

## **Exoplanet WASP-127b**

## Source: TH

Astronomers have discovered **extreme wind speeds of up to 33,000 km/h** on the **exoplanet WASP-127b**, a gas giant located about 520 light years from Earth.

 These winds move at around 6 times the speed of the planet's rotation, which is the fastest observed on any planet.

## WASP-127b

- About:
  - WASP-127b is an <u>exoplanet</u> (orbits a star outside the solar system) classified as a "hot Jupiter".
  - It is about 30% larger than <u>Jupiter</u> but only 16% of its mass, making it one of
  - the "puffiest" planets with a low density, but with extreme conditions.
- Orbit:
  - The planet orbits its star closely, completing an orbit every 4 days, resulting in extreme temperature differences between its day side (constantly exposed to stellar radiation) and its night side (perpetually in darkness).
- Atmosphere:
  - The atmosphere consists of hydrogen, helium, and traces of carbon monoxide and water. The day side temperature reaches 1,127°C, with the night side also heated by <u>stellar radiation</u> (Electromagnetic Radiation emitted by stars).

## **Exoplanet Types** Terrestrial Earth-sized or smaller, mostly made of rock and metal. Some could possess oceans or atmospheres and perhaps other signs of habitability. Neptune-Like Similar in size to our own Neptune and Uranus, with hydrogen or helium-dominated atmospheres. "Mini-Neptunes," not found in our solar system, are smaller than Neptune but larger than Earth. Super-Earth Typically "terrestrial," or rocky, and more massive than Earth but lighter than Gas Giants Neptune. They might or The size of Saturn or Jupiter, or much might not have atmospheres. larger. They include "hot Jupiters" - scorching planets in close orbits around their stars.

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