
Subject: Re: back-propagation with GEANE

Posted by [Lia Lavezzi](#) on Thu, 03 Jun 2010 08:57:12 GMT

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Hi Anastasia,

Quote:Maybe GEANE use this information inside out as a hit from the last surface of the first layer and this is the reason why errors after back-propagation with GEANE the same as spread after multiple scattering?

Actually this should not happen, since you set the starting position with StartPos, and this is on the entering surface of the luminosity monitor, so GEANE starts from there and moves in the vacuum back to (0, 0, 0). Could there be a mismatch between the StartPos and the starting plane? Are you sure that the starting plane contains the point (i.e. is the first surface)? Anyway, the important thing here is the orientation of the plane, since as starting point it takes StartPos.

I see in the plots with fixed momentum direction you don't have the zero errors... How do the reconstructed momentum distributions look like if you separate the cases with and without 0 error in the test with random starting momentum and magnetic field on? Is there any difference between the two?

Quote:Can you tell me how I can switch off the multiple scattering, please?

You should set to 0 the value in gconfig/SetCuts.C:

```
gMC->SetProcess("MULS",0); /**multiple scattering*/
```

Quote:The luminosity monitor consists only from 4 layers and each of them contain only one sensor plane. And I check that my first MC hit is indeed hit from first layer.

Ok, then it does not depend on geometry.

Quote:My code is not available in SVN now(Because we use MVD classes and now we are waiting for new realise from MVD group to avoid any conflict between different version of code.

Ok, I see. I will wait

Cheers,
Lia.