

memorandum

DATE: February 2, 2006
REPLY TO
ATTN OF: Office of Science

SUBJECT: Annual Technical Progress Review of the Lattice Quantum Chromodynamics (QCD) Computing Initiative

TO: Michael Strayer, Associate Director, SC-30

This memorandum is to request that you organize and conduct an Annual Technical Progress Review of the ongoing Lattice Quantum Chromodynamics (QCD) Computing Initiative. This review should appropriately involve the input and participation of the science programs in the Office of High Energy Physics and Office of Nuclear Physics responsible for the effort.

A Technical, Cost, Schedule and Management Review was conducted by your Office on May 24-25, 2005, and was chaired by Dan Hitchcock. He presented the review panel's report to Ray Orbach, the Director of the Office of Science, on July 15, 2005. It would be ideal if Dan could continue as chairperson for this review in order to preserve continuity.

The Office of High Energy Physics and the Office of Nuclear Physics began this initiative in FY 2006 to develop a large-scale (additional ~ 13 TFlops, Total Estimated Cost ~ \$9.2 million) Lattice QCD computing capability based on the most cost-effective technology available. On an annual basis, our offices need to be assured that the technical approach and planning for all aspects of Lattice QCD computing are optimized to maximize scientific productivity in the context of other efforts world-wide.

In particular, it is requested that your review evaluate:

- The continued significance and relevance of the LQCD project;
- The progress toward scientific and technical milestones as presented in the project's IT Exhibit 300.
- The status of the technical design and proposed technical scope for FY 2007;
- The feasibility and completeness of the proposed budget and schedule, including workforce availability; and
- The effectiveness of the management structure.

