

eRHIC Bi-Weekly Status Report

September 5, 2017

Recent Developments:

- Registration is now open for the EIC Accelerator Collaboration Meeting, which will take place on October 10-12, 2017 at BNL. The collaboration meeting will bring together accelerator scientists and engineers from JLab, BNL, and other laboratories from over the world who are participating in the US EIC accelerator design work and corresponding technology developments. More information can be found at <https://www.bnl.gov/eiccm2017/index.php>.
- On August 24, 2017 members of the eRHIC Accelerator R&D team achieved first beam from the improved Gatling Gun into the beamline. Beam commissioning is now underway.
- Discussions continue on the maturation of an eRHIC organization, which will help to ensure successful delivery of the pre-CDR, preparation for a DOE CD-0, and the subsequent work towards CD-1.
- The next meeting of the National Academy Reviewers of the EIC will occur on September 11-12 in Woods Hole, MA. We have been informed that an official presence of Laboratory representatives will not be necessary, as the panel does not expect to have questions about site-specific or design-specific issues. The National Academy review team has been gathering information and we assume that they are now drafting their findings and will spend most of the September meeting reviewing what has been done so far.
- eRHIC Pre-Conceptual work is progressing. Status on progress by individual contributors is reviewed each week to ensure the work stays on schedule.
- The C-AD staff planning efforts are on track toward the delivery of a first C-AD staff requirements report by the end of September, 2017. A first pass of staffing data for both projects and operations for FY2018 was gathered and entered into the system. Group leaders and project managers will be engaged as we verify information and review preliminary reports. This effort is underway to provide C-AD group leaders and managers with tools to help them to plan and prioritize work.
- The NPP Directorate will hold a second strategic planning retreat on September 8, 2017. This retreat will be the first follow-up to the initial planning retreat that focused on an assessment of the current state of programs within the Directorate. This second retreat will explore future challenges within the Directorate, including our highest priority - the RHIC to eRHIC transition.
- The next Bi-Weekly eRHIC Coffee Break will be on Thursday, September 7 in the C-AD Lobby (Building 911). Please join us at 3:30 p.m. and encourage others interested in eRHIC to attend.

Issues:

- Early preparations are underway to assemble a team to review the eRHIC accelerator concept in the Spring of 2018. Plans also need to be made on how best to review the status of the eRHIC science vision.
- The President's Budget Request (PBR) for FY2018 creates many uncertainties with significant implications on future plans and priorities. Encouraging recent developments are that the House budget mark for the DOE Office of Science proposes a budget that is flat with FY2017 appropriations and the Senate budget mark even advocates for a 3.0% increase.
- An eRHIC pre-conceptual design organization and a management approach for matrix personnel needs to be finalized, approved, and communicated to relevant parties.
- Strategies will need to be developed for enlarging support for an EIC both within NP and within the broader science community.

- The European strategy for particle physics is starting and attention has to be paid regarding how to integrate EIC into this process.
- Additional strategies for CBETA cost/risk treatment need to be confirmed by the BNL/Cornell Project Oversight Board.
- The ability of the NPP Directorate to successfully manage and complete the sPHENIX project is important to demonstrating to the DOE Nuclear Physics Program that we can successfully complete mid- to large-size construction projects. We need to support a successful sPHENIX CD-1 DOE Review in FY2018.

Major Near-Term Milestones:

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| • National Academy of Sciences Study | 2017 |
| • National Academy Panel Report | Spring 2018 |
| • eRHIC Pre-Conceptual Design Report | March 2018 |
| • eRHIC Pre-Conceptual Design Review | April 2018 |
| • Ready for CD-0 Mission Need decision of EIC | June 2018 |
| • Anticipated CD-0 (Mission Need Determination) | Late 2018 |

Calendar:

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| • eRHIC Bi-Weekly Coffee Break – 3:30 p.m. in the C-AD Lobby (Bldg. 911) | September 7, 2017 |
| • NPP Strategic Planning Retreat #2 | September 8, 2017 |
| • National Academy Review of EIC (meeting 3) | September 11-12, 2017 |
| • Full day eRHIC Program Steering Group Meeting | September 25, 2017 |
| • First C-AD Staff Planning Report Available | September 30, 2017 |
| • EIC Accelerator Collaboration Meeting (at BNL) | October 10-12, 2017 |
| • ½ day eRHIC Program Steering Group Meeting | October 26, 2017 |
| • Full day eRHIC Program Steering Group Meeting | December 11, 2017 |

eRHIC SharePoint Site:

- Copies of these Bi-Weekly Reports and other information about eRHIC are located on the eRHIC SharePoint site <https://brookhavenlab.sharepoint.com/sites/eRHIC/SitePages/Home.aspx>. If you have trouble accessing this site, please contact Alyssa Petrone at apetrone@bnl.gov or x7735.

Link for the EIC Energy Assessment Paper (BNL Formal Report (BNL-114111-2017):

- See <https://arxiv.org/abs/1708.01527>