
Subject: Charge in FairTrackPar and GeaneTrackRep
Posted by [Stefano Spataro](#) on Fri, 22 Oct 2010 04:11:13 GMT
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Hi,

I have seen that in the constructors of FairTrackPar and GeaneTrackRep the charge is defined as integer and double respectively.

This leaves the following warning:

```
./.../trunk/GenfitTools/trackrep/GeaneTrackRep/GeaneTrackRep.cxx:53: warning: passing  
'double' for argument 5 to 'FairTrackParP::FairTrackParP(TVector3, TVector3, TVector3,  
TVector3, Int_t, TVector3, TVector3, TVector3)  
and not only, due to the following lines:
```

```
GeaneTrackRep::GeaneTrackRep(FairGeanePro* geane,  
                             const GFDetPlane& plane,  
                             const TVector3& mom,  
                             const TVector3& poserr,  
                             const TVector3& momerr,  
                             double q,  
                             int PDGCode)  
: GFAbsTrackRep(5, _geane(geane), _pdg(PDGCode), _backw(0)  
{  
  FairTrackParP  
  par(plane.getO(),mom,poserr,momerr,q,plane.getO(),plane.getU(),plane.getV());(5th parameter  
-> q).
```

I think both objects should use the same kind of variable, to be much less "error prone".

Indeed, the conversion from double to integer is dangerous:

```
int(0.9999999) = 0
```

I think this is quite important! Even other tracking codes should be changed to use a common standard for the particle charge, by substitution of all the current conversions (once fixed if it is better to use int or double).