

THE OBSERVER

BATTLE POINT ASTRONOMICAL ASSOCIATION

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Farthest galaxy in the universe?

Astronomers have peered out into the vast expanse and spotted what they think is the farthest (and oldest) galaxy ever observed.

The galaxy GN-z11 might not have a flashy name, but it appears to be the most distant and oldest galaxy ever detected, scientists have found. Astronomers led by Nobunari Kashikawa, a professor in the department of astronomy at the University of Tokyo, embarked on a mission to find the universe's most distant observable galaxy, to learn more about how it formed and when.

"From previous studies, the galaxy GN-z11 seems to be the farthest detectable galaxy from us, at 13.4 billion light-years, or 134 nonillion kilometers (that's 134 followed by 30 zeros)," Kashikawa said in a statement. "But measuring and verifying such a distance is not an easy task."

(Source: [space.com](https://www.space.com))

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WHAT'S UP(COMING)!

January 2 - Earth at perihelion - the point on its orbit that is closest to the Sun at 13:50 UTC (05:50 PST)

January 2, 3 - Quadrantids Meteor Shower - Meteors will radiate from the constellation Bootes, but can appear anywhere in the sky

January 13 - New Moon

January 24 - Mercury at Greatest Eastern

Elongation January 28 - Full Moon

February 2 - Moon at perigee

February 11 - New Moon

February 18 - Conjunction of Moon and Mars - The Moon will be at mag -11.6, and Mars at mag 0.8, both in the constellation Aries

February 27 - Full Moon

Please send any comments, suggestions or questions to:

newsletter @bpastro.org



Great Conjunction of Jupiter and Saturn

Mother nature tried to interfere, but BPAA president Frank Petrie was able to use the Ritchie 27" Newtonian reflecting telescope to capture the above image on 12/22/20. The picture also captured Jupiter's Galilean moons.

While we were unable to see the conjunction at its smallest separation on 12/21 due to typical PNW weather, Frank braved the elements the next evening to host an impromptu star party. To his (and our) great relief, the clouds that evening stayed just below the Ritchie telescope's viewing angle of the conjunction.

At their closest, Jupiter and Saturn had an angular separation of 0.1° . On 12/22, they were still less than 0.2° apart, or approximately half the diameter of the Moon as observed from the earth!

While conjunctions between Jupiter and Saturn occur about every 20 years, this year's conjunction was the closest since 1693. But if you missed this year's conjunction, you only have to wait until 2080 until they will appear as close again.

Annual Members Meeting

Rescheduled to January 27, 7:30 pm

The meeting will be held via Zoom on January 27, 2021. Hear what BPAA accomplished in 2020 and how we've been coping with the pandemic, and vote for our 2021 board members. Look for the President's annual report and meeting invitation (including Zoom Link) in your email.



Arecibo Radio Telescope Collapse

The Arecibo radio telescope had survived hurricanes and earthquakes. But the National Science Foundation, observatory's owner since the 1970s, in mid-November abruptly announced it would demolish the telescope. The instrument had become unstable in recent months as cables and wires failed and snapped. The federal agency had deemed repairs risky to people, and that there was no way to ensure long-term structural soundness.

But before any machines could bring the telescope down, the platform and the dome plummeted into the reflective dish in the early morning of Dec. 1. Households across Puerto Rico woke up to somber and teary news anchors who confirmed what was treated as a national tragedy. The sinkhole, once a cradle of cosmic revelations, became a graveyard of metal and cement. A cloud of brown dust rose among the verdant mogotes as it crashed, visible from nearby homes. One former observatory scientist who lives nearby said it sounded like an "avalanche" or a "train."

During its 57 years in operation, the Arecibo Observatory has been a point of pride and a springboard of professional opportunities for Puerto Ricans, as well as a global icon of culture and achievement. Its sudden collapse left the instrument irreparably damaged, and its destruction has had significant consequences.

(Source: [Miami Herald](#))