Subject: GEANE extrpolate to point of closest approach
Posted by Anonymous Poster on Thu, 10 Apr 2008 13:42:06 GMT
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Hi GEANE experts,
I am interested in extrapolations to points of closest approach to arbitrary space points. I am very new to using GEANE, so a detailed answer (a.k.a. GEANE for dummies) would be very helpful

I can see that there are methods like
Bool_t SetWire(TVector3 extremity1, TVector3 extremity2);
Bool_t SetPoint(TVector3 pnt);
Bool_t PropagateToPCA(Int_t pca); int FindPCA(Int_t pca, Int_t PDGCode, TVector3 point, TVector3 wire1, TVector3 wire2,
Double_t maxdistance, Double_t \&Ra
d, TVector3 \&vpf, TVector3 \&vwi, Double_t \&Di, Float_t \&trklength);
TVector3 GetPCAOnWire() \{ return vwi; \}
TVector3 GetPCAOnTrack() \{ return vpf; \}
Float_t GetLengthAtPCA() \{ return trklength; \}
Bool_t PropagateToVirtualPlaneAtPCA(Int_t pca);
Bool_t BackTrackToVertex();
Bool_t BackTrackToVirtualPlaneAtPCA(Int_t pca);

So, I guess that some combination of these will be my answer. An example code I would need would have this as an input:

TVector3 mySpacePoint(x0,y0,z0);

And the output:
TVector3
pointInPOCAPlane
vectorPerp1ToTrackInPOCA
vectorPerp2ToTrackInPOCA
or
TVector3
pointInPOCAPlane
vectorlnTrackDirectionInPOCA

Thanks you very much in advance!!
Bye, Christian

