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Subject: Re: Tracking discussion

Posted by [MartinJGaluska](#) on Thu, 26 Sep 2013 15:18:48 GMT

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Hello all,

concerning Stefano's discussion point b)

Stefano Spataro wrote on Wed, 25 September 2013 16:08

b) how to assign a track to a MC particle, to evaluate efficiency and resolution, in particular when more particles produce hits in the same track, and when the same particle is reconstructed in more than one track

I would like to draw your attention to a very nice paper by Rainer Mankel:

<http://arxiv.org/abs/physics/0402039>

Section 2.5 (Evaluation of Performance) deals with possible definitions of efficiency, clone and ghost rate. I believe that these definitions are in line with the ones which Tobias presented in his talk at the last tracking session in Bochum. The only differences are that Tobias suggested a finer distinction of the category "reconstructed track" and a slightly different definition for "reconstructable tracks" / "reference set". I would be in favor of using Tobias' / Mankel's suggestions as a basis also in order to have comparable definitions to the ones used in other experiments.

Kind regards,  
Martin

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