

# Correlations of disc structural parameters of early type galaxies with ionised gas

Dhanya Joseph, Preetha A. U., and Ravikumar C. D.

Department of Physics, University of Calicut, Kerala, India.

We present the photometric analysis of early type galaxies with ionised gas in the nearby universe. Our analysis included 54 galaxies from the K-band observation of 2 Micron All Sky Survey (2MASS). All of these galaxies belong to the Revised Shapely Ames Catalogue (RSA) and have redshifts less than 5500km/s. Most of the samples are from low density regions and have wide range of velocity dispersion. Two dimensional bulge disc decomposition method (GALFIT) was used for extracting the structural parameters. The sersic bulge and exponential disc were used for fitting the galaxies. We have observed correlations of disc structural parameters to the age of the galaxies which indicates the expanding nature of the disc in early type galaxies.