The Astropy Project

A community Python Library for Astronomy

demo.adrian.pw/astropy.pdf

Where?

Main website: astropy.org

Documentation: docs.astropy.org

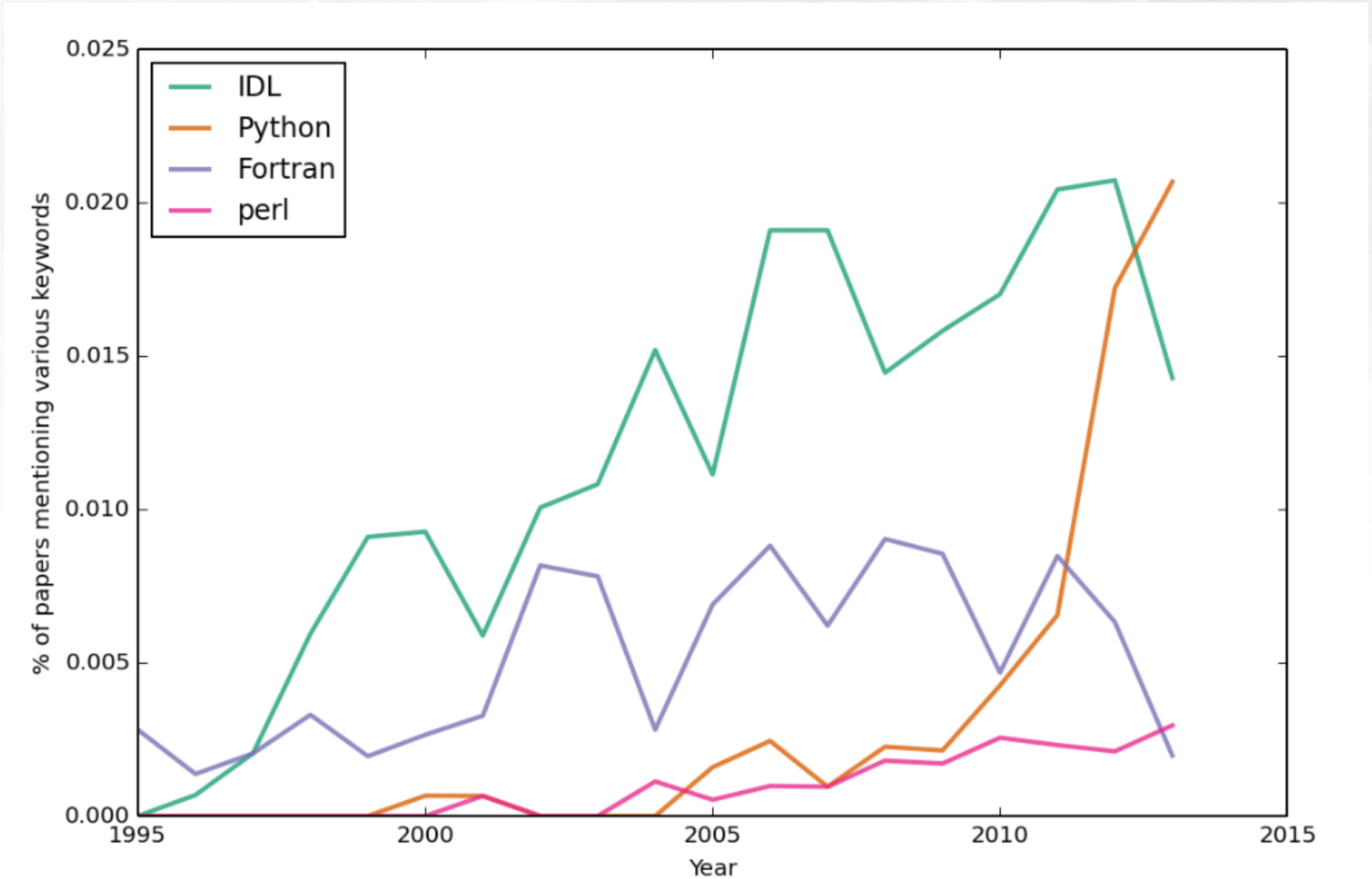
Tutorials: tutorials.astropy.org

Code: github.com/astropy

Mailing list: astropy-dev

Twitter: @astropy

More people are using Python for astronomy



(Plot from Tom Robitaille, http://astrofrog.github.io)

The problem

2012

Q: "I need to convert from Galactic to ICRS coordinates, what package should I use?"

A:

astLib
astrolib
astropysics
pyephem
ephempy
pyast
pyastro
apwlib
pymidas
pyspec
chiantipy
pyraf
aplpy
pynovas
cosmopy
cosmolopy

The relevant XKCD ...

The problem

2014+

Q: "I need to convert from Galactic to ICRS coordinates, what package should I use?"

A:

astropy.coordinates

Astropy core package

- Only has Numpy as a required dependency
- Well tested, documented, and stable code
- Community consensus for inclusion
- Works on Linux, MacOS X, and Windows
- Python 2 and 3 compatible

Astropy core package

- **3** major public releases (first release February 2013)
- Latest stable version: 0.4.1 (released August 2014)
- **90** individual contributors so far!
- Almost **10,000** commits (as of August 2014)

Structure

Core package:

Common / base functionality

Emphasis on usability

Affiliated packages:

Built on core package

Maybe more specific use case (e.g. photometry)

May merge into core as they mature

Structure

Consolidation:

pyfits → astropy.io.fits

pywcs → astropy.wcs

vo → astropy.vo

ATpy → astropy.table

Cosmolopy → astropy.cosmology

Demo

demo.adrian.pw/astropy.ipynb