

# SIDC Space Weather Briefing

12 November 2023-19 November 2023

Rodriguez Luciano

& the SIDC forecaster team



Royal Observatory  
of Belgium

Solar Influences  
Data analysis Centre  
[www.sidc.be](http://www.sidc.be)

# Summary Report

Solar activity from 2023-11-12 12:00 to 2023-11-19 23:59

Active regions	13 ARs visible throughout the week (NOAA ARs 3477 ro 3490).
Flares	# C-class flare: 32 # M-class flare: 4 # X-class flare: 0
Coronal Holes	None affecting the Earth
CMEs	One weak and slow CME on 16 november had an Earth directed component

Proton flux	Below thresholds
Electron flux	Below thresholds

## Solar wind and geomagnetic conditions

ICMEs	Two at the beginning of the week
Solar wind conditions	B : 0.33 - 14.87 nT //Bz: -8.77 nT to 14.13 nT //Speed: 286.9 - 570.6km/s
Geomagnetic conditions	max KBel: 5, max Kp(NOAA): 5, Minor Storm conditions

All Quiet Alert: Off

# Solar Activity

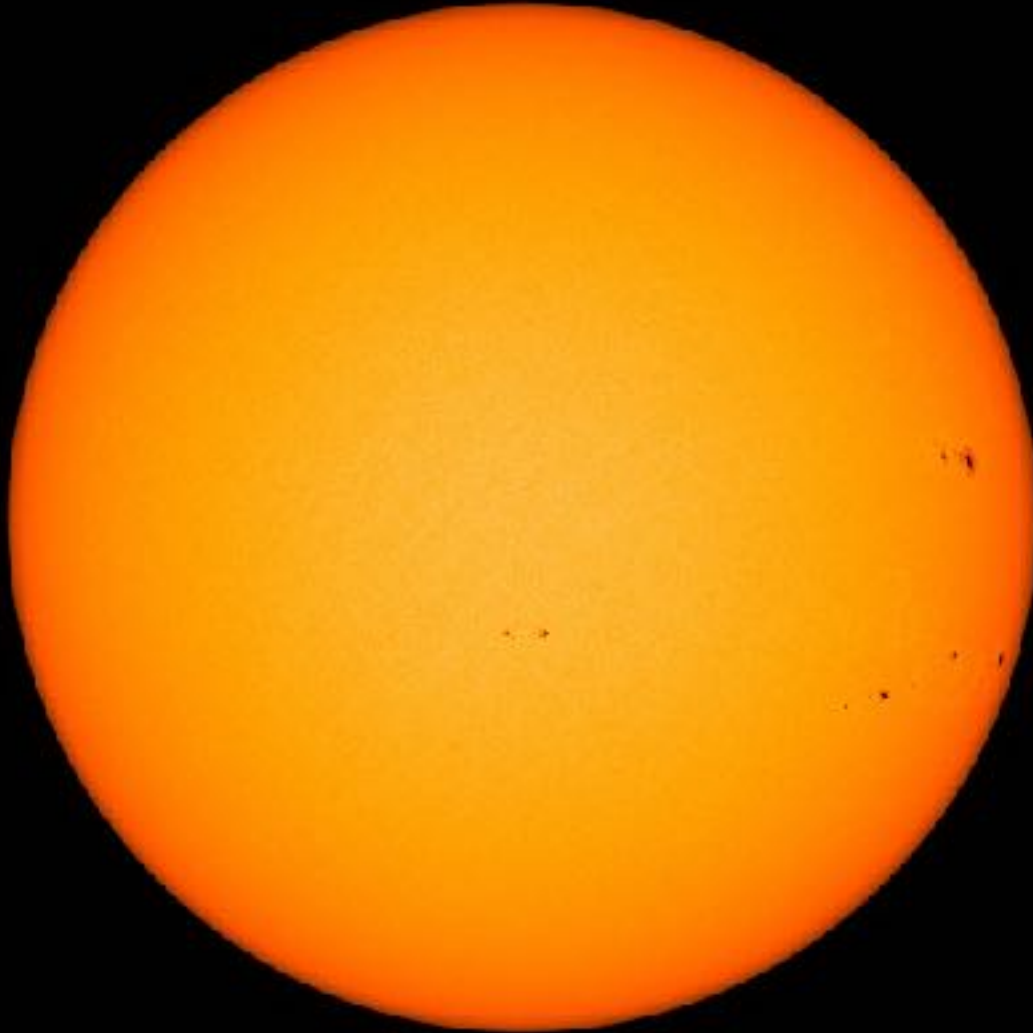


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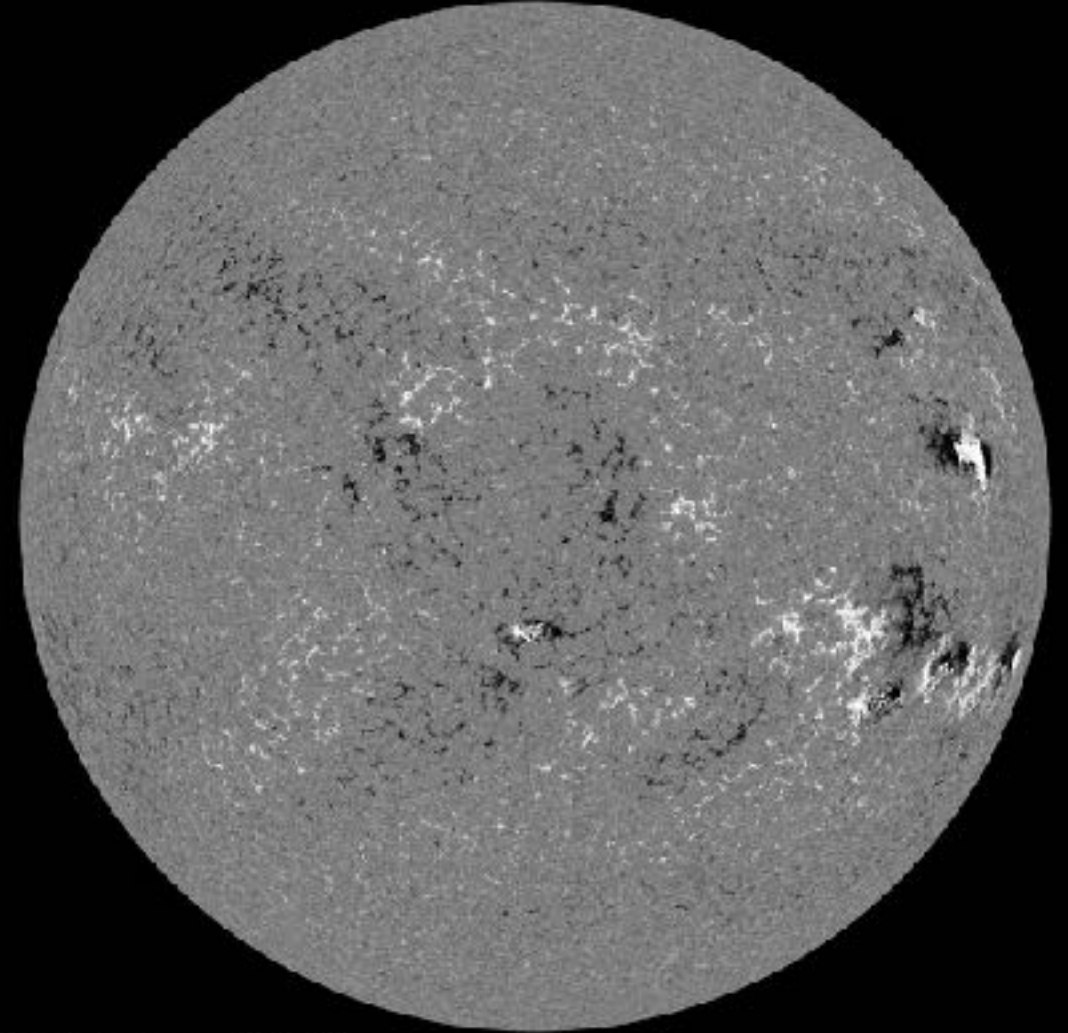
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# Solar active regions

SDO/HMI White Light 2023-11-12

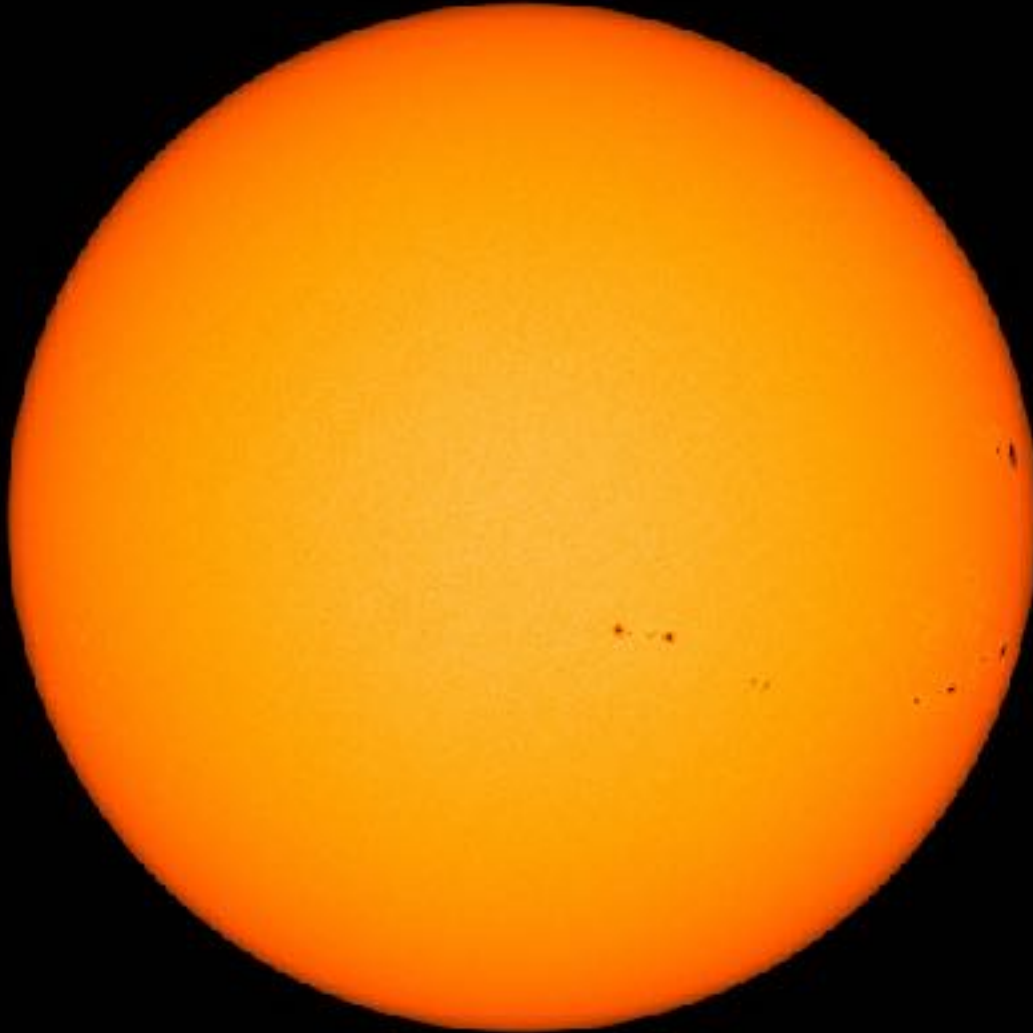


SDO/HMI Magnetogram 2023-11-12

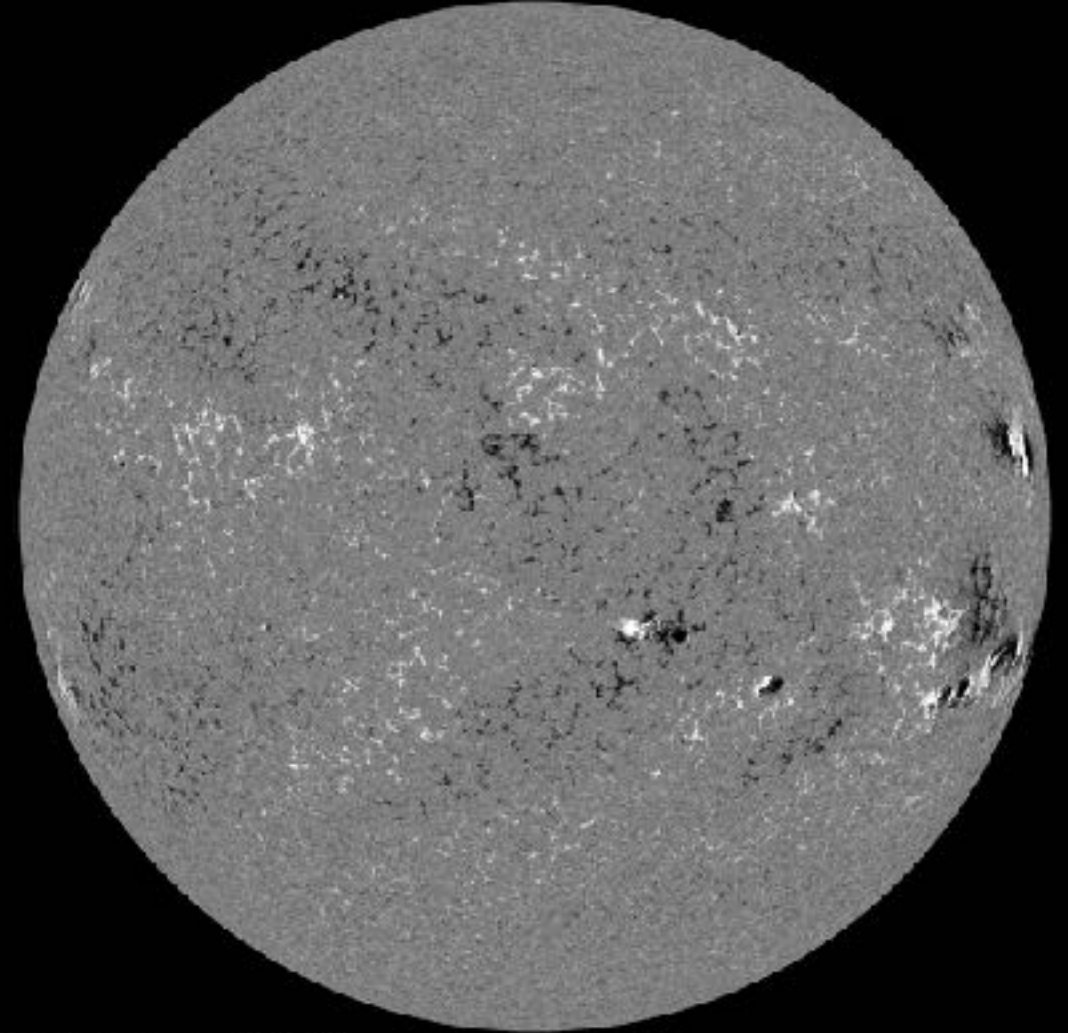


# Solar active regions

SDO/HMI White Light 2023-11-13

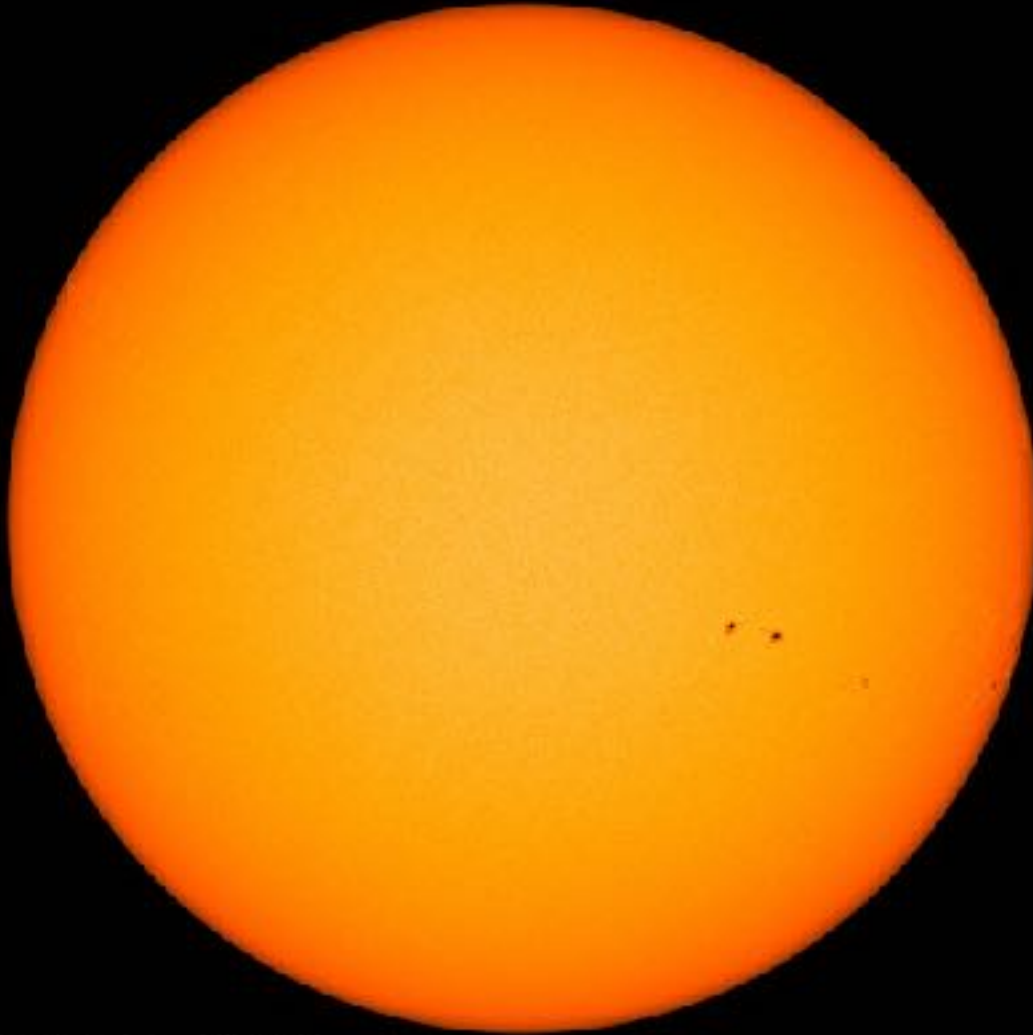


SDO/HMI Magnetogram 2023-11-13

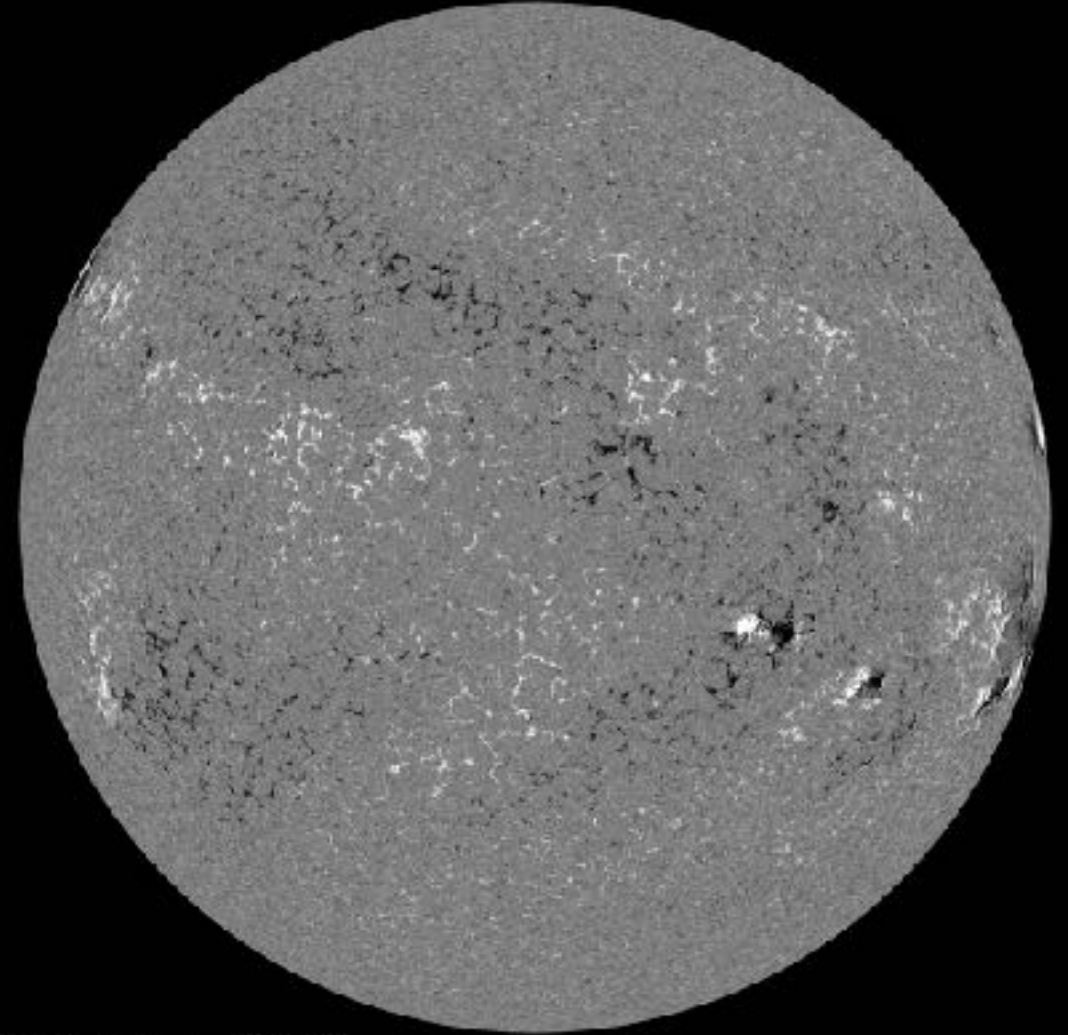


# Solar active regions

SDO/HMI White Light 2023-11-14

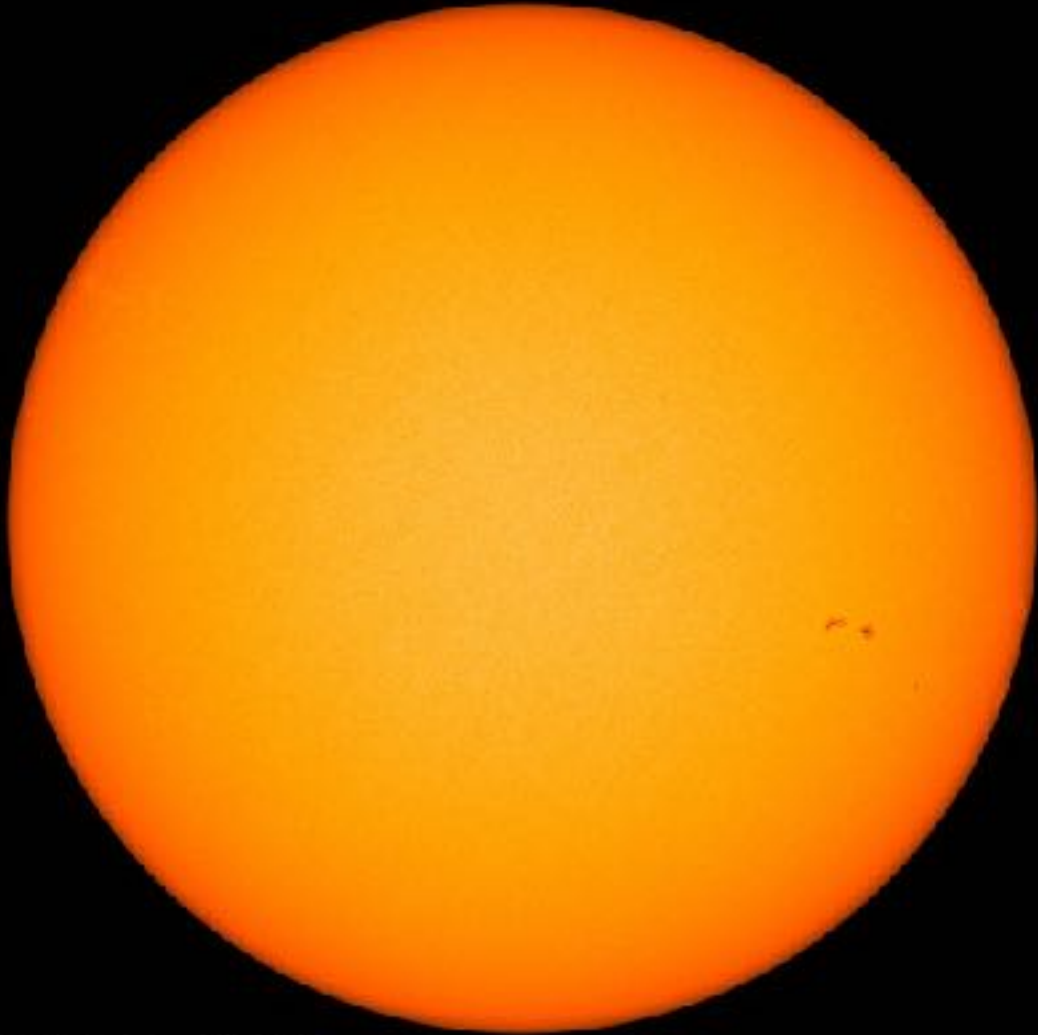


SDO/HMI Magnetogram 2023-11-14

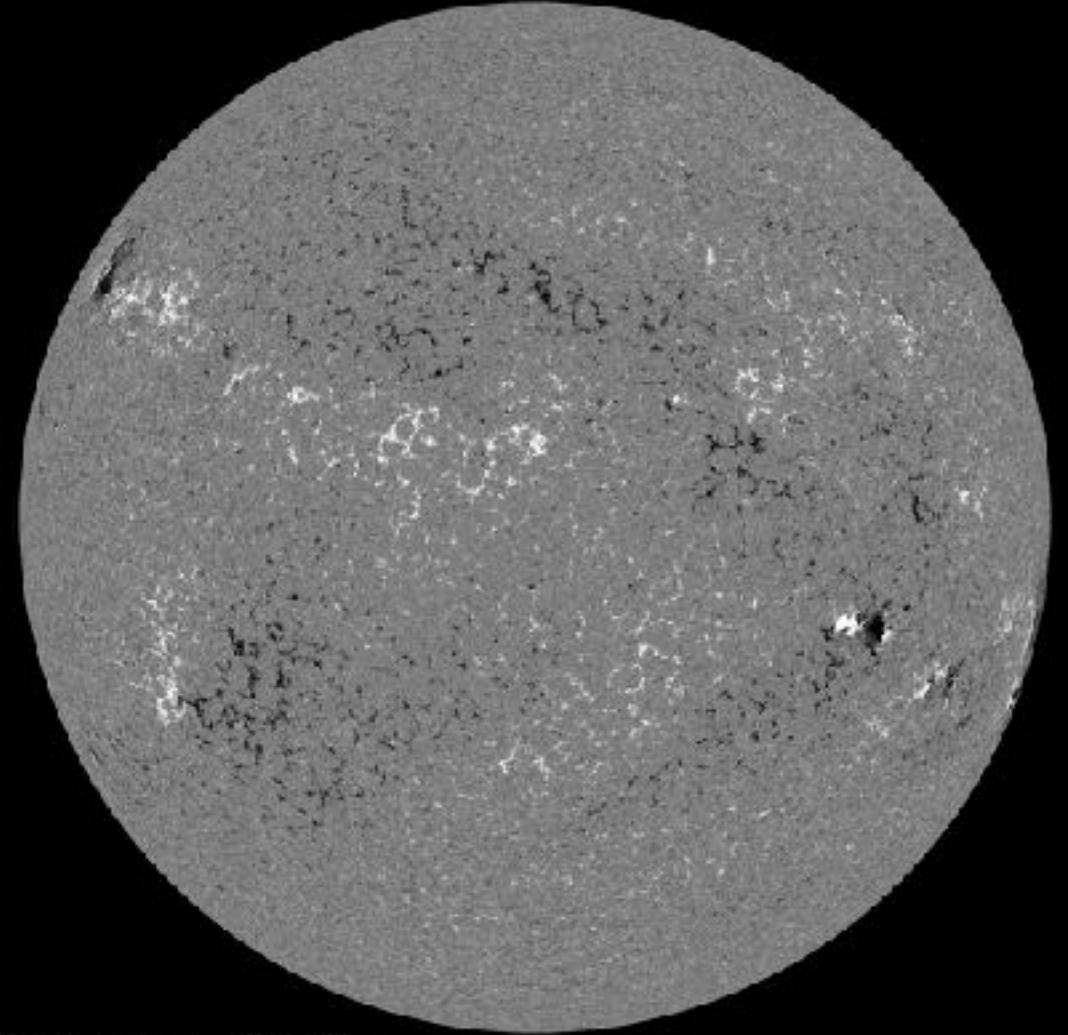


# Solar active regions

SDO/HMI White Light 2023-11-15

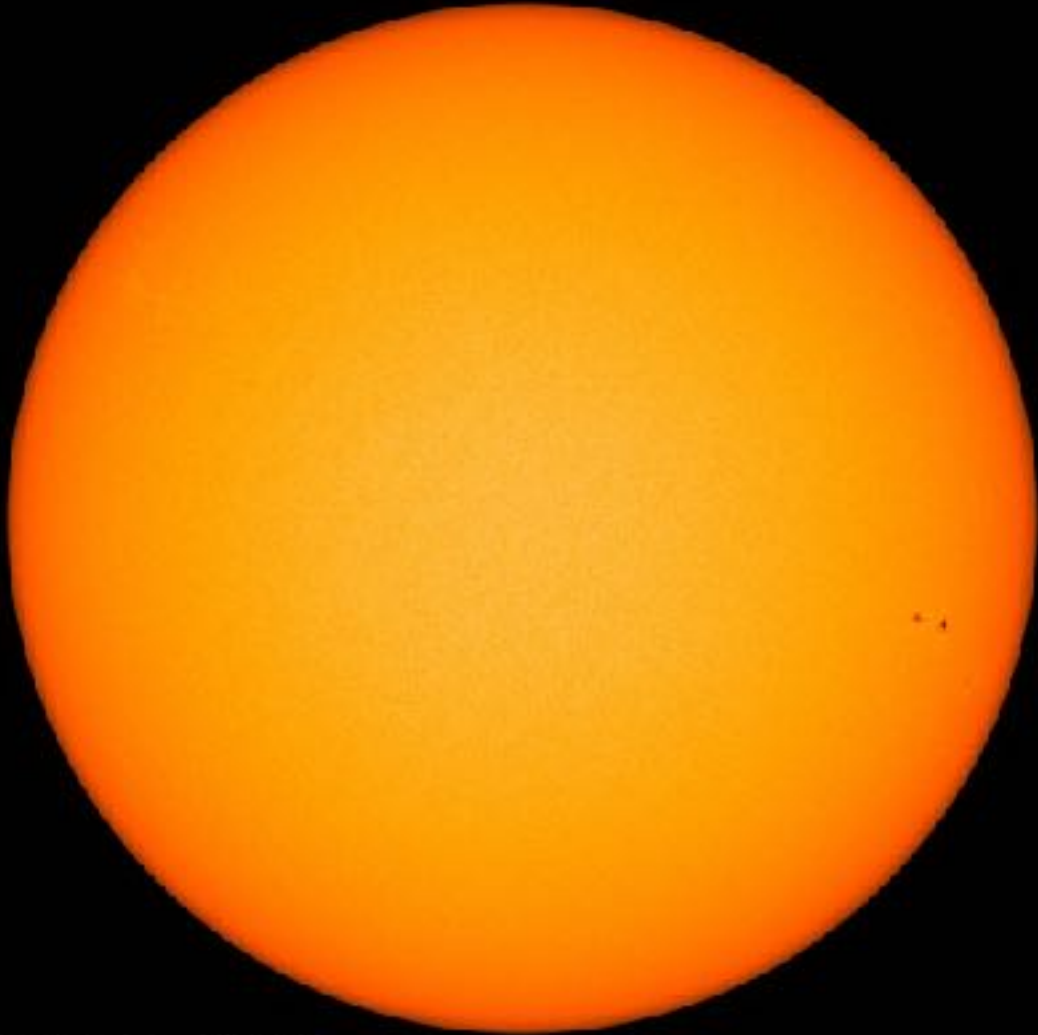


SDO/HMI Magnetogram 2023-11-15

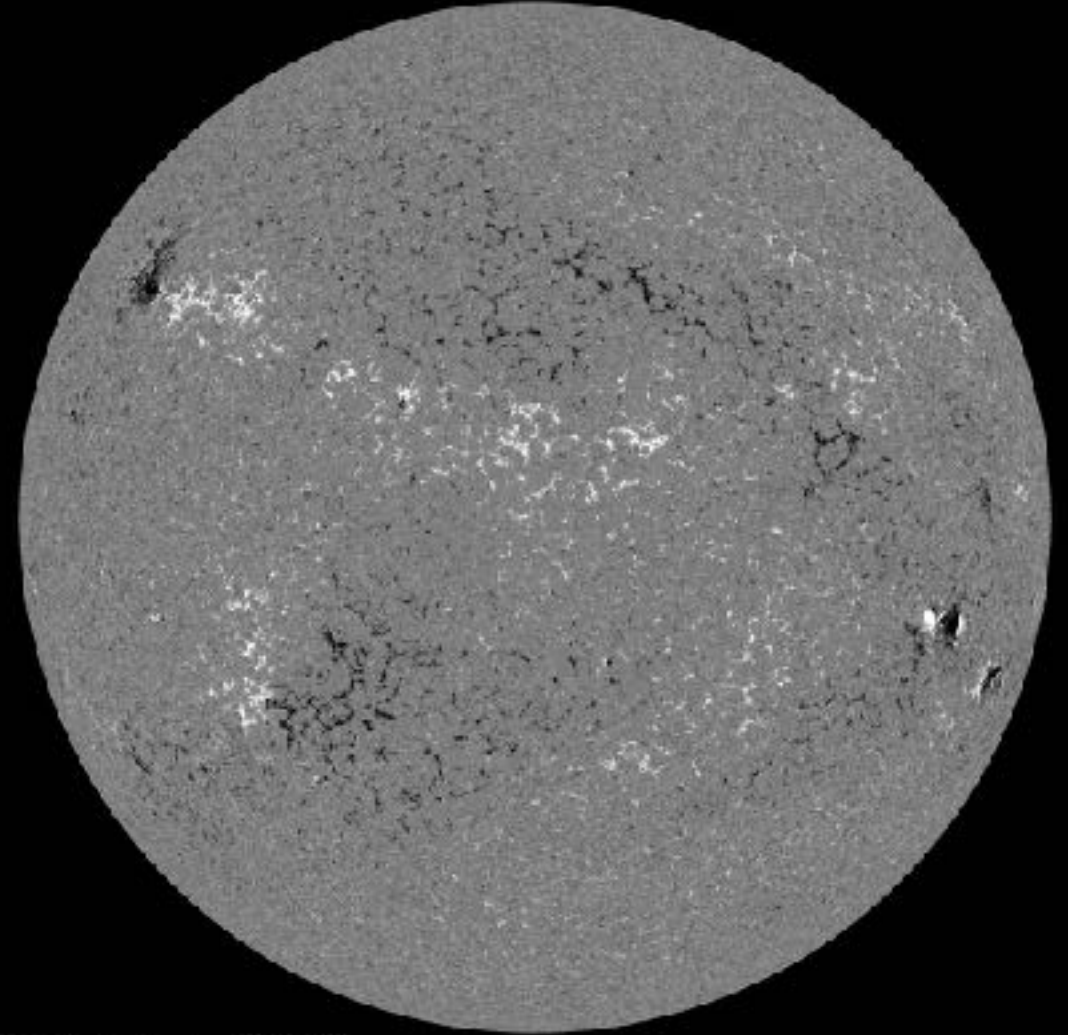


# Solar active regions

SDO/HMI White Light 2023-11-16



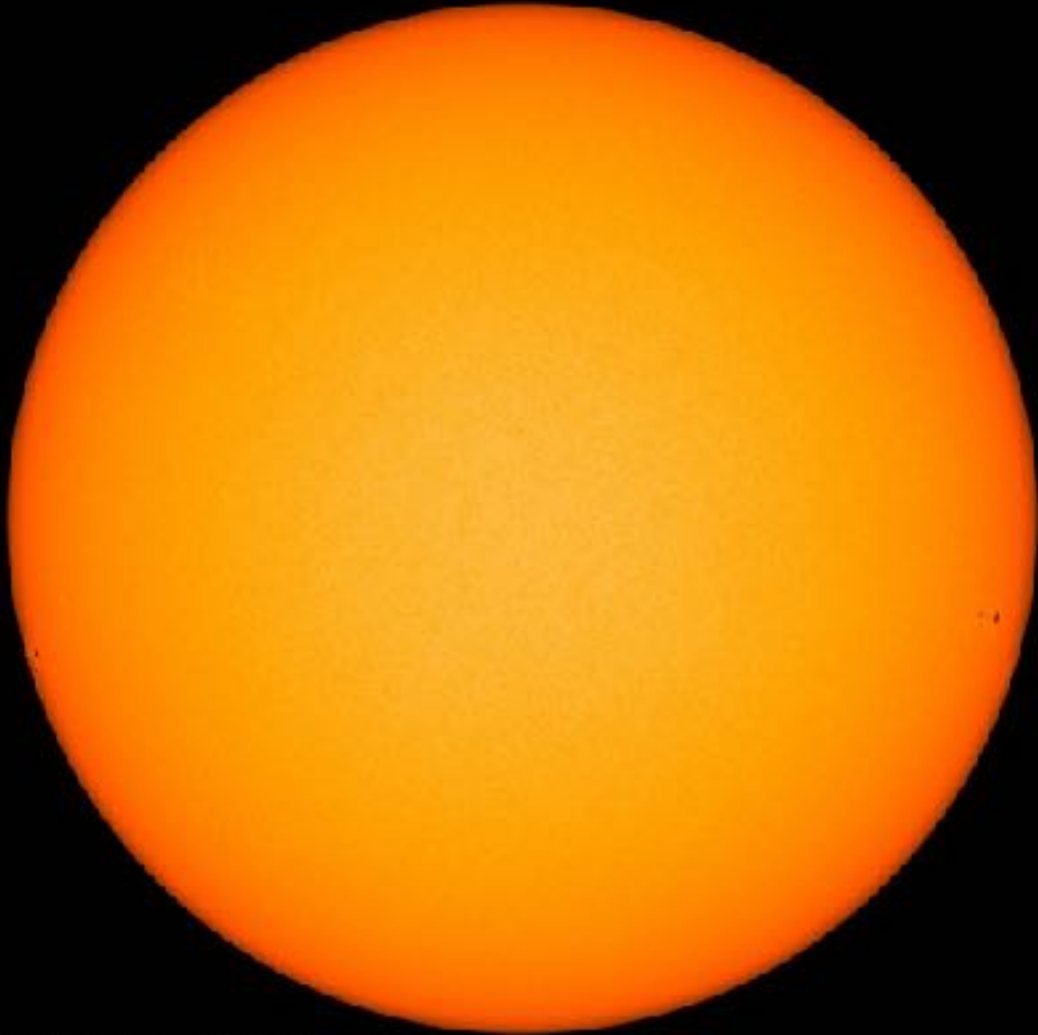
SDO/HMI Magnetogram 2023-11-16



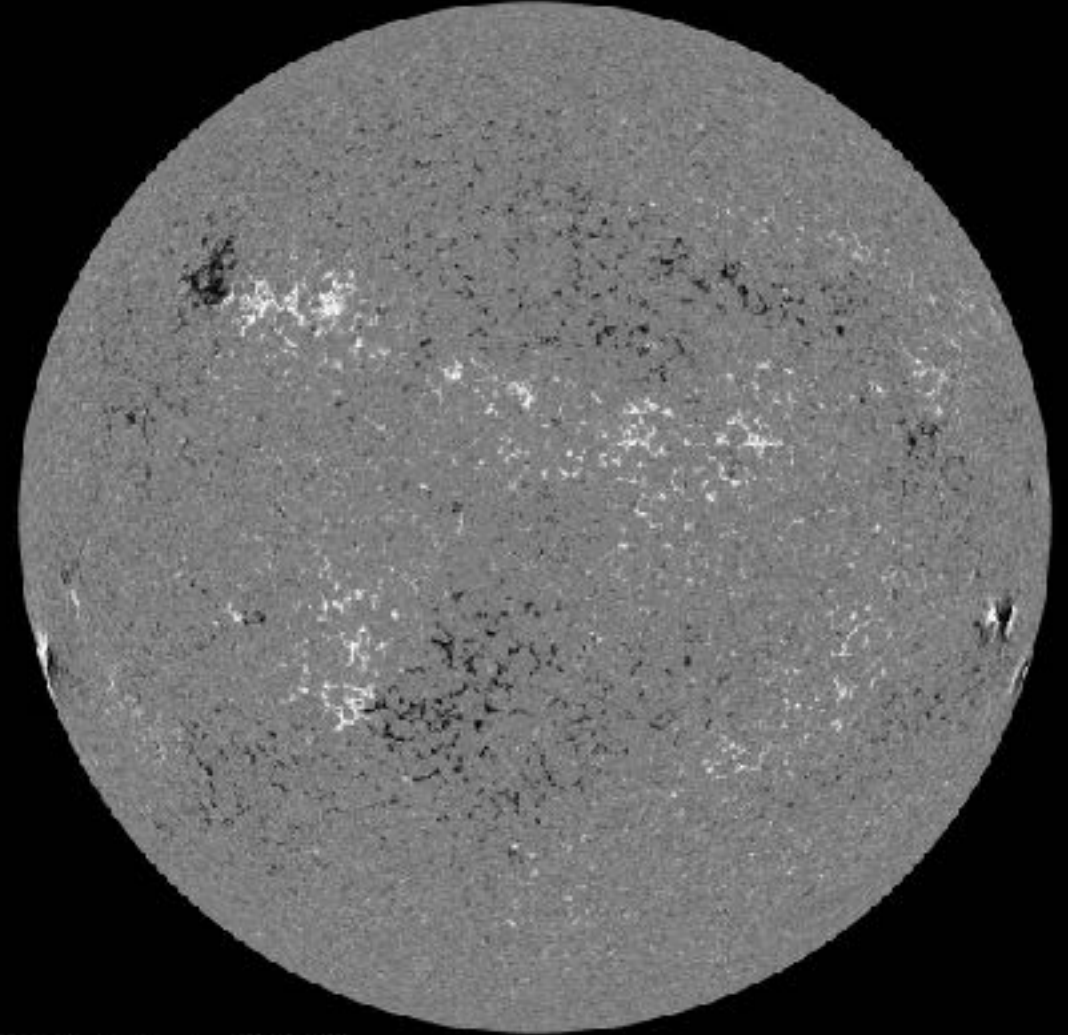


# Solar active regions

SDO/HMI White Light 2023-11-17

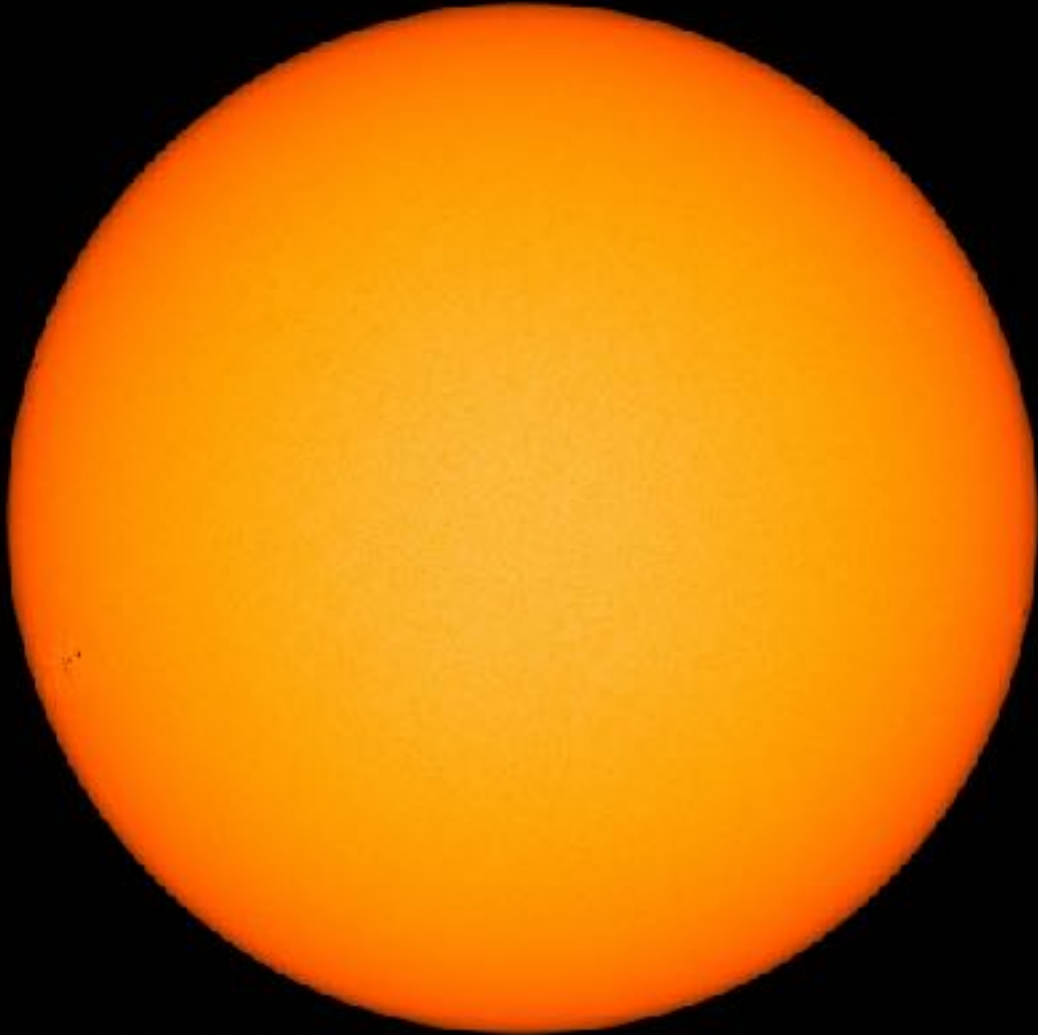


SDO/HMI Magnetogram 2023-11-17

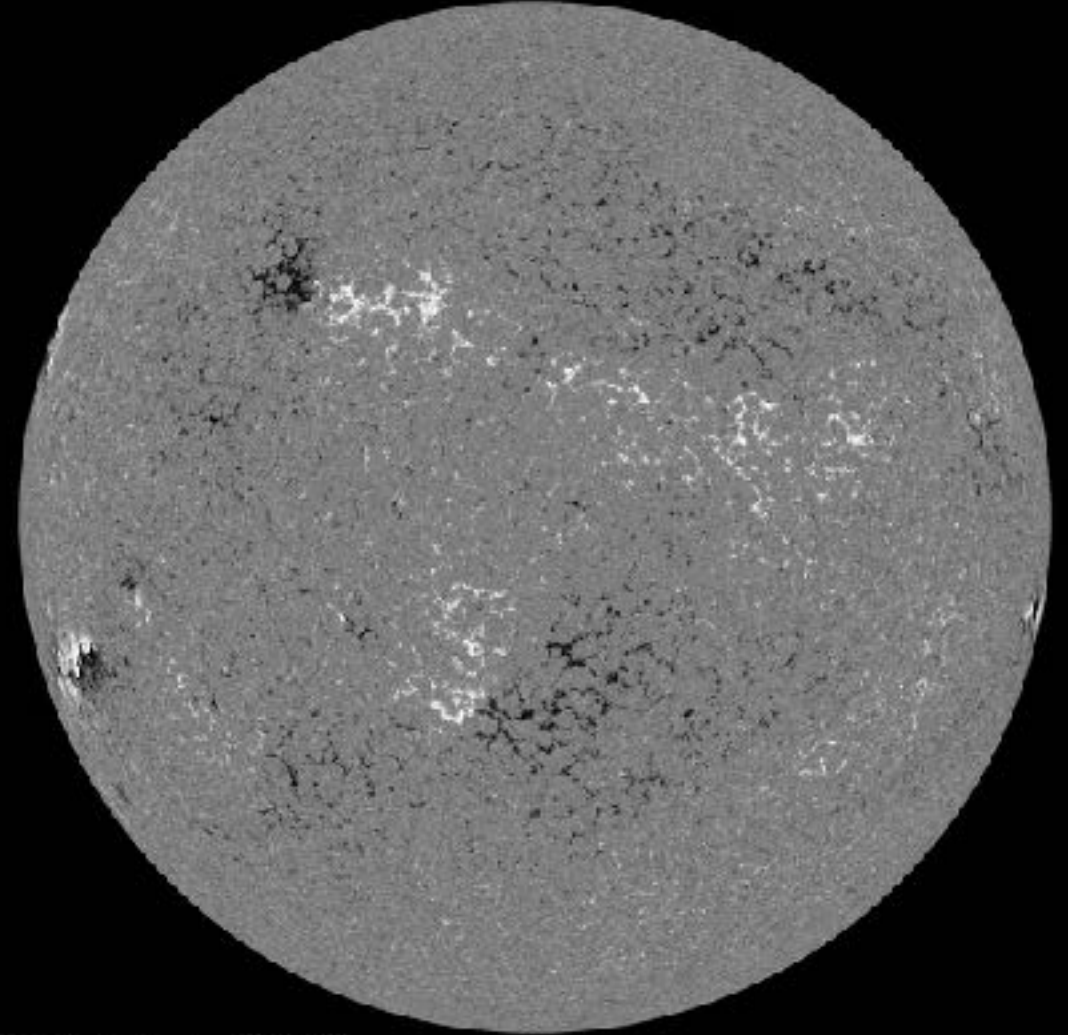


# Solar active regions

SDO/HMI White Light 2023-11-18

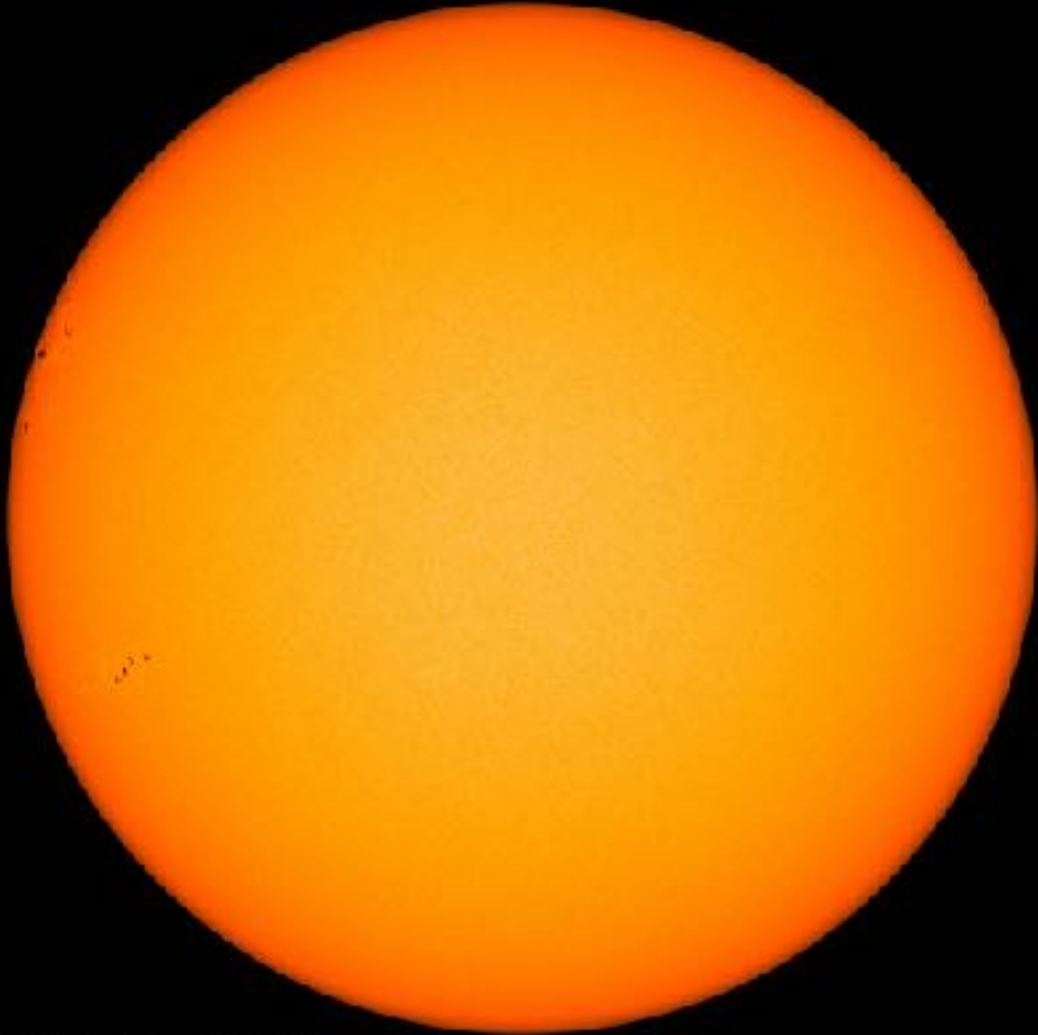


SDO/HMI Magnetogram 2023-11-18

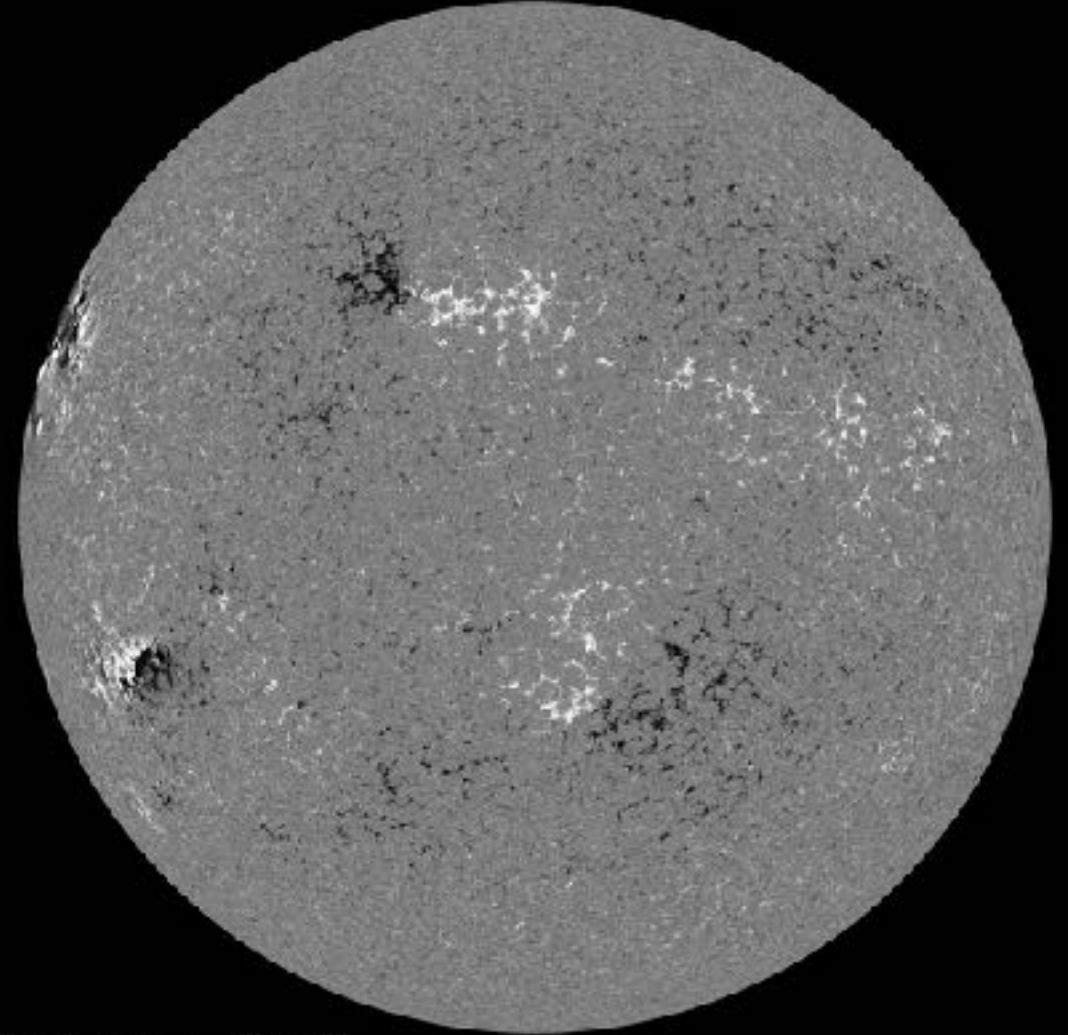


# Solar active regions

SDO/HMI White Light 2023-11-19



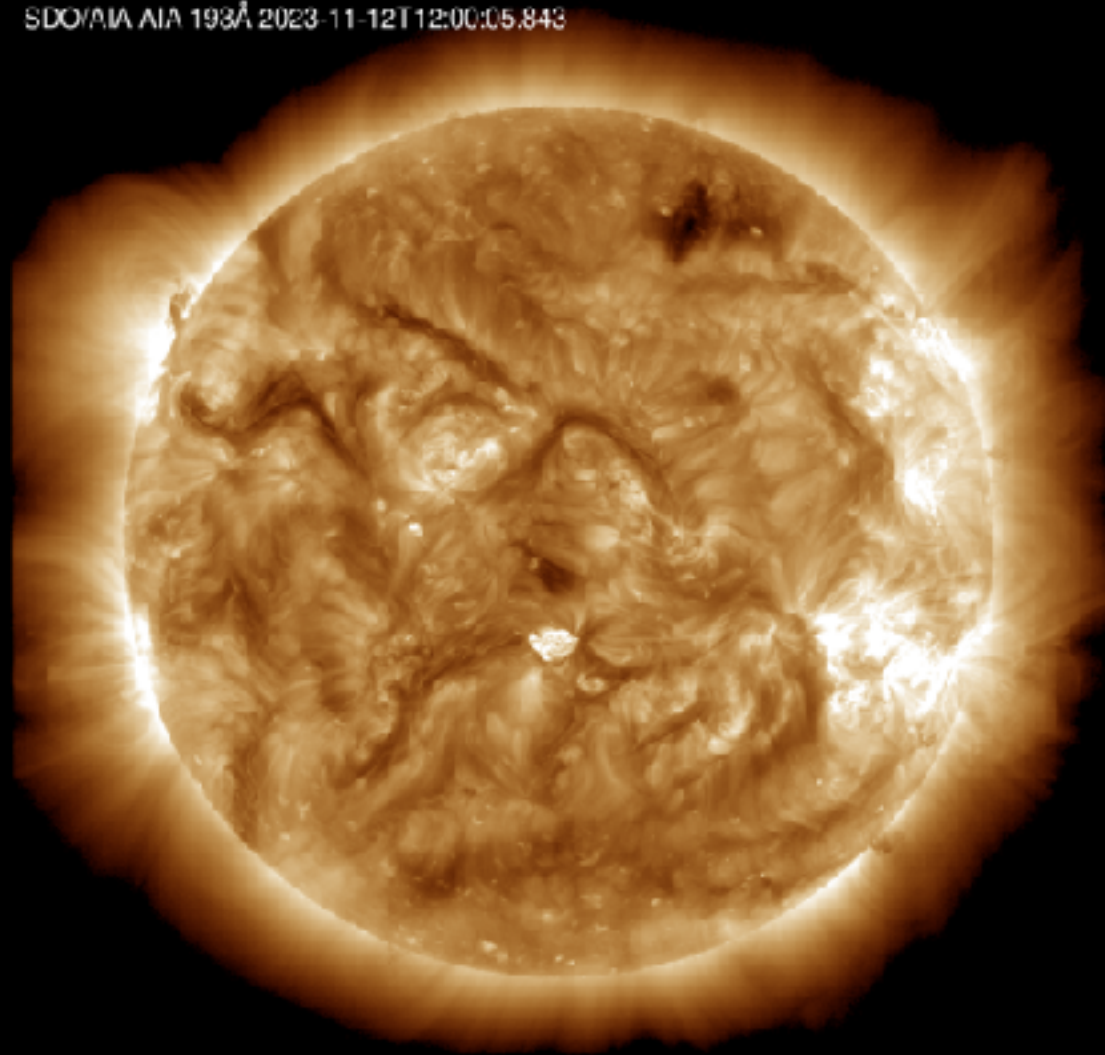
SDO/HMI Magnetogram 2023-11-19



# Coronal holes

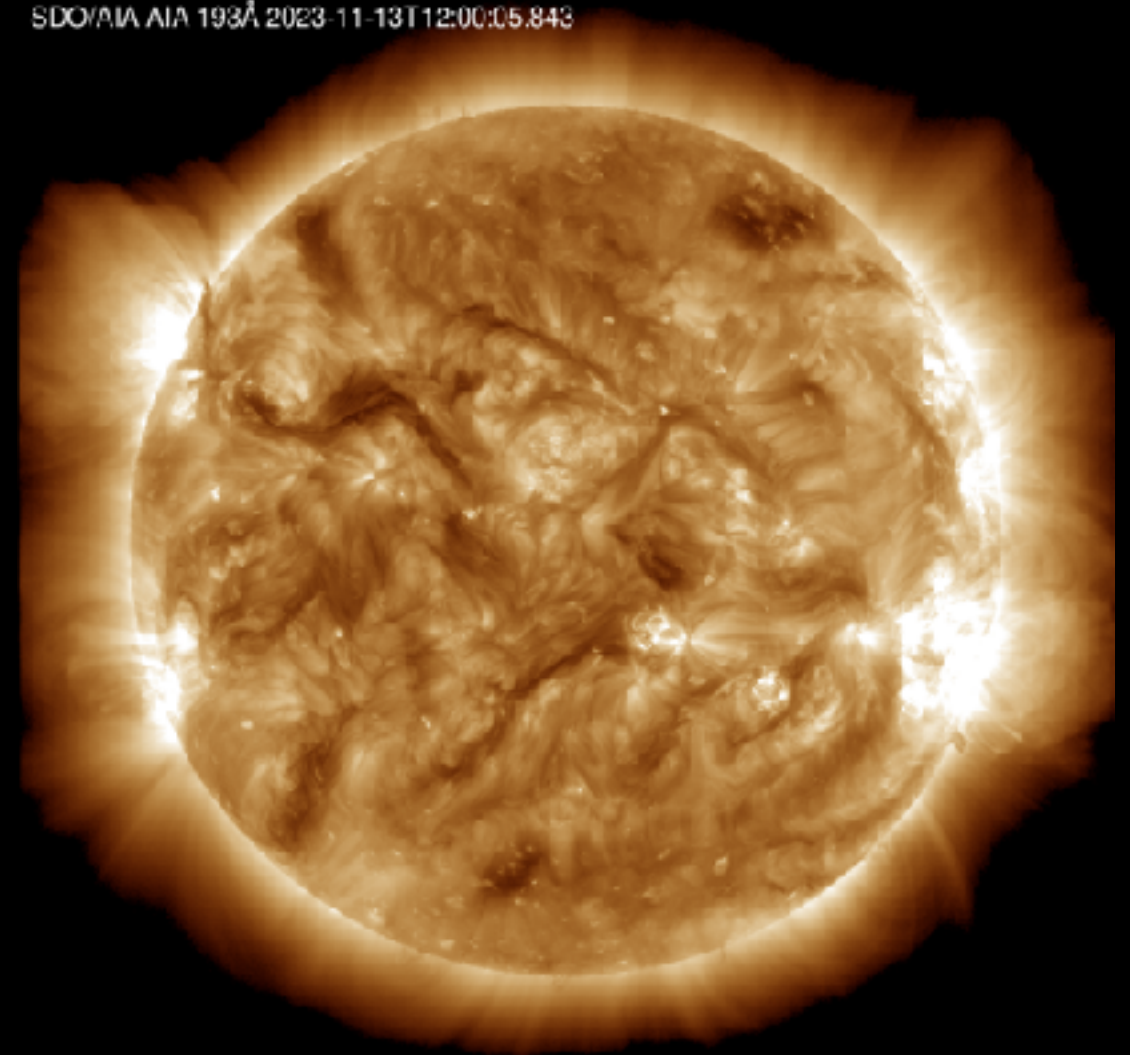
SDO/AIA 19.3 nm 2023-11-12

SDO/AIA AIA 193Å 2023-11-12T12:00:05.843



SDO/AIA 19.3 nm 2023-11-13

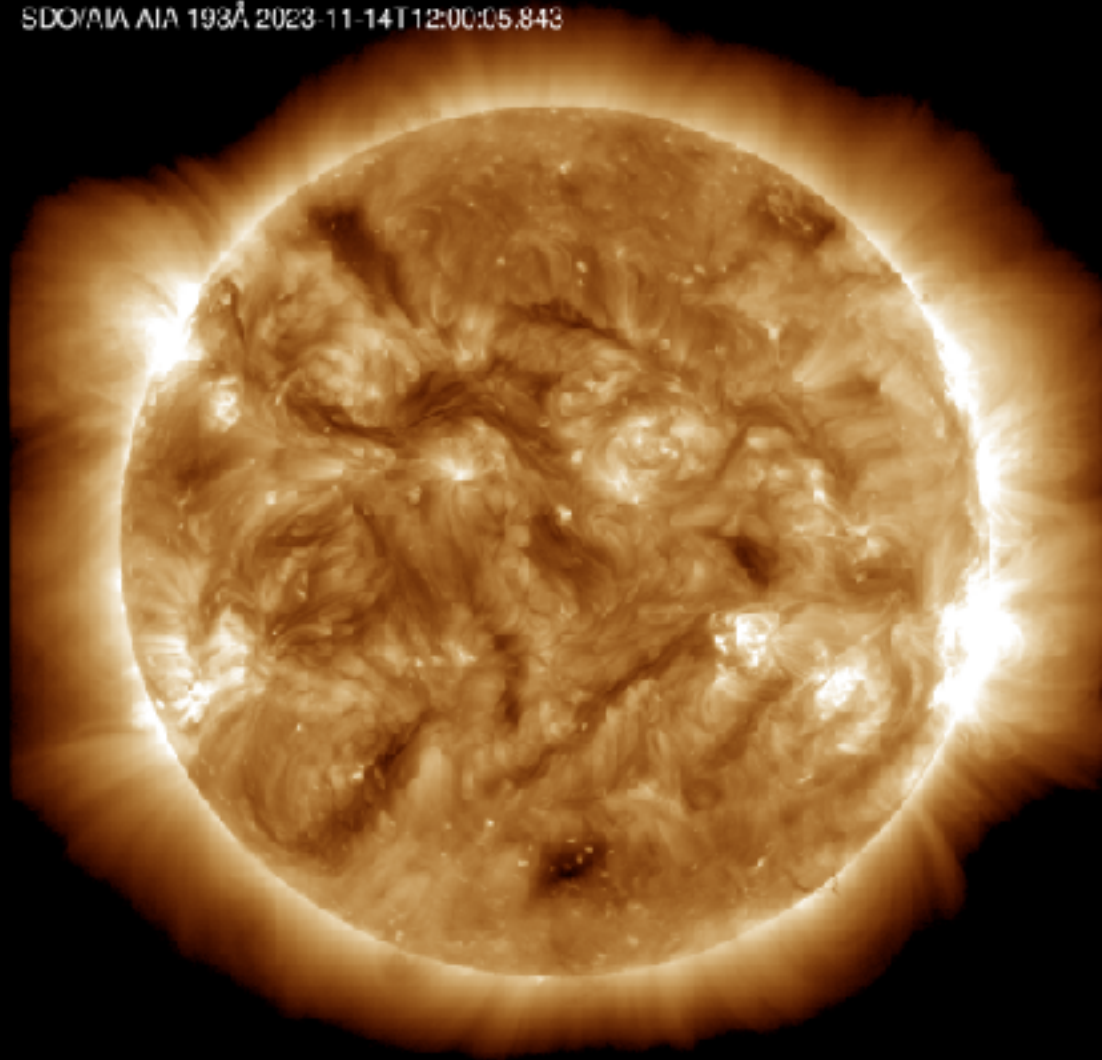
SDO/AIA AIA 193Å 2023-11-13T12:00:05.843



# Coronal holes

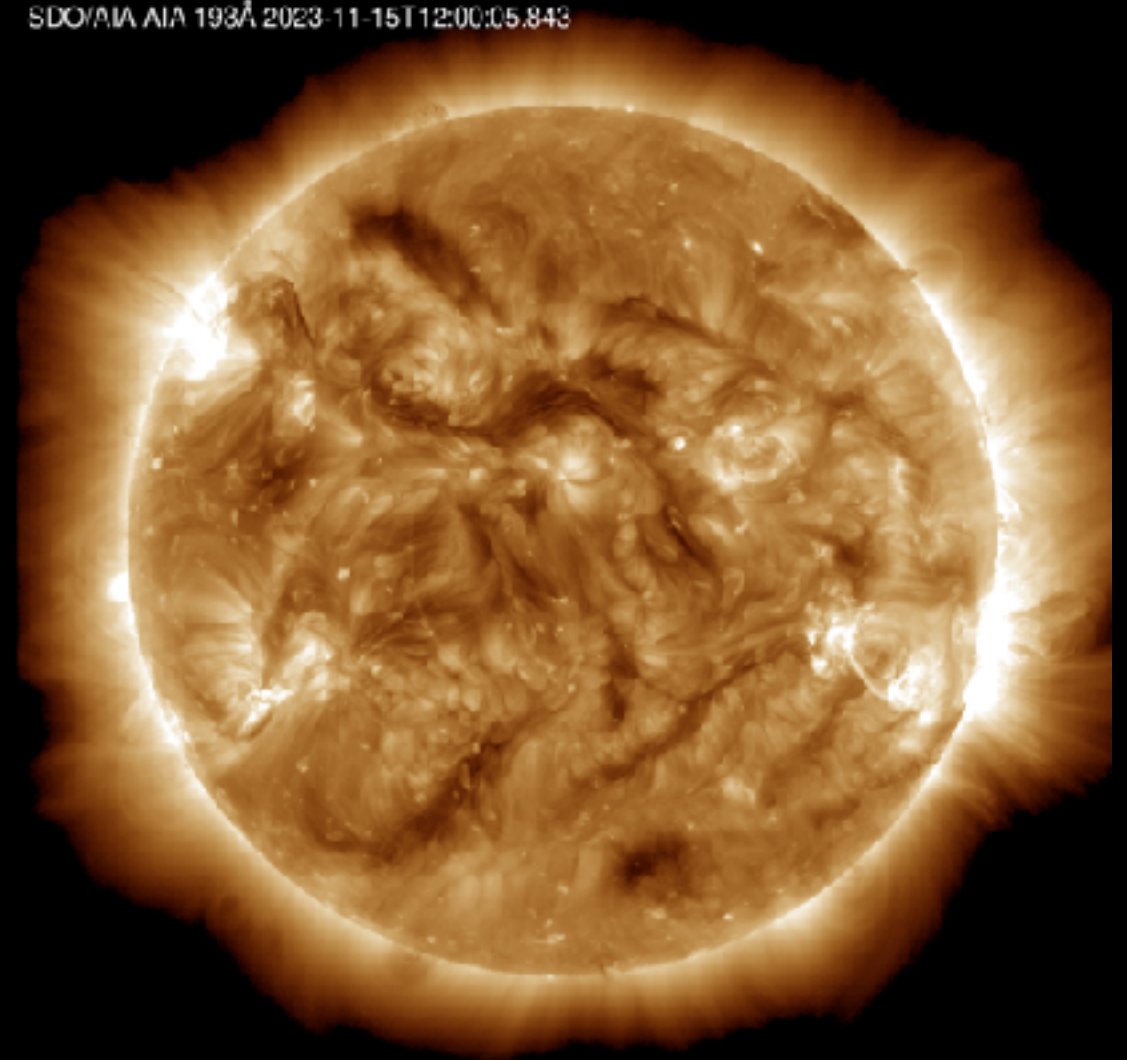
SDO/AIA 19.3 nm 2023-11-14

SDO/AIA AIA 193Å 2023-11-14T12:00:05.843



SDO/AIA 19.3 nm 2023-11-15

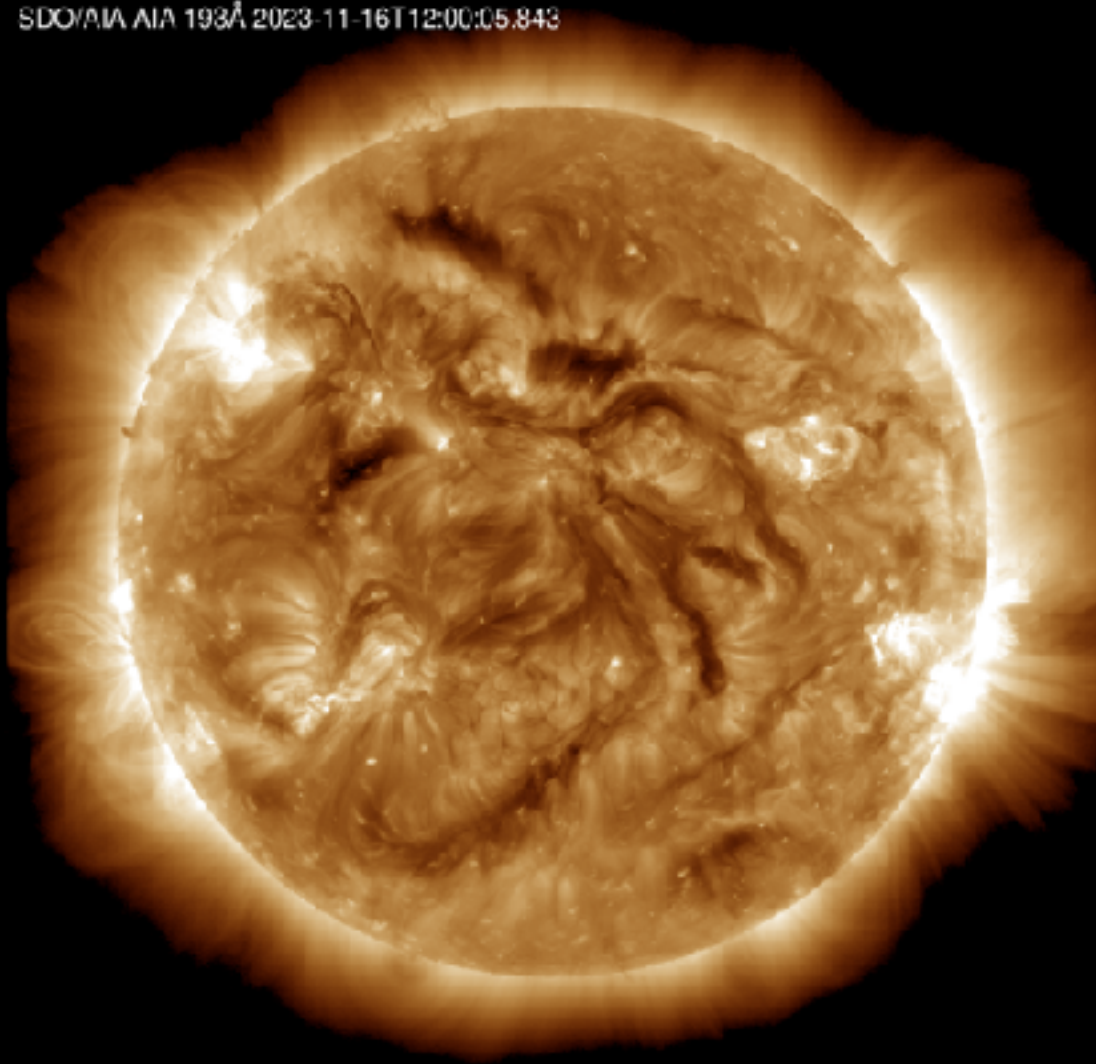
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# Coronal holes

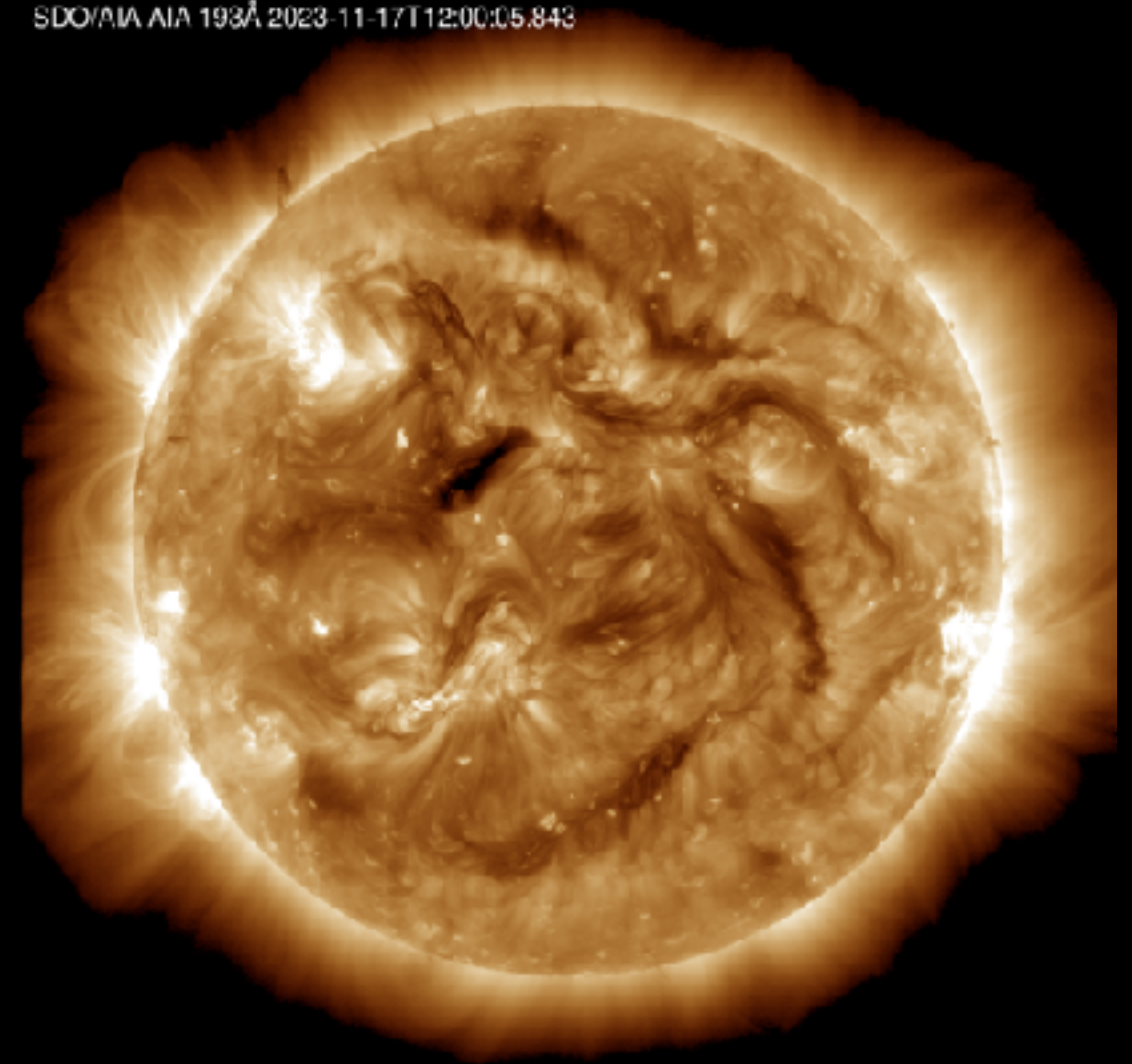
SDO/AIA 19.3 nm 2023-11-16

SDO/AIA AIA 193Å 2023-11-16T12:00:05.843



SDO/AIA 19.3 nm 2023-11-17

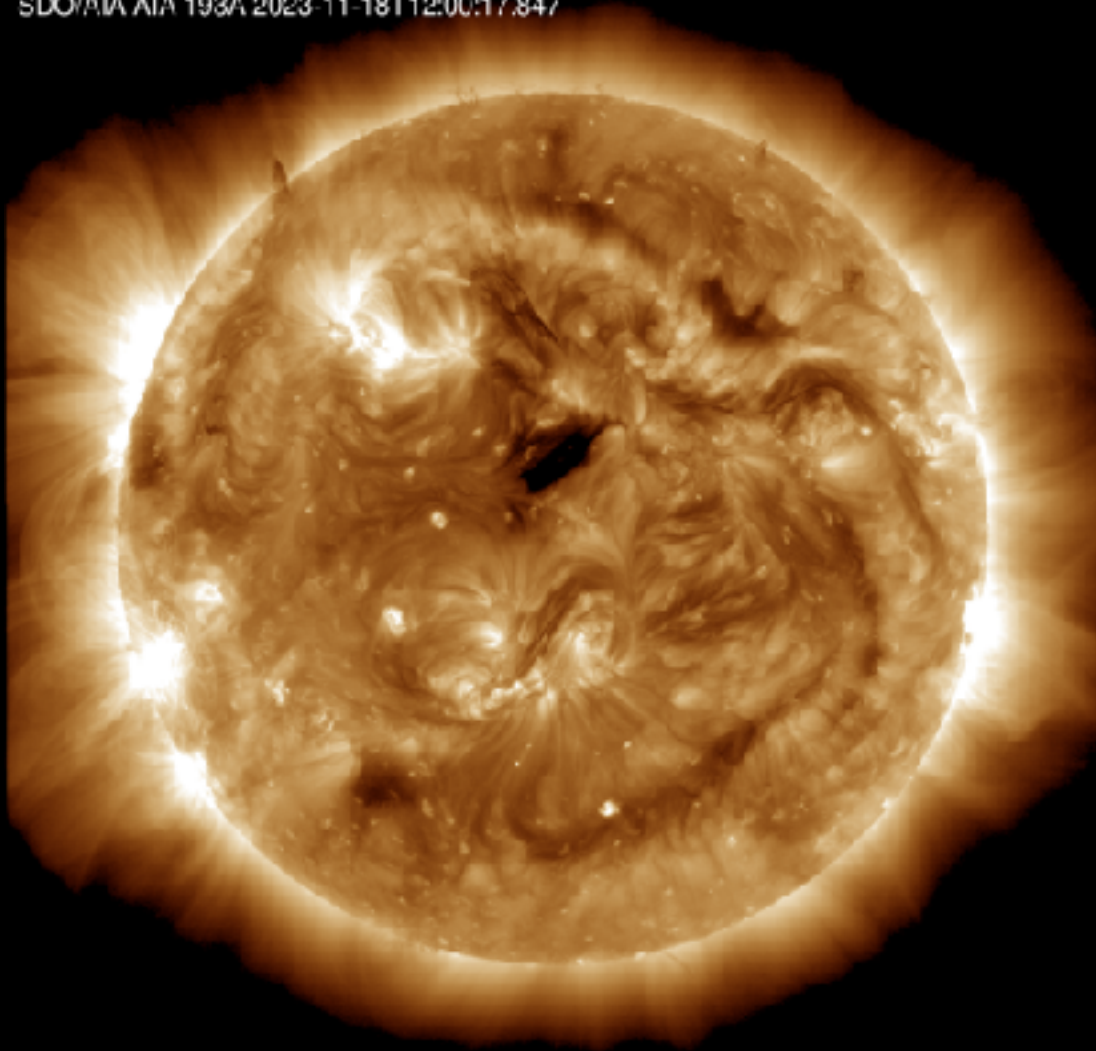
SDO/AIA AIA 193Å 2023-11-17T12:00:05.843



# Coronal holes

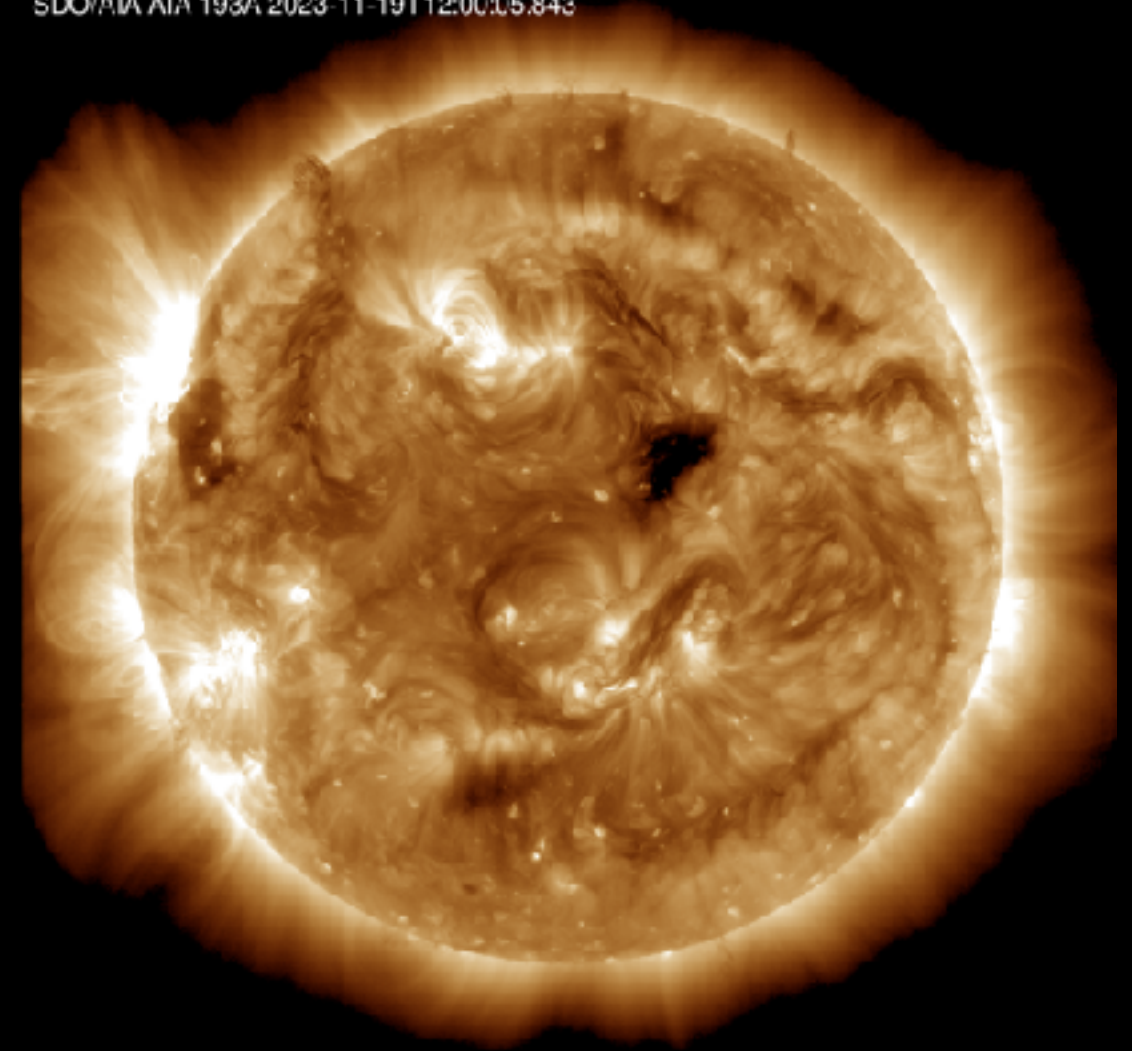
SDO/AIA 19.3 nm 2023-11-18

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SDO/AIA 19.3 nm 2023-11-19

SDO/AIA AIA 193Å 2023-11-19T12:00:05.843



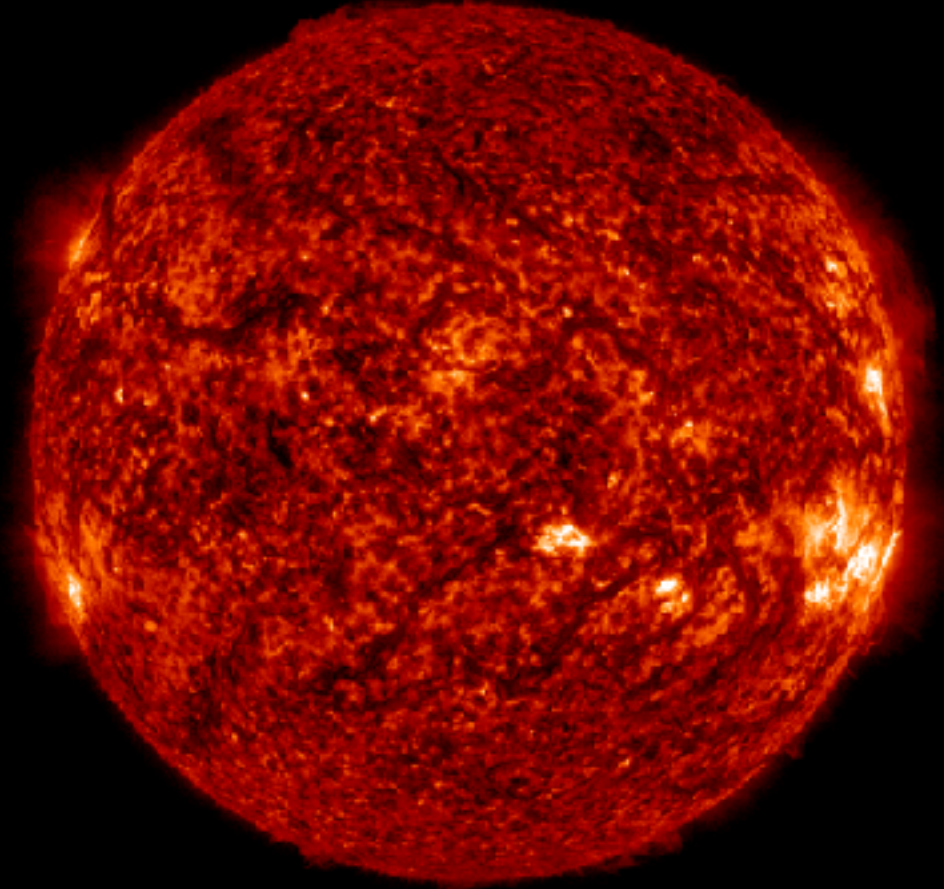
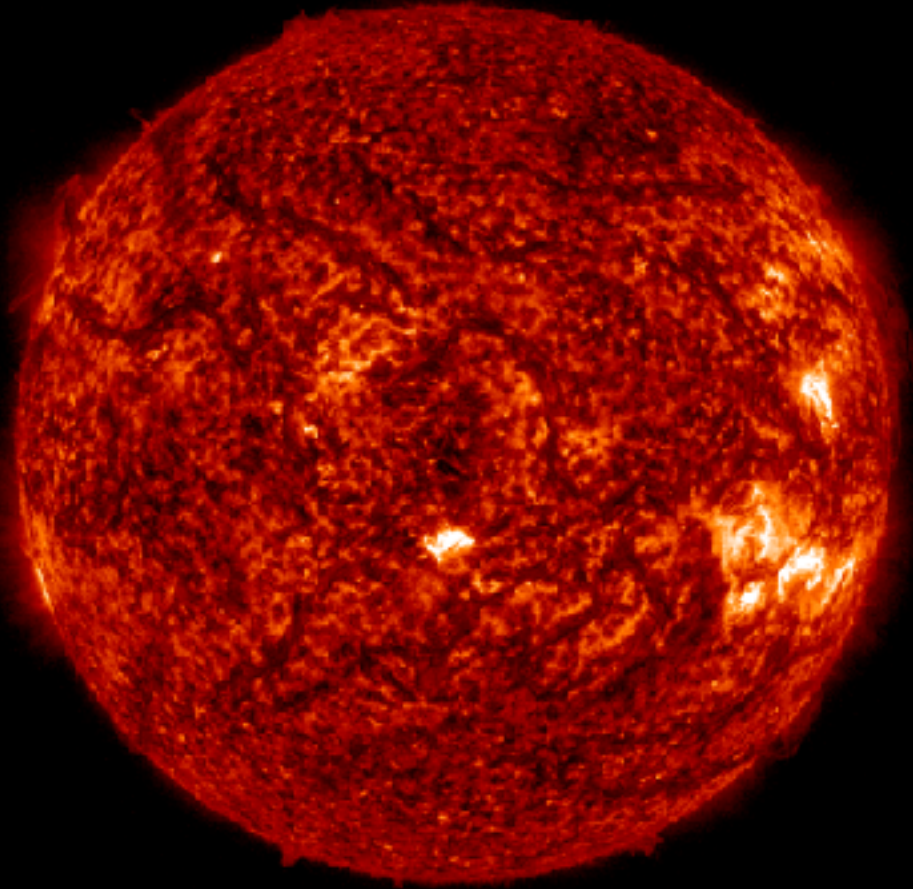
# Filaments

SDO/AIA 30.4 nm 2023-11-12

SDO/AIA AIA 304Å 2023-11-12T12:00:06.580

SDO/AIA 30.4 nm 2023-11-13

SDO/AIA AIA 304Å 2023-11-13T12:00:06.581





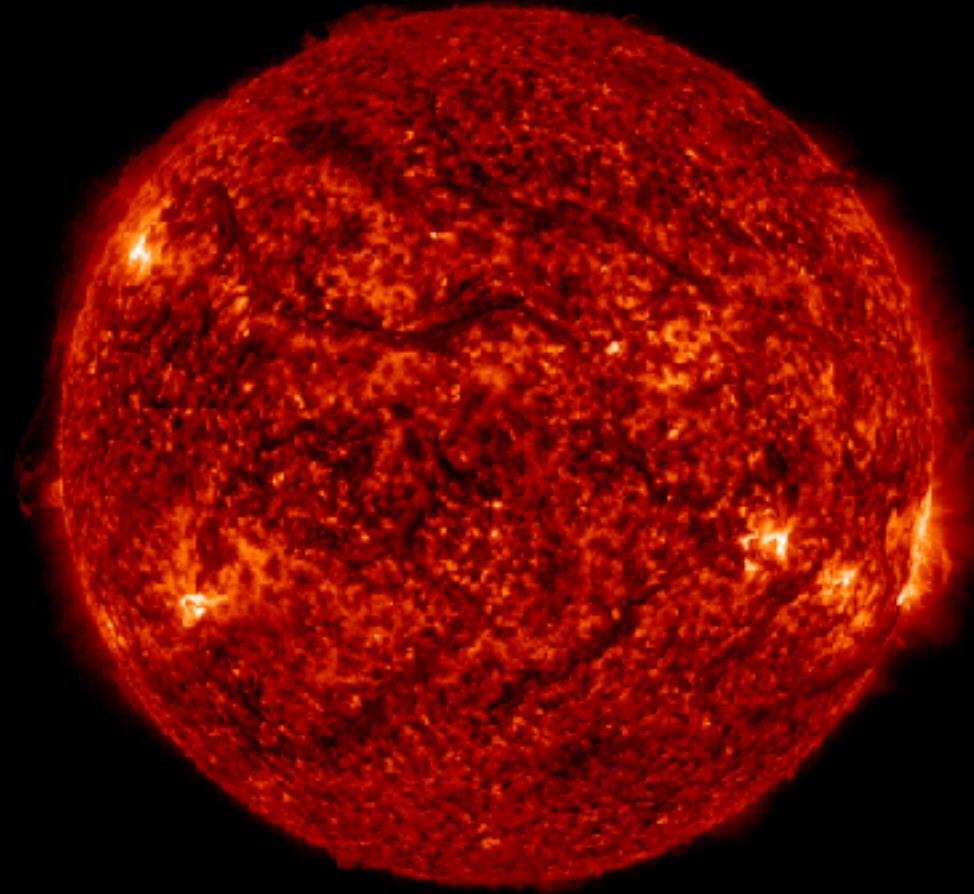
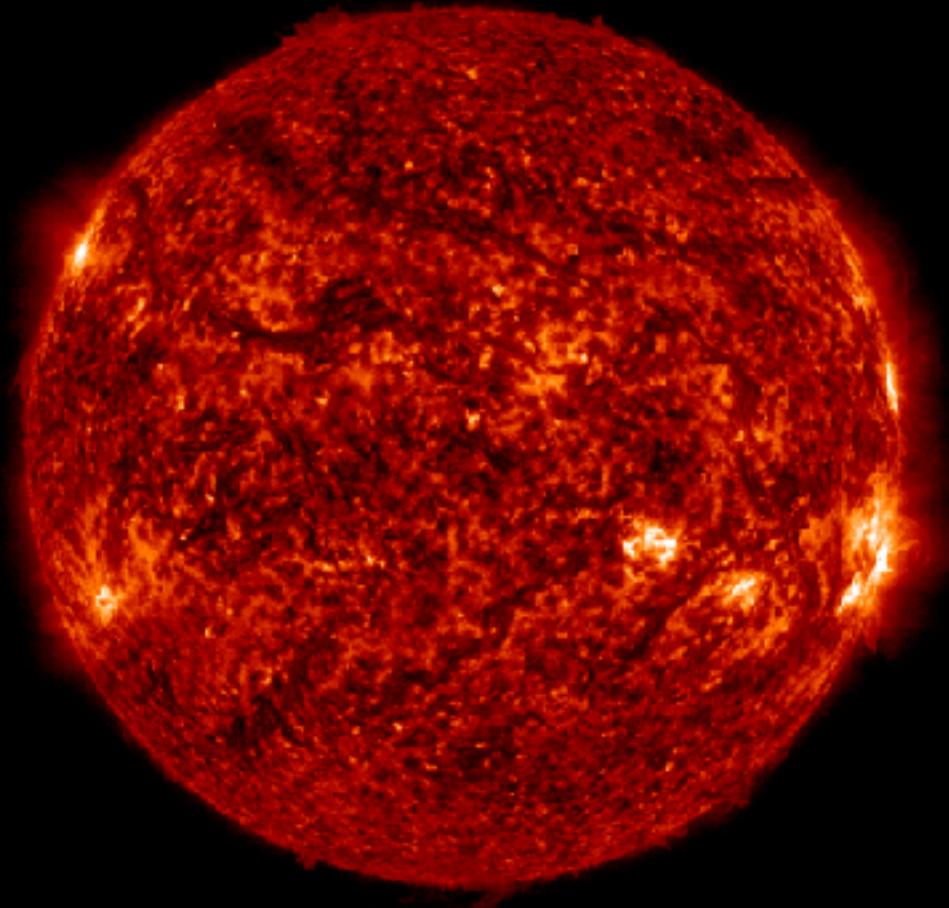
# Filaments

SDO/AIA 30.4 nm 2023-11-14

SDO/AIA AIA 304Å 2023-11-14T12:00:06.581

SDO/AIA 30.4 nm 2023-11-15

SDO/AIA AIA 304Å 2023-11-15T12:00:06.580



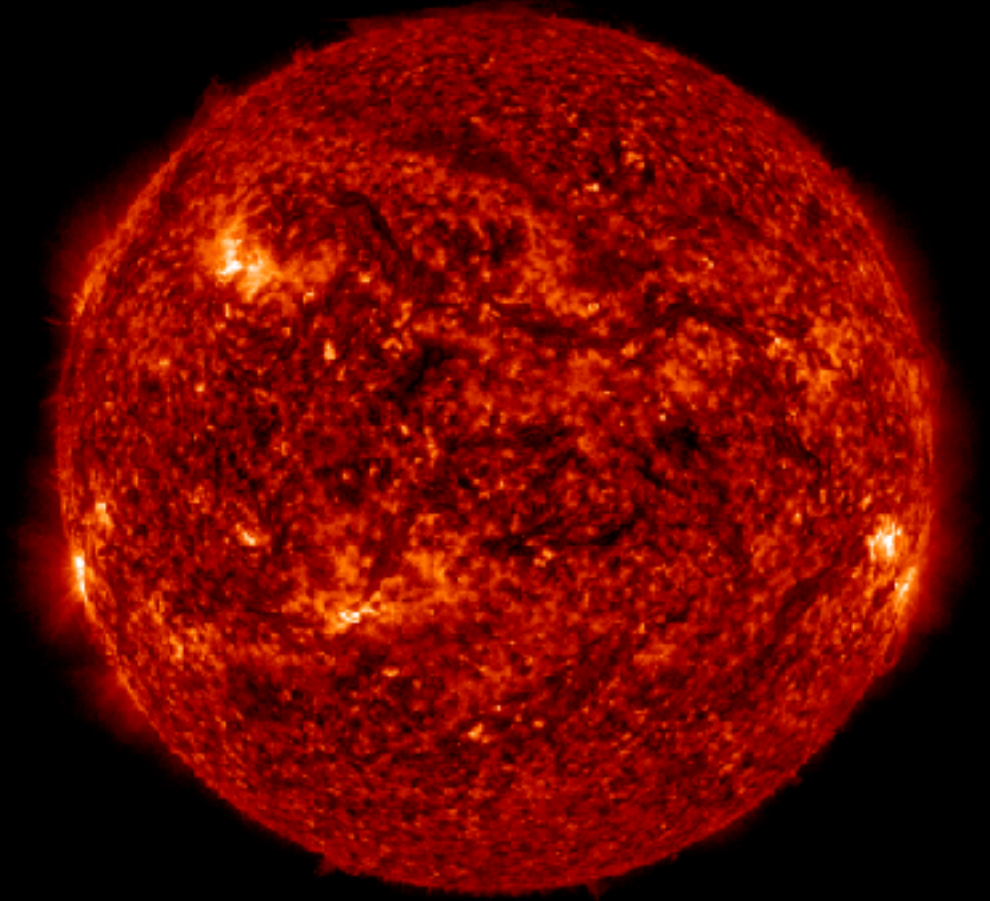
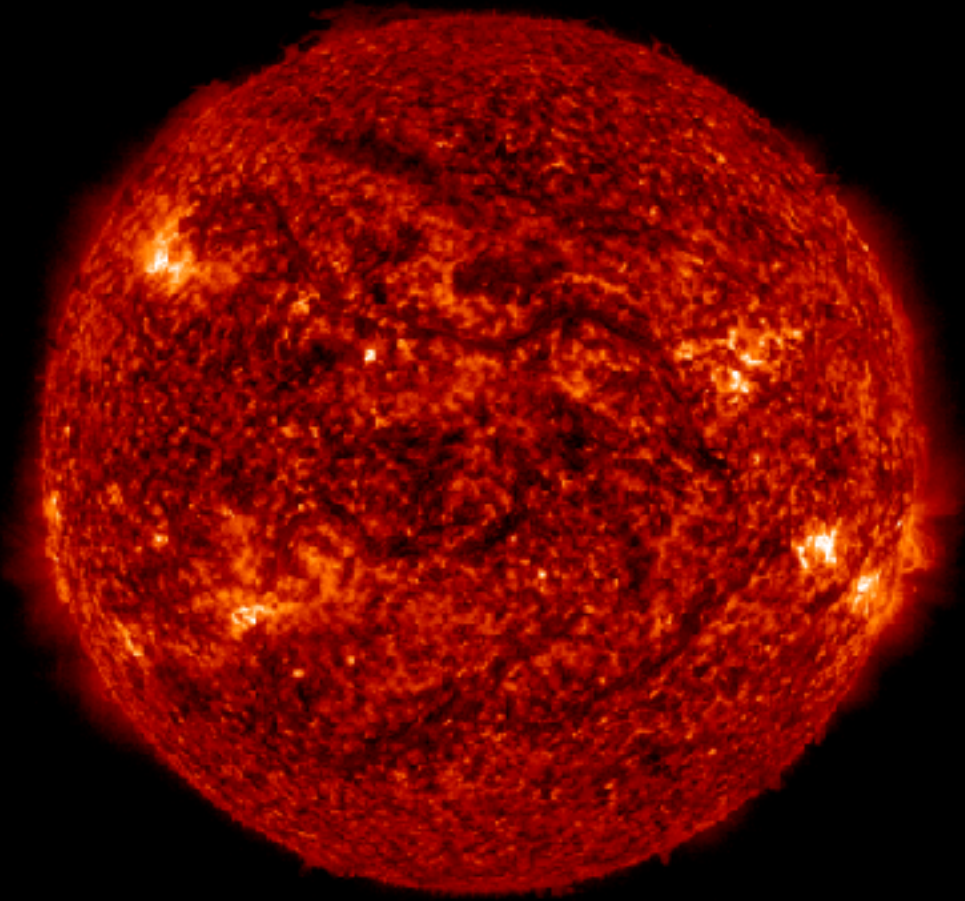
# Filaments

SDO/AIA 30.4 nm 2023-11-16

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SDO/AIA 30.4 nm 2023-11-17

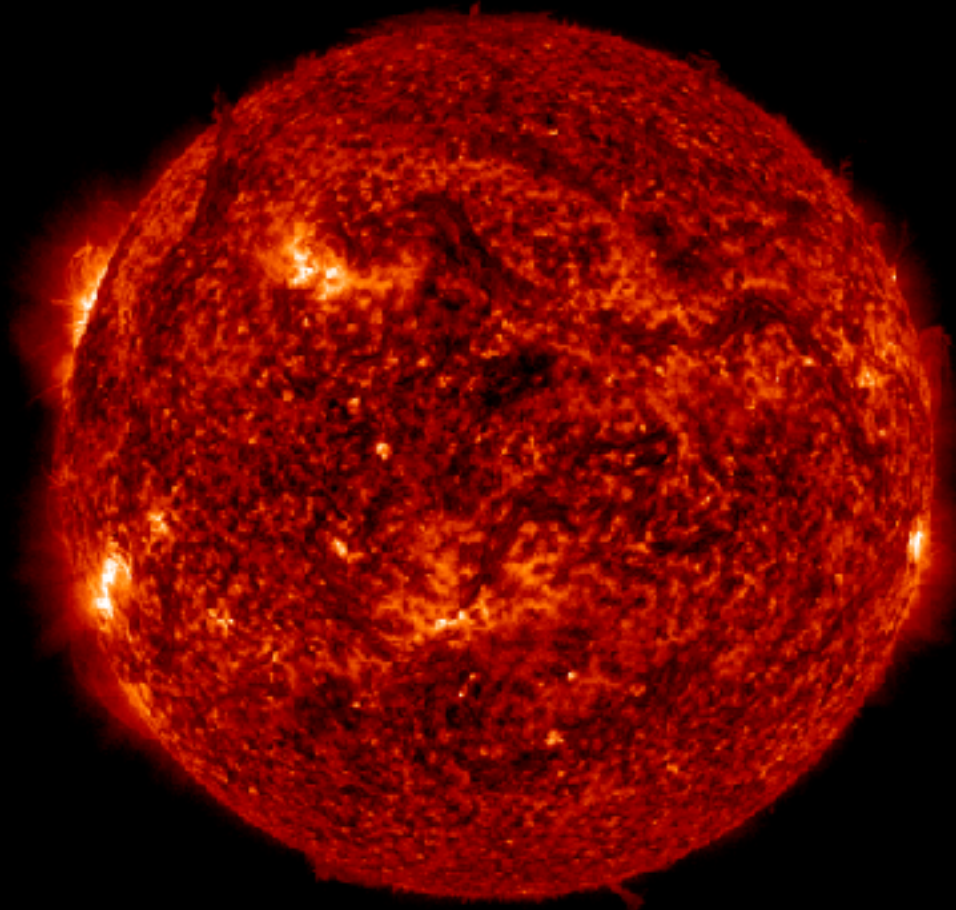
SDO/AIA AIA 304Å 2023-11-17T12:00:06.580



# Filaments

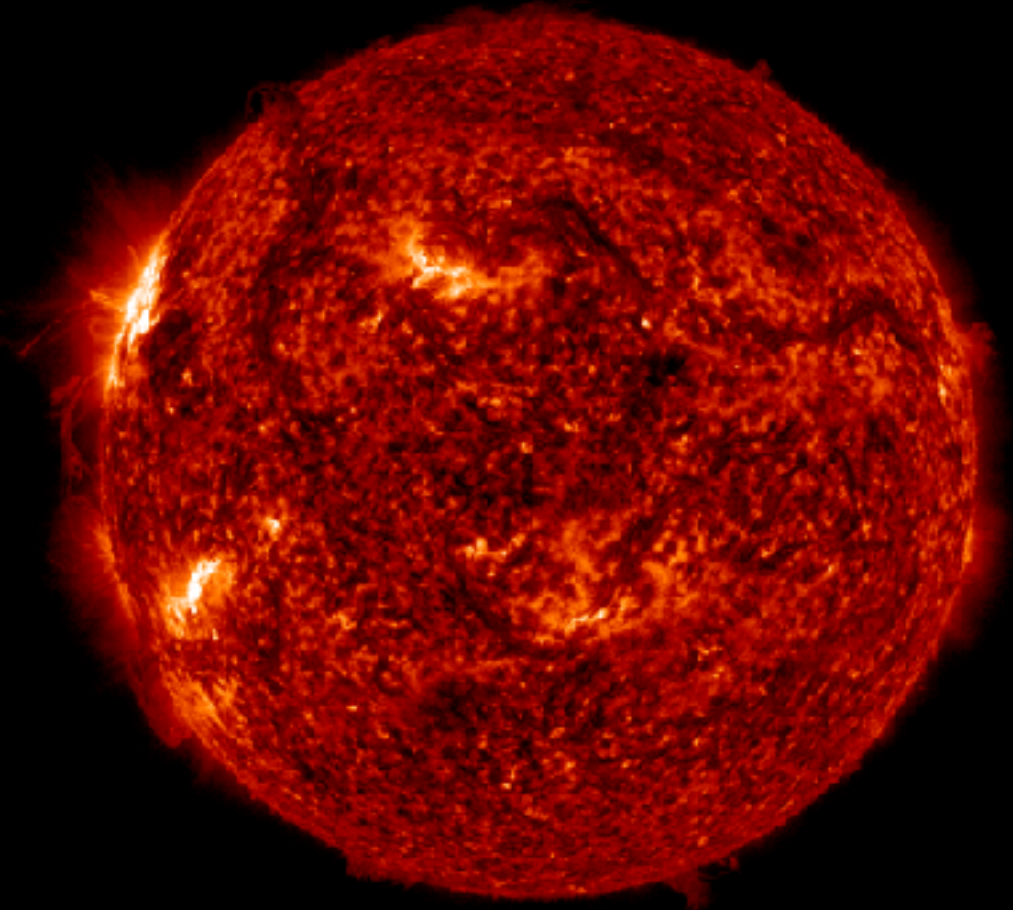
SDO/AIA 30.4 nm 2023-11-18

SDO/AIA AIA 304Å 2023-11-18T12:00:06.584



SDO/AIA 30.4 nm 2023-11-19

SDO/AIA AIA 304Å 2023-11-19T12:00:06.580



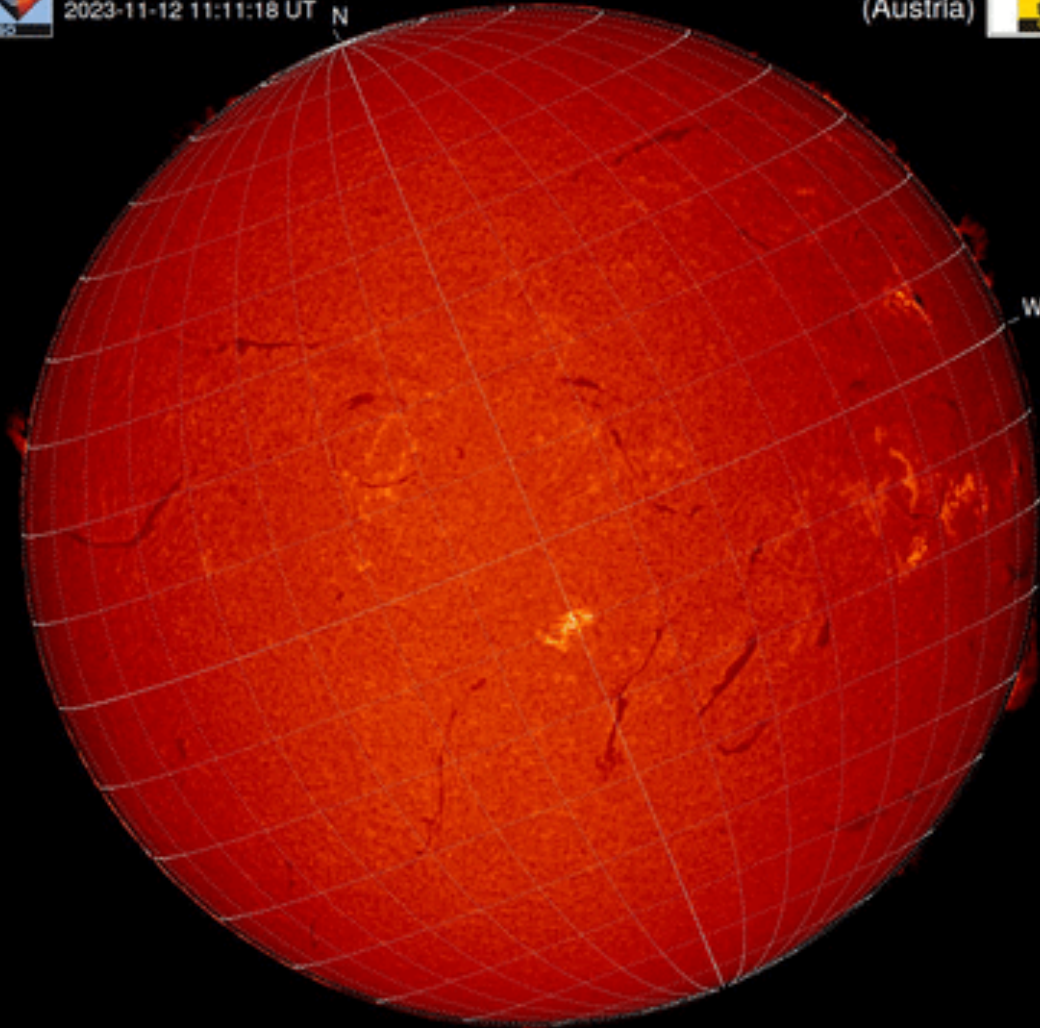
# Filaments & Filament eruptions

H-alpha 2023-11-12



Kanzelhöhe Observatory  
2023-11-12 11:11:18 UT N

University of Graz  
(Austria)

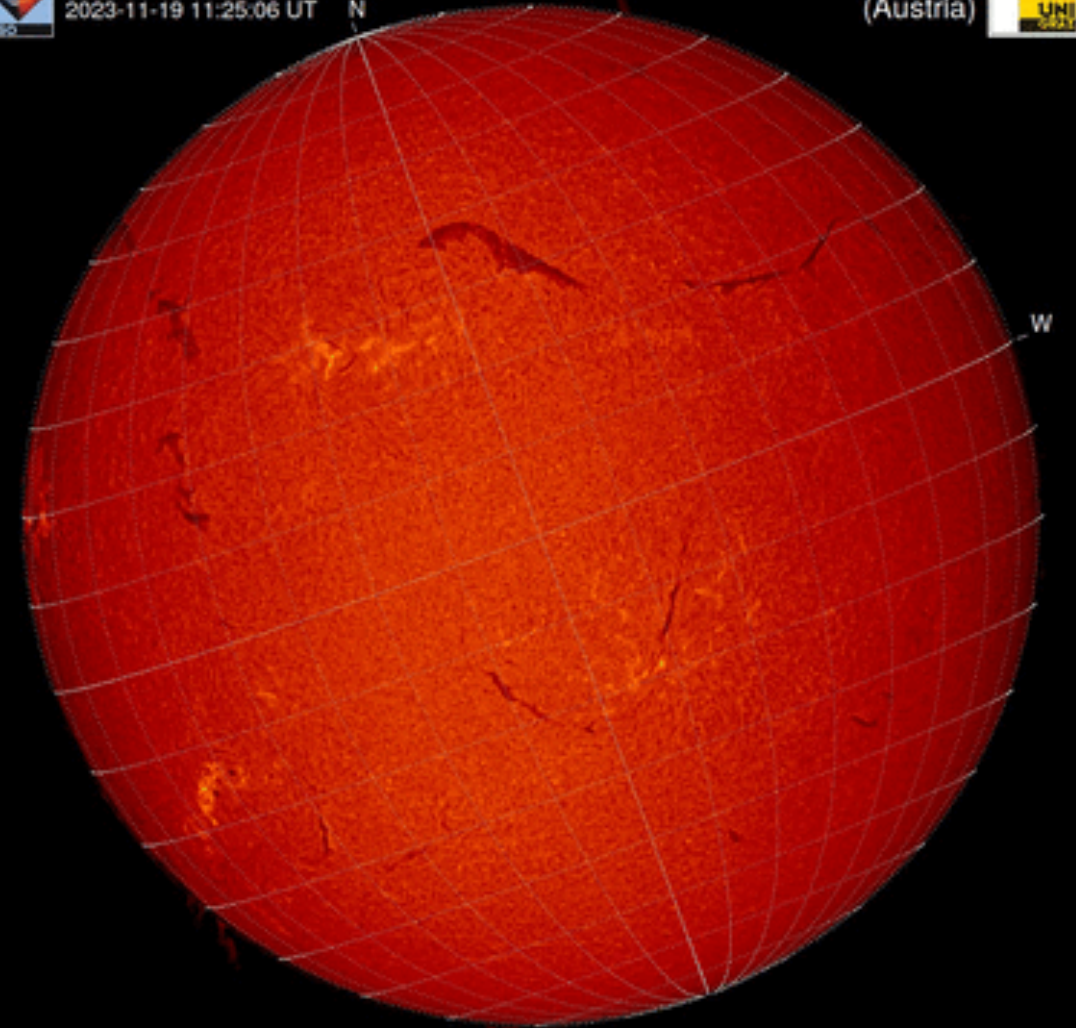


H-alpha 2023-11-19

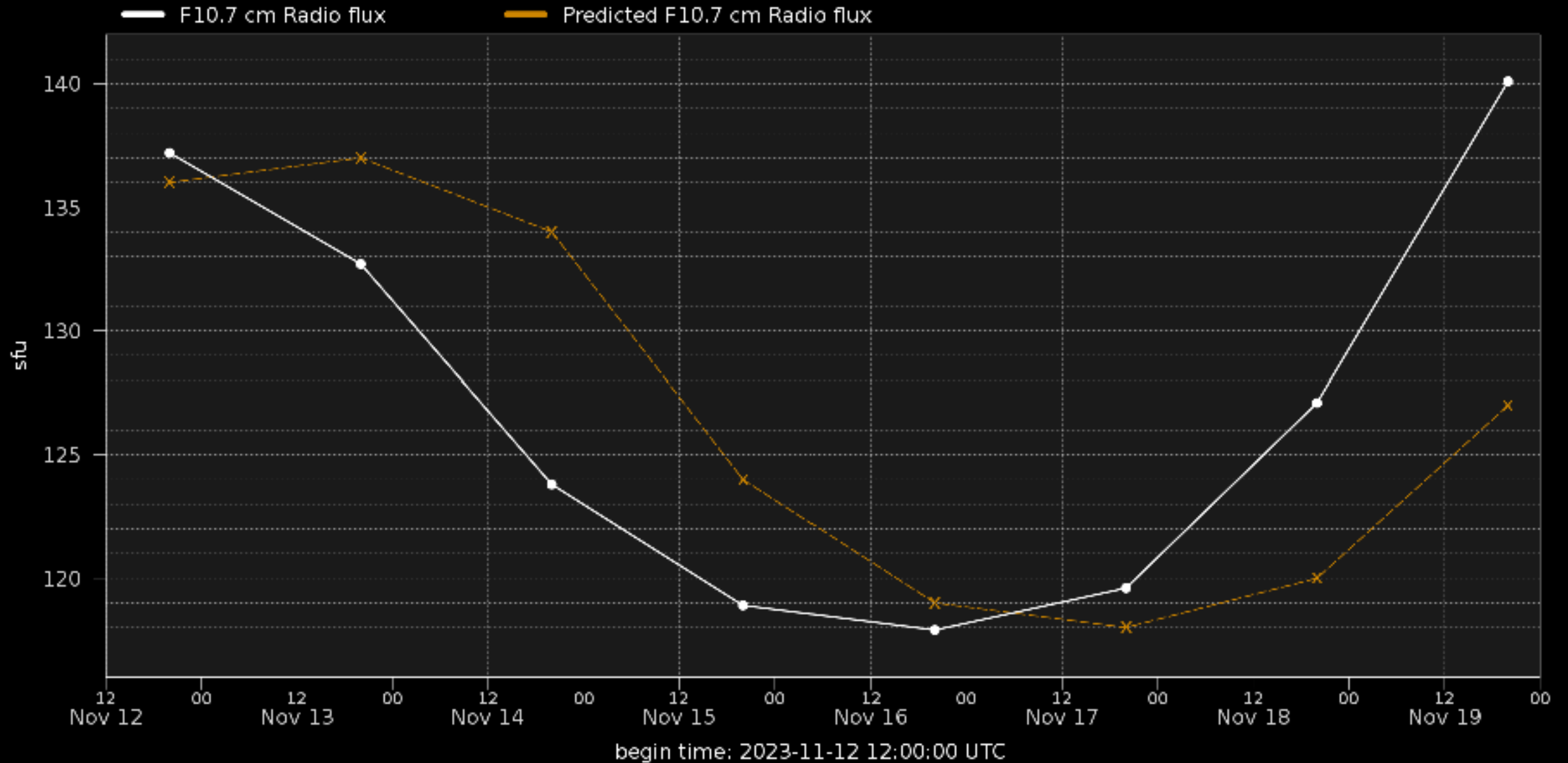


Kanzelhöhe Observatory  
2023-11-19 11:25:06 UT N

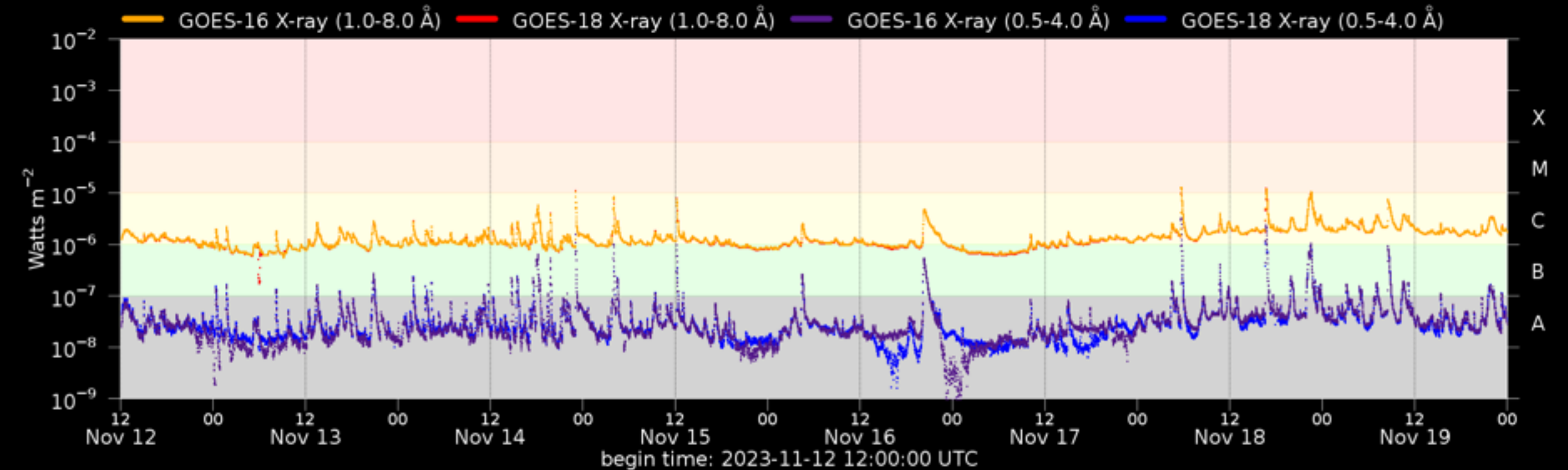
University of Graz  
(Austria)



# Solar F10.7cm radio flux



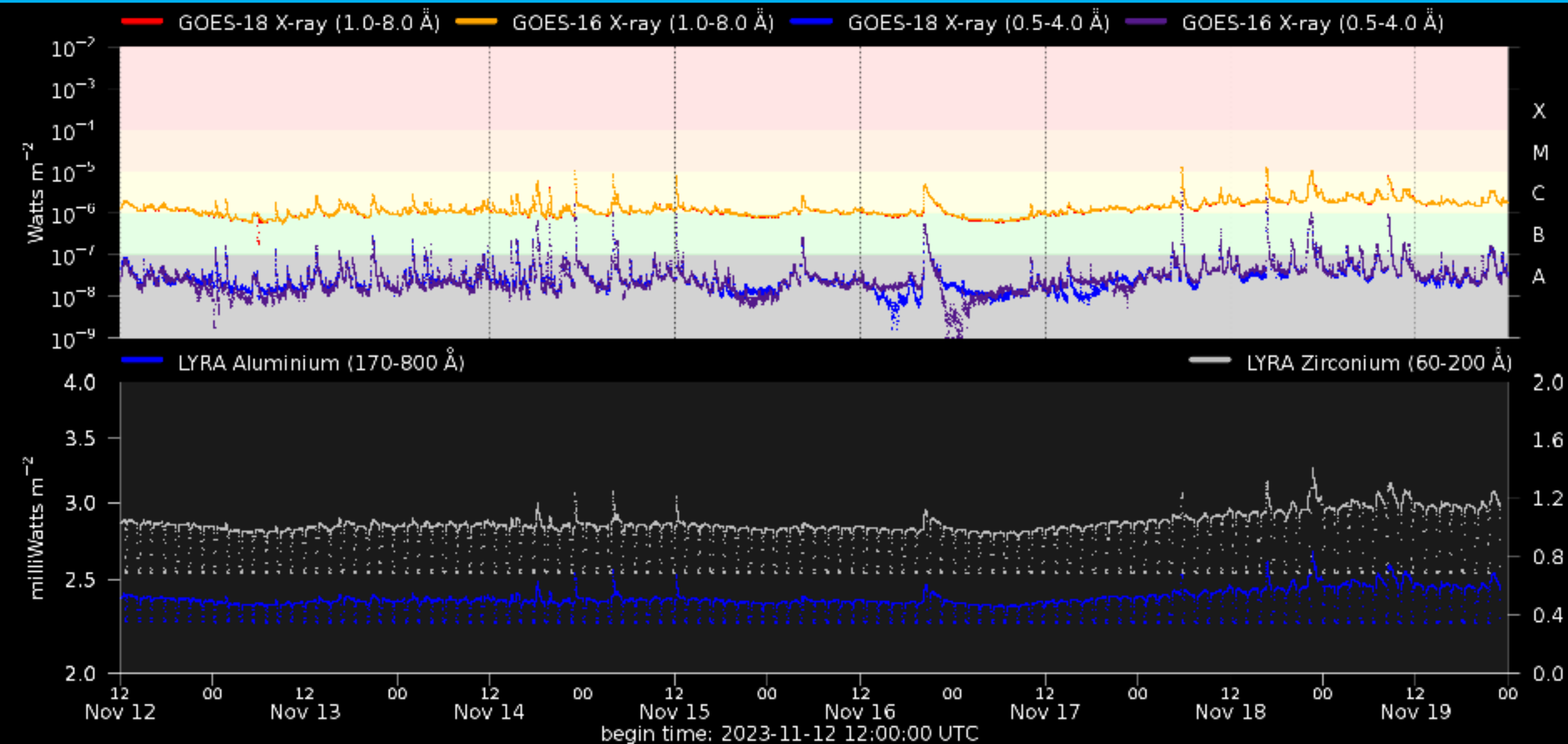
# Flaring activity



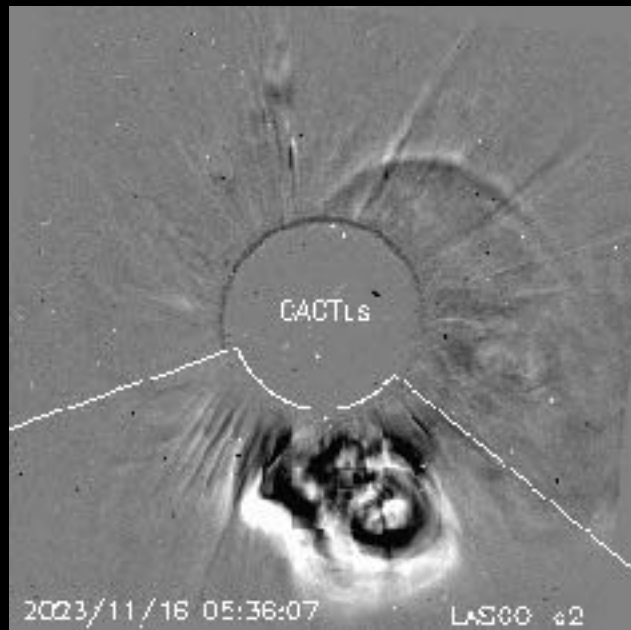
Probabilities (%) and occurrences (#) of C/M/X-flares daily, from noon to noon:

Issue date	2023-11-12	2023-11-13	2023-11-14	2023-11-15	2023-11-16	2023-11-17	2023-11-18	2023-11-19
Probability (%)	95 20 01	95 45 10	95 25 05	90 50 15	60 05 01	55 05 01	90 50 10	90 55 15
Observed (#)	05 00 00	10 00 00	09 01 00	02 00 00	02 00 00	02 01 00	01 02 00	01 00 00

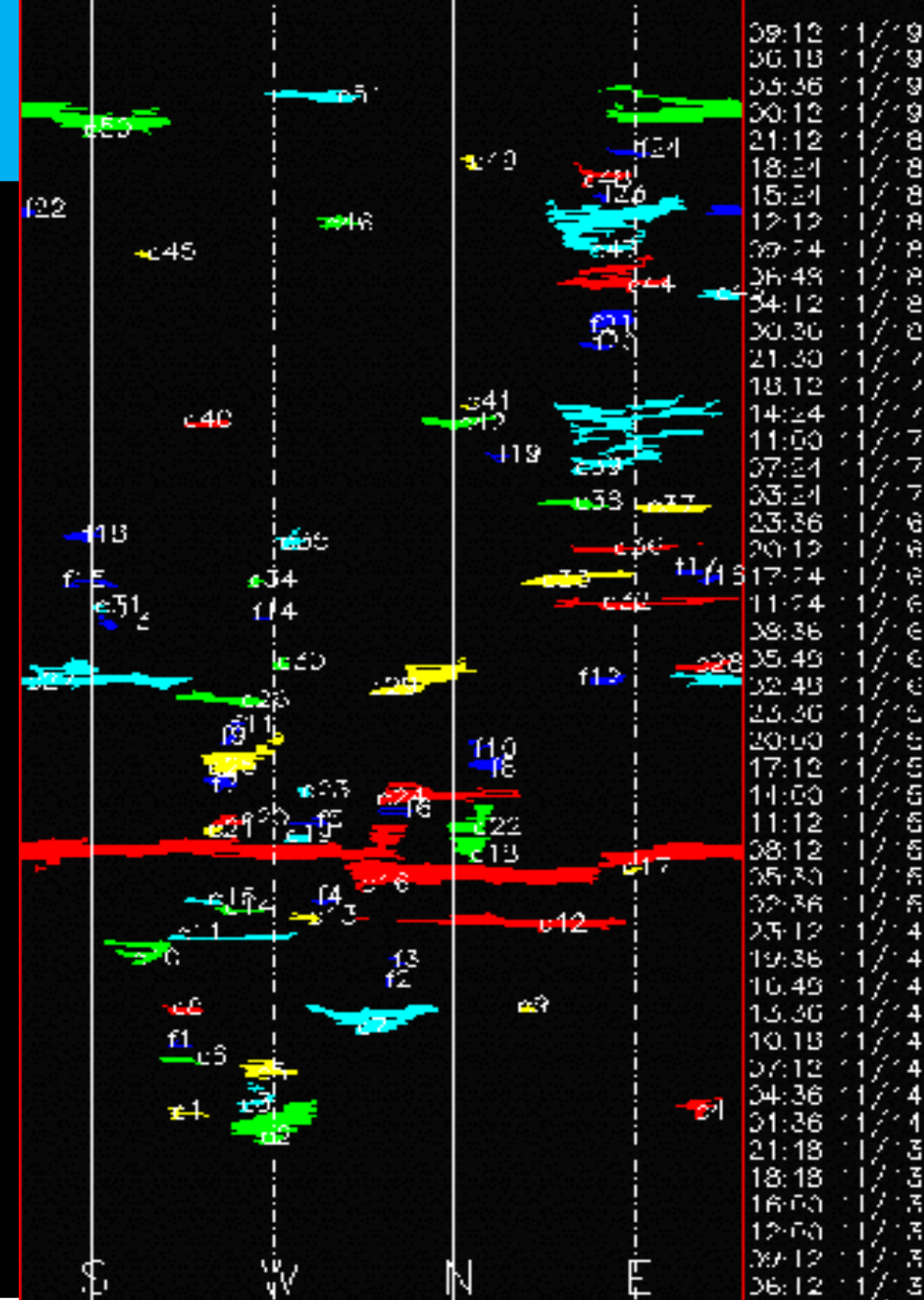
# Solar X-Ray and UV flux



# Coronal Mass Ejections



The weak CME from 16 november (north-west) was mixed with a backside CME.





Solar Wind and

# Geomagnetic Activity

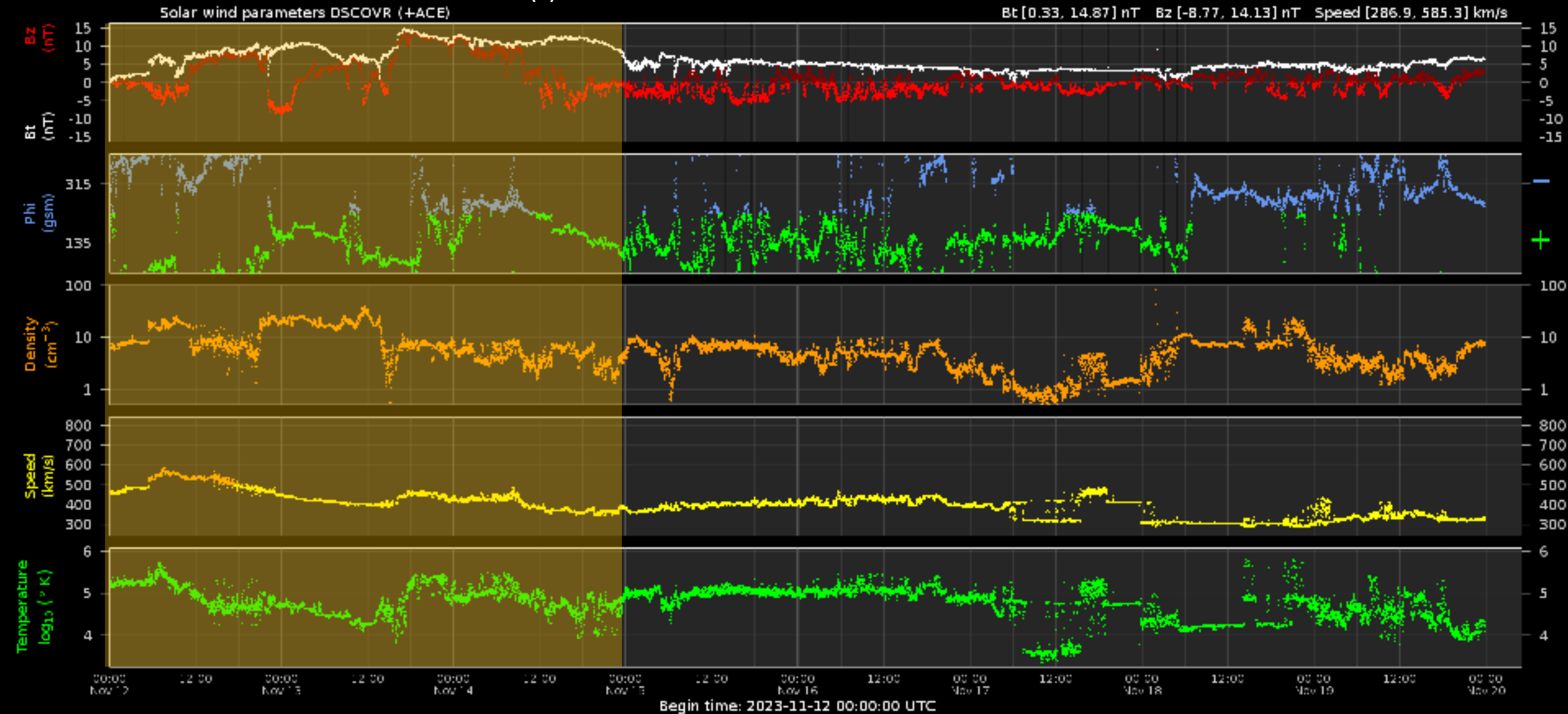


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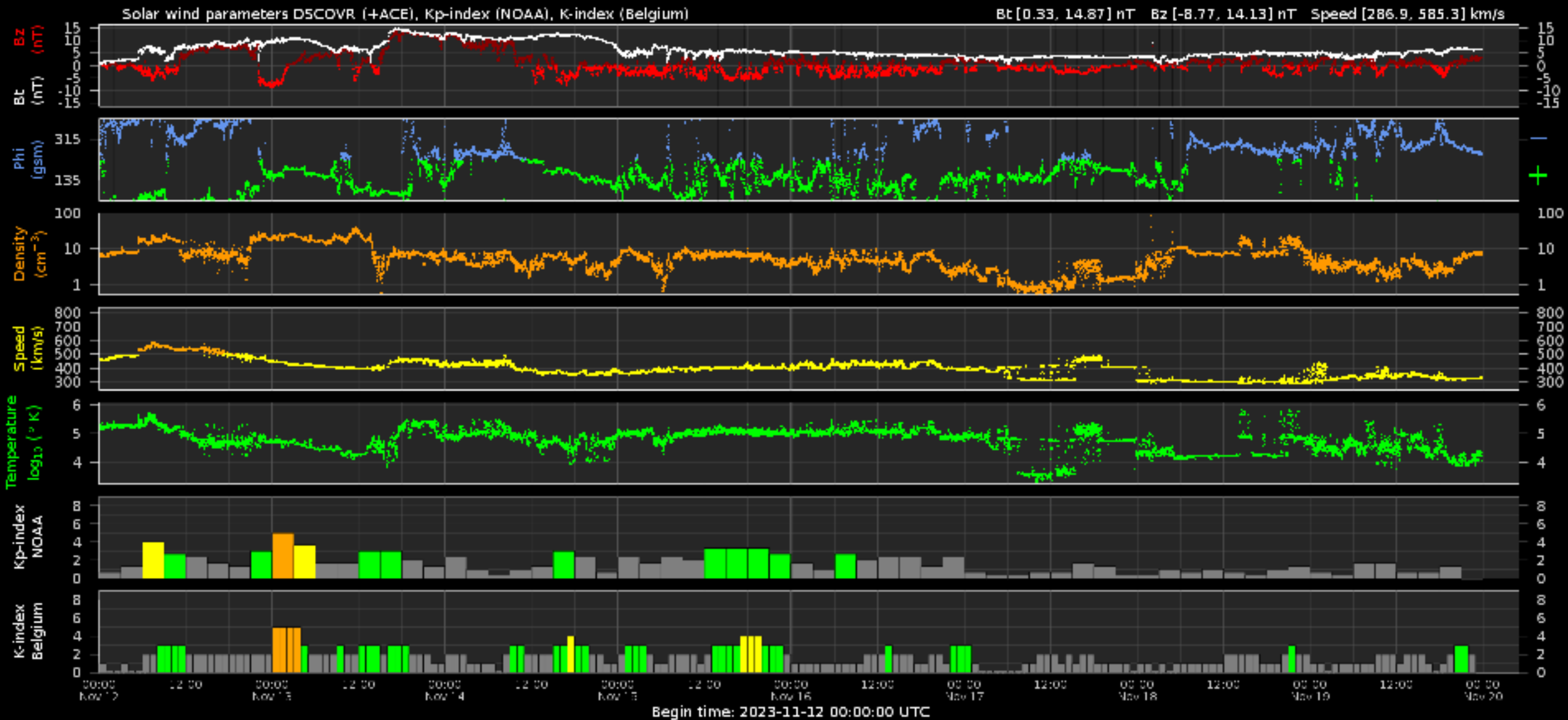
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Data analysis Centre  
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# Solar wind parameters

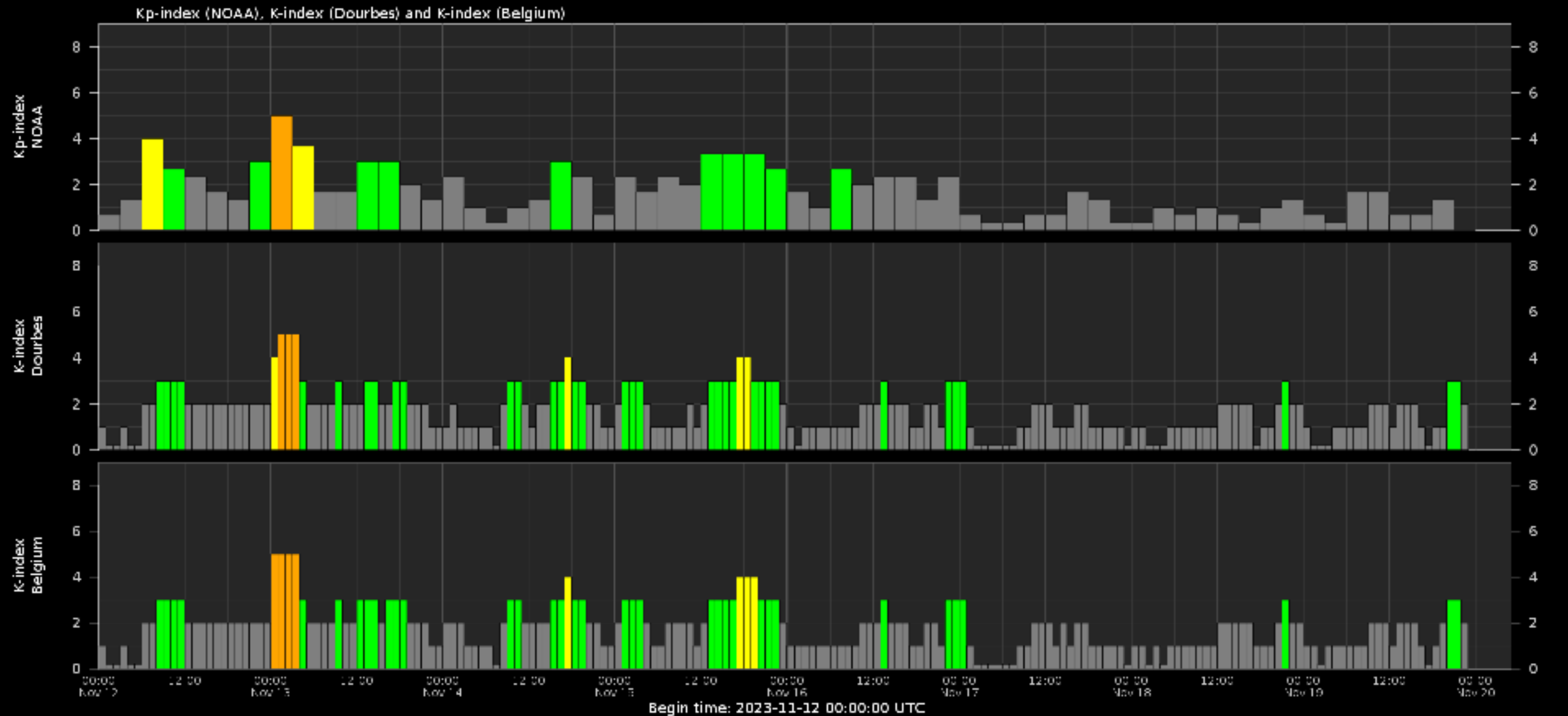
ICME(s)



# Solar wind parameters & K-indices



# Geomagnetic activity (K-indexes)



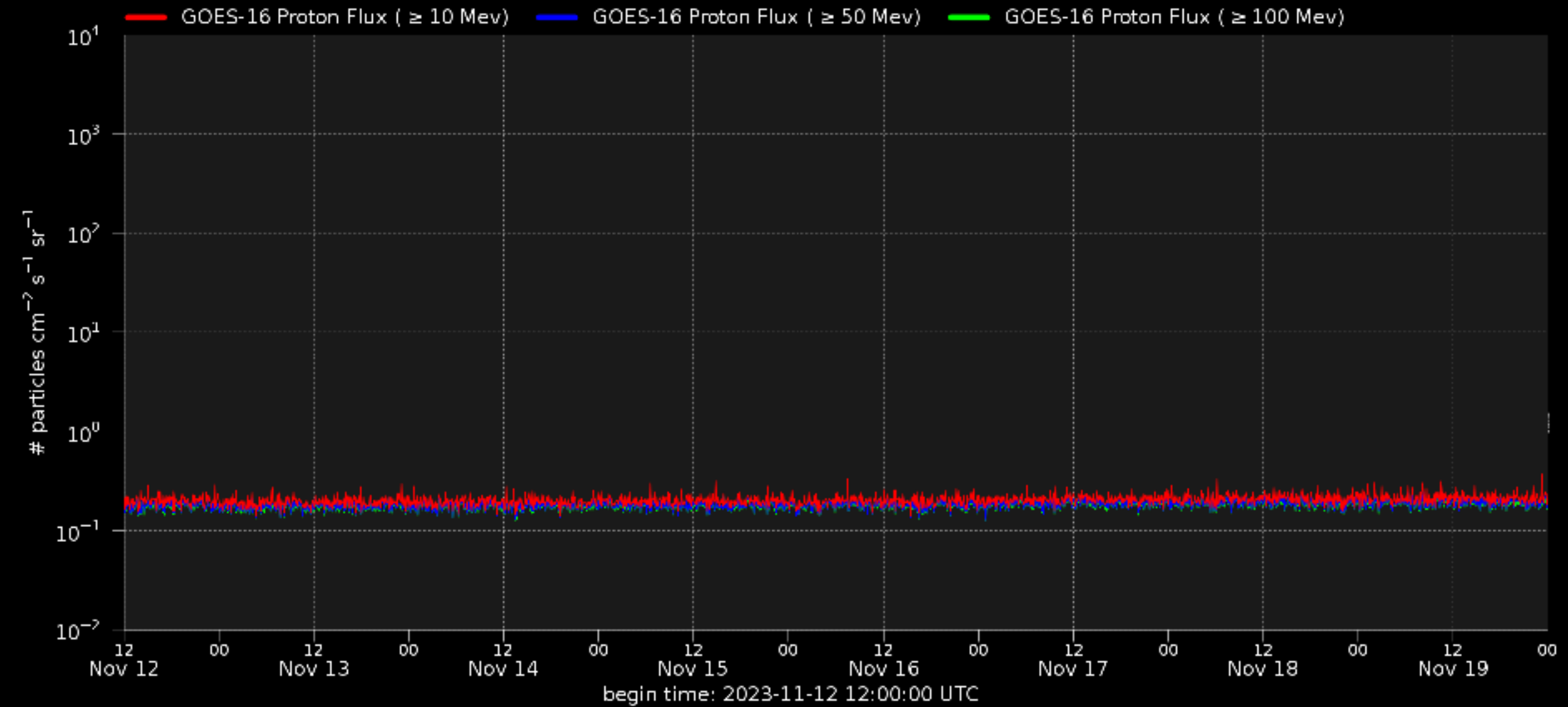
# Energetic Particles



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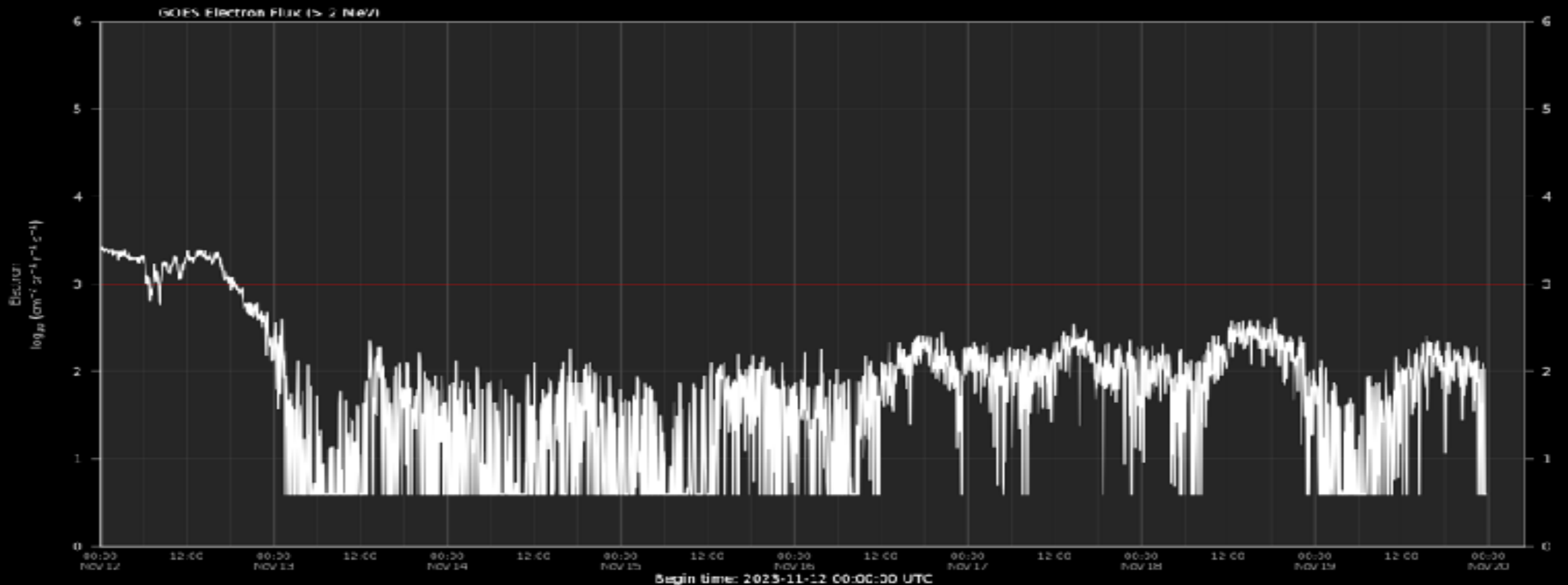
# Solar proton flux



# Electron flux at GEO

[www.stce.be/educational/classification#electrons](http://www.stce.be/educational/classification#electrons)

[www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php](http://www.spaceweather.gc.ca/forecast-prevision/space-spatiale/sffl-en.php)



# Outlook

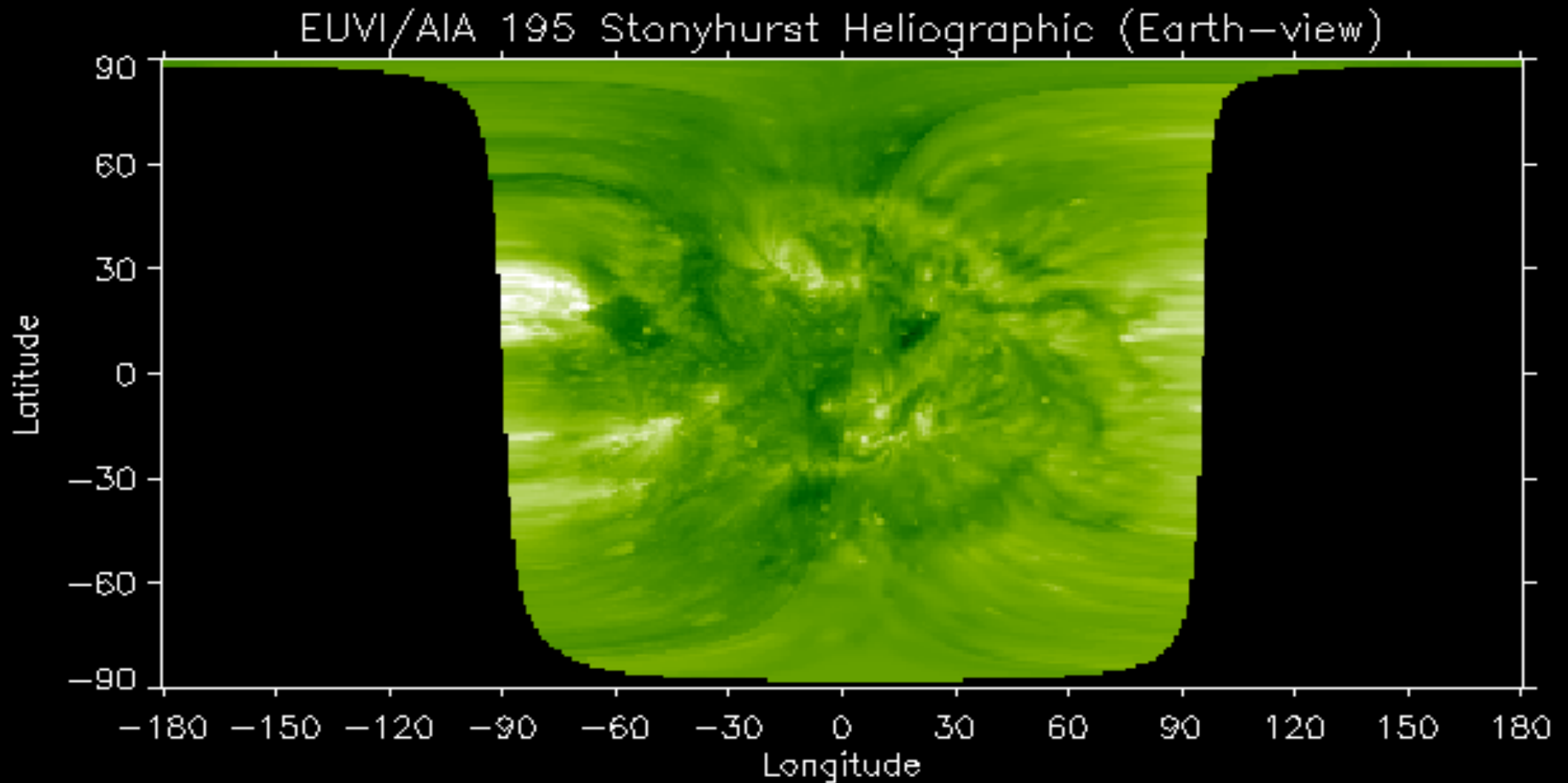


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[www.sidc.be](http://www.sidc.be)

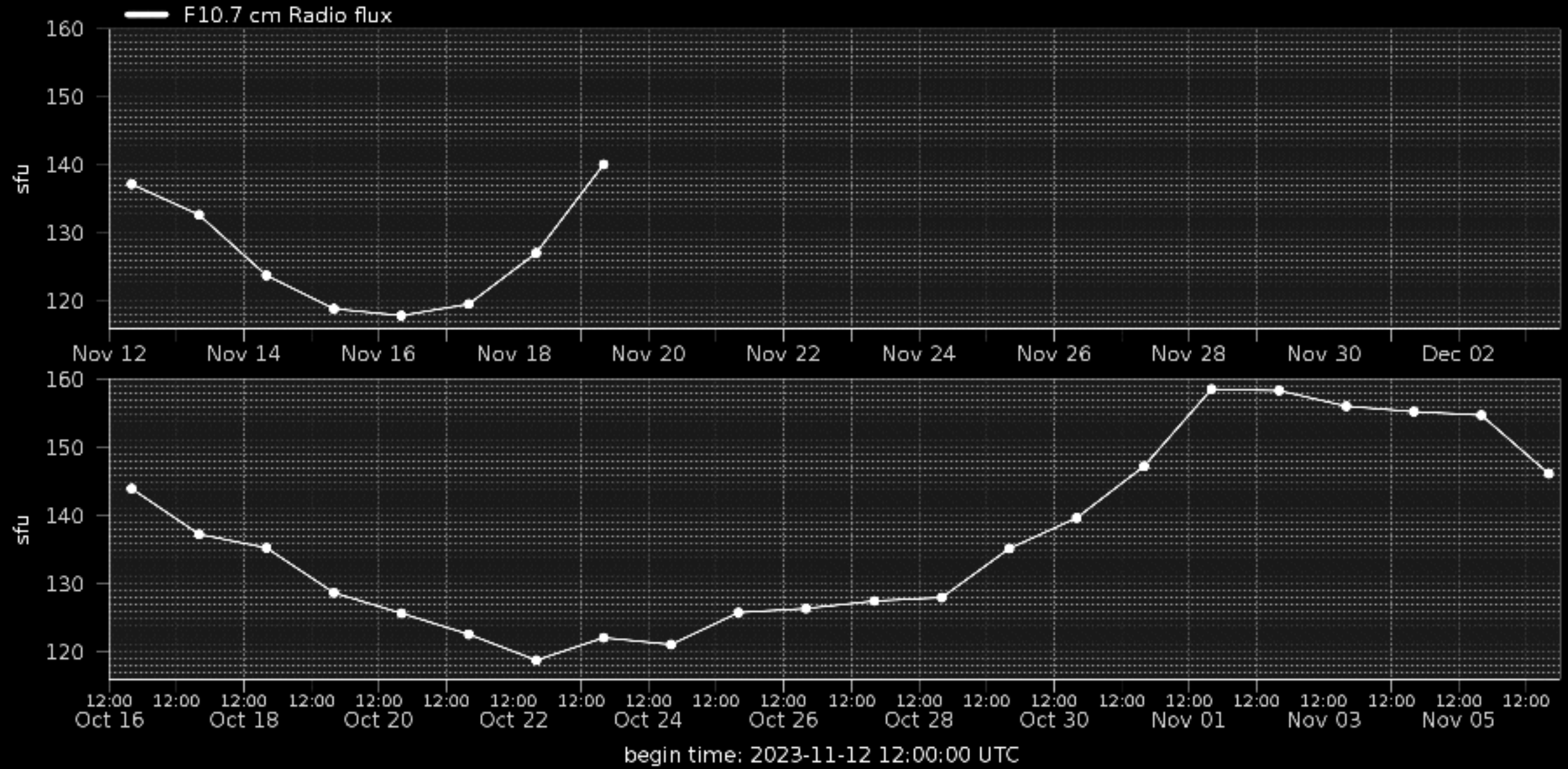


# Outlook: Solar activity

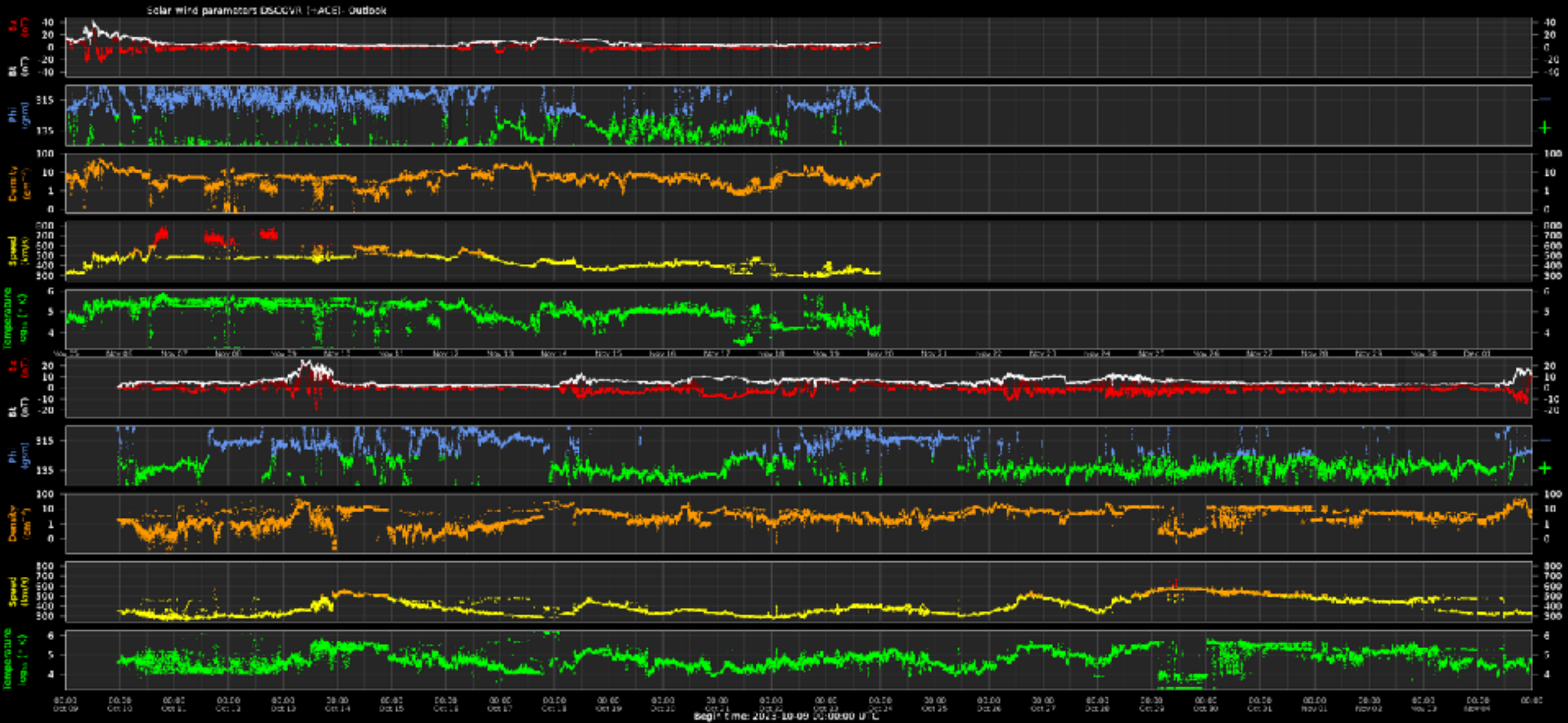


Observation date: 2023/11/19 20:05:00

# Outlook: Solar F10.7cm radio flux



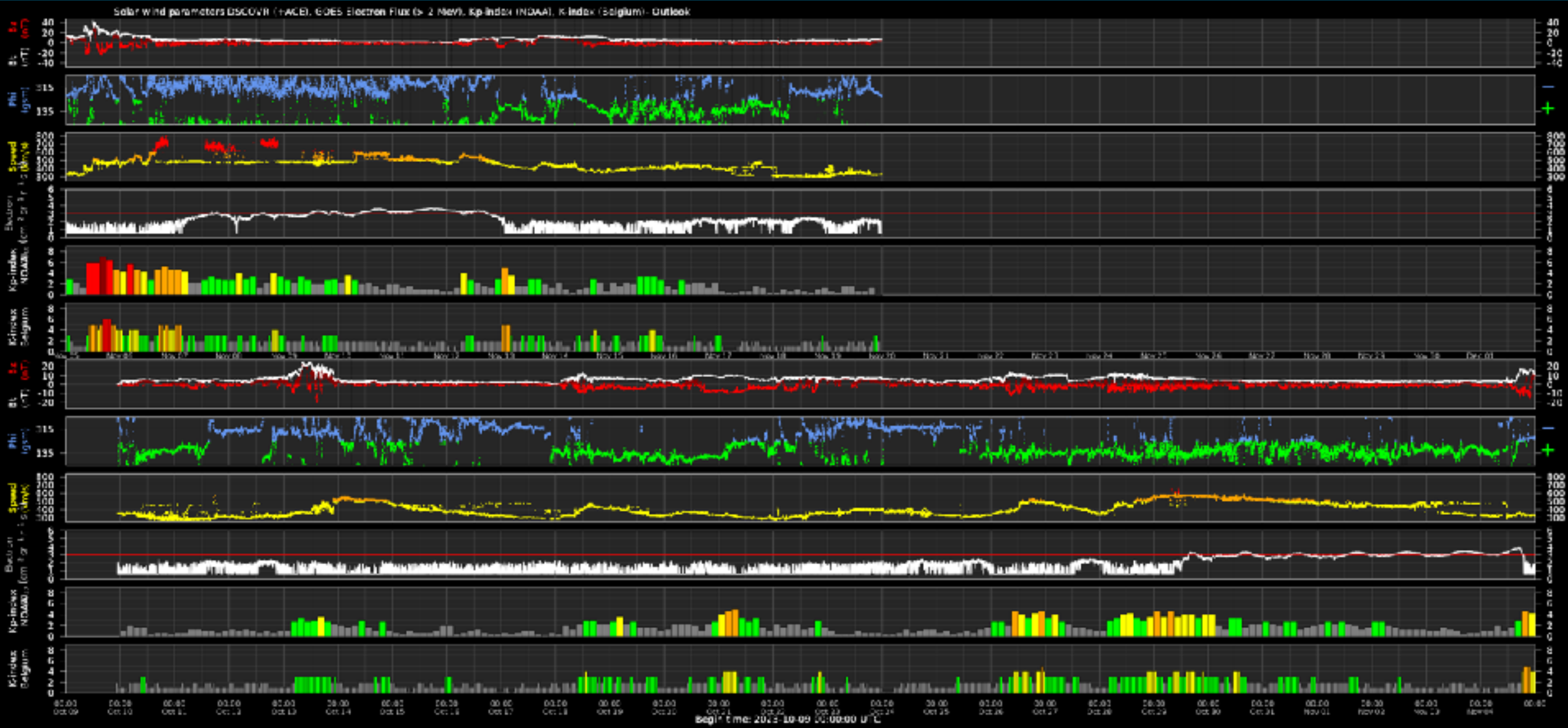
# Outlook: Solar wind parameters



# Outlook: Geomagnetic activity



# Outlook: Electron Flux at GEO Outlook



SIDC Space Weather Briefing

See you at our next briefing!

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