

B AND R SURFACE PHOTOMETRY OF FAINT GALAXIES IN THE AREA OF THREE COSMIC VOIDS

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We performed B and R surface photometry of 92 faint mostly late type galaxies, selected towards three nearby voids (Hopp et al., 1995 *A&AS* **109**, 537). CCD frames were taken with the Calar Alto 3.5m telescope and with the MPIA/ESO 2.2m telescope. We calculated the azimuthally averaged equivalent profiles, asymptotic total magnitudes and colours, and performed ellipse-fitting of isophotes. Observed light profiles were fitted with a power law $\mu = \mu_0 + 1.086\alpha r^{1/n}$. About 40% of profiles are pure exponentials ($n = 1$); 38% of the profiles reveal a bulge/disk or disk/disk composition; 20% of them show central light depression. We classified the nearby galaxies ($z \leq 0.04$) as being related either to clusters (11 galaxies), to sheets (23) or to voids (9). The obtained parameters are compared to those of HSB and of LSB field galaxies.

The main results are as follows: – most of the studied luminous galaxies ($M_B < -19$) are typical Freeman's disks residing behind of the nearby voids; – the faint galaxies ($M_B \geq -19$) are similar to the brightest LSB dwarfs; – the profile type frequencies resemble those of LSB field galaxies; – the isolated galaxies are not necessarily faint, but they have blue colours ($B - R \simeq 0.8$); – one needs a larger sample of isolated galaxies in order to reveal their possible specific properties.