Fitting of SvxCentralTrack

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Track Fitting

- I made a fitting code for SvxCentralTrack
 - This is for alternative for the fitting code with Kalman filter in case the fitting code with Kalman filter will not be ready for recalibrator.
- Basic idea is the same as the fitting code for SvxSegment, multi-circle fitting. And in addition, phi0 and the0 of CNT are used taking into account matching of CNT.
 - In the multiple scattering term in chi2 for SvxSegment, only intermediate hit points are used. But for SvxCentralTrack, the first hit is also used.



Chi² distributions



- S/N without any DCA cut : S/N is not improved by new code.
- S/N for DCA>0.3mm : S/N is improved by new code.
 →this is because chi² calculated by old code depend on DCA.

Chi² v.s. DCA



- Chi² calculated by old code depends on DCA.
 - This is the reason why S/N is improved by new code.
- Chi² calculated by new code also depends on DCA.
 - I found a bug. Hopefully this will fix the dependence.

Other things

- I wold like to run test production for p+p.
 - To check time consumption with real data after the update of SvxStandAloneReco.
- Bug at fitting code for stand-alone tracking
 - There is a bug at a function to calculate RMS of scattered angle due to straggling.