
Subject: Re: Reconstruction efficiency of LHE tracking
Posted by [donghee](#) on Mon, 03 Aug 2009 11:52:12 GMT
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Dear Stefano,

I'm actually using TPC, and I'm interesting the electron detection from 1 GeV to 3.5 GeV momentum range

Quote:

Probably at some particular angle there is some geometry effect from the pipe, and then simply tracks are scattered and not reconstructed properly. However, I am quite surprised that you reconstruct up to 160° , apart from the hole due probably to pipe material (if I remember well into the back part is not titanium anymore but steel).

I didn't expect many hits over 150 degrees in LHE tracking.

But actually, I'm not doing anything, LHE tracking decides to show the event more than 150 degrees when the interaction point is moved into the point at 30 cm.

If some low momentum electron is produced near 30 cm, then probably some TPC hit can be recorded due to the solenoid magnet even though the electron has a small angle. This is my rough guess.

I couldn't catch your comment for material, what is the difference between titanium and steel. Is the cone shape pipe in backward composed with steel? and steel produces more secondary particles than titanium?

Sorry for stupid question!

Best wishes,
Donghee