Subject: Re: Question on R3BNeutronTracker2D
Posted by C. A. Douma on Thu, 07 Jul 2016 15:51:34 GMT
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If I manually add signal neutrons, I cannot observe the realistic case.
Both the probability for a reaction and the probability for background from the unreacted beam are small and
of comparable size. This is why the background causes trouble. If I manually add signal neutrons
to the unreacted beam, the suddenly the signals are so much stronger then the background that the VETO does
more harm then good: if I have for example 0.5% background and 1.5% of the neutrons is detected by the VETO, the VETO will
never help us. But if I have 0.5% background and 0.5% neutrons, then the VETO only blocks 1.5% of 0.5%. Then it might work.

This is also the reason why I asked you about the TGeant4 physics list. I need to really produce the neutrons from a simulated
reaction and I need to take the unreacted beam along to produce the background. And according to Ken Miki, TGeant3 cannot
do this target collisions.

But when I do add these signal neutrons, the tracker works fine, also with the beta test.

Christiaan.