Next Steps
A calculation of the self-generated plasma current in the W7-X reactor, performed using the SFINCS code on Edison. The colors represent the amount of electric current along the magnetic field, and the black lines show magnetic field lines.

Image: Matt Landreman
You Will Be Successful!

Collision between two shells of matter ejected in two supernova eruptions, showing a slice through a corner of the event. Colors represent gas density (red is highest, dark blue is lowest). Image courtesy of Ke-Jung Chen, School of Physics and Astronomy, Univ. Minnesota. Repo m1400
Rule # 3: (Not Always)

Color map of calculated Fermi Surfaces showing anisotropy of the Fermi velocities ranging from low (blue) to high (red). Image courtesy of Tanmoy Das, Los Alamos National Laboratory. Repo m1245
Getting Help

• Submit questions online
  
  https://help.nersc.gov,
  https://my.nersc.gov
  – Submit update, review trouble tickets
  – Submit quota increase forms

• Email
  – consult@nersc.gov
  – accounts@nersc.gov

• Phone
  – 1-800-666-3772 (1-800-66-NERSC)
  – Consultant 8-5 PT, 5 days/week
  – NERSC Operator: 24x7: Status & Passwords
• Tips for working with the HPC consultants:

  – State which machine your question is about.
  – Provide error message(s) if applicable.
  – Provide batch job ID if job crashed
  – Provide filesystem, paths to files
  – Provide your NERSC user ID
Explore the NERSC Web Site

• “For Users” Section
  – Documentation
  – Announcements
  – Training
  – My NERSC
  – Job Logs and Analytics
  – Help

• Live Status
  – MOTD, Outages, Job Queues

• Events
Giving Feedback

• We always seek your feedback
  – Write to consult@nersc.gov
  – Training suggestions to training@nersc.gov

• Annual User Survey

• NERSC User Group (NUG)
  – Get involved. Make NUG work for you.
  – Provide advice, feedback – we listen.
  – Monthly teleconferences with NERSC, usually the last Thursday of the month, 11:00 AM to noon Pacific Time.
  – Executive Committee - three representatives from each office and three members-at-large.
Expect Consistency. And Change.

Molecular Dynamics simulation snapshot showing water molecules (red and white), and sodium, chloride ions (green and purple) encountering a sheet of graphene (pale blue, center) perforated by holes of the right size, with water passing through (left side), but sodium and chloride being blocked.
NERSC Roadmap

- Franklin (N5) +QC
  - 36 TF Sustained
  - 352 TF Peak

- Hopper (N6)
  - 1.25 PF Peak

- Edison (N7)
  - 2.4 PF Peak

- CRT Facility
  - N9 200-500 PF Peak
  - N10 ~1 EF Peak
  - N8 10-30x Hopper

Year:
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
NERSC Futures

• NERSC will be physically moving to a new facility in 2015.

• Carver will be “retired” August 31, 2015.

• NERSC-8 (Cori) will be installed; disruptive change: codes will likely run but will need to be modified to achieve good performance
  – NERSC will help users make this transition.

• Edison will remain available for codes that cannot transition to NERSC-8
Thank you and welcome to NERSC!