
Subject: Kalman in lhetrack

Posted by [StefanoSpataro](#) on Fri, 26 Sep 2008 14:50:02 GMT

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Dear all,
now a Kalman Filter is also provided with lhetrack code, so for TPC+MVD and STT+MVD.

Let me show the difference between lhetrack fit for muons at 1GeV and genfit refit.

TPC+MVD:

STT+MVD:

...

...

in practice there are no strong differences.

You can find some macros on how to run it, after the standard sim/digi/recom in tutorials/lhetrack:

```
* run_kalman_tpc.C
* run_kalman_stt.C
* plot_kalman_tpc.C
* plot_kalman_stt.C
```

At the moment, in the code you can see that three iterations are performed and even smoothing:

Toggle Spoiler

```
PndLheKalmanTask* lheKalman = new PndLheKalmanTask();
  lheKalman->SetVerbose(iVerbose);
  lheKalman->SetGeane(kTRUE);
  lheKalman->SetSmooth(kTRUE);
  lheKalman->SetNumIterations(3);
  fRun->AddTask(lheKalman);
```

You can switch ON/OFF or play with these parameters.

Probably fixes will be needed, but at least it seems to work.

File Attachments

- 1) [kalman_tpc.gif](#), downloaded 644 times
 - 2) [kalman_stt.gif](#), downloaded 678 times
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