EuroSciPy2013 A small python appetizer

Tutorial Title: A small python appetizer

Track: Introduction Scientific Python Basics (Numpy and IPython)

Link: https://www.euroscipy.org/schedule/presentation/8/

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Version: 1.0

Bio: Olivier Debeir achieved his PhD in Applied Sciences from the Université Libre de Bruxelles in 2002. His research interest deals with image processing and analysis, pattern recognition in particular multi-classifier systems, all of these mainly applied to bio-medical imaging and remote sensing. He his Assistant Professor at the same institution for lectures on image processing and image analysis. He was involved in the conversion to Python as main programming language for Bachelors at the Ecole Polytechnique de Bruxelles.

See also: http://lisa.ulb.ac.be

Description: This tutorial is a hands-on introduction to the two most basic building-blocks of the scientific Python stack: the enhanced interactive interpreter IPython and the fast numerical container Numpy. Amongst other things you will learn how to structure an interactive workflow for scientific computing and how to create and manipulate numerical data efficiently. You should have some basic familiarity with Python (variables, loops, functions) and basic command-line usage (executing commands, using history).

Outline: **Python**

- Why Python ?
- Python language basics
- What do we need to starts with scentific python

let's solve some scientific questions...

- Basic data processing
- Some plotting
- Interfacing you computer whith the real world

The tutorial will feature short interactive session.

Package List: An install of Anaconda should be enough

- Numpy (Version 1.6 or higher)
- Ipython (Version 0.13 or higher)
- Matplotlib (Version 1.2.1 or higher)

Documentation: All materials are collected in my euroscipy2013-python-appetizer Gitub repository at https://github.com/odebeir/euroscipy2013-python-appetizer