From: elke-caroline aschenauer elke@bnl.gov @ Subject: some questions **B**

Date: November 18, 2014 at 15:37

- To: Yuxi Pan yuxipan@physics.ucla.edu, starfms starfms-hn@sun.star.bnl.gov
- Cc: Aschenauer Elke-Caroline elke@bnl.gov, mriganka mriganka@rcf.rhic.bnl.gov

Dear Yuxi, Dear All,

as I said yesterday I have a couple of questions, but before this, I was wondering as the run is coming closer and the FMS and the FPS are getting ready for the run, what is the progress on the FMS code review.

I think it is critical this gets resolved before the start of data taking.

So now to my questions concerning some results and how consistent they are.

So we have from Mriganka, the following 2 plots, which show the difference between the pi0 A_N and the A_N for EM-jets.

Figure-1:



Figure-2:

EM-Jet Energy	$y = 40-60 {\rm GeV}$	60-80 GeV	80-100 GeV
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now Yuxi has done the following nice analysis

Figure-3



so do we think open blue points are the same or similar to what the red points in figure 1 are, so a EM-jets #gamma > X with 2 of the photons forming a pi0 and a cut on z.

Did we expect the difference between inclusive and isolated pi0 to be so small?

Figure-4:



As fct. of pt the difference is basically gone. Is this what we expected.

I must admit, I'm a bit surprised that the difference between isolated and inclusive is so small, Yuxi I don't remember did you do different cone radii for the isolation,

and if yes did the difference depend on it? I must admit, I have a problem to understand how these results with inclusive and isolated pi0 fit to Mriganka's results. Yuxi if you have an isolation cut, did you check you had only 2 photons which are from the pi0 or are there more photons in the cone.

Thanks and sorry if I ask some not so smart questions.

cheers elke

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