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Subject: EMC deposit energy for electron

Posted by [dbeyssi@ipno.in2p3.fr](mailto:dbeyssi@ipno.in2p3.fr) on Sun, 23 Jun 2019 17:16:06 GMT

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Dear all,

attached is the deposit energy of the electron in the EMC as a function of the polar angle in the lab frame (from the simulation of  $p\bar{p} \rightarrow e^+e^-$  at  $p=3.3$  GeV/c using the pandaroot "dev"). There is a problem of the deposit energy in the region between 18 and 22 degree (also present in dec18 versions). By removing the following cut in pid/PidCorr/PndPidEmcInfo.cxx:  
`[if ((emcModule == 3) && (helix->GetZ() < 165.)) continue; // consider tracks only from last gem plane for FWD]`

The problem is partially solved in the region between 20 and 22 degree.

This drop of deposit energy decreases the efficiency of our signal from the EMC pid cuts.

Does anyone know how to solve this problem which was not present in old PANDA versions?

Thank you in advance and best regards,

Alaa

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### File Attachments

1) [DepositEneEMC.png](#), downloaded 1390 times

