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 546 times

Subject: Re: update of PndEmcHitProducer for nonuniform lightoutput
Posted by StefanoSpataro on Fri, 04 Jun 2010 12:34:31 GMT
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Commited (revision 8855).

Subject: Re: update of PndEmcHitProducer for nonuniform lightoutput
Posted by Christian Hammann on Fri, 04 Jun 2010 13:02:26 GMT
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thanks

Subject: Re: update of PndEmcHitProducer for nonuniform lightoutput
Posted by Christian Hammann on Fri, 04 Jun 2010 15:31:33 GMT
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Hi

I introduced a bug by merging my changes in the PndEmcHitProducer with the trunk, the initialization of fTrackEnergy and fTrackTime were done at the wrong place.

This should be fixed now.

That was probably the bug, which caused the dashboard to fail, so that should also be fixed now.

Sorry for that.

Best Regards

Christian
