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Subject: Re: Lhe tracking results: reconstruction error for transverse momenta  $\leq 1$  GeV/c, all five partic

Posted by [David Pohl](#) on Wed, 24 Nov 2010 12:57:34 GMT

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Hi Stefano,

okay. This means that the Kalman task does not take the bremsstrahlung correctly into account?

The x-y plane plots for the LheHits are not too easy to judge.  
I think to recognize circles is not easy for the human brain .

On the first view one can assume that the kaons for 200 MeV/c transverse momenta do not lie on a circle.  
Especially in the outer regions:

Corresponding reconstructed transverse momenta:

For 300 MeV/c transverse momenta the kaon tracks do not look that bent:

Corresponding reconstructed transverse momenta:

For electrons it's an issue of the Kalman task I think:

Corresponding reconstructed transverse momenta:

Honestly I am at the moment quite busy with writing my thesis and have no time to do dedicated "bug search".

I just wanted to show this issue to inform the tracking experts.

greetings,  
David

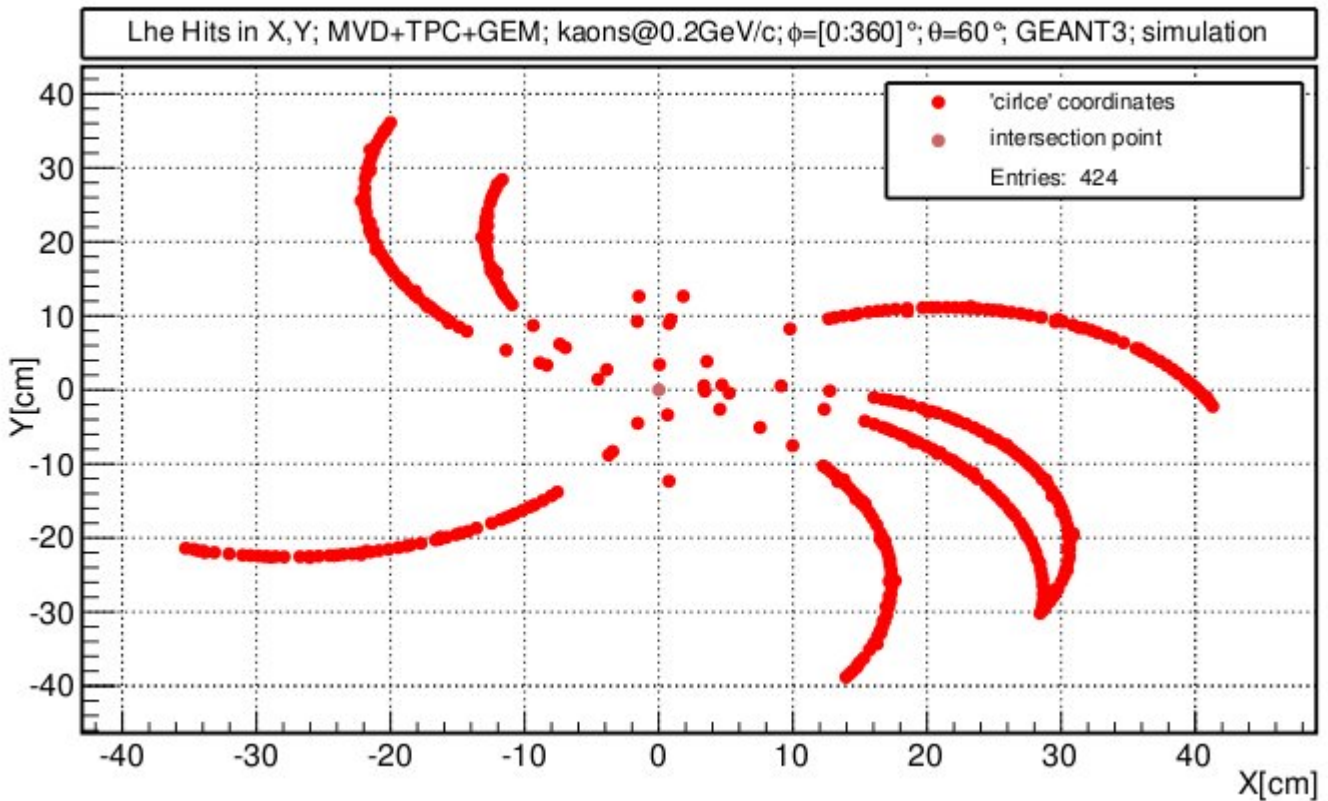
p.s.: the plots in conformal mapping space are better to judge:  
little bit bent

straight line

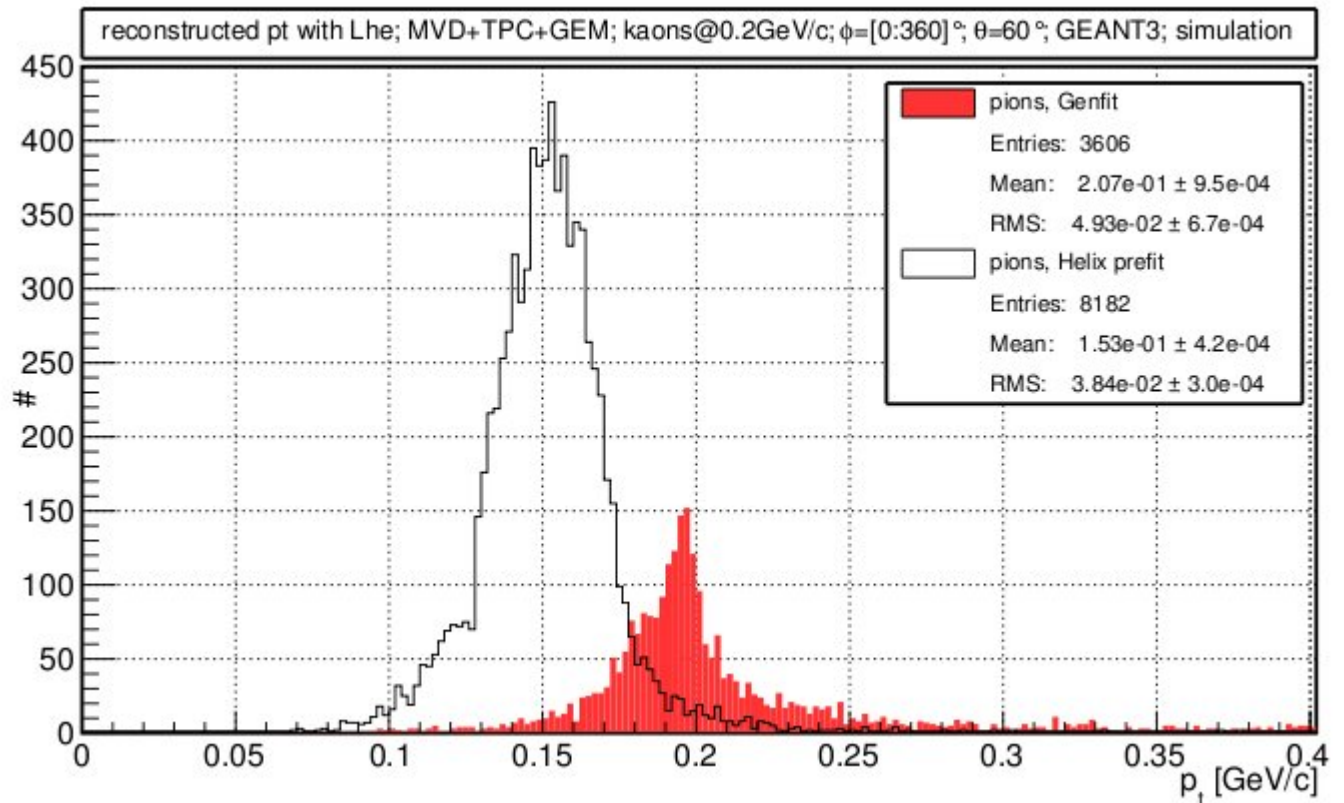
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## File Attachments

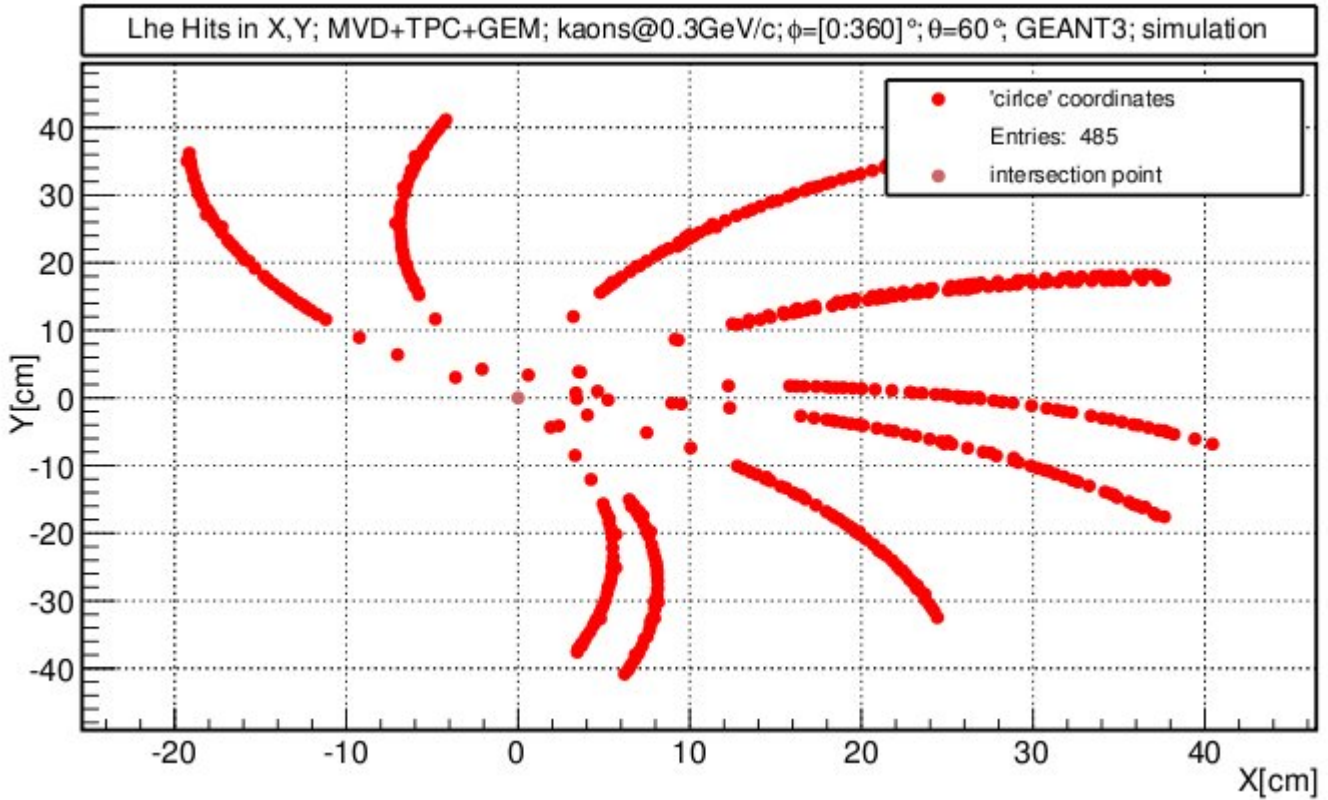
1) [LHEhelix\\_reco\\_tpc\\_200\\_kaons.jpg](#), downloaded 1533 times



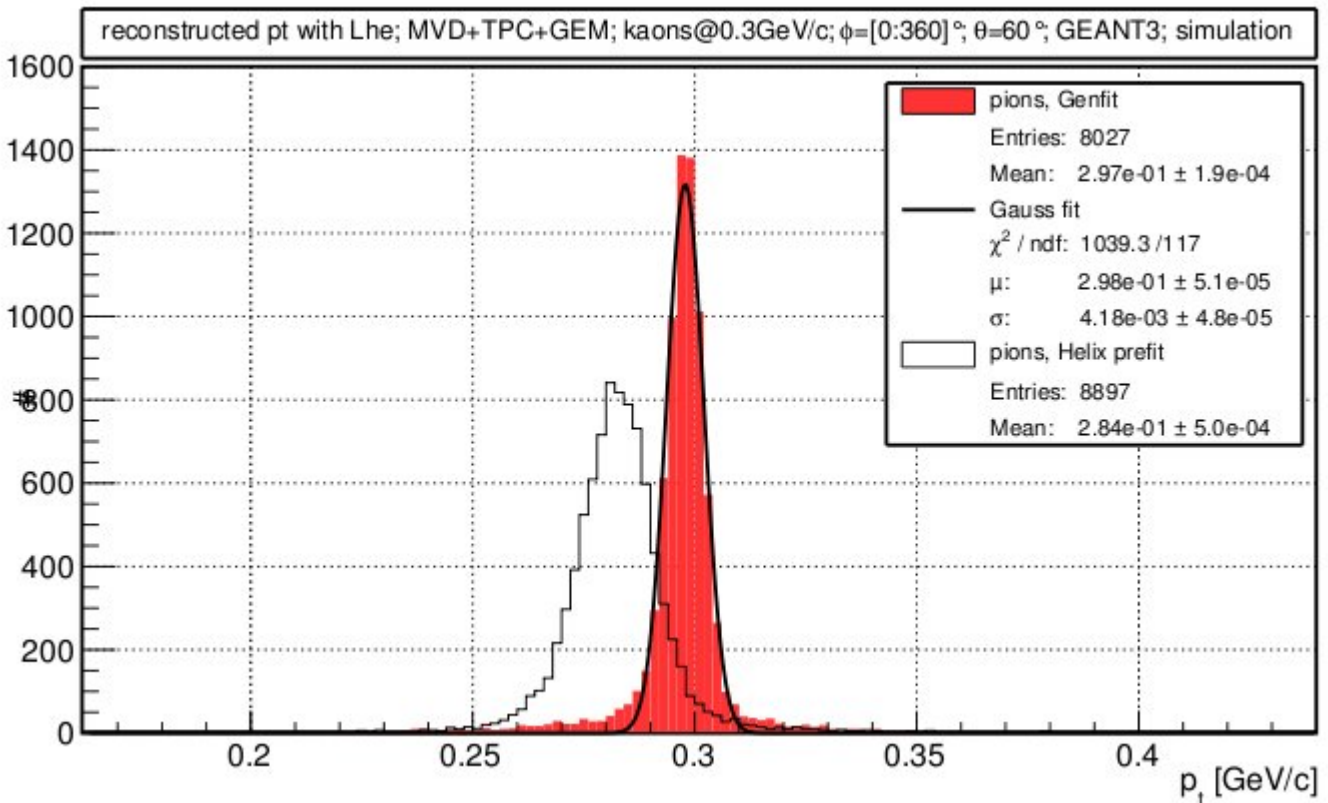
2) [pt\\_reco\\_tpc\\_200\\_kaons.jpg](#), downloaded 1478 times



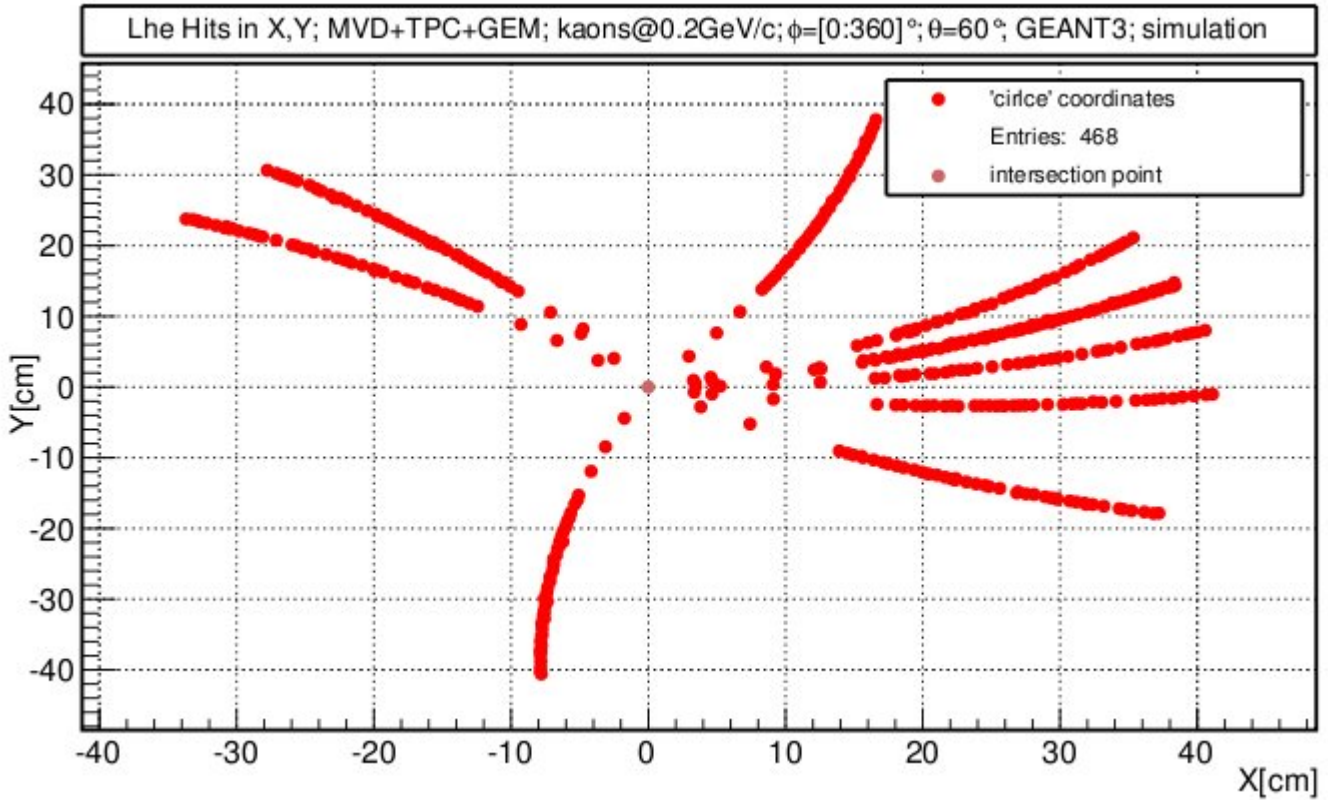
3) [LHEhelix\\_reco\\_tpc\\_300\\_kaons.jpg](#), downloaded 1445 times



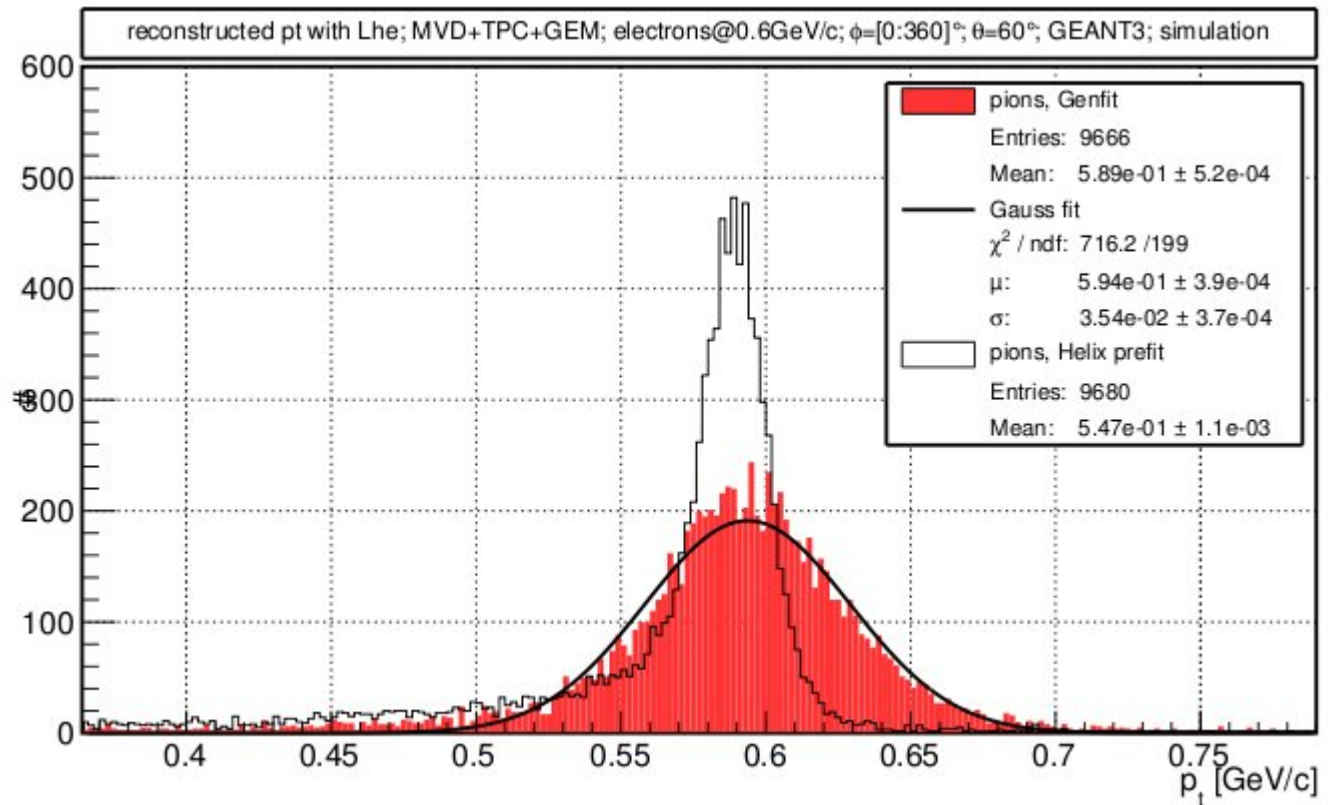
4) [pt\\_reco\\_tpc\\_300\\_kaons.jpg](#), downloaded 1540 times



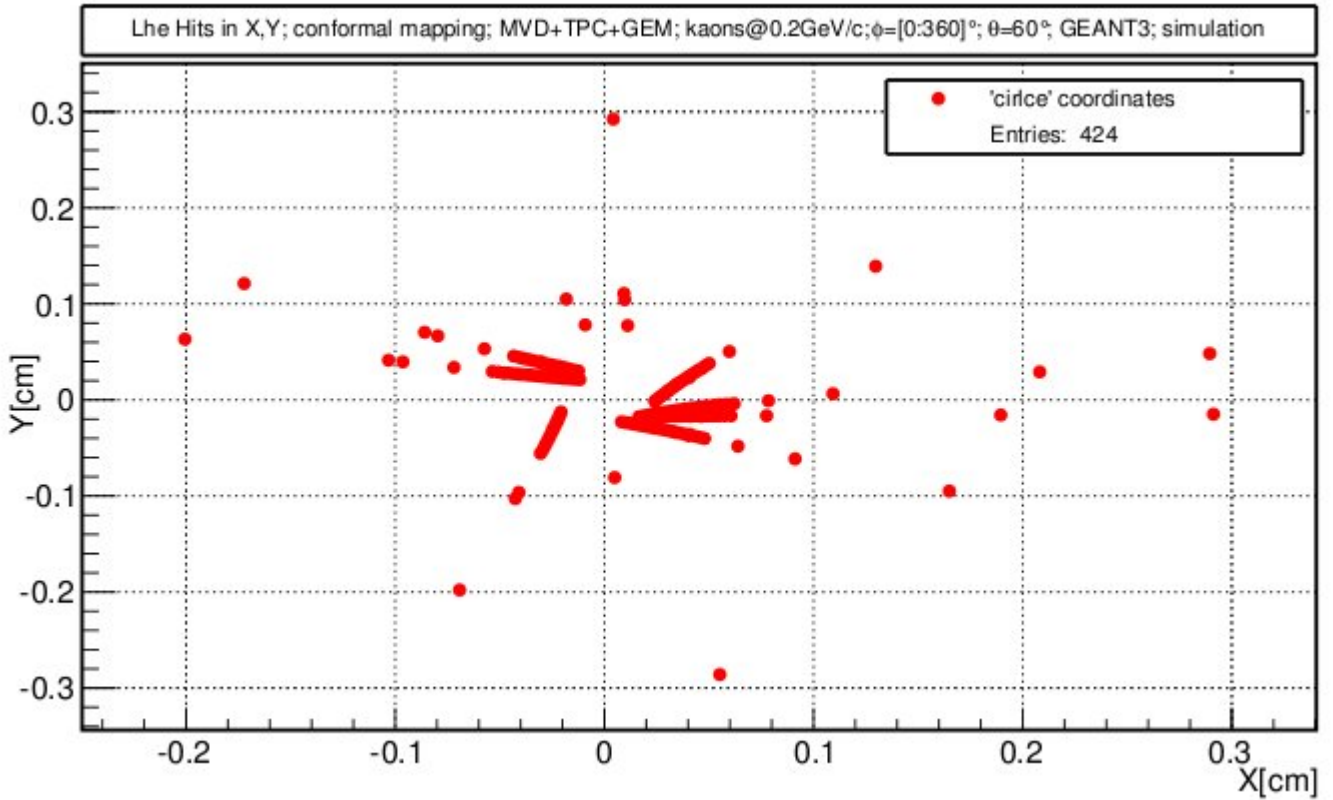
5) [LHEhelix\\_reco\\_tpc\\_600\\_electrons.jpg](#), downloaded 1547 times



6) [pt\\_reco\\_tpc\\_600\\_electrons.jpg](#), downloaded 1546 times



7) [LHEhelixConfMap\\_reco\\_tpc\\_200\\_kaons.jpg](#), downloaded 1320 times



8) [LHEhelixConfMap\\_reco\\_tpc\\_300\\_kaons.jpg](#), downloaded 1475 times

