be a triple system but was later confirmed to be a double. The possibility of two close components would have allowed accurate estimates of its time delay, hitherto only known for Q0957 + 561. The system consists of two images, one of them rather faint, with an angular separation of 2"2 and a high flux ratio. Finally, we model MG0414 + 0534, a quadruple system with angular separations between 0"4 and 2"0 and differences between the optical and radio flux ratios. Its spectrum, different from that of any AGN, shows an unusually red light without emission lines.

In the case of MG0414 + 0534, the method leads to a single source capable of producing the observed two-component image. However, the same was not true for Q0142 − 100. Even though a single source was also obtained, the exact component positions could not be reproduced. This gives an idea of the limitations of the algorithm when working with limited information (fewer image components).


SPHERICAL GALAXIES IN GROUPS

Mariángela de Oliveira-Abans¹, Max Faúndez-Abans¹, Ronaldo de Souza², and Hernán Quintana³

We have searched for the effects of tidal interactions and merging on a preliminary sample of nearly spherical galaxies in groups. We have based our study on direct CCD images in Hα and Gunn filters g and r. Low-dispersion spectra in the visible have also been obtained. The observations have been carried out at the Observatório do Pico dos Días (LNA, Brasühlis, Brazil) and Las Campanas (La Serena, Chile).

We study the isophotal and color behavior, the properties of images obtained by means of different techniques of feature enhancement, and the possible relation between galaxy and parental group morphologies. We also present brightness profiles, and estimates of total colors and magnitudes. The objects discussed are: NGC 5193/NGC 5193A, IC 4296, NGC 5328/NGC 5330, and NGC 5761.

We have found the presence of infalling material from NGC 5193A (S0) spiraling towards the nucleus of NGC 5193 (E pec), and that the first has an extended warped disk of which one tip is a prolongation of the "bridge" between them. The color map suggests the nucleus of NGC 5193 is geometrically displaced towards its companion.

This is the first work to report the presence of a bridge connecting NGC 5761 and ESO 580−00038. There is also ESO-LV 5800391 north−following NGC 5761, and although there seems to be some isophotal evidence for interaction, we prefer to wait for our spectroscopic results to settle this question.

NGC 5328 (E1) and NGC 5330 (E0) are part of an apparent four-galaxy "arc". We have found no evidence of tidal interaction.

Our preliminary study of IC 4296 revealed disk−like and shell−like structures near the nucleus, but no large distortions in the isophotes.

THE LUMINOSITY FUNCTION AND METALLICITY DISTRIBUTION FOR THE GLOBULAR CLUSTER SYSTEM AROUND NGC 1399

P.G. Ostrov¹,², J.C. Forte¹,³, and D. Geisler⁴

New results based on improved photometry of the CCD frames of the NGC 1399 region previously analyzed by Ostrov, Geisler, & Forte (AJ 105 (5), 1762) and a comparison field 2" north of that galaxy are presented. The more relevant conclusions are:

(i) The use of an elliptical isophotes model instead of a median filtering technique for removing the diffuse light of the galactic halo, allowed to diminish the photometric errors and to improve the discrimination against nearly unresolved galaxies.

(ii) The globular cluster luminosity function is well represented by a Gaussian distribution with $m_0 \approx 23.25 \text{ mag} T_1$ and $\sigma \approx 1.22 \text{ mag}$. The fit of a $t_5$ distribution results in a value of $m_0 \approx 23.13 \text{ mag}$ and of $\sigma_t \approx 1.10 \text{ mag}$. The main cause of uncertainty is that the completeness limit does not exceed the turn−over by a wide enough margin.

(iii) The color distribution of the globular clusters of NGC 1399 is clearly bimodal. Two well differentiated populations exist with mean colors equal to $<(C - T_1)> \approx 1.76$ and $<(C - T_1)> \approx 1.50$.

¹Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina
²Facultad de Ciencias Astronómicas y Geofísicas, Universidad Nacional de La Plata, Argentina
³Instituto de Astronomía y Física del Espacio, Argentina
⁴National Optical Astronomical Observatories, Canada