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

Posted by [Dima Melnychuk](#) on Wed, 20 May 2009 09:23:28 GMT

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Dear Donghee,

I can try to answer to your question but I hope that Bertram will correct me if I am wrong.

So first of all as I understand "invariant shower mass" should not give you a real mass of a particle but is just a property of the shower that allow you discriminate clusters from real photons and cluster which are created by two photons from pi0 decay.

From this point of view it does not make sense to apply the energy correction to calculate mass of the cluster. The energy correction does make sense if the particle is identified already as a photon.

Second, I want to add a comment what the clusters and digis are. The digi is in principle an energy deposited in single crystal, smeared somehow with electronic response.

PndEmcMakeCluster task find a group of neighbor crystals and create from them a cluster and energy of the cluster is a sum of the energies of digis which it is made from.

May be you can look into my short presentation from the last EVO meeting (<http://panda-wiki.gsi.de/pub/Computing/Minutes13May2009/D.MelnichukPndEmcCluster130509.pdf>), where I summarized a little bit about EmcClusters, however this presentation was for slightly different purpose.

Best regards,
Dima
