
Subject: GENFIT for transverse momenta < 200 GeV/c strange?!

Posted by [David Pohl](#) on Thu, 18 Nov 2010 10:48:27 GMT

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Hallo everybody,

at the moment I do some tracking tests with the Lhe package.

The parameters are:

- tracking detectors: MVD+TPC+GEM
- 1 pion per event
- theta=60, phi=0..360
- ideal track finder
- kalman task after helix prefit with pion particle hypothesis
- current PndRoot version: trunk, revision 10322
- only primary tracks are taken into account

for momenta down to 200MeV/c everything works great; but for a momentum of $pt = 100\text{MeV}/c$ even the simple helix prefit is better.

You can see that in the following plots:

works fine:

strange:

So I would like to ask the people who have more experience with tracking what the reason is or could be.

greetings

David

File Attachments

- 1) [pt_reco_tpc_200.jpg](#), downloaded 670 times
 - 2) [pt_reco_tpc_100.jpg](#), downloaded 597 times
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