Subject: Re: Global Problems
Posted by Gianluigi Boca on Wed, 03 Feb 2010 21:10:09 GMT
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Lia Lavezzi wrote on Wed, 03 February 2010 13:52I though a little about the ordering in STT.

If I remember correctly in the real track finder the hits are ordered via the 3D distance from (0, 0, 0): Gianluigi, is this correct? In fact in the real track finder an hypothesis on the reconstructed x, y, z coordinates is available.

Yes this is correct. In the STT Real Track Finder the PARALLEL and SKEW Straw hits are ordered by increasing distance from 0,0,0.

It should be noted that in for the STT this ordering can be done
only AFTER the pattern recognition successfully found a candidate
Helix, NOT before (the STT don't have x,y,z, position for the hits).

Also in the present code ACTUALLY the ordering parameter is not the distance from the origin but instead an equivalent one (which
I believe is measured better) : the angle FI of the hit in
CYLINDRICAL coordinates, where the cylinder has the same axis of
the helix trajectory, radius equal to the radius of the helix,
and FI is increasing for negative particles going along the
helix counterclockwise when looking at the beam, and decreasing for positive particles.

Gianluigi