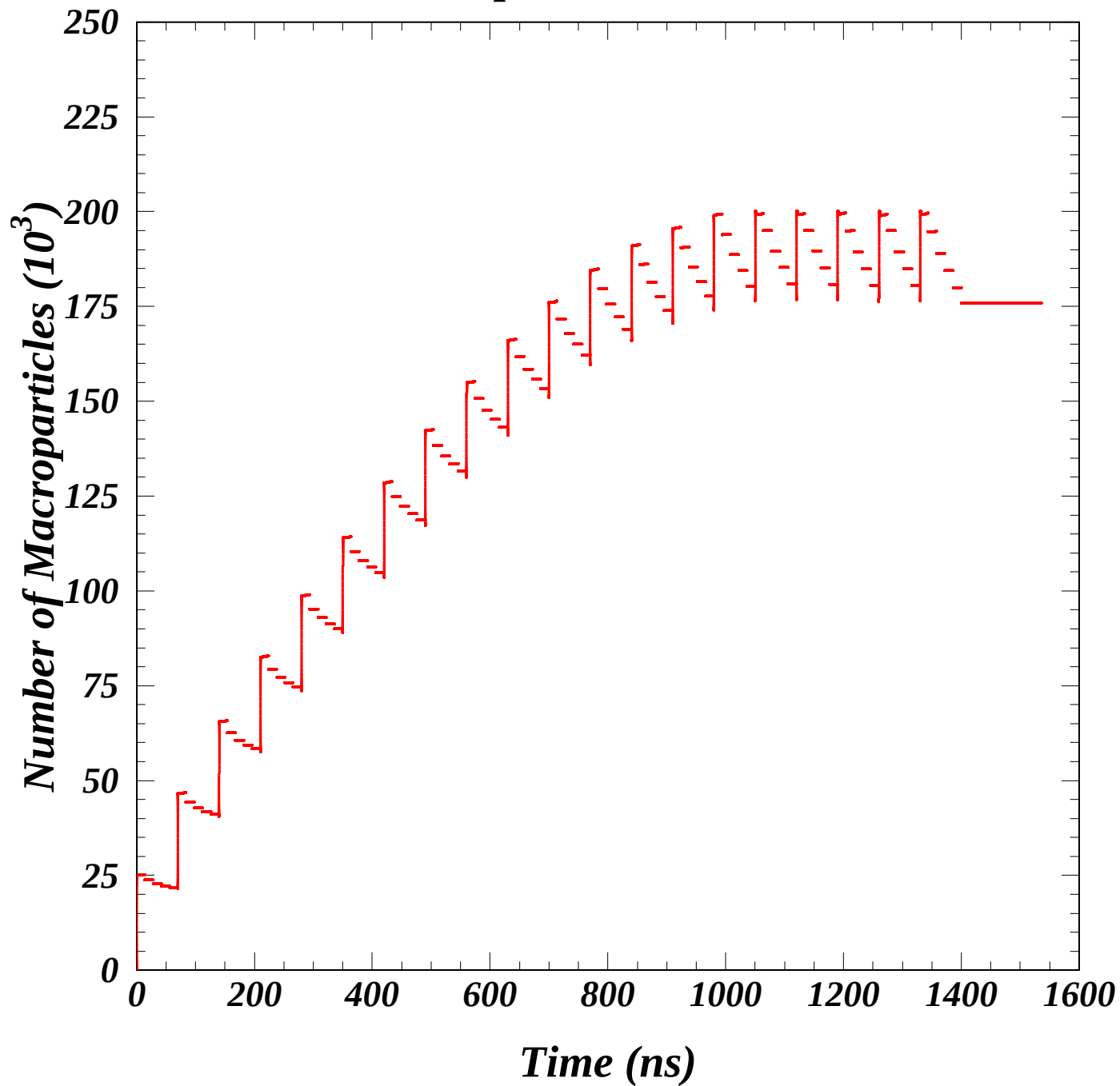
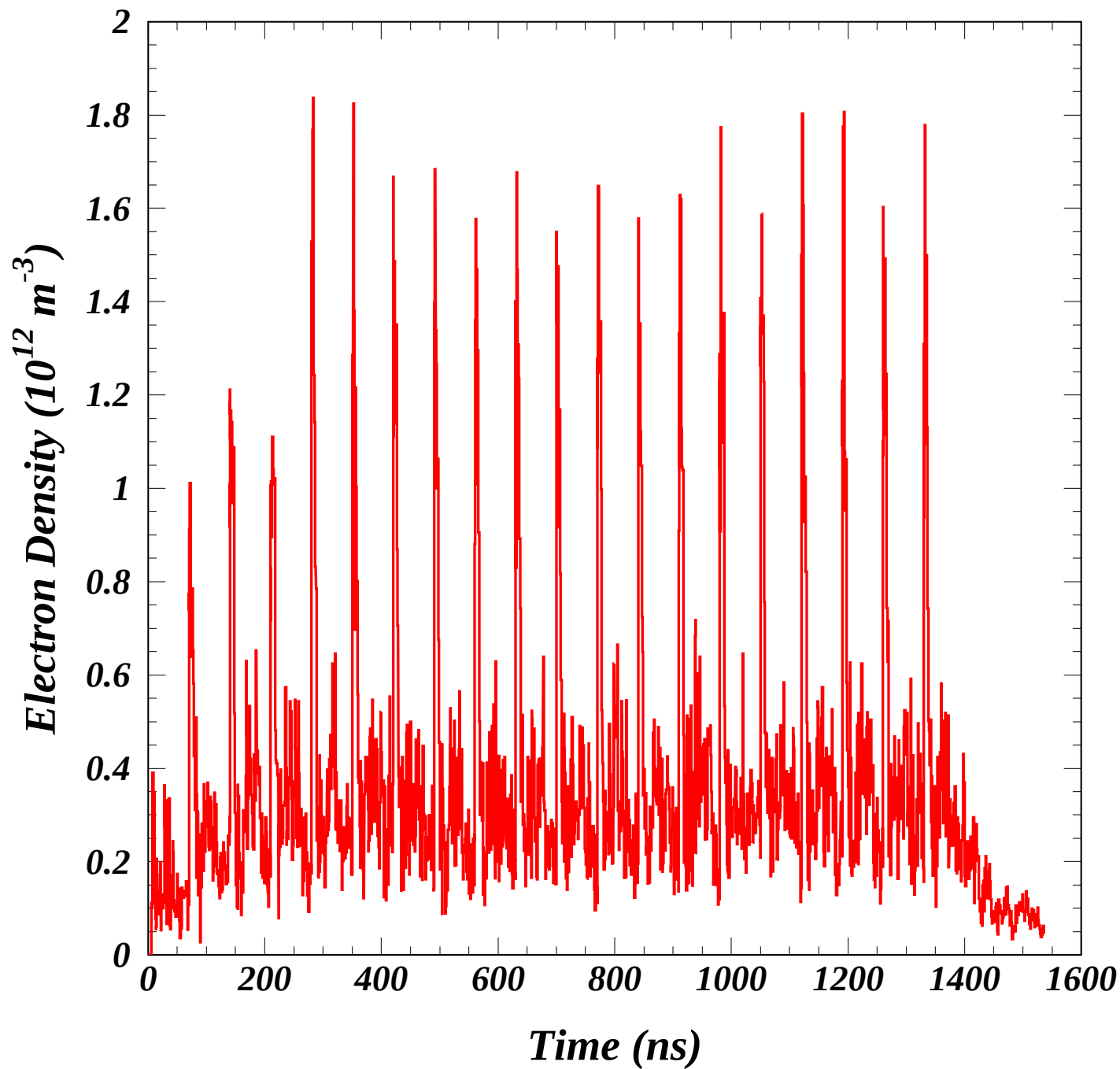
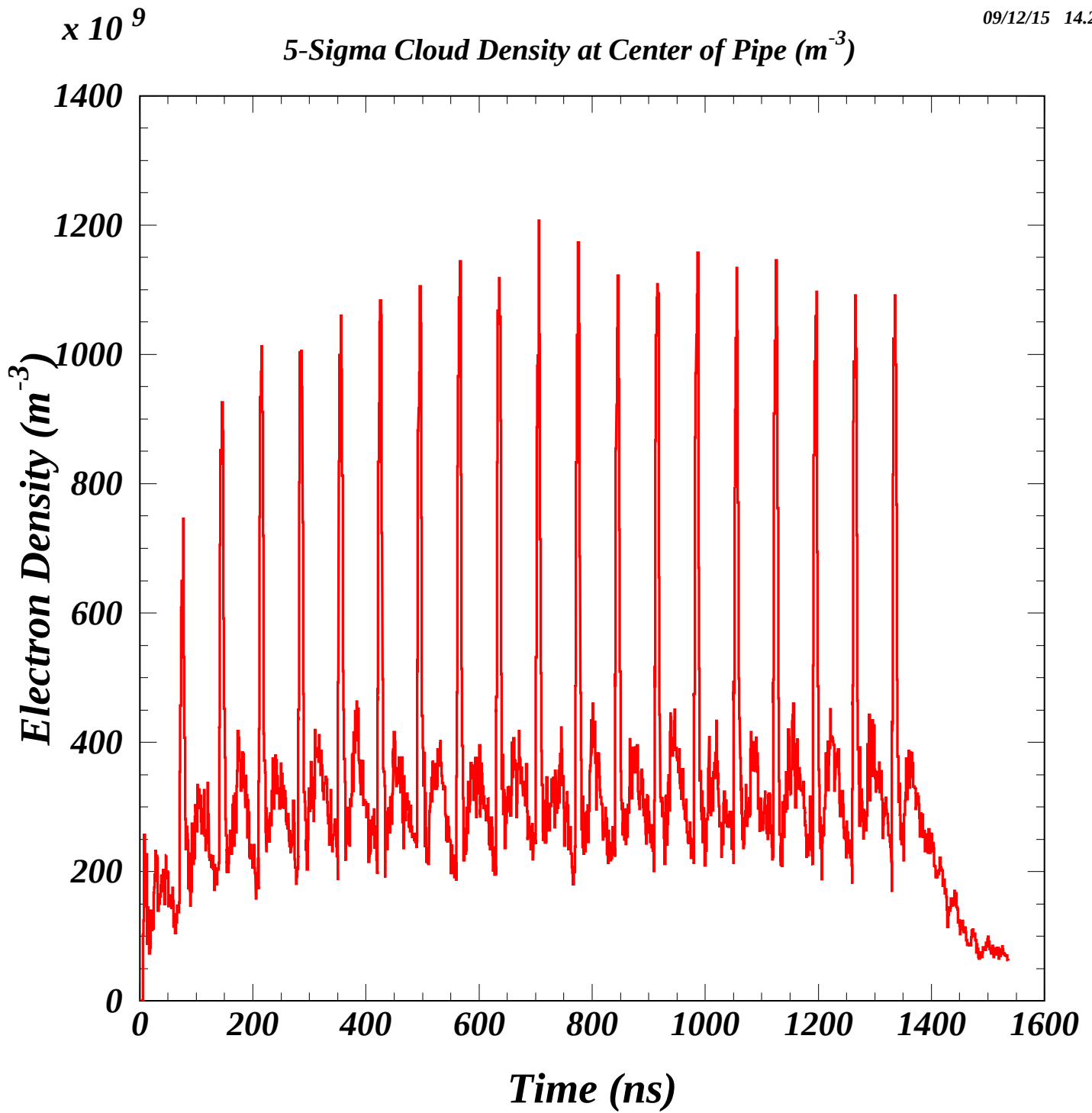


***Beampipe-averaged Cloud Density ( $10^{12} \text{ m}^{-3}$ )***

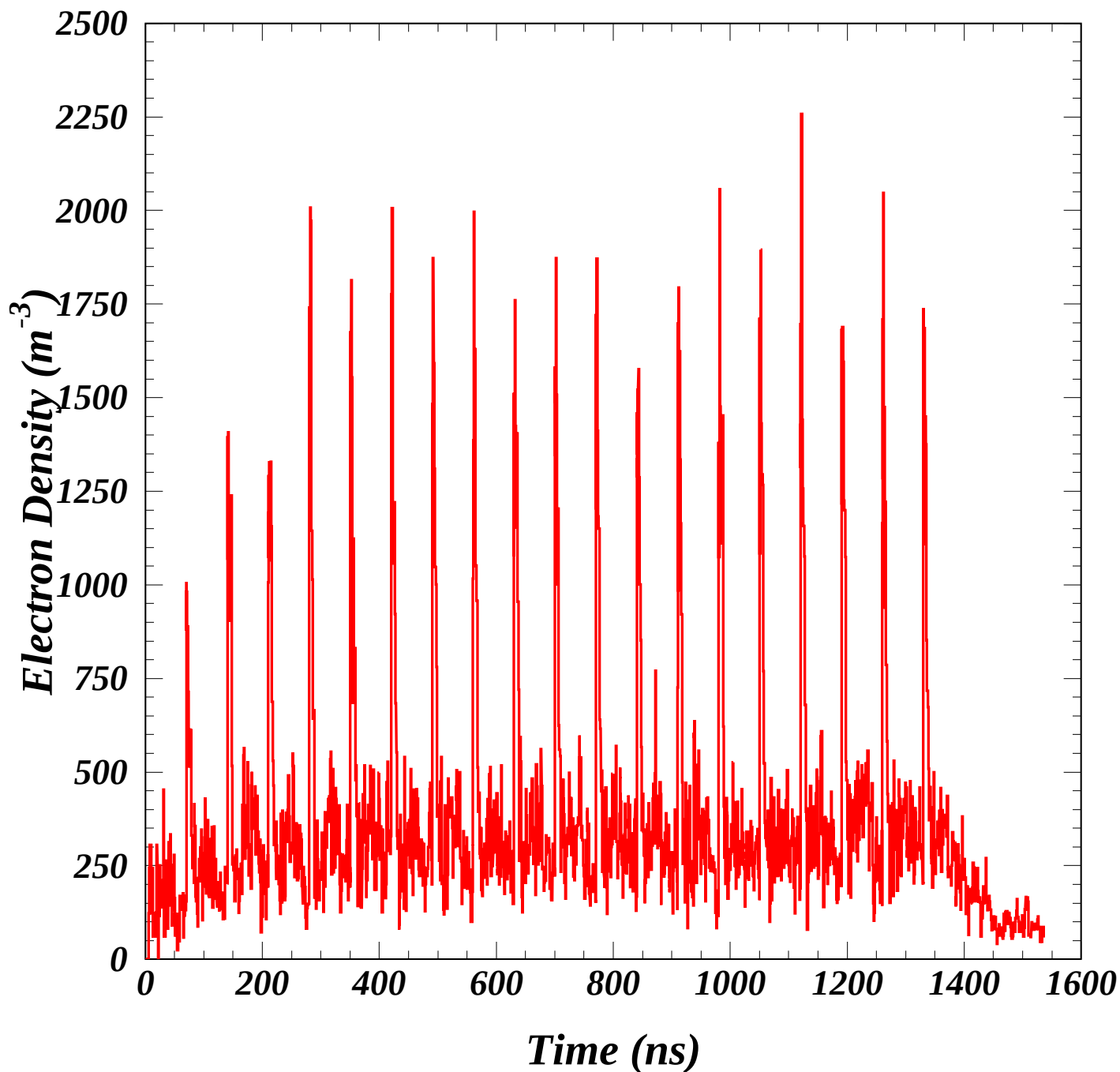
## *Macroparticle Statistics*

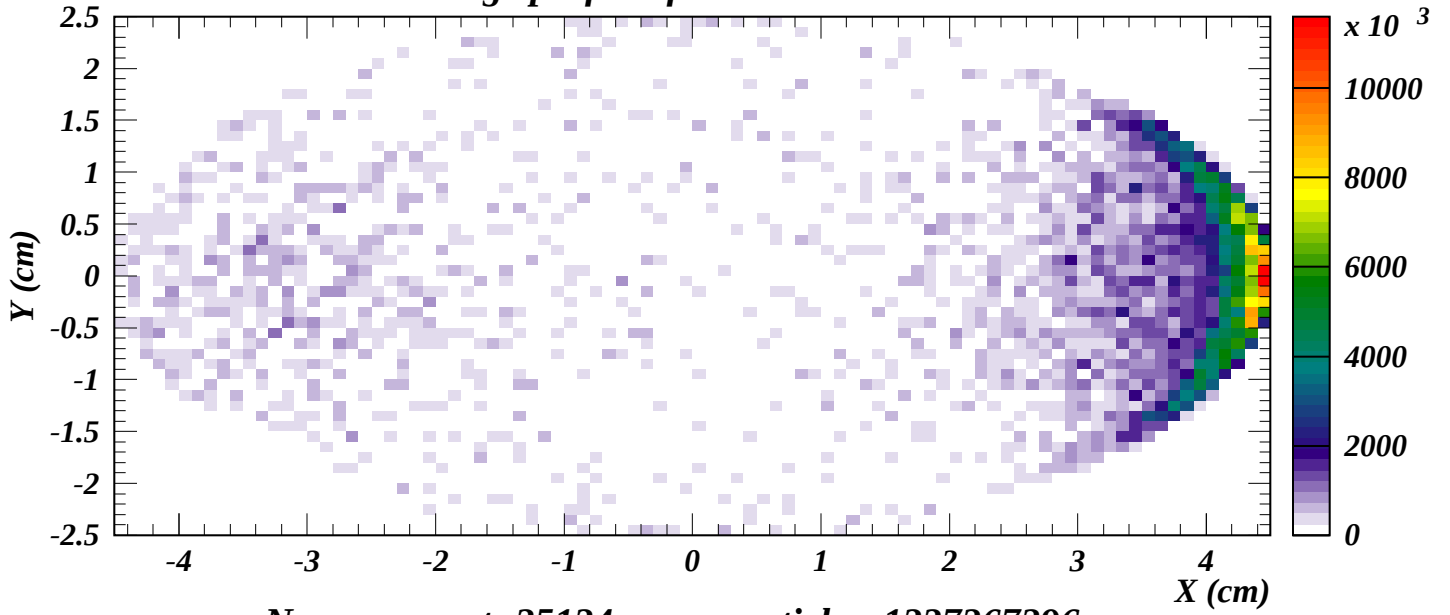
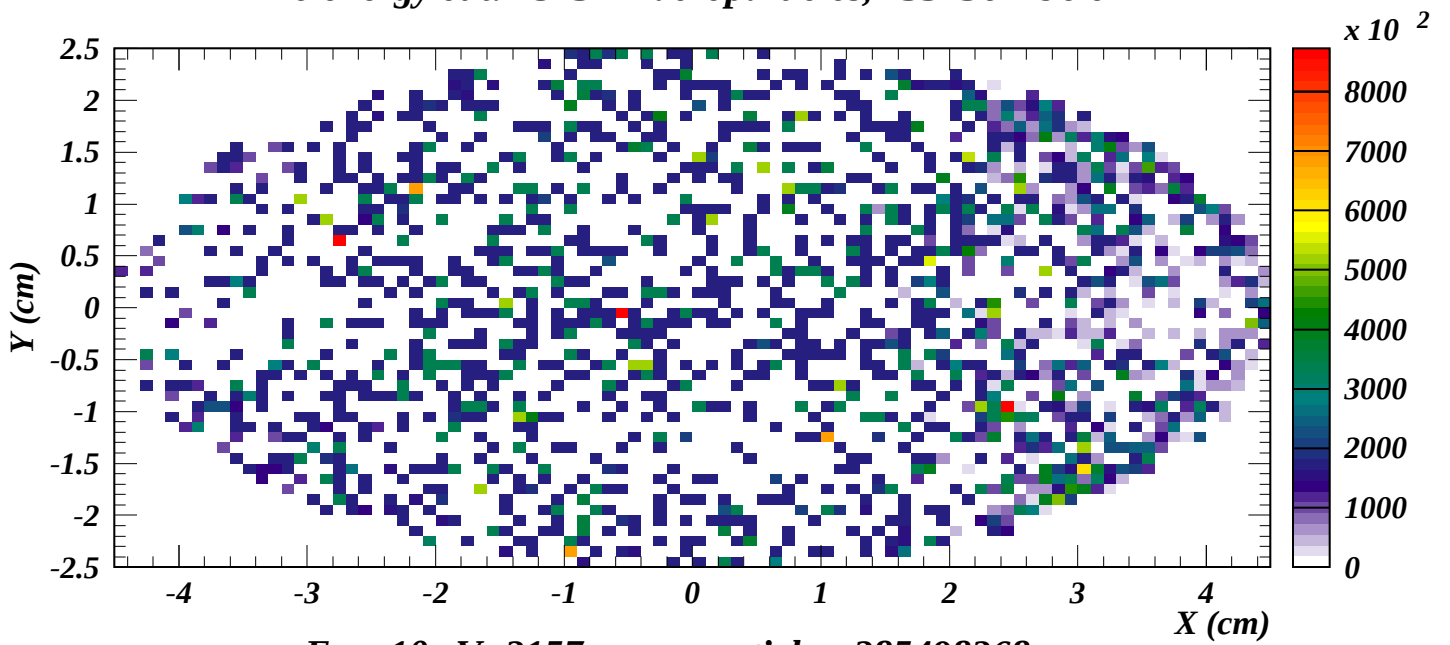


*Beam-averaged Cloud Density ( $10^{12} \text{ m}^{-3}$ )*

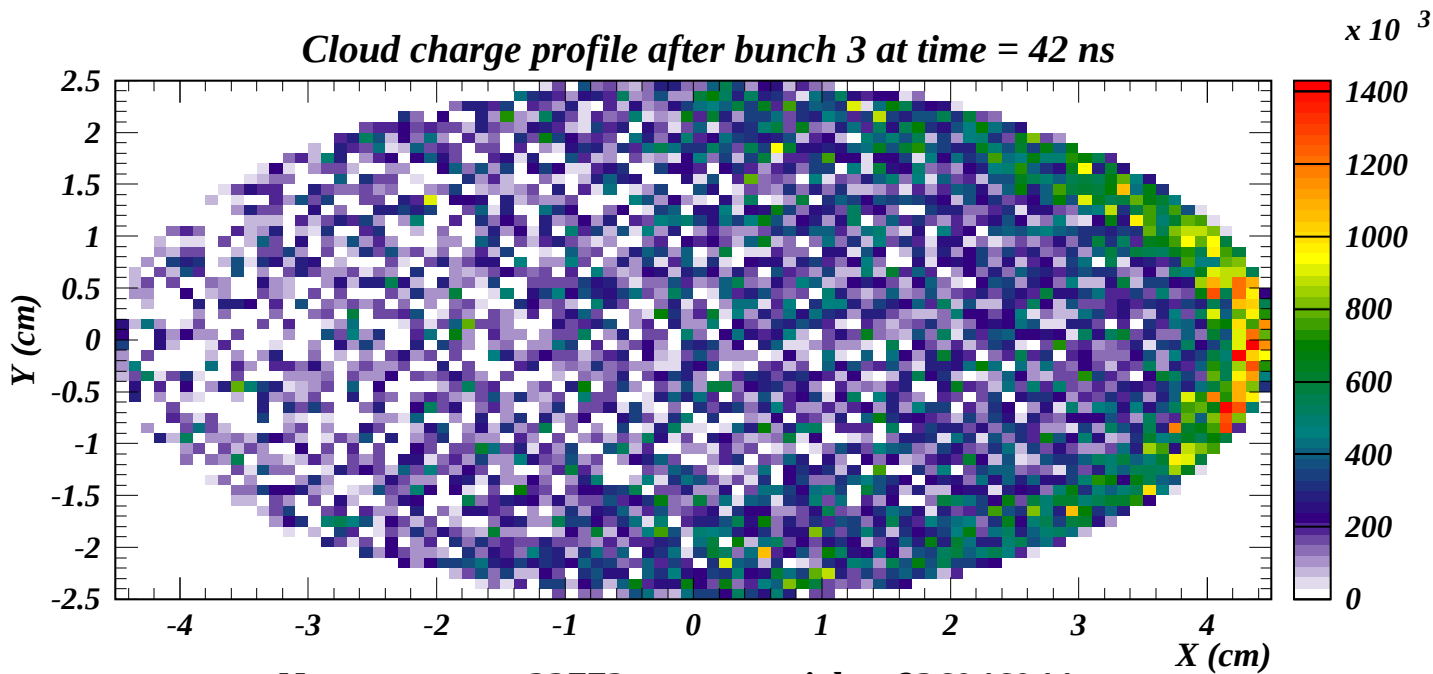
*5-Sigma Cloud Density at Center of Pipe ( $\text{m}^{-3}$ )*

$\times 10^9$  09/12/15 14.20  
*ECLOUD-CesrTA\_5\_3GeV: Cloud Density in Central Grid Cell ( $\text{m}^{-3}$ )*

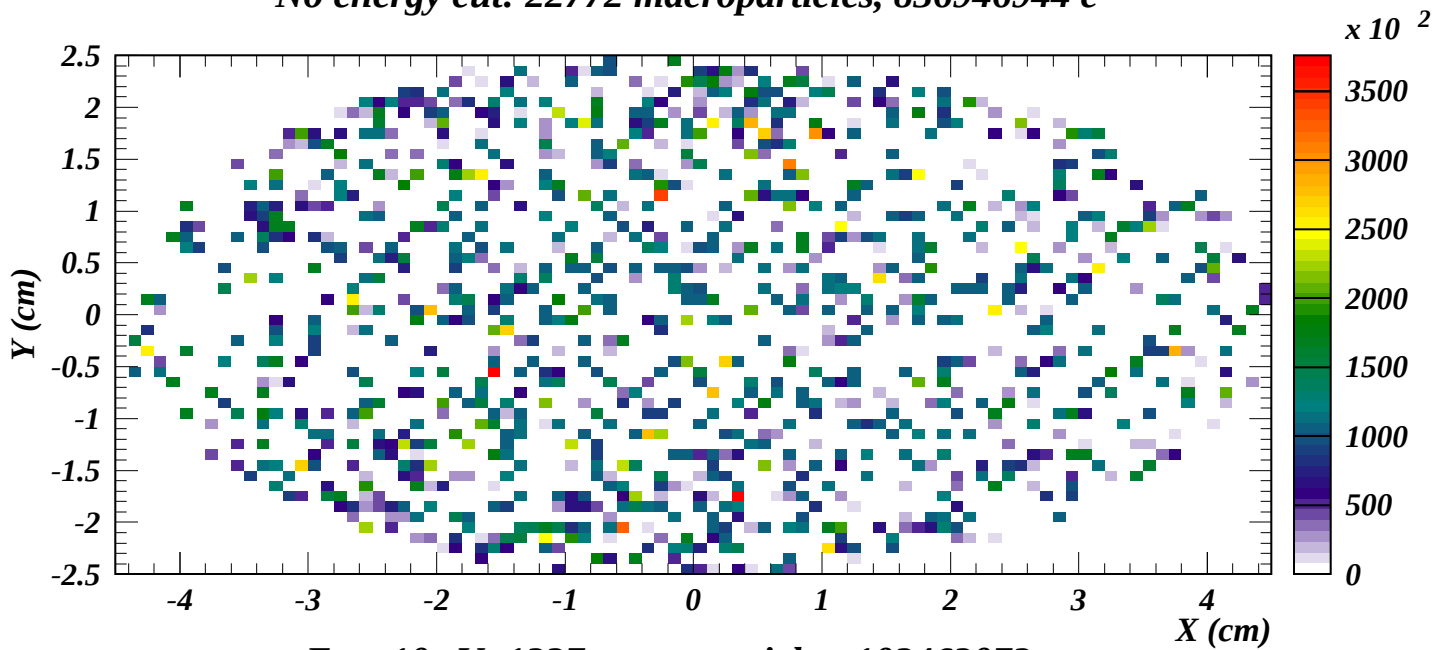


*Cloud charge profile after bunch 1 at time = 14 ns**No energy cut: 25134 macroparticles, 1337367296 e-* *$E_{\text{kin}} > 10$  eV: 2157 macroparticles, 285498368 e-*

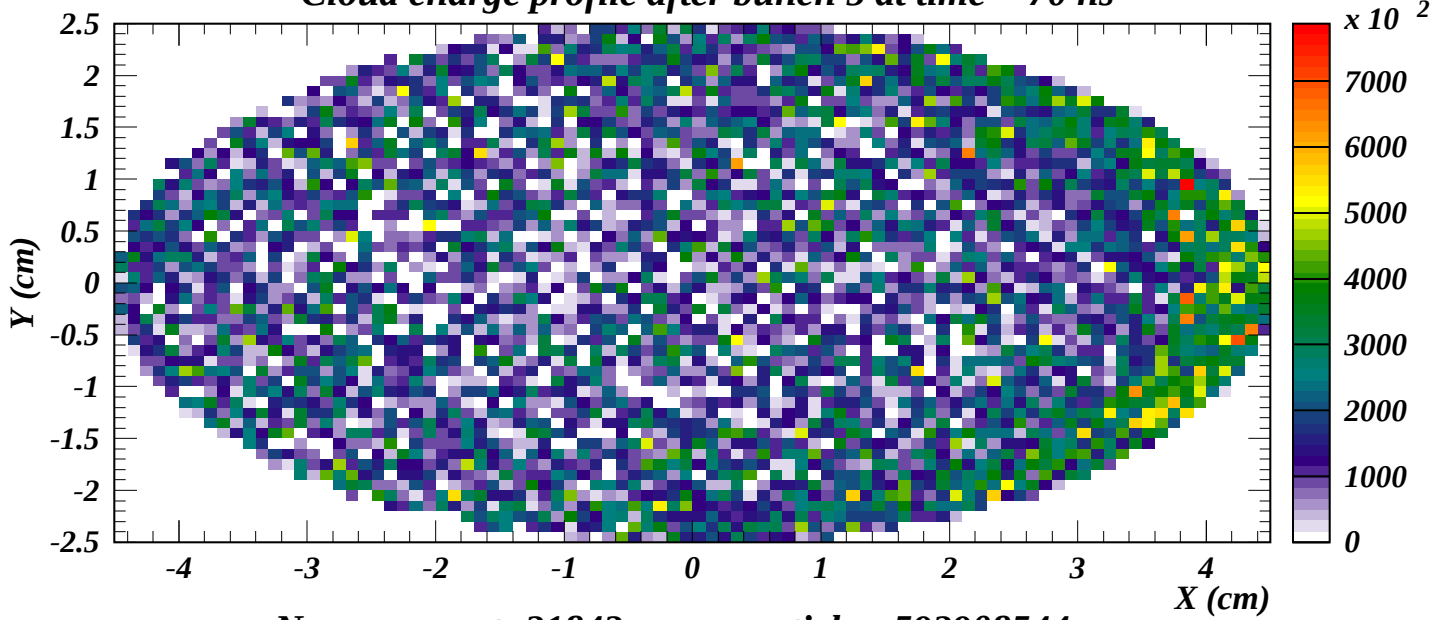
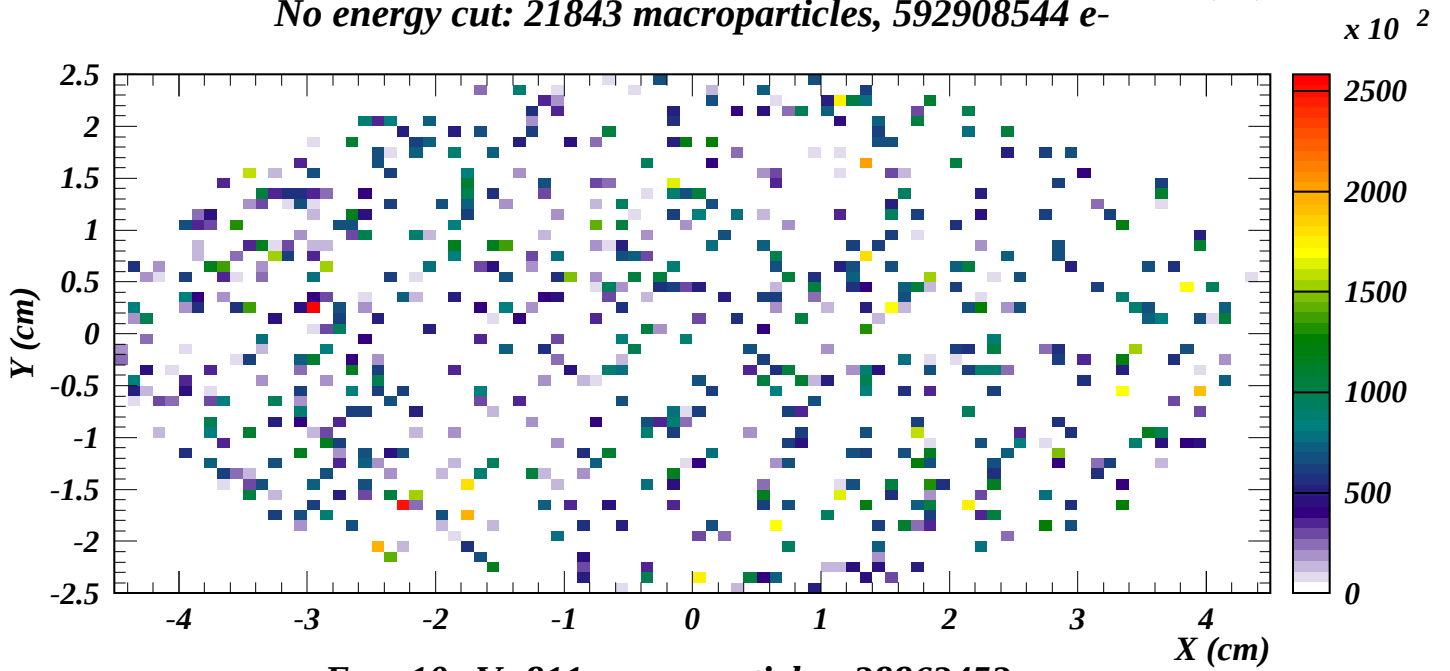
09/12/15 14.20

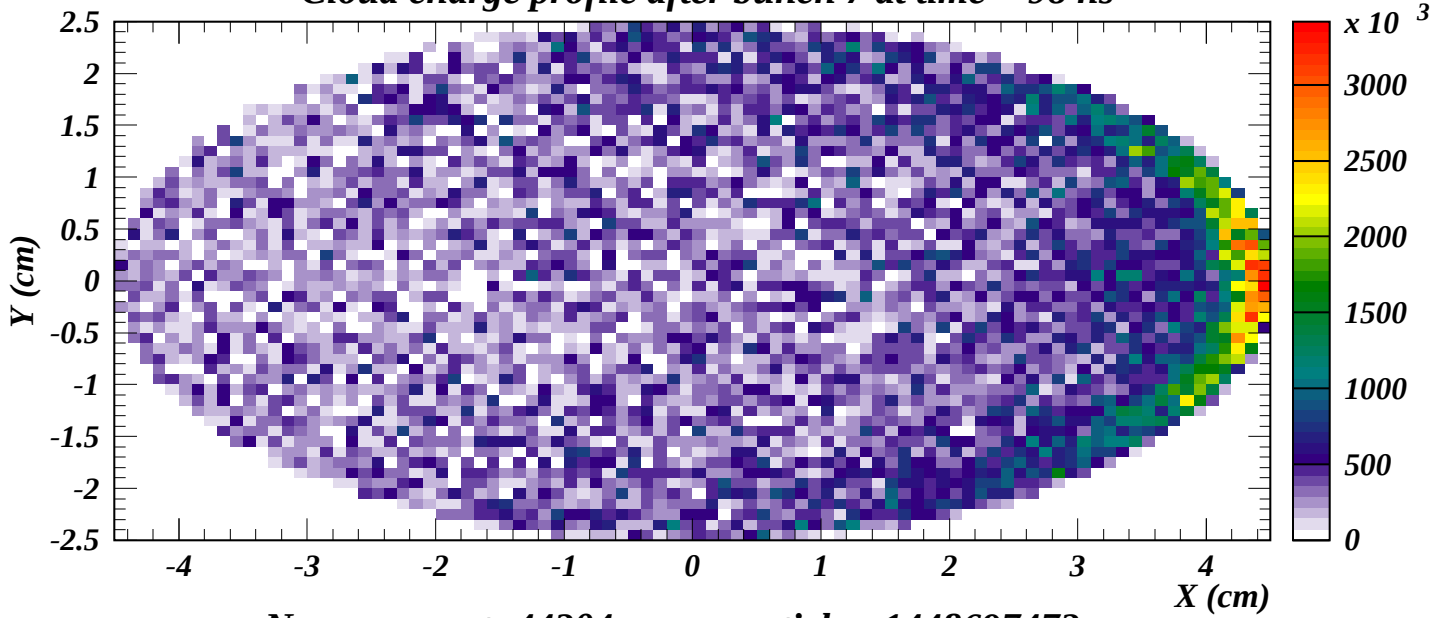
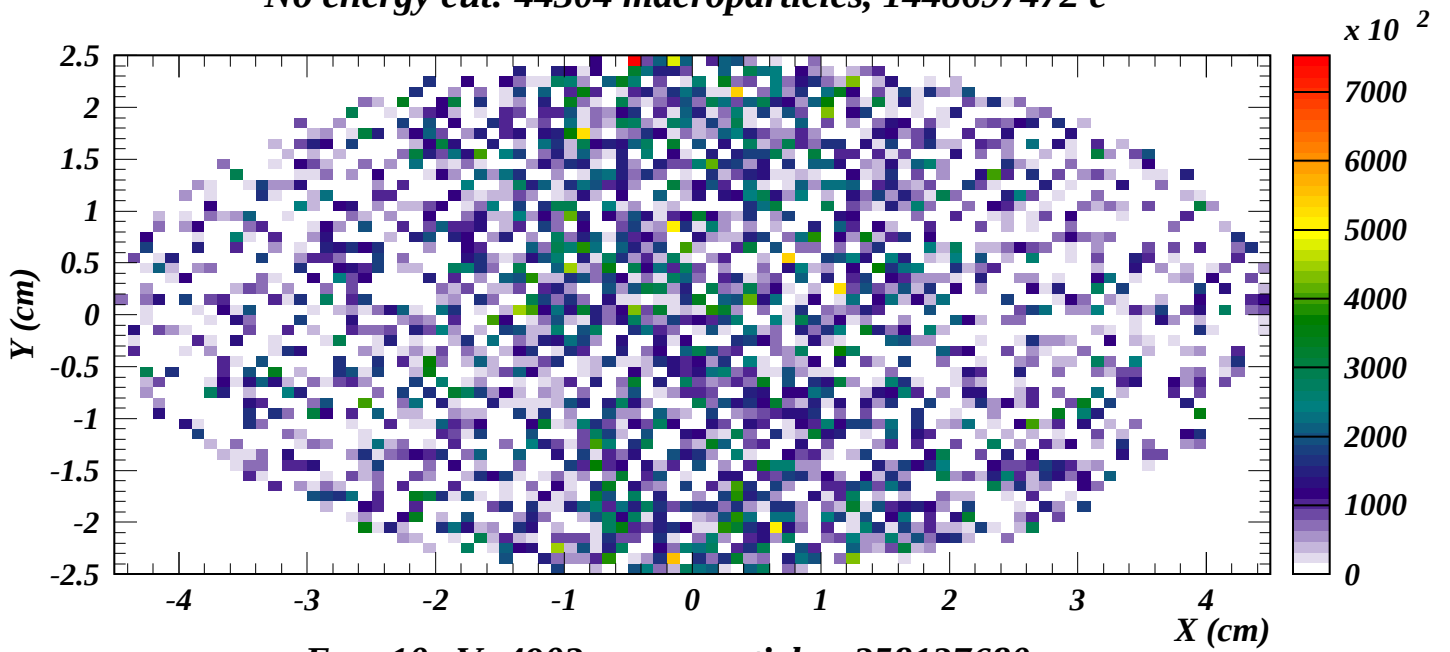


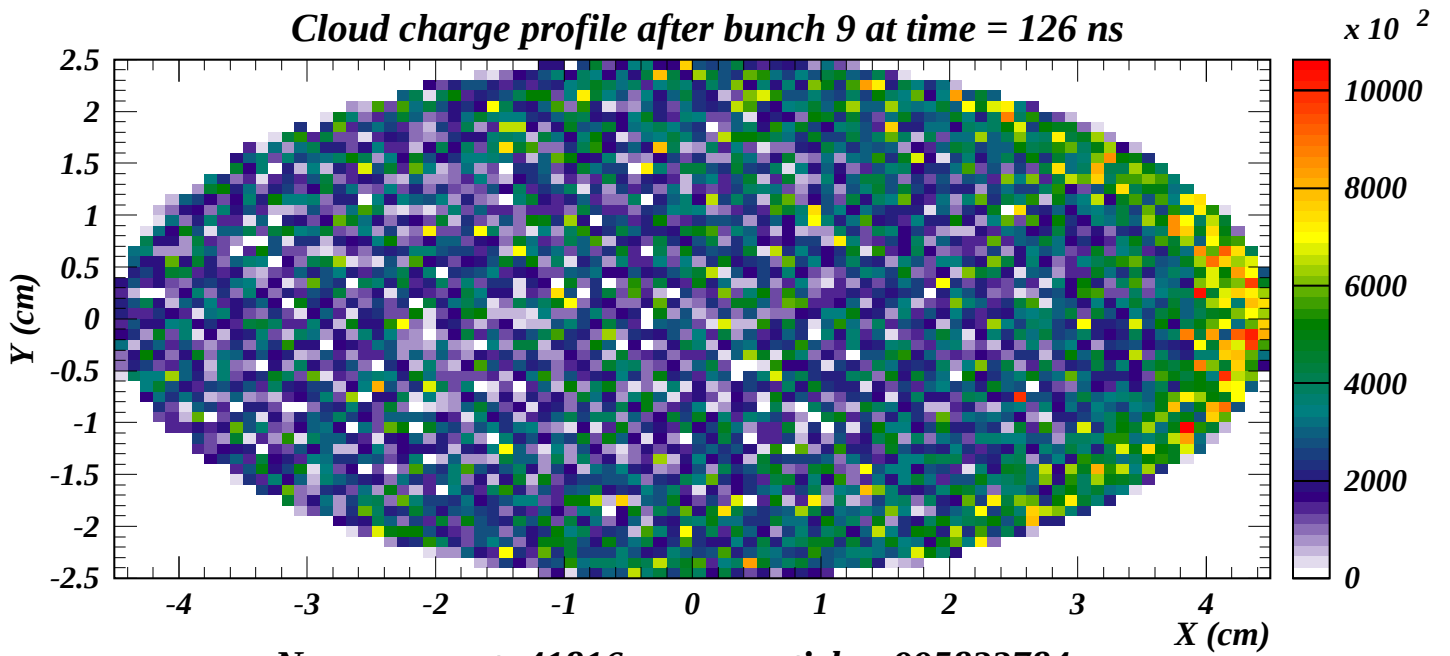
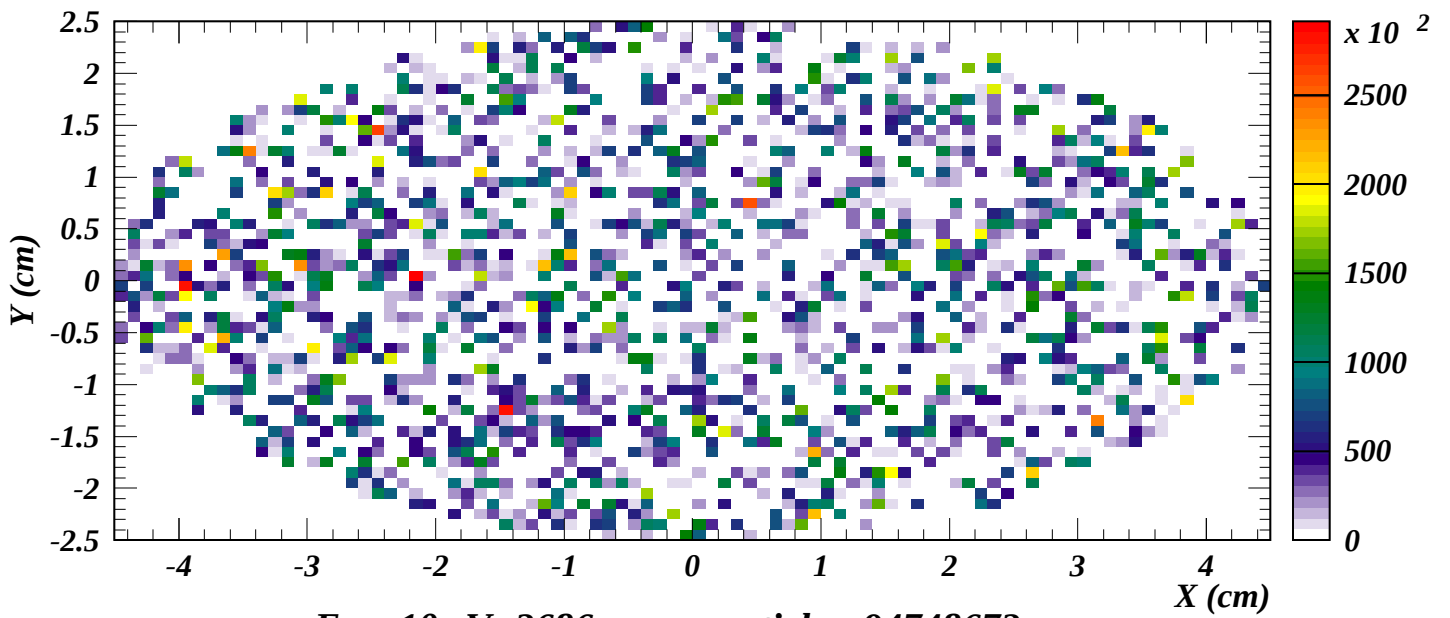
*No energy cut: 22772 macroparticles, 836946944 e-*

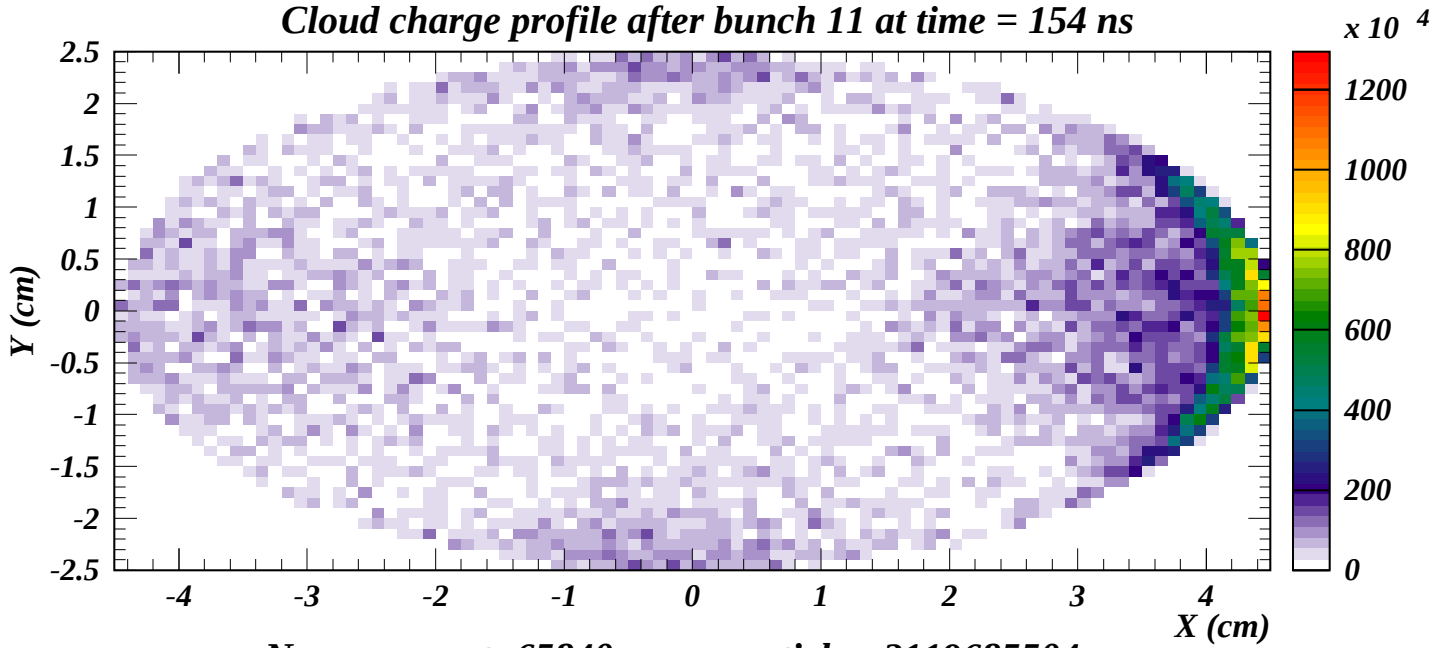
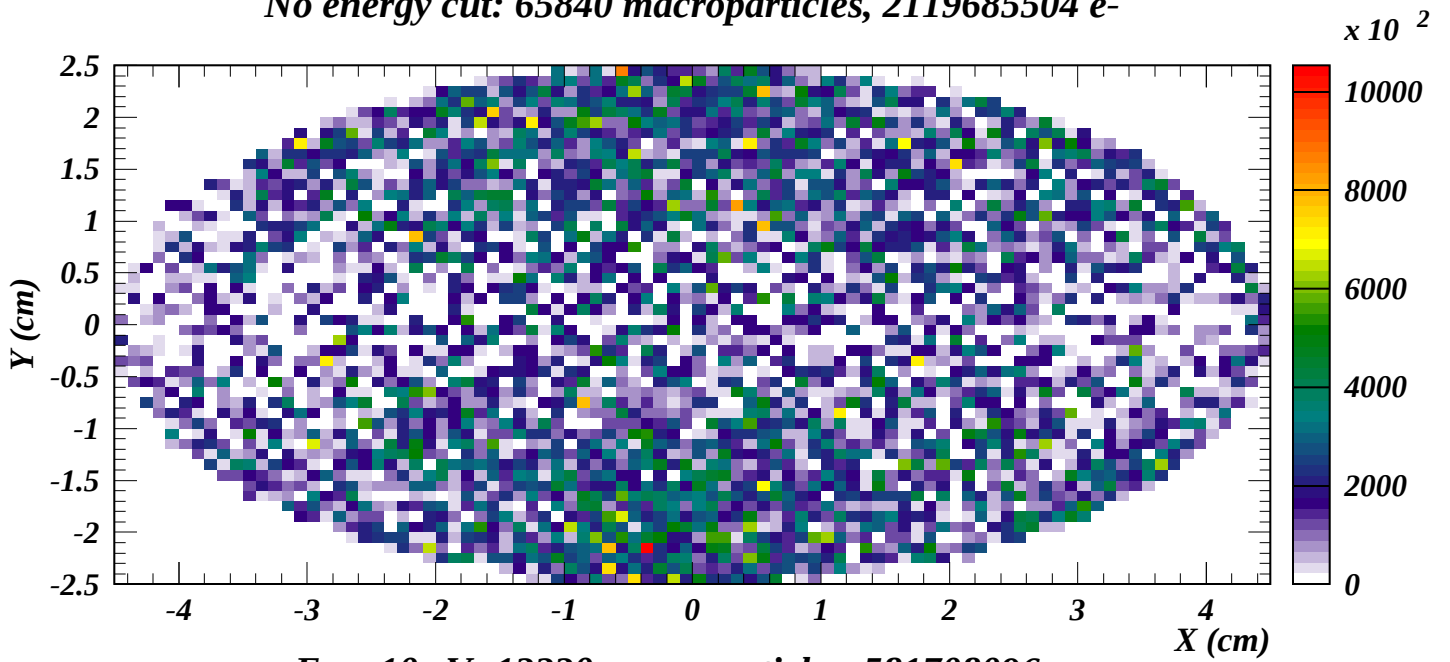


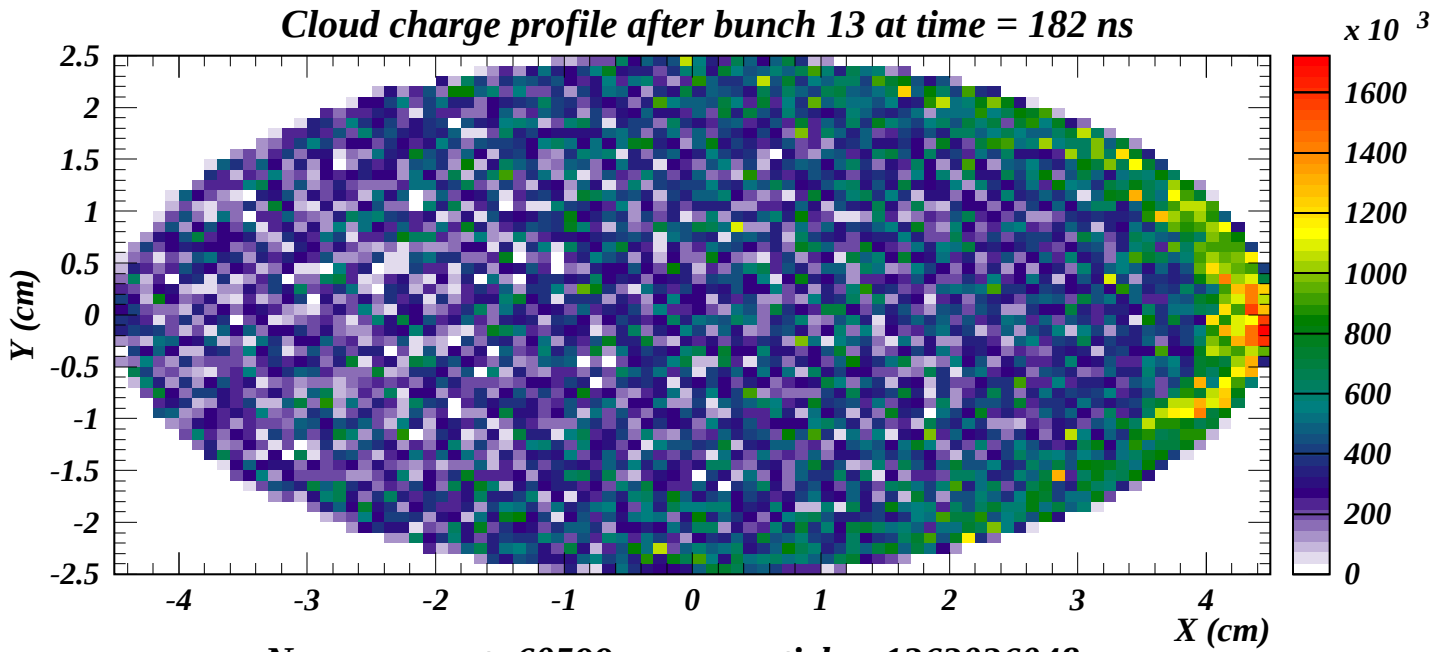
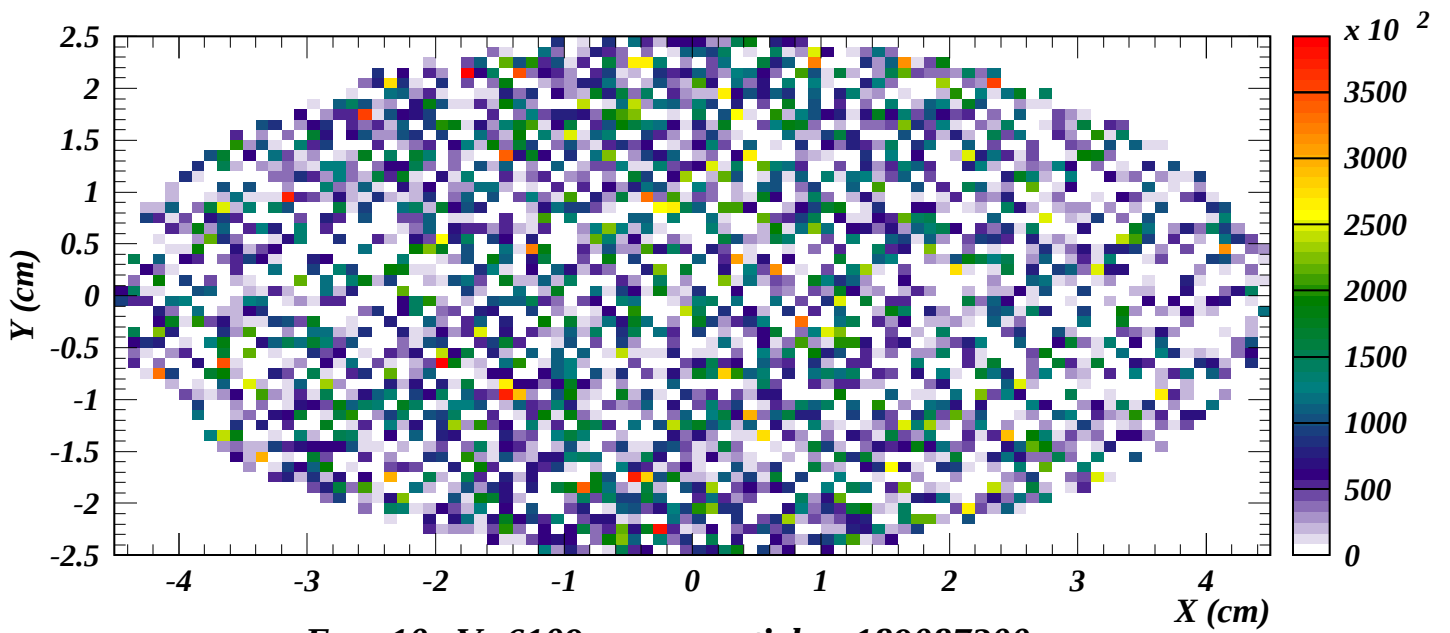
*$E_{\text{kin}} > 10 \text{ eV}$ : 1337 macroparticles, 102463072 e-*

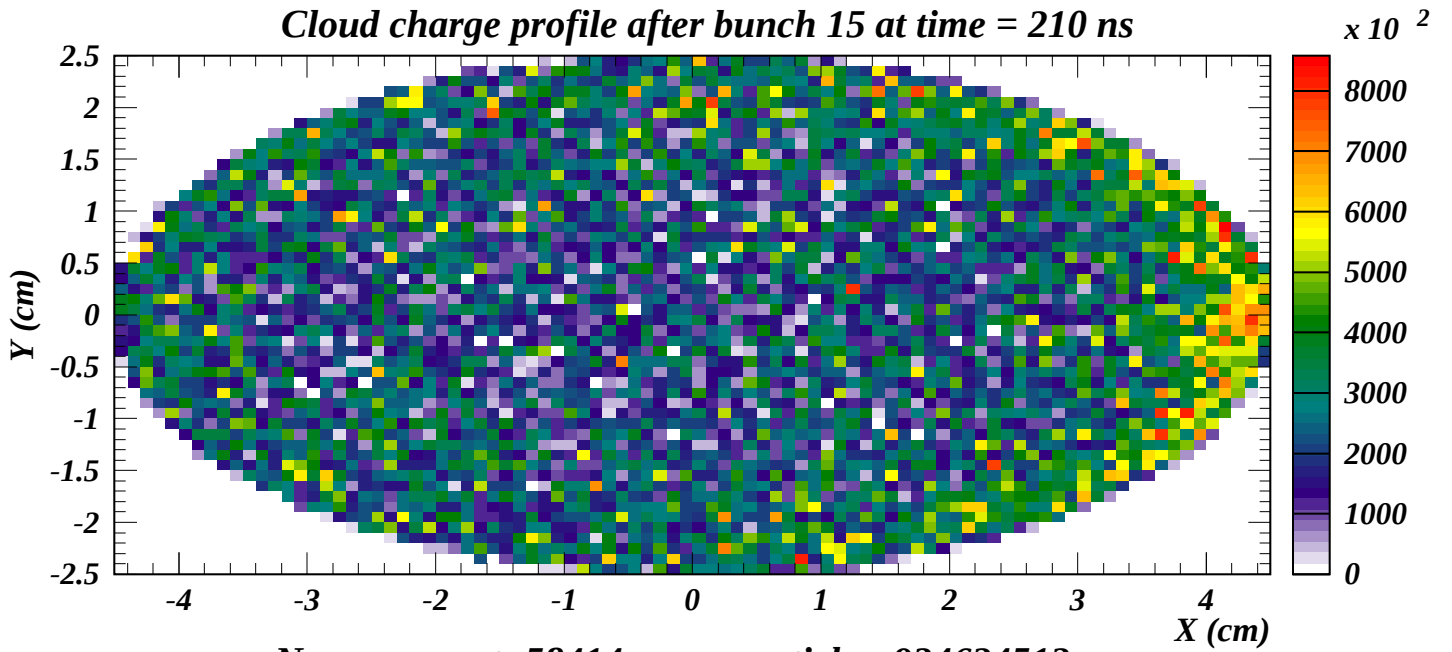
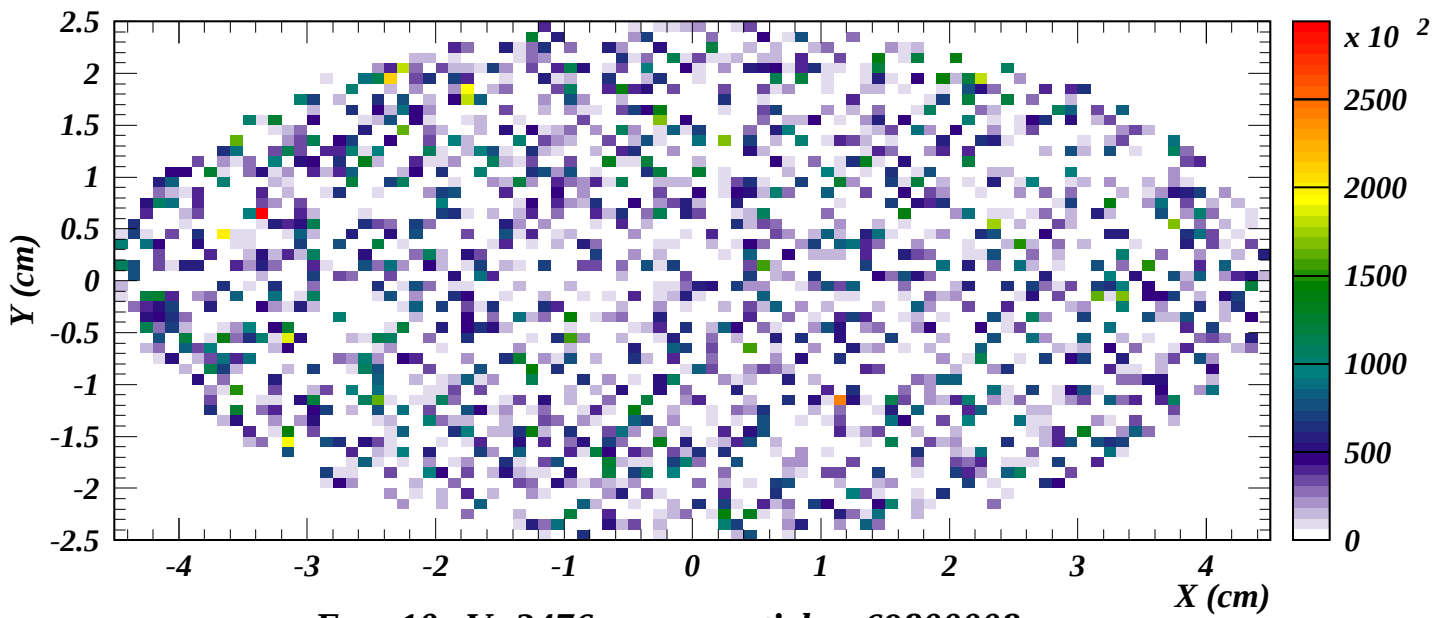
*Cloud charge profile after bunch 5 at time = 70 ns**No energy cut: 21843 macroparticles, 592908544 e-* *$E_{kin} > 10 \text{ eV}$ : 811 macroparticles, 38863452 e-*

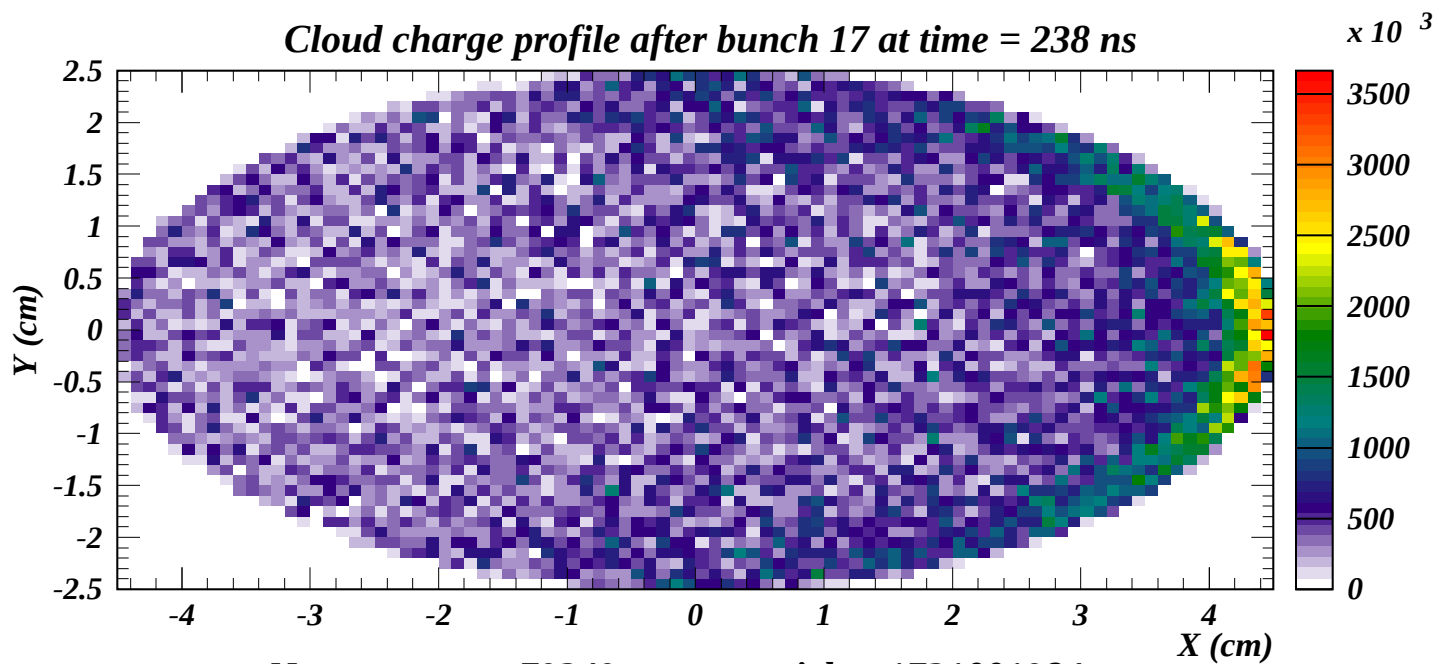
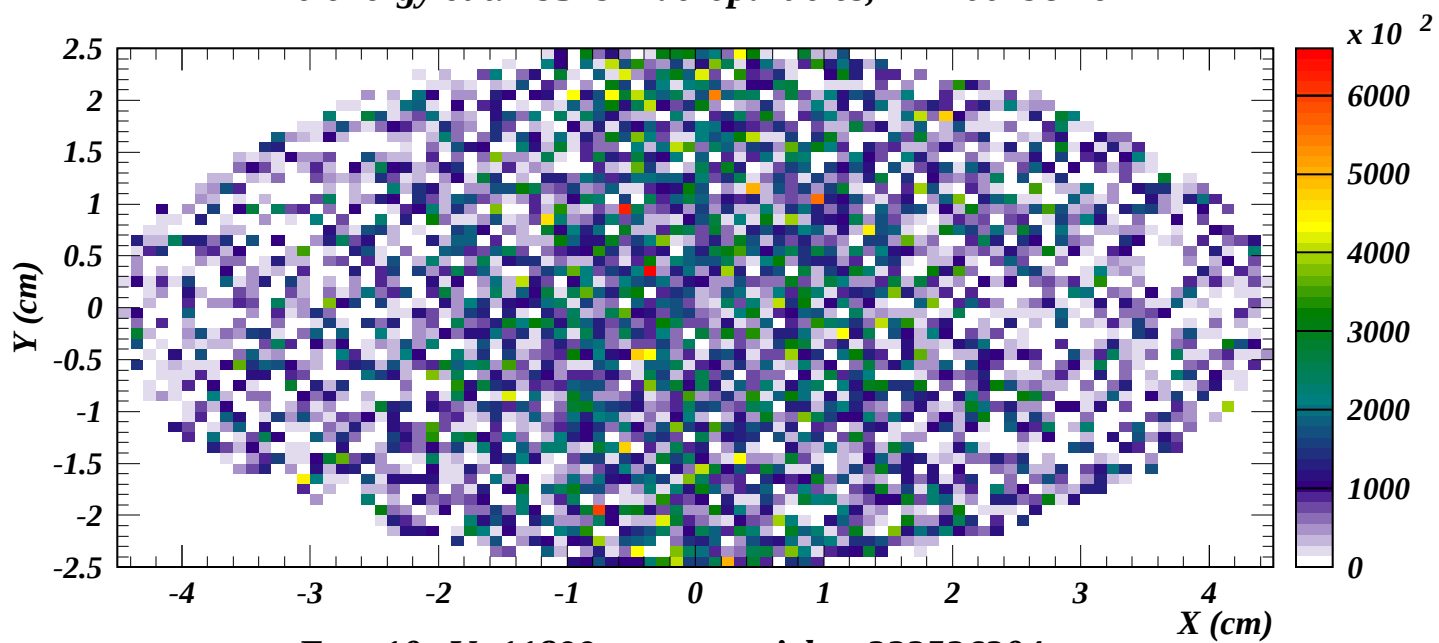
*Cloud charge profile after bunch 7 at time = 98 ns**No energy cut: 44304 macroparticles, 1448697472 e-* *$E_{\text{kin}} > 10$  eV: 4902 macroparticles, 258137680 e-*

*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-*

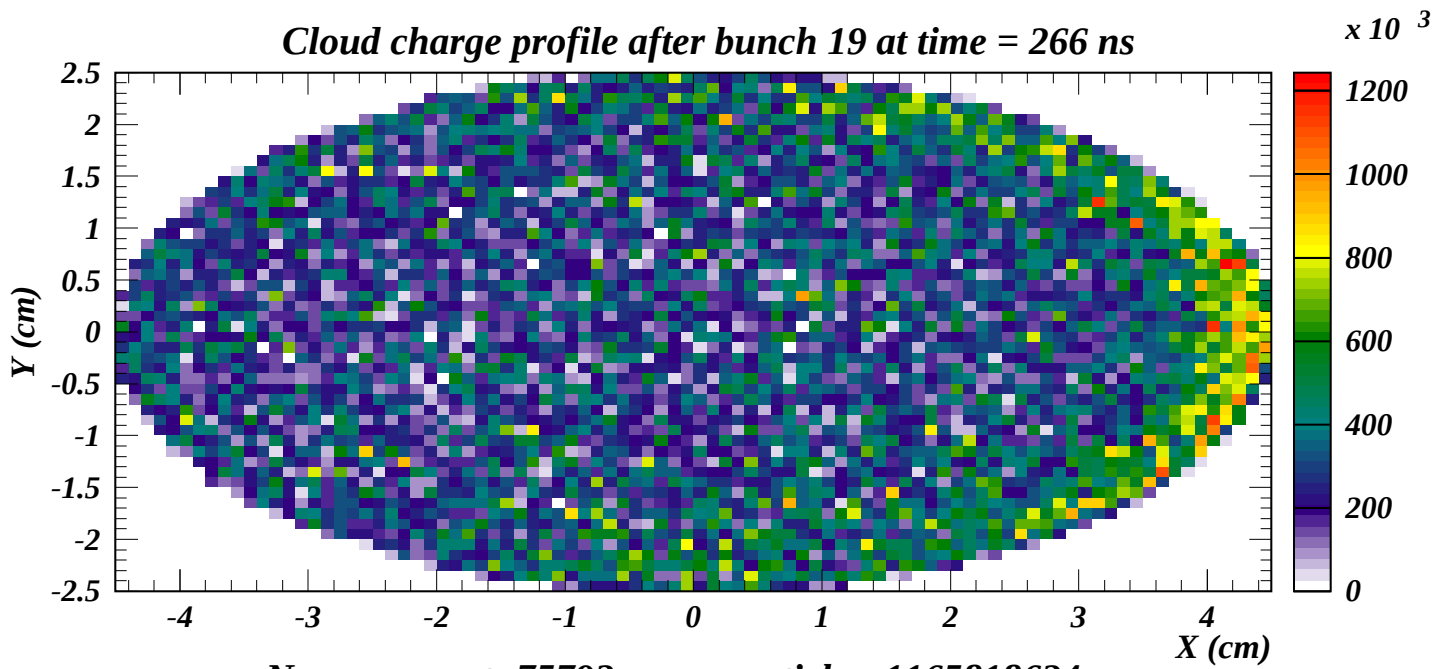
*Cloud charge profile after bunch 11 at time = 154 ns**No energy cut: 65840 macroparticles, 2119685504 e-* *$E_{kin} > 10 \text{ eV}$ : 13230 macroparticles, 581708096 e-*

*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-*

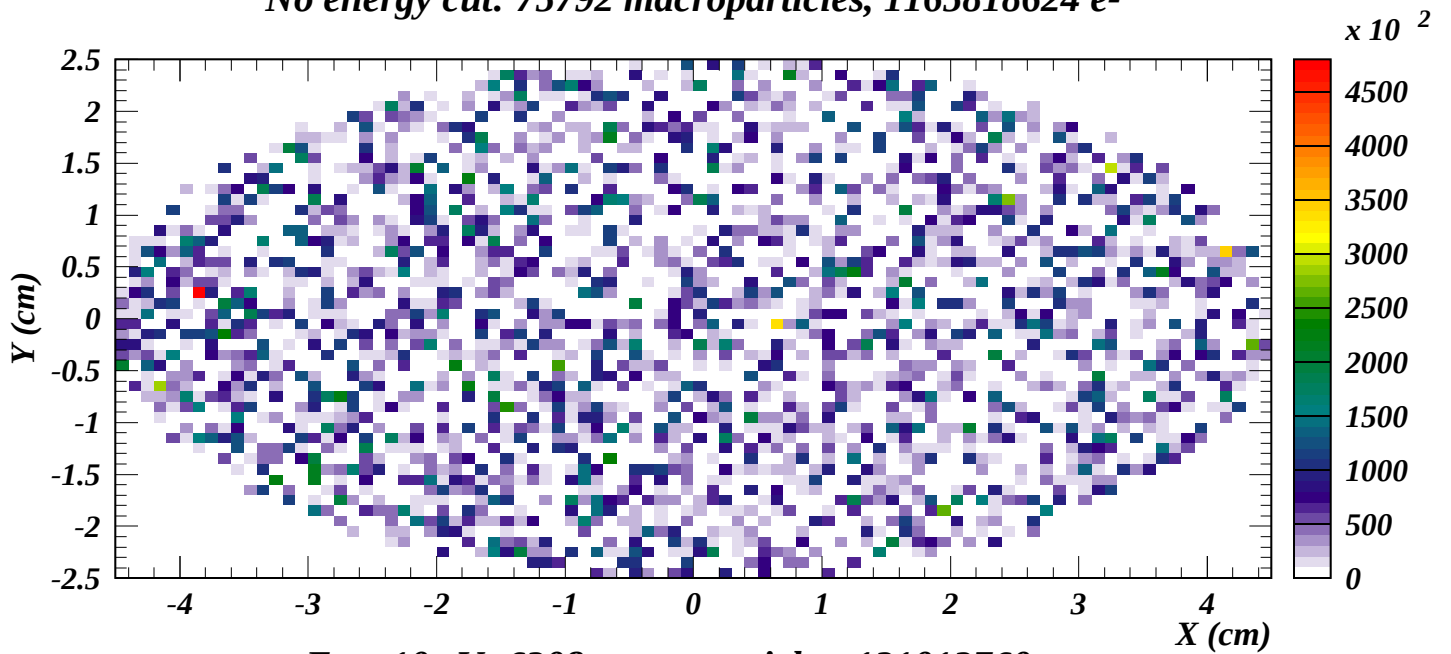
*Cloud charge profile after bunch 15 at time = 210 ns**No energy cut: 58414 macroparticles, 934624512 e-* *$E_{kin} > 10$  eV: 3476 macroparticles, 69800008 e-*

*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-*

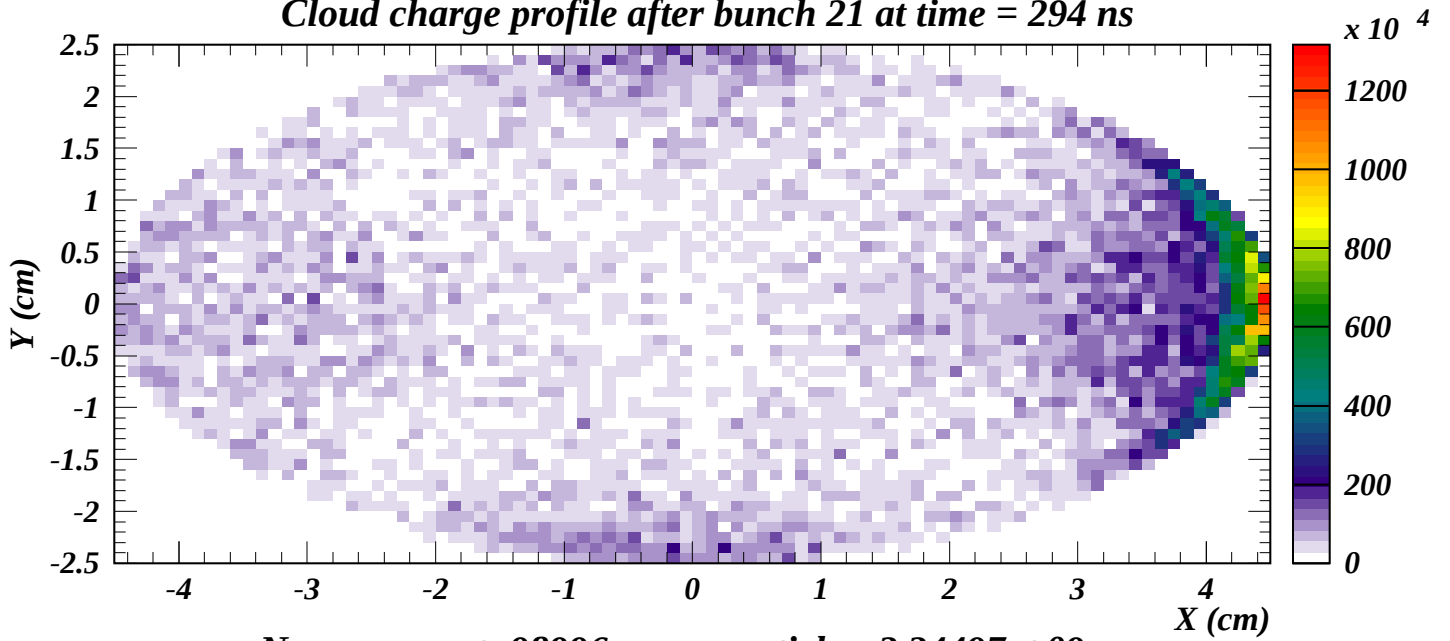
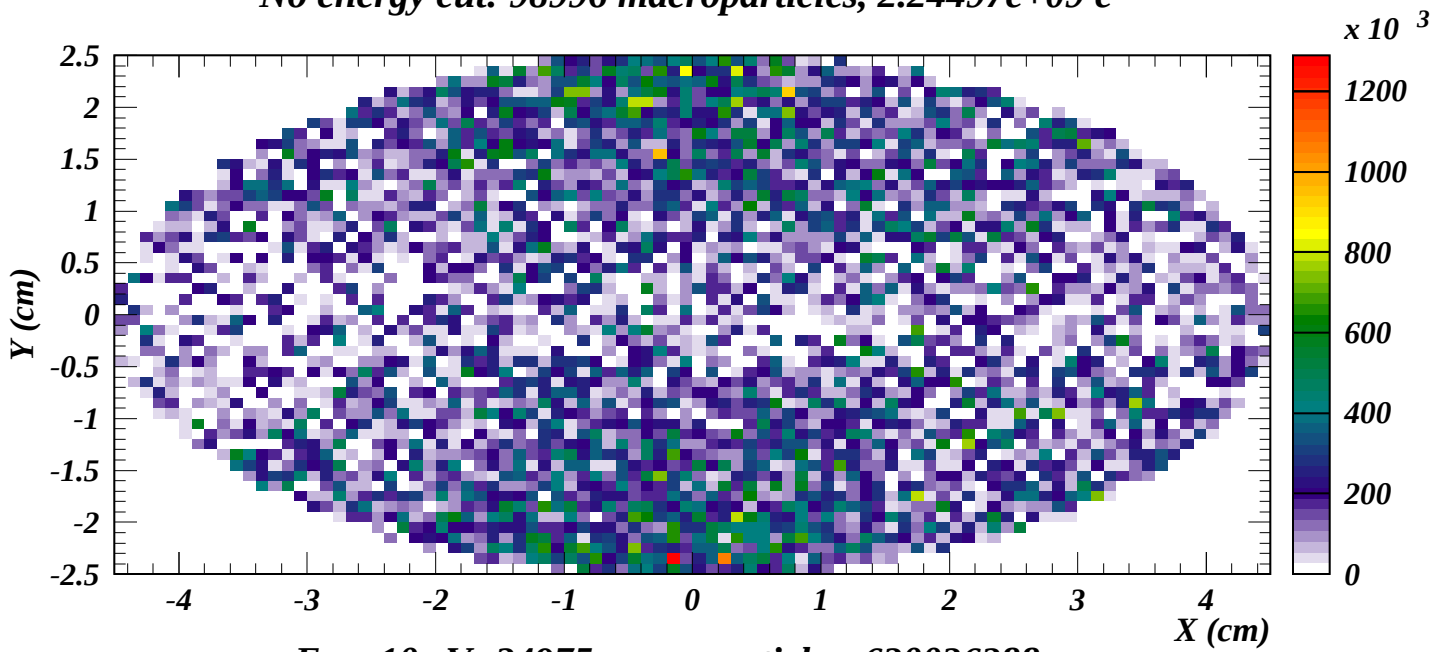
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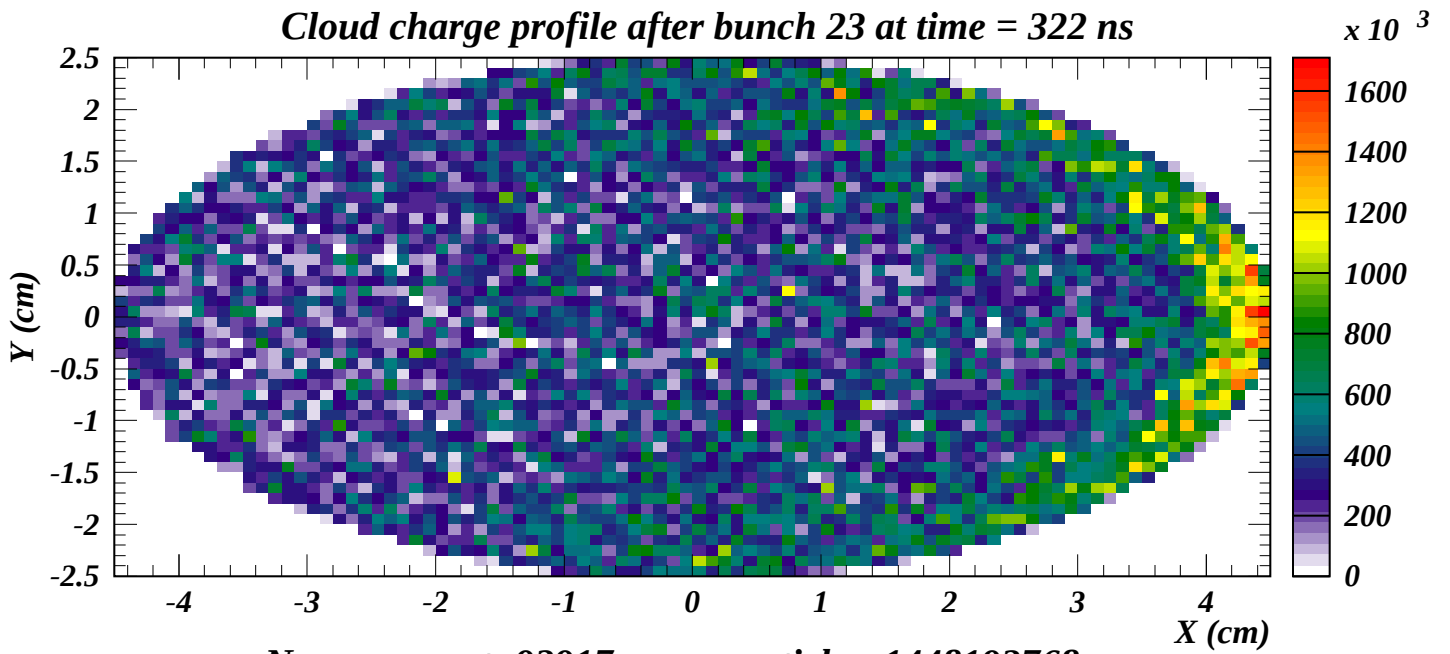
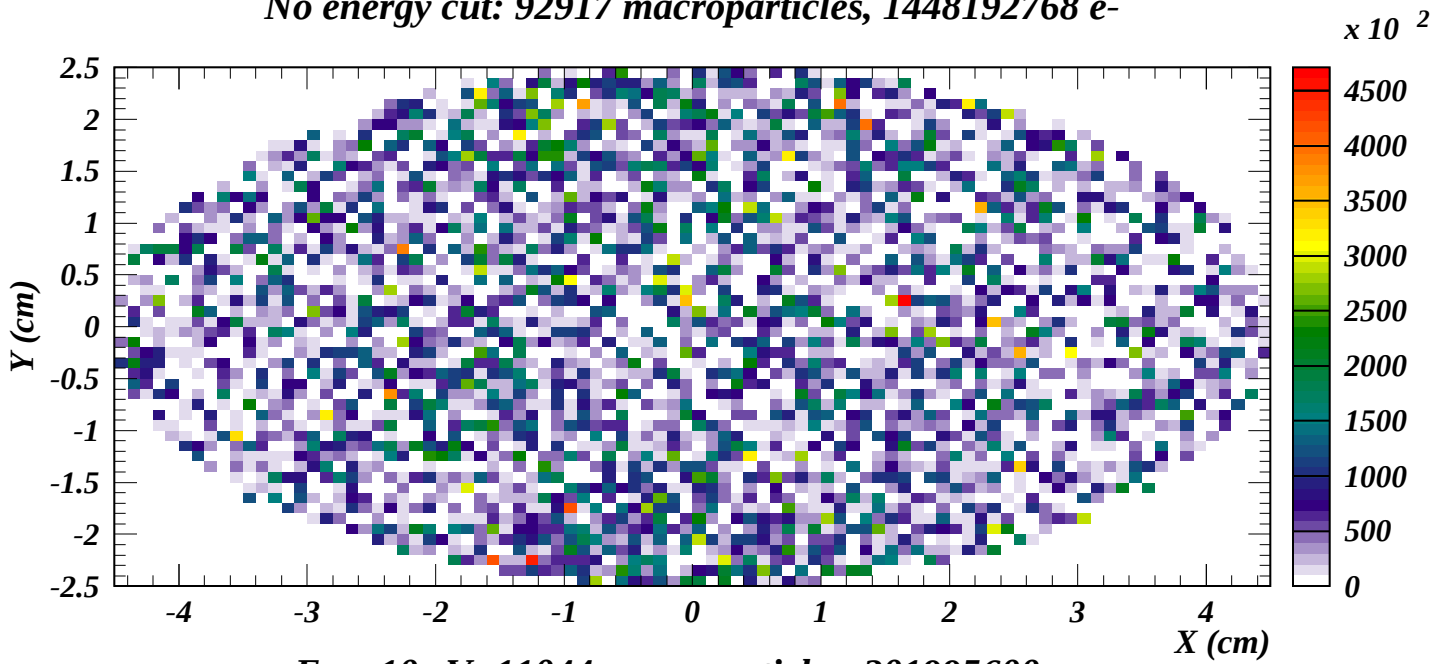


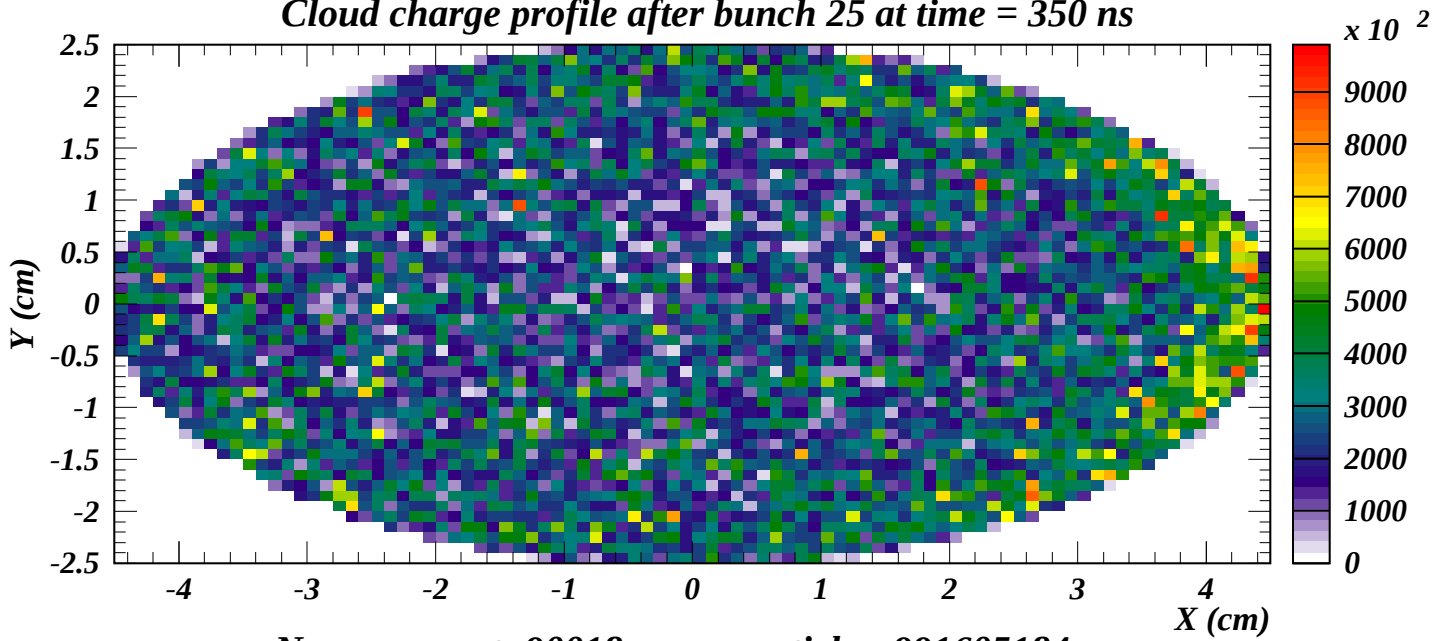
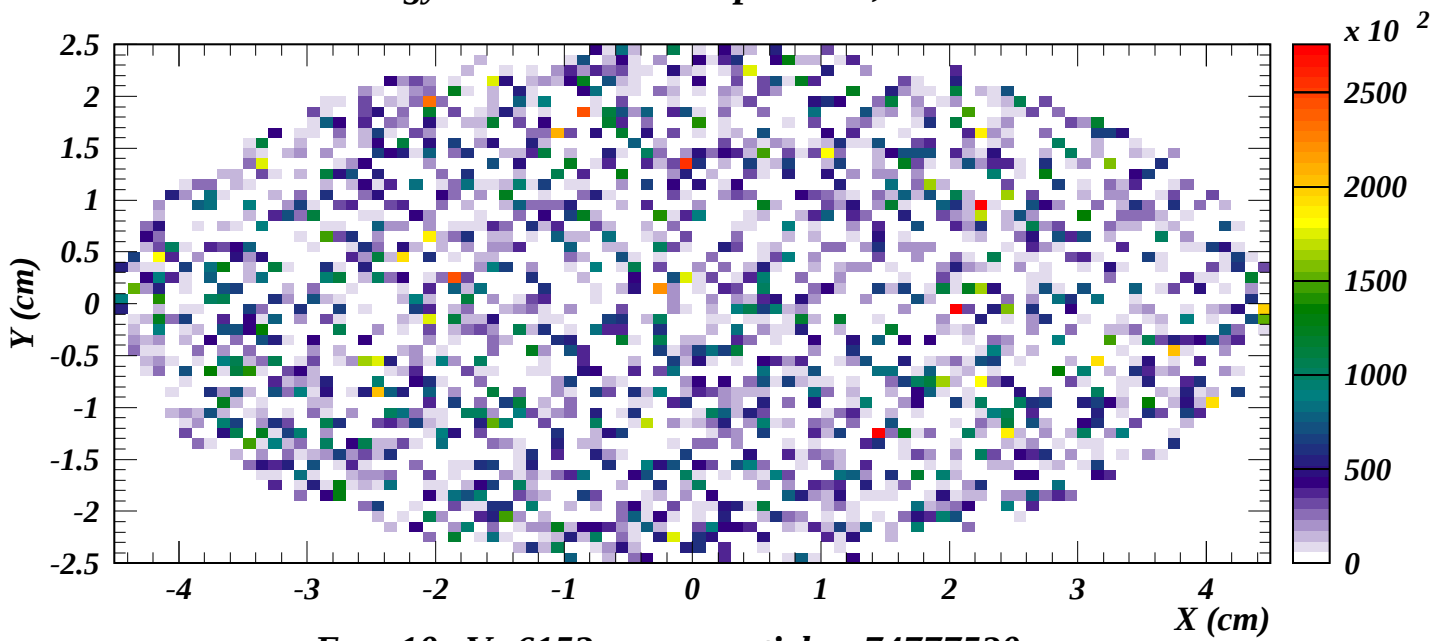
*No energy cut: 75792 macroparticles, 1165818624 e-*

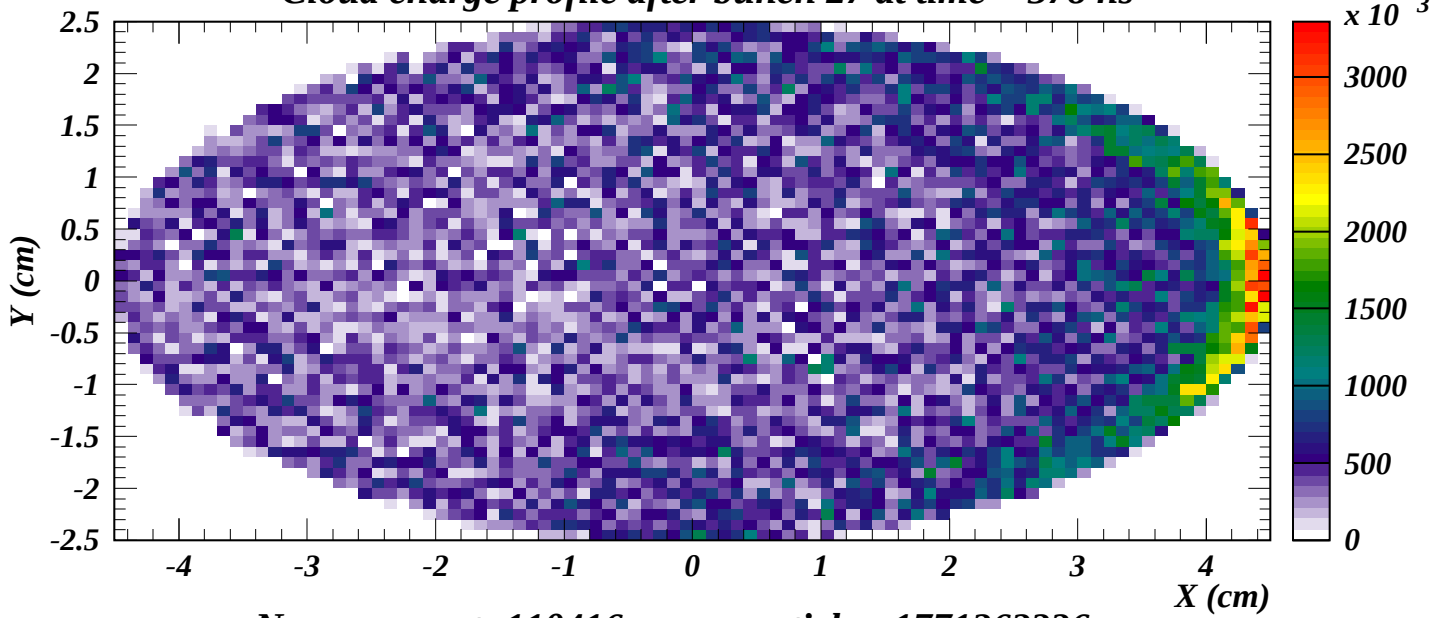
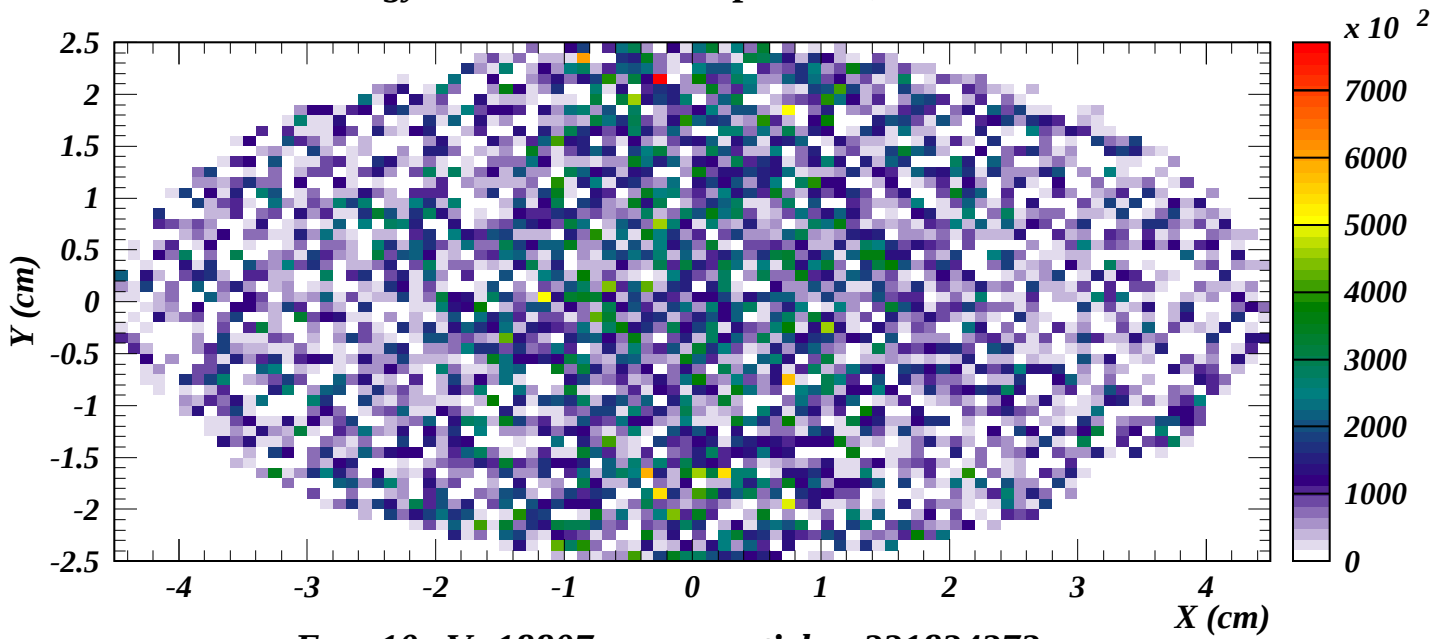


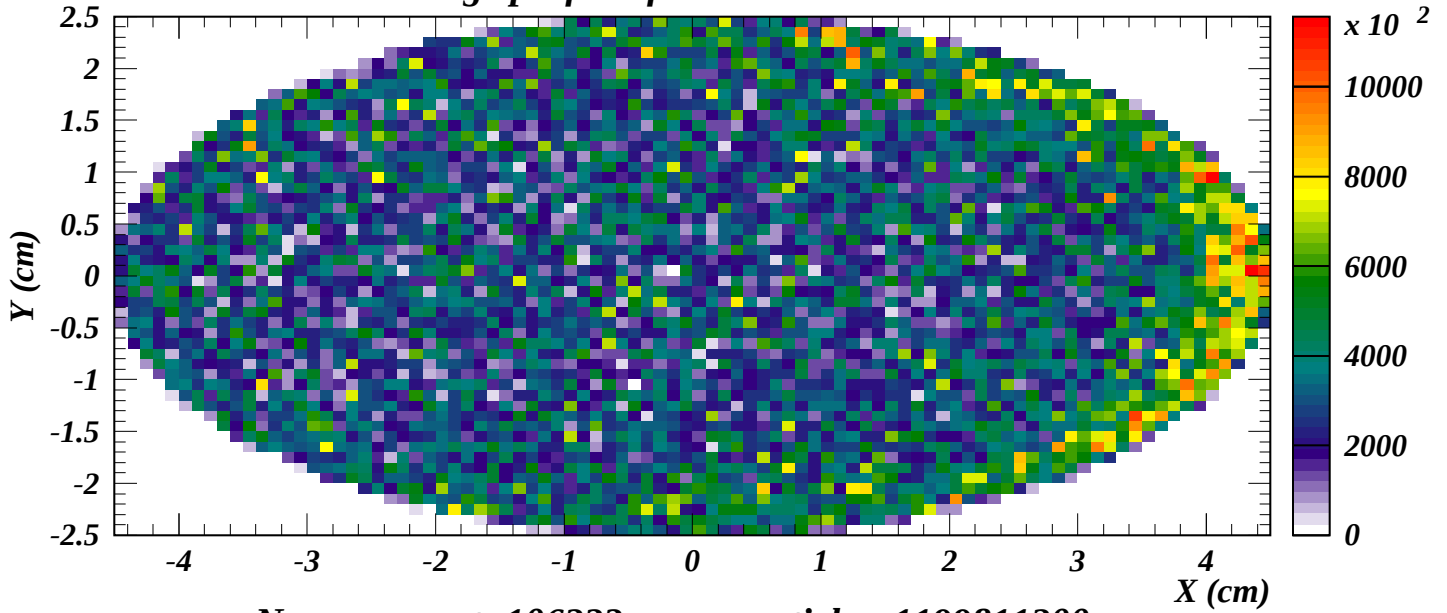
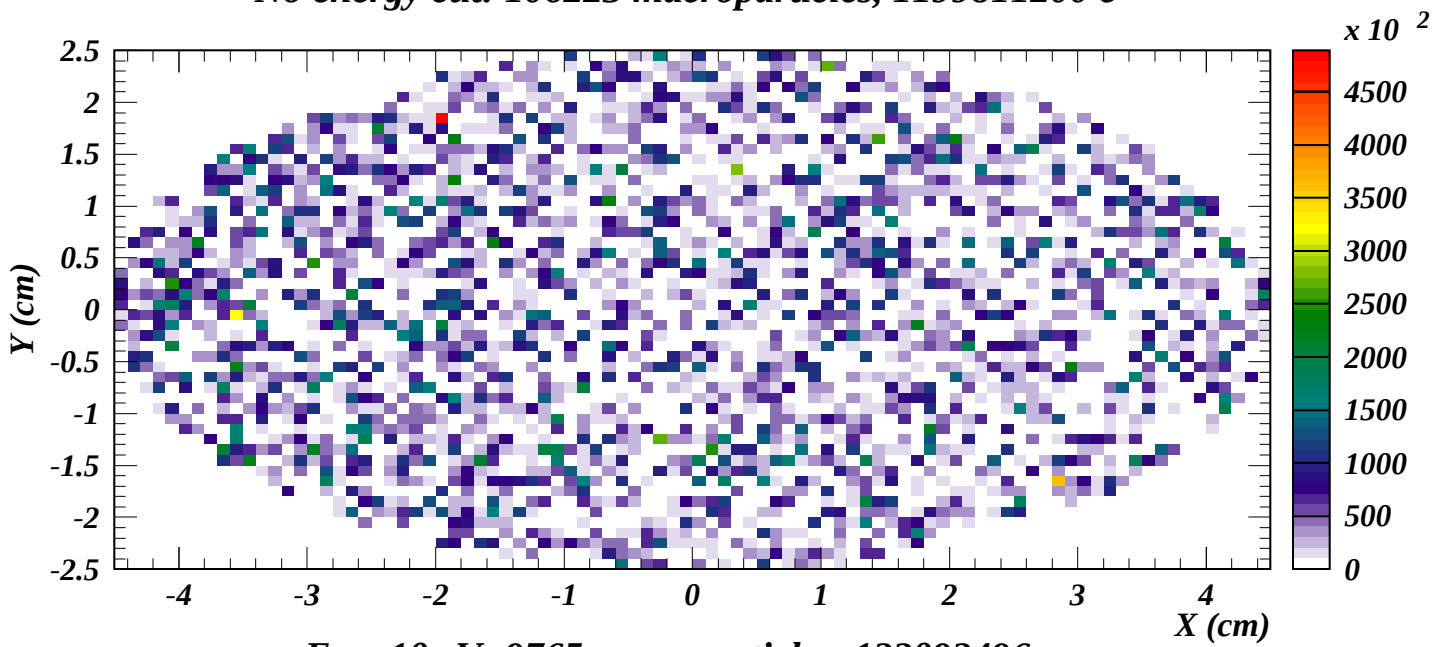
*$E_{\text{kin}} > 10 \text{ eV}$ : 6308 macroparticles, 121012760 e-*

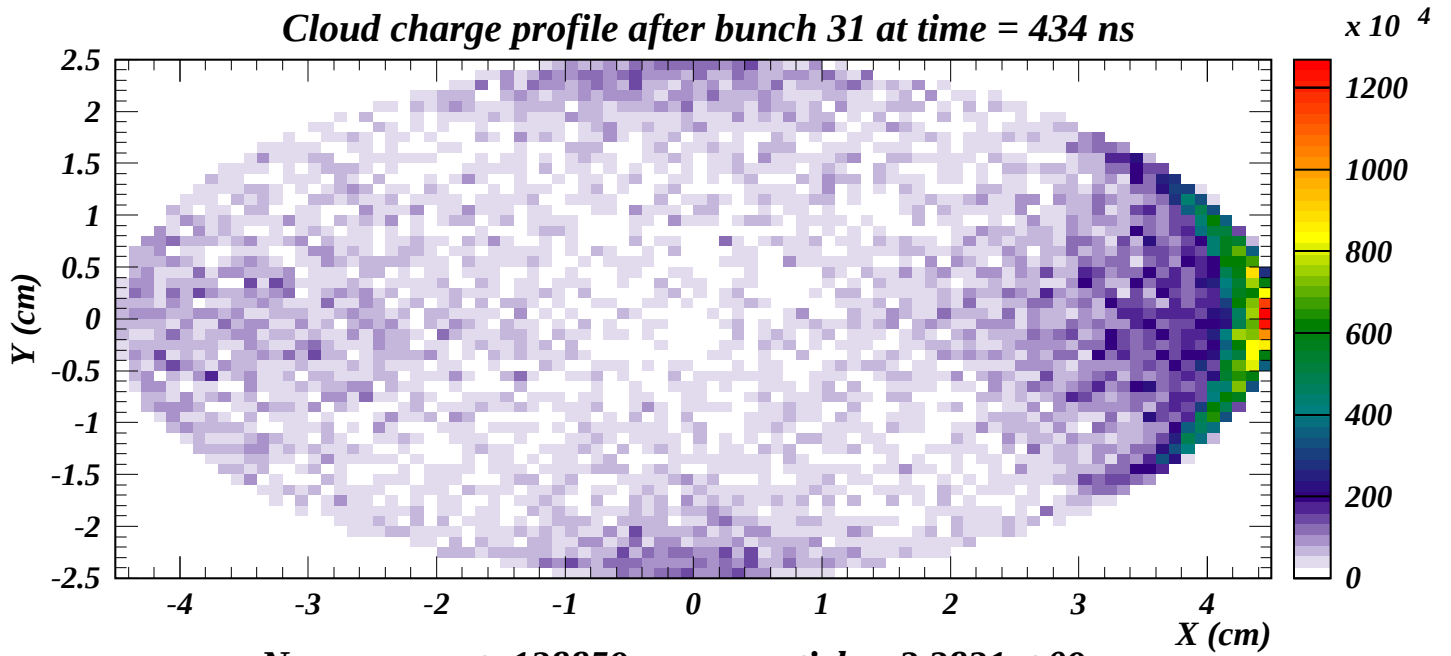
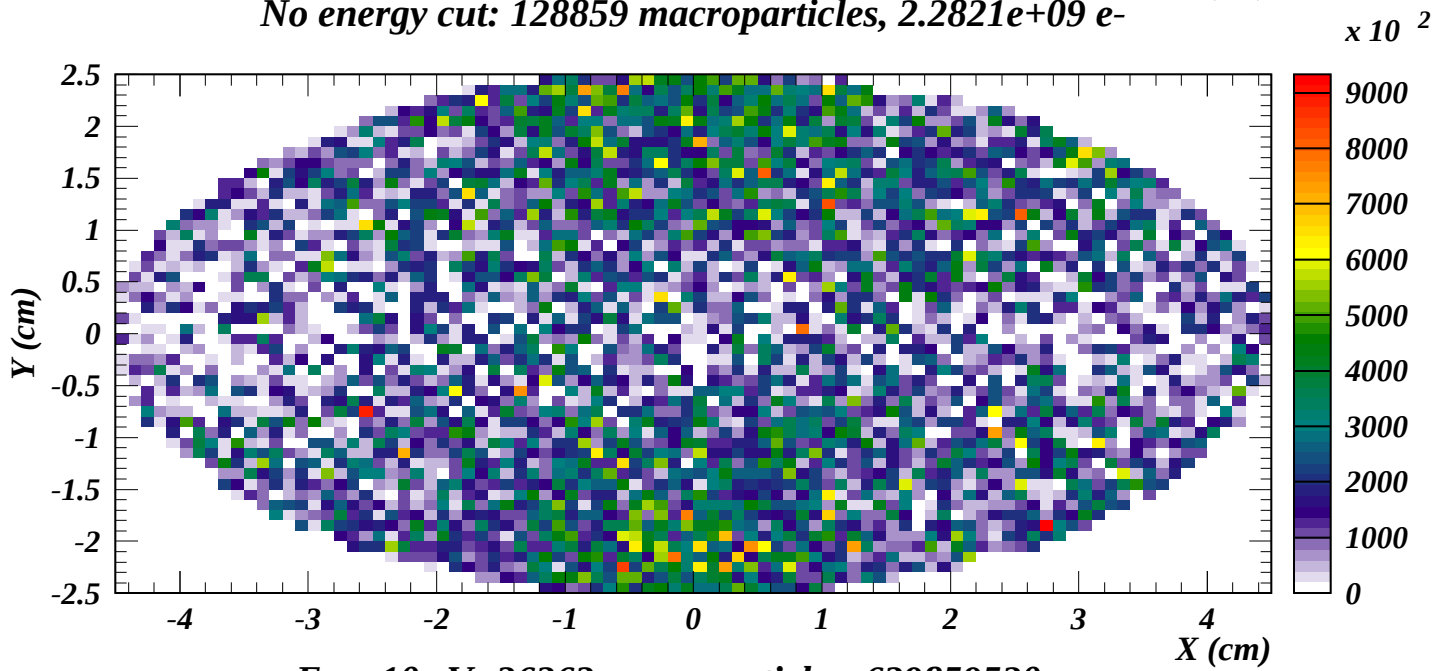
*Cloud charge profile after bunch 21 at time = 294 ns**No energy cut: 98996 macroparticles,  $2.24497e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$ : 24975 macroparticles,  $630036288 \text{ e-}$*

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

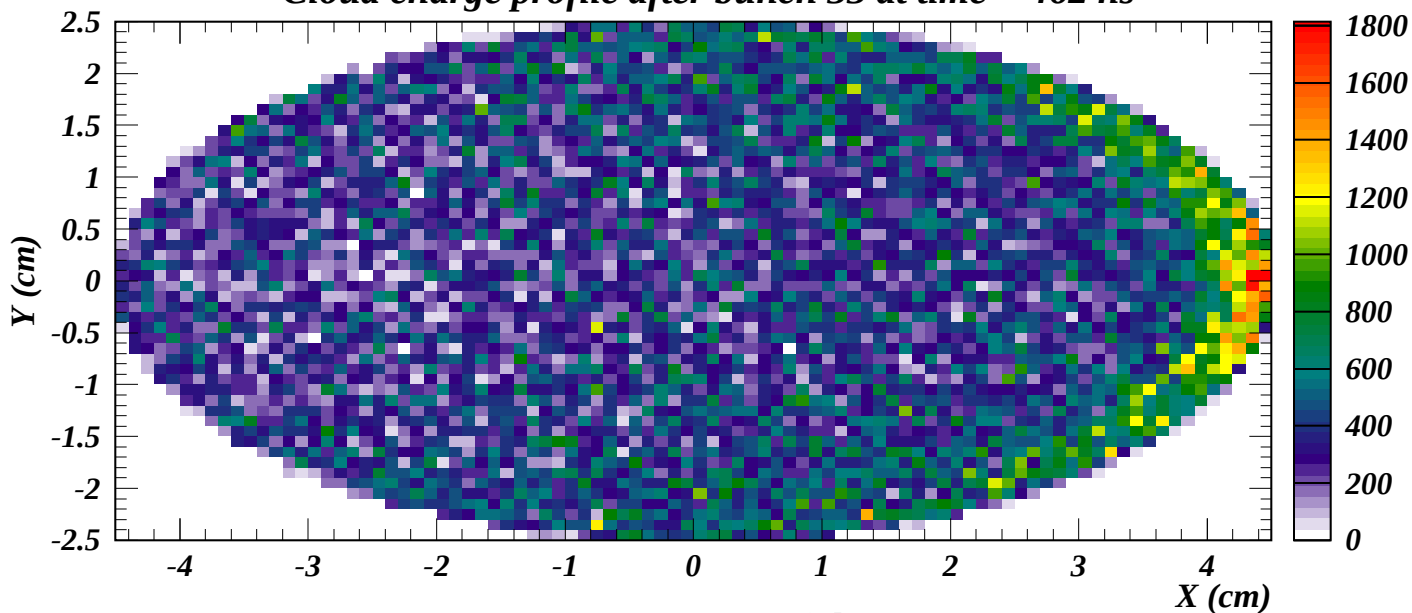
*Cloud charge profile after bunch 27 at time = 378 ns**No energy cut: 110416 macroparticles, 1771262336 e-* *$E_{kin} > 10$  eV: 18807 macroparticles, 331834272 e-*

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

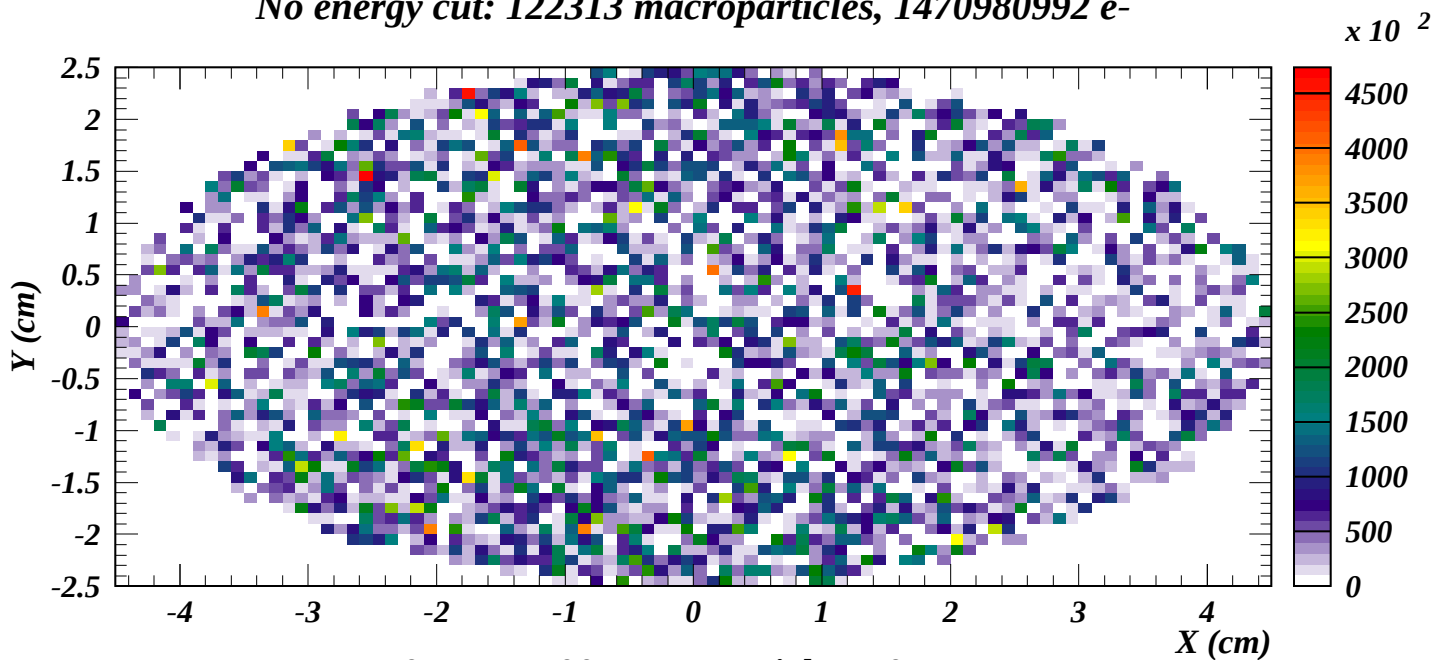
*Cloud charge profile after bunch 31 at time = 434 ns**No energy cut: 128859 macroparticles, 2.2821e+09 e-* *$E_{kin} > 10 \text{ eV}$ : 36263 macroparticles, 639859520 e-*

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 $\times 10^3$

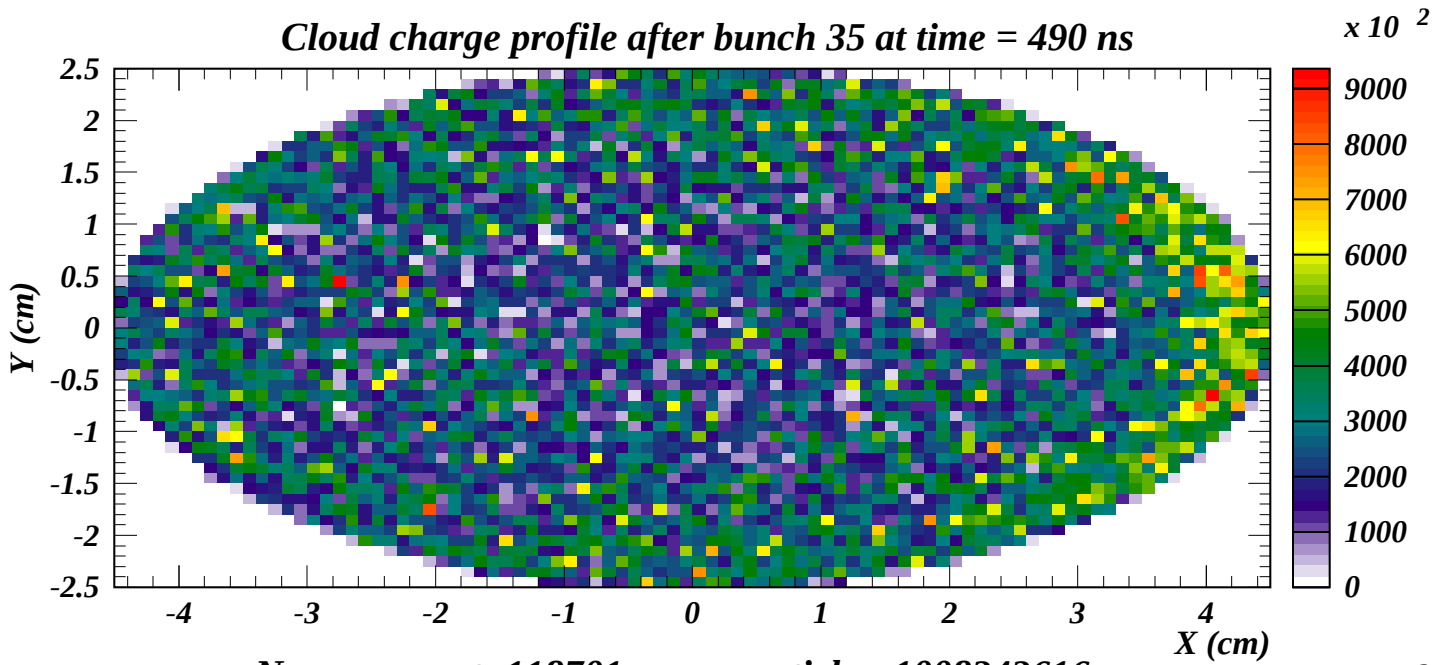
*Cloud charge profile after bunch 33 at time = 462 ns*



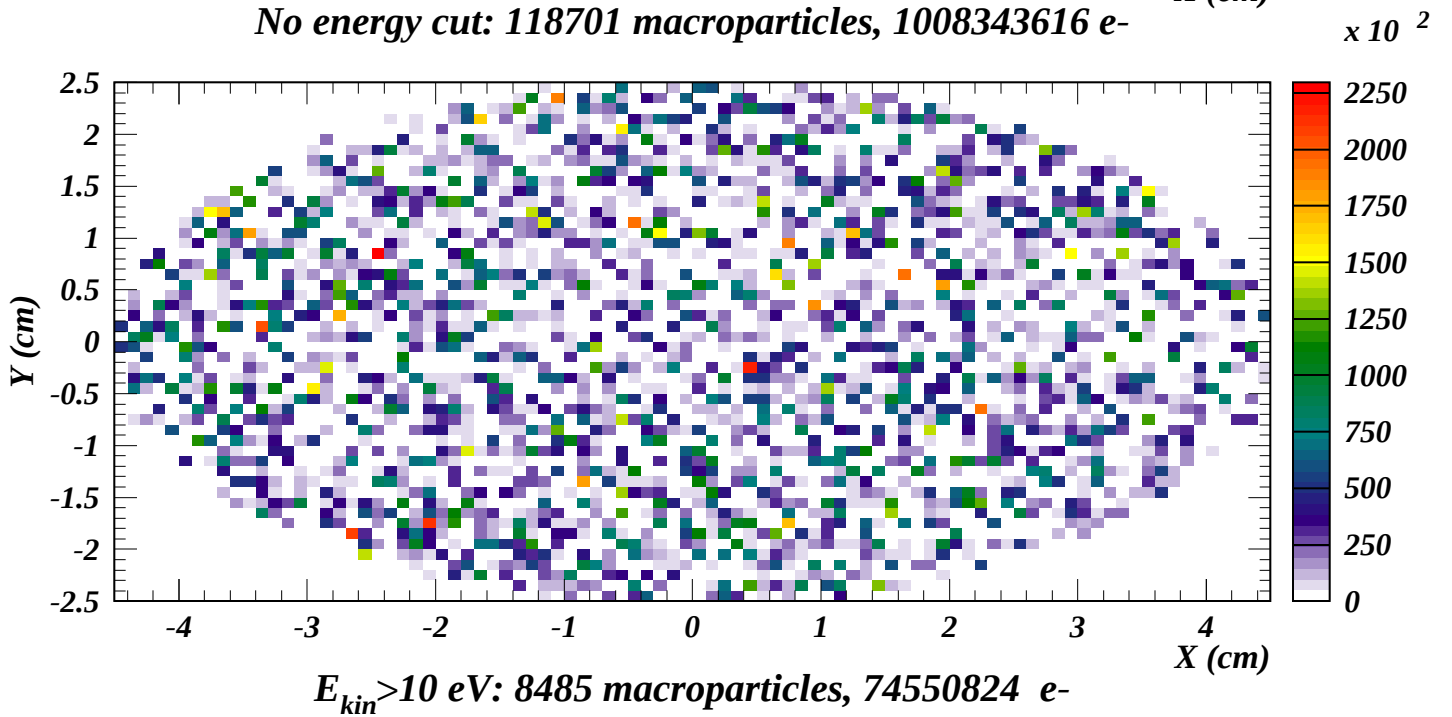
*No energy cut: 122313 macroparticles, 1470980992 e-*

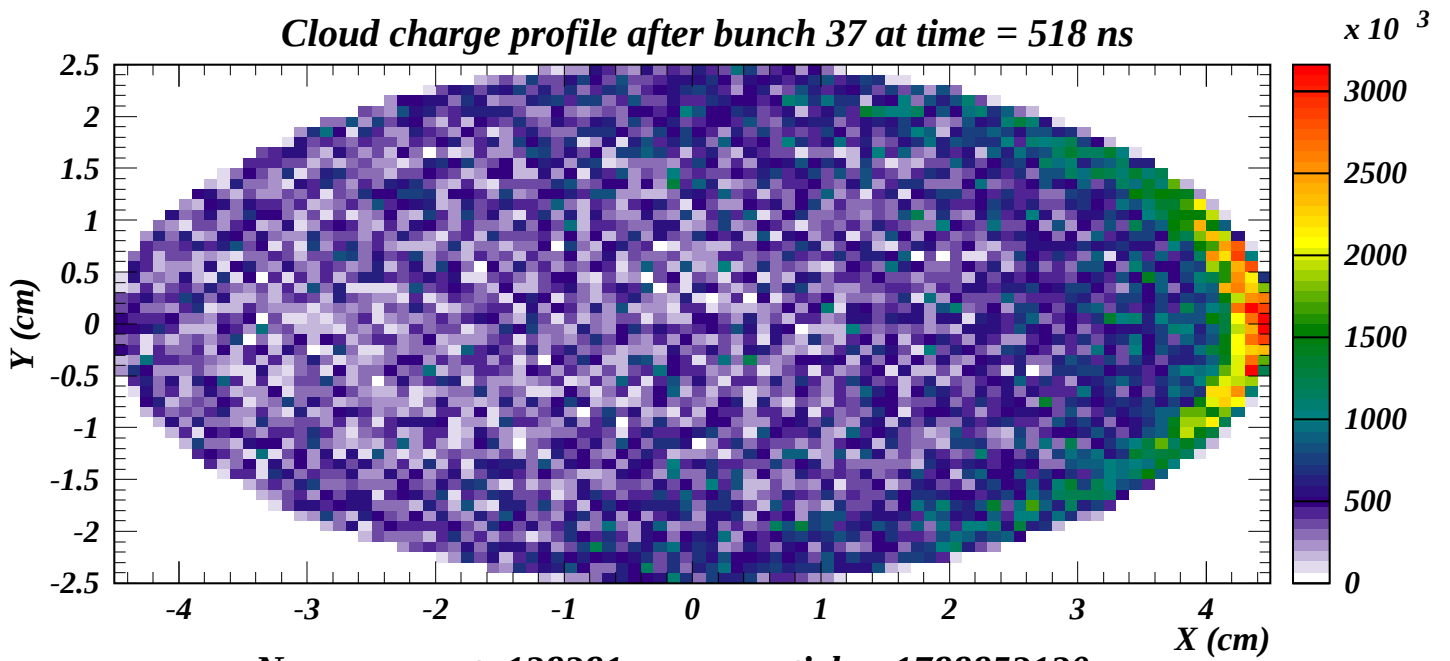
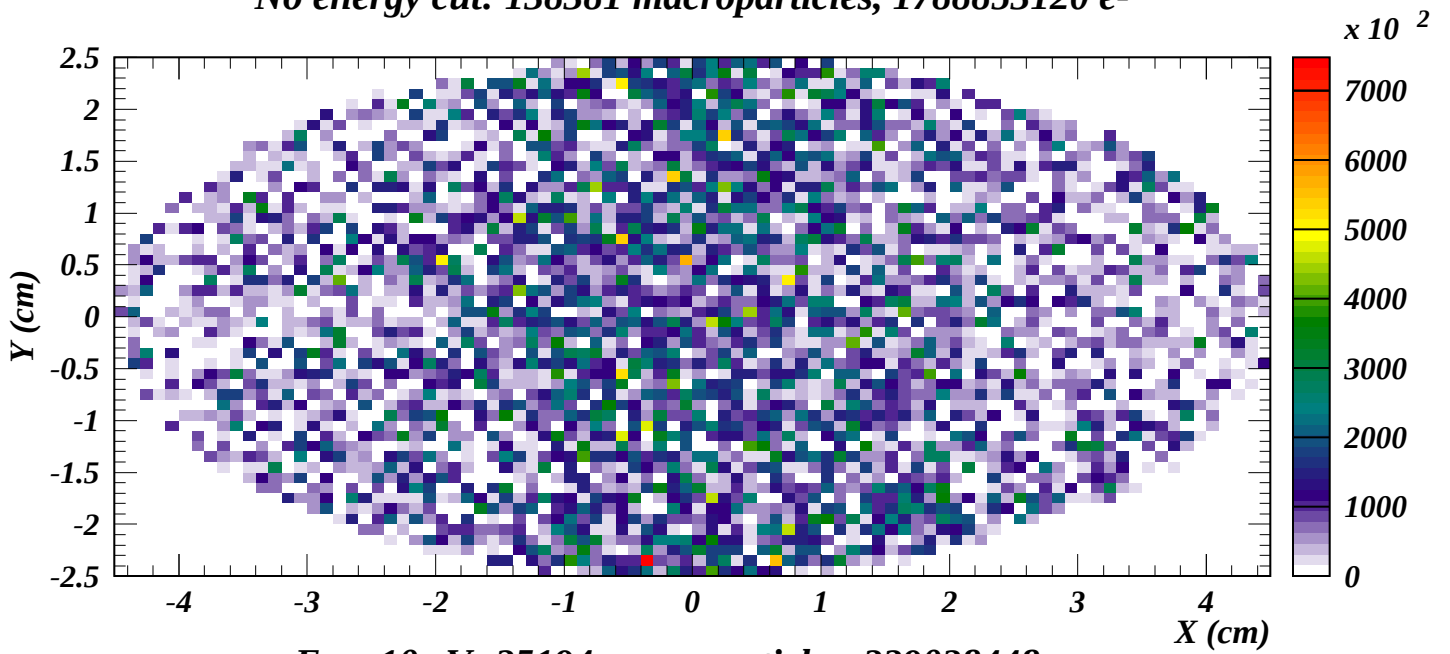


*$E_{kin} > 10$  eV: 15700 macroparticles, 203936432 e-*

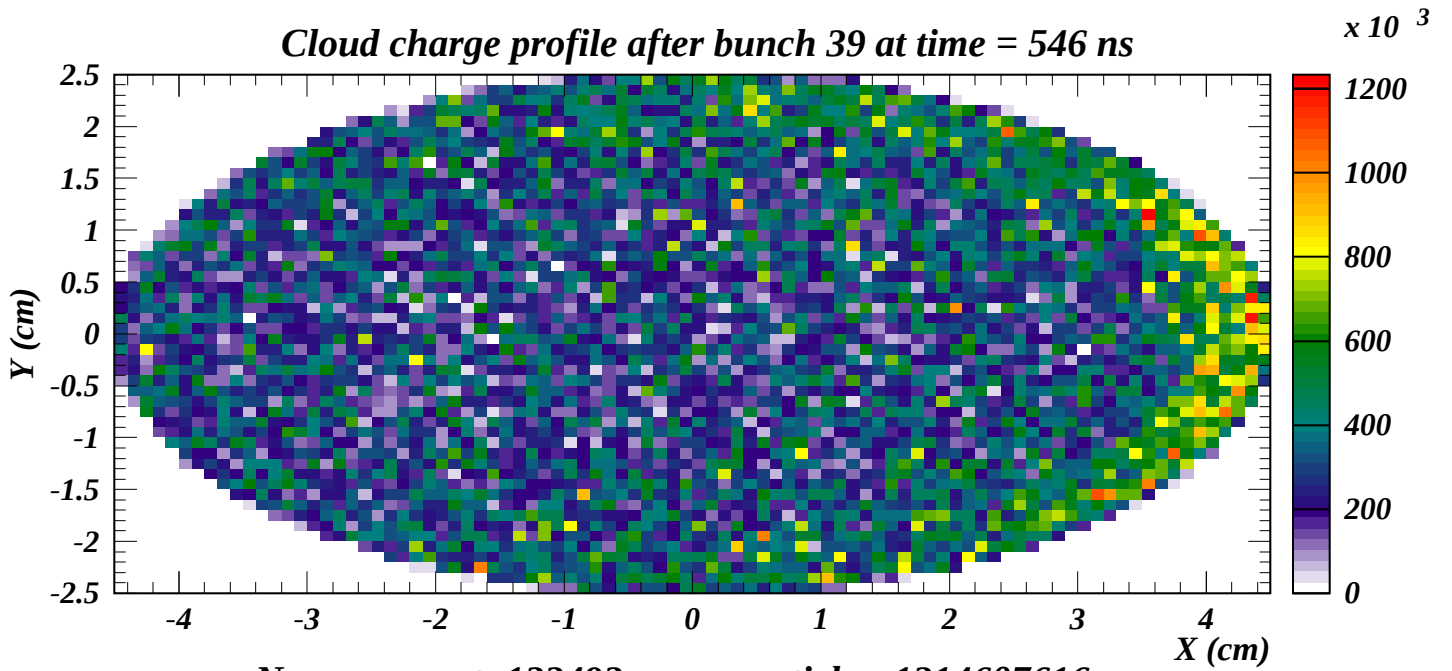


*No energy cut: 118701 macroparticles, 1008343616 e-*

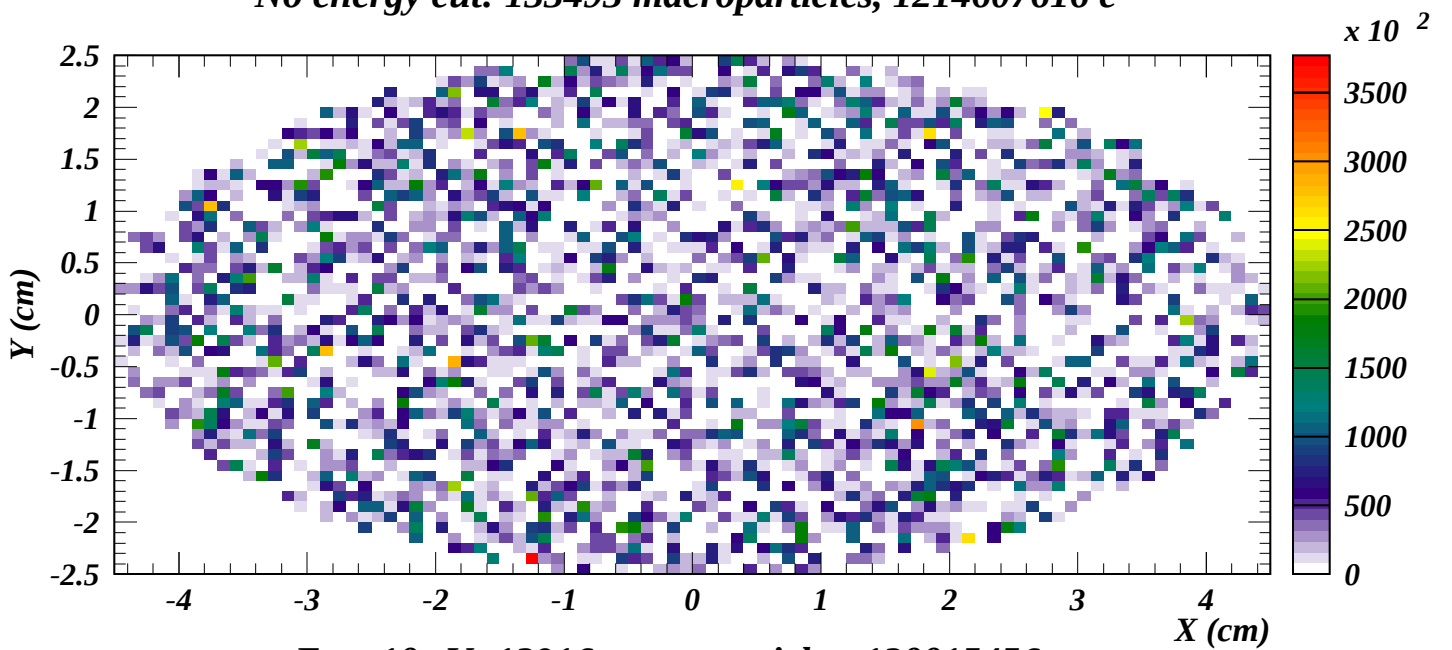


*Cloud charge profile after bunch 37 at time = 518 ns**No energy cut: 138381 macroparticles, 1788853120 e-* *$E_{kin} > 10 \text{ eV}$ : 25194 macroparticles, 329028448 e-*

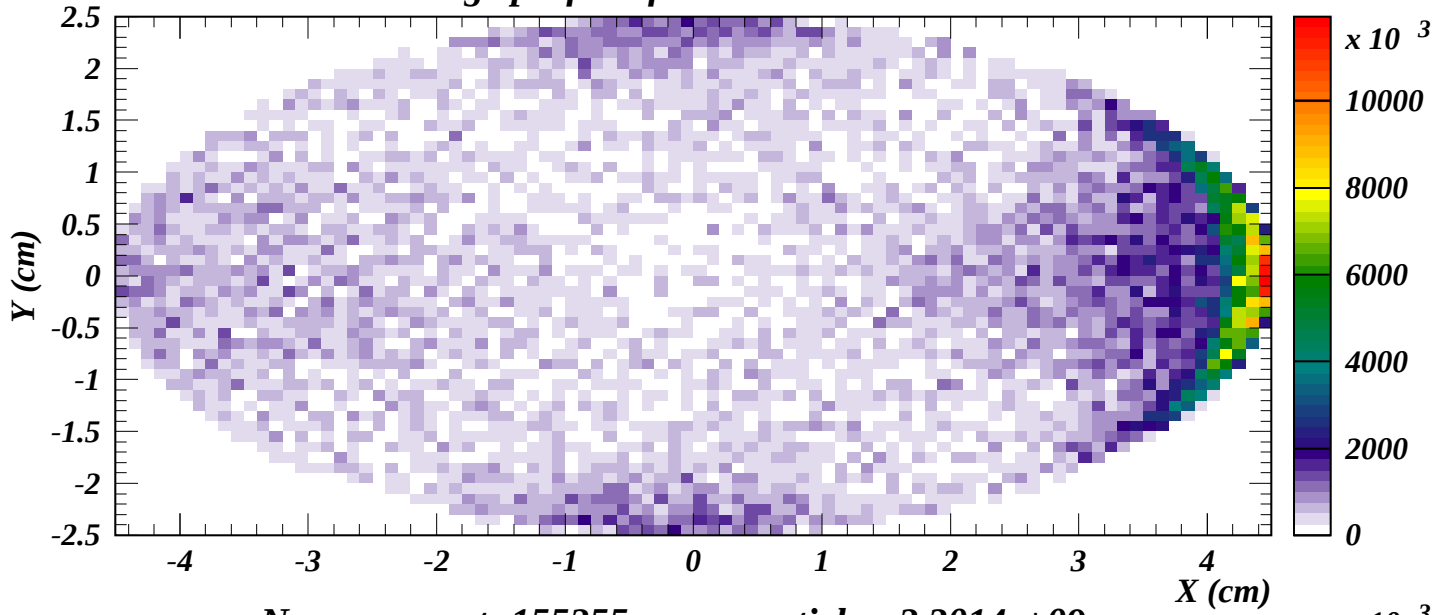
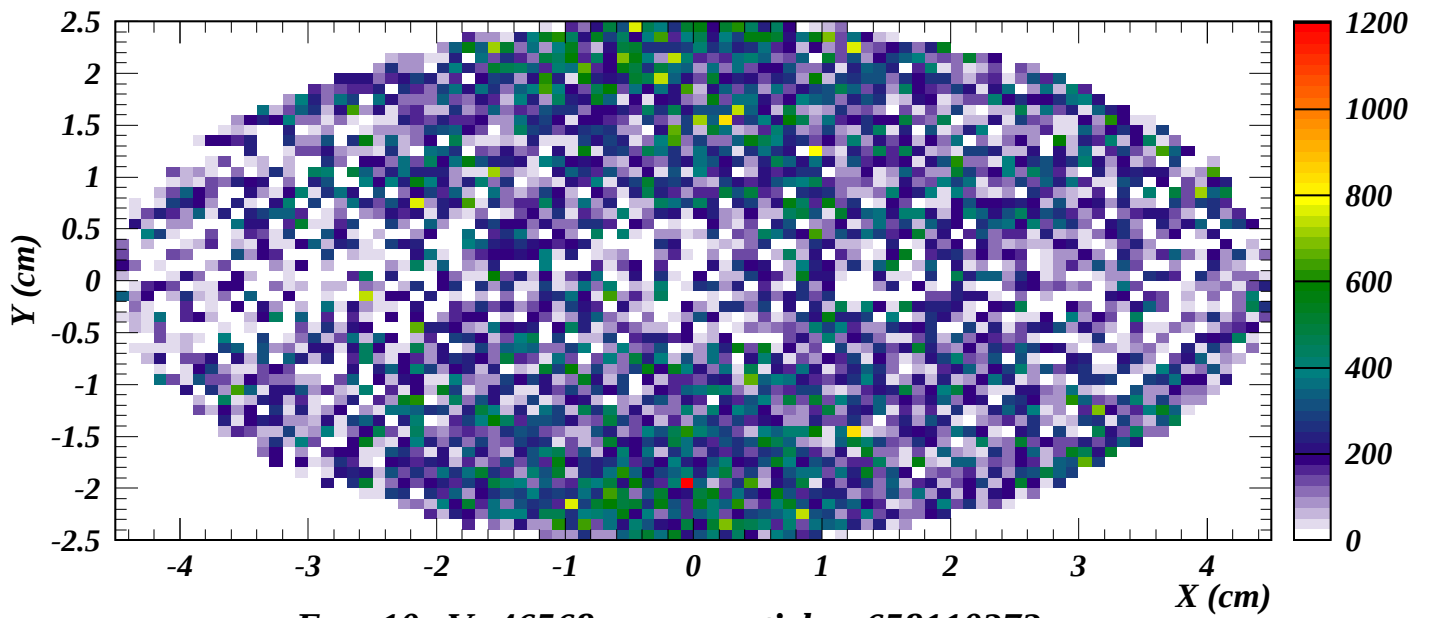
09/12/15 14.21

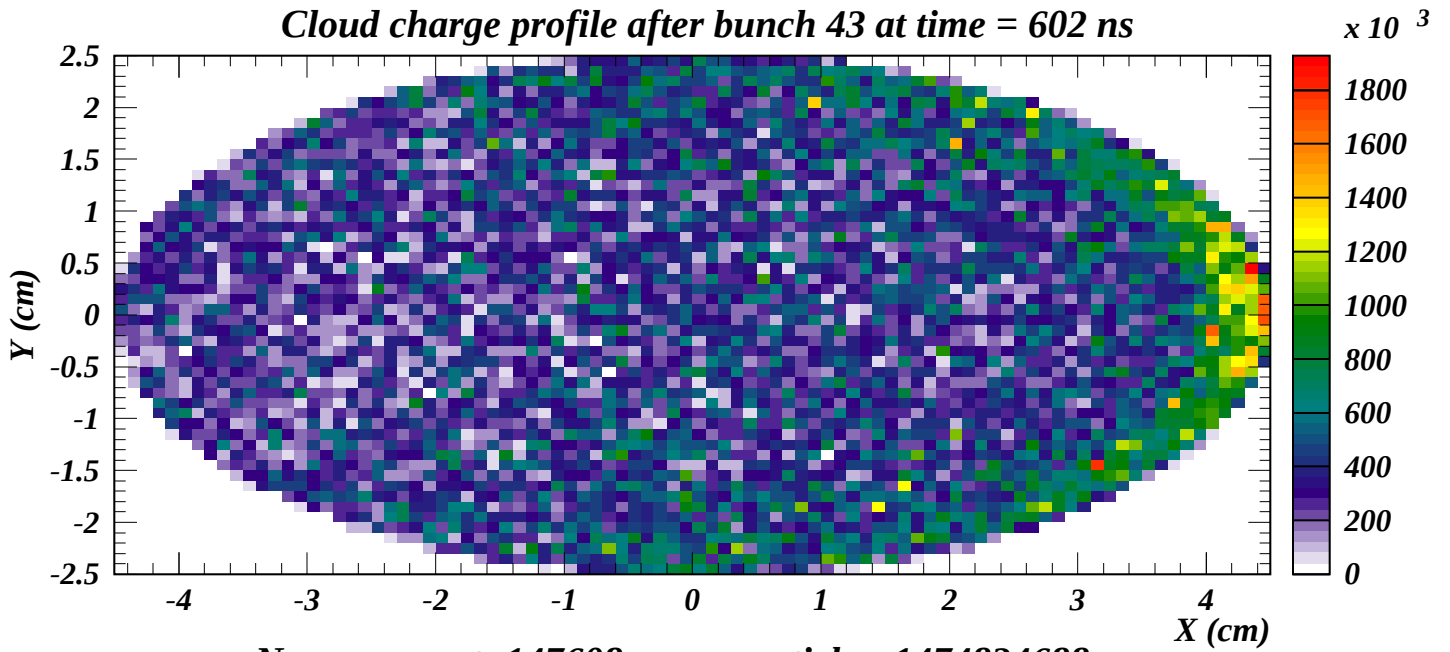
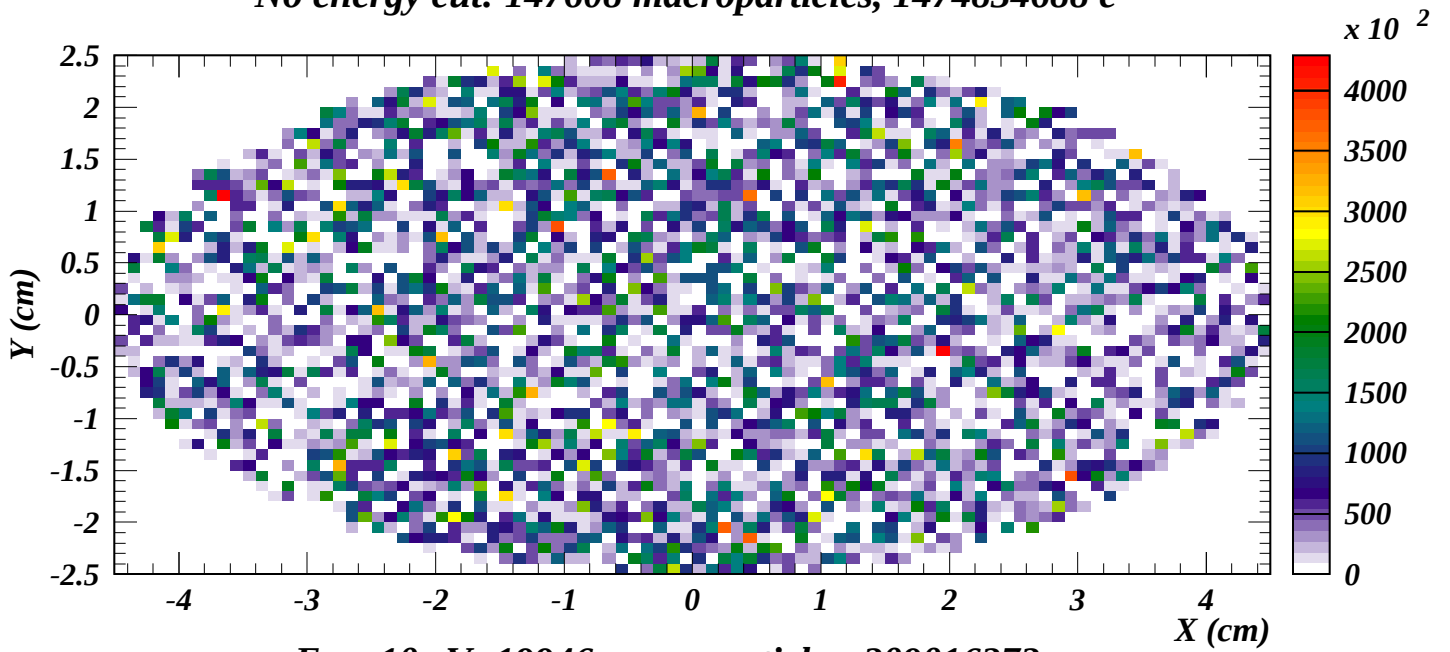


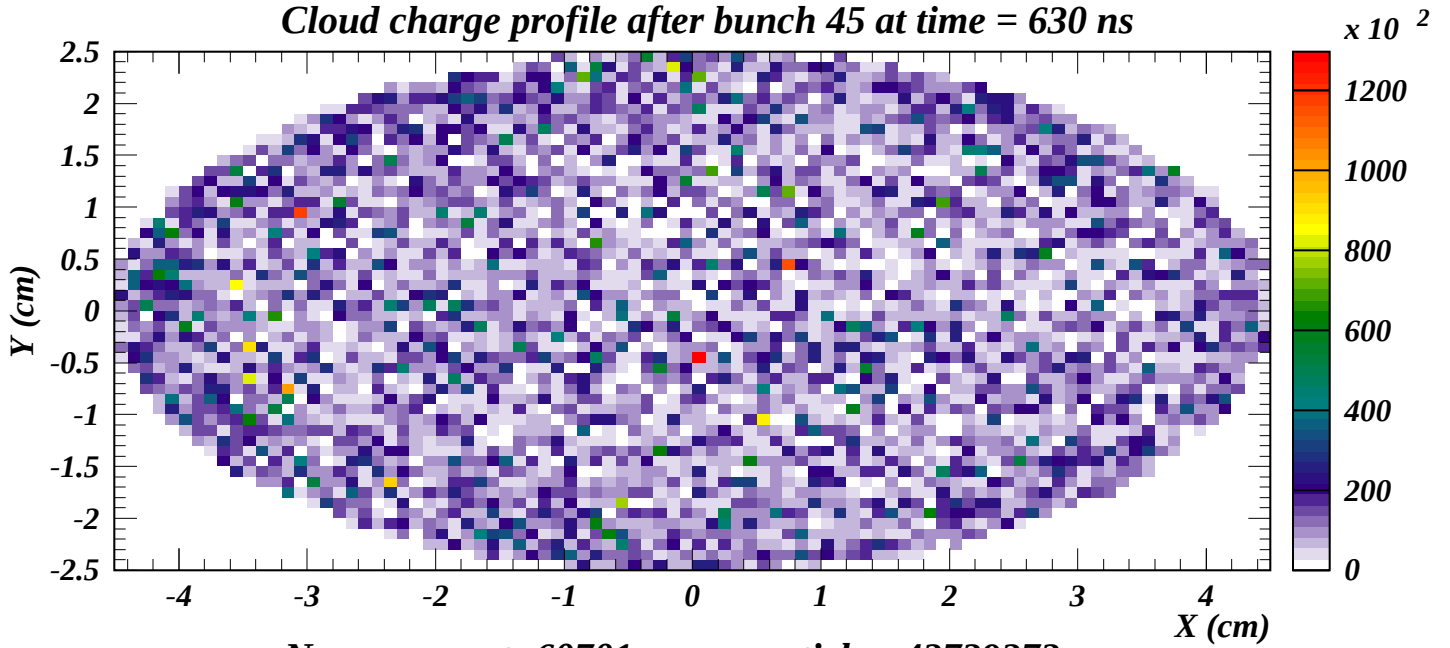
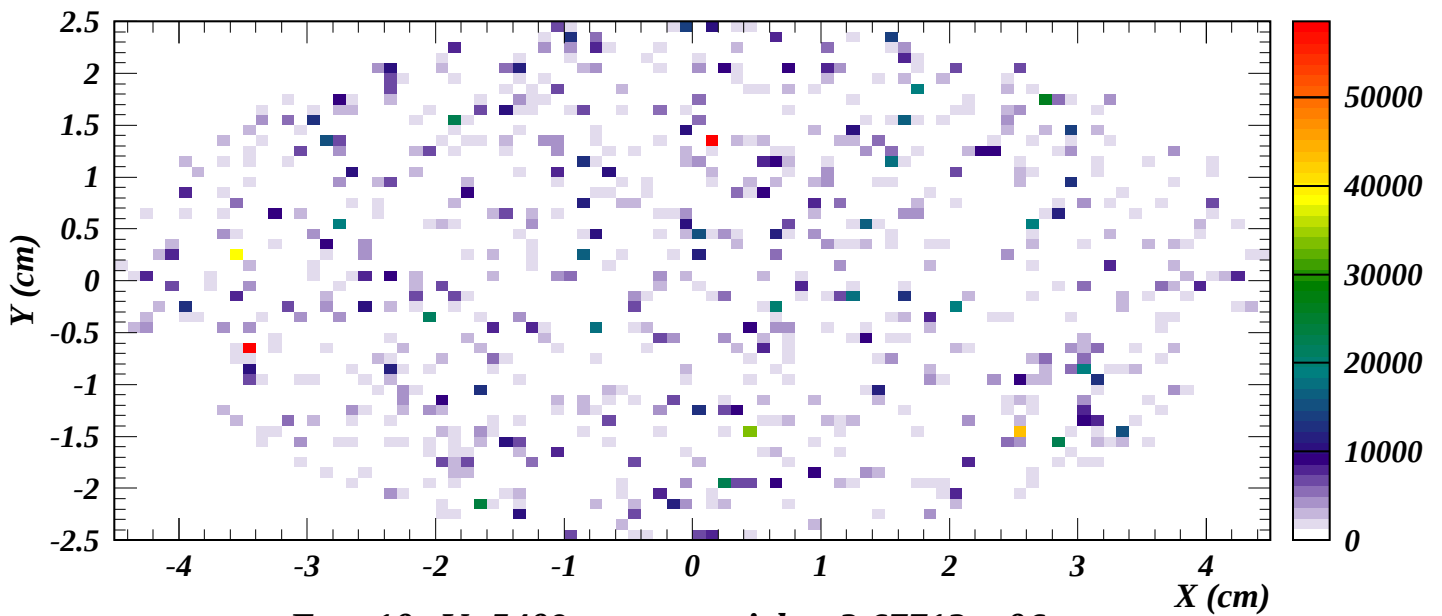
*No energy cut: 133493 macroparticles, 1214607616 e-*

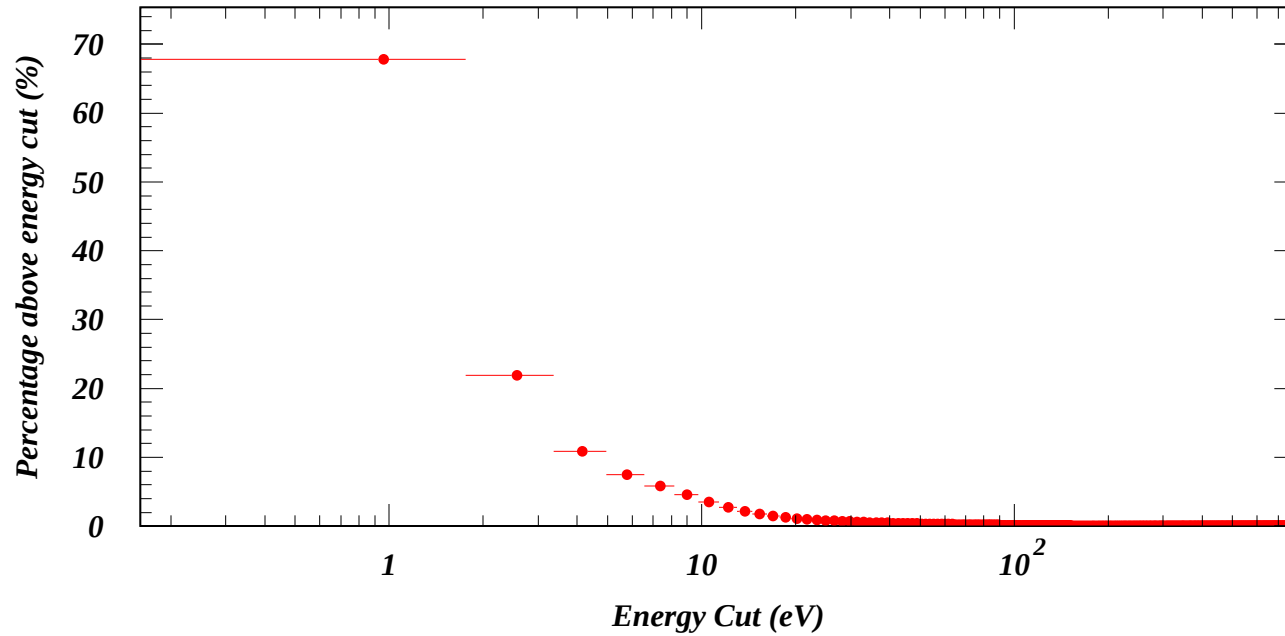
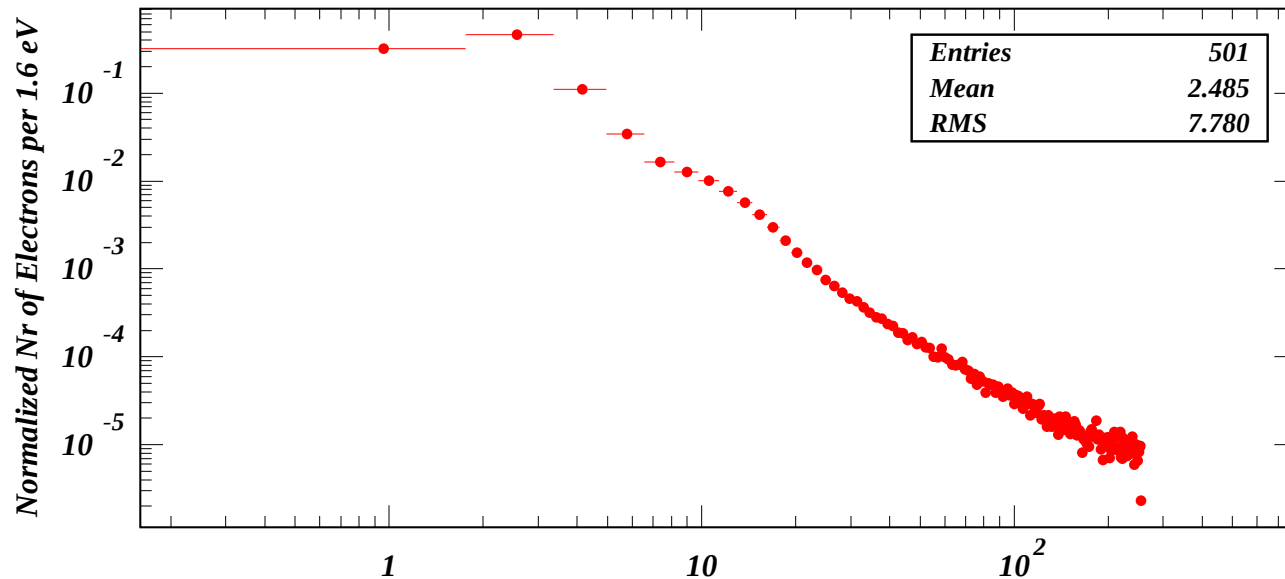


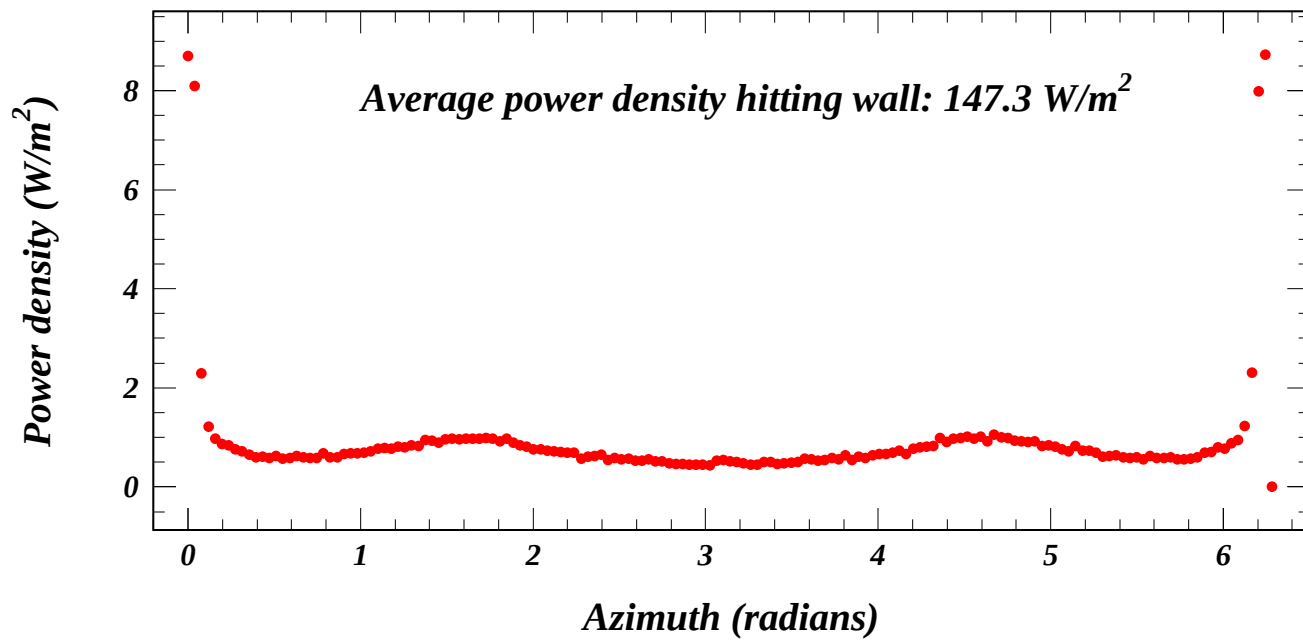
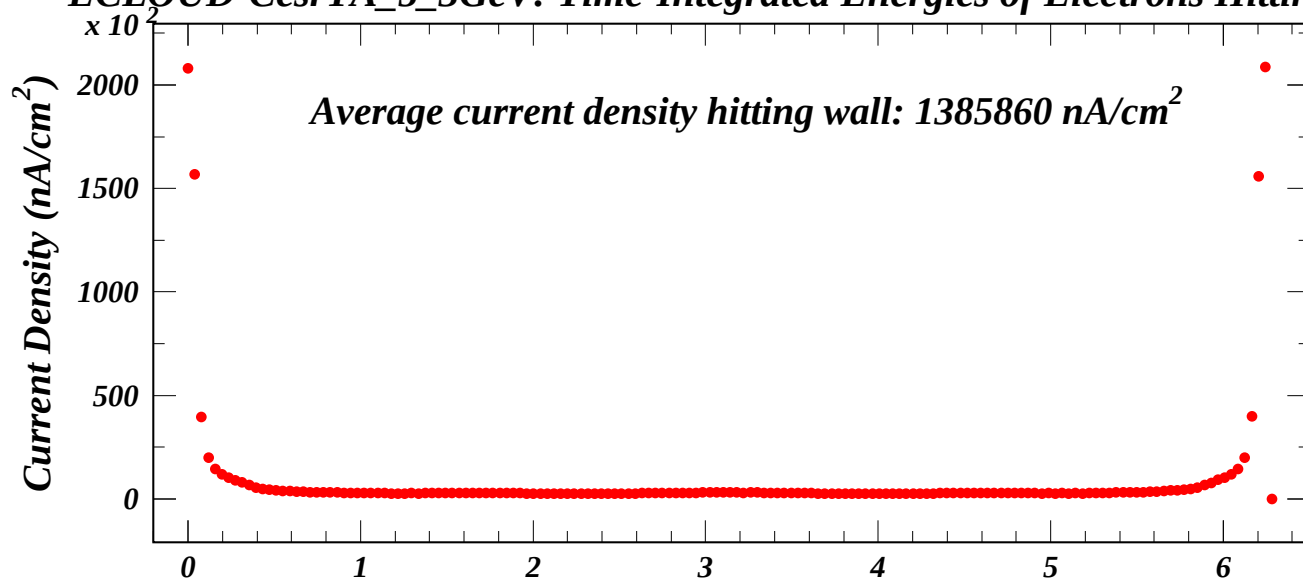
*$E_{kin} > 10$  eV: 12916 macroparticles, 120015456 e-*

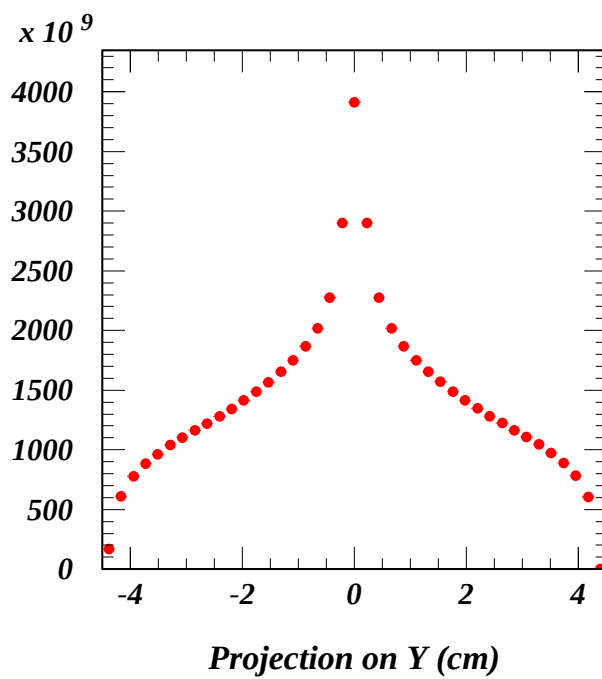
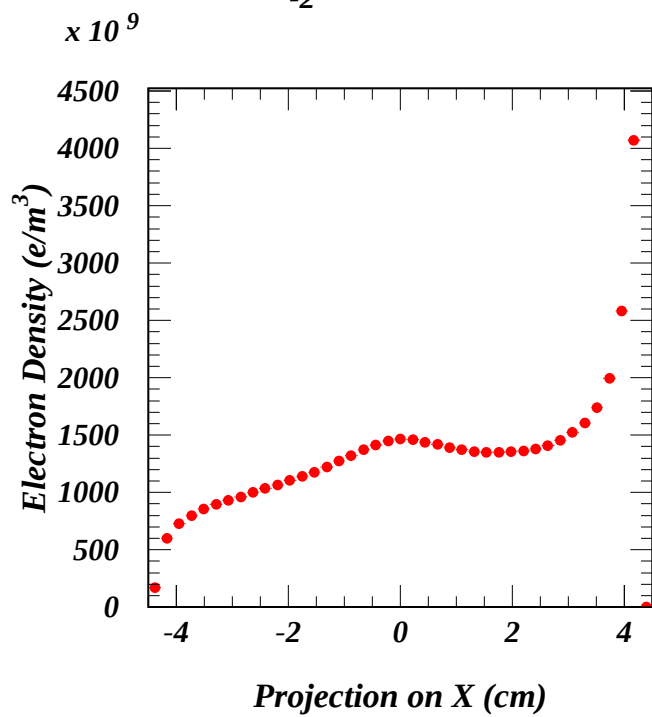
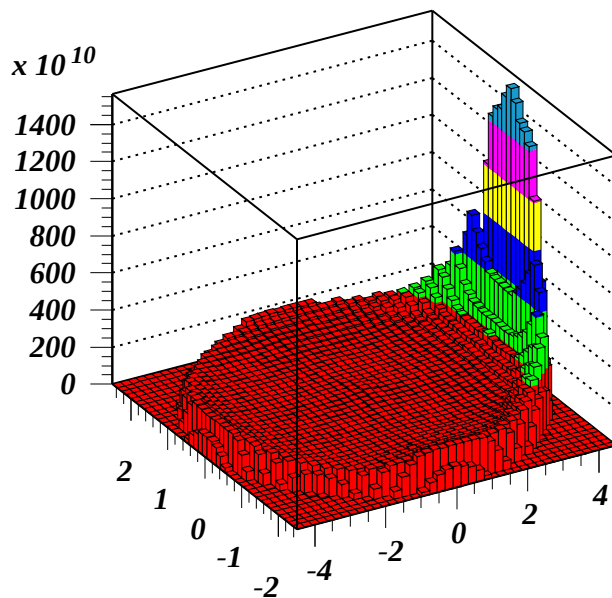
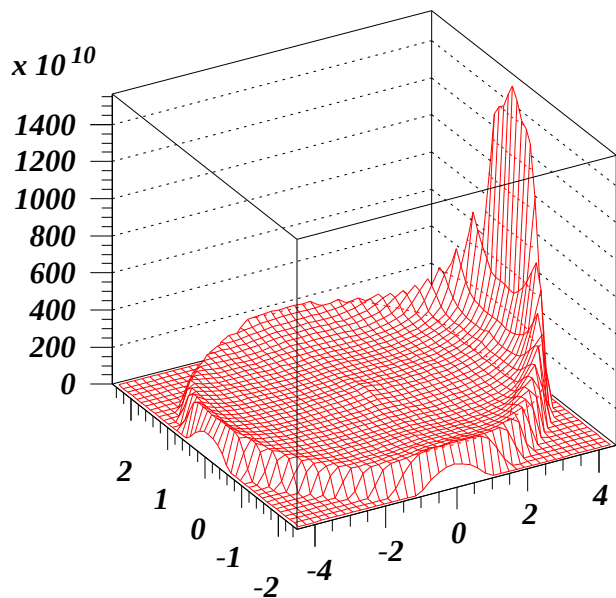
*Cloud charge profile after bunch 41 at time = 574 ns**No energy cut: 155255 macroparticles,  $2.3014e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$ : 46568 macroparticles,  $658110272 \text{ e-}$*

*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-*

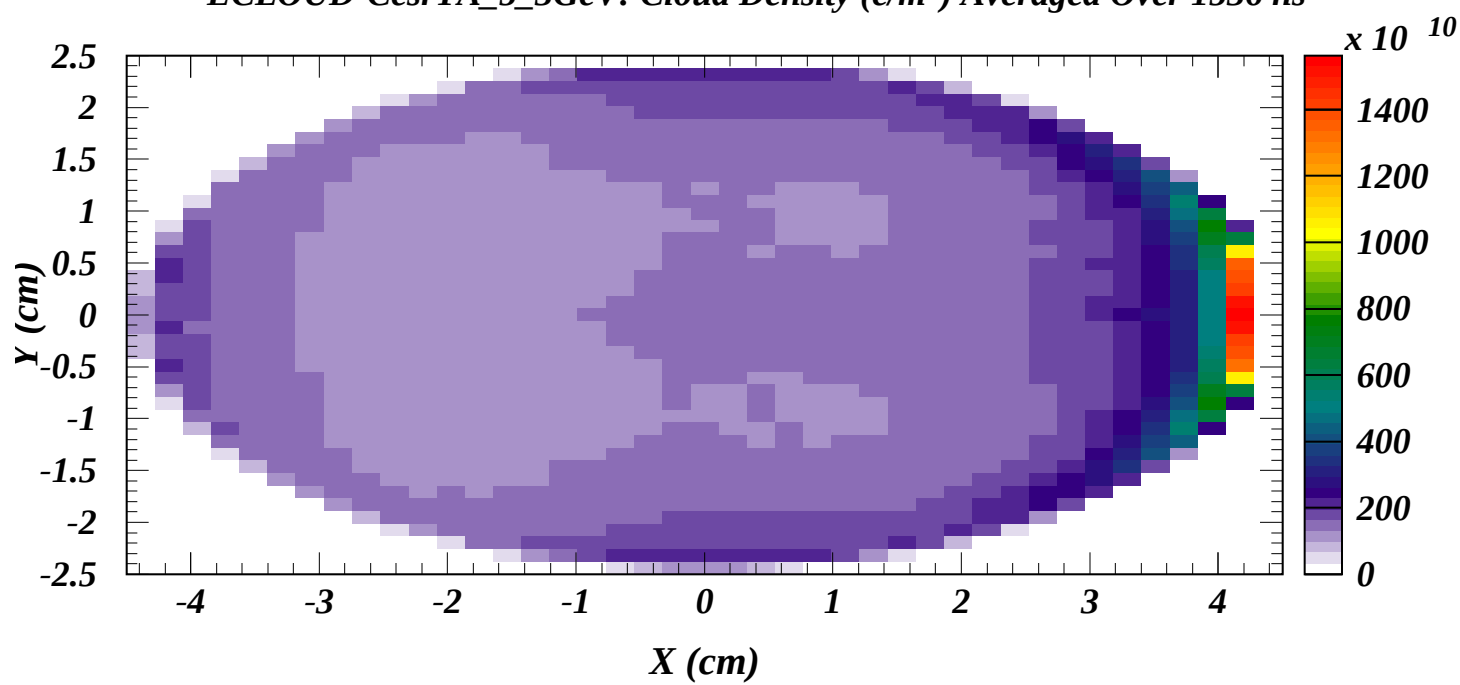
*Cloud charge profile after bunch 45 at time = 630 ns**No energy cut: 60701 macroparticles, 42739272 e-* *$E_{kin} > 10 \text{ eV}$ : 5409 macroparticles, 3.67712e+06 e-*

***ECLOUD-CesrTA\_5\_3GeV: Time-Integrated Energies of Electrons Hitting Wall***

***ECLLOUD-CesrTA\_5\_3GeV: Time-Integrated Energies of Electrons Hitting Wall***

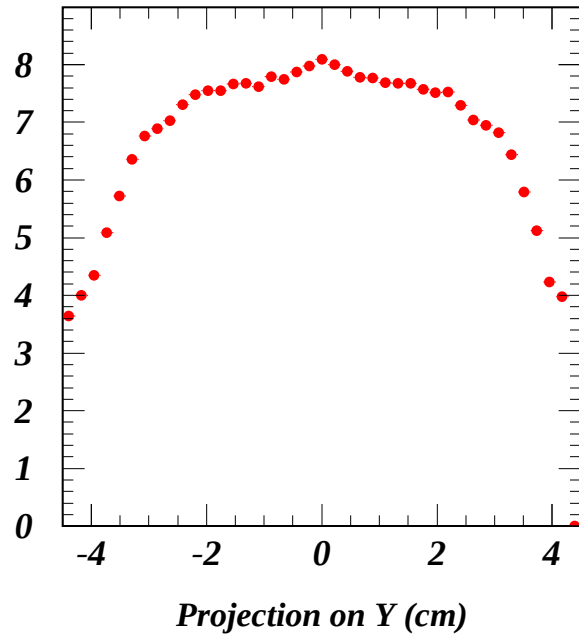
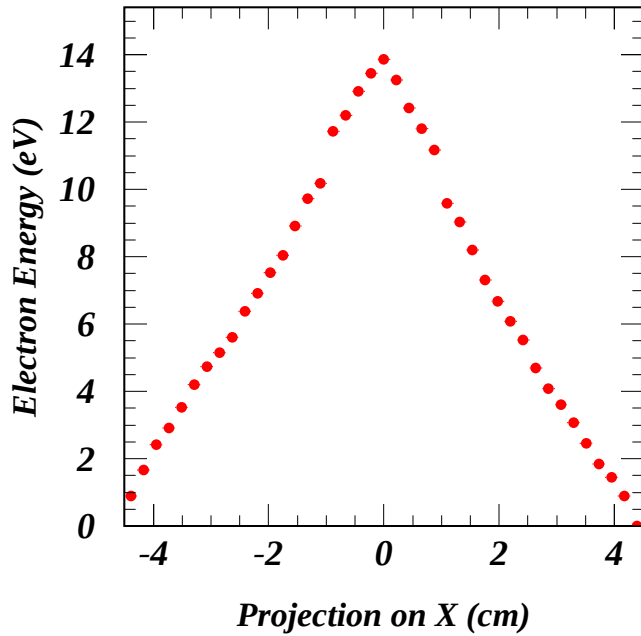
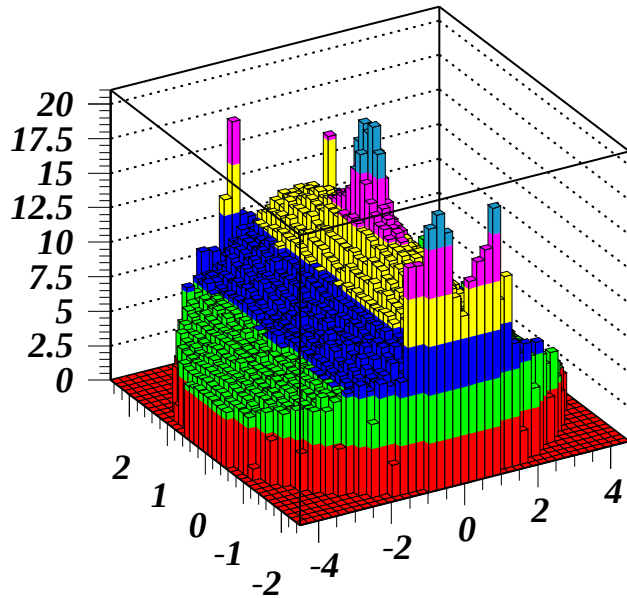
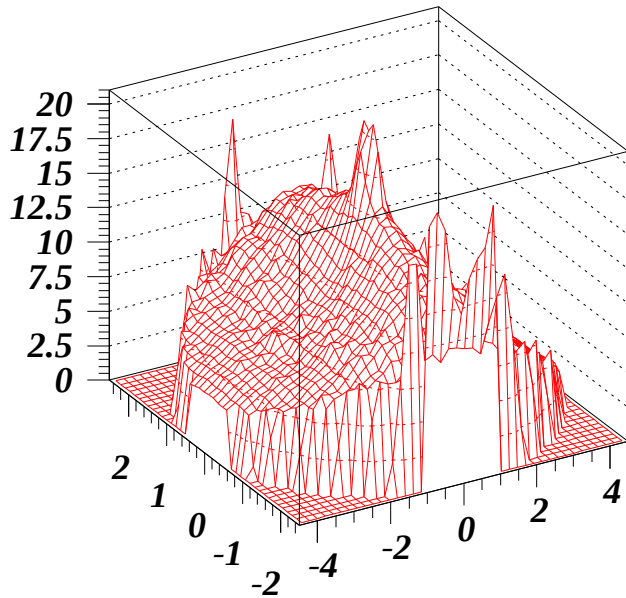
***ECLOUD-CesrTA\_5\_3GeV: Cloud Density ( $e/m^3$ ) Averaged Over 1536 ns***

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*ECLOUD-CesrTA\_5\_3GeV: Cloud Density ( $e/m^3$ ) Averaged Over 1536 ns*



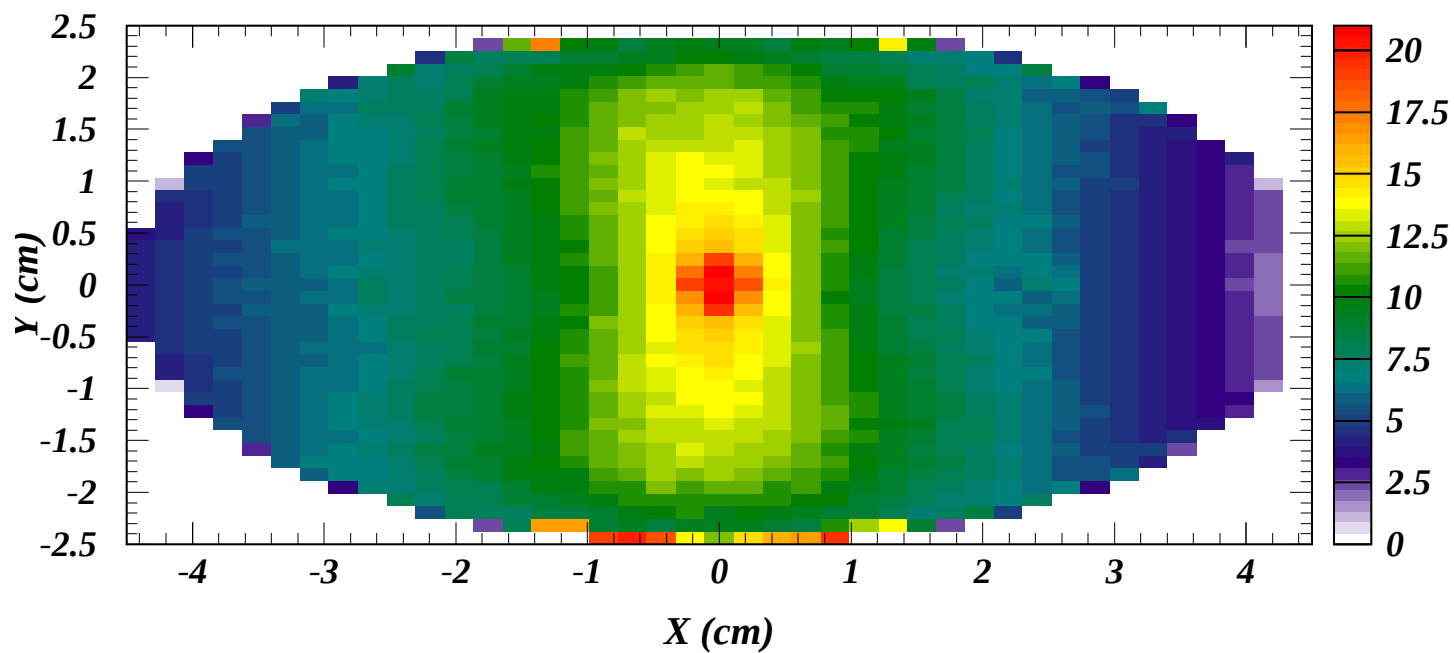
09/12/15 14.22

*ECLOUD-CesrTA\_5\_3GeV: Electron Energies (eV) Averaged Over 1536 ns*



09/12/15 14.22

*ECLOUD-CesrTA\_5\_3GeV: Electron Energies (eV) Averaged Over 1536 ns*



***CesrTA quadrupole 5.3 GeV - Simulated Chicane RFA Collector Currents ( $\mu\text{A}$ )***