

## By Jupiter!

UTAS scientists find new planet

UTAS scientists have discovered a brand new planet orbiting a distant star in our galaxy.

The discovery is part of a world-wide astronomy effort that involved amateur and professional groups. The Probing Lensing Anomalies Network, or PLANET project is a global network that has been monitoring the anomaly in the light from a distant star.

The University's Dr Stefan Dieters has been up at all hours watching the light from the star change with the microlensing techniques.

"If one star passes directly in front of a background star its gravity acts like a giant lens, magnifying the background star's brightness. There is a brightening and fading of the background star's light.

"These alterations in light are called microlensing events. They are rare: only 1 in 10 million stars monitored will have one, and they last only a few hours. So to find planets you need to intensively monitor these microlensing events," Dr Dieters said.

The discovery is only the second planet to be found using the microlensing technique.

Astronomers all over the world were watching the anomaly, but it was the UTAS team's data that provided the final proof.

"When our data was reported back to headquarters at the Paris Institute for Astrophysics, who are coordinating the project, everybody had agreed that the light curve could only be explained by a planet," Dr Dieters said.

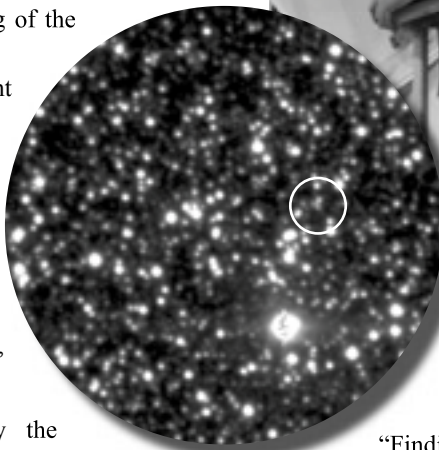
The microlensing method is the only technique capable of finding Earth mass planets.

"This discovery gives us great confidence that given some luck we can actually find an Earth mass planet," said Professor John Dickey, Head of Physics.



**STARS IN THEIR EYES:** Planet-watchers Dr Stefan Dieters and Dr Kym Hill at the University's Mt Canopus Observatory.

*(insert)* The first images of the new planet, affectionately known as "OB05-071A".



"Finding out how many stars have planets, and then how many have Earth mass planets will help to figure out how likely intelligent life is within our galaxy."

The planet is suspected to have a mass of three times that of Jupiter or about 1000 times the mass of the Earth. Like Jupiter it is a gas giant, and sits at much the same distance from its 'sun' as Jupiter.

So can we expect a planet called "UTAS" now?

Unfortunately not. The planet's name follows the naming convention for planets that orbit stars: the star name plus a letter. So this planet will be called the catchy "OB05-071A".

The planet is situated towards the centre of the Milky Way, in the direction of the constellation Sagittarius, between 15,000 and 25,000 light years away.

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