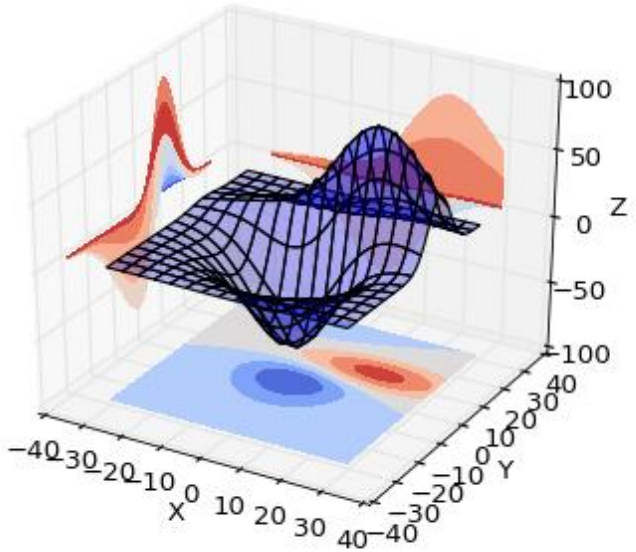
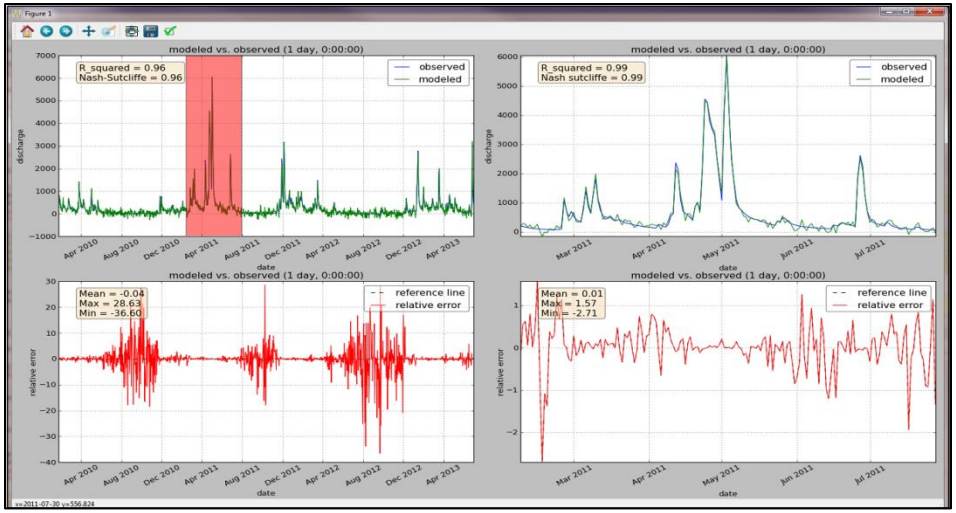
Introduction to Scientific Computing
Meeting 24
Programming with Python



python™

```
# Write Fibonacci series up to n
>>> def fib(n):
>>>     a, b = 0, 1
>>>     while a < n:
>>>         print(a, end=' ')
>>>         a, b = b, a+b
>>>     print()
>>> fib(1000)
0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610
```



Jeremiah Lant, Hydrologist
USGS Kentucky Water Science Center
jlant@usgs.gov

Last Meeting

- Learned about:
  - modules
  - import statement
  - sys module
  - sys.argv
- Learned how to get user input using **command line arguments** via the **sys** module; **sys.argv**
- Learned how to read files; **File Input and output (File I/O)**.

Today's Objective

- Discuss SciPy2014.
- Discuss some resources to use
- Discuss modules we will be using in the near future
- Discuss Integrated Development Environments (IDEs)

SciPy2014

- https://conference.scipy.org/scipy2014/

Nice Resources

- http://software-carpentry.org/lessons.html
- http://interactivepython.org/QPYhZ/courselib/static/thinkcspy/toc.html (thanks to Dave)
- http://ipython.org/
- http://ipython.org/notebook.html
- http://learnpythonthehardway.org/

Awesome modules

- Numpy - numerical and array library
  - http://www.numpy.org/
- Matplotlib - plotting library
  - http://matplotlib.org/

Integrated Development Environments

- PythonXY:
  - https://code.google.com/p/pythonxy/
- Anaconda:
  - https://store.continuum.io/cshop/anaconda/
- Enthought Canopy:
  - https://www.enthought.com/products/canopy/

Other editors besides notepad++

- Sublime Text
  - http://www.sublimetext.com/

Next meeting

- Finish script on reading and writing files.
- Learn how to **write files.**
- Learn how to write **functions.**