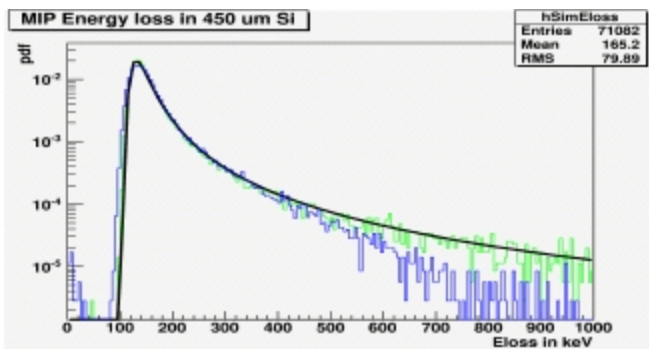


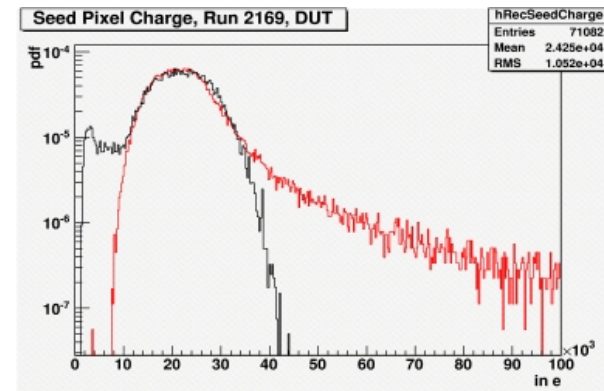
# *Summary of Digitizer Validation*

- **Digitizer validation – taken over by B. Schwenker**
  - Main aim – validate simulation chain (Mokka + Marlin (PXD digitization)) on real data, i.e. compare TB data 2008/2009 with simulation
  - Studies performed:
    - **Energy loss fluctuations (Geant4 x Landau distr. used in digitizer → need to be changed)**
    - **Cluster charge study (Saturation limits charge collection → need to be implemented)**
    - **Cluster size study (Simulation seems to overestimate the cluster size → under investigation)**
    - **Residual (resolution) study performed (From Benjamin's study it looks that COG algorithm doesn't correspond to the reality and one has to implement etha correction → not fully understood yet, needs to be studied and cross-checked)**

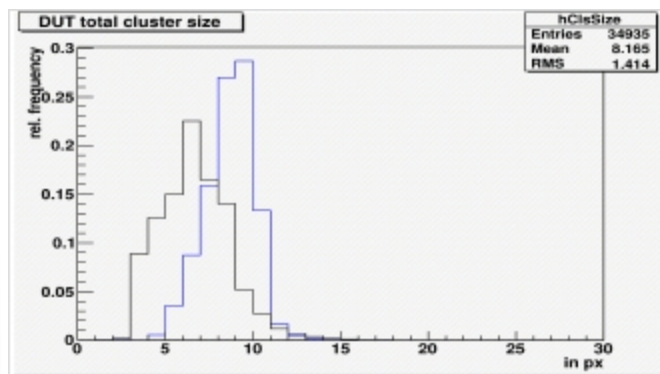
# Examples of Individual Studies



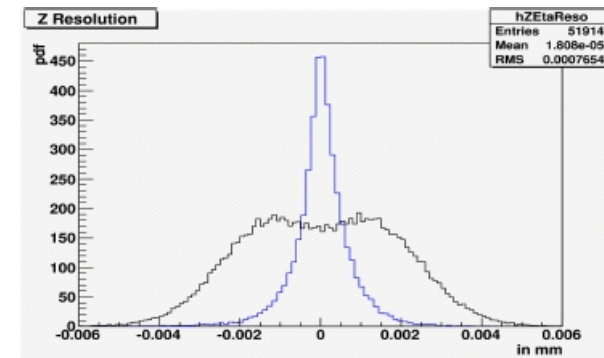
Energy dep. : green: Landau in Digitizer, blue Geant4



Seed charge: black: saturated data, red: simulation



Cluster size: black: TB data, blue: simulation



Z Resolution (simulation): black: COG, blue: etha corr.