

My brief comments on the ratio paper are below:

I have already commented to the spokesperson that I feel there is too much rush to get the paper out without allowing time for comments and consideration by other people. Submitting this paper by tomorrow (7/3) is unreasonable.

The second and third paragraphs discuss the results and compare to other experiments before the measurements and results are presented. These paragraphs should be moved. They provide no insight/motivation as to why the measurements are done.

In general the paper seems lacking in details related to the quality of the measurements. Some of the quantities may be the same as in the 130 GeV paper and some may be different.

The resolution for the time of flight walls is not quoted.

The definition of separation is not given.

The P and Pt resolutions are not given.

As this is the first paper with C1 and the RICH, there is no discussion of the efficiency of the detectors. I have seen no reports that detail how well they perform; I was unable to clearly see the results from the collaboration meeting. How are the ratios affected by the efficiency of C1 etc?

I do not think we have a trigger that demands at least 1 MIP in the TMA. This may be a software selection.

There is no discussion of systematic errors and when numbers are given what the error are (statistical or statistical + systematic).

It does not appear that the full data sample is used for the plots (as best as I can tell). If not maybe somewhere it should state that a portion of the full data sample is used.

Since resolutions etc are being improved it might be good to say that additional calibrations are being conducted to improve PiD etc for invariant yields but not necessary for the present work on particle ratios.

There seems to be lots of problems with the accuracy of the error bars. In fig 2a the error bars on the $p\bar{p}/p$ ratio changes too much around 2 as best as I can tell. In Fig 2c why are the $p\bar{p}/p$ errors on the first and third point so much smaller than the second and fourth? How can we have a 8% error on the pion ratio at $y=1$ (fig. 3)? How can I see error bars on the pion ratio in fig. 3 for $y=0$ but the error bars for the ratio in fig 1a is smaller than the symbol for 4 pt bins.

I would like to see a listing of the data points, the error bars, and the particle counts so people can check the data points.

Are the same data samples used for all the various plots?

Based on my simple looking I see no reason to believe any of the error bars.

There needs to be something in the paper that describes the y-pt range for the various points. This may need to be a figure.