Subject: GeaneTrackRep with GEANE.
Posted by Lia Lavezzi on Thu, 03 Apr 2008 09:03:59 GMT
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Hallo Sebastian,
Susanna and I are having a look to the recotask/demo, running the runDemo.C with GEANE, just to test the GeaneTrackRep (we are using the new external packages).

We have some remarks:
1 - the Propagate(...) function of CbmGeanePro returns a value kTRUE or kFALSE to state whether the propagation was successful or not. This flag should be added in the GeaneTrackRep::extrapolate(...) function line where the actual propagation is performed by geane, i.e.:
_geane->Propagate(&par,&result,211);
just to stop the procedure when the GEANE propagation failed.

2 - in the function GeaneTrackRep::getMom(const DetPlane& pl) the TVector3 result is filled with the
variables statePred[3][0] and statePred[4][0] (which are v and w), instead of
statePred[1][0] and statePred[2][0] (which correspond to the derivatives v' and w').
The magnitude of the vector is correct because it is normalized to the momentum value, but the
components are wrong.

3 - pay attention also to the fact that the PDG code in the reconstruction is 211 (pion) while in the
simulation is 13 (muon).

In attachment you can find an example of GeaneTrackRep with these corrections (concerning the getMom
function all the calculations are explicit, but actually the simple change from statePred[3][0] and statePred[4][0] to statePred[1][0] and statePred[2][0] should be enough).

We hope this could be useful, please have a look to this and tell us what do you think

Ciao,
Lia and Susanna.

File Attachments
1) GeaneTrackRep.cxx, downloaded 603 times