Day 2- Final Thoughts

New User Training and Updated Best Practices on Perlmutter
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Best Practices Summary

- Submit Tickets with as much detail as possible, help.nersc.gov
- Use interactive jobs to test and debug code
  - Also good option for profiling code
  - Helpful for debugging or scaling tests
    - Use the debug queue
      - sbatch -q debug -t 10 script.sh
    - Scale testing
      - sbatch -N 2 script.sh or sbatch -N 20 script.sh
- Make use of Python GPU frameworks Available on Perlmutter
- Use Conda for managing custom python environments
- Conda Environments & Software Related to Jobs should be in a container or Global Common
- Use the Job Script Generator for slurm batch scripts
- Use NoMachine to improve the performance of this workflow
- Best choice for large scale IO is always scratch!
- If your data is too large and you need to read it off CFS, use /dvs_ro instead of /global
- Avoid ACLs over DVS
Final Thoughts

● Thank you to all of our Presenters!
  ○ more information on each speaker is available on the Event Page
  ○ [https://www.nersc.gov/users/training/events/2024/new-user-training-february2024/](https://www.nersc.gov/users/training/events/2024/new-user-training-february2024/)

● Please complete Day 1 Survey
  ○ [https://forms.gle/kKKrrbPa5bEh4AhX9](https://forms.gle/kKKrrbPa5bEh4AhX9)

● Please complete Day 2 Survey
  ○ [https://forms.gle/EZwm554pLUckKhd69](https://forms.gle/EZwm554pLUckKhd69)

● Slides will finish uploading today. Video will be available in about a week.

● Utilize the Q&A Document for an additional questions after training until Monday 2/19/2024 EOD
  ○ [https://docs.google.com/document/d/18Seggp2-exFPDTZfETBpzsaVziK2Skr6sFo3ShwlLYA/edit](https://docs.google.com/document/d/18Seggp2-exFPDTZfETBpzsaVziK2Skr6sFo3ShwlLYA/edit)
Future Trainings

● **Join Us for Data Day, February 21-22**
  ○ NERSC is hosting a hybrid two-day event on February 21-22, 2024 to showcase the latest and greatest data-focused tools for scientific computing on Perlmutter. The presentations are set to occur in a fully hybrid format at NERSC, featuring speakers onsite.
  ○ For more information and to register, please see the [event page](https://www.nersc.gov/users/training/events/).

● **Join Us February 23 for Perlmutter and Data Day Office Hours!**
  ○ To help NERSC users make the best use of best practices on optimal performance on Perlmutter nodes, NERSC is offering virtual office hours on February 23 from 9 am to noon (Pacific).
  ○ Users are welcome to bring questions and their own applications to get one-on-one help.
  ○ For more information, please see the [event page](https://www.nersc.gov/users/training/events/).

● **Performance Portability Series, next event Feb 26**

● **More upcoming training events at**
  [https://www.nersc.gov/users/training/events/](https://www.nersc.gov/users/training/events/)
Thank you for Attending and Welcome to NERSC