# User friendly Cloud Computing

Hetdex Jupyter lab

- We are currently beta testing a new jupyter-lab environment for our data releases
- https://jupyter.tacc.cloud
- Environment is preloaded and always available from a web browser. We are designing various widgets that will make accessing the data easier
- Note: the Lab has limited HPC resources at this point, stampede2 should still be utilized for parallel computing but the Hub makes it easier to explore data and test scripts.

A complete web-based toolkit, including many GUI interfaces in development, for accessing HETDEX data.

+ hetdex-api
+ Pyhetdex
+ elixer
+ astroquery
+ ipywidgets
+ Astrowidgets
+ Plotly
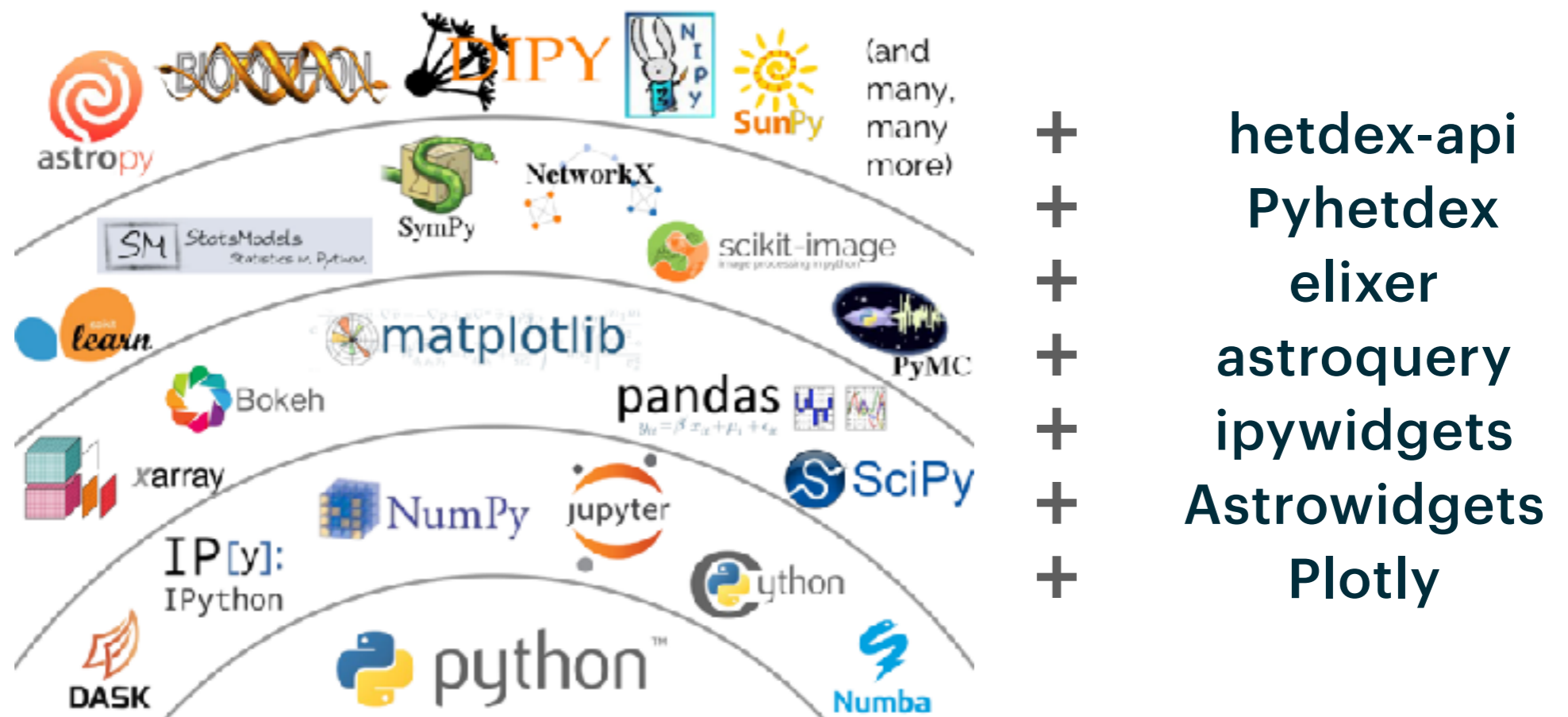
Credit: Jake vanderPlas, "The Unexpected Effectiveness of Python in Science", PyCon 2017

HETDEX Lab @ TACC Instructions

- If you don't yet have a TACC account, please request one here: https://portal.tacc.utexas.edu/account-request, and then message Karl with your username and email. Email Erin erin@astro.as.utexas.edu with your TACC username to gain access to the HETDEX Internal JupyterHub (this has more resources than the public space)

- Go to https://jupyter.tacc.cloud/ and log in with your TACC credentials

  - If you have already logged on previously, goto Control Panel on top right and Shut down your server then:

- Choose option HETDEX-Internal Spawner Option and Click the HPC option.

- To Classify: Click on your_classify_dir/classify-widget.ipynb

- To find notebooks+widgets Goto hetdex-notebooks/

- ML inputs @ hetdex-notebooks/How_to_open_the_machine_learning_H5_files.ipynb

- More hetdex-api info @ https://hetdex-api.readthedocs.io

HETDEX Labs

https://beta.jupyter.tacc.cloud

To update your container environment, shut your server here

Jupyter
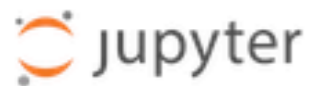
Logout | Control Panel

Files | Running | Clusters

Select items to perform actions on them.

Upload | New ▾ | ↻

☐ 0 ▾ 📁 /		Name ↓	Last Modified	File size
☐ 📁 hetdex-notebooks	Widgets + API tutorials. This space is not permanent. Copy notebooks you want to save to work		4 hours ago	
☐ 📁 Hobby-Eberly-Telesco	All HETDEX data on /corral		a month ago	
☐ 📁 software			5 days ago	
☐ 📁 team_classify	The original classifying directory. This is where our group classifications are stored.		12 days ago	
☐ 📁 work	You permanent storage space. **This is where you should do your work and save it** Also accessible from stampede2/frontera		a month ago	
☐ 📁 your_classify_dir	Your personal classifying directory. The lists are automatically saved in the Hub and are always there.		26 minutes ago	

Once you spawn a container, it will be there every time you go to beta.jupyter.tacc.cloud. BUT!!! Hetdex-notebooks, software, your_classify_dir will get wiped when you reload a container. Keep your permanent work on /work (this is the same space you mounted on wrangler and stampede)