

- Validate momentum reconstruction for different particle kinds
- Validate momentum reconstruction for different particle hypothesis (kalman)
- Study and improve track correlation (momentumwise?)
- Forward tracking!



Tracking and Particle Identification in Panda(Root)



# Things to do: Algorithms

15/02/2011

- Completely missing TPC (no dE/dx information)
- Update of MVD parameters (done)
- EMC Bayesian method
- EMC MVA method for electron id
- $\blacktriangleright$  EMC MVA method for  $\pi^{\circ}$  identification
- MDT Muon identification with MVA
- MDT neutral particle identification



- Global MVA analysis
- Influence of Geant3/Geant4

# Things we would like to do :

#### 1. Check electron reconstruction (Bea, Gosia, ?):

- kalman filter (maybe fixed already), studying resolution of mom
- improvement of correlation between inner tracking and detector

### 2. Characterize electron identification (MVA for EMC)

(Gosia, ?)

- study efficiency, purity of the method (KNN, MLP?)
- results to be compared with Ronald method
- check electron identification using infos from all detectors

#### 3. Check/develop muon identification (hard cuts and MVA)

- (Bea, Gosia, ?) -> finalizing with feasibility study for pbarp->mu+mu-- correlation improvement (between inner tracking and detector)
- 4. Separation of gamma and pi0 in EMC (Ronald)

#### 5. Radiative corrections

- check of PHOTOS (Alaa, Gosia, ?)
- implementation of Jacques and Saro model (Beatrice, ?)

## Everyone is welcome to join us in work :-)

# Future meetings:

<u>Analysis:</u> meeting in Torino 20-24 of June : Bea, Gosia, Ronald, ?

Phenomenology: meeting in Torino

- first week of October ? and who ?
- together with Frank (Adamushin, van der Haagen) ?

Money:

- 3000 euro still to spend from PICS
- additional help from group money