

Physics research 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 creating fusion energy or developing new materials that can be used to foster climate resilience? Do you want to explore extreme environments, design next-generation computing platforms, or develop solutions to protect our nation against nuclear threats, terrorism, and cyberattacks? Our mission space is broad, and it continues to evolve.

Find your team. Physicists play a role in most team research at LLNL, with projects spanning fundamental science explorations and applied science that saves lives and our planet. For example, we:



Explore astrophysics, planetary science, atmospheric turbulence, and seismic events.



Develop next-generation computing solutions and new imaging technology.



Analyze nuclear reactions, study plasma systems, search for dark matter, and detect neutrinos.

Develop new materials for energy storage, and materials that can function effectively in extreme conditions.





Explore renewable energy solutions, model wildfire behavior, and study how climate change will impact our energy infrastructure and national security.

· Build connections. Our research environment is designed to foster

collaboration. Research teams include experts from multiple disciplines, such as data scientists, diagnostic engineers, chemists, materials scientists—and collaborators from other institutions. Our teams also include domain-specific physicists, such as such as geophysicists, biophysicists, and astrophysicists.

Access unique resources. Our scientists leverage cutting-edge experimental and computational resources to drive innovation.



Through partnerships with other institutions, our scientists conduct magnetic fusion research at the DII-D National Fusion Facility tokamak, and study matter under extreme conditions at the Advanced Photon Source, the Omega EP Laser System, SLAC's Linac Coherent Light Source, and the Nevada National Security Site. They also conduct research at the Facility for Rare Isotope Beams (FRIB) and the Electron–Ion Collider (EIC). We are also collaborating with other scientists to develop a next-generation neutrino detector.



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 physicists, chemists, biologists, geoscientists, diagnostic engineers, chemical engineers, forensic science experts, data scientists, and theorists. 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 radiation transport, plasma science, or unusual materials, 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 optical and x-ray imaging, radiography, spectroscopy, machine learning, and predictive modeling. Many team members gain new computational and engineering skills through their participation in multidisciplinary research projects.

Learn more

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







We're hiring! Scan code for more info