Decommissioning the Wilson Cluster & You!

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https://indico.fnal.gov/event/65115/

What is the Wilson Cluster?

An HPC like (-lite) cluster with

- ~1600 CPU-only cores

- 18 GPUs of various vintages (6 A100s)

- Lustre file system

- Slurm batch system

- Useful for HPC jobs, especially with MPI/OpenMP

- Useful for AI training

Most of the nodes are machines from the old Lattice QCD Cluster

[There is also a large memory IBM Power9 machine with 2 V100 GPUs not covered here]

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Why are we decommissioning it and what's the plan?

- We no longer have the human resources to maintain and support the Wilson Cluster system

- Current plan
  - Very soon: Mount CEPH volumes on the WC data transfer node
  - On Friday June 28, 2024: Prohibit new Slurm jobs
  - On Friday July 5, 2024: Prohibit logins
  - After this: The A100s will be moved to the Elastic Analysis Facility (EAF)

- You should have plenty of time to copy your data off of /work1 and the Lustre system

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What are your alternatives?

- We have three alternatives so far…

1. Run on Perlmutter at NESRC

- Perlmutter ~400,000 CPU only cores and 7,168 A100 GPUs

- Terminal and Jupyter notebooks

- We already have an allocation you can use (see Andrew's talk)

- Useful for MPI jobs and AI training

2. Run on the Fermilab Elastic Analysis Facility

- Elastic CPUs and GPUs

- Jupyter notebooks with tailored environments

- Connected to Fermilab Datacenter

- Useful for interactive analysis and single GPU AI training

3. FermiGrid

- ~25,000 CPU cores

- Connected to Fermilab datacenter

- Good for jobs with 100s to low 1000s of cores

- No MPI nor GPUs

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Getting started with an alternative

- Use cases should be covered by these alternatives (let us know if yours isn't)

- See Getting Started talks next…

- What YOU need to do next…
  Consider an alternative and move your data off of the Wilson Cluster

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If you have issues

- For CEPH storage help, open service disk ticket

- For EAF and FermiGrid, open service desk ticket

- For Perlmutter, contact NERSC support

- For non-technical issues, please contact CSAID through your management

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Remember no Slurm on/after June 28 and no login on/after July 5

Please fill out form if you plan to use NERSC…
https://forms.office.com/g/91rYnwGcrs

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