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Subject: Re: Trackfollowing in light materials with GEANE  
Posted by [Lia Lavezzi](#) on Tue, 10 Mar 2009 15:48:08 GMT

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Hi,

concerning the problem of light materials I would ask you one question: does the problem arise when you perform the extrapolation to the point of closest approach or when you extrapolate to a defined plane?

I ask you this just because the extrapolation to plane is a kind of propagation belonging to the original geane and so it should be deeply tested: I guess this part works and the problem is in the extrapolation to the point of closest approach, isn' t it?

In this case I really think this might be a step size problem.

Is the rate of failures very high? Note that sometimes some failure may happen also if you have a wrong order in the list of hits (as discussed in the other thread), because if geane tries to extrapolate from a point to the next one, but these two points are in the wrong order obviously geane fails (once again the importance of ordered hits arises!).

Concerning your question about triggering the step "by hand" I don' t know if this is feasible, so I can' t answer, while I guess that we could cheat geane by dividing the big TPC volume in smaller volumes all filled with the same material: this would trigger the steps at each transition (I think), increasing the simulation time, but this is almost the same thing as reducing the steps (and honestly that is a more elegant and correct solution! ).

Ciao,  
Lia.