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Subject: Re: GEM tracking

Posted by [Anonymous Poster](#) on Mon, 27 Apr 2009 09:56:04 GMT

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Hi Radek,

I think you did it correctly. But I was wondering, why you do this rotation in the first place? The GEM measures in two strip projections, and it is in these direction, that you determine your detector resolutions. So, I would recommend to use the strip directions for determining the u and v vectors. Ans then your hit coordinates are just translated from the strips which fired. In the rotated case, correctly determining the hit covariance matrix is more difficult. For sure you wont have a diagonal matrix...

Concerning the 1D vs. 2D discussion: You can of course use the 2D information, there is no problem with that.

Did you obtain some results yet? If you do a gaussian smearing for your hits with known resolution, you should obtain correct pull and chi2 distributions. How does that look?

Cheers, Christian

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