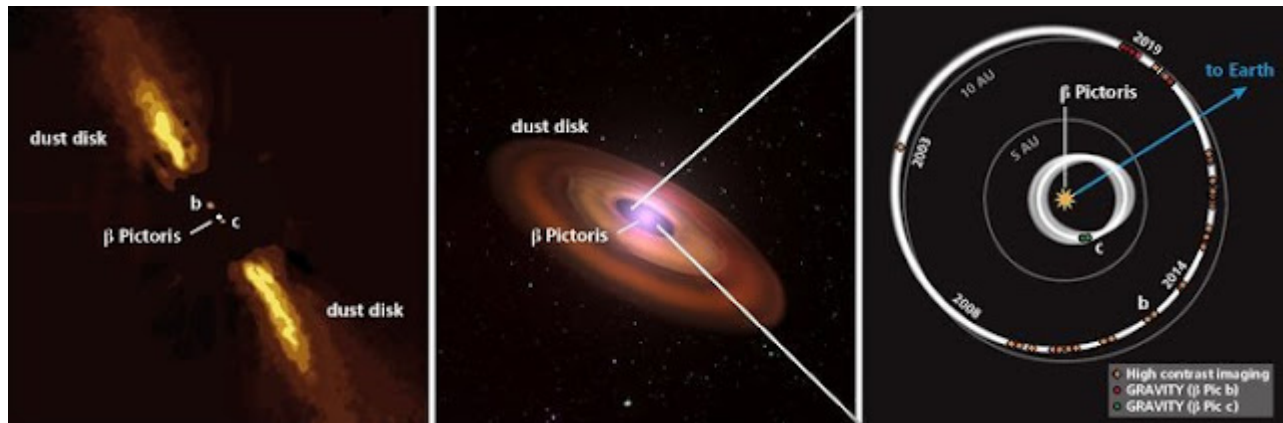


“Scientists Just Took an Actual Picture of a Planet in Another Star System”



The planet, known as “**b Pictoris c**,” is located roughly 63 light-years from Earth in the Beta Pictoris system. Using the additional brightness and dynamic mass data obtained from imaging it, they are aiming to narrow down how it arose. The researchers utilised a technique known as the “**radial velocity method**,” which has been used for years to discover hundreds of exoplanets but has never been used to directly evaluate exoplanets.

[Click here to read the full article.](#)

“Enormous

‘sunspot

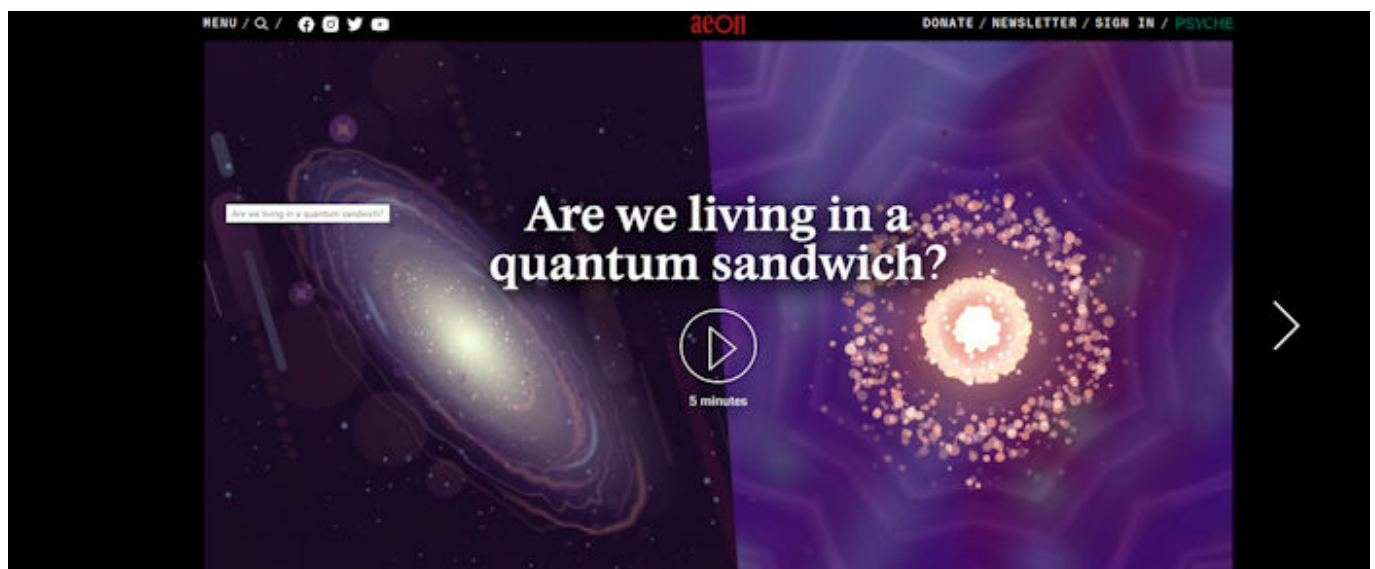
archipelago' 15 times wider than Earth could soon bombard us with solar flares"

One of the largest and most densely populated sunspot regions seen in more than a decade has appeared on the sun's nearside to Earth – and has begun to unleash a barrage of solar storms that are shaking up our home star's surface in a big way. The sunspots' emergence could make it an interesting few weeks for Earth, which will soon be in the firing line of these eruptive dark patches.

The first sunspot group, named AR3490, rotated onto the sun's nearside on Nov. 18 over the star's northeastern shoulder. The dark patch was quickly followed by another sunspot group, AR3491, which trailed in its wake, Spaceweather.com reported.

[Read the entire article here.](#)

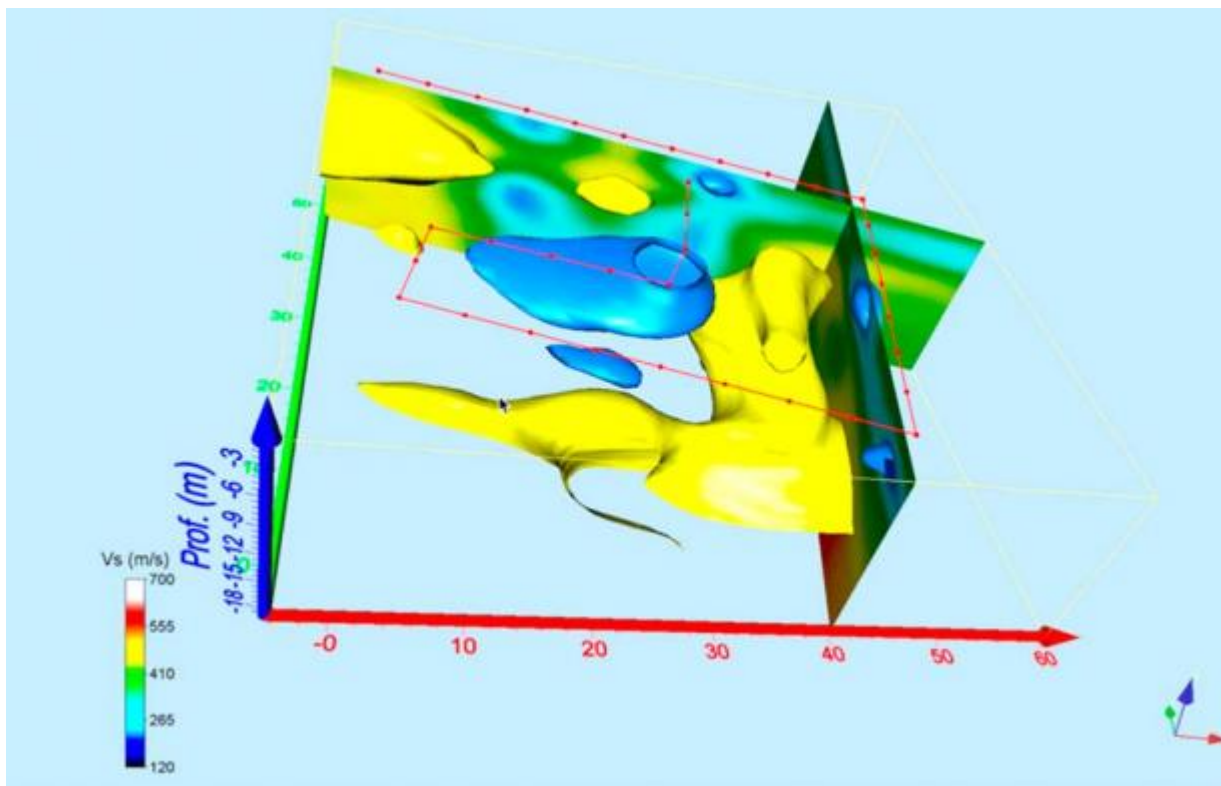
“There’s a striking link between quantum and astronomic scales. What could it mean?”



While working late one night in 2017, Konstantin Batygin, a professor of planetary sciences at the California Institute of Technology, made a mathematical connection that he imagined someone else had surely found before, likely centuries ago. He had realised that the peculiar ‘washed-out wave’ behaviour of matter on the quantum scale – which disappears on the macroscopic scale (the one we can observe with our naked eye) – reemerges at the astronomical scale.

[Read the entire article here.](#)

“Have Archaeologists Found Lyobaa, the Zapotec Land of the Dead?”



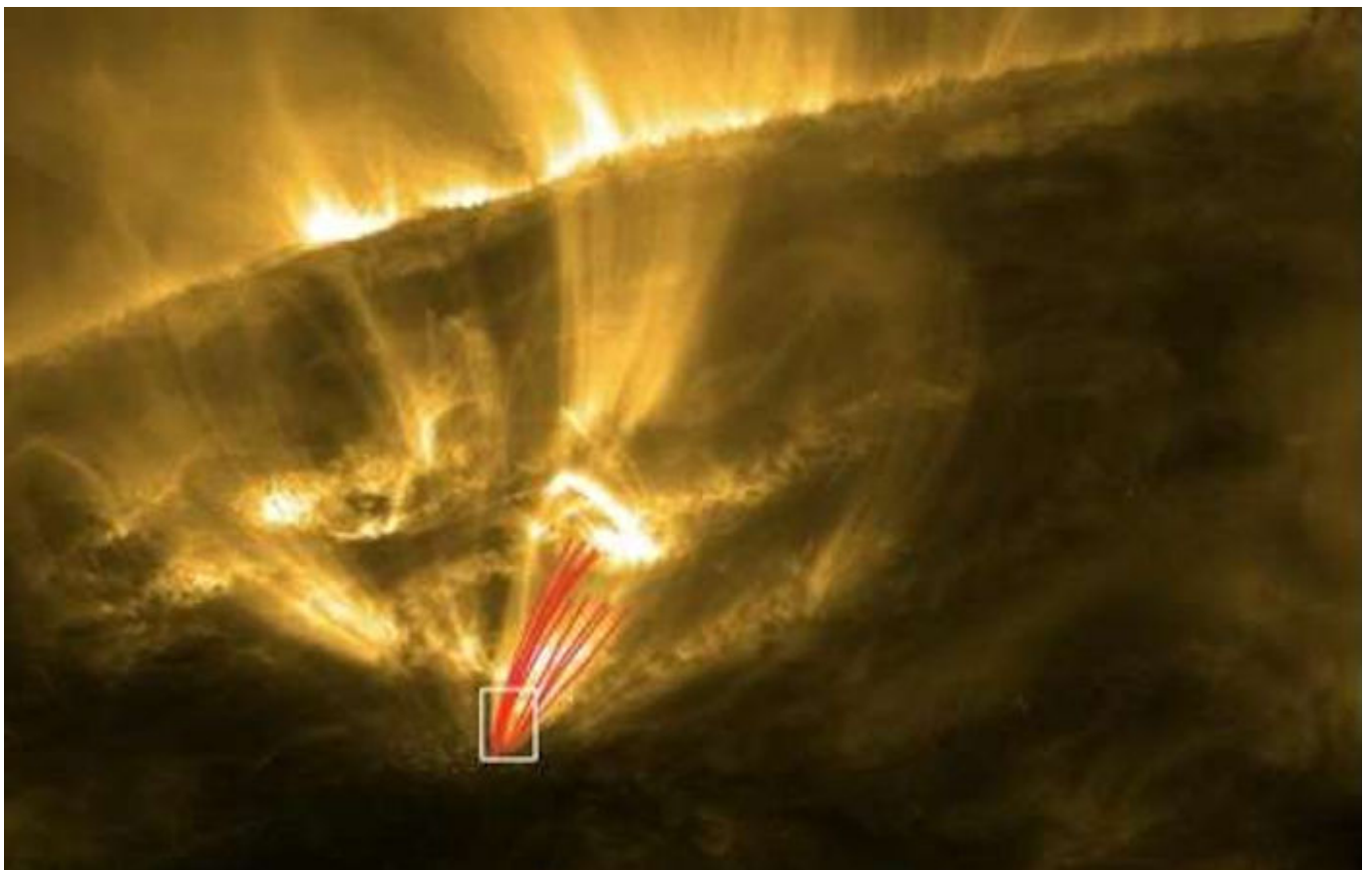
Beneath monumental stone structures discovered at the archaeological site of Mitla in the southern Mexican state of Oaxaca, it has long been believed that the ancient [Zapotec people](#) built a huge and complex labyrinth of chambers and passageways. This network of tunnels was ultimately supposed to lead to the entrance of the Zapotecan underworld or Land of the Dead, which was known as [Lyobaa](#).

In search of the truth about this legend, a team of Mexican

archaeologists launched an ambitious exploration project at Mitla in 2022, relying on non-invasive geophysical survey tools to see what really lies underneath the ancient site.

[Click here to read the full article.](#)

“Solar astronomers discover ‘shooting stars’ on the sun’s corona”



A team of astronomers from several European institutions led by Northumbria University in Newcastle has discovered “shooting stars” on the sun. Observations from the European Space Agency’s Solar Orbiter (SolO) have revealed never-before-seen “falling star”-type phenomena or meteor-like fireballs occurring within the spectacular plasma displays known as coronal rain. The work will be presented this week at the National Astronomy Meeting (NAM 2023) by lead author Patrick Antolin, Assistant Professor at Northumbria University.

[Click here to read the full article.](#)

“Quasars reveal the early universe moved slower than it does now | CNN”

Scientists have peered into the early days of the universe, when it was about 1 billion years old, and discovered that things moved in slow motion compared with now.

The finding supports [Albert Einstein's general theory of relativity](#), which suggests that the distant universe moved much more slowly in the past.

Given the vastness of the universe, studying its earliest days is like looking back in time. [Faint light from the oldest galaxies](#) is still traveling across the universe to reach Earth, so the farthest reaches of the universe visible to scientists is light from the past.

[Click here to read the full article.](#)

Link contributed by Gene Savoy, Jr.

“Scientists find key evidence for existence of nanohertz gravitational waves”



A group of Chinese scientists has recently found key evidence for the existence of nanohertz gravitational waves, marking a new era in nanohertz gravitational wave research. The research was based on pulsar timing observations carried out with the Five-hundred-meter Aperture Spherical radio Telescope (FAST).

[Click here to read the full article.](#)

“Quantum Light Experiment

Proves Photosynthesis Starts with a Single Photon”



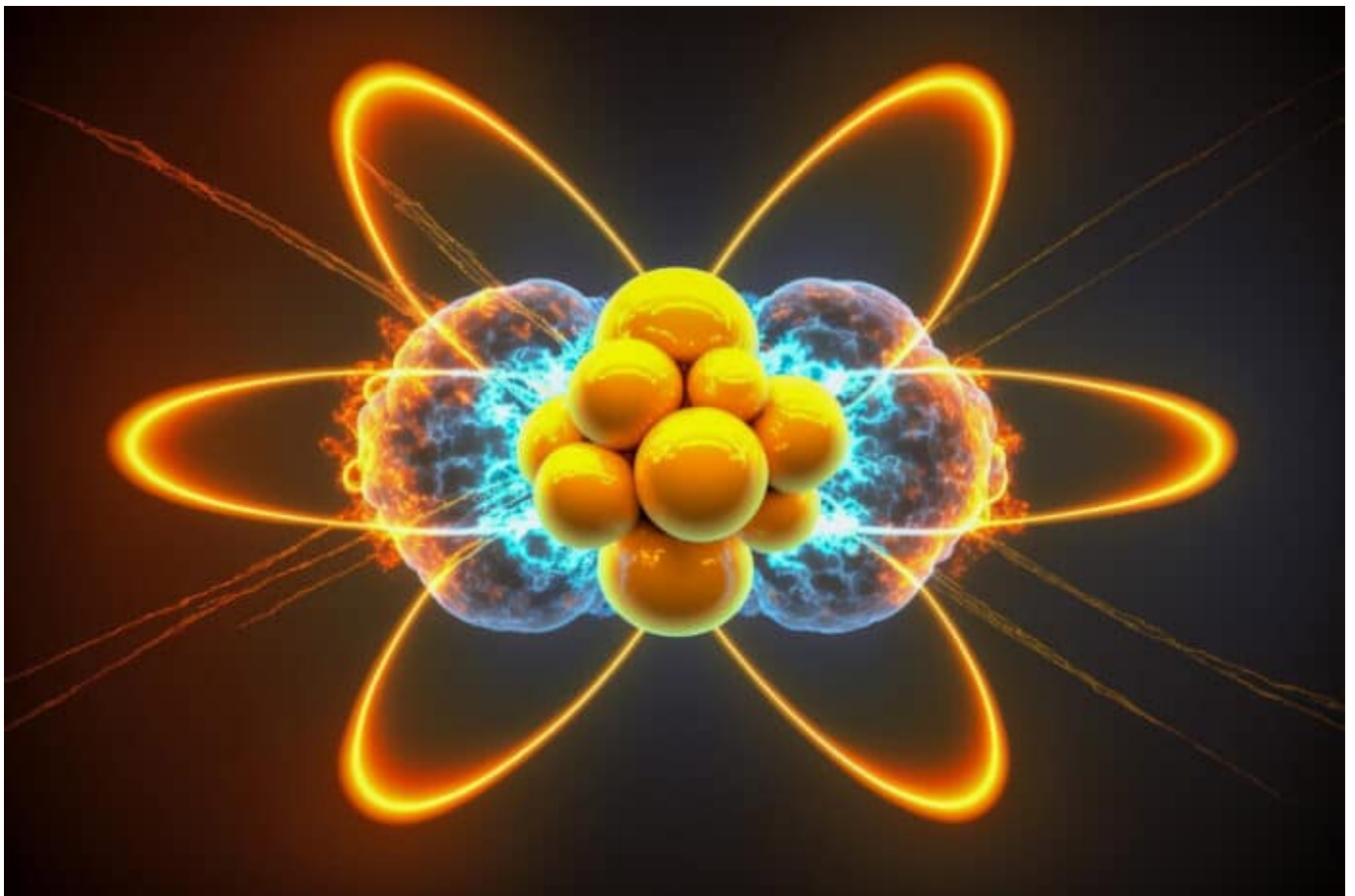
The process that powers much of life on Earth, [photosynthesis](#), is so finely tuned that just one photon is enough to kick it off.

Scientists have long suspected that photosynthesis must be sensitive to individual photons, or particles of light, because despite the way it dominates our days, the sun's light is surprisingly sparse at the level of individual plant cells. But only now, with the help of quantum physics, have researchers [been able to watch a single packet of light begin the process](#) in an experiment described on June 14 in the

journal *Nature*.

[Click here to read the full article.](#)

“A new type of atomic nucleus discovered”



Researchers have successfully produced a previously unknown atomic nucleus with 85 protons and 105 neutrons. In an

experiment performed in the Accelerator Laboratory of the [University of Jyväskylä, Finland](#), the researchers produced 190-Astatine, the lightest isotope of astatine.

Astatine is a fast-decaying, hence is a [rare element](#). The new isotope was created by fusing 84Sr beam particles with silver target atoms. Using the detectors from the RITU recoil separator, the isotope was found among the products.

[Click here to read the full article.](#)

“Decades-long bet on consciousness ends – and it’s philosopher 1, neuroscientist 0”



From Nature: "A 25-year science wager has come to an end. In 1998, neuroscientist Christof Koch bet philosopher David Chalmers that the mechanism by which the brain's neurons produce consciousness would be discovered by 2023. Both scientists agreed publicly on June 23, at the annual meeting of the Association for the Scientific Study of Consciousness (ASSC) in New York City, that it is still an ongoing quest, and declared Chalmers the winner."

[Click here to read the full article.](#)