

OFFICE OF THE DIRECTOR

TO: Mike Dunne, Michael Fazio, Kelly Gaffney, JoAnne Hewett, Lia Merminga, Tom Abel, Alex Aiken, Tom Devereaux, Siegfried Glenzer, Mark Hartney, Tony Heinz, Soichi Wakatsuki, Phil Bucksbaum and Jens Norkov

FROM: Chi-Chang Kao 

SUBJECT: FY2018 LDRD Call for Proposals (Due date March 24, 2017)

DATE: February 8, 2017

The LDRD program is a mechanism for aligning the Laboratory's forefront scientific research and capabilities towards addressing vital and emerging scientific challenges at the national level. By allocating the resources for SLAC scientists to make rapid and significant contributions, the LDRD program contributes to scientific staff capability, vitality, and supports initial and exploratory work in forefront areas of science and technology. Ultimately, the LDRD program is a source of enrichment for SLAC's core competencies and new areas of discovery. Project types eligible for support include:

- Advanced studies of new hypotheses, new concepts, and innovative approaches to scientific or technical problems
- Experiments directed towards "proof-of-principle" or early determination of the utility of new scientific ideas, technical concepts, or devices
- Conception and preliminary technical analysis of experimental facilities or devices

LDRD projects are typically conducted with a scale of effort that utilizes existing experimental facilities (i.e. bench-scale research and development) or computational facilities at SLAC or Stanford U. **Consistent with DOE policy, LDRD awards cannot be used to co-fund new or existing research projects or for construction line-item, maintenance projects, or general purpose equipment acquisitions.** Proposals are encouraged under particular categories:

1. Proposals intended to enhance SLAC's capabilities and/or research programs in alignment with our strategic plan and current initiatives
2. "Discovery" proposals with high scientific risk and potential

Proposals in category 1 are encouraged across all scientific and engineering areas of the Lab with emphasis on multi-directorate, cross-disciplinary collaborations. Preference will be given towards proposals that address:

- Novel scientific or technological concepts targeting the unique scientific opportunities of LCLS-II
- Compelling scientific or technological challenges at the intersection of novel computational algorithms, machine learning, hardware architectures and/or modeling

Proposals in category 2 will be limited in size up to \$180K per year and should explicitly aim towards high-risk, proof-of-concept investigations with potential for significant breakthroughs. For FY18, the Lab is targeting a total of \$2-3M in new LDRD awards across categories 1 & 2.

In order to be able to provide timely assessment of project feasibility and allow a vibrant program that accommodates new ideas each year, LDRD projects are required to have a maximum duration of 2 years. In rare cases, exceptions to the 2-year project duration requirement may be granted. Flexibility in the planning of funds may be allowed to accommodate hiring timetables.

Each Directorate should select qualified proposals using a suitable internal selection process before submitting to the LDRD program. Multi-directorate proposals should be coordinated with the relevant ALDs before submitting to the LDRD program. A maximum of 40 proposals across the Lab will be considered for further evaluation. Please plan for your internal process such that it allows investigators sufficient time for narrative and budget development prior to the LDRD proposal due date of March 24, 2017. All SLAC scientific and engineering staff and faculty are eligible to apply for LDRD funding through their Directorate's internal selection process. Stanford faculty who may have been invited to submit a proposal must consult with the relevant ALD to ensure that the LDRD criteria are satisfied, discuss alignment and benefit to SLAC's mission, and participate in the internal selection process of the Directorate.

The LDRD program will form peer-review panels comprised of external to SLAC scientists for providing technical critique and recommendations prior to proposal presentations. Lead investigator presentations will take place in front of internal panels (SLAC/Stanford staff and faculty) on **May 9-10, 2017**. Ongoing LDRD projects will be reviewed by the mission ALDs in June and will receive approval to continue at the same time as newly awarded projects, in early September.

After final review and prioritization with input from the Science Council members, I will select the LDRD proposals to be funded in FY2018.

cc:

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