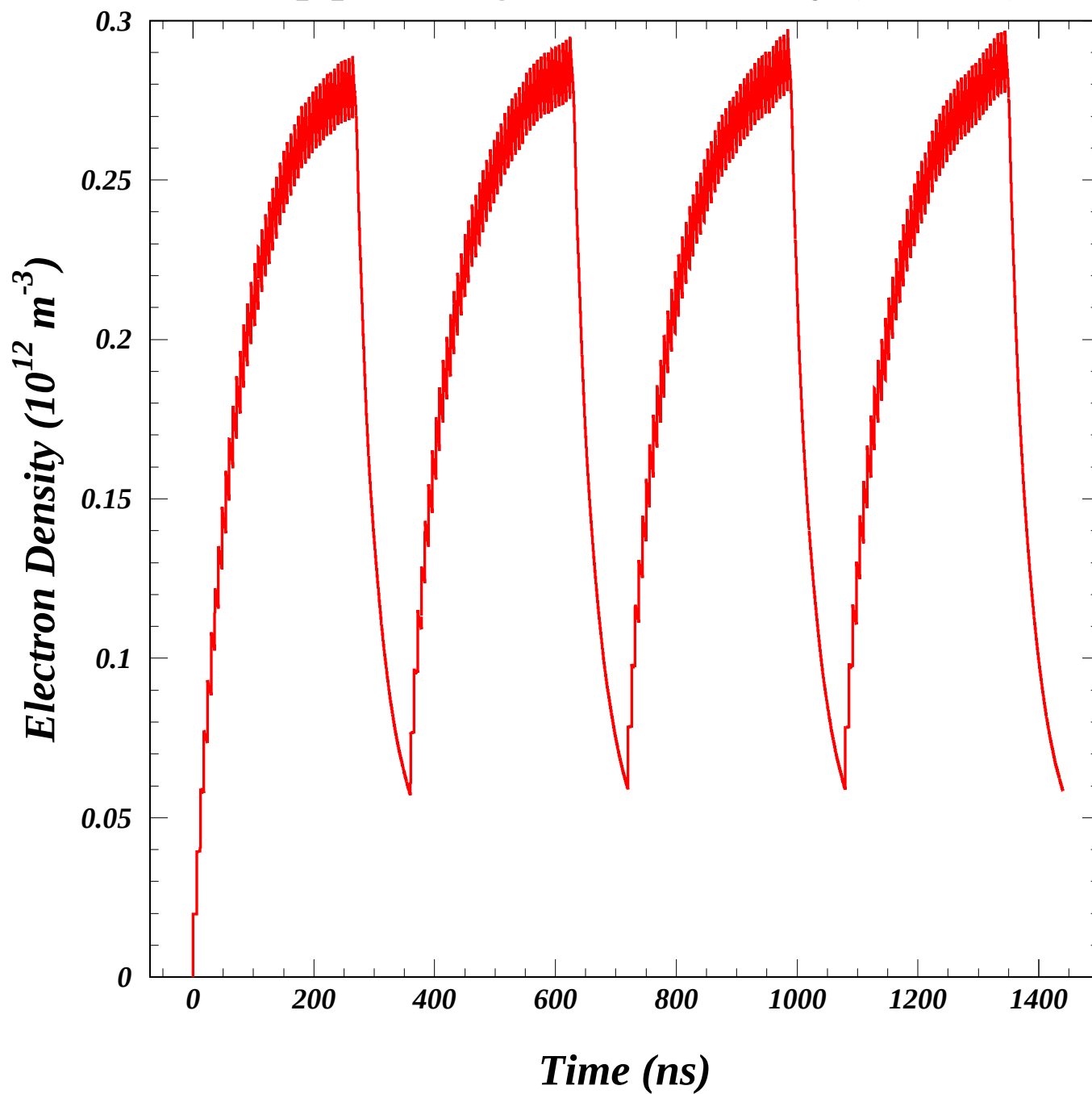
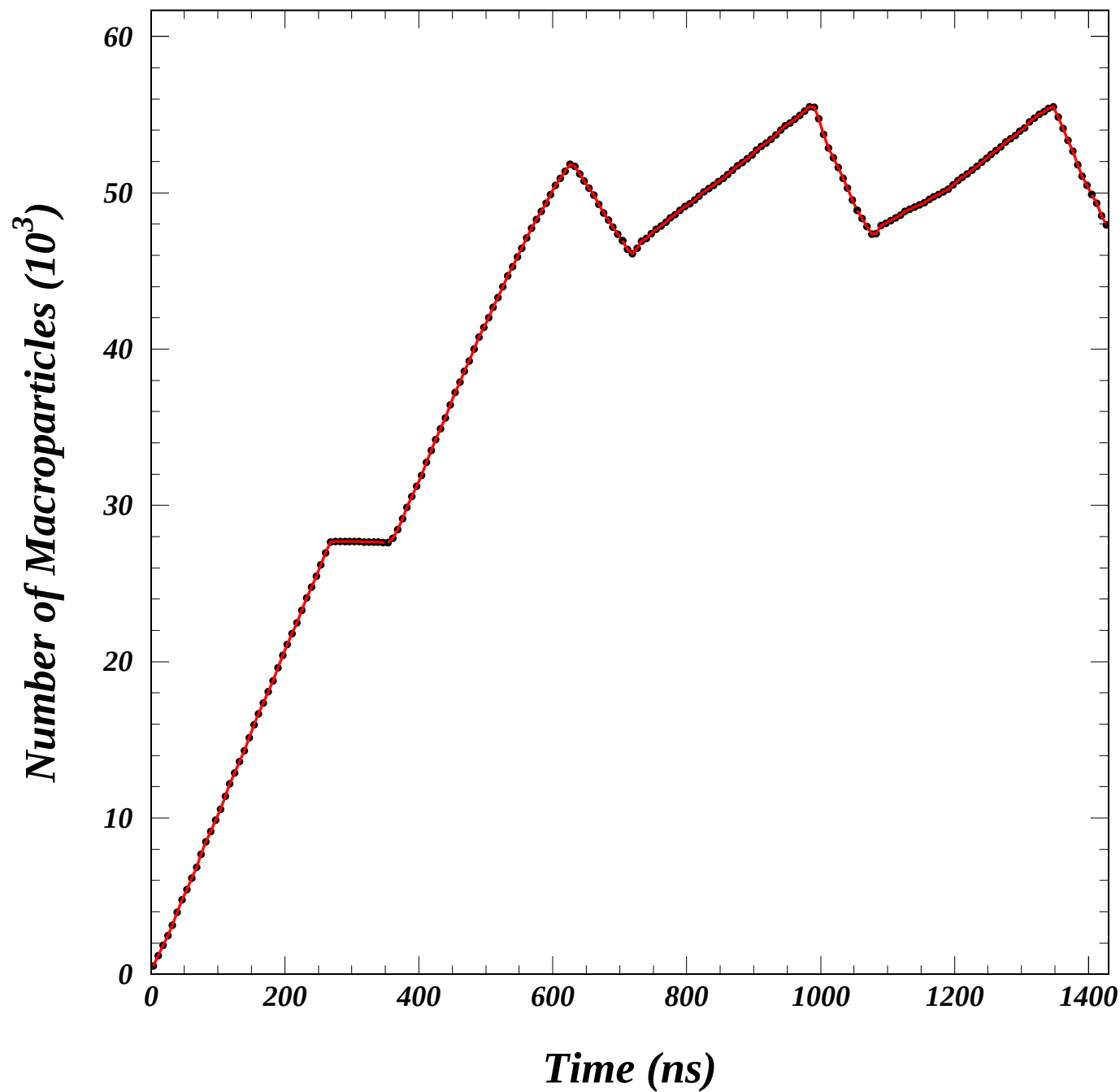
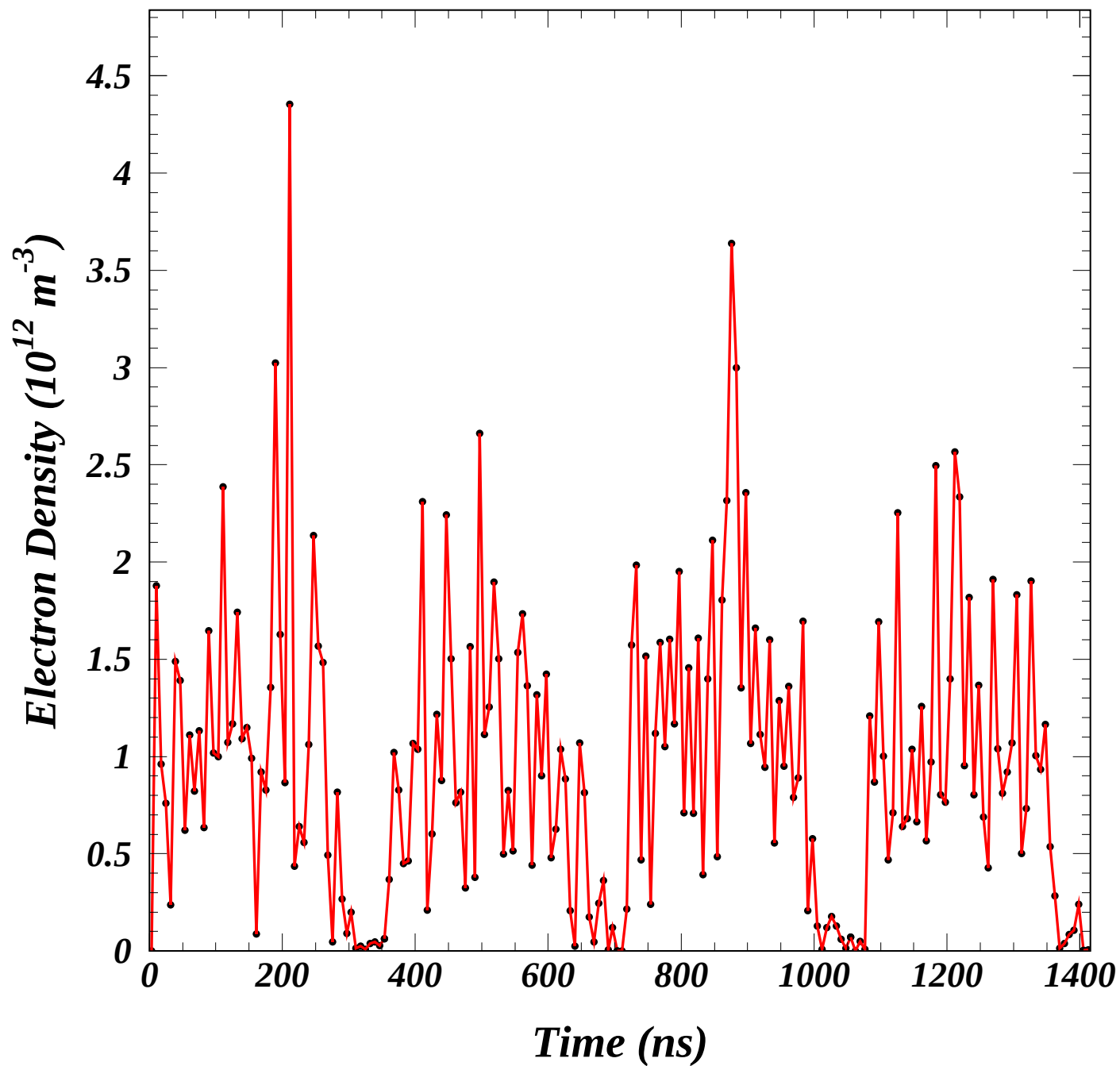


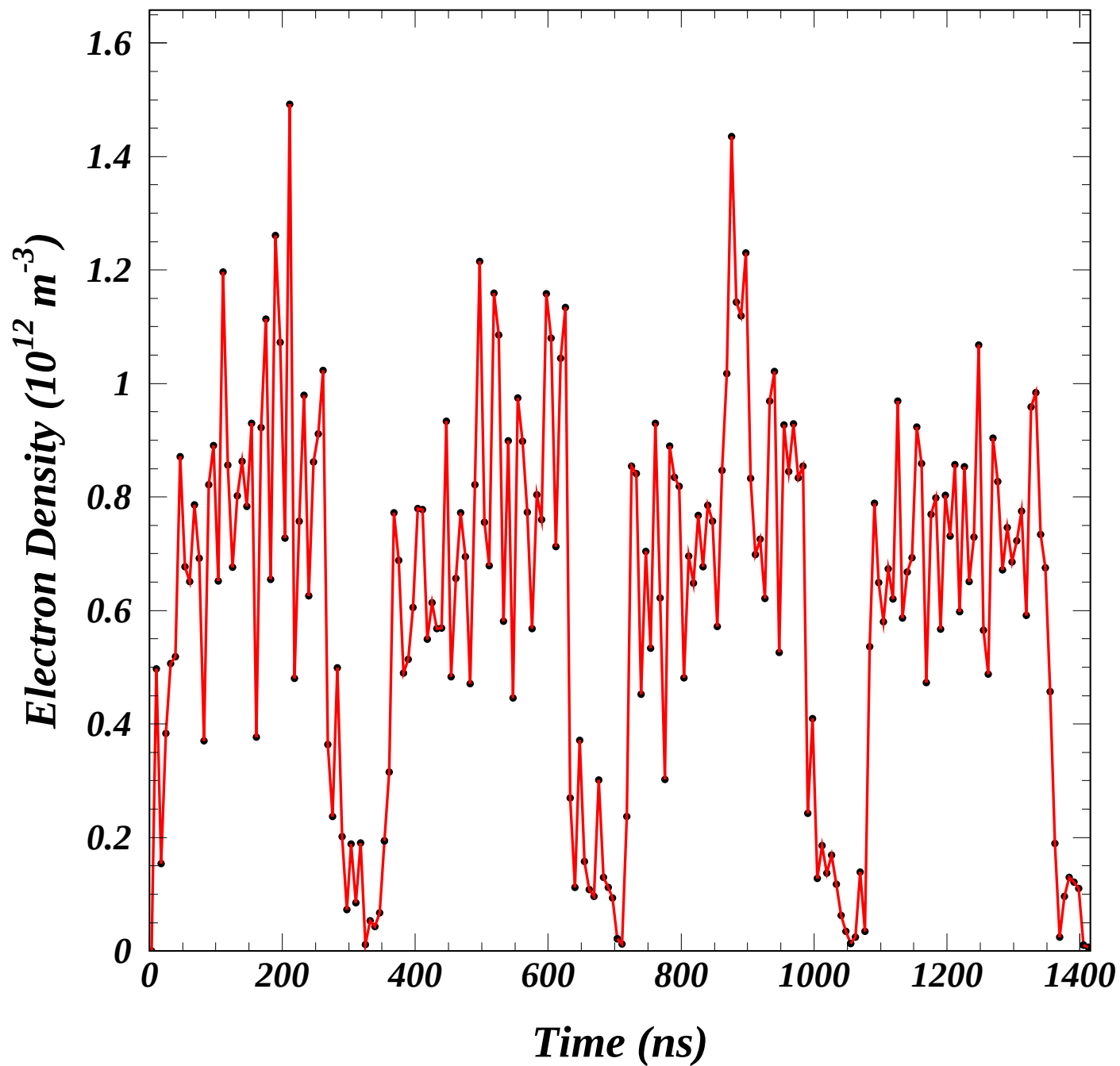
*Beampipe-averaged Cloud Density ( $10^{12} \text{ m}^{-3}$ )* 10/03/09 14.26



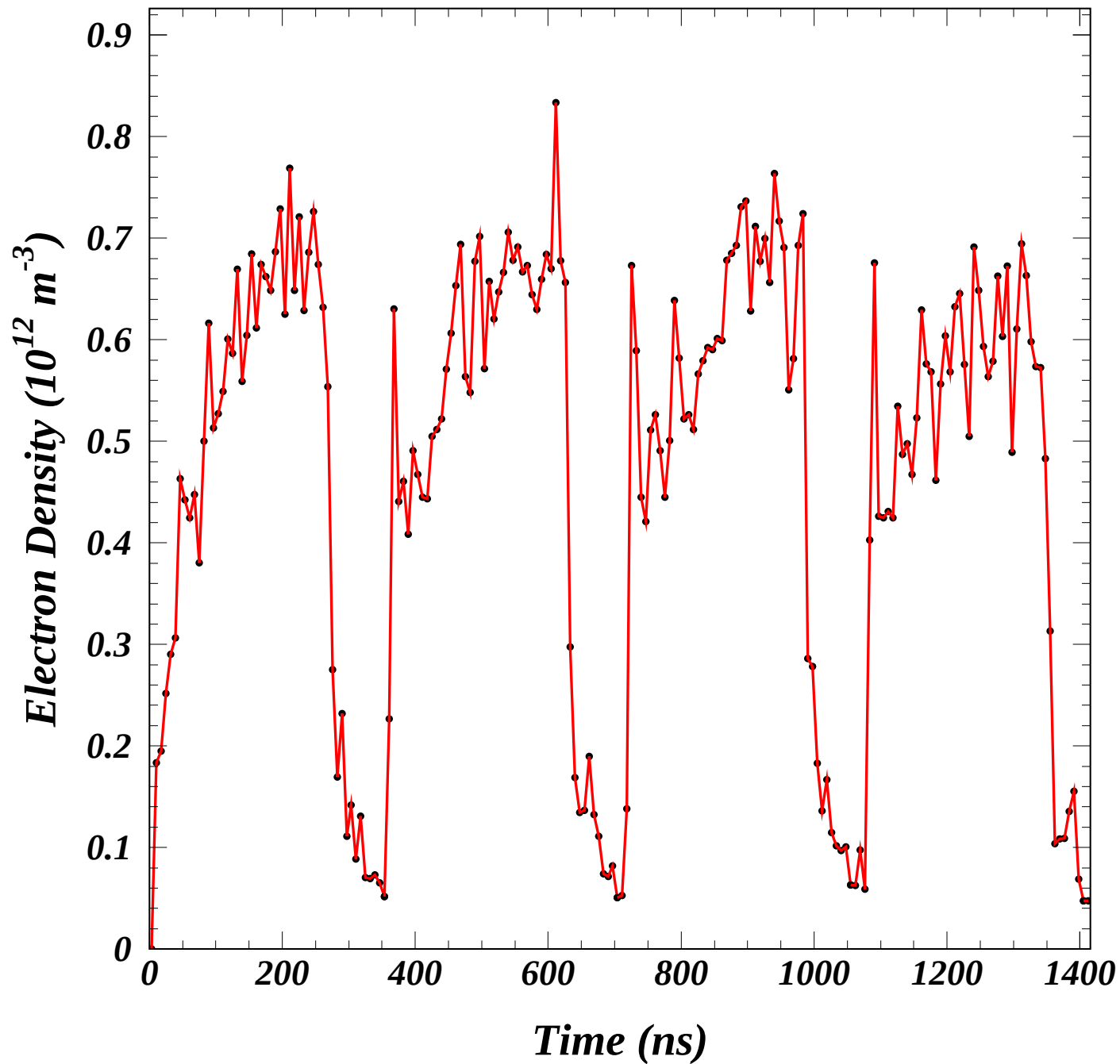
## *Macroparticle Statistics*



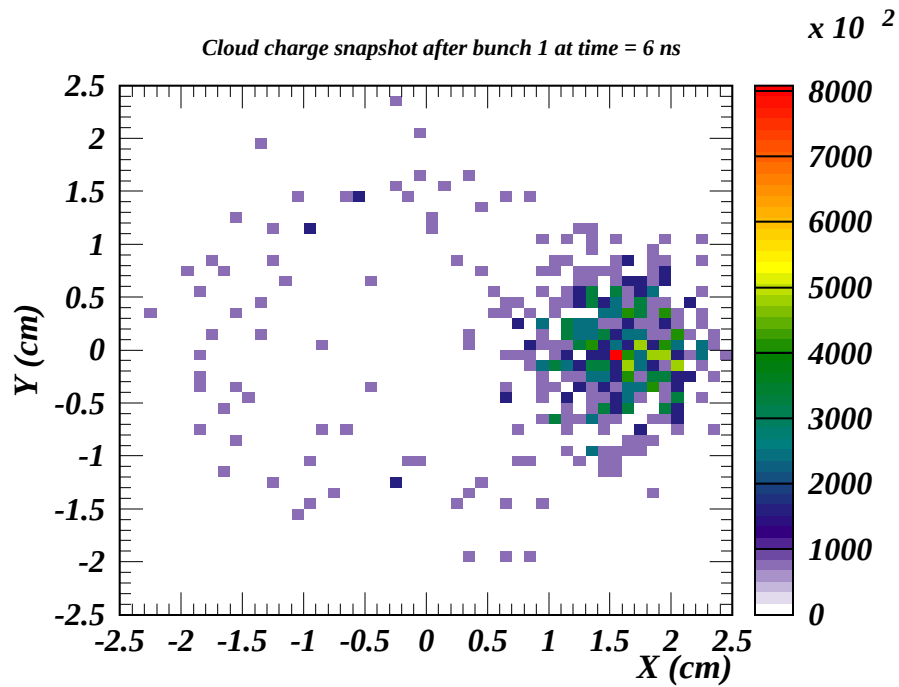
*Beam-averaged Cloud Density ( $10^{12} \text{ m}^{-3}$ )*

*5-Sigma Cloud Density at Center of Pipe ( $10^{12} \text{ m}^{-3}$ )*

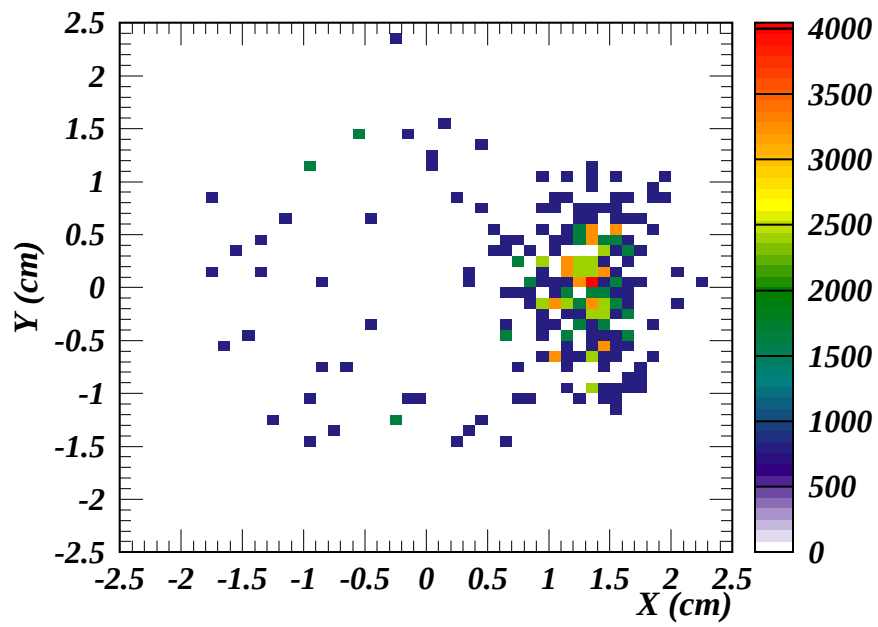
10/03/09 14.26  
*ECLOUD-DR20100308\_32\_dri: Cloud Density in Central Grid Cell ( $10^{12} \text{ m}^{-3}$ )*



10/03/09 14.26

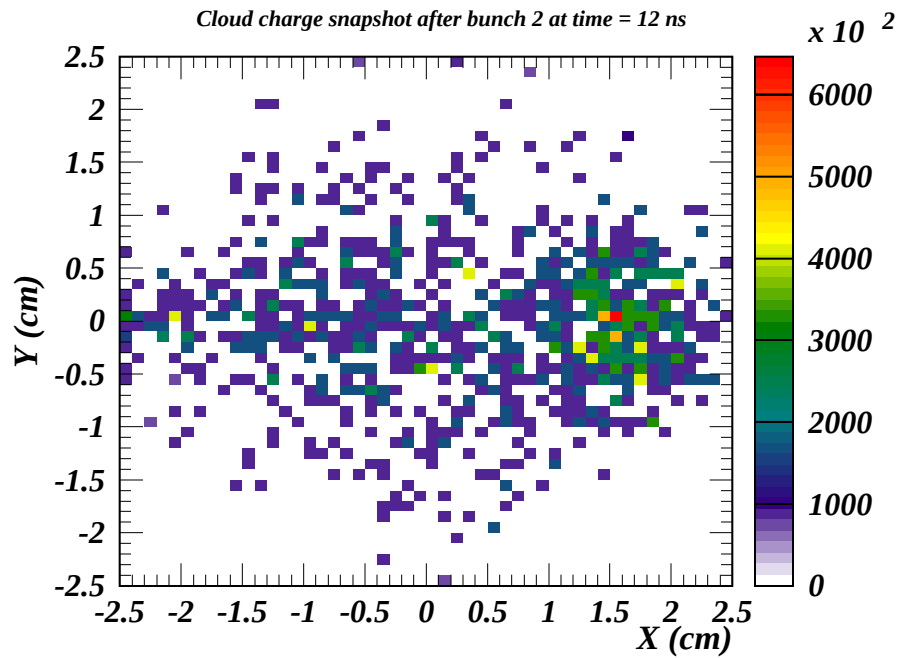


No energy cut: 494 macroparticles, 39939744 e-  $\times 10^{-2}$

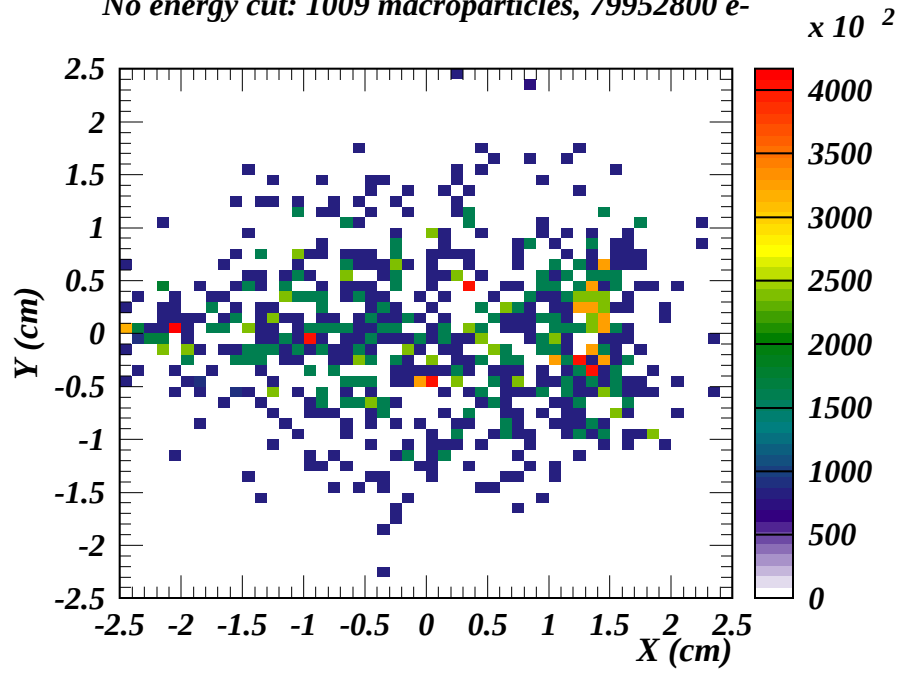


$E_{kin} > 10$  eV: 266 macroparticles, 21506100 e-

10/03/09 14.26

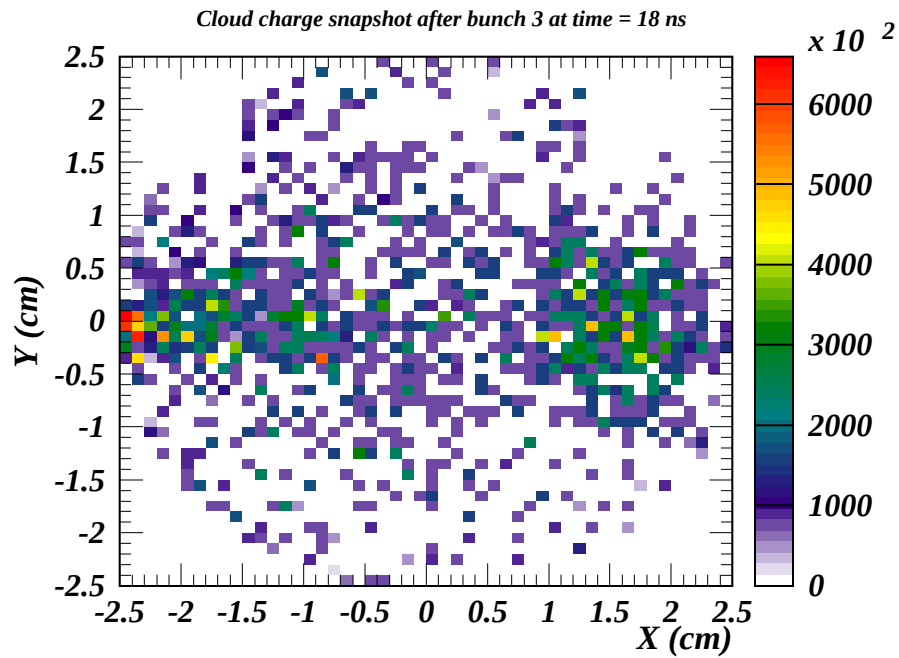


No energy cut: 1009 macroparticles, 79952800 e-

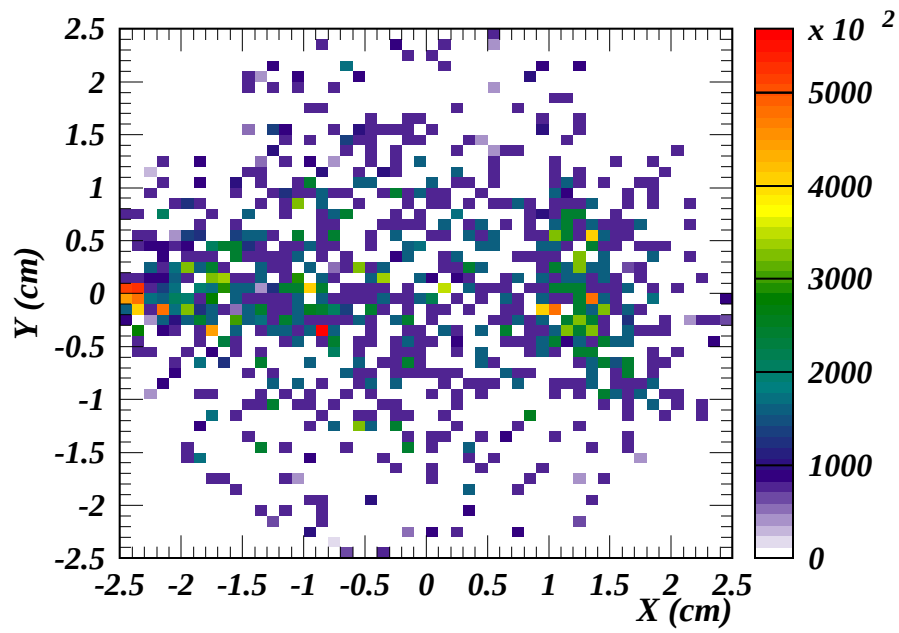


$E_{kin} > 10 \text{ eV}$ : 786 macroparticles, 62322656 e-

10/03/09 14.26

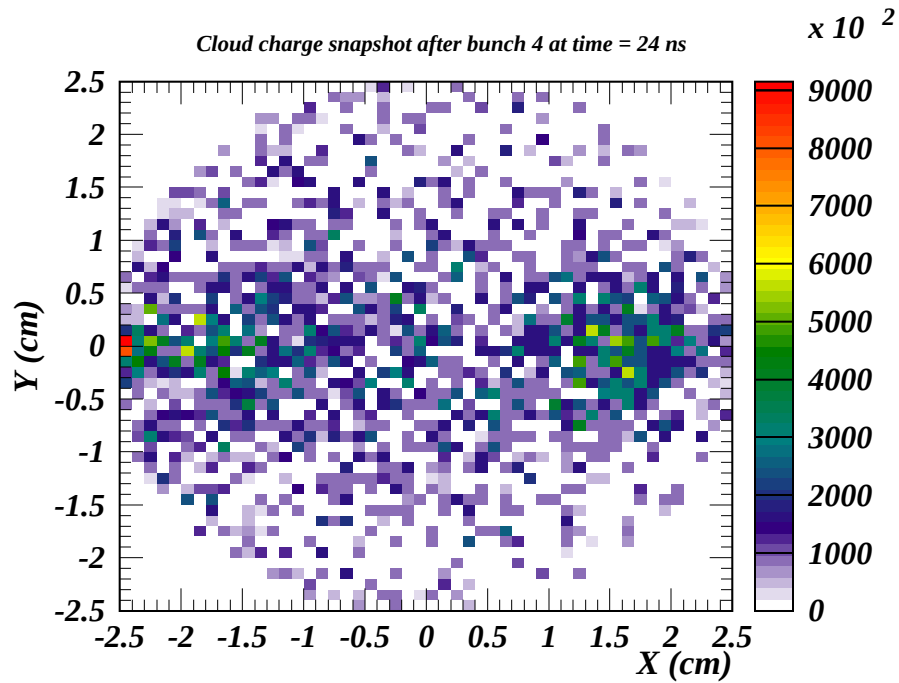


No energy cut: 1603 macroparticles, 116882216 e-

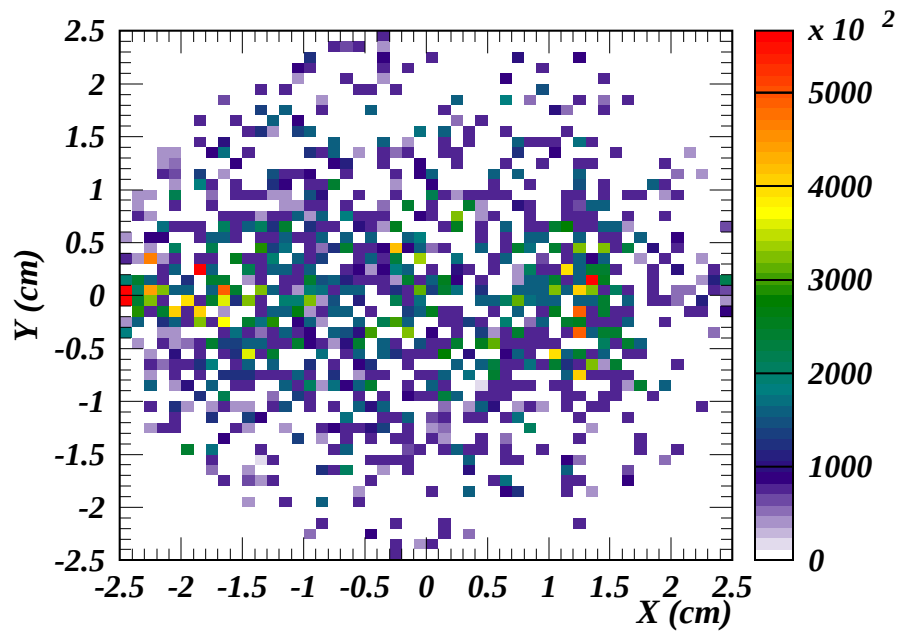


$E_{kin} > 10 \text{ eV}$ : 1211 macroparticles, 89832048 e-

10/03/09 14.26

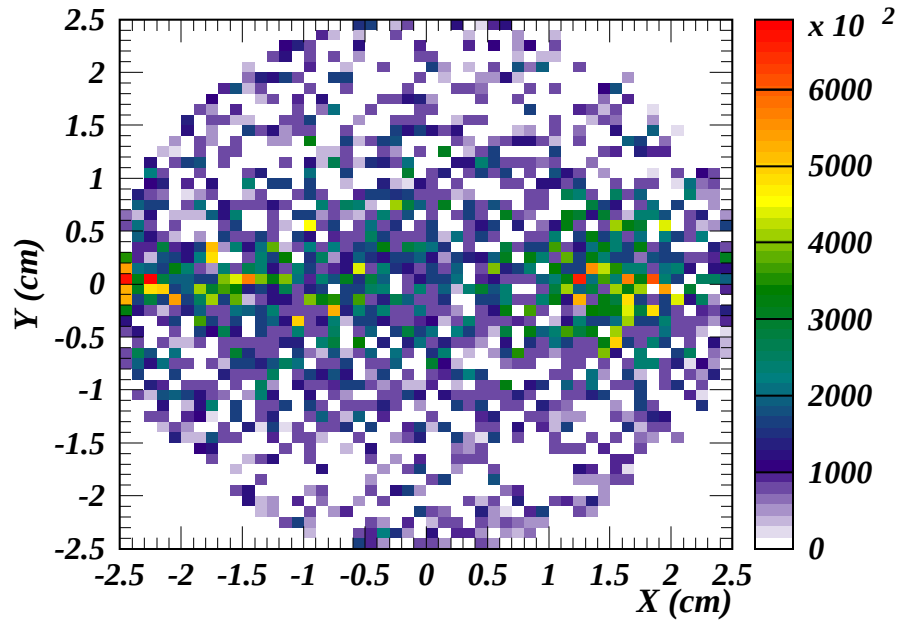


No energy cut: 2180 macroparticles, 148889760 e-

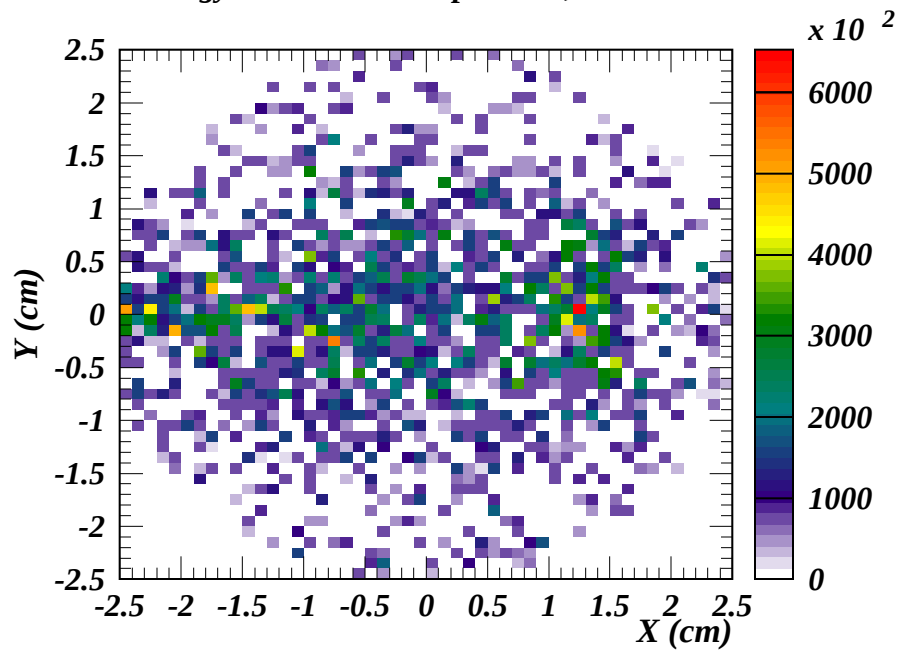


$E_{kin} > 10$  eV: 1572 macroparticles, 107411440 e-

Cloud charge snapshot after bunch 5 at time = 30 ns



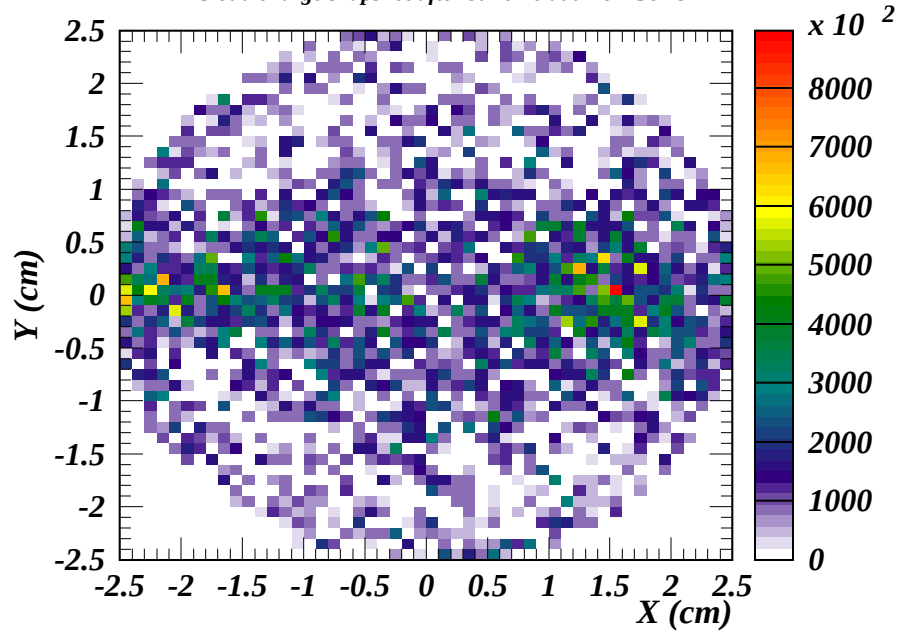
No energy cut: 2758 macroparticles, 179345264 e-



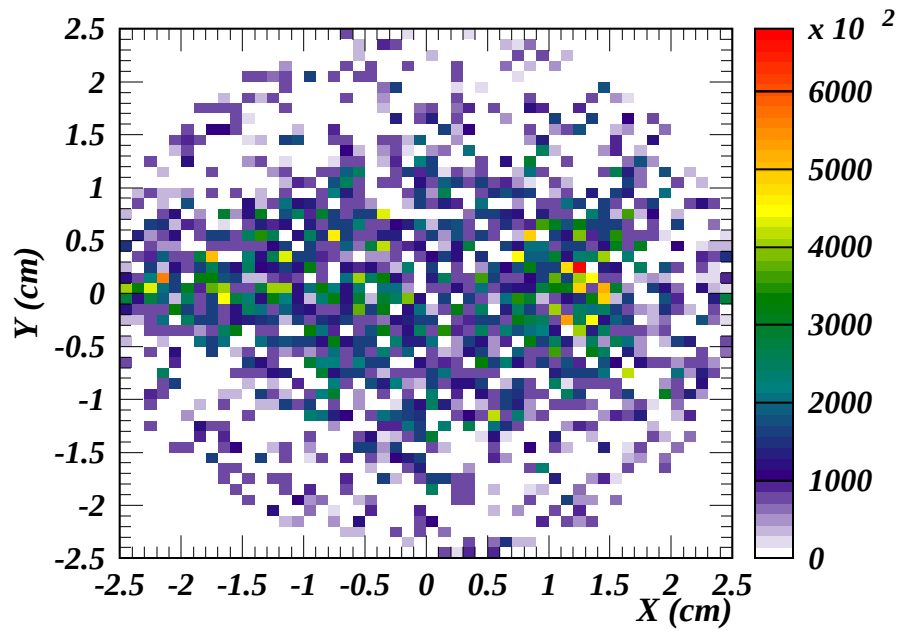
$E_{kin} > 10$  eV: 1987 macroparticles, 129889304 e-

10/03/09 14.26

Cloud charge snapshot after bunch 6 at time = 36 ns

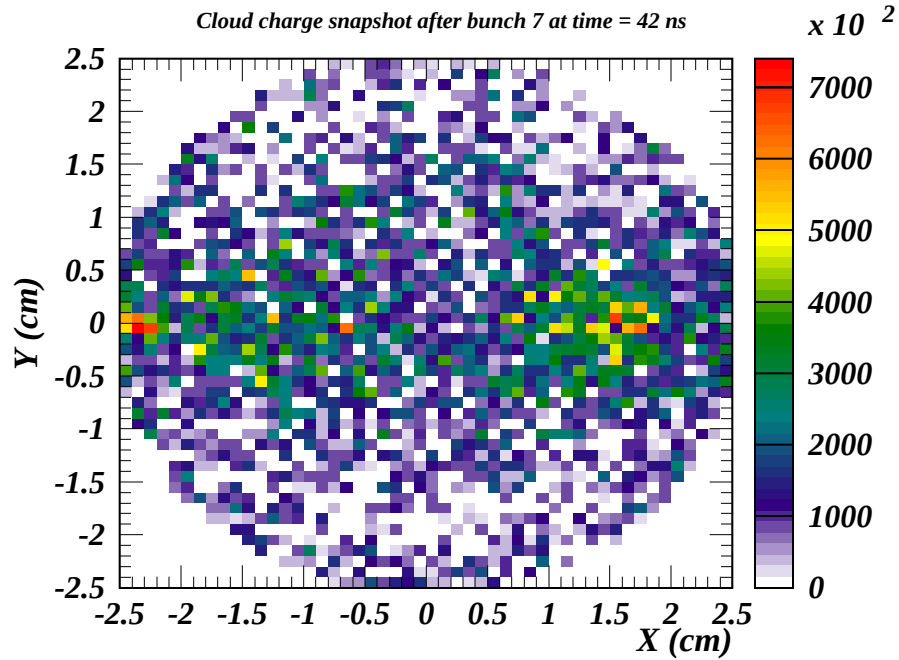


No energy cut: 3370 macroparticles, 207735760 e-

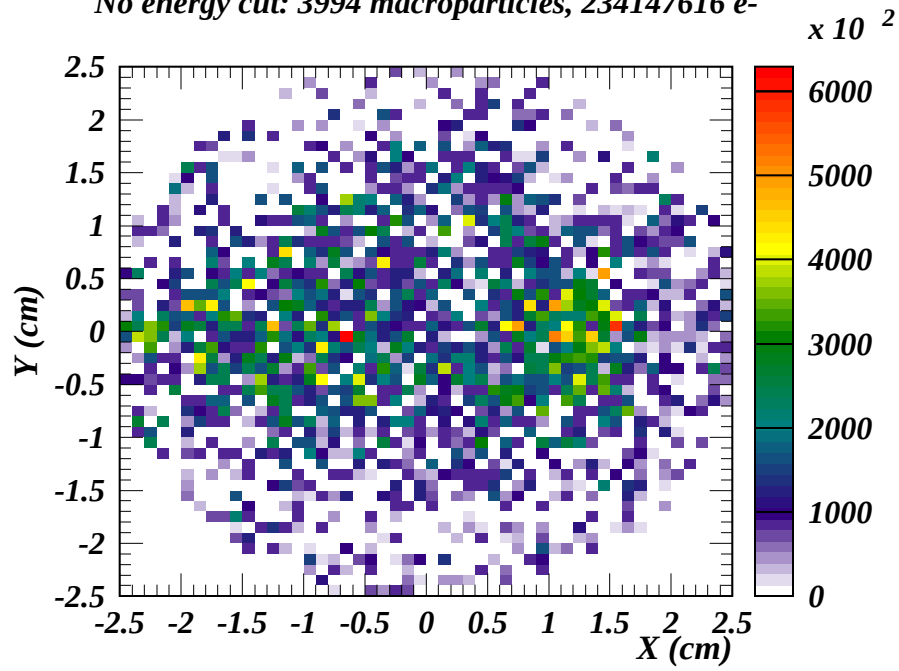


$E_{kin} > 10$  eV: 2347 macroparticles, 147126144 e-

10/03/09 14.26



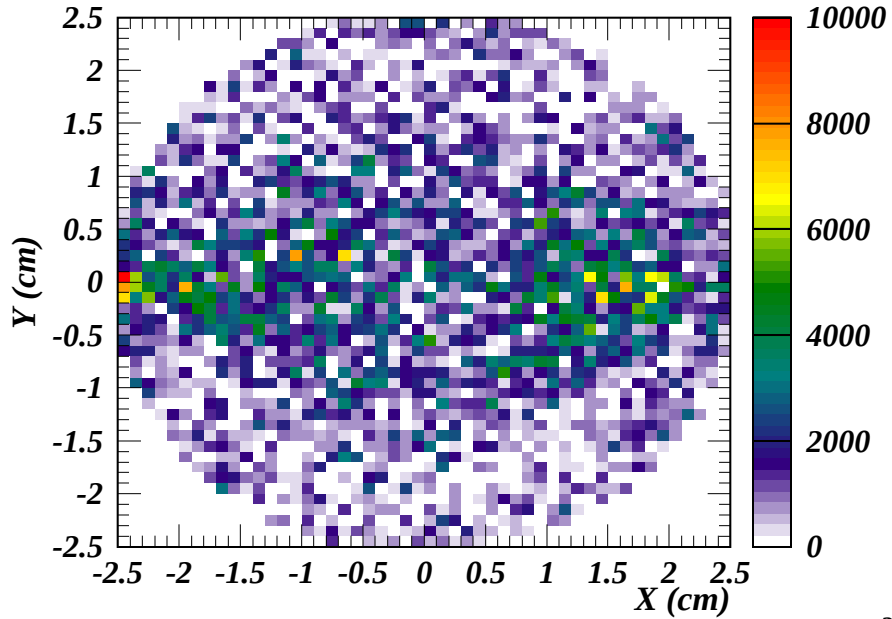
No energy cut: 3994 macroparticles, 234147616 e-



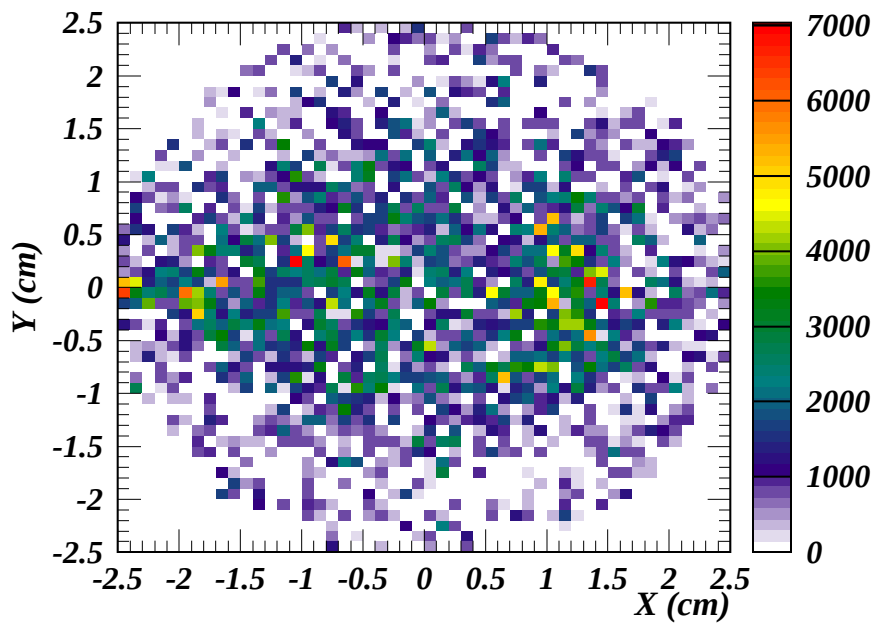
$E_{kin} > 10$  eV: 2737 macroparticles, 163573072 e-

10/03/09 14.26  
 $\times 10^{-2}$

Cloud charge snapshot after bunch 8 at time = 48 ns

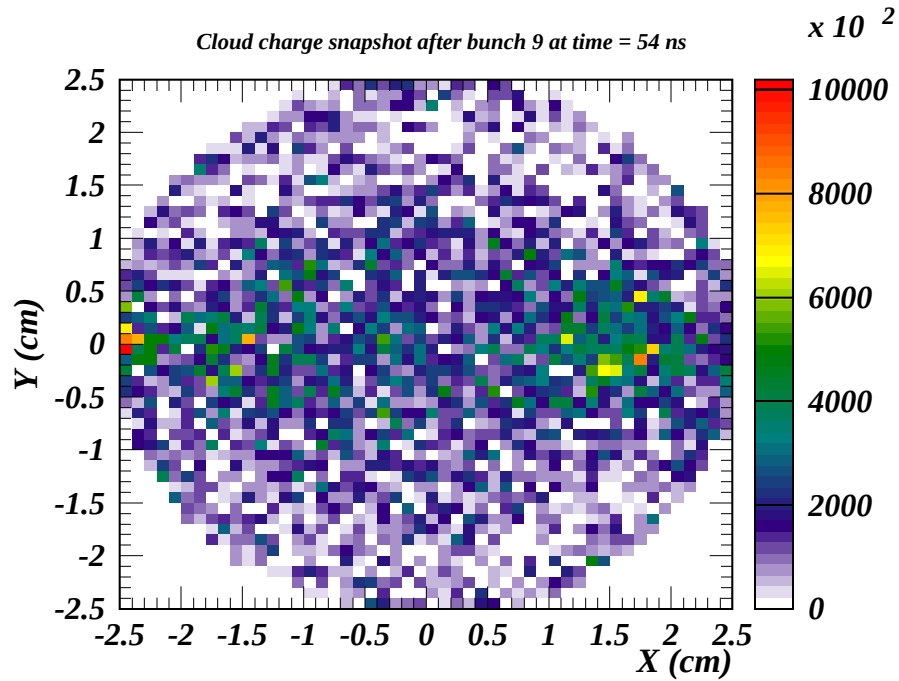


No energy cut: 4603 macroparticles, 259451840  $e^-$   $\times 10^{-2}$

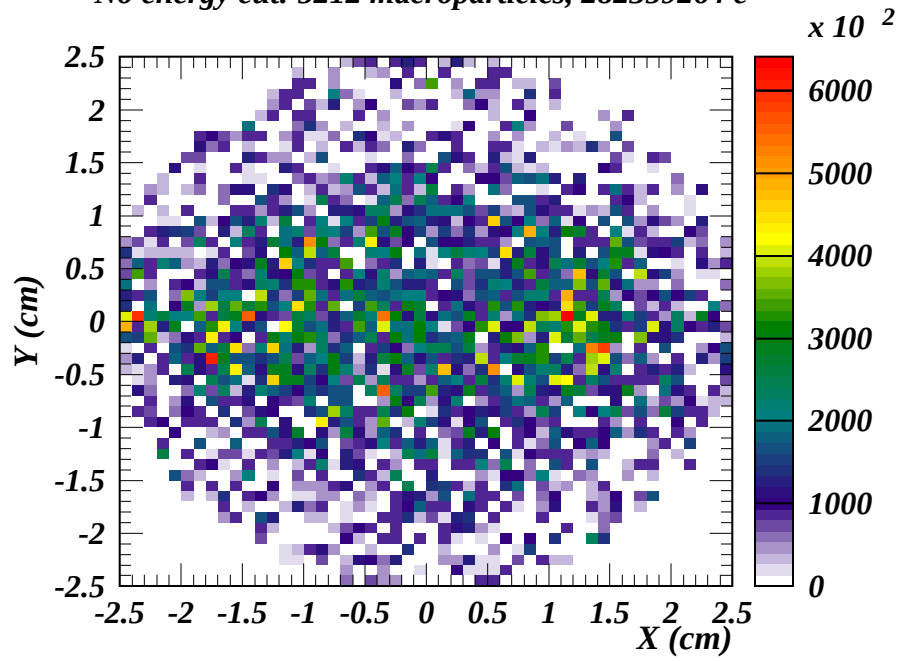


$E_{kin} > 10$  eV: 3246 macroparticles, 184290480  $e^-$

10/03/09 14.26

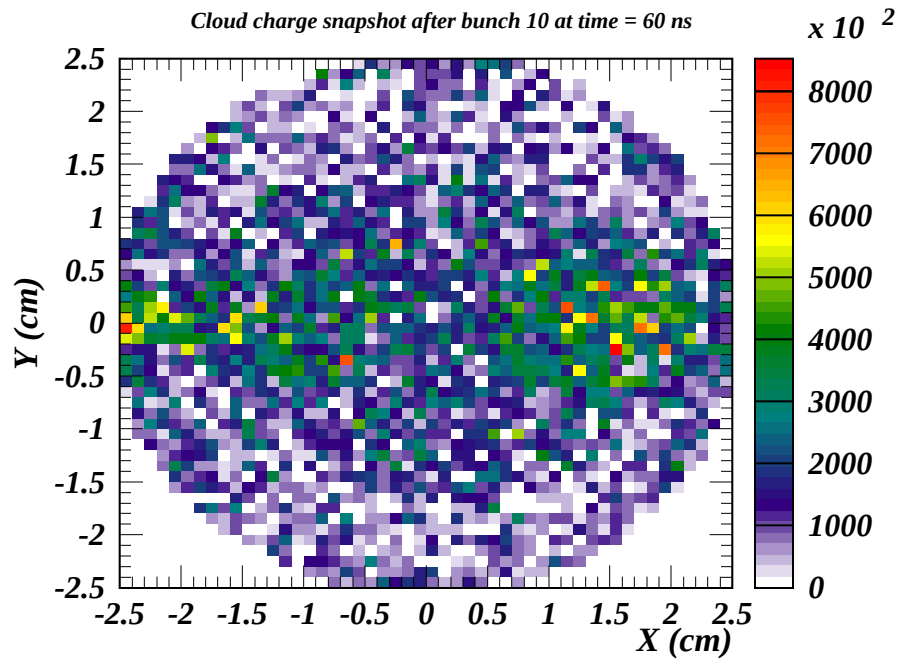


No energy cut: 5212 macroparticles, 282359264 e-

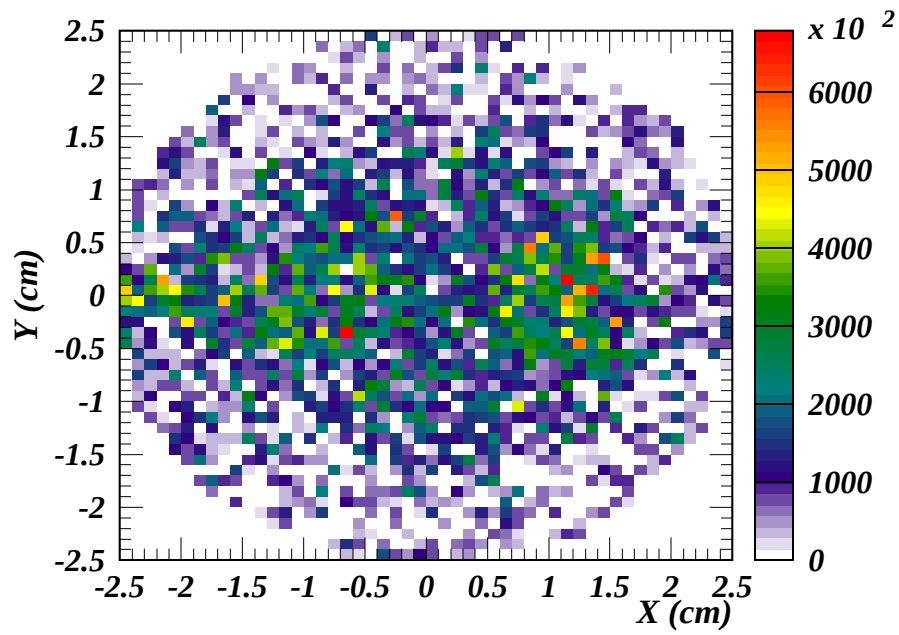


$E_{kin} > 10$  eV: 3603 macroparticles, 196816080 e-

10/03/09 14.26

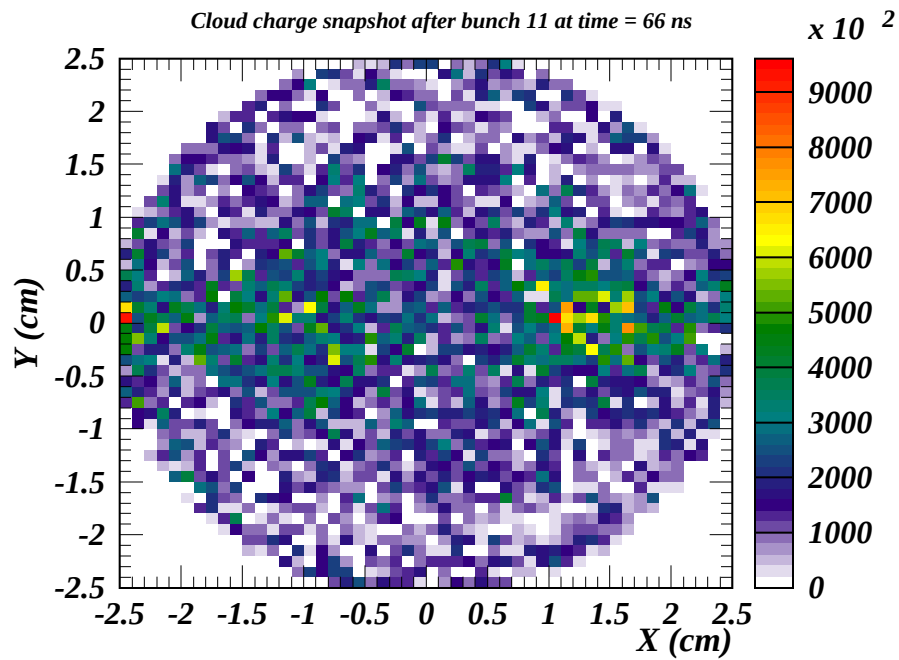


No energy cut: 5848 macroparticles, 303434048 e-

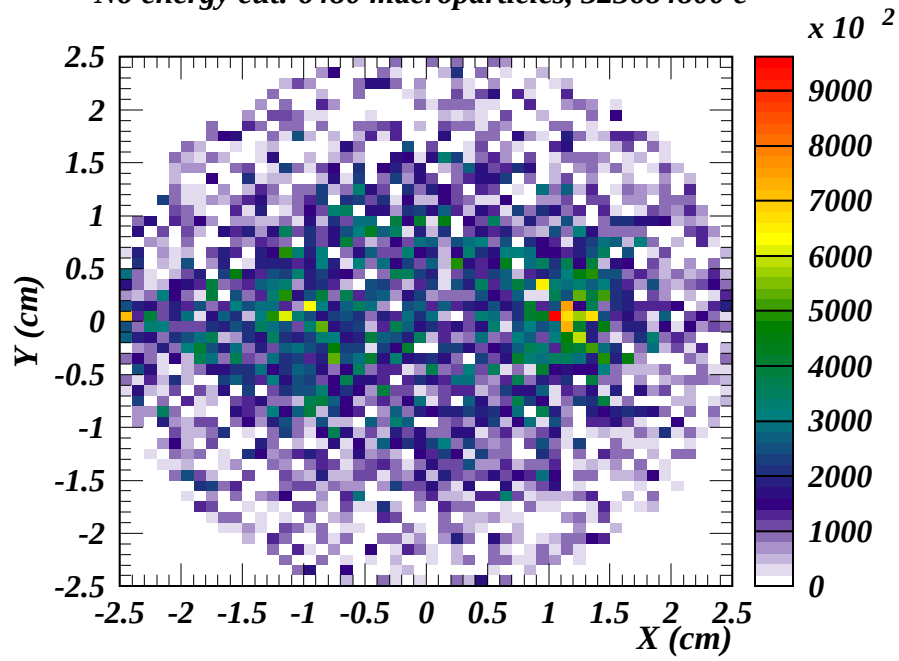


$E_{kin} > 10$  eV: 4069 macroparticles, 212936624 e-

10/03/09 14.26

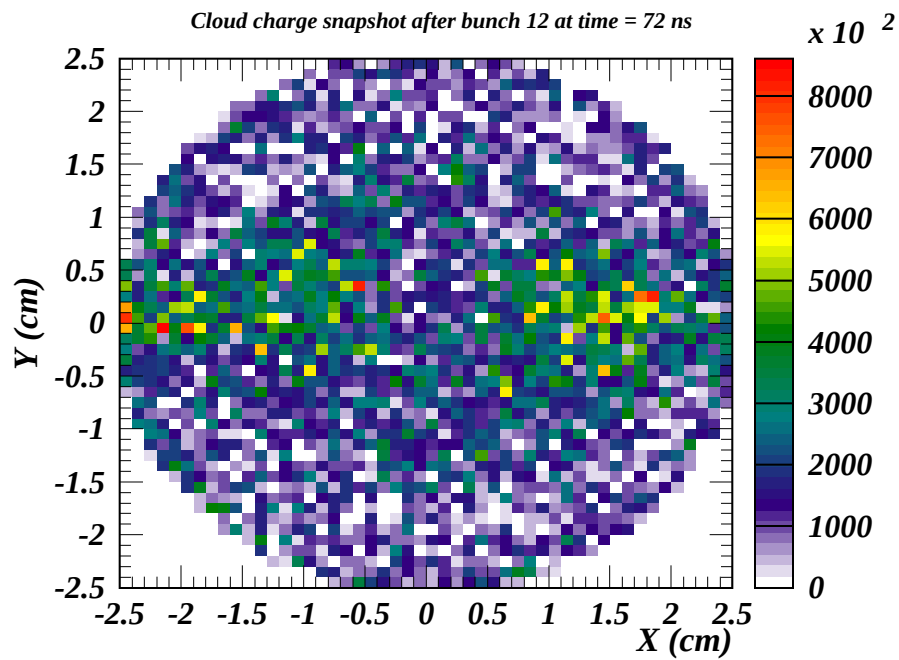


No energy cut: 6480 macroparticles, 323684800 e-

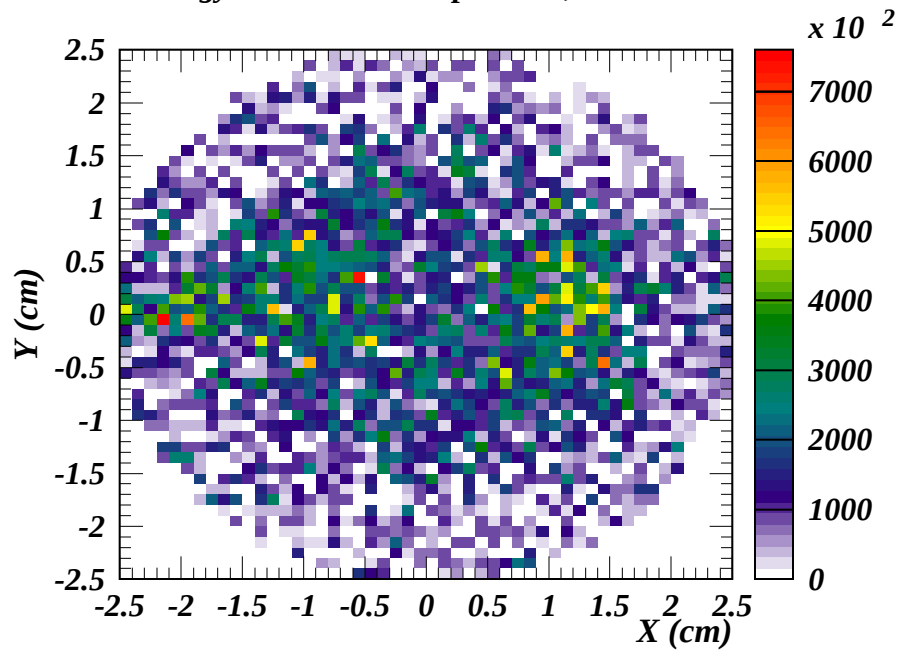


$E_{kin} > 10$  eV: 4566 macroparticles, 229885680 e-

10/03/09 14.26

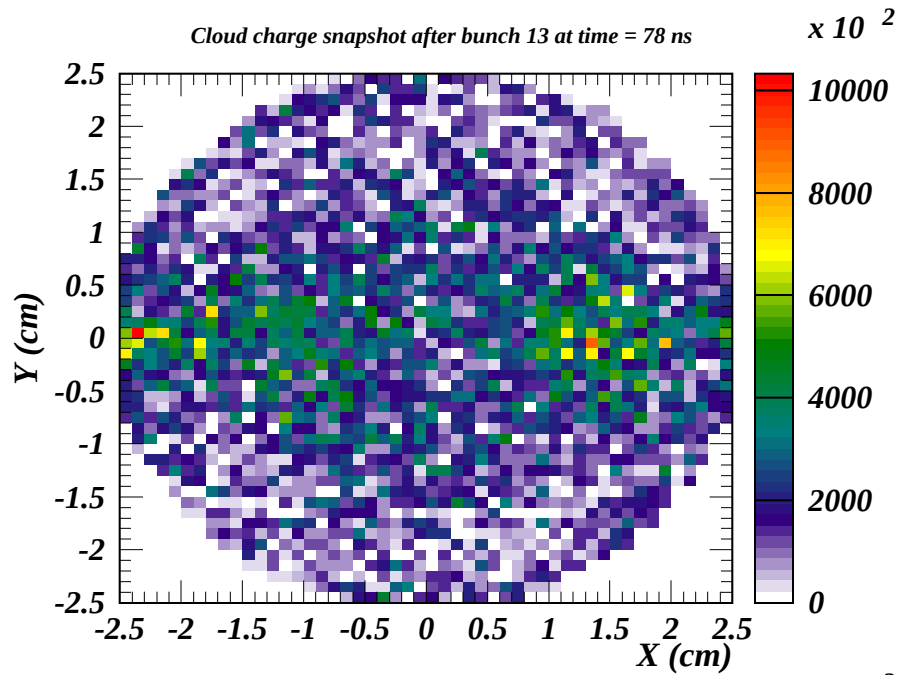


No energy cut: 7112 macroparticles, 342335296 e-

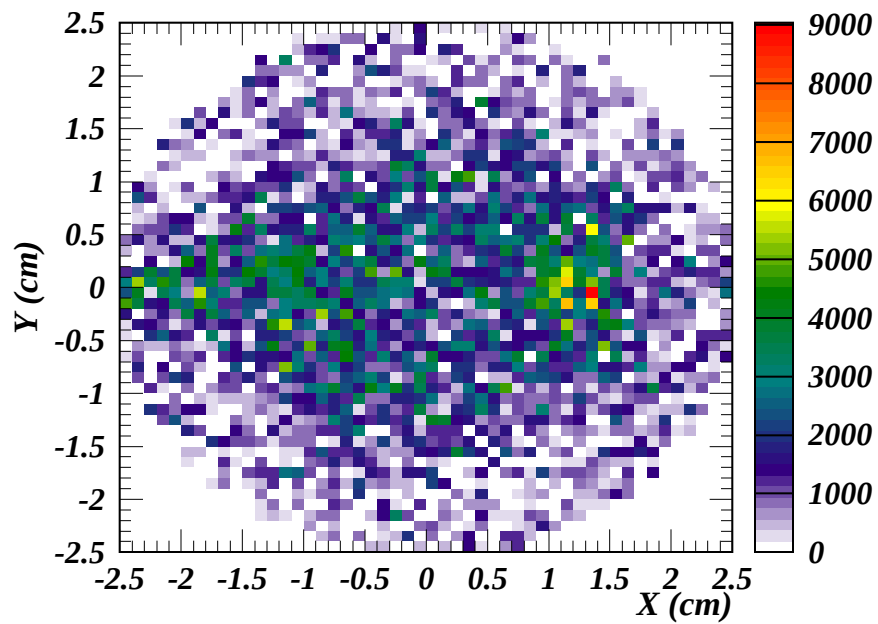


$E_{kin} > 10$  eV: 4915 macroparticles, 238709488 e-

10/03/09 14.26

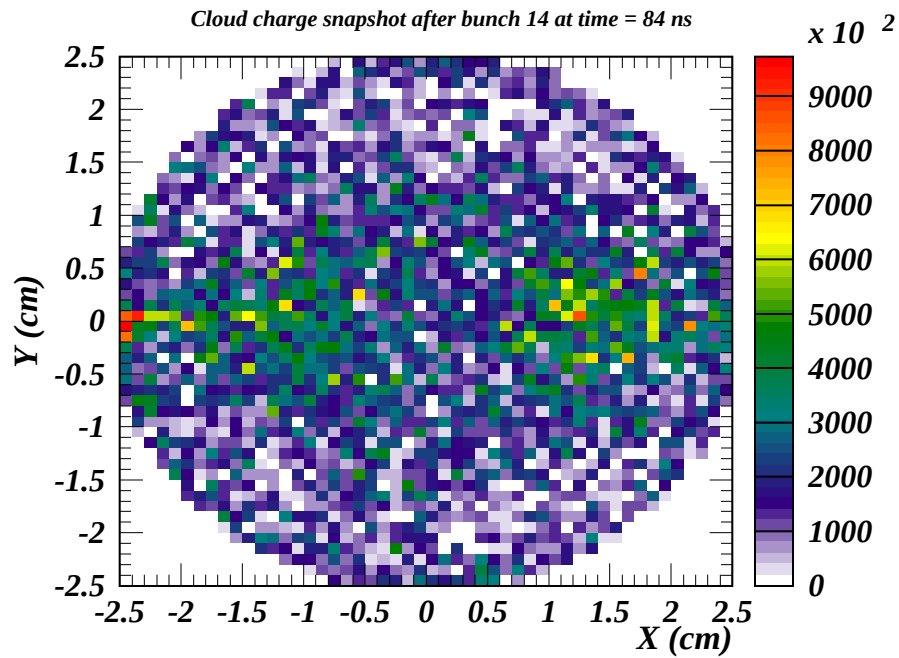


No energy cut: 7721 macroparticles, 358463200  $e^-$   $\times 10^{-2}$

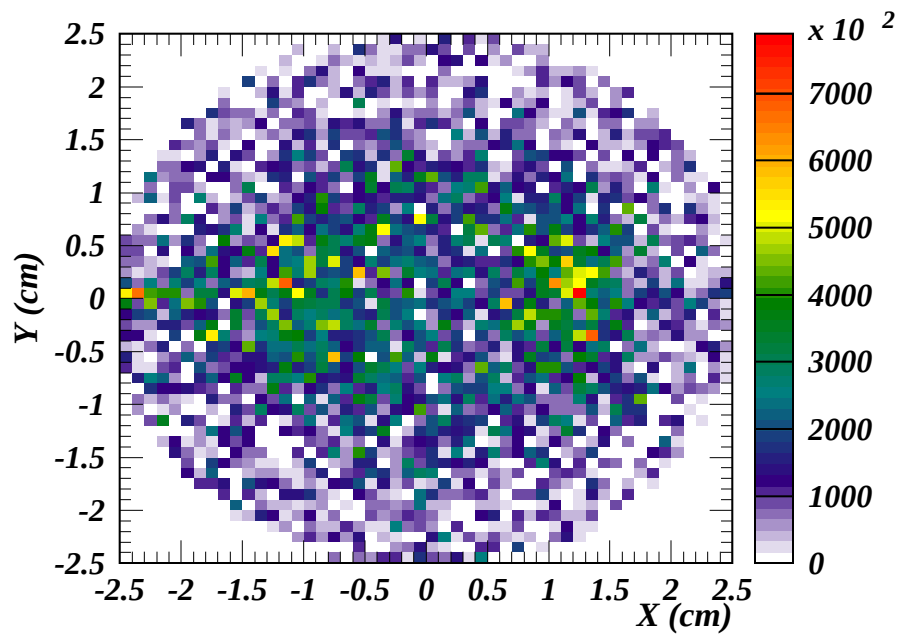


$E_{kin} > 10$  eV: 5399 macroparticles, 252984128  $e^-$

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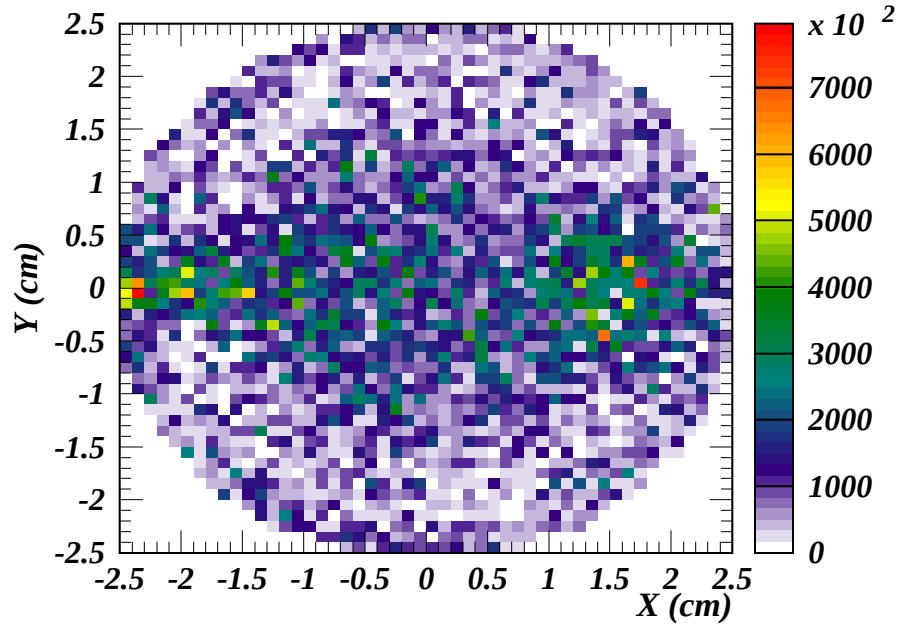
No energy cut: 8340 macroparticles, 374816448 e-



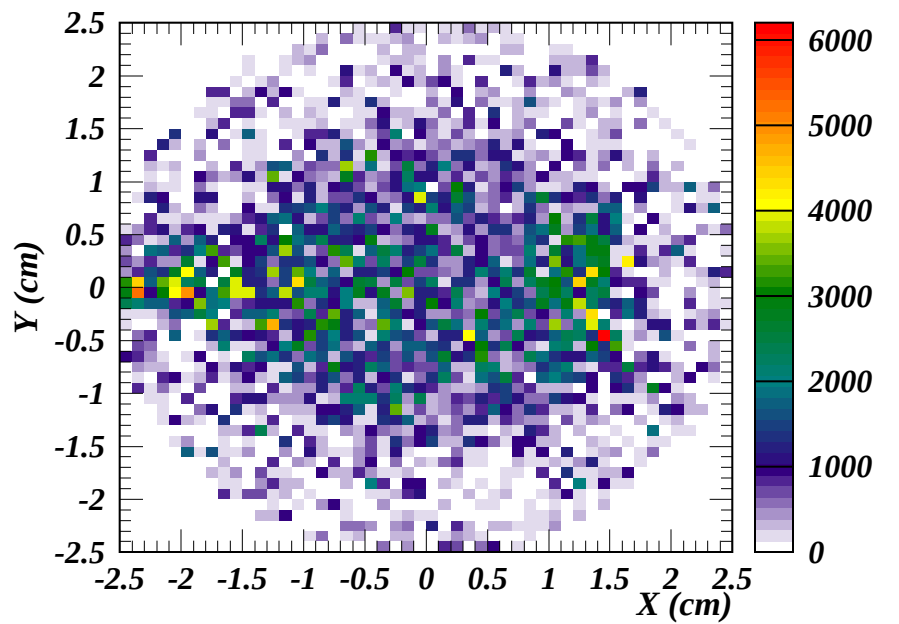
$E_{kin} > 10 \text{ eV}$ : 5799 macroparticles, 261447584 e-

10/03/09 14.26

Cloud charge snapshot after bunch 183 at time = 1098 ns

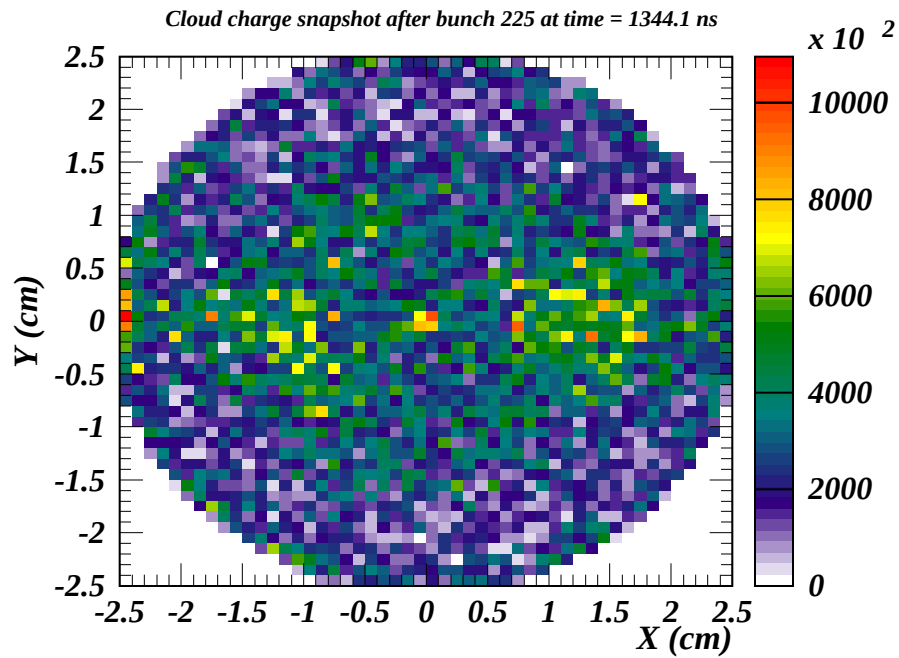


No energy cut: 48190 macroparticles, 224547760 e-

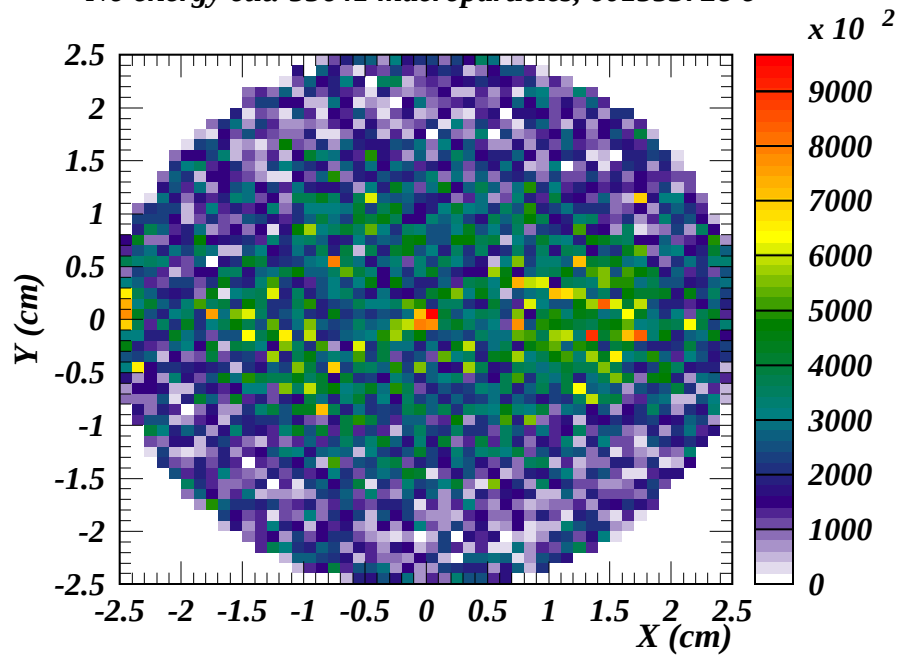


$E_{kin} > 10$  eV: 30239 macroparticles, 152280576 e-

10/03/09 14.26

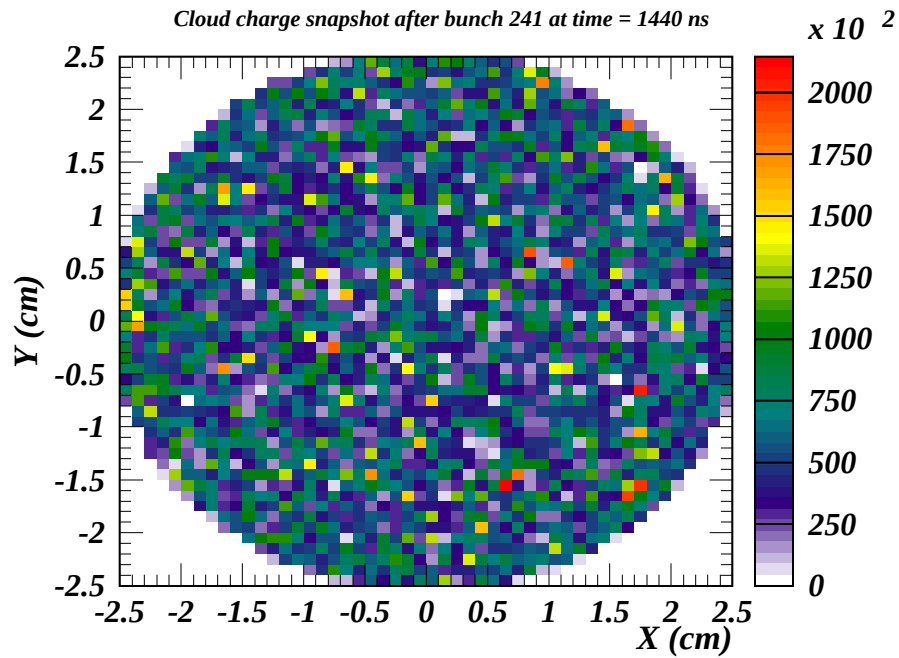


No energy cut: 55641 macroparticles, 601553728 e-

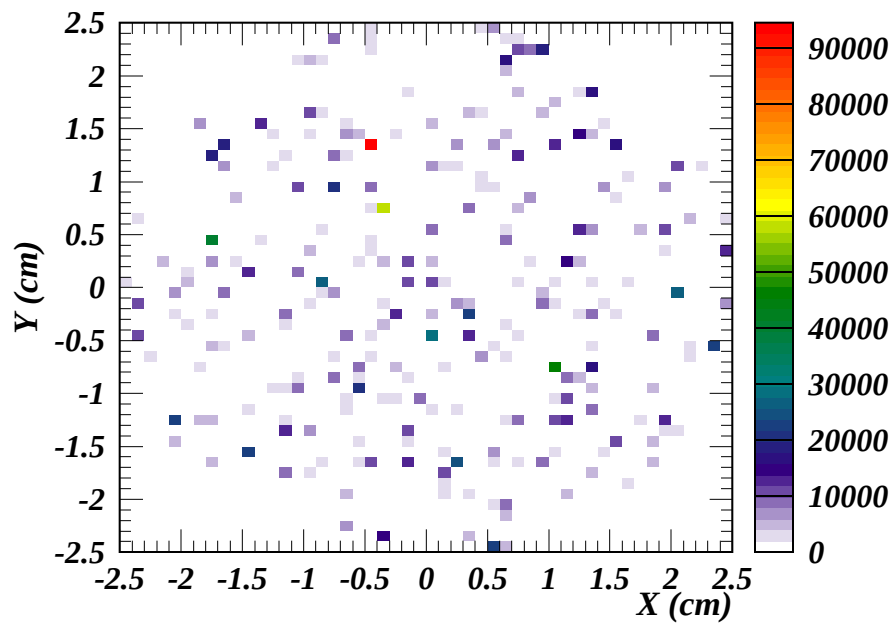


$E_{kin} > 10$  eV: 46756 macroparticles, 494376576 e-

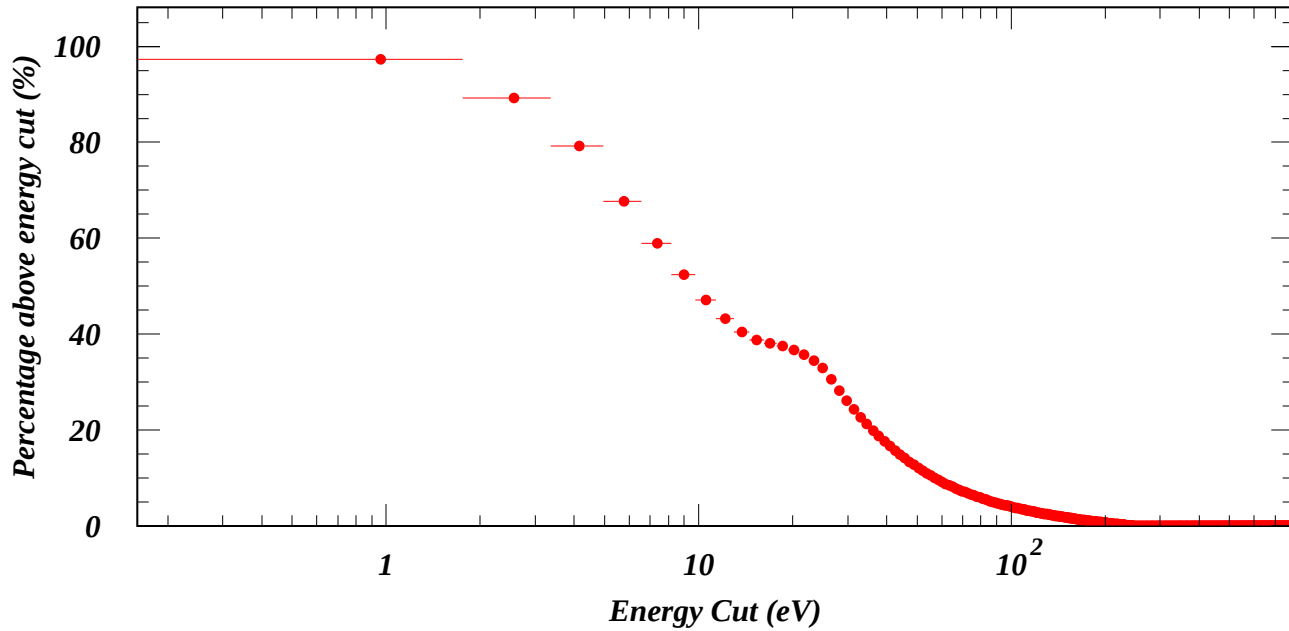
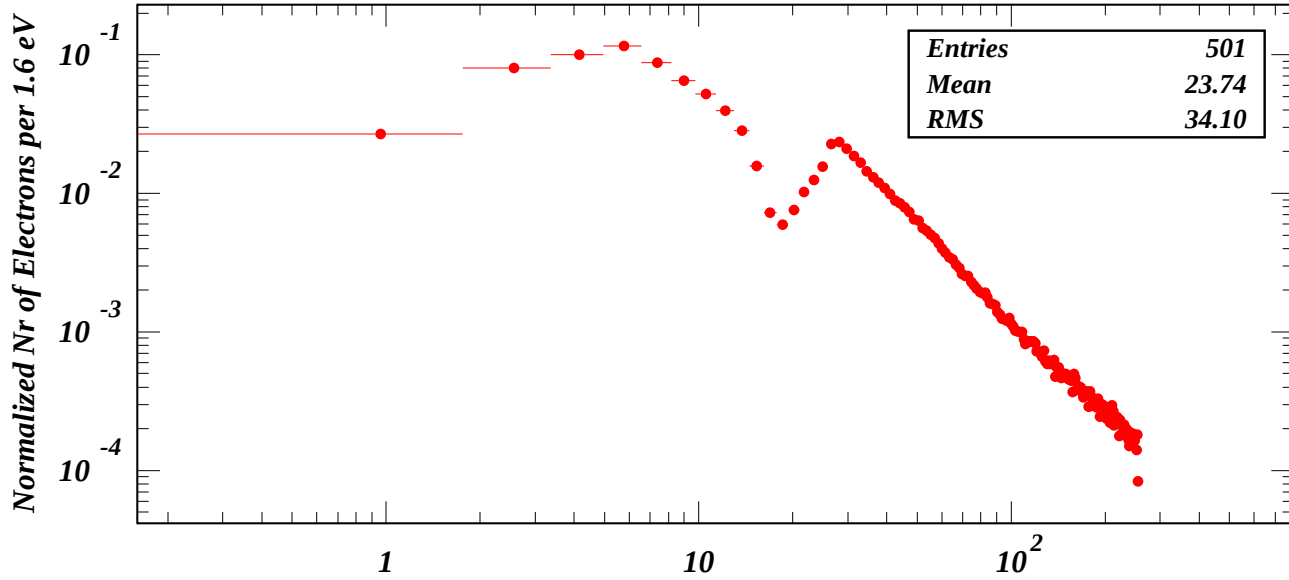
10/03/09 14.26

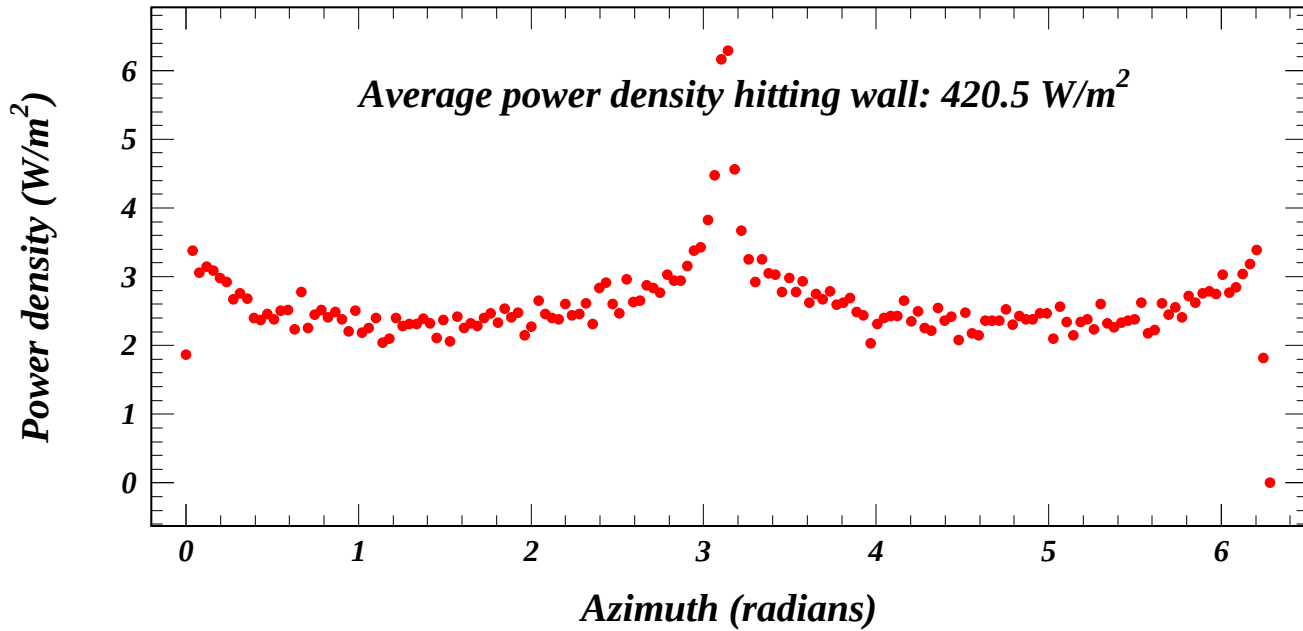
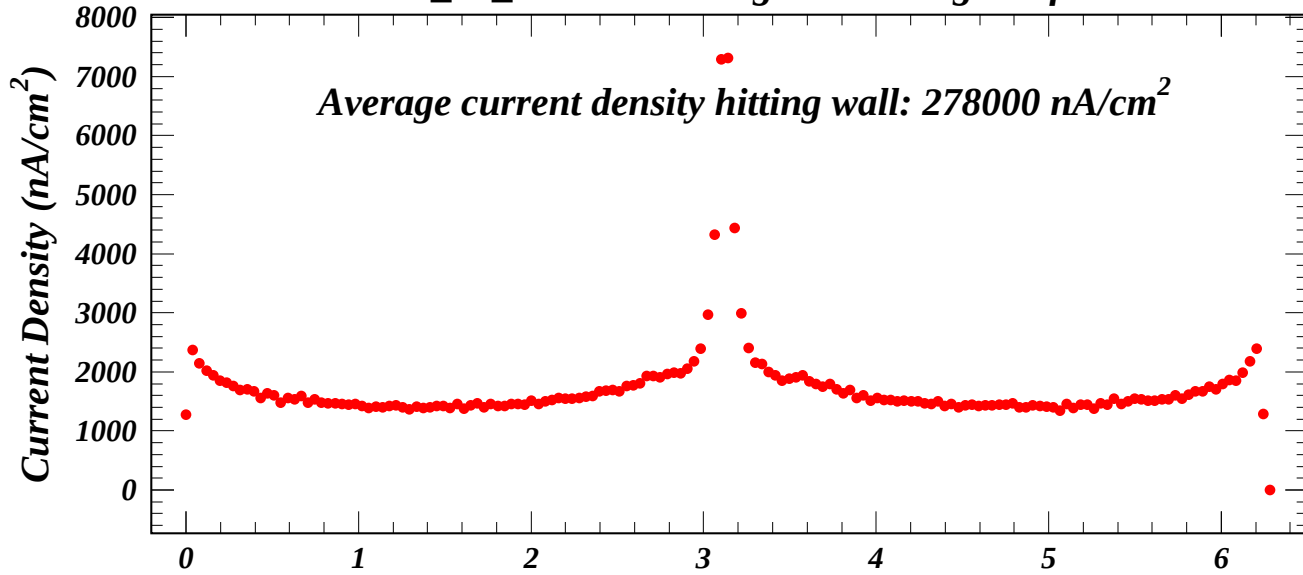


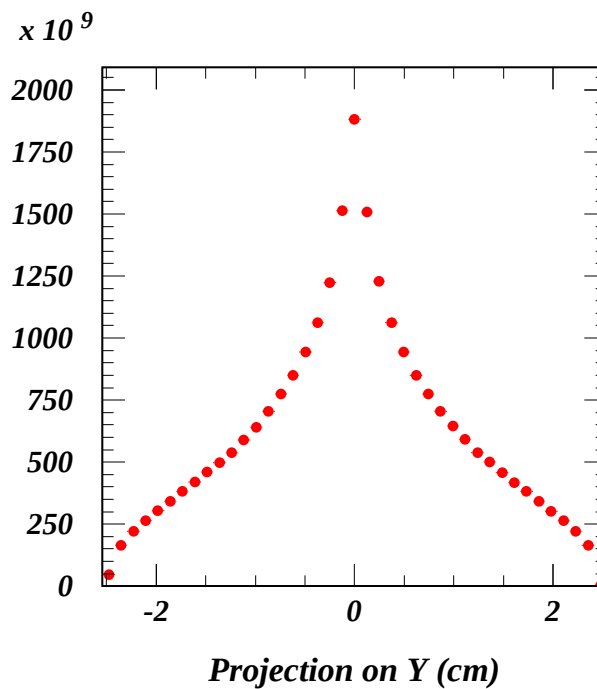
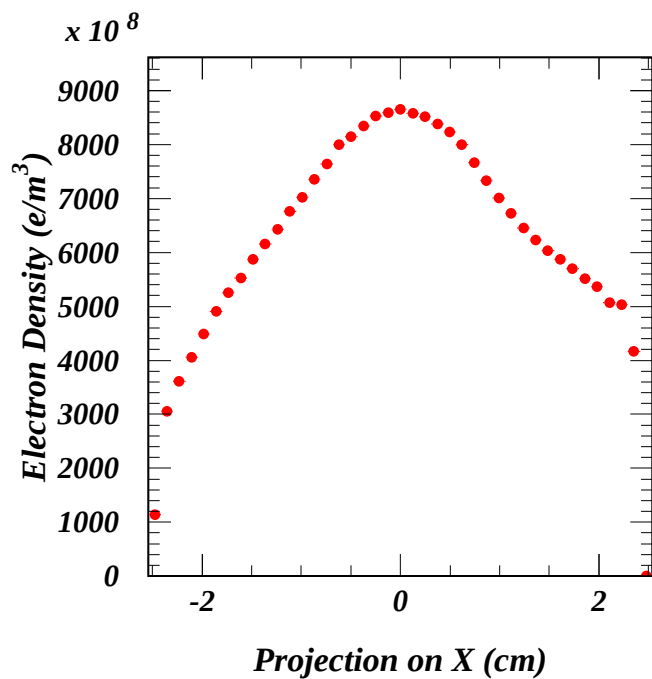
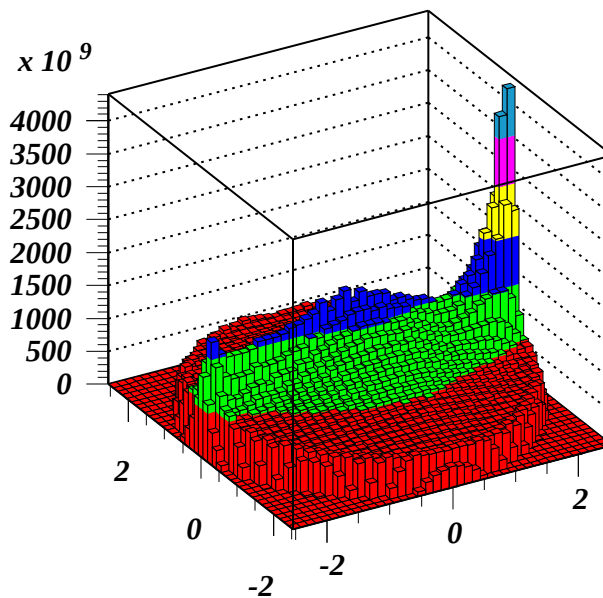
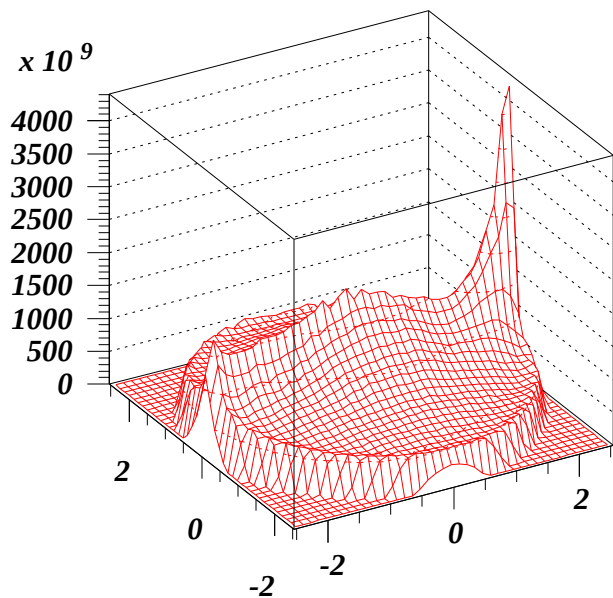
No energy cut: 46834 macroparticles, 118259872 e-



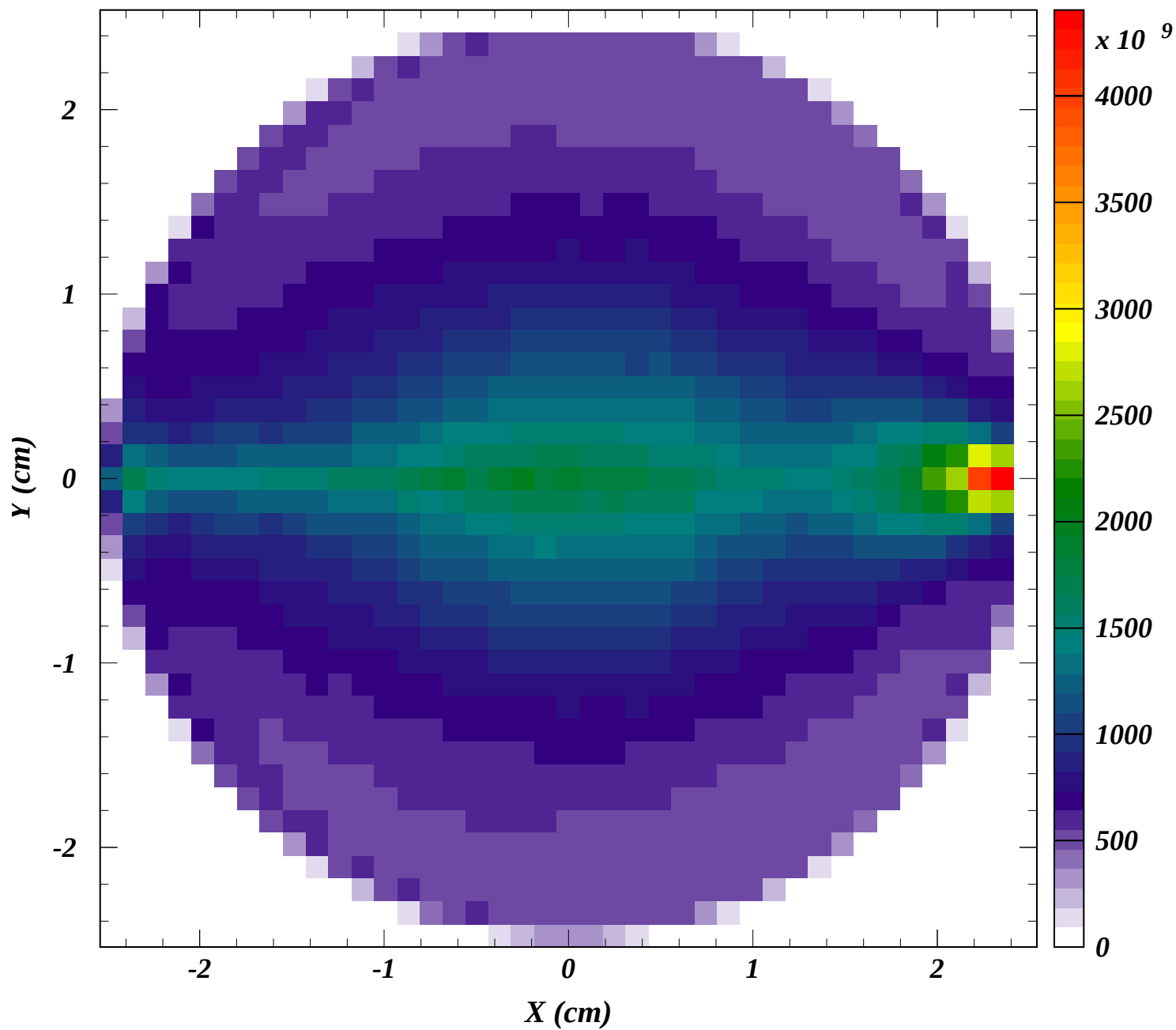
$E_{kin} > 10$  eV: 1238 macroparticles, 2069886 e-

***ECLOUD-DR20100308\_32\_dri: Time-Integrated Energies of Electrons Hitting Wall***

***ECLOUD-DR20100308\_32\_dri: Time-Integrated Energies of Electrons Hitting Wall***

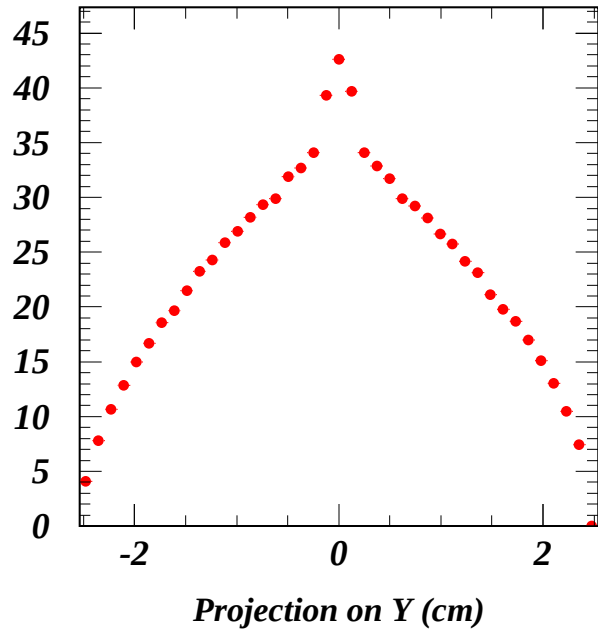
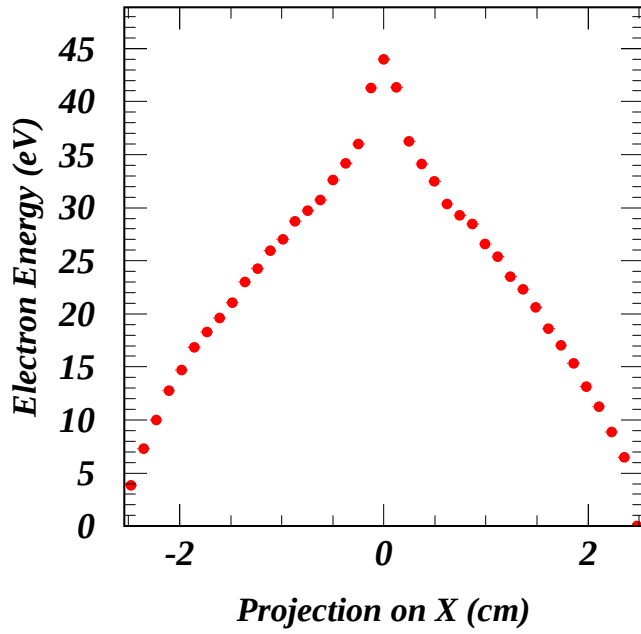
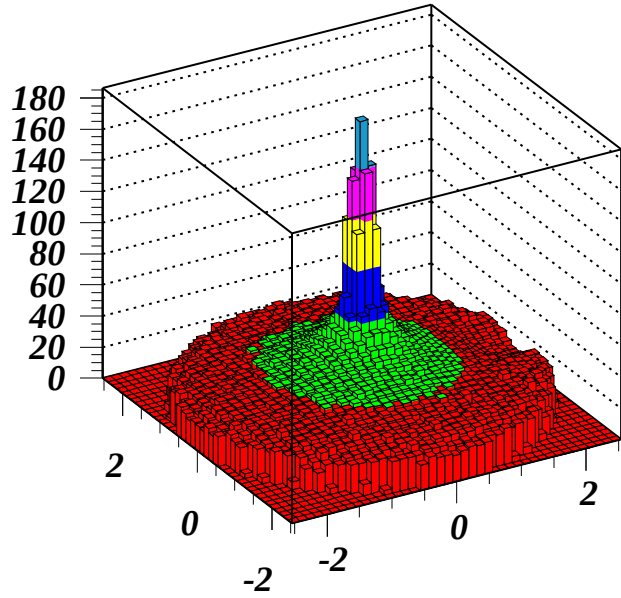
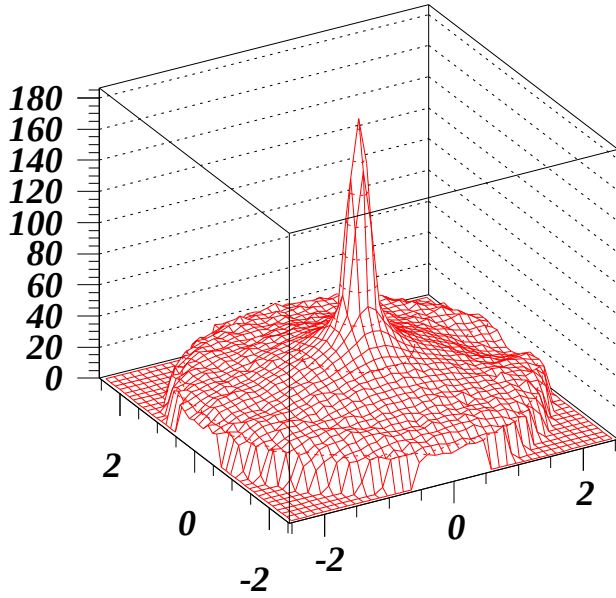
***ECLLOUD-DR20100308\_32\_dri: Cloud Density ( $e/m^3$ ) Averaged Over 1440 ns***

*ECLOUD-DR20100308\_32\_dri: Cloud Density ( $e/m^3$ ) Averaged Over 1440 ns*

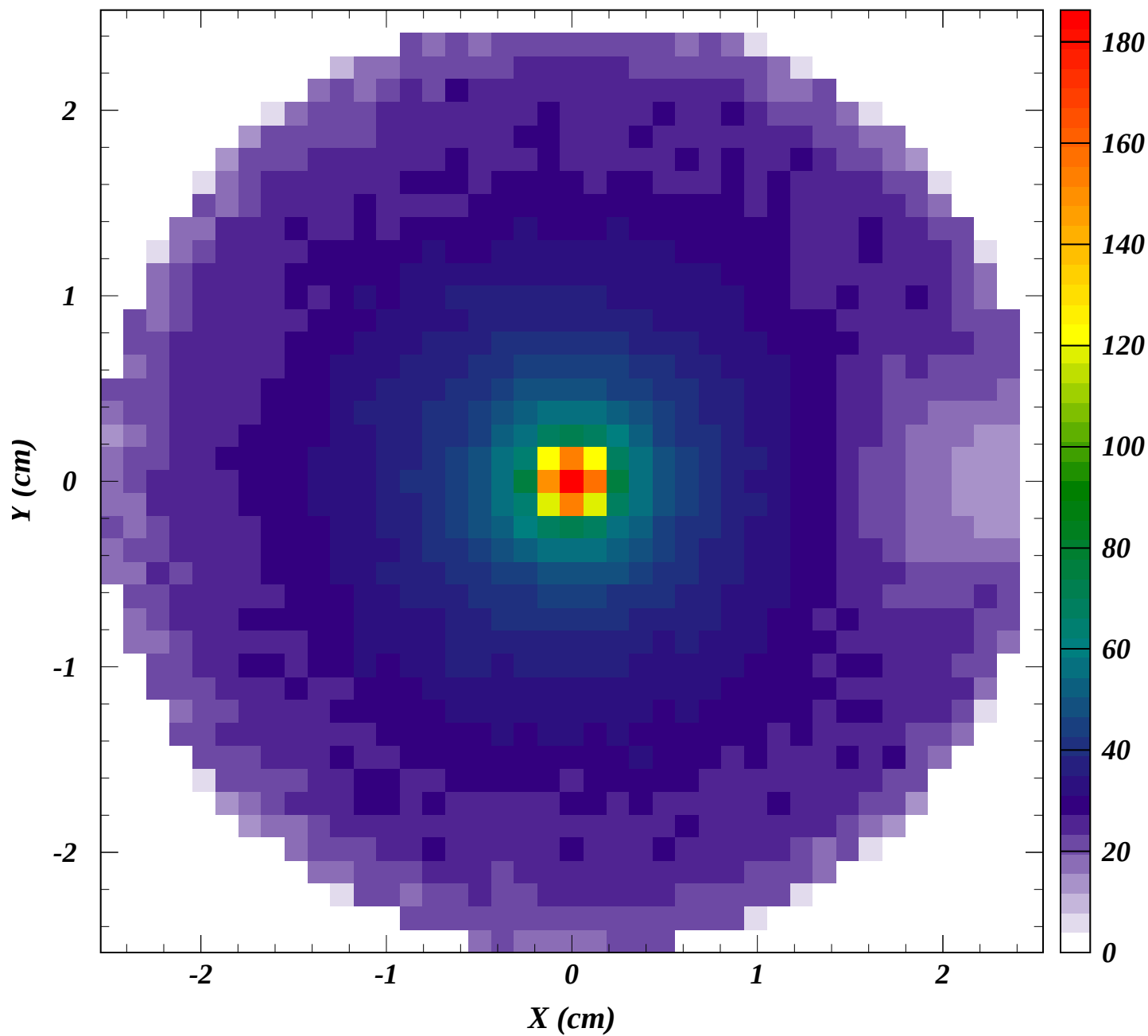


10/03/09 14.26

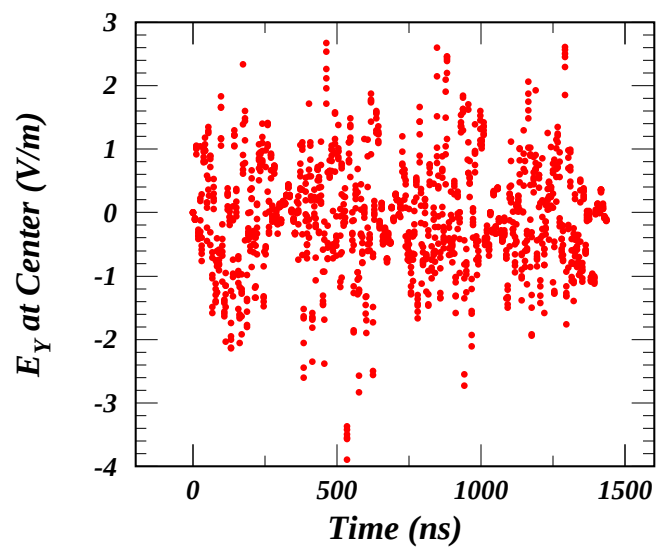
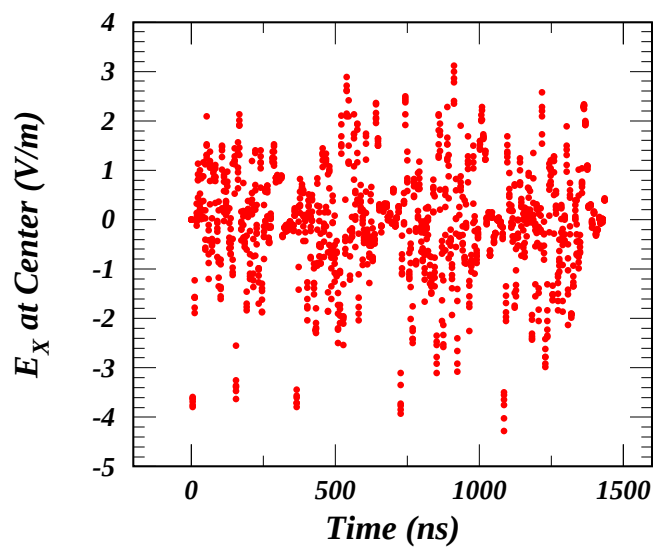
*ECLOUD-DR20100308\_32\_dri: Electron Energies (eV) Averaged Over 1440 ns*



10/03/09 14.26  
*ECLOUD-DR20100308\_32\_dri: Electron Energies (eV) Averaged Over 1440 ns*



*ECLOUD-DR20100308\_32\_dri: Electric Field at Beam*



***ECLLOUD-DR20100308\_32\_driElectric Field Gradients at Beam***

