

BV SURFACE PHOTOMETRY OF THE SOUTHERN GALAXIES  
NGC 6769, 6770 AND 6771

T. Storchi Bergmann, M.F. Saraiva Schröder, and M.G. Pastoriza

Instituto de Física  
Universidade Federal do Rio Grande do Sul  
Brasil

**ABSTRACT:** From B and V photographic surface photometry we have obtained isophote maps, photometric parameters, luminosity profiles and B-V color indices for the group of the spiral galaxies NGC 6769, 6770 and 6771. The observations were made with the 1.6 m telescope of Observatório Astrofísico Brasileiro using the combination of 103a-O or IIa-O plate plus GG385 filter for the B system and IIa-D plate plus GG495 for the V system. The reductions were made using the Zeiss-Jena microdensitometer of Instituto de Física - UFRGS, Porto Alegre and the method of Sérsic (1968) or the PDS microdensitometer of Observatorio Nacional, Rio de Janeiro, and the software developed in that observatory by da Costa et al. (1982). The values obtained for the total apparent magnitudes ( $m_B$ ), total color indices ( $m_B - m_V$ ), absolute magnitudes ( $M_B$ ), major (D) and minor (d) diameters are listed in the table below, together with the isophotal level  $\mu_B$  where these values were obtained.

TABLE 1. Photometric Parameters

NGC	$m_B$	$m_B - m_V$	$M_B$	D (") kpc	d (") kpc	$\mu_B$
6769	12.70	0.65	-21.27	130.0	93.0	24.86
				28.1	20.1	
6770	12.91	0.71	-20.97	174.0	128.0	24.86
				36.7	27.0	
6771	13.76	0.90	-20.25	143.0	34.5	25.17
				33.4	8.1	

In general, the color indices vary from about 1.1 mag in the nuclear regions to about 0.3 mag in the blue regions. Exponential and  $r^{1/4}$  laws have been adjusted to the luminosity profiles.

#### REFERENCES

- Da Costa, L.A.N., Carvalho, R.R., Rité, C.P., and Pellegrini, P.S.S. 1982, "Image Processing at the O.N.I. Surface Photometry", *Publicações do Observatório Nacional*, No. 2.  
Sérsic, J.L. 1968, *Atlas de Galáxias Australes* (Universidade de Córdoba: Brasil).

M.G. Pastoriza, M.F. Saraiva Schröder, and T. Storchi Bergmann: Instituto de Física, Universidade Federal do Rio Grande do Sul, Rua Luiz Englert s/n 9000, Porto Alegre, R.S. Brasil.