Installation requirements for the camp

The camp will be entirely given in python 3.5+ Therefore you need to have it installed when you arrive at the workshop. It goes the same for the libraries that we will use.

The library that will be used are:
Standard library (comes with python installation, no need for you to install extra libraries), ipython, matplotlib, astropy and jupyter-notebook

If you already have everything installed with the right version of python then you can skip the rest of the document.

If you have a python 3.5+ but some of the libraries are missing you can install them via pip:

pip install ipython, matplotlib astropy notebook

if you have nothing, you can install Anaconda. Anaconda is a python distribution that allows you to create closed python environnement so you do not mess you original installation up. And the good thing is that it comes will (almost) all the libraries we will need for the camp.
We describe below the installation process for linux, mac and windows

1-Installation of Anaconda

WARNING: The installer will put anaconda in your PATH. Therefore it will become your default python. I strongly suggest to remove it from your PATH at the end of the installation.

In order to install Anaconda you will need to download it. The installation instructions are given there in the links below. Please take the python 3.7 installer for your own OS:

https://www.anaconda.com/distribution/#download-section

While you install anaconda, please note the installation directory.

2-Setting up the environment

Once the installation is over, we create a python environment using, in a terminal (in one line):

```
/path/to/anaconda_directory/bin/conda create -n py37 python=3.7 anaconda
```

This create a python 3.7 environment called py37. To activate this environment you write:

conda activate py37

Then try this command:

which jupyter-notebook

if you have something like:

```
/home/romain/anaconda3/envs/py37/bin/jupyter-notebook
```

Then it is good and you have the jupyter-notebook available. Try to execute the command 'jupyter-notebook', this should open a new page in your web browser.

Then type 'python', you will get the python shell.
The first lines should be something like:

Python 3.7.6 (default, Jan 8 2020, 19:59:22)
*[GCC 7.3.0] :: **Anaconda,** Inc. on linux*
Type "help", "copyright", "credits" or "license" for more information.

Which means you are using the python from anaconda. This installation should come with the packages you need (astorpy and matplotlib). To check, try to import the following packages in the previous python shell, like this:

import matplotlib, astropy

If you have trouble to start the 'conda activate' command you might be able to start python with

/path/to/anaconda_directory/envs/py37/ipython

and jupyter notebook with

/path/to/anaconda_directory/envs/py37/jupyter-notebook

If you have any problem installing python, please tell us in advance and we will try to help you. We will not do python installation fixing during the camp!

For MacOSx: contact Robert de Rosa: rderosa@eso.org
or Johanna Hartke jhartke@eso.org

For Linux: contact Romain Thomas rthomas@eso.org