Get started with scientific Python

Potsdam (February 7-9, 2018)

Benoît Bovy - GFZ, section 5.5

Overview of the Scientific (SciPy) Stack

Hundreds (thousands) of libraries!

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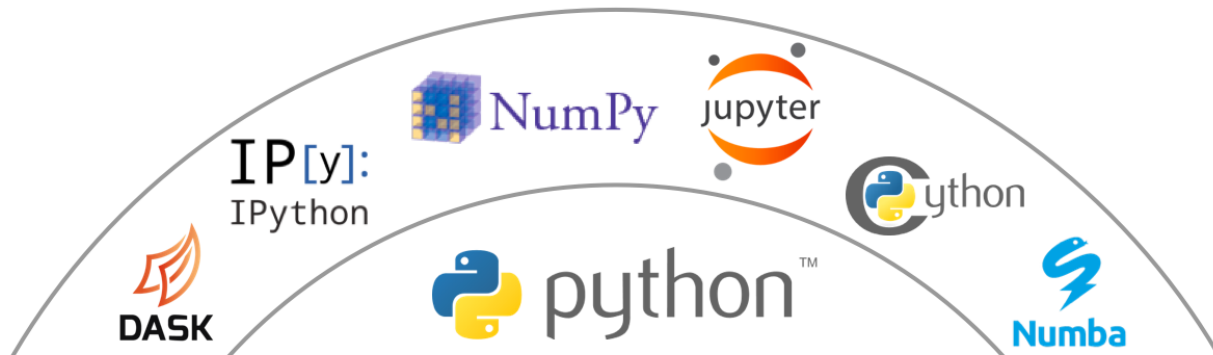Built on top of a few mature, core libraries.

Python's Scientific Stack

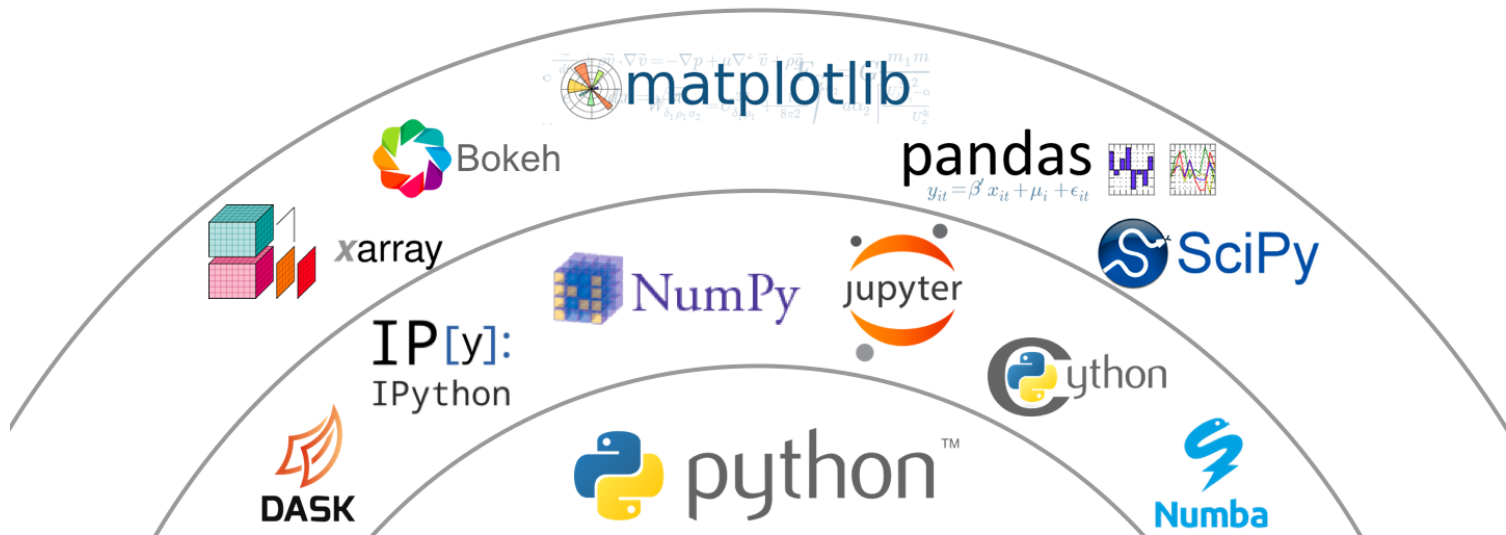Jake Vanderplas PyCon 2017 Keynote

Python's Scientific Stack

Python's Scientific Stack — Jake Vanderplas PyCon 2017 Keynote

Python's Scientific Stack

Jake Vanderplas PyCon 2017 Keynote

astropy
BIOPYTHON
DIPY
NIPY
SunPy

(and many, many more)

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SymPy
NetworkX
scikit-image
image processing in python

SM StatsModels
Statistics in Python

scikit learn
matplotlib
PyMC3

Bokeh
pandas
$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$

xarray
NumPy
Jupyter
SciPy

IP[y]: IPython
Python

DASK
python™
Numba