Lawrence Livermore
National Laboratory

Atmospheric, Earth, and Energy Science
with a global impact

Start your journey in a collaborative research environment, where you can tailor your research trajectory to fit your interests.

Discover your mission. Are you passionate about understanding climate change and fostering climate resilience? Do you want to explore clean energy technologies and carbon management techniques? Do you want to focus on protecting our nation against security threats, hazardous materials, and environmental contaminants? Our mission space is broad, and it continues to evolve.

Find your team. Atmospheric, earth, and energy experts play key roles on team-based research projects at LLNL. For example, they:

Model atmospheric fluid dynamics to help protect the public from hazardous emissions, provide insight regarding wildfire behavior, and enable effective deployment of wind energy resources.

Study subsurface reservoirs, identifying promising options for geothermal energy, carbon sequestration, and subsurface energy storage.

Develop and compare climate and weather models to predict how the Earth will respond to environmental changes—supporting effective climate-change mitigation and adaptation strategies.

Design methods to detect and characterize seismic events, focusing on nuclear event detection, natural seismic hazards, and induced seismicity.

LLNL scientists lead simulation campaigns in DOE's Energy Exascale Earth System Model program, which focuses on how changes in energy use impact ecosystems.

Build connections. Our research environment is designed to foster collaboration. LLNL research teams bring together experts from multiple disciplines (e.g., data scientists, geochemists, and atmospheric physicists), as well as collaborators from other institutions.

Access unique resources. Our scientists leverage cutting-edge experimental and computational resources to drive innovation.
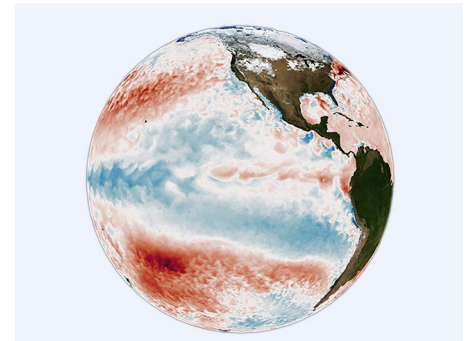
National Atmospheric Release Advisory Center (NARAC)

Center for Accelerator Mass Spectrometry (CAMS)

Earth System Grid Federation (ESGF)

GEOS Exascale Reservoir Simulator

World-class supercomputers

Through partnerships with other institutions, our scientists compare climate models, assess regional climate change, and develop new models—like the Energy Exascale Earth System Model (E3SM), which links Earth system and energy models into a single predictive tool. In addition, LLNL scientists participate in assessments by the Intergovernmental Panel on Climate Change (IPCC), and they serve in leadership roles in the Program for Climate Model Diagnosis and Intercomparison (PCMDI), an international program focused on evaluating climate models.

LLNL's National Atmospheric Release Advisory Center provides the expertise and tools to predict and map the spread of hazardous airborne material.

Explore new pathways, personalizing your journey to focus on the work you value most.

Boost your skills. Lifelong learning is front and center at LLNL. Employees benefit from opportunities to attend seminars, gain new technical skills, take courses, or complete a certificate program. You can also receive coaching from experts in areas such as enhancing presentation skills, developing research proposals, and boosting project management skills.

Lead projects. LLNL provides an ideal environment for early-career staff and postdocs to develop as principal investigators. For example, they can apply for internal funding to lead a feasibility study or guide a small research team through an exploratory study. Project leaders receive guidance regarding managing project budgets and deliverables, hiring interns or postdocs, establishing collaborator agreements, participating in mid-term project reviews, and writing final project reports.

Embark on new challenges. Throughout your career at LLNL, you will have opportunities to take on new challenges, whether it's a new research area, a new mission focus, or a new leadership role. Examples include serving as a mentor, fostering new research collaborations, or leading a research group. Our staff also take on short-term assignments at LLNL, federal agencies, or universities. New opportunities make LLNL a great place to work and grow throughout your career.

Are you ready to start your journey at LLNL?

Educational degree. Our scientists come from a variety of backgrounds, and our research teams include experts in data science, atmospheric science, geology, geomechanics, climate modeling, hydrology, carbon cycles, and sustainable energy systems. Connect with us to explore how your knowledge, skills, and experience (including military experience) might be a great fit for an open position at LLNL.

Expand your toolkit after joining LLNL. Innovation is often sparked through new perspectives. With this in mind, we aren't looking for the "perfect" job candidate who already has every skill we need. In fact, because LLNL missions often demand expertise in non-traditional fields of study, such as cloud processes, geomaterial modeling, high-altitude flight environments, or aerosol physics, many essential skills and competencies are gained after joining LLNL, through mentorship, on-the-job-training, and personal discovery.

You'll learn throughout your career at LLNL. For example, you can gain experience in carbon capture technology, accelerator mass spectrometry, and geophysical monitoring tools. Many team members gain new computational and engineering skills through their participation in multidisciplinary research projects.

Learn more
Explore research opportunities at LLNL for interns, postdocs, and staff:
pls.llnl.gov/careers

Contact us
aeed@llnl.gov

We're hiring!
Scan code for more info

PLS Physical & Life Sciences

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