Subject: Reco Hit for TpcCluster
Posted by StefanoSpataro on Fri, 24 Apr 2009 10:44:33 GMT
View Forum Message <> Reply to Message

Hello,
when I have started to write the Kalman Task starting from lhetrack, I have found that the only TPC RecoHit available was TpcPlanarRecoHit, and I have used it with some modification to include even the GeaneTrackRep (PndLheTpcPlanarRecoHit)
.
I can see that in the repository there is also PndTpcSPHit, which constructs a recohit starting from the TpcCluster.

My question is, which is the "recomennded" recohit to use for tpc? Planar or SP ?

Thanks a lot.

Subject: Re: Reco Hit for TpcCluster
Posted by Sebastian Neubert on Fri, 24 Apr 2009 11:44:46 GMT
View Forum Message <> Reply to Message

Hi Stefano!

Take the SpacePoint hit!

Cheers! Sebastian.

Subject: Re: Reco Hit for TpcCluster
Posted by StefanoSpataro on Mon, 27 Apr 2009 08:59:00 GMT
View Forum Message <> Reply to Message

Hi,
I have compared the results of genfit using tpc+mvd, 1000 muons at 1GeV/c.
Here you are the momentum distributions, with the two different RecoHits:

The results are quite stable, if I fit the two peaks with a gaussian from 0.9 to 1.1, I obtain:

Planar: sigma 10.5 MeV/c, chi2/ndf = 1.3
SPHit: sigma 10.2 MeV/c, chi2/ndf = 1.5

Let's say they are almost comparable.
However, I will commit the code using the official PndTpcSPHit.

File Attachments

1) recohit_comp.gif, downloaded 1195 times

