Subject: Re: Momentum resolution and reconstruction efficiency of LHE tracking
Posted by StefanoSpataro on Thu, 11 Feb 2010 09:05:48 GMT
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Lhe tracking does not substitute stt pattern recognition, but it runs after. It requires an already existing stt stand-alone tracking.
After stt pattern recognition, once you have a stt helix, then you use lhe to merge helixhit together with mvd and gem. This means that you are running two patern recognition algorythm, and two fits. Of course, if each algorythm has an efficiency of 0.9, the combined efficiency will be 0.9*0.9 -> 0.8. And you have to add the Z problem of the helix hit producer, which decreases the efficiency again.
For tpc one has only one pattern recognition, therefore the efficiency is higher. And there is no pre-pre-fit.

In this sense, the comparison cannot be straightly done, and one has to invent something different.