
Subject: Re: GEM tracking

Posted by [Anonymous Poster](#) on Wed, 15 Apr 2009 11:01:56 GMT

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Hi Radek and Ralf,

I agree that things like amplitude correlation etc. are very helpful for pattern recognition, i.e. track finding, purposes. However, to my mind that does not mean, that in the track fitting this 2D information should be used. It is just as easy to use the 1D information in genfit. I tested this extensively. Even if the planes are only 300mu apart, this should be taken into account especially in the MVD where the spatial resolution will be much better than that. In the GEMs, it probably doesn't matter so much.

Of course this choice is up to you guys. If you need any help in using the 1D info, please let me know and I will be happy to help.

Radek, about your RecoHit implementation in

```
PndGemRecoHit::PndGemRecoHit(PndGemHit* hit)
```

you set the hit coordinates and the covariance matrix like:

```
_hitCoord[0][0] = TMath::Sqrt(hitX*hitX+hitY*hitY);  
_hitCoord[1][0] = 0.;
```

```
_hitCov[0][0] = hit->GetDr();  
_hitCov[1][1] = hit->GetDp();
```

I don't understand, why one of the two hit dimensions is always 0. This should be the case if the PndGemHit is a 2D info.

Cheers, Christian
