

Overview and Updates

SubMIT Users Meeting
Oct 28, 2025

Alex Avdoshkin, Project Team



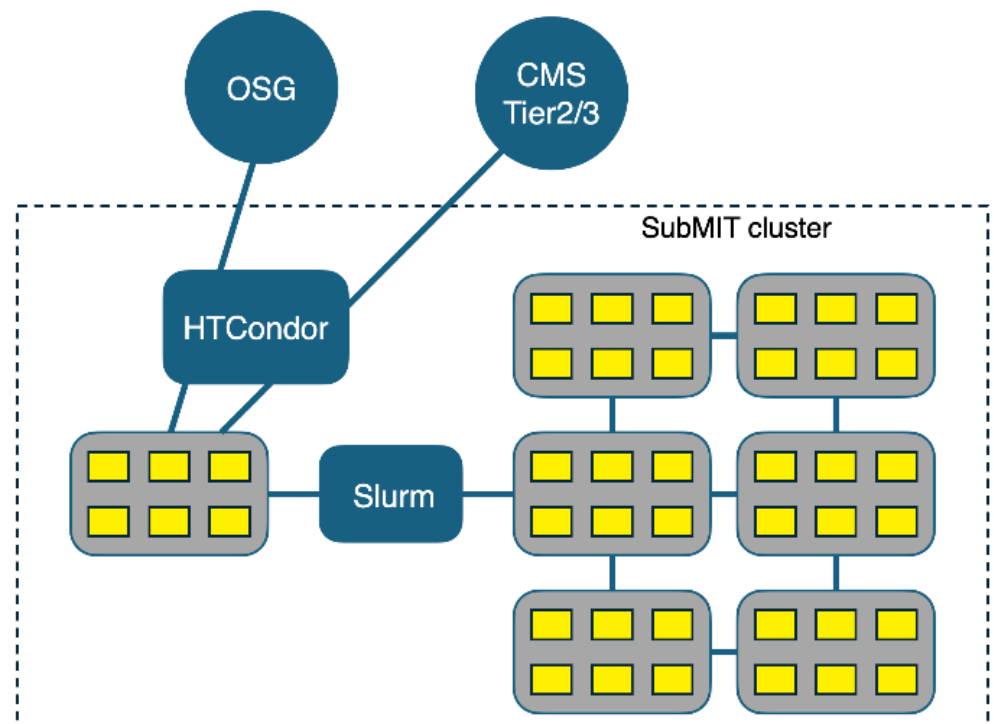
SubMIT overview

Compute resources for the physics community: [**submit.mit.edu**](https://submit.mit.edu)

We provide

- Hardware
- Support
- Community

for the compute needs of the
MIT Physics Department



Resources

Hardware:

- ~1000 CPUs and ~50 GPUs
- 10GB (home, backed-up), 100GB (work), >1TB mass storage
- 100Gbit network connection

Cluster access via ssh and Jupyter Notebook

```
~% ssh alex_avdosh@submit.mit.edu
```

Workload Management: Slurm and HTCondor

Software: OpenMPI, Globus, Mathematica,
MATLAB

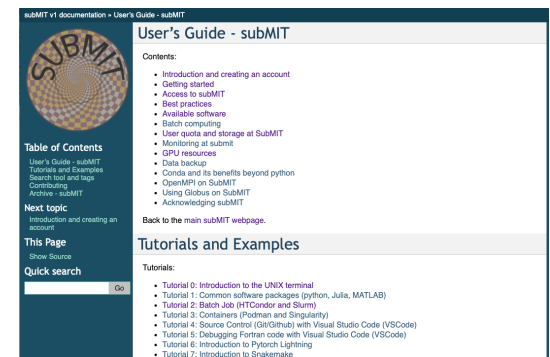
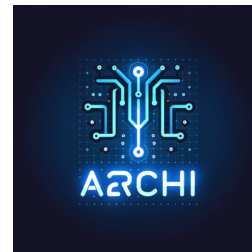
Resources

Flexible approach to department needs:

- Containers (Podman)
- Virtual environments (conda/python)
- Custom solutions (*talk to us!*)

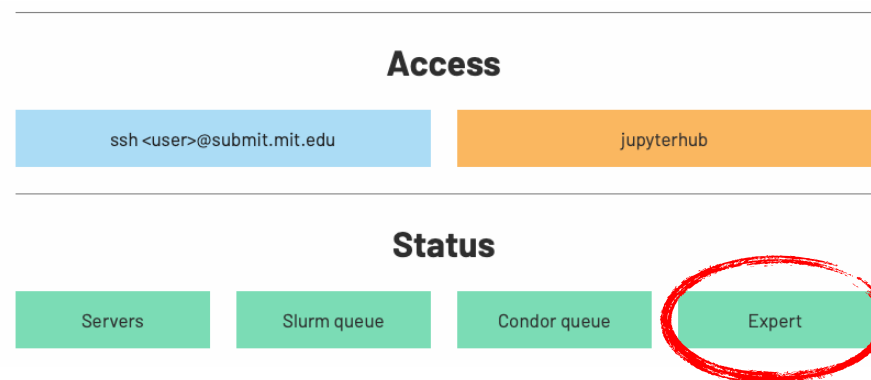
Support:

- Ticket system
- Slack channels
- User group meetings
- Documentation (tutorials/guides)
- AI Chatbot - Archi

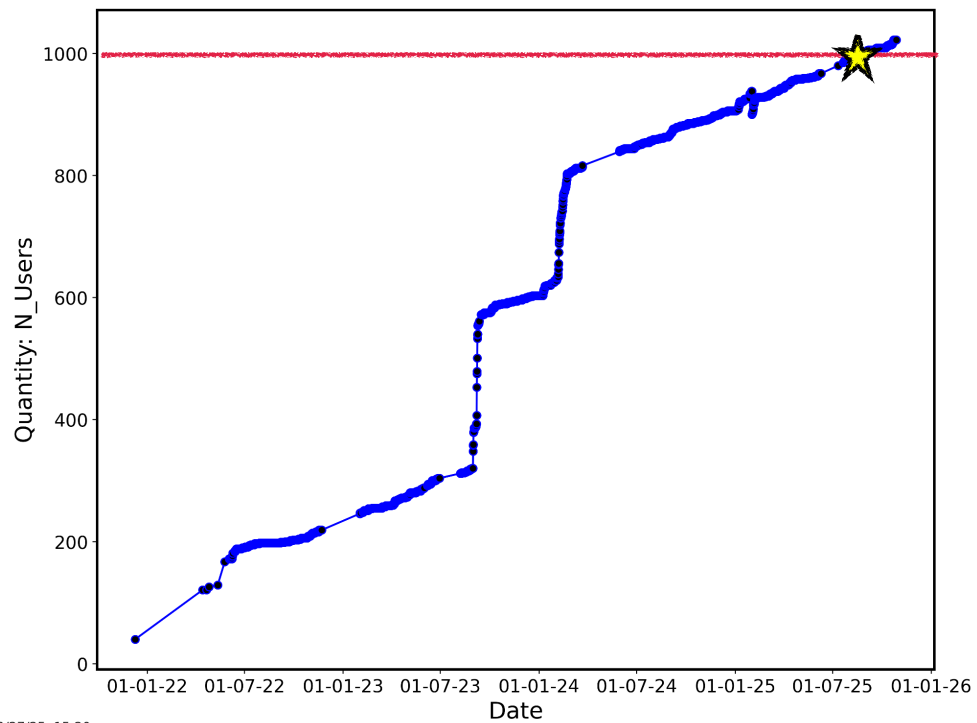


Updates

- 6 nodes (submit63,64,67,71,72) with 4 Nvidia GTX 1080 each recovered
- gpu-express slurm queue for fast testing with dedicated nodes
- Improved alarm system - proactive identification of issues
- Expert knowledge page



Milestone: 1000 users!



10/27/25, 15:20

