

# New Scientist



WEEKLY July 8-14, 2023

## REBUILDING REALITY

A bold new way to think about how the universe fits together

**GRAVITATIONAL WAVES**  
Deep vibrations discovered throughout the cosmos

**HAPPY AS A PIG**  
Clever tricks for decoding animal emotions

**CRISPR REVOLUTION**  
Your guide to the new gene-editing therapies



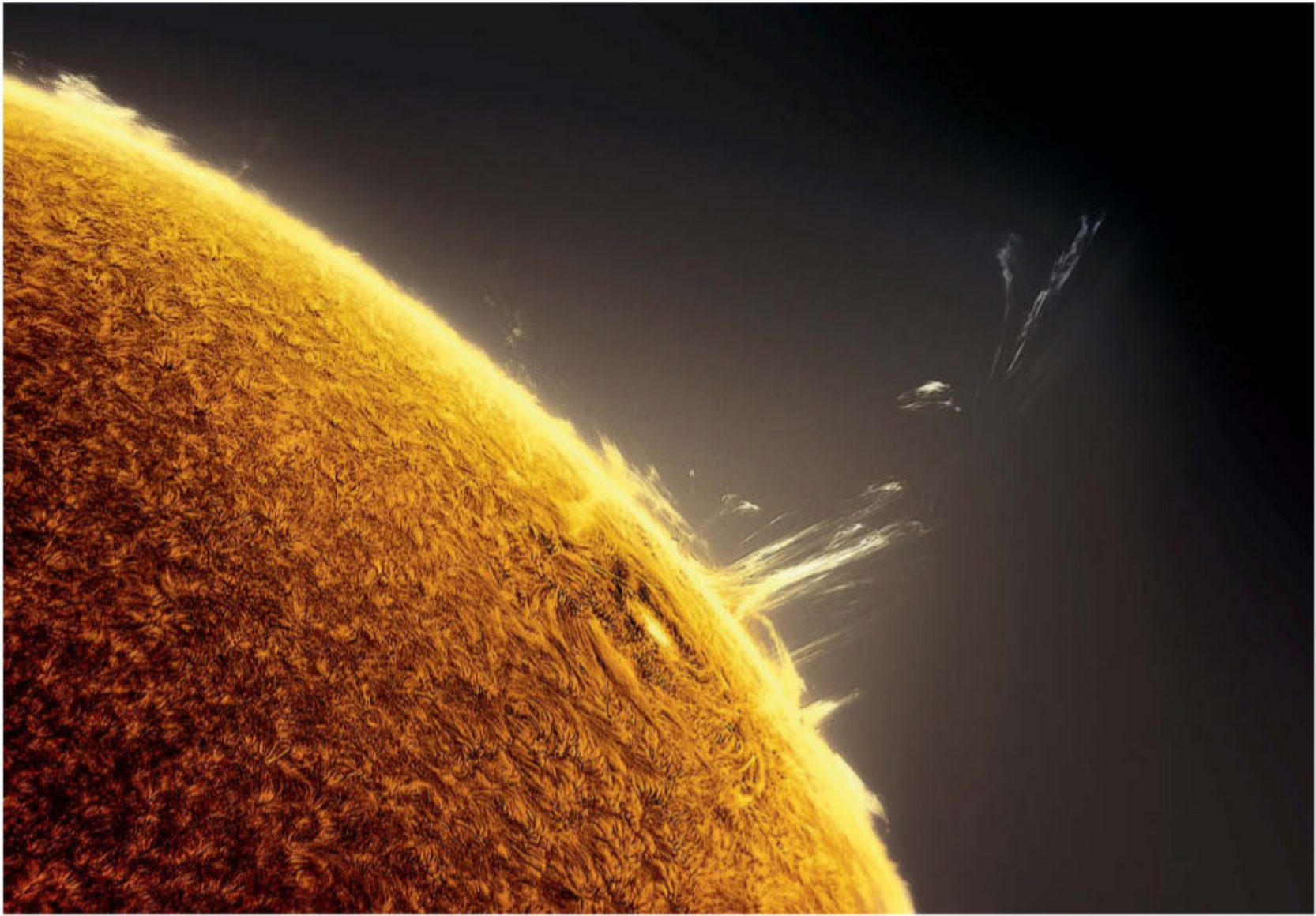
**PLUS BEATBOXING ORANGUTANS /  
SPACE PHOTOS OF THE YEAR / COD'S BIG SECRET /  
HOW TO SPOT JUPITER'S ICY MOONS**

Science and technology news [www.newscientist.com](http://www.newscientist.com)

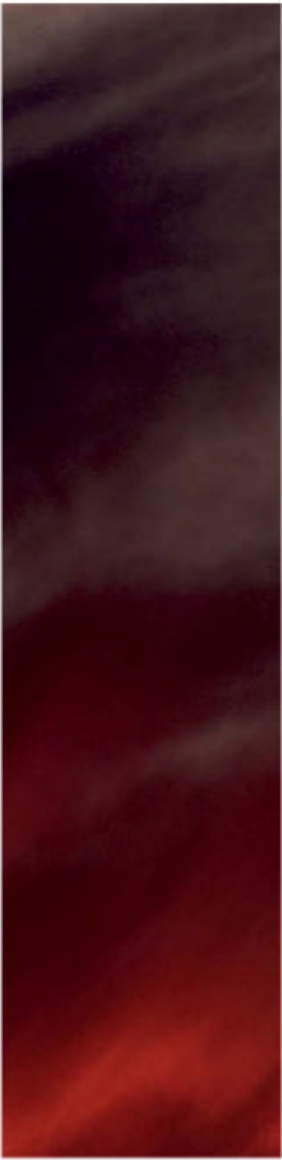
No3446 US\$7.99 CAN\$9.99







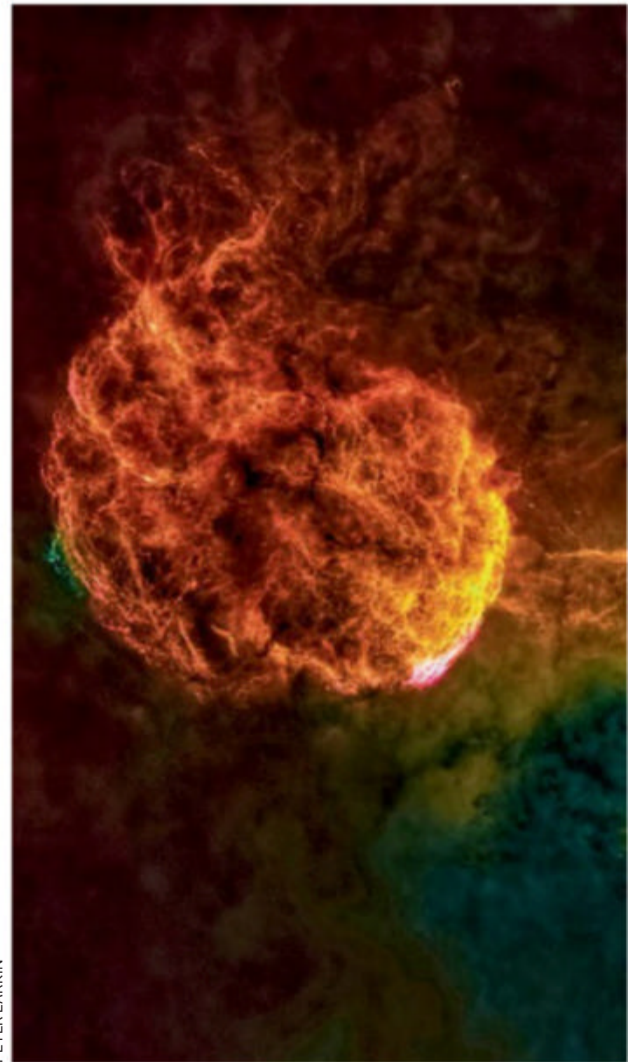
MIGUEL CLARO



EDUARDO SCHABERGERPOUPEAU



JEFF GRAPHY



PETER LARKIN





## Heavens above



FEW sights are as dazzling as those that can be glimpsed when we look up. These astronomical images are some of those shortlisted for this year's Astronomy Photographer of the Year competition, which is organised by the Royal Observatory in London, UK.

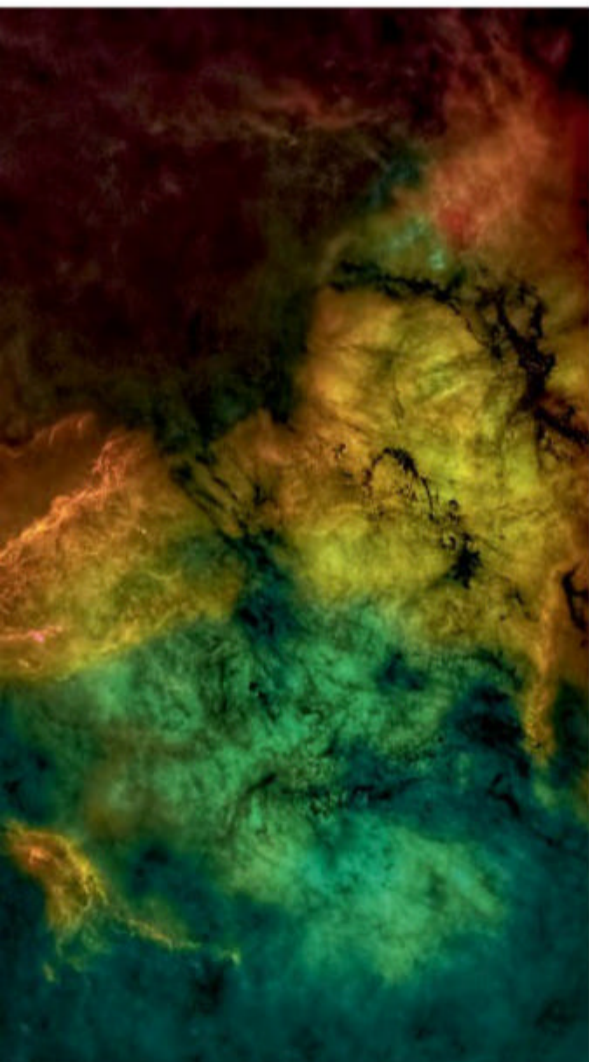
The characteristic twist of a solar flare (top left) – a result of an explosive release of energy from the sun's magnetic fields – was captured by Miguel Claro at the Dark Sky Alqueva reserve in Portugal in April 2022. The reserve often offers an incredible spectacle thanks to its combination of low light pollution and frequent cloudless skies.

At top right is an entry from Eduardo Schaberge Poupeau, which shows a crescent moon surrounded by red-tinted clouds above Rafaela, Argentina. Poupeau created this image by combining three separate shots.

The bottom row of images (left to right) shows: the Milky Way, taken by Jeff Graphy from the top of the Pain de Sucre mountain in France; Peter Larkin's shot of the Jellyfish Nebula, a cloud of space dust and gas named for its unique bulbous structures, which is located in the Gemini constellation around 5000 light years away; and, lastly, Andreas Ettl's photograph of an auroral substorm in Hamnøy, Norway. This phenomenon is more violent and short-lived than the northern lights, occurring when Earth's magnetic field is disrupted.

The competition winners will be announced on 14 September and exhibited at the National Maritime Museum in London from 16 September.

**Gege Li**



ANDREAS E TTL