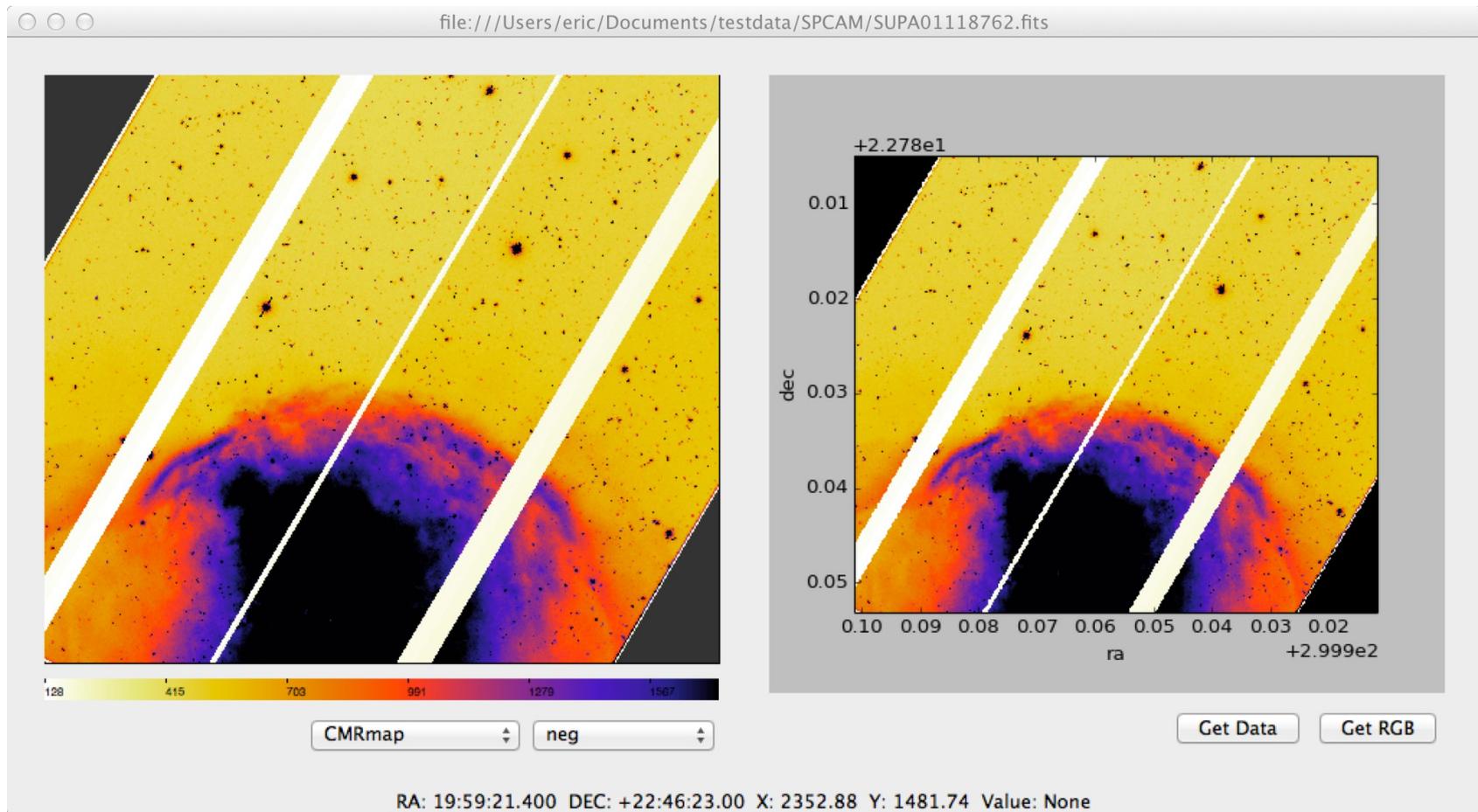


Ginga: a toolkit for building astronomical image viewers



What exactly is it?

- At its heart, Ginga is a python GUI widget you can embed in a python program to create custom viewers
- ds9-like responsiveness and functionality for viewing any kind of image that can be put in a numpy array
- Built on numpy, scipy, astropy
- Supports Qt (4 & 5), PySide, Gtk, Tk and Matplotlib for rendering output
- Simple to add powerful FITS viewer like functionality to your python GUI
- Astropy affiliated package, on github, BSD license, etc

(Sample application demo movie)

Easy Installation

Step 1: download and install Anaconda

<http://continuum.io/downloads>

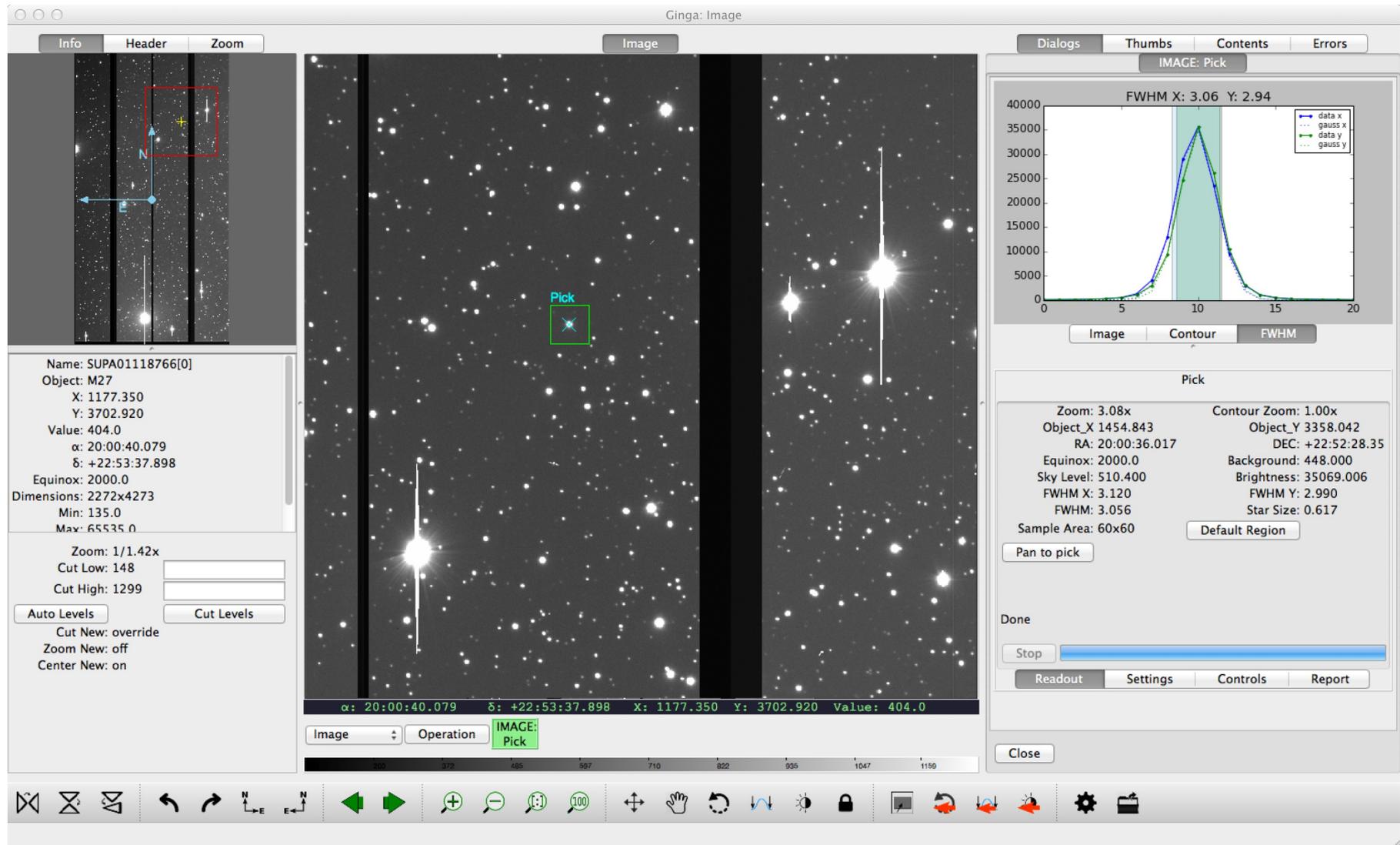
Step 2: from a terminal:

```
$ pip install ginga
```

Prefer to roll your own way?

<https://github.com/ejeschke/ginga.git>

Special Offer: Download Now and we'll throw in a "Reference Viewer" Absolutely Free !!



Everything is a plugin

The screenshot displays the Ginga Image software interface. The main window is titled "Ginga: Image" and contains several panels:

- Info Panel:** A table of keywords and their values.
- Image Panel:** A central plot area showing a series of vertical black bars on a dark background. A green horizontal line labeled "cuts1" is drawn across the plot. The status bar at the bottom of this panel shows: α : NO WCS, δ : NO WCS, X: 835.730, Y: 2292.896, Value: 505.0.
- Dialogs Panel:** A panel on the right titled "IMAGE: Cuts" with an "Instructions" box and a plot of the "cuts1" data. The plot shows a series of peaks on a grid. Below the plot are controls for "cuts1", "Delete", "Delete All", and "free".
- Operation Panel:** A panel at the bottom of the main window with buttons for "Image" and "Operation".
- Toolbar:** A bottom toolbar with various icons for navigation and editing.

Keyword	Value	Standard
SIMPLE	True	Standard
BITPIX	-32	# of bits
NAXIS	2	# of axes
NAXIS1	1104	# of pixels
NAXIS2	4241	# of rows
EXTEND	False	Presence
ADC	0.03	ADC PA
ADC-STR	0.03	ADC PA
ADC-END	0.03	ADC PA
ADC-TYPE	IN	ADC name
AIRMASS	1.0	Typical
AIRM-STR	1.0	Air mass
AIRM-END	1.0	Air mass
ALTITUDE	89.9593	Altitude
ALT-STR	89.9593	Altitude
ALT-END	89.9593	Altitude
AZIMUTH	119.151	Azimuth
AZ-STR	119.151	Azimuth
AZ-END	119.151	Azimuth
DATASET	DS000	ID of an
DEC	+19:44:41.66	DEC of
SLTC-DEC	+19:44:41.66	slit cent
DOM-HUM	3.0	Humidit
DOM-HSTR	3.0	Humidit
DOM-HEND	3.0	Humidit
DOM-PRS	623.6	Atmosp
DOM-PSTR	623.6	Dome A
DOM-PEND	623.6	Dome a
DOM-TMP	281.15	Temper
DOM-TSTR	281.15	Temp. i
DOM-TEND	281.15	Temp. i
DOM-WND	0.0	Wind ve
DOM-WSTR	0.0	Wind ve
DOM-WEND	0.0	Wind ve

Writing plugins is super easy!

```
• from ginga import GingaPlugin
•
• class MyPlugin(GingaPlugin.LocalPlugin):
•
•     def __init__(self, shell, viewer):
•         super(MyPlugin, self).__init__(shell,
viewer)
•
•     def build_gui(self, container):
•         pass
•
•     def start(self):
•         pass
•
• def stop(self):
•     pass
•
•
•     def pause(self):
•         pass
•
•     def resume(self):
•         pass
•
•     def redo(self):
•         pass
•
•     def __str__(self):
•         return 'myplugin'
```

Thanks for your attention

- <https://github.com/ejeschke/ginga.git>
- Inquiries → eric@naoj.org

- Unconference Session Today!
 - Demos
 - Answer questions (“How do I do YYY in Ginga ?”)
 - Try building a sample plugin for the reference viewer
 - Feedback on UI
 - Collaborate, feature request, etc.
 - Etc. etc.

- Pronunciation: “ging-gah” (best), “jing-ga” (ok), “jin-ja” (noooooo!!)