Preparations for Python programming

1. Uninstall any other older Python version(s) from your notebook and restart notebook
2. Find out whether you work with a 32-bit or with a 64-bit computer. All following tools and libraries **MUST** be installed **BEFORE** the workshop starts due to internet limitations in Ethiopia
3. Download Anaconda Python 2.7 + Spyder3 for your operating system from here:
   https://www.continuum.io/downloads
   Select PYTHON 2.7 (no other higher version!), WINDOWS 64-Bit Graphical Installer
   Filename in case of Windows is something like: Anaconda2-5.0.1-Windows-x86_64.exe for
   64 bit machines (523 MB) or   Anaconda2-5.0.1-Windows-x86.exe for 32 bit machines (420
   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 2.7.12 |Anaconda 4.2.0
   Exit Python-prompt by entering ctrl z, Exit from DOS-window type exit.

5. From your 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 Anconda-prompt
   Install SunPy by typing: pip install sunpy
   if already installed type: pip install --upgrade sunpy
   If you get error message, then you need to change permissions of the involved folders
    to 'full access'
   Install matplotlib by typing: pip install matplotlib
   Install pyfits by typing: pip install pyfits
   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 Spyder3
   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.

```python
# -*- 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))
```