Welcome!

Slides and all materials here:

https://github.com/astropy/astropy-workshop/

Be sure you have followed the installation steps in "00-Install_and_Setup"!

If you are having install trouble, look for someone with an astropy shirt.

Grab one each of the green and pink sticky notes.

If you have not pre-registered, please do *not* take a seat. When 9:00 rolls around you might be able to register/pay and then grab an empty seat.

Facilitators

Megan Sosey

Erik Tollerud

Juan Cabanela

Clare Shanahan

Brett Morris

Lauren Chambers

Adrian Price-Whelan

(Or just look for someone with an astropy shirt)

Code of Conduct

The community of participants in open source Astronomy projects is made up of members from around the globe with a diverse set of skills, personalities, and experiences. It is through these differences that our community experiences success and continued growth. We expect everyone in our community to follow these guidelines when interacting with others both inside and outside of our community. Our goal is to keep ours a positive, inclusive, successful, and growing community.

http://www.astropy.org/code_of_conduct.html

the plan for today

- intro to the Astropy project and core package
- intro to python (“crash course”)
- intro to fundamental *astropy* sub-packages
  – Quantities, Coordinates, input and output (I/O)
  – Tables, WCS and images
- *photutils* (an example affiliated package)
- *specutils* (an affiliated package currently in development)
- working with or contributing to the Astropy community

(See README.md for full schedule)

the format

alternate between short introductory slides
and individual working time

working time is all done using the jupyter
notebooks provided in the workshop
repository

how to use this workshop

Ask questions!

Use the pink note to signal “I need help”. A facilitator will come talk to you if you put up the pink note.

Put up the green note to signal “done”

If you finish the tutorial notebook, start thinking about how you would use the features in your own research, or go back to some you didn’t finish

Overview

what is astropy?

the astropy core package:

- a community-driven, open-source, open-development Python library for Astronomy
- provide core functionality for more specialized astro packages

the astropy project:

a community effort to develop the core package and foster an ecosystem of interoperable astronomy packages

astropy core package

Some examples of key subpackages for users:

- `astropy.units`: represent and convert numbers with units
- `astropy.coordinates`: transform astronomical coordinates
- `astropy.time`: represent and convert astronomical times
- `astropy.table`: represent tabular data
- `astropy.io.fits`: reading and writing FITS files

astropy core package

open source

(source code is licensed but available to anyone for use, modification, etc.)

open development

(bugs, code contributions, discussions all done in the open [on GitHub])

astropy affiliated packages

http://affiliated.astropy.org

Astronomy Python packages that are **not part of the Astropy core package** but have requested to be a part of the **Astropy project**

Agree to good coding standards (testing, documentation), reduce duplication, open development

Use `astropy` when possible to improve interoperability

May be the key to *your* particular science needs