

The Jupyter Notebook

(Formerly known as the IPython Notebook)

Speaker: Susana Bueno - Cineca SCAI Department

web application that allows you to:

create and share documents that contain live code, equations, visualizations and explanatory text

Uses include:

- data cleaning and transformation
- numerical simulation
- statistical modeling
- machine learning
- and much more...

```
In [1]: from IPython.core.display import HTML
HTML("<iframe src=http://jupyter.org/index.html width=800 height=450></i
```

Out[1]:



Languages supported

The Noteboot has support for over 40 programming languages, including those popular in Data Science such as:

- Python
- R
- Julia
- Scala

Interactive widgets

- Code can **produce rich output** such as images, videos, LaTeX, and JavaScript.
- Interactive widgets can be used to **manipulate and visualize data in realtime**.

Notebooks can be shared

Using email, Dropbox, GitHub and the Jupyter Notebook Viewer.

Installing the Jupyter Notebook

Prerequisite:

Python (Python 3.3 or greater, or Python 2.7)

Installing Jupyter using Anaconda and conda

Anaconda distribution [<https://www.continuum.io/downloads>
(<https://www.continuum.io/downloads>)]

If you don't have time or disk space for the entire distribution, try Miniconda:

[<http://conda.pydata.org/miniconda.html> (<http://conda.pydata.org/miniconda.html>)]

which contains only conda and Python.

INSTALLATION STEPS

1. get package from Miniconda site:

wget https://repo.continuum.io/miniconda/Miniconda3-latest-Linux-x86_64.sh
(https://repo.continuum.io/miniconda/Miniconda3-latest-Linux-x86_64.sh)

2. install miniconda3 (default python3):

```
bash Miniconda3-latest-Linux-x86_64.sh
```

3. install packages for your personal environment:

```
conda install numpy
```

```
conda install matplotlib
```

```
conda install pandas
```

```
conda install jupyter
```

```
conda install -c damianavila82 rise
```

In []: