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Subject: New version of DPM

Posted by [Aida Galoyan](#) on Thu, 03 Sep 2009 14:14:22 GMT

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Hi all,

I have committed new version of DPM generator.

Full elastic scattering, Coulomb, interference, hadronic parts are included in the new DPM.

You need to put the minimal angle of scattering `"tetmin"(>0)` at DPM running, if you give value of parameter

`"Elastic" = 1` (Inelastic with Elastic scatterings)

or `= 2` (only Elastic scatterings).

The implementation of full elastic scattering in DPM is

important for Luminosity monitoring and, may be, for estimation of radiation doses in MVD.

Aida

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Subject: Re: New version of DPM

Posted by [Mohammad Al-Turany](#) on Thu, 03 Sep 2009 19:58:36 GMT

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Hi,

This change is also propagated to the `PndDpmDirect` class, i.e:

```
PndDpmDirect(Double_t Mom, Int_t Mode, Float_t tetmin=0)
```

The constructor of the `PndDpmDirect` has now an optional parameter `tetmin`. In case one choose elastic (`Mode=1` or `2`) and the theta is not set by user a warning will be printed out and the value is set to zero!

regards

Mohammad

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Subject: Re: New version of DPM

Posted by [Marius Mertens](#) on Thu, 24 Sep 2009 15:48:07 GMT

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Hi Aida,

thanks for uploading the new DPMGen version!

I have a question regarding the cross sections for the different processes (to my understanding

inelastic, strong elastic, coulomb elastic) you implemented.

When I generate a given number of events with DPMGen, requesting elastic and inelastic events at a fixed parameter set, how many of these events will be inelastic, strong elastic, coulomb elastic?

Additionally, I have the same question concerning the previous DPMGen version without coulomb interaction: For a fixed number of events, how many of them will be elastic and how many inelastic?

Best regards,

Marius

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Subject: Re: New version of DPM  
Posted by [Aida Galoyan](#) on Fri, 25 Sep 2009 13:11:11 GMT  
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Hi Marius,

please, send me your e-mail address,  
and I can send you a version of program codes  
to receive information for cross-sections of  
Coulomb, Interference and Hadron parts  
of elastic scattering. There are some "print" operators  
in fortran codes.

If I put corresponding "print"s  
of your required values in fortran codes in current version DPM  
and commit it,  
it will be crushed, because option "lg2c" is removed  
from "binmarke\_Fortran.mk" file.

So, I can send you the needed files separately and explain how  
to use them.

best regards, Aida

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Subject: Re: New version of DPM  
Posted by [Marius Mertens](#) on Mon, 28 Sep 2009 09:59:53 GMT  
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Hi Aida,

thanks a lot! You should have received an email from me via the forum system in the  
meantime. If it didn't work for some reason, please let me know.

