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Subject: Helix and FairTrackParH

Posted by [StefanoSpataro](#) on Wed, 22 Jul 2009 15:37:02 GMT

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Hello,

I would like to understand the helix parameters used in FairTrackParH, which are different from the ones present in the old-style PndTpcLheTrack.

Could somebody write, according to our "standard" definition of helix parameters, how our track is represented?

The helix parameters are:  $x_0$ ,  $y_0$ ,  $z_0$ ,  $\lambda$ ,  $\phi$ , charge (even if it is  $q/p$  in FairTrackParH).  
How can I know the following functions?

$x = x(s)$

$y = y(s)$

$z = z(s)$

$px = px(s)$

$py = py(s)$

$pz = pz(s)$

I have checked some tracking papers but without founding this representation. This is very important for fast correlation inside the barrel.

Thanks in advance.

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