

Wulver Cluster Tools & Monitoring

HPC User Meeting
October 22, 2025

Agenda

- Wulver Cluster Tools & Monitoring
- Ondemand.njit.edu
- Command line tools
- Upcoming Events
- Q&A



Hpc.njit.edu Status Page

The screenshot shows a web browser window with the URL hpc.njit.edu in the address bar. The page title is "NJIT HPC Documentation". The left sidebar contains a navigation menu with the following items:

- NJIT HPC Documentation
- NJIT HPC**
- About Us
- Clusters
- Policies
- Facilities
- Services
- Status (on-campus or VPN) ▼
- Current Load
- Usage Summary
- Usage (this year so far)
- HPC Events and Workshops
- Running Jobs
- Software
- MIG
- OnDemand
- RHEL 9 Upgrade FAQs
- FAQs
- News and Announcements

A red arrow points from the "Status (on-campus or VPN)" menu item towards the main content area. The main content area features a large heading "High Performance Computing (HPC)". Below it is a paragraph: "Welcome to HPC at [New Jersey Institute of Technology \(NJIT\)](#). NJIT provides High Performance Computing resources to support scientific software stack." To the right of this text is a large button with the text "Would you like to see a virtual tour of the cluster?".

HPC Highlights!

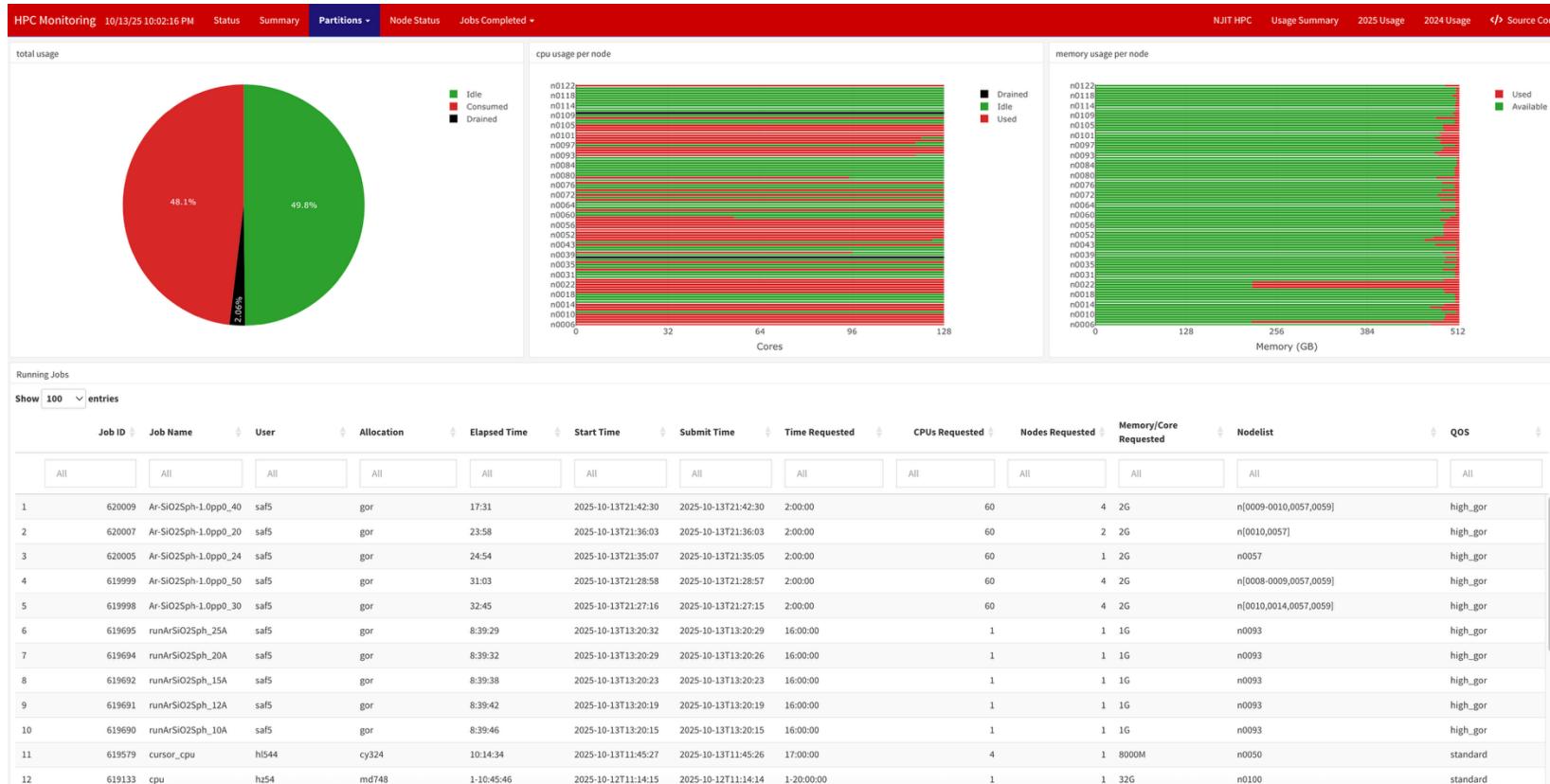
NJIT Getting started with Wulver

If you are new to Wulver, and want to know how to get started, visit [Wulver Quickstart](#).

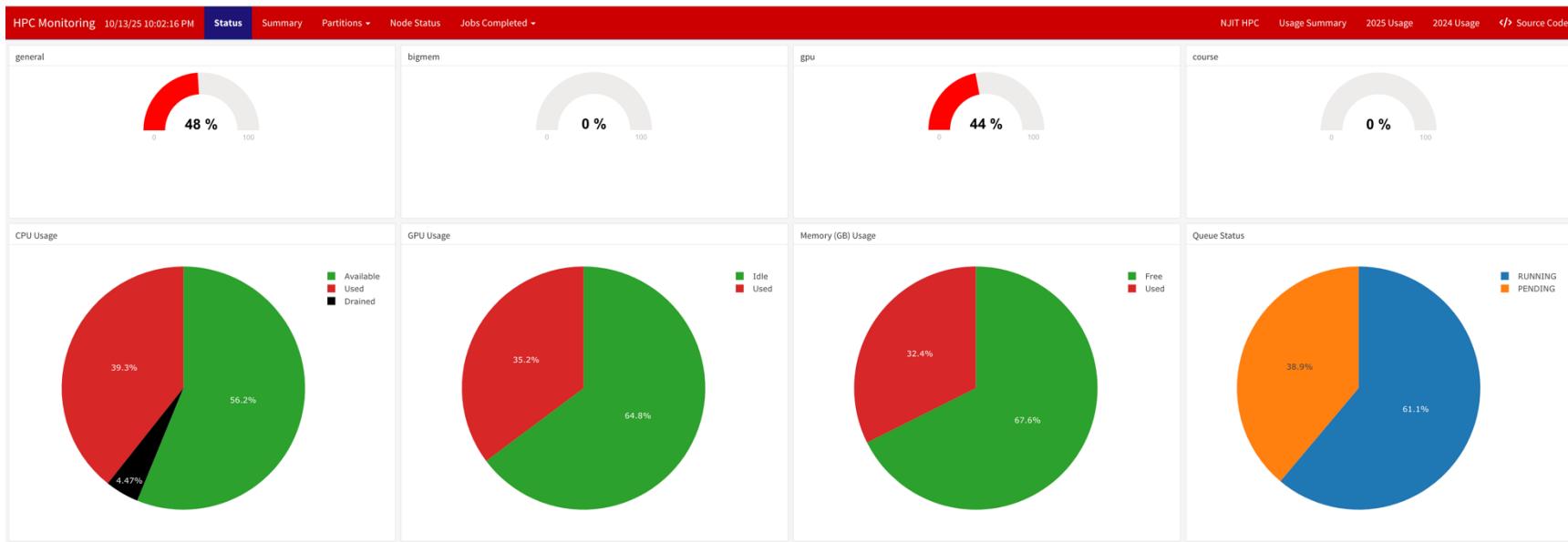
NJIT Software Modules

See [Software Modules](#) for list of software packages installed on our cluster.

Monitoring Wulver



Managing and Monitoring Jobs



ondemand.njit.edu

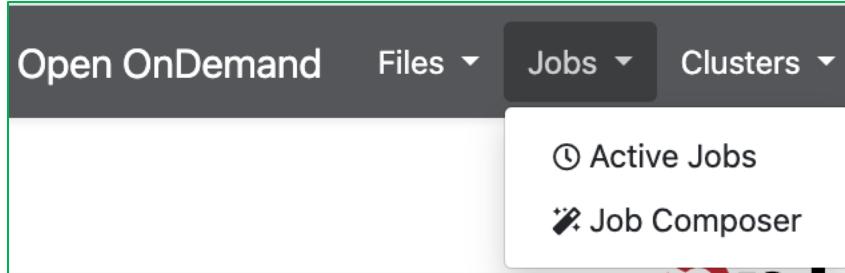
- For Wulver user, login via your UCID



OnDemand provides an integrated, single access point for all of your HPC resources.



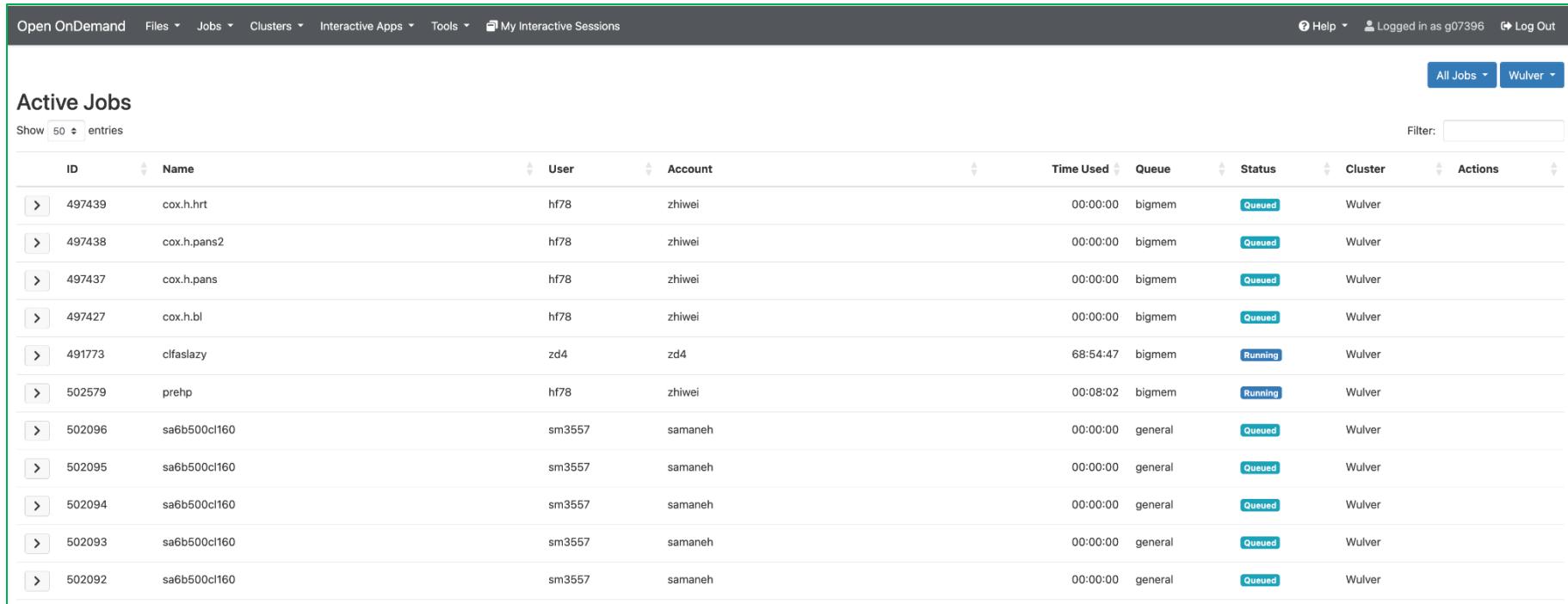
Jobs Menu and Active Jobs



- Active Jobs: The Active Jobs window opens in a new tab which shows the list of all the active jobs in the cluster.
- Job Monitoring: Users can monitor job status, view job details, and track progress conveniently within the Open OnDemand portal.

Active Jobs

- The Active Jobs window opens in a new tab which shows the list of all the active jobs in the cluster.



A screenshot of a web-based interface titled "Active Jobs". The interface has a dark header bar with navigation links: Open OnDemand, Files, Jobs, Clusters, Interactive Apps, Tools, and My Interactive Sessions. On the right side of the header are links for Help, Log in as g07396, and Log Out. Below the header is a search bar with a dropdown set to "All Jobs" and a filter dropdown set to "Wulver". The main content area is titled "Active Jobs" and shows a table with 12 rows. The table columns are: ID, Name, User, Account, Time Used, Queue, Status, Cluster, and Actions. The "Status" column contains mostly "Queued" entries, with one "Running" entry for job 491773. The "Cluster" column is consistently "Wulver". The "Actions" column contains small icons for each job entry.

ID	Name	User	Account	Time Used	Queue	Status	Cluster	Actions
497439	cox.h.hrt	hf78	zhiwei	00:00:00	bigmem	Queued	Wulver	
497438	cox.h.pans2	hf78	zhiwei	00:00:00	bigmem	Queued	Wulver	
497437	cox.h.pans	hf78	zhiwei	00:00:00	bigmem	Queued	Wulver	
497427	cox.h.bl	hf78	zhiwei	00:00:00	bigmem	Queued	Wulver	
491773	clfaslazy	zd4	zd4	68:54:47	bigmem	Running	Wulver	
502579	prehp	hf78	zhiwei	00:08:02	bigmem	Running	Wulver	
502096	sa6b500cl160	sm3557	samaneh	00:00:00	general	Queued	Wulver	
502095	sa6b500cl160	sm3557	samaneh	00:00:00	general	Queued	Wulver	
502094	sa6b500cl160	sm3557	samaneh	00:00:00	general	Queued	Wulver	
502093	sa6b500cl160	sm3557	samaneh	00:00:00	general	Queued	Wulver	
502092	sa6b500cl160	sm3557	samaneh	00:00:00	general	Queued	Wulver	

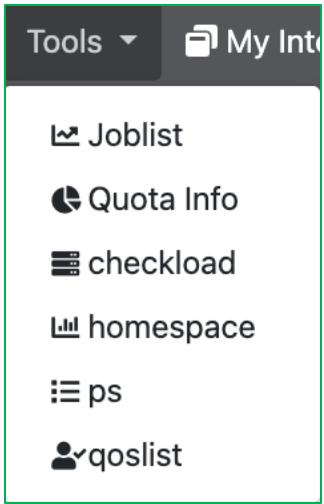
Tools – ondemand.njit.edu

The screenshot shows a dark-themed user interface for a cluster management system. At the top, there is a navigation bar with several tabs: "Open OnDemand", "Apps ▾", "Files ▾", "Jobs ▾", "Clusters ▾", "Interactive Apps ▾", "Tools ▾", and "My Interactive Sessions". The "Tools ▾" tab is currently active, indicated by a red box around its dropdown menu. The menu itself is also enclosed in a red box and lists the following tools:

- Joblist
- Quota Info
- checkload
- homespace
- ps
- qoslist

The background of the interface features large, bold text "hand" and "A featured subset" partially visible on the right side.

Available Tools



Joblist

The checkload tool provides real-time information about the current load on the HPC cluster, assisting users in deciding the best time to run their jobs.

Quota Info

Quotainfo is a tool available in Open OnDemand to check disk usage quotas, helping users keep track of their allocated storage space on HPC clusters.

Additional Tools Available

Checkload

The checkload tool provides real-time information about the current load on the HPC cluster, assisting users in deciding the best time to run their jobs.

Homespace

Homespace tool offers details about the home directory space usage, enabling users to manage their files and storage efficiently within their personal workspace.

qoslist

Displaying All QOS Entries for a User Across All Associated Accounts

Command line Tools – managing jobs

- seff
- squeue
- scancel
- quota_info
- checkq
- checkload
- slurm_jobid
- https://hpc.njit.edu/Running_jobs/managing-jobs/

Seff – check mem efficiency

```
$ seff
Usage: seff [Options] <Jobid>
      Options:
        -h      Help menu
        -v      Version
        -d      Debug mode: display raw Slurm data
```

```
$ seff 575079

Job ID: 575079
Cluster: wulver
User/Group: ls565/ls565
State: COMPLETED (exit code 0)
Cores: 1
CPU Utilized: 00:00:19
CPU Efficiency: 67.86% of 00:00:28 core-walltime
Job Wall-clock time: 00:00:28
Memory Utilized: 4.21 MB
Memory Efficiency: 0.11% of 3.91 GB
```

File management

- Rsync
- Scp
- Ondemand.njit.edu

RSYNC

To HPC (Upload):

```
rsync -avzP /path/to/local/machine $UCID@wulver.njit.edu:/path/to/destination
```

From HPC (Download):

```
rsync -avzP $UCID@wulver.njit.edu:/path/to/source /path/to/local/machine
```

Flags: -a (archive), -v (verbose), -z (compress), -P (progress + resume)

Tip: Replace \$UCID with your NJIT username. Ensure SSH access to wulver.njit.edu.

scp File Transfer

From HPC to Local Machine:

```
scp [option] $UCID@wulver.njit.edu:/path/to/source/file [target/path]
```

From Local Machine to HPC:

```
scp [option] [path/to/source/file] $UCID@wulver.njit.edu:/target/path
```

Tip: Use '-r' option for recursive copy of directories.

Replace \$UCID with your NJIT username. Ensure SSH access to wulver.njit.edu.

Upcoming Events

 Intro to Wulver: Job Scheduler & Submitting Jobs >	October 1 2:30pm - 3:30pm		Online	Abhishek Mukherjee
 Intro to Wulver: Focus on Job Efficiency >	October 8 2:30pm - 3:30pm		Online	Abhishek Mukherjee
 Machine Learning and Big Data >	October 14-15 11am - 5pm	TBA	Library Faculty Commons CAB 2032	Pittsburgh Supercomputing Center
 HPC User Meeting - Cluster Tools & Monitoring >	October 22 2:30pm - 3:30pm	TBA	CTR 235	Hui(Julia) Zhao
 Conda for Shared Environments >	November 5 2:30pm - 3:30pm	TBA	Online	Hui(Julia) Zhao
 HPC User Meeting >	December 3 2:30pm - 3:30pm	TBA	CTR 235	Hui(Julia) Zhao

IST Staff Faculty Open House, Tuesday, October 28, 3:00-4:30pm Location: The Campus Center Atrium

IST Student Open House, Monday November 10

https://hpc.njit.edu/HPC_Events_and_Workshops/

