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Subject: Re: Weird STT reconstruction: efficiency depends on charge

Posted by [Andrew Savchenko](#) on Fri, 25 Jan 2008 16:01:17 GMT

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Dear Pablo,

sorry for a long response, but I was busy a lot these days.

Pablo Genova wrote on Wed, 23 January 2008 17:07

So try to svn-update the PndSttHelixTrackFitter and do again the reconstruction.

Yes, this works thank you very much.

Quote:

Other observations:

->cross check of the variables

1.  $fParamLast.fTx*0.006$  <-----> transverse momentum

[i. e. `cbmsim->Draw("(fParamLast.fTx*0.006)")`]

2.  $fParamLast.fTx*0.006*\sqrt{1+fParamLast.fTy**2}$  <-----> total momentum

Do you agree?

Yes, I do. This is mathematically equivalent to what I'm using now.

Quote:

->importance of `fFlag==3` parameter

when you are looking at total reco, to get the only the events with the full reconstruction succeeded do like this:

```
cbmsim->Draw("(fParamLast.fTx*0.006)>>h2", "fFlag==3")
```

in this way you select the events with `fFlag==3` i. e. full success of the whole reconstructed procedure.

Yes, this helps. But not absolutely. Even with a check for `(GetFlag() == 3)` I still can see this false peak at 90 degrees, but it become much smaller.

Quote:

It's certainly an interesting and not yet done study that of STT resolution at small theta angles, with or without MVD.

MVD + STT integration is also an interesting issue not yet tackled.

Yeah, this should be investigated indeed, but later. Currently I will be out of work for several months due to technical reasons.

Quote:

If you need better explanation of the variables and the fitting procedure etc etc I can send you the presentations I made in the past and Lia's Phd Thesis (which, among other things, describes in detail the algorithm).

OK, this will be useful, but later

Andrew

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