

THE AI DOCTOR WILL SEE YOU NOW: COMING SOON TO A CLINIC NEAR YOU

COSMOS

THE SCIENCE OF EVERYTHING

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Future forecast

How clearly can science see ahead?



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VISION QUEST
Do the bionic eyes have it?

COSMIC HUM
Grav waves hint at new physics

Focus: Moon

1

A private lunar mission was over before it began, with a fuel leak preventing the Peregrine spacecraft (launched January 8) from landing on the Moon.

2

NASA's Artemis program has been delayed: humans will not return to the Moon until 2025, and will not walk on it until at least September 2026.

3

Analysis of a weird impact crater on the Moon created by debris of the Long March 3C rocket shows that it was carrying a third, undisclosed piece of cargo.

4

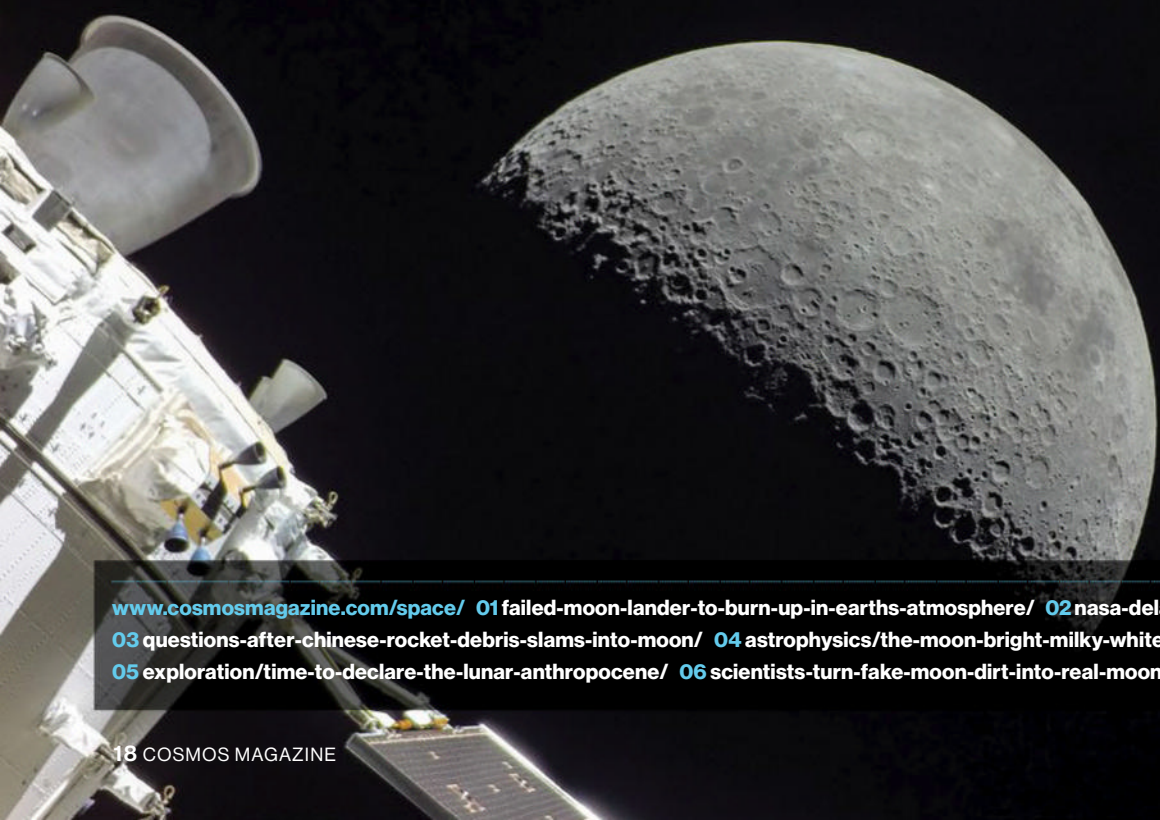
The Moon is at least 4.46 billion years old, according to analysis of crystals collected from the surface in 1972 – 40 million years older than previously thought.

6

Scientists have melted fake Moon dust into a type of brick for building roads, potentially providing a way for humans and robots to better travel on the Moon.

5

A group of American geologists and anthropologists say it's time to declare the Lunar Anthropocene.



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[03 questions-after-chinese-rocket-debris-slams-into-moon/](#) [04 astrophysics/the-moon-bright-milky-white-and-40-million-years-older/](#)
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 SPACE

JWST snaps silky new picture of the Crab Nebula

IN THE year 1054, a nearby star burst into a supernova so bright that 11th-century Chinese astronomers recorded it. The resulting dust cloud, called the Crab Nebula, has been a favourite study of astronomers since.

Now, the James Webb Space Telescope (JWST) has photographed the nebula in new detail, providing insight into the behaviour of supernovae.

“Webb’s sensitivity and spatial resolution allow us to accurately determine the composition of the ejected material, particularly the content of iron and nickel, which may reveal what type of explosion produced the Crab Nebula,” says Tea Temin, an astronomer at Princeton University.

The new picture comes from JWST’s NIRCam (Near-Infrared Camera)

and MIRI (Mid-Infrared Instrument) data.

The whitish smoke is synchrotron radiation: emissions from tiny and fast-moving particles like electrons. It is caused by the pulsar in the middle of the nebula – a super-dense, rapidly spinning neutron star.

The pulsar itself is a white dot in the middle: where the wisps of radiation concentrate.