MIT Office of Research Computing and Data (ORCD)

ORCD Flyer: Faculty Quick-Start Guide | March 2026

WHAT IS ORCD?

ORCD is MIT's central research computing team — people and infrastructure supporting the entire MIT research community. ORCD operates the Engaging cluster, manages shared and PI-dedicated GPU/CPU resources, and provides expert consultation at no cost to MIT faculty, researchers, or students.

Learn more: orcd.mit.edu

FREE BASELINE RESOURCES

All MIT researchers receive access at no cost:

- **Compute:** 39,900+ logical CPUs and 728 GPUs available on the Engaging cluster
- **Storage:** 200 GB home directory (backed up), 1 TB pool storage, and 1 TB scratch space per account
- **Web portal:** Jupyter, RStudio, Mathematica via orcd-ood.mit.edu
- **Job scheduler:** Slurm batch and interactive access via SSH and web portal.
- **Software:** Wide library + Singularity/Apptainer containers, Anaconda, modules

Details: orcd.mit.edu/resources/about-engaging-cluster, hardware configuration: https://orcd-docs.mit.edu/running-jobs/available-resources/

PAID UPGRADE SERVICES (FY26)

Priority compute access — monthly account maintenance fee:

Tier	Resource Limits	Session	Monthly Fee
Basic	96 CPUs / 2 GPUs	12 hours	$0/acct
Standard	256 CPUs / 2 GPUs	Up to 2 days	$56/acct
Advanced	512 CPUs / 4 GPUs	Up to4 days	$126/acct

Advance GPU/CPU rentals (guaranteed time slots):

Resource	Min. Block	Cost
H200 GPU node	12 hrs / 8 GPUs	$1.00/GPU-hr
L40s GPU node	12 hrs / 4 GPUs	$0.38/GPU-hr
AMD EPYC CPU	12 hrs / 16 cores	$0.01/CPU-hr

Storage rentals (annual, FY26):

Type	Use Case	Annual Cost
Disk	Nearline datasets	$20/TiB
Flash	Fast I/O / ML training	$90/TiB

Details: orcd.mit.edu/resources/storage-and-compute-services

HARDWARE ON THE HORIZON

- **AICR / Commonwealth AI Hardware:** First $30M tranche of B00 GPUs arriving Spring 2026 at MGHPCC — dramatically expanding shared GPU capacity.
- **NVL72 (NVidia GB200):** 72× B200 GPUs with NVLink for large-scale foundation model training (bio, neuro, materials, climate). ORCD has raised $2M; seeking $2M+ in matching funds.
- **AMD Pathfinder:** $3M Schmidt/Dell/AMD project (CY26-27): MI355X GPUs delivering strong FP64 + AI in one system with portable, open-source performance.

CLOUD PILOTS

- **Lambda Labs:** Subsidized GPU rental at $1/GPU/hr for MIT researchers.
- **Google Cloud:** Discounted access at ~$2.50/GPU/hr — just getting started.
- **AWS:** Planning an MIT-hosted regional center.
- **Qualcomm:** Nascent plans for inference hardware access.

Cloud access complements on-prem systems — ORCD can help you navigate the right fit.

AI SEED FUND

Twice per year, ORCD awards up to 32 GPUs for 1–3 months plus graduate student support to MIT DLCI PIs with AI/ML projects. Projects collaborate with ORCD to improve the platform for all of MIT.

Apply: https://orcd.mit.edu/about-orcd/orcd-seed-fund

HOW TO ENGAGE

- **Get an account:** Any MIT affiliate can request access — goes live quickly. orcd-docs.mit.edu/orcd-systems
- **Buy-in hardware:** PIs can purchase hardware hosted by ORCD with priority access for your group, shared opportunistically with the community. **Department Heads should contact us for text for help with new faculty's computing needs.**
  orcd-docs.mit.edu/hosted-hardware
- **Consultation:** ORCD staff will meet with you to scope your needs and recommend the right resources and approach. orcd.mit.edu/about-orcd/contact
- **Training:** Regular 'Intro to Engaging' and parallel programming classes each semester; in-person and virtual office hours. orcd.mit.edu/news-and-events/orcd-classes
- **Newsletter:** Monthly updates, news, and highlights from ORCD — sign up to stay informed.
  orcd.mit.edu/news-and-events/email-newsletter-sign

CONTACT & RESOURCES

- General help: orcd-help@mit.edu
- Engaging cluster: orcd-help-engaging@mit.edu
- Website: orcd.mit.edu
- Docs: orcd-docs.mit.edu
- Portal: orcd-ood.mit.edu

ORCD serves thousands of MIT researchers across every department — at no base cost. For large-scale needs, custom hardware, or cloud strategy, reach out to orcd-help@mit.edu to start the conversation.