Subject: Re: PANDA ToF Task Force Questions
Posted by Klaus Föhl on Wed, 15 Jul 2009 15:21:40 GMT
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Dear Bertram,

Bertram Kopf wrote on Tue, 14 July 2009 14:03

Klaus Föhl wrote on Tue, 07 July 2009 17:58
Here in Giessen we are interested in the reactions p-bar p going to gamma gamma and also p-bar p going to gamma pi0. It is the inverse reaction to (virtual) gamma gamma going to p-bar p which has been measured at Belle and also cross channel to Compton scattering.

Our current simulations show that from the statistics and background we are close to the feasibility limit in PANDA. Any further material upstream of the EMC acts as a pre-shower component and degrades the EMC performance.

Hence we suggest to include these two physics channels into the simulation programme for the RPC ToF detector assessment.

those studies have been done and already presented at the last Collab. Meeting for the gamma gamma channel. You can find the results on page 12 and 13 of my presentation in the TB session.

Our interest also involves gamma pi0, and in the context of signal and background channels I have been explained that pi0 pi0 is also an important channel. The simulations that you showed in Torino, are they based on the PandaROOT framework?

From talking to our student Irina Brodski I understand that these neutral channels are pushing PANDA performance. We in Giessen need to have full simulations to be able to assess the performance influence of an added RPC and only on this basis give our vote at decision time.

Talking within our group, I understand that Irina is still faced with some quirks in the EMC geometry. On the other hand, having such events simulated would suit Irina as she could analyse these for her Diplomarbeit.

Regards

Klaus