



# JUPITER ONBOARDING

## ISC25 TUTORIAL *SESSION 1B*

13 June 2025 | Andreas Herten | Jülich Supercomputing Centre, Forschungszentrum Jülich

# Accessing JUPITER

- Everything listed on GitHub repo of tutorial:

[`https://go.fzj.de/mg-gh`](https://go.fzj.de/mg-gh)<sup>1</sup>

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<sup>1</sup>Unshortened link: [`https://github.com/FZJ-JSC/tutorial-multi-gpu/`](https://github.com/FZJ-JSC/tutorial-multi-gpu/)

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- 1 Create JSC account at JuDoor
- 2 Join training2526 project  
→ <https://go.fzj.de/mg-jd>
- 3 Accept usage agreement
- 4 Wait 15 minutes ⚙️
- 5 Access system via Jupyter 4.3  
*JUPITER, training2526, LoginNode*  
→ <https://go.fzj.de/mg-jup>
- 6 Source course environment in a Jupyter Shell  
\$ `source $PROJECT_training2526/env.sh`
- 7 Gather course material  
\$ `jsc-material-sync`

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JuDoor Login

https://judoor.fz-juelich.de/login?show=/projects/join/training2216

**JU Jülich** Forschungszentrum JÜLICH SUPERCOMPUTING CENTRE

You need to login in order to visit that page.

Portal for managing accounts, projects and resources at JSC.

Login using JSC account

Username

Password

[Login](#) [Register](#) [Reset password](#)

Login with e-mail callback

Login mail address

A confirmation email to confirm your identity will be sent to this address.

[Send identification mail](#)

Send join request to project

https://judoor.fz-juelich.de/projects/join/training2216

JU Your account

xyhert1

# Send join request to project

Do you want to send a project join request to the **training2216** project?

The following information will be given to the PI and PA of the project: Dr. Andreas Herten, **xyhert1**, **an@email.address.com**

Optional additional information for the PI and PA

I'm attending the tutorial on Multi-GPU Computing and am excited to start. LET ME IN ALREADY!

Send join request to project.

**training2526**

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Forschungszentrum Jülich, JSC

Contact Support

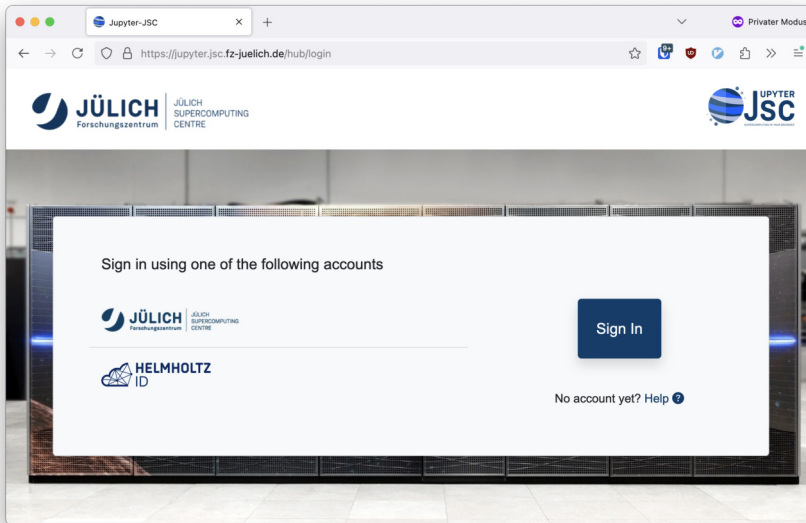
JuDoor Requests

Member of the Helmholtz Association

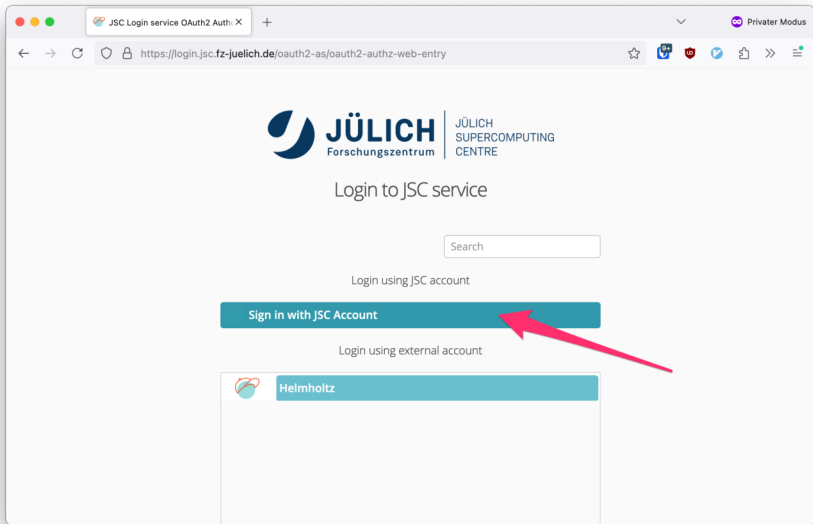
13 June 2025

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[go.fzj.de/mg-jd](https://go.fzj.de/mg-jd) and [jupyter-jsc.fz-juelich.de](https://jupyter-jsc.fz-juelich.de)









Jupyter-JSC

https://jupyter-jsc.fz-juelich.de/hub/home

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UPYTER Jsc

sample-user

Start Links JSC Status Documentation

# JupyterLabs

You can configure your existing JupyterLabs by expanding the corresponding table row.

	Name	System	Partition	Project	Status	Actions
+	NEW JUPYTERLAB					

Jupyter-JSC 75 JUWELS 83 JURECA 66 JUSUF 5 HDF-Cloud 13

*training2526*

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HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

Jupyter-JSC

https://jupyter.jsc.fz-juelich.de/hub/home

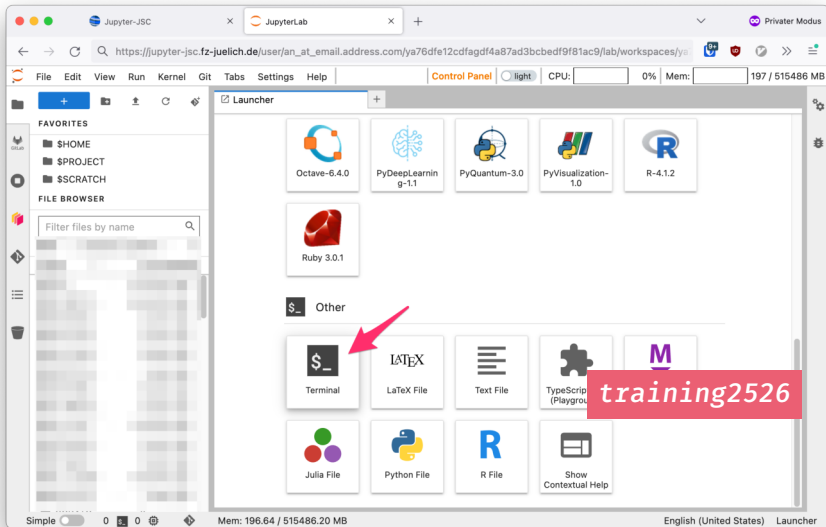
JÜLICH Forschungszentrum JÜLICH SUPERCOMPUTING CENTRE

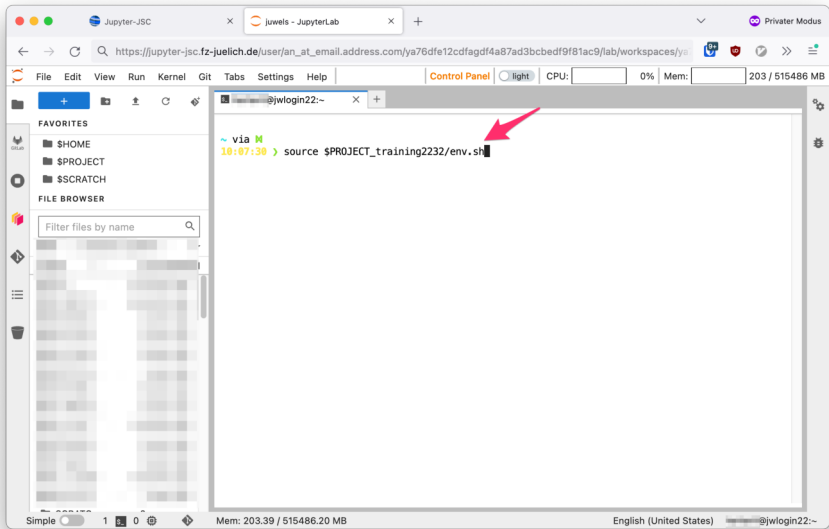
JSC

JupyterLab JSC Status Documentation More Links myuser\_email

You can configure your existing JupyterLabs by expanding the corresponding table row.

	Name	Configuration	Status	Actions
+	NEW JUPYTERLAB			
Lab Config	Name	MultiGPU		
	Version	JupyterLab - 4.2		
Kernels and Extensions	System	JEDI		
	Account	usr1		
	Project	training2446		
	Partition	LoginNode		





Jupyter-JSC juwels - JupyterLab

https://jupyter-jsc.fz-juelich.de/user/an\_at\_email.address.com/ya76dfe12cdfagdf4a87ad3bcbedf9f81ac9/lab/workspaces/ya...

File Edit View Run Kernel Git Tabs Settings Help Control Panel light CPU: 0% Mem: 204 / 515486 MB

FAVORITES

- \$HOME
- \$PROJECT
- \$SCRATCH

FILE BROWSER

Filter files by name

@jwlogin22:~

```
~ via M
10:07:30 > source $PROJECT_training2232/env.sh
The following modules were not unloaded:
(Use "module --force purge" to unload all):

1) Stages/2022

This stage is in construction. Thanks for being an early adopter! If you are
missing some software you'd like to have, please contact support at sc@fz-juelich.de

The following have been reloaded with a version change:
1) Stages/2022 => Stages/2023

*****
Welcome to the SC22 Tutorial on Multi-GPU Computing for Exascale!
Submit a job to the batch system with `JSC_SUBMIT_CMD`
The value of JSC_SUBMIT_CMD is:
srun --partition booster --cpu-bind=sockets --gres=gpu:4 --time 0:10:00 --pty
Some modules have been loaded into the environment. See them with
`module list`.
Synchronize the master material folder to your own by calling
`jsc-material-sync`
*****

~ took 7s via M
10:09:31 >
```

Simple 1 0 Mem: 203.66 / 515486.20 MB English (United States) @jwlogin22:~

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# Profiling Tools

- Extra Credits: Prepare for *Profiling Session*
  - Download **Nsight Systems** now; install!
- <https://developer.nvidia.com/nsight-systems/get-started>
- Also: Via package manager [developer.download.nvidia.com/devtools/repos](https://developer.download.nvidia.com/devtools/repos)

# SSH Login

# SSH Login

- Login with SSH available
- We recommend Jupyter JSC: easier, more features
- Add SSH key via JuDoor to JUWELS Booster
- **Important:** from clause (limits connections to be from defined sources)
- Example

```
from="80.146.183.0/24" ssh-ed25519 AddddACadsfzaC1lZDI1NTE5AAAAasa  
# coarser: from="80.144.0.0/13"
```

→ SSH: `ssh user1@login.jupyter.fz-juelich.de`

- Help at [apps.fz-juelich.de/jsc/hps/juwels/access.html](https://apps.fz-juelich.de/jsc/hps/juwels/access.html)

JupyterLab Dr. Andreas Herten

https://judoor.fz-juelich.de/account/a/JSC\_LDAP/xyhert1/

**JU** Your account Germany xyhert1


## Systems

**juwels** [Manage SSH-keys](#) Usage agreement confirmed on 21.03.2019

JUWELS: **training2216** JUWELS\_BOOSTER: **training2216** JUWELS\_GPUS: **training2216**

[Show Home Quota](#)

## Projects

 **Training 2216** **training2216**

[Join a project](#)

## Software

[Request access to restricted software](#)

1 - JupyterLab

SSH keys on juwels

https://judoor.fz-juelich.de/account/a/JSC\_LDAP/.../system/juwels/add\_ssh\_key

JU

Your account

xyhert1

## Upload SSH public keys

To use our systems your public key options have to include a **from=**-clause to restrict the usage of the key to your personal IP address range.

Your current IP address is **46.183.103.8**. See **the documentation** for more information.

☐ Remove all other existing public keys.

Your public key and options string

from="46.183.103.8" ssh-ed25519  
AddddACadsfzaC1lZDI1NTE5AAAAasadf5yDS3Sht52425D0gV0AWzu52hnxiIO92Ynksadfijr3bDq

Paste the content of your **.pub**-file here or upload a file below.

Your public key file

Additional public key options

Browse

e.g. from="46.183.103.8",...

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[go.fzj.de/mg-jd](https://go.fzj.de/mg-jd) and [jupyter.jsc.fz-juelich.de](https://jupyter.jsc.fz-juelich.de)

# QR Codes



**GitHub repo:**

<https://go.fzj.de/mg-gh>



**JuDoor:**

<https://go.fzj.de/mg-jd>



**Jupyter Portal:**

<https://go.fzj.de/mg-jup>