EIC Users Group Meeting Catholic University of America Washington D.C. 30 July — 2 August 2018

Outlook and Next Steps

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Outlook: Process

"It's about to get real" *

- The EIC will likely be realized as quickly as is practical
 - Politics
 - Budget
 - Research, Development, Design (RD²)
 - PEOPLE POWER !!
- CDO: Budget envelope
 - CD1 Down-select
 - CD2

*Anonymous DOE official

Outlook: Detector

- As a user group we should plan for two detectors
 - International funding assumed
 - Complementarity is real
 - Different technologies lead to different systematic errors
 - Not just a fight for "who/what is best", but clarity on "what is different?"
 - Are we smart enough (and organized enough) to design, build, operate, and analyze with just one-detector/onecollaboration?

Next Steps: Communication

- NAS is briefing Congress on its report
- Visit by users to Congressional offices
 - Early Fall
 - Similar to APS-DNP "Day on the Hill" in April
 - Message (my version): We can do great science, education, and technology innovation if U.S. Nuclear Science budgets stay on the "Modest Growth Scenario" of 2015 LRP.
 - Very preliminary discussions underway between EICUG-SC and managing organizations (SURA/JSA, SBU/Battelle)

Next Steps: Power to the People

- Recruit your colleagues and collaborators
 - Add Post-docs and Grad Students to EICUG Membership
- Include EIC activities explicitly in your grant proposals
 - Leverage funding with opportunities
 - Jlab & BNL LDRD programs
 - SBU-CFNS and JLab EIC²
 - EIC Generic Detector R&D program
- Engage with the on-going RD² activities
 - New physics topics
 - Refined simulations
 - Detector & Accelerator RD²

Next Steps: The Precision Frontier

- Physics-plots with up-to-date detector designs.
 - Portable simulation tools available
- Systematic Errors
 - Transition from one detector module to next:
 - Tracker impact on PID
 - Transition from Barrel tracker to Endcap tracker
 - One \$\$\$ detector or two \$\$ detectors?
- Background
 - Randoms with existing (e.g. PYTHIA) simulations
 - Beam-gas simulations in progress
 - Synchrotron studies starting to evaluate secondaries
 - Neutron background studies starting soon

The time to work on the EIC is now!

- Many Thanks to Tanja Horn, Greg Kalicy, and CUA students and staff for a great series of three (!) meetings:
 - EIC Generic R&D Committee Meeting
 - EIC Detector Workshop
 - EIC Users Group Meeting
- Thanks to all participants, presentors
- Have a safe trip home!