

FCPA/PPD review of the QUIET II Initiative at Fermilab

The committee is charged with reviewing the proposed participation of Fermilab in the QUIET II experiment to measure B mode polarization of the cosmic microwave background. Specifically, we would like the committee to evaluate:

1. Experience of QUIET 1
 - a) What was the role in QUIET 1?
 - b) What was built, and was it successful?
 - c) What resources were required (both FTE/SWF and M&S)?

2. QUIET II Science and Fermilab role
 - a) Is the science case strong and aligned with Fermilab goals?
 - b) Does QUIET II have a reasonable chance to achieve the science goals?
 - c) What role will Fermilab have in the science of QUIET II?

3. What is the proposed Fermilab role in QUIET II construction/R&D?
 - a) What will we construct? What R&D is required for that construction? How does this fit in with the technical expertise at Fermilab?
 - b) What resources (FTEs, M&S) will be needed for the R&D? Similarly, what resources will be need for the actual construction? What is the schedule for this work?
 - c) What synergies or conflicts are there with the rest of the program (e.g. CMS silicon upgrade)?
 - d) What role would Fermilab play in the management of QUIET II and what resources will be available from outside Fermilab?
 - e) Are there significant technical or management risks? What is the plan for mitigating those risks?

We ask that the committee provide a written report to FCPA and PPD within one week after the August 11 review.

Agenda for FCPA/PPD review of the QUIET II Initiative at Fermilab

August 11, 2009

Darkside conference room (WH6NW)

9am Introduction and Charge (Dan Bauer)

9:15-9:30 Introduction to QUIET (Hogan Nguyen)

9:30-10:00 The Science of CMBR (Albert Stebbins)

http://home.fnal.gov/~hogann/QUIET/PPD-FCPA-Review/QUIET_II_stebbins_FNAL20090810.pdf

http://home.fnal.gov/~hogann/QUIET/PPD-FCPA-Review/QUIET_II_stebbins_FNAL20090810.key.zip

10:00-10:30 Intro to QUIET, QUIET Phase 1, and QUIET Phase II proposal (Hogan Nguyen)

<http://home.fnal.gov/~hogann/QUIET/PPD-FCPA-Review/FCPA-PPD-review-intro.ppt>

10:30-11:00 W-band assembly details (Hogan Nguyen)

<http://home.fnal.gov/~hogann/QUIET/PPD-FCPA-Review/FCPA-PPD-review-assembly.ppt>

11:00-11:30 Production Testing, Cryostat Details, and Closing Remarks (Fritz DeJongh)

Background material (talk given at DOE-NSF briefing)

<http://home.fnal.gov/~hogann/QUIET/PPD-FCPA-Review/FCPA-Briefing.ppt>