
Subject: lhetrack for global tracking

Posted by [Jens Sören Lange](#) on Sun, 23 Mar 2008 14:42:00 GMT

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Dear all,

I checked in a preliminary version of lhetrack for global tracks (tpc and mvd). As mentioned before, only very small changes were applied to Oleg's code (the trick is that I treat mvd points as tpc points), so the main work was only to find, which few lines had to be changed. In this version there are also no crashes anymore if tpc has zero hits (= forward tracks).

1.) macro/lhetrack/run_sim_tpcmvd.C

-> runs Geant for tpc and mvd
-> write out "points_tpcmvd.root"

2.) macro/lhetrack/run_track_tpcmvd.C

-> runs the track finder
-> runs the track fitter
-> writes out "tracks_tpcmvd.root"

3.) macro/lhetrack/plot_pT.C

loops over all tracks and plots the pT distribution.

4.) if you want to switch off the MVD from the tracking
(so that only TPC is used in track finding)

in lhetrack/PndTpcLheHitsMaker.cxx

in line 27 please comment like this:

```
///#define MVD
```

and then

```
cbuild/make  
cbuild/make install
```

The few slides from the last meeting with the results are posted here

http://panda-wiki.gsi.de/pub/Computing/Minutes19March2008/Lange_PandaRoo_t19032008.pdf

P.S. the covariance matrix needs some more time.

cheers, Soeren

Subject: Re: lhetrack for global tracking
Posted by [Johan Messchendorp](#) on Sun, 23 Mar 2008 21:37:59 GMT
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Hi Soeren,

I added a "#include <cmath>" in one of the files, to make it Mac-Os compatible

Johan.

Subject: Re: lhetrack for global tracking
Posted by [Johan Messchendorp](#) on Mon, 31 Mar 2008 20:24:07 GMT
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Hi,

The lhetrack with the MVD+TPC points appeared to give a segfault after a couple of 100dreds of events. I noticed that it is related to a NULL pointer access in the fitter code (Info4Fit routine). I added a check for NULL pointers here to avoid the crash: line 186 in PndTpcLheTrackFitter.cxx (problem with the "point" pointer). I am not so sure whether this is a major bug. Well, at least it fixes it for the moment...

Johan.
