

Long Symmetric Cumulant paper : 3rd IRC review

Dear IRC members

We would like to thank all IRC members for useful discussions to improve the manuscript. The PC+IRC meeting was held on 8th of March, 2017 (<https://indico.cern.ch/event/622018/>). The main discussions were about the rejected suggestions in Ilya's comments and the model comparisons of v_n . We now have fully taken Ilya's comments. In addition to that, we put the individual flow harmonics v_n comparisons to all the model calculations we used in the paper. This would help to resolve what Sudhir concerned about the model comparisons during the first IRC review. Note that some minor changes were made to improve the consistency of wordings and workflow of sentences. The summary of the changes made in the updated version of the manuscript are provided below briefly.

New version:

https://twiki.cern.ch/twiki/pub/ALICE/PtDependentStandardCandles/longSC_IRC_R3_v6.4.pdf

Difference between new and reviewed version:

https://twiki.cern.ch/twiki/pub/ALICE/PtDependentStandardCandles/diff_IRC_R3_R2.pdf

Reviewed version :

https://twiki.cern.ch/twiki/pub/ALICE/PtDependentStandardCandles/longSC_v5.1.pdf

Regards,

DongJo on behalf of PC

A. Ilya Selyuzhenkov's comments on restructuring of Secs. 5&6

Here is the proposal for restructuring of Secs. 5&6:

1. Arrange and focus on physics discussion by two categories "centrality dependence" and "pt-dependence" which will become two main sections instead of the current structure. This will require (among other things) to move Fig. 2 and text on lines 230-246 to what is now Sec 6.3 on line 410
2. Combine Figs. #3-#7 into 3 new figures (2 columns [SC and NSC] x 5 rows [2-3, 2-4, 3-4, 2-5, 3-5]) - one per each set of model comparisons (Fig. #3 [EKRT+viscous hydro], #4 [2+1 hydro], and #5 [AMPT]). Fig. #3 will require to include as the top panels the comparison to 2-3 and 2-4 with EKRT which is in the short SC paper but currently missing in the long paper (I think this should be included for completeness).

The arguments for combining the figures are:

- Frankly, I do not understand why to separate the discussion of 2-3-4 and 3-4-5 harmonic correlations. We do not do that in Fig. 1 and I think we should follow this for model comparison, i.e. just have an

extended "replica" of Fig.1 with 2x5 panels for each of the three groups of model comparison.

- Combining will avoid some repetitions which are currently present in Secs. 6.1 and 6.2

- It will give a better overview of data to model comparison for all harmonic combinations in one figure, which should improve significantly the readability of the paper in addition to reducing the high number of figures.

3. The model description will stay as it is now, but will be presented not as a separate Sec. 6, but as a part of Sec. "centrality dependence" and discussion of the results.

R : Figures are updated and the corresponding changes are made for the figure captions and texts and etc.

B. Model comparisons of the Individual flow harmonics v_n in appendix.

R : v_n comparisons are added in the appendix and the corresponding changes are made in the Sec.6. Unfortunately we don't have the hydro calculations for v_5 , we have asked the authors of the hydro calculations and waiting for the results.