November 17, 2025

MEDIA CONTACTS:

Julie Parente
Argonne National Laboratory, jparente@anl.gov

Katie Bethea
Oak Ridge National Laboratory, betheakl@ornl.gov

INCITE program awards supercomputing time to 75 high-impact projects

The U.S. Department of Energy's Office of Science has allocated supercomputer access to 75 computational science projects for 2026 through its Innovative and Novel Computational Impact on Theory and Experiment, or INCITE, program. DOE is awarding 60 percent of the available time on the leadership-class supercomputers at DOE's Argonne and Oak Ridge national laboratories to accelerate discovery and innovation.

The program will support a broad range of high-impact, computationally and data intensive research campaigns in a vast array of science, engineering and computer science domains.

Jointly managed by the Argonne Leadership Computing Facility (ALCF) and the Oak Ridge Leadership Computing Facility (OLCF), the INCITE program is the primary means by which the facilities fulfill their mission to advance science by providing the scientific community with access to their powerful supercomputing resources. The ALCF and OLCF are DOE Office of Science user facilities.

The ALCF's resources include Aurora, an Intel-HPE Cray EX supercomputer recognized as the world's fastest AI machine and the second DOE system to break the exascale barrier. Additionally, ALCF is awarding time on Polaris, an HPE Apollo 6500 Gen10+ system that delivers 44 petaflops of Tensor Core FP64 performance. The OLCF's system is the 2 exaflops peak Frontier, an HPE Cray EX supercomputer that debuted in May 2022 as the world's fastest supercomputer.

"We're excited to once again support these trailblazing research campaigns and groundbreaking exascale-class projects with our leadership computing systems," said Arjun Shankar, director of the National Center for Computational Sciences, which houses the OLCF. "INCITE has enabled countless scientific breakthroughs over the years, and the supercharging with AI and emergence of quantum computing promise to accelerate the pace of discovery. The OLCF has a proud tradition of more than two decades of excellence in high-performance computing, and we look forward to assisting users in another fruitful year."

Open to any researcher or research organization in the world with a computationally or data intensive project, INCITE's application process is highly competitive. Over a four-month period, INCITE proposals are assessed by peer-review panels composed of international experts, with each panel representing a different scientific discipline. The proposals are also evaluated on a technical level by each computing facility for technical readiness. The INCITE awards committee makes its final selections based on peer-review outcomes, combined with the technical readiness. This year, the committee received 143 total proposals with researchers requesting more than 141 million node-hours across all three systems. Additionally, the INCITE committee commits 10 percent of allocatable time to an early career track aimed at researchers within 10 years from earning their doctorate. This year, 14 early career projects were awarded.

"ALCF is proud to continue supporting the mission-critical scientific campaigns advanced through the INCITE program," said Michael Papka, director of the ALCF. "Our leadership-class systems have continued to grow in capability, bringing simulation, data-driven methods, and AI together at unprecedented scale. The INCITE projects are defining the next era of computational science, enabling teams to confront complex challenges with the combined power of advanced simulation, data-driven approaches, and AI-accelerated discovery."

Highlights of the 2026 allocations include:

- Brant Robertson of the University of California, Santa Cruz received 470,000 node-hours on Frontier to probe new physics with the intergalactic medium.
- Rama Ranganathan of the University of Chicago received 550,000 node-hours on Aurora and 90,000 node-hours on Polaris to explore the natural language prompt-guided design of functional de novo proteins.
- Rommie Amaro of the University of California, San Diego received 1,228,800 node-hours on Frontier to study the in situ dynamics of the HIV-1 envelope glycoprotein.
- Anouar Benali of Qubit Pharmaceuticals received 1,300,000 node-hours on Aurora to establish ab initio foundation models for riboswitch inhibitors in RNA-targeted therapeutics.
- William Collins of Lawrence Berkeley National Laboratory received 210,000 node-hours on Polaris to build huge ensembles of weather extremes using machine learning algorithms.
- Michael Borghi of NASA Glenn Research Center received 654,937 node-hours on Frontier and 780,000 node-hours on Aurora to develop revolutionary insights into turbomachinery analysis.
- Noah Mandell of Type One Energy received 1,100,000 node-hours on Frontier to study impurity transport and core-edge integration in a stellarator fusion pilot plant.
- Robert Hager of Princeton Plasma Physics Laboratory received 1,000,000 node-hours on Aurora and 250,000 node-hours on Polaris to develop AI-facilitated global profile predictions in tokamak plasma.

- Mitchell Wood of Sandia National Laboratories received 1,000,000 node-hours on Frontier, 200,000 node-hours on Aurora, and 300,000 node-hours on Polaris to study mechanisms of non-equilibrium ion dynamics in radiation-tolerant alloys.
- Venkatasubramanian Vishwananath of the University of Michigan received 1,000,000 node-hours on Aurora to build multi-modal foundation models for materials.

For details on all of the 2026 INCITE awardees, view the **project fact sheets**.