
Subject: new in AbsTrackRep: extrapolateToLine and consequences on WirepointHitPolicy

Posted by [Anonymous Poster](#) on Mon, 16 Mar 2009 22:10:27 GMT

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Hi,

I introduced a new virtual method in AbsTrackRep, which is

```
virtual TVector3 extrapolateToLine(const TVector3& point1,  
    const TVector3& point2,  
    TMatrixT<double>& statePred,  
    TMatrixT<double>& covPred,  
    DetPlane& planePred);
```

It has a default implementation in AbsTrackRep.cxx, so all TrackReps which dont have this feature are still fine.

Could you please put your extrapolate to line code in GeaneTrackRep::extrapolateToLine, which you would have to put in GenaeTrackRep.h and .cxx? The return value TVector3 would be the point (of closest approach).

I still have to think about your distance problem, but I am sure we solve that special case for the straws to still share the policy::detPlane with Dch.

Putting this extrapolateToLine to GeaneTrackRep is just the first step.

Why I am doing all this: To combine code which does the same all in one place, and make the structure cleaner and more understandable. I am sorry for all the work I cause you.

Thank you, Christian
