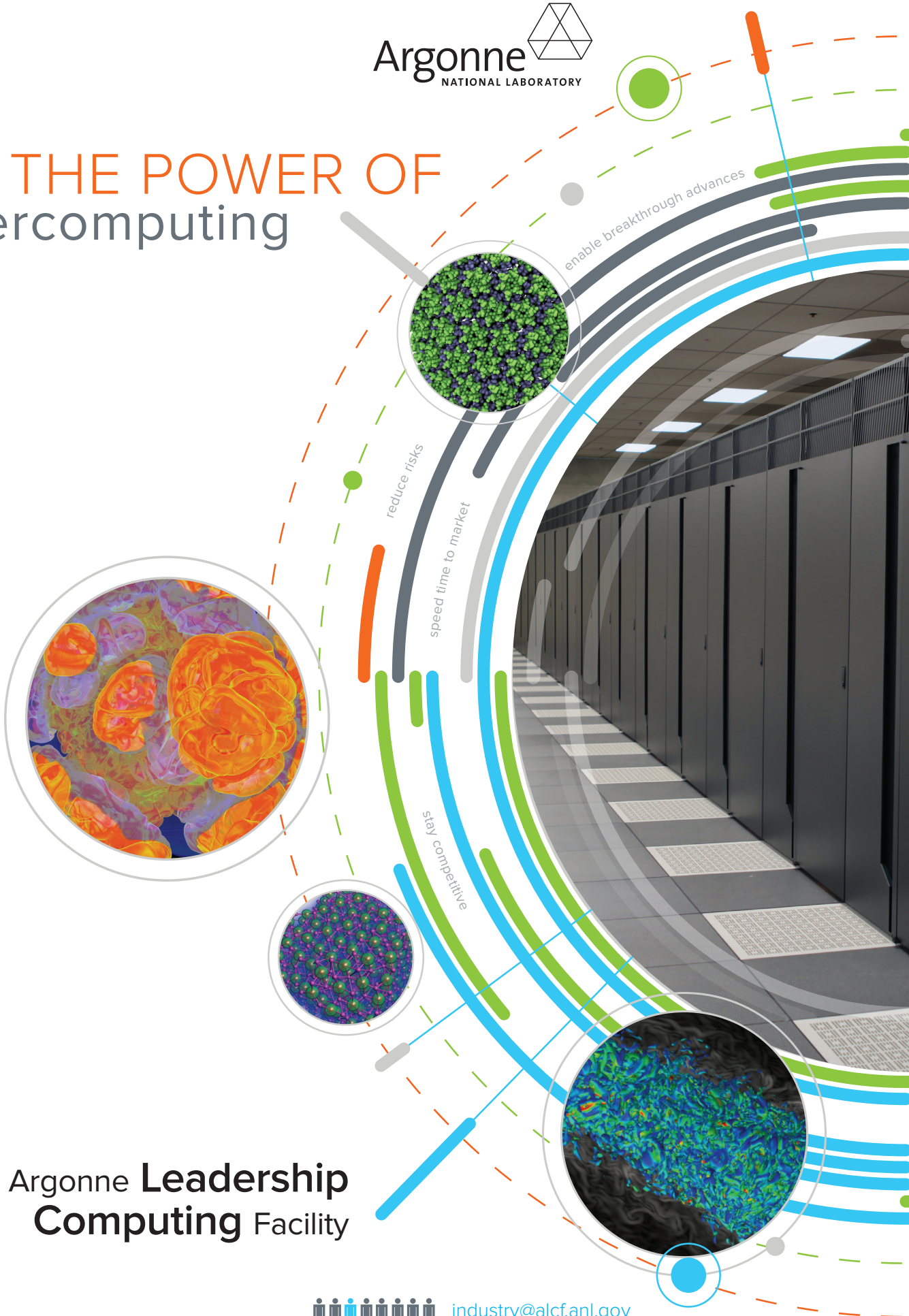
Argonne NATIONAL LABORATORY

TAP THE POWER OF supercomputing



Argonne **Leadership Computing** Facility

industry@alcf.anl.gov

TAKING INDUSTRY SOLUTIONS TO PETASCALE HEIGHTS

Tackle more complex problems, achieve faster time to solution, and create more accurate models for your business with Mira, the ALCF's new petascale IBM Blue Gene/Q system. In full production mode, more than 5 billion computing hours will be allocated on Mira each year.

TOP500 SUPERCOMPUTER SITES

MIRA RANKS third on the TOP500 list of the world's fastest supercomputers.

GRAPH 500

MIRA TIES for first on the Graph 500 Benchmark for data-intensive computing.

THE GREEN 500

MIRA RANKS among the 20 most energy-efficient supercomputers in the world.

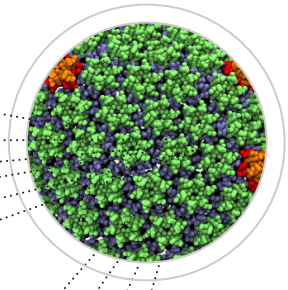
CUTTING-EDGE SUPERCOMPUTING KEEPS YOU COMPETITIVE

A key driver of our nation's future economic prosperity lies in its creative talent—the scientists, researchers, and engineers working within our companies, government labs, and universities. Our R&D centers are where innovation, not price, provides the competitive edge in an increasingly globalized economy.

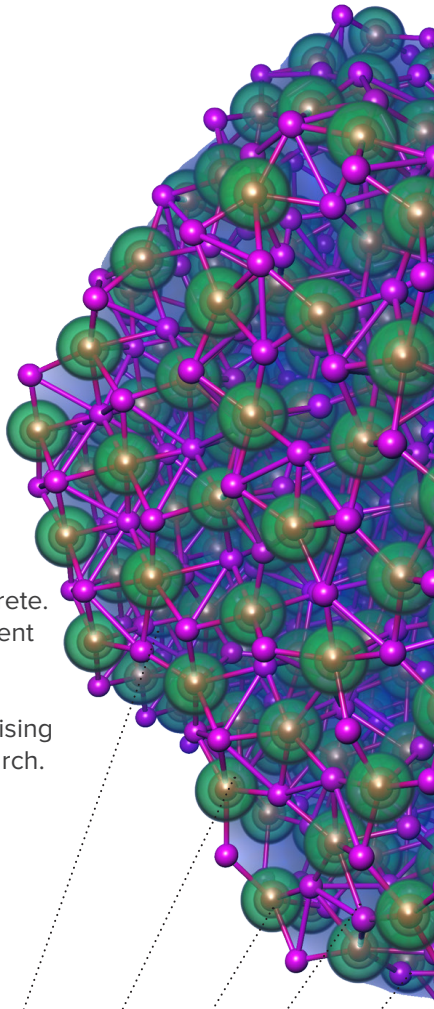
U.S. Department of Energy user facilities offers some of the world's most capable resources available to researchers. The ALCF has the high performance computing resources and expertise to enable major research breakthroughs leading to transformative products and technologies—and a secure foothold in today's global market.

"We encourage our users to envision their research well beyond the here and now. With resources like Mira and our experience and expertise, we essentially offer a time machine for their science."

— Paul Messina, ALCF Science Director



BREAKTHROUGH ADVANCES



Since its founding in 2006, the ALCF has provided more than 4 billion compute hours on some of the world's most powerful supercomputers to address pressing issues of global importance. These allocations have enabled researchers to:

- Conduct nanoscale studies of rechargeable lithium-air battery components to extend the range and power of electric vehicles.
- Accelerate the pace of discovery in hydrogen fuels research.
- Reduce noise and emissions in aircraft engines and wind turbines.
- Understand the mechanisms that control the flow and spread of concrete.
- Model the molecular basis of Parkinson's disease to speed development of drug therapies.

We are proud to work with some of our nation's largest and most enterprising companies in the pursuit of breakthrough science and engineering research.

- The Boeing Company
- Dow Chemical Company
- GE Global Research
- Pratt & Whitney
- Procter & Gamble
- Shell

REDUCE RISKS SPEED TIME TO MARKET

Staying competitive and innovative requires advanced computing capabilities that are often prohibitively complex or expensive to maintain in-house. The ALCF offers industry the same powerful tools that are propelling our nation's scientific and engineering breakthroughs in energy and the environment.

Whether for small-scale modeling and simulation or large-scale, computationally intensive projects, the ALCF can meet a wide range of computational needs to give your organization's R&D researchers a competitive edge.

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Access our world-class facility.
The Argonne Leadership Computing Facility provides the science and engineering research community with some of the world's most powerful computing and supercomputing resources. The ALCF is a Department of Energy user facility within Argonne National Laboratory, which is located just outside of Chicago.

Consult our in-house experts.
When you collaborate with the ALCF, your project team will have access to a full range of services and support. Our teams offer expertise in choice of novel computational methods and algorithms, application porting, performance tuning & scaling, petascale system management, and high performance analysis and visualization.

Accelerate your breakthroughs.
Your researchers can rapidly screen multiple design possibilities, perform detailed analyses on the most promising ones, and develop new products. Virtually any process or problem can be advanced with precision and speed using advanced computing at the ALCF.

CONTACT

The Industry Engagement team represents all technologies and services available within the ALCF. We welcome your inquiries.

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866-508-9181

Argonne National Laboratory is a multi-disciplinary research center with more than 200 research projects and nearly 3,200 employees from 60 nations. It is one of the U.S. Department of Energy's oldest and largest laboratories. Argonne's mission is to apply a unique mix of world-class science, engineering, and user facilities to deliver innovative research and technologies.

U.S. DEPARTMENT OF ENERGY

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