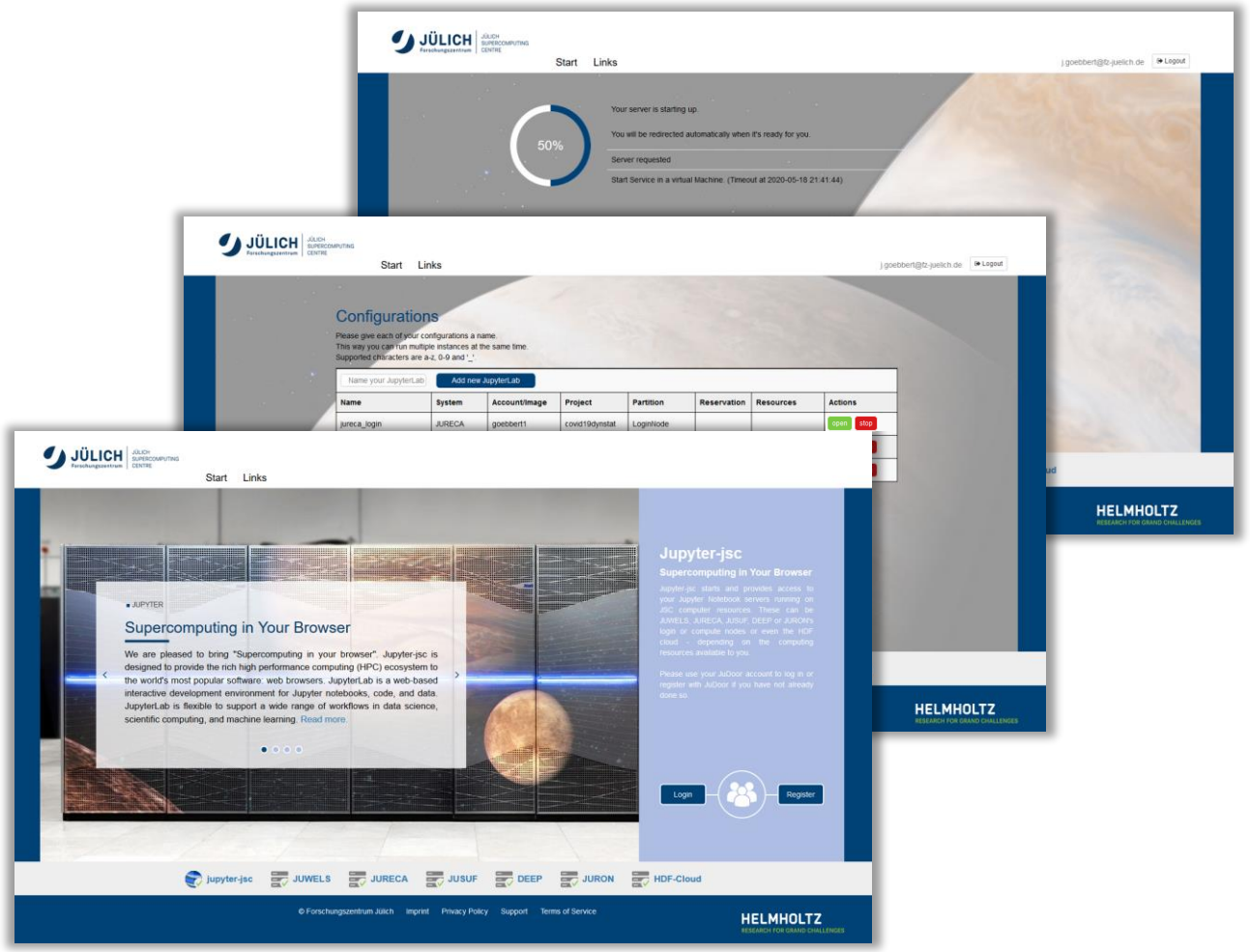
JUPYTERLAB - SUPERCOMPUTING IN YOUR BROWSER

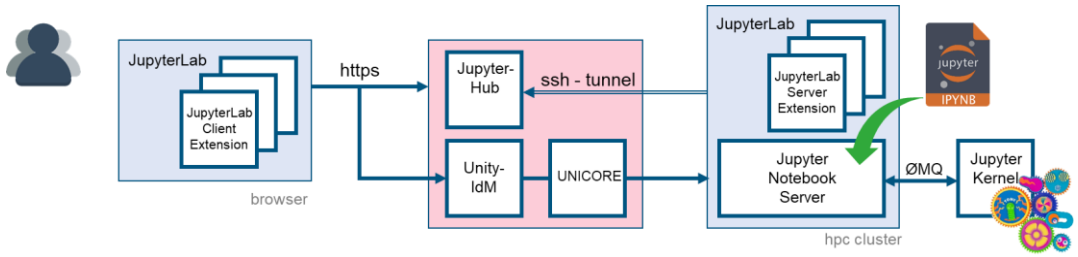
Training course "Introduction to the usage and programming of supercomputer resources in Jülich"

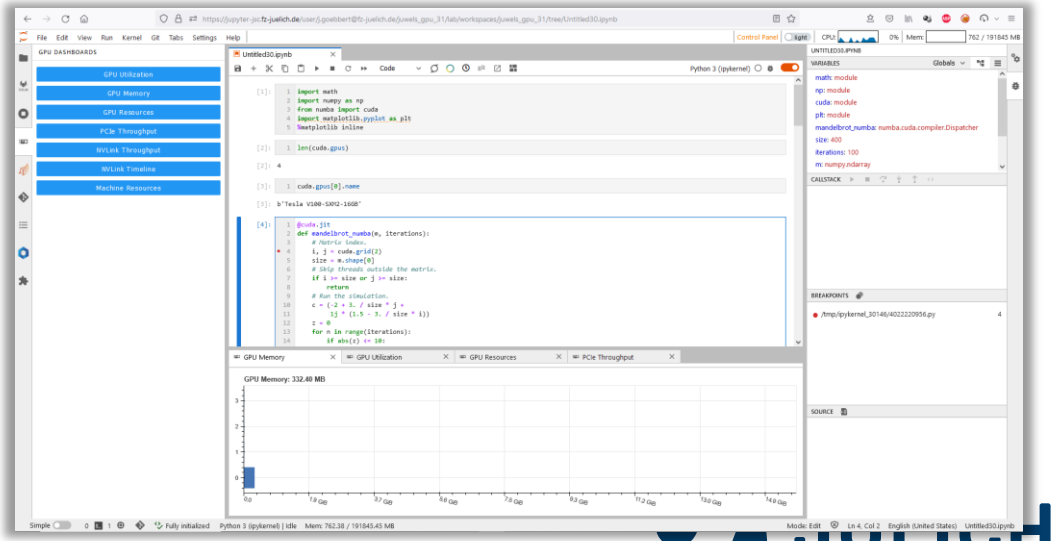
2021-11-22 I JENS H. GÖBBERT (J.GOEBBERT@FZ-JUELICH.DE)
TIM KREUZER (T.KREUZER@FZ-JUELICH.DE)
ALICE GROSCH (A.GROSCH@FZ-JUELICH.DE

JUPYTER-JSC WEBSERVICE

Start your JupyterLab

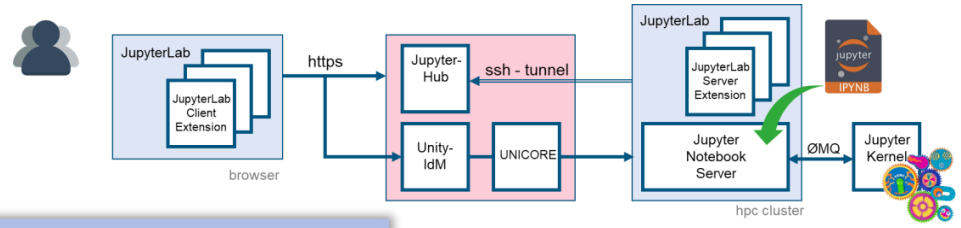






JUPYTER-JSC WEBSERVICE

First time login

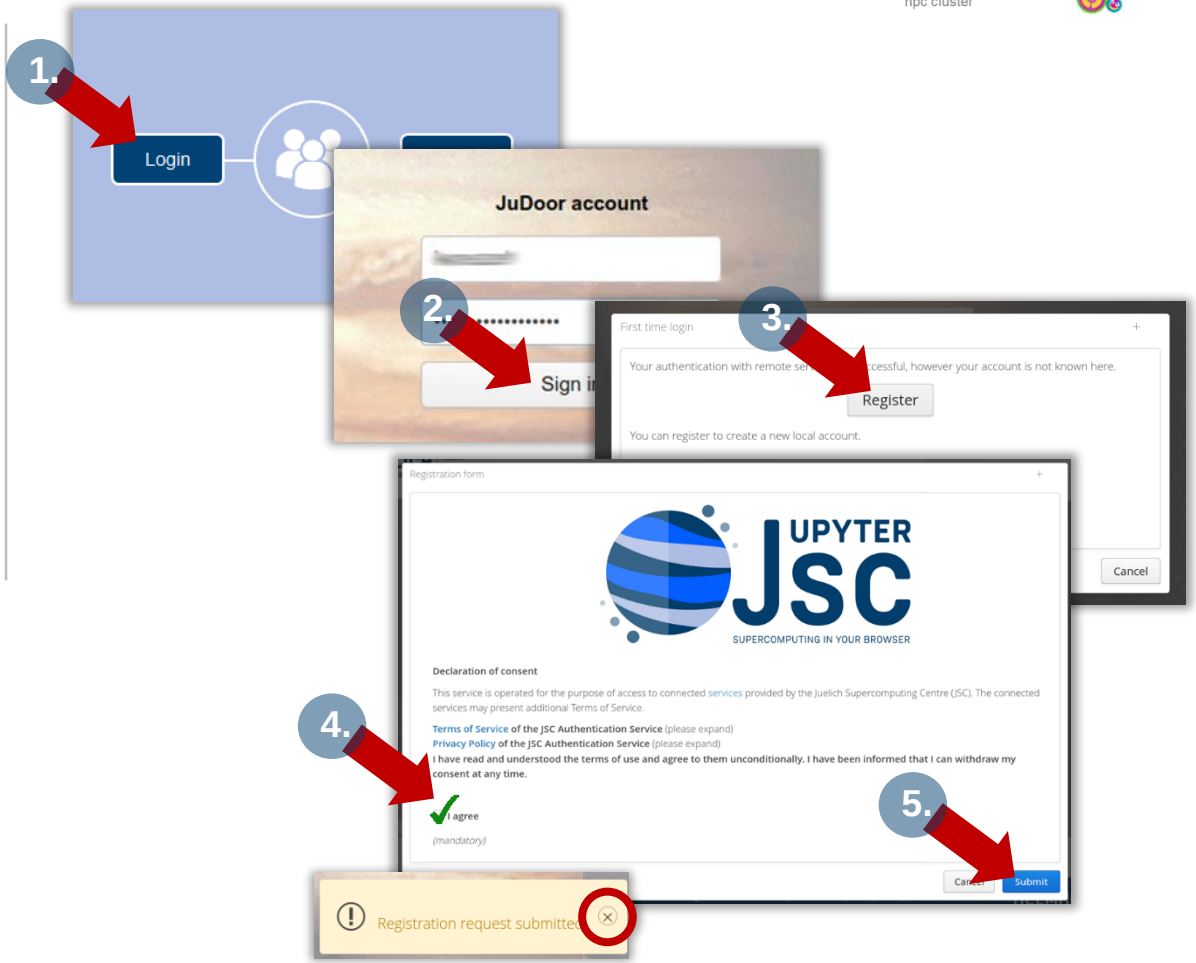


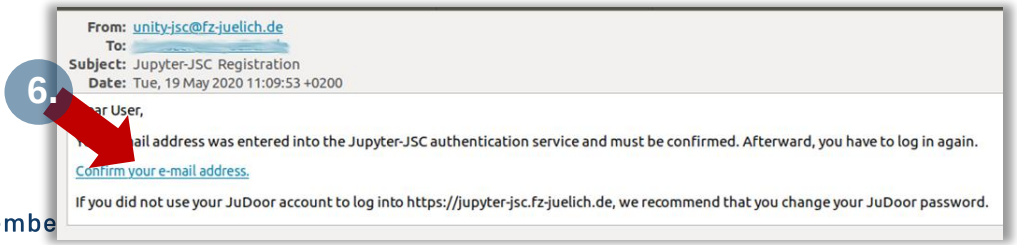
=> https://jupyter-jsc.fz-juelich.de

Jupyter-JSC first time login

- Requirements:
  - Registered at **judoor.fz-juelich.de**
    - **(check "Connected Services" = jupyter-jsc)**
  - Project membership + signed systems usage agreement
  - **Waited ~10 minutes**

1. Login at https://jupyter-jsc.fz-juelich.de
2. Sign in with your JSC account
3. Register to Jupyter-JSC
4. **Accept usage agreement**
5. Submit the registration
6. Wait for email and confirm your email address





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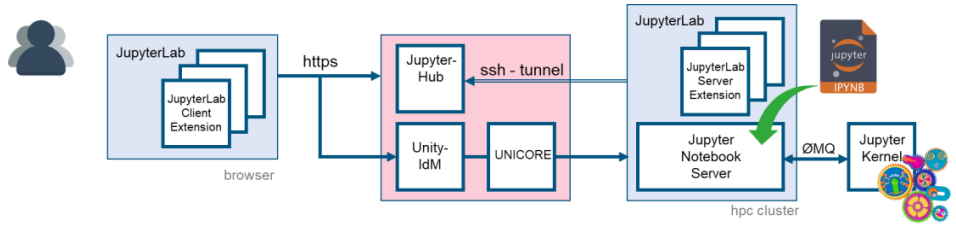
JUPYTER-JSC WEBSERVICE

Control Panel



A. Jupyter-JSC – Add new JupyterLab

- Name your new JupyterLab configuration
  - Unique Jupyter workspace in `~/.jupyter`
- => the **JupyterLab Options** page will open

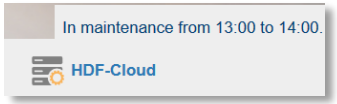
B. Jupyter-JSC – Actions

If a configuration has been added

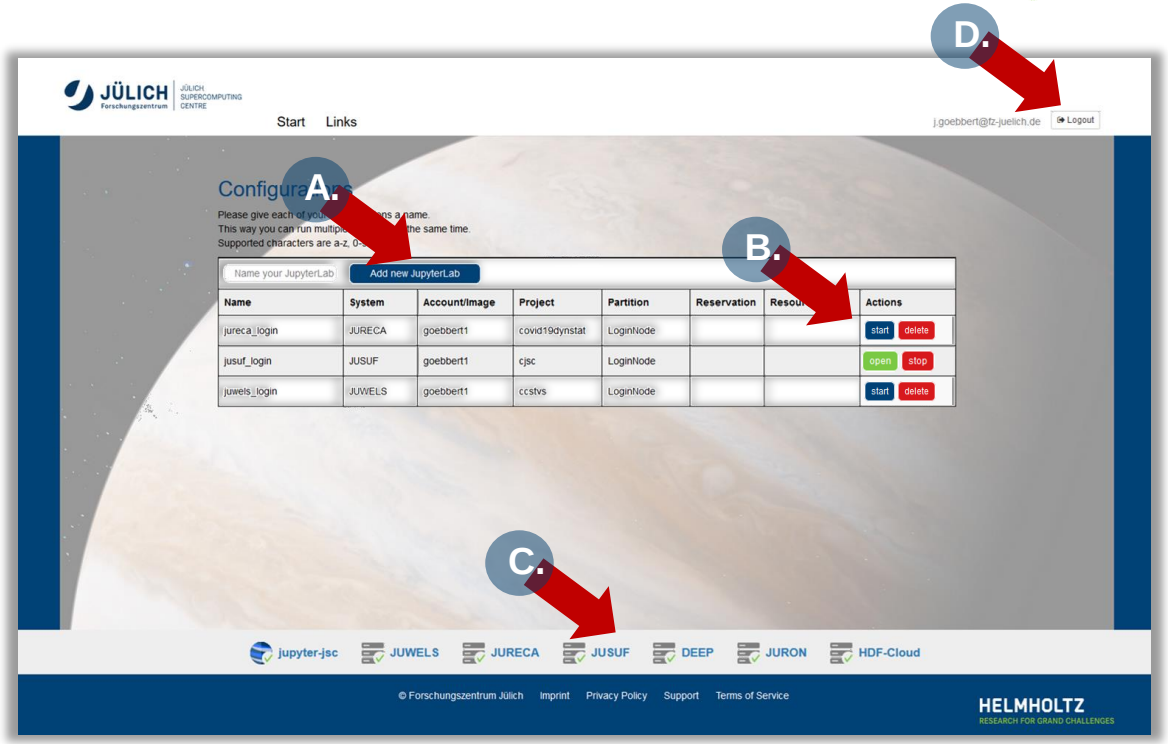
- Start/delete the named configuration (workspace will not be deleted)
- Open/stop a **running** JupyterLab

C. Jupyter-JSC -- Statusbar

- Upcoming maintenance (mouse hover for details)

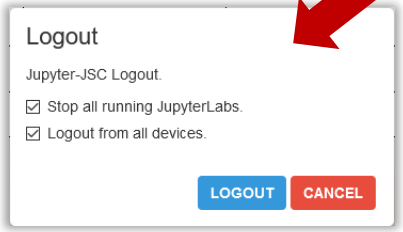


- System offline



B. Jupyter-JSC – Logout

Logout will ask what you want to do with the running JupyterLabs – be careful what you answer!



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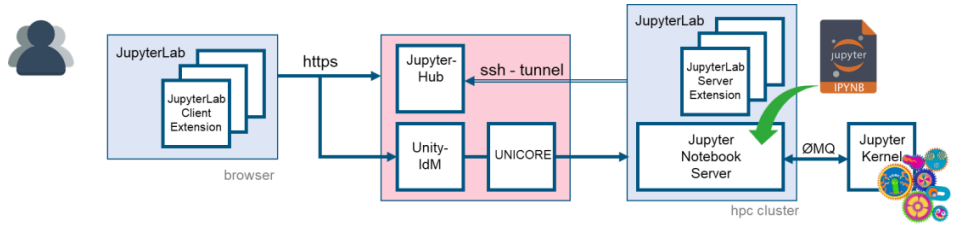
JUPYTER-JSC WEBSERVICE

JupyterLab Options



Jupyter-JSC – Options

Available options **depend on**

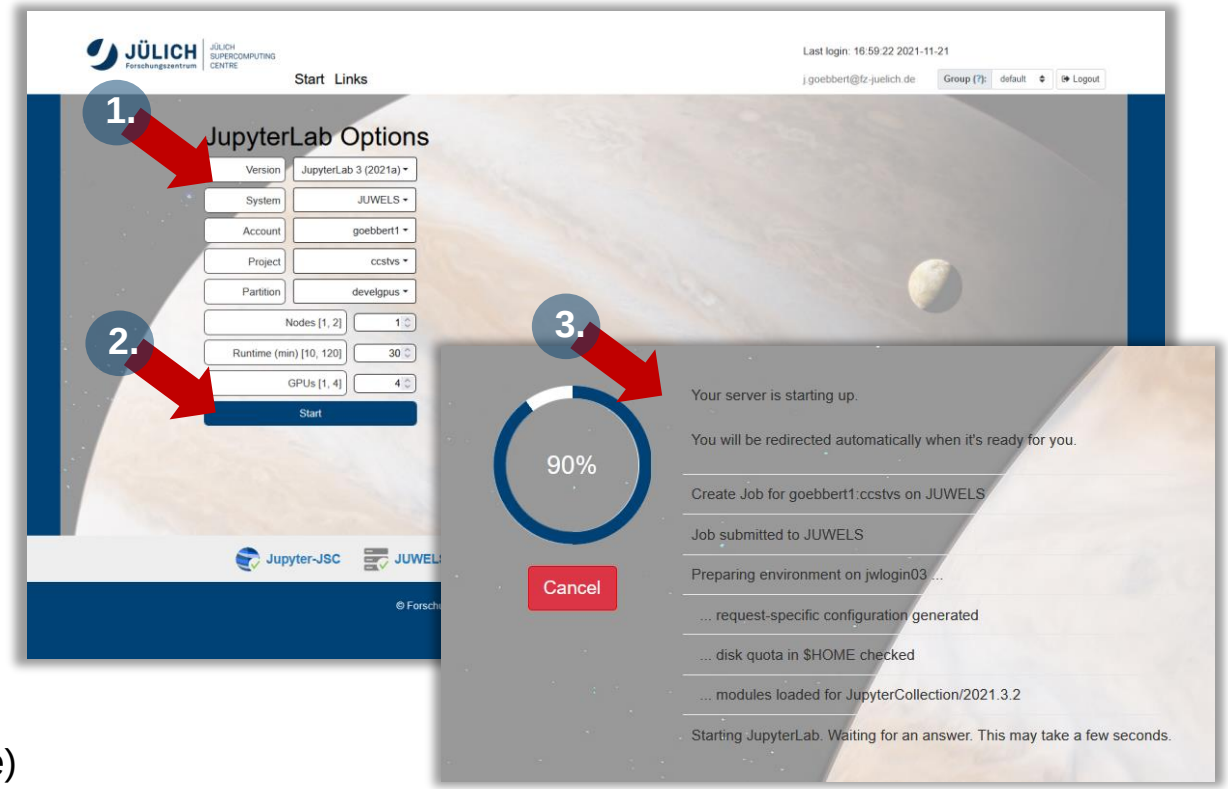
- user account settings visible in **judoor.fz-juelich.de**
- currently available systems in all of your projects
  - system specific usage agreement on JuDoor is signed

Basic options

- Version:
  JupyterLab 2 and JupyterLab 3 (default) is installed
- System:
  JUWELS, JURECA, JUSUF, DEEP, HDFML, HDF-Cloud
- Account:
  In general users only have a single account
- Project:
  project which have access to the selected system
- Partition:
  partition which are accessible by the project
  (this includes the decision for LoginNode and ComputeNode)

Extra options

- Partition == compute Nodes, Runtime, GPUs, …



NEW: Version

- **Choose the version of JupyterLab 2 or 3 (default)**

https://docs.jupyter-jsc.fz-juelich.de/github/FZJ-JSC/jupyter-jsc-notebooks/blob/master/Announcement-2021-11_JupyterLab3_at_Jupyter-JSC.ipynb

JUPYTERLAB – REMOTE DESKTOP

Run your X11-Applications in the browser

Jupyter-JSC gives you easy access to a remote desktop

1. https://jupyter-jsc.fz-juelich.de
2. Click on “Xpra”

Xpra - X Persistent Remote Applications
is a tool which runs X clients on a remote host and directs their display to the local machine.

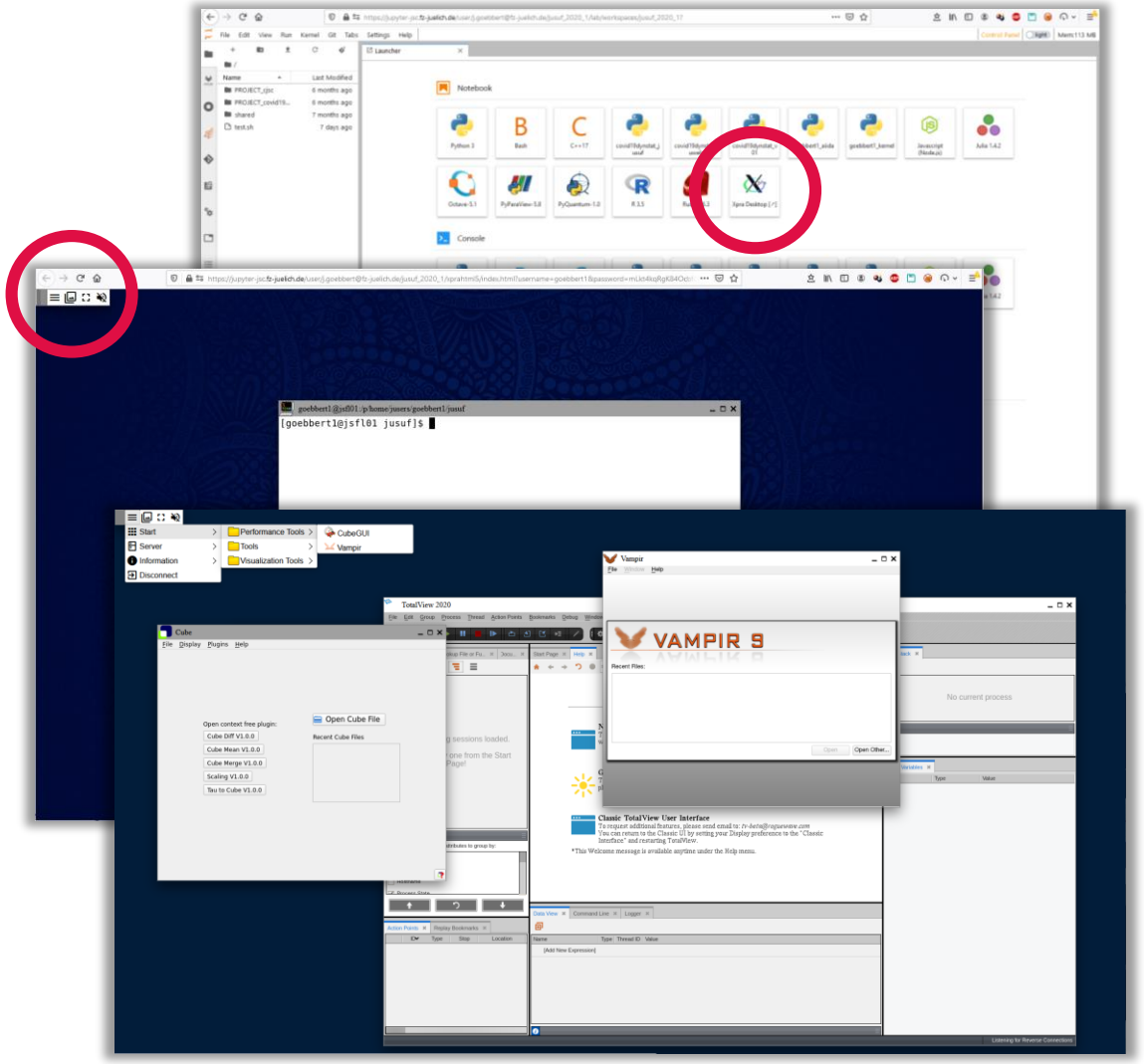
- Runs in a browser
- allows dis-/reconnection without disrupting the forwarded application
- https://xpra.org

The remote desktop will run on the same node as your JupyterLab does (this includes compute nodes).

It gets killed, when you stop your JupyterLab session.

Hint:

- `CTRL + C -> CTRL + Insert`
- `CTRL + V -> SHIFT + Insert`



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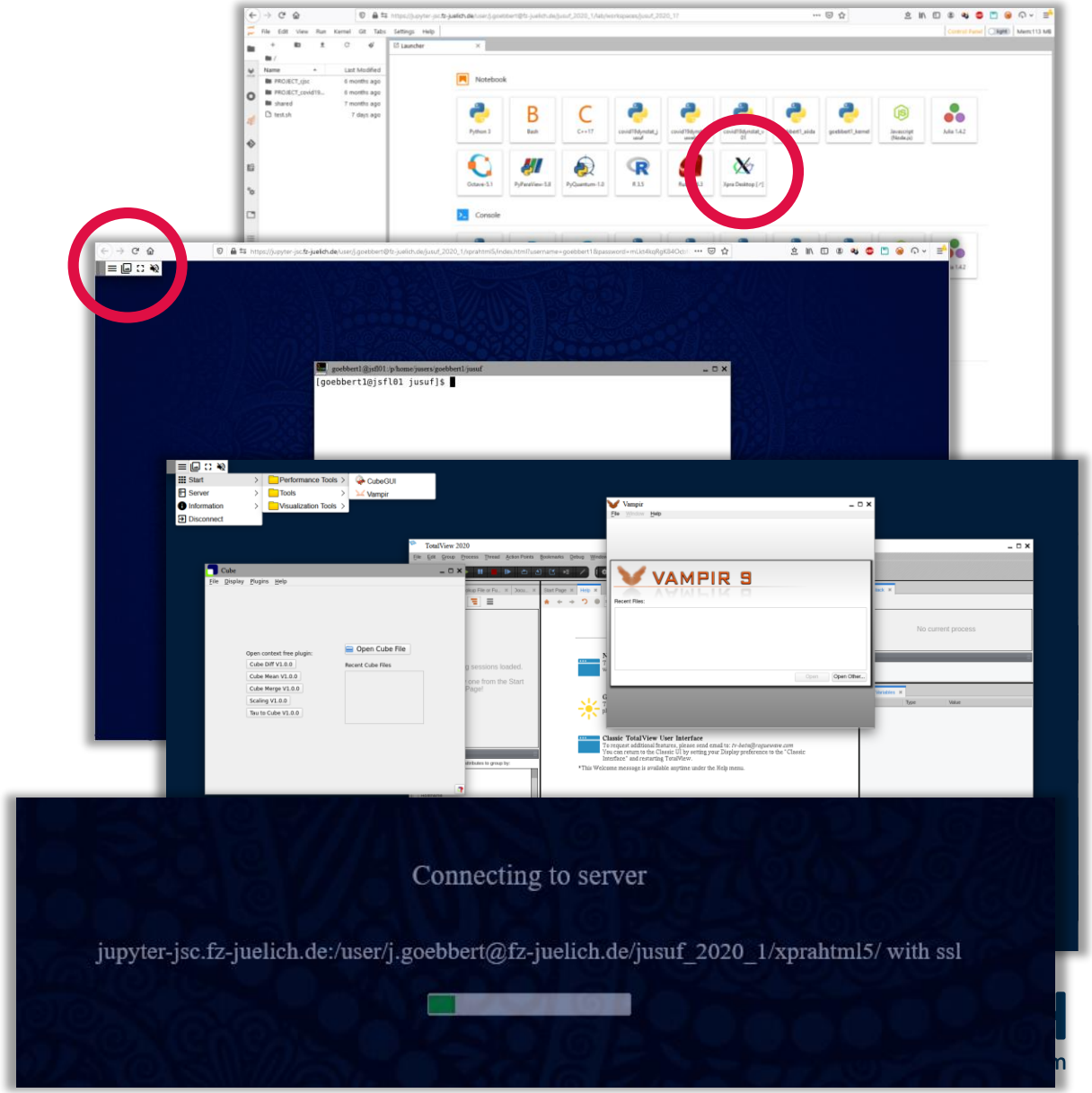
If the connection got lost at some point,
just hit the “reload” button of your browser.



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QUESTIONS?

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