Subject: Faster PndPidCorrelator with smart MVD Info Posted by StefanoSpataro on Wed, 22 Apr 2015 16:27:42 GMT

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Dear all,

just checking the speed of PndPidCorrelator, I noticed that a huge amount of time was spent on MVD Info to calculate DEDX using Geane (track parameters are each time extrapolated to mvd hits to find the direction of the track, then the proper dx value).

I have modified the code so that now the extrapolation starts from the first hit, and move from one hit to the other (before it was starting from last hit of the track, and each time it back extrapolated to each mvd hit).

Checking the output with 100 standard J/psipipi events, the distributions are almost the same, the new code fails a bit less times, and the CPU time decreased from 68s to 33 s, now it is half than before.

I suggest to update your pid folder to have faster pid macros.