



CASC

Center for Applied
Scientific Computing

“CASC is one of the best places in the country for HPC research.”

Making a Difference

CASC is a hub for computing research at Lawrence Livermore National Laboratory (LLNL). For more than 25 years, our research and development in mathematics, computer science, computational science, and data science has promoted national security and advanced basic science. With a unique blend of academic collaboration and mission focus, we take on epic projects—with complex datasets, challenging problems, massive computing systems—and we produce results that matter to the nation and the world.

Researching at the Apex of Science

Scientists in CASC help LLNL confront significant national challenges:

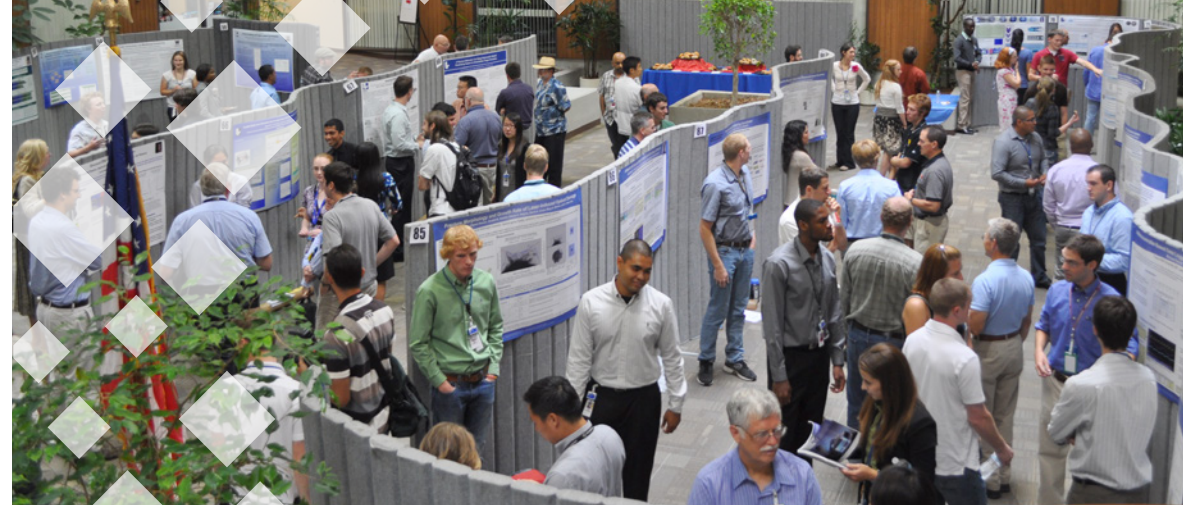
protecting against biological and cyber threats, ensuring the safety of the nuclear stockpile, understanding materials behavior, and more. CASC is home to world-class researchers, who use LLNL's massive computational capabilities to help solve some of the most challenging problems in computational science. Our focus on LLNL missions and our close connections to the scientific community have been the perfect blueprint for progress and innovation.



Teaming Up for Success

Partnerships are the key to CASC's success. Our researchers work in interdisciplinary teams with other LLNL scientists, academic partners, and industry. Together, we solve problems by creating:


- ◆ Sophisticated models of complex physical processes;
- ◆ Advanced numerical algorithms and mathematical libraries;
- ◆ Novel artificial intelligence/machine learning-augmented approaches to scientific discovery;
- ◆ State-of-the-art tools that enable scientists to run their simulations on the largest computers in the world; and
- ◆ New visualization and analysis techniques that provide insight and knowledge discovery from massive datasets.



At CASC, you become part of a dynamic, supportive team from the very start. We offer flexibility to move between projects, opportunities to pursue new research, access to some of the most advanced computing facilities in the world, and, most importantly, the thrill of knowing you're contributing to pioneering science.

“*I like working for CASC because it gives me an opportunity to work halfway between research and development.*”

◆ casc.llnl.gov



“CASC provides a unique opportunity to balance open and publishable research with having a direct impact on the Laboratory’s mission. On a day-to-day basis, we can achieve both goals.”

The Postdoc Experience

CASC’s Postdoctoral Research Program is an essential part of our world-class research community. Postdocs bring energy and new ideas to our projects while preparing for the next step in their careers.

- ◆ Collaborate with a mentor and other LLNL scientists and engineers.
- ◆ Work on challenging, important problems.
- ◆ Take advantage of flexible 25% career development funding.

Where can you go from here?

A CAREER AT LLNL

Many of our postdocs become staff scientists in CASC or elsewhere at LLNL.

INDUSTRY

The experience you’ll get working on real-world problems and state-of-the-art equipment is hard to match at any university.

ACADEMIA

You’ll have the opportunity to develop your research interests, publish your work, and build your professional network—all essential to landing a faculty position.

Apply today!

◆ casc.llnl.gov

About LLNL

For more than 70 years, Lawrence Livermore National Laboratory has applied science and technology to make the world a safer place. With thousands of scientists and engineers alongside world-class scientific user facilities and capabilities, LLNL is a “big

ideas” laboratory, focusing on developing novel concepts and innovative approaches to national security challenges, including stockpile stewardship, counterterrorism and nonproliferation, defense and intelligence, and energy and environmental security.



◆ casc.llnl.gov

Prepared by LLNL under Contract DE-AC52-07NA27344. LLNL-BR-737676