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Subject: Central Tracker performances with reduced B field  
Posted by [Susanna Costanza](#) on Thu, 17 Apr 2014 20:47:57 GMT  
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Hi all,

I've been asked to study the performances of the Central Tracker with the reduced magnetic field configuration (option "HALF" of PndMultiField), in terms of momentum resolution, reconstruction efficiency, theta and phi resolution.

I've simulated single track events with muons, generated at the I.P., uniformly in phi and  $\cos(\theta)$ , with theta between  $20^\circ$  and  $140^\circ$ , and different momentum values (from 0.1 to 2 GeV/c).

The details of the simulations and the results obtained are summarised in the pdf attached. These plots can be compared with the corresponding results for the full magnetic field, which I showed in one of the last computing EVO meetings and can be found at this link:  
[https://panda-wiki.gsi.de/foswiki/pub/Computing/Minutes07April2014/Costanza\\_EVO\\_April07.pdf](https://panda-wiki.gsi.de/foswiki/pub/Computing/Minutes07April2014/Costanza_EVO_April07.pdf)

Best regards and happy Easter to all of you!  
Susanna

#### File Attachments

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1) [HalfField.pdf](#), downloaded 633 times

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