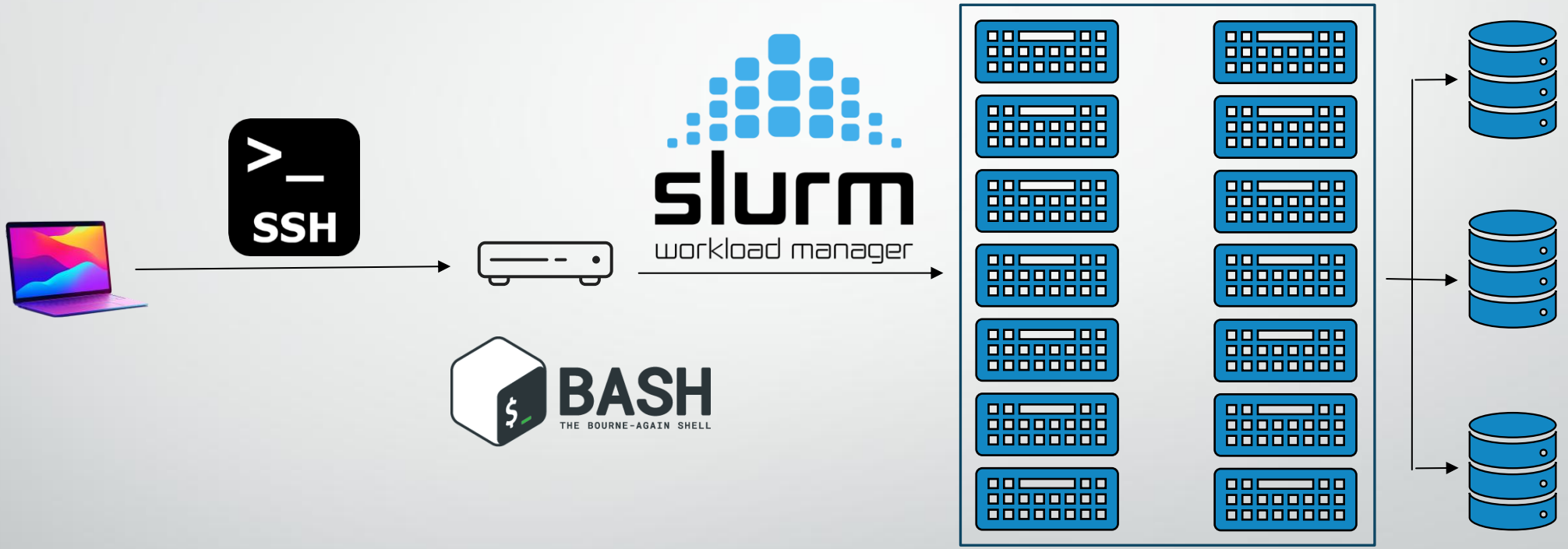
CÉCI

ULB UNIVERSITÉ LIBRE DE BRUXELLES

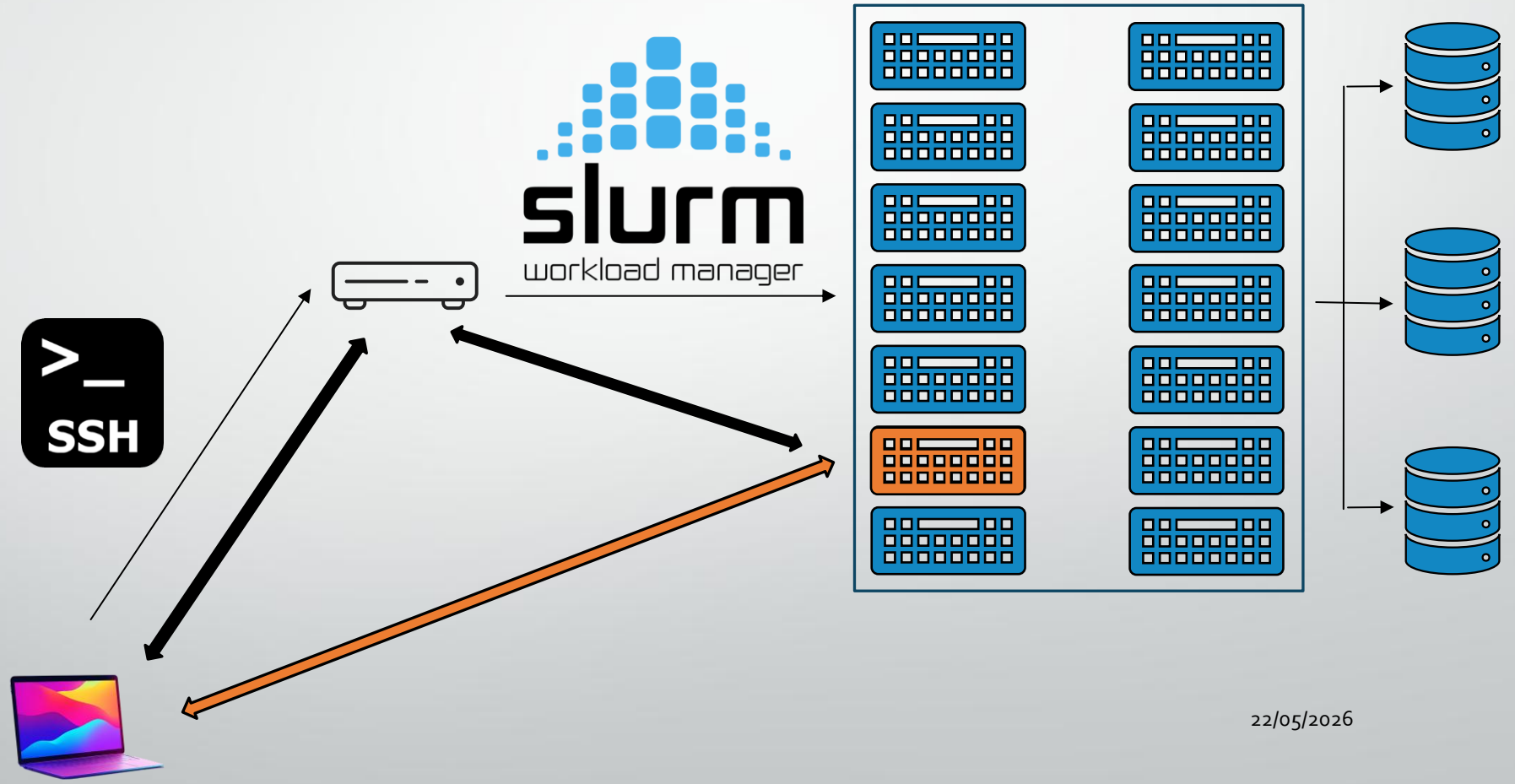
ceci-lab

Your new GUI for HPC

How to use an HPC cluster ?



How to use an HPC cluster **interactively** ?



Interactive Jobs

Pros:

- You can develop, test and compute on the same machine
- You can run a service such as VSCode or Jupyter and use it as a GUI to the cluster
- Convenient view, especially for beginners

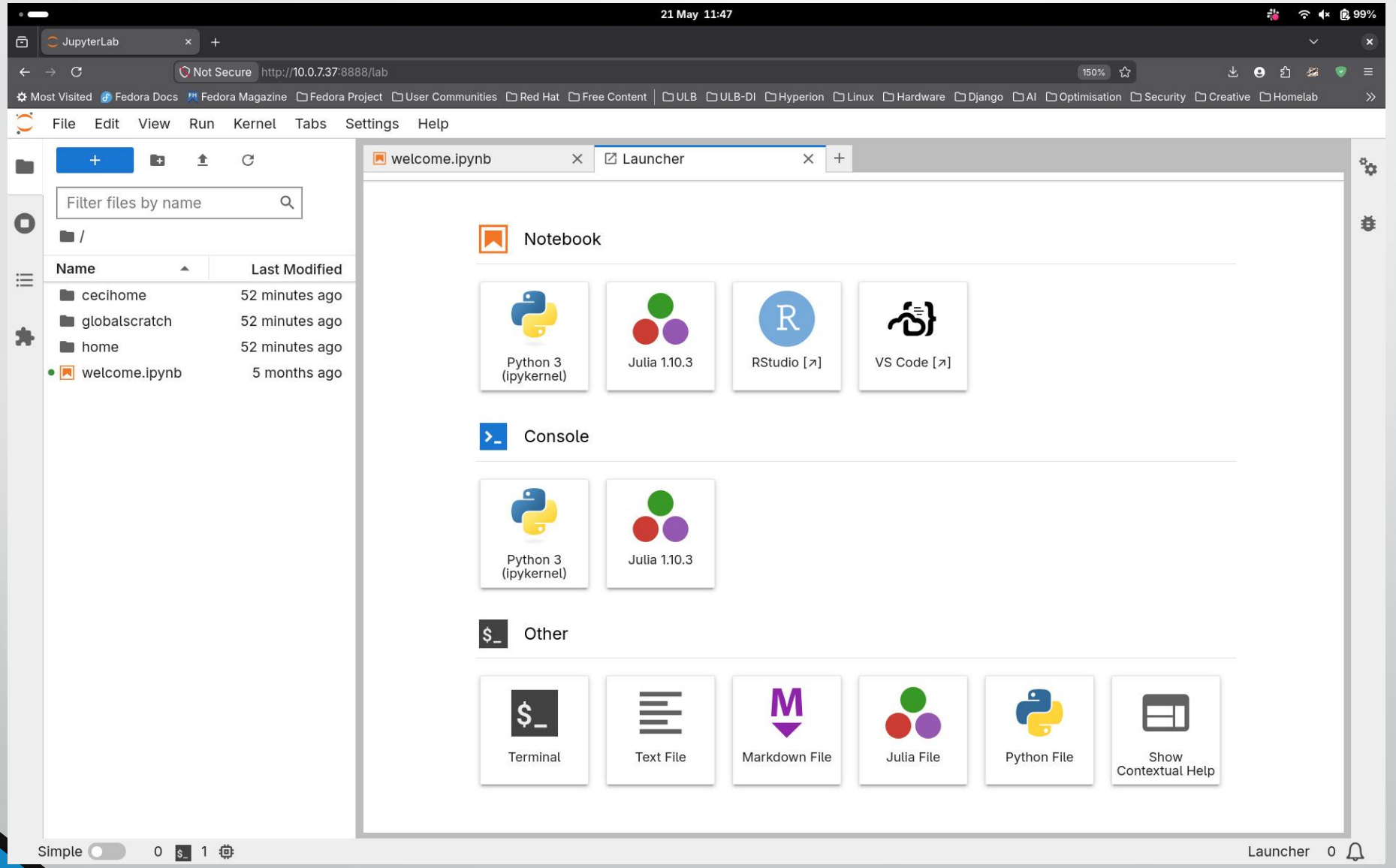
- Does not clog the login node !!

Cons:

- Setting up a server can be daunting

Ceci-lab: an automated solution

Powered up JupyterLab



Command Line Interface

Resource allocation example

```
$ ceci-lab --cpus 8 --memory 32 --gpu --time 08:00
```

Email alerts when the job starts

```
$ ceci-lab --mail your.email@youruni.be
```

Help and information about current session

```
$ ceci-lab --help
$ ceci-lab --info
```

Persistent user environment

Problem !

After the end of the job, every temporary file or configuration is lost

Creating a new environment (first time)

```
$ ceci-lab --save-env awesome-project
```

Loading an environment created previously

```
$ ceci-lab awesome-project
```

State of development

- Still in test phase (pls. report the issues you find)
- Available on Lyra
- Soon available on Lemaitre4
- Will be available on the new clusters (Dragon3, Hercules3, Nic6)

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Questions ?

Thanks for your attention