

News & Comments

Two Earth-like Planets Discovered

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Only 33 light-years from Earth is a planet system with two Earth-like planets.

Identified by NASA's Transiting Exoplanet Survey Satellite (TESS) in October 2021, this solar system - is the nearest to us, yet detected. Scientists have observed a periodic dip in the brightness of the star HD 260655, which is recently discovered to be due to orbiting planets crossing in front of its disk.

The announcement of this discovery is recently made at the 240th meeting of the American Astronomical Society, in Pasadena, California. The star HD 260655 is at a distance of 33 light-years from the Sun and is one of the closest known multiplanet systems. It appears to host a pair of exoplanets in orbit around it.

These 2 planets are interestingly the same in size as our Earth. Though both the planets don't appear to have life and have very high temperatures to allow water to exist as a liquid, both are bound in a tight orbit.

According to Kunimoto, and Michelle, the authors who presented the findings, the brightness of their star, makes these two planets the best targets for atmospheric studies. Do these planets have volatile-rich atmospheres? Are they home to water and carbon-based life? We should explore these planets to find out.

Nevertheless, both exoplanets may have atmospheres, which could be studied by the recently deployed James Webb Space Telescope, a mission whose objectives include peering into exoplanet atmospheres.

This discovery opened new doors for exploration as there could even be additional exoplanets orbiting the star that we haven't discovered yet. Some multi-planet systems, particularly those around the small stars host as many as 5 – 6 planets.

The team is optimistic to spot a habitable zone, with further exploration

KEYWORDS

Exoplanet, galaxy, keck observatory, metallicity, milky way, NASA, super-earth, TESS, thick disk, astronomy, astrophysics, exoplanets, Kavli Institute, HD 260655, planetary science, research, satellites, school of science, space

