

# The First Circumbinary Planet Found by Microlensing

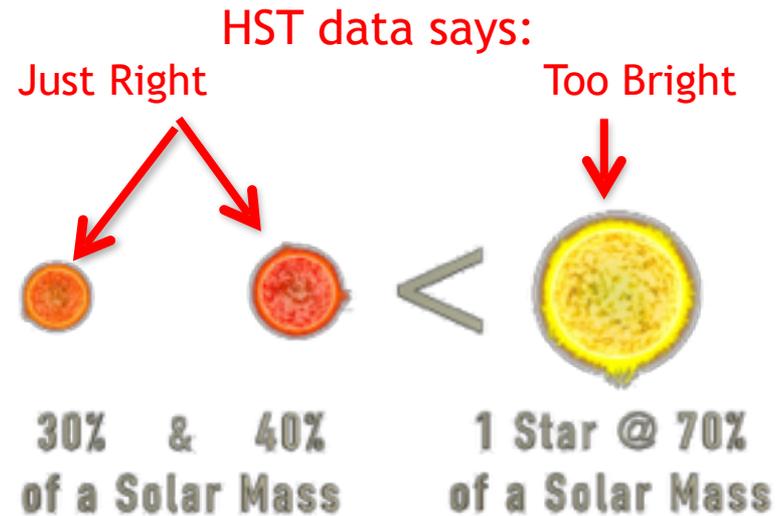
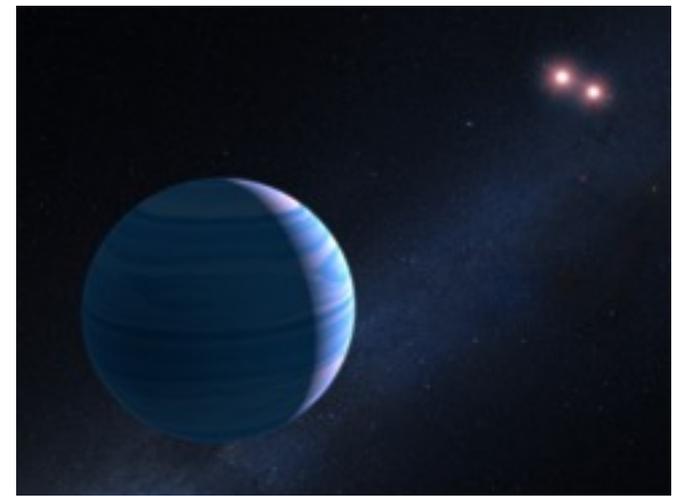
**What is the science question?** How diverse are planetary systems?

**What were your findings?**

- A Saturn-mass planet was found orbiting a pair of faint stars using microlensing—which happens when gravity from a foreground star bends and amplifies light from a background star when they align
- This is the first system of this type to be discovered by microlensing
- HST data separates background source and foreground lens system from unrelated stars and indicates that the lens system must consist of 2 stars and 1 planet.
- This is the widest separation circumbinary planet known.

**What was the impact?** This is the first circumbinary planet that orbits beyond the snow line (where planet formation is most efficient), indicating that circumbinary planets probably form the same way as planets orbiting a single star.

**Why does it matter to non-scientists?** Indicates the diversity of planetary systems.



**In Total Brightness**