ARGONNE
ATPESC2023
EXTREME-SCALE COMPUTING

Next steps

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Access Expirations

- Account expirations
  - —ALCF - 9/1 (* see next slide for extension)
    - No more reservations – **submit to regular queues after today**
  - —NERSC – 8/18 (next Friday)
  - —OLCF – 8/12 (tomorrow)

- Slack – tear down after 9/1
  - —Download anything you want to save before then. Most slides are already linked on the web agenda.
  - —Your access may go longer but do not rely on it.

ALCF Accounts

- The ATPESC2023 **project allocation** expires 9/1.
- Accounts
  - FN accounts will expire on 9/1 unless you apply for your own allocation (below) or already have another project with a later expiration.
  - US citizen accounts are valid for 1 year however yours may come up for renewal earlier if its creation predated ATPESC. You cannot renew your account unless you are associated with an active **project allocation**.

- To continue without interruption, apply for a Director's Discretionary (DD) project allocation as soon as possible by visiting: https://www.alcf.anl.gov/science/directors-discretionary-allocation-program
  - How much should you ask for? Typical: Polaris 500 node-hrs for devel, 1K -2K for scaling; ThetaGPU 1k; Theta 10k. The larger you ask, the more details about your individual situation are needed.
  - In the "detailed description" box make sure to include that your attended ATPESC 2023. If selected purpose is proposal preparation, mention your proposal plans and what is needed to prepare.

Director’s Discretionary Allocation Program

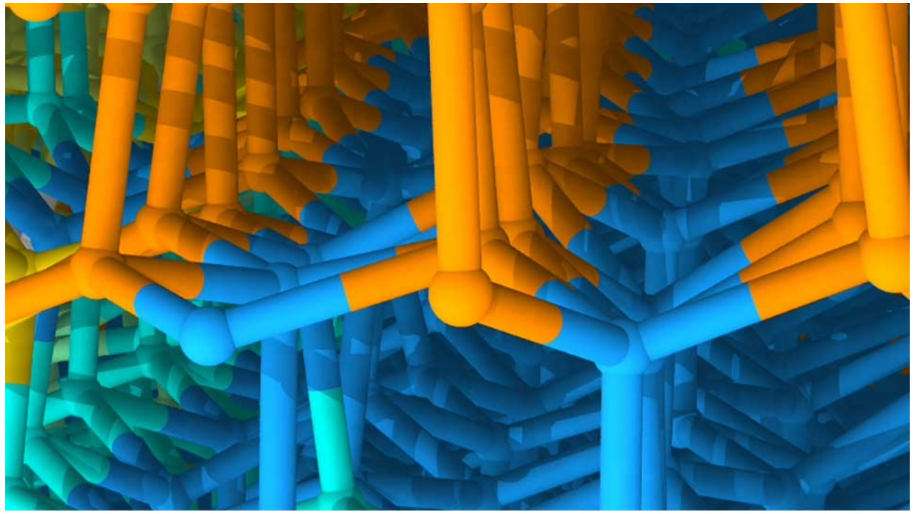
The ALCF Director’s Discretionary (DD) program provides “start up” awards to researchers working to achieve computational readiness for a major allocation award.

Eligibility: Available to researchers from universities, industry, and government agencies DOE sponsorship is not required.

Award size: Small (~500-2K node-hours on Polaris, ~1K on ThetaGPU, ~10k on Theta)

Duration: 3-6 months (renewable)

Allocation cycle: Ongoing (available year-round)



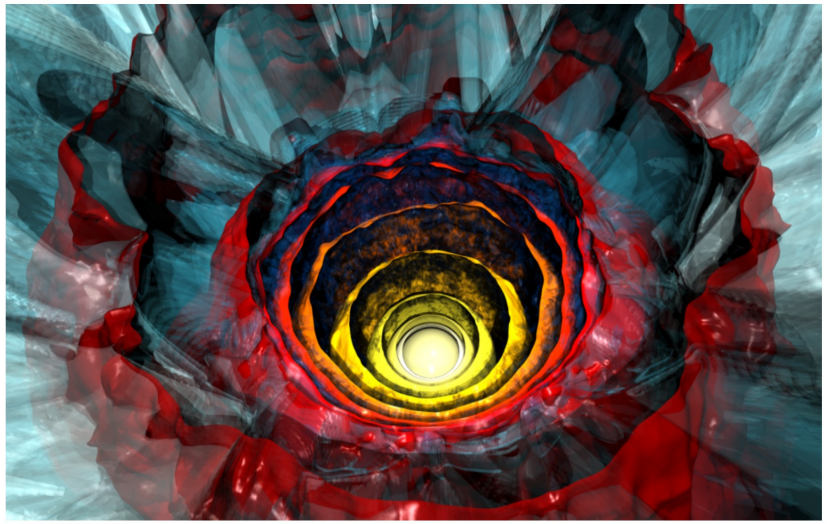
Molecular dynamics simulations based on machine learning help scientists learn about the movement of the boundary between ice grains (yellow/green/cyan) and the stacking disorder that occurs when hexagonal (orange) and cubic (blue) pieces of ice freeze together. Image: Henry Chan and Subramanian Sankaranarayanan, Argonne National Laboratory

INCITE

Innovative & Novel Computational Impact on Theory and Experiment

https://www.doeleadershipcomputing.org/proposal/call-for-proposals/

The DOE's INCITE program provides allocations to computationally intensive, large-scale research projects that aim to address "grand challenges" in science and engineering.
Deadline: TBA (June 2024)
Eligibility: Available to researchers in academia, industry, and other research institutions
Review process: INCITE program conducts a two-part review of all proposals including a peer review by an international panel of experts, and a computational-readiness review
Award size: ~1.0-3.0M node-hours
Award duration: 1-3 years, renewable
Total percent of ALCF resources allocated: 60%



Lars Bildsten of the Kavli Institute for Theoretical Physics is leading a 2020 INCITE project that is using Argonne's Theta supercomputer to perform radiation hydrodynamic simulations of massive stars with rotation. (Image: Joseph A. Insley, Argonne National Laboratory)