A modern Python interface for the Generic Mapping Tools

Leonardo Uieda* and **Paul Wessel** Dept. Geology and Geophysics, SOEST, University of Hawaii

main features and goals

code showing the clib as well

Get involved!

The GMT/Python library

```
import gmt, numpy
lon, lat, mag = numpy.loadtxt('usgs_quakes.txt', unpack=True)
fig = gmt.Figure()
fig.coast(region=[-270, 90, -70, 70], projection='M10i', land='#aaaaaa',
          water='white', resolution='l')
fig.plot(lon, lat, sizes=0.02*1.5**mag, style='cc', color=mag/mag.max(),
         cmap='ocean')
fig.savefig('poster_background_inception.png', dpi=1000, show=True)
```

Interacting with the GMT C API

```
@fmt_docstring
@use_alias(R="region", J="projection", B="frame", P="portrait", ...)
@kwargs_to_strings(R="sequence", i="sequence_comma")
def plot(self, x=None, y=None, sizes=None, **kwargs):
    "Plot lines, polygons, and symbols on maps."
    with LibGMT() as lib:
        with lib.vectors_to_vfile(x, y) as vfile:
            arg_str = " ".join([vfile, build_arg_string(kwargs)])
            lib.call_module("plot", arg_str)
```

Try a demo!

github.com/leouieda/agu2017

Download the poster

doi:10.6084/m9.figshare.5662411

Feel free to photograph or share this poster.

Geology & Geophysics

SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY
UNIVERSITY OF HAWAI'I AT MĀNOA