



Department of Energy
Office of Science
Washington, DC 20585

Dr. W. Boroski
LQCD-ext III Contract Project Manager
Fermi National Laboratory
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Dear Dr. Boroski:

The Department of Energy (DOE) Office of High Energy Physics (HEP) plans to conduct an Annual Progress Review of the Lattice Quantum Chromodynamics (LQCD-ext III) Computing Program on May 18-19, 2021, virtually, using ZOOM. A review panel of experts in high energy physics, project management and computer science is being convened for this task.

John Kogut of the HEP is responsible for this review; he will be assisted by Bill Kilgore, the Theory Program Manager of the HEP.

Each panel member will evaluate background material on the LQCD-ext III research program and attend all the presentations at the May 18-19 review. The focus of the 2021 LQCD-ext III Annual Progress Review will be on understanding:

- The continued significance and relevance of the LQCD-ext project, with an emphasis on its impact on the experimental program of the DOE HEP;
- The progress toward scientific and technical milestones;
- The status of the technical design and proposed technical scope for FY 2021-2022;
- The feasibility and completeness of the proposed budget and schedule;
- The effectiveness of the proposed management structure, and responsiveness to any recommendations from last year's review.

Since LQCD-ext III provides computer cycles that are distributed by the United States Quantum Chromodynamics Collaboration (USQCD) collaboration, the panel members will also consider:

- The effectiveness of USQCD in allocating the LQCD-ext III resources to its community of lattice theorists, the scientific impact of this research on the entire HEP community and the status, operational procedures and related activities of the USQCD collaboration itself.

The two days of the review will consist of presentations and executive sessions. The second day will include an executive session and preliminary report writing; a brief close-out will conclude the review. Preliminary findings, comments, and recommendations will be presented at the close-out. You should work with John Kogut to generate an agenda which addresses the goals of the review.

Each panel member will be asked to review those aspects of the LQCD-ext III project listed above which are within their scope of expertise and write an individual report on his/her findings. These reports will be due at the DOE two weeks after completion of the review. John Kogut, the Federal Project Manager, will accumulate the reports and compose a final summary report based on the information in the letters. That report will have recommendations for your consideration that you and USQCD should respond to in a timely fashion.

Please designate a contact person for the review panel members to contact regarding any logistics questions. You should set up a web site for the review with relevant background information on LQCD-ext III, links to the various LQCD-ext III sites the collaboration has developed, and distribute relevant background and research materials to the panel at least two weeks prior to the review. Please coordinate these efforts with John Kogut so that the needs of the review panel are met.

We greatly appreciate your willingness to assist us in this review. We look forward to a very informative and stimulating review.

Sincerely,

James Siegrist
Associate Director of Science
for High Energy Physics