

# Geometric and Graphics Programming Laboratory: Lecture 5a

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# Outline: Algebra reminders

- 1 IPython Notebook (Jupyter)
- 2 Assignments
- 3 Bootstrap `pyplasm` and `larlib`

# IPython Notebook (Jupyter)

# Jupyter

The **Jupyter Notebook** is a web application that allows you to create and share documents that contain **live code**, **equations**, **visualizations** and explanatory text.

## Remark 1

Use **Jupyter** for your lab works

## Remark 2

And store the files in **GitHub** at your account

# Assignments

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- 1 create **YOUR ggpl** GitHub repository: **NOW !!**
- 2 **send me an email** with link to it  
please use [ggpl] markup on email "Subject": **NOW !!**
- 3 Download and/or install your **Jupyter Notebook**: **NOW !!**



# Bootstrap pyplasm and larlib

# Open IPython and import larlib

```

paoluzzi — python • python.app ~/anaconda/bin/ipython — 80x24
Last login: Fri Oct 7 05:27:12 on ttys004
[paoluzzi@Albertos-MacBook-Pro ~: ipython
Python 2.7.12 |Anaconda 4.1.1 (x86_64)| (default, Jul 2 2016, 17:43:17)
Type "copyright", "credits" or "license" for more information.

IPython 4.2.0 -- An enhanced Interactive Python.
?          -> Introduction and overview of IPython's features.
%quickref  -> Quick reference.
help       -> Python's own help system.
object?    -> Details about 'object', use 'object??' for extra details.

[In [1]: from larlib import *
Creating shared GLCanvas...
shared GLCanvas created
Evaluating fenvs.py..
...fenvs.py imported in 0.004475 seconds
/Users/paoluzzi/anaconda/lib/python2.7/site-packages/larlib/larstruct.py:233: FutureWarning: comparison to `None` will result in an elementwise object comparison in the future.
    self.body = [item for item in data if item != None]

In [2]: VIEW(CUBE(1))

```

# Read Tutorial

NumPy [tutorial](#)

# ASSIGNMENT

- Produce (and draw) 100 random points within the unit square  $[0, 1]^2$ ;

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- Produce (and draw) 100 random points within the unit square  $[0, 1]^2$ ;
- Produce (and draw) 1000 random points within  $S_1$ , the 1D sphere (circle) of unit radius centered at the origin  $(0, 0)$ ;