



## Department of Energy

Washington, DC 20585

FEB 24 2017

Dr. William Boroski  
LQCD Contractor Project Manager  
Fermi National Accelerator Laboratory  
Mail Station 127 (WH 7W)  
P.O. Box 500  
Batavia, IL 60510-0500

Dear Dr. Boroski:

The Department of Energy (DOE) Office of High Energy Physics (HEP) and the Office of Nuclear Physics (NP) plan to conduct an Annual Progress Review of the Lattice Quantum Chromodynamics (LQCD-ext II) Computing Project on May 16-17, 2017, at the Fermi National Accelerator Laboratory (FNAL). A review panel of experts in high energy physics, nuclear physics, project management, and computer science is being convened for this task.

John Kogut, HEP is responsible for this review; he will be assisted by Elizabeth Bartosz and Ted Barnes, NP.

Each panel member will evaluate background material on the LQCD-ext II project and attend all the presentations at the May 16-17 review. The focus of the 2017 LQCD-ext II 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 programs' support by the DOE OHEP and NP;
- The progress toward scientific and technical milestones;
- The status of the technical design and proposed technical scope for FY 2017;
- 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 II provides computer cycles that are distributed by the USQCD collaboration, the panel members will also consider:



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

We are also requesting USQCD present its plans for further capacity computing and USQCD should be prepared to answer the following questions:

- Will USQCD be requesting a further extension of the IT hardware project LQCD-ext II beyond FY 2019?
- If so, what is the status of a whitepaper presenting the research plan for FY 2020-2025?
- If not, what are USQCD's plans for the ramp-down of LQCD-ext II?

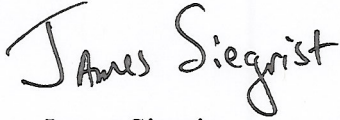
The two days of the review will consist of presentations and executive sessions. The later half of the second day will include an executive session and preliminary report writing; a brief close-out will conclude the review. Preliminary findings, comments, and recommendations will be presented at the 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- 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.

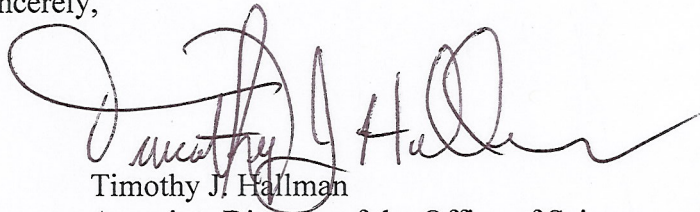
Please designate a contact person at FNAL for the review panel members to contact regarding any logistics questions. Word processing, internet connection and secretarial assistance should be made available during the review. You should set up a web site for the review with relevant background information on LQCD-ext II, links to the various LQCD-ext II sites the collaboration has developed, and distribute relevant background and project 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 at FNAL.

Sincerely,



James Siegrist  
Associate Director of Science  
for High Energy Physics



Timothy J. Hallman  
Associate Director of the Office of Science  
for Nuclear Physics