

# 0 – Setting up JupyterLab (Conda) on Windows

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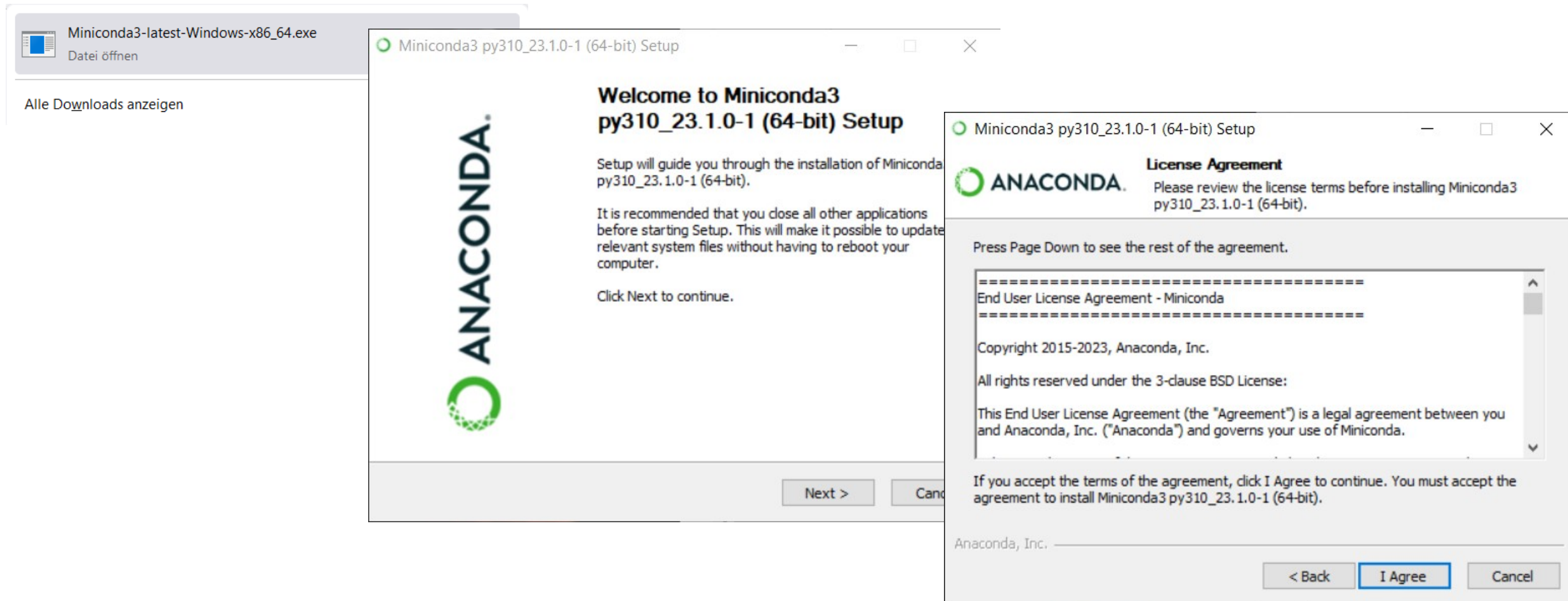
Course: Scientific Programming / Wissenschaftliches Programmieren (Python)



<https://www.bccms.uni-bremen.de/people/b-aradi/wissen-progr/python/2023>

# Install Conda (Miniconda) on Windows

- Download the [latest Miniconda installer \(Miniconda3 Windows 64-bit\)](#)
- Start the downloaded Miniconda installer



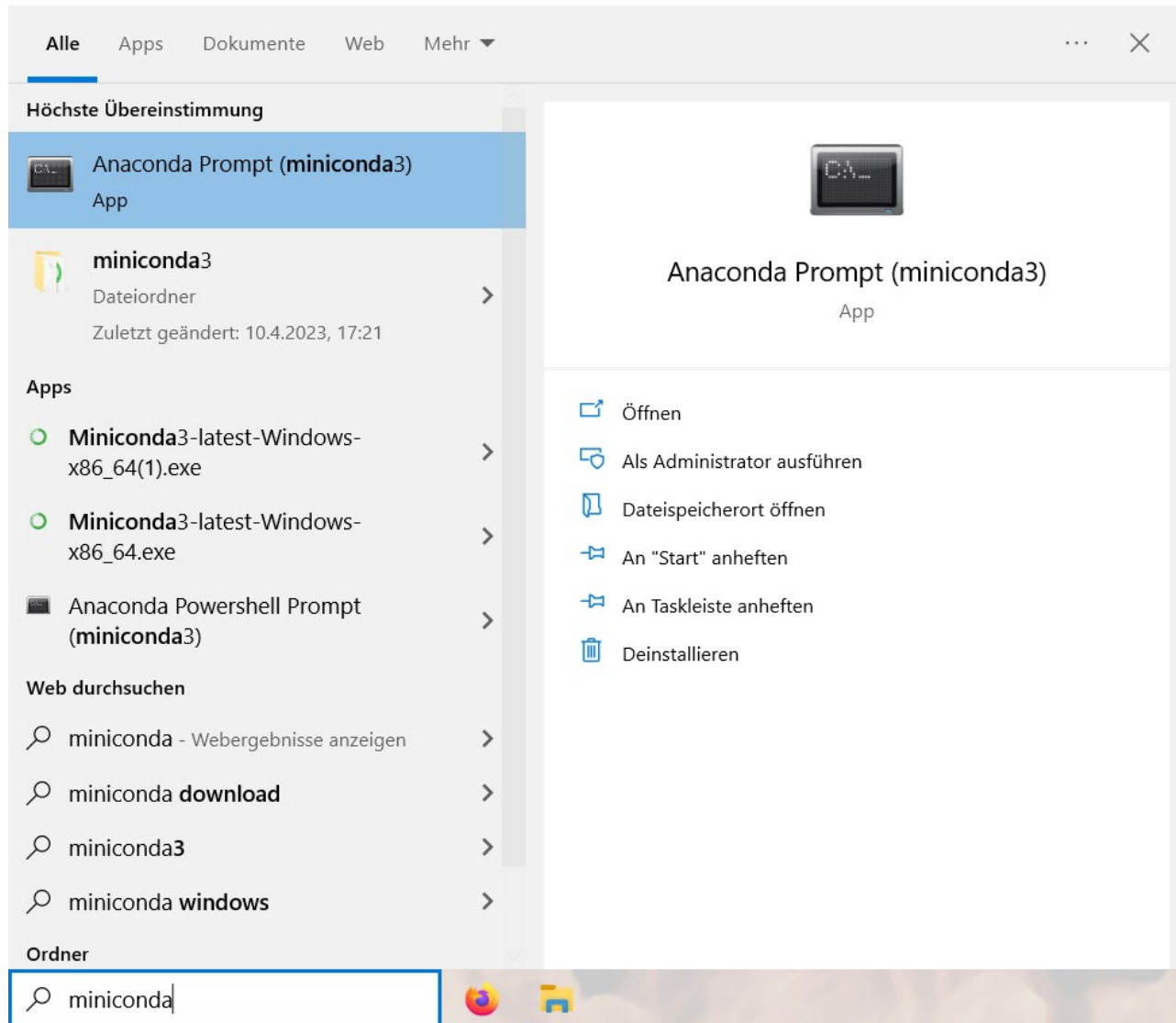
# Install Conda (Miniconda) on Windows

The image displays four overlapping screenshots of the Miniconda3 py310\_23.1.0-1 (64-bit) Setup wizard:

- Select Installation Type:** Shows the 'Install for:' section with 'Just Me (recommended)' selected and 'All Users (requires admin privileges)' unselected.
- Choose Install Location:** Shows the 'Destination Folder' field with the path `C:\Users\aradi\miniconda3` entered. It also displays 'Space required: 242.9 MB' and 'Space available: 20.6 GB'.
- Advanced Installation Options:** Shows several checkboxes: 'Create start menu shortcuts (supported packages only)' (checked), 'Add Miniconda3 to my PATH environment variable' (unchecked), 'Register Miniconda3 as my default Python 3.10' (checked), and 'Clear the package cache upon completion' (unchecked).
- Completing Miniconda3 py310\_23.1.0-1 (64-bit) Setup:** Shows the 'ANACONDA.' logo and two checked options: 'Getting started with Conda' and 'Welcome to Anaconda'.

# Set up Conda working environment

- Start the Anaconda prompt (= command line terminal with initialized Conda environment)



# Set up Conda working environment

- Update Conda (in case newer version is available)

```
conda update conda
```

```
Anaconda Prompt (miniconda3) - conda update conda

(base) C:\Users\aradi>conda update conda
Collecting package metadata (current_repodata.json): done
Solving environment: -

```

```
The following NEW packages will be INSTALLED:

boltons                pkgs/main/win-64::boltons-23.0.0-py310haa95532_0
jsonpatch              pkgs/main/noarch::jsonpatch-1.32-pyhd3eb1b0_0
jsonpointer            pkgs/main/noarch::jsonpointer-2.1-pyhd3eb1b0_0
packaging              pkgs/main/win-64::packaging-23.0-py310haa95532_0

The following packages will be UPDATED:

conda                  23.1.0-py310haa95532_0 --> 23.3.1-py310haa95532_0
cryptography          38.0.4-py310h21b164f_0 --> 39.0.1-py310haa95532_0
openssl               1.1.1s-h2bbff1b_0 --> 1.1.1t-h2bbff1b_0
pyopenssl             pkgs/main/noarch::pyopenssl-22.0.0-py310haa95532_0 --> pkgs/main/noarch::pyopenssl-23.0.0-py310haa95532_0
requests              2.28.1-py310haa95532_0 --> 2.28.1-py310h21b164f_0
sqlite                3.40.1-h2bbff1b_0 --> 3.41.1-h2bbff1b_0
tqdm                  4.64.1-py310haa95532_0 --> 4.65.0-py310haa95532_0
tzdata                2022g-h04d1e81_0 --> 2023c-h04d1e81_0
urllib3               1.26.14-py310haa95532_0 --> 1.26.15-py310haa95532_0
zstandard             0.18.0-py310h2bbff1b_0 --> 0.19.0-py310h2bbff1b_0

Proceed ([y]/n)? y
```

# Set up Conda working environment

- Create a special environment for all the course related stuff

```
conda create -n scipro
```

```
(base) C:\Users\aradi>conda create -n scipro
Collecting package metadata (current_repodata.json): done
Solving environment: done

## Package Plan ##

  environment location: C:\Users\aradi\miniconda3\envs\scipro

Proceed ([y]/n)? y
```

- Activate the **scipro** environment

```
conda activate scipro
```

- We will install all course related programs into this environment.
- Whenever you start the Anaconda prompt, you should activate this environment with the command above in order to access the installed programs.
- You might create further environments to host other software collections for other projects.

# Set up Conda working environment

- Install JupyterLab (make sure, you are in the scipro environment!)

```
conda install jupyterlab
```

```
(scipro) C:\Users\aradi>conda install jupyterlab  
Collecting package metadata (current_repodata.json): \
```

Name of the active environment

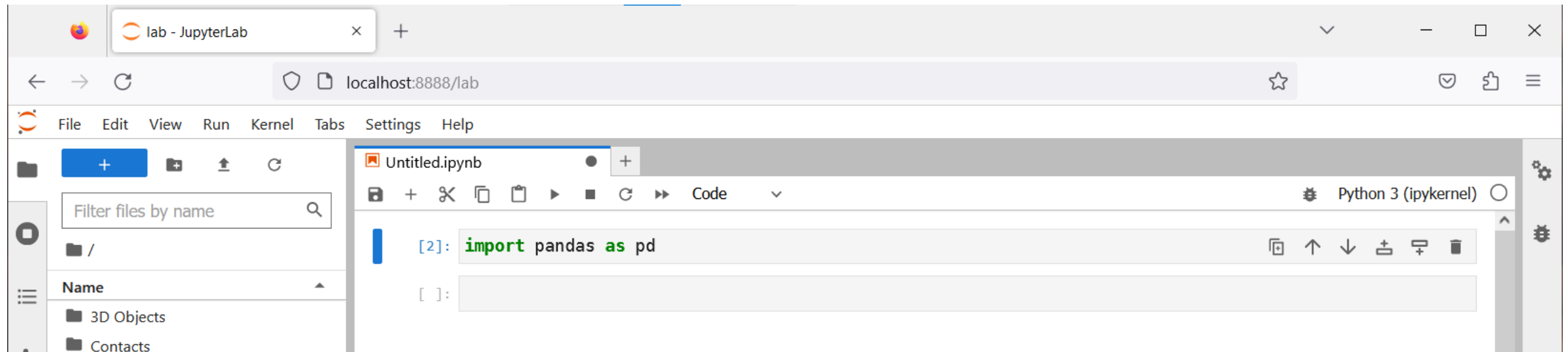
# Start JupyterLab

- Start JupyterLab

```
jupyter-lab
```

```
(scipro) C:\Users\aradi>jupyter-lab  
[I 2023-04-10 17:41:08.939 ServerApp] jupyterlab | extension was successfully linked.  
[I 2023-04-10 17:41:08.955 ServerApp] nbclassic | extension was successfully linked.
```

- This should start a browser with JupyterLab
- (If nothing happens for a long time, it may be necessary to press Ctrl-C (Strg-C) once in the command window)





**You are ready to use JupyterLab and create Python programs!**

**Have fun!**