Subject: Re: Benchmark Tables and plots for tracking performance
Posted by Gianluigi Boca on Tue, 02 Nov 2010 16:59:42 GMT
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Hi Stefano,
thanks for your reply. I generally agree with your suggestions.
In this message I only discuss those points where I have some more comments.
Stefano Spataro wrote on Wed, 27 October 2010 09:09
Maybe you mean exclusion of reconstructed tracks with less than the number. Or you want to separate acceptance from reco efficiency? I would consider only primary particles.

I mean that I would consider only tracks leaving a number of hits in the central tracker ENOUGH TO BE RECONSTRUCTED via software (a reasonable number is 3 hits for a Helix). That would exclude for instance the tracks falling in the target pipe vertical gap which are not very interesting for our porposes.
Quote:
and theta.
I think we need momentum residual and mom resolution as a function of momentum and theta, theta residual and resolution, and efficiency also for prefitting and fitting (how to define this efficiency? within 5 sigma?). For each particle multiplicity.

OK ; for the efficiency, we could use 3 sigma from the central value of the peak.
Quote:
I think this comes later. First we need to validate reconstruction apart from physics channels. We will need them in a second time.

I disagree on this particular point. I believe that a check with a physical channel gives an immediate feeling on the algorithm is working; besides, the cross check with a physics channel is the ultimate benchmark necessary for any tracking.
Quote:
Could you please provide a standard macro with such kind of code, that starting from PndMCTrack TCA and PndTrackCand TCA is able to do this job and fill the corresponding tables/plots?

As Obama said : "Yes, we can " and I will be happy to provide such a Macro soon if people ask me to.

Cheers Gianluigi