

# The SOLARNET project and the Solar Virtual Observatory (SVO)

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Developed in the framework of the H2020 SOLARNET project, the SOLARNET Virtual Observatory (SVO) aims at **making solar data more findable and accessible** to the solar physics community. The SVO lets you search across **multiple datasets** as well as the Heliophysics Event Database (HEK) and it lets you search for data that overlaps with **events** from the HEK.

It is designed so that other event databases may also be linked to the SVO in the future. These features will help researchers in **discovering and accessing solar datasets** from synoptic observations as well as solar data taken during short observation campaigns.

In addition, you can search **single datasets** using search criteria specific to the dataset, and see quicklook images of the data as well as the FITS header and download your data selection by FTP.

```
from __future__ import print_function
from SOLARNET import datasets

# See all available datasets
for dataset in datasets:
    print(dataset)

# Get a specific dataset
aia_level1 = datasets["aia_level1"]

# Filter the record in that dataset for June 2012 the 6th with a wavelength of 171A
filtered_aia_level1 = aia_level1.filter("DATE-OBS", "2012 June 6", "WAVELNTH = 171")

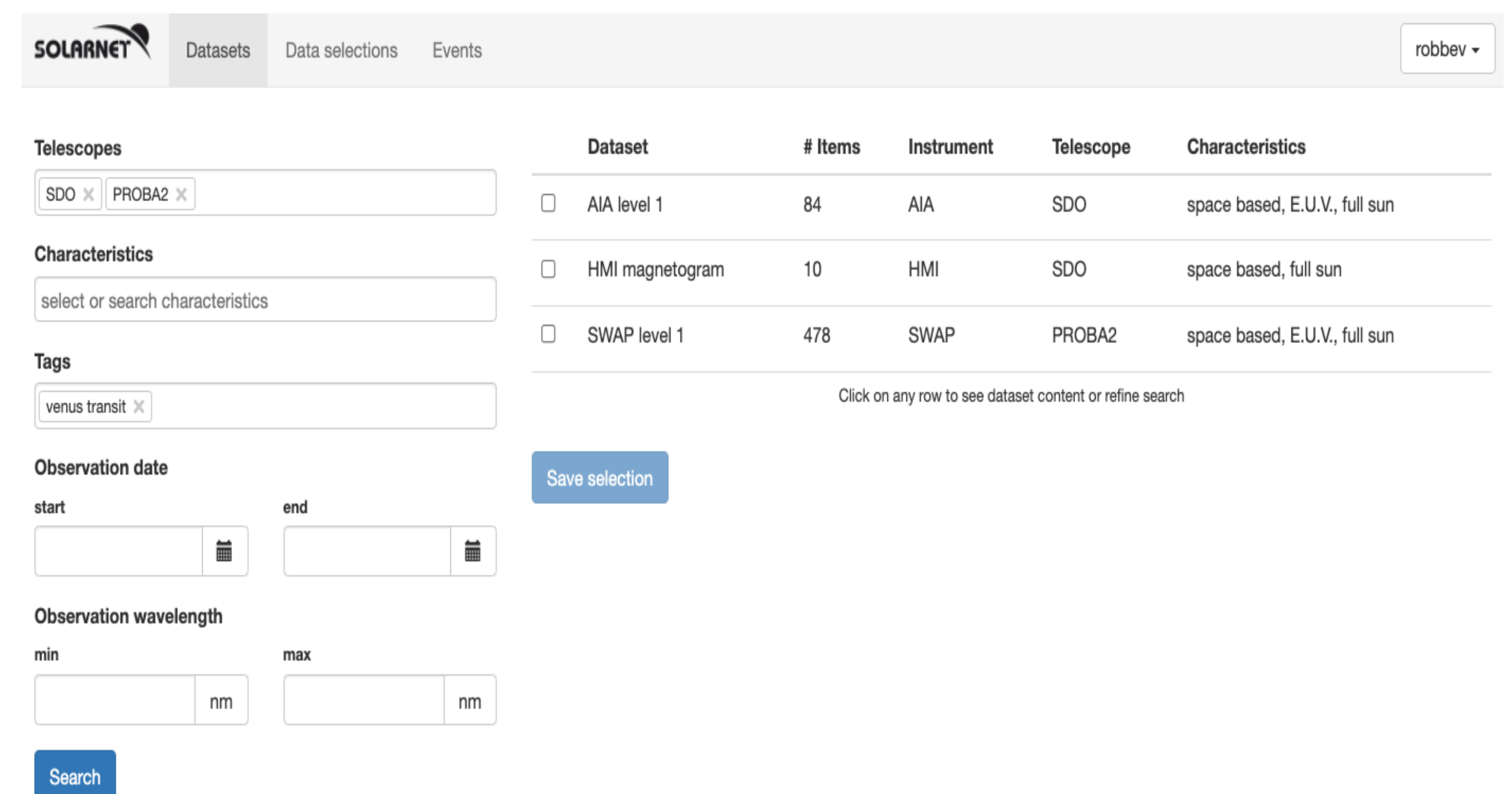
# Display the date of observation and the wavelength in that filtered dataset
for record in filtered_aia_level1:
    print(record.meta_data["DATE-OBS"], record.meta_data["WAVELNTH"])

# Download the data from a record
record = filtered_aia_level1[0]
record.download("/tmp")

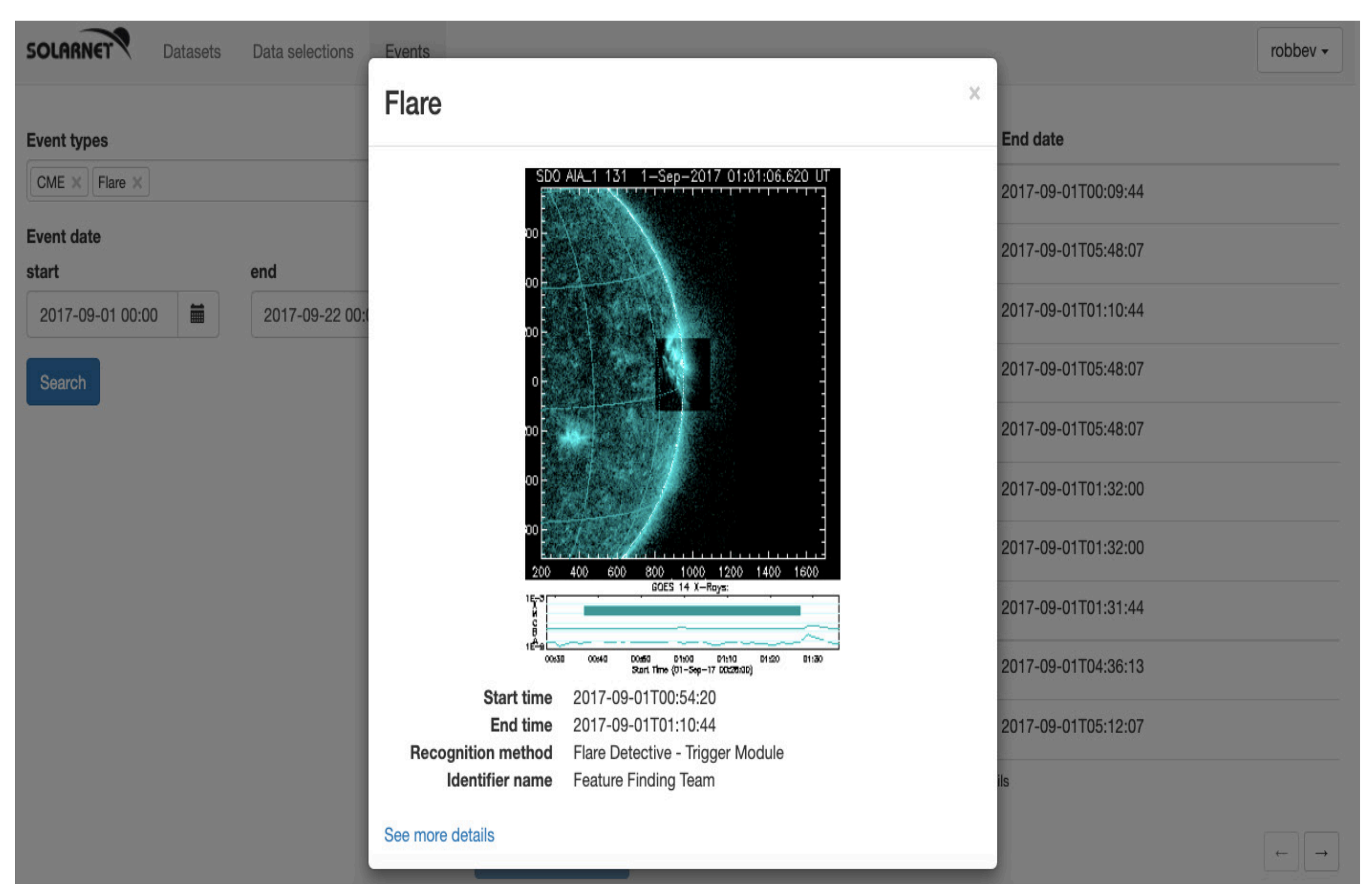
# Get the data as a BytesIO [1] without saving to disk
data = record.data()

# Open the data as a fits file (see astropy.io.fits [2])
hdus = record.HDUs()
```

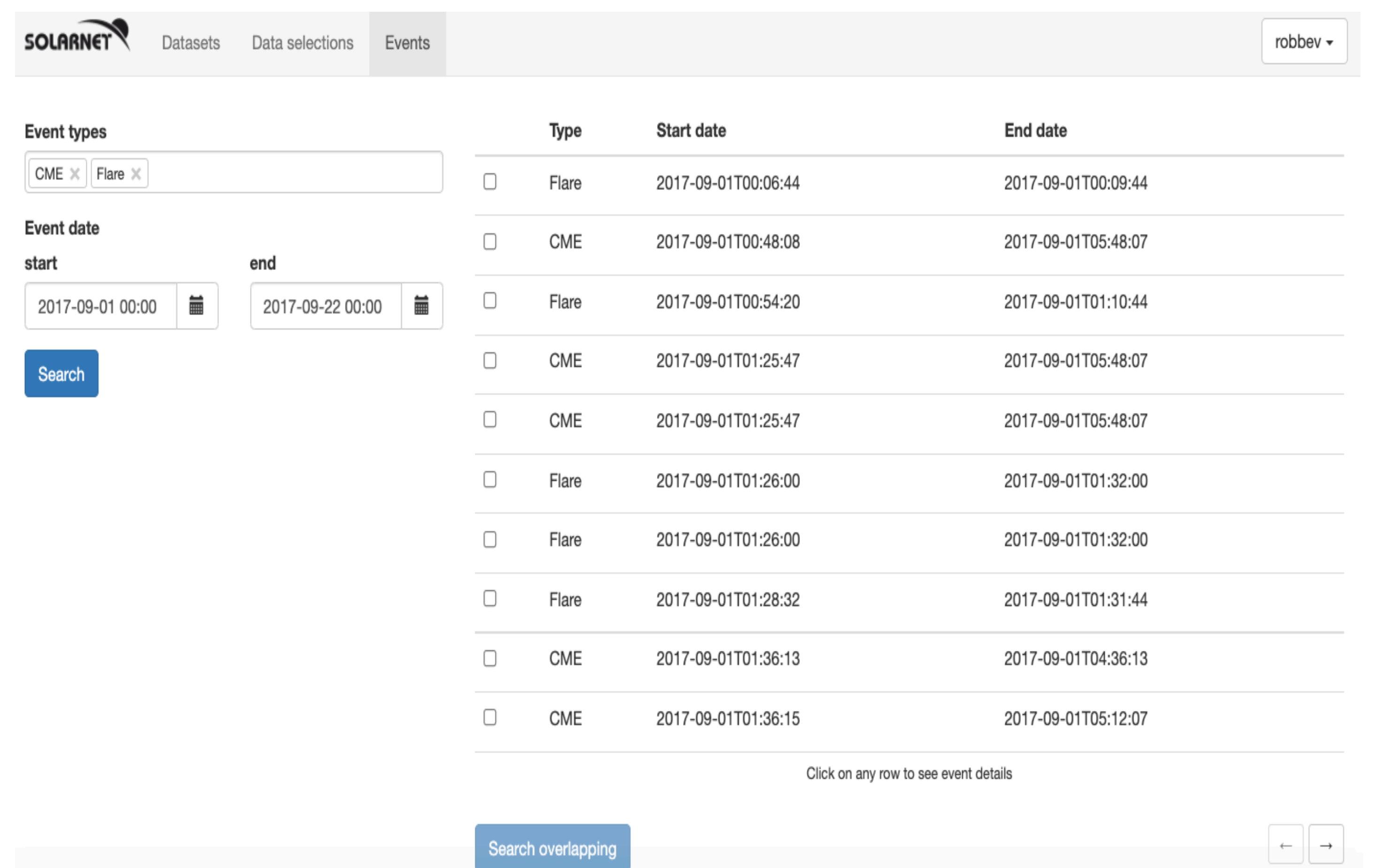
<< Python Client



<< Cross-dataset searches

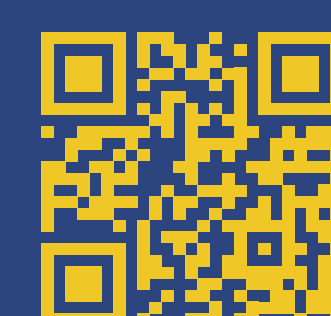


<< Quicklook images



<< Event-based searches

<http://solarnet.oma.be/>



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