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Subject: Re: forward endcap quest goes on  
Posted by [Aleksandra Biegun](#) on Thu, 02 Jul 2009 13:57:11 GMT  
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Hi Irina, hi All,

the problem Irina has had with the forward endcap with GEANT 4 is fixed now. Somehow, the single Reflection() I have made for Quarter number 2 and 4 caused the problem with the Z shift.

So, I have changed the macro which creates the geometry of the forward endcap (FwEndCap) and now it is called: createRootGeoFileFwEnd\_fixed.C. It does not have Reftlection() function. It is committed to svn to: `../trunk/macros/emc/` and creates the root file with the same name like was before, i.e. `emc_module3new.root` (also committed to svn), so you don't need to do any changes, just do svn update.

I also had to change a little bit `../trunk/emc/EmcTools/PndEmcStructure.cxx`.

I put the same plots made twice: for GEANT 4 and, to compare, for GEANT 3.

At the plots:  
`z_ene_hits_digi_clusters_g[GEANT]_fwendcap_m3changed_fixed.png`

you can see that Z-position for all 4 Quarters of the FwEndCap is in the same Z for GEANT 4. For GEANT 3 it was fine before.

The mapping is also fine, should be the straight line in each Quarter (each copy), what you can see at plots:  
`xpad_x_points_m3_g4_fixed.png` - for X direction  
`ypad_y_points_m3_g4_fixed.png` - for Y direction

Quarters of the FwEndCap are placed in the clockwise direction looking downstream.

Different parameters for Points, also Z-position of all 4 Qarters, are shown at plots:

`points_g4_fwendcap_m3changed_fixed.png` - for GEANT 4  
`points_g3_fwendcap_m3changed_fixed.png` - for GEANT 3.

Irina, please check it. I do hope there will not be any problem, but in case of any, let me know.

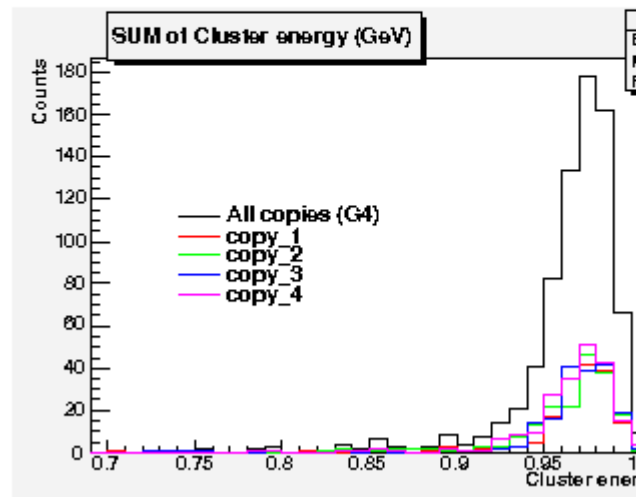
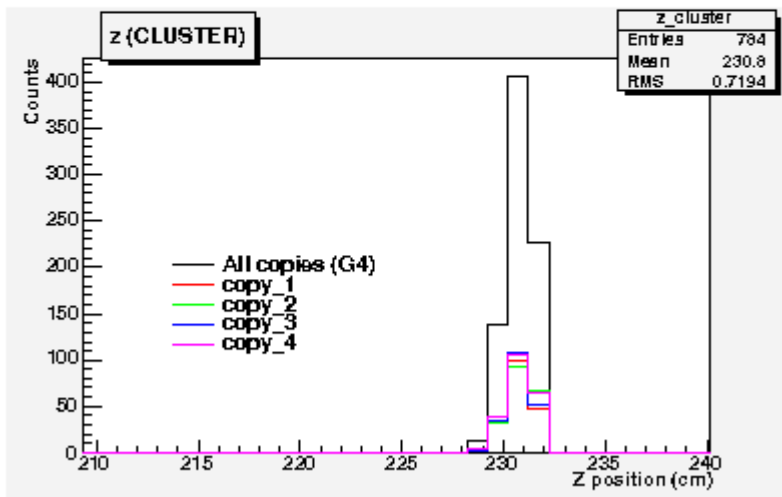
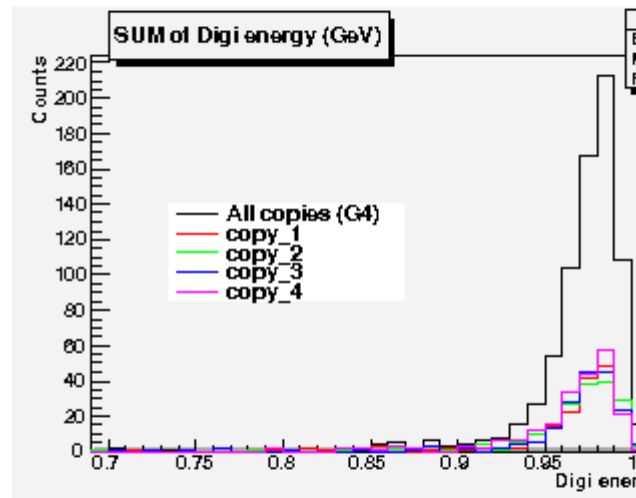
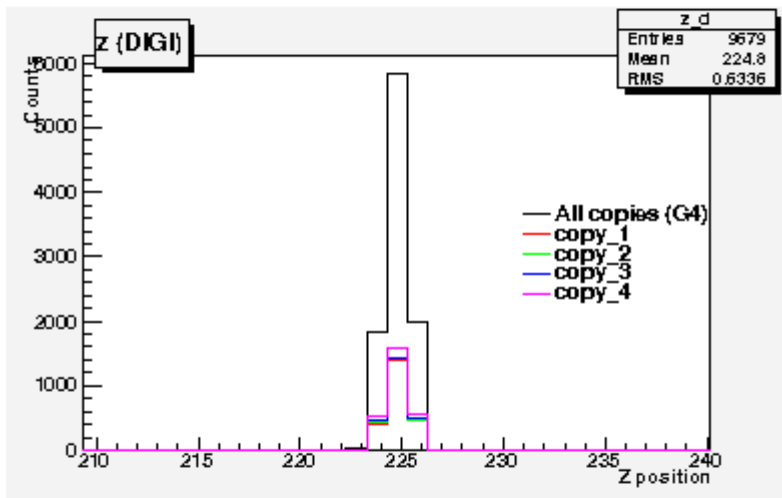
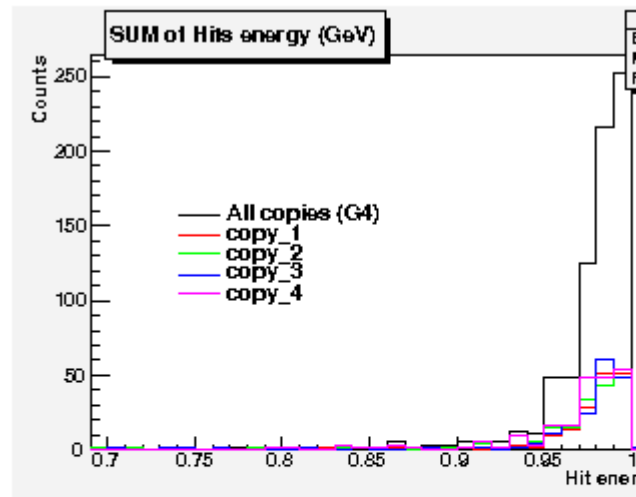
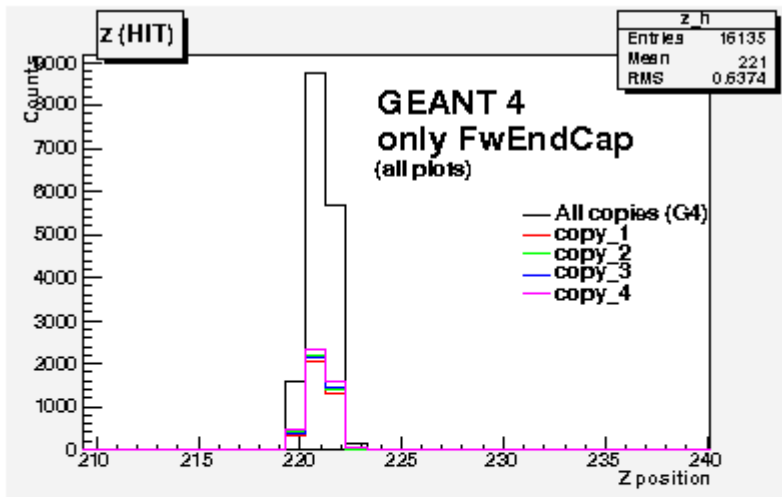
If you have any question, do not hesitate to ask.

Best regards,  
Ola.

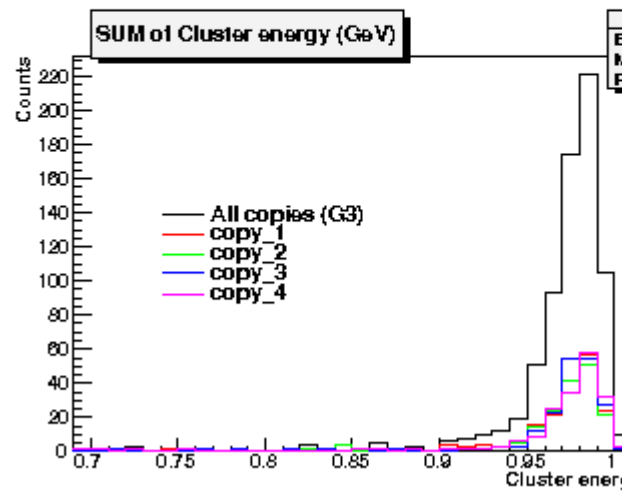
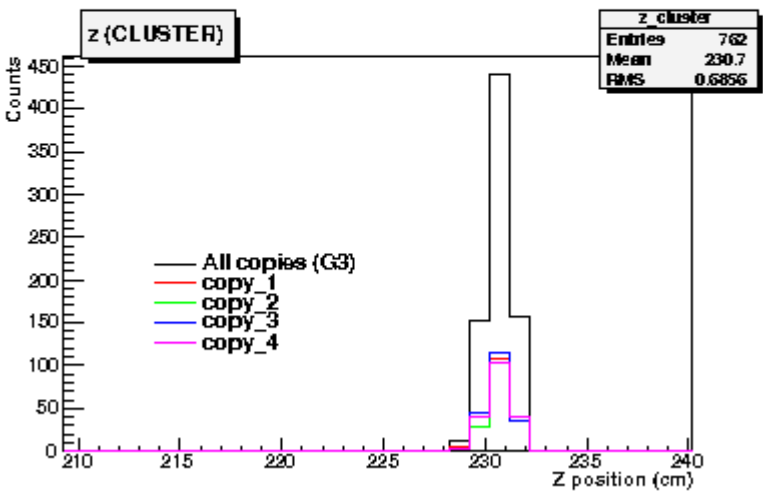
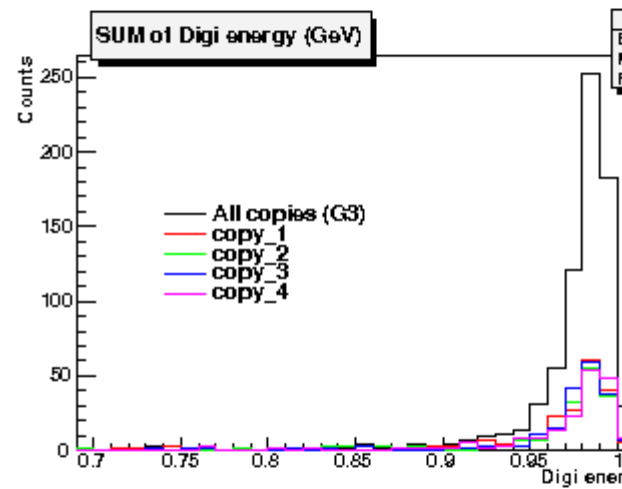
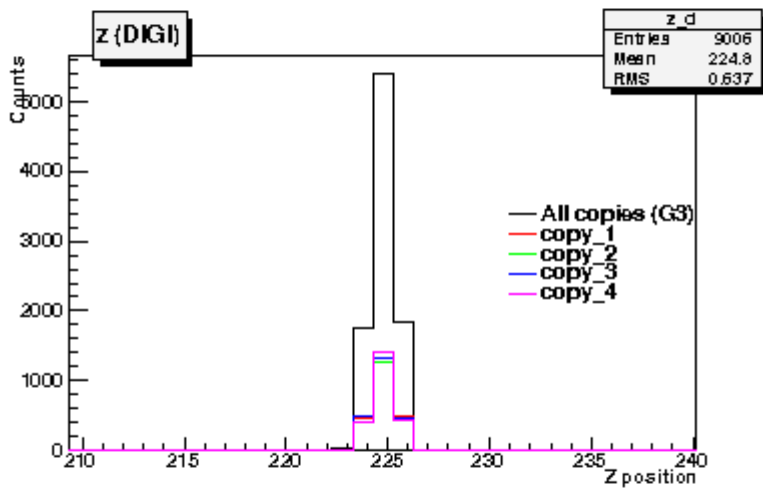
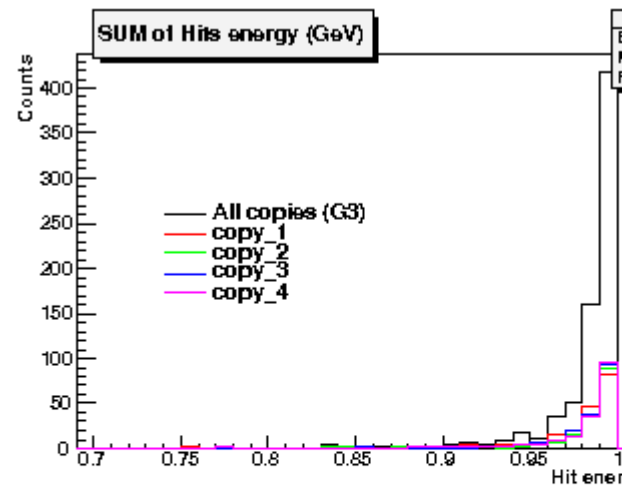
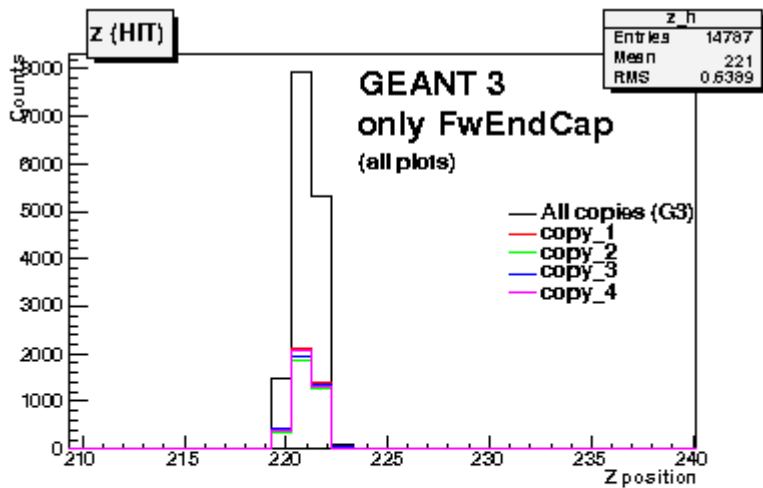
## File Attachments

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1) [z\\_ene\\_hits\\_digi\\_clusters\\_g4\\_fwendcap\\_m3changed\\_fixed.png](#),  
downloaded 948 times

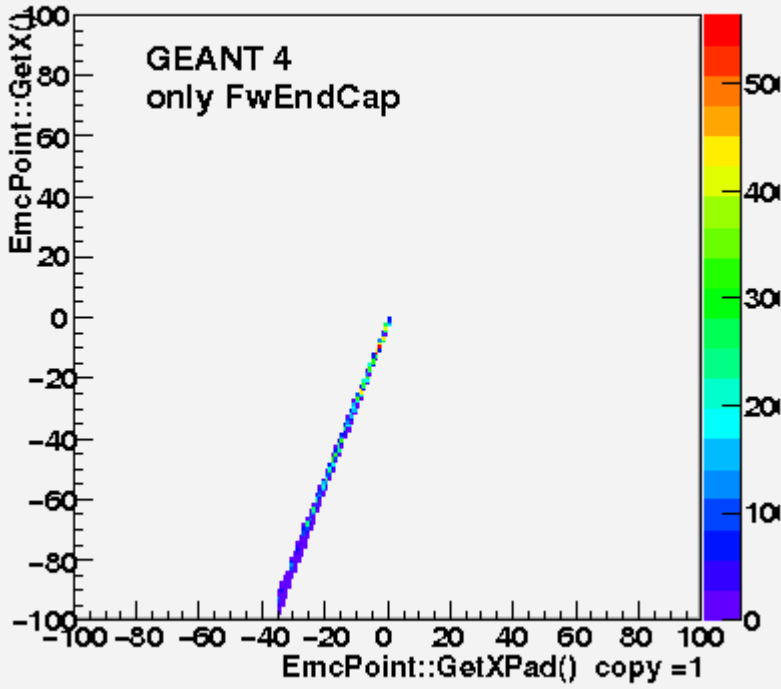


2) [z\\_ene\\_hits\\_digi\\_clusters\\_g3\\_fwendcap\\_m3changed\\_fixed.png](#), downloaded 958 times

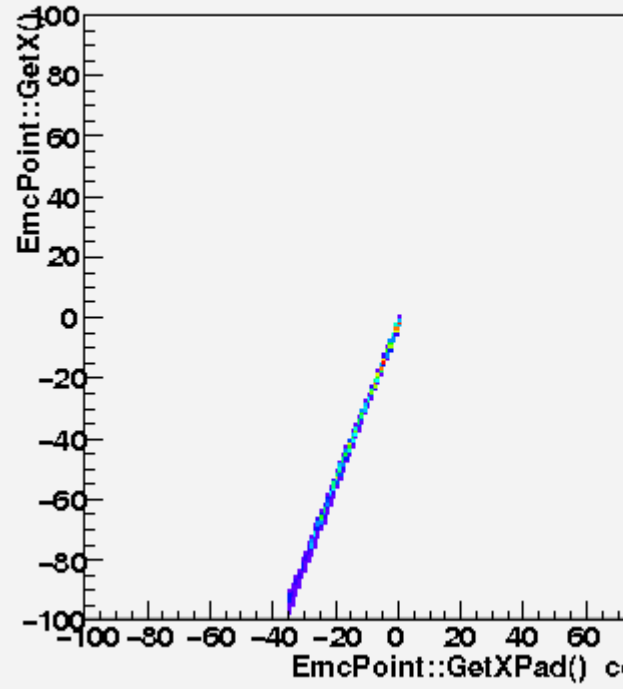


3) [xpad\\_x\\_points\\_m3\\_g4\\_fixed.png](#), downloaded 940 times

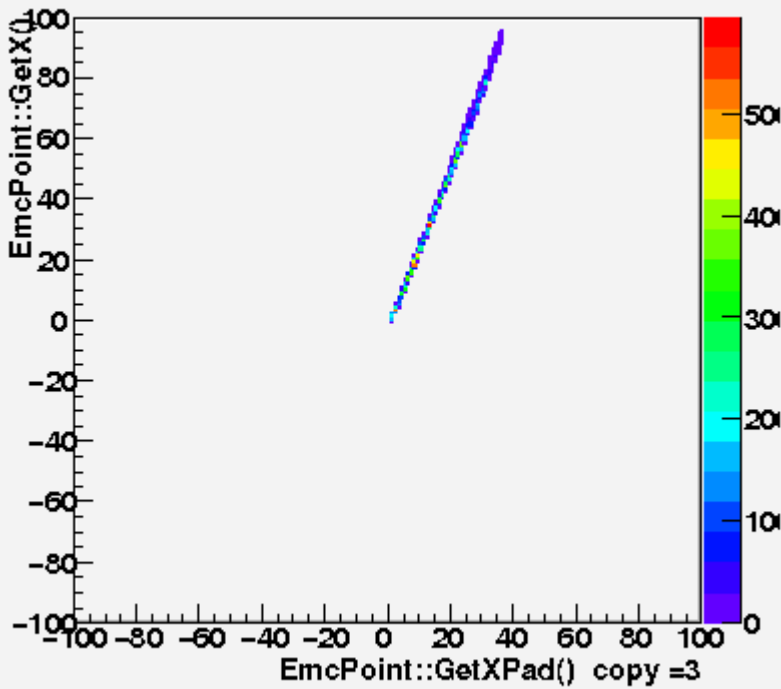
x vs xpad\_cp1\_ (POINT)



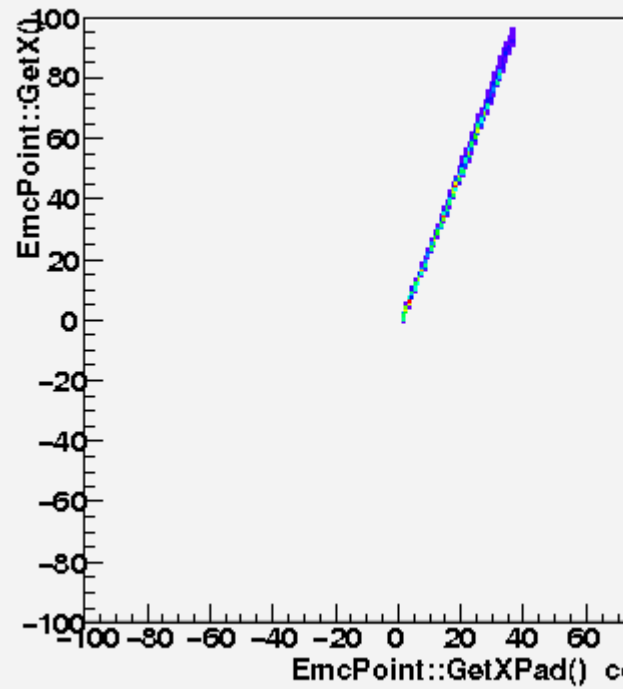
x vs xpad\_cp2\_ (POINT)



x vs xpad\_cp3\_ (POINT)

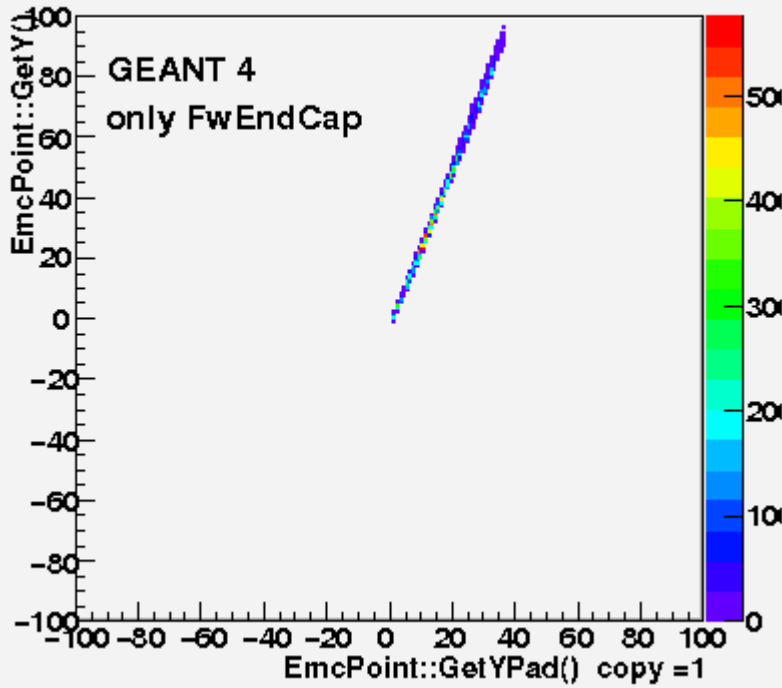


x vs xpad\_cp4\_ (POINT)

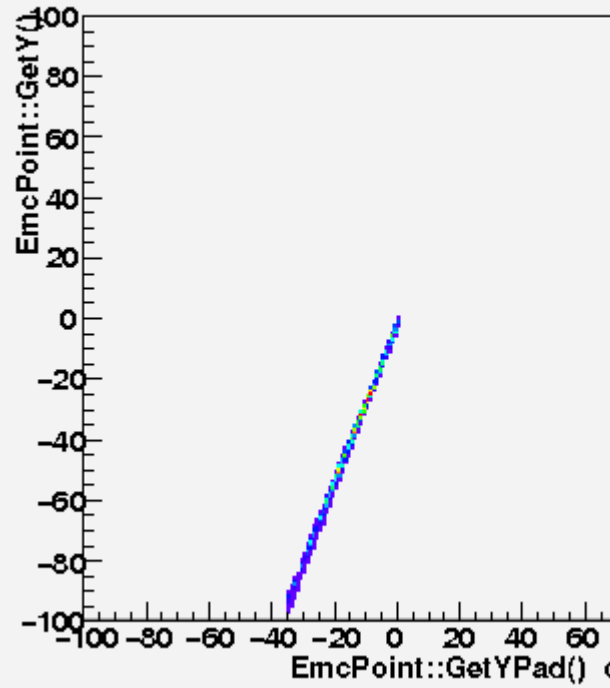


4) [ypad\\_y\\_points\\_m3\\_g4\\_fixed.png](#), downloaded 900 times

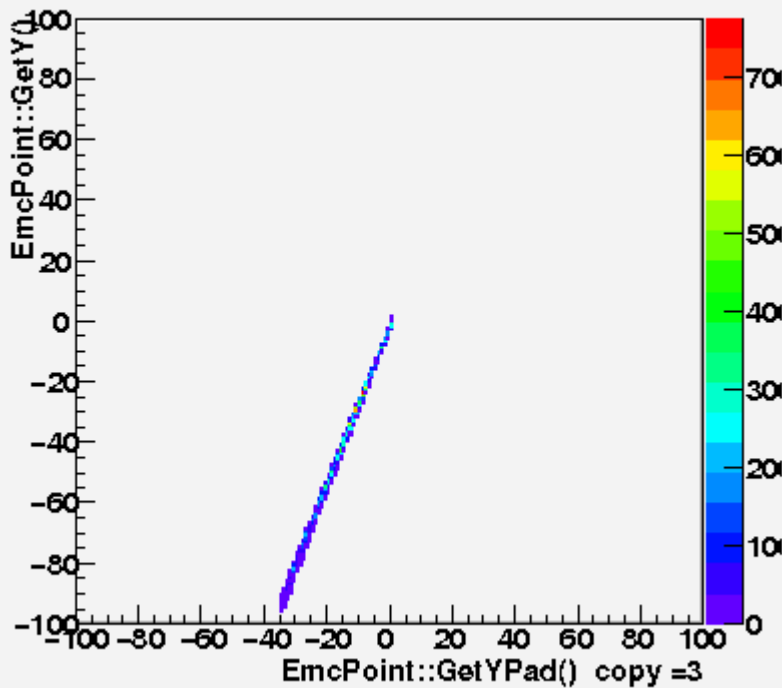
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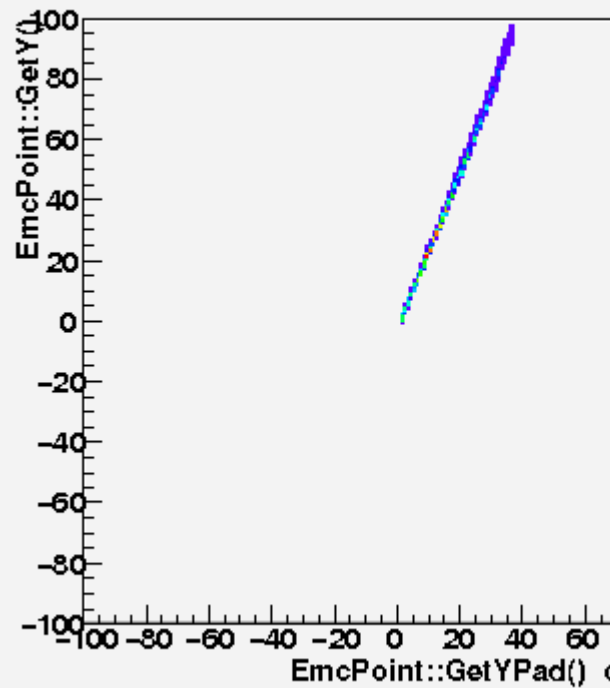
y vs ypad\_cp2\_ (POINT)



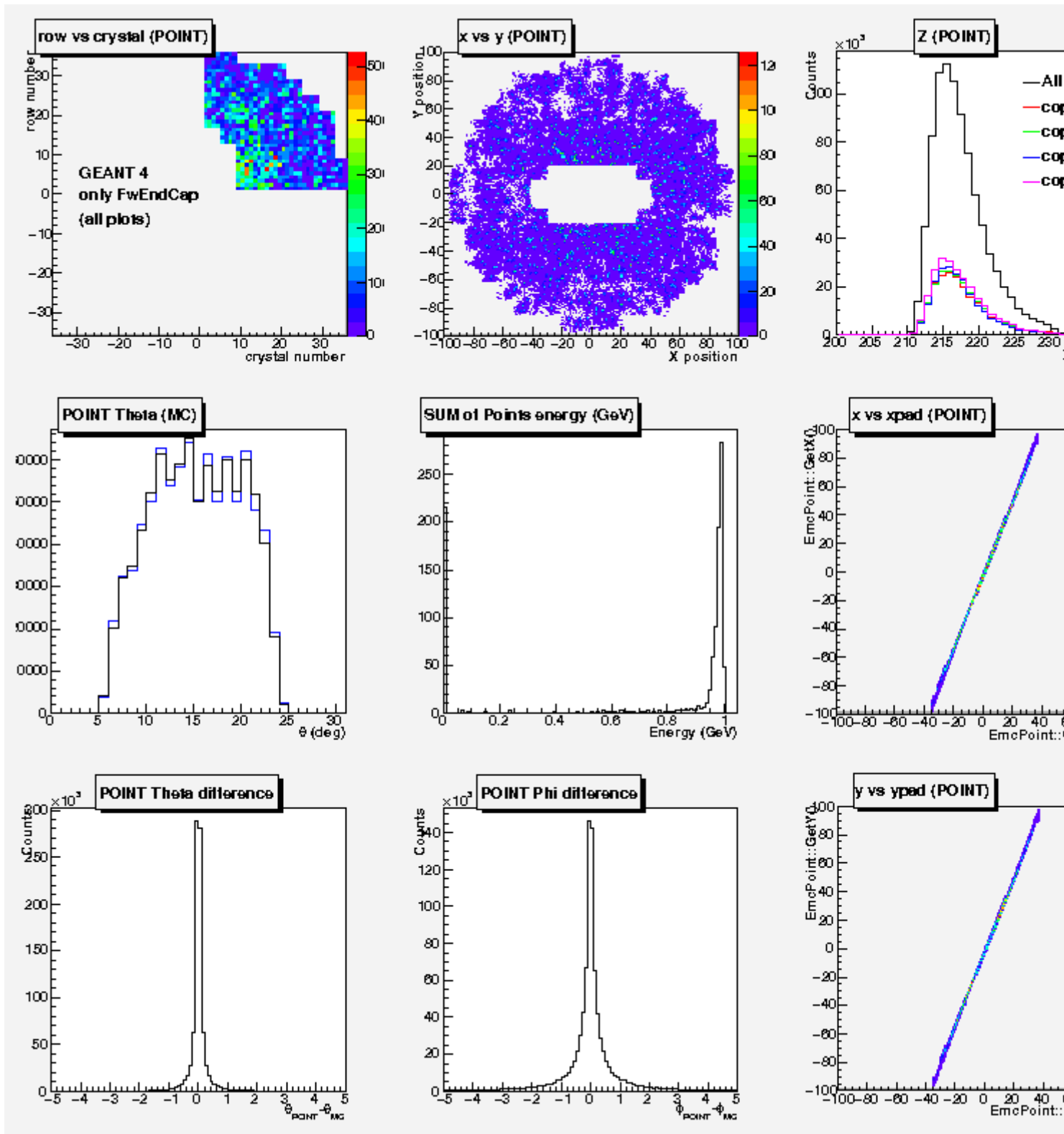
y vs ypad\_cp3\_ (POINT)



y vs ypad\_cp4\_ (POINT)



5) [points\\_g4\\_fwendcap\\_m3changed\\_fixed.png](#), downloaded 864 times



6) [points\\_g3\\_fwendcap\\_m3changed\\_fixed.png](#), downloaded 814 times

