Subject: Minor developments
Posted by StefanoSpataro on Thu, 14 Jun 2007 13:30:03 GMT
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Hello,
I updated the CbmEmc.cxx file.
Now the materials are loaded from the media_pnd.geo file, while before they were hardcoded.

This changes even some media parameters of the early version, which was almost taken from the CBM ecal. In particular for PWO.

material__OLD_____NEW
epsil_____0.1____0.001
madfld___100.0___AUTO
maxstep___0.1____AUTO
maxde_____0.1___AUTO
minstep____0.1____AUTO

where:
float epsil - boundary crossing precision EPSIL
float madfld - maximum angular deviation TMAXFD due to field
float maxstep - maximum step permitted STEMAX
float maxde - maximum fractional energy loss DEEMAX
float minstep - minimum value for step STMIN

It should not affect too much the analysis. In each case the "AUTO" values are automatically calculated by geant, so they can be trusted more than with the old setup.

Subject: Re: Minor developments
Posted by StefanoSpataro on Sat, 23 Jun 2007 18:20:32 GMT
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Hello,
I introduced inside the MCTrack the function GetEmcPoints().
In this case, when looping inside MCTracks, one can get particles that hit the EMC.

I add a point only when a particle enters (IsTrackEntering()), even for particles that do not create a Point (eloss == 0). In this case one can understand even if a photon (that does not lose energy) hit the EMC volume (good for acceptance studies, in general only the secondary electron should lose energy thus creates the point).

I am not so sure if it is the case to add points for all the steps. I am scared to lose too much time in this computation.
In each case, we can modify it when we want.

Bye

Subject: Re: Minor developments
Posted by StefanoSpataro on Mon, 25 Jun 2007 22:10:53 GMT
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Hi,
I updated the PndEmcHeader class and the correlated stuff.
Now one can have the momentum (in x/y/z) of the sum of all the EMC clusters (assuming they are photons/electrons).
In this way one can cut on these variables in order to be sure that his neutral channel is completely reconstructed.

Hope it helps,
bye

Ste