Subject: Re: geometry check
Posted by StefanoSpataro on Tue, 22 May 2007 13:21:42 GMT
View Forum Message <> Reply to Message

Hello,

Aleksandra Biegun wrote on Tue, 22 May 2007 13:20
from your 2nd picture (after shift module 1 and module 2 about 37mm) I understand that now we do not have overlaps in theta' (theta' - is theta angle for cryctal) angle at 90 degrees and we have some "space" around 87 degrees, which I can guess we should not have, correct?

Well, it is exactly the contrary.
In the 2nd picture we have overlap between module 1 and module 2 in the 87° region -> one photon at 87° hit both the modules. So if you sum all the counts, you will not see any holes there.
Before, if a particle was emitted exactly at 90°, if you look at the first plot, it could go in between the two modules (between red and blu), hitting no crystals at all (the dead region between crystals) -> no signal.

Aleksandra Biegun wrote on Tue, 22 May 2007 13:20
I have done the same 2 pictures like last time, but with the 37 mm shift of module 1 and 2. Pictures looks very similar (holes are shifted in theta). But, I have also done picture with theta'=f(phi') for Points, and there is only hole between barrel and backward endcap which I am going to remove by shifting backward endcap to the target. But the structure is a little bit strange. I run 1000 event for range of theta 5-175 degree and full range of phi angle and I expected to have some homogeneous ditribution of points, but I see that only some of detectors give signals, but maybe it is ok, maybe for only 1000 events it is possible. What do you think?

First of all, I would suggest to save pictures as gif/jpg instead of ps, in order to avoid to have 6Mb files with scatter plots

Second, probably 1000 photons are not enough for 2D plots. I would suggest to check with the same statystics only 1D distribution -> Theta, in order to not see the single spots of the crystals. The structure is connected to small showers, I think.
So everything normal there