
Subject: Re: GEM tracking

Posted by [Radoslaw Karabowicz](#) on Wed, 15 Apr 2009 14:03:02 GMT

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Yes, one of the two hit coordinates I set always to zero, while the other is set to the radius distance of the hit to the center. The errors are then corresponding to the error in radius (`hit->GetDr()`), and error perpendicular to it (`hit->GetDp()`).

Consequently, the whole DetectorPlane is rotated by the angle of the hit. I hope I did it right, at least the track position (`trk->getPos()`) corresponds to the point I have insterted there.

Don't I do it correctly?, first setting the vectors `uu` and `vv`:

```
TVector3 oo (0.,0.,hit->GetZ()),  
    uu ( TMath::Sin(phiAValue), TMath::Cos(phiAValue),0),  
    vv ( TMath::Cos(phiAValue),-TMath::Sin(phiAValue),0);
```

and then setting the detector plane using the vectors:

```
setDetPlane(DetPlane(oo,uu,vv));
```

I hope it was tested before.

I wanted to have the errors expressed in `Dr` and `Dp`, as it seemed to me the best choise.

yours,
radek
