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Subject: Trackfollowing in light materials with GEANE

Posted by [Anonymous Poster](#) on Fri, 06 Mar 2009 16:45:44 GMT

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Hi Lia and other GEANE experts,

we encounter the problem in the TPC that GEANE seems sometimes unstable when following a track in a gas volume and does not encounter any material transitions. One possible solution to this problem is tuning of the stepping parameters in the material definition as suggested to me by Lia. We will certainly try this in the near future and for sure will post some questions here in the process (it will take a little since we have the DPG spring meetings).

However, I want to raise another question or possible solution to this issue:

When GEANE encounters a material transition it triggers a step. Track extrapolation to this plane of material transition should work stably, or at least let's assume it for the sake of my argument.

Somewhere inside GEANE this mechanism of forcing a step, can be triggered by the material transition. Can we trigger this ourselves? Or to put it another way: Can we cheat GEANE into thinking that it encounters a material transition in the plane where we want to extrapolate in? That would make it much more stable.

If my suggestion would work it would of course be combined with a fine stepping, still.

Looking forward to your reply!

Cheers, Christian

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