
Subject: Reco Hit for TpcCluster

Posted by [Stefano Spataro](#) on Fri, 24 Apr 2009 10:44:33 GMT

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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

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Hi Stefano!

Take the SpacePoint hit!

Cheers! Sebastian.

Subject: Re: Reco Hit for TpcCluster

Posted by [Stefano Spataro](#) on Mon, 27 Apr 2009 08:59:00 GMT

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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 657 times

