Status report on EMC simulation ...

The plan was to:

- SURVEY the existing situation over the 2001 2002 runs
  - Validation of plots using $\Phi \rightarrow \pi\pi\pi$ and **ee$\rightarrow$eeγ** samples

STATUS: started with $\Phi \rightarrow \pi\pi\pi$

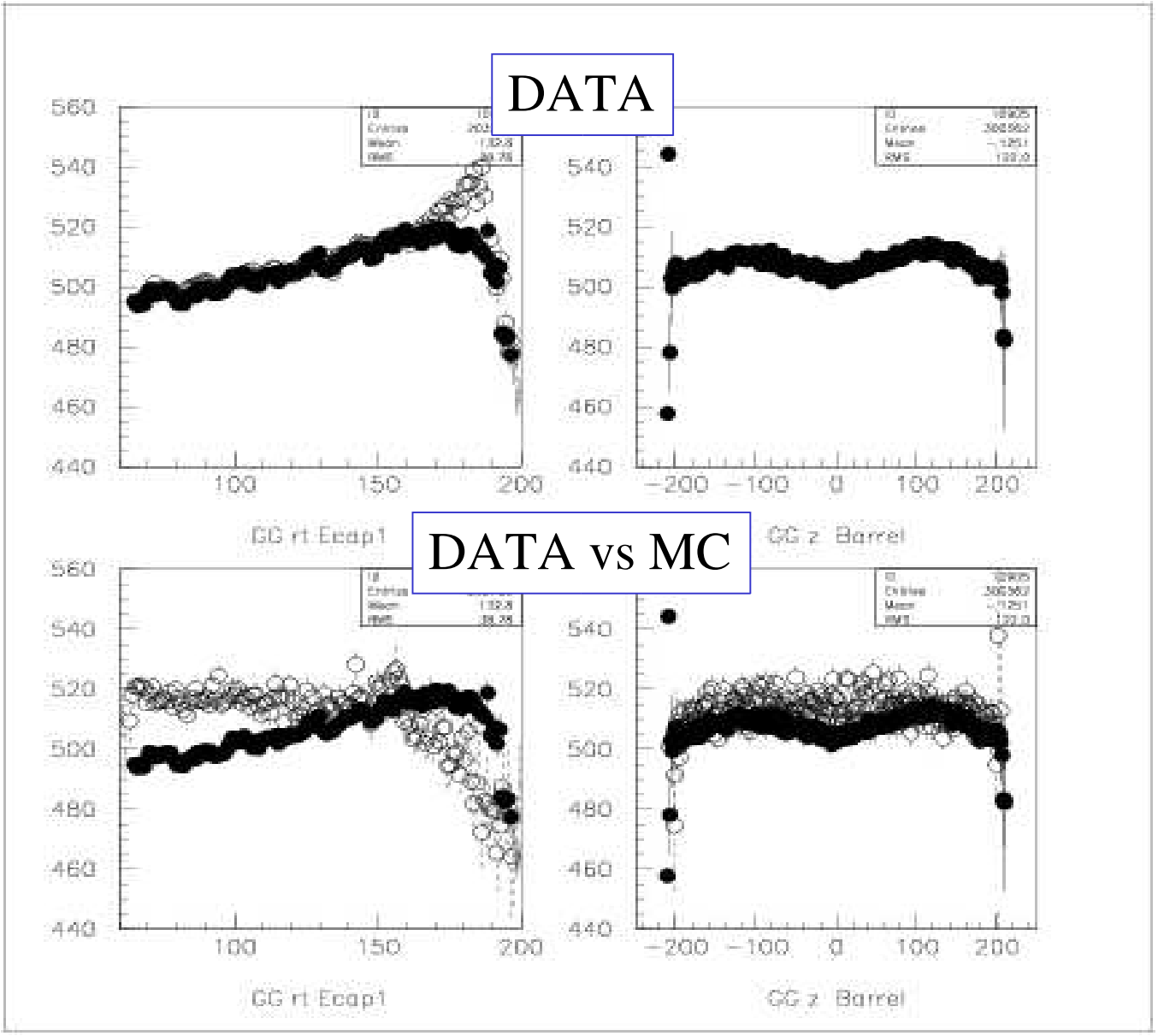
- Library TOMLIB,DIAG used with minor effort (after 1 day of debugging thanks to T.Spadaro) → emcsim.exe
- Scripts ready to run over a large sample.
- First test-plots on energy response started/checked with 1.5 pb^{-1} of D3P3 dsts (runnum ~ 26519-26658)

next steps ... run over large data sets. Insert efficiencies. start comparing with MC, fix MC!

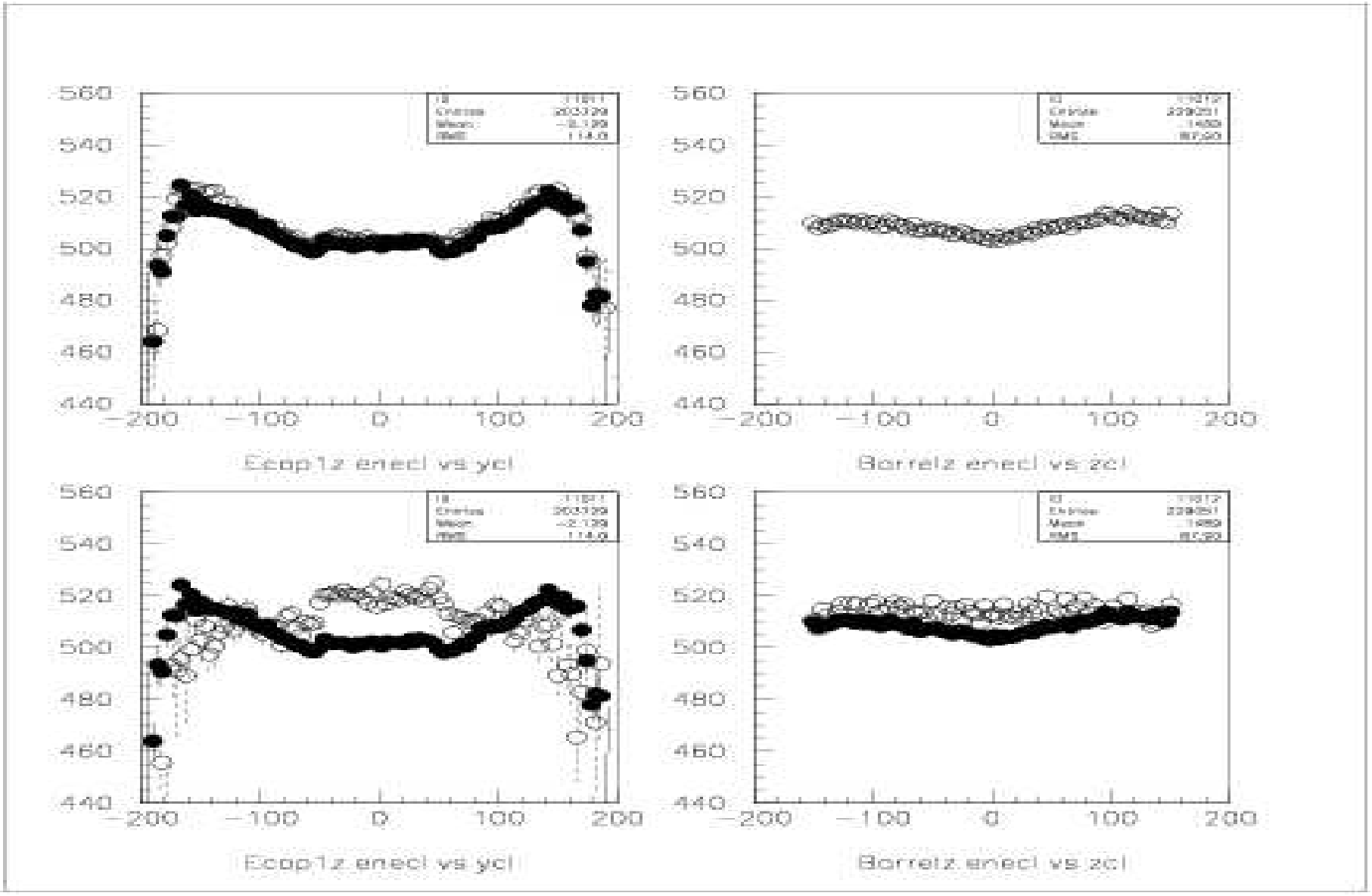
Example of problems in EMC scale (1)

Comparing the Energy scale as a function of hit position in fiber shows :

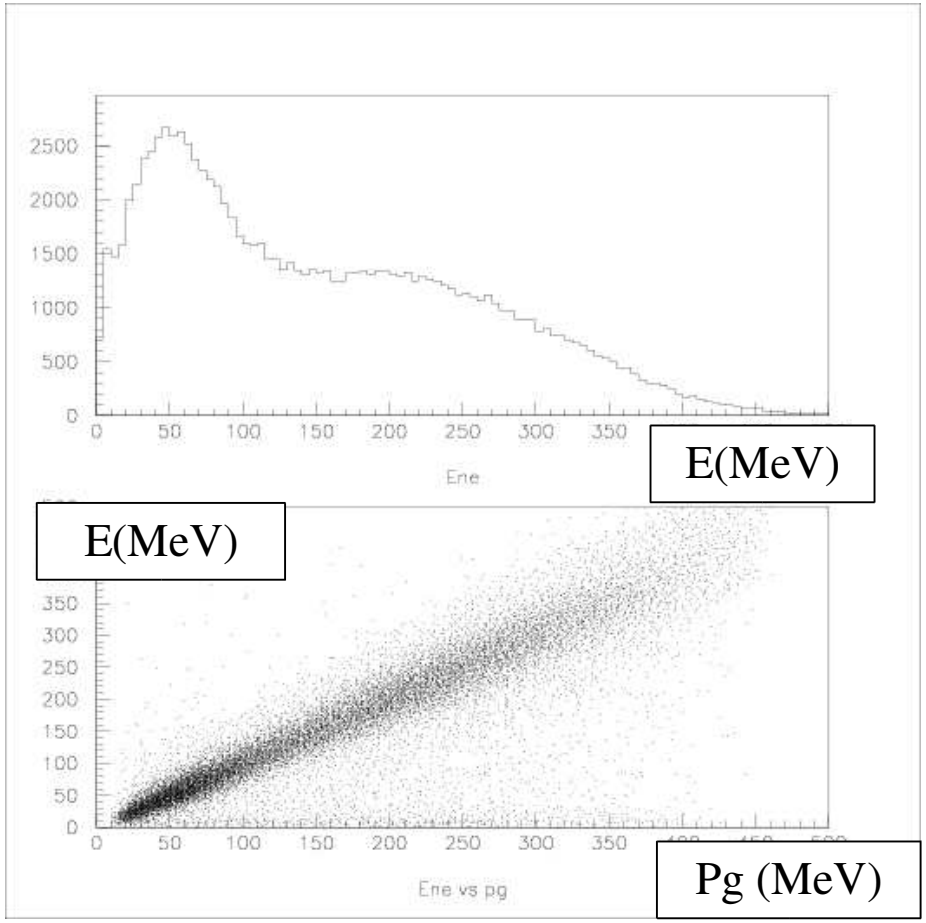
- no problems
  just a small scale for Barrel
- 4-5% discrepancy along Rt or Y in Ecap



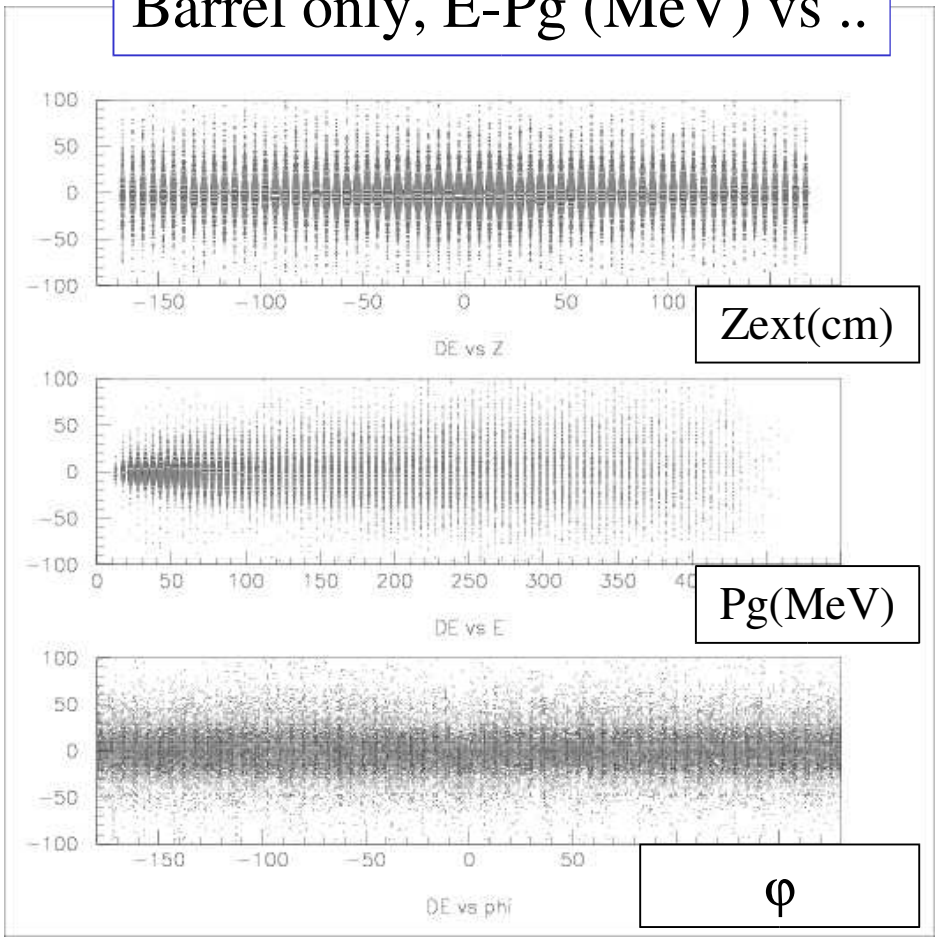
Example of problems in EMC scale (2)



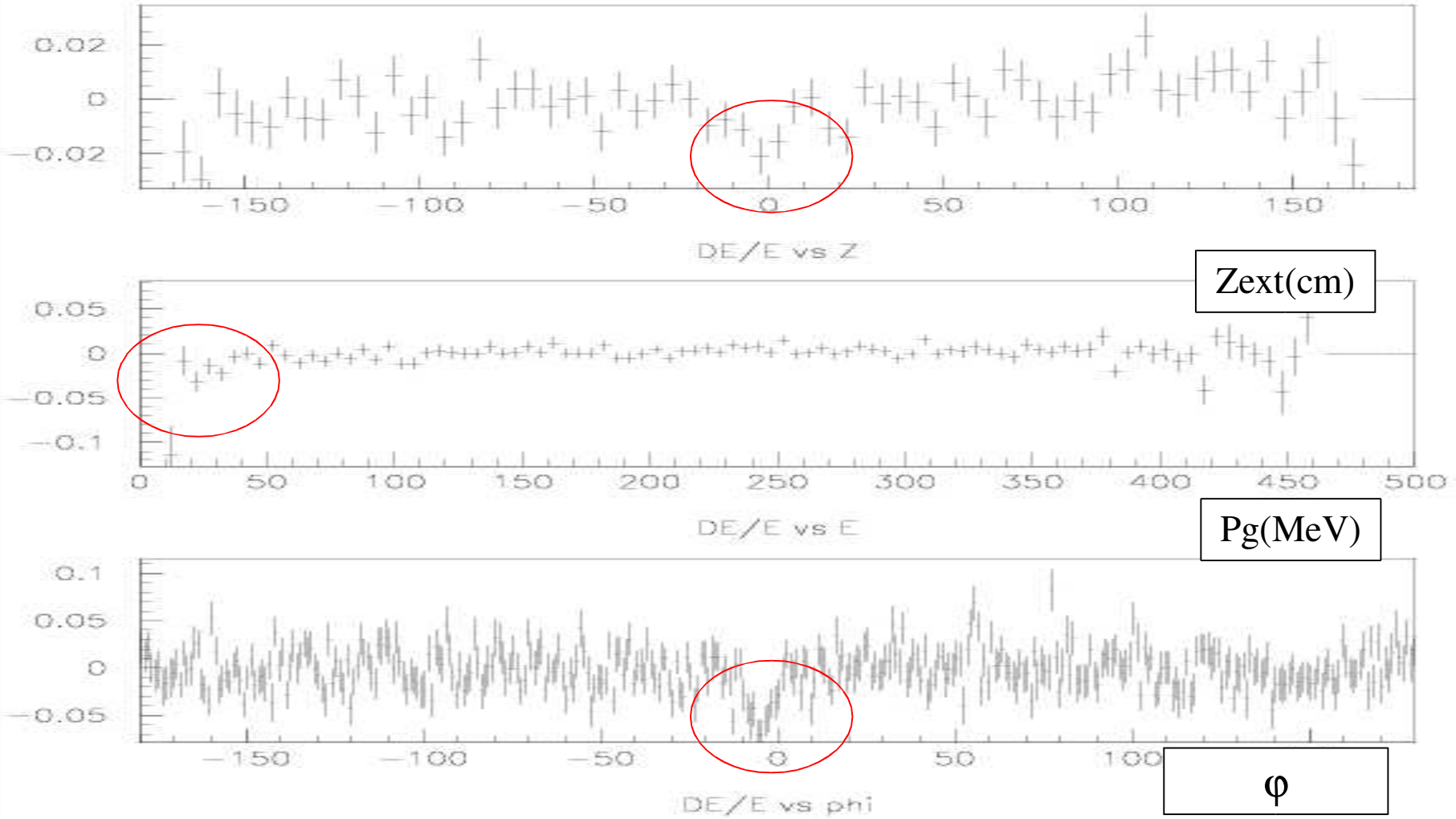
Example of validation plots with EMCSIM



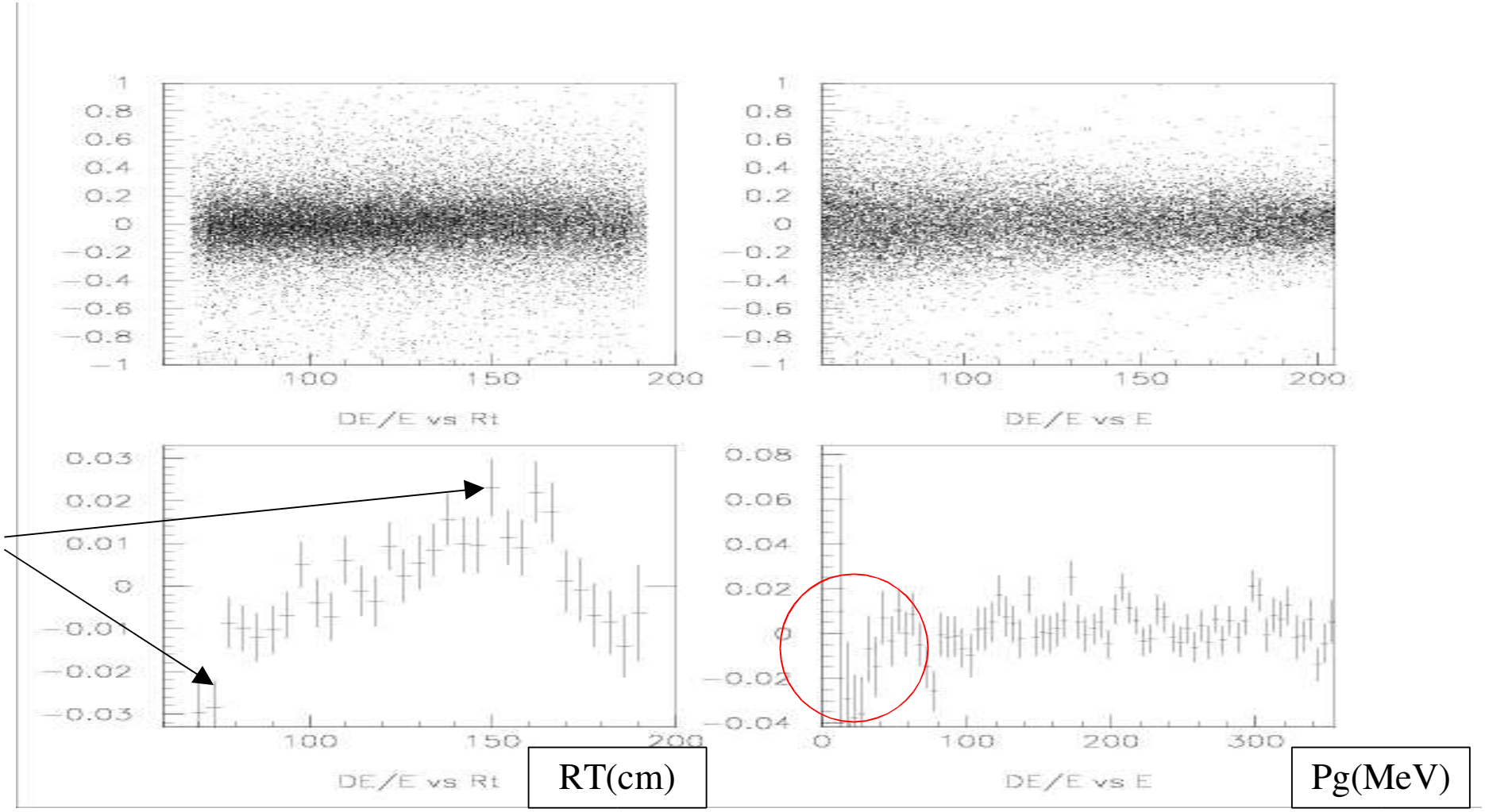
Barrel only, E-Pg (MeV) vs ..



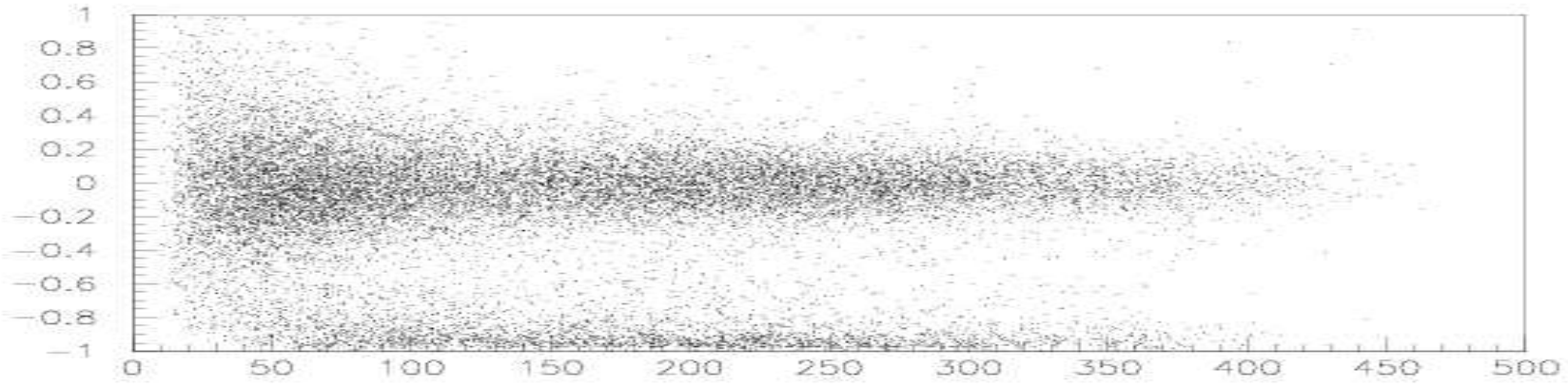
EMCSIM: Barrel only. (E-Pg)/Pg

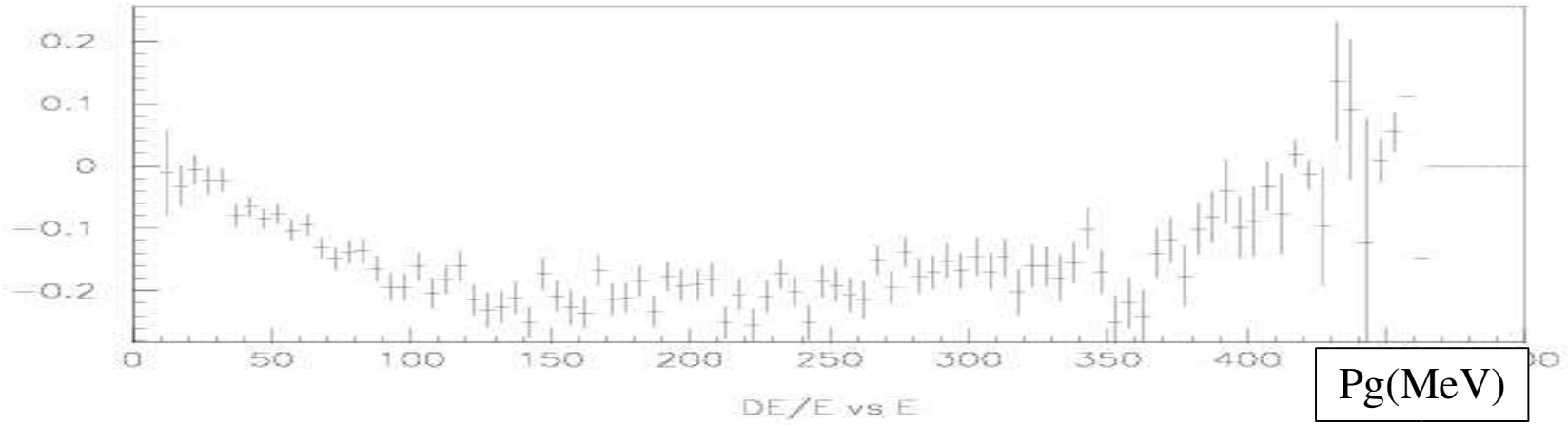


Endcap region (80:180 cm in RT)



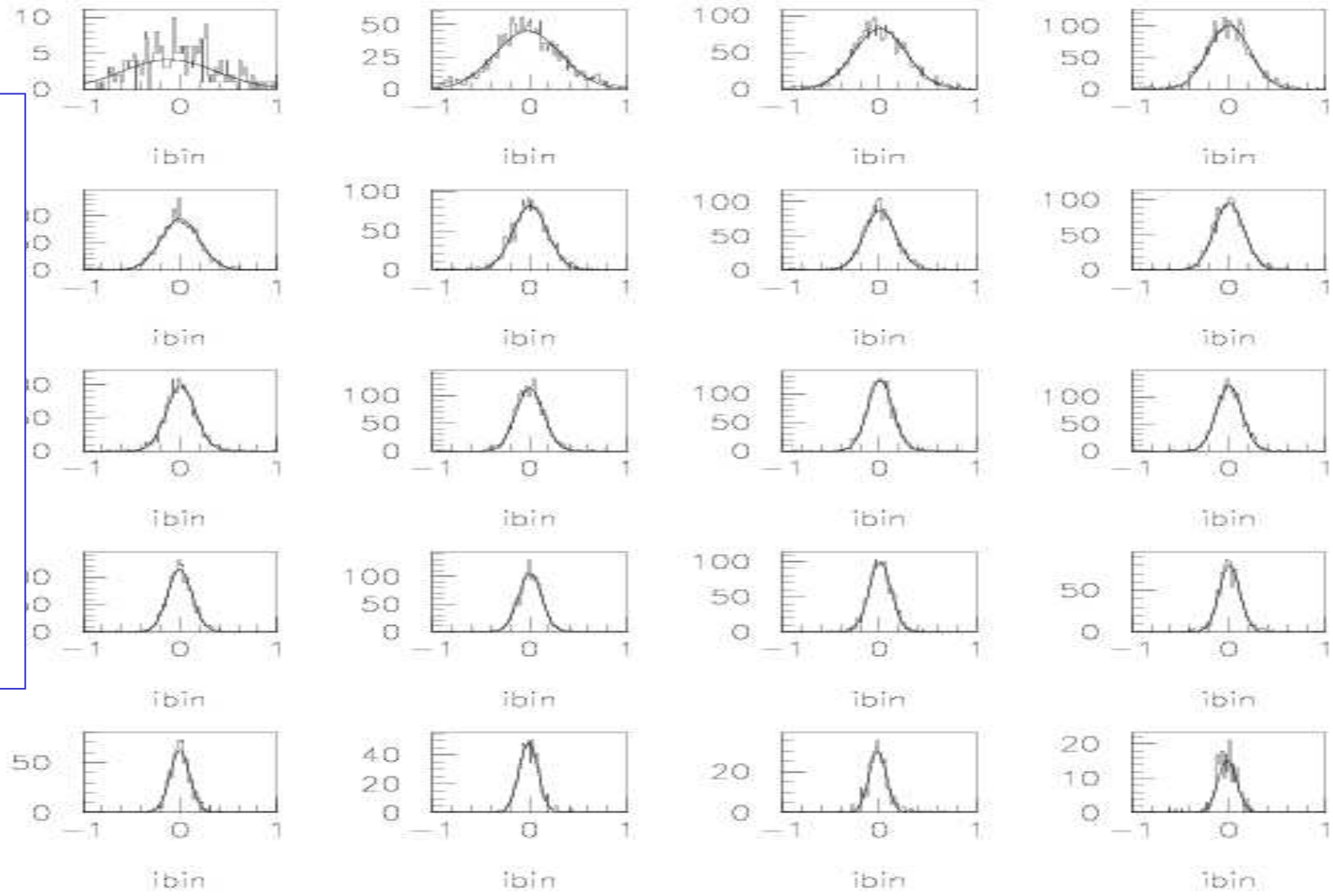
Barrel-Endcap region (180:200 cm in RT)



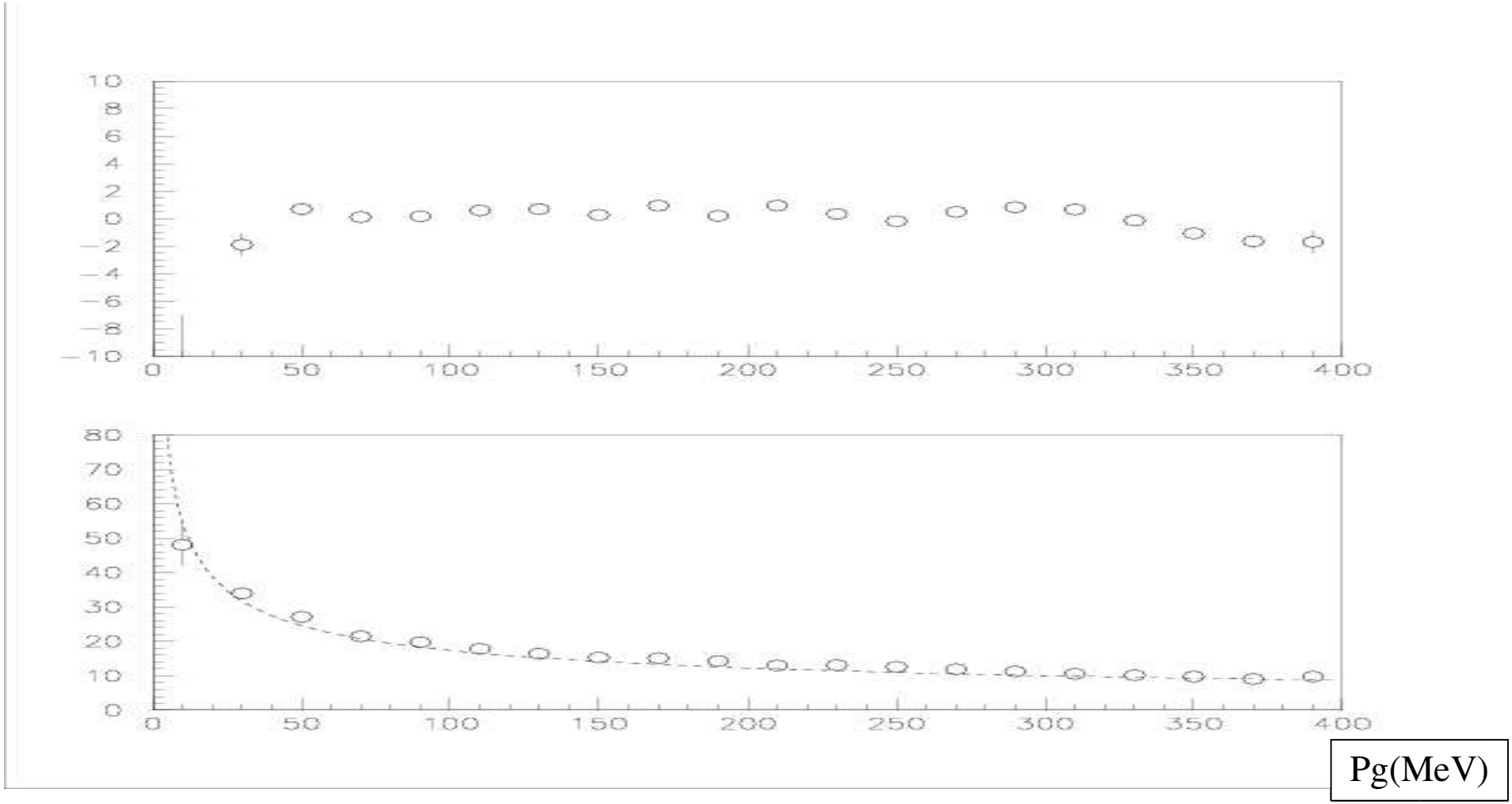


First look to resolution on EndCap

- 20 slices in Pg (20 MeV)
- Gauss fit
- Extract Peak, Sigma

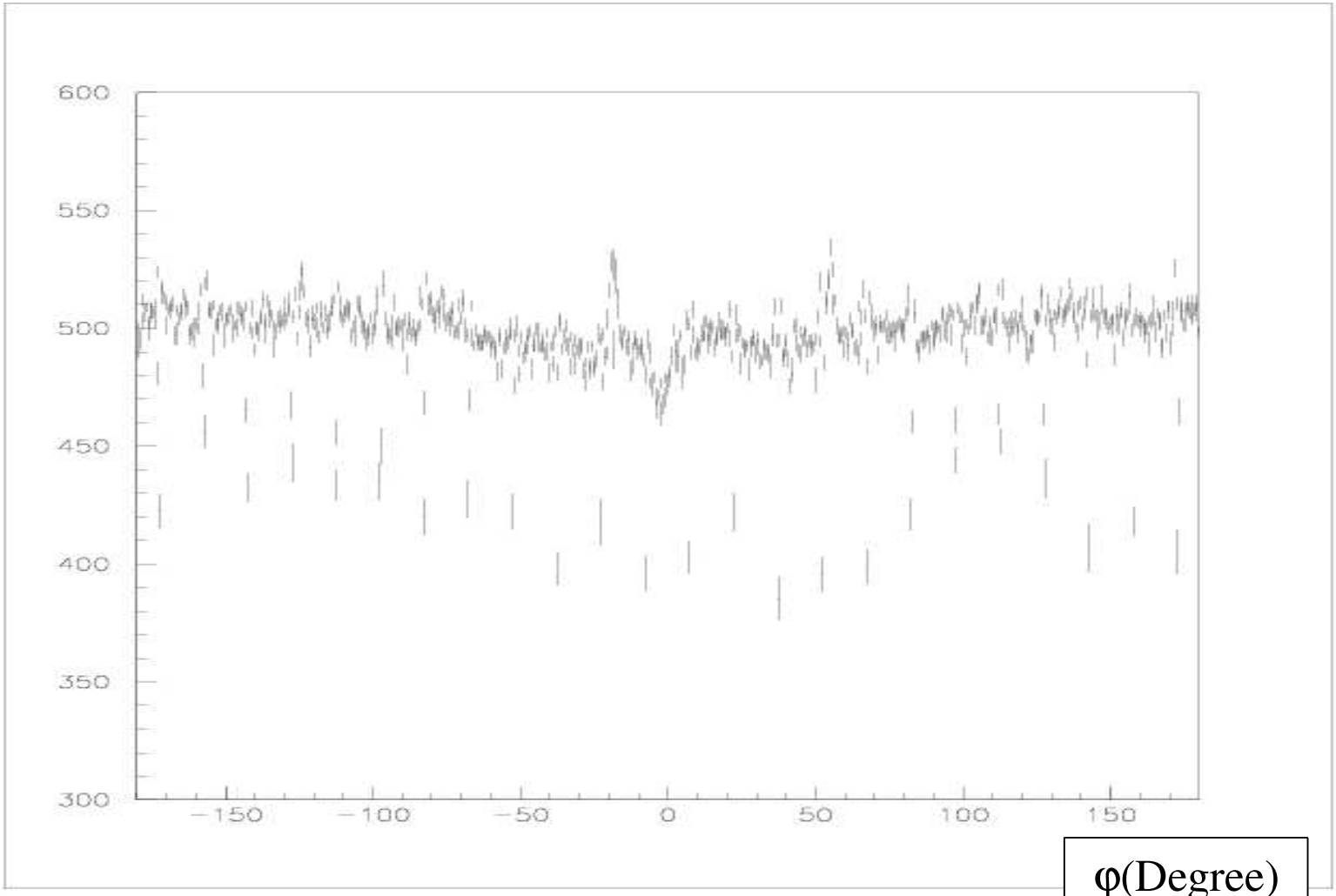


Endcaps .. Diff lin and energy resolution



Another look at holes ..

Gamma
Gamma
sample



Status of SELBKG

A first skeleton of the AC module SELBKG exists:

- INIT routine to reads the weights from files done
- EV routine to filter gg sample:
  - selection of golden clusters ok and tested.
  - list of accidental clusters ok
  - weighting routine in progress
  - selection of CELE hits in progress

    no selection for DC hits

- A version 0 of a running AC module expected for next week.