

A BVRIKH α SURVEY OF 355 NEARBY GALAXIES

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A multiband CCD-survey of 355 UGC galaxies in our local cosmological neighbourhood is undertaken in collaboration with S.D.M. White (MPI-Astrophysik Garching), S. McGaugh (IoA, Cambridge), M. Dennefeld (IAP Paris), H. Ferguson (STScI), M. Rieke, A. Grauer (Steward Obs. Arizona). Optical observations are obtained on Calar Alto (MPIA Heidelberg) and at La Palma (RGO) – with data 40% complete at the moment. The selection criterion is diameter $1.5' < D_{25} < 2.5'$. A database of local galaxy properties is being established (including total luminosities, mean SB, diameters, colours, colour gradients, D/B-ratios, present SFRs). Using theoretical evolution models we can predict the bona fide appearance of the galaxy population at any given redshift and thus provide a secure reference point to interpreting galaxies observed at intermediate and high z (e.g. faint galaxy counts).

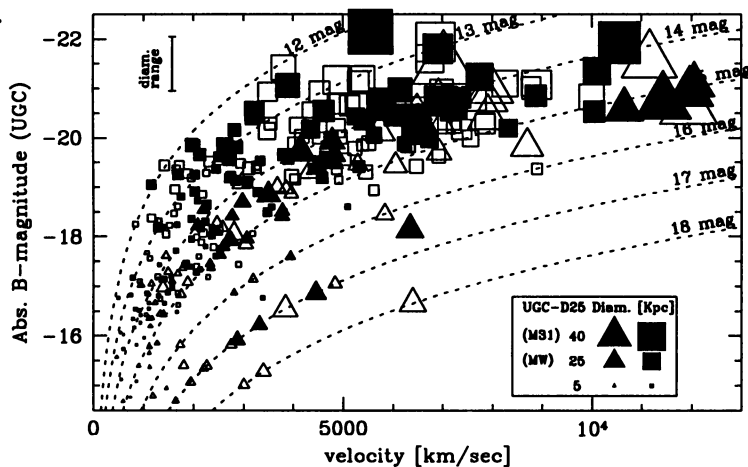


Figure 1. Absolute Magnitude versus redshift for the survey sample (filled symbols: data available, open: to be observed, symbol size shows physical diameter D_{25}), with lines of constant apparent magnitude overplotted. HSB (squares) and LSB galaxies (triangles) are surveyed in roughly equal numbers, a range of ≈ 5 mag is mapped in mean SB, D_{25} size ranges from 1 to 70 kpc, M_B from -22 down to -13 mag (all data from UGC).