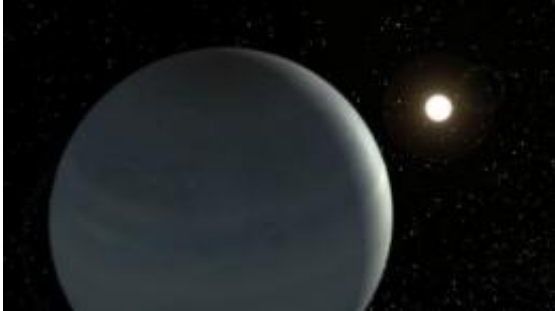


Volunteers to hunt for 'lost planets'

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Web users could spot 'lost' alien worlds

(PhysOrg.com) -- The public are being asked to help Oxford University astronomers find planets orbiting other stars which may have been 'lost' in the data from over 100,000 stars. Volunteers could even find 'Earth-like' alien worlds.

NASA's Kepler space observatory has been staring at the same patch of sky for 18 months sending back thousands of images of [stars](#). Now [planethunters.org](#) is inviting web users to search for dips in the brightness of these stars which might indicate an extra-solar planet ('exoplanet') passing between the star and us.

'The [NASA](#) team are starting with the most likely stars, and computers will detect many of these exoplanets automatically, but there's a good chance that some of these alien worlds are lost in the noisy data from Kepler,' said Dr Chris Lintott of Oxford University's Department of

Physics, who is leading the research team with scientists from Yale. ‘What we're hoping is that the human eye might be able to spot these lost worlds, rescuing [planets](#) that automatic techniques have missed.’

It is even possible that visitors to [planethunters.org](#) could find an Earth-like exoplanet, as the Kepler space observatory’s sensitive instruments make it one of the most likely ways we will be able to spot a small planet like our own.

The passage of a planet in front of another object such as a star is known as a ‘transit’. It is only by [volunteers](#) examining the brightness of thousands of images of stars over time that a transit which has gone undetected by computer, which may be evidence of an exoplanet, could be identified.

Dr Lintott said: ‘It’s tantalising to think that a volunteer using a website could be the first person to see ‘sunrise’ on a new alien world, maybe even a new Earth-like planet. We’ve already shown in other projects how much armchair astronomers can contribute to science but one of our users spotting a ‘lost’ exoplanet would be a fantastic achievement.’

The website, built by an Oxford team including Arfon Smith and Stuart Lynn, has a few tricks up its sleeve to test just how good human observers are.

‘We’ve hidden some real planets in the data to test our users who will be told if they’ve spotted them or missed them,’ said Arfon Smith of Oxford University’s Department of Physics, ‘hopefully this will reward our best planet hunters and help spur them on to find that elusive new exoplanet.’

Provided by Oxford University

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