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Subject: Re: PndLhePidTrack

Posted by [Gianluigi Boca](#) on Thu, 15 Apr 2010 11:03:57 GMT

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Tobias Stockmanns wrote on Thu, 15 April 2010 08:24Hi Stefano and Donghee,

what about track finding? I thought that conformal mapping relies on tracks coming from the primary vertex.

Cheers,

Tobias

In the STT pattern recognition indeed there is the assumption that tracks come from 0,0,0 . This assumption is crucial for the algorithm to work. Indeed it works well as long as the interaction vertex is far from 0,0,0 a few mm. When the vertex is farther than 1 cm then problems arise (loss of efficiency and spurious hits inclusion).

Consequently. based on my experience, I would be (very) surprised if any pattern recognition algorithm using the conformal mapping in the XY plane, worked when the primary vertex is far 5 cm from the expected position.

That is also the reason why I have always claimed that as far as the Lambda is concerned we need to write a special pattern recognition package.

Gianluigi

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