NUG Monthly Meeting

21 April, 2022
Today's plan

- Interactive - please participate!
  - Raise hand or just speak up
  - **NERSC User Slack** (link in chat), **#webinars** channel

- Agenda:
  - Win-of-the-month
  - Today-I-learned
  - Announcements/CFPs
  - Topic of the day: **Remote development in NERSC Shifter containers with Visual Studio Code** - with Oliver Schulz from Max Planck Institute for Physics
  - Coming meetings: topic suggestions/requests?
  - Last month's numbers
Win of the month

Show off an achievement, or shout out someone else's achievement, e.g.:

- Had a paper accepted
- Solved a bug
- A scientific achievement (maybe candidate for Science highlight, or High Impact Scientific Achievement award)
- An Innovative Use of High Performance Computing (also a candidate for an award) (https://www.nersc.gov/science/nersc-hpc-achievement-awards/)

Please let us know of award-worthy work from you or your colleagues - tell us what you did, and what was the key insight?
Today I learned

What surprised you that might benefit other users to hear about? (and might help NERSC identify documentation improvements!)

Eg:

- Something you got stuck on, hit a dead end, or turned out to be wrong about
  - Give others the benefit of your experience!
  - Opportunity to improve NERSC documentation
- A tip for using NERSC
- Something you learned that might benefit other NERSC users

"If we knew what it was we were doing, it would not be called research, would it?" - Einstein
Today I learned

• Emailed in: (Thanks Koichi)
  • SLURM change after March Cori update: `#SBATCH --mail-type=END` no longer mails when job ends unsuccessfully - need to change this to `#SBATCH --mail-type=END,FAIL`

• SLURM 2-job limit for accruing priority past the scheduling threshold
  • All of your jobs are still eligible for backfill, but only the first 2 are considered for scheduling
  • SLURM does 2 passes over the queue:
    • above a priority threshold it attempts to schedule each job within a "next 4 days" window (only 2 jobs per user are considered here)
    • below that threshold it scans for jobs that it can start immediately without altering the schedule
Announcements and CFPs

See weekly email for these and more:

- The PEARC22 (Practice and Experience in Advanced Research Computing, July 10–14, 2022, in Boston MA) Student Program applications close May 1
  - Highlights include an orientation day, a resumé clinic, mentor-protege pairing, an exhibitor Q&A, and a new tabling event called “The Village!”; a friendly place to hang out and compare notes
  - See https://pearc.acm.org/pearc22/call-for-participation/pearc22-sp/ for more and to apply
Announcements and CFPs

See weekly email for these and more:

- The Student Cluster Competition at SC22 is now accepting team applications - applications close April 30
  - The SCC, and IndySCC, are designed to introduce undergraduate college and high school students to the challenge and excitement of working in HPC. It's a fun, frenetic 48 hours of cluster-building and workload-running while handling real-world operational challenges.
- See https://sc22.supercomputing.org/program/studentssc/student-cluster-competition/ for more details and to apply
See weekly email for these and more:

- NERSC Summer internships
  - Are you, or do you have, a student looking for a summer internship? NERSC has several projects, check [https://www.nersc.gov/research-and-development/internships/](https://www.nersc.gov/research-and-development/internships/) for more information
- NERSC Codee Analyzer training to parallelize your applications, Apr 26-27
Announcements and CFPs

- Quarterly allocation reductions scheduled for May 19 (see next week's Weekly Email for details)
- Coding for GPUs Using Standard Fortran, May 13
  - [https://www.nersc.gov/users/training/events/coding-for-gpus-using-standard-fortran-may2022](https://www.nersc.gov/users/training/events/coding-for-gpus-using-standard-fortran-may2022)
- Others?
Metrics of interest
Metrics of interest

Discussion Question: What metrics are interesting to people here?
Metrics of interest - downtimes

Cori: 1 outage (scheduled maintenance)

Perlmutter: 2 outages (scheduled maintenances)
Metrics of Interest

Active Incidents Not Resolved

Unresolved User Tickets
Metrics of Interest

User Tickets Created per Month (NERSC Program)
Metrics of Interest

Cori KNL - Capability Metric

Jan 31
Cory KNL - Capability Metric: 38.99%
Click to open Analytics Hub


Cory KNL - Capability Metric
Metrics of Interest

Cori KNL - Average Wait Time for Regular

Cori Haswell - Average Wait Time for Regular
Discussion Question:
What metrics are interesting to people here?
Upcoming topics:
- NERSC Annual User Survey - a first look at some outcomes
- HPSS Interfaces
- Data Citation and DOIs

We'd love to hear more lightning talks from NERSC users about the research you use NERSC for!

Nominate a topic at [https://forms.gle/WjYx7zV7SAz2CaYz7](https://forms.gle/WjYx7zV7SAz2CaYz7)
Thank You