
Subject: Re: Reconstruction macro crash

Posted by [Gianluigi Boca](#) on Mon, 23 May 2011 13:57:09 GMT

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Lia Lavezzi wrote on Mon, 23 May 2011 13:36Hi Stefano,

actually there is a test to decide whether the track can reach the GEM plane or not with a simple and quick helix extrapolation to the first plane (no GEANE, just math).

In my thoughts that should have been enough to throw away also these $p_z = 0$ tracks, but clearly there is something which goes wrong.

...I was wondering (looking in the log) how is it possible that a track with:

first mom = (0.077671,-0.047670,0.000000)

first pos = (16.552964,0.397360,0.000000)

last mom = (-0.085107,-0.032588,0.000000)

has last pos = (14.075058,-26.674008,-4.163533)...

Gianluigi, this comes from your PR, do you have any idea?

Ciao,

Lia.

In principle no physics prevents from having a track with $P_z=0$, and the Pattern Recognition in fact can find a track with $P_z=0$.

$P_z=0$ when one of the parameter I use to parametrize the Helix is very large.

Also, $P_z=0$ for a track is not in contraddiction, from the Pattern Recognition algorithm point of view, with having

the Z position of the last point NOT EXACTLY 0; certainly it must be CLOSE to zero [as in the this example, where

last pos = (14.075058,-26.674008,-4.163533)].

Anyway, I am investigating possible bugs in the code right now

Gianluigi