

HIGHLIGHTS: this week in A&A

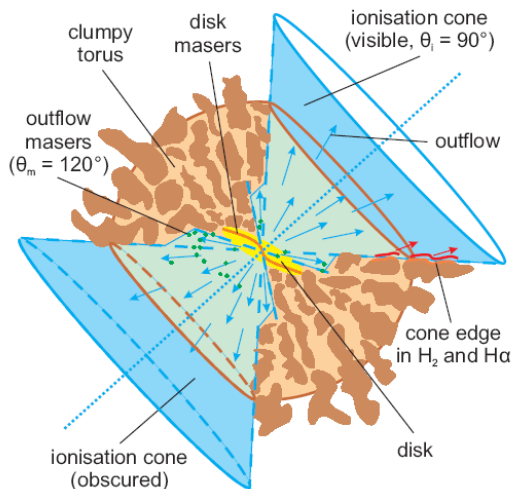
Volume 474-3 (November II 2007)

In section 4. Extragalactic astronomy

“Resolving the complex structure of the dust torus in the active nucleus of the Circinus galaxy”

by K.R.W. Tristram, K. Meisenheimer, W. Jaffe, et al., *A&A* 474, p. 837

This paper presents high-spatial resolution observations of the nuclear dust distribution in the Circinus galaxy, obtained in the mid-infrared range, with the MIDI interferometric instrument at the VLT. The high enhancement of resolution has allowed the two dust components to be distinguished: a small dense and warm disk of size 0.4 pc, embedded in a 2 pc thick torus. The central disk is perpendicular to the outflow and ionisation cone of the AGN and aligned with the maser accretion disk. The torus is clumpy and filamentary, and it collimates the flow, as expected in the unified model of active nuclei.

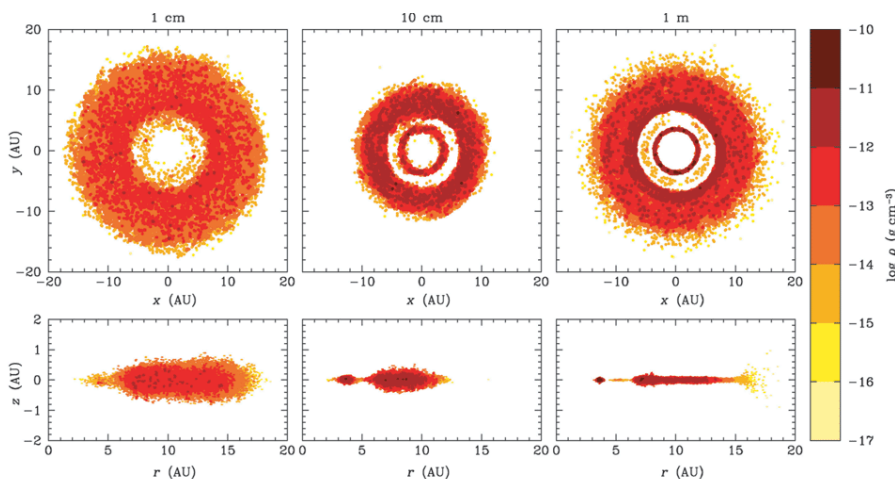


In section 10. Planets and planetary systems

“The effect of a planet on the dust distribution in a 3D protoplanetary disk”

by L. Fouchet, S.T. Maddison, J.F. Gonzalez, and J.R. Murray, *A&A* 474, p. 1037

Using smoothed particle hydrodynamics, the authors investigate the behaviour of dust in protoplanetary disks in the presence of a planet to study the effect of the gap opened in the disk by the planet on subsequent planetesimal growth within the dust layer. They find in particular that gap formation is much more rapid in the dust layer than in the gaseous disk and that a system with a given stellar, disk, and planetary mass will have a very different appearance depending on the grain size.



In section 1. Letters

“AMBER and MIDI interferometric observations of the post-AGB binary IRAS 08544-4431: the circumbinary disc resolved”

by P. Deroo, B. Acke, T. Verhoelst, et al., *A&A* 474, p. L45

ESO recently published a press release based on these results. It is available at:

<http://www.eso.org/public/outreach/press-rel/pr-2007/pr-43-07.html>