



Welcome to our Python Installation Party !!

Real Python

# Steps to install python on your laptop



## 1. Check whether python is already installed

- search for *Anaconda* in the installed programs
- open the terminal app (Mac, Linux) or the Powershell (Windows)
- type `$ python` in a command line window -> command not found message means it is likely not installed

## 2. Collect information about your operating system :

- Windows, Mac OS, Linux ?
- 32 bit vs. 64 bit operating system
- Mac : Apple silicon or Intel chip? (Apple menu → About This Mac → Processor/Chip : Apple M1/2.. means Apple silicon)

## 3. Download the corresponding Installer for Python 3.9 from Anaconda

(for Windows and Mac) :

- <https://www.anaconda.com/download/> chose the Graphical Installer (requires creating of an Anaconda account)
- download the installer from my website : <https://biomedicale.u-paris.fr/~mgraupe/python-installers/>

## 4. Launch the Installer on your laptop

- **Important installation options** : (these options are only available in windows not for mac)
  - check installation for this user only : “Install for just me (recommended)”
  - check “add Anaconda to my PATH environment variable” (*important!*)
  - check “Register Anaconda as my default Python 3.x”

# Complete installation with required packages



## 1. Launch *Anaconda Navigator*

- go to the environments tab : you can see all installed python packages in the 'base' environment there
- verify that all required packages are installed (ipython, numpy, scipy, jupyter-notebook, matplotlib, pandas, scikit-learn, xlrd)
- install **biopython** (and any other package above which is not already installed) as it is not part of the default installation; you can either do this in the  
Anaconda Navigator or in the command line
  - > Anaconda Navigator : go to 'base' environment and chose 'Not installed' packages, search for *biopython* and install
  - > Command line : launch the 'Anaconda prompt' and execute `$ conda install -c anaconda biopython` (don't worry about warnings and intermittent error messages, unless the code finishes with an error message)

## 2. Add **Brian2**

Type the following command in the 'Anaconda prompt' :

```
$ conda install -c conda-forge brian2
```

# Test python on your laptop



## 1. Using ipython :

Execute `$ ipython` in the 'Anaconda prompt' or the 'Terminal' (on mac)

- try to import the packages required for the course

```
In[1] : import numpy, scipy, matplotlib, pandas, Bio, sklearn, brian2, xlrd
```

(the import should end without error message)

## 2. Using the jupyter notebook environment :

Execute `$ jupyter-notebook` in the 'Anaconda prompt' or the 'Terminal' (on mac)

- the jupyter server should start and a window should open in your browser
- you can select and launch the course tutorial or homework assignment (which have to be files with the `[name_of_file].ipynb` ending) here
- Chose 'New' -> 'Python 3' to start a new notebook; try again if all the above packages can be loaded with

```
In[1] : import numpy, scipy, matplotlib, pandas, Bio, sklearn, brian2, xlrd
```