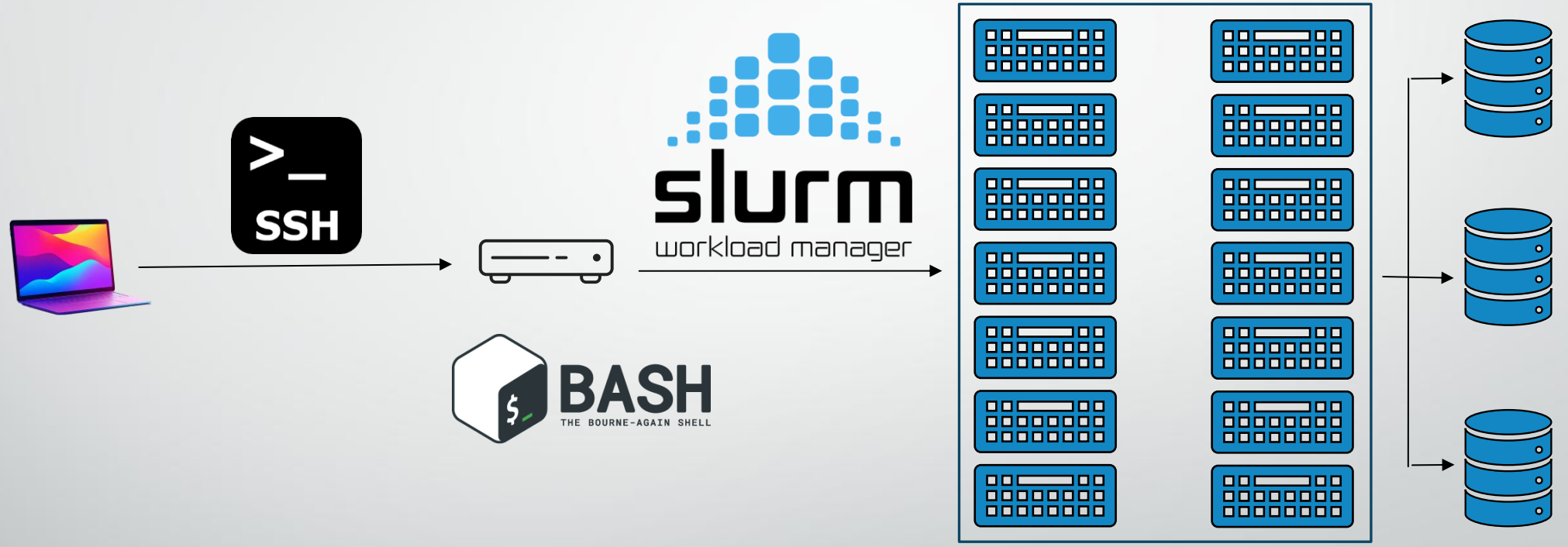




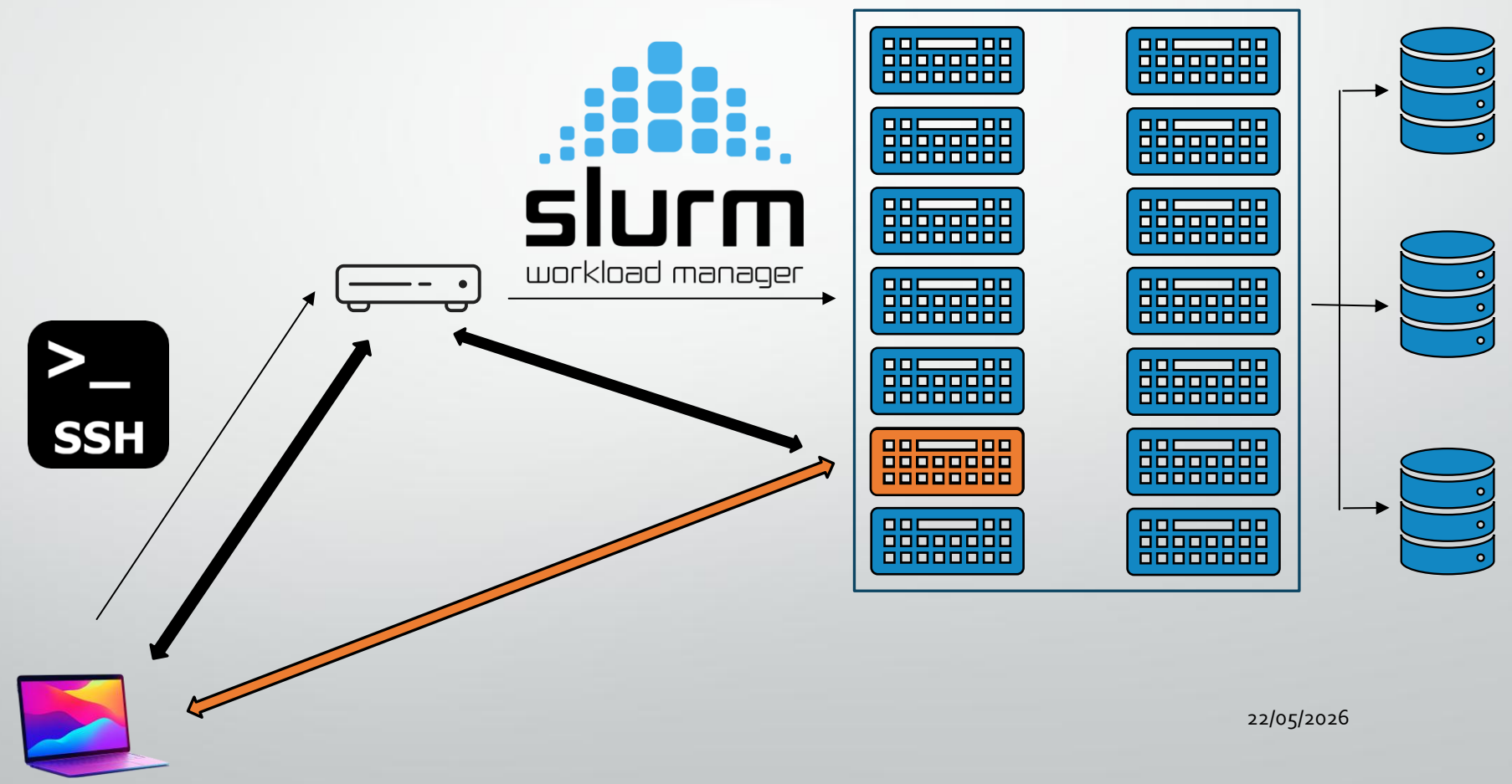
# ceci-lab

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:

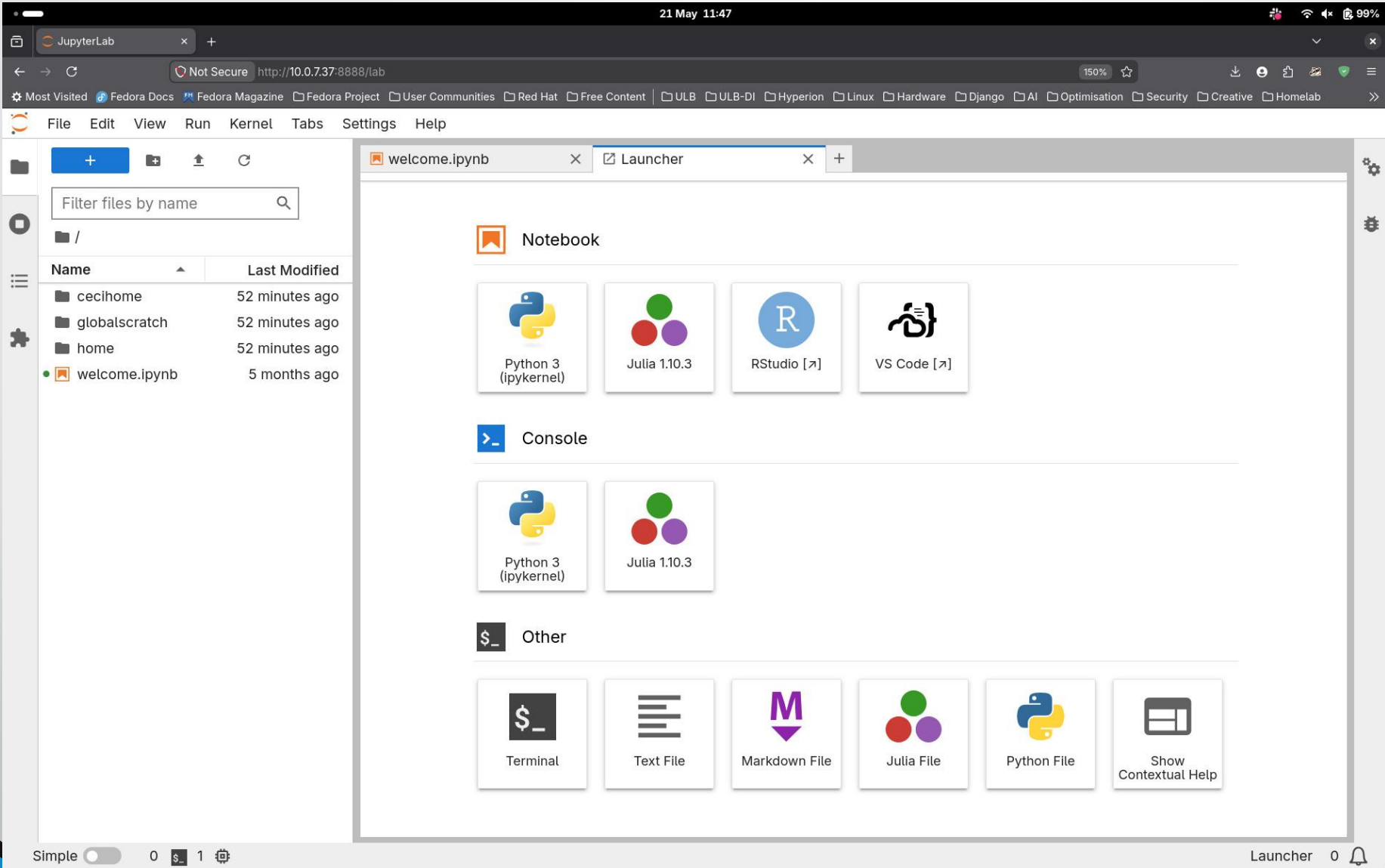
- Setting up a server can be daunting

# Ceci-lab: an automated solution



A screenshot of a terminal window on a Linux system. The window title bar shows the date and time "20 May 18:08" and the user's location "npotvin@Fedora-Thinkpad-X1-Carbon-Gen-10:~". The terminal content shows a shell prompt "18:07:56 | npotvin@Fedora-Thinkpad-X1-Carbon-Gen-10: ~" followed by a dollar sign "\$" on the next line, indicating a root shell. The terminal background is dark, and the text is in a light color. A mouse cursor is visible at the bottom center of the terminal window.

# 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)

# Questions ?

Thanks for your attention