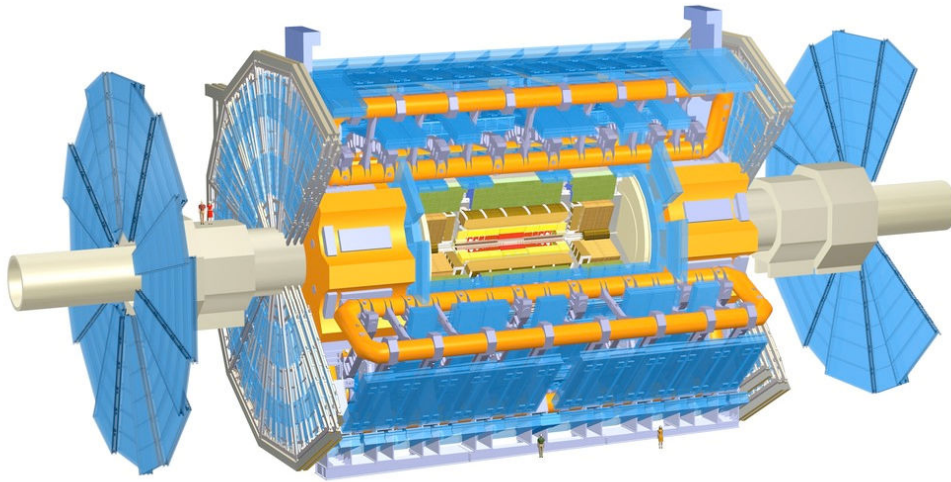
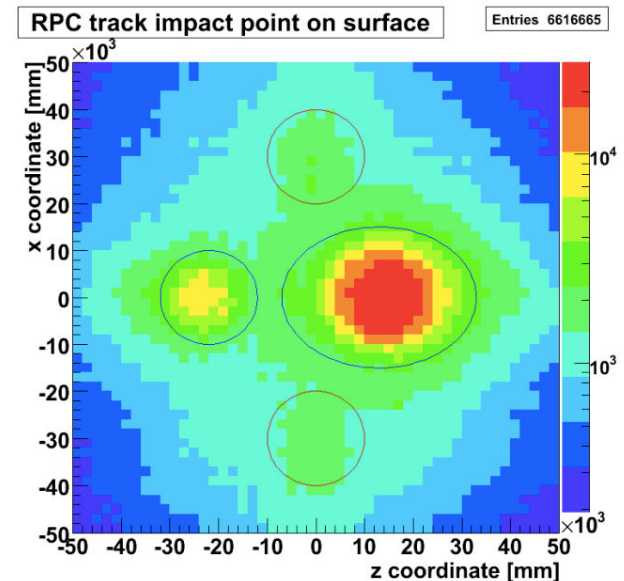


# MUON RECONSTRUCTION IN ATLAS

Borghild Opdahl

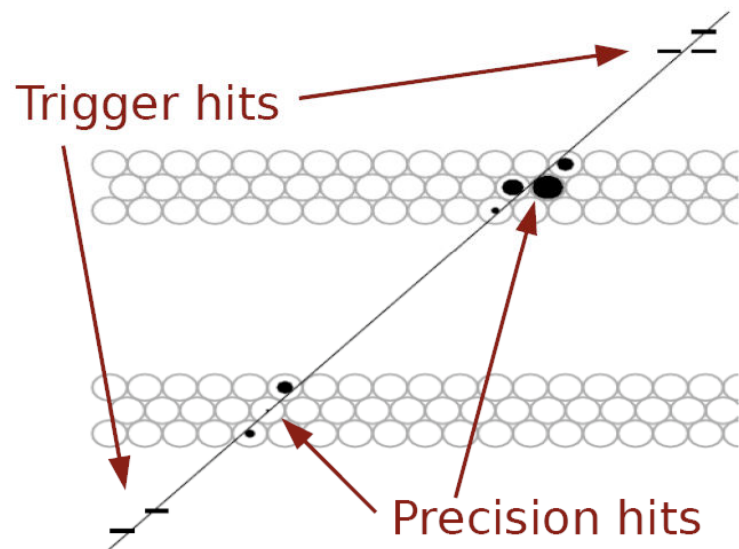
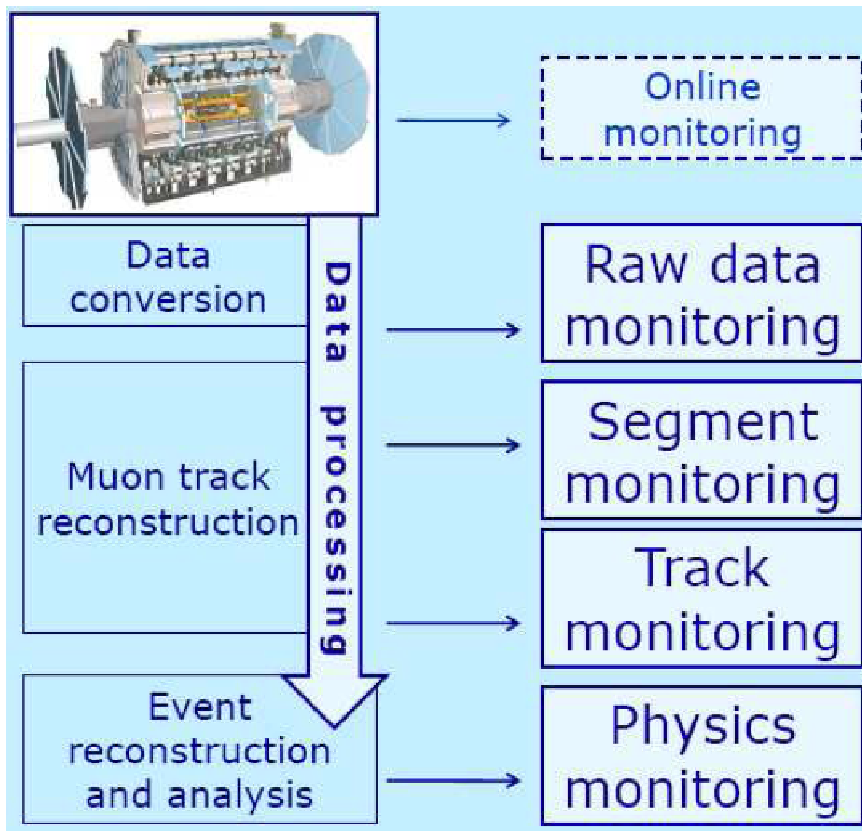


Muon Spectrometer;  
Tracking; MDT & RPC  
Trigger; TGC & CSC



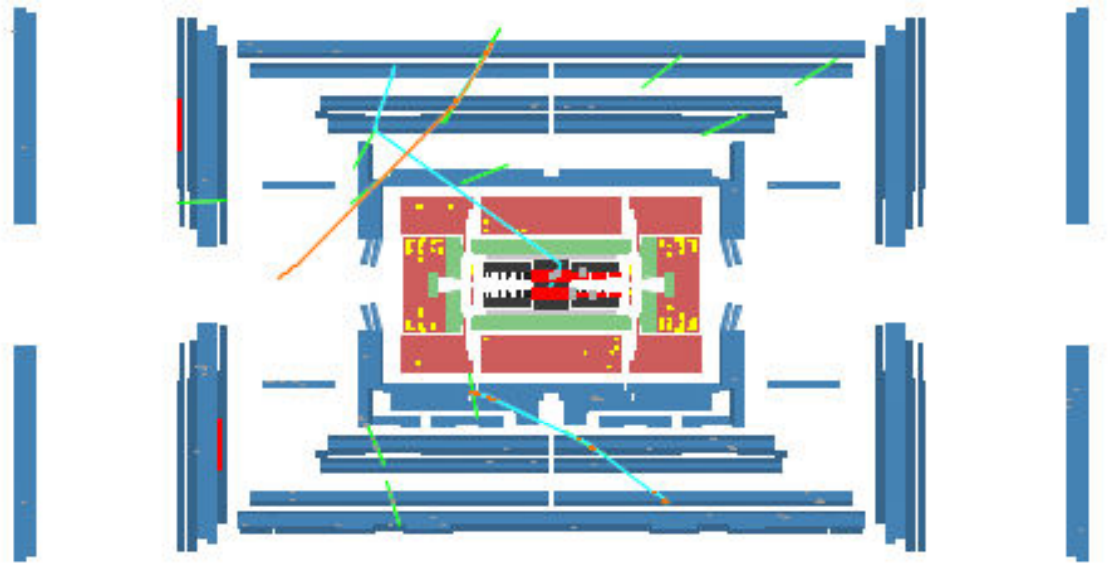
Cosmic ray data taken  
in 2008 and 2009

# Dataflow



# Reconstruction Algorithm

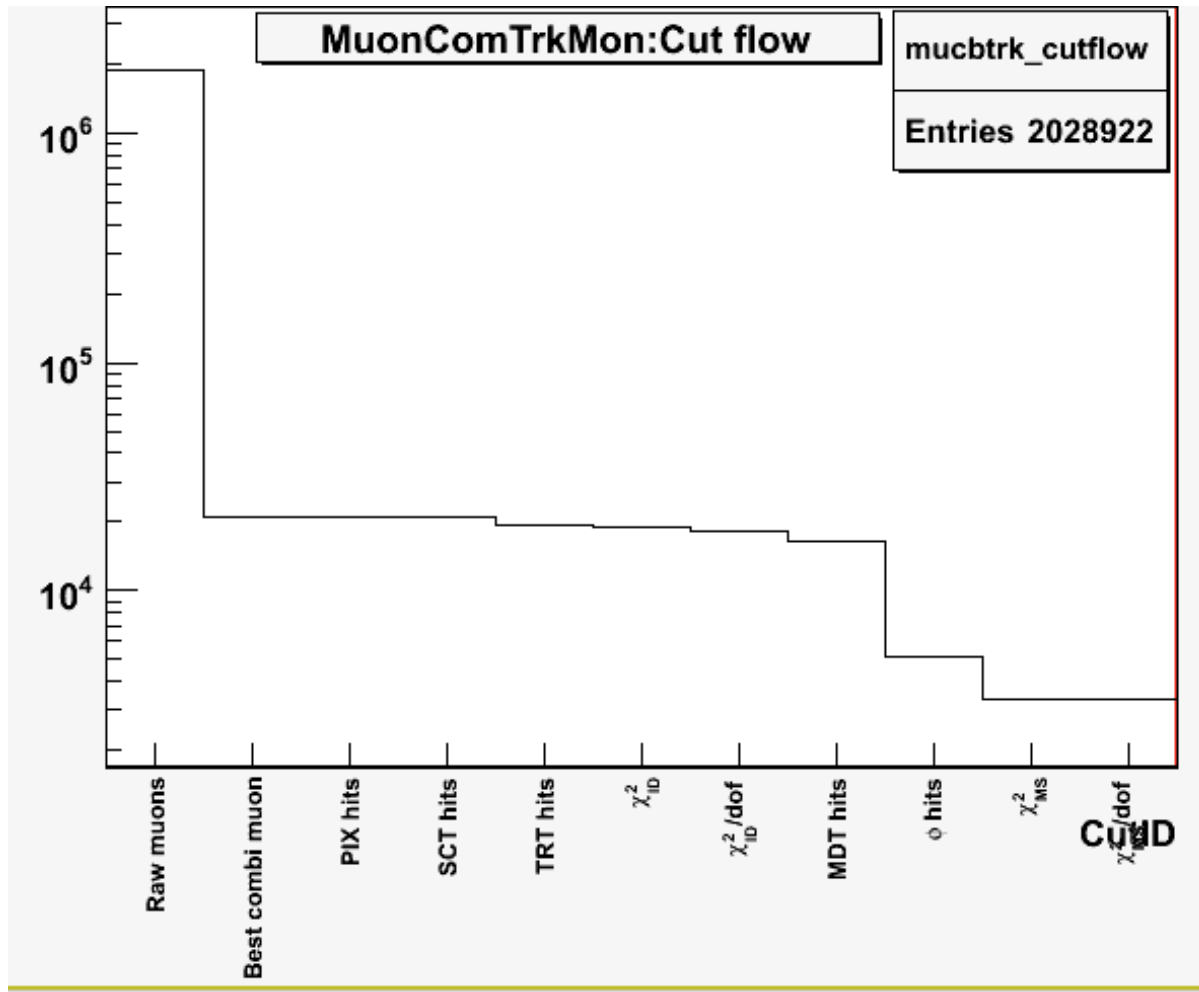
- Standalone
- Combined
  - STACO
  - MUID
- Tagged



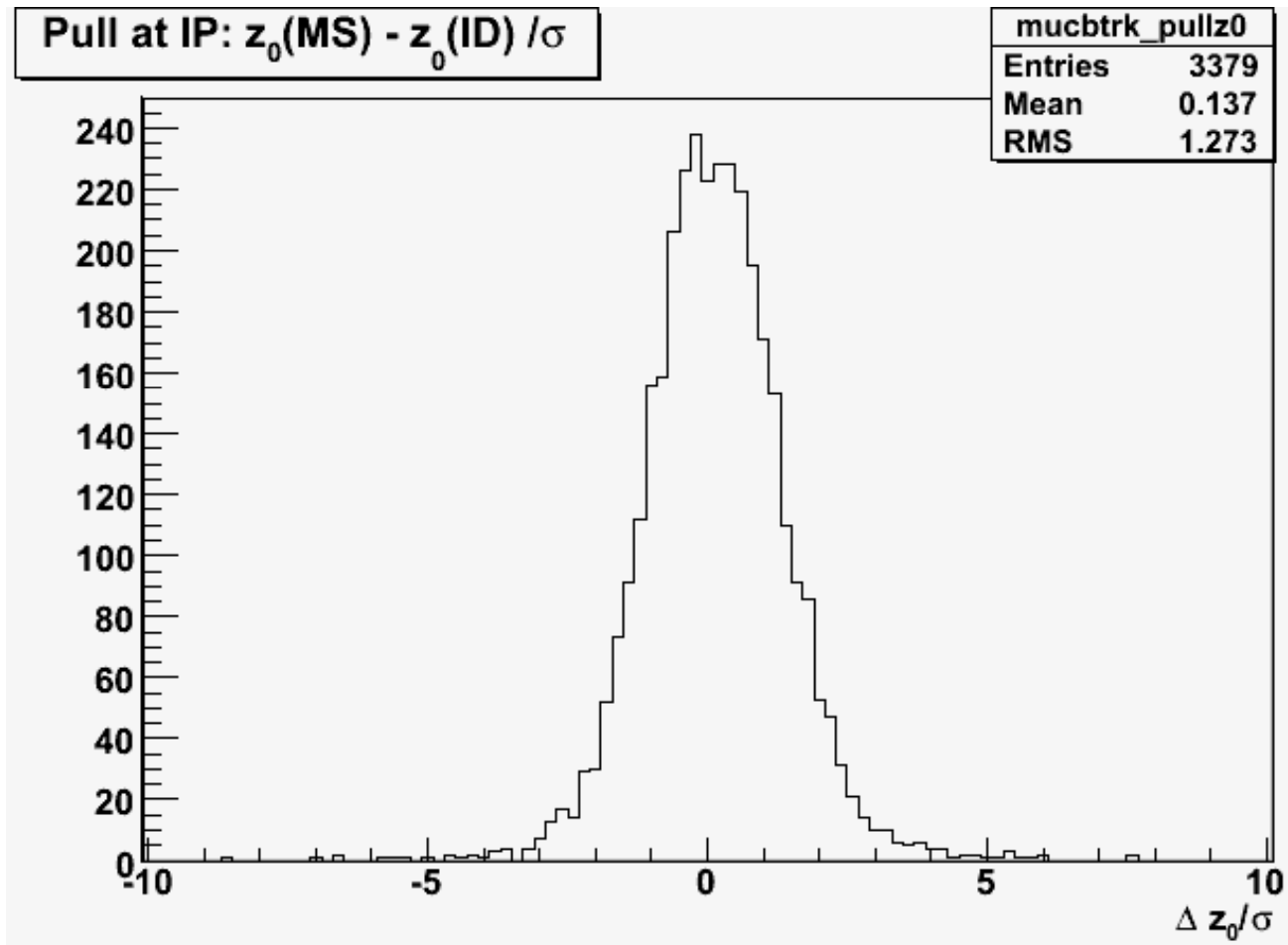
## Difficulties:

- Inhomogeneous magnetic field
- Varying temperatures
- Background noise
- Modified for cosmic

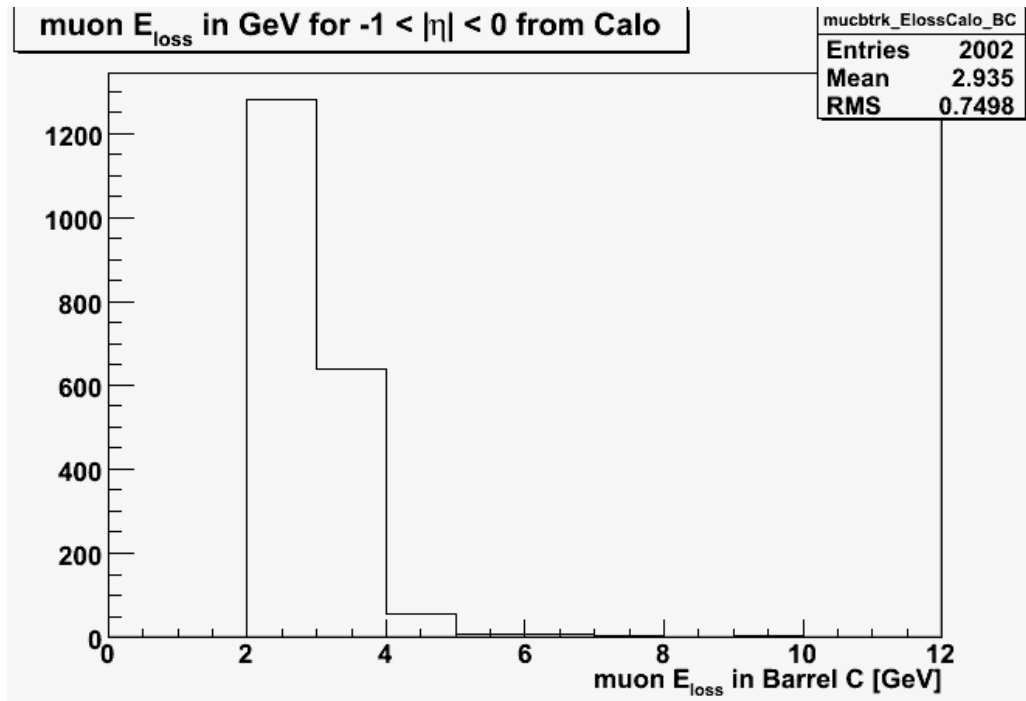
# Cutflow



# Parameters

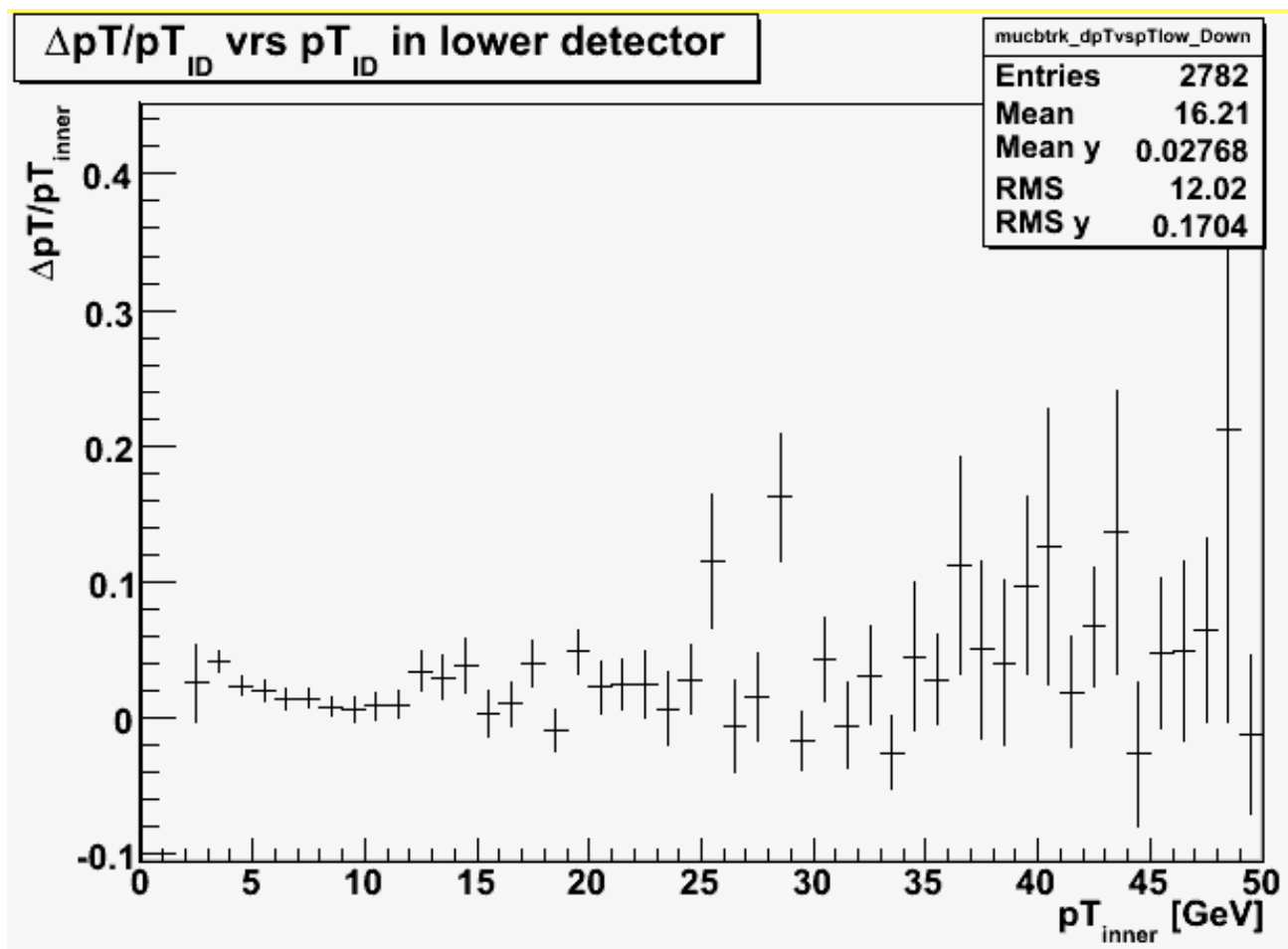


# Energy loss in the calorimeter



- Approximately 3 GeV energy loss in the calorimeter

# Control plots



# Conclusion

- Cosmic rays are useful for alignment of the detector and testing the reconstruction chain.
- Our code has studied some properties of the reconstructed muon tracks.

I would like to thank my supervisor  
Nectarios Benekos for all the support.