



Preparations for Python programming

1. Uninstall any other older Python version(s) from your notebook and restart notebook
2. All following tools and libraries **MUST** be installed **BEFORE** the workshop starts due to internet limitations.
3. Download Anaconda Python 3 or higher + Spyder for your operating system from here: <https://www.anaconda.com/download>
Select PYTHON 3 or higher, e.g PYTHON 3.7
Filename in case of Windows is something like Anaconda3-2024.02-1-Windows-x86_64.exe for 64 bit machines (~926 MB)
Double-click this file and execute it.
Select installation only 'Just me', as recommended. In case of a multi-user PC select 'all' but then you will need administrator rights. Takes about 10 minutes to install
4. Open a CMD-window (former DOS-prompt) and type python
A python message should appear similar to: Python 3.7 |Anaconda 5.1.0 or similar
Exit Python-prompt by entering ctrl z, Exit from DOS-window type exit.
5. From your start-menu or from program folder send a link for Spyder.exe to the desktop. 
May be you want to change the icon which you can get from \Anaconda\Scripts\

6. Open CMD-window or even better the Anconda-prompt. Installations can also be done inside of the Spyder window
Install SunPy by typing: pip install radiospectra
Install matplotlib by typing: pip install matplotlib
Install astropy by typing: pip install astropy
Install lmfit by typing: pip install lmfit
Install PIL by typing: pip install Pillow
Install scipy by typing: pip install scipy
If you get error messages, then you need change permissions of the involved folders to 'full access'
7. Execute Spyder
This takes about 2..4 minutes, depending on your notebook resources
Type the python script below and execute script by pressing F5 or pressing the green triangle. Check if you get a response in the Spyder console.

```
# -*- coding: utf-8 -*-  
"""
```

```
Created on Mon Dec 04 21:38:59 2017
```

```
@author: Dagobert Duck
```

```
"""
```

```
import numpy as np
```

```
print 'Hello world, here is my 1st Python script:'
```

```
print 'Square root of 10 is about {:.3f} '.format(np.sqrt(10))
```