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Subject: Re: Psi analysis as a cross check from donghee kang  
Posted by [Felix Boehmer](#) on Thu, 18 Aug 2011 11:29:57 GMT  
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Hello Gianluigi,

I think you mis-interpret the motivation behind this effort. The goal is simply to make a direct comparison with what we have, not "artificially" reduce the performance of the STT system. Now to your comments:

Quote:f I understand how the TPC works, it is necessary to have a certain track length in the TPC for the reconstruction, otherwise it doesn't work (am I right Felix ?)

The STT can work also with less points (actually in PR at least 2).

Instead of banging all the time on the number of hits in the Stt, why don't we have the results of TPC+Mvd to compare with Stt+Mvd ? That makes more sense instead of trying to reduce 'artificially' the STT efficiency with hits requests and complaining that we quote the STT+Mvd pattern recognition.

On the other hand, if the TPC people think they are better off not using the Mvd system, then it is their choice and they must live with their track length requirement.

If we had the time to implement another PR approach that directly involves found hits/tracks in the MVD or GEMs, the TPC would also "work" with a single hit (even though the use of this single hit is quite debatable) - there is no conceptual advantage that I see that would make this approach any more effective for the STT system. I agree, then we could directly compare the two complete tracking detector setups, however under the assumption that the CT will never play a role in the trigger decision.

However, we chose a different approach that emphasizes the TPC as a stand-alone tracking system that is also capable of contributing to the trigger decision, since there are cases where there is information that is only available in the CT (V0's in the CT acceptance for instance).

I have never seen this effort from the STT side. The hard reliance on information from other detectors on the pattern recognition level is NOT an advantage! Also, reducing the central tracker to a mere supportive role for track property extraction should not be the basis of a pure comparison of the central tracker options in my opinion.

It will be necessary to have a clear list of requirements for the CT especially in terms of trigger decision and DAQ philosophy at some point before we can take the decision.

Best Regards,

Felix

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