Subject: Re: Cherenkov photons generation (FairBoxGenerator) updated!
Posted by Jochen Schwiening on Wed, 15 Sep 2010 12:51:47 GMT
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After getting Geant 4 to propagate Cherenkov photons inside of the DIRC bar I was able to tackle the photon gun issue.
The happy news is that this also appears to work in Geant 4.
We should, however, keep this topic open until a) we have verified that the G4 results make sense, and b) the experts had a chance to try and fix the problem in G3 (I don't know enough about G3).

I am attaching a snapshot of an event with 1000 photons, each 390 nm wavelength, generated over a wide theta/phi range, propagated inside the bar from a gun location close to the end of the bar, and registered by our photon detectors. The cbmsim ntuple contains information that appears, at first glance, to be meaningful. We have to do some studies, not the least of which is to compare the DIRC response for "normal events" between G3 and G4, before we can declare the issue fixed but it's definitely progress.

Cheers, Jochen

File Attachments

1) dirc_geant4_photon_gun_ok.png, downloaded 1039 times

