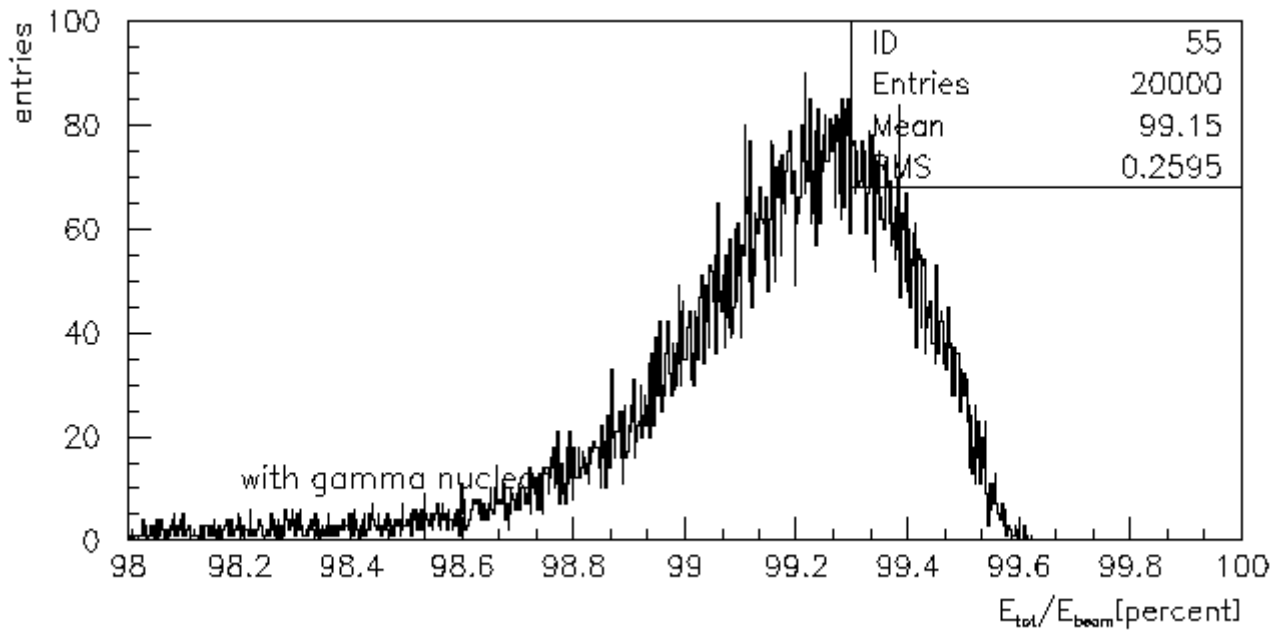
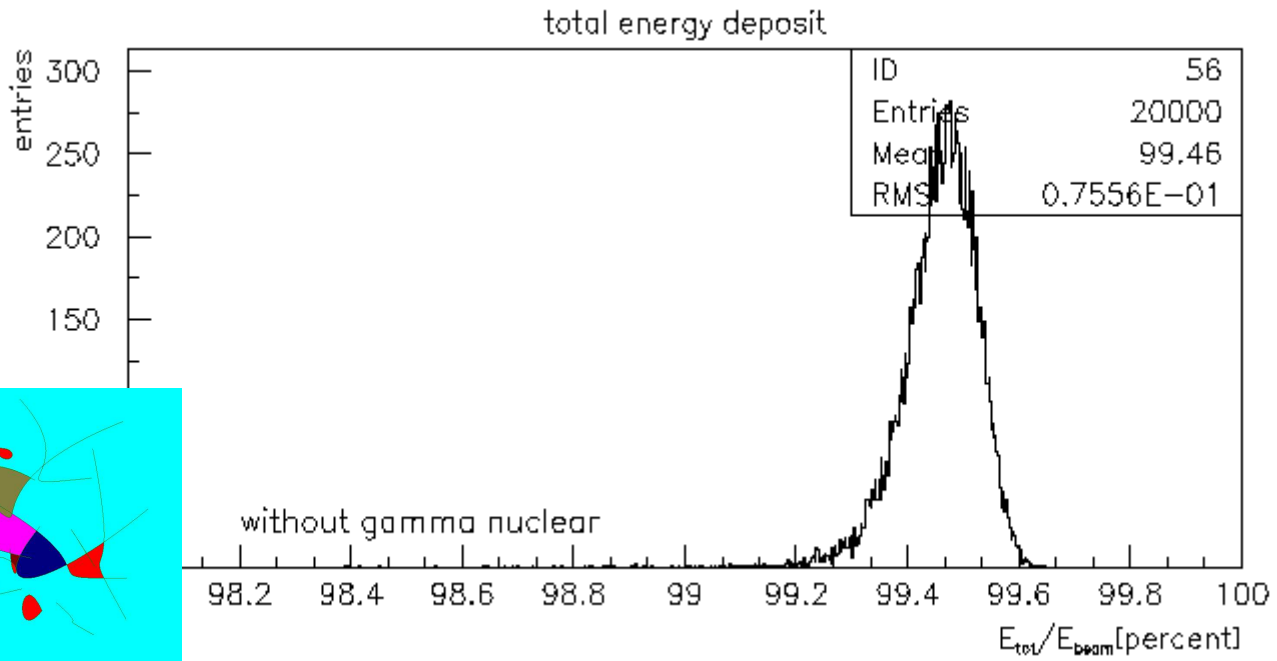
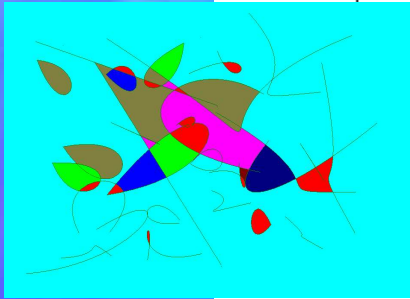


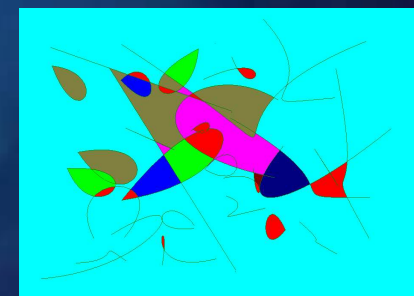
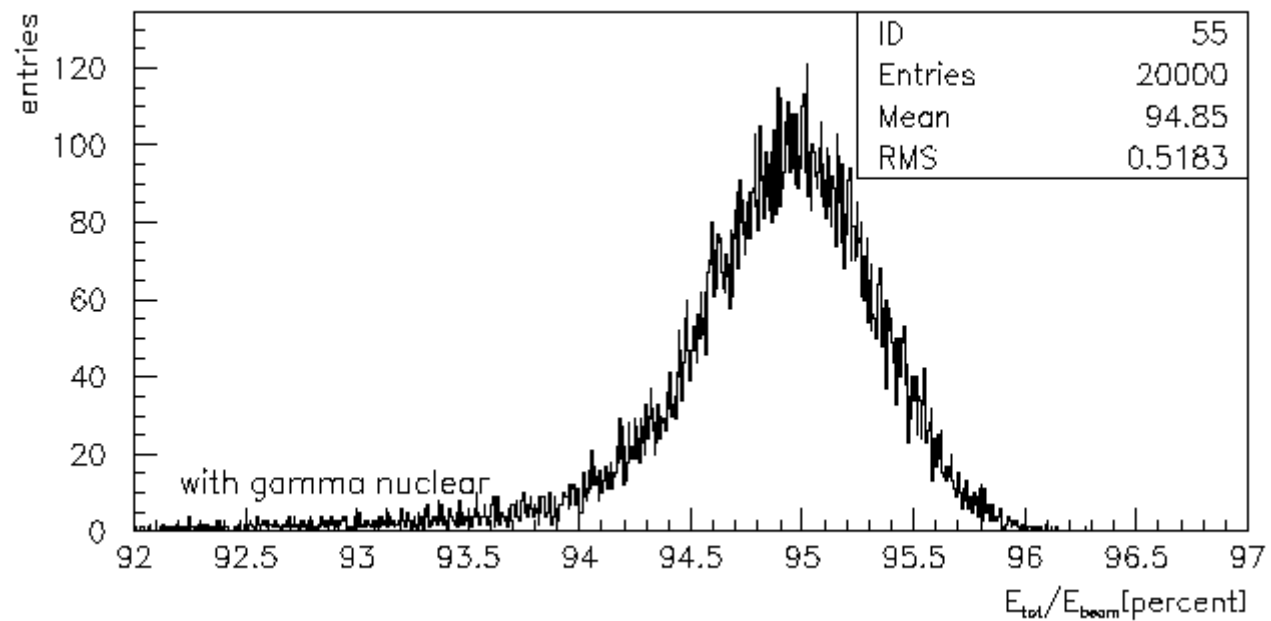
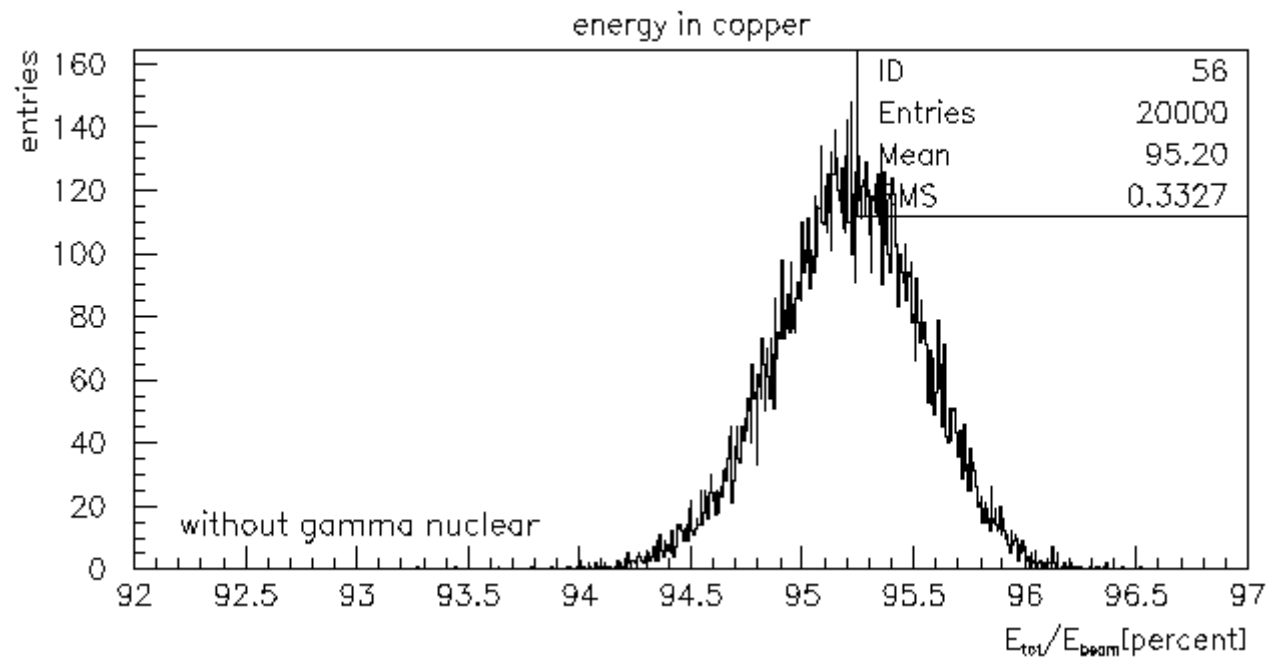
*gamma nuclear reactions
in ATLAS HEC*

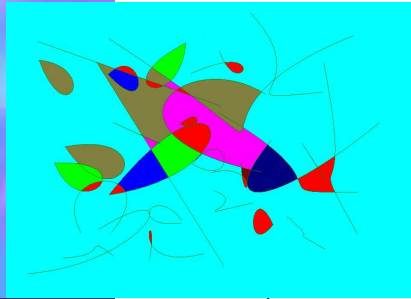
Impact on electromagnetic
showers at the example of
10 GeV gammas

The study

- 10 GeV gammas in the ATLAS HEC test-beam set-up
 - True geometry
 - Toy analysis (using sampling fraction corrected energy deposition)

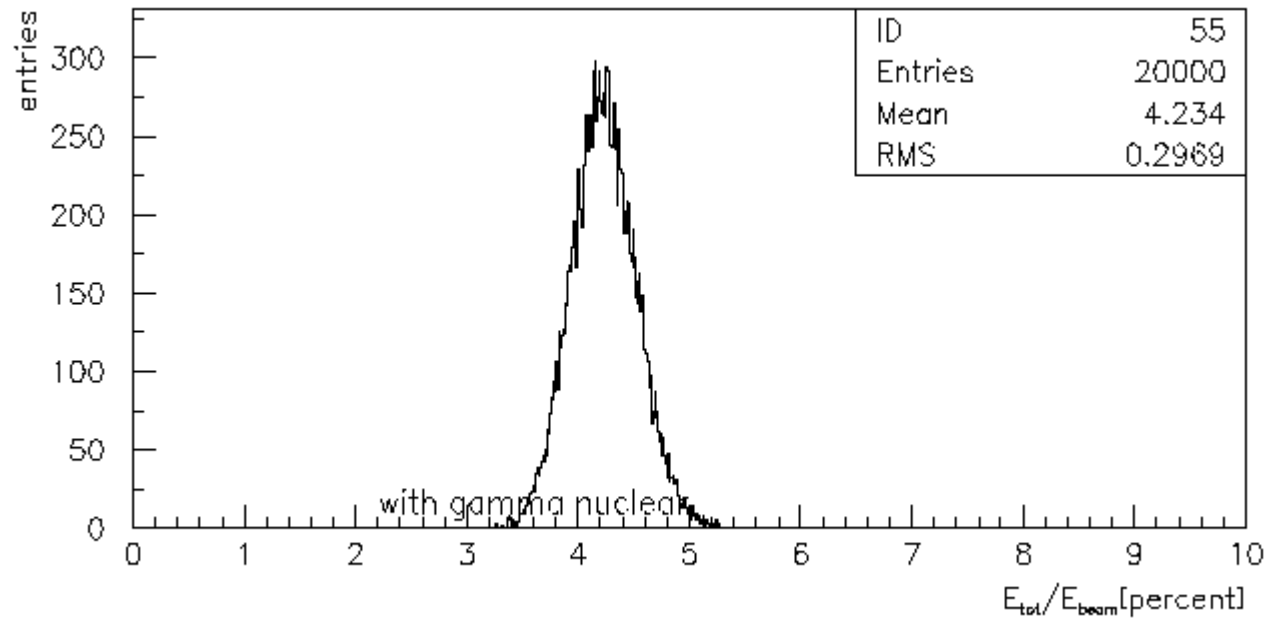
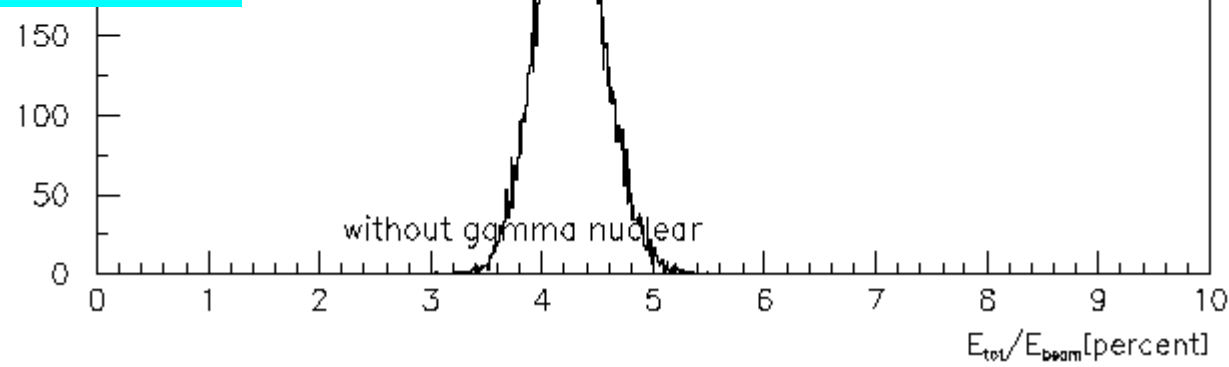


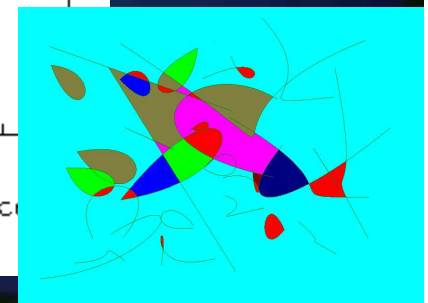
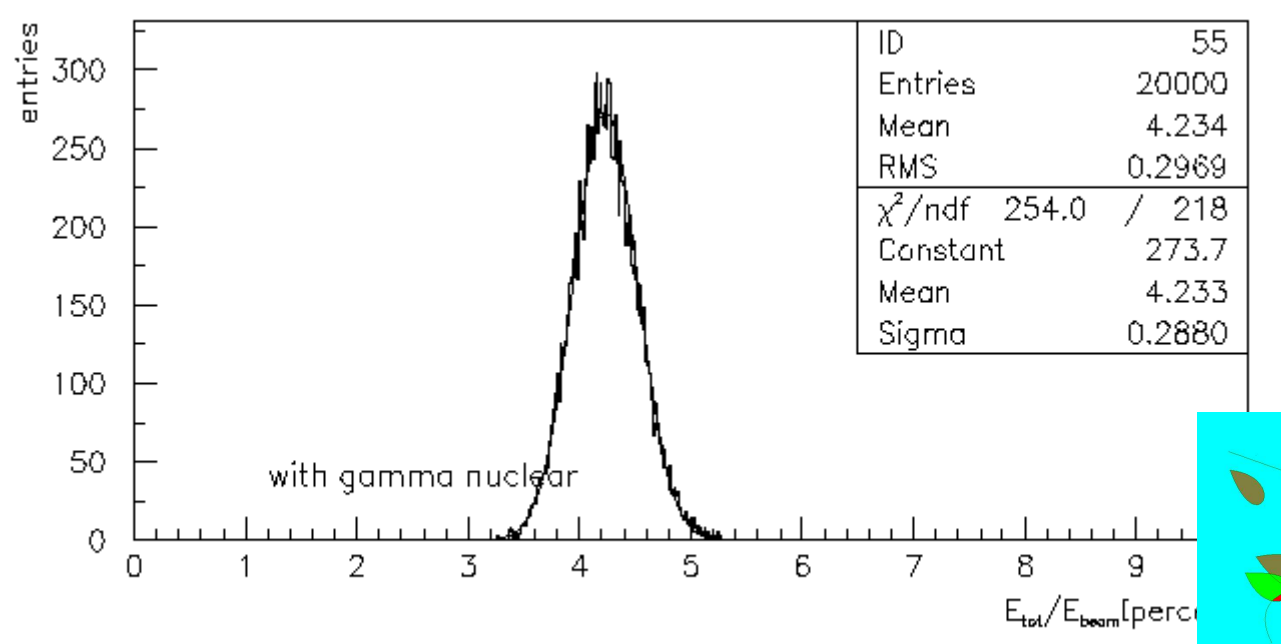
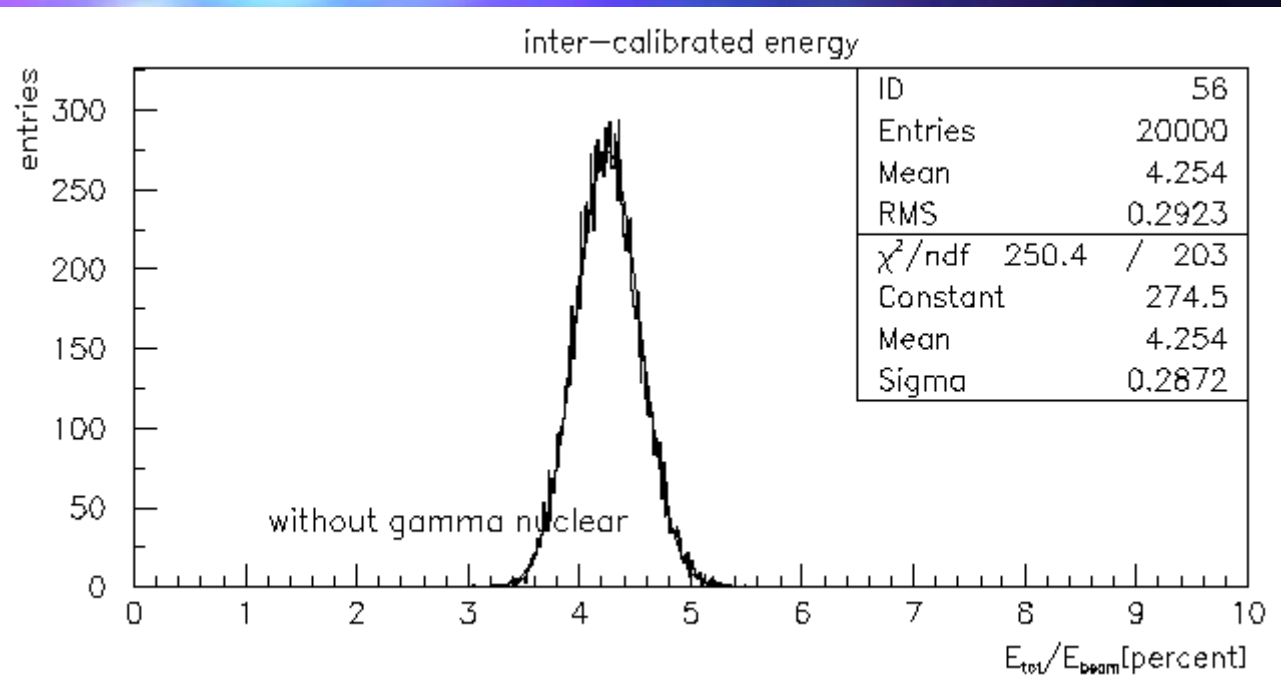


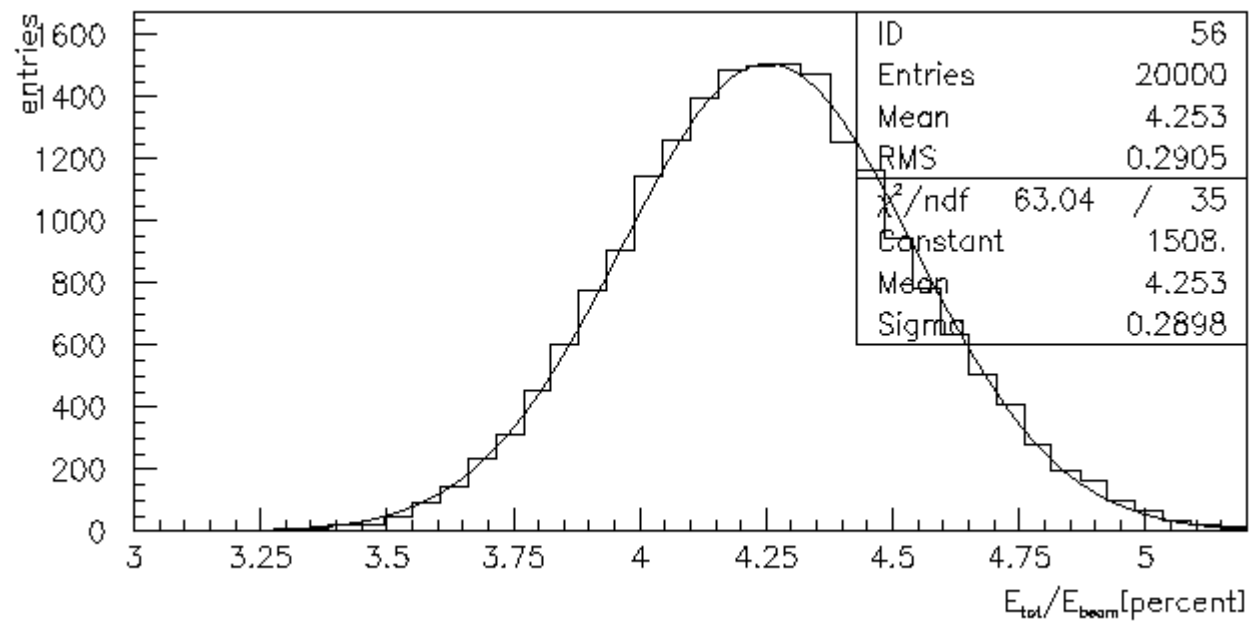
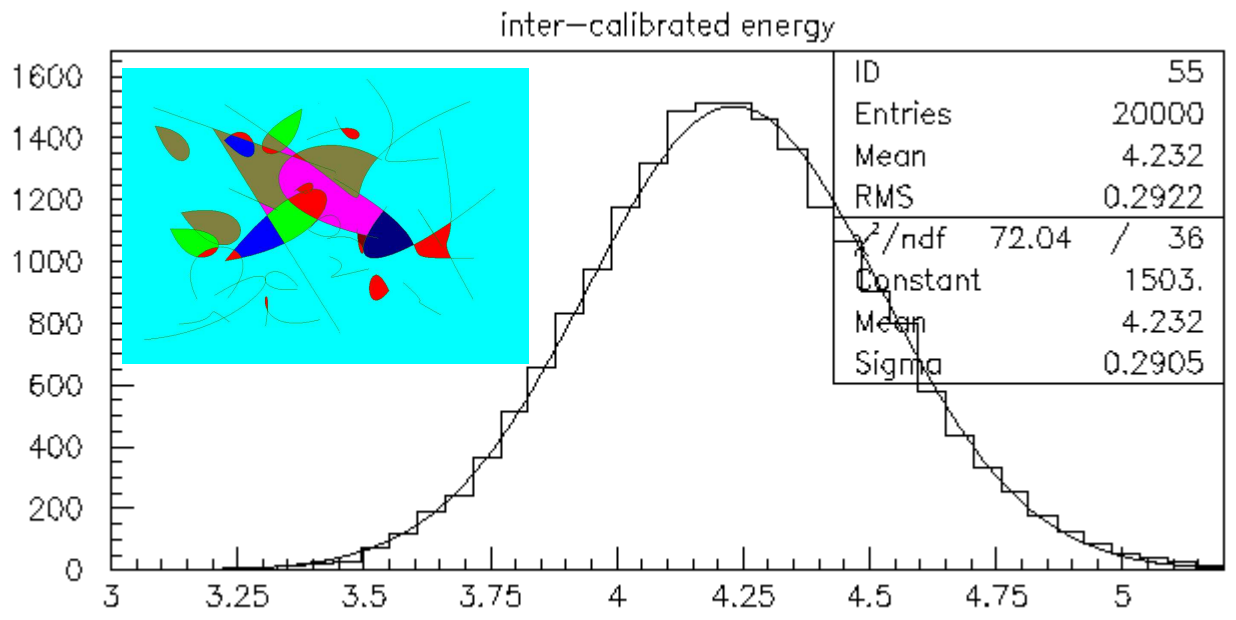


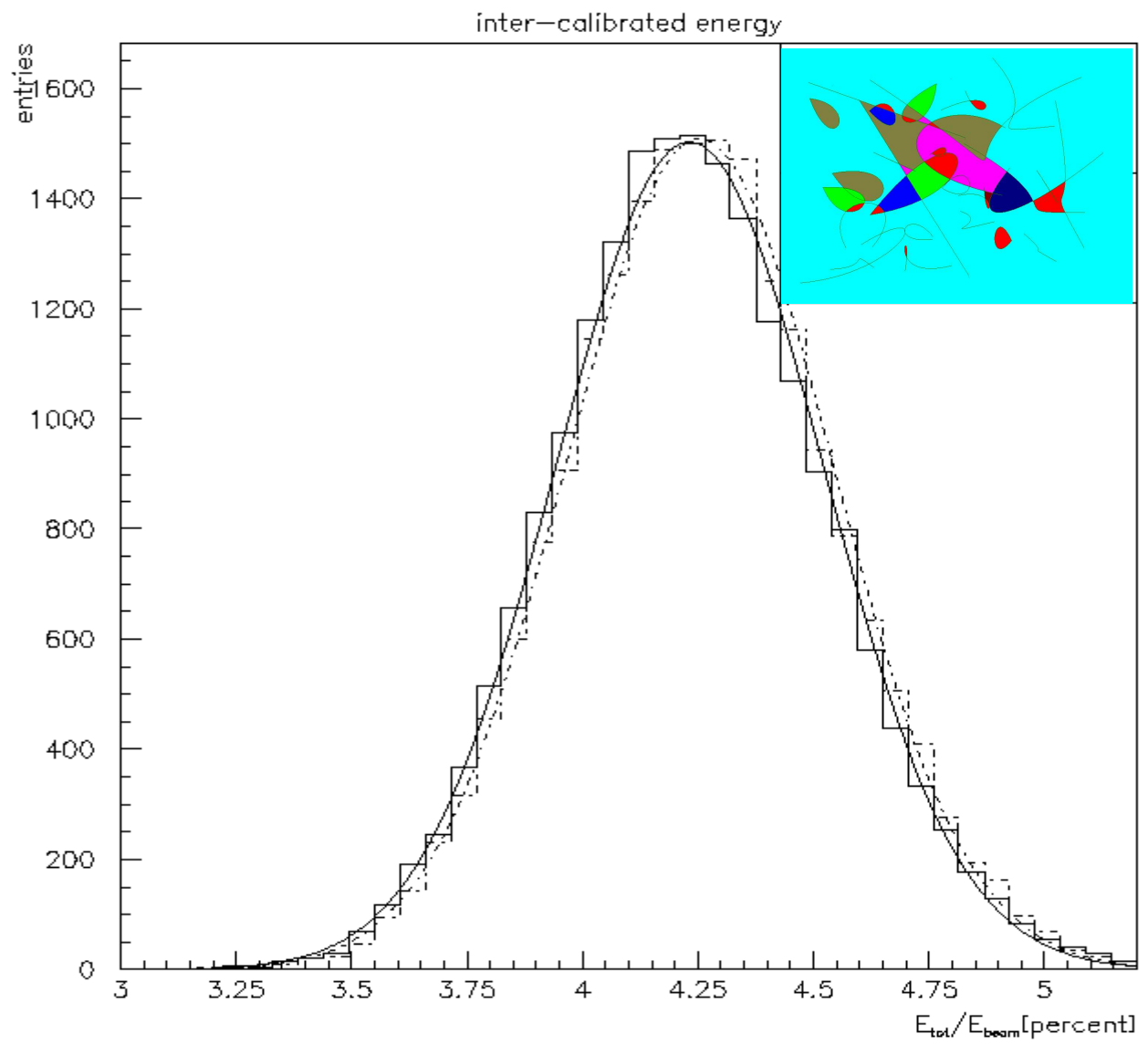
energy in LArg

ID	56
Entries	20000
Mean	4.254
RMS	0.2923









Conclusions

- In the case studied (sampling calorimeter), when switching on electro and gamma-nuclear physics, we find
 - The width of the visible signal is unchanged
 - The mean visible signal goes down by 0.5%
 - No tails in the visible signal
 - Significant tail in the total energy deposit in the dead material