Subject: Re: Energy correction for gammas
Posted by Johan Messchendorp on Sun, 30 Nov 2008 19:55:07 GMT

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Hi,

I ran this weekend simulations with more than two million photon events (boxgenerator, G3&G4) with only the EMC as geometry using the Nov08 release of PandaRoot. I looked at the averaged deposited energy (note: cluster energy!) with respect to the incident photon energy for bins over the full range in polar angle (0-180 degrees, 62 bins) and for an incident energy interval from 0-15 GeV in 34 bins (binning inhomogeously chosen according to variations in the response). The results, e.g. mean cluster energy/incident photon energy, for G3 are depicted in the figure. In the attached root file, you can find the corresponding 2D histogram together with a simulation using G4 and simulations for the Slashlyk calorimeter. In principle, one could use this file to correct the data accordingly. If there is a need for other information, let me know.

Kind wishes,

Johan.

File Attachments
1) geant3_photon_response.gif, downloaded 739 times
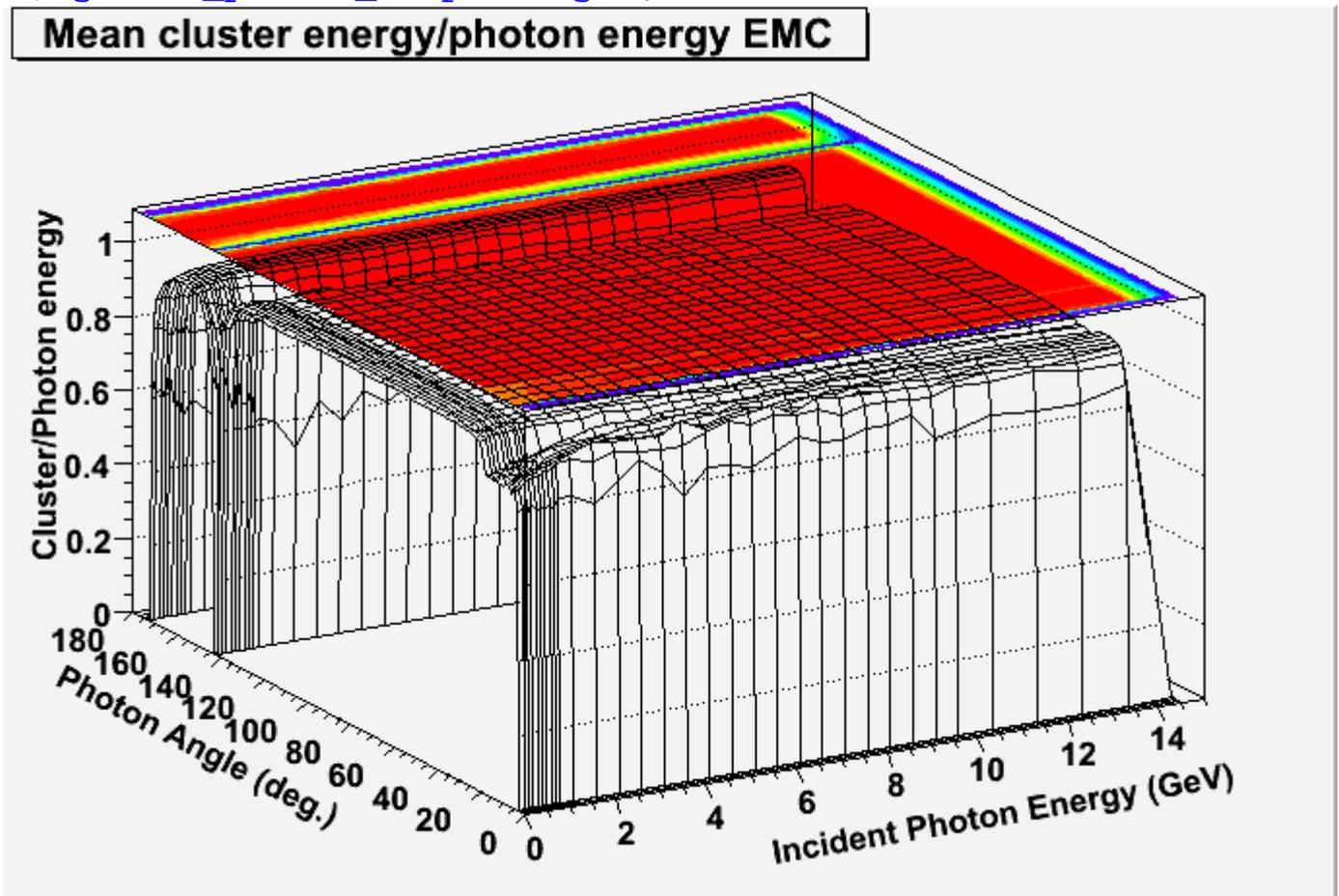
2) photon_eresponse.root, downloaded 471 times