- Download: https://repo.anaconda.com/archive/Anaconda3-2019.10-Windows-x86_64.exe
- Go the location where the file has been downloaded and double click this file.
- Follow the instructions as required. The default path to which Anaconda may be installed may contain spaces in its name and this will be reported by the Anaconda installer. If this happens, just create a separate folder without any spaces in its name at a different location and use that folder for installing.
- Open the "Anaconda Powershell Prompt" and type the following commands. (Regular command prompt should also be fine since we are not going to use any other command that ‘pip’ and ‘git’)
- First, we will need a package called 'ccdproc' - this can be installed by typing the following command:

```
conda install -c astropy ccdproc
```

- We will also need a package called 'photutils' which can be obtained by the following command.

```
conda install -c astropy photutils
```

- We need to visualize images. One tools for this is called 'ds9', let us download it from http://ds9.si.edu/download/win64/SAOImageDS9%208.1%20Install.exe; locate it; double click and install it. Use the default path "C:\SAOImageDS9". If you change this for some reason, please note it down.
- Another viewer we will need is called 'ginga' - this is to make the task 'imexam' interact with the Python program to do some interactive analysis. To install this package.

```
conda install -c astropy ginga
```

- Our task now is to install 'imexam' but suffers from a lot of problems - a) conda install does not like to install it, b) pip install hates it as well and c) the default installation candidate for imexam has bugs! Some bugs are fixed but not released and some bugs are not fixed at all! And our exercise will depend on this bug being fixed. For this reason, we need to install from a forked / modified copy of imexam. But this means a little more complication in the installation process.
- First install 'git'. Download it from: https://github.com/git-for-windows/git/releases/download/v2.25.0.windows.1/Git-2.25.0-64-bit.exe. Then double click, accept all defaults and install it. You will have to restart your "Anaconda Powershell" for settings to take effect. This is important.
- In the newly restarted Powershell, type the following command:

```
pip install git+https://github.com/vkaustubh/imexam.git
```

- How about we give things a spin? Let's see if Spyder is working. Go to Windows menu and

search for Spyder and play with it.

- Next type the command "jupyter lab" from the Powershell and see if Jupyter Lab opens up. If it does, play around and close the browser window. And hit "Ctrl + c" in the powershell window to recover the prompt.

- Next up, for day 1 we are going to need some notebooks prepared for this workshop. For this, in your Powershell, give the following command.

git clone https://github.com/vkaustubh/basic-astronomical-data.git

- Next, use your browser to download the contents of this Google Drive folder (a single .ipynb file and also the data directory). Google Drive:
https://drive.google.com/drive/folders/1JxdPDuhtZVE-Z3Q9FA1oISQz8jTco0ml
(Try to download it in a folder "Users/(YourUserName)/birla-ml/)

- For this exercises to execute, we need more packages to be installed. Here goes:

conda install keras

conda install pydot

Done! See you at the workshop!