

Calar Alto becomes an international benchmark in the search for exoplanets thanks to CARMENES

LOCATION: Calar Alto (Almería)

DURATION: 1'35"

SUMMARY: CARMENES is the name of a spectrograph created by an international consortium, which consists of Spaniards and Germans who have constructed an instrument to locate Earth-like exoplanets. It is unique because you can see both the visible and infrared range, with the highest accuracy available. The project puts the Calar Alto Observatory, based in Almeria, at the top of the international astronomy.

VTR:

The Calar Alto observatory becomes an international benchmark in the search for planets outside of the Solar System. The reason is that the spectrograph CARMENES, created by a German and Spanish consortium, has been installed in a three-and-a-half meter aperture telescope.

SANTOS PEDRAZ
Astronomy chief at Calar Alto

"The main goal of the project CARMENES is to detect stars in which the planets that orbit around them have a similar mass to Earth."

And it will do so precisely if the planets are in the so called livable zone, which means they are not too close or too far from the stars they orbit, having...

PEDRO AMADO
Head researcher CARMENES

"The appropriate characteristics to have liquid water on the surface of the planet, which is an essential condition to start searching for life."

What makes it unique in the world is that it captures both the visible and infrared range.

PEDRO AMADO
Head researcher CARMENES

"Our eyes are able to detect light in the visible range, however, the infrared is what we cannot see with our eyes."

With infrared, you will see M-type stars, which have the lowest temperatures and are the most abundant in the universe.

PEDRO AMADO
Head researcher CARMENES

"That planet's swaying when it orbits around the star is what we detect in the light that we receive from the star."

This will be the key to find them. The Institute of Astrophysics of Andalusia co-leads the project with Germany. Technology based in Andalusia at the top of international astronomy tries to answer the ancient question of whether or not life exists outside of our planet.