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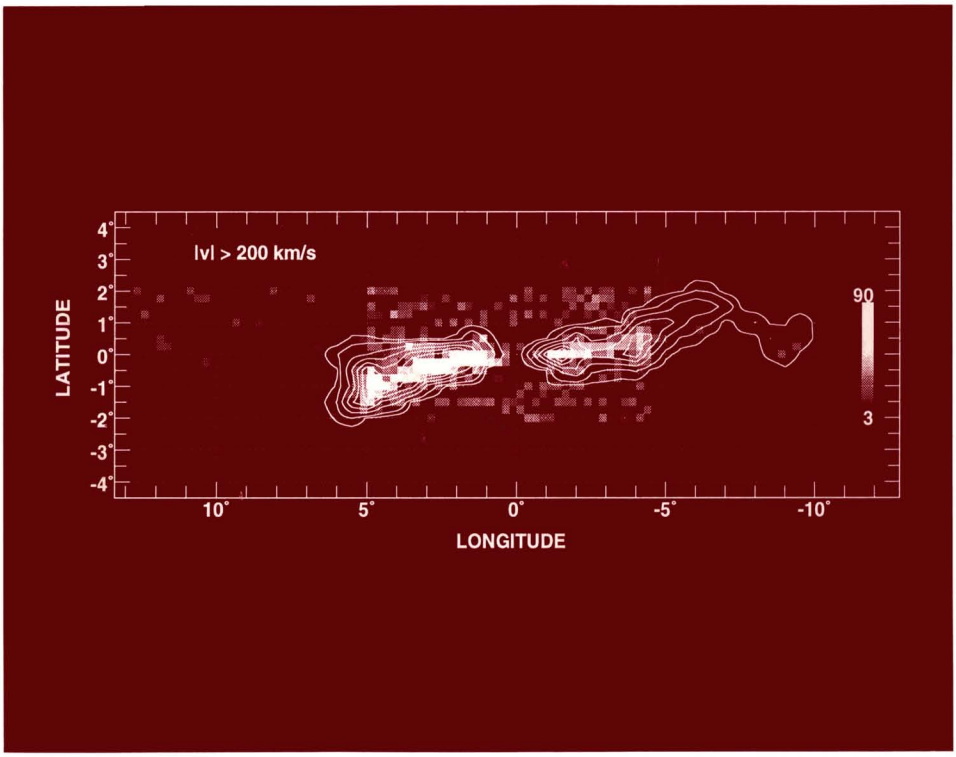
UNSOLVED PROBLEMS OF THE MILKY WAY

Edited by LEO BLITZ and PETER TEUBEN



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CONTENTS

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COLOR PLATES

https://doi.org/10.1017/S0074180900230660 Published online by Cambridge University Press

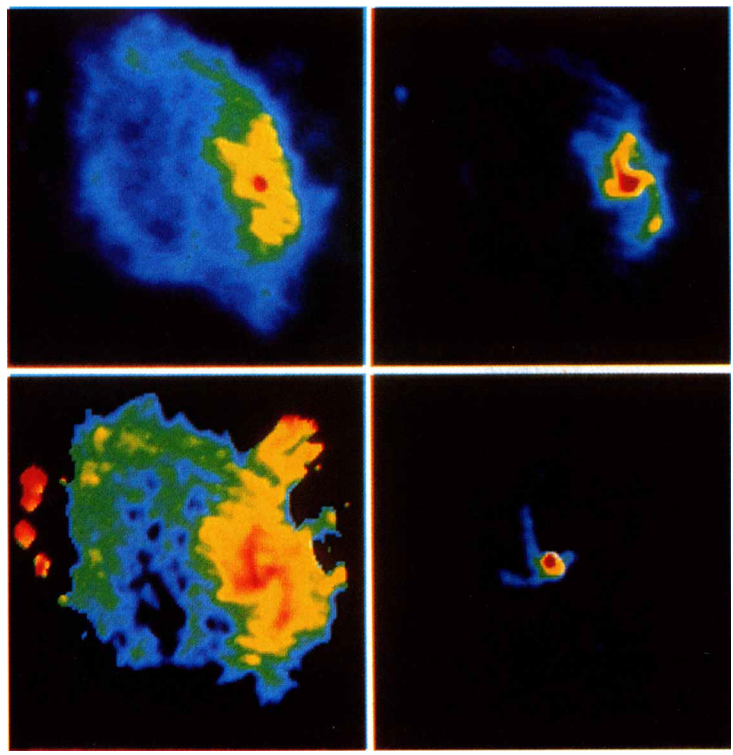

Figure 1. Radio continuum maps from the VLA of the central 10×10 pc^2 of our galaxy. Lower left: Spectral index map from images at 20 and 6 cm with 8 arcsec resolution. The blue region represents synchrotron radiation, the yellow and red various intensities of free-free thermal emission. Upper left: 20 cm image with 8 arcsec resolution. Upper right: 6 cm image. lower right: 2 cm image, resolution 4 arcsec. (Courtesy Ekers, R.D., Schwarz, U.J., Goss, W.M., and van Gorkom, J.H.).

(Figure belongs to the article by C.H. Townes, page 149)

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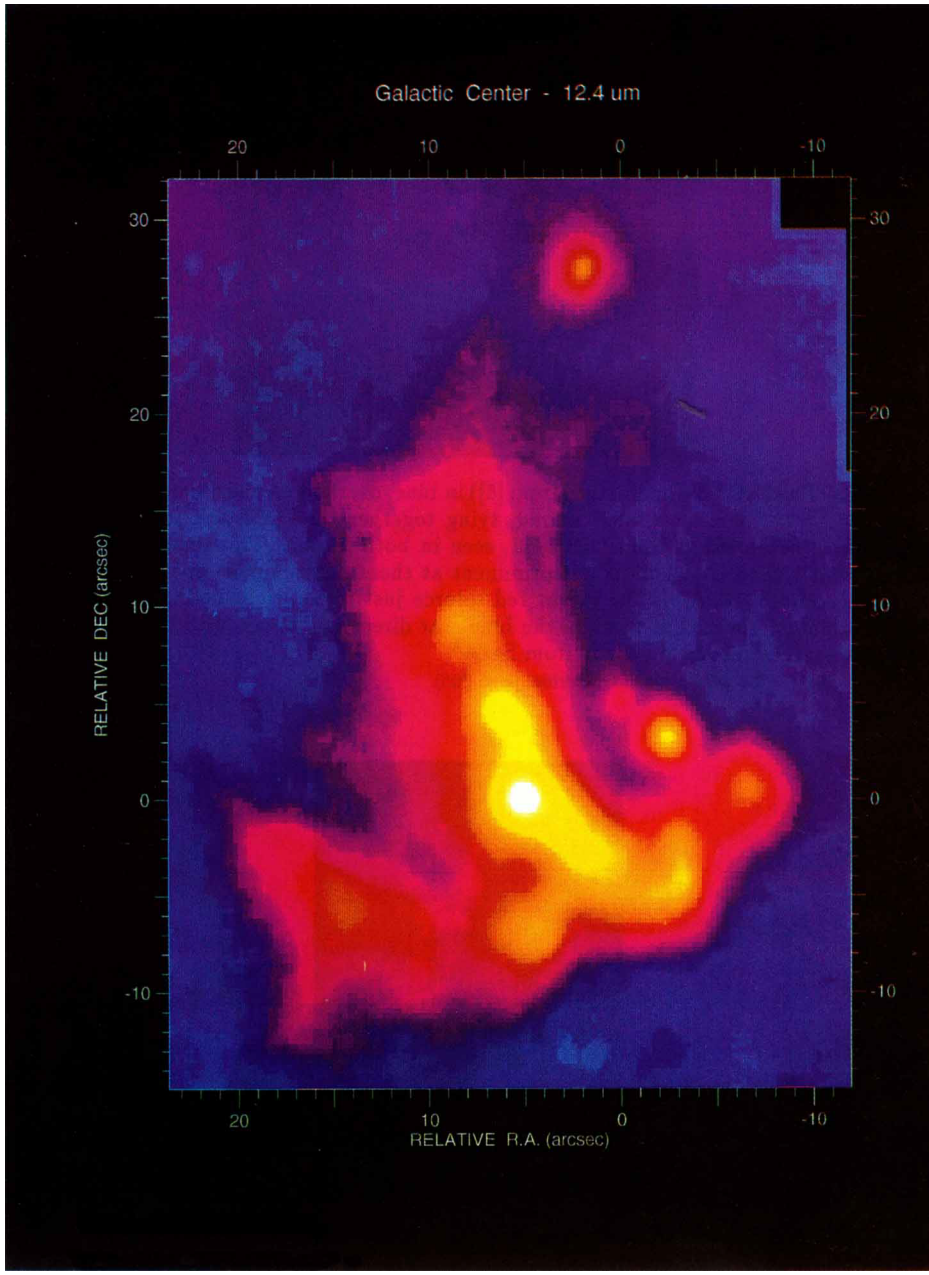

Figure 2. 12.4 μm continuum mosaic of the central 2 pc of the Galactic Center Sgr A West complex obtained with the 58 x 62 array camera (Gezari et al. 1992) at the 3-m NASA/IRTF Telescope at Mauna Kea. The intensity display is logarithmic to show details in regions of extended faint emission. The mosaic was assembled from 50 overlapping 1 min integration frames (15 x 16 arcsec field of view, pixel size 0.26 arcsec) which were aligned, matched and coadded to make up the final mosaic. Positions are measured relative to Sgr A*. The strongest infrared emission is very similar to the ionized gas distribution observed in 2-cm and 6-cm VLA maps of the region.

(Figure belongs to the article by D. Gezari et al., page 231)

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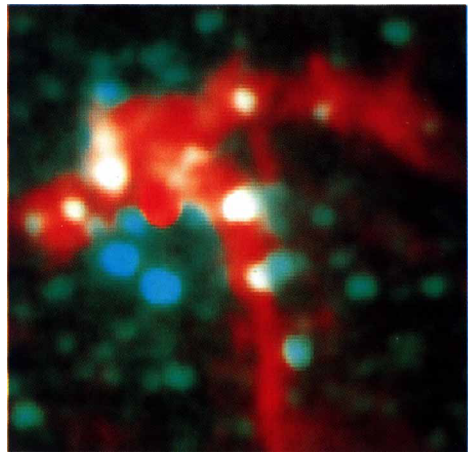

Figure 3. The IRPS 3.8μm image (from [5]) in blue, overlaid on the 6-cm radio continuum image of Lo & Claussen (1983) in red, tying together the radio and infrared reference frames via the emission from IRS 2/13, seen in both frames. This image demonstrated clearly that IRS16-C (which is not priminent at these wavelengths) and SgrA* were two separate sources. SgrA* is the rbight red soiurce just to the right of the center and IRS 7, the brightest sources at 2μm, is the blue star directly above it. IRS 2/13 are the pair of white sources just below right from SgrA*
(Figure belongs to the article by M.G. Burton, page 205)

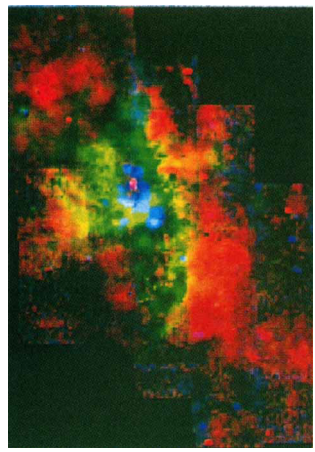

Figure 4. An image of the hot stars and gas in the centeral 2 parsecs of the Galaxy, obtained with the method of spectroscopic drift scanning of IRIS (from [8].) Blue denotes emission from a HeI line at 2.06μm, and shows a cluster of a dozen massive stars in the nucleus. They are surrounded by the ionized ghas ofthe radio "mini-spiral", here seen in green through the ermission of hydrogen Brγ at 2.17μm. Surroudning the ionized cavity is a hot clumpy molecular ring, seen in red through the light of molecular hydrogen at 2.12μm.
(Figure belongs to the article by M.G. Burton, page 205)

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