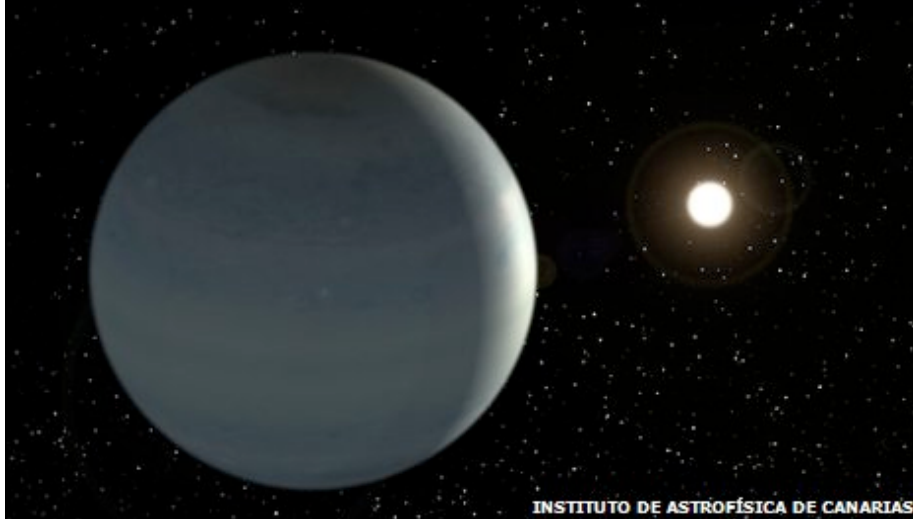


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New exoplanet like 'one of ours'

By Doreen Walton

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An artists impression of CoRoT-9b which was spotted by the CoRoT satellite

It is 1,500 light-years from Earth but CoRoT-9b is the first temperate planet found known to be similar to those within our own Solar System.

The presence of CoRoT-9b was detected by a space mission designed to find planets we cannot see from the ground.

"It is the size of Jupiter and has an orbit similar to Mercury," said lead researcher Dr Hans Deeg.

In the journal *Nature*, the scientists say it is the first planet of its type which can yield detailed information.

Eccentric orbits

More than 400 exoplanets, or planets outside the Solar System, have been discovered so far but Dr Deeg, who works at the Instituto de Astrofisica de Canarias in the Canary Islands, explained that the others have all been "exotic".

"They are either extremely hot, being very close to the central star on short orbits, or they are on eccentric orbits, taking them close to and far from the central star, giving them extreme temperatures."

CoRoT-9b has a temperate climate. "This is the first planet where it makes sense to apply the models developed for planets within our solar system," said Dr Deeg.

“ We expect this to be a reference object for the next decade ”

Dr Hans Deeg

The surface temperature is estimated to be between about -20 and 160 degrees Celsius.

Dr Deeg explained that although some of the exoplanets previously discovered were thought likely to be temperate it was not possible to confirm that or to find out much information about them.

The planet was discovered by an international team of 60 astronomers and identified using the "transit" method.

During its orbit of 95 days it passes in front of its central star, or transits, for about eight hours. "The transit method enables us to obtain much more information about it," explained Dr Deeg.

"We expect this to be a reference object for the next decade.

"We can derive its temperature as we know the distance to the central star and the type of central star it is."

A blue planet?

CoRoT-9b was spotted by the CoRoT satellite, which is a mission led by the French space agency, Centre National d'Études Spatiales. Its presence was then confirmed by observations from several telescopes from the European Southern Observatory, in Tenerife and at other sites.

"An analysis of the data from the satellite gives us the size and the data from the ground gives us the mass," explained Dr Deeg.

"We don't know the colour. It's likely that it has high atmosphere water clouds which might make it blue but that depends on the mixture of gases which we really do not know," he added.

The scientists say the discovery of the planet shows that the development history of our Solar System has been repeated around other stars.