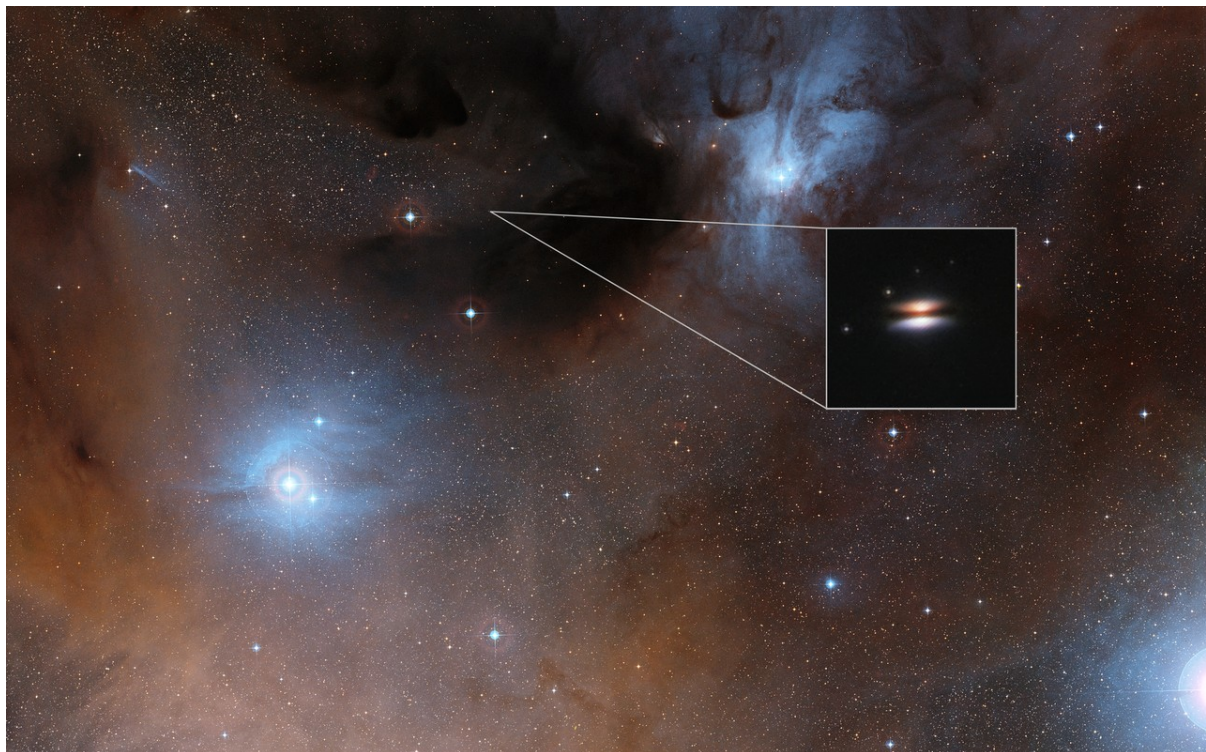




Baby Pictures of a Solar System

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Talk about your ultimate baby picture. Astronomers have snapped a new photograph showing new planets being born around a distant young star!

This spectacular space photo shows an area of space filled with new-born stars. The zoomed in section reveals a so-called “proto-planetary” disc surrounding the star. This disc of cosmic dust will one day form into planets. The familiar shape of this object has led to its nickname: the Flying Saucer.

Just 4.5 billion years ago our very own Earth was born from a similar disc. However, we still don’t understand exactly how these dusty rings transform into full-grown planets.

To help fill in the gaps, astronomers have been gathering as much information as they can on these planet-forming discs. Recently, they managed to measure the temperature of the dust grains inside a disc for the first time — the disc in this picture to be precise!

They measured a bitterly cold temperature of -266°C . Not only is that much colder than they'd anticipated but it's only 7°C above absolute zero. Absolute zero is the coldest temperature possible — there is literally nothing colder.

This result was a huge surprise to scientists. To grow so cold, the dust grains must be very different to what they expected. It means that all the explanations of how these discs change into planets now need to be rethought. Watch this space!

COOL FACT

Where is the coldest place in the Universe? Right here on Earth! The coldest temperature ever recorded was in a laboratory on Earth where the temperature dipped to a glacial -273°C (less than 1°C above absolute zero!). That's colder than empty space!

This Space Scoop is based on Press Releases from [ALMA](#), [ESO](#).
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