The SDO Data Center

Solar Dynamics Observatory (SDO)

At

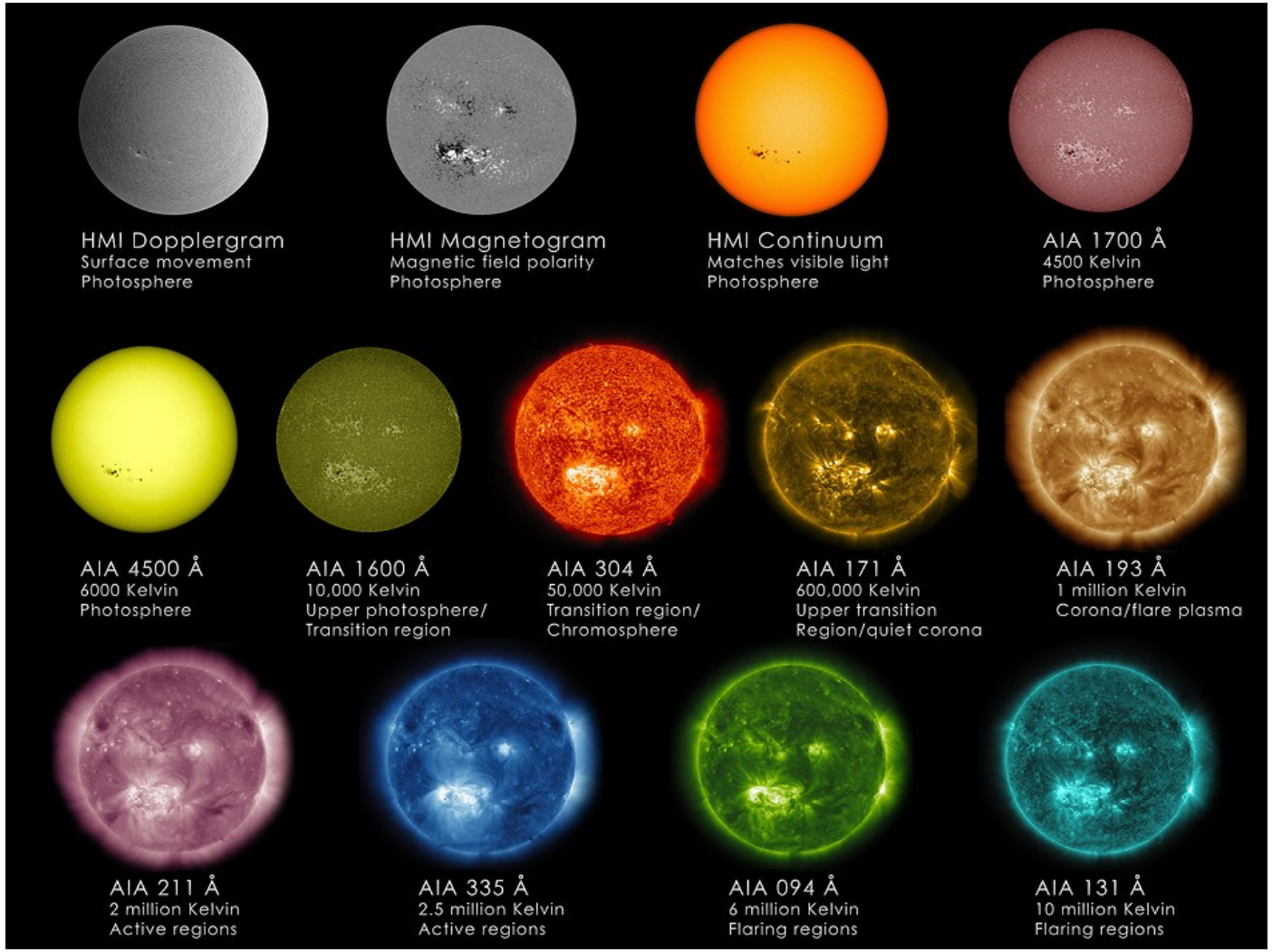
The Royal Observatory of Belgium.

The Solar Dynamics Observatory satellite

- Launched on February 11, 2010
- Geosynchronous orbit – Can take data continuous
- Instruments:
  - Atmospheric Imaging Assembly (AIA)
    - 4k by 4k for science purposes
    - 1k by 1k for Space Weather forecasting
  - Helioseismic and Magnetic Imager (HMI)
  - Extreme Ultraviolet Variability Experiment (EVE)
- The satellite sends down about 1.5 terabytes of data per day

CREDIT: NASA

The Solar Dynamics Observatory data

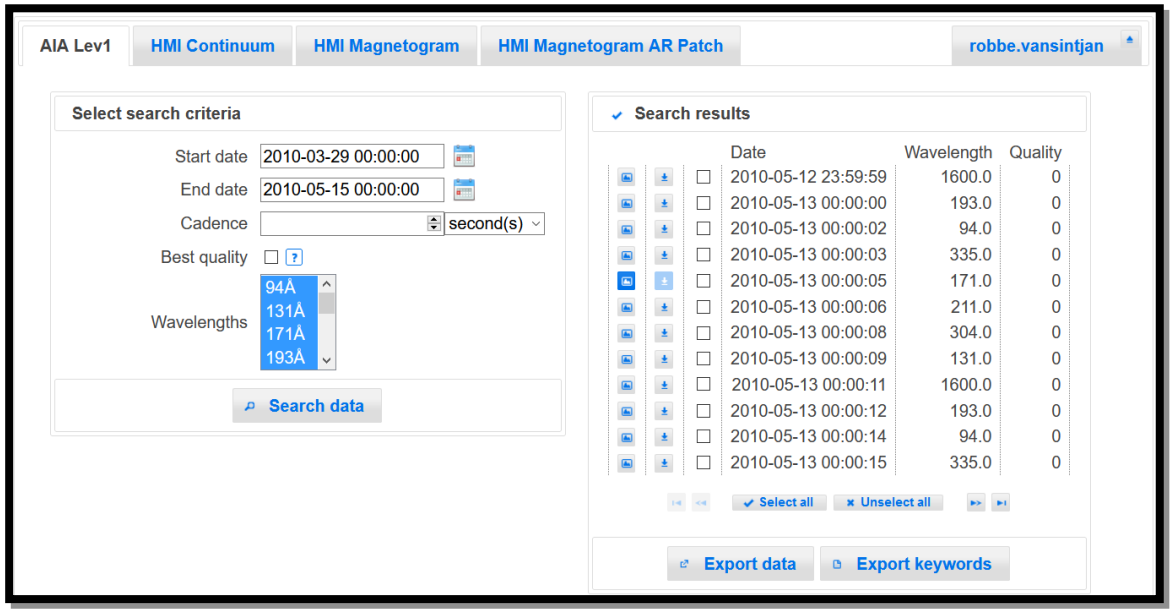


SDO Data Center at ROB

- We acquire SDO-AIA and SDO-HMI data from the Center for Astrophysics located in Harvard and provision the data in Europe
- Since 2015 our goal is to efficient provision of data on demand rather than on the latest available data.
- Data access overview: **http://sdo.oma.be/**
  - ❑ Web Application
  - ❑1 hour AIA and HMI synopic data by ftp
  - ❑2 minutes AIA synoptic data by ftp
  - ❑NASAs Virtual Solar Observatory
    - IDL – SolarSoft
    - Python - SunPy

SDO data access

Web Application – SDO Wizard



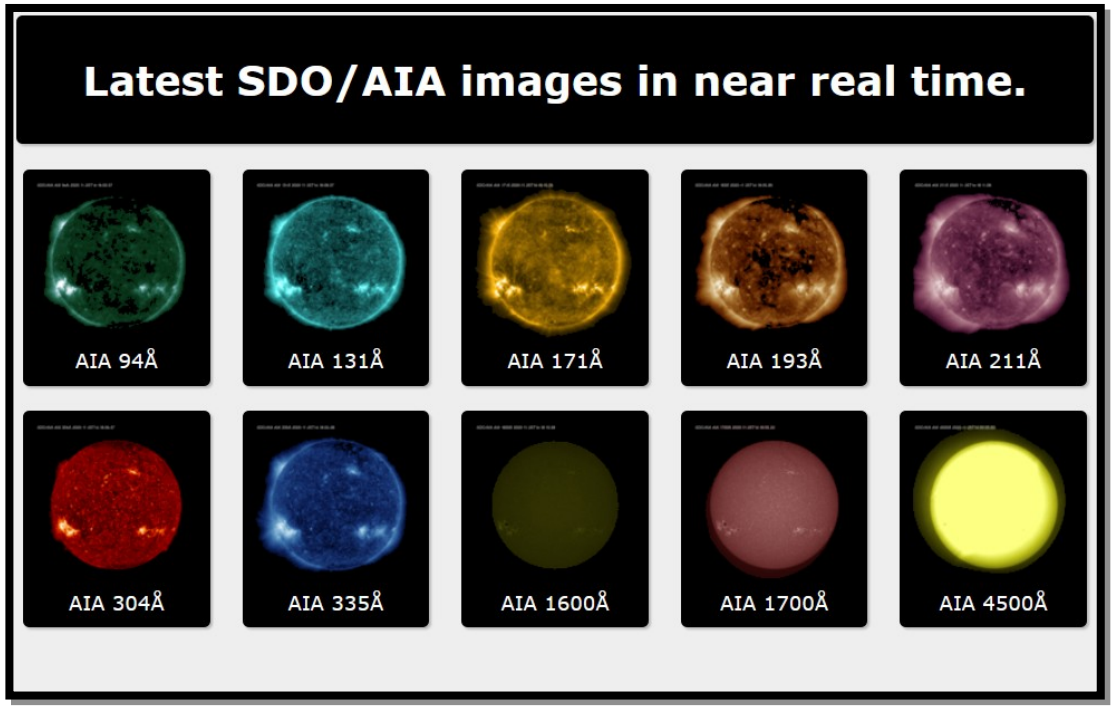
http://sdo.oma.be/wizard/

ESA's Space Weather Portal

https://swe.ssa.esa.int/

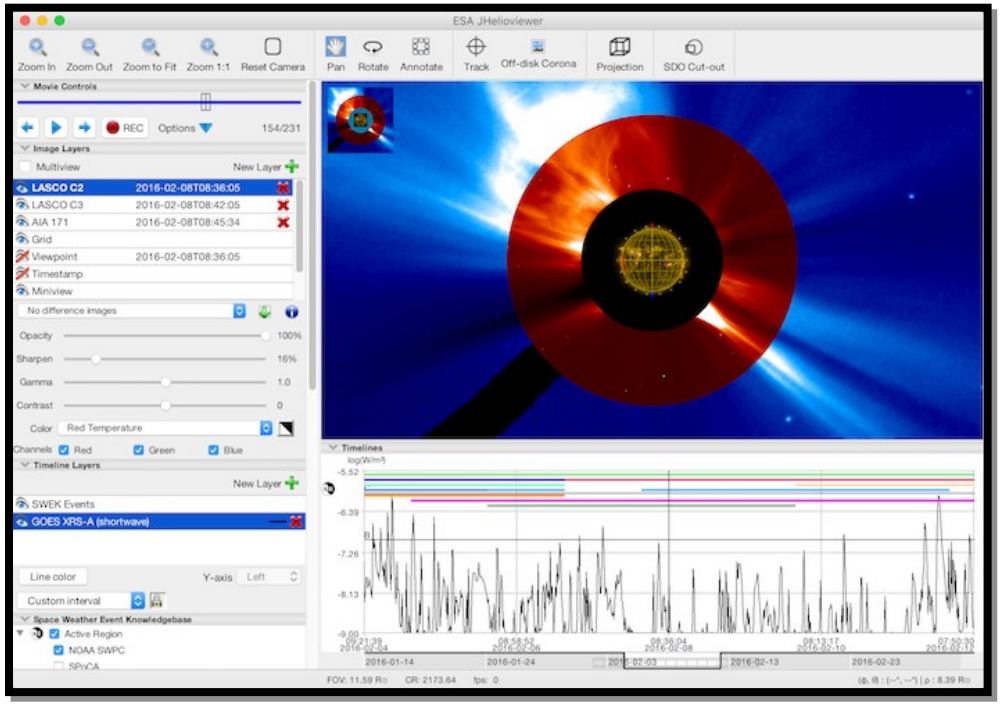
Latest 1k by 1k quick view data

Dedicated webpage



http://sdo.oma.be/latest/

JHelioviewer - Explore the Sun



http://www.jhelioviewer.org/