Subject: update of PndEmcHitProducer for nonuniform lightoutput
Posted by Christian Hammann on Wed, 02 Jun 2010 17:10:57 GMT
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Hi

I added some code to the PndEmcHitProducer to allow for a nonuniform (z-dependent) lightoutput of the crystals.

If switched on the HitProducer will calculate the z position of an EmcPoint inside the crystal and will weight the energy according to the dependence of the lightoutput.

You can switch this mechanism on by setting Use_nonuniformity in PndEmcDigiPar to 1. The parameters for the lightoutput are stored in PndEmcDigiNonuniformityPar, which is initialized from input/EmcDigiNoniformityPars.root. It currently contains parameters for all barrel type crystal, from meassurements done at Stockholm as presented at the march 09 collaboration meeting. The fw and bw endcap are not included at the moment, as I didn't have data for them at hand.

If you encounter problems or have questions, please let me know.

Regards
Christian

P.S.: I don't have write permission for the input directory, so could someone commit the attached EmcDigiNoniformityPars.root file for me?

File Attachments

1) EmcDigiNoniformityPars.root, downloaded 547 times