

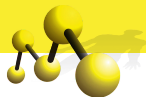
Introduction

Luis Pedro Coelho

Programming for Scientists

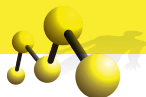
October 22, 2012





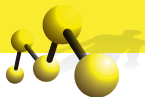
Who am I

- Luis Pedro Coelho (luis@luispedro.org)
- BS & MS in Computer Science
- Ph.D. in Computational Biology
- Post-Doc at IMM (UBEG)

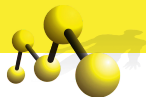


This course

- Meets: Today + Next two Mondays (9h00 to 18h00)
- Office Hours: luis@luispedro.org
- Course Website: <http://luispedro.org/projects/pfs-09-2012>

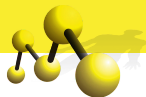


- There will be a homework assignment between the two sessions
- You can do it on your own, in pairs, in groups, or not at all
- If you do turn it in, I will give you feedback
- Similarly, if you have questions during the week, I will take the time to address them in class



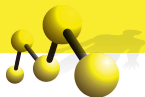
What this course is

- No prior knowledge is assumed
- Introduction to programming using Python
- Topics of interest to scientific programming



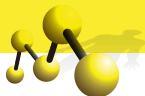
What this course is not

- ① A very advanced programming course
- ② A bioinformatics course
- ③ Applied to specific topics (e.g., NGS analysis)



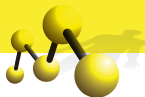
- ① Version control & collaboration
- ② Unix: shell, processes, getting command line arguments
- ③ Software engineering or even most of software carpentry
- ④ Network programming/database interaction
- ⑤ A lot of detail on the things I did leave in

If there is interest, we can organise a follow-up course in early 2013.



Subject to changes

	Day I	Day II
9h00-10h20	Python II	HW Review/In-class Quiz
10h30-11h30	Numpy. matplotlib	Open Source Software
11h40-12h25	Guided exercises	Unit tests
Break		
14h00-15h20	Python III	Python IV
15h30-16h30	File parsing	Guided exercises
16h40-18h00	Numeric issues	Review. Learn more



Python

- On **Windows**: Python(x,y)
- On **Mac OS X**: EPD or homebrew/macports
- On **Linux**: Just use your package manager

Class starts here.