Minutes from the RG1a NPS analysis of June 27, 2024. Notes by JR.

Please remember to post your slides on the ELOG at https://hallcweb.jlab.org/elogs/NPS-RG1a-Analysis/

Meeting Recording:

https://jlab-org.zoomgov.com/rec/share/

Passcode: ask JR

Present: P. Anderson, J. Crafts, A. Hoghmrtsyan, H. Huang, C. Hyde, M. Kerver, E. Kinney, M. Mathison, M. Mazouz, C. Morean, C. Munoz, M. Nycz, C. Ploen, J.Roche, A. Singh., T. Song, Y. Zhang

JR: documentation

We will use a combination of the wiki and the ELOG to document our work. The wiki is used to document organizational details (e.g., when we meet, who is working on the analysis) and notable ELOG entries (e.g., where are the files, a final report on some calibration). The ELOG is used to post analysis status updates and final results. M. Jones, C. Morean, and J. Roche manage the ELOG. We do not intend to use Redmine anymore.

Wiki: https://wiki.jlab.org/cuawiki/index.php/Main_Page#NPS_RG1a_Analysis ELOG: https://hallcweb.jlab.org/elogs/NPS-RG1a-Analysis/

Carlos M.: analysis scheme [slides]

Carlos presented the analysis scheme for the three previous DVCS experiments in Hall A (see slides).

- Who is running the database mentioned in this presentation? The DVCS group. It runs only at JLab. We only need this database in Step 1.
- In this scheme, Step 0 is the calibration of the HMS detectors and beamline elements. Most of the calibrations still need to be checked/ performed.

Action => This Google sheet lists tasks that need to be adopted. Indicate which one you want to do (if you need help getting started, you can ask Julie) https://docs.google.com/document/d/1bFAArkcxNbcWXG6oRhfj4f_97Z1ctpJWfagbPl-jjFk/edit

Run list

We currently have a run list managed by Josh. To be on this list, a run needs not have been flagged as junk by the shift taker and replayed correctly by hcana. Carlos remarked that runs still need to be weeded for other detector malfunctions. Carlos shared the criteria that were used for DVCS in Hall A: https:// hallaweb.jlab.org/experiment/DVCS/documents/results/Frederic_thesis.pdf, page 51

Peter B. also has a list. JR: I will ask if he can present his criteria during the next meeting Peter can attend.

Action => We are looking for volunteers to continue refining this list. This is a multi-person job. (Josh: Do you want to continue with that?)

Mark M.:DIS analysis [slides]

Mark presented his goals with DIS analysis for the Summer and Fall. Mark has run simulations for 5 out of 17 settings and is working on simulating all settings. Carlos noted that comparing data and simulation would need to be repeated after Pass 1. Mark is also looking into target offsets along the z direction.

Christine P.: BCM/BPM calibration and HMS optics [slides]

Christine is still working on BCM calibration and has preliminary results for 6 out of 8 BCM calibrations. BCM 4A and 2 were stable and are to be used for normalization.

Christine, Josh, and Julio are working on Optics calibration in the HMS saturation region, which covers four out of 17 settings. Christine will update her slide to show which settings are affected. In the low momentum region, the standard optic matrix is fine. This work is likely to continue throughout the Fall.

Mike N.

Mike introduced Paul Anderson, who will be working on SIDIS pi0. Paul works with Xiaochao Zheng at UVA. Welcome!

Next meeting:

- -Carlos will chair, send reminders, and take notes. We will use the same Zoom link every time.
- -Casey will explain how to run hoana (for example, to check that the HMS calibration is correctly implemented).
- -Wassim will show some neutron pi0 and DVCS exclusive peaks.
- -We will finish with short status updates like Mark and Christine gave today. Letting the chair know you have prepared something to share before the meeting is helpful.

We will meet on ZOOM: ask JR for the link

At:

Honolulu, USA Wed, Jul 3, 2024, at 2:00 am HST Boulder, USA Wed, Jul 3, 2024, at 6:00 am MDT Columbus, USA Wed, Jul 3, 2024, at 8:00 am EDT Paris, France Wed, Jul 3, 2024, at 2:00 pm CEST Tunis, Tunisia Wed, Jul 3, 2024 at 1:00 pm CET Yerevan, Armenia Wed, Jul 3, 2024 at 4:00 pm AMT Beijing, China Wed, Jul 3, 2024 at 8:00 pm CST Taipei, Taiwan Wed, Jul 3, 2024 at 8:00 pm CST Daegu, South Korea Wed, Jul 3, 2024, at 9:00 pm KST