
Subject: Re: Helix and FairTrackParH

Posted by [Gianluigi Boca](#) on Thu, 23 Jul 2009 16:15:12 GMT

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ok, here is the recipe.

You need to know only the starting point of the track and the starting momentum.

Then :

- 1) find the centre of the Helix circle in the XY plane by drawing a segment perpendicular to the 2-dimensional (P_x , P_y) vector. Such a segment has direction $(-P_y, P_x)$. Find the point on such segment that is a Radius distant from the initial point of the track. That is the center of the trajectory. Here there is an ambiguity that depends on the charge of the track. In other words, you must know the charge of track in order to decide on which side the center lies.
- 2) You $fi0$ is defined by the starting point of your track with respect to any arbitrary but chosen once for all reference frame in the XY plane.

If you want you can call me on the phone (+496159711680) for better explanations.

Gianluigi
