

GERB_HR_example_EUMETSAT_2023

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1 Reading GERB HR files using Satpy

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Summary: In this notebook, we show how to load and display data from GERB HR (High Resolution) files.

While we hope to have the reader integrated soon into Satpy, please check the reader module from https://github.com/pdebuyl/satpy/tree/add_gerb_l2_hr_h5 in the meantime

```
[1]: import satpy
import matplotlib.pyplot as plt
```

1.1 Loading a GERB HR file

```
[2]: scene = satpy.Scene(reader="gerb_l2_hr_h5",
    ↪ filenames=["G1_SEV2_L20_HR_SOL_TH_20120621_101500_ED01.hdf"])

# The data fields must be loaded explicitly
scene.load(['Thermal Flux', 'Solar Flux'])

# For this example, we select a Region of Interest (ROI) using the "maspalomas"
    ↪ pre-defined region in Satpy
scene = scene.resample("maspalomas")
```

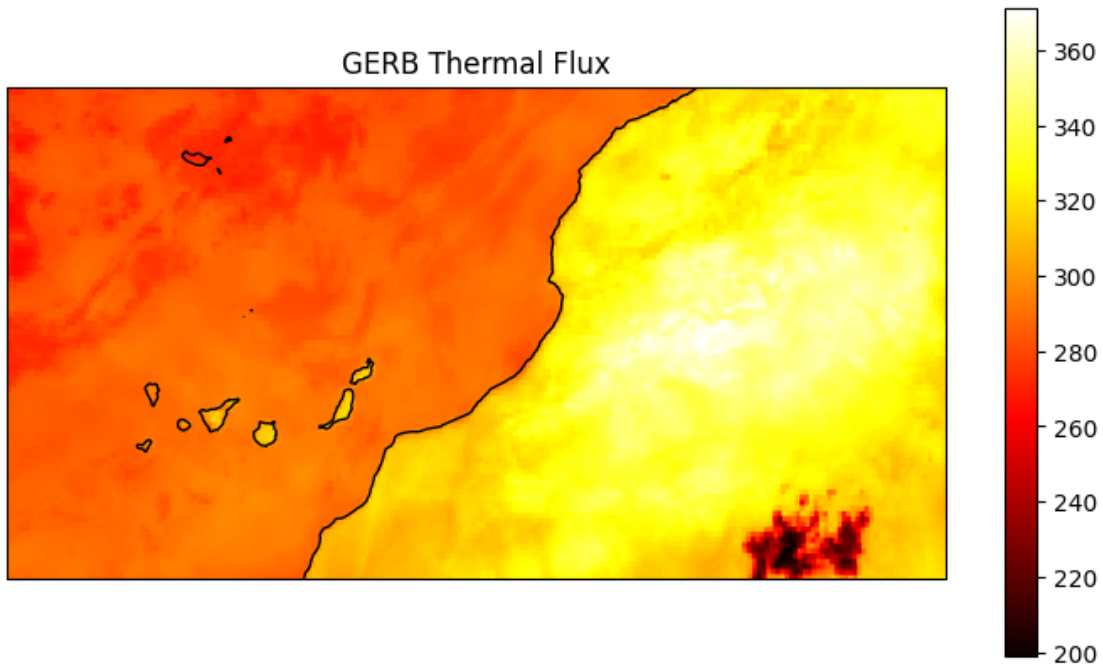
1.2 Display using matplotlib

```
[3]: plt.figure(figsize=(9, 5))
crs = scene['Thermal Flux'].attrs['area'].to_cartopy_crs()
ax = plt.axes(projection=crs)
ax.coastlines()

plt.imshow(scene['Thermal Flux'], transform=crs, extent=crs.bounds,
    ↪ origin='upper', cmap=plt.cm.hot)

plt.title("GERB Thermal Flux")
plt.colorbar()
```

[3]: <matplotlib.colorbar.Colorbar at 0x7fbe75f6afd0>



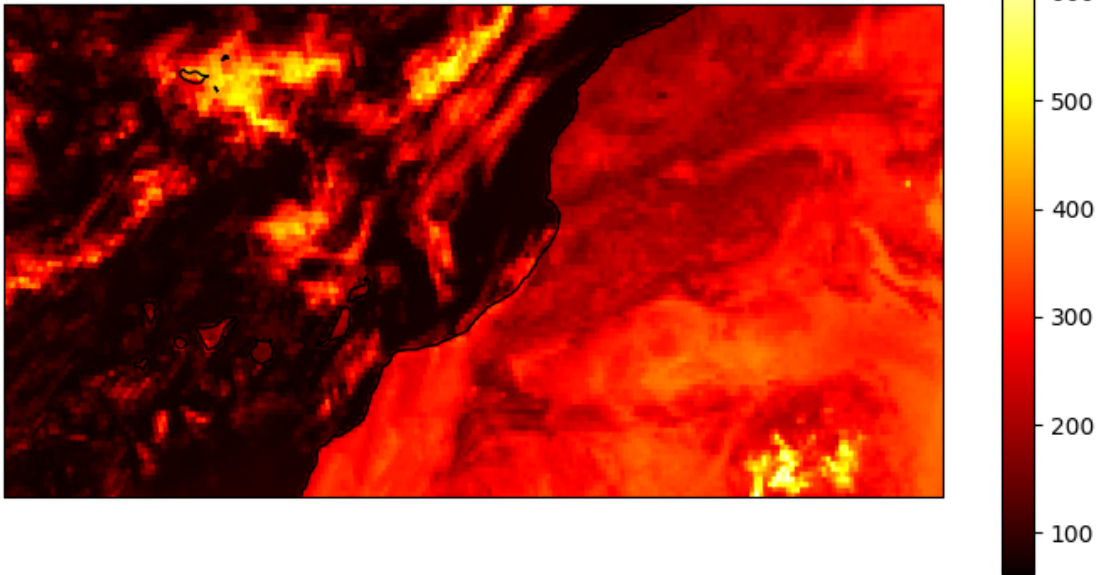
```
[4]: plt.figure(figsize=(9, 5))
      crs = scene['Solar Flux'].attrs['area'].to_cartopy_crs()
      ax = plt.axes(projection=crs)
      ax.coastlines()

      plt.imshow(scene['Solar Flux'], transform=crs, extent=crs.bounds,
                 ↪origin='upper', cmap=plt.cm.hot)

      plt.title("GERB Solar Flux")
      plt.colorbar()
```

[4]: <matplotlib.colorbar.Colorbar at 0x7fbe7602e550>

GERB Solar Flux



[]: