

# **Python and Scientific Computing Notes**

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## CHAPTER 1

# Why python?

hello why python









## CHAPTER 3







## CHAPTER 5

# **A tour of ipython**

One of Python's most useful features is its interactive interpreter. This system allows

Dynamic object inspection. You can access docstrings, function definitions, and attributes in

p14 e



## **5.4. DEBUGGING AND PROFILING WITH IPYTHON****CHAPTER 5. A TOUR OF IPYTHON**

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in a text editor. You can also save all your history by turning on logging via `%logstart`; these logs can later be either reloaded as IPython sessions or used as code for your programs.

**5.2.4. Running code.** The `%run` magic command allows you to run any python script



The Python profiler. When dealing with performance issues, the `%run` command with a `-p` option allows you to run single Python expressions (like function calls). You can run single statements (similar to `profile.run()`) or complete programs under the profiler's control. While this is p7 (cHle)Tj 32.6134 0 Td (with)Tj 23.6276 0 Td (the)Tj 18.1083 0 Td (standard)Tj /



## CHAPTER 6

# A tour of scipy

Purpose  
Module overview  
Some examples



## CHAPTER





FIGURE 7. . . A Cube, brought to you by VTK

# Ready, set, go!

iren .l n i t i a l i z e()  
iren .S

#### 7.4. WORKING



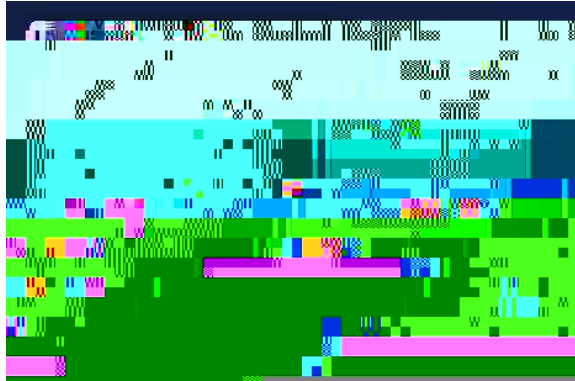


FIGURE 7. . . A simple slice

#### 7.4. WORKING

## CHAPTER 7. 3D VISUALIZATION WITH ~~VT4~~ WORKING WITH MEDICAL IMAGE DATA







## CHAPTER 9

# **Interfacing with external libraries**





## CHAPTER 10

### **lyx examples**

See a [1, 5]



