Subject: Re: track finder
Posted by Lia Lavezzi on Fri, 08 Feb 2008 11:25:27 GMT
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Hi Alicia,
first let' s talk about the "perp" coordinates, so about the CbmTrackParH representation: the yperp and zperp (not xperp-yperp!) define a plane orthogonal to the particle direction. When you use the CbmTrackParH representation, you describe the track in the SC frame, which is defined by the three orthogonal axes xperp, yperp, zperp, where xperp is along the particle direction, yperp is perpendicular to xperp and parallel to the xy plane (in the master reference system, MARS) and zperp is the third axis chosen in order to have an orthonormal reference frame. So the yperp-zperp plane turns out to be a plane orthogonal to the particle direction. So, concerning the second question, the beam direction is not chosen parallel to the x axis in MARS, it is generated random, but the xperp axis in SC is in each point chosen parallel to the particle direction.

Just one clarification: for the STT we use a different detector plane, which is not perpendicular to the track and that' s why we use the CbmTrackParP representation instead of the CbmTrackParH one. CbmTrackParP, let' s say, allows you to define your own detector plane (virtual or not) and to get the track parameters on it.

Ciao,
Lia.