Subject: Re: Possible improvement to dE statistics in DSSSDs?
Posted by miree on Thu, 02 Oct 2014 09:09:16 GMT
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Hi,

Thanks for pointing this out! You are right, the current algorithm decreases efficiency at that point.
The reason why to stop the processing is the following:

In all the analysis as it is now (and also in previous analysis codes), we make the assumption, that only one particle was present in the entire event. Having more than 2 groups in the DSSSD detector is an indication of having more than 1 particle, which is considered to be a "bad event", and the analysis doesn't need to proceed.

Your idea to take only one of the two hits (the one with highest energy) can be better. But it might also contribute to the backgound in the final gamma spectrum if the "correct" particle was the one with lower energy in the DSSSD. In any case it would be good to have both options available and being able to switch between them with a parameter. That would make it very easy to compare the final efficiency and also peak/BG ratio of both options.

Thanks a lot for looking into theses things!!