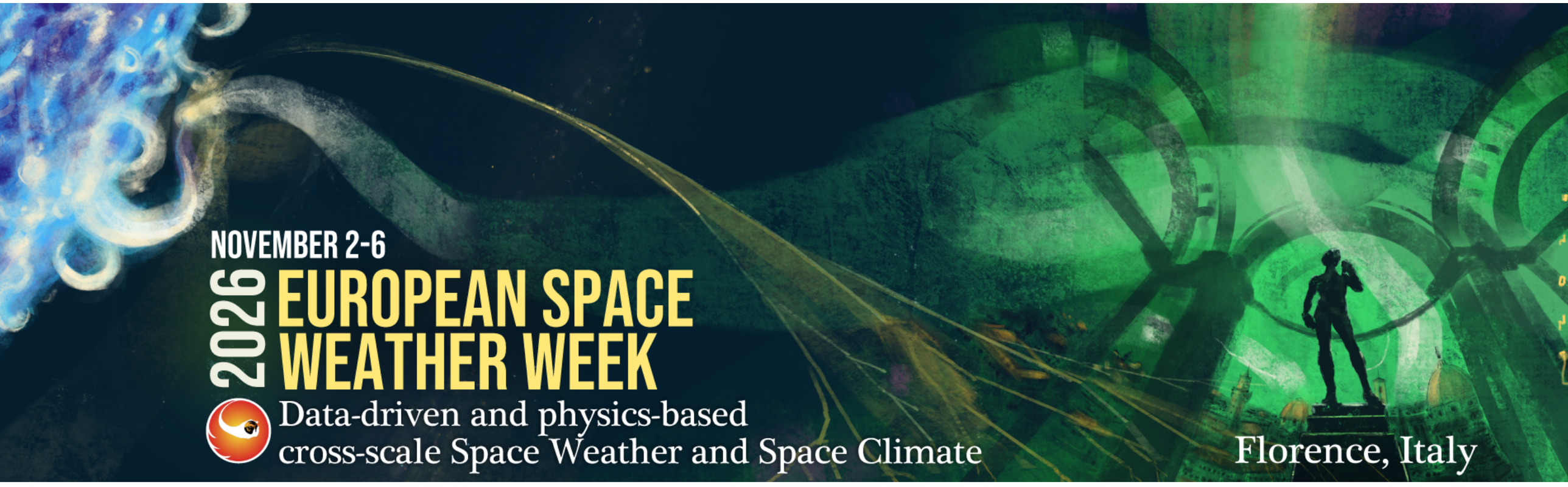
Space Weather Training Course

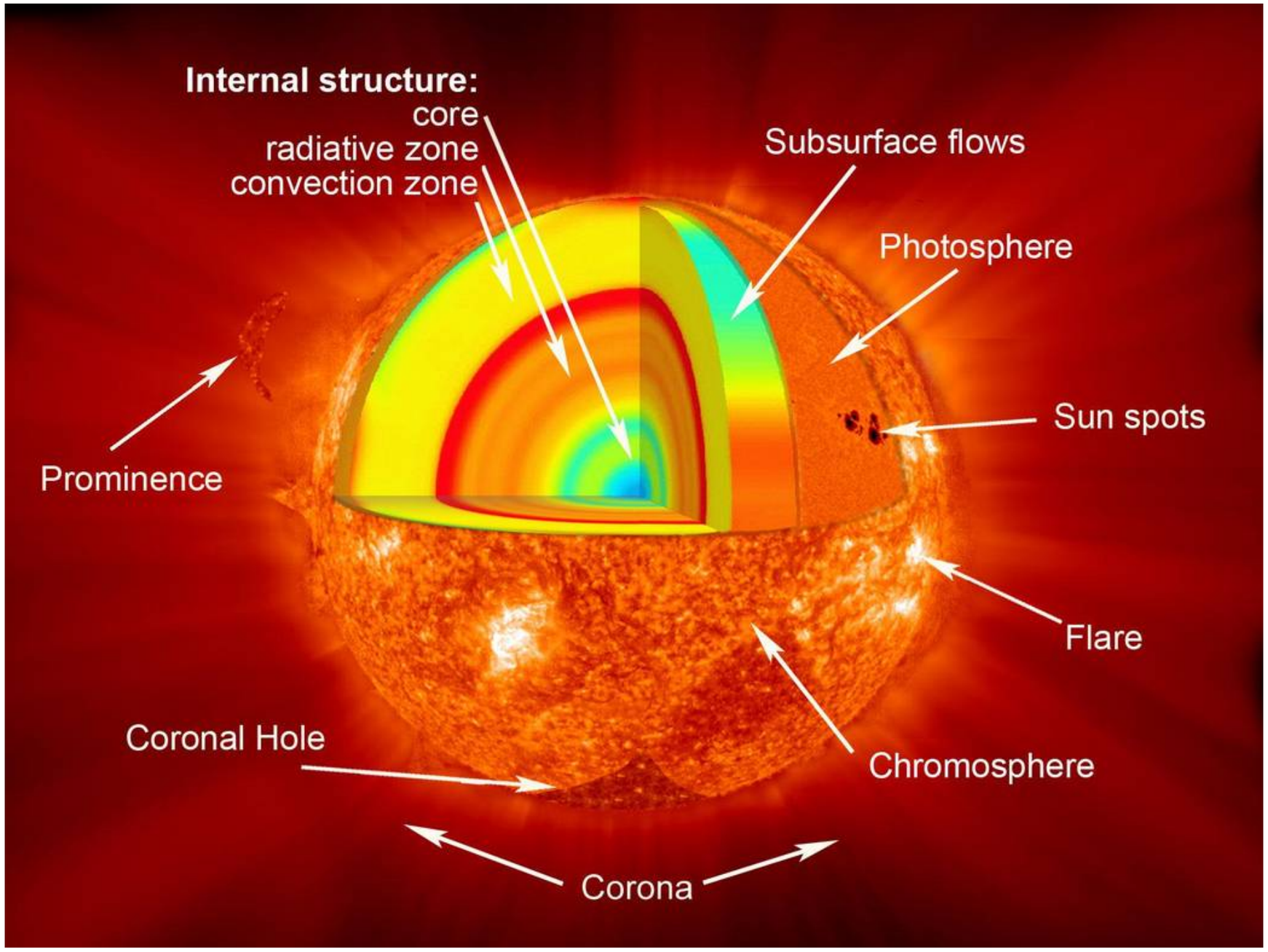


Collaboration of

e-swan

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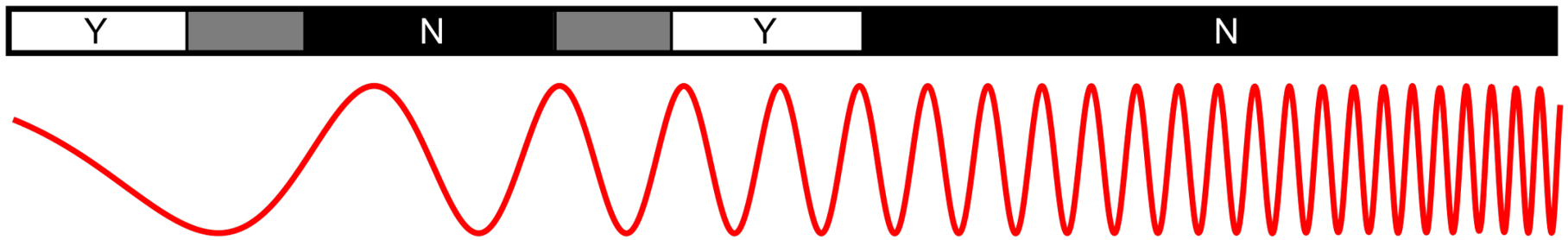
COMMUNITY COORDINATED MODELING CENTER

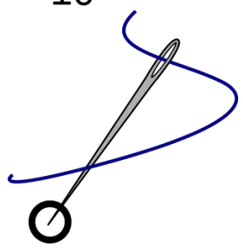
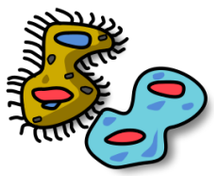
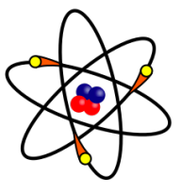
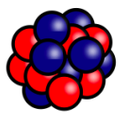


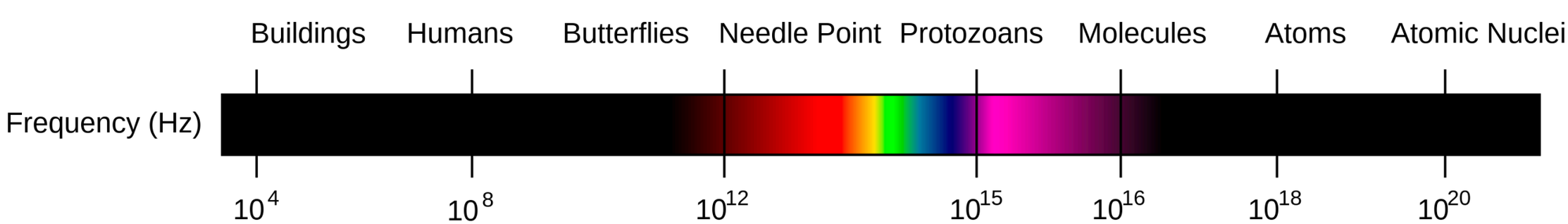
LAYERS OF THE SOLAR ATMOSPHERE

ELECTROMAGNETIC SPECTRUM

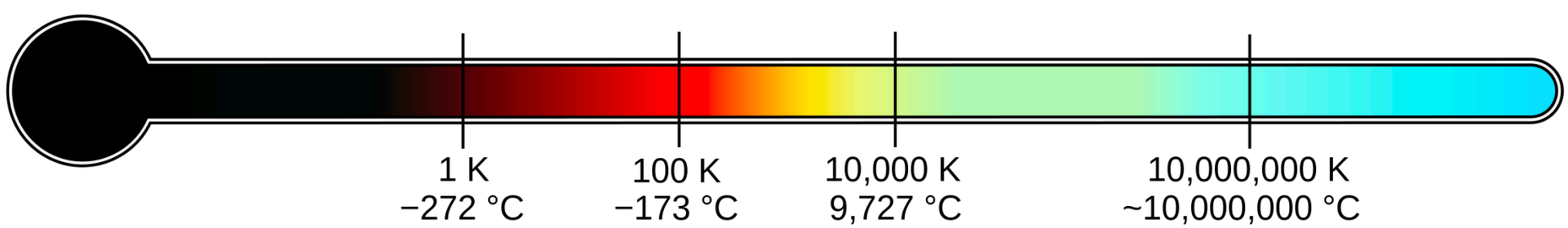
Penetrates Earth's Atmosphere?



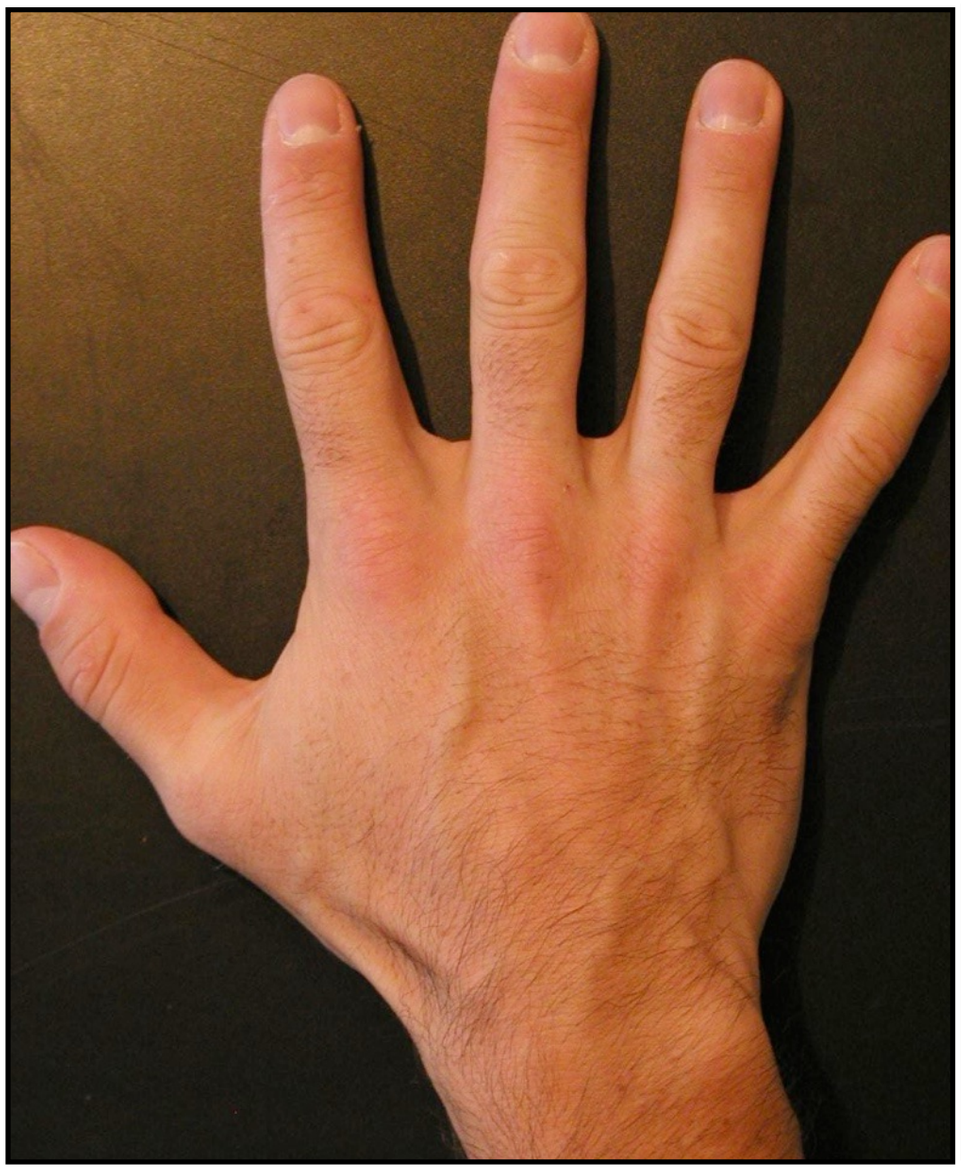
Radiation Type	Radio		Microwave	Infrared	Visible	Ultraviolet	X-ray	Gamma ray
Wavelength (m)	10^{3}		10^{-2}	10^{-5}	0.5×10^{-6}	10^{-8}	10^{-10}	10^{-12}
Approximate Scale of Wavelength								



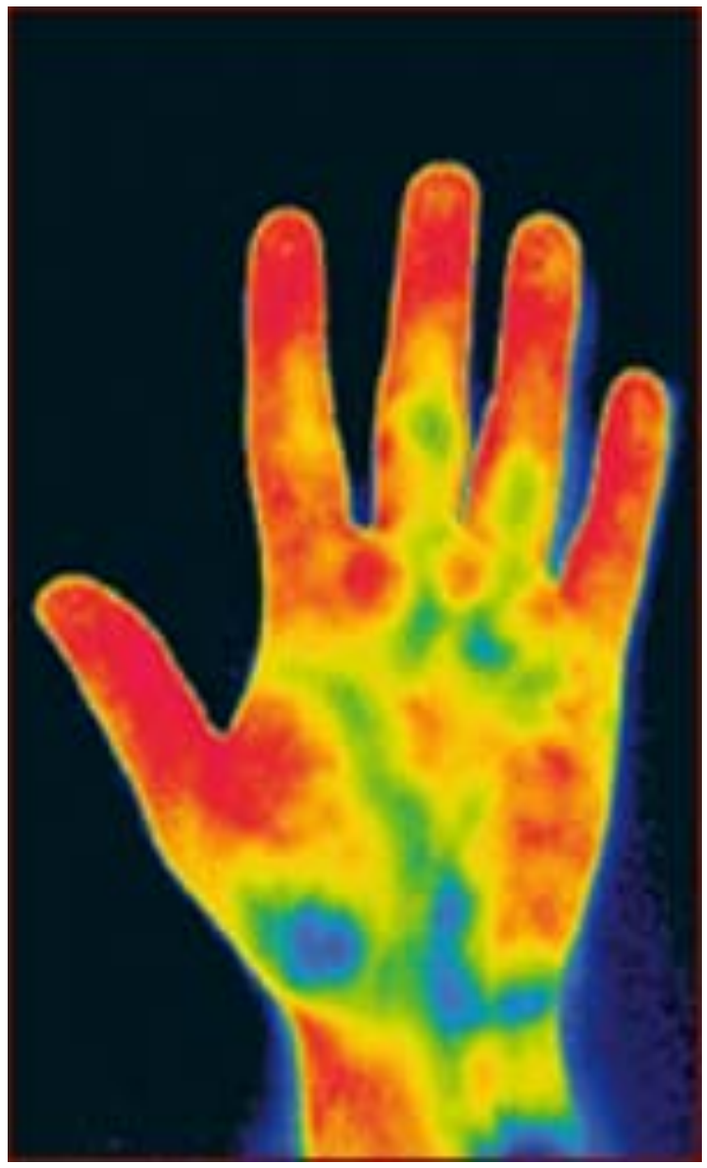
Temperature of objects at which this radiation is the most intense wavelength emitted



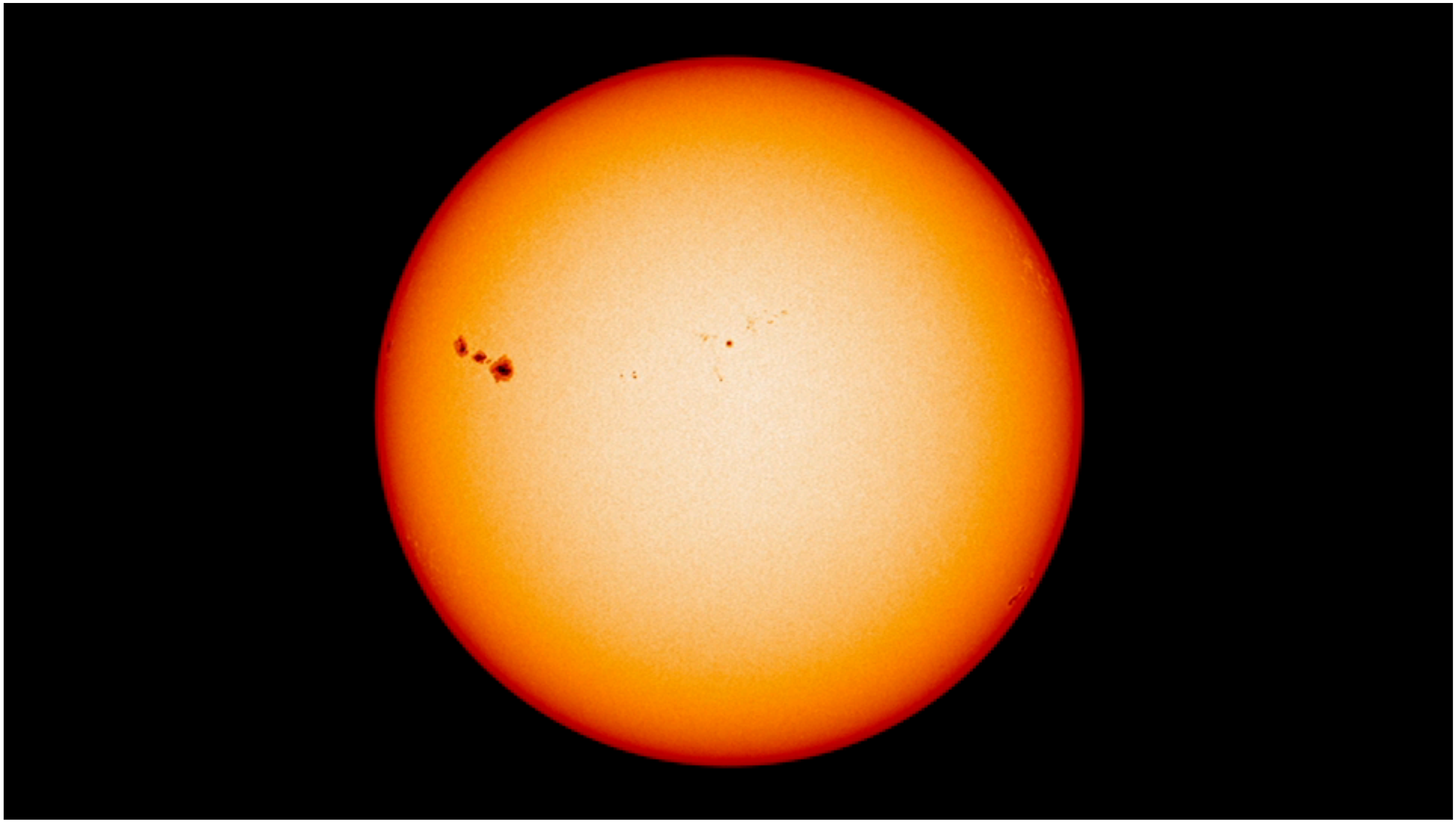
ELECTROMAGNETIC SPECTRUM







ELECTROMAGNETIC SPECTRUM

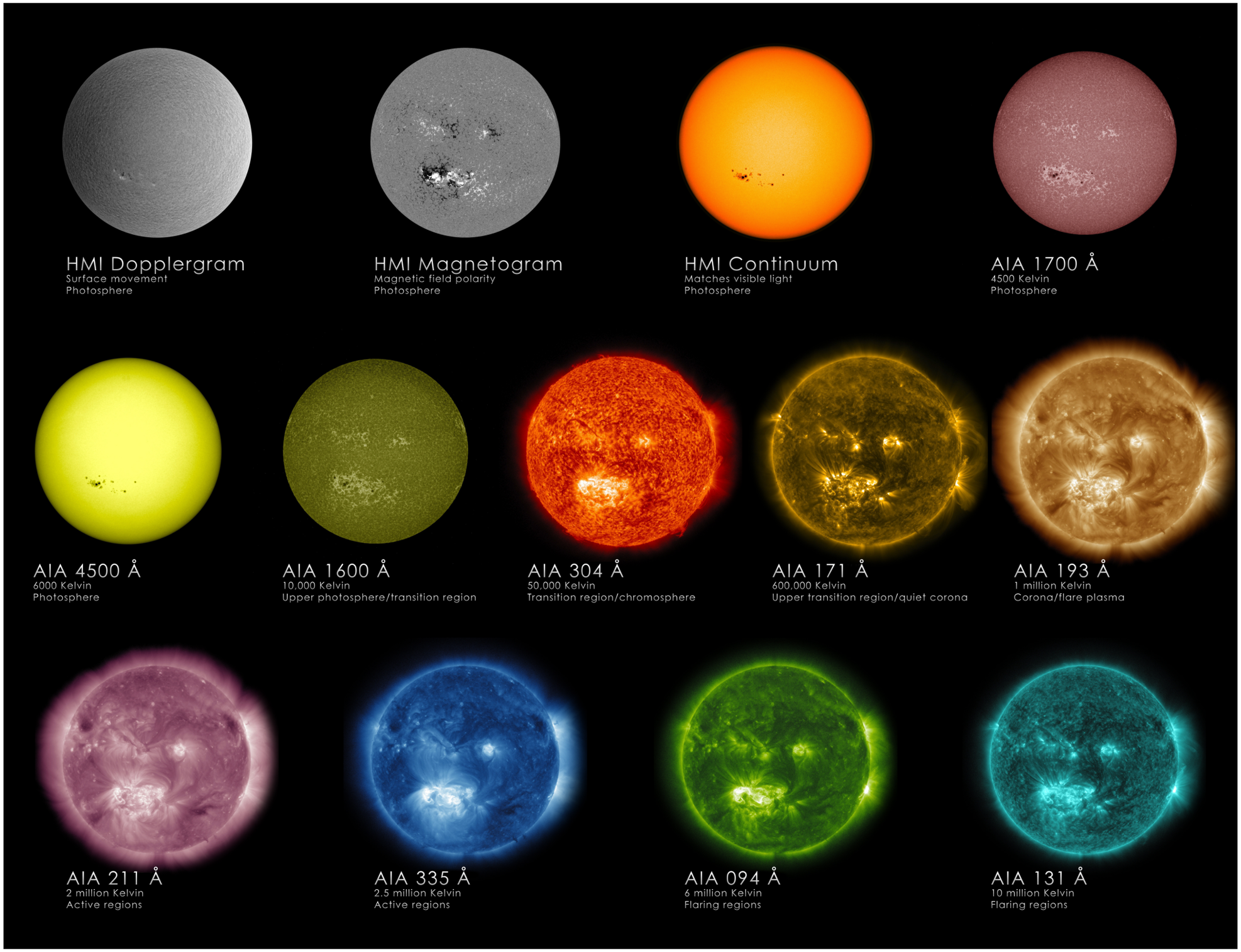


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SDO/AIA

MANY DIFFERENT FACES

SDO/AIA & HMI



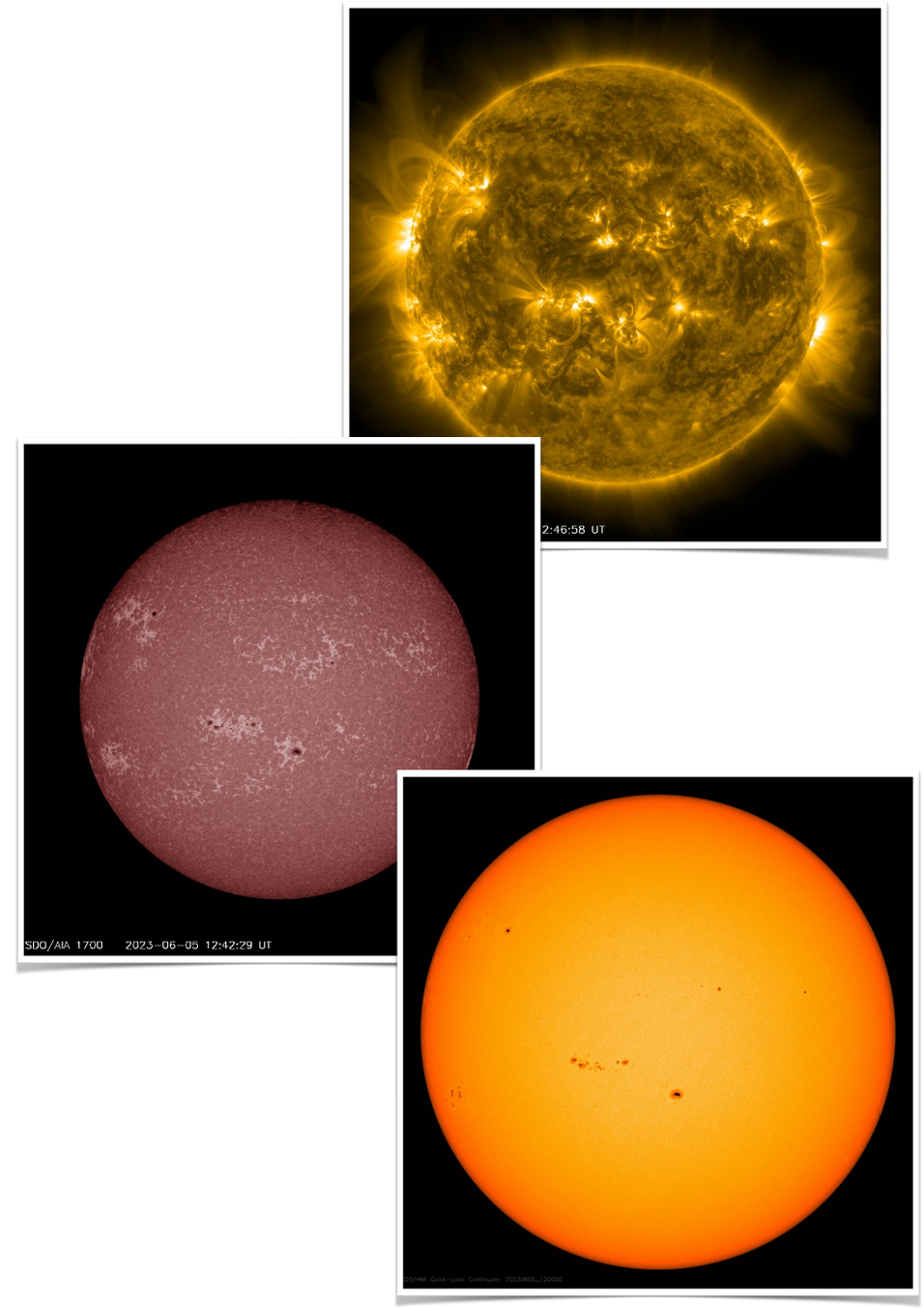
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LAYERS OF THE SUN

- Corona
  (visible during eclipse as atmosphere extending from the Sun into space)

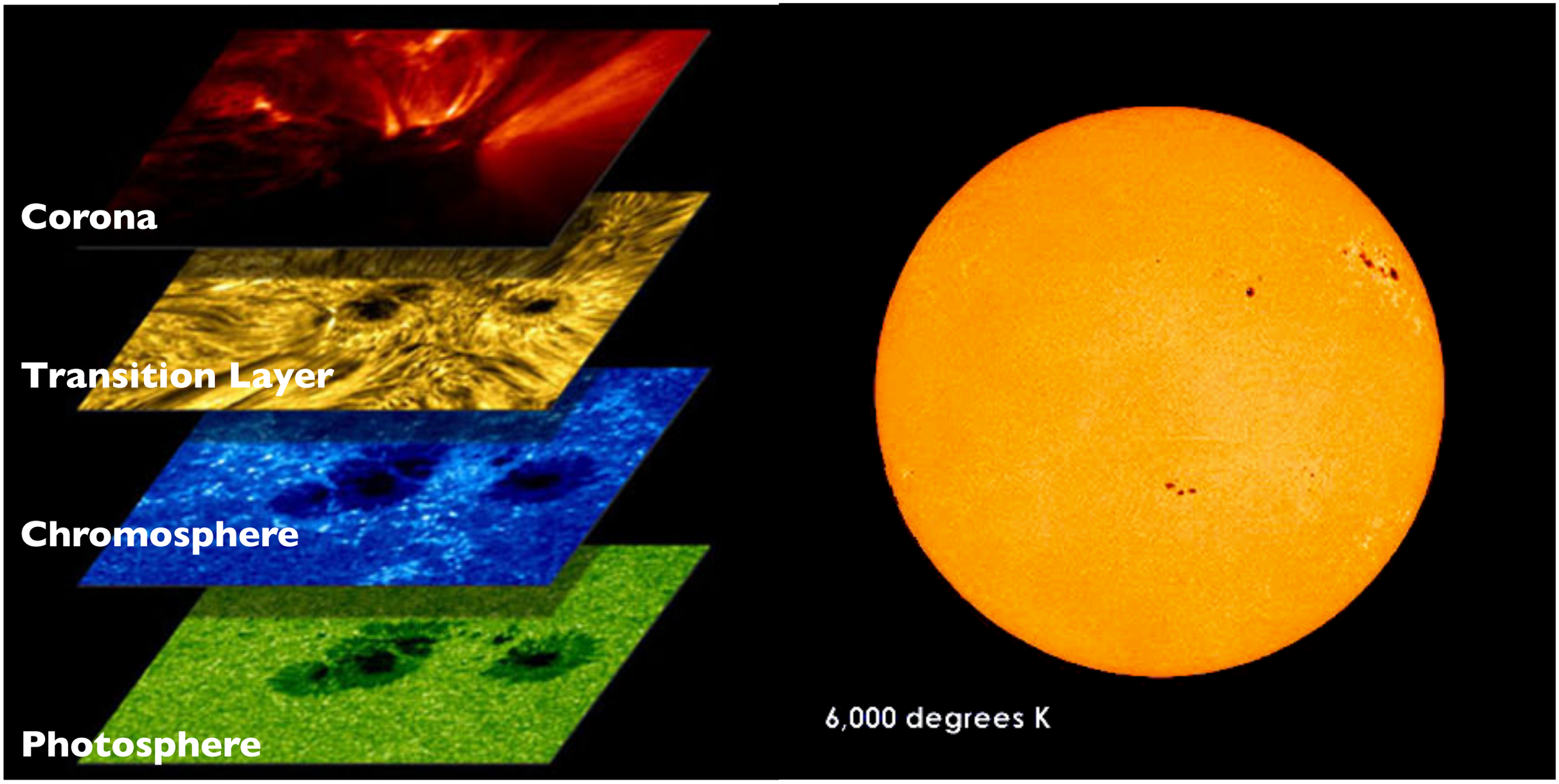
- Chromosphere
  (visible during eclipse as red color on edge of Sun)

- Photosphere
  (visible sunspots, granulation)

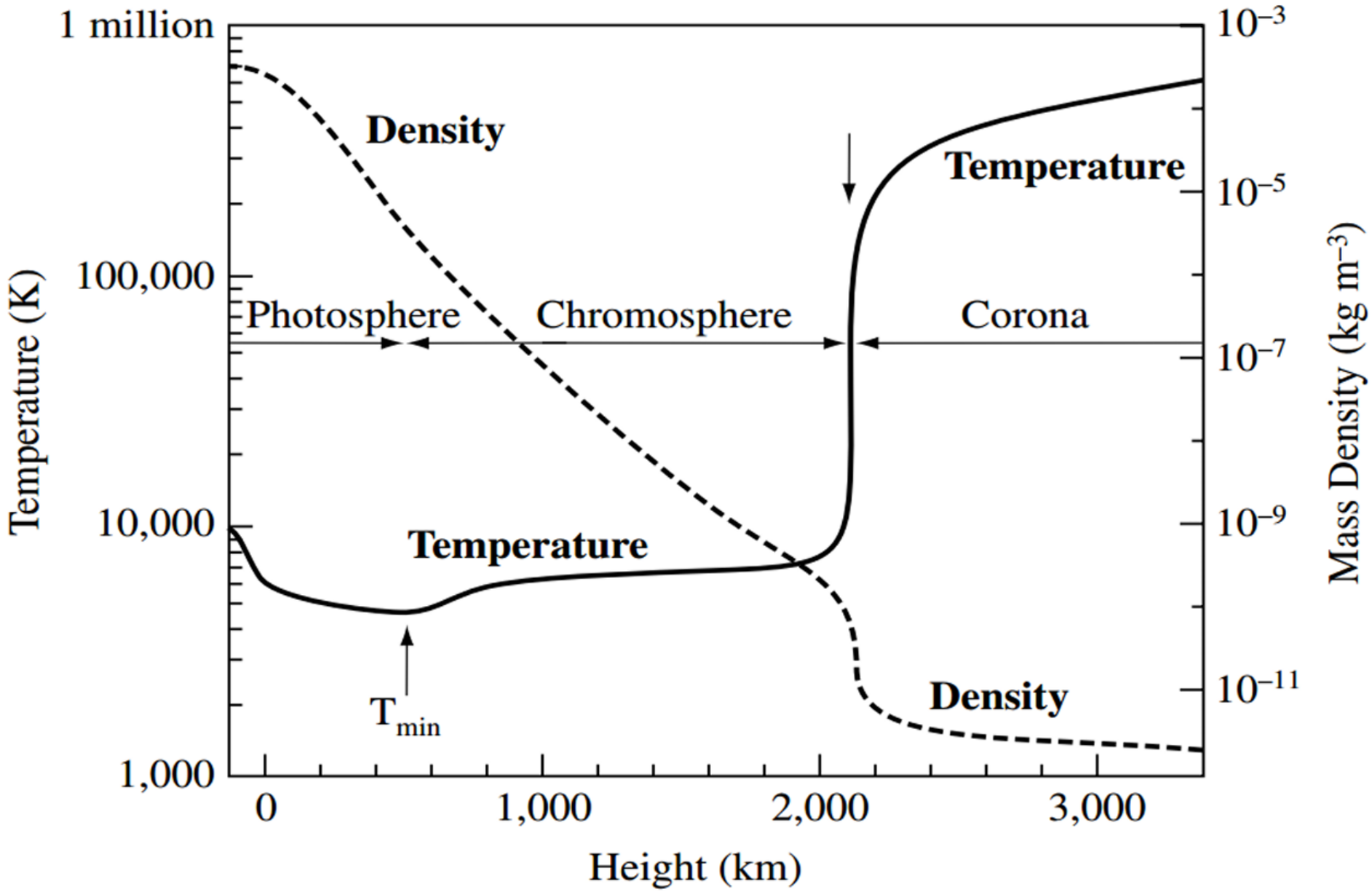


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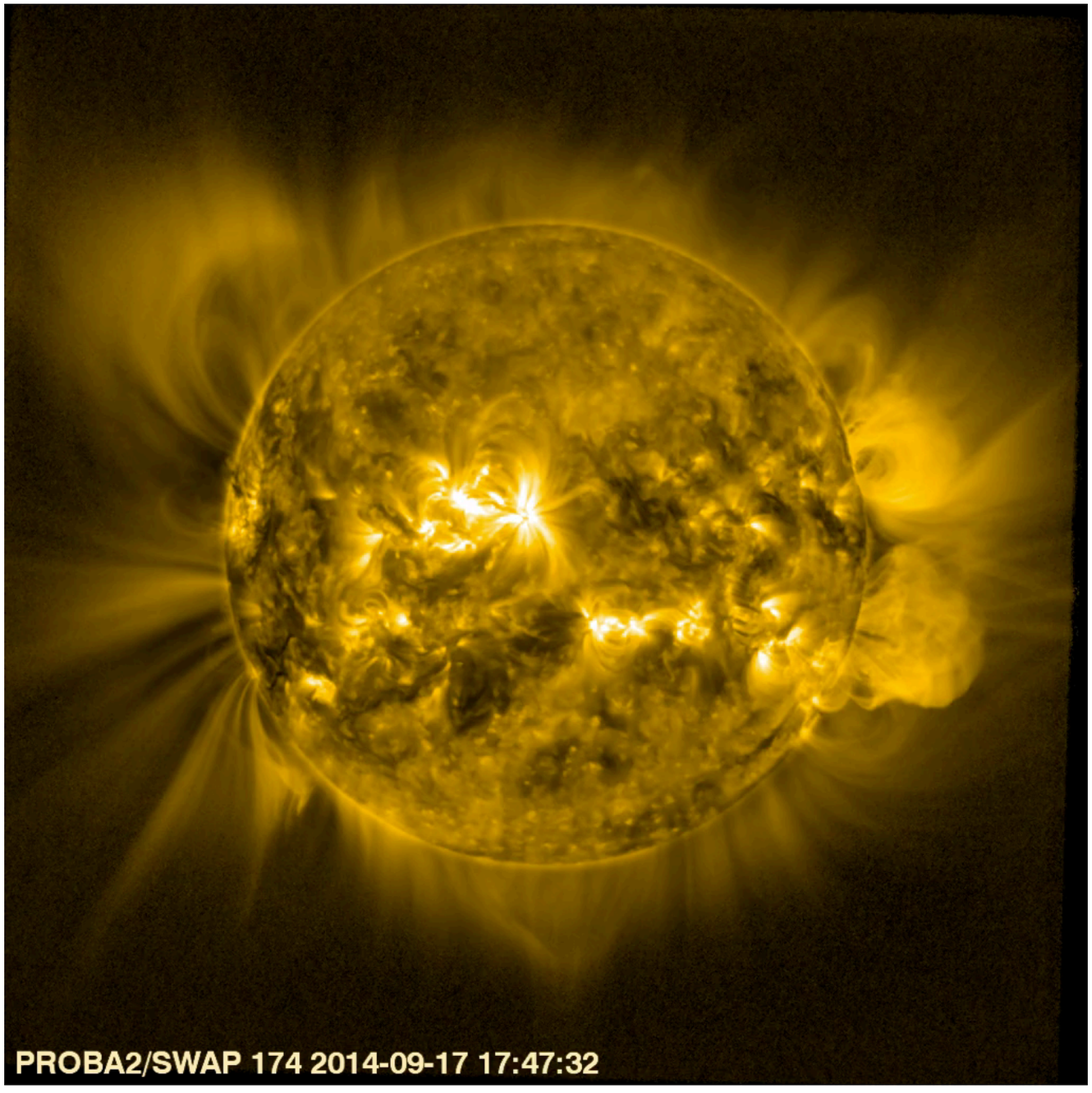
LAYERS OF THE SUN

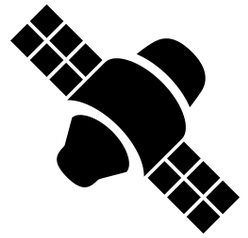


LAYERS OF THE SUN



WHICH LAYER IS THIS?

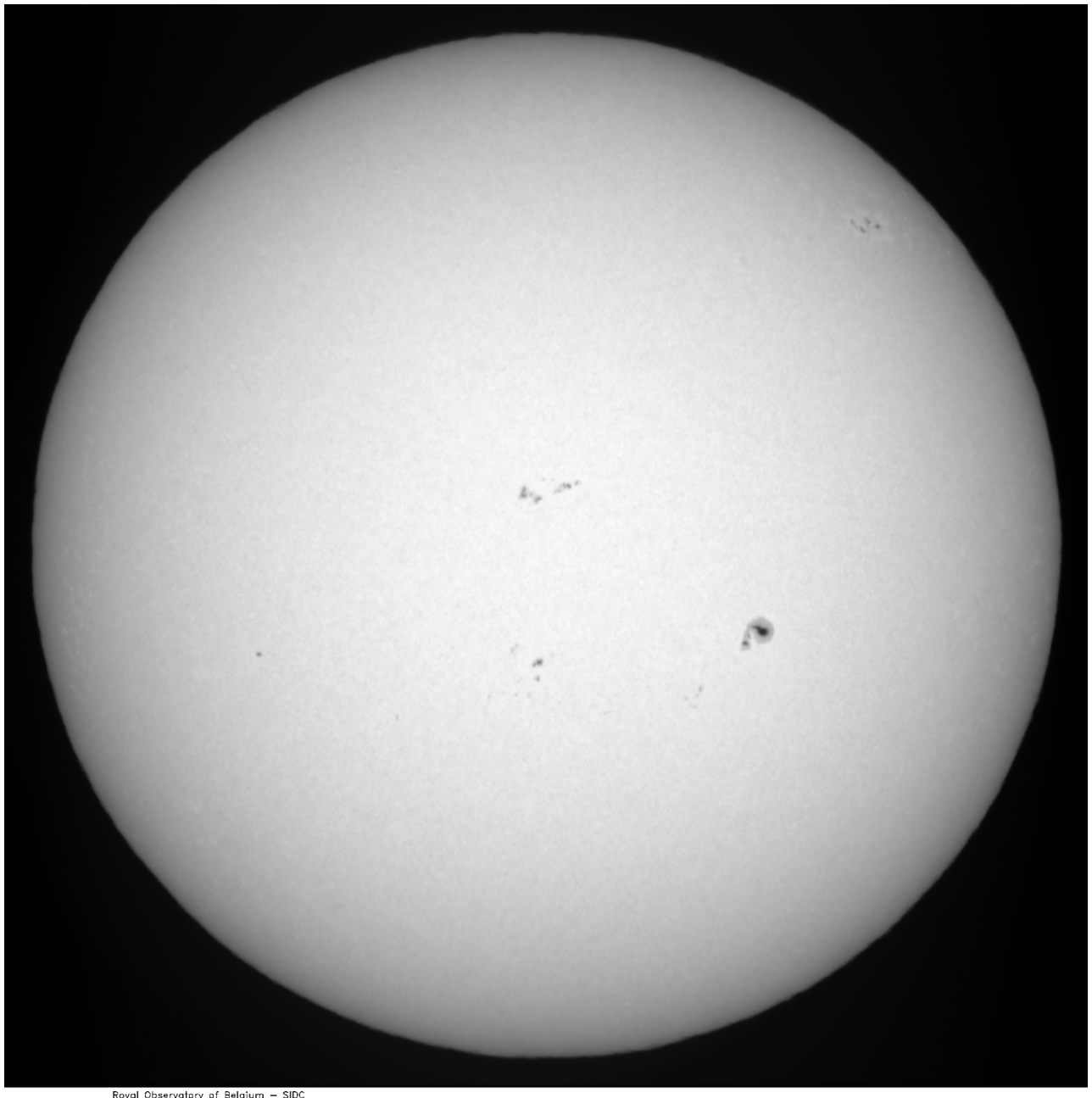




PROBA2/SWAP

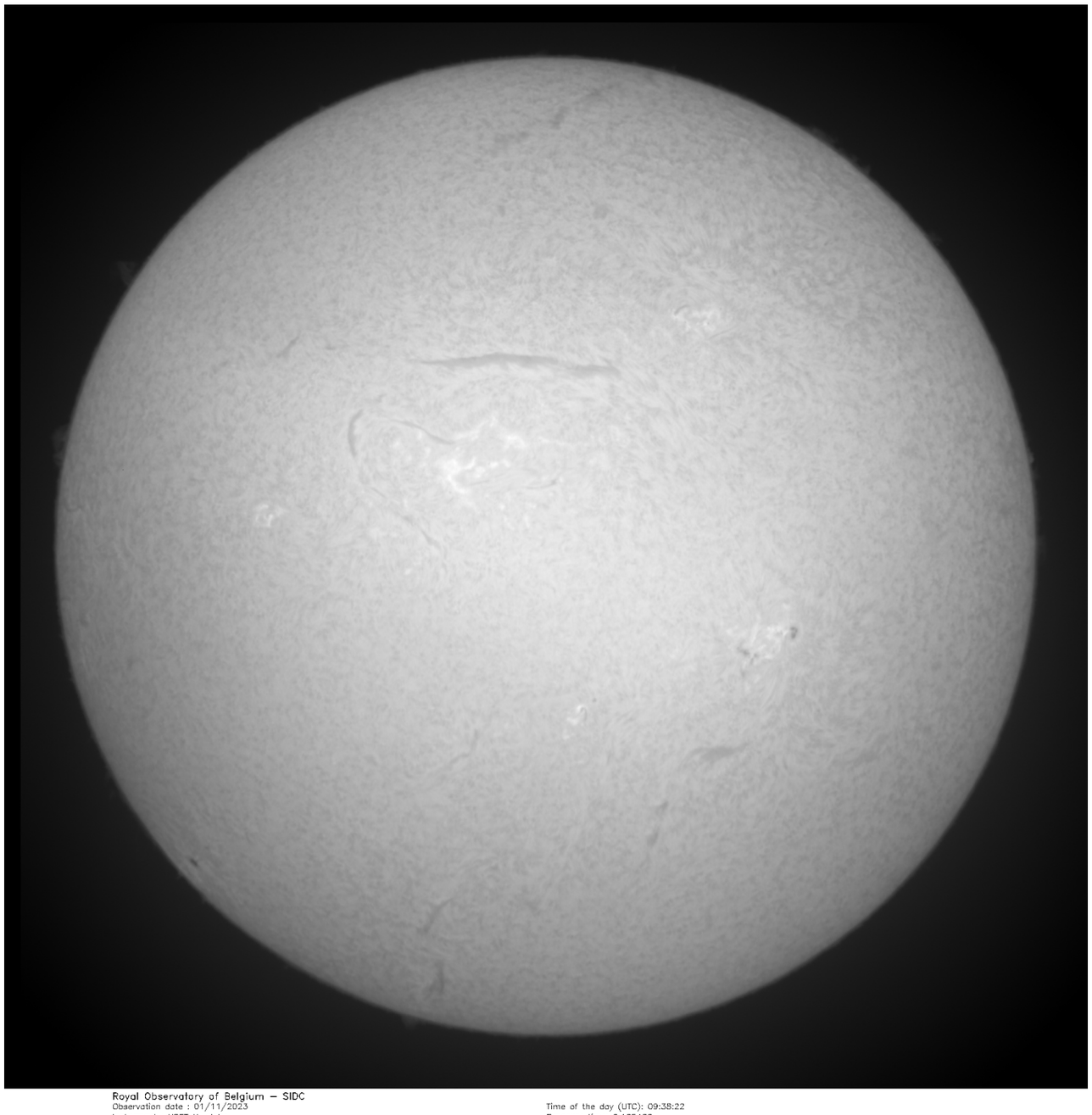
SWEC
Space Weather Education Center

WHICH LAYER IS THIS?



USET

WHICH LAYER IS THIS?

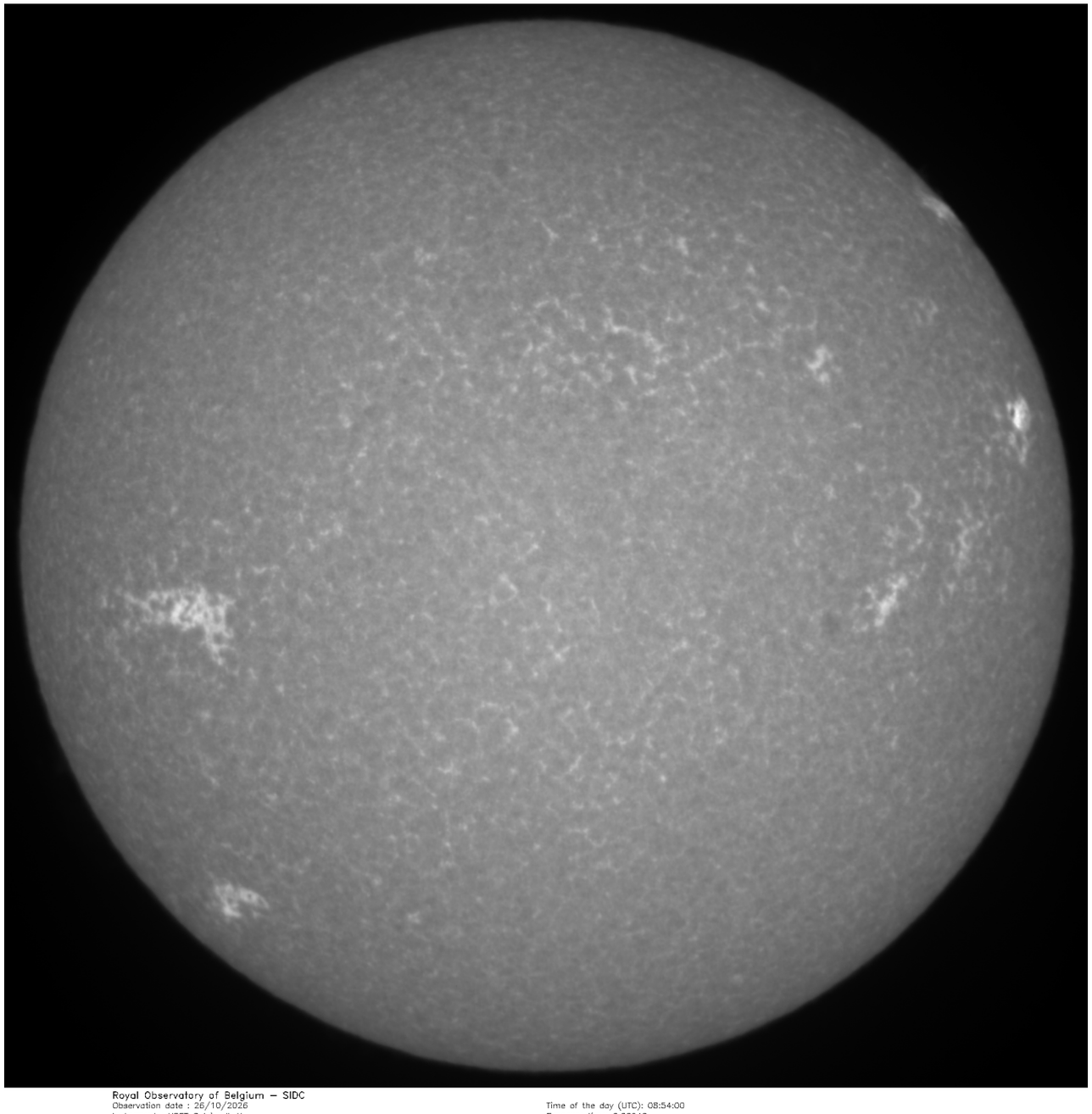




USET

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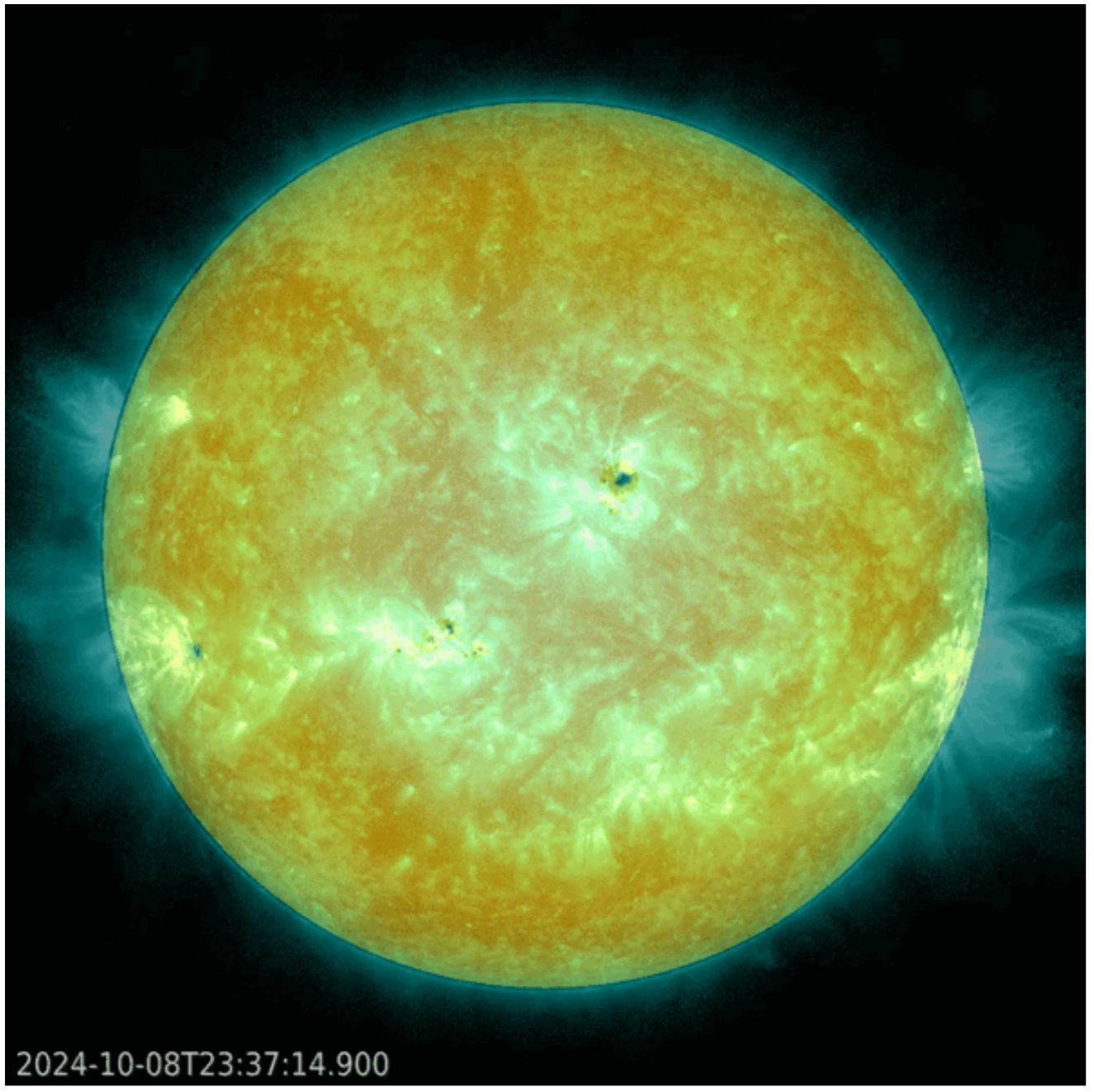
WHICH LAYER IS THIS?





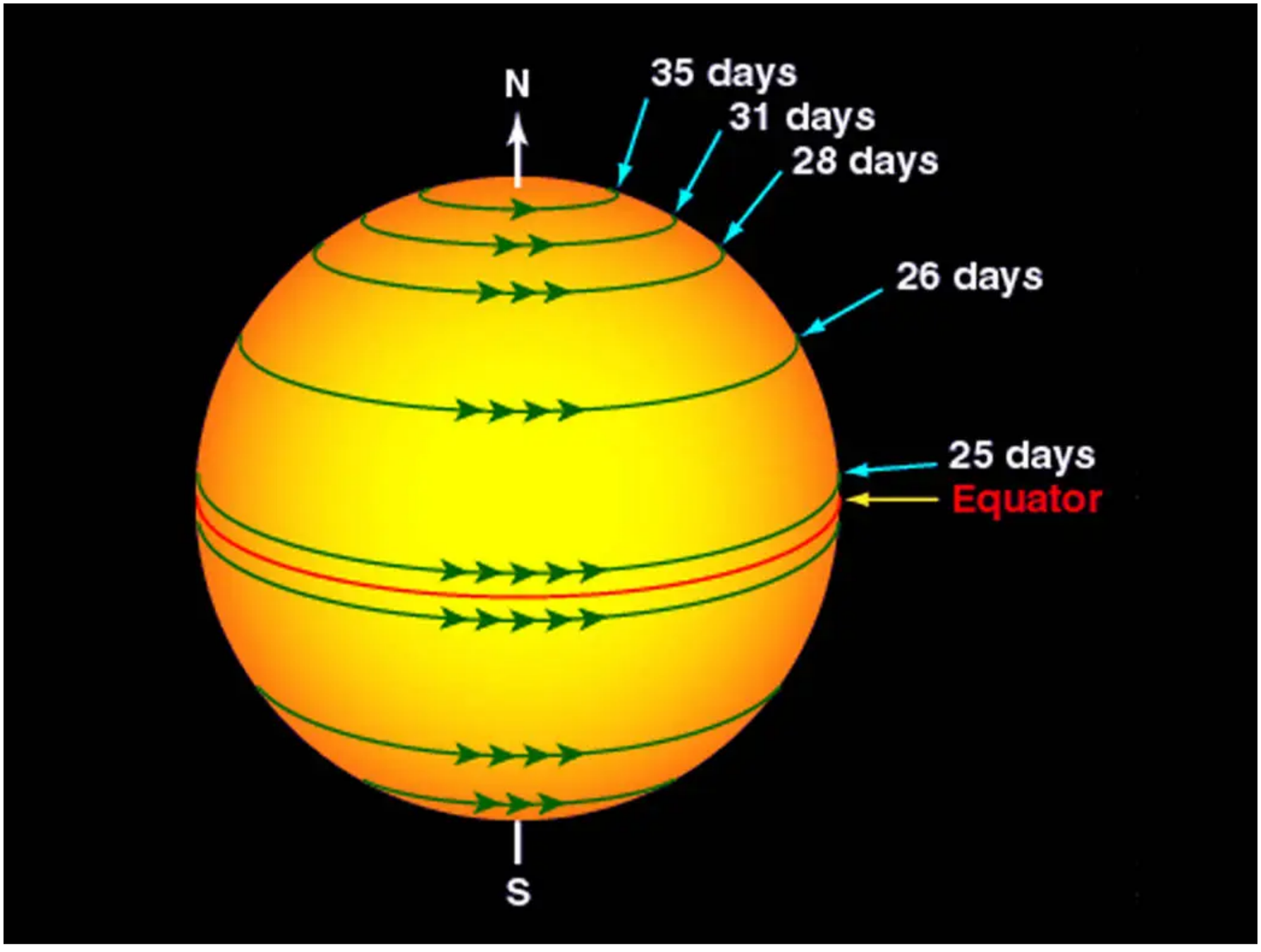
USET

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BASIC CONCEPTS

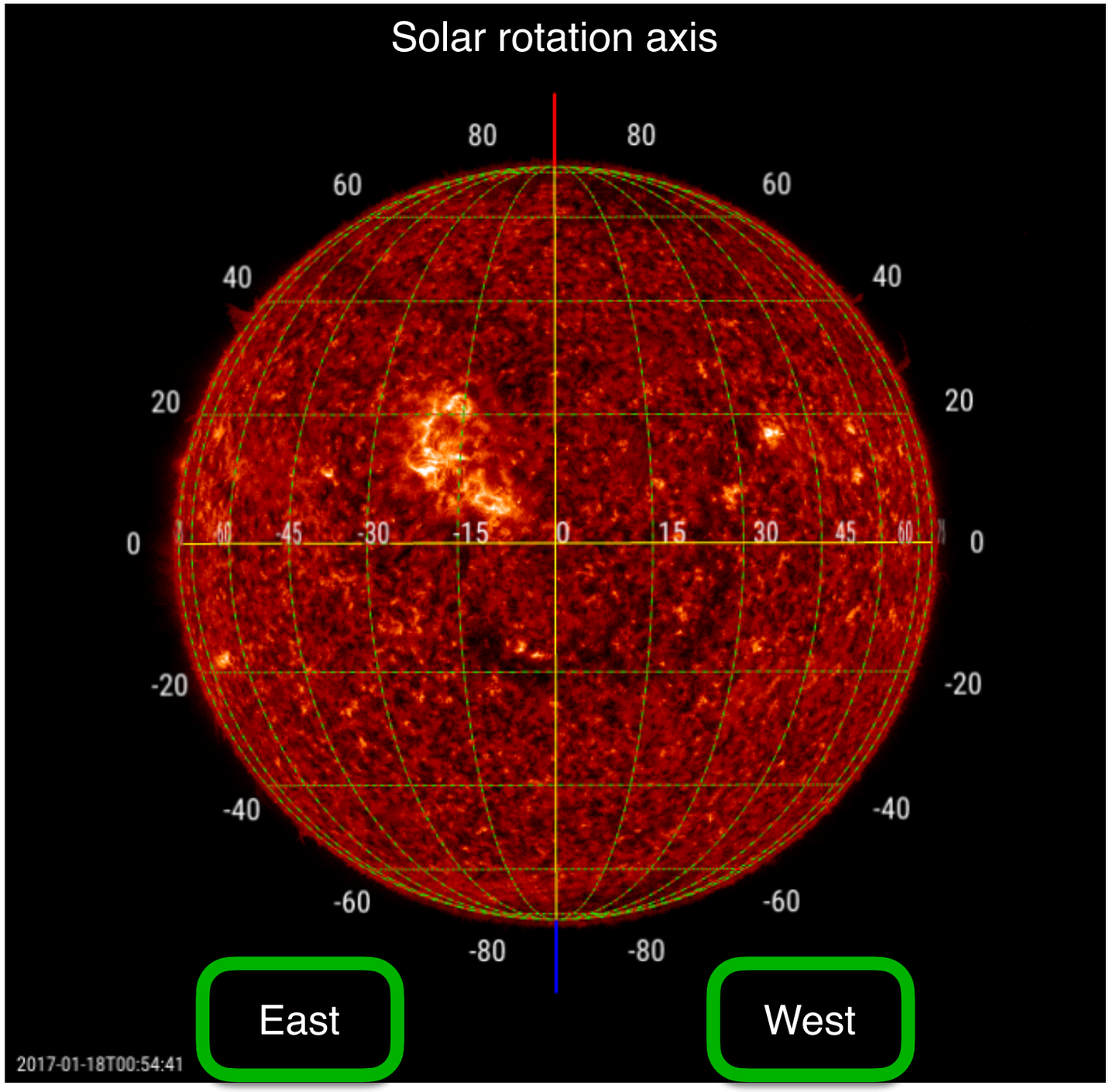
DIFFERENTIAL ROTATION



POSITIONING

Solar North Pole

Magnetic North Pole
Negative/Inward



Northern hemisphere

Solar Equator

Solar South Pole

Magnetic South Pole
Positive/Outward

Southern hemisphere

Eastern hemisphere

Central meridian

Western hemisphere

HELIOSPHERE

