Subject: decay off in geant4
Posted by asanchez on Wed, 16 May 2007 09:10:07 GMT
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hi again

what to do if I want to disconect for a while the decay process
in geant4(VMC).
Should I change the flag in g4config.C for decay
like that?
geant4->SetProcess("DCAY",0); /**decay*/

if yes
should the directory /gconfig be compiled?

alicia.

Subject: Re: decay off in geant4
Posted by StefanoSpataro on Wed, 16 May 2007 09:16:42 GMT
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Hi,
in theory what you wrote should be enough to turn off one process.
You don't need to recompile gconfig, it is only a directory of "setup" macros. Just edit your file and then relaunch your analysis, without recompiling code.

Subject: Re: decay off in geant4
Posted by asanchez on Fri, 25 May 2007 07:49:19 GMT
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hi all,

according with the possibility to switch off the decay
in geant 4 by doing geant4->SetProcess("DCAY",0); /**decay*/
in gconfig, i have to say it doesn't work.

Actually if I look into the g4Config.C ,
it was already geant4->SetProcess("DCAY",0) set up as default.
So what that it mean that process are set to "0", "1"?

Hat that actually some sense?
Comments are welcome.

Alicia.

Subject: Re: decay off in geant4
Posted by StefanoSpataro on Fri, 25 May 2007 07:53:17 GMT

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Hello,
maybe I am missing the point.
Does it mean that it does not change anything if you put 1 or 0 on the DCAY flag?
have you tried for both g3 and g4?

Subject: Re: decay off in geant4
Posted by asanchez on Fri, 25 May 2007 08:01:56 GMT
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Hi
first my simulation, or the physical process
i want to use don't work with geant3, therefore i use only geant4.

i don't understand what does it mean to put 1 or 0 on the DCAY flag?
0 on the DCAY flag---> decay on???
1 on the DCAY flag---> decay off??

becauuse if I take into account "0 on the DCAY flag"
as decay switch off, it doesn't work, the particles decay anyway.

Subject: Re: decay off in geant4
Posted by Pablo Genova on Fri, 25 May 2007 08:17:41 GMT
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Hi Alicia,

I think that g4config.C recalls the geant3 physics process control, so it should have the same meaning (cfr geant3 manual).

In GEANT3 if you setdecay(1), i. e. variable IDCAY is one, decay processes are enabled, while with 0 they are disabled, and this is the usual way to enable/disable physics processes.

I tested the setters with other processes in GEANT3 and they working, but I do not know for sure if in geant4 they are working!

ciao, Pablo

Subject: Re: decay off in geant4
Posted by asanchez on Fri, 25 May 2007 08:22:10 GMT
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hi Pablo
I know in geant3, it works,
but i wonder that in geant4 not.

by the way it should be the same but it is not.

So what to do?

Subject: Re: decay off in geant4
Posted by Pablo Genova on Fri, 25 May 2007 08:31:21 GMT
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It looks like the g4Config macro is not really setting the processes.
Is there something wrong in the interface?

My knowledge of virtualMC is not enough to touch that part

Pablo

Subject: Re: decay off in geant4
Posted by StefanoSpataro on Fri, 25 May 2007 08:36:09 GMT
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This part belongs to our developement, not to the "global" virtualMC.

If I remember well Mohammad developed these functions, that are geant3 functions, not geant4! This means that there can be something which is not yet fully debugged.

In each case we know for sure that the geant4 lists are not so "tuned" (they are the ones of example4, if I remember well), so do not expect to have good results with g4 at the moment.

Subject: Re: decay off in geant4
Posted by Pablo Genova on Fri, 25 May 2007 08:47:14 GMT
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Stefano Spataro wrote on Fri, 25 May 2007 10:36This part belongs to our developement, not to the "global" virtualMC.

Yes it's the local tuning of the virtualMC. But it's not so easy to change that part if one has not clear the internal virtualMC, I guess

If I remember well Mohammad developed these functions, that are geant3 functions, not geant4! This means that there can be something which is not yet fully debugged.

I agree, but at a certain point they should enter the physics process of geant4, constructing or not the required interactions. I think it's a very nice approach for the user that of having such a simple interface so that one has not build the processes manually.

In each case we know for sure that the geant4 lists are not so "tuned" (they are the ones of example4, if I remember well), so do not expect to have good results with g4 at the moment.

for the stt, I almost always used geant3 also for this reason. It's very useful, during tracking, to disable/enable processes to understand the limits of your tracking algorithm.

ciao Pablo
