

THE LARGE RANGE OF DARK MATTER CONTENT IN DWARF GALAXIES AND ITS IMPLICATIONS

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We present the analysis of a new set of radio and optical observations of a large sample of **Byurakan** Blue Compact Galaxies. HI spectra were obtained with the **Nançay** 300-m and **Green Bank** 43-m radio telescopes. CCD-images were taken with the **KPNO** 0.9-m and **Whipple Observatory** 1.2-m telescopes. Dark Matter (DM) to luminous mass ratios in these BCGs were found to vary from about less than 0.5 up to 14. Recent data taken from the literature indicate this same range. This result has important consequences on models of dwarf galaxy formation, indicating possibly different formation mechanisms. The standard CDM model of dwarfs formation requires large DM halos. However the formation of dwarfs as tidal debris resulting from strong interactions of massive spirals leads naturally to dwarfs with low content of DM. On Fig.1 we show DM to luminous mass ratio versus rotational velocity for our BCGs and some other galaxies.

