

# The NEW Smart Data Innovation Lab Platform

## *How to get Access?*

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# Reminder: What Resources

- SDIL cluster
  - 19 Nodes with
    - 48 CPU-Cores
    - 4 GPUs
    - RAM 360 GB + System-Overhead
  - Technically part of bwUniCluster; if you have already access there, you should be able to use the sdil queue!

# Access Procedure

- Existing Users:
  - Need additional Entitlement
  - Can be granted after form is filled
- New Users:
  - Currently: Start with normal SDIL registration
    - GuP KIT Account
    - Registration for SDIL service on <https://bwidm.scc.kit.edu/user/register-service.xhtml?serviceId=11618973>
  - Mail to **[sdil-team@lists.kit.edu](mailto:sdil-team@lists.kit.edu)**

# Praktisches Beispiel

The screenshot shows the SDIL Jupyter@UC2 login page. A red box highlights the browser tab and address bar at the top left, containing the text "SDIL-Jupyter@UC2" and "sdil-jupyter.scc.kit.edu". A red arrow points from this box to the "Login" button. Another red box highlights the browser tab and address bar at the bottom right, also containing "SDIL-Jupyter@UC2" and "sdil-jupyter.scc.kit.edu". A red arrow points from this box to the "Login" button. The page content includes a navigation menu on the left, a search bar at the top right, a "Table of contents" on the right, and a "Login" section in the center. The "Login" section contains a list of steps and a "Login" button. Below the "Login" section is a "Documentation" section with three links. At the bottom, there are sections for "Software" and "Software stacks".

SDIL-Jupyter@UC2  
Overview  
Jupyter Software Stacks

## SDIL Jupyter@UC2

### Login

The login to JupyterHub consists of the following steps, you will be redirected accordingly:

- Choose your home organization
- Enter username and password
- Enter the one-time password (second factor)
- Click on "Enter JupyterHub"

[Login ↗](#)

### Documentation

- [bwHPC Wiki](#): Information about the use of bwUniCluster 2.0+GFB-HPC.
- [Jupyter Wiki](#): General information about Jupyter and its use on the bwUniCluster.
- [Service Description](#): Service description on the KIT-SCC website.

### Software

### Software stacks

The software for data analysis and machine learning is developing rapidly. We therefore provide

**VPN active**  
**<https://www.scc.kit.edu/en/services/openvpn.php>**

# Login mit zweitem Faktor

Ihre Token werden an dieser Stelle nur angezeigt. Um Änderungen vorzunehmen besuchen Sie bitte die folgende Webseite:


<https://my.scc.kit.edu/token>

Um die angeforderte Aktion durchzuführen, muss ein zweiter Faktor eingegeben werden. Bitte geben Sie einen beliebigen zweiten Faktor aus der unten stehenden Liste ein um fortzufahren.

Aktueller code

PRÜFEN

 2608719411989

 Hardware TOTP

NEU!

2-Faktor authentication with token or mobile phone

<https://www.scc.kit.edu/dienste/11370.php>

[I have a token, has someone tried with a phone?]

## Select your resources

The grayed out fields contain a reasonable preselection of resources.  
Other values can be selected in advanced mode.

Number of CPU-cores:

Number of GPUs:

Runtime:

Partition:

Amount of memory:

JupyterLab-Basemodule:

Advanced Mode:

Spawn

## Select your resources

The grayed out fields contain a reasonable preselection of resources.  
Other values can be selected in advanced mode.

Number of CPU-cores:

Number of GPUs:

Runtime:

Partition:

Amount of memory:

JupyterLab-Basemodule:

Advanced Mode:

Spawn

Your server is starting up.

You will be redirected automatically when it's ready for you.

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Pending in queue...

Event log

Bis zu 10 Minuten Wartezeit zeigen kein Problem an...  
... aber meist deutlich schneller



Bildquelle: Simon Raffener



## Alternative Slurm



- Alternative to Jupyterhub:
  - Login via ssh
  - More information on Slurm  
<https://slurm.schedmd.com/overview.html>
  - Usage similar to htCondor on the old platform

# Move to prestarted server...

The image shows the JupyterLab Launcher interface. On the left is a file explorer with a search bar and a list of files and directories. The main area is titled 'Launcher' and contains three sections: 'Notebook', 'Console', and 'Other'. Each section has two Python 3 environment icons. The 'Other' section includes icons for Terminal, Text File, Markdown File, Python File, and Show Contextual Help.

**File Explorer:**

| Name                                | Last Modified |
|-------------------------------------|---------------|
| miniconda3                          | a month ago   |
| tmpDir                              | 3 months ago  |
| workshop                            | a month ago   |
| demofile2.txt                       | 3 months ago  |
| job.sh                              | 3 months ago  |
| jupyterhub_slurmshpawner_1982274... | 3 months ago  |
| jupyterhub_slurmshpawner_1982277... | 3 months ago  |
| jupyterhub_slurmshpawner_1982335... | 3 months ago  |
| jupyterhub_slurmshpawner_2017302... | a month ago   |
| jupyterhub_slurmshpawner_2024570... | 7 minutes ago |
| jupyterhub_slurmshpawner_2024573... | 3 minutes ago |
| Miniconda3-latest-Linux-x86_64.sh   | 5 months ago  |
| slurm-19822812.out                  | 3 months ago  |
| Testbook1.ipynb                     | 3 months ago  |
| tmp                                 | 3 months ago  |
| Untitled.ipynb                      | 3 months ago  |
| Untitled1.ipynb                     | a month ago   |
| Untitled2.ipynb                     | a month ago   |

**Launcher:**

- Notebook:** Python 3 (ipykernel), python\_worksho p\_env
- Console:** Python 3 (ipykernel), python\_worksho p\_env
- Other:** Terminal, Text File, Markdown File, Python File, Show Contextual Help