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Subject: Re: Geant3 tracking cuts for the EMC  
Posted by [Bertram Kopf](#) on Fri, 16 Oct 2009 12:40:06 GMT  
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Hi Christian,

Christian Hammann wrote on Fri, 16 October 2009 13:58

I have noticed that the tracking thresholds for Geant3 are set to 1MeV by default, which is probably too high. Also they are set globally, so it seems to me they are not tuned in any reasonable way for the EMC.

...

Are there some tuned cuts available? Do I have to load an additional file to set proper cut values?

in my point of view the 1MeV threshold cut is definitely too high. To get a rough estimate for reasonable thresholds, here are the numbers which we have used for our Physics Book studies (G4 simulation):

minimum energy for all particles: 0. keV

energy cut for ion killing: 5. keV

energy cut for neutron killing: 0.01 keV

These cuts have been taken over from BaBar and are therefore tuned for this experiment. Since PANDA will measure in similar energy ranges, I think that such thresholds are at least good starting points for our simulations.

Best regards,  
Bertram.

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