

Space and Time Conversions

- For projected data, use CartoPy
- Tip: Store projection information within Xarray for easy recall

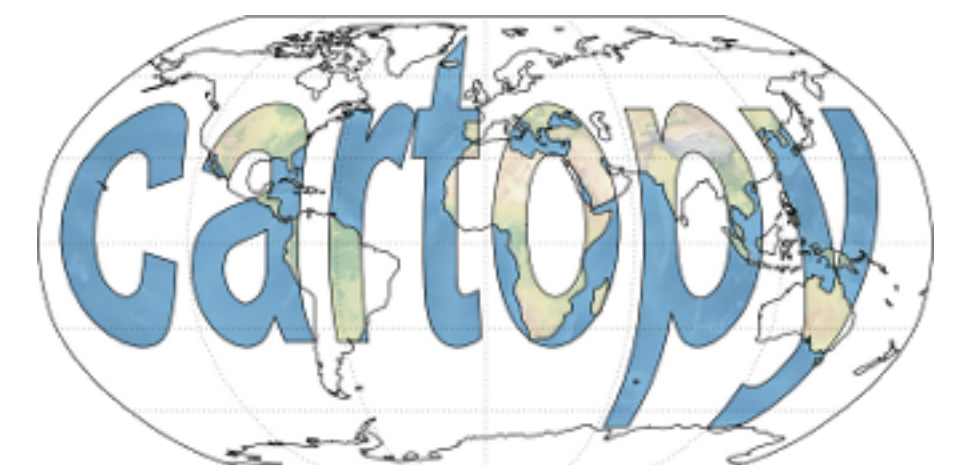
```
import xarray as xr
import matplotlib.pyplot as plt
import cartopy.crs as ccrs

# open data
wrf = xr.open_dataset('model.nc')

# define data projection
globe = ccrs.Globe(ellipse=wrf.ellipse, semimajor_axis=wrf.semimajor_axis, semiminor_axis=wrf.semiminor_axis)
wrfcrs = ccrs.LambertConformal(central_longitude=wrf.standard_longitude,
                              central_latitude=wrf.central_latitude,
                              standard_parallels=(wrf.true_latitude_1, wrf.true_latitude_2),
                              globe=globe)

# define plot projection
plotcrs = ccrs.UTM(13)

# make the figure
fig = plt.figure(figsize=(15,15))
ax = fig.add_subplot(projection=plotcrs)
ax.pcolormesh(wrf.x, wrf.y, wrf.wind_speed, transform=wrfcrs)
plt.show()
```



Code Example

Slides and code example available at <https://github.com/tjwixtrom/AMS-Python-2021>

