# 2016 Python Boot Camp

Goddard Python User's Group

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Goddard Space Flight Center

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# Who we are?

1. All volunteers
2. Scientists, Engineers, IT Professionals from Goddard
3. Post-Docs
4. University Professors
5. etc.

# Boot Camp Objectives

We want to:

1. Introduce the basic concepts of Python programming
2. Create functions and modules
3. Manipulate Python objets (list, tuple, arrays, etc.)
4. Handle files
5. Do plotting
6. Do OOP with Python
7. Create a Python package

# What we will Cover

1. Core principles of Python: Day 1 and Day 2 (morning)
2. Object Oriented Programming with Python: Day 2 (afternoon)
3. Create your own Python package: Day 2 (afternoon)
4. Advanced topics: Day 3 (morning)
5. Real life applications using Python: Day 3 (afternoon)

# Target Audience

- People with little or no knowlege of Python: Day 1, Day 2 and Day 3
- Intermediate Python users: Day 2 and Day 3
- Advanced Python users: Day 3

# Obtaining the Material

To have the necessary information on this Boot Camp, please check the link:
All the presentations are available from:

http://asd.gsfc.nasa.gov/conferences/pythonbootcamp/2016/

All the presentations are available from:

http://asd.gsfc.nasa.gov/conferences/pythonbootcamp/2016/Agenda

# What We Expect from You

- Pay the $3.0 registration fee (just for refreshment)
- Have your own laptop.
- Install on your system a Python distrubution (such Anaconda) that should at least have iPython, Numpy, Matplotlib.
- Be able to edit files on your platform.

# Useful Pointers I

- Python Programming - Introduction
  `http://www.youtube.com/watch?v=72RKMMyLxS8`
- A Hands-On Introduction to Python for Beginning Programmers
  `https://www.youtube.com/watch?v=rkx5_MRAV3A`
- A Beginner's Python Tutorial
  `http://www.sthurlow.com/python/`
- Invent with Python
  `http://inventwithpython.com/chapters/`
- Think Python: How to Think Like a Computer Scientist
  `http://greenteapress.com/thinkpython/html/index.html`

# Useful Pointers II



Hans Petter Langtangen.
*A Primer on Scientific Programming with Python*.
Springer, 2009.


Johnny Wei-Bing Lin.
*A Hands-On Introduction to Using Python in the Atmospheric and Oceanic Sciences*.
http://www.johnny-lin.com/pyintro, 2012.


Drew McCormack.
*Scientific Scripting with Python*.
2009.