

Homework

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Homework question (1)

Q: It was mentioned that some analyses would not be performed due to lack of resources? Is this for lack of interest among senior members, or for lack of student/postdoc funding?

A: I think it is both. Already many of the collaboration institutes have moved to other experiments and the size of active members of PHENIX is reduced. Since sPHENIX is now starting, many collaboration institutes still active in PHENIX analysis plan to move resource to sPHENIX analysis. I heard from one of the largest group that they commit to work on the PHENIX analysis for another two years and made a grant extension as such. But in the next grant extension they plan to reduce the weight of PHENIX analysis substantially since they plan to move to sPHENIX analysis.

Homework question (2)

Q: If data preservation at the REANA level takes on the order of one FTE-year per analysis preserved, you will only be able to do this for a small fraction of all PHENIX analyses. Can the analysis per FTE effort be improved so that more analyses can be preserved? How, and by how much?

A: It is true that a full analysis preservation at the REANA level can be done for only a few analyses. This is why we select only those important analyses for which PHENIX has unique strengths for REANA. As more analyses are preserved, we hope that we gain experience which will reduce the needed FTE effort for preservation. However, we cannot answer how much reduction can be achieved at this point. Perhaps improvement of a factor of two could be possible.

Additional notes

What I want to emphasize is that the time window that we can do DAP is limited. I think we will lose the capability to preserve analysis knowledge in one or two years.

As it was noted in the Q/A just after my presentation, LEP experiments could re-analyze the data more than two decades after the data taking completed. This is because they invested significant effort for DAP. Physics interest and need to analyze the data can arise many years after the experiment nominally completed.

RHIC is going to shutdown in two years and the data of A+A and polarized pp collisions at RHIC energies will not be taken after that. It is very important to preserve the ability to analyze the data of RHIC experiments. This can be done only if a dedicated resource is allocated for the DAP effort since it is impossible to do it with volunteer work of collaborators. Even a small amount, a dedicated resource will make a big difference.