Subject: Geant3 tracking cuts for the EMC
Posted by Christian Hammann on Fri, 16 Oct 2009 11:58:36 GMT

View Forum Message <> Reply to Message

Hi

I have noticed that the tracking thresholds for Geant3 are set to 1MeV by default, wich is probably to high. Also they are set globally, so it seems to me they are not tuned in any reasonable way for the EMC.

These cuts are set in gconfig/SetCuts.C. If I decrease the cut values to 100keV I get significant changes in the distribution of the energy in the cluster. For a 657 MeV photon the energy in the central crytal decreases from 542MeV for the 1MeV cut to 512MeV with the 100keV cut. The number of crystals in the cluster also increases from 13.9 to 16.8.

Of course the filesize and computing time increase with the lower cuts (about a factor 2 or so).

Are there some tuned cuts available? Do I have to load an additional file to set proper cut values?

Best regards

Christian