

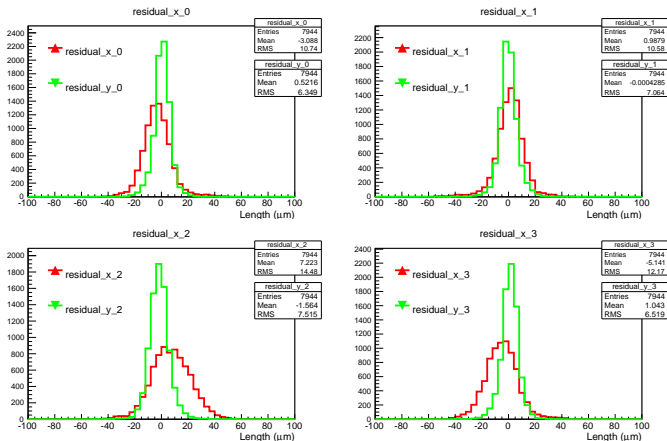
Update on Beam Test Data Reconstruction in Telescope

Oron Rosenblat

FCAL clustering WG meeting

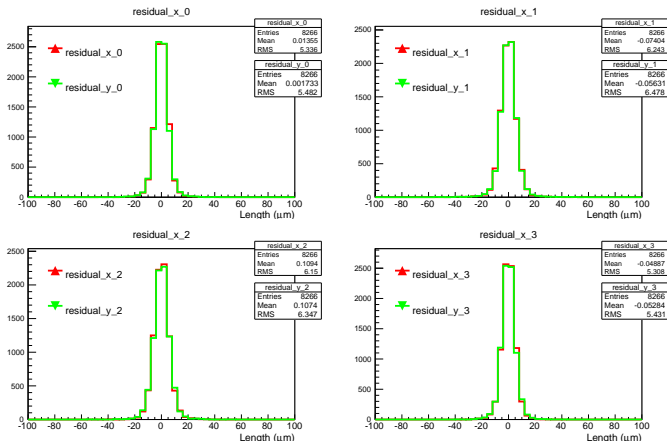
February 16, 2015

Residuals plot (run 48):



Before we presented an alignment problem (asymmetry between X and Y in the residuals plots).

Residuals plot (run 48):

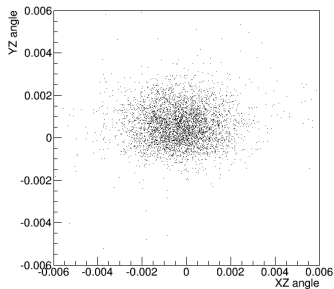
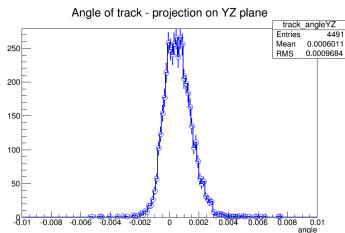
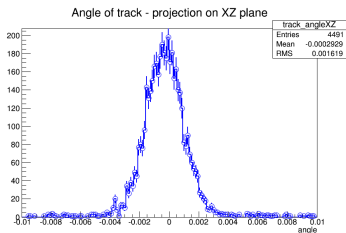


After improving the alignment procedure - nice residuals.

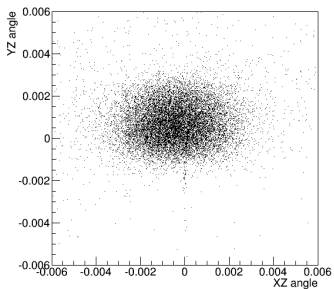
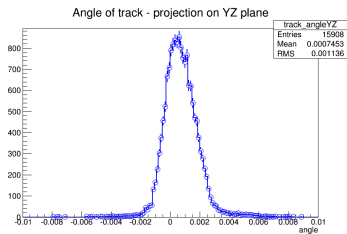
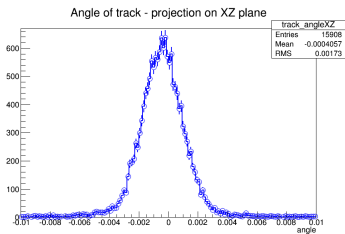
Track angles study - looked at two different samples:

1. Electron runs: 91,93,94,96,98,99,102,103,104
2. Hadron runs: 165,166,167,233

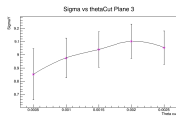
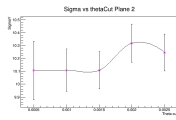
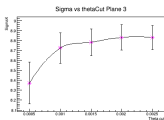
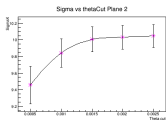
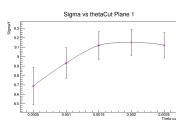
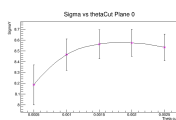
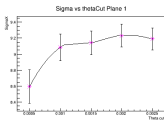
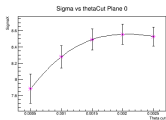
Track angles (Electrons):



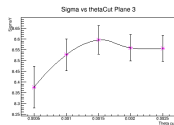
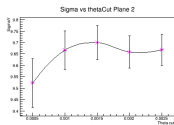
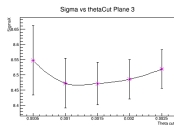
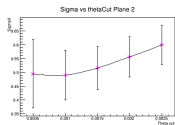
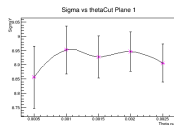
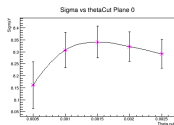
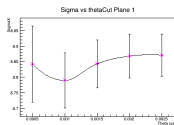
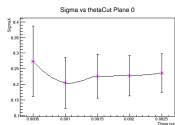
Track angles (Hadrons):



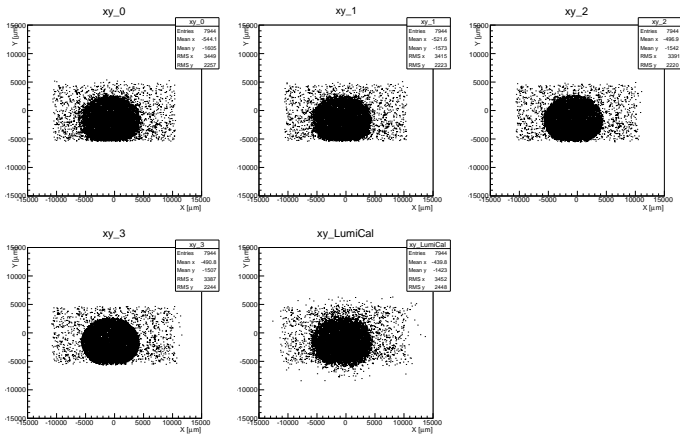
The dependence of sigma of the residuals on track angle cut (Electrons):



The dependence of sigma of the residuals on track angle cut (Hadrons):



Just a reminder: tracking is still not perfect...



Conclusions

- New alignment matrices solve the problem of difference in residuals
- Track angle analysis also shows a rather symmetric picture
- Residuals behave as expected when cutting on track angles to select parallel tracks
- Tracking algorithm is still not optimal