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Subject: Re: Mass calculation from vector<PndEmcDigi\*> in EMC

Posted by [Bertram Kopf](#) on Wed, 20 May 2009 11:53:04 GMT

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Hi Donghee,

donghee wrote on Wed, 20 May 2009 12:18

I think that can be also used to separate electron and single photon.

I think, it is in not possible (at least not easy) to separate electrons from single photons by using only shower shape informations. The shower will be produced in a very similar way via electromagnetic processes and also the complete energy will be deposited for both particles. Therefore the shower shapes look very similar. Hadrons instead lose only a certain fraction of the energy by ionization processes and thus the shape of the shower looks different.

donghee wrote on Wed, 20 May 2009 12:18

Concerning geometry of EMC!

I have learn, current setup of EMC designed with missing region at 142 to 149 degree for theta angle in backward endcap.

I have heard actual design should be slightly different, this missing acceptance will be covered in the future, but it is not introduced just in the MC simulation.

How about the situation for the theta region 142 to 149?

Do you have plan to modify some acceptance for EMC in MC simulation?

This is a question which could answer the relevant EMC hardware group. As far as I know, the design of the backward endcap is still not fixed. It's also not definitely clear how much space can be provided for the endcap. Therefore I think is not unrealistic to simulate with a gap between 142 to 149 degrees. Am I right?

Best regards,  
Bertram.

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