

Thank you very much for your thorough review of our work. I greatly appreciate the time you took to complete this. I apologize for the delay in addressing these comments, and thank you for your patience. I will submit, together with the new draft, a document highlighting the changes made to the text. Much effort was also spent in cleaning up the figures, but these changes are not included in that document. Please contact me or Tom if you have any questions or additional comments. Thanks again.

Cheers,
Jesse

Line 12: “which result” → “which results”

Line 13: “model together” → “Furthermore, together with HIJING simulations, this model is used to account for...”

Line 16: “suggest an effect arising from” → consider writing “suggest an effect arising either from... or from...” (no comma before “or”), which is better because it conveys the ambiguity already in the beginning of the sentence.

Line 23: “space-time characteristic” → “space-time characteristics”

Line 28: “offer estimations” → “offer estimates”

Line 29: is “suddenness” of particle emission the right word here? (I admit I don’t quite know what you mean here... do you mean something like the difference between an instantaneous hadronization and a more mixed scenario?)

I mean that we can gain insight into the time period over which particles are emitted.

“suddenness of particle emission” → “duration of particle emission”

Line 42: “were not previously not known” → too many “nots”

Line 52: “for both non-femtoscopic backgrounds, as” → “for non-femtoscopic backgrounds as well as...”

Line 59: remove comma before “and concluding remarks are”

Line 75: “for LambdaK0s analysis” → “for the LambdaK0s analysis”

Note: This sentence has been moved to Section 3.1., and this correction has been implemented

Line 88: do you really need the quotation marks around “particle species hypotheses”? This sounds reasonable enough and I’d just remove the quotation marks...

Line 94: “were accepted” → “were accepted for analysis”

Line 101: “from the electrons ... “ → remove “the”

Line 112: “assumed to be the point of closest approach between the daughter tracks” → this is rigorously incorrect as there are actually two points. Consider “The decay vertex is calculated based on the positions in which the two daughter tracks were closest.” Or so.

Line 112: “To help ensure quality” → prefer “To help in reducing combinatorial background, ...”

Line 115: “calculated at the DCA” → “calculated in the condition in which they were closest to one another” (I’d also suggest removing the parentheses)

Line 139: “smallest DCA to the primary vertex” → why would that be the case? Naively I would perhaps even expect that you might prefer the V0 with the smallest DCA between daughters... Just curious.

This is how the default cut is setup in the AliFemtoV0SharedDaughterCut class. A slightly more sophisticated procedure was used for the K0s selection in the “One-dimensional pion, kaon, and proton femtoscopy in Pb-Pb collisions at 2.76 TeV” publication (<https://arxiv.org/abs/1506.07884v2>). For that procedure, the K0s DCA to primary vertex, daughter-daughter DCA, and reconstructed K0s mass were all used as discriminators. The success rate for using any of these three discriminators individually was found to be 90% for the K0s DCA to primary vertex, 83% for the daughter-daughter DCA, and 78% for the invariant mass. The success rate for using all three together was 95% (see <https://cds.cern.ch/record/2677618?ln=en>).

The occurrence of shared daughters within a V0 collection for a given event happens infrequently enough to justify using the V0 DCA to primary vertex to simplify the procedure, while only losing 5% of the success rate.

Figure 1: Add ticks (SetTicks(1,1)), remove legend box

Line 212: “The weight factor, $\rho_{\{s\}}$ ” → add another comma after $\rho_{\{s\}}$ (or remove both commas)

Line 219: “as decay products from other resonances” → is it only resonances? Should be “resonances and weak decays” (also having in mind the discussion that follows, I guess). Note that again you mention “daughters from resonances” in line 224 but Ξ_{i0} and Ξ_i aren’t resonances.

OK. To be completely correct, I would have to state “strong, weak, and electromagnetic decays”, which is a mouthful. Therefore, I have everywhere replaced “resonances”, “resonance decays”, etc. with “particle decays”

Line 228: “The finally measured” → “The measured correlation function”

Line 229: “resonances and impurities” → “resonances, weak decays and impurities”

“resonances and impurities” → “particle decays and impurities”

Line 254: “when modeling Ξ_{iK} the system” → should this be “when modeling the Ξ_{iK} system with a ...”?

Line 271: Here you again call particles like a Xi a resonance, I suppose, but this isn't what we do in other papers and may need some adjusting.

“large number of resonances” → “large number of particle species”

Line 300: Something to think about: we may be asked by the referee why we didn't unfold C instead of folding the predictions. A nice way out may be to provide the response matrix (but we should already start thinking about how to reply to the question if it comes, as IMHO it is a valid question...)

Thank you for the suggestion.

Line 313: “The behavior (...) is needed” → okay, but needed for what? Add “to describe” or similar

Line 345: “unique from each other” → probably you mean “distinct, analysis-dependent scattering parameters” or so?

“scattering parameters unique from each other” → “unique scattering parameters which are allowed to differ from each other”

Line 351: the OmegaMinus isn't what we usually call a resonance

“bump caused by the OmegaMinus resonance” → “bump caused by the OmegaMinus decay”

Figure 2: there are some odd things at very low k^* which are related to your points being too close to the pad borders. Note that we usually keep all points including their error bars well within the pad and the error bars should not exceed the boundaries of the pad. This is particularly bad in the leftmost lower plot, where there's a point (green square) that falls exactly on top of the pad border and the reader may even consider, for a brief moment, that it's not obvious that that point belongs to the bottom pad... Please adjust. Also, please add ticks (SetTicks(1,1)) to this plot and others.

Line 371: “Note, in each case, the” → “Note that, in each case, the...”

Figure 4: Maybe it would be best to make an effort to make the text in figures look similar in size (here, LambdaK looks rather smaller than Fig 3). If you could improve it a bit that might already be good.... Note also that “K” in LambdaK is sometimes bold and sometimes not (I think) -- it would be good to have it uniform (and preferably not bold) across the board.

Summary: some sentences are entirely verbatim carbon copies of sentences in the abstract. Could you please adjust a bit so that this isn't the case?