

envelope of dust and gas. Due to their small angular extent, only little is known about the spatial structure of these envelopes. Using MIR cameras such as MANIAC, the emission of the warm dust particles located in the inner part of the dust shells can be spatially resolved. During the October 1996 observing run, a total of 5 objects have been searched for extended emission in the N and Q-bands; these data are in the process of being analyzed. As an example, we show in Figure 2 images of the post-AGB object IRAS 07134+1005. Extended emission is clearly seen in both images. Earlier results of this object have been published by Kömpe et al., 1997. We plan to compare the N and Q-band images with data at longer wavelengths and with the results of radiative transfer calculations modelling the spectral energy distributions of the objects.

Starburst Galaxy NGC 7552

One of the primary scientific goals for MANIAC are observations of galactic nuclei and their physical properties. As an example for the kind of data MANIAC can provide, we present in Figure 3 the N-band continuum image of NGC 7552, a southern barred spiral of Hubble type SBbc(s). Barred spirals very often show rings of molecular gas that are believed to form because of dynamical resonances between the orbiting molecular gas and the non-axisymmetric potential of the stellar bar. These so-called Lindblad Resonances often are the site of massive star formation and contain large amounts of warm dust. Our N-band image shows that the ring structure consists of various emission patches, presumably giant molecular clouds that are rotating around the dynamical centre. Such MIR data add important information to the detailed photometric and spectroscopic analysis of the central regions of galaxies. The goal is to develop reliable age determination methods for individual regions and to derive the evolutionary history of galactic nuclei. For the case of NGC 7552, this has been demonstrated in Schinnerer et al., 1997.

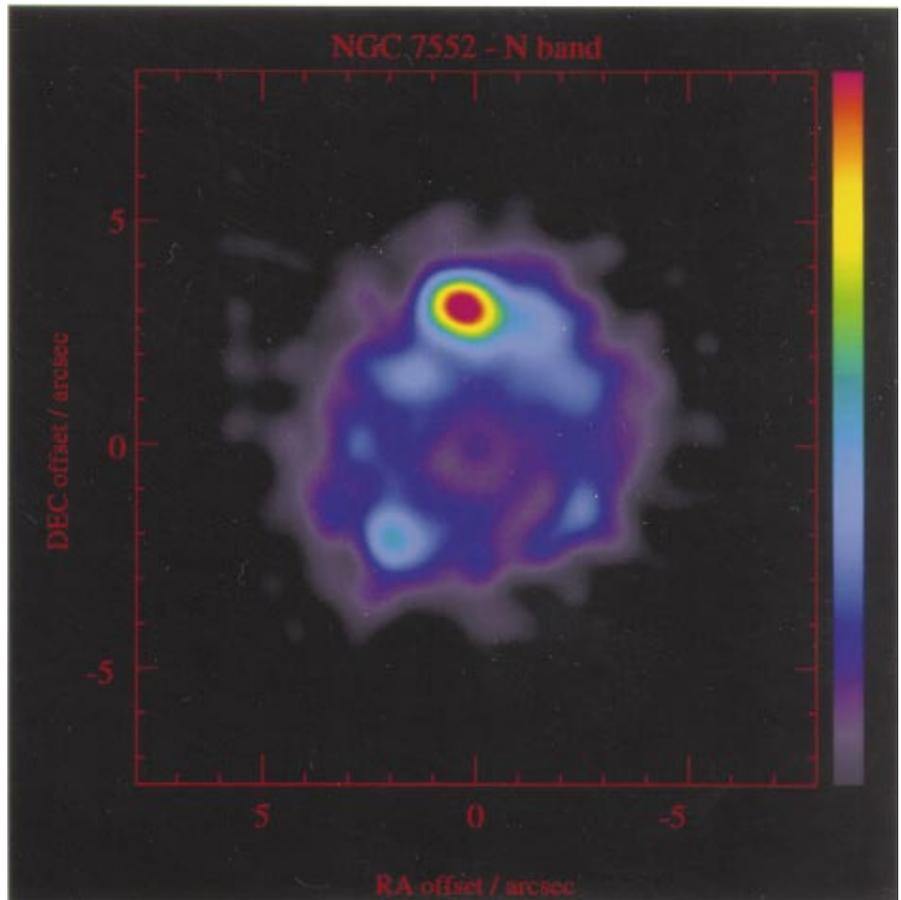


Figure 3: Star formation at the central region of the galaxy NGC 7552. Note that the integrated flux of the starburst ring in the N-band is only about 2.5 Jansky.

Acknowledgement

Commissioning a new instrument at any telescope is always a bit of a challenge. Both runs would certainly not have been so successful without the big efforts of the La Silla staff. We like to thank very much the 2.2-m Telescope Team for their support and for opening the telescope to daytime observation. Special thanks to the whole Infrared Group for all kinds of help, for their enthusiasm, and for many discussions.

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SOFI at the NTT

SOFI is currently being integrated in Garching with the goal of installing and commissioning it at the NTT by March 1998 and making it available to Visiting Astronomers in Period 61. This new instrument is a 1–2.5 μm imager/spectrometer which will offer:

- broad- and narrow-band imaging with a choice of pixel scales and maximum field of $5 \times 5'$
- polarimetry using a Wollaston prism
- long-slit grism spectroscopy at $R_s \sim 500$
- cross-dispersed echelle spectroscopy at $R_s \sim 4000$

Please check the ESO Web Site in July for further details on the capabilities of SOFI and information about its status and the Call for Proposals.

A. MOORWOOD, Garching, April 1997