# ARGONNE TRAINING PROGRAM ON EXTREME-SCALE COMPUTING (ATPESC)

**10th ANNIVERSARY**

## ATPESC 2022

JULY 31 – AUGUST 12

Intensive two-week training on the key skills, approaches, and tools to design, implement, and execute Computational Science and Engineering (CSE) applications on current and next-generation supercomputers.

## PROGRAM CURRICULUM

Renowned computer scientists and high-performance computing (HPC) experts from U.S. National Laboratories, universities, and industry serve as lecturers and effectively guide hands-on training sessions.

ATPESC participants will be granted access to **U.S. Department of Energy (DOE) Office of Science User Facilities,** which are home to some of the world's most powerful supercomputers, including upcoming exascale systems.

**The core curriculum includes:**

☐ Computer architectures and predicted evolution

☐ Numerical algorithms and mathematical software

☐ Approaches to building community codes for HPC systems

☐ Data analysis, visualization, I/O, and methodologies and tools for big data applications

☐ Performance measurement and debugging tools

☐ Machine learning and data science

## COST

There are no fees to participate. Domestic airfare, meals, and lodging are provided.

## ELIGIBILITY

**Doctoral students, postdocs, and computational scientists** are encouraged to submit applications. Visit the website for eligibility details.

## APPLICATION

The program provides **advanced training to 70 participants.**

Qualified applicants must have:

☐ Substantial experience in MPI, OpenMP, and/or Data Science Frameworks,

☐ Used at least one HPC system for a complex application, and

☐ Plans to conduct CSE research on large-scale computers.

The call for applications for ATPESC 2022 is now open. **Applications are due March 1, 2022.**

**TO APPLY**
extremecomputingtraining.anl.gov

## SPONSORS

ATPESC is funded by the Exascale Computing Project, a collaborative effort of the DOE Office of Science's Advanced Scientific Computing Research Program and the National Nuclear Security Administration.

**SUPPORT CONTACT**
Email: support@
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