

Subject: Photon energy distribution using DPM

Posted by [Ganesh Tambave](#) on Wed, 28 Mar 2012 16:50:41 GMT

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Dear All,

I have tried to reproduce fig.3.2 (please find attached: EMCTDR_fig.3.2.png) shown in EMC TDR page no.33 using DPM event generator to estimate pile-up probabilities.

I have reproduced it for 15 GeV anti-proton (please find attached: dpm_photon_2D.png and it's y-projection for theta 5 to 21 deg.: dpm_photon_2D_y-proj.png).

If I compare both the figures then they don't look same, the photon energy distribution mean in my figure is about 1.5 GeV and in TDR fig. is about 200 MeV.

Can anyone help me to understand this difference?

I'm using only MC true information from DPM (no detector at all).

Regards,
Ganesh Tambave

File Attachments

1) [EMCTDR_fig.3.2.png](#), downloaded 1033 times

FAIR/PANDA/Technical Design Report - EMC

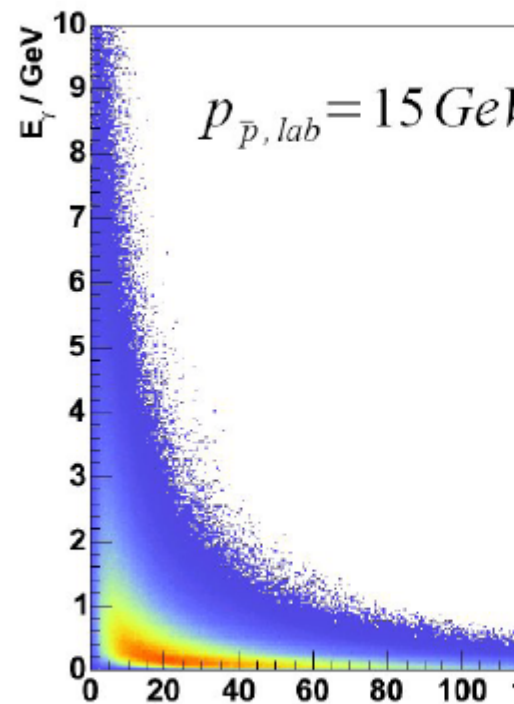
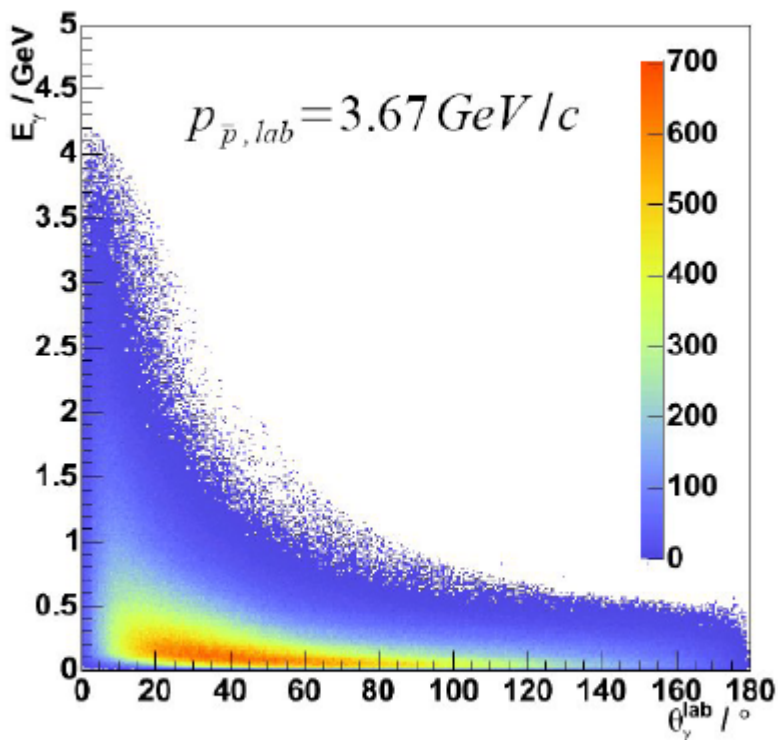
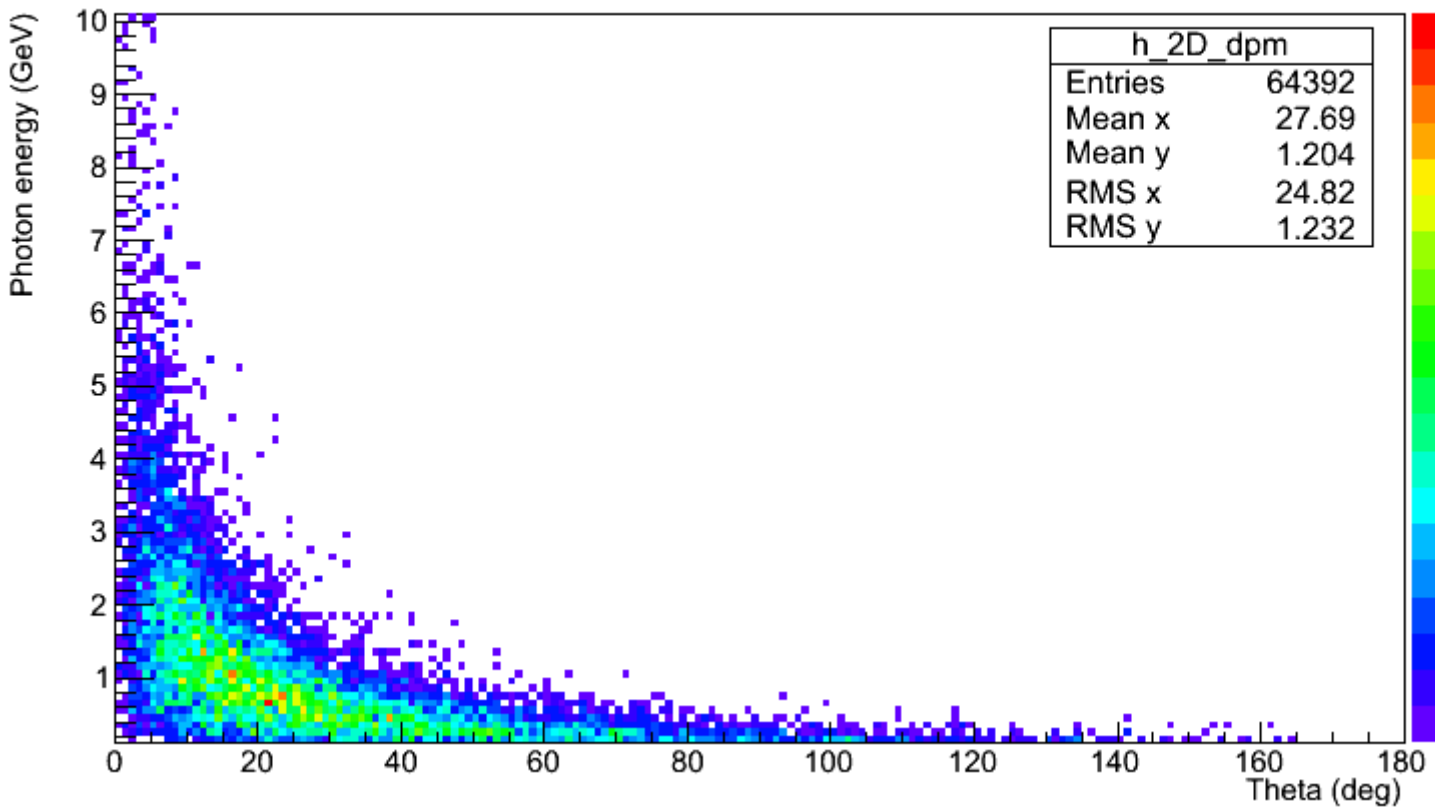


Figure 3.2: Photon energy distribution vs. lab. angle for two momentum sets

2) [dpm_photon_2D.png](#), downloaded 1057 times

theta_vs_energy (MC)



3) [dpm_all_2D_y-proj.png](#), downloaded 1017 times

MC energy (GeV) at Theta = 5 to 21 deg

