

Surface photometry of dwarf irregular galaxies in different environments

Sharina M., Il'ina E.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

We present surface photometry and determination of structural parameters for 93 dwarf irregular (dlrr) galaxies located in different environments at distances ≤ 50 Mpc. This work was carried out using SDSS images. The luminosity-surface density relation obtained for galaxies in small groups agrees with that found for the local volume dwarf galaxies. However, isolated objects in our sample appear to have, on average, lower surface brightnesses and larger scale lengths at a given luminosity than the galaxies in higher-density environments. © 2013 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

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Keywords

Galaxies: fundamental parameters, Galaxies: photometry, Galaxies: structure