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Subject: Check of GENFIT effects on reconstructed barrel tracks

Posted by [Stefano Spataro](#) on Fri, 05 Apr 2013 17:26:14 GMT

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Dear all,

I have done a small systematic study on the possible bias that GENFIT could introduce on reconstructed barrel tracks, and I attach here a presentation with the results I obtained.

I copy here my final conclusions:

- \* GENFIT is stable for reconstruction of barrel tracks
- \* GENFIT loss in efficiency is negligible
- \* The minimum momentum resolution is ~1.5%, not possible to go below this number (material effects? field? hit resolution?)
- \* By using "realistic" momentum/position smearing the performance is stable, no big effects
- \* No need to increase the number of iterations to obtain better results
- \* No systematic problems at low momentum

We could discuss about at the next SeeVogh meeting, of course.

#### File Attachments

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1) [20130404\\_genfit.pdf](#), downloaded 512 times

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