



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

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.

## ATPESC 2023

JULY 30 – AUGUST 11

### 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.

#### The core curriculum includes:

- Computer architectures and predicted evolution
- Numerical algorithms and mathematical software
- Software productivity and sustainability
- 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 2023 is now open. **Applications are due March 1, 2023.**

### 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.



#### TO APPLY

[extremecomputingtraining.anl.gov](https://extremecomputingtraining.anl.gov)

#### CONTACT

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