CSES Town Hall: Vacancy for the Center Leader for the Center for Space and Earth Science (CSES)

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Presentation open to all interested LANL employees
LA-UR-20-26644
Strategic Education Centers
Integrate broad intellectual communities through research, student, postdoc, and education programs

University Collaborations
Joint appointment and collaborative education program opportunities with university partners, and subcontract support

New Mexico Consortium
A unique non-profit corporation of the three NM research universities to advance scientific research and education in New Mexico

National Security Education Center
Serves a collaboration, education, and recruitment role for LANL
For 4 decades, LANL has Invested in Strategic Centers to underpin our Science & Engineering

- Centers assure strategic excellence in science and programs at Los Alamos by promoting creativity and innovation
- They organize educational activities in specialized topics important to the future vitality of Laboratory programs
- They establish partnerships with outside institutions (including academia) to recruit, retain, and revitalize Laboratory programs
- They foster high quality, multi-program and multi-division research efforts, and build intellectual communities within their scientific and technical areas
- They support activities that serve to catalyze new scientific ideas, which can develop into research initiatives funded by internal or external sponsors.
Los Alamos Strategic Centers
Gateways for collaboration, education, and recruitment

- **Center for Nonlinear Studies**
  Interdisciplinary science of complex systems

- **Center for Space and Earth Science**
  Astrophysical, space, earth, & climate sciences & their signatures

- **Engineering Institute**
  Structural health monitoring, cyberphysical systems

- **Information Science & Technology**
  Education, collaboration, research in IS&T

- **Institute for Materials Science**
  Advancement of interdisciplinary materials science

- **Seaborg Institute**
  Actinide science, technology & engineering
Strategic Centers support a broad spectrum of interdisciplinary science, education, & recruitment

- Student degree and summer school programs
- Postdoc, PostBacc, PostMasters and Graduate pipeline programs
- Active external visitors programs
- Distinguished Visiting Scholars
- Sabbatical and extended visits
- Signature conferences, workshops and colloquia
- Rapid Response programs
- Support for institutional strategies
- Strategic partnerships (UCSD & TAMU)
- UC Fee’s research program support
- TAMU Fee’s research program support

Former Lab Director Sig Hecker gives a popular Materials lecture on science diplomacy to LANL summer students.

Jose Onuchic, NAS, Kac lecturer for CNLS.
Representative 2020 Initiatives

- 2\textsuperscript{nd} Annual Quantum Matter Working Group
- 2020 Conference on Excited State Processes
- Machine Learning in Solid Earth Geoscience
- Physics Informed Machine Learning
- Online Electrical Engineering MS degree program (TAMU) focused on high energy RF
- Structural Engineering MS degree program (UCSD) for weapon’s engineers
- 2020 Virtual Summer Schools (8)
CSES Mission (2020)

• The Center for Space and Earth Science (CSES) focuses on the scientific understanding of fundamental physical processes that are critical to the understanding of the structure and evolution of the earth, the solar system and the universe in which habitat earth resides.

• CSES will focus on attracting and retaining a quality workforce through student, postdoc and university collaborations; support summer schools, seminars, workshops and conferences, while remaining strategically relevant to a breadth of scientific challenges and objectives that support the Science Capability Pillars. CSES will act as an integrating partner for LANL program development efforts.
CSES has the broadest portfolio of NSEC’s Centers touching all of LANL’s Science Capability Pillars

CSES is a gateway for collaborations with academic institutions, provides external visibility, brings new ideas to LANL, and acts as a catalyst for new projects in support of the Laboratory’s mission.
**Center for Space and Earth Science (CSES): Main Activities**

**Summer School Program**
- Space Weather Summer School
- Applied Machine Learning Research for Geoscience (with ISTI)
- Radiation Effects Summer School

**Chick Keller Postdoctoral Fellowship**
- Prestigious named Fellowship
- 10 CK Fellows to date with a 70% conversion rate

**University Partnerships**
- Graduate Fellowships
- Large University Program
  - UNM Civil Engineering
  - ASU School of Earth and Space Exploration

**Rapid Response**
- Two general calls a year
- Special Rapid Response Calls, e.g. on Research in Microgravity
- Open to PostDocs, 20-25 projects per year
- Half of the CSES R&D portfolio (~900K)

**Seminar Series**
- 40+ talks each year by external invitees in four Seminar Series:
  - Frontiers of Geoscience
  - LA Astro Seminar Series
  - Advances in Space Research
  - Planetary Science Lecture Series

**Institutional Program Development**
- Teaming and planning activities
- Review and Advisory committee support
The ISTI Director is concurrently advertised at both Scientist 4 and 5 levels

Vacancy Name: IRC81604
Job Title: ISTI Leader (Scientist 4/5)

Plan to close add on Sept 16, 2020 (3 weeks from today)

QUESTIONS – dlclark@lanl.gov