

Center for Nonlinear Studies

Call for Small-Team Engineering Inspired Rapid
Response



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Deputy Director of CNLS



Operated by Los Alamos National Security, LLC for the U.S. Department of Energy's NNSA

Center for Nonlinear Studies

- Director: Nick Hengartner (nickh@lanl.gov)
- Deputy Director: Enrique R. Batista (erb@lanl.gov)
- Head Administrator: Vanessa Gonzales (vsg@lanl.gov)

CNLS fosters innovative and fundamental research in the areas of theoretical complex systems and computation that are relevant to the laboratory mission

CNLS meets its goals by:

- Fostering a multi-disciplinary research environment
- A robust and diverse postdoctoral program that pairs PD fellows with laboratory staff (~25-30 postdocs)
- An active summer graduate student program (~20 students/yr)
- A large visitor program (~200 visitors/year from academia and industry)
- Active colloquium and seminar series (Colloquium, Q-mat seminar, Quantum lunch, postdoctoral fellows seminar, and other visitor's seminars)
- Organization of conferences
- The Ulam Scholar program that hosts long-term (sabbatical) visitors to CNLS

About this call

- Motivation:
 - Stimulate and reignite research interactions among colleagues stale from 2+ years of social distancing
 - Increase awareness of CNLS in the laboratory
 - Foster synergy between the CNLS and the Engineering Institute (Director: Chuck Farrar, farrar@lanl.gov)
- Looking for:
 - Scientific projects to solve practical engineering applications
 - Interdisciplinary teams (engineers, theoreticians, computational scientists)
 - Postdocs/students/early career. Senior scientist mentor allowed (see budget below)
- Format of the call:
 - Projects to be funded: 3 – 5
 - Duration of the project: FY22 (about 4 months, money expires at the end of the FY)
 - Size of the project: ~ \$60k

Expectation and expense plan

- At the end of the project:
 - Finished product
 - Papers
 - Preliminary work for a proposal:
While a full solution to the proposed problem is not expected, the hope is that the team will have made progress in understanding and articulating what a solution would require and get preliminary data that support their approach.
- Expenses: e.g.
 - Team member FTE
 - Host SME visitor
 - Not for travel

How to apply

- Email to: cnlsoffice@lanl.gov
- What to submit:
 - **Email Subject line:** RR call (PI: *Name, Z#, Group*)
 - **ONE PDF file package.** File name: rr_*PI-Last-Name*.pdf (e.g. rr_Batista.pdf)
 - Cover page with:
 - Title
 - PI: Name, Z#, Group
 - List of team
 - Budget requested
 - **Narrative:** 2 pages maximum.
 - **Font/margin:** Times New Roman; 12pt font single space **or** 11pt 1.15 space; 1 inch margins
 - Introduction and motivation of the problem
 - Knowledge gap
 - Methods
 - Impact and relevance to LANL
 - Outside the 2-page limit:
 - References
 - CV of participants (2 pages per person maximum)
 - Explanation of team capabilities and budget

Timeline

- This is a rapid response call....
- **Submissions Due:** Friday May 27, 2022 by 5pm
- **Decisions will be announced:** June 3rd, 2022

- cnls.lanl.gov

