Job Title: Postdoc Research in Climate Modeling
Organization Name: CCS-2/Computational Physics and Methods, LANL, NM, USA

What You Will Do

Los Alamos National Laboratory is a multidisciplinary research institution engaged in science and engineering on behalf of national security. The climate modeling effort at LANL, in part, develops and uses advanced multi-scale models for the study of Earth system processes. This two year position is available immediately.

The postdoc researcher will work in a Department of Energy (DOE) program that supports fundamental, interdisciplinary research to achieve predictive understanding of climate. Exploiting the capabilities of DOE's High Performance Computing (HPC) systems in order to accelerate advances in climate science is a priority.

Sophisticated, architecture-aware, variable-resolution dynamical cores developed under this project permit direct numerical studies of phenomena that are poorly resolved in the current generation of climate models. For example, in the atmosphere, such processes include effects due to steep topography, convection and cloud processes, gravity waves, frontogenesis, and others, and in the ocean they include interaction of submesoscale eddies and internal waves with larger scale circulation and topography. While applicants can propose their own research ideas, general research themes include investigating and characterising linkages between such processes and larger scale dynamics and biases, and developing alternative approaches to parameterizing the effects of unresolved dynamics and physics in climate-relevant flows, by leveraging recent developments in statistical and machine learning and model reduction techniques.

What You Need

The successful candidate will
  - have advanced knowledge of geophysical fluid dynamics or atmospheric dynamics or climate dynamics,
  - have an understanding of statistical and machine learning techniques
  - have demonstrated scientific excellence as evidenced by publications in refereed journals.
  - be proficient in High Performance Computing

Education: PhD in related field completed within the past five years or soon to be completed.

Notes to Applicants: Your application must include a detailed cover letter that explains how you meet the required skills and describes your qualifications and research interests. In addition to including this cover letter in your online application (IRC 70601 at jobs.lanl.gov), please send this cover letter along with your Curriculum Vitae to balu@lanl.gov. Also arrange for three letters of reference to be sent directly to the same email address.

Where You Will Work

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.

Additional Details:

Position does not require a security clearance. Selected candidates will be subject to drug testing and other pre-employment background checks.

Candidates may be considered for a Director's Fellowship and outstanding candidates may be considered for the prestigious Marie Curie, Richard P. Feynman, J. Robert Oppenheimer, or Frederick Reines Fellowships.

For general information go to Postdoc Program.

New-Employment Drug Test: The Laboratory requires successful applicants to complete a new-employment drug test and maintains a substance abuse policy that includes random drug testing.

Equal Opportunity:

Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. All employment practices are based on qualification and merit, without regards to race, color, national origin, ancestry, religion, age, sex, gender identity, sexual orientation or preference, marital status or spousal affiliation, physical or mental disability, medical conditions, pregnancy, status as a protected veteran, genetic information, or citizenship within the limits imposed by federal laws and regulations. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an email to applyhelp@lanl.gov or call 1-505-665-4444 option 1.