

## **Compact Course: *Data Exploration with Python and Jupyter***

Date: 10.11.21 9-13 Uhr

Instructor: Dr. Liam Keegan, Research Software Engineer, Scientific Software Center

Venue:

The course will be given as an in-person event if the Covid-19 situation permits. HeiConf will be used otherwise. A final decision with an announcement of the exact venue will be made two weeks prior to the course.

Prerequisites:

No prior knowledge by the participants is necessary to participate in this course and it is intended for all scientific audiences. Participants are required to bring their own laptops to work on during the course. Network access (e.g. through Eduroam) is recommended. If held online, participants are expected to have audio/video equipment to participate in a video conference (HeiConf).

Summary:

Jupyter notebooks are a great tool for exploring and interacting with data using the Python programming language and its rich ecosystem of libraries. In this course we will cover basic usage of the Pandas library to download a dataset, explore its contents, clean up missing or invalid data, filter the data according to different criteria, and plot visualizations of the data.

Learning objectives:

After the course participants will be able to use a Jupyter notebook to

- Explore a dataset
- Filter the dataset
- Clean up missing / invalid entries
- Generate plots and visualizations of the data

Registration:

Please register using this webform:

<https://ssc.iwr.uni-heidelberg.de/form/jupyter-dataexplore-ws21>