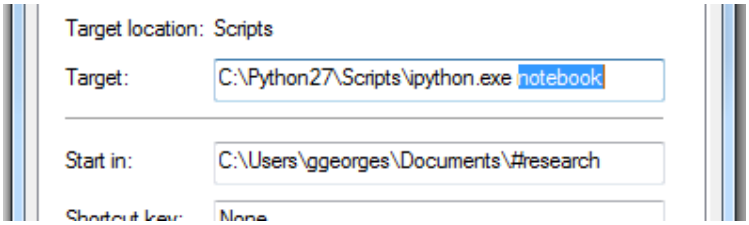
# Getting started: Python and Jupyter Notebooks

☐ How to setup your Python environment:

- Download Anaconda distribution for Python 3.6, a convenient wrapper of Python, iPython and many other packages that you will need: https://www.anaconda.com/download/
- To install further packages: from the command prompt use ***pip install <name package>***; if it does not work:
  - use ***conda install <name package>***
    or
  - download pre-compiled package versions (for windows) from http://www.lfd.uci.edu/~gohlke/pythonlibs/ (just google for "python gohlke")
  - install the downloaded file with ***pip install <name package>*** in the command prompt (make sure you are in the directory where you downloaded the file)
- Scientific packages: *NumPy*, *SciPy*, *Matplotlib*, *IPython*, *h5py, Pandas, scikit-learn* (→ all pre-installed with Anaconda)

☐ Getting started with 'Jupyter Notebook':

- It is a very handy type of document, because it allows writing executable code and human-readable text in a very effective and integrated way. It also comes directly with Anaconda and is ready for use. We however recommend to set up the launcher for quicker access: create shortcut to 'jupyter.exe' (should be in the 'Scripts' directory of your Python installation on windows); in the shortcut's 'Properties' dialog, append the word 'notebook' to the 'Target' field and set the 'Start In' field to whatever directory you work in; finally, change the Icon to 'Scripts\ipython.ico'




- Go to https://github.com/LAV-ESG/getting-started, read the online documentation and download:
  - the notebook *gettingStartedNotebook_LocalData.ipynb*
  - the folder *docs*

  and store them somewhere in the same directory as the '*Start in*' specified in the previous step.
- Double click on the created shortcut (should open a new tab in your browser), find and select the notebook in the browser, open it and go through it.

☐ Further material to learn Python:

- http://www.codecademy.com/en/tracks/python (kind of fun, fully web-based)
- https://docs.python.org/2/tutorial/index.html (the official tutorial; somewhat broader)

☐ Python for scientific computing

- https://www.youtube.com/watch?v=-p4CVtPZoPo (difference w.r.t. "normal" Python)
- https://www.youtube.com/watch?v=UWmZAAfXds4 (bit dry, but instructive video)
- http://scipy-lectures.github.io/index.html (great resource, but dry as bone)