
Status recap on Data-MC comparison

Changes in the digitization code

Step 1) Parameters of diffusion and saturation tuned by Pietro

Step 2) Introduction of the vignetting effect in the digitization code and production of tracks on different XY position

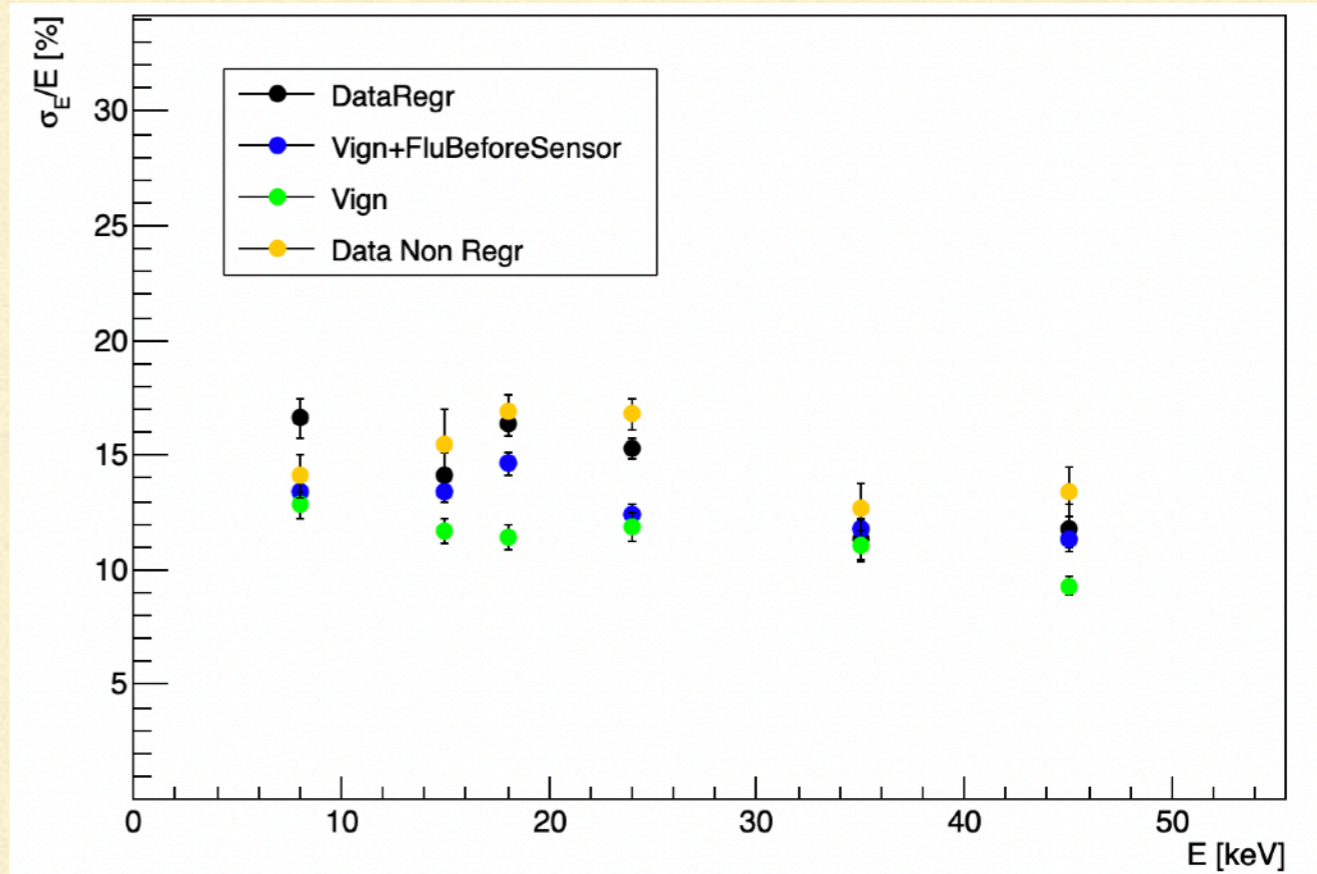
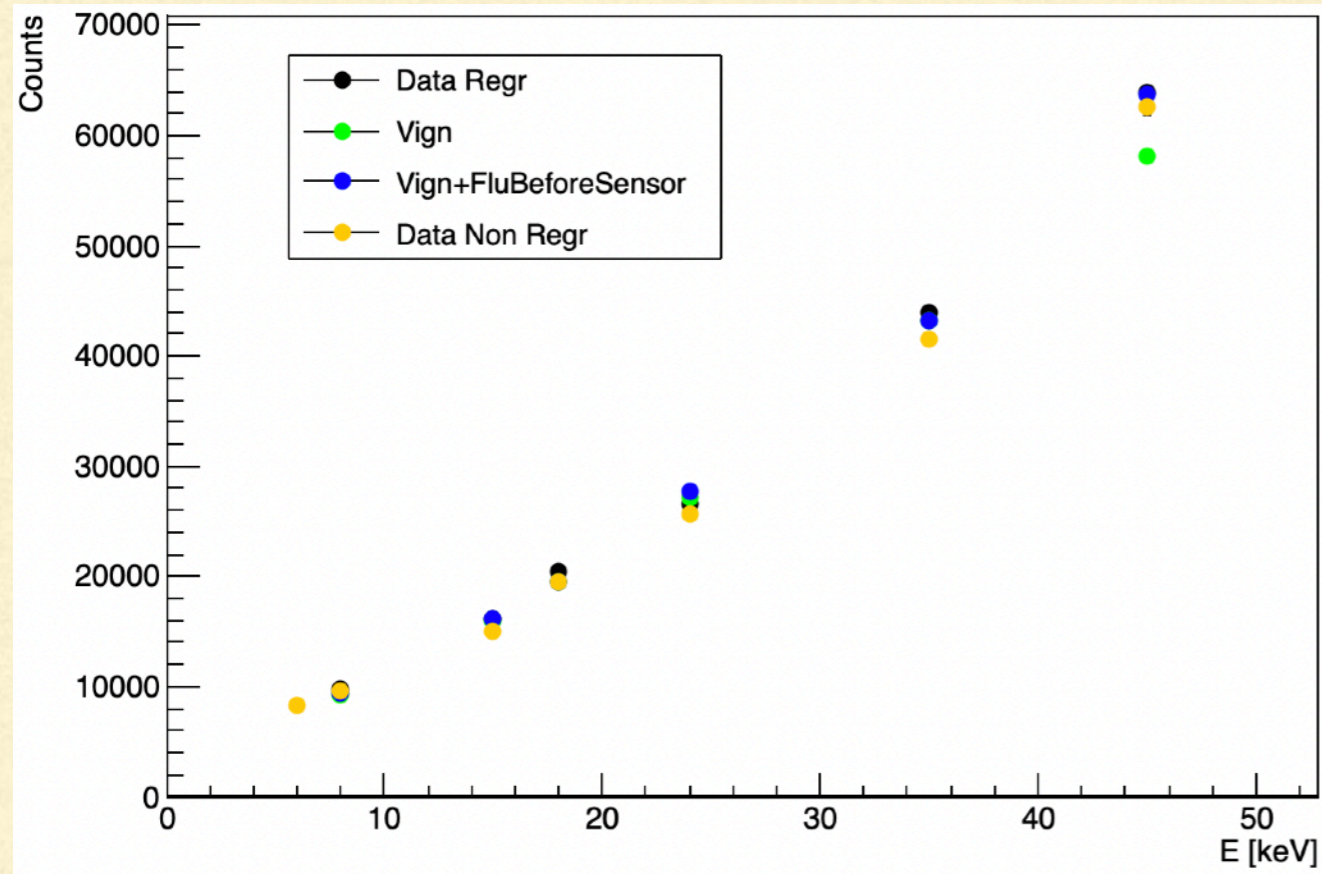
Step 3) Poissonian fluctuation on photon production not on sensor count

~~Photons production \rightarrow (x2) \rightarrow sensor counts \rightarrow poissonian fluctuation~~

Photons production \rightarrow poissonian fluctuation \rightarrow (x2) \rightarrow sensor counts

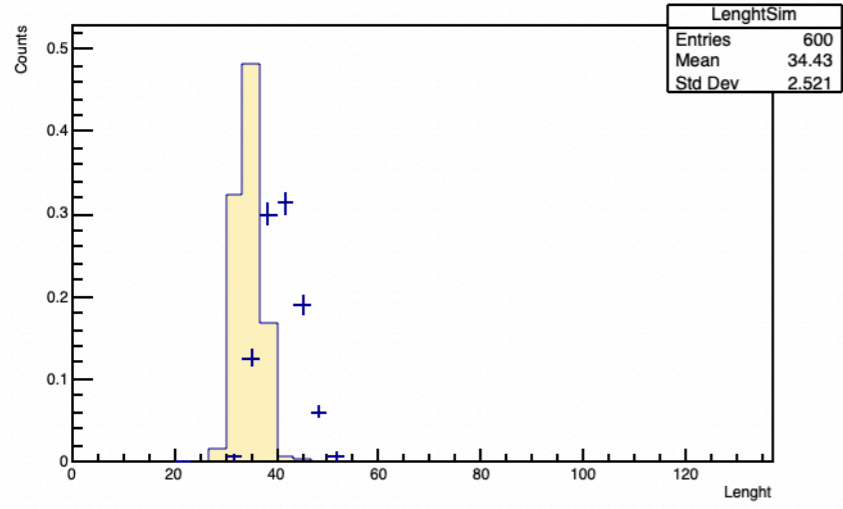
Linearity...

- Selection in a radius <800 px

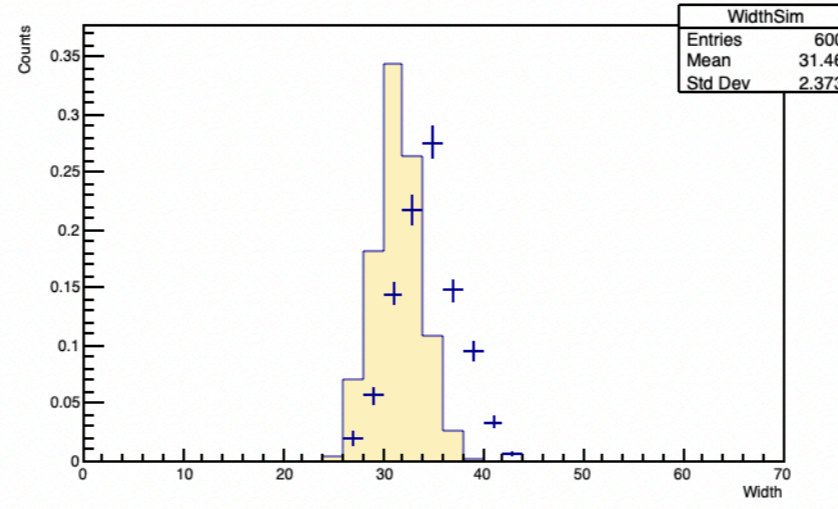


Cu

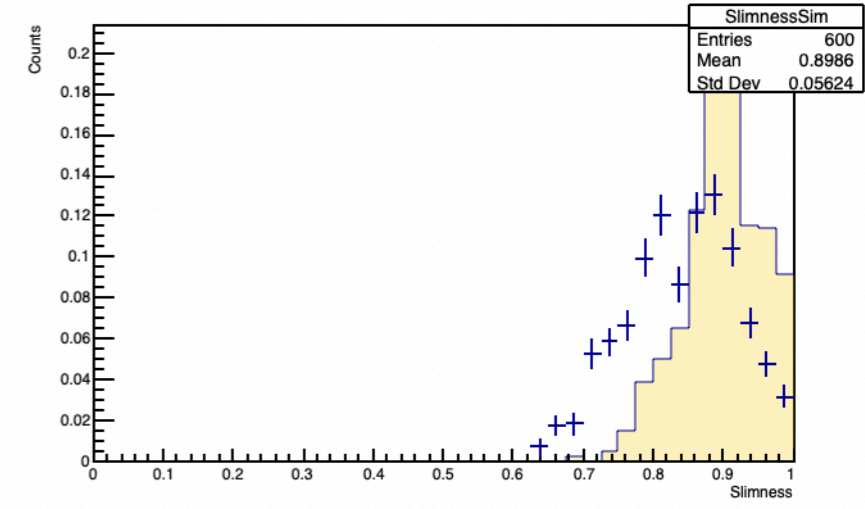
Lenght Simulation histogram



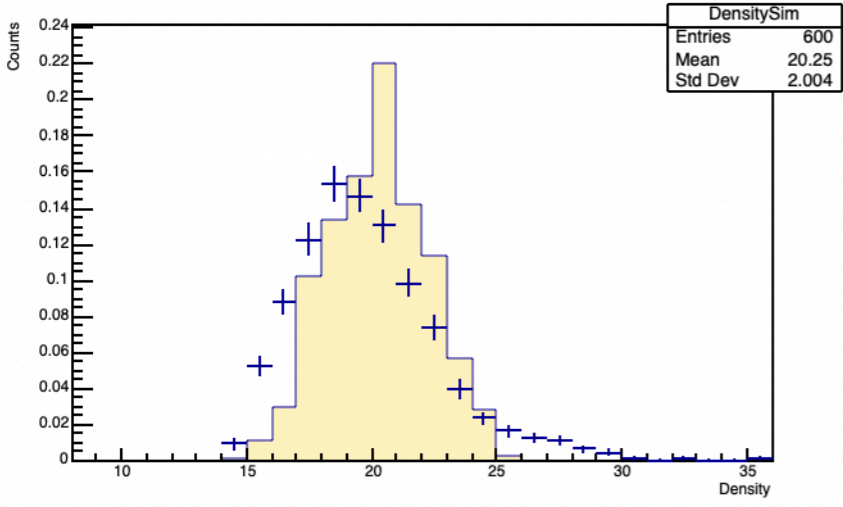
Width Simulation histogram



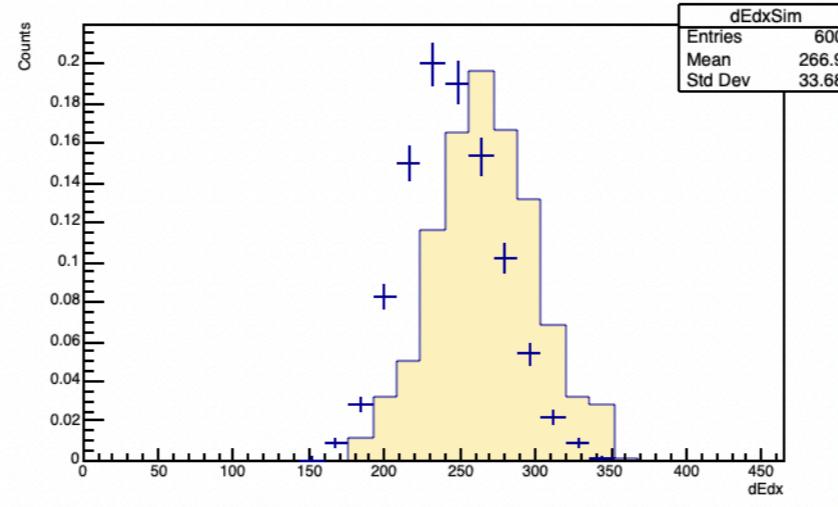
Slimness Simulation histogram



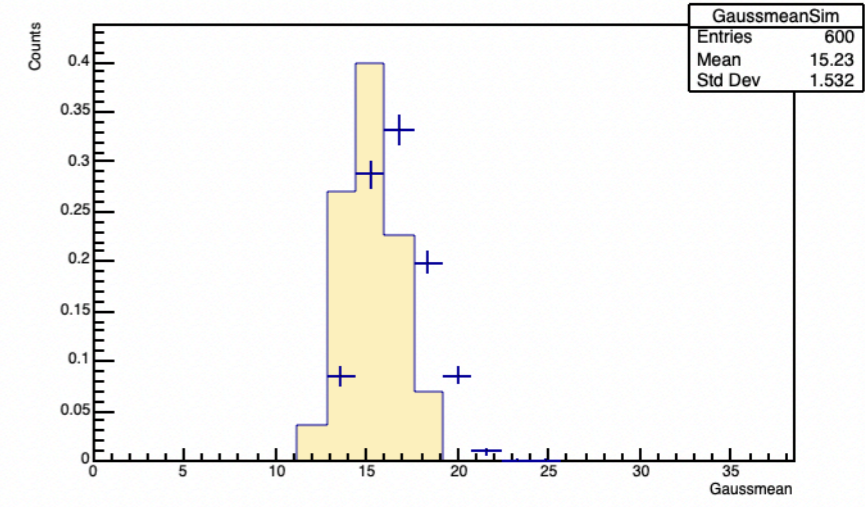
Density Simulation histogram



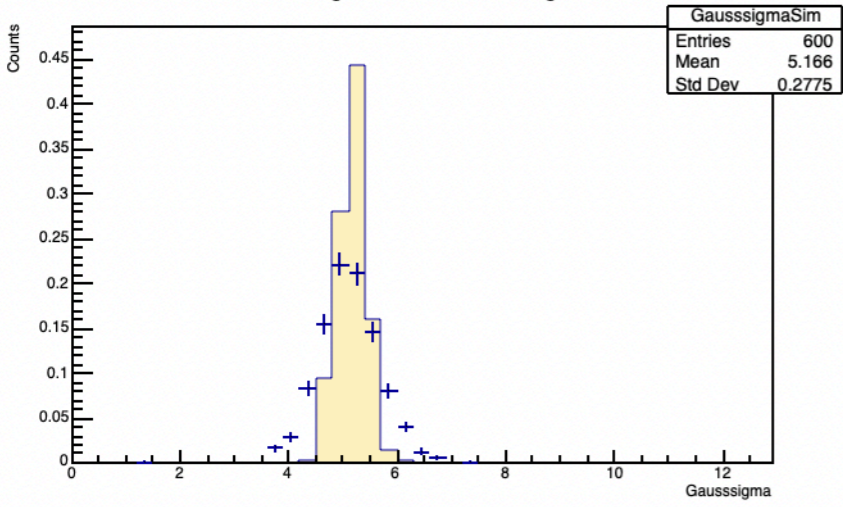
dEdx Simulation histogram



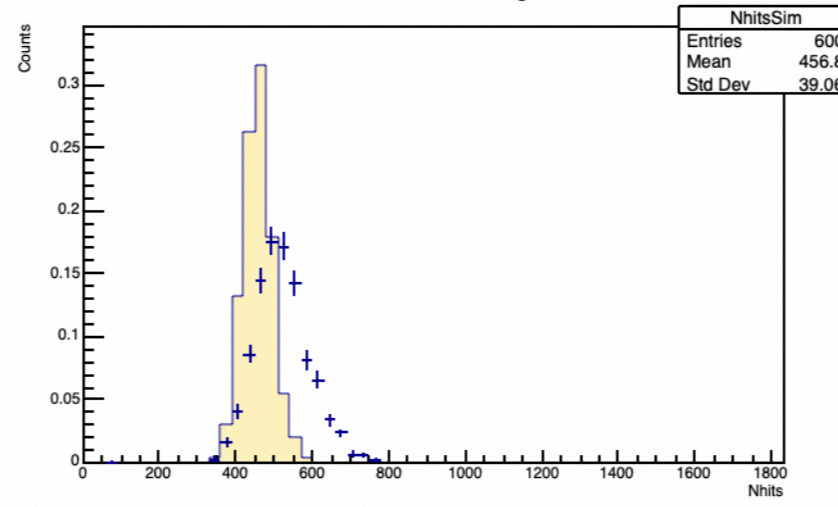
Gaussmean Simulation histogram



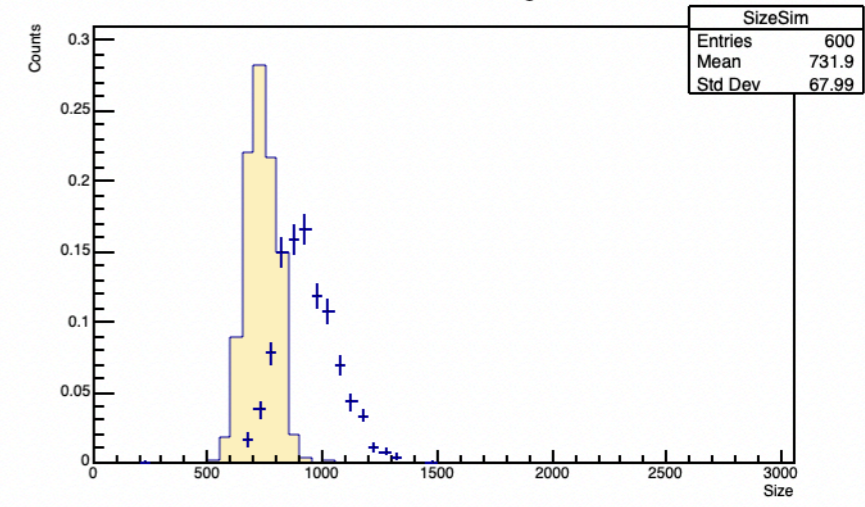
Gausssigma Simulation histogram



Nhits Simulation histogram

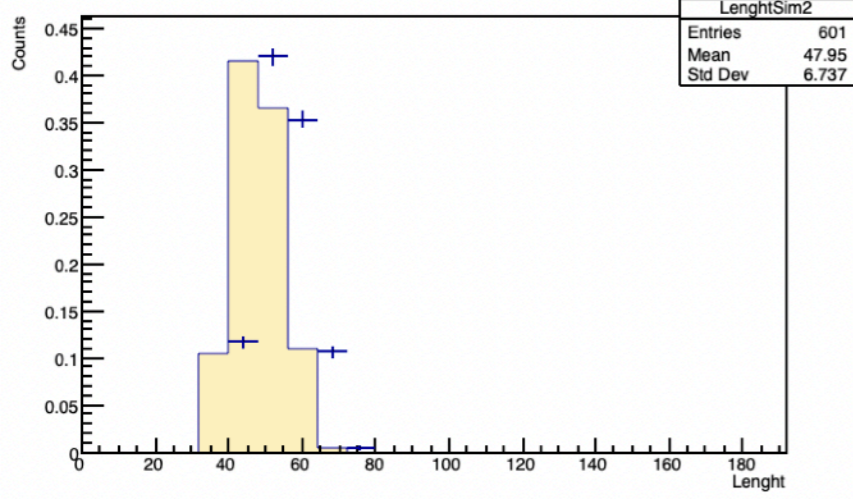


Size Simulation histogram

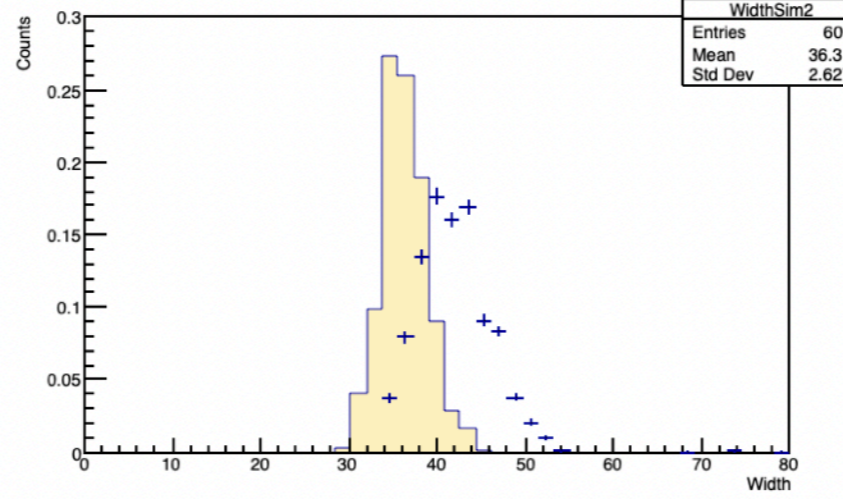


Rb

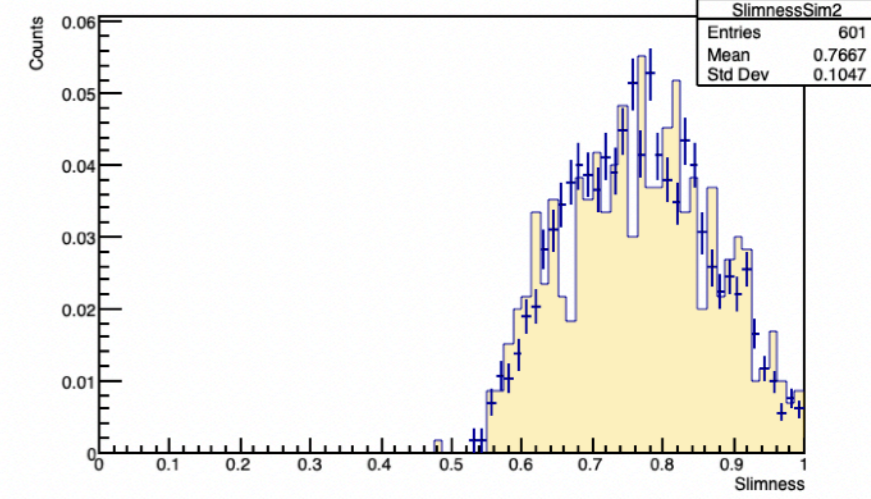
Lenght Simulation histogram



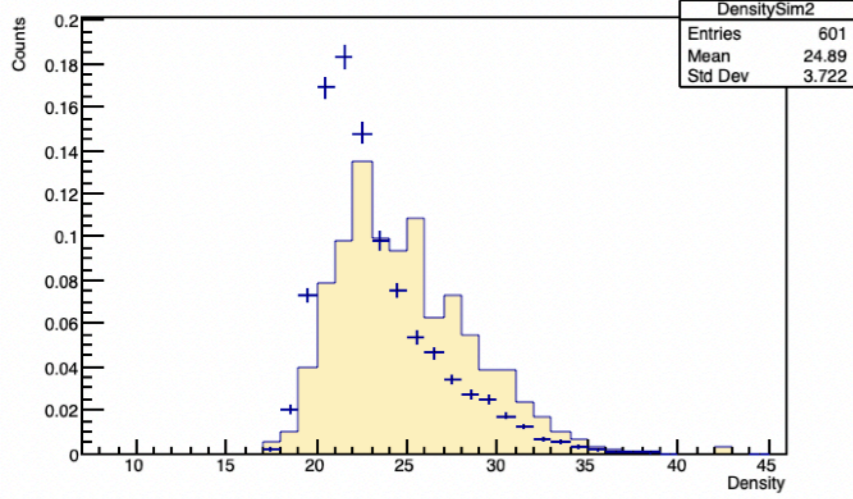
Width Simulation histogram



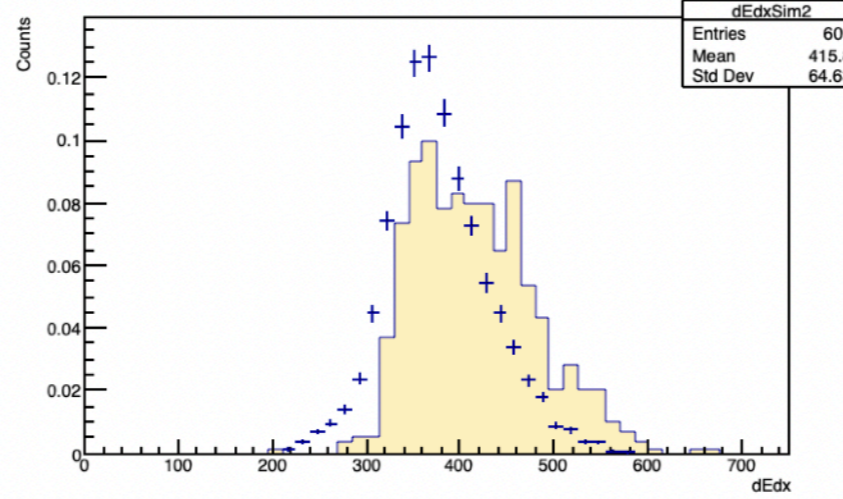
Slimness Simulation histogram



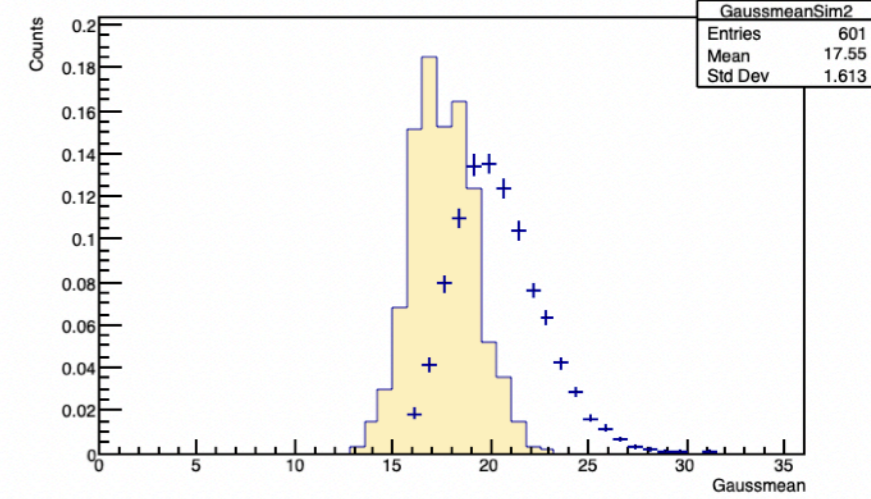
Density Simulation histogram



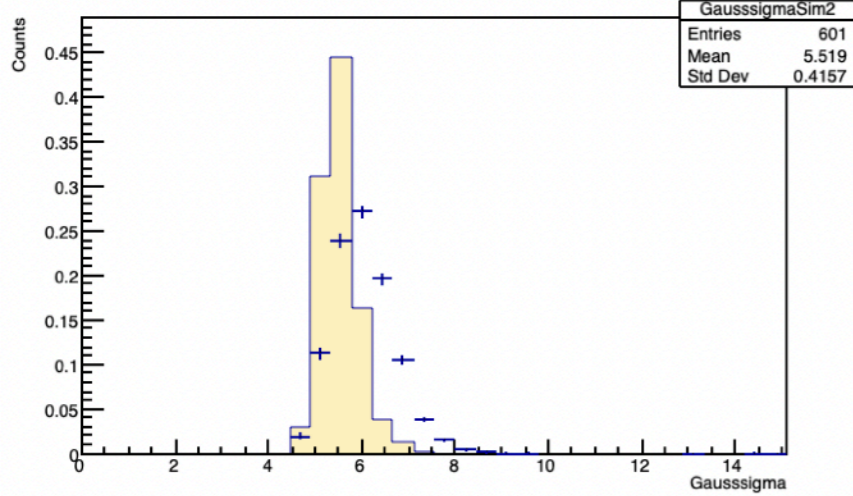
dEdx Simulation histogram



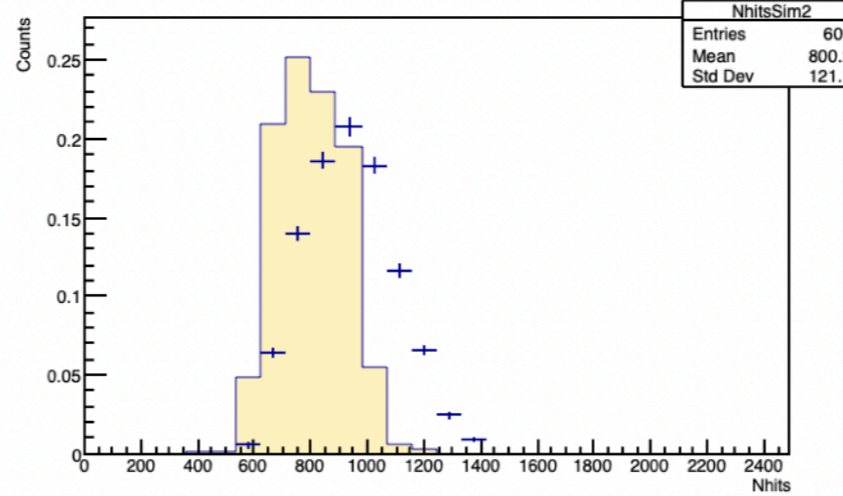
Gaussmean Simulation histogram



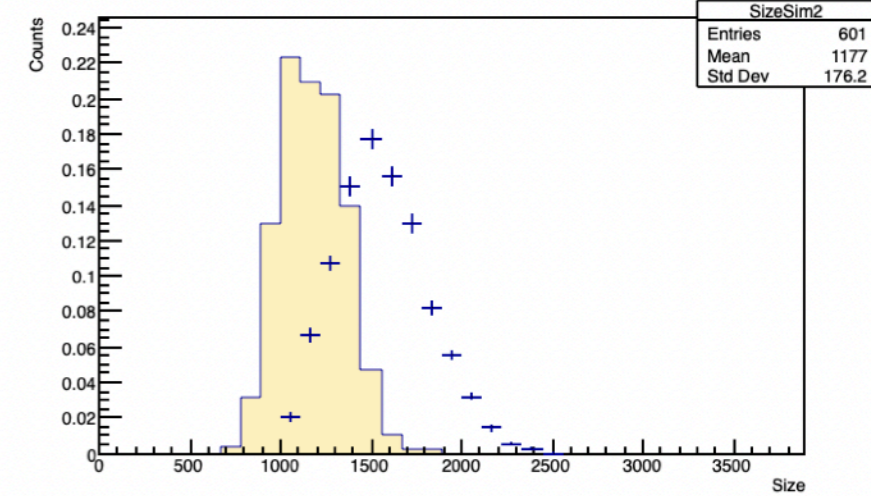
Gausssigma Simulation histogram



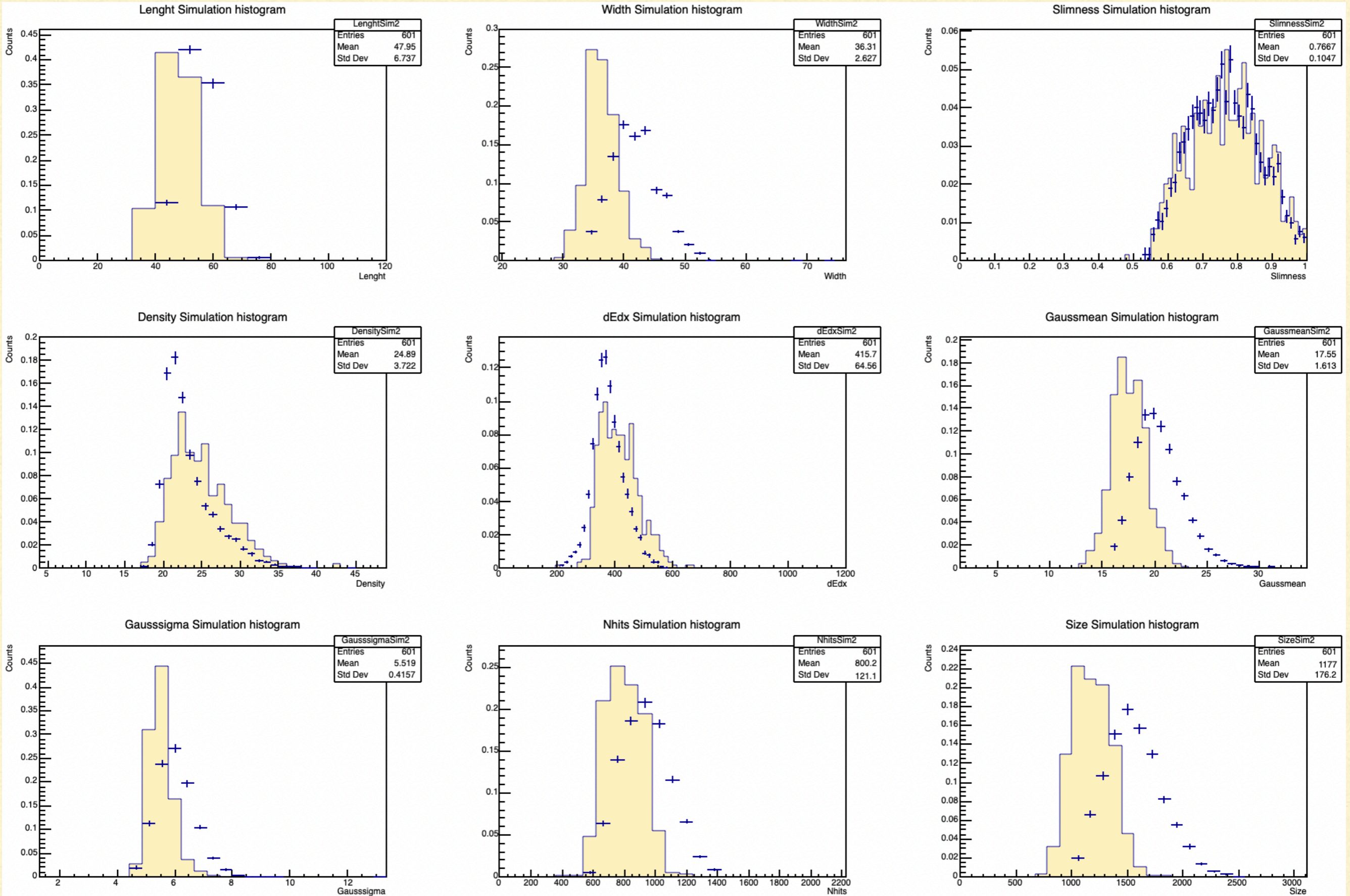
Nhits Simulation histogram



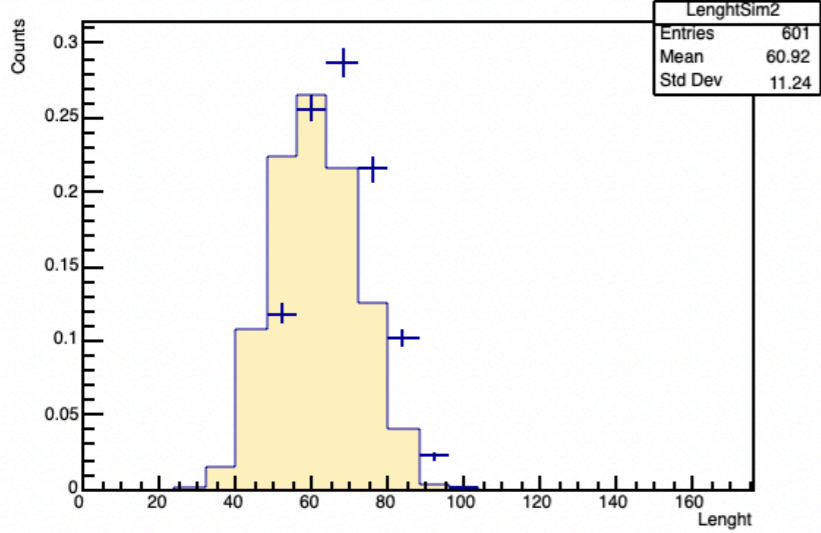
Size Simulation histogram



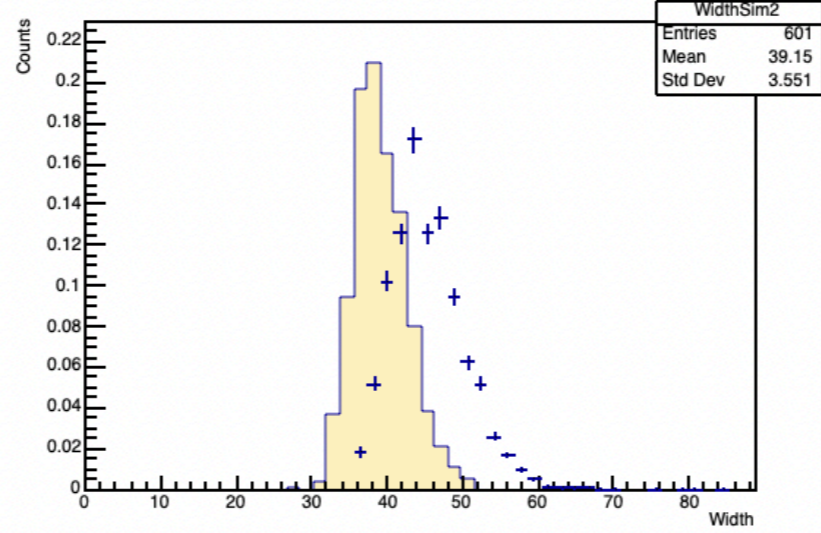
Mo



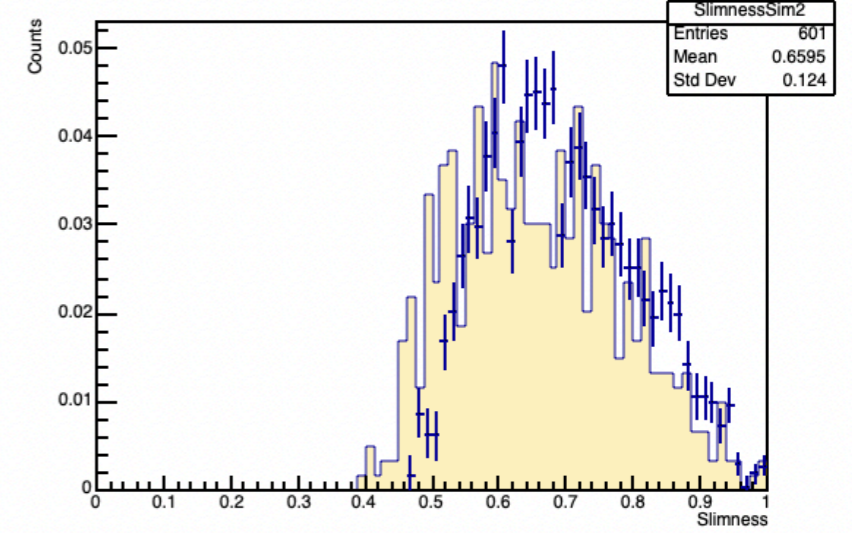
Lenght Simulation histogram



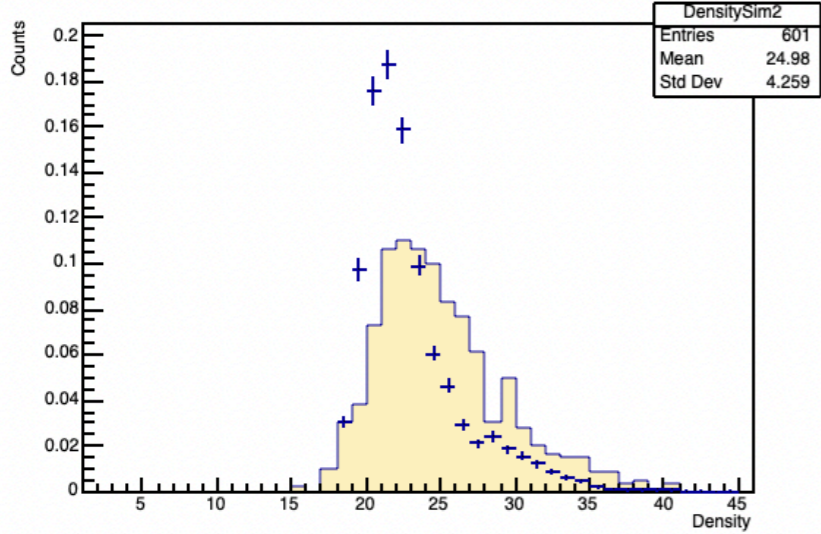
Width Simulation histogram



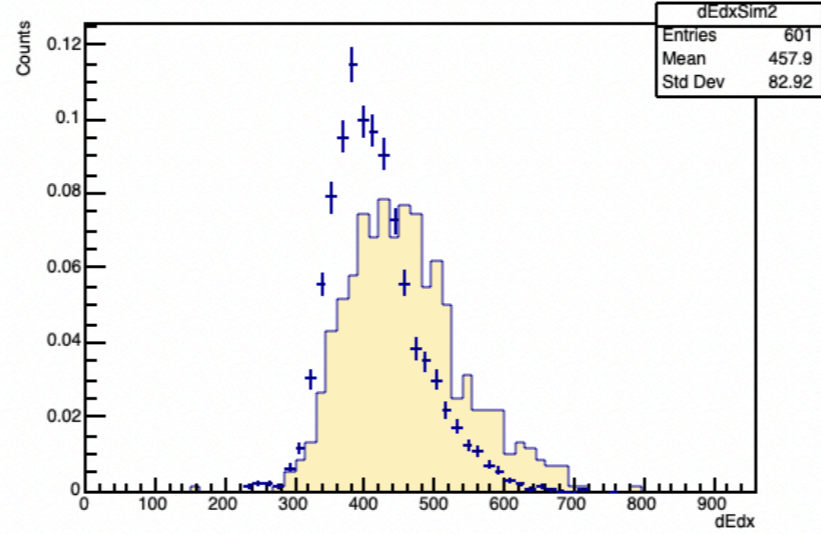
Slimness Simulation histogram



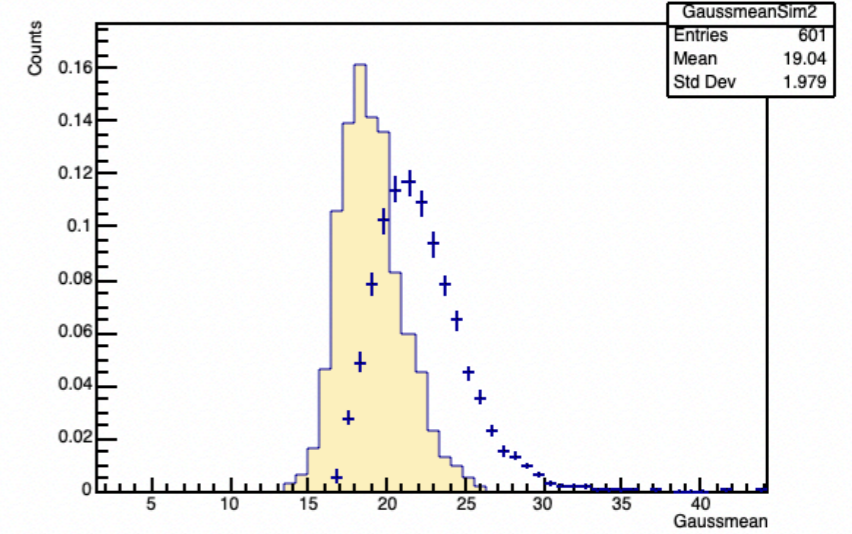
Density Simulation histogram



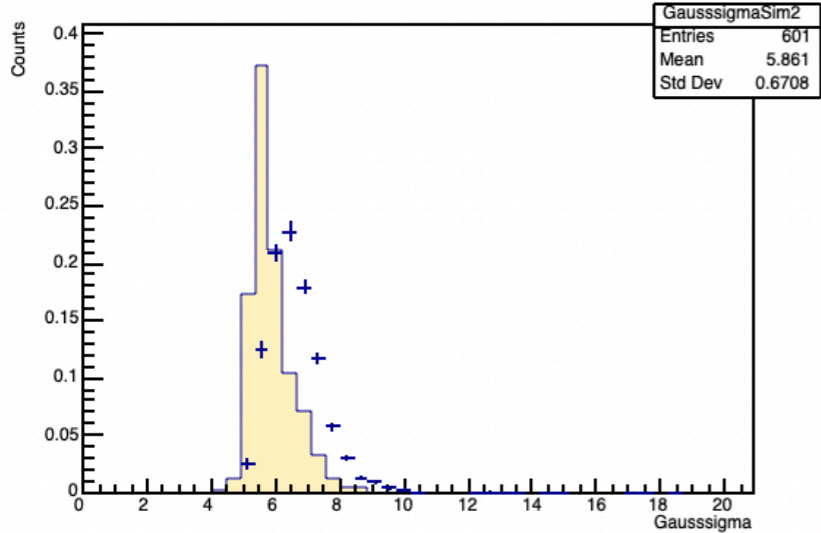
dEdx Simulation histogram



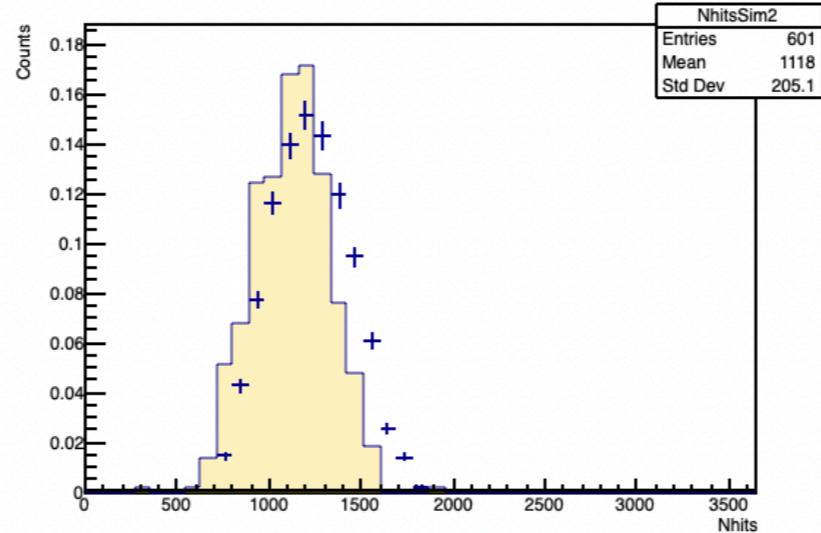
Gaussmean Simulation histogram



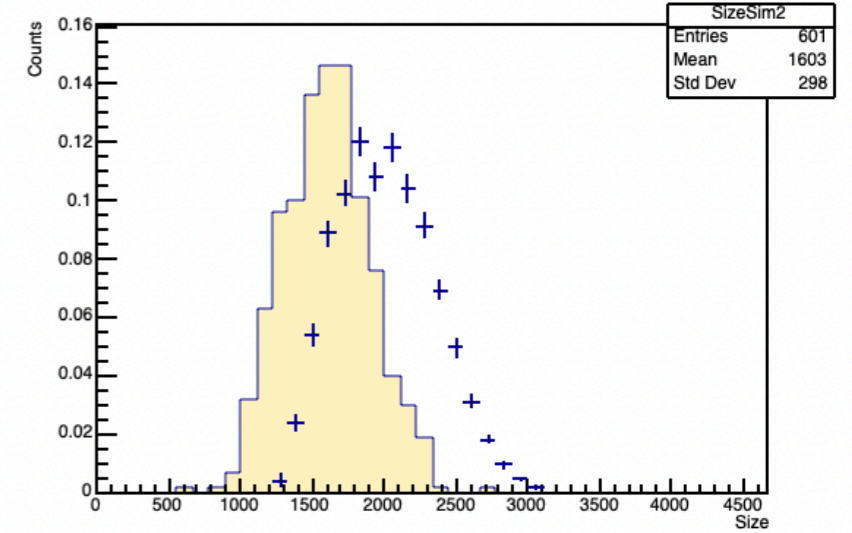
Gausssigma Simulation histogram



Nhits Simulation histogram

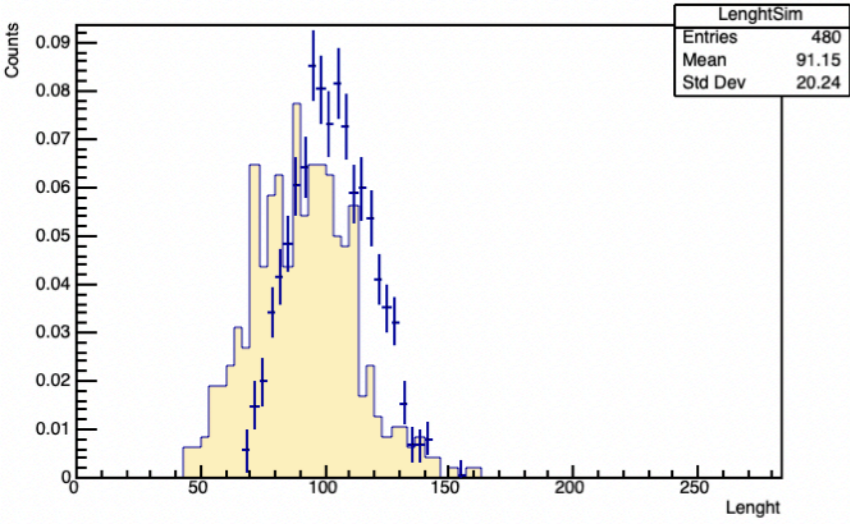


Size Simulation histogram

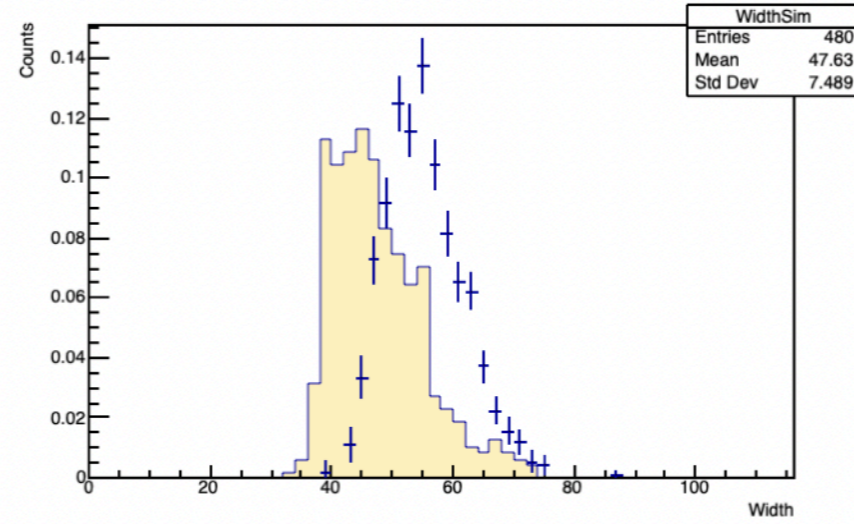


Ba

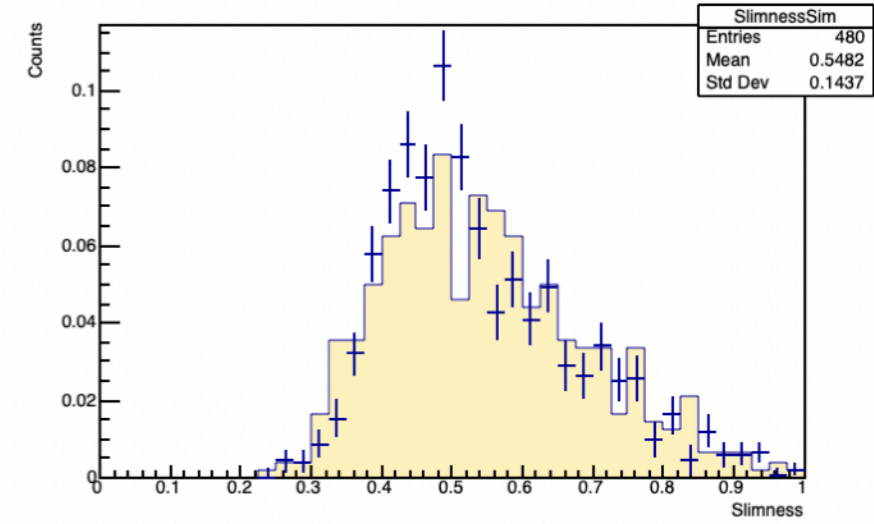
Lenght Simulation histogram



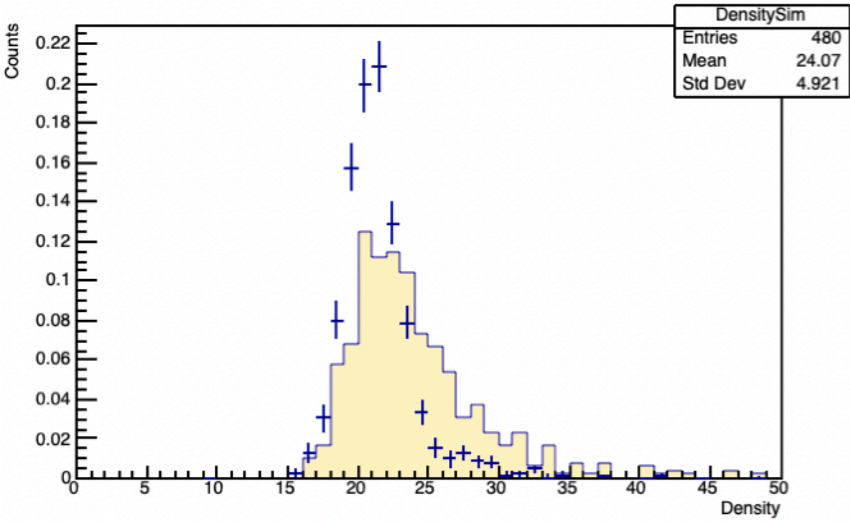
Width Simulation histogram



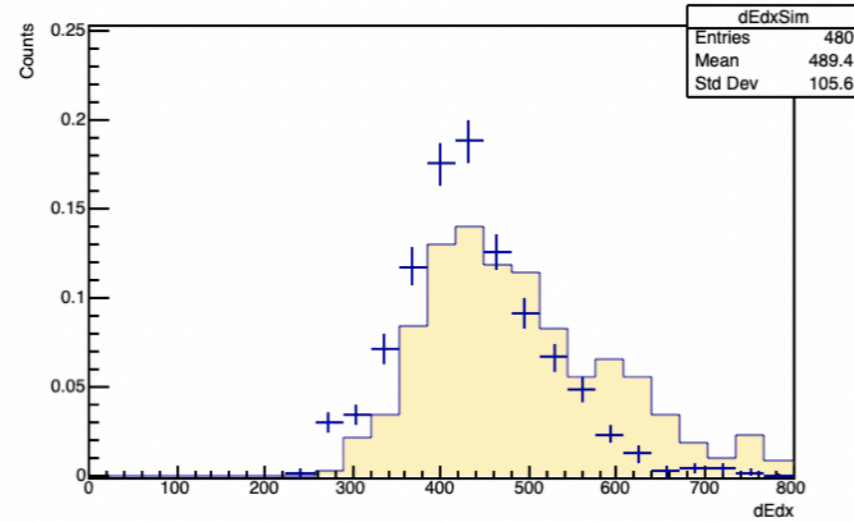
Slimness Simulation histogram



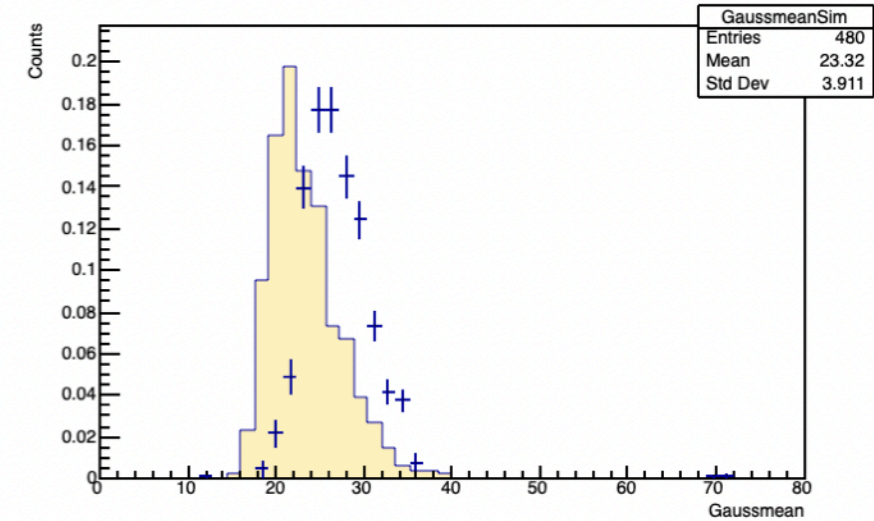
Density Simulation histogram



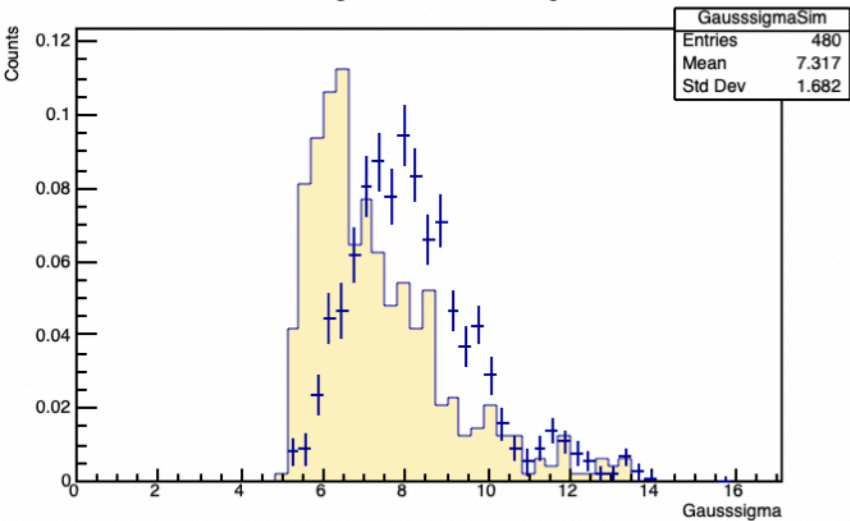
dEdx Simulation histogram



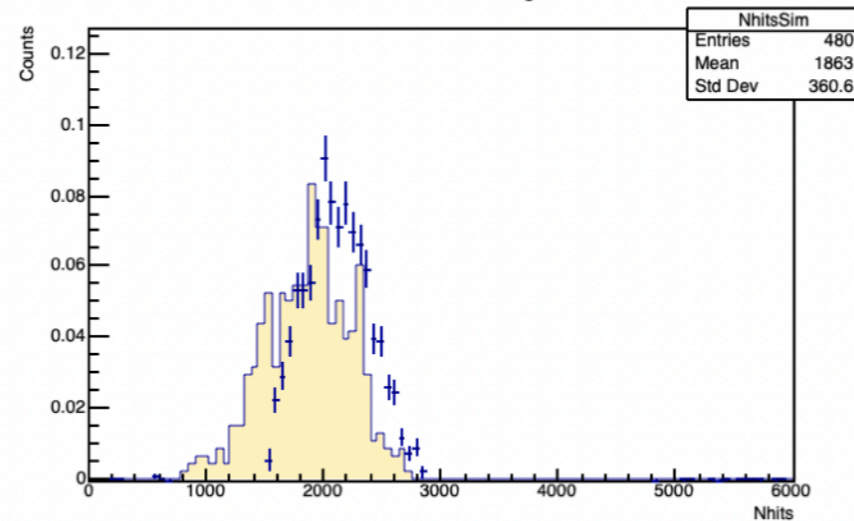
Gaussmean Simulation histogram



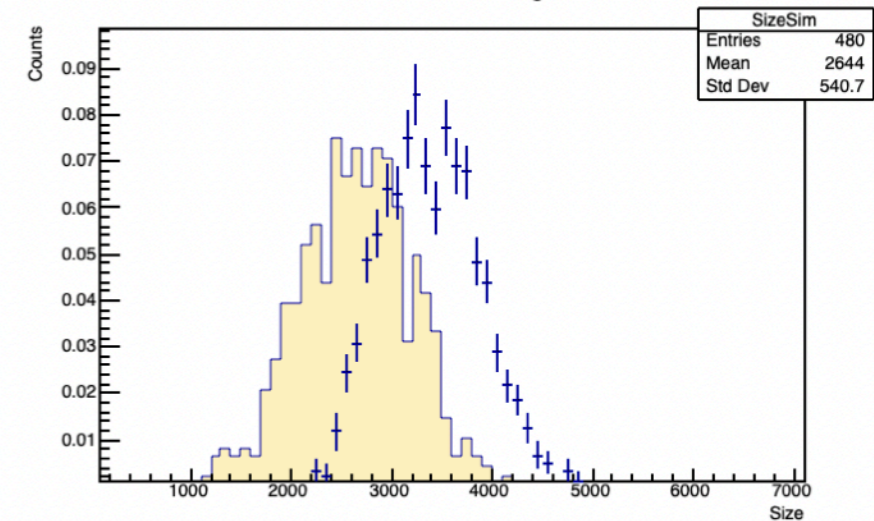
Gausssigma Simulation histogram



Nhits Simulation histogram

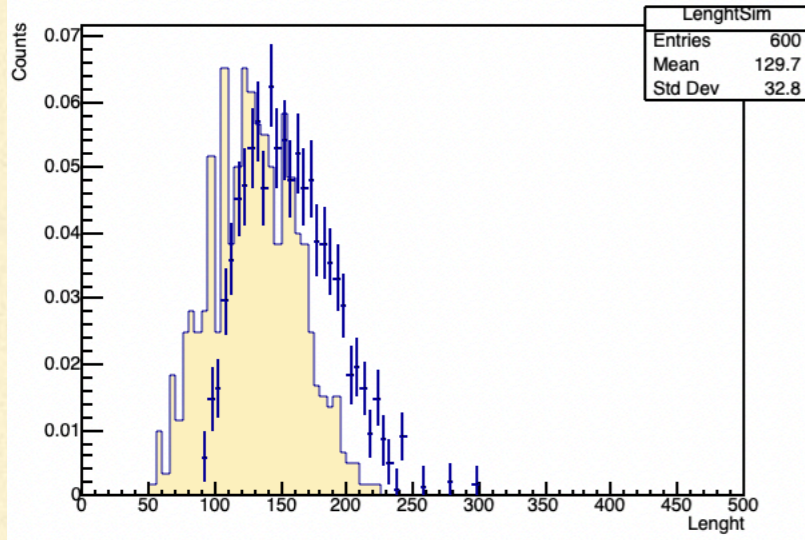


Size Simulation histogram

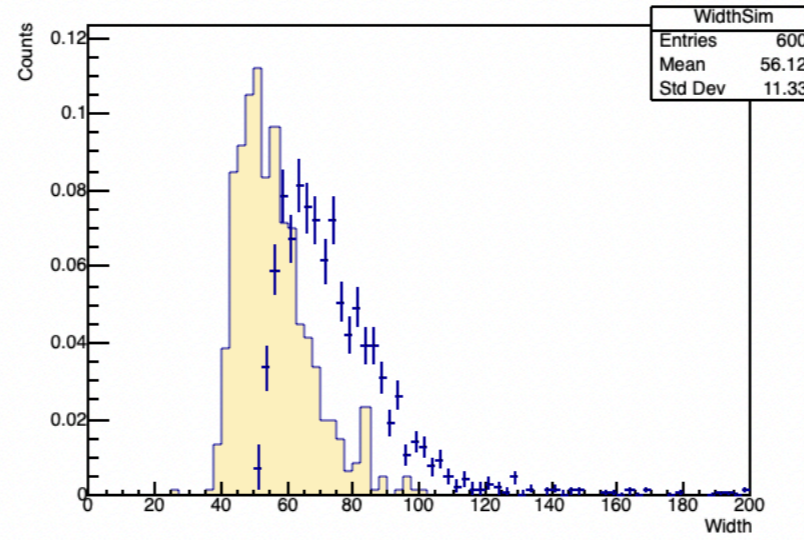


Tb

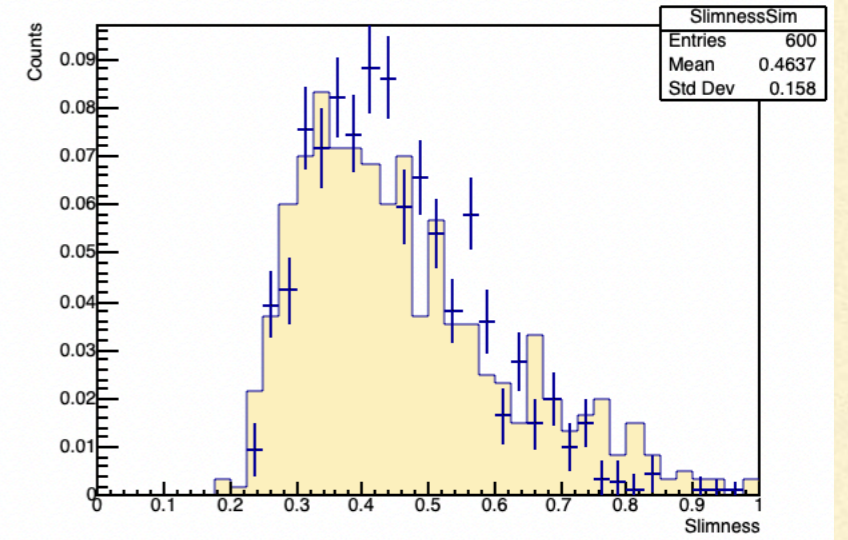
Lenght Simulation histogram



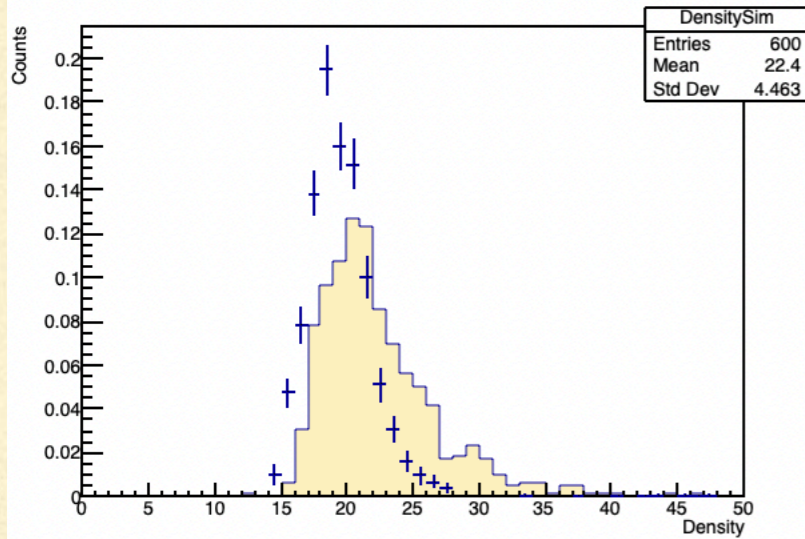
Width Simulation histogram



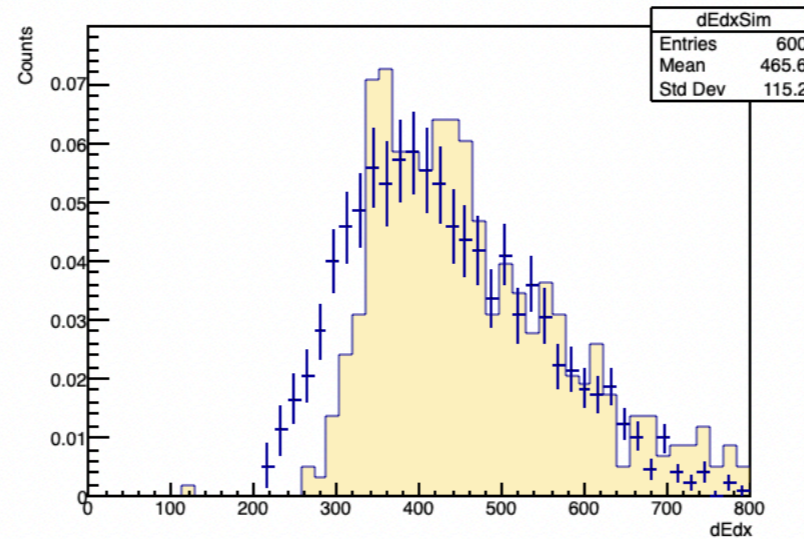
Slimness Simulation histogram



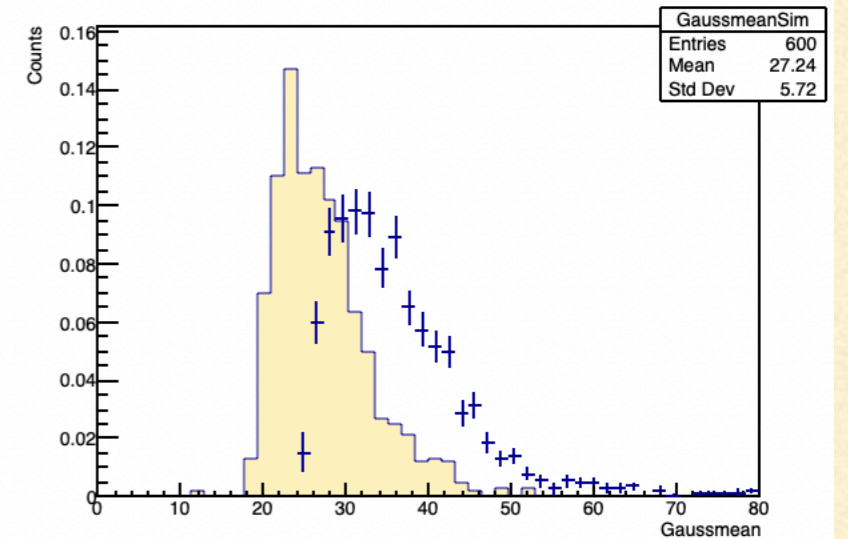
Density Simulation histogram



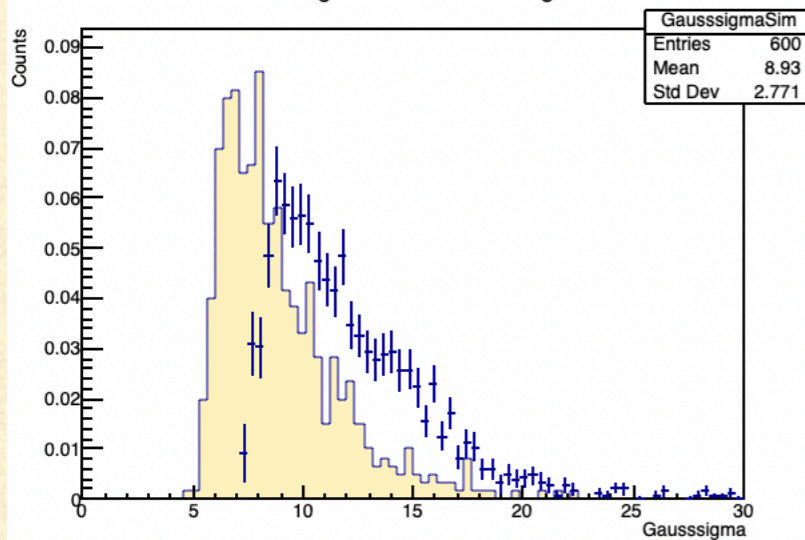
dEdx Simulation histogram



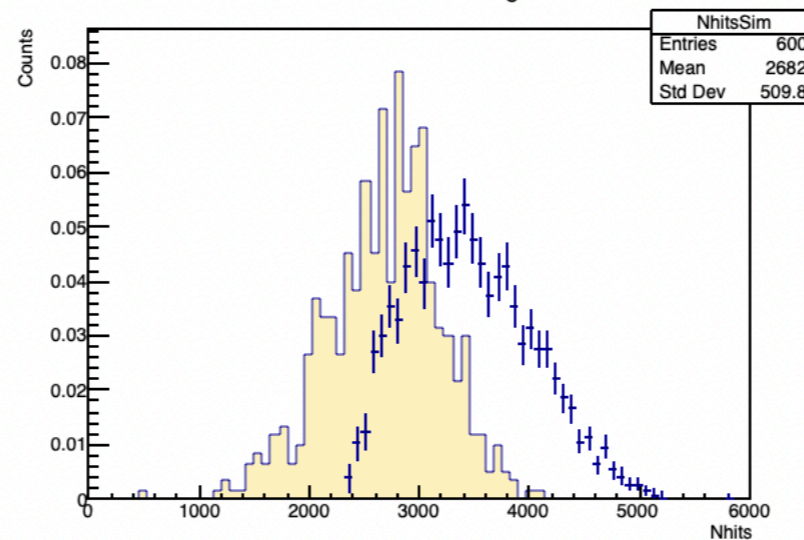
Gaussmean Simulation histogram



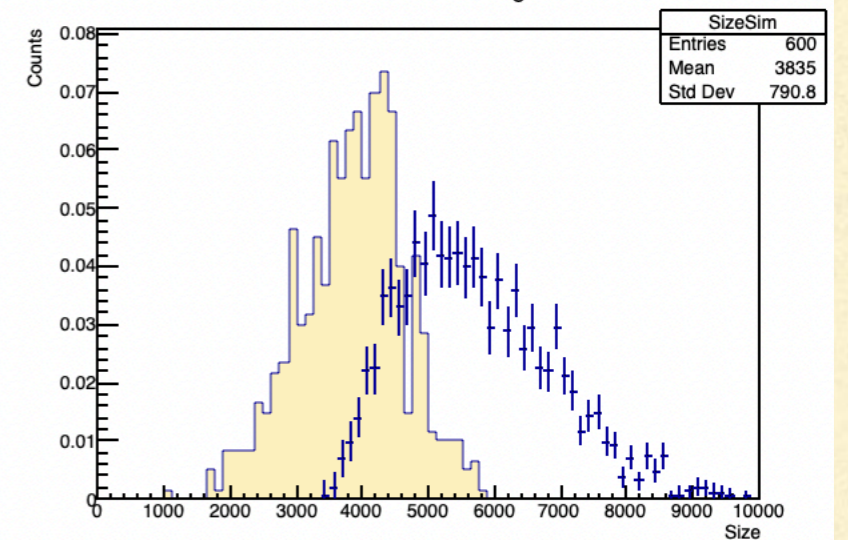
Gausssigma Simulation histogram



Nhits Simulation histogram

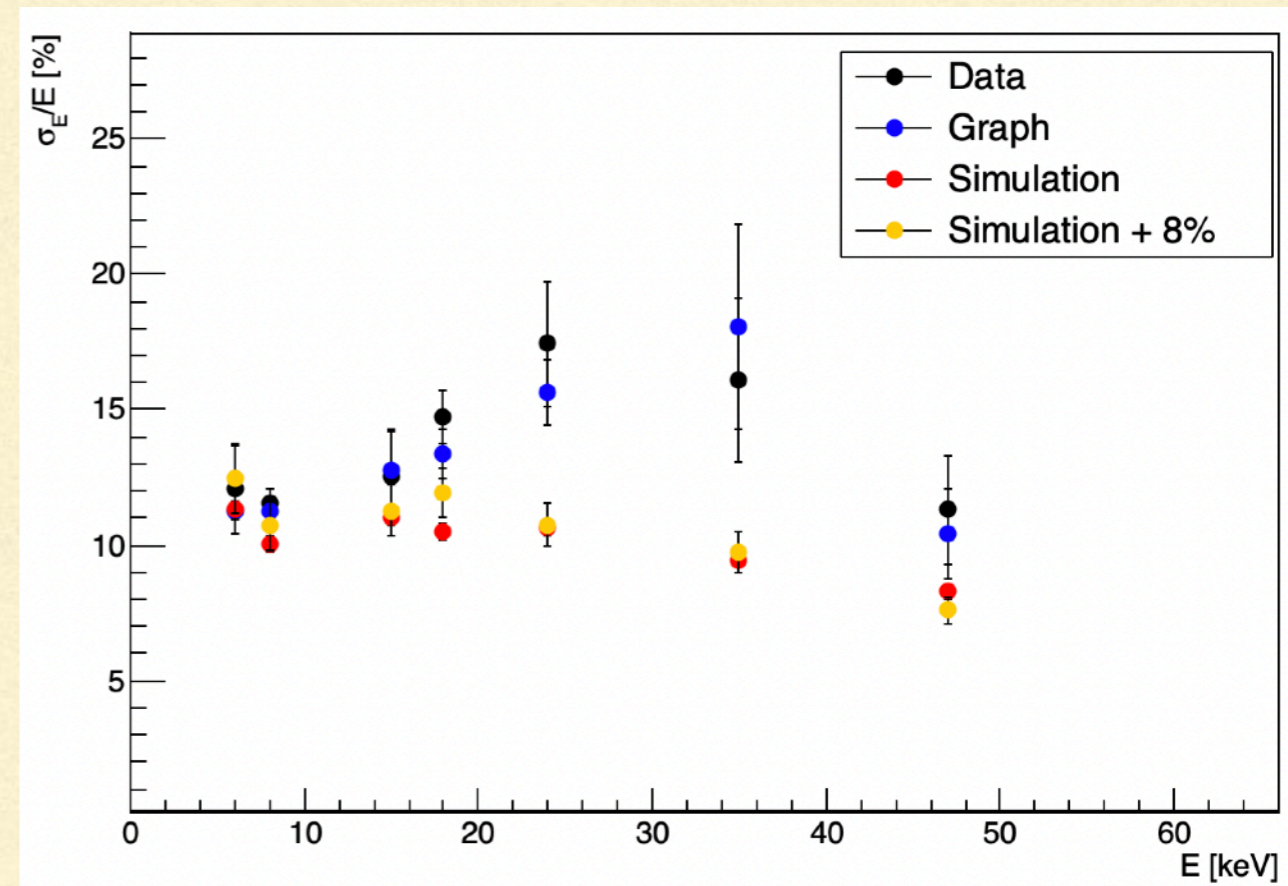
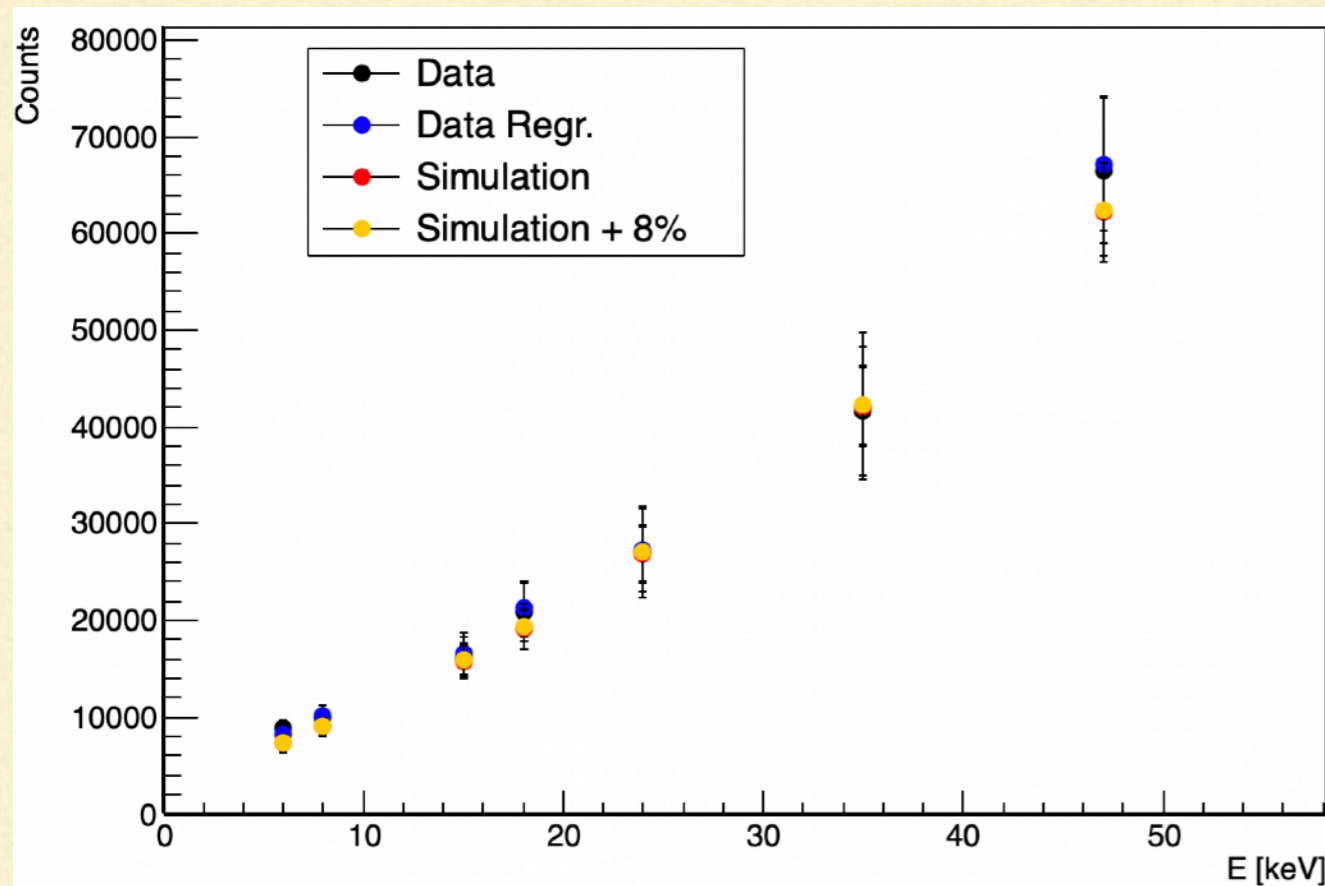


Size Simulation histogram

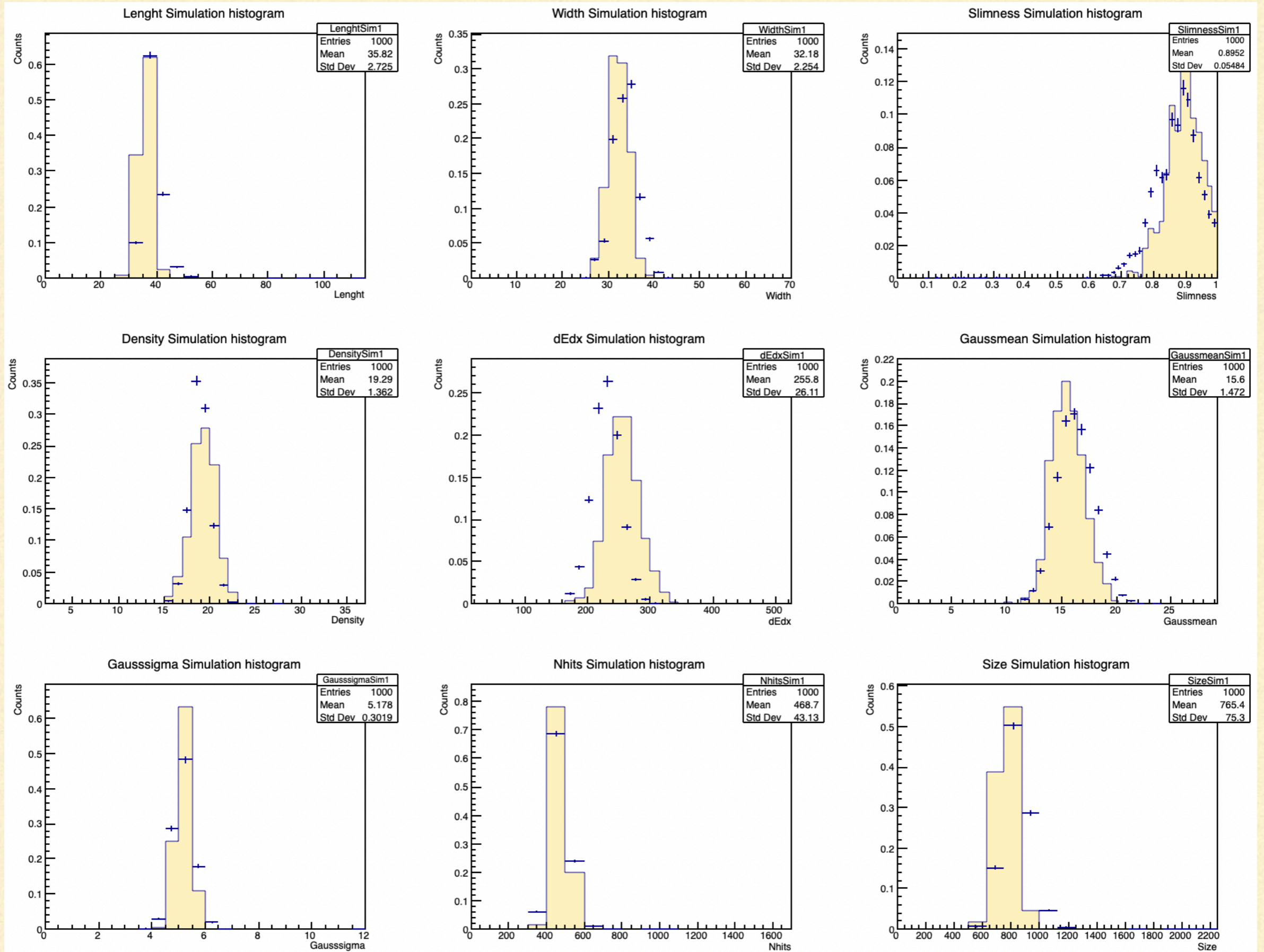


Effect of vignetting

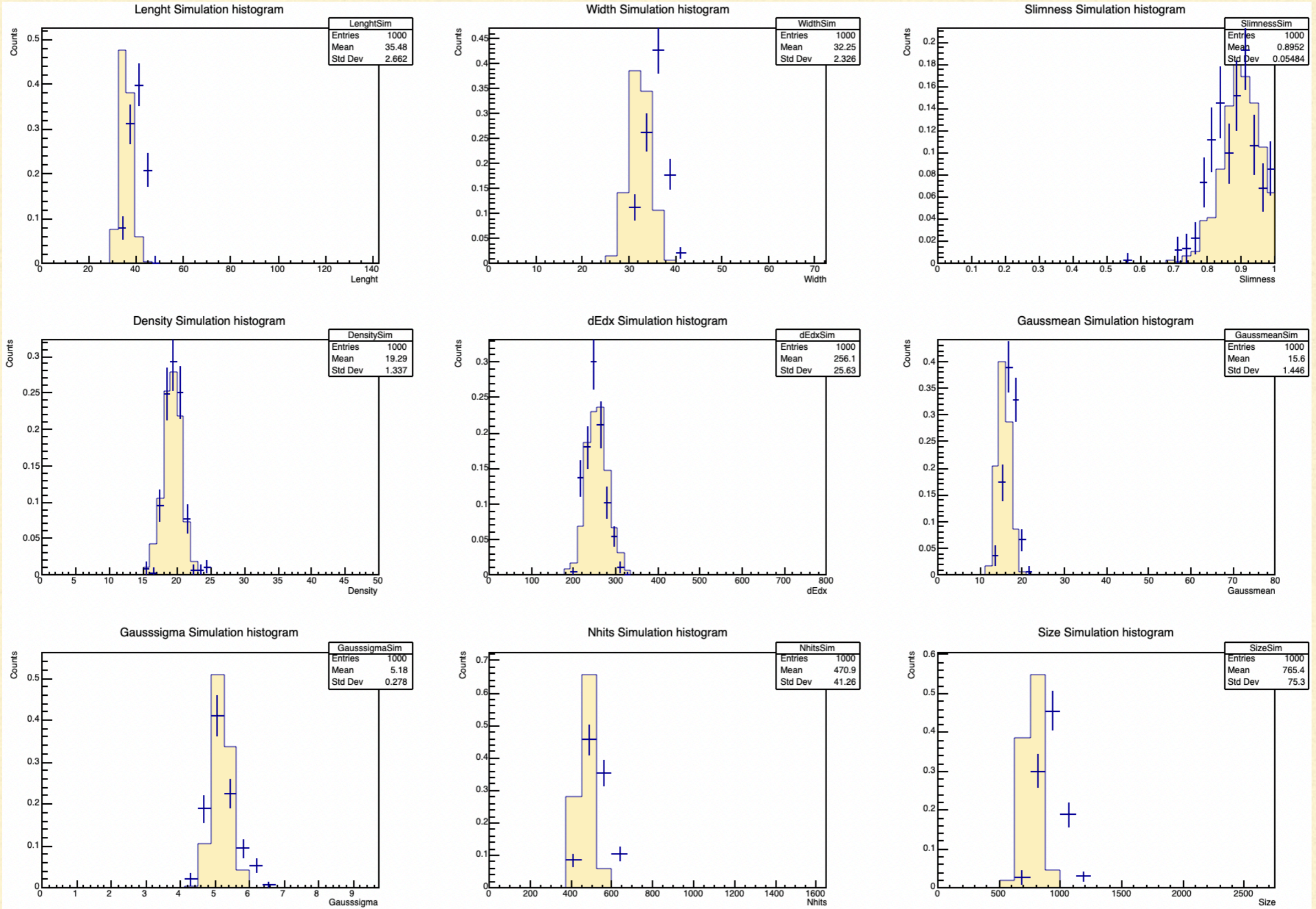
- Selection in a radius <300 px to avoid as more as possible the vignetting in data
- Tested overall fluctuation on number of electrons coming out from G3



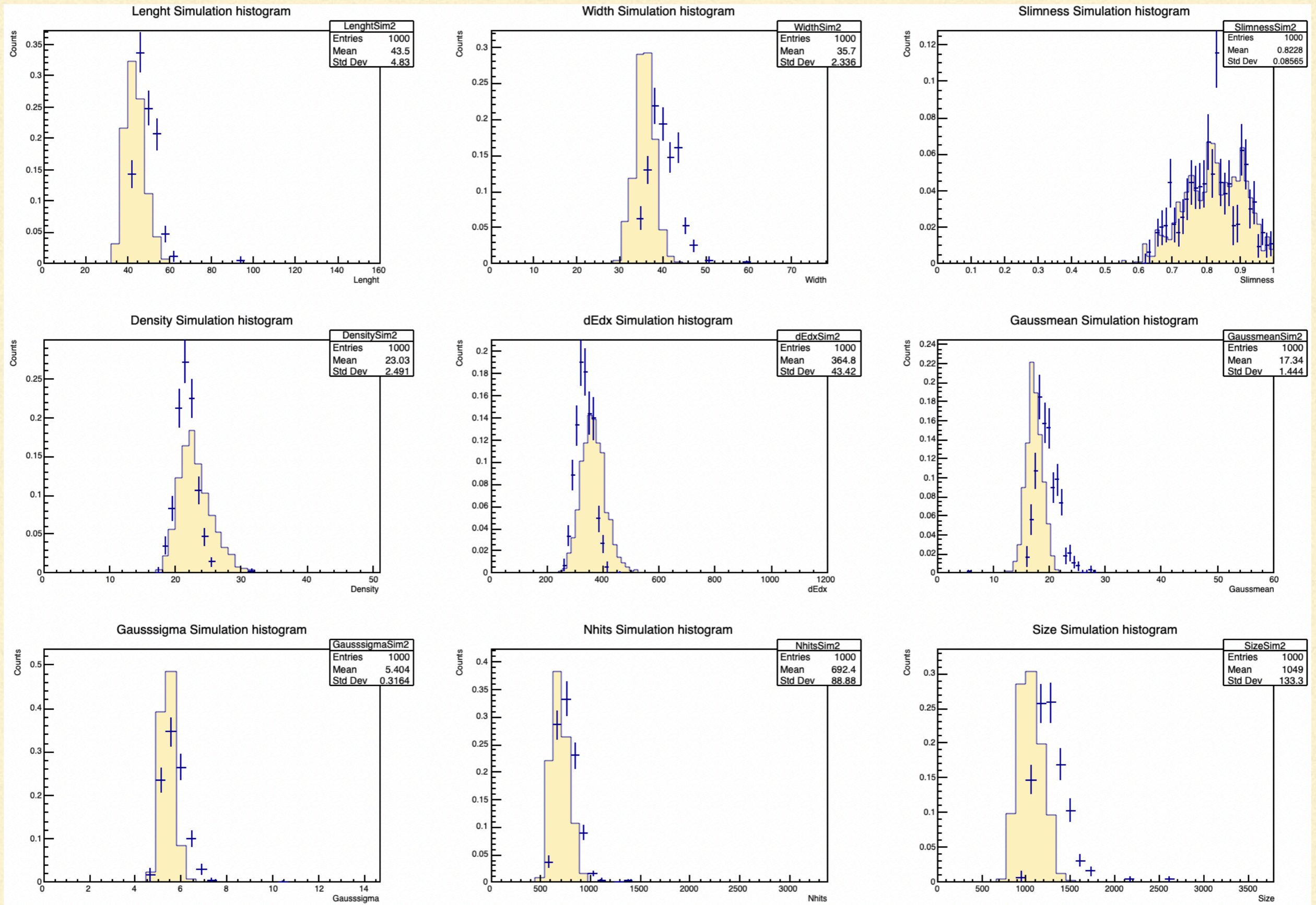
Fe - 300radius Selection



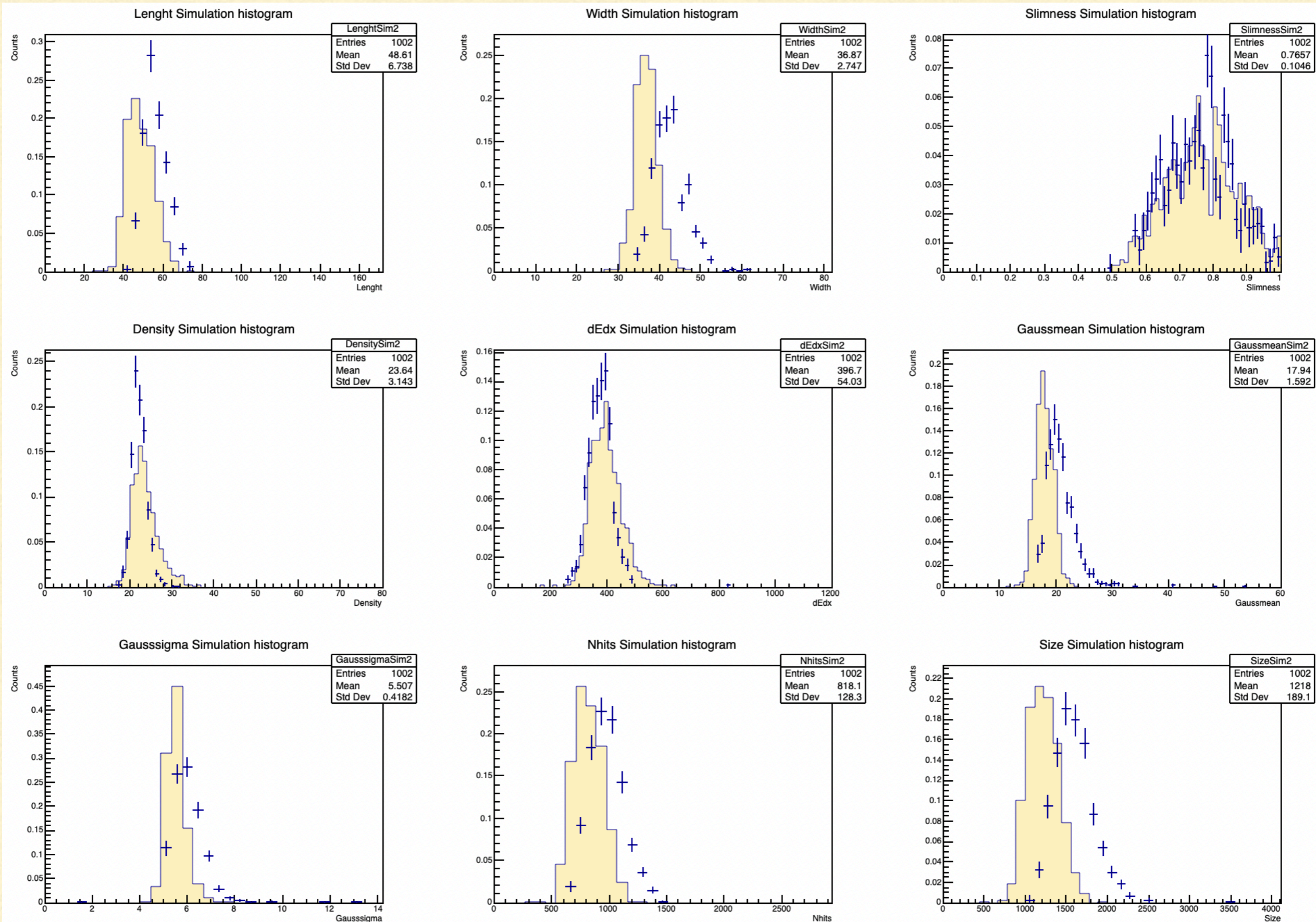
Cu - 300radius Selection



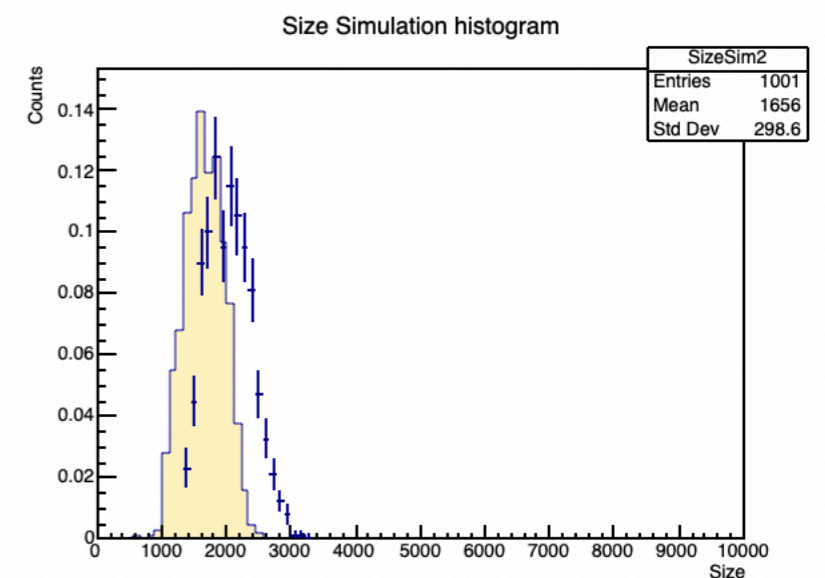
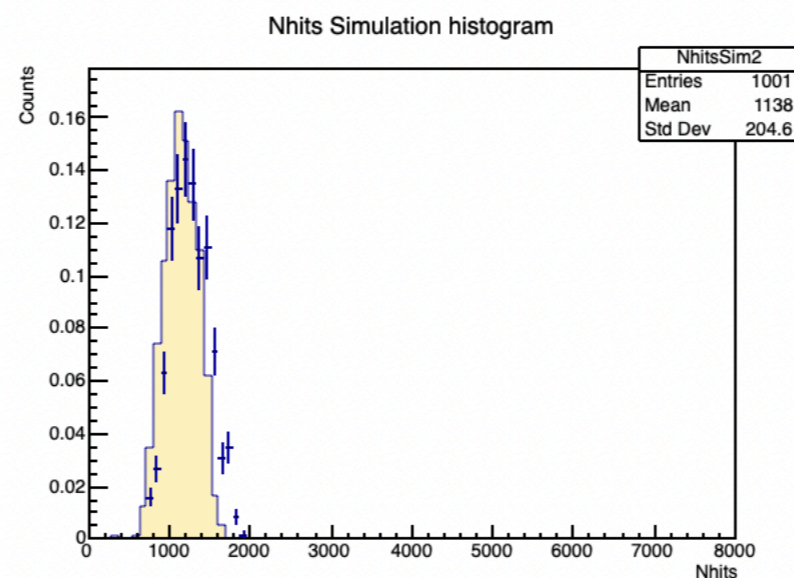
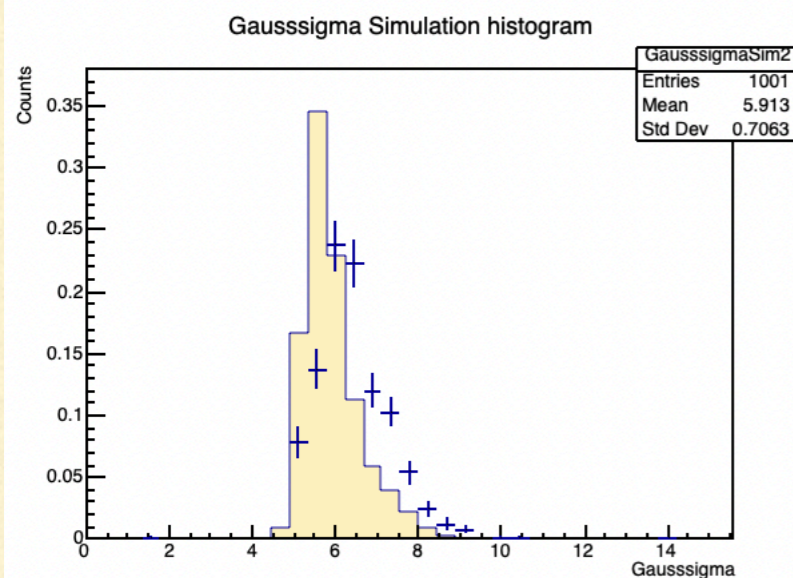
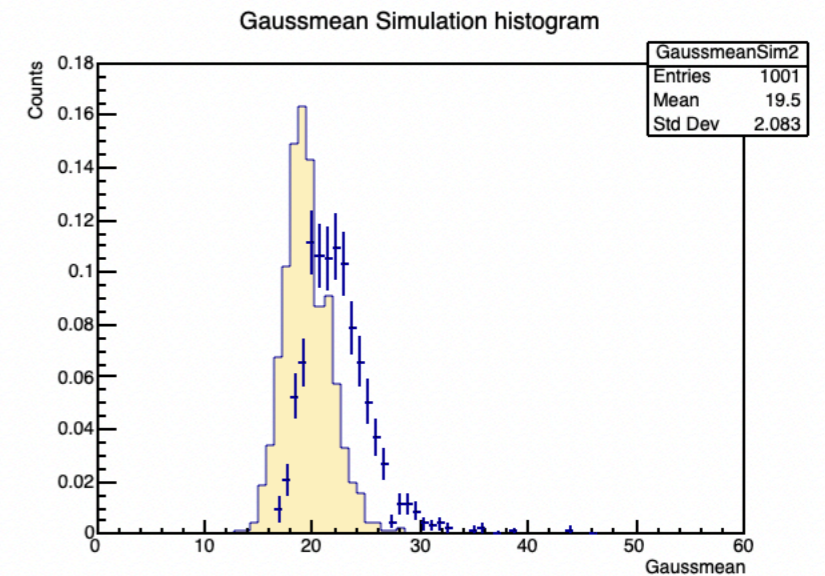
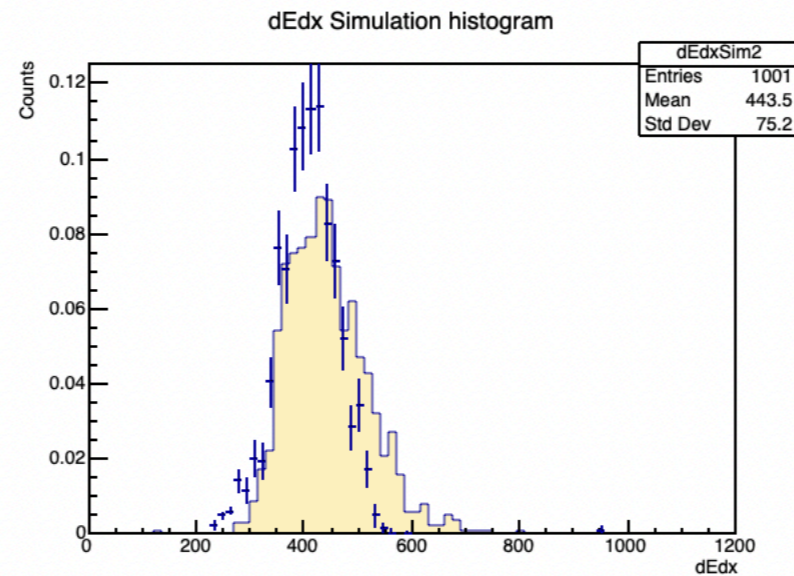
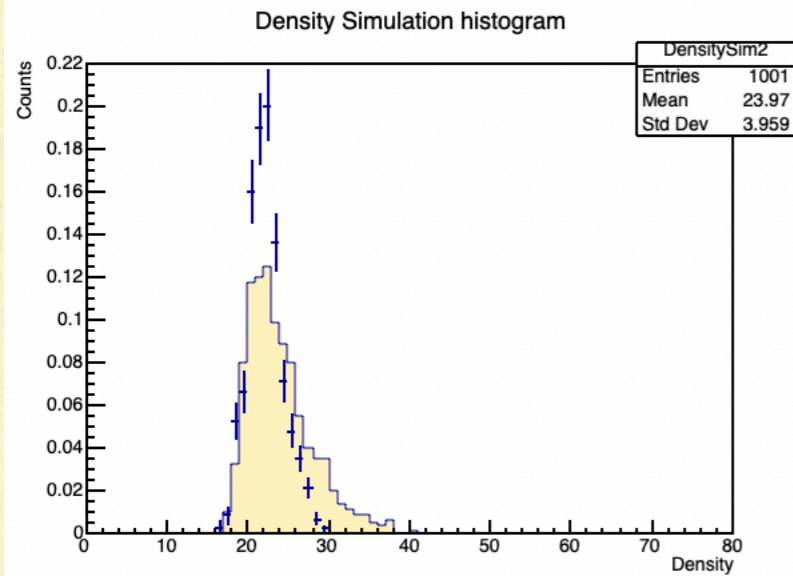
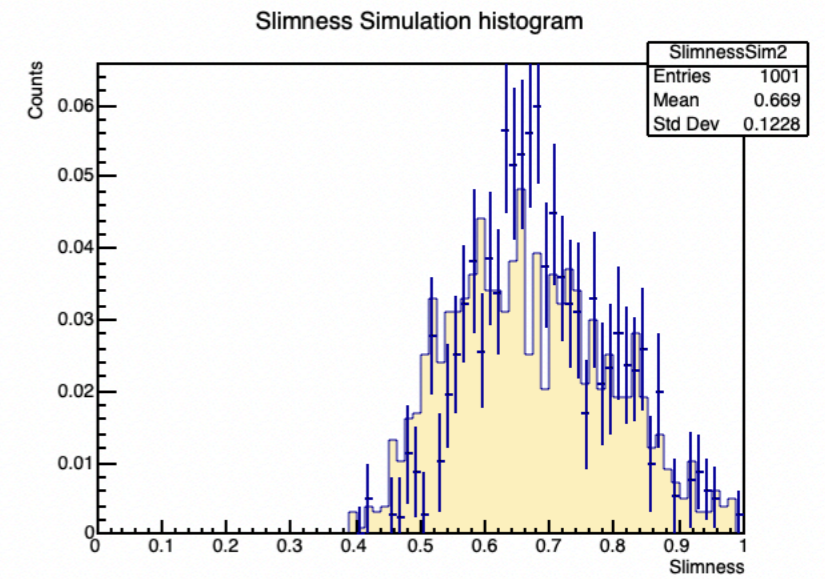
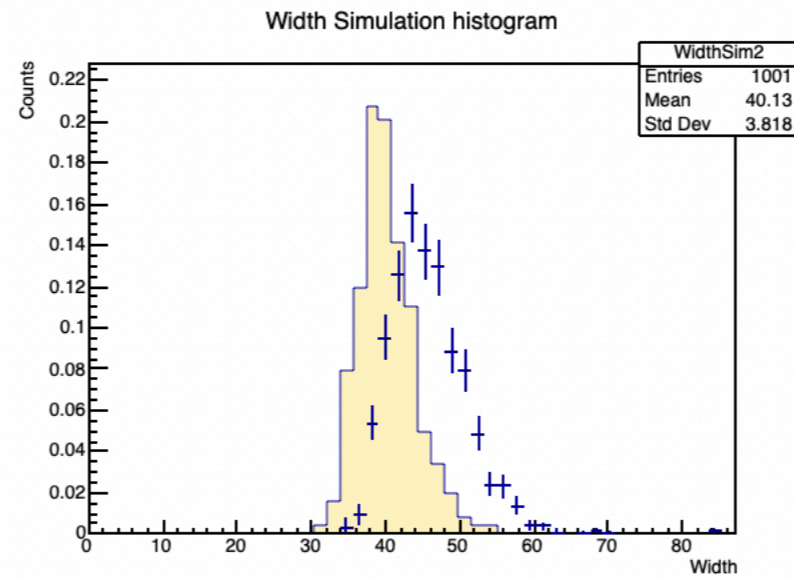
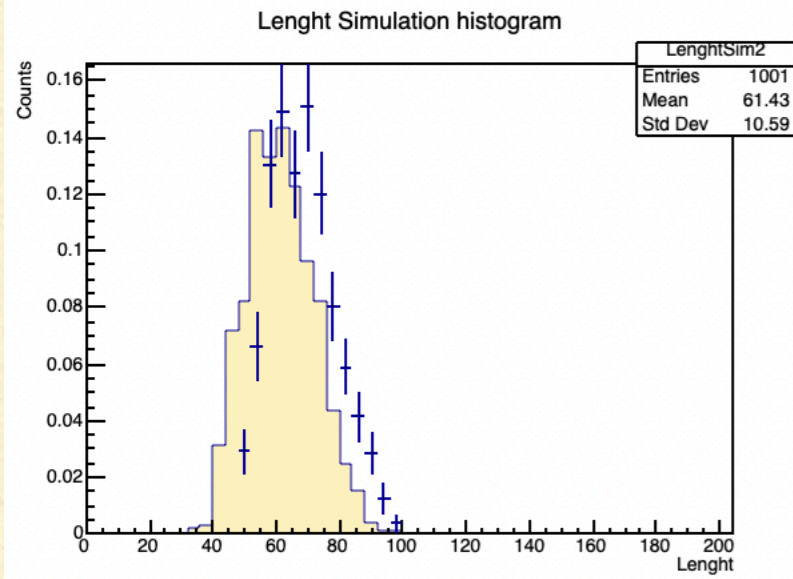
Rb - 300radius Selection



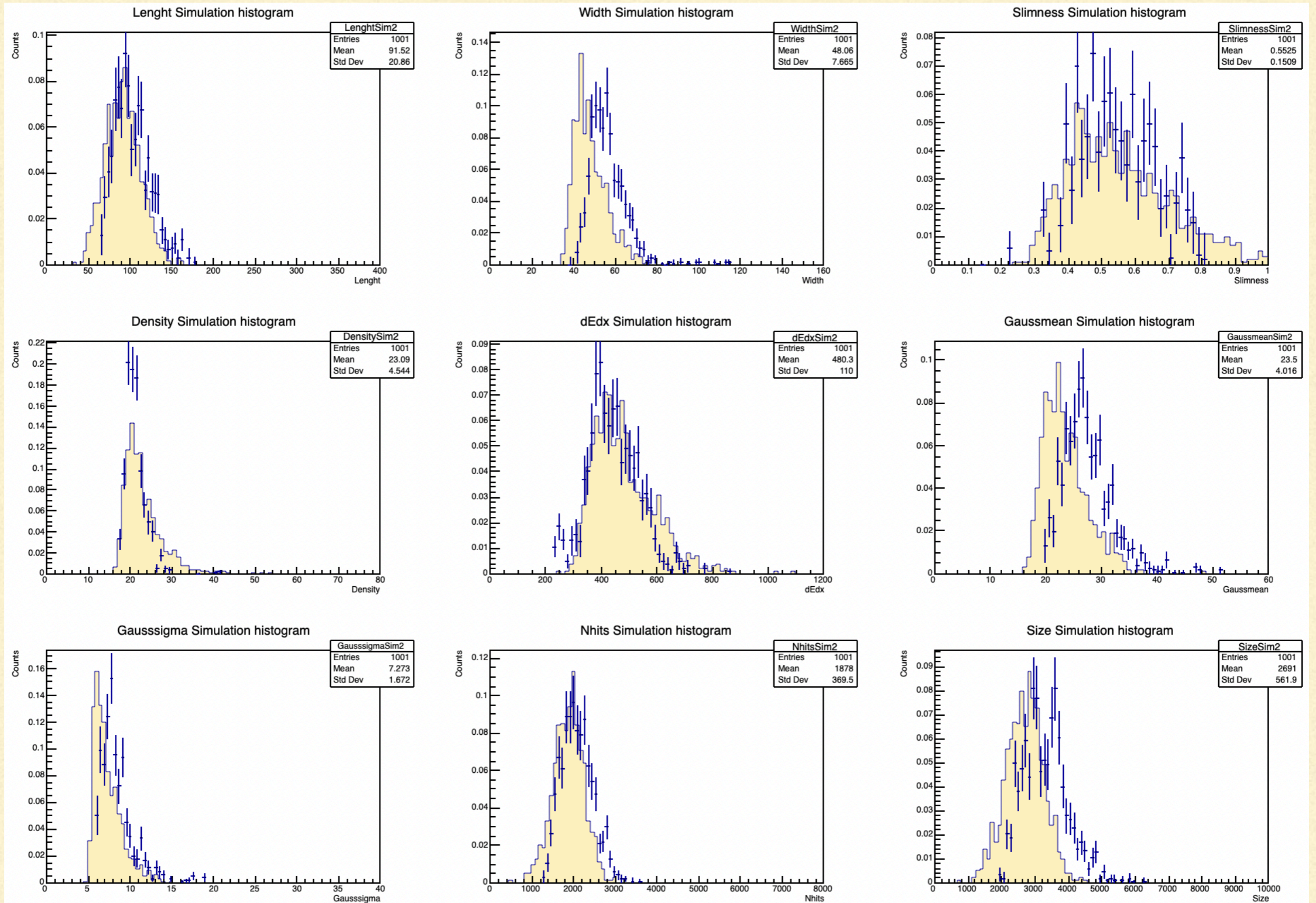
Mo - 300radius Selection



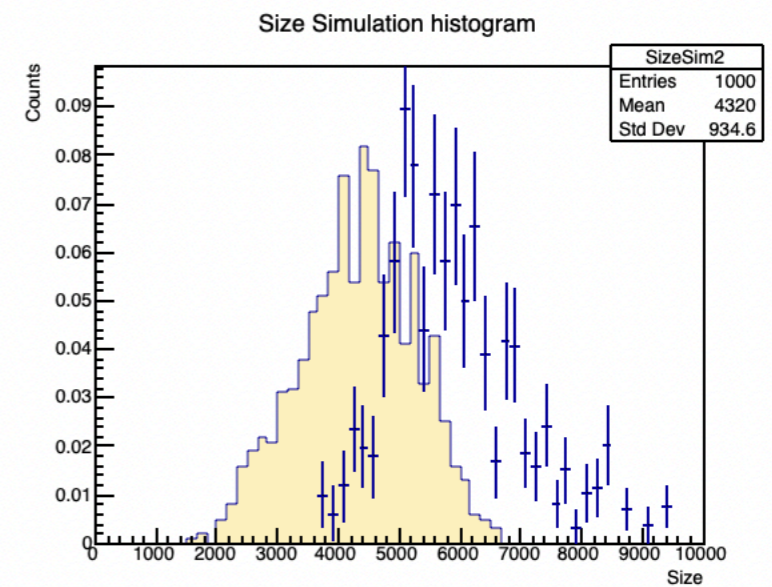
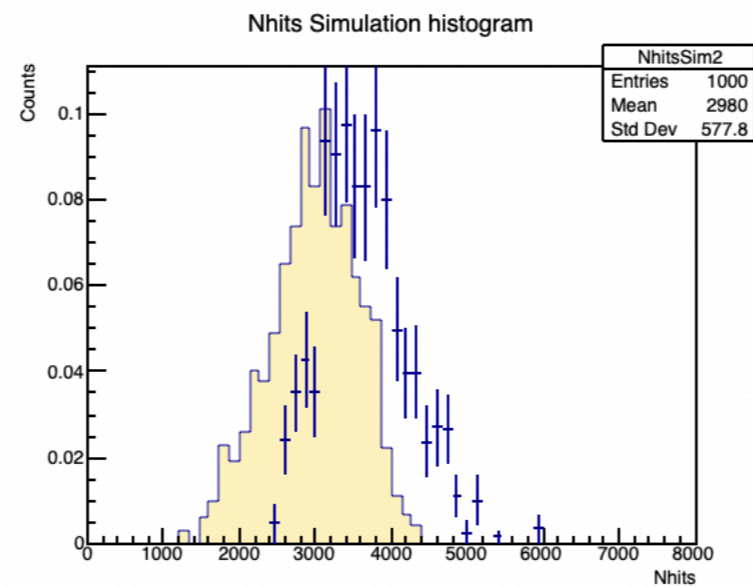
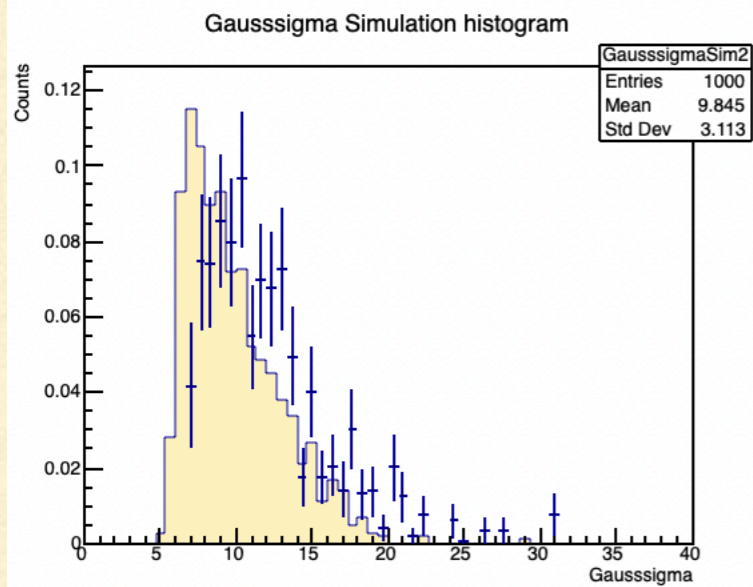
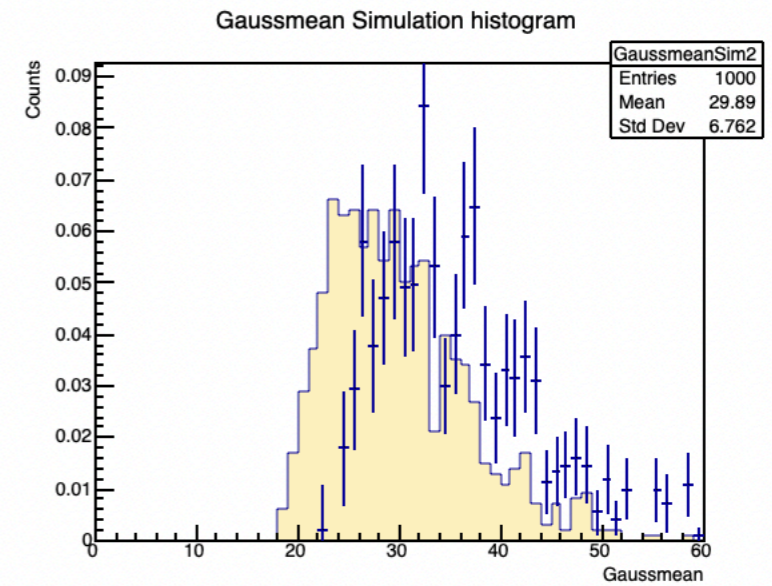
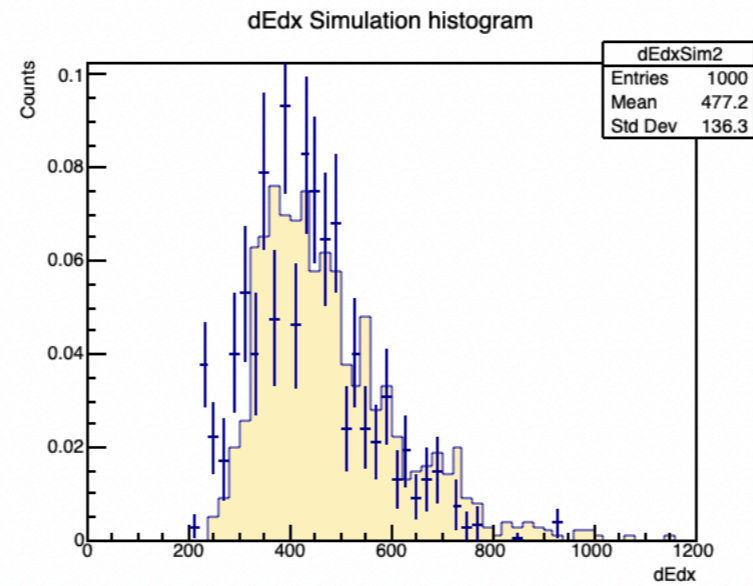
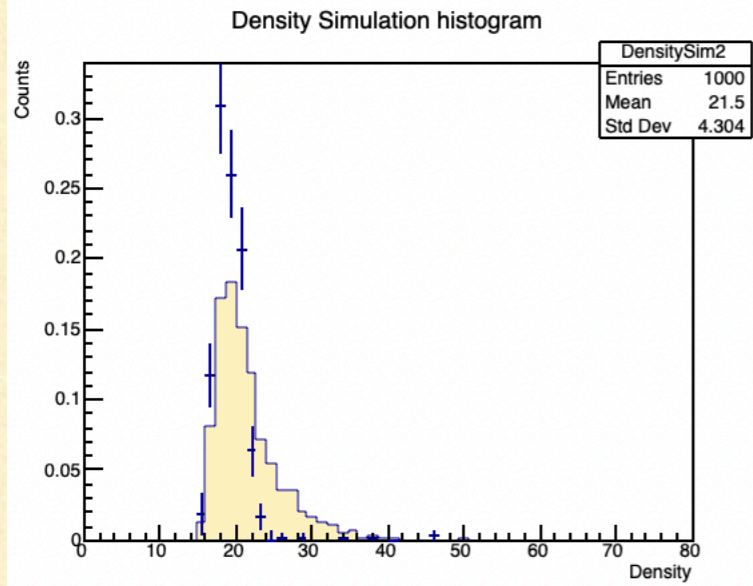
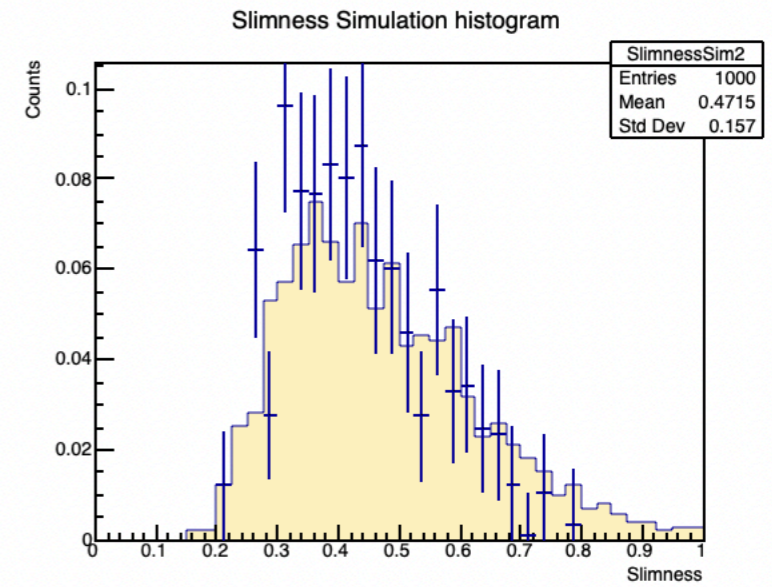
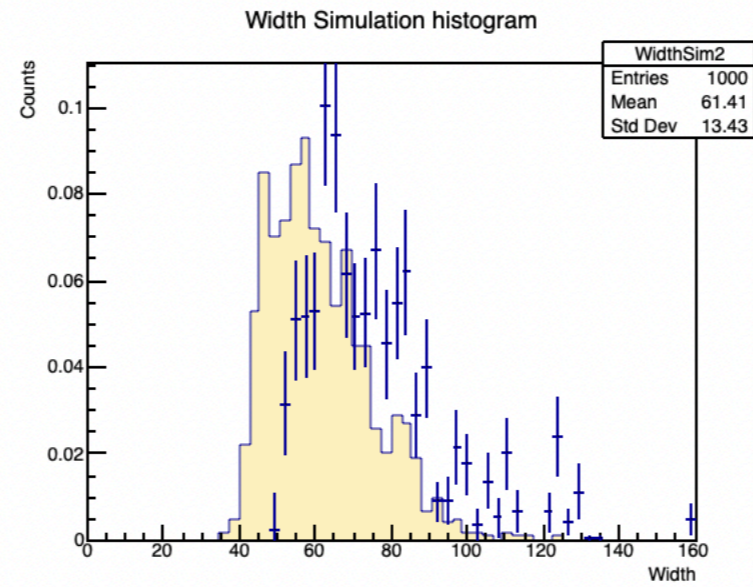
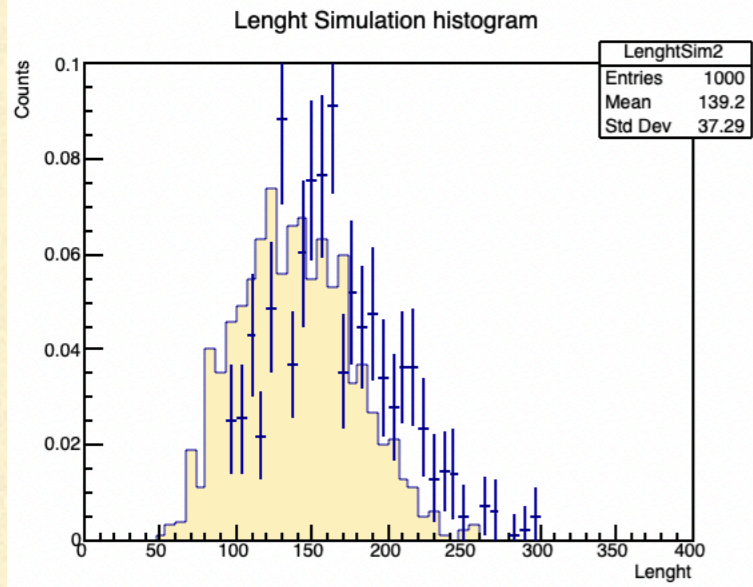
Ag - 300radius Selection



Ba - 300radius Selection



Tb - 300radius Selection



Issue in digitization

Impossibility of retrieving the original impact point due to changes in the saturation process

Work in Progress to solve

