Subject: Question about PndLhePidTrack()
Posted by donghee on Thu, 14 May 2009 09:04:56 GMT
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Hello, panda trackers,

I have one question for PndLhePidTrack();
I'm looking for the reconstruction of electron from PndLhePidTrack. I'm following now the example of lhetrack in the macro.

In attached plot, you can find the comparison between generated electron and reconstructed one from PndLhePidTrack::GetP() function. Red histogram is generated, and Blue for reconstruction of negative charge.
The generated event is electron, photon, and proton.
Most of electrons are produced to the direction of backward spectrometer, i.e, theta > 130 degree.
I would like to understand why 2.5-3.5 GeV/c electron candidates are not reconstructed well.
I assumed that I don't take into account magnet field in reco procedure. It would be thankful if you can check my reco scripts, or can give an useful advice for this analysis, specially for electron reconstruction.

Thank you!

In the reco script, I introduce following lines.

Quote:
```
  // ------------------------------------------------------------------------
  // -----   LHETRACK  --------------------------------
  PndLheHitsMaker* trackMS = new PndLheHitsMaker("Tracking routine");
  trackMS->SetTpcMode(2);  // 0 OFF, 1 TpcPoint, 2 TpcCluster // TpcPoint smearing [cm], if negative no smearing
  trackMS->SetMvdMode(2);  // 0 OFF, 1 MVDPoint, 2 MVDHit     // MVDPoint smearing [cm], if negative no smearing
  fRun->AddTask(trackMS);

  PndTpcLheTrackFinder* trackFinder    = new PndTpcLheTrackFinder();
  fRun->AddTask(trackFinder);

  PndTpcLheTrackFitter* trackFitter    = new PndTpcLheTrackFitter("fitting");
  fRun->AddTask(trackFitter);

  PndLhePidMaker* pidMaker    = new PndLhePidMaker("pid");
  pidMaker->SetGeanePro(kFALSE);  // Switch ON Geane propagation
  pidMaker->SetDebugMode(kTRUE);  // Debug ntuples
  fRun->AddTask(pidMaker);
```

File Attachments

1) Momentum_electron_one.eps, downloaded 542 times

2) Theta_electron_one.eps, downloaded 571 times