

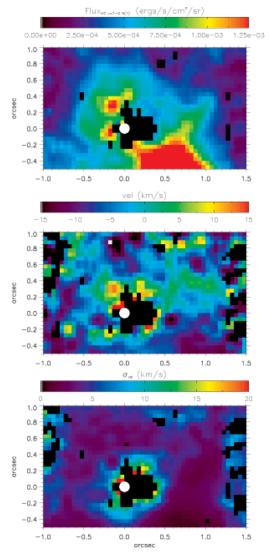
HIGHLIGHTS: this week in A&A

Volume 488-1 (September II 2008)

In section 6. Interstellar and circumstellar matter

"Spatially resolved H₂ emission from the disk around T Tauri N", by M. Gustafsson, L. Labadie, T. M. Herbst, and M. Kasper, A&A 488, p. 235

Gustafsson et al. present a very interesting study of H_2 emission around T Tauri N. H_2 emission close to young stellar objects is usually related to an outflow, but rarely ever attributed to a disk as convincingly as demonstrated here. For the first time, H_2 emission is spatially resolved to within 100 AU of this well-known star. Both the morphology and kinematics suggest that the H_2 ring originates in an almost face-on circumstellar disk. The authors argue convincingly that the emission originates in shocks produced by a low-velocity poorly-collimated wind incident on a flared disk.



In section 1. Letters to the Editor. Sub-Sect. 13. Astronomical instrumentation

"Wavefront error correction and Earth-like planet detection by self-coherent camera in space", by R. Galicher, P. Baudoz, and G. Rousset, A&A 488, p. L9

The significant contrast between an extrasolar planet and its immensely brighter host star is the main challenge faced by direct imaging of extrasolar planets. This study attempts to reduce the residual speckles that limit the imaging dynamic range by careful monitoring of the wavefront. This method uses spatial modulation to create fringes, which are then easily detected by Fourier filtering of the image, in contrast to previously proposed methods that use temporal modulation of the wavefront to identify residual speckles. A convergent iterative scheme then corrects the wavefront with a deformable mirror.