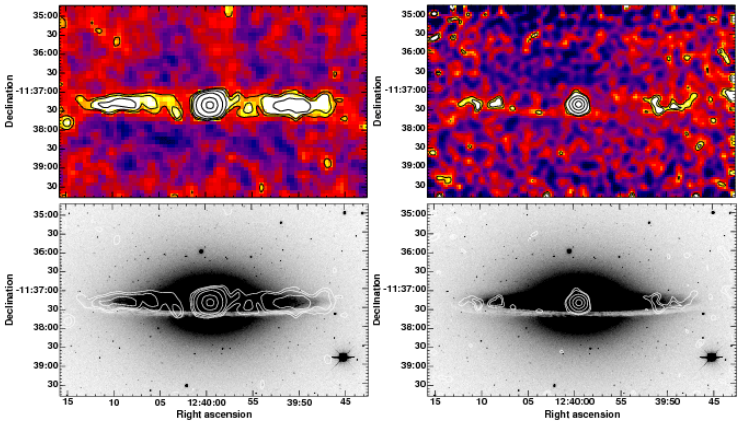
Astronomy & Astrophysics

HIGHLIGHTS: this week in A&A

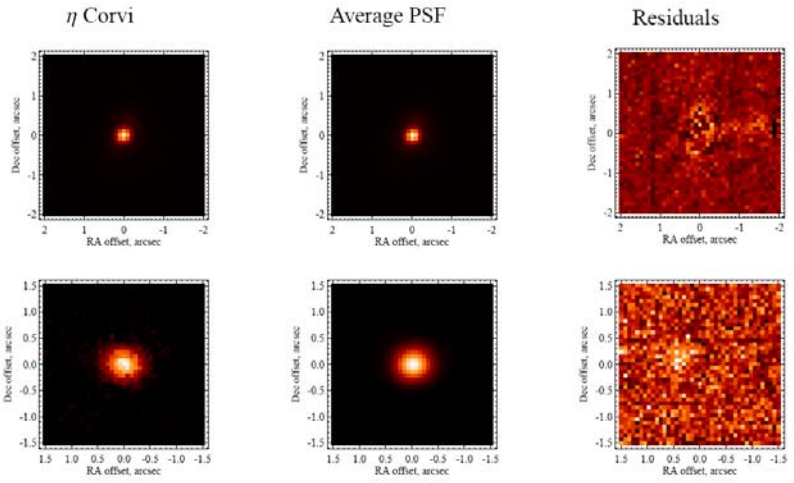
Volume 485-3 (July III 2008)



In section 1. Letters

"LABOCA and MAMBO-2 imaging of the dust ring of the Sombrero galaxy (NGC 4594)", by C. Vlahakis, M. Baes, G. Bendo, and A. Lundgren, A&A 485, p. L25

The APEX telescope with the LABOCA bolometer, together with the IRAM-30m telescope and MAMBO, have mapped the spectacular dust ring in the Sombrero Galaxy for the first time in millimeter. This allows derivation of the temperature of the dust, 18.4K, and the mass of the gaseous ring, compatible with previous estimations at other wavelengths.



In section 10. Planets and planetary systems

"The nature of mid-infrared excesses from hot dust around Sun-like stars", by R. Smith, M.C. Wyatt, and W.R.F. Dent, A&A 485, p. 897

Most debris disk phenomenon are analogous to the Edgeworth-Kuiper Belt. However a rare subset of sun-like stars possess dust which lies in the terrestrial planet region. The authors determine how many sources with apparent mid-infrared excess are truly hosts of warm dust and investigate the dust location. They confirm the presence of warm dust around eta Corvi, HD145263, and HD202406. Modeling constrains the dust to regions smaller than 3.5 AU for eta Corvi and to regions smaller than 80-100AU for HD145263 and HD202406. Several systems have a companion (HD65277 and HD79873) or background object (HD53246, HD123356, and HD128400) that appears responsible for their mid-infrared excess.