

## Handout: JupyterHub

- JupyterHub E4: <https://jupyter.e4.physik.tu-dortmund.de/>

### Server Options

**Request CPUs:**  
1

**Request RAM (in GB):**  
2 GB

**Submission machine (Cluster/ Workstations):**  
acamar

**Machine learning/ general Job:**  
General

**Job Runtime (h):**  
8 h

Start

- 

Ask supervisor for workstation

- Line Numbers: View → Show Line Numbers

## Useful shortcuts:

<b>Command Mode:</b>	ESC
Run Cell	CTRL + Enter
Run Cell and go to the next cell	Shift + Enter
Change cell to heading 1, heading 2	1 , 2
Change cell in markdown	m
Change cell in raw data	r
Delete selected cells	d d
undo (e.g. restore cell)	z
Insert cell above	a
Insert cell below	b
Merge the current cell with the cell below it	Shift + m

<b>Edit mode</b>	Enter
Code completion or indentation	Tab
Indentation undone	Shift + Tab
Delete entire line	Cmd + d
Split Cell	Shift + Ctrl + -

Execute shell commands	! <code>&lt;command&gt;</code> e.g. !cd !ls
Show compilation time	%time

# Data Structure

It makes sense to think about a data structure at the beginning of a project. The data structure ensures that the research data is named and structured consistently so that the overview is not lost and different versions of the data records are not inadvertently used. A uniform data structure saves a lot of time and, once established, can be used as a template for further research. With a good structure, you can ensure that you can find your own data yourself and still understand what has been done even after some time. This also helps employees to better understand the data.

Files should always be named consistently and clearly. A file name for this handout could be: 240408\_handout\_jupyterhub\_final.pdf  
(Date\_Project\_Version.pdf Do not use spaces!)

Naming the folders is also important for structured work. Folder names can also begin with a date format.

Overall, a clear and comprehensible folder structure helps to optimize work processes, increase efficiency and improve the organization of information.

The infographic is divided into two main sections: 'Dateibenennung' (File Naming) and 'Ordnerstrukturen' (Folder Structures).

**Dateibenennung**

Einheitlich und Eindeutig  
Systematisch Dateien benennen

ISO 8601 format for dates: YYYY-MM-DD No spaces

Verweise auf Projekt, Experiment, Protokoll etc.

If necessary: File owner If necessary: Version

2023-11-14\_HCN4\_HEK293\_IV60s\_FN-001.csv

No special characters

Übersichtlich, nachvollziehbar, effizient mit deiner strukturierten Datenablage

Projektnamenstruktur:

- ▼ Projektname
- ▶ Projektmanagement
- Antraege
- Berichte
- Finanzen
- ▼ Veröffentlichungen

1. Ordner auf nicht mehr als drei Ebenen anlegen

2. Kurze, klare Dateinamen

3. ReadMe-Datei mit Hinweisen zur Handhabung

4. Vorlage der Ordnerstruktur anlegen und nachnutzen

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