
Subject: Re: Bug in PndFts/SttMvdGemTrackingIdeal ?
Posted by [Stefano Spataro](#) on Thu, 19 Sep 2013 17:25:34 GMT
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Martin J Galuska wrote on Thu, 19 September 2013 18:42 Hello Stefano,

do you mean by that tracks which are bent in the dipole so much that they turn around and fly towards the barrel again (and therefore leave additional hits in the FTS)? If these events cause problems with the fitter, I will remove such tracks at the end of the loop on FTS hits. I plan to check all (MC truth) time-ordered FTS hits associated to a given PndTrackCand and check if the z-component is increasing. If not, I will remove the PndTrackCand.

Exactly. But also inside the dipole, they could hit the same layer twice, once in the forward direction and once in the backward direction. Maybe some algorithm could be able to find circles in the dipole, but I believe it will be quite tough to reconstruct the backward segment in FTS1 and 2. Of course this Moreover, sometimes you have secondaries starting inside the diopole region, with the first hit in fts 34. Such tracks will be impossible to reconstruct. Then maybe one should ask to have at least a minimum number of fired FTS12 straws, and a minimum for FTS34.

Let's put it in this way: I believe we should clean a bit the ideal track sample, to select only tracks that the real algorithm will be able to reconstruct. If we leave them, our efficiency will be spoiled to a too high value compared to real case.

My humble opinion, comments and suggestions are welcome.
