Subject: Re: Forward spectrometer tracking
Posted by donghee on Wed, 03 Jun 2009 14:40:24 GMT
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Dear Radek,

Thank you for your kind looking of my plots.

You are perfectly right in some point!
I agree that GEM acceptance is quite limited and difficult to use in my task.
Therefore we need helping of MvD and DCH.

You can now find some hit information and kinematic plots at GEM stations.
Gem_4stations.eps is the hit distribution, prepared originally in the GEM Macro.
Gem_xyview_zoom.eps is 2D hit infomation in x-y plane.
Gem_rzview.eps is the hit information in z-direction.
gem_mom.eps gem_theta.eps are the comparison with generated one.
ggem_resolution.eps is the correspoing resolution plot in 2D level.
Y-axis is the (mom_generated - mom_reconstructed) in the left panel
and the (theta_gen - theta_reco) for right panel.

If you see gem_theta.eps, the accptance is over 2.2 degrees.
However If I have a look the resolution for momentum and theta.
All resoltuions are really bad even if GEM succeed proton tracking for relatively large angle!

I'm wondering why GEM cannot make reasonable tracking with good resolution, when proton has large angle!
GEM stations should be fired in 4 stations. That mean they have already 4 hits, and I think that is enough information to try reconstruction.
Is it still not enouhg hits to perform that? This is my real question!

Thank you!
Donghee Kang

File Attachments

1) Gem_4stations.eps, downloaded 349 times
2) Gem_xyview_zoom.eps, downloaded 364 times
3) Gem_rzview.eps, downloaded 360 times
4) gem_mom.eps, downloaded 355 times
5) gem_theta.eps, downloaded 334 times
6) ggem_resolution.eps, downloaded 349 times