Astronomy & Astrophysics

HIGHLIGHTS: this week in A&A

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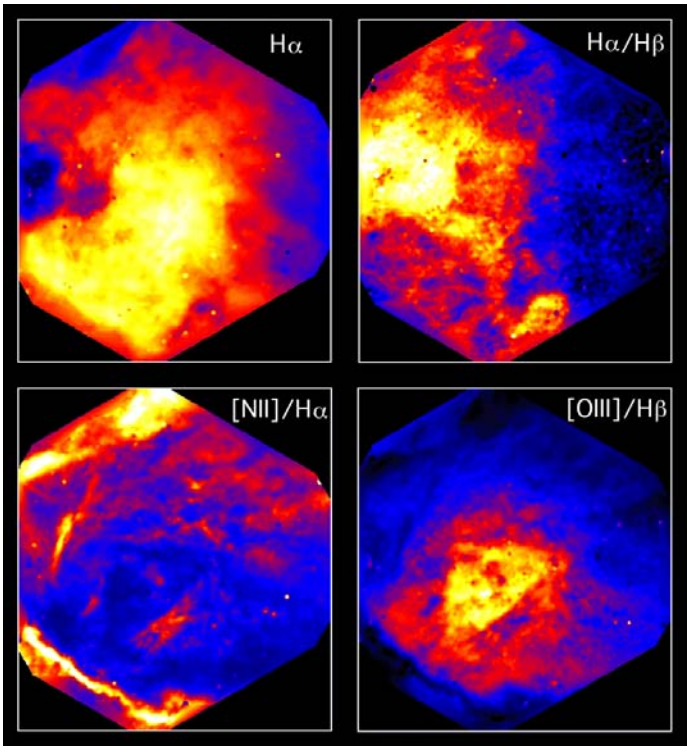
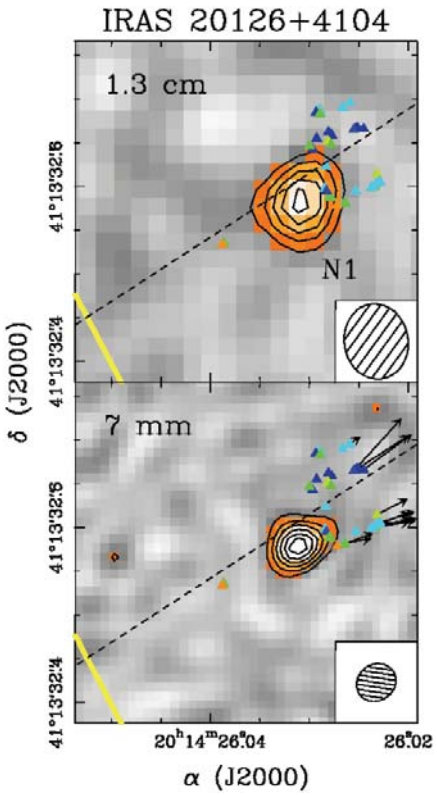
Spectroscopy survey of the Orion nebula

"PPAK integral field spectroscopy survey of the Orion nebula: data release" by S.F. Sanchez et al.
A&A 465, p. 1049

This paper presents a low-resolution spectroscopic survey of the Orion nebula. The observations were carried out in November 2004, at the 3.5m telescope of the Calar Alto observatory with the Potsdam MultiAperture Spectrograph, PMAS, in the PPAK mode. The final dataset comprises 8182 individual spectra, covering the optical wavelength range (~3700-7100Å). The field-of-view of the survey is of ~5'x6' centered on the Trapezium area of the Orion nebula. The maps are used to chart the distribution of ionized hydrogen and dust extinction as well as the physical parameters of the nebula.





VLA observations of IRAS 20126+4104

"Sub-arcsecond resolution radio continuum observations of IRAS 20126+4104" by P. Hofner et al. A&A 465, p. 197

This paper presents high spatial radio (VLA) observations of IRAS20126+4104 from which the authors attempt to derive the location and properties of the ionizing star and of the surrounding medium. IRAS20126+4104 is perhaps the best nearby example of a proto B-star and it is thus extremely important to understand the structure of the outflow and disk emanating from the young embedded protostar.

In section 4. Extragalactic astronomy

"Clumpy stellar winds and the obscuration of active galactic nuclei" by S. Nayakshin and J. Cuadra.
A&A 465, p. 119

This paper presents new interesting results and simulations on the formation of the obscuring "torus" in active galactic nuclei. Some AGN are hidden by gas and dust located on the line of sight. The existence of a molecular torus close to the black hole has been suggested to explain this. In many cases, this obscuration is variable. The authors aim at explaining the torus as the result of clumpy stellar winds created close to the central black hole. They show that star formation could drive clumpy gas outflows, which could nicely explain the observations.