

Python in the Geosciences

Fall 2015 Seminar - University of Washington

Time: 1st Tuesday of the month, 4:00PM with Happy Hour to follow.

Location: 6th floor of the Physics Tower, Seminar Room C607

Other Workshops / Seminars / Resources:

Seminar Github Repo

https://github.com/jhamman/UW_Python_for_Geosciences

Seminar Mailing List

https://mailman1.u.washington.edu/mailman/listinfo/python_for_geoscience

UW Atmos-Python Workshop:

atmos-python@uw.edu - (Andre or Jeremy)

UW eScience Python Seminar: Fall 2015:

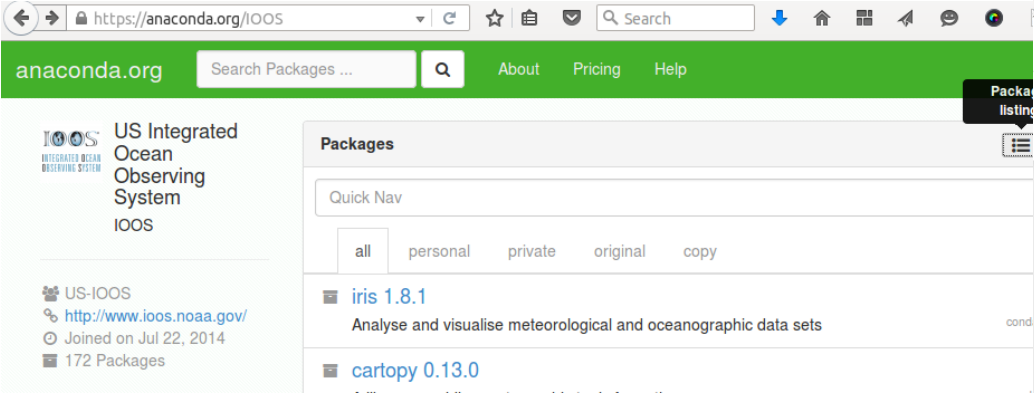
<http://uwescience.github.io/python-seminar-2015/seminar/>

AGU Fall Meeting 2015 Session:

Python Solutions for the Earth Sciences: IN041:

<https://agu.confex.com/agu/fm15/meetingapp.cgi/Session/9108>

Using conda and Jupyter/IPython notebooks to demo external data access libraries



anaconda.org

Search Packages ...

About Pricing Help

IOOS US Integrated Ocean Observing System

US-IOOS
<http://www.ioos.noaa.gov/>
Joined on Jul 22, 2014
172 Packages

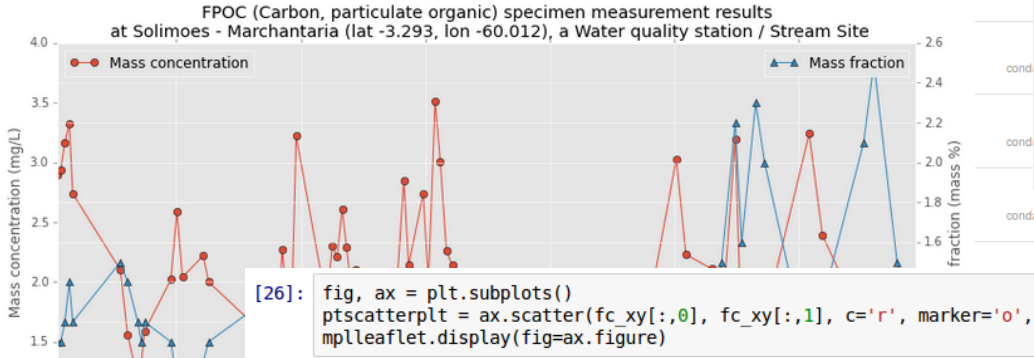
Packages

Quick Nav

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iris 1.8.1
Analyse and visualise meteorological and oceanographic data sets

cartopy 0.13.0

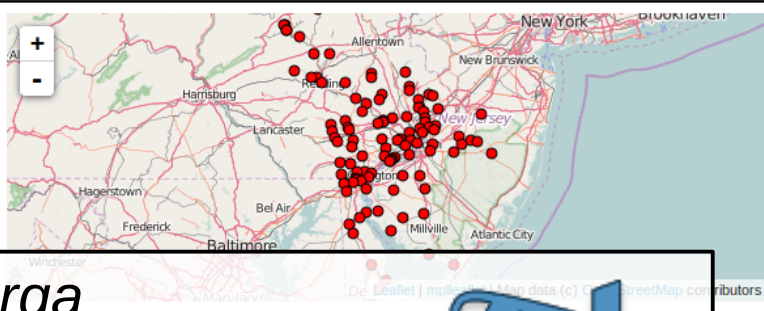


FPOC (Carbon, particulate organic) specimen measurement results at Solimoes - Marchantaria (lat -3.293, lon -60.012), a Water quality station / Stream Site


Mass concentration (mg/L)

Mass fraction (mass %)

```
[26]: fig, ax = plt.subplots()
      ptsscatterplt = ax.scatter(fc_xy[:,0], fc_xy[:,1], c='r', marker='o', s=50)
      mplleaflet.display(fig=ax.figure)
```



New York
New Brunswick
Hagerstown
Frederick
Baltimore
Atlantic City
Millville
Bel Air
Lancaster
Hagerstown
Frederick
Baltimore
Atlantic City
Millville
Bel Air
Lancaster



app.mybinder.org/2608870829/notebooks/index

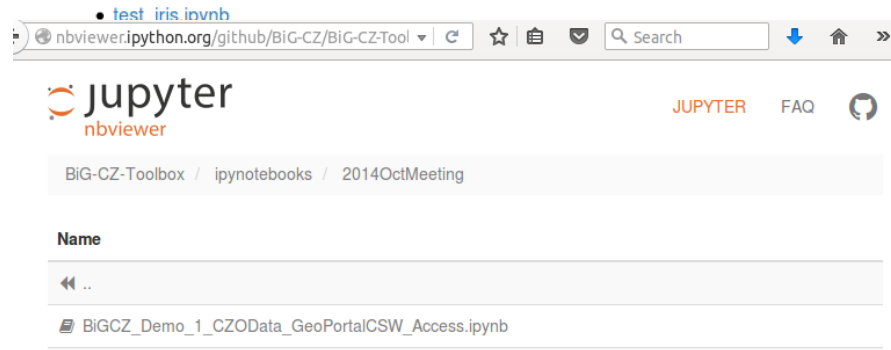
jupyter index (autosaved)

File Edit View Insert Cell Kernel Help

IOOS INTEGRATED OCEAN OBSERVING SYSTEM

US Integrated Ocean Observing System

IOOS Conda recipes



test iris invnb

nbviewer:ipynotebooks / github/BiG-CZ/BiG-CZ-Tool

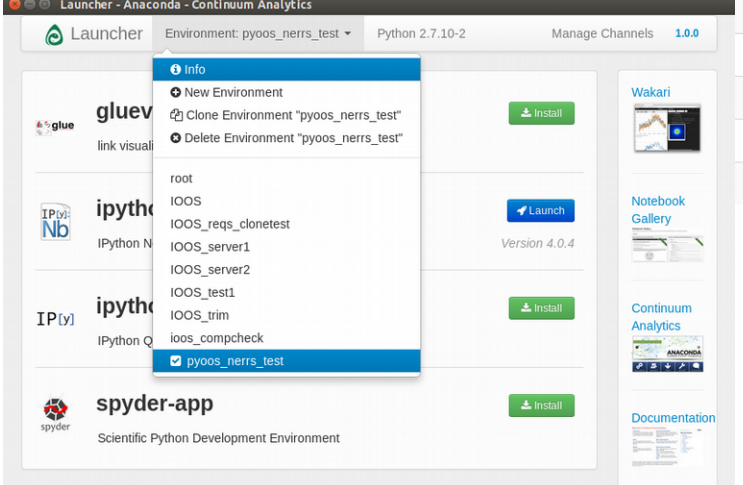
jupyter nbviewer

JUPYTER FAQ

BiG-CZ-Toolbox / ipynotebooks / 2014OctMeeting

Name

BiG-CZ_Demo_1_CZOData_GeoPortalCSW_Access.ipynb



Launcher - Anaconda - Continuum Analytics

Environment: pyoos_nerrs_test Python 2.7.10-2 Manage Channels 1.0.0

glueviz link visual


ipython IPython Notebook

ipython IPython Notebook

spyder-app Scientific Python Development Environment

pyoos_nerrs_test

Emilio Mayorga
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November 3, 2015
Fall 2015 Seminar – Python in the Geosciences
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I am Emilio, UW-APL.
And You?

UW / non-UW?

UW Department?

Undergrad / Grad / Postdoc / Prof. Emeritus

From the Real World?

First time at seminar?

(Ana)conda?

Jupyter Notebooks / IPython shell?

Data Access Packages.

Mainly for site-based time series data

Ulmo (hydrology, climate, etc)

<https://github.com/ulmo-dev/ulmo>

<http://ulmo.readthedocs.org/>

Pyoos (oceanography, weather, etc)

<https://github.com/ioos/pyoos/>

(Ana)conda & its tool ecosystem

IOOS channel use

<https://anaconda.org/IOOS>

https://ocefpaf.github.io/DMAC_presentation/binstar/slides.html

Jupyter (Ipython) notebooks & its tool ecosystem

nbviewer and GitHub

<http://nbviewer.ipython.org/github/BiG-CZ/BiG-CZ-Toolbox/tree/master/ipynotebooks/2014OctMeeting/>

Quote Joe Hamman:

“We should stop rewriting the same things ...”

Working Assumption:

It is better to push repetitive tasks to well tested, optimized packages
(e.g. pandas/xray/NumPy ... [ulmo/pyoos](#))

So...

Don't hide your code

Contribute to open source projects

Build on the success of others