

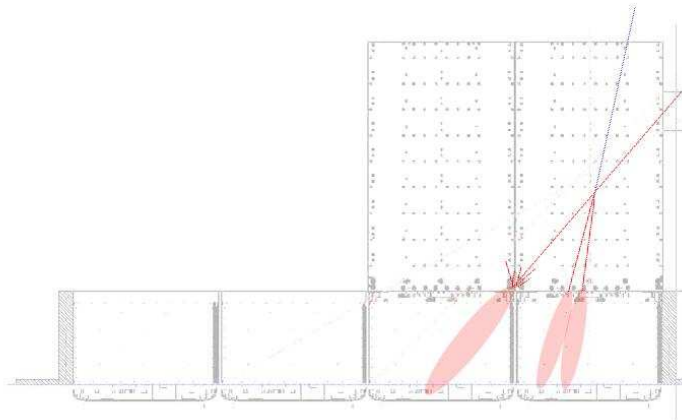
# GLAST CERN 2006 Beamtest



## Moving CAL Calibrations for Data and Mc

Johan Bregeon

Beamtest Analysis - January 23<sup>th</sup>, 2007

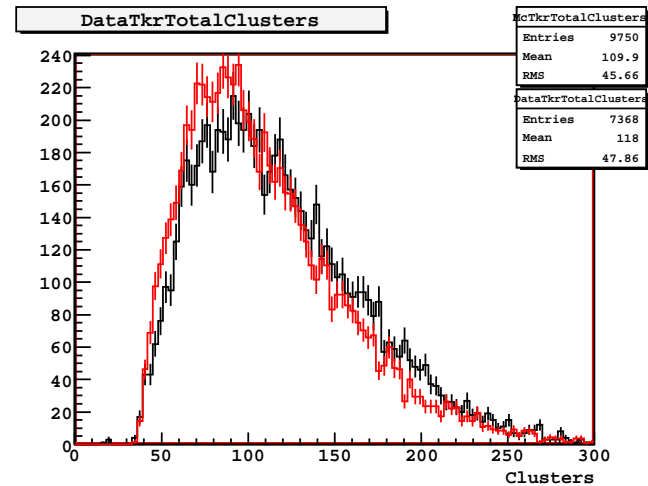
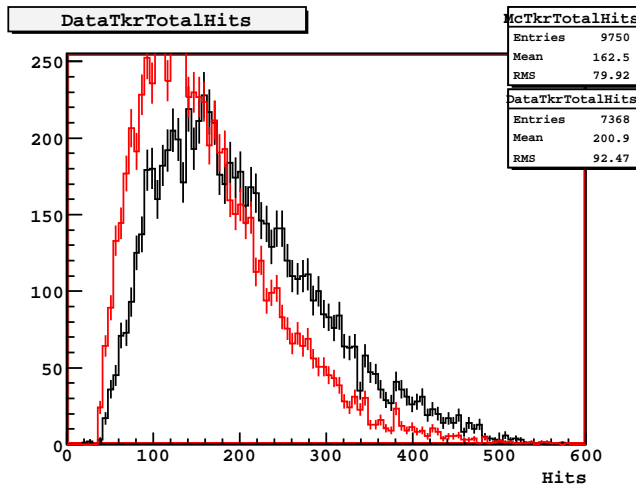
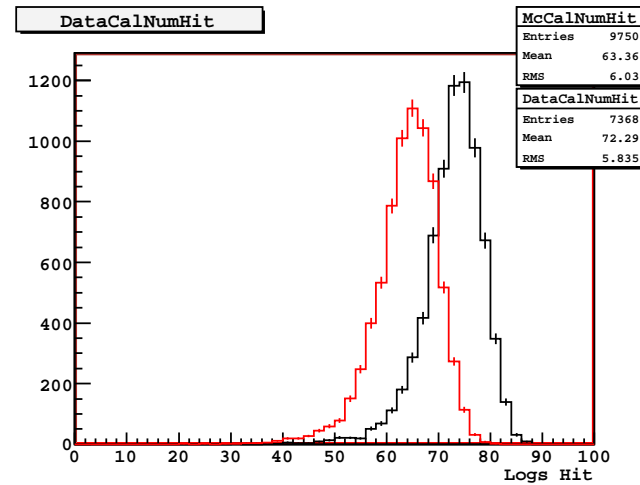
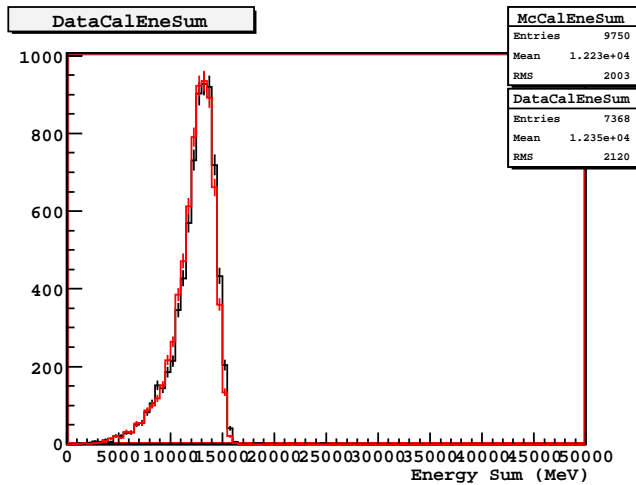


# CAL calibrations

- Change CAL calibrations before reconstruction
  - △ Data : just change calibrations and reprocess from ldf to merit
  - △ Mc : change calibrations only for recon step (use digi2recon jobOpt)
- Simple to change calibration in data to reproduce mc
- More interesting to change calibration in mc to reproduce data
  - showing both in the following slides
- Have a script that changes all the calMPD xml file : change small diode MevPerDac by 10%
- work locally not to take care about calibdb issues

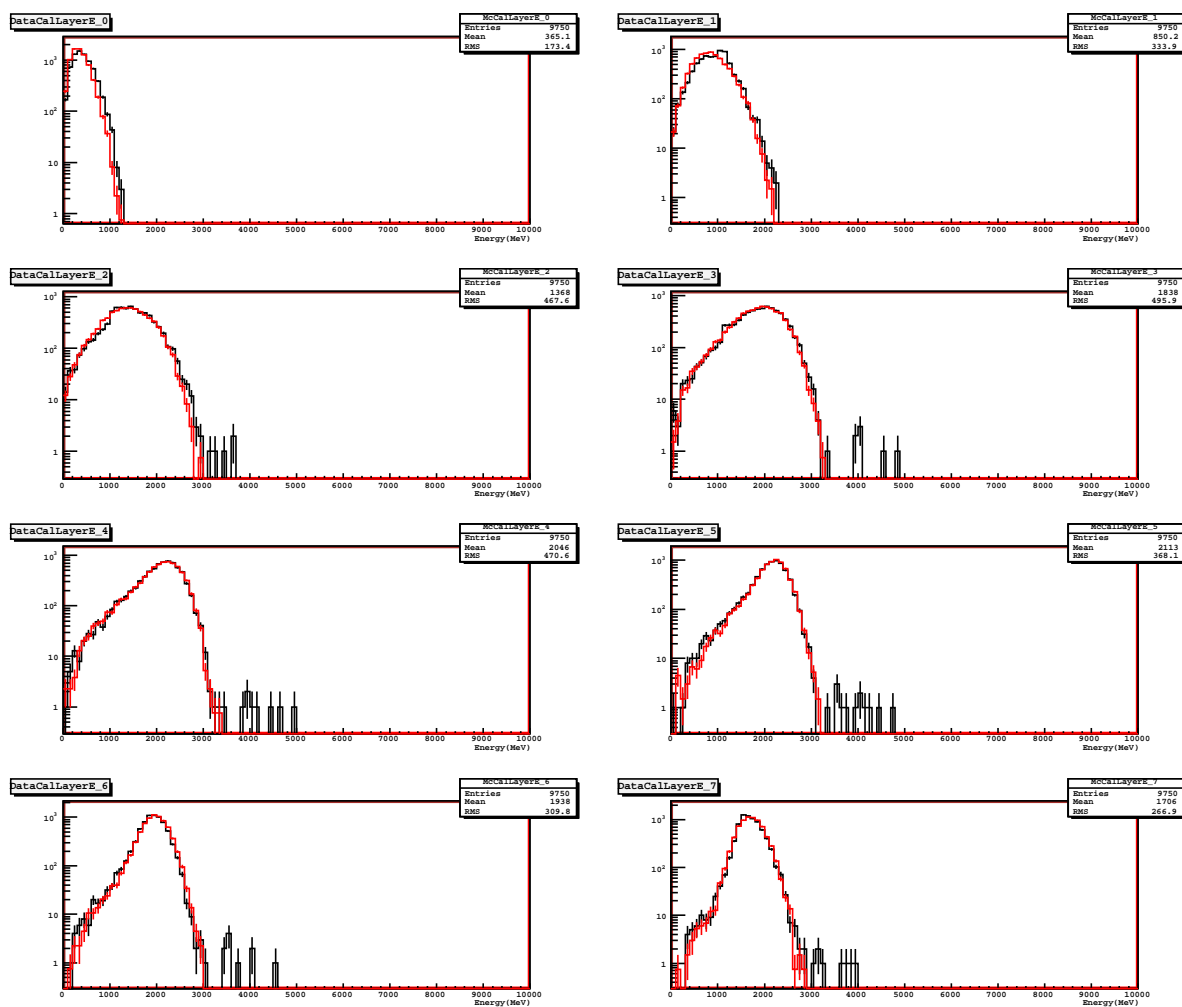
# Changing DATA calibration

- Working on BT-2082 20GeV 0degree : Modified DATA/MC
- Multiply Small Diode MeV per Dac by 0.9



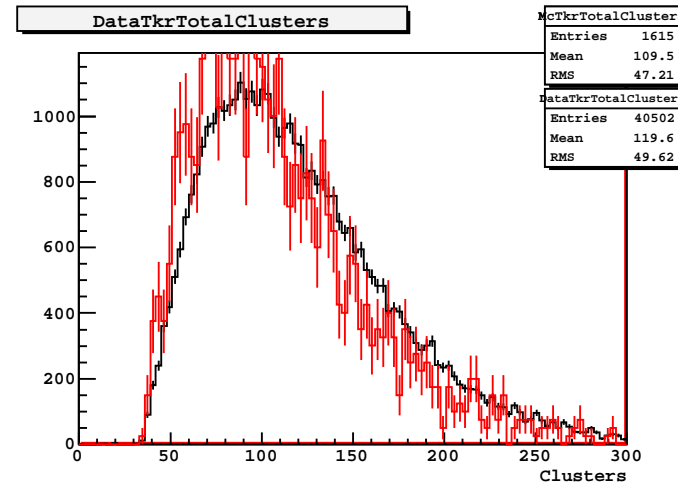
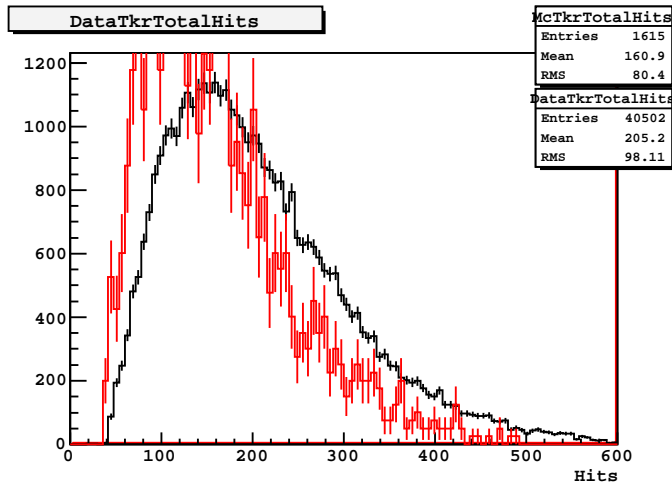
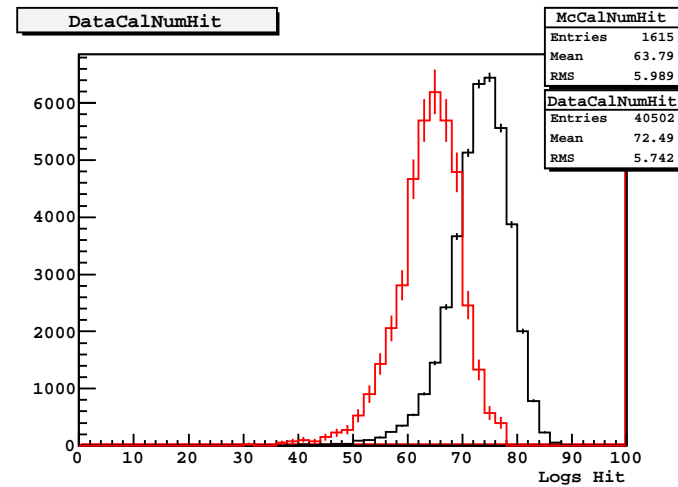
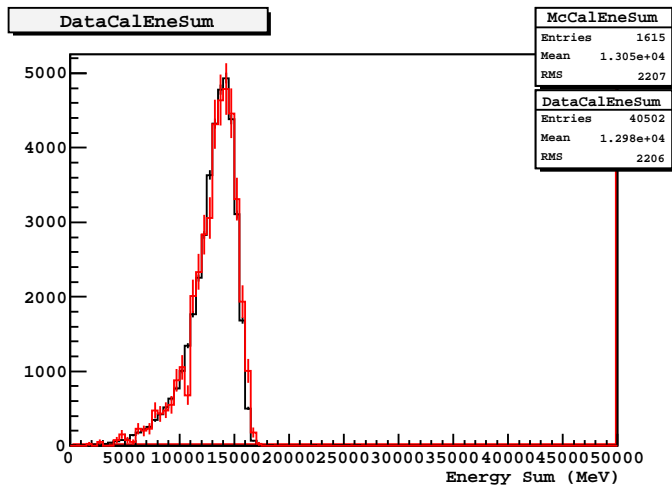
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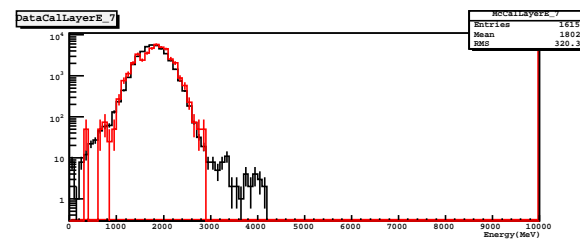
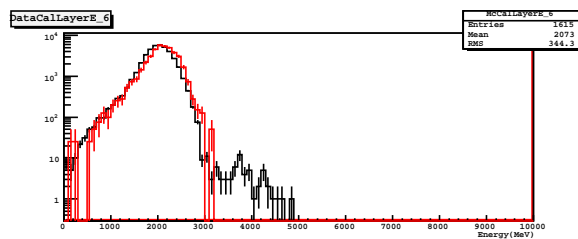
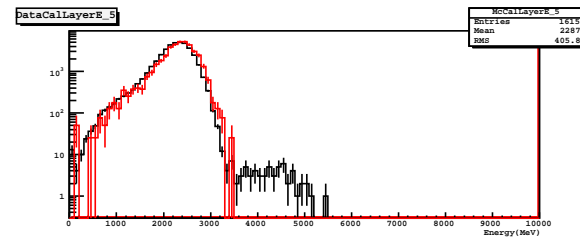
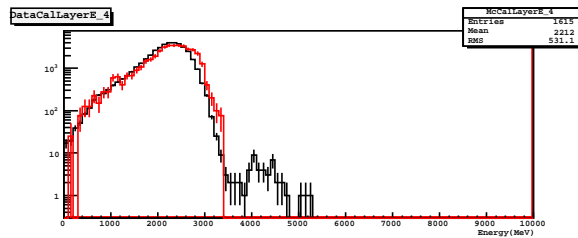
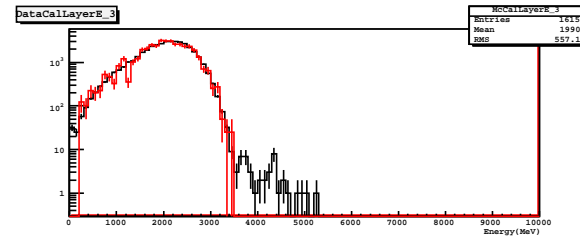
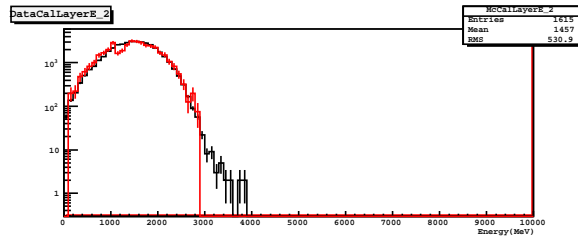
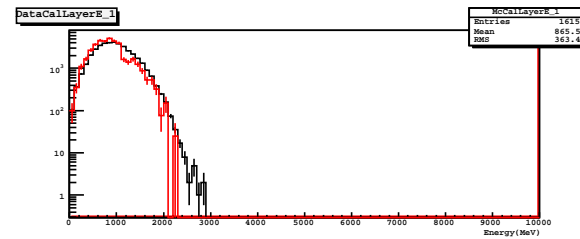
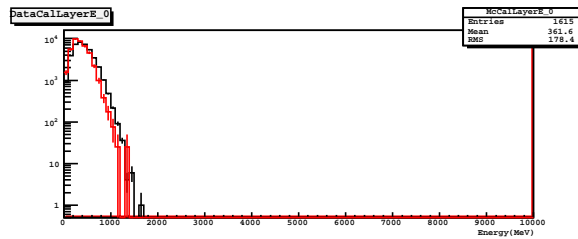
# Changing MC calibration

- Working on BT-2082 20GeV 0degree : DATA/Modified MC
- Multiply Small Diode MeV per Dac by 1.1



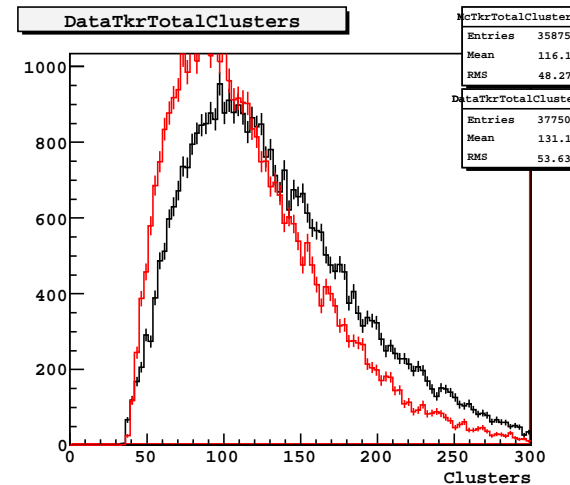
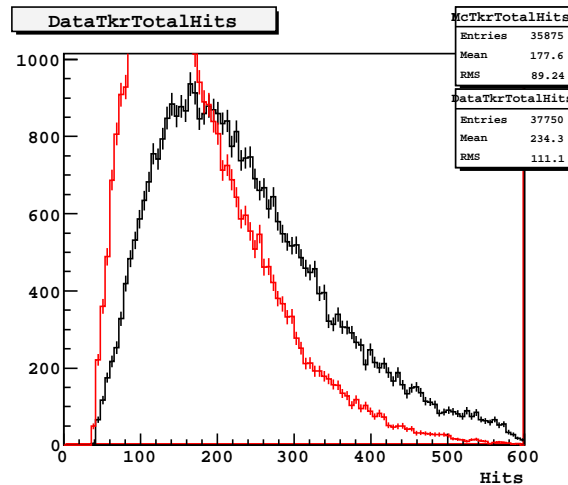
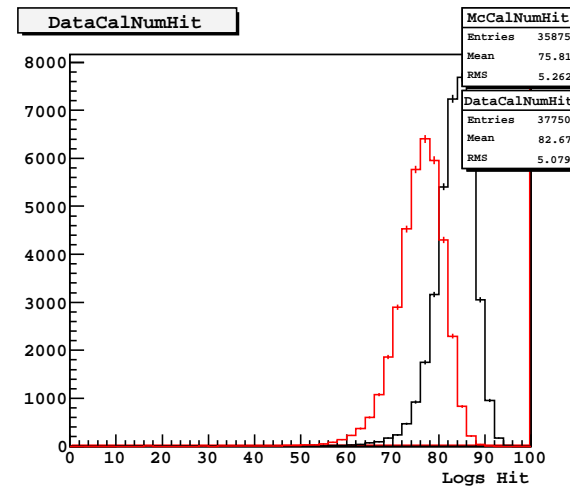
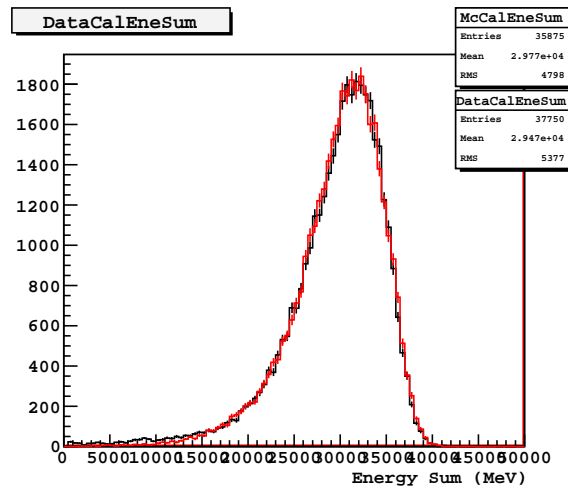
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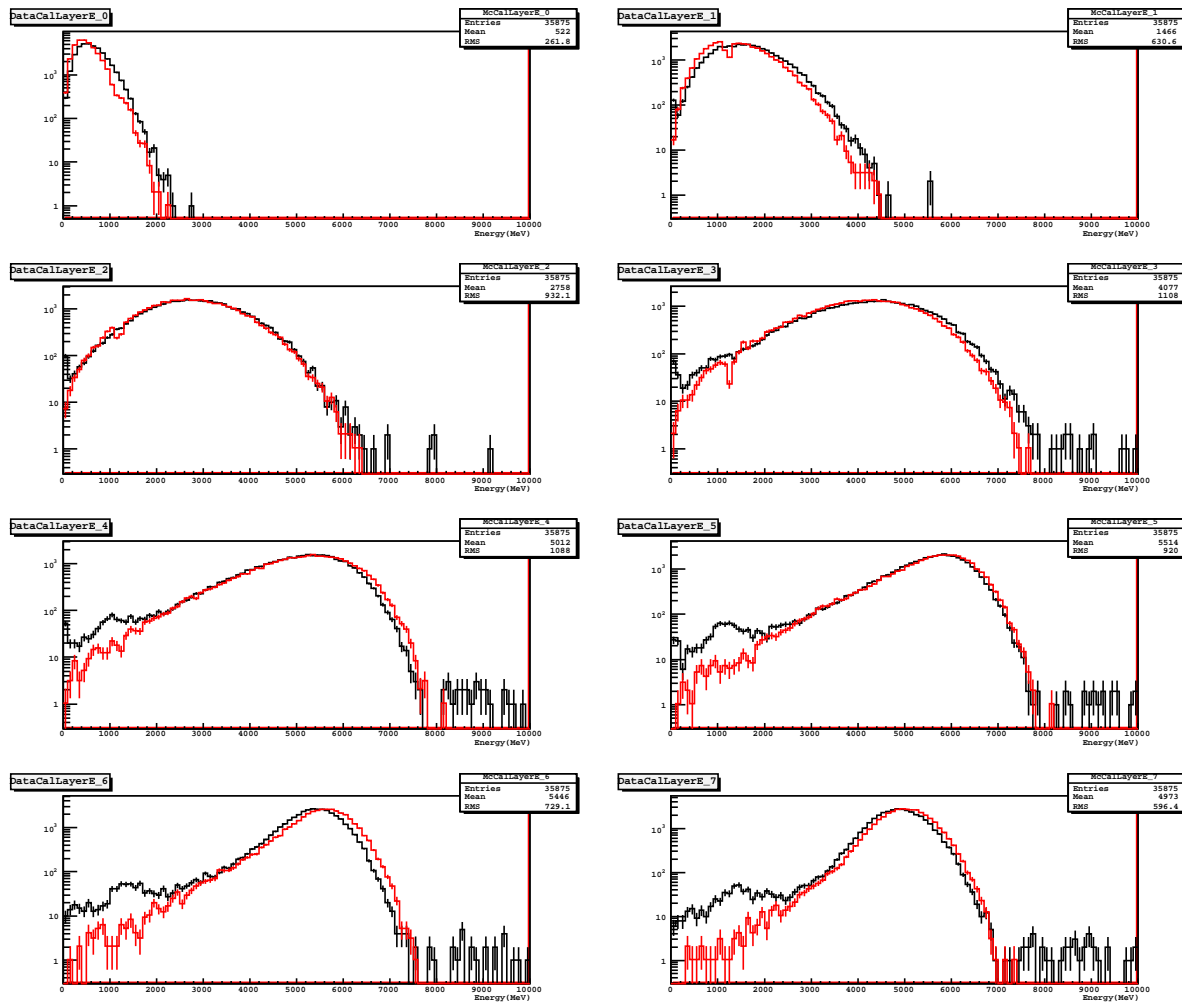
# Changing MC calibration

- Working on BT-2039 50GeV 0degree : DATA/Modified MC
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- Working on BT-2039 50GeV 0degree : DATA/Modified MC
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# Conclusion

- results are encouraging, not that hard to do
- need to look high level reconstruction variables in details
  - △ understand if there is a difference for these quantities with respect to *stretched* ones.
- possible study of systematics
  - △ start from an existing FullSky simulation
  - △ skim the digi files for a set of interesting sources
  - △ create a new calibration flavor, e.g. *beamtest-like*
  - △ run the reconstruction on the digi using the beamtest calibration flavor - from digi to fits file
  - △ compare analysis results (Flux, Spectrum, position...) found for *beamtest-like* calibration with standard analysis results
  - △ same can be done for a background run and background rejection