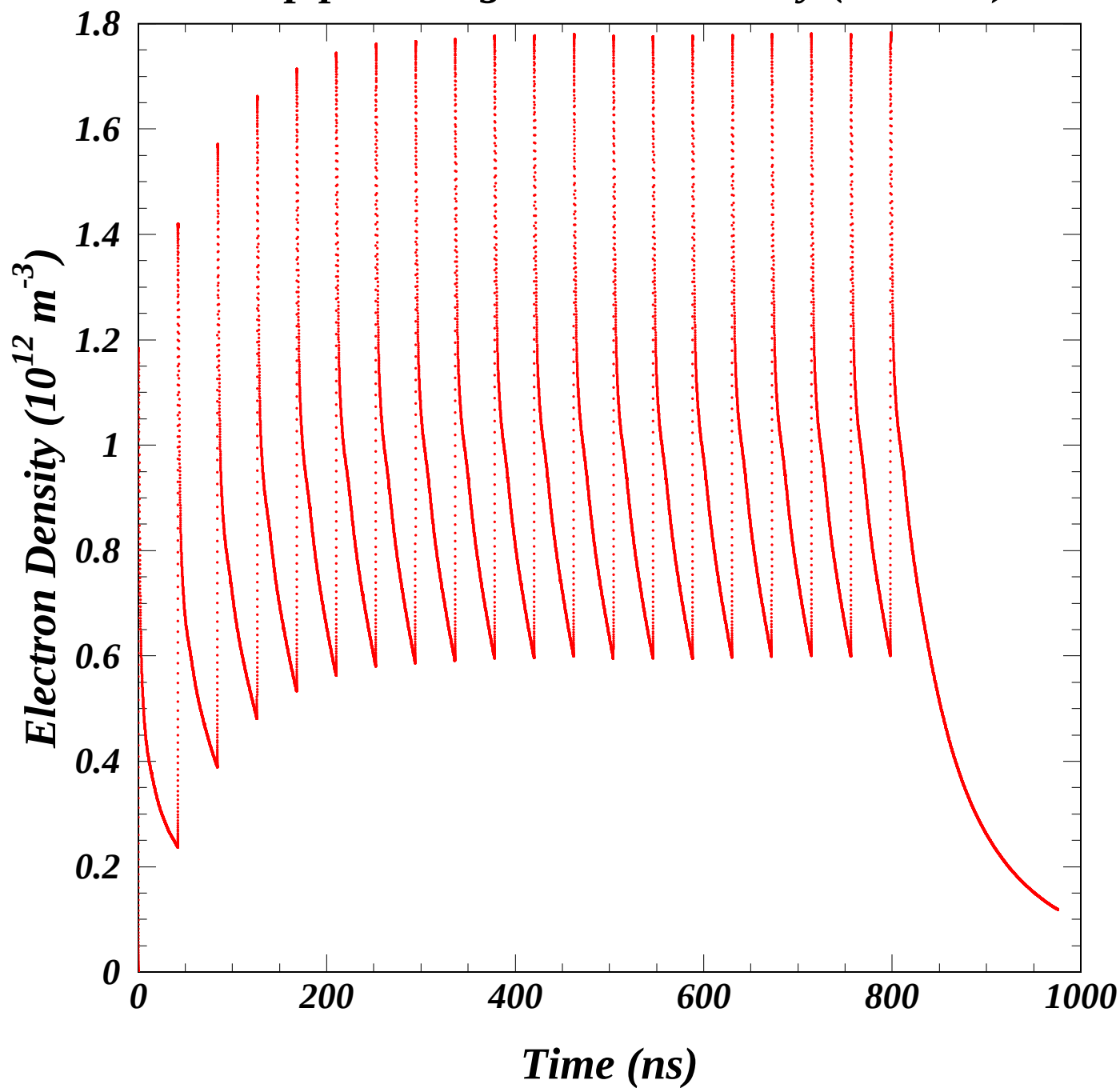
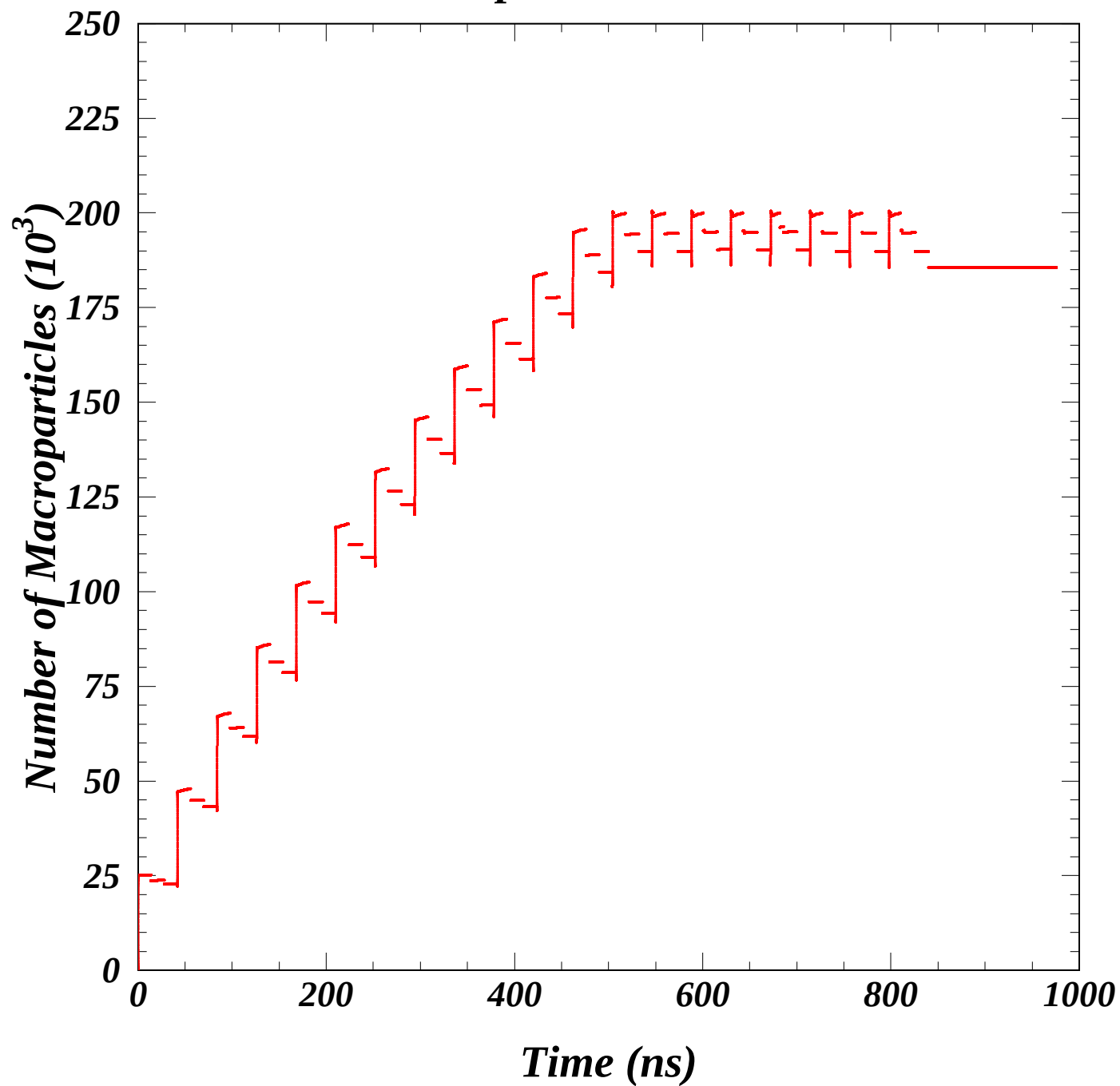
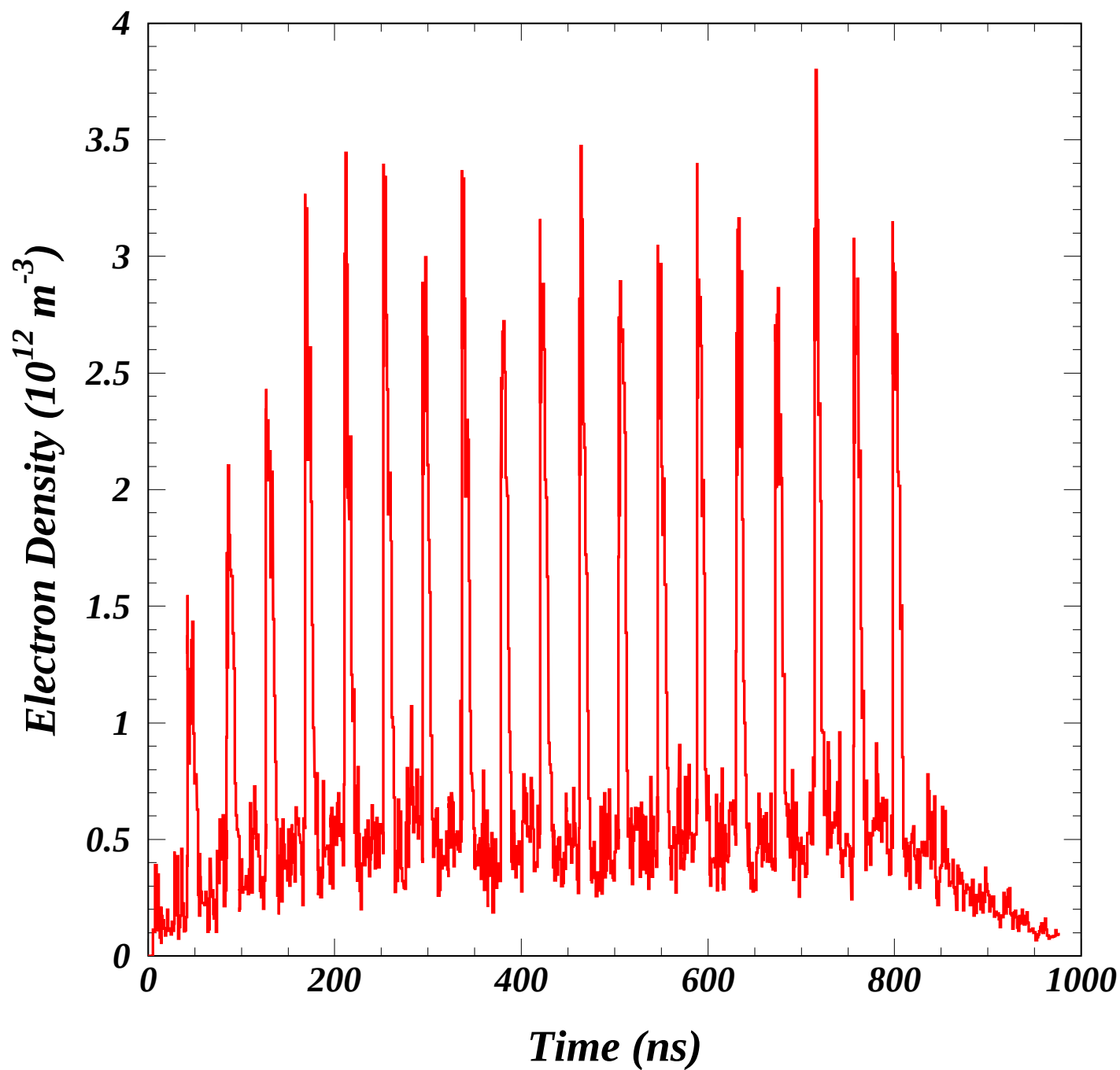


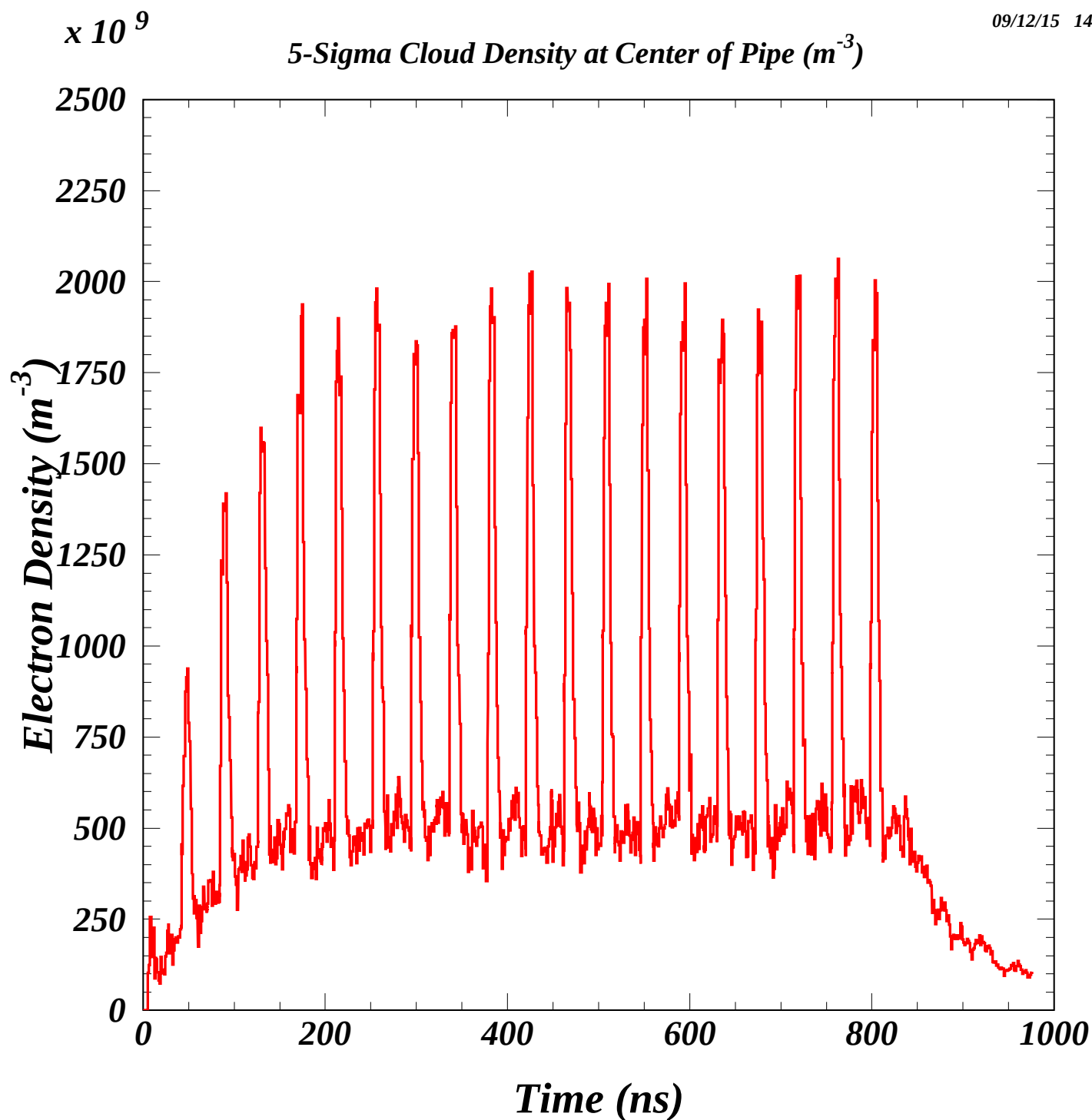
Beampipe-averaged Cloud Density (10^{12} m^{-3})

Macroparticle Statistics

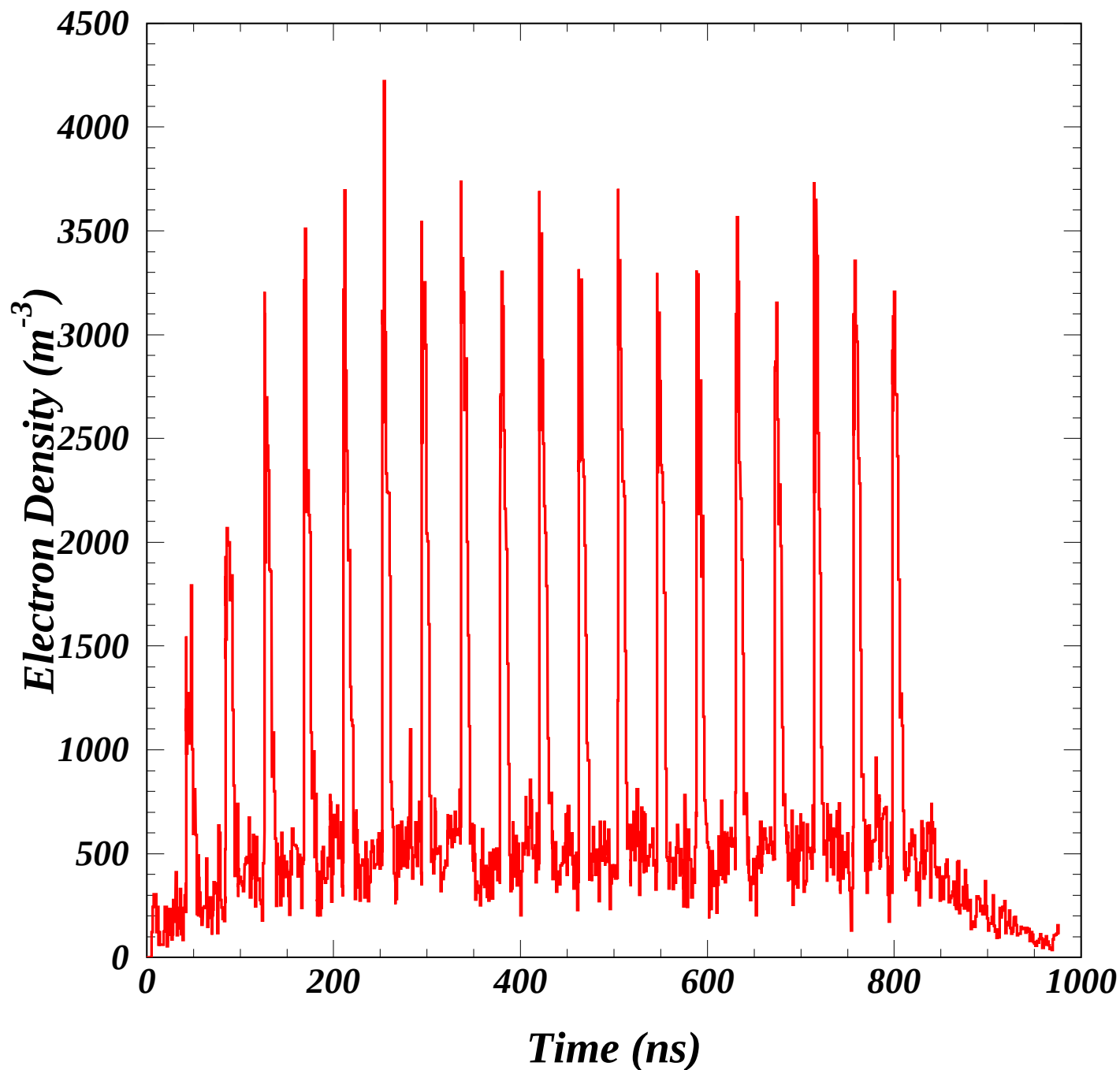


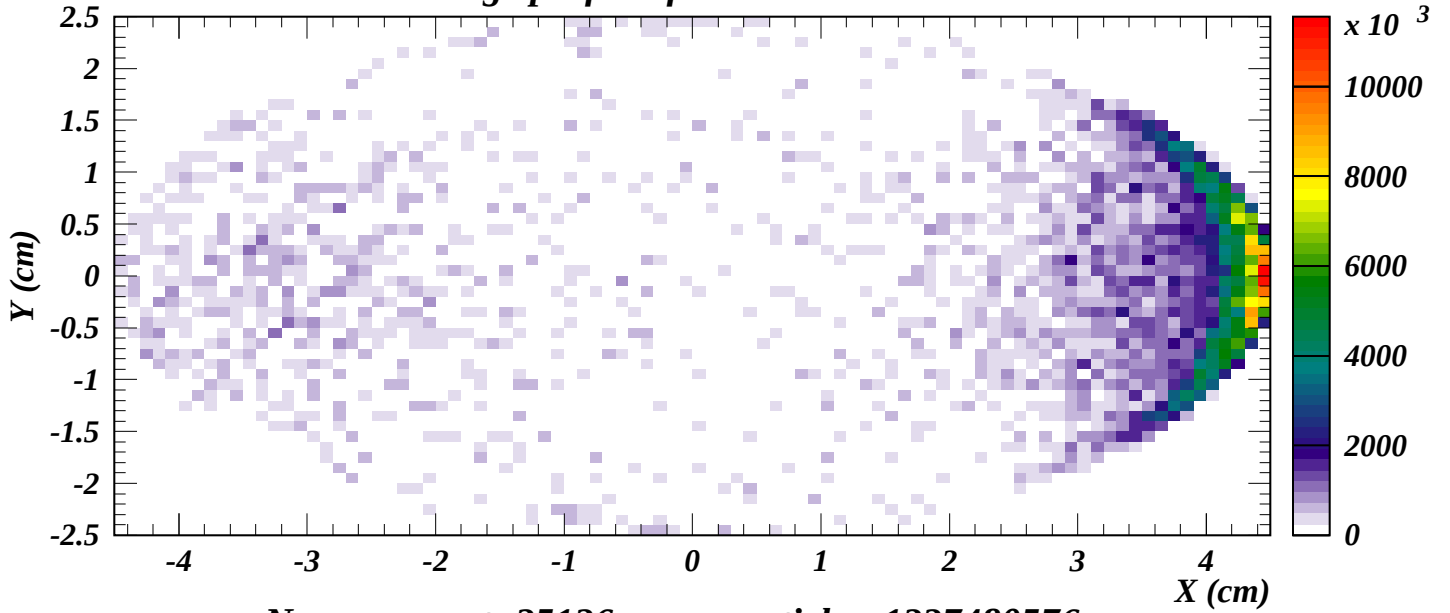
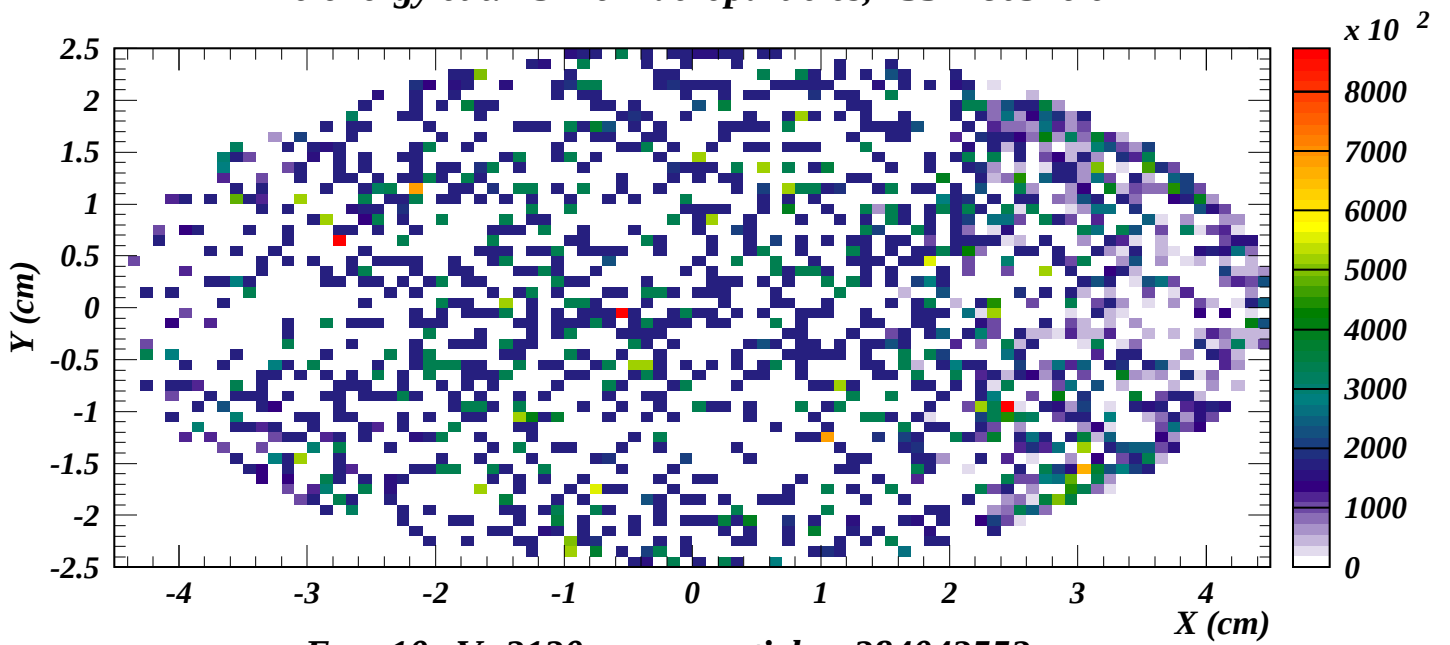
Beam-averaged Cloud Density (10^{12} m^{-3})

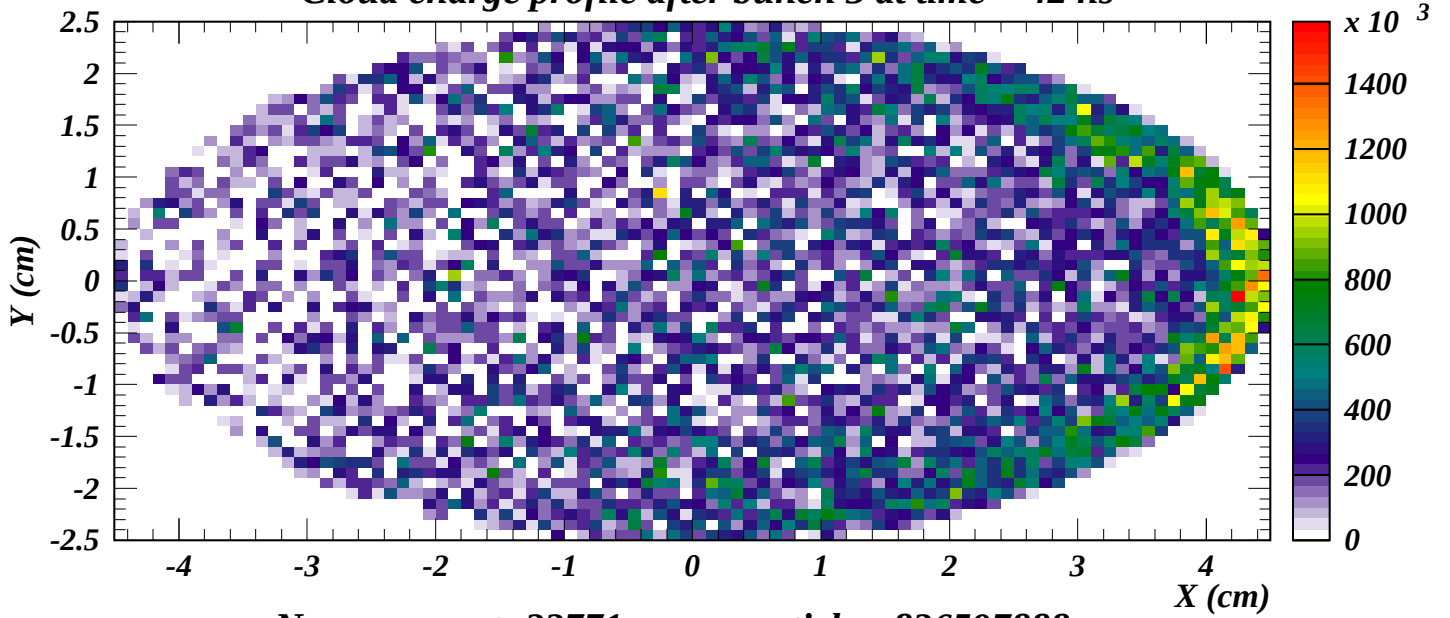
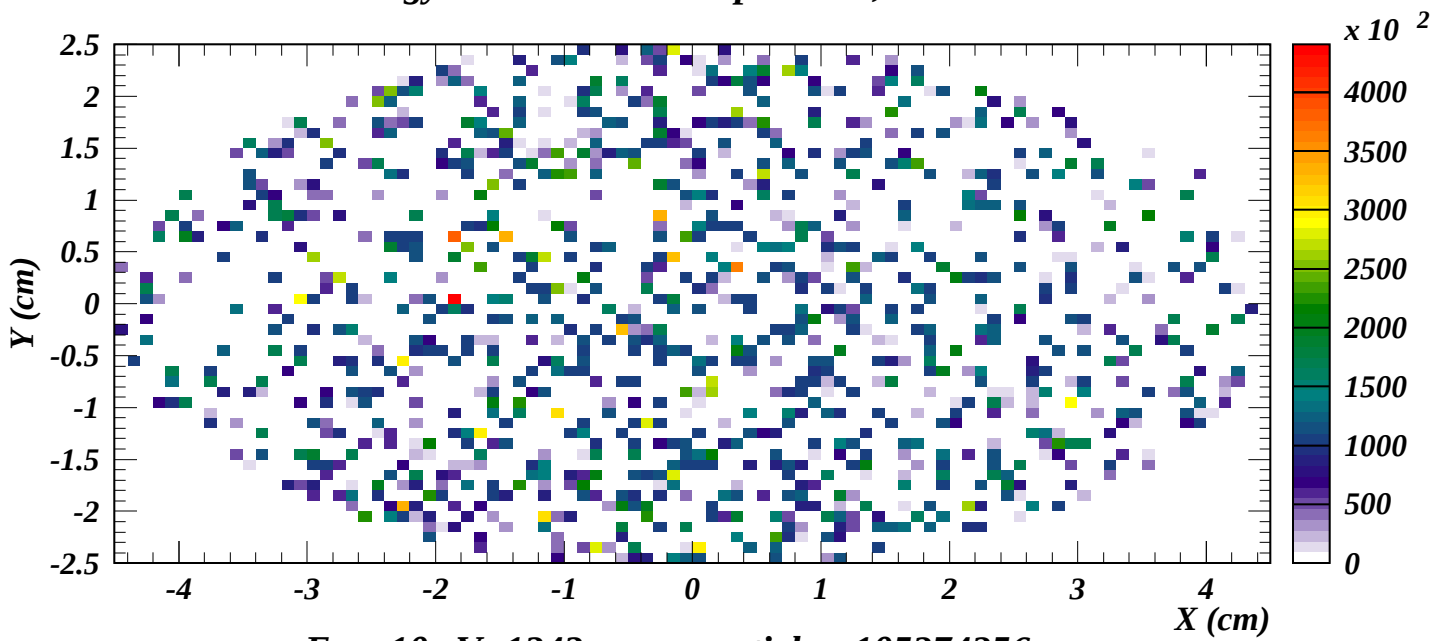


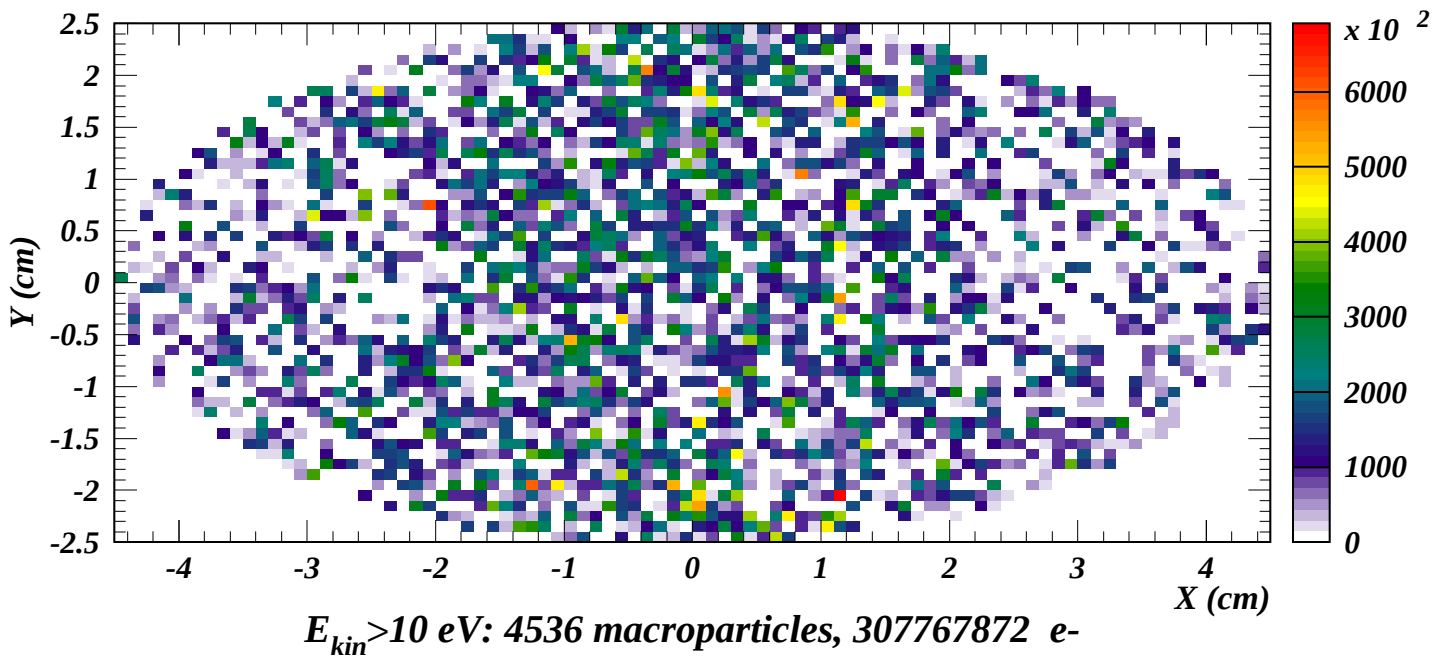
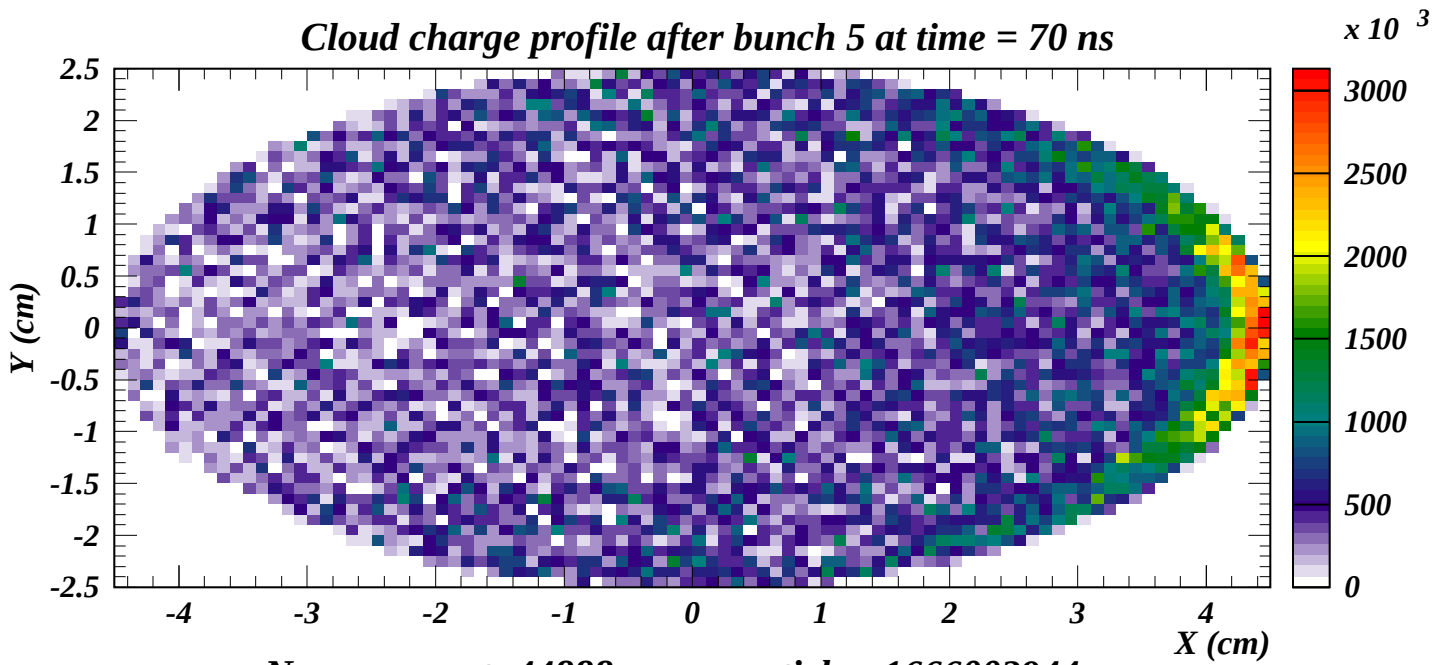
5-Sigma Cloud Density at Center of Pipe (m^{-3})

$\times 10^9$ 09/12/15 14.12
ECLOUD-CesrTA_5_3GeV: Cloud Density in Central Grid Cell (m^{-3})



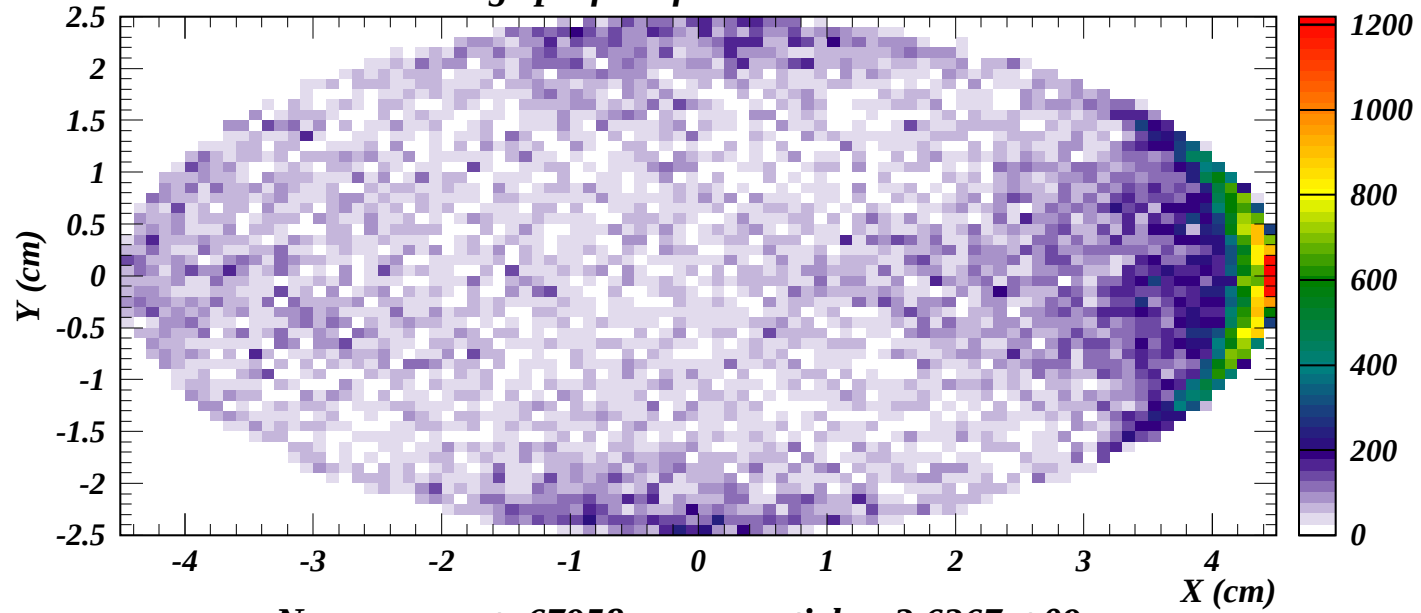
Cloud charge profile after bunch 1 at time = 14 ns*No energy cut: 25126 macroparticles, 1337480576 e-* *$E_{\text{kin}} > 10$ eV: 2130 macroparticles, 284043552 e-*

Cloud charge profile after bunch 3 at time = 42 ns*No energy cut: 22771 macroparticles, 836597888 e-* *$E_{\text{kin}} > 10 \text{ eV}$: 1343 macroparticles, 105274256 e-*

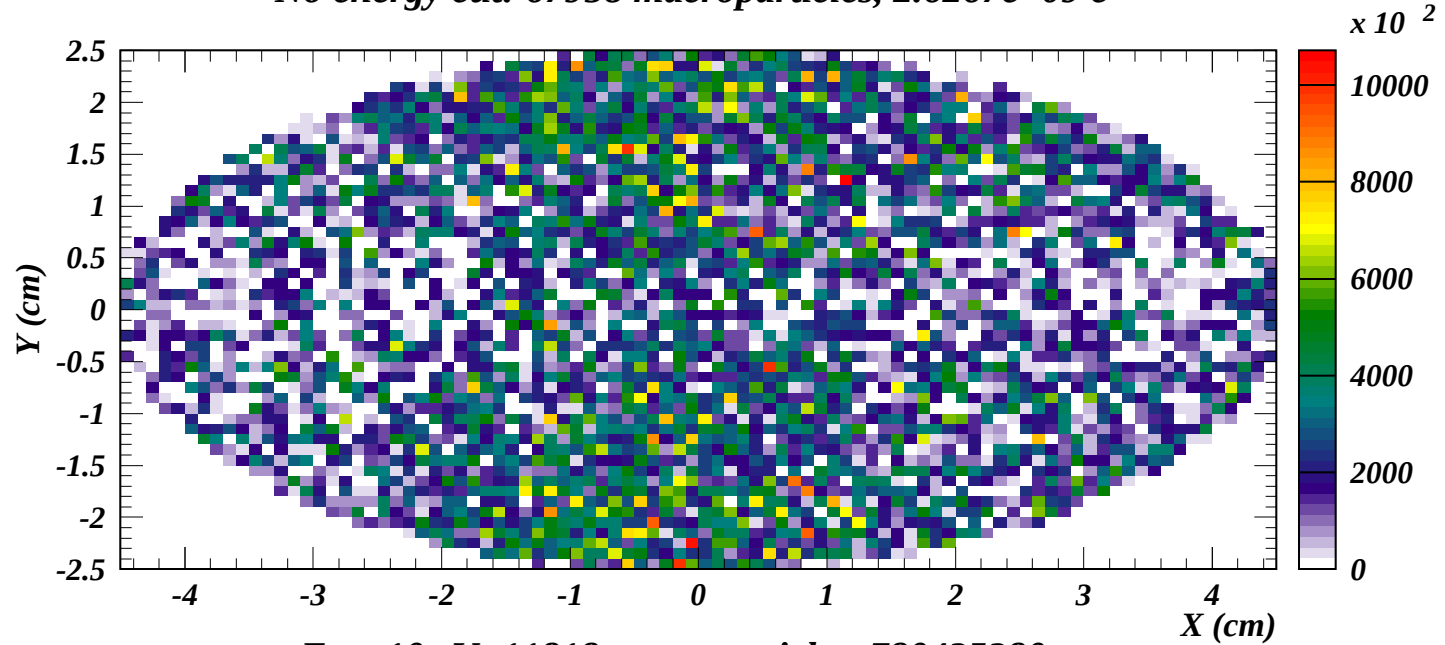
Cloud charge profile after bunch 5 at time = 70 ns

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 $\times 10^{-4}$

Cloud charge profile after bunch 7 at time = 98 ns



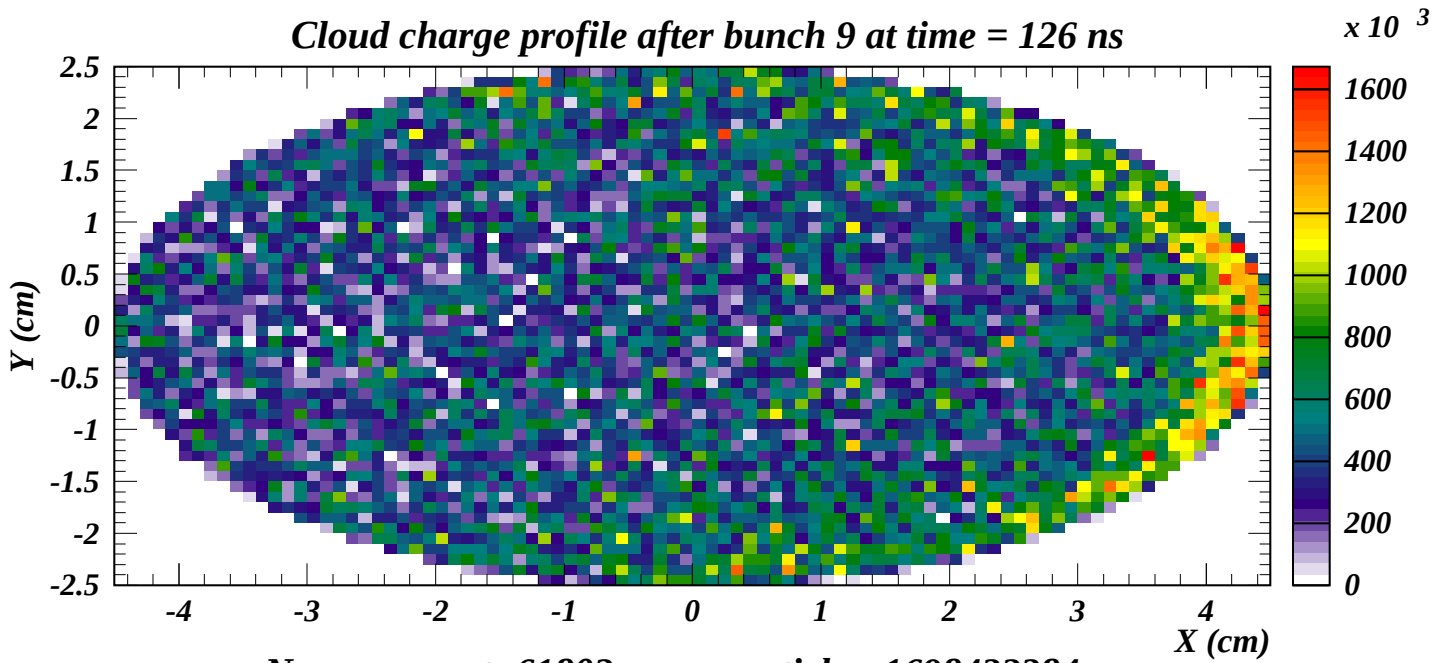
No energy cut: 67958 macroparticles, $2.6267e+09 e^-$



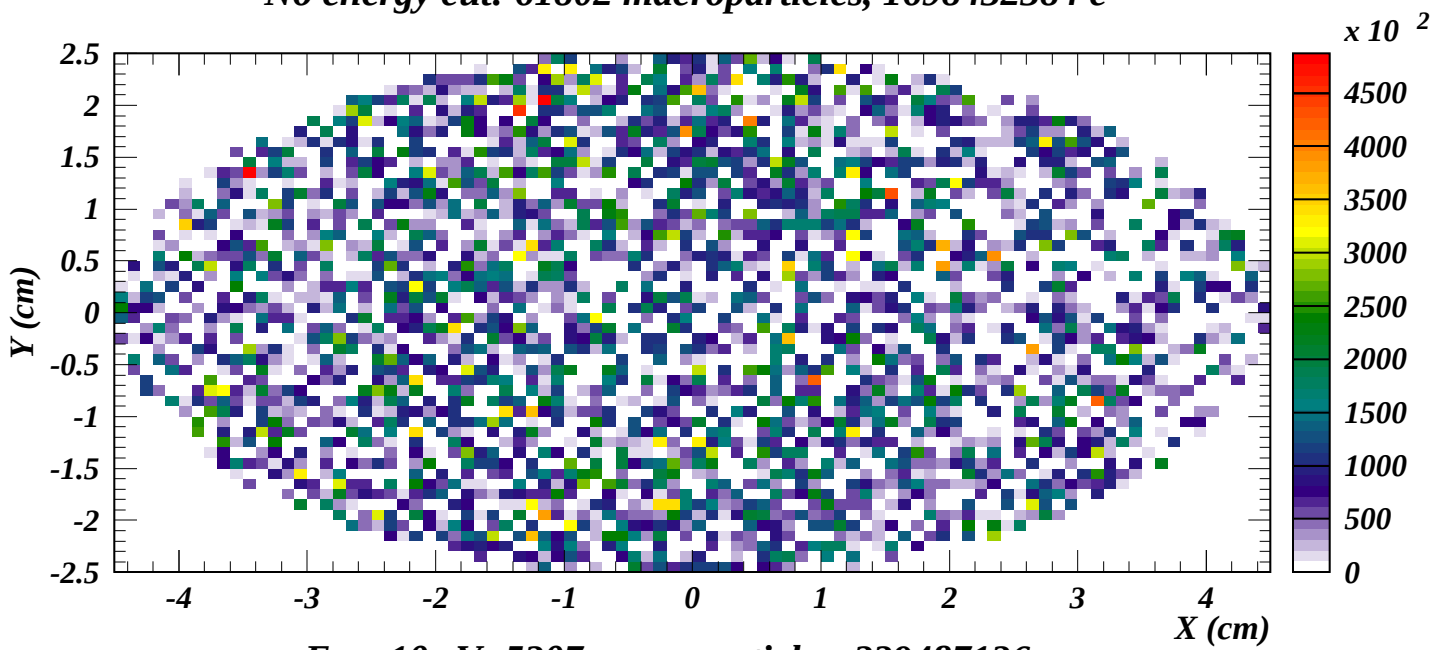
$E_{kin} > 10$ eV: 11818 macroparticles, $780425280 e^-$

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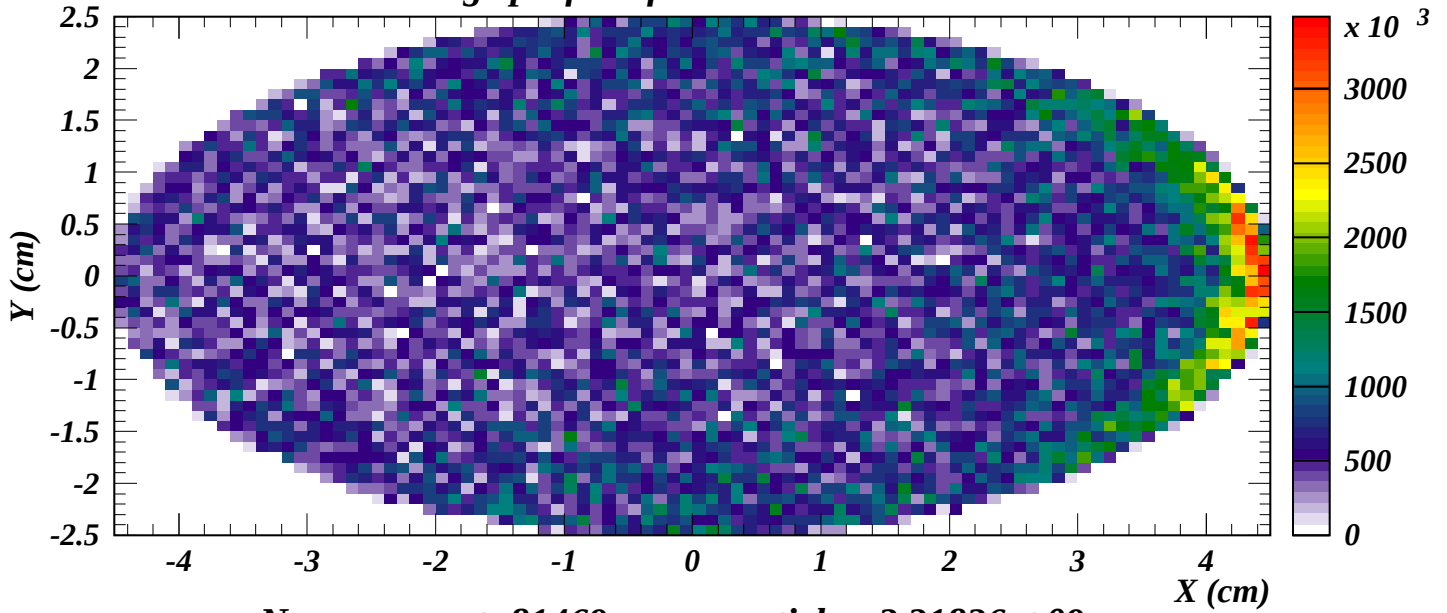
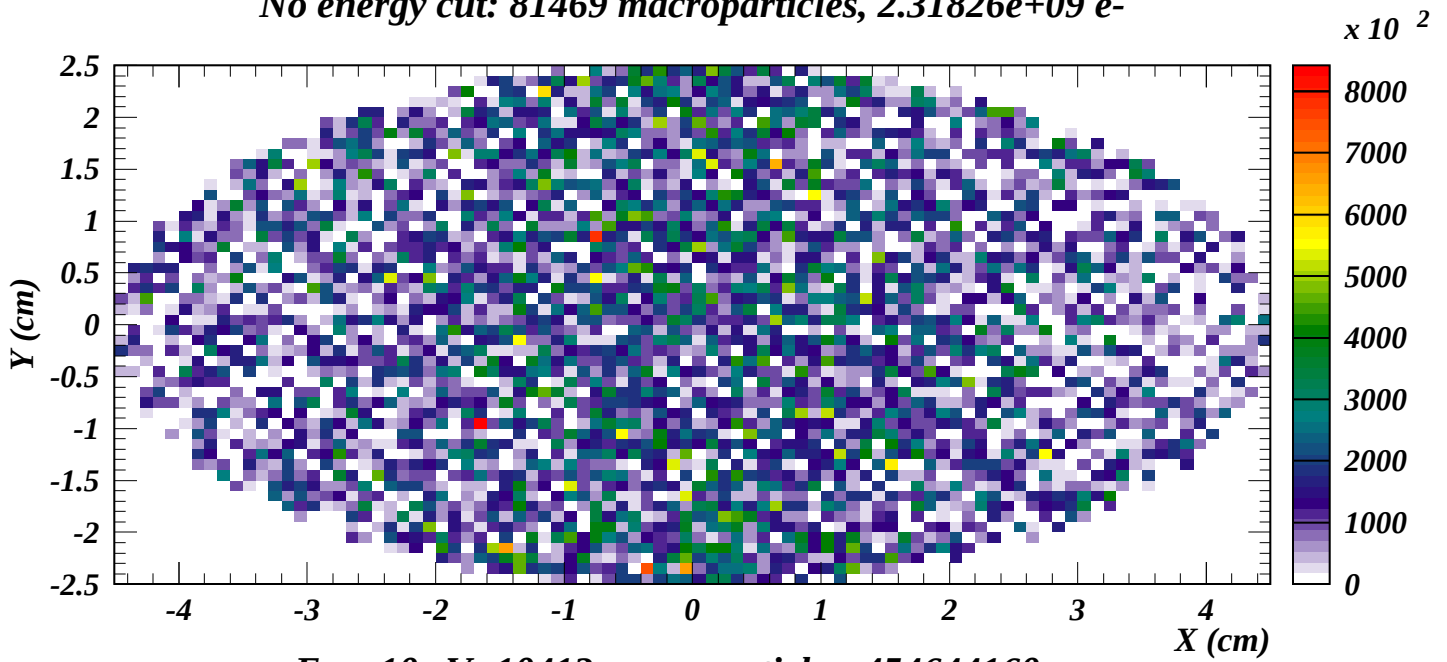
Cloud charge profile after bunch 9 at time = 126 ns

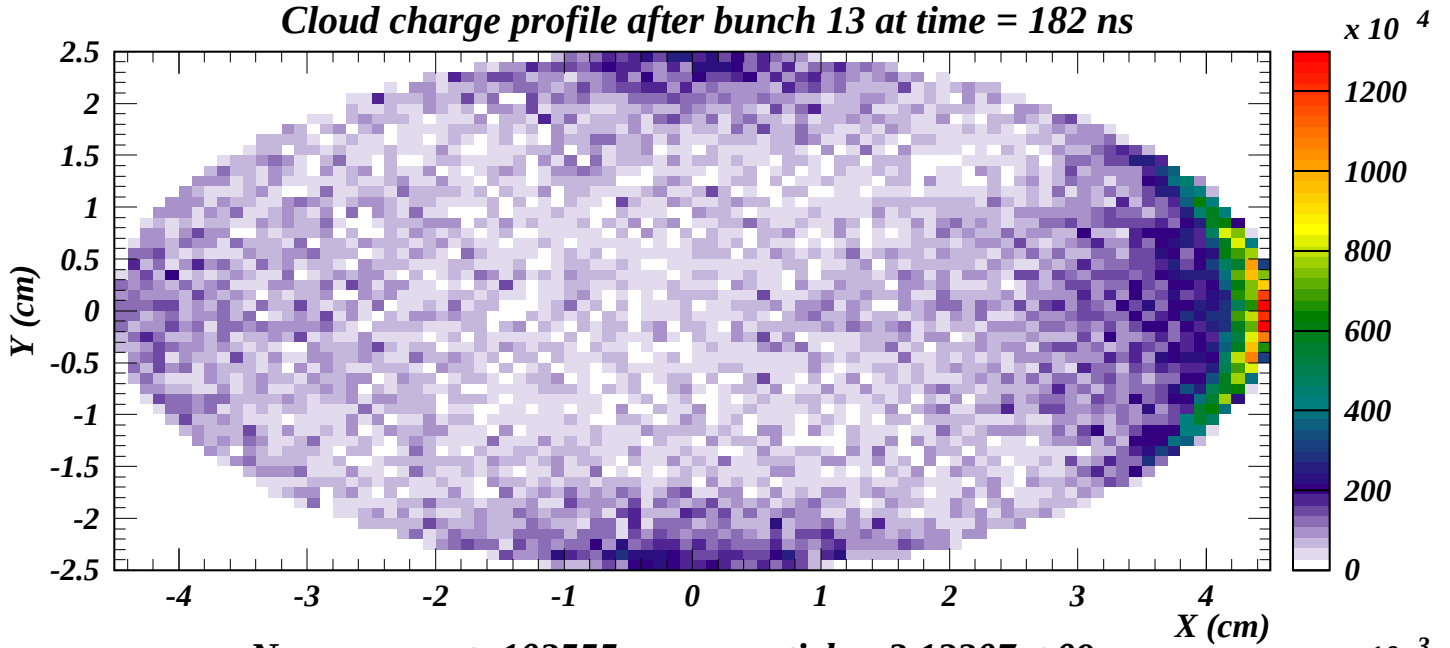
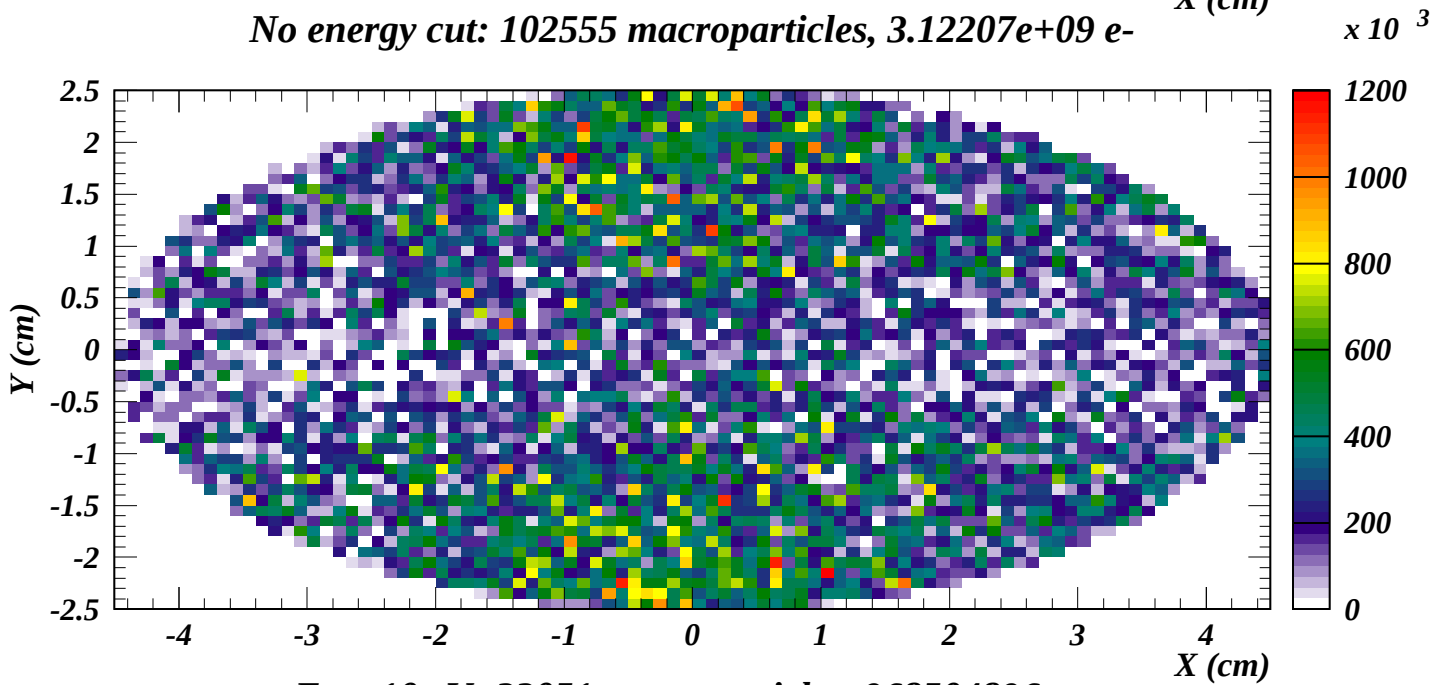


No energy cut: 61802 macroparticles, 1698432384 e-



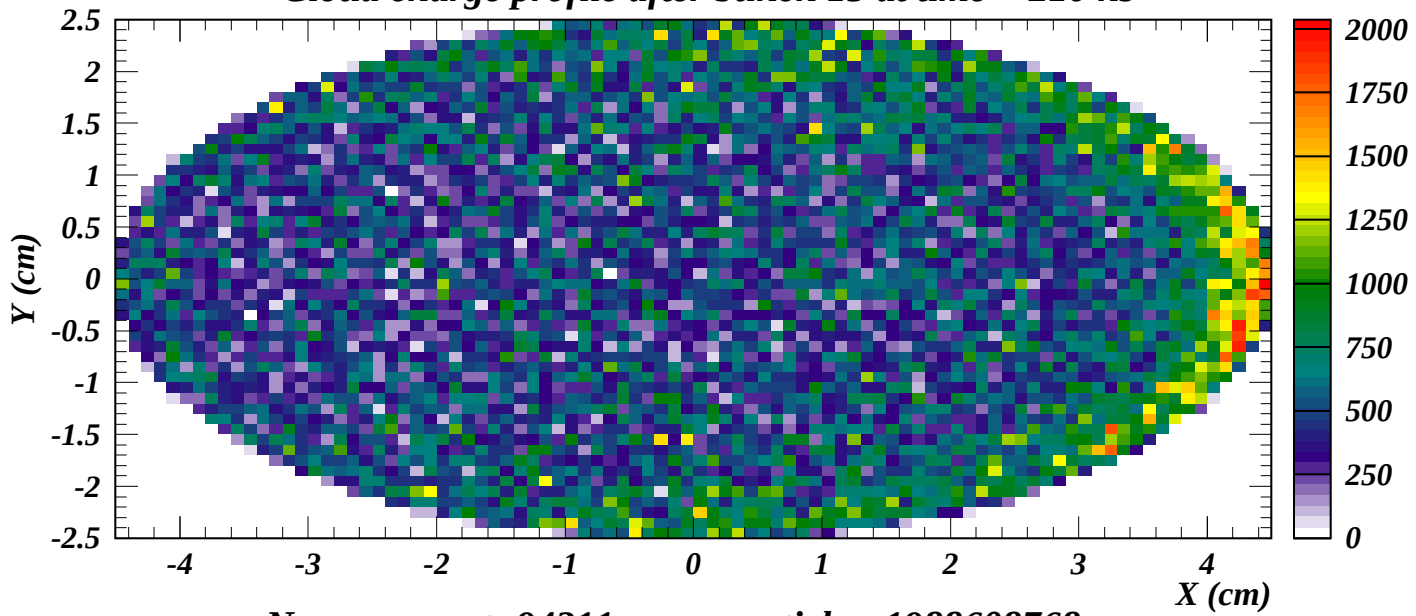
$E_{\text{kin}} > 10$ eV: 5307 macroparticles, 239487136 e-

Cloud charge profile after bunch 11 at time = 154 ns*No energy cut: 81469 macroparticles, 2.31826e+09 e-* *$E_{kin} > 10$ eV: 10413 macroparticles, 454644160 e-*

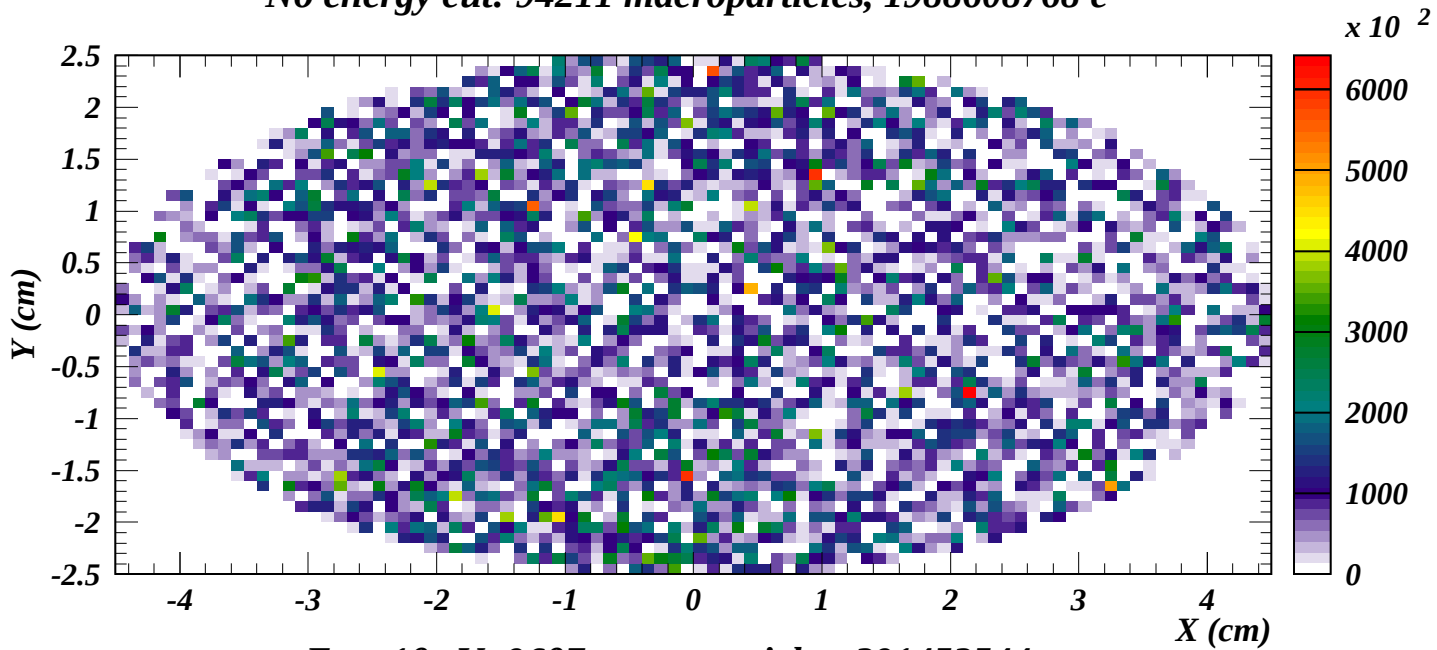
Cloud charge profile after bunch 13 at time = 182 ns*No energy cut: 102555 macroparticles, $3.12207e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$: 22051 macroparticles, 968504896 e-*

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 $\times 10^3$

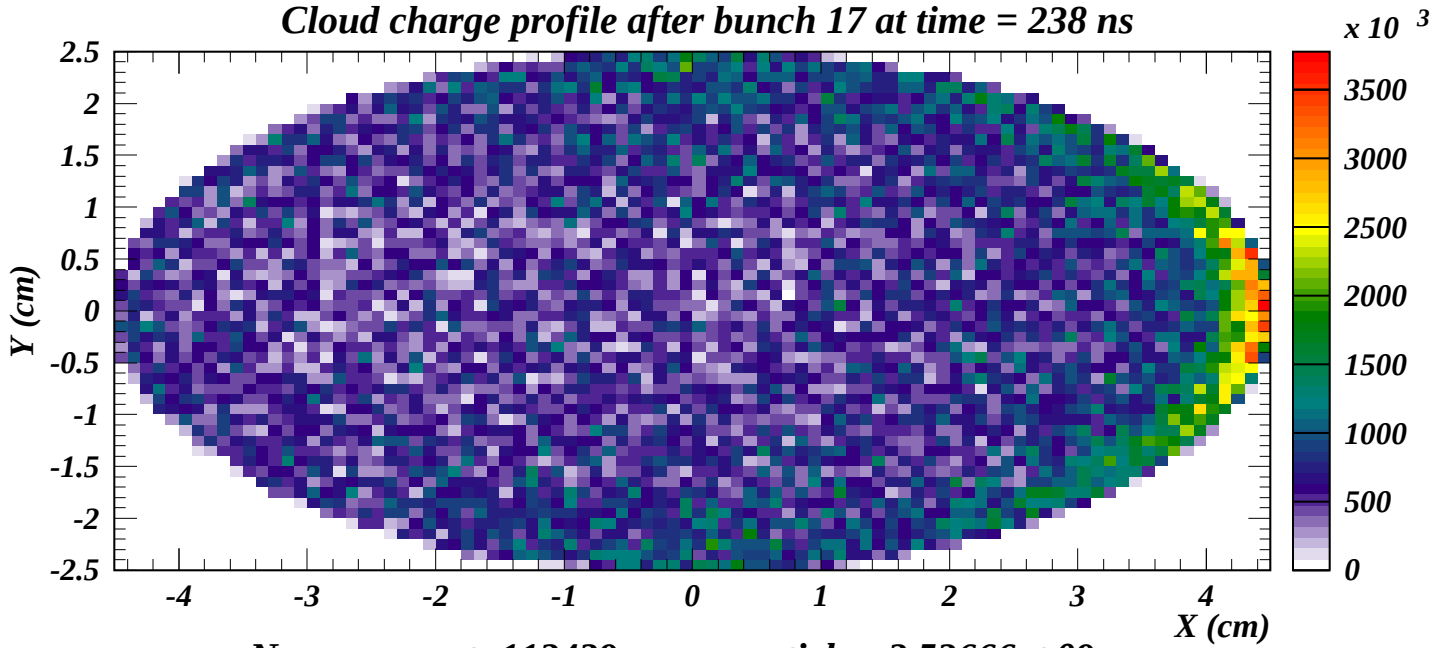
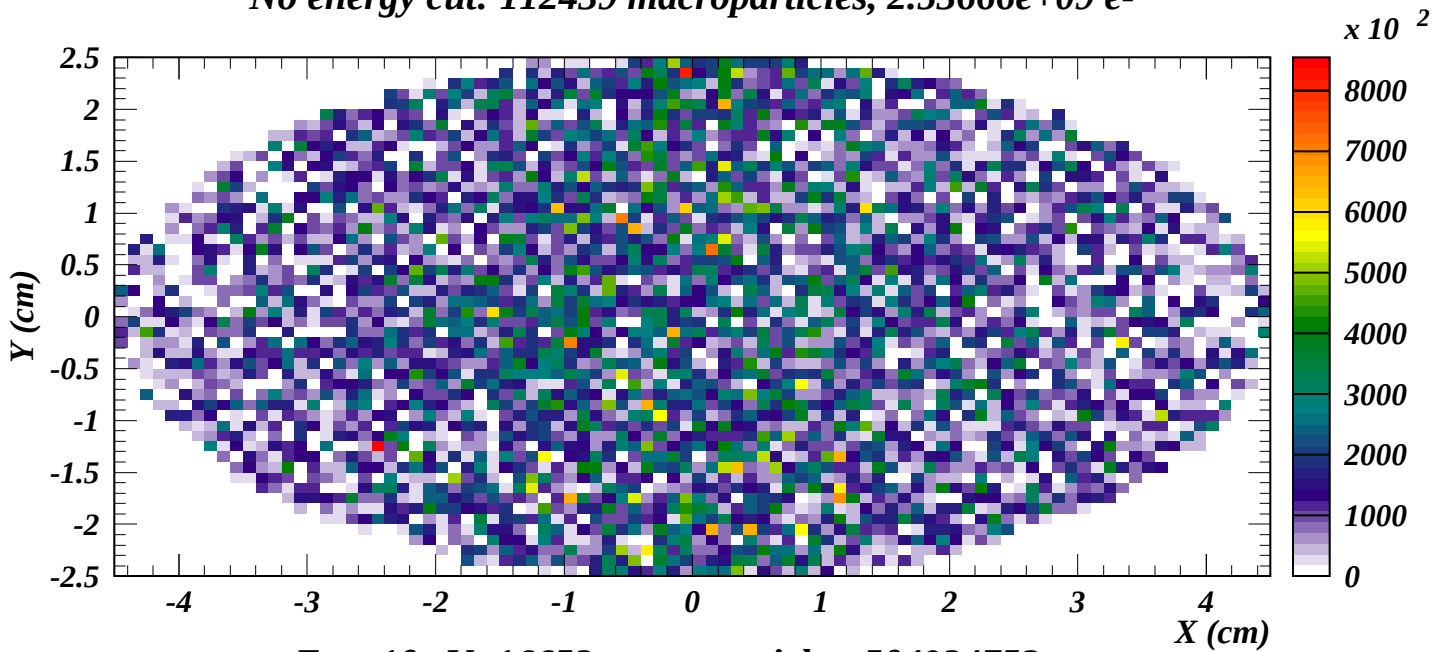
Cloud charge profile after bunch 15 at time = 210 ns

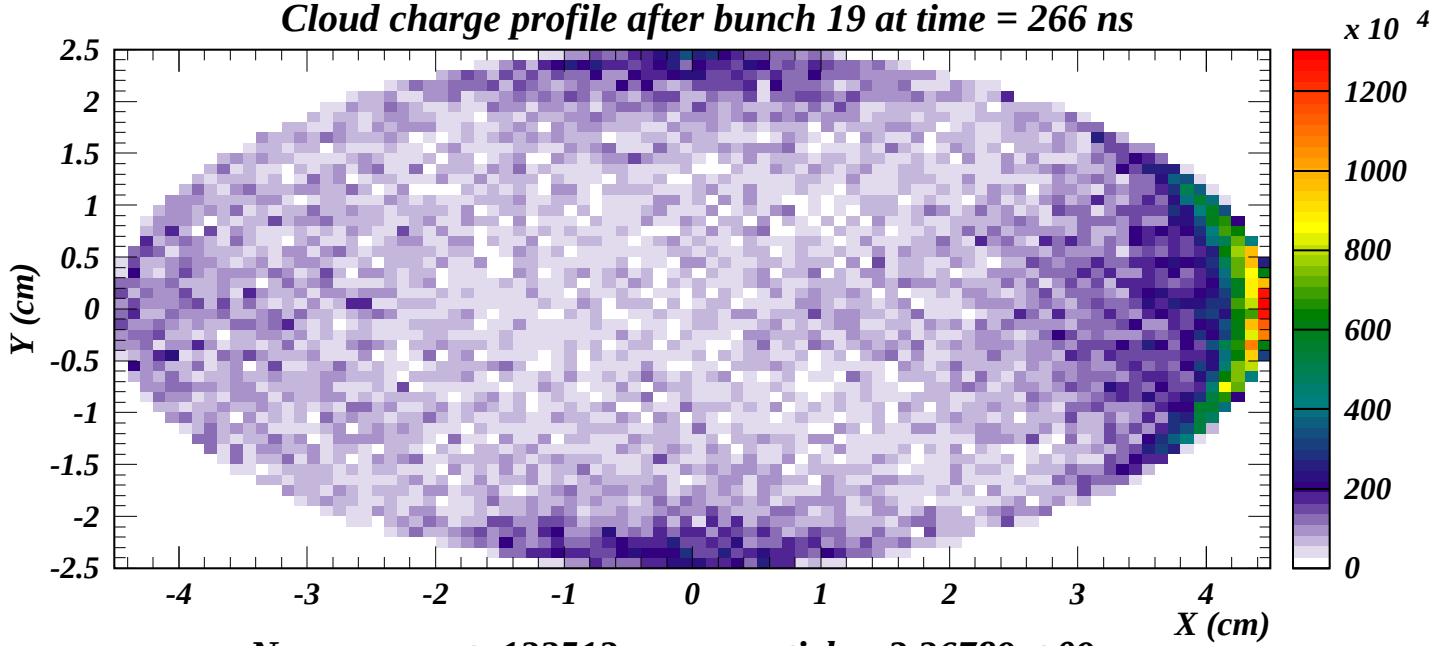
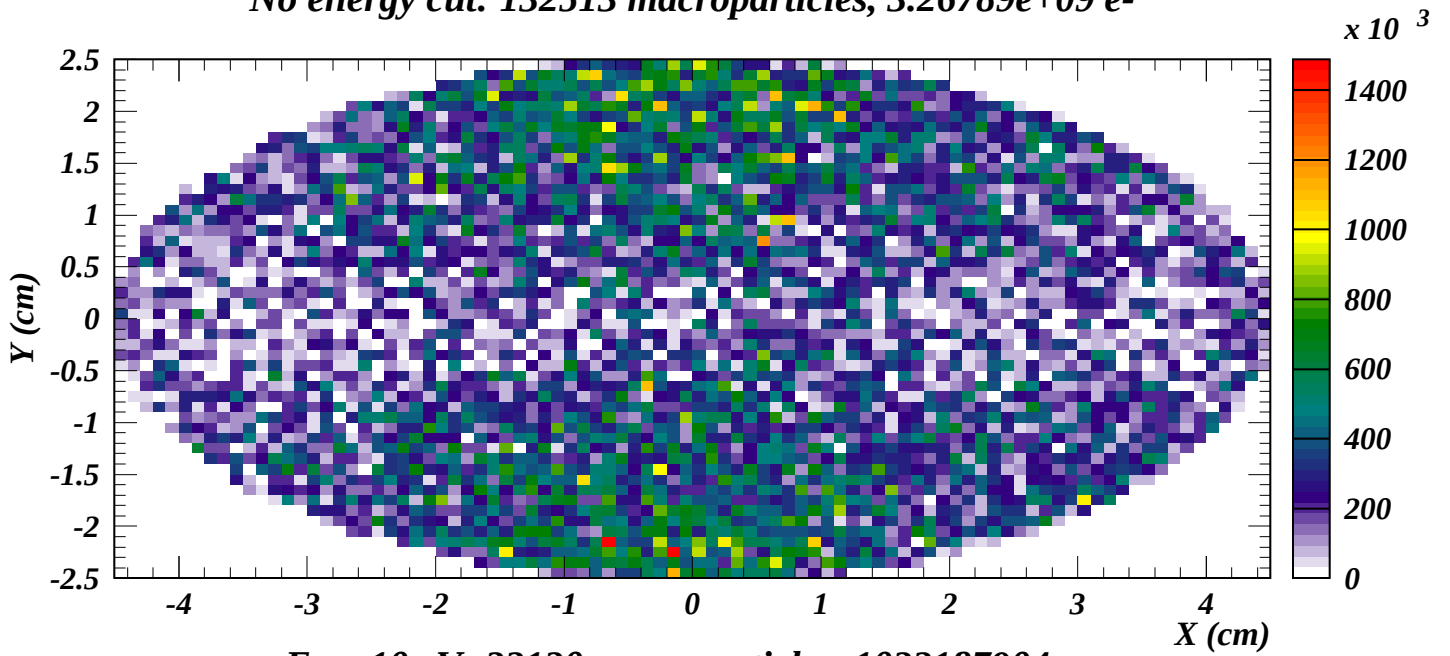


No energy cut: 94211 macroparticles, 1988608768 e⁻



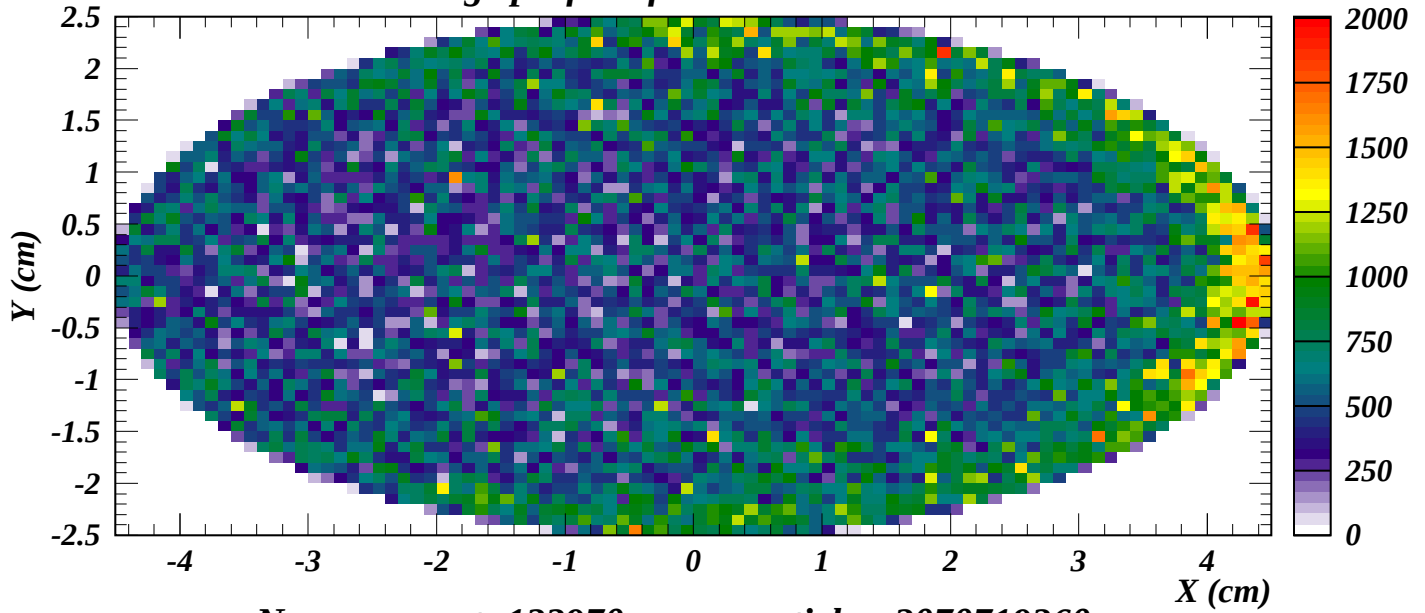
$E_{kin} > 10$ eV: 9607 macroparticles, 291452544 e⁻

Cloud charge profile after bunch 17 at time = 238 ns*No energy cut: 112439 macroparticles, $2.53666e+09 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 16653 macroparticles, 504934752 e-*

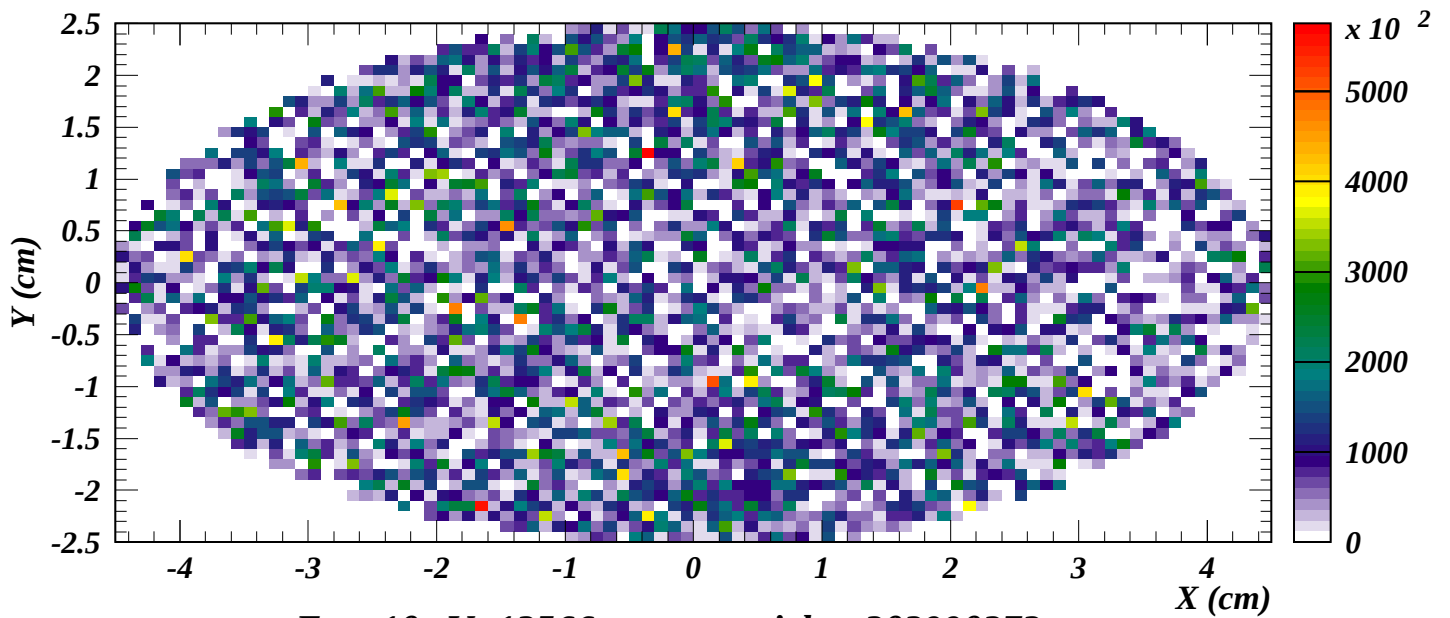
Cloud charge profile after bunch 19 at time = 266 ns*No energy cut: 132513 macroparticles, 3.26789e+09 e-* *$E_{kin} > 10$ eV: 32130 macroparticles, 1032187904 e-*

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 $\times 10^3$

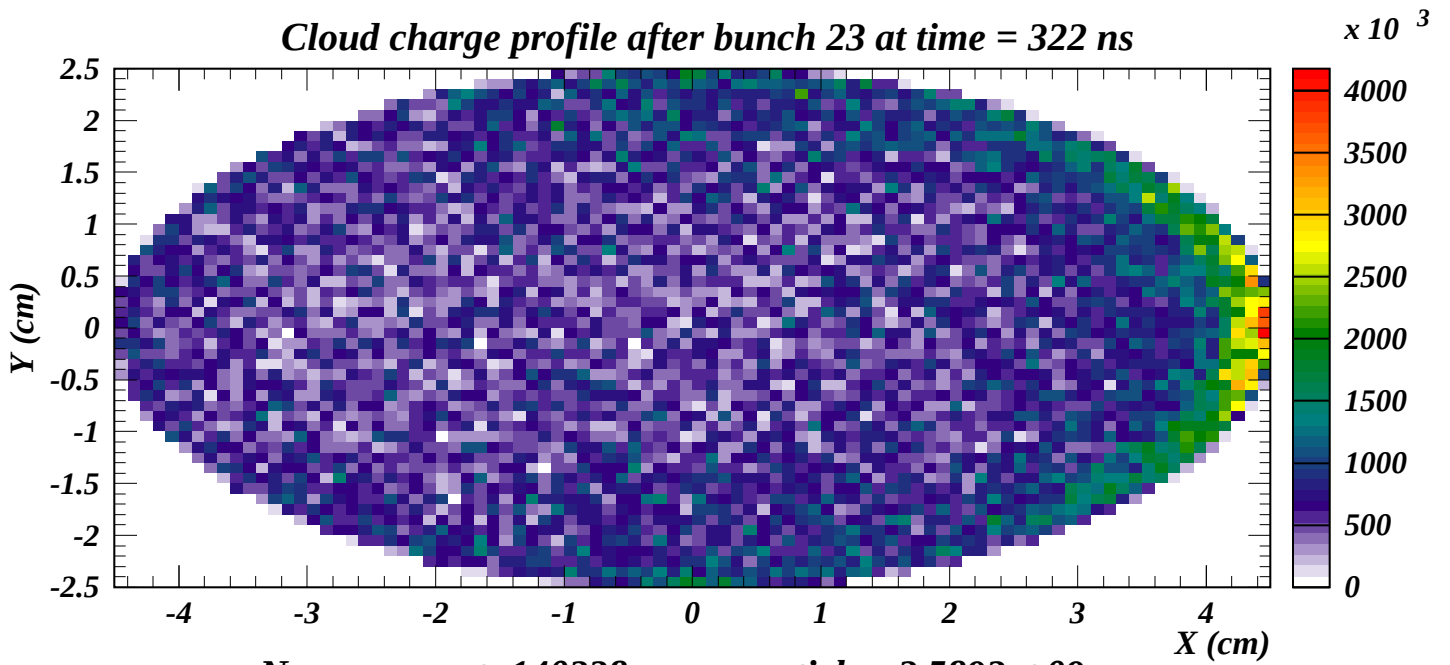
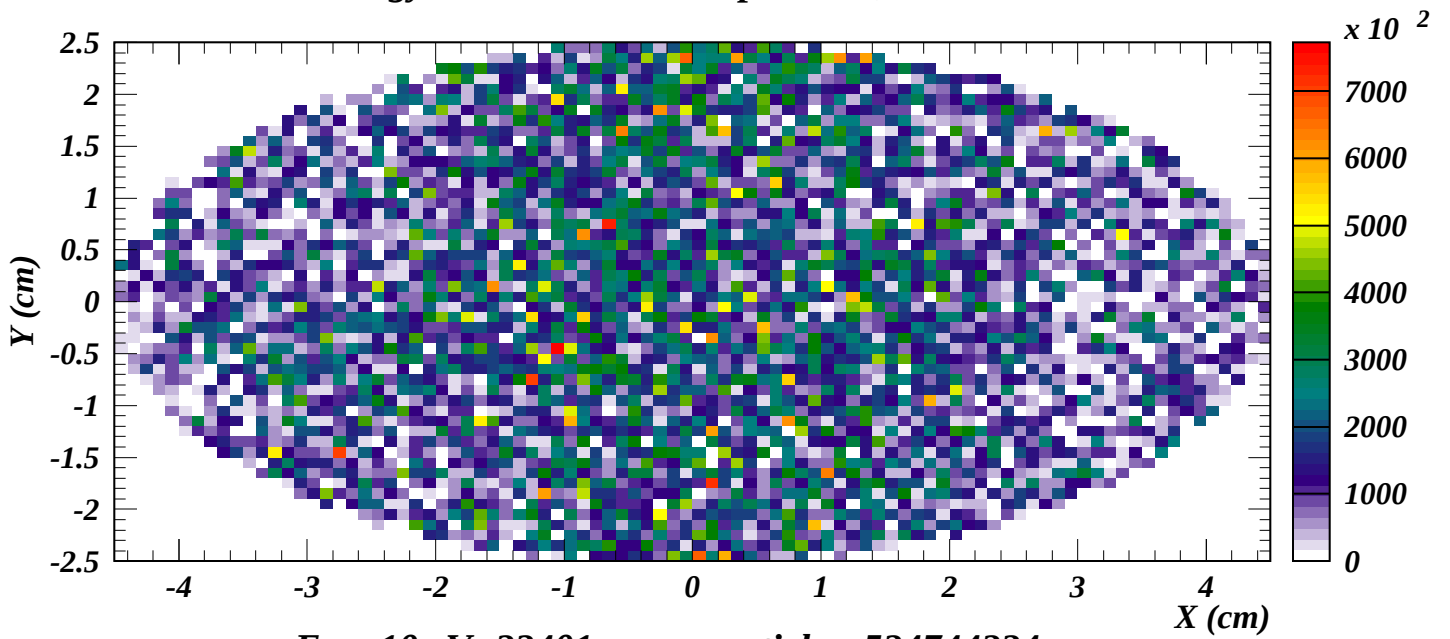
Cloud charge profile after bunch 21 at time = 294 ns

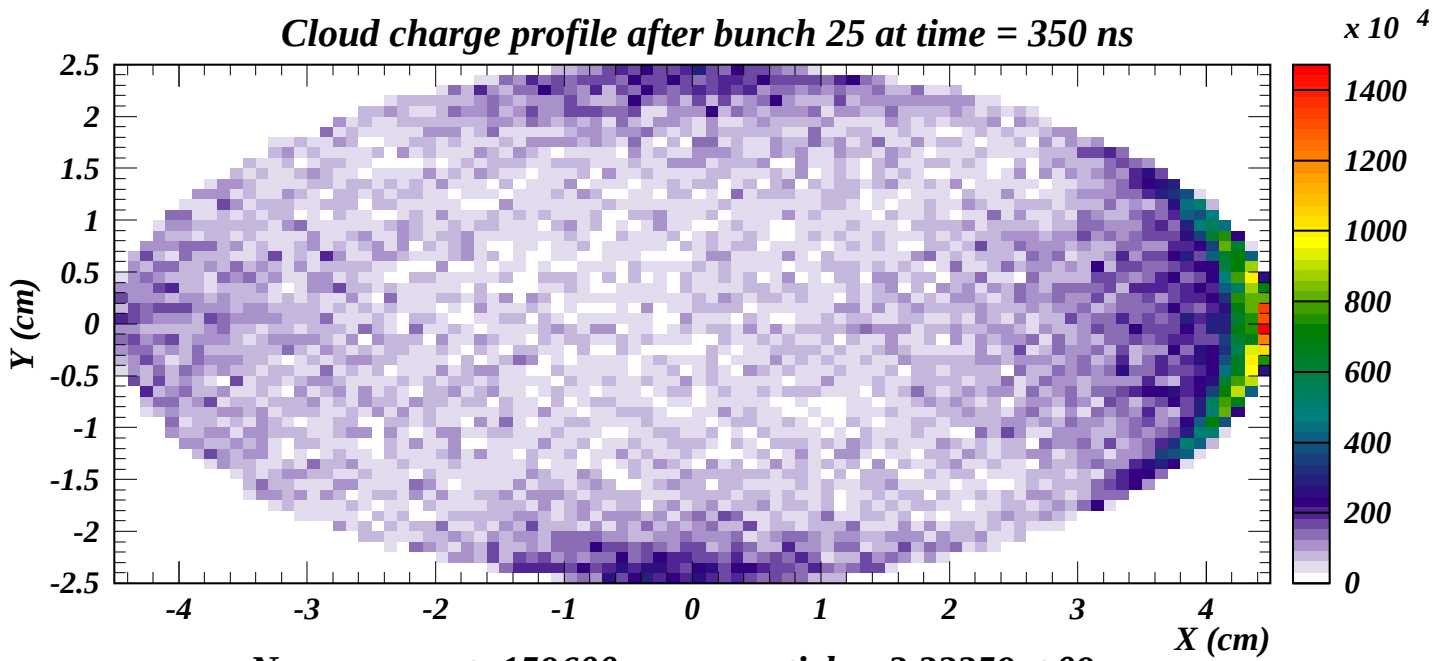
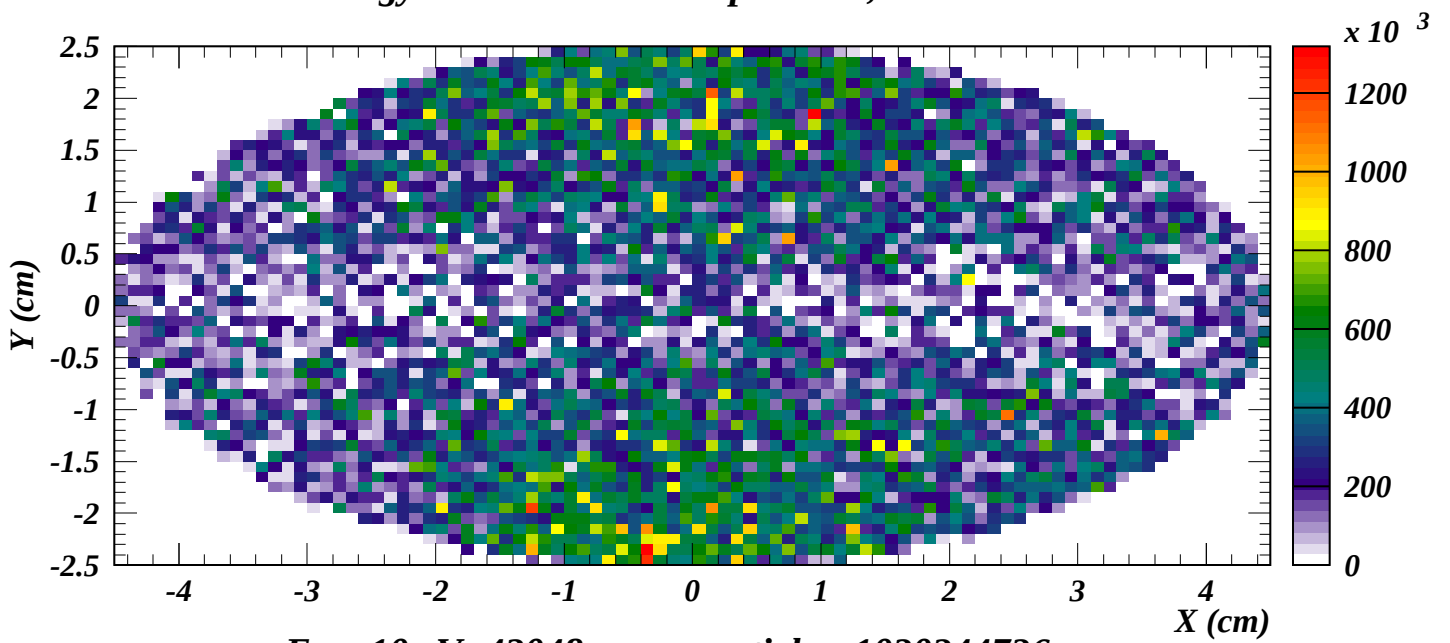


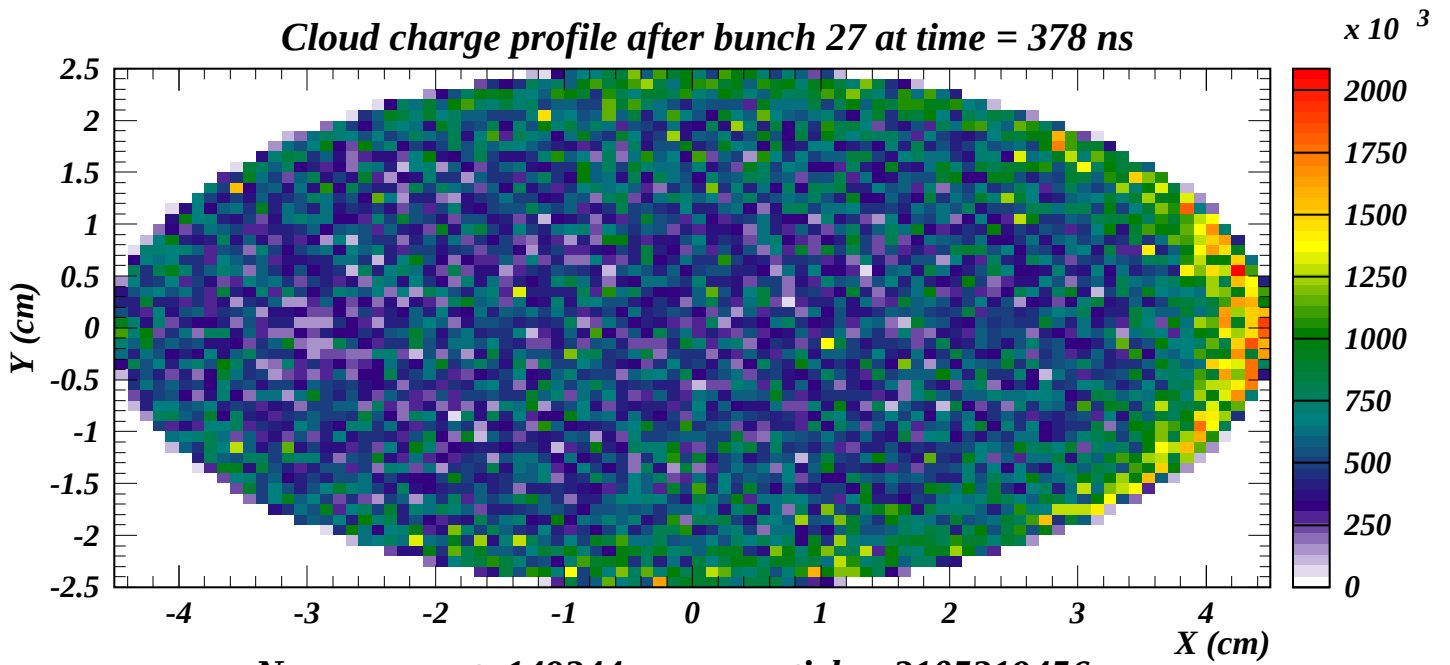
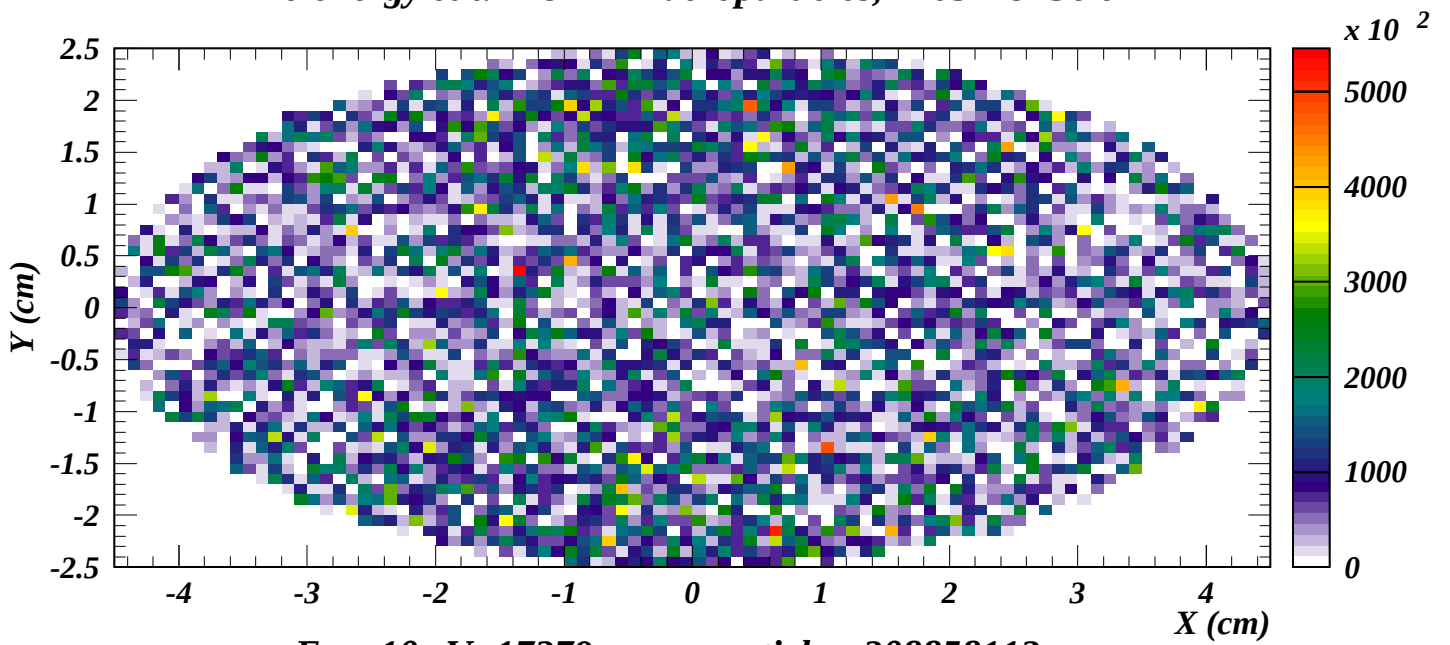
No energy cut: 122970 macroparticles, 2070719360 e-

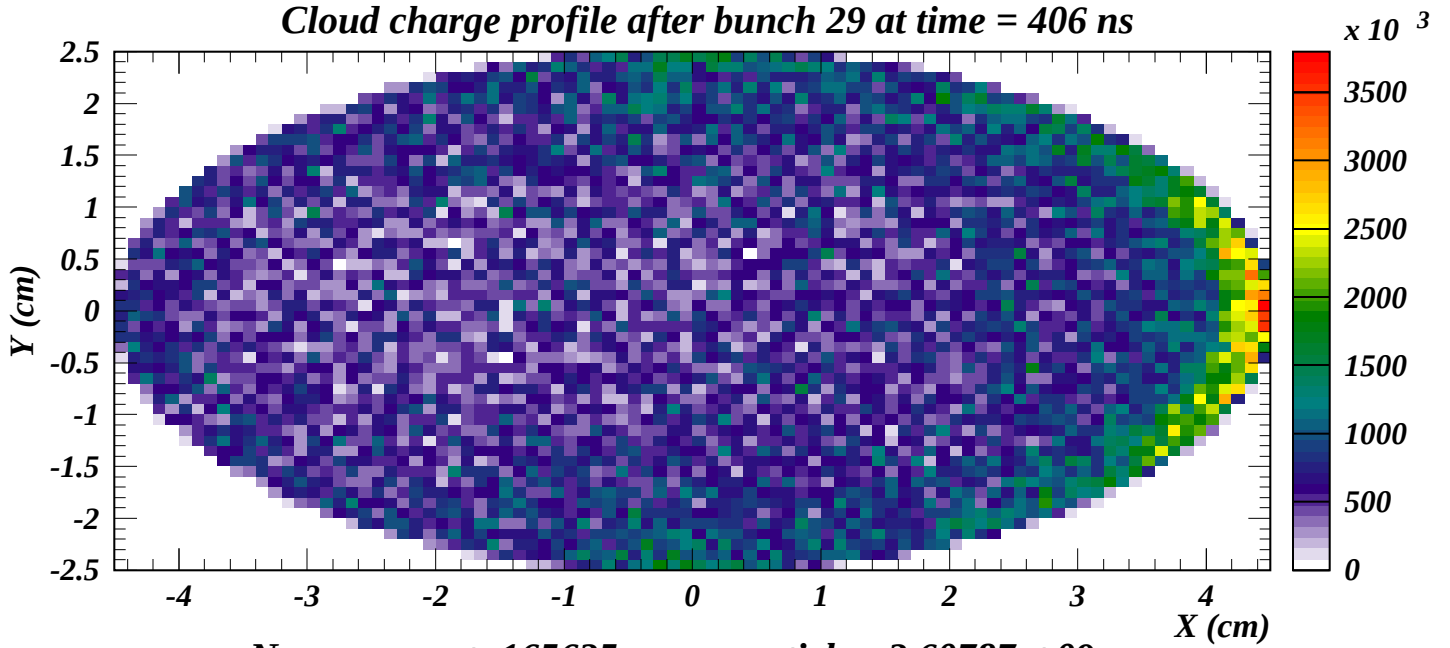
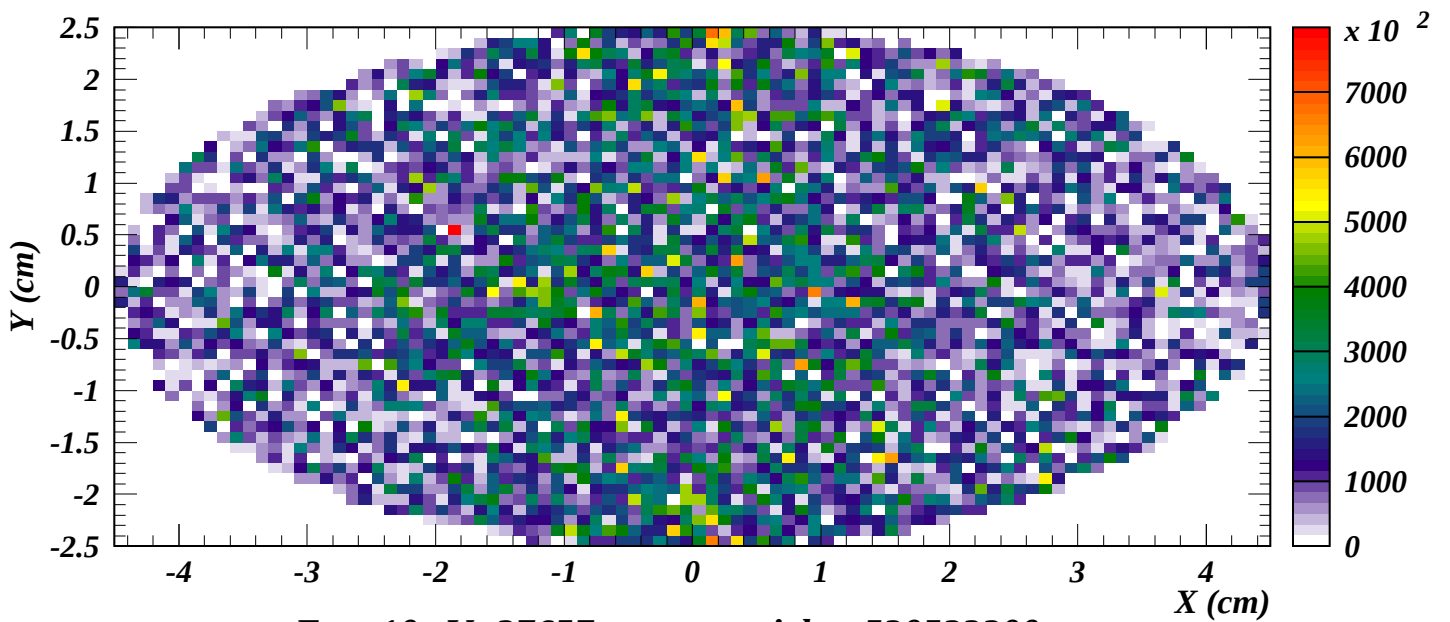


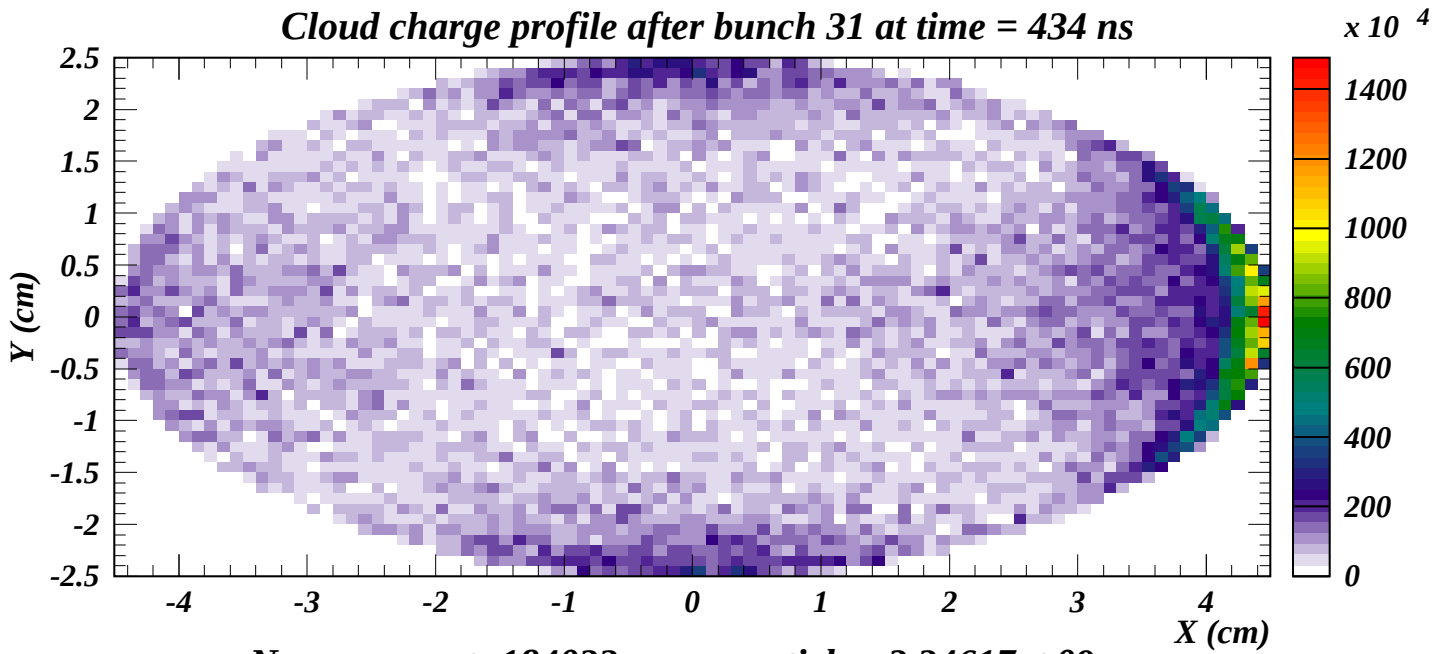
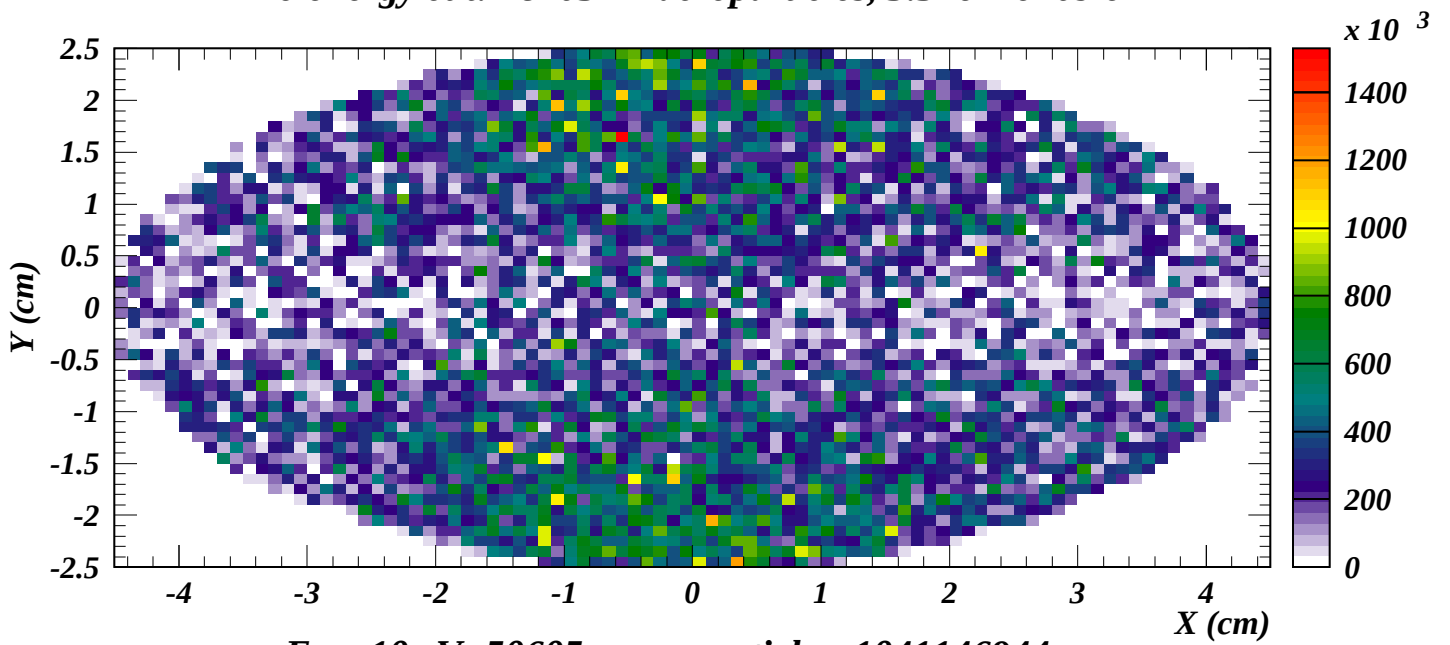
$E_{kin} > 10$ eV: 13566 macroparticles, 303990272 e-

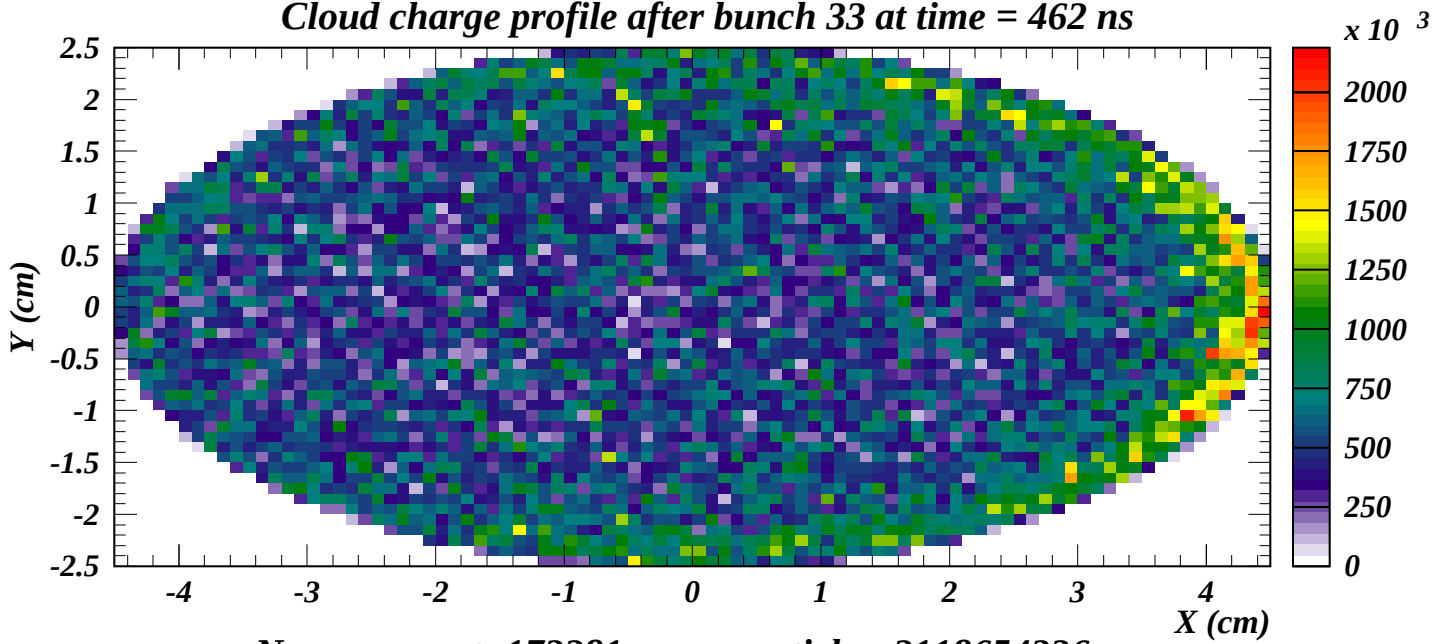
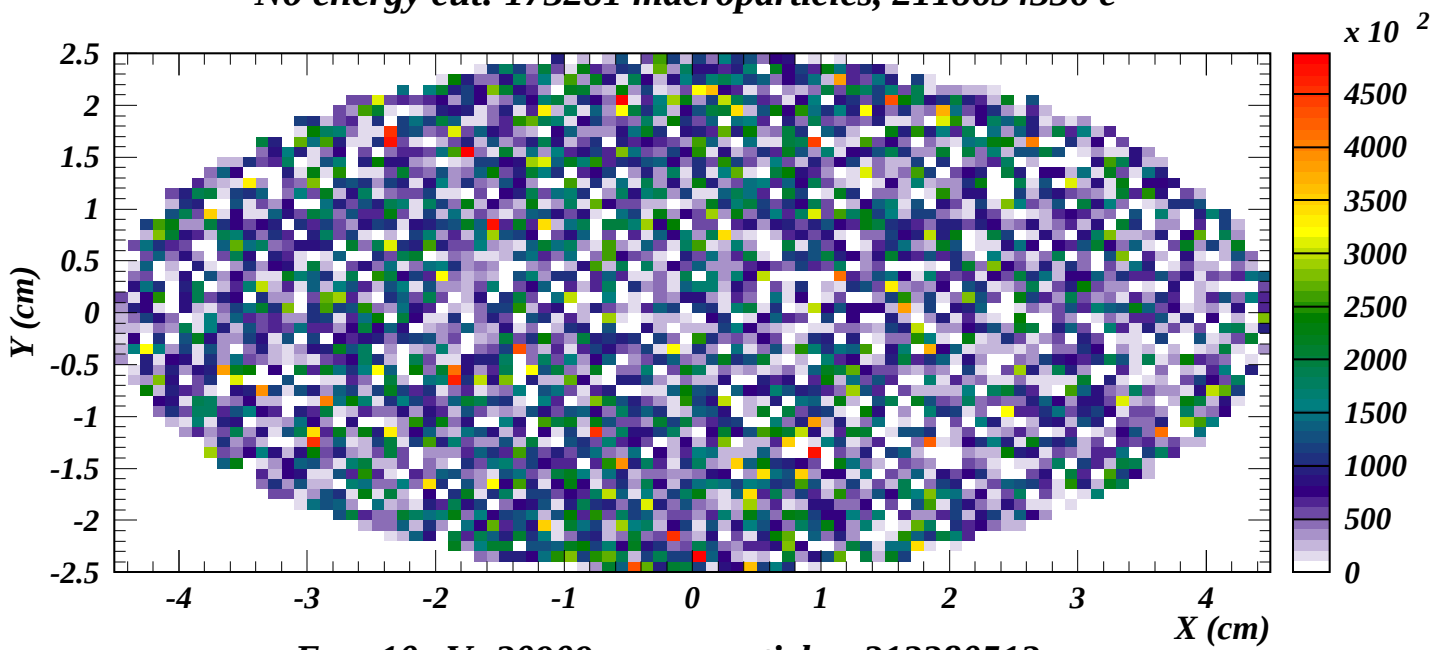
Cloud charge profile after bunch 23 at time = 322 ns*No energy cut: 140238 macroparticles, 2.5892e+09 e-* *$E_{kin} > 10$ eV: 22401 macroparticles, 524744224 e-*

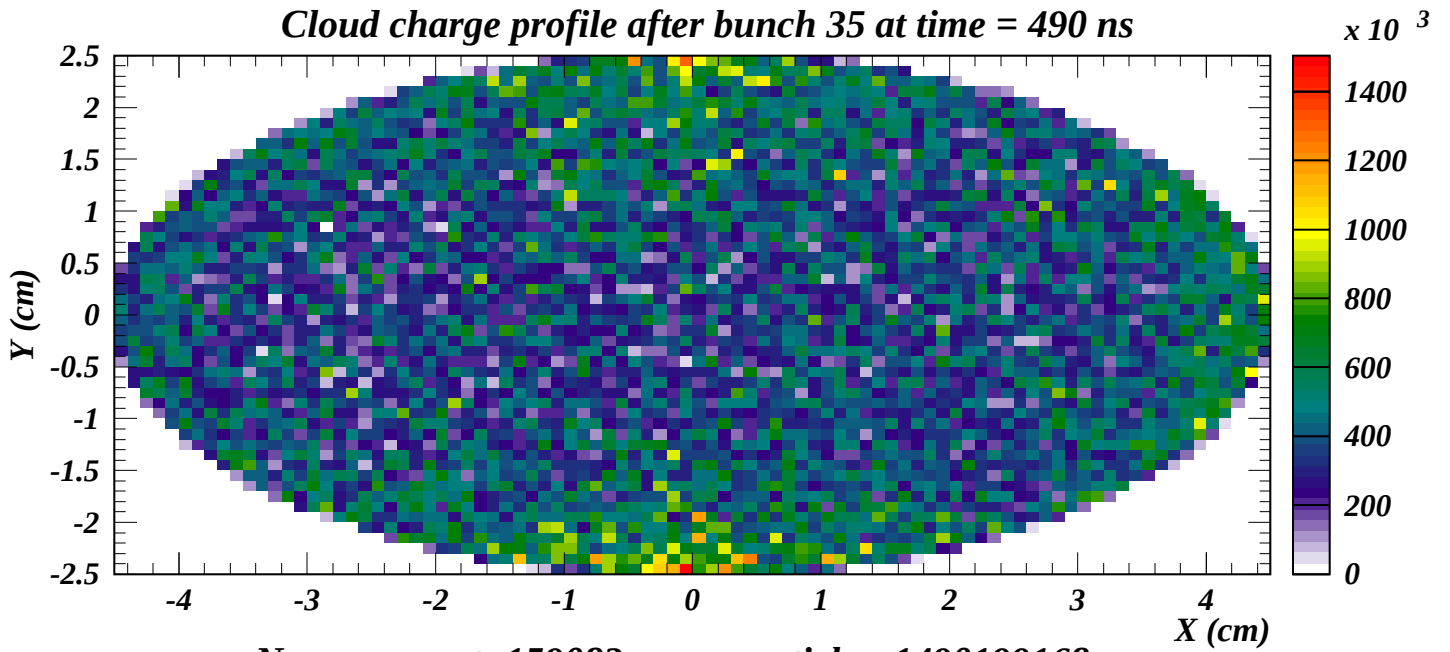
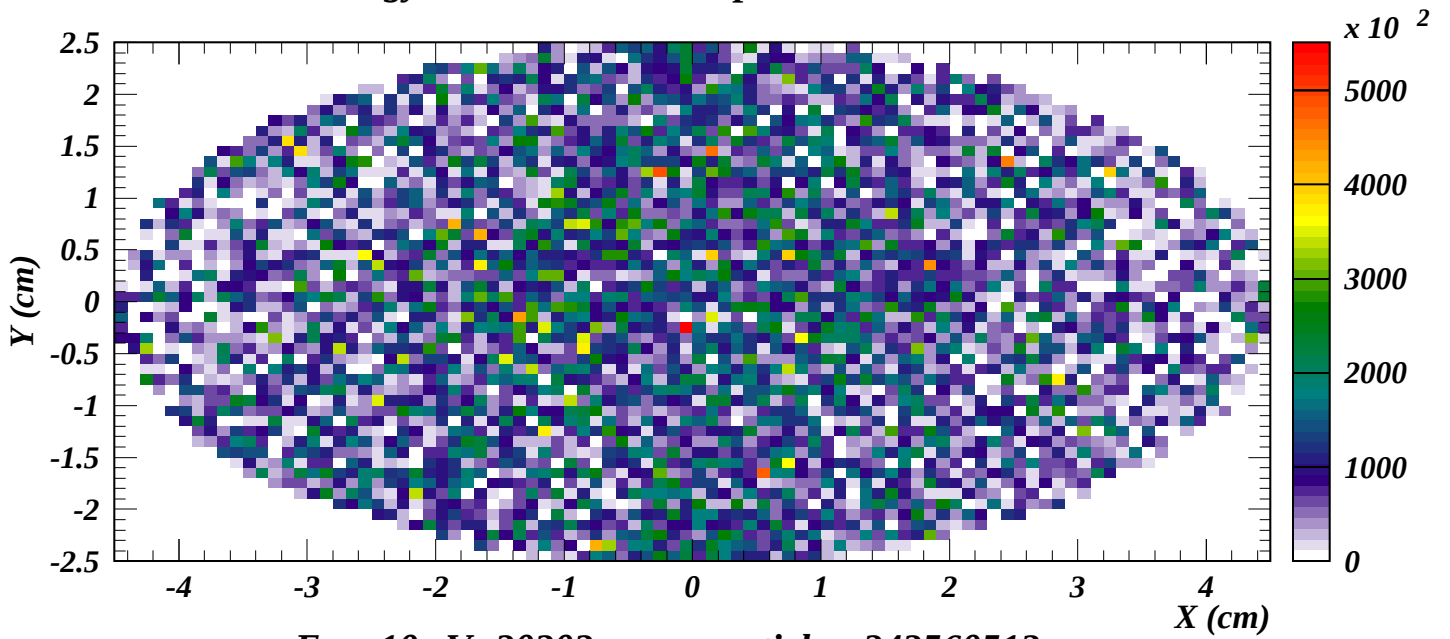
Cloud charge profile after bunch 25 at time = 350 ns*No energy cut: 159600 macroparticles, $3.32359 \times 10^9 \text{ e-}$*  *$E_{\text{kin}} > 10 \text{ eV}$: 42048 macroparticles, 1030244736 e-*

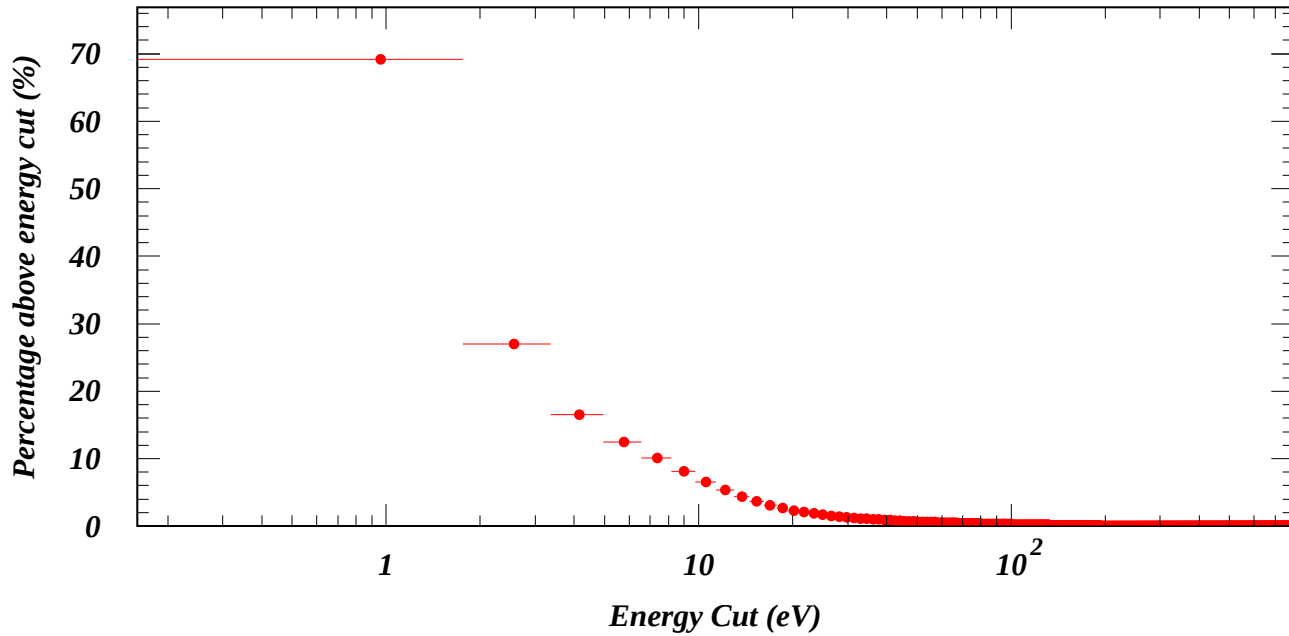
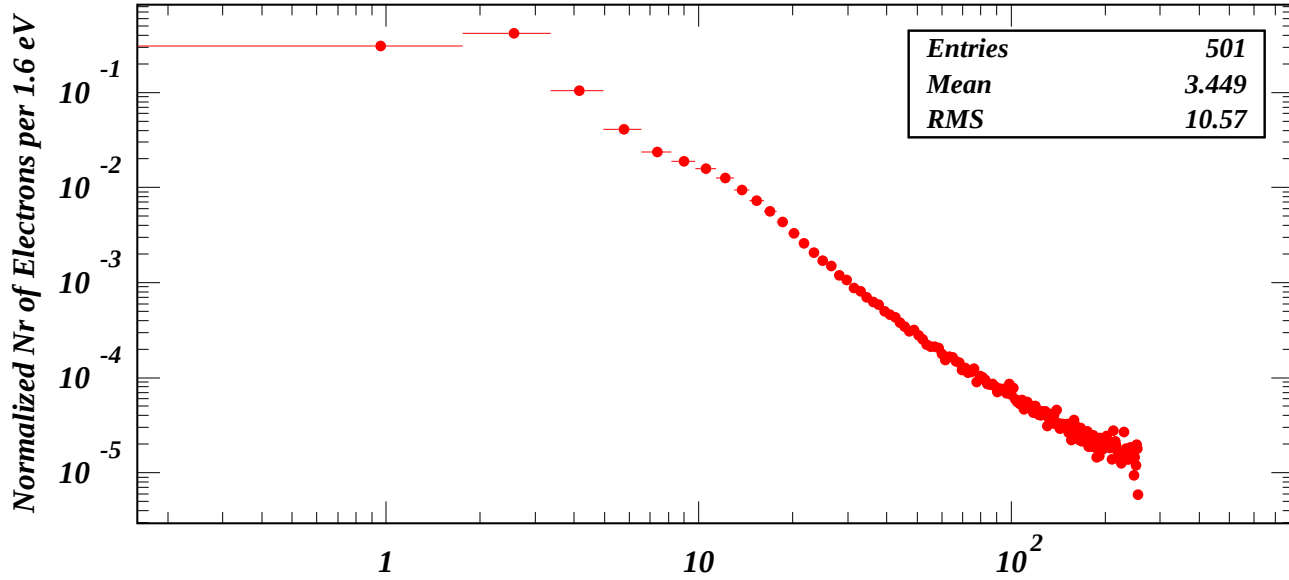
Cloud charge profile after bunch 27 at time = 378 ns*No energy cut: 149244 macroparticles, 2105219456 e-* *$E_{kin} > 10$ eV: 17279 macroparticles, 308858112 e-*

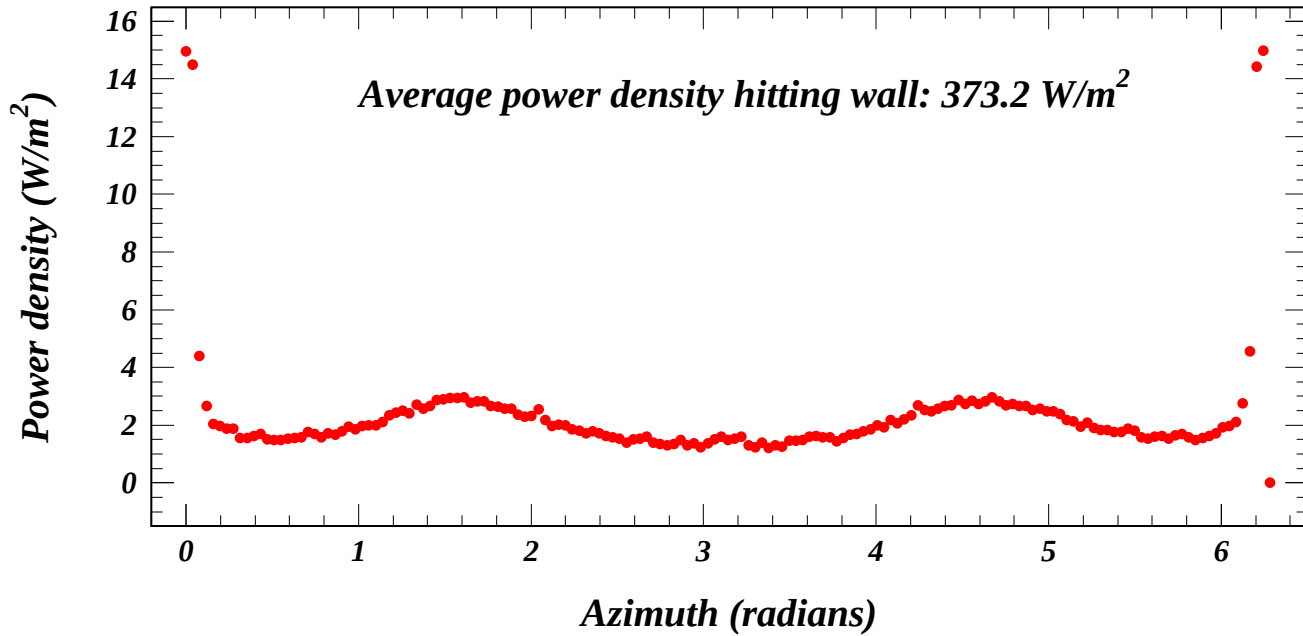
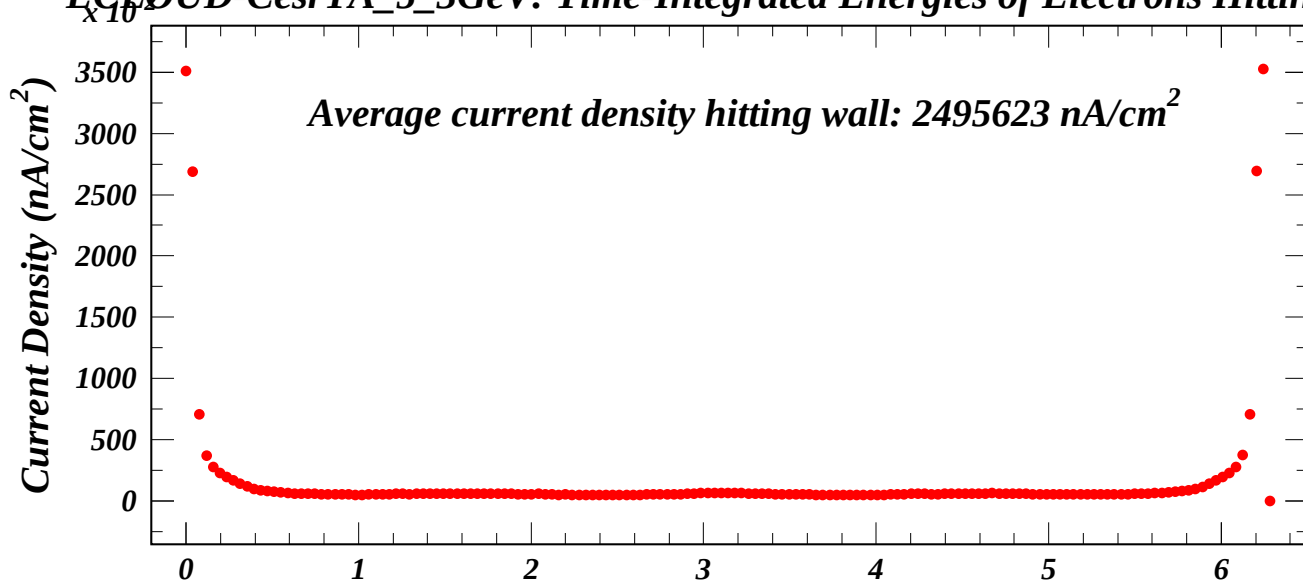
Cloud charge profile after bunch 29 at time = 406 ns*No energy cut: 165635 macroparticles, $2.60787e+09 \text{ e-}$*  *$E_{kin} > 10 \text{ eV}$: 27657 macroparticles, 530523200 e-*

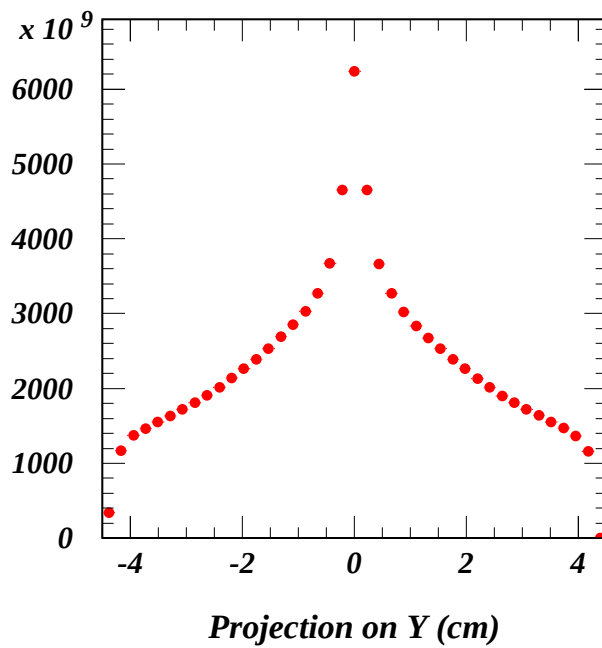
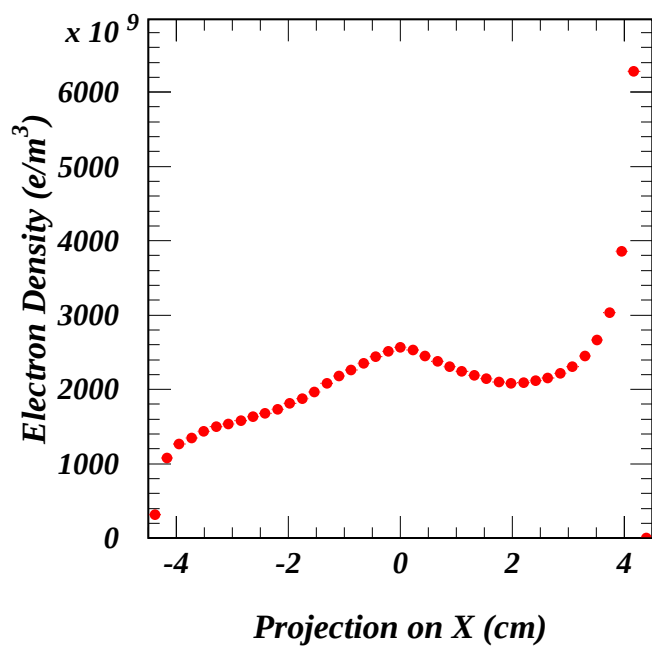
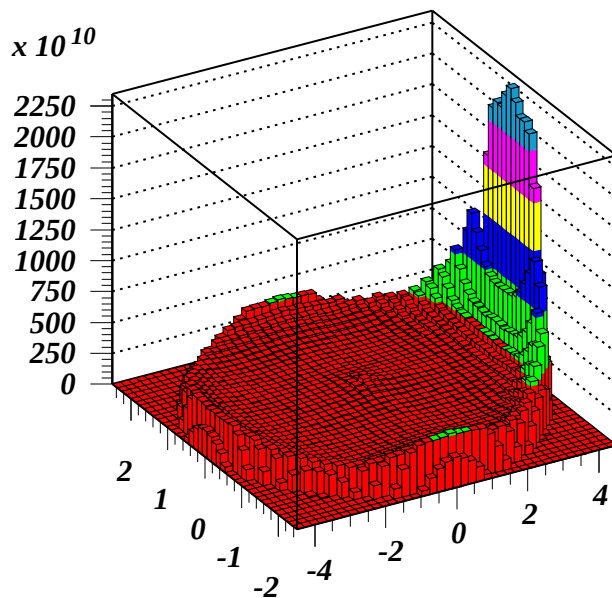
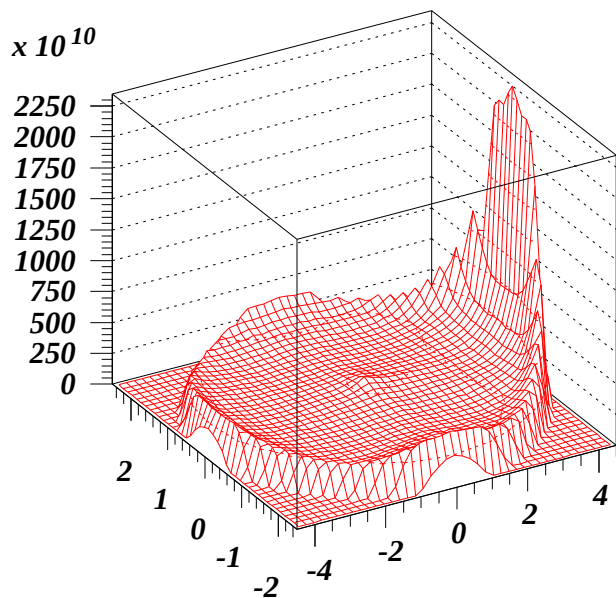
Cloud charge profile after bunch 31 at time = 434 ns*No energy cut: 184032 macroparticles, $3.34617e+09$ e-* *$E_{kin} > 10$ eV: 50605 macroparticles, 1041146944 e-*

Cloud charge profile after bunch 33 at time = 462 ns*No energy cut: 173281 macroparticles, 2118654336 e-* *$E_{kin} > 10 \text{ eV}$: 20909 macroparticles, 312280512 e-*

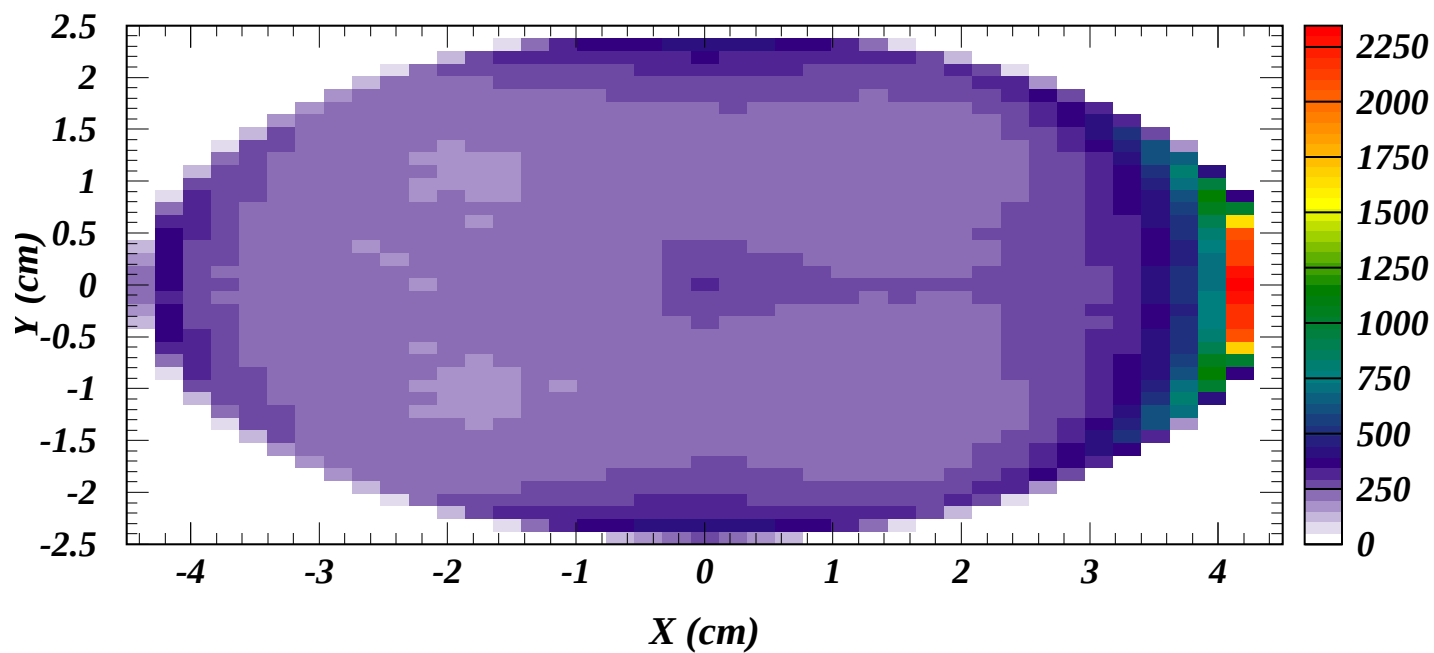
Cloud charge profile after bunch 35 at time = 490 ns*No energy cut: 159083 macroparticles, 1490199168 e-* *$E_{kin} > 10$ eV: 30202 macroparticles, 343560512 e-*

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

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

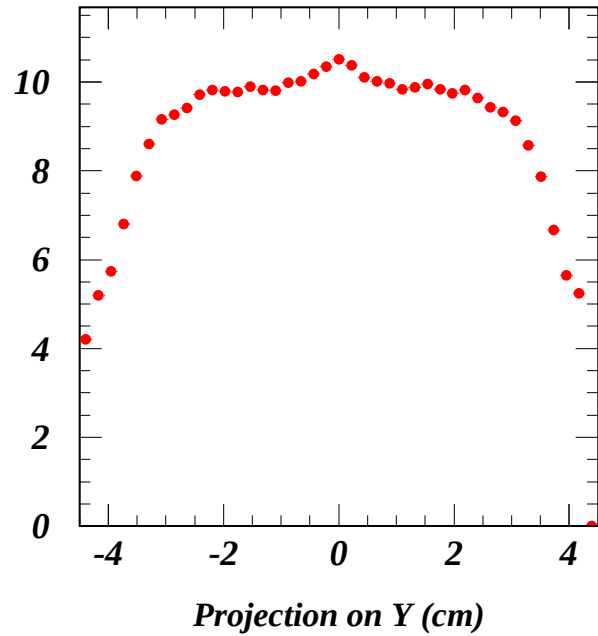
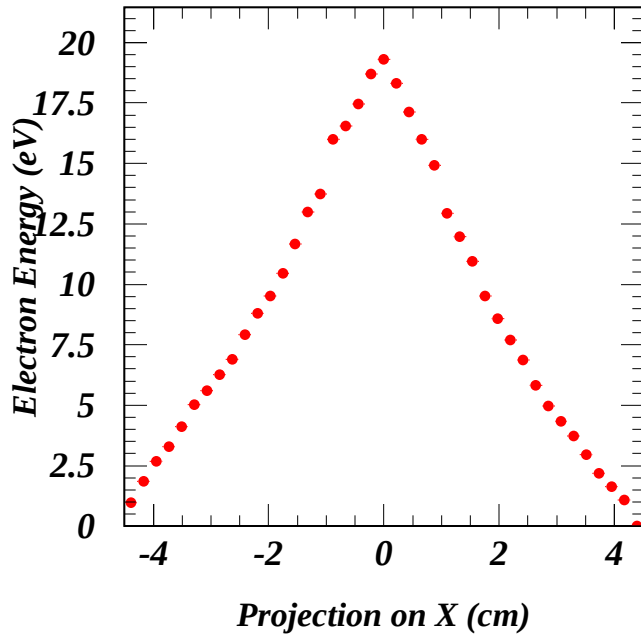
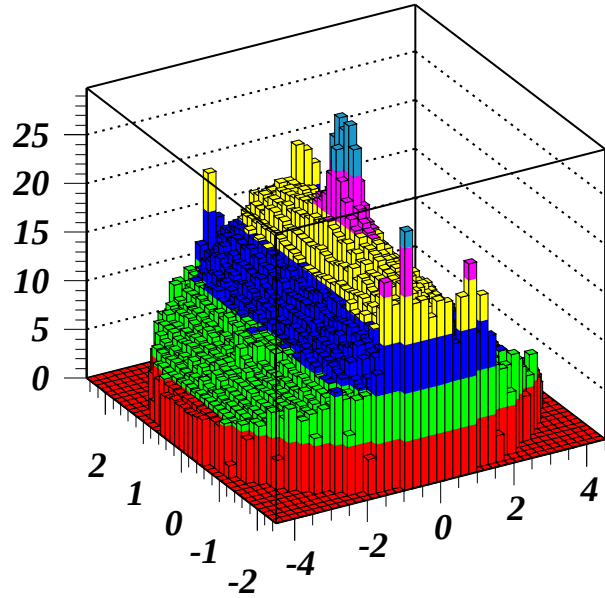
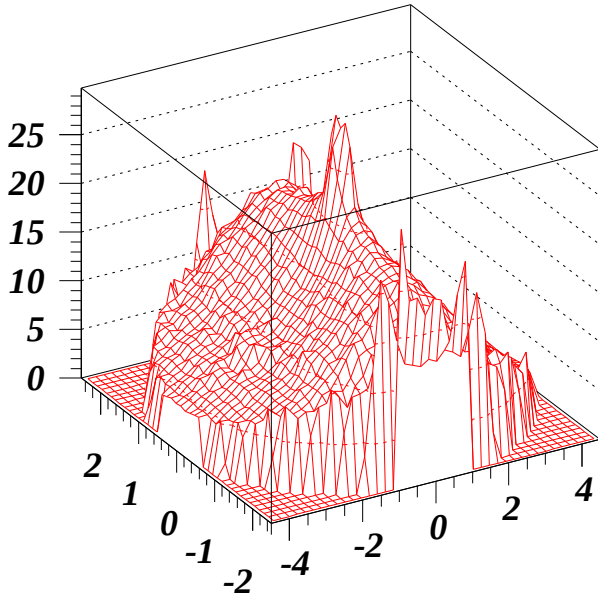
ECLOUD-CesrTA_5_3GeV: Cloud Density (e/m^3) Averaged Over 976.02 ns

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ECLOUD-CesrTA_5_3GeV: Cloud Density (e/m^3) Averaged Over 976.02 ns $\times 10^{10}$

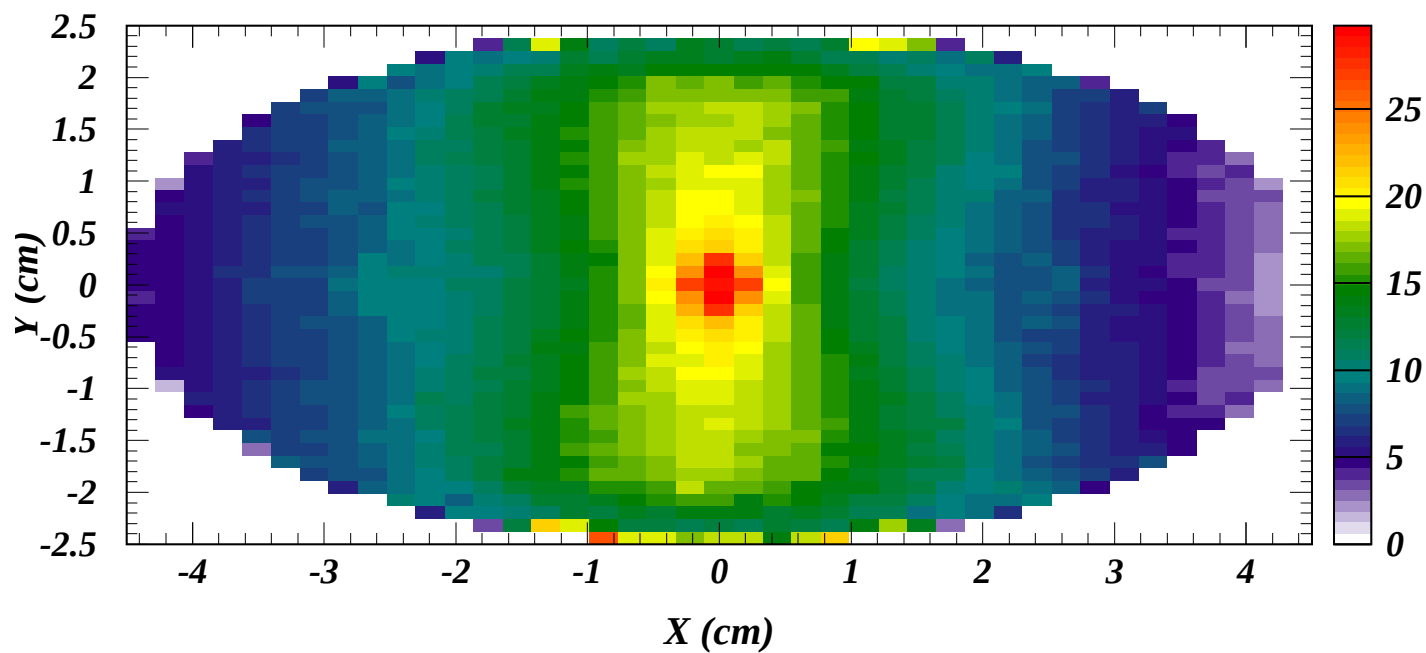


09/12/15 14.14

ECLLOUD-CesrTA_5_3GeV: Electron Energies (eV) Averaged Over 976.02 ns



09/12/15 14.14
ECLLOUD-CesrTA_5_3GeV: Electron Energies (eV) Averaged Over 976.02 ns



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