Subject: Re: Minutes of PandaRoot Meeting May 27 are posted.
Posted by Sebastian Neubert on Mon, 16 Jun 2008 08:34:46 GMT
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Hi!

I will be at CERN tomorrow so I am not sure wether I will be able to take part in the meeting. Here are my comments concerning the track objects:

1) For tracking tasks (e.g. Vertexing, Refitting, ...) the full covariances are needed. I did not understand from the proposal how this will be handled. It is vital that we also keep the correlations between the space and momentum components of the track parameters!
If we store momentum and position (6 parameters) the system is over-determined. I still do not understand what would be the consequences for the covariances. Probably it is no big problem to transform this into the usual 5-parameter form needed for tracking (refitting, constraint fitting..)

A short list of requirements (which data is needed):
++ For Kinematic Fits: Paramters + covariances at Vertex
++ Extrapolation without errors: Parameters at some point
++ Extrapolation with errors: Parameters, Covariances + Hits

2) How do we want to organize the data when we perform several fits on the same set of hits? (e.g. different particle hypothesis) Will this resut in several tracks each containing a copy of the hits?

Best Regards,
Sebastian.

PS: From the design point of view I.M.H.O _inheritance_ of a new object should be motivated by more than just reuse of member variables. Usefull Question: Will we ever put the objects that derive from the base class into the same container?
If you answer no or maybe to this question the code will get clearer if we do not se inheritance.