

ENVIRONMENTAL VARIATION OF RADIUS WITH ρ_{gal} IN THE COMA CLUSTER

E. Recillas-Cruz, P. Pimentel, and A. Serrano P.G.

Instituto de Astronomía
Universidad Nacional Autónoma de México

ABSTRACT. Using positions and morphological types for 247 Coma Cluster galaxies by Dressler 1980, *Ap. J. Suppl.*, 42, 565, we have calculated the smooth surface density distribution of galaxies ρ_{gal} (gal Mpc⁻²) in this cluster. Moreover, data for absolute magnitude M_V , effective surface brightness μ_e , and effective radius r_e have been taken from the literature. With all this material we have found a relationship between radius of the galaxy, density, M_V and μ_e , similar to the one recently found by Recillas-Cruz and Serrano (1986, preprint) for clusters of galaxies. This confirms the variation of the structural parameters of elliptical galaxies with ρ_{gal} .

Key words: GALAXIES-CLUSTERS OF