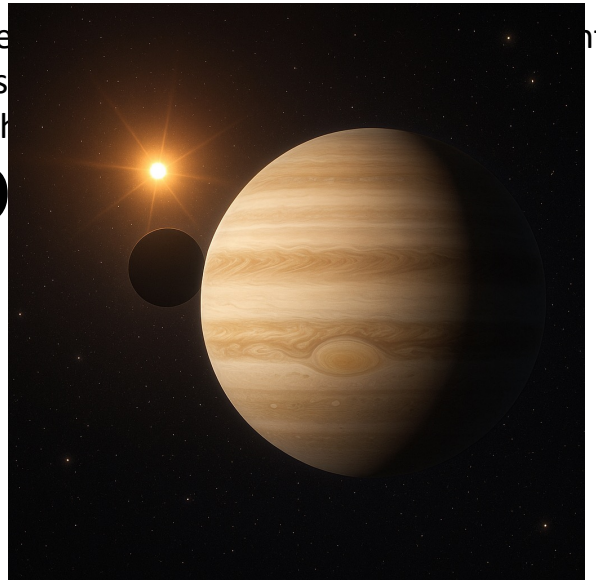
NASA’s Webb Images Cold Exoplanet

Exploring Epsilon Indi Ab

Astronomers used the James Webb Space Telescope to directly image e nt-years aw
Epsilon Indi Ab is one of the coldest exoplanets observed to date and is
The planet orbits the K-type star Epsilon Indi A and was imaged using th

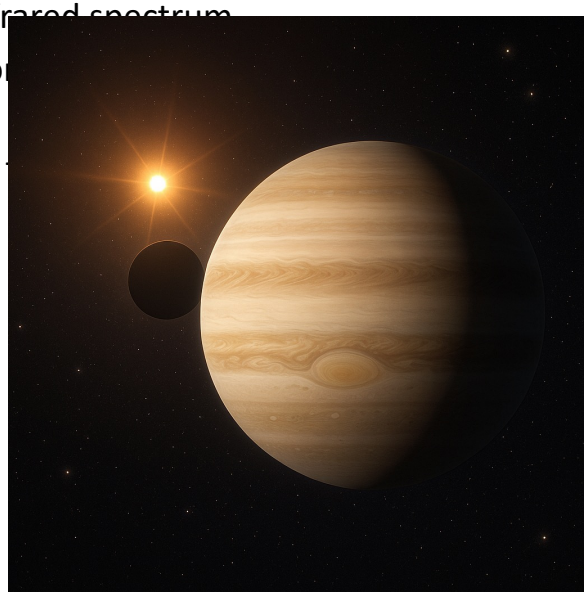
Introductio



[1]

A Solar System Analog

- Cold planets like Epsilon Indi Ab emit most of their light in the mid-infrared spectrum
- Webb's large mirror and MIRI instrument provide the spatial resolution
  from its host star.
- With a temperature of 35 °F (2 °C), the planet is about 180 °F warmer



[1]

Not Quite As Predicted

- Epsilon Indi Ab is the twelfth closest known exoplanet and the closest more massive than Jupiter.
- Radial velocity data suggested a planet, but the detected planet is more massive, farther from its star and on a different orbit than predicted.
- Its atmosphere may contain methane, carbon monoxide and carbon dioxide, absorbing shorter wavelengths and hinting at a cloudy atmosphere.

[1]