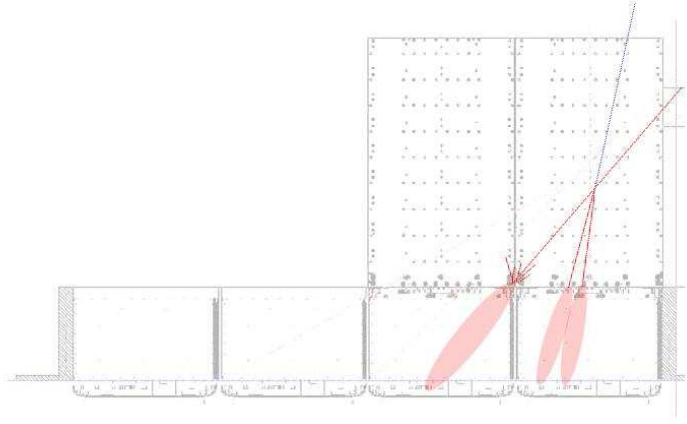
GLAST CERN 2006 Beamtest

BTR v7r1117p1
MC Status



Johan Bregeon

Beamtest Analysis - October 31^{st}, 2007

Cerenkov at SPS

- Very usefull discussion went on these days :
  1. Cerenkov pressure was 0bar for all 20-50-100GeV *good runs* at SPS
  2. Cerenkov gas was He, we currently have CO_2 in our simulation of the SPS beam line.
- Consequences :
  - By default, all SPS MC runs are biased.
  - For now : as He is light, using runs with 0bar should be a reasonnable approximation for all the configurations.
  - Thanks to the Cerenkov scan I did for Philippe, almost all runs at 0bar are already available.
  - ...and we already know agreement gets worst at 0bar.
  - I did a lot of renaming and links on u35 to try make things transparent for the MC users. Links to correct configurations are up to date on the `Good runs` confluence page.

  $\rightarrow$ Mail me if you have any doubt.

New MC runs

- Full-Bremsstrahlung
  - BT-1223 : 2.5GeV 30degrees
  - BT-1262 : 2.5GeV 50degrees
- Tagged photons
  - BT-1533 : 1.0GeV 0degrees
- Electrons
  - BT-1951 : 282GeV 90degrees
- Hadrons
  - BT-0823 : Pions 5GeV 0degrees
  - BT-1423 : Protons 6GeV 0degrees
  - BT-1419 : Protons 10GeV 0degrees
  - BT-2237 : Protons 20GeV 0degrees (SPS 3bars of CO_2)

Plans (to be discussed)

- Fix beamtest06 Cerenkov gas bug.
- Possibly add some G4 command to have the ability to add some material smoothly on the SPS beamline
- Compile a new BTR, probably just on NFS at SLAC (Michael is away)
- Re-run all the High Energy electrons with correct He pressure in the Cerenkov
- Try the LowEnergy physics for a large part of these runs.
- anything I forgot ?