Subject: [Solved]Problem with PndEvtGenDirect
Posted by Tobias Weber on Wed, 06 Jul 2011 08:00:11 GMT
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Hi,

I'm simulating the decay X(3872) to mu+mu- pi+pi- in the final state. But I observe a strange behaviour for EvtGenDirect and Geant3. Instead of 4 particles in the final state Geant tells me that I gets 6 particles from EvtGen. These particles seem to be additional muons with p=7Gev/c and Th=Phi=0.
If I use EvtGen to create a output.evt and use this for the simulation everything looks fine. I attaced the decay file, simulation macro and some plots.
I use PandaRoot 11145 and Fairsoft may.

Cheers,
Tobias

File Attachments

1) MC_angles_e.pdf, downloaded 734 times
2) momentum_e.pdf, downloaded 733 times
3) run_sim_tpccombi.C, downloaded 793 times
4) X3872_mu_np.dec, downloaded 744 times

Subject: Re: Problem with PndEvtGenDirect
Posted by StefanoSpataro on Wed, 06 Jul 2011 08:35:24 GMT
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Hi,
first of all, your macro is "very" old, muon and dirc detectors have changed the initialization. You could take a look into macro/run/tdrct macros.

```
PndMdt *Muo = new PndMdt("MDT",kTRUE);
Muo->SetBarrel("fast");
Muo->SetEndcap("fast");
Muo->SetMuonFilter("fast");
Muo->SetMdtMagnet(kTRUE);
Muo->SetMdtMFIron(kTRUE);
fRun->AddModule(Muo);

PndDrc *Drc = new PndDrc("DIRC", kTRUE);
Drc->SetGeometryFileName("dirc_l0_p0.root");
Drc->SetRunCherenkov(kFALSE); // for fast sim Cherenkov -> kFALSE
fRun->AddModule(Drc);
```

Second. The problem is when you are storing the original EvtGen tree. Are you seeing many messages such as:

-W FairPrimaryGenerator: PDG code 88888 not found in database. This warning can be savely ignored.

?
This means that the StoreTree is on, maybe because you are using an old version of the code as your run_sim shows.
The command:

EvtGen->SetStoreTree(kFALSE);

should prevent those entries.
However, those tracks are not reconstructed, you will see them in MCTrack but never in the detectors, they should be quite harmless.

Subject: Re: Problem with PndEvtGenDirect
Posted by Tobias Weber on Wed, 06 Jul 2011 09:16:53 GMT
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Thanks Stefano. That solved the problem.
