

Introduction to Statistical Data Analysis and Visualization with Python

Content

Python is a modern programming language which is also much used for Statistical Data Analysis and Machine Learning. It has become a core tool of choice for a wide range of researchers spanning over multiple disciplines. The aim of the present workshop is to give the participants a first step hands-on practical session on Python and Jupyter Notebooks. Introduction to basic Python and its tools for working with data, doing descriptive statistics, visualization and hypothesis testing are practiced. The use of own datasets is encouraged.

Learning outcomes

At the end of the course, participants can with Python:

- import and summarize data
- manipulate data frames
- explore data with descriptive statistics and graphics
- produce high quality publication level graphics
- perform basic regression and statistical hypothesis testing

Trainer:	<u>SciTS Team</u> (PD Dr. S. Haug, Dr. K. Sipos, Dr. Guillaume Witz et al.)
Target Group:	(Post)Docs planning to work with Python to analyse and visualise data.
Language:	English
Nr of Participants	17
Requirements	No prior knowledge in Python is assumed, however, basic statistical school knowledge is required for simple statistic metric. Intermediate models will be introduced during the workshop.
Dates	2021-11-10, 2021-11-17, 2021-11-24 from 09:00 to 17:00.
Location	Main Building, Hochschulstr. 4, day 1-2: room 304, day 3: room 331
ECTS	1 (24h attendance plus 1 hour preparation)
Further Information	Participants must bring a Wi-Fi enabled laptop.