Hi,

I have read the proposal and here are some comments to start the discussion. I have no (not really) major comments; the current proposal is sound (for CD0) and addresses well all items in Tim's charge-list.

General comments:

1) A possible weak point in the physics performance simulation section is the lack of hard efficiency/ghosting numbers due to absence of pile-up in the simulations. But I know that there are earlier estimates and also plans to overcome the technical issues associated with the inclusion of pile-up in the simulation.

You are correct.   A more detailed response is included in the answer to the same question from Carl.

2) The absence of pile-up is more evident in the discussion of the p-p program.

Yes. Pileup is very important. My most significant worry is whether or not our discussion of R_{AA} is well grounded without having the pile up results to look at.

3) The need for the exact configuration is not strongly presented and I think this is probably intentional and good.

I'll take that as a comment ☺

All these would/should become sharper in the CD1 or TDR.

Yes, absolutely.   We have to be precise in the TDR. Also with respect to cost and schedule.

Specific comments to make the proposal clearer:

* Page 57: Table-5. State in caption that the numbers refer to 750 MeV Kaon.

Good point. Thank you for pointing it out.

* Page 68: Fig-27. This is 'reconstruction' not just 'tracking' efficiency. It includes geom. acceptance factors not just tracking ability. Otherwise a 5 GeV track should be 100% trackable but it sometimes goes through a TPC crack between sectors.

Yes. You are correct. We should re-label the vertical axis and add some clarification to the text.

* Page 69: Fig.-28. Not clear why ctau is divided by sqrt(3). I have a gut feeling but it should be stated why. Also caption needs to be corrected 3-> sqrt(3).

It has to do with a conversion from 3 space to 1 dimensional space. We should explain. Yes, the caption needs to be updated.

* Pages 70/71: Need to state somewhere that this is a brute-force V0-like analysis using momentum independent cuts and that things can be further optimized.

Yes, in previous years we have elaborate multi-dimensional fits with the cut parameters. This was not done this year but rather intuition and wisdom played a major role in determining the cuts. They can be optimized a bit further.

* Pages 73 (Fig-32) and 79 (Fig-38). Should be pointed out in caption either that the Branching ratio is not included or soften the 'Absolute' wording. Otherwise it might confuse people trying to use this numbers for a rate estimate.

Correct. In a more general sense, we need to explain to the reader that we threw a uniform number of D0's in each p_T interval. Physics analyses require rescaling this uniform distribution.

In the p-p plot the red line needs to be explained better. Now it gives the impression that 'a reconstruction' efficiency is higher than the absolute maximum (open symbols)! Jim was kind enough to explain to me what it is.

The red line is cute but it is not properly explained (and probably on the authors can love it). We should remove it from the figure.

* Page 66: I discussed with Jim a possible comment on the vertex resolution formula trying to explain why in the numerator the number is not the Pixel-DCA number.

Yes, a comment is needed … especially since JT forgot what it was that we talked about☺

* Page 22: add 'berillium' before beam pipe.

Yes. Good point.

* Page 20: 3rd paragraph. Add to '50 um thick' "and at a distance of only 2.5 cm from the interaction point". Both factors matter.

Yes, agreed.