Subject: Re: back-propagation with GEANE
Posted by Anastasia Karavdina on Fri, 21 May 2010 08:45:28 GMT
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Hi Alberto and Lia,
Thank you for detailed explanation! I added requirement to save only the correctly propagated tracks, but it didn't change even number of events in my histograms.

About "significant":
First of all I'm interesting in knowledge of angle resolution,
so under "significant" I meant differences between simulated and reconstructed values of angles. I don't know how to correct compare them, but I see, that these differences much more bigger, then uncertainties, for example, due to multiple scattering in luminosity monitor. And also I can not explain shape of these differences (for example in angle phi).

In absence of magnetic field I expected differences between simulated and reconstructed values of angles equal to zero. Because I simulated tracks in vacuum inside beam pipe, so there is no any material and I expected obtain PCA equal to (0,0,0).

But you right if I compare differences between coordinates of PCA and momentum coordinates with GEANE errors for these variables it seems everything is fine (with the exception of case with zero errors). I would like to know what is the nature of this non-zero errors in absence of magnetic field? Is it only computing uncertainties?

I add plots for the same variables as in my first message in absence of magnetic field.
It's interesting that without magnetic field I don't have any peaks in zero for errors of momentum and PCA coordinates.

Anastasia.

File Attachments

1) uncer_withoutMagField.ps, downloaded 474 times
2) PCA_withoutMagField.ps, downloaded 483 times
3) momentum_withoutMagField.ps, downloaded 493 times