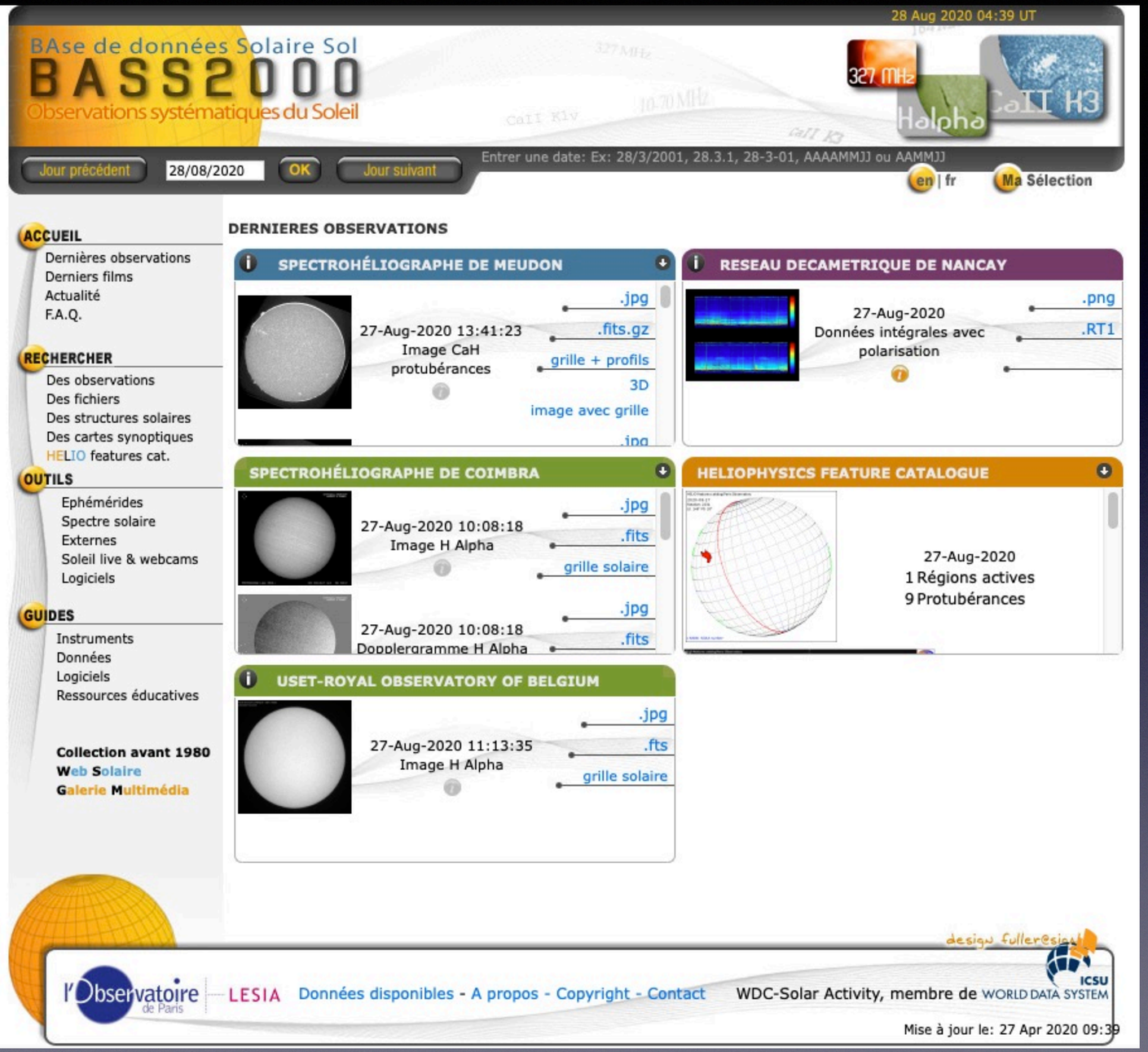
BASS2000
(solar survey archive… and database)

Where do data come from???



* Database of ground-based solar observations (French at the origin…), with added-values

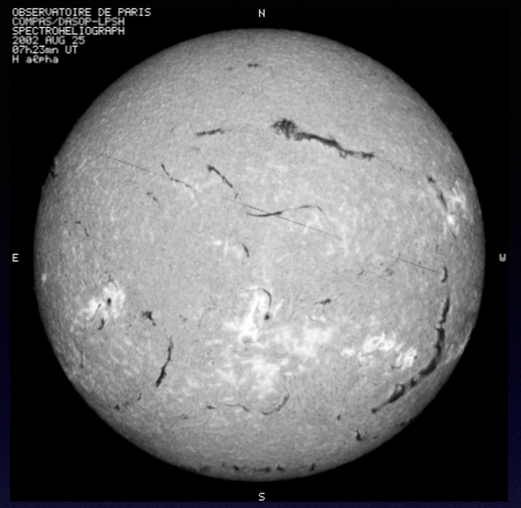
* World Data Center for Solar Activity (ICSU)

* CoreTrustSeal certified since 2017

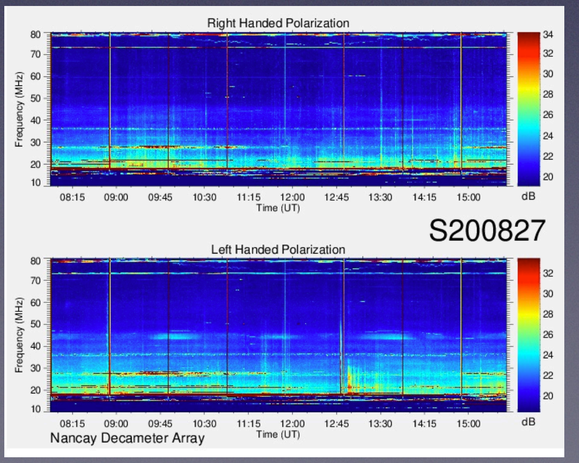
Which data?

- Observations
- Solar & Heliophysics features
- Solar spectrum

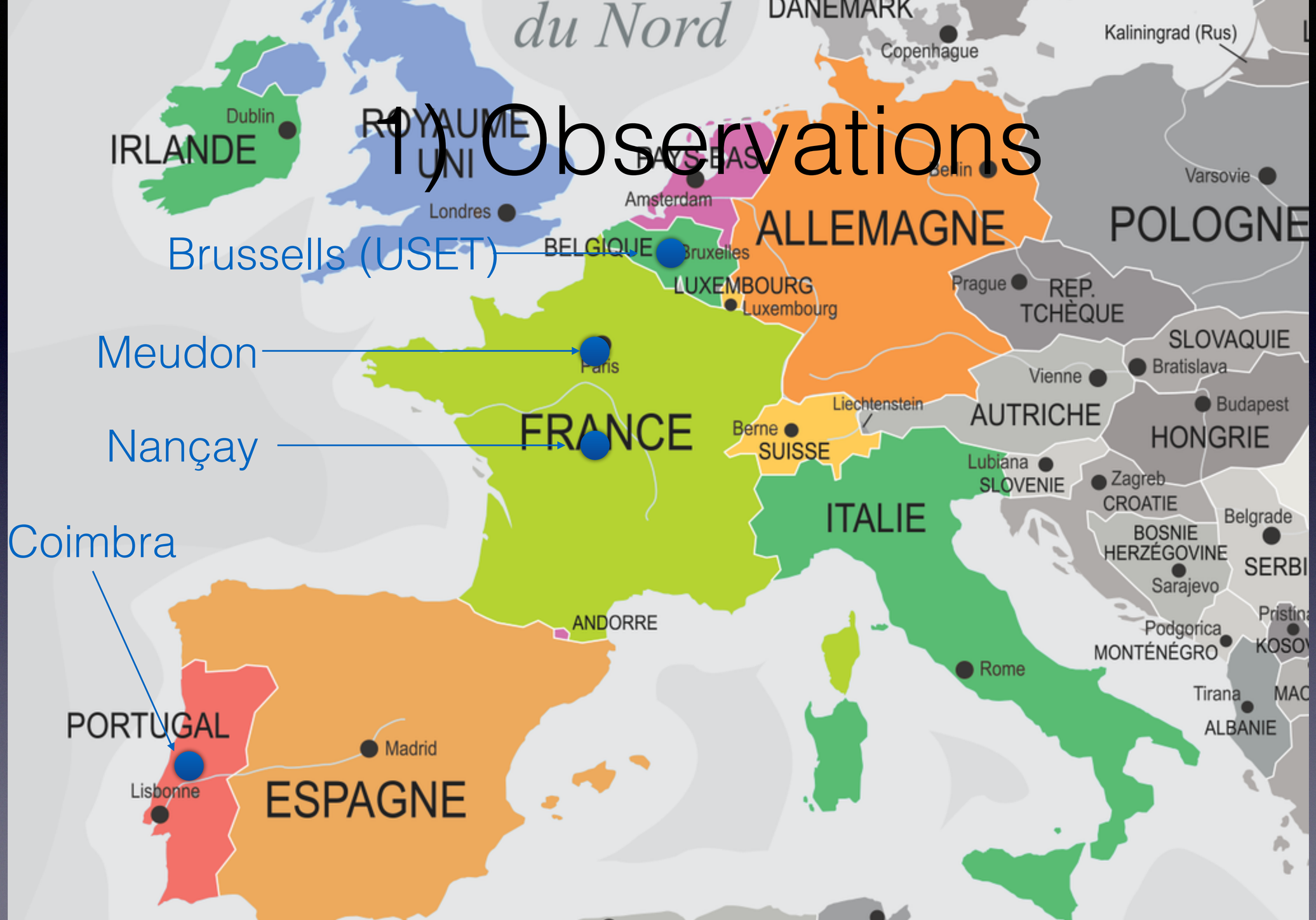
1) Observations



- Full Sun images (or global Sun, in radio-wl)
- The name of the observatory where the image comes from is generally written on the image or in the filename
- When loading FITS file, it’s written in the header



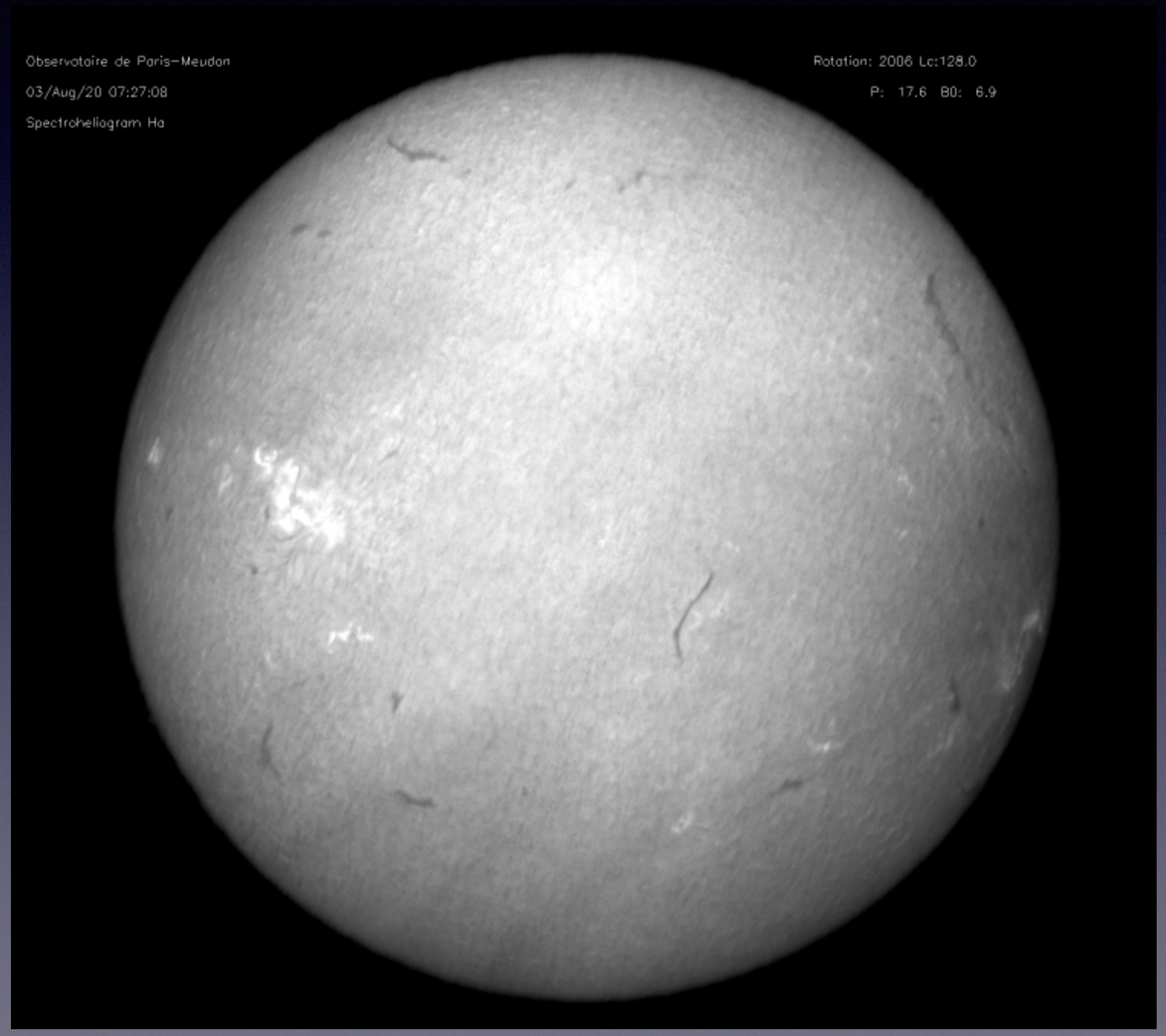
1) Observations

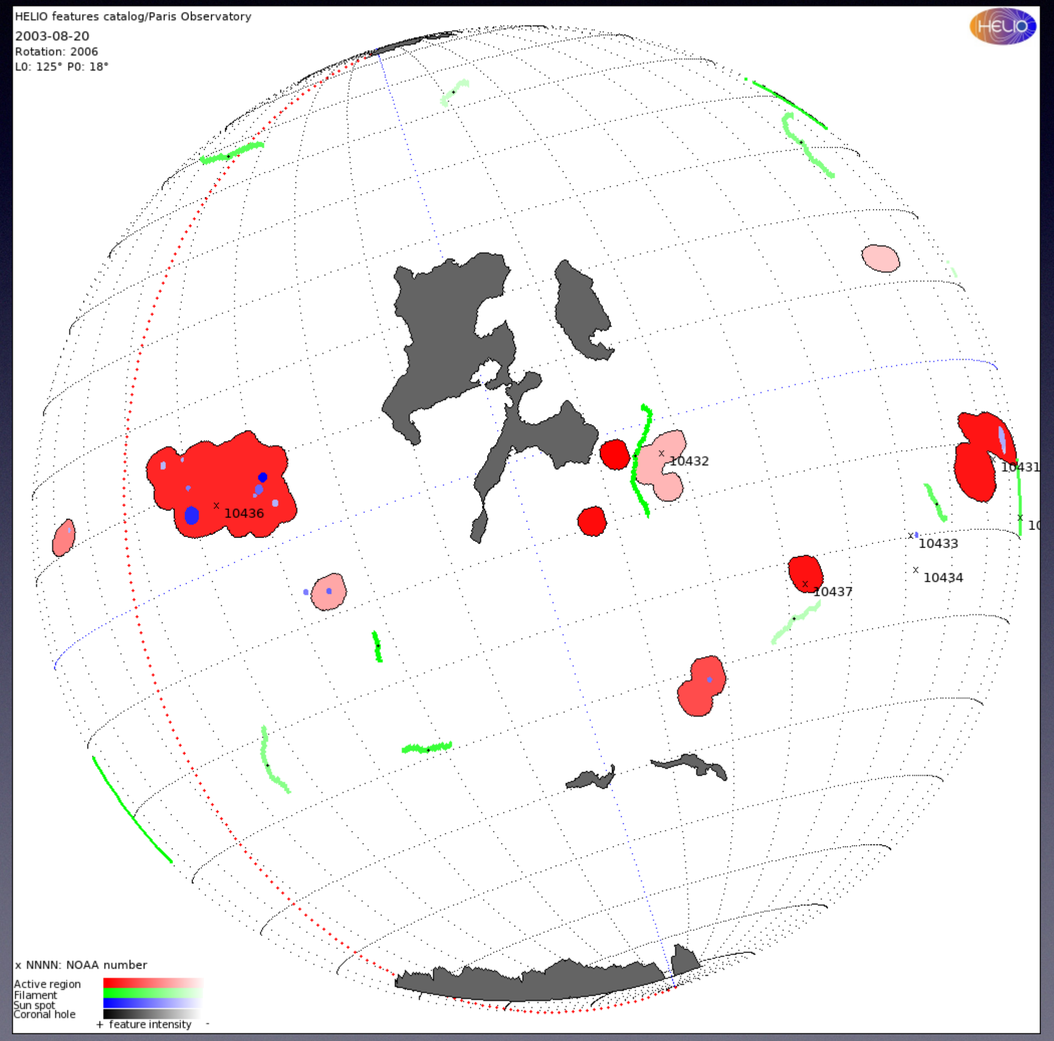


Solar & Heliophysics features

- Filaments
- Prominences
- Active regions
- Coronal holes
- Sunspots
- Type III radio bursts
- Radio sources

Solar & Heliophysics features





Solar & Heliophysics features

Data from:

- Meudon (France)
- Nançay (France)
- SOHO & SDO (NASA - USA)
- Wind & STEREO (ESA - Europa)

Solar & Heliophysics features

Features recognition codes from:

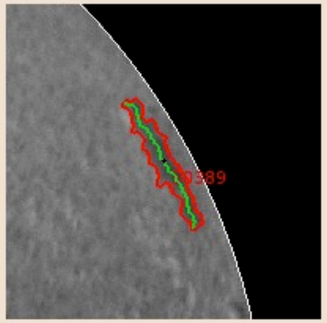
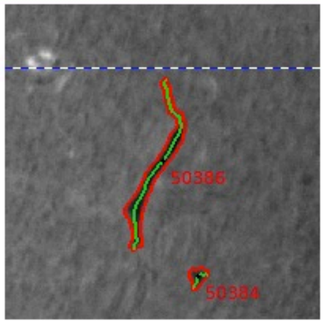
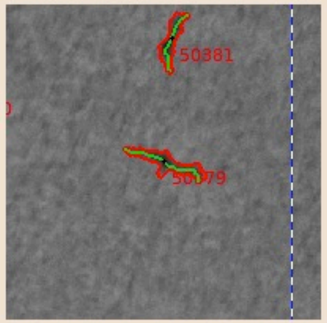
- Meudon (France)
- Dublin (Ireland)
- Bradford (UK)
- Brussels (Belgium)

Solar & Heliophysics features

- Provenance complicated by:
  - Data origin
    - Instrument
    - Kind of processing on data
    - Possible update of processing after detection
  - Code origin
    - Code (same code on different datasets, or various codes?)
    - Version of the same code
    - Various codes on the same data

Solar & Heliophysics features

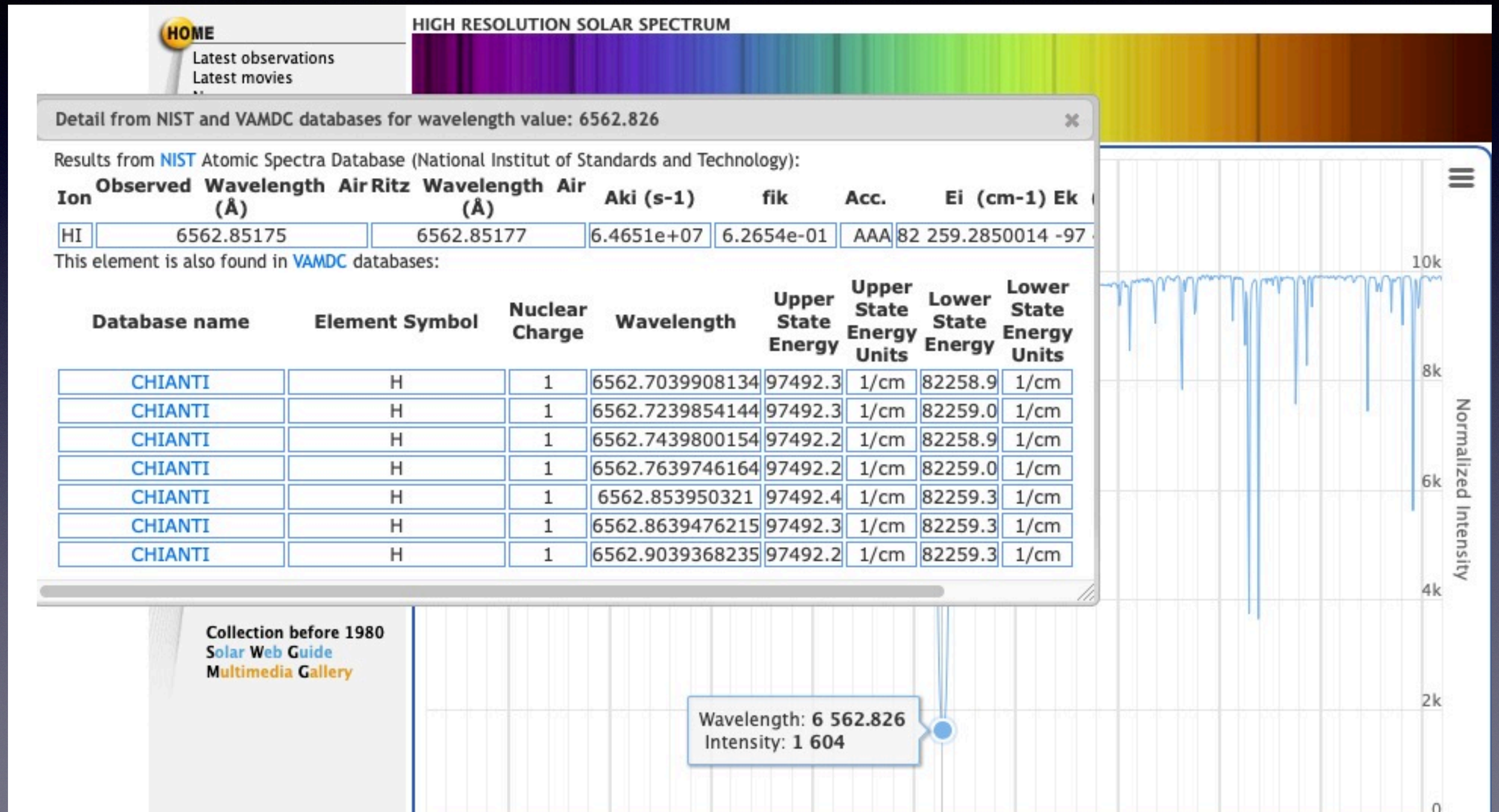
Show 10 entries

Index of the feature during a rotation Click for tracking info	Id of filament's component(s)	Name of the observatory (or spacecraft) that made the observation	Phenomen ?	Carrington latitude of the filament skeleton centre in degrees	Carrington longitude of the filament skeleton centre in degrees	Length of the filament in degrees	PROPA_MOD	SNAPSHOT
50191 2003-08-09 to 2003-08-21	50389	MEUDON/SPECTROHELIOGRAPH/SPECTROHELIOGRAPH	-	29.29	189.63	27.11	CME	
50317 2003-08-16 to 2003-08-22	50386	MEUDON/SPECTROHELIOGRAPH/SPECTROHELIOGRAPH	-	-1.96	141.54	17.87	CME	
50344 2003-08-18 to 2003-08-24	50379	MEUDON/SPECTROHELIOGRAPH/SPECTROHELIOGRAPH	-	-28.94	102.18	9.09	CME	

Solar spectrum

- From 670 Å to 54 000 Å
- 3 different sources
- Connected to VAMDC

Solar spectrum



An anecdotal problem concerning visible atlas…

- Data come from magnetic tapes of the atlas by Delbouille, Neven and Roland, 1972
- None of the author can be found now
- It seems that no other electronic data is available (Luc Delbouille ≈ 2000)
- It comes from the solar team of the Institut d'Astrophysique of Liège University (Belgium), but the team no longer exists
- Data origin:
  - 1st version of spectrometer: Liège (Belgium)
  - Improvements: Kitt Peak team (USA)
  - Observations: Jungfraujoch (Switzerland)
  - Financial support: Belgium, UK, Europe, USA


"That's all Folks!"