

ues of the 4000 Å break amplitudes are mainly due to present or recent star formation, or dilution by the continuum of an active nuclear region (Dressler and Shectman 1987). Spectra of galaxies extracted from the same MOS exposure are shown in Figure 5.

Examination of blue images of cluster Cl 2 shows an elongated feature near two large elliptical galaxies (Fig. 6). In the V band, the images of the northern galaxy and of this possible arc-like structure are blended. The B band, that corresponds roughly to ultraviolet wavelengths in the rest frame of the cluster, is well suited to register arc structures located near an old-populated elliptical galaxy. The present structure is bluer than most cluster galaxies and, in that sense, is similar to other discovered giant arcs (Soucail et al. 1988, and further references therein).

The proximity of two large galaxies, probably interacting, suggests an interpretation in terms of enhancement of star formation. On the other hand the compactness of the cluster would be favourable to the observation of gravitational lensing phenomena. High resolution imaging in subarcsec seeing and spectroscopy are needed to pursue these possibilities.

Results based on the photometry of these cluster and on first spectroscopic measurements will be published in forthcoming papers.

### Acknowledgements

I would like to express my thanks to ESO for the observing time allocated to the project, to Dr. H. Corwin for communication of his list of clusters, and to Dr. H. Arp for his suggestions. I thank Dr. P. Magain for the introduction at the various modes of EFOSC.

### References

- Butcher and Oemler, 1978, *Ap. J.*, **219**, 18.  
de Lapparent, Geller and Huchra, 1986, *Ap. J.*, **302**, L 1.  
D'Odorico and Dekker, 1986, in ESO-OHP Workshop: The Optimization of the Use of CCD detectors.  
Dressler and Shectman, 1987, MWLCO preprint.  
Gunn and Gott, 1972, *Ap. J.*, **176**, 1.  
Gunn, Hoessel and Oke, 1986, *Ap. J.*, **306**, 30.  
Hamilton, 1985, *Ap. J.*, **297**, 371.  
Hammer and Nottale, 1986, *Astron. Astrophys.*, **167**, 1.  
Hoessel and Shneider, 1985, *A. J.*, **90**, 1648.

Soucail et al., 1988, *Astron. Astrophys. Letter*, in press.

Turner et al., 1986, *Nature*, **321**, 142.

Weinberg, 1976, *Ap. J.*, **208**, L1.

## STAFF MOVEMENTS

### Arrivals

#### Europe:

- GUIRAO SANCHEZ, Carlos (E), Associate  
LONGINOTTI, Antonio (I), Fellow  
RUPPRECHT, Gero (D), Physicist-Astronomer  
WEIGLE, Renate (D), Secretary/Administrative Assistant to the Director General

#### Chile:

- GREDEL, Roland (D), Fellow

### Departures

#### Europe:

- MATTEUCCI, Maria Francesca (I), Fellow

### Transfers

- MELNICK, Jorge (RCH), Associate (from Europe to Chile)



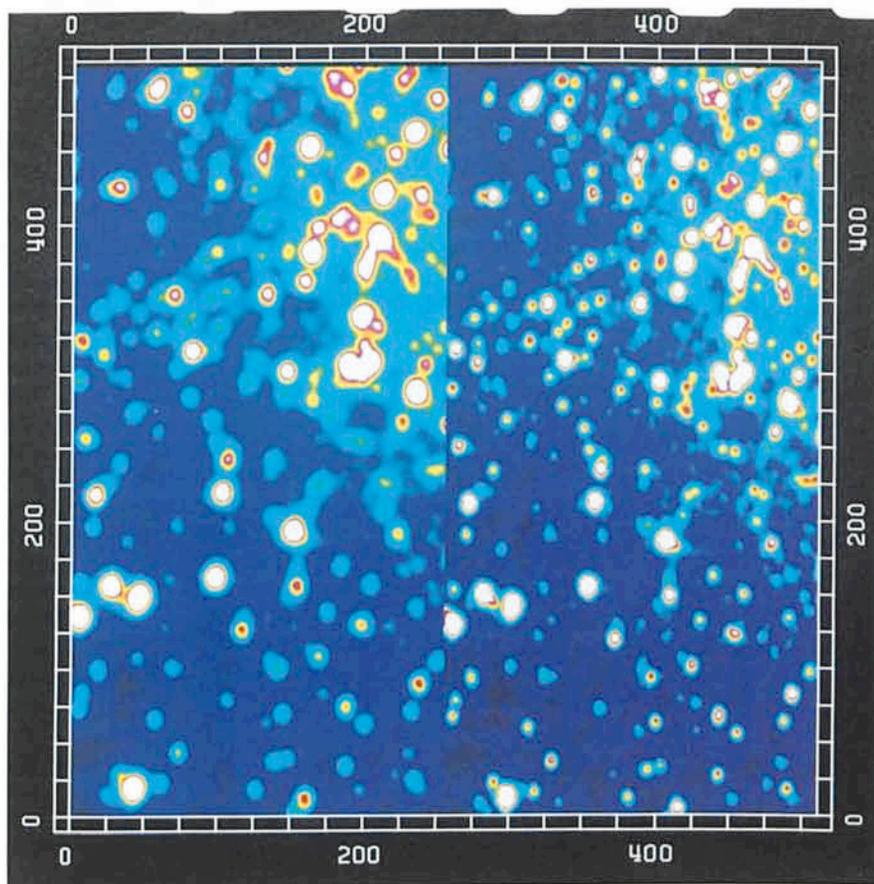
## Wirtschafts-Attaché-Club Bayern Visits ESO Headquarters

On November 25, 1987, a visit was paid to ESO by the Wirtschafts-Attaché-Club Bayern, headed by Mr. P. Grillet from the Belgian General Consulate. The commercial attachés from more than 15 countries were given a general introduction to ESO and an overview of the scientific and technological research carried out at this organization. After the formal session in the auditorium during which many questions were asked, in particular about the VLT project, a light lunch was served, later to be followed by a tour of the Headquarters. The photo was taken in the foyer, at the moment of arrival of the officials.

# First Observing Run with DISCO was Successful

F. MAASWINKEL, S. D'ODORICO, F. BORTOLETTO, B. BUZZONI, B. GILLI, C. GOUIFFES, G. HUSTER, and W. NEES, ESO

The Direct Image Stabilized Camera Option DISCO was tested for the first time from 29 November to 5 December at the 2.2-m telescope with a CCD camera. The instrument was described in *Messenger* 48, p. 51. It comprises a new adapter for the 2.2-m telescope with a newly designed XYZ offset guider. It offers the possibility to observe at the conventional f/8 focus, or alternatively at an f/20 focus. In the latter mode it is possible to correct the motion of the astronomical image 50 times per second. DISCO was mounted at the telescope with the precious support of the TRS group and operated without problems from the first night. The aim of the run was in particular the test of the image correction system (fast tilting mirror, ICCD camera, VME based micro-processor). As had been expected, the system gave only minor improvement in mediocre seeing conditions; during very good seeing, however, it provided a rather impressive image improvement. As an illustration, Figure 1 shows a comparison of two exposures of 47 Tuc made *without* (left picture) and *with* (right picture) image stabilization. The exposure time was 45 sec for both and a red gunn filter ( $\lambda_c = 668$  nm) was used. The stellar image diameters without stabilization were 1".2 FWHM, with stabilization 0".9 was achieved. Thanks to the superior light concentration the stabilized image reveals more details and reaches fainter magnitudes. During part of a night the seeing was so good



that it was possible to improve the FWHM of the stellar images in long integrations from 0".85 (non-stabilized) to 0".66 (stabilized). The possibility to switch remotely in a few minutes from the f/8 to the f/20 mode was found

particularly useful, as the seeing was observed to change on a rather short timescale ( $\sim 1$  hour).

A more detailed report on this test will be given at the Very Large Telescope Conference at ESO in March.

## New Operational Limits for 1.5-m Danish Telescope

A 14.5 cm thick spacer ring has been installed between the mirror cell and the instrument adapter. Its purpose is to eliminate residual spherical aberration. Recently analysed Schack-Hartman tests have shown the correction to be complete.

The longer focal length of the telescope has changed the focal plane scale from 16.07 to 15.83  $\pm$  0.02 arcsec/mm.

Unfortunately, the extra length below the mirror cell implies restrictions for the use of certain pieces of auxiliary equipment, in addition to those described in ESO Users Manual No. 3 "Danish 1.5-m telescope and Auxiliary equipment",

pages 4–7. Observers are urged to take these into account, when planning their programme.

As the telescope can be used either west or east of the base, there are two sets of limits; they are however symmetric. Telescope operation west of the base has the advantage that tracking (but not presetting) can be done into part of the "danger" zone; the observer may override a first warning signal.

The inaccessible corner for the CCD camera is h.a.  $> +01 : 10$ , decl.  $< -47$  (telescope west) and h.a.  $< -01 : 10$ , decl.  $< -47$  (telescope east). In the west position, tracking is allowed to decl.  $-53$ , for h.a.  $> +01 : 10$ . It is not fea-

sible to reverse the telescope during the night, as the CCD electronics would have to be disconnected.

For Coravel, the corner is at h.a.  $> +00 : 10$ , decl.  $< -43$  (west) and h.a.  $< -00 : 10$ , decl.  $< -43$  (east). These limits appear more restrictive than those mentioned above. However, the control cable for the Coravel permits the observer to reverse the telescope at night. Objects which are inaccessible from one side of the base, can therefore be observed from the other.

A two-channel and a six-channel photometer have limits which are rather similar to those of the CCD camera, and telescope reversal is possible.