

# Hot Jupiter is being torn apart by its host star

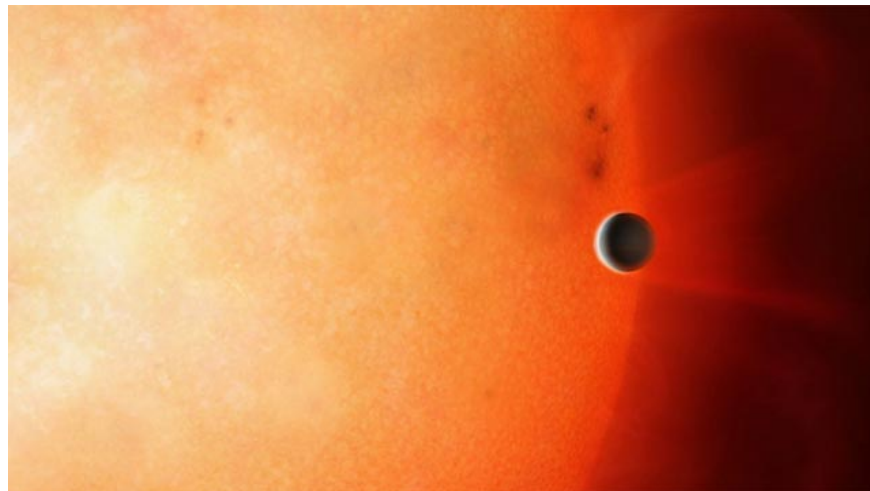
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Astronomers have just discovered a planet called NGTS-10b, possessing many similarities to Jupiter, both in shape and properties, orbiting the host star so close that a year on. This planet only lasts about 18 hours. Although it was only discovered a little while, its fate is predicted to be quite gloomy. NGTS-10b is 27 times closer to its parent star than the distance from Mercury to the Sun, and according to astronomers, this is a dangerous distance, causing NGTS-10b to be "torn apart". .

Located 1,000 light-years from Earth, NGTS-10b is a satellite of orange dwarfs 1060 light-years from Earth, also known as hot Jupiters. It possesses the shortest orbital period ever discovered for the same type of planet. Astronomers can now locate exoplanets using a method known as a 'transit method', in which people will measure the brightness of distant stars and rely on this parameter to looking for periodic luminance levels, which help identify a planet traveling through the space between its host star and the Earth.

'In theory, planets with short orbital periods (less than 24 hours) are most easily detected due to their large size and high-speed travel. However, such planets are extremely rare, 'said Dr. James McCormac from the Department of Physics at the University of Warwick in a statement.

Unlike the Earth that rotates on its own axis, NGTS-10b is locked, which means that one side of it is always directed toward the host star. Makes half of the planet's surface have temperatures above 1,000 degrees Celsius.



Astronomers have raised questions about how the planet lies so close to such a star, and the most reasonable assumption is that NGTS-10b was formed elsewhere and 'migrated'. to the current location. The common outcome of these planets is that they will eventually be "absorbed" or broken by its host star. The second scenario is probably the case with NGTS-10b because the gas planet is so close to its host star that scientists can

see its orbital decay over time.

It is predicted that NGTS-10b is about 10 billion years old, and in the next decade, the time to complete its rotation will be 7 seconds shorter, gradually moving in a spiral before being 'ripped apart' by the star after 38 million years.

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