Talk 3: Python

We try to install Python (ANACONDA) on several PCs/Notebooks.
A few examples are demonstrated on how to plot 2D-spectra, 1D-spectra and light-curves

PYTHON installation

Uninstall any other old Python version(s)

Download Anaconda Python 2.7 for Windows
from here:
https://www.continuum.io/downloads
Select PYTHON 2.7, WINDOWS 64-Bit Graphical Installer
Filename is like: Anaconda2-4.1.0-Windows-x86_64.exe
Save it locally

Doubleclick 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

Open a CMD-window (former DOS-prompt) and type python.
A python message should appear
Exit by ctrl z

From folder Programme send a link for Spyder.exe to the desktop.
May be you want to change the icon which you can get from \Anaconda\Scripts\

Open CMD-window (former DOS-prompt)
Install SunPy by typing: pip install sunpy
if already installed press pip install sunpy --upgrade
If you get error message, then you need change permisson of the involved folder
to 'full access'
Install matplotlib by typing: pip install matplotlib
Install pyfits by typing: pip install pyfits
If you get error message, then you need change permisson of the involved folder
to 'full access'

Execute Spyder
This takes about 2..4 minutes
load a python script example and edit path and filename
execute script by pressing F5

Or, as a good alternative use ipython from the same installation.
Open CMD-window (former DOS-prompt) and change to your Python application folder,
where your scripts are located.
Type on the command prompt: ipython notebook or jupyter notebook
Either type your own new code (new Python [Root]) or open an existing example.

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Execute code by pressing Shift+ENTER
Get help-info by pressing Shift+TABULATOR
If you need plots, don't forget to type %matplotlib inline on top of your code.

IPYTHON Graphical Interface
https://jupyter-notebook-beginner-guide.readthedocs.io/en/latest/

Start tool in DOS-window inside the target folder: jupyter notebook or ipython notebook
load script and/or edit script
shift enter = execute block
shift tab = help

Publication and printing:
save script.ipynb in dropbox
copy link to clipboard
load http://nbviewer.jupyter.org
paste clipboard into the window
Option add: ?flush_cache=true
Press button Go!
Enjoy sript and plots as well as printing

Close:
Press ctrl-C in the DOS-window

For automatic scripting perform download ipython-script as standard python script
Do not forget to comment off the statement %matplotlib inline