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