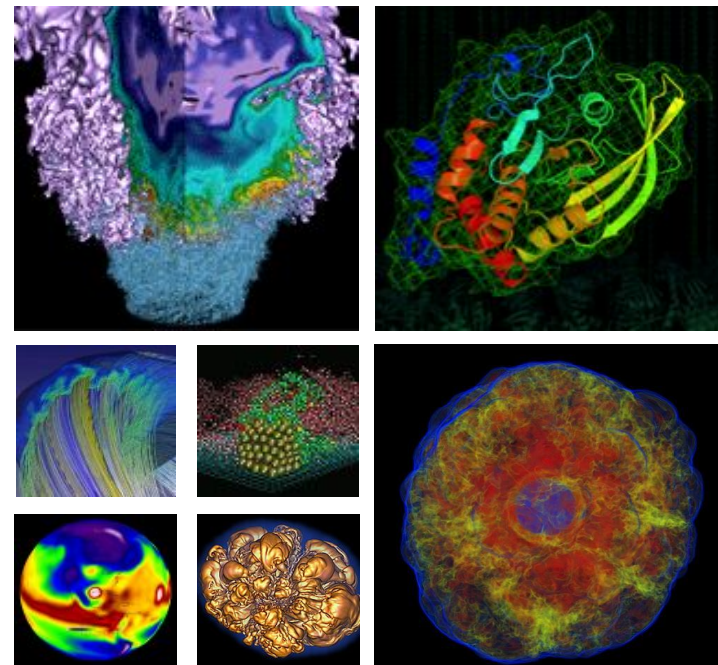# NUG Monthly Meeting

09 November, 2023

Today's plan

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

- Agenda:
  - Announcements and Calls for Participation
  - Science Talk
  - Topic of the day: 2023 NERSC Early Career Award Winners
  - Coming meetings:
    - Security @ NERSC
    - topic suggestions/requests?

Announcements - Calls for Participation

Please see the Weekly Email for Links!

- RSSI Winter School Applications Due November 27
  - consider applying to participate in the URSSI Winter School in Research Software Engineering, to be held January 3-5, 2024 in Portland, Oregon.
- PASC24 Call for Submissions Open Through December 1
- ASCR Leadership Computing Challenge Pre-Proposals Due November 13
- Applications for DOE Computational Science Graduate Fellowship Now Open! (Due Jan 17, 2024)
  - an informational webinar at 2:00 p.m. CT on Thursday, December 7. This Zoom session

Announcements - Meetings/Trainings

Please see the Weekly Email for Links!

- December 6 - SpinUp Workshop

  - learn to use Spin for your own science gateway projects! Applications for sessions that begin Wednesday, December 6 are now open. SpinUp is hands-on and interactive, so space is limited.

- December 7 - Training on Using HPE Cray Programming Environment to Port and Optimize Applications to a GPU Environment

  - NERSC-hosted training presented by HPE Distinguished Technologist John Levesque

- Kokkos User Group Meeting December 12-15

  - will be held on the 12th through 15th of December 2023 in Albuquerque, NM

Announcements - Scheduled Outages

Please see the Weekly Email for Links!

- Perlmutter
  - 11/16/23 06:00-22:00 PST, Scheduled Maintenance
- HPSS Archive (User)
  - 11/15/23 09:00-13:00 PST, Scheduled Maintenance
    - Some retrievals may be delayed during disk cache maintenance.
  - 12/06/23 09:00-13:00 PST, Scheduled Maintenance
    - System down for quarterly maintenance.
- HPSS Regent (Backup)
  - 11/29/23 09:00-13:00 PST, Scheduled Maintenance
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Introducing Science Talk

- Monthly 10-minute segment - user recommended/guided

- Spotlight on Innovation: Discover and discuss groundbreaking research.

- User Contributions Welcome: Share your science stories and milestones with us!

- Q&A and Feedback Loop: Your questions and feedback shape our journey forward.

- Under 10 Minutes: Quick, impactful, and before the NUG meeting adjourns.

2023 Innovative Use of High-Performance Computing


Youssef Elmougy

Elmougy, a Computer Science Ph.D. student at the Georgia Institute of Technology and a summer 2023 graduate research assistant at Berkeley Lab, was recognized for introducing an innovative approach to achieve large-scale asynchronous graph processing. During his internship at Berkeley Lab, he worked in the Performance and Algorithms Research lab within the Applied Mathematics and Computational Research Division.

Please see the Weekly Email for Links!

Anthony Kremin

Kremin, a postdoctoral dark energy researcher in the Physical Sciences area at Berkeley Lab, was honored for developing and implementing a pioneering approach to enable data processing from the Dark Energy Spectroscopic Instrument (DESI), helping fulfill DESI's mission to construct the world's largest 3D map of the universe and allow fundamental tests of cosmological physics.

2023 High Impact Scientific Achievement Winners
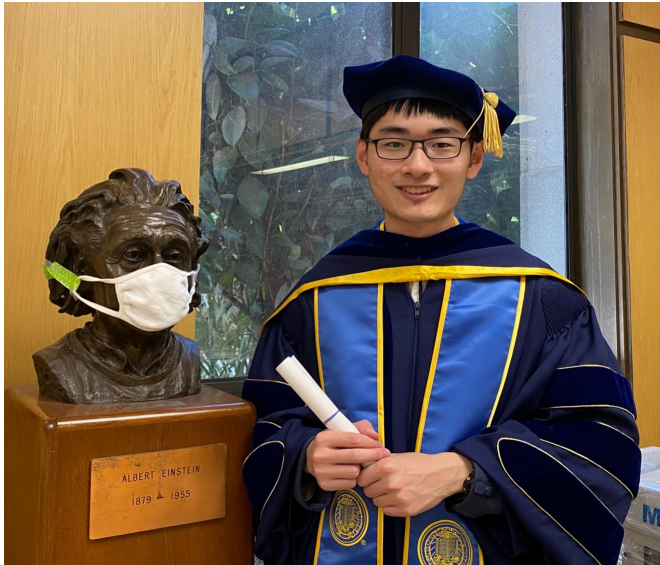
Fangzhou Zhao

Zhao is a computational physicist at UC Santa Barbara working on electronic, optical, and topological properties of materials, was recognized for developing a first-principles computational formalism to calculate the rate of trap-assisted Auger-Meitner (TAAM) recombination.

Please see the Weekly Email for Links!

Bikash Kanungo

Kanungo is an assistant research scientist at the University of Michigan; he was recognized for developing a data-driven approach to improved exchange-correlation functionals in density functional theory (DFT)

Please see the Weekly Email for Links!

2023 High Impact Scientific Achievement Winners

Kyle Bushick

Bushick, a P.h.D student at the University of Michigan pursuing a degree in Materials Science and Engineering and Scientific Computing, was recognized for developing a novel computational methodology to calculate the Auger-Meitner recombination rates in silicon using predictive atomistic calculations, including the ability to robustly include interactions between electrons and atomic vibrations. Bushick is currently a DOE Computational Science Graduate Fellow.

Coming up

Upcoming topics:

- Please let us know your ideas

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

Science Highlights Submission:
https://docs.google.com/forms/d/e/1FAIpQLScP4bRCtcde43n
qUx4Z_sz780G9HsXtpecQ_qIPKvGafDVVKQ/viewform

Lightning Talks

Highlights

Thank You