

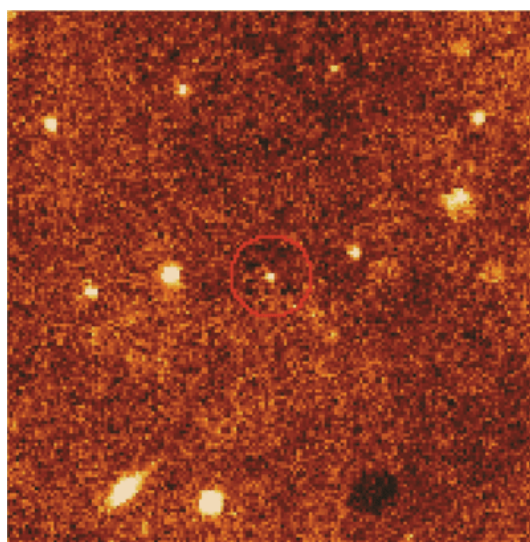
## HIGHLIGHTS: this week in A&A

Volume 508-2 (December III 2009)

### In section 7. Stellar structure and evolution

**"Young T-dwarf candidates in IC 348",** by A. S. M. Burgess, E. Moraux, J. Bouvier, C. Marmo, L. Albert, and H. Bouy, *A&A* 508, p. 823

Burgess et al. report the discovery of a young T-dwarf candidate in the star-forming region IC348 that may be the youngest, lowest mass object detected so far. They estimate its mass to be only a few times that of Jupiter.



### In section 6. Interstellar and circumstellar matter

**"Revealing the sub-AU asymmetries of the inner dust rim in the disk around the Herbig Ae star R Coronae Austrinae",** by S. Kraus, K.-H. Hofmann, F. Malbet, A. Meilland, A. Natta, D. Schertl, P. Stee, and G. Weigelt, *A&A* 508, p. 787

The authors report on 24 near-infrared (H- and K-band) spectro-interferometric observations on the bright, young Herbig Ae star R CrA, obtained with the VLTI/AMBER long-baseline interferometer. From the visibility function, they detect a highly asymmetric source with signatures of both an extended and a compact component, with the compact component contributing about two-thirds of the total flux (in both H- and K-bands). They try to interpret the data in the framework of several models and find that a circumstellar disk, including a curved puffed-up inner rim simultaneously, reproduces the measured visibilities and closure phases. From these models they derive the location of the dust sublimation radius, the disk inclination angle, and a north-south disk orientation. Perpendicular to the disk, two bow shock-like structures appear in the associated reflection nebula NGC6729, suggesting that the detected sub-AU size disk is the driving engine of a large-scale outflow.

