

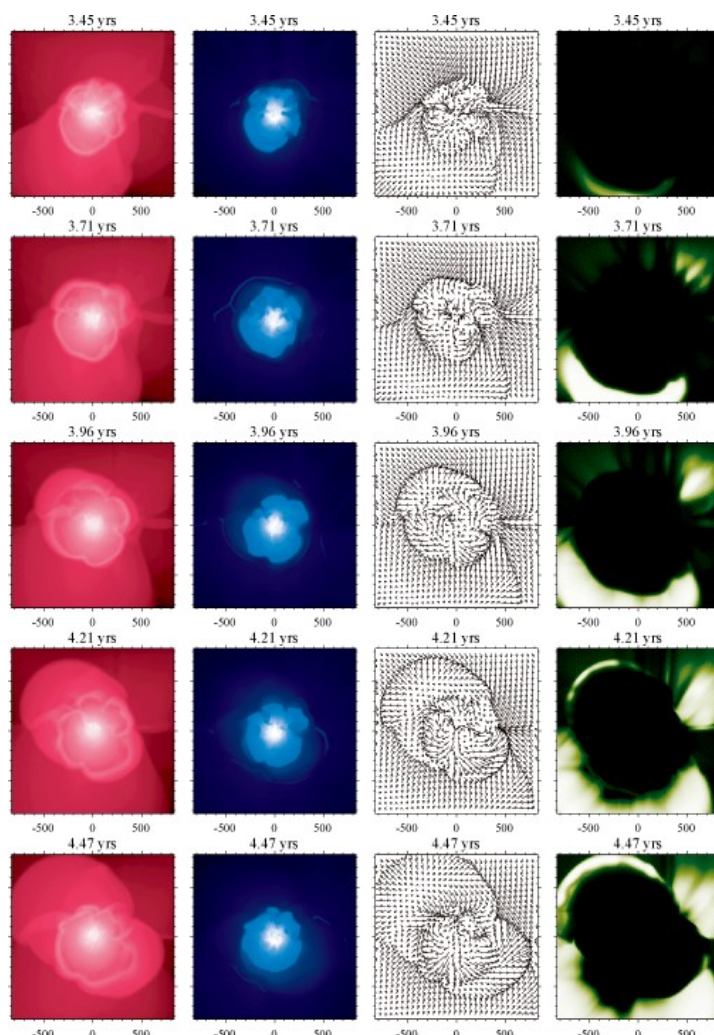
HIGHLIGHTS: this week in A&A

Volume 483-2 (May IV 2008)

In section 8. Stellar atmospheres

"Three-dimensional simulations of the atmosphere of an AGB star", by B. Freytag and S. Höfner, *A&A* 483, p. 571

This paper presents the first 3D hydrodynamical simulations of the atmosphere and the interior of an AGB star. The models self-consistently include the important convection and pulsation that are the basic drivers of dust condensation and thus of the stellar wind. They reveal new observable 3D structures in AGB envelopes, and gauge the validity of equivalent 1D calculations.



In section 1. Letters

"The B-type giant HD 271791 in the Galactic halo. Linking run-away stars to hyper-velocity stars", by U. Heber et al., *A&A* 483, p. L21

Hyper-velocity stars are stars that travel so fast that they are unbound to the Galaxy, and the only mechanism that seems capable of accelerating them is interaction with a super-massive black hole (SMBH), leaving the Galactic center as the only suggested place of origin. The authors have identified a new hypervelocity star that could not have originated in the Galactic center, because of both the direction of its motion and its short lifetime and its position in the outer Galaxy. This demonstrates the need for a new acceleration mechanism for hypervelocity stars.