



## THE CHAMAELEON I COMPLEX

This impressive photo is based on exposures made with the multi-mode FORS1 instrument at the Cassegrain focus of the first VLT 8.2-m Unit Telescope (ANTU) in late January 1999.

It shows an area of the Chamaeleon I complex of bright nebulae and young stars in the constellation of the same name, close to the southern celestial pole. At a distance of about 500 light-years, it is one of the closest star-forming regions. Many of the stars in this field are only a few million years old. Some have variable brightness.

The colourful nebulosity contains small dust particles that reflect the light of the stars that illuminate them. The changing colours of the nebula are thus due to the different colours of the stars themselves. Being very young, many stars are still surrounded by circumstellar material. The bright star near the center is HD 97043, of 9th magnitude; it is twice as heavy as our Sun. The masses of the lightest members of the star-forming region that have been identified in this area have masses of only a few hundredths of that of the Sun; they are brown dwarfs, that is objects with insufficient mass to become real stars.

The FORS project is carried out under ESO contract by a consortium of three German astronomical institutes: the Heidelberg State Observatory and the University Observatories of Göttingen and Munich.

Technical information: The photo is a colour composite of six 1 min images in the V (yellow-green), R (red) and I (near-infrared) bands of two adjacent sky fields. The combined sky area is about 7 x 14 arcmin. North is up and East is left.

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