Subject: Separation of STT parallel and skewed hits.
Posted by Lia Lavezzi on Tue, 31 Mar 2015 15:47:47 GMT

Hi pandarooters,
  today at the SeeVogh meeting we discussed about the possibility to split in two branches the TClonesArray of the STT hits (called "STTHit"), i.e. to create two separate TCAs: one for the hits in skewed tubes ("STTSkewHit"), another for the parallel ones ("STTParalHit").

It was decided to proceed with an announcement in the forum since this separation skewed/parallel affects many parts of the code, namely everything after the digitization: from reconstruction, to Kalman, to pid.

For the moment, we want to keep backward compatibility, to allow the code developers to modify their code in order to use the two TCAs conveniently, but everyone who is responsible for a part of the code which uses the STT hit TCA is kindly invited to think about this and, if there is any objection, to comment on it.

I already modified the PndSttHitProducerRealFast (in the trunk) to provide, only when specifically asked, the two separate TCAs: STTSkewHit and STTParalHit.
There is a flag which is switched on by the SeparateHits() function and is false by default. So you will still have the unique TCA after the digitization unless you decide you want the two separate TCAs.

Moreover, as decided in the SeeVogh, a task which will build the full TCA starting from the two separate TCAs will be provided soon, again to save backward compatibility for those codes which use the STT hits and are no longer maintained or which take long time to be updated.

Please if you have questions/comments feel free to reply.
Ciao,
Lia.