
Subject: Re: URGENT: geane - coordinate system
Posted by [Andrea Fontana](#) on Thu, 27 Sep 2007 13:46:48 GMT
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Hi Sebastian,

the reason why the geane system is with beam along x axis is, as far as I know, historical and we had adopted this convention to properly call geane. We can perhaps think of a different approach, but in all our tests it did not seem necessary so far.

Regarding CbmTrackParP, I think the comment is not correct: all the calculations in SD are internally done with the convention (q/p,v',w',v,w). See for instance the calculation of the covariance matrix in SD, where we write:

```
...  
fDQp = TMath::Sqrt(fabs(fCovMatrix[0]));  
fDTV = TMath::Sqrt(fabs(fCovMatrix[5]));  
fDTW = TMath::Sqrt(fabs(fCovMatrix[9]));  
fDV  = TMath::Sqrt(fabs(fCovMatrix[12]));  
fDW  = TMath::Sqrt(fabs(fCovMatrix[14]));  
...
```

See also our report for the SD definition.
Hope this helps.

Ciao,
Andrea
