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Science Focus

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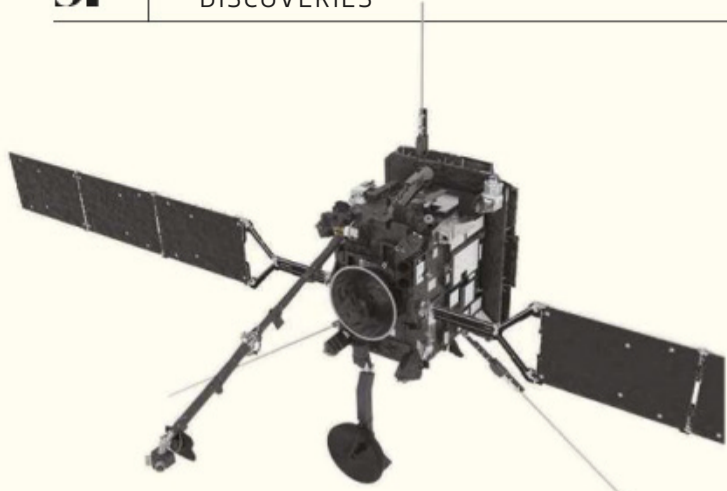
Does the virus linger in the air for long periods?

Sleep

A scientist's guide to getting a good night's rest

Veganism

Michael Mosley on the long-term risks and benefits



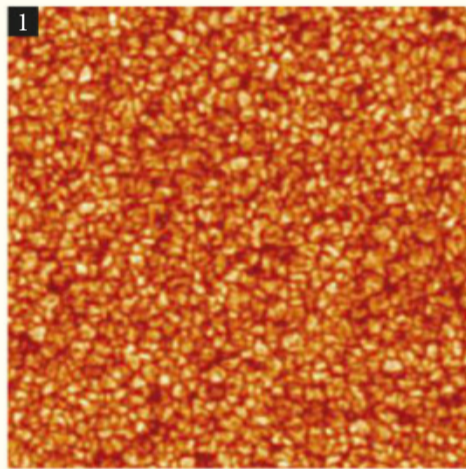
Solar Orbiter

SOLAR SYSTEM

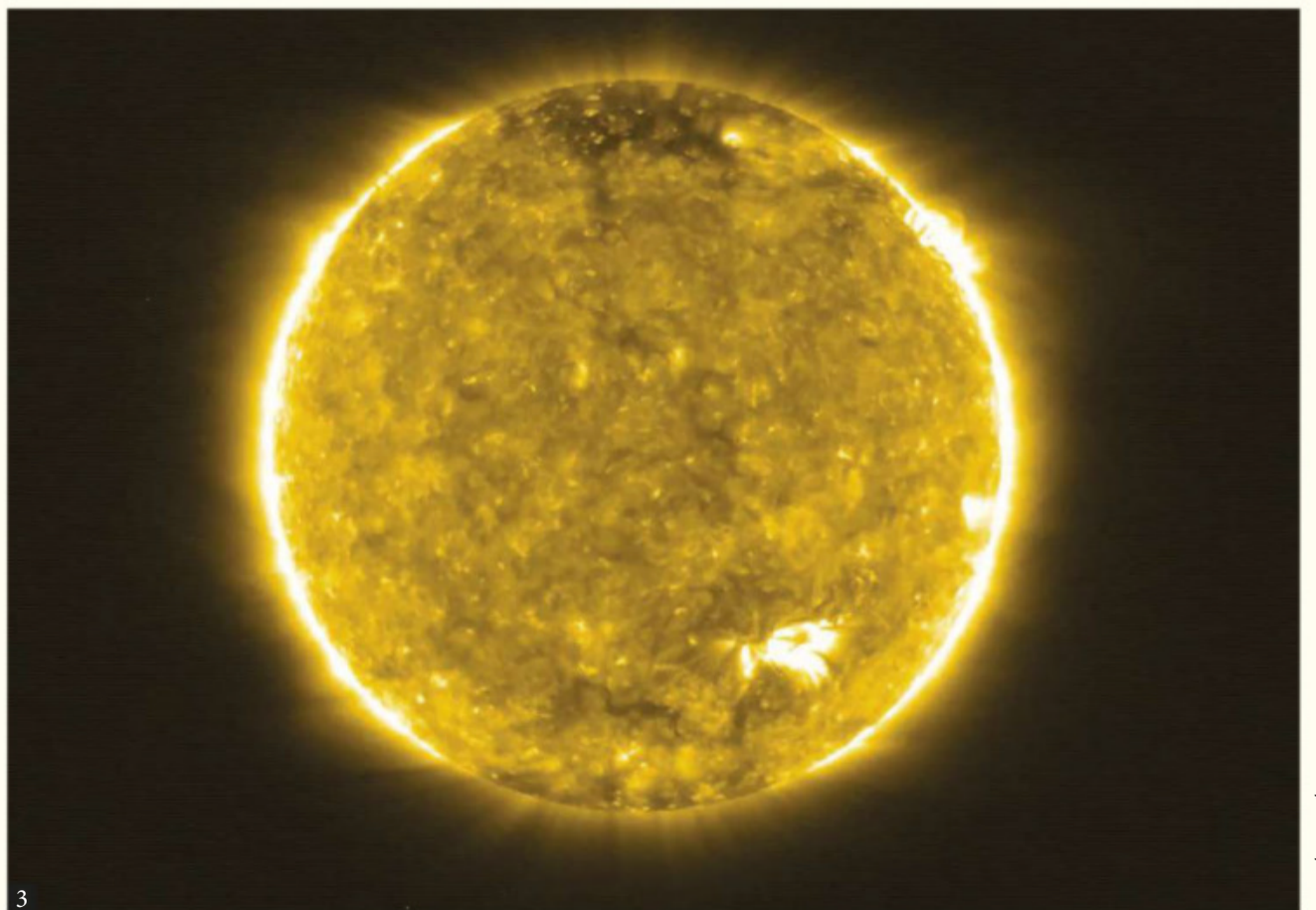
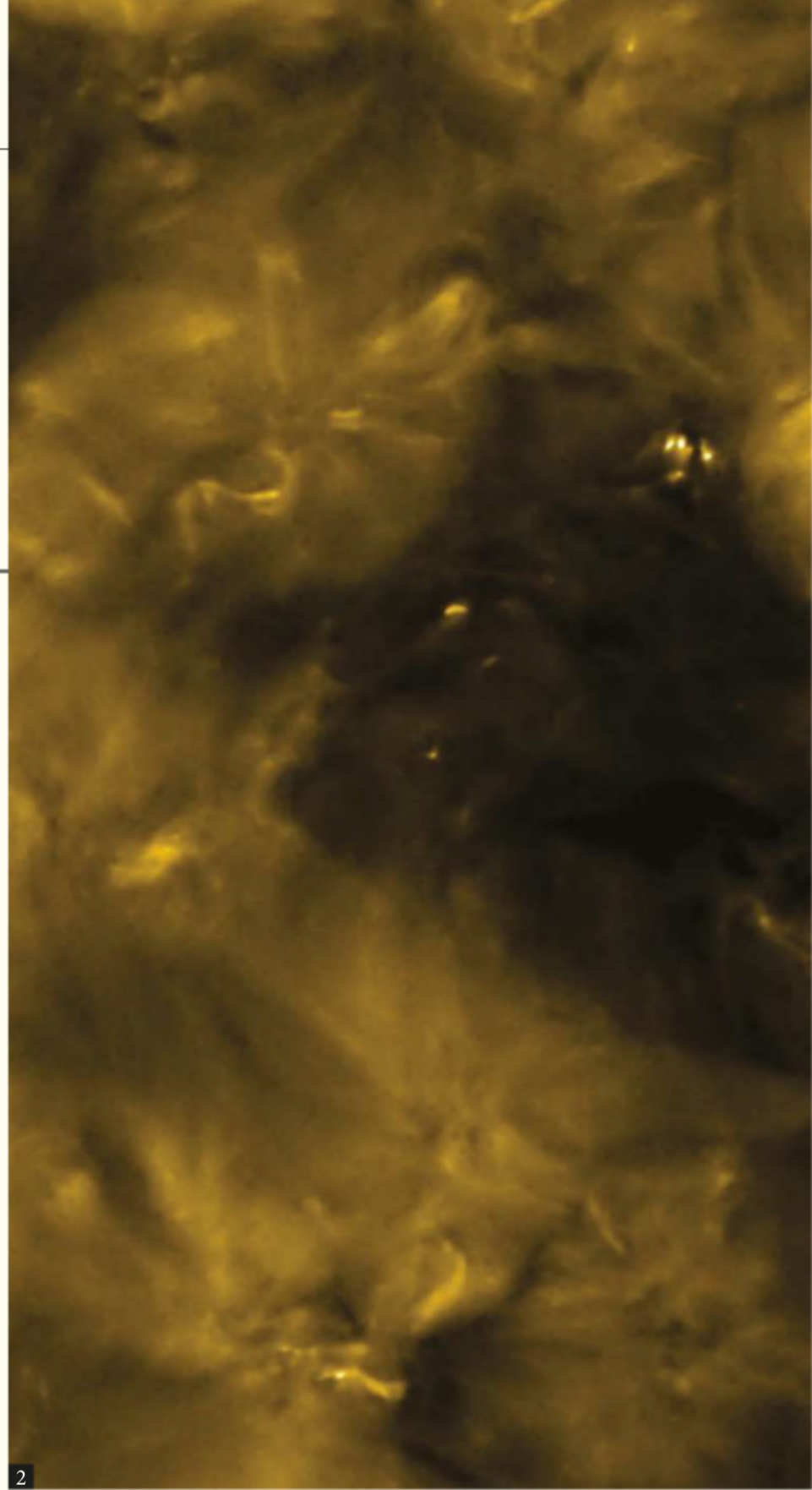
Solar Orbiter captures closest-ever pictures of the Sun

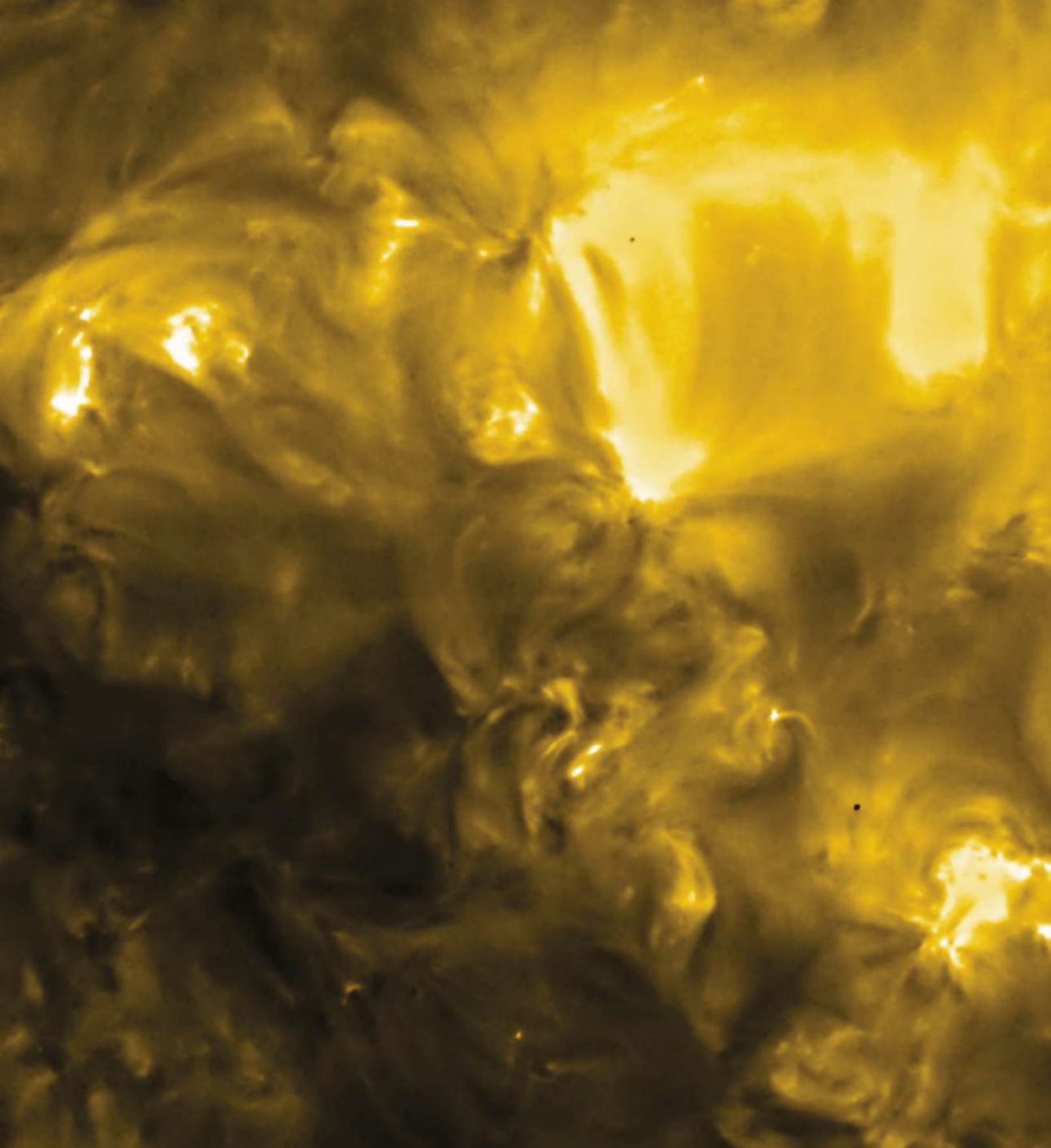
ESA's Solar Orbiter probe photographs our star from a distance of just 77,000,000km

In February this year, the Solar Orbiter craft was launched aboard an Atlas V rocket from Cape Canaveral, Florida. With six remote-sensing telescopes and four in-situ instruments, the probe is on a mission to image and monitor the Sun and its surrounding environment. Led by the European Space Agency (ESA) and aided by NASA, the project soon encountered a number of challenges due to the coronavirus pandemic. However, in mid-June the team announced that the probe was ready to start performing science, and it's already delivering the goods. In mid-July, ESA released this set of images from a distance of 77 million kilometres from the Sun – the closest-ever photographs of our star. The probe is now in its cruise phase and will continue travelling towards the Sun. In late 2021, it will get as close as 42 million kilometres, when the main part of the mission will proceed.



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1. The Sun's 'granulation pattern', caused by hot plasma moving under its surface. This was taken with the Polarimetric and Helioseismic Imager (PHI)

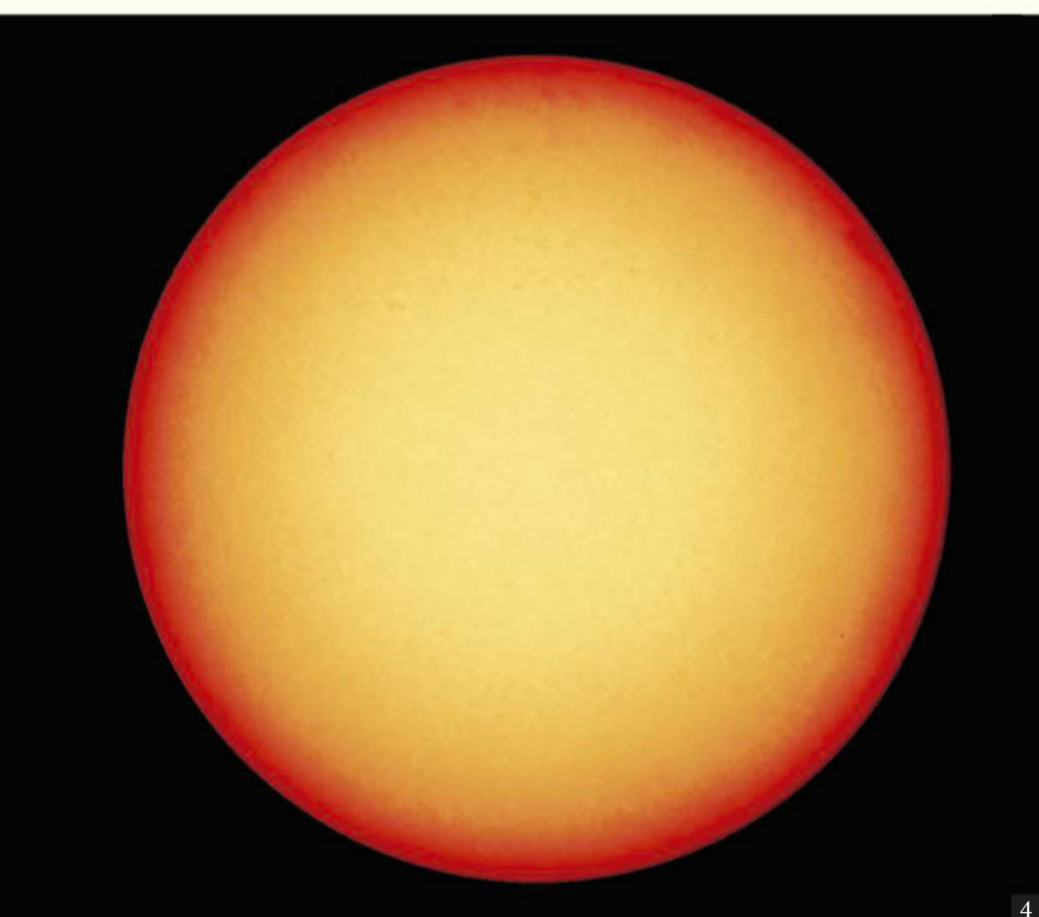
2. The Sun, photographed by the Extreme Ultraviolet Imager (EUI). Snapshots taken at these wavelengths reveal the Sun's upper atmosphere, the corona

3. A full view of the Sun, taken

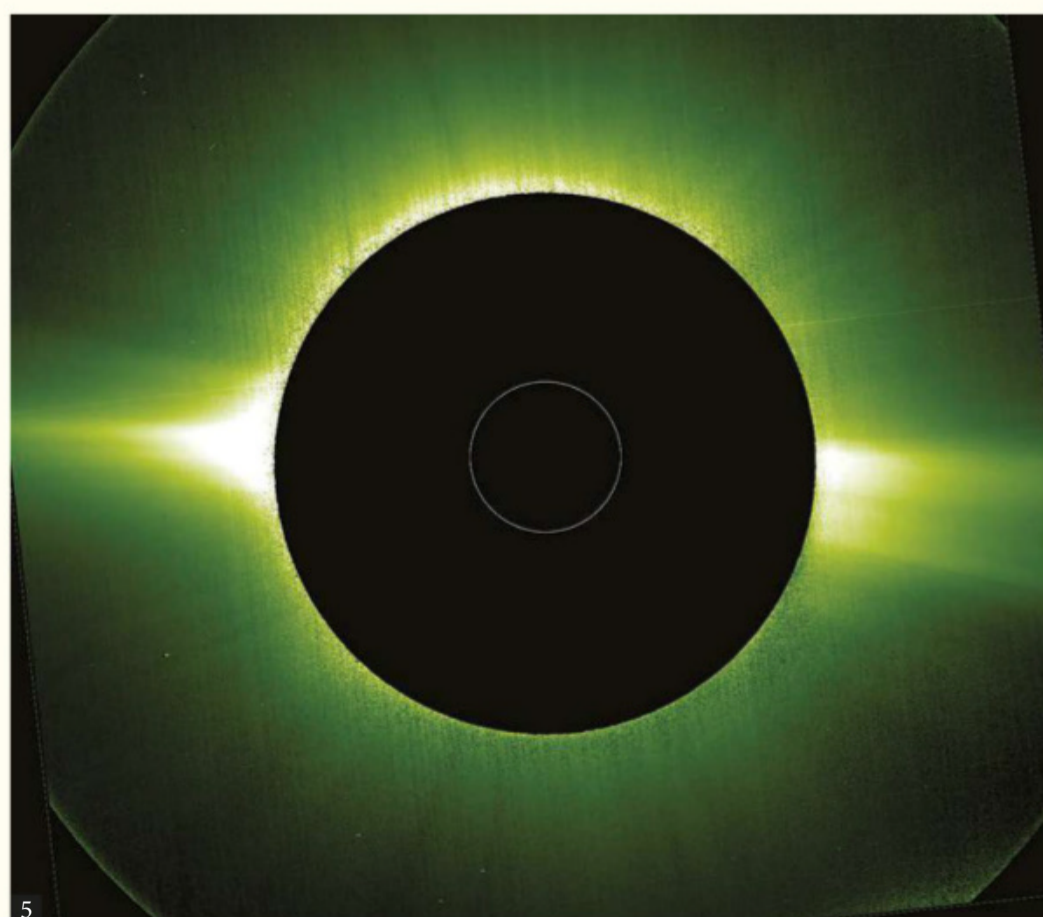
with the EUI. The corona has a temperature of 1,000,000°C

4. The PHI took this visible light image of the Sun, representing as we would see it with the naked eye

5. The corona, taken with the Metis instrument. This blocks out the Sun's light, to allow the corona to be imaged. Two bright 'equatorial streamers' can be seen on either side



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