
Subject: Re: Momentum resolution and reconstruction efficiency of LHE tracking
Posted by [asanchez](#) on Thu, 11 Feb 2010 13:34:17 GMT

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Hi everybody,
to my understanding
tracking of low momentum particle(e.g pions $P < 100 \text{ MeV}/c$)
are not considered by geane.(See GeaneTrackRep.cxx)

```
139 // protect against low momentum:
140 if(fabs(fState[0][0])>10){
141     GFException exc("GeaneTrackRep: PROTECT AGAINST LOW
MOMENTA",__LINE__,__FILE__);
142     exc.setFatal();
143     throw exc;
144 }
```

I have checked to move this cut to lower momentum values($P \sim 60 \text{ MeV}/c$,
it works but there are still instabilities(crashes after 5000 events)

Nevertheless even if the particle is losing energy
geane should be able to take care of that? or am i wrong?
So far i know instead of a helix, geane considers then a parabola($x,y,dx/dz,dy/dz$).

cheers
Alicia.
