

# Computational Finance

Preparation for participants of all programs

## Installation of Python and Pycharm

First of all you need to install Python on your computer. You can find the latest version for your OS on <https://www.python.org/downloads/>.

Next you need to install an IDE. We recommend to use the Pycharm IDE (Community Edition), which can be found on <https://www.jetbrains.com/pycharm/download/>.

An installation guide can be found on <https://www.jetbrains.com/help/pycharm/installation-guide.html> and how to complete the setup when starting Pycharm for the first time can be found on <https://www.jetbrains.com/help/pycharm/run-for-the-first-time.html>.

*Other useful tutorials on installing Python/Pycharm:*

<https://www.guru99.com/how-to-install-python.html>

## Installing packages

After you followed the steps to install Python and managed to start your first project in Pycharm it is important to install some packages.

How to install packages in Pycharm: <https://www.jetbrains.com/help/pycharm/installing-uninstalling-and-upgrading-packages.html>

If this is not working you can try to install the packages using command lines:

<https://docs.python.org/3/installing/index.html>

For this course you should install the following packages: *Numpy, Scipy, Matplotlib*

## Useful resources

- *The Python-Wiki contains a lot of helpful information about Python, including a Beginners Guide, code examples for different objectives (can be found under SimplePrograms) and Beginner Errors.* <https://wiki.python.org/moin/FrontPage>
- *An interactive tutorial for Python:* <https://www.learnpython.org/>
- *The Python-Documentation has its own tutorial:*  
<https://docs.python.org/3/tutorial/index.html>
- *The Numpy-Documentation provides Tutorials on how to work with Numpy:*  
<https://numpy.org/devdocs/>
- *The User Guide for Matplotlib can be found here:*  
<https://matplotlib.org/users/index.html>