Subject: STT helix hits available also from Track Finder
Posted by Lia Lavezzi on Fri, 19 Mar 2010 16:12:59 GMT

Hi,
the STT code for the track finding, both ideal and real, has been updated to be able to provide the helix hits (i.e. reconstructed x, y, z coordinates) also from the pattern recognition: when you use the PndSttTrackFinderIdeal they are simply taken from MC truth, but when you use the PndSttTrackFinderReal they are really reconstructed helix hits.

By default the helix hit production from track finder is switched off, to switch it on you just have to use in the macro the function: PndSttFindTracks::SetHelixHitProduction(); (see macro/stt/runreco.C)

So now you have all the possibilities:

1) from the track finder (ideal or real) you get: the track candidate STTTrackCand (obj PndTrackCand) and, if you switch it on, also the helix hits STTPRHelixHit (obj PndSttHelixHit).
2) if in the macro you use also the helix fit (task PndSttFitTracks) and consequently the usual helix hit producer (task PndSttHelixHitProducer) you will have the helix fitted track STTTrack (obj PndSttTrack) and the helix hits SttHelixHit (obj PndSttHelixHit again).

All the objects have different names obviously so that you can produce them all at once saving a lot of time if you want to compare them!

Stefano, could you please add in the lhetrack also the SttMode for PR helix hits (STTPRHelixHit)? (Thank you very much)

        Have a nice week end,
                Lia.

Subject: Re: STT helix hits available also from Track Finder
Posted by StefanoSpataro on Mon, 22 Mar 2010 19:01:46 GMT

Hi,
please use SttMode(5) to use STTPRHelixHit.
I have updated the code, but I have not checked it yet (disclaimer). Feel free to use it, I do not guarantee