

# Data Science in Python (DSiP) - Programming Basics

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September 24, 2023

# Exercise: Explore the math package

## Setup

- Open the IPython notebook using the command `'ipython notebook'` from the directory where you want to store your exercises.
- Create a new notebook - use a meaningful naming scheme, like, for example, `'Name-coursename-semester'`.
- Create a first markdown block and create a header with the title, name, course, and semester.
- Work through the IPython notebook tutorial under <http://ipython.org/ipython-doc/2/notebook/notebook.html>.
  - Learn the principles behind the notebook, how it is started, how you edit code and text, and the IPython magic commands.
- Create a first code block and start with the following exercise.

# Exercise: Explore the math package

## Exercise

Explore the math package and make the following calculations:

- $\cos(0.7) + \sin(0.3)$
- Factorial of 20
- Round down the following numbers: 1.4, 3.5, 4.8
- Check the runtime behavior of different functions in the `math` package.