STELLAR POPULATIONS OF DWARF IRREGULAR GALAXIES

R.E. SCHULTE-LADBECK

Dept. of Physics & Astronomy, University of Pittsburgh, Pittsburgh, PA 15260, USA

AND

ULRICH HOPP

Universitätssternwarte München, D 81679 München, FRG

We recently completed two-color CCD photometry of resolved stars in 11 dwarf irregular galaxies (Hopp & Schulte-Ladbeck, 1995, A&AS 111, 527), selected because of their relative isolation from massive galaxies in the Kran-Korteweg – Tammann sample (1979, AN 300, 181). The B-R color magnitude diagrams (CMD) show that all galaxies studied had star formation activity in the last $\sim 10^8$ yr. Several of them continue to form stars, the most active being UGC 5272 A (see Hopp & Schulte-Ladbeck, 1991, A&A 248, 1) while others, like DDO 210 (Hopp & Schulte-Ladbeck, 1994, ESO Conf. Workshop Proc. 49, 511), are pausing in their star formation activity. The CMDs enable us to select the brightest blue supergiants in these galaxies and to estimate their distances, D. Our values agree with the estimates based on the Virgo inflow model of Kran-Korteweg (1986, A&AS 66, 255) at the 30%-level. Prelimanary values are given in the table below.

TABLE 1. Distances to the studied galaxies, for DDO 210 see the discussion in Hopp&Schulte-Ladbeck, 1994

UGC	Dhere	\mathbf{D}_{KKT}	other names	UGC	D_{here}	D_{KKT}	other names
4459	4.7	3.5	DDO 53	7559	3.9	5.0	DDO 126
5272A	6.2	9.8	DDO 64	8024	4.3	4.5	DDO 154
5272B	6.2	9.8		8091	1.4	1.0:	GR8, DDO 155
5340	7.6	9.1	DDO 68	8320	5.4	5.3	DDO 168
6456	2.1	2.2		8760	6.1	4.6	DDO 183