

DICHOTOMY IN THE RADIO GALAXIES HABITATS IN THE LOCAL UNIVERSE

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Abstract / The environment that the galaxies inhabit has been subject of study since the 50'. It has been proven over the years that some physical properties of galaxies vary with the density of neighbour galaxies. In this work we present for the first time the results obtained from the analysis of the clustering of two different samples built by Best & Heckman (2012): high-excitation radio galaxies (HERG) and low-excitation radio galaxies (LERG) with magnitudes in the range $14.5 < m_r < 17.77$ and redshift in the range $0.03 < z < 0.3$. We used the correlation function whose first estimator was developed by Peebles & Hauser (1974). The calculation was executed with GUNDAM, developed by Donoso (2019), at range of projected distance $1h^{-1} \text{ Mpc} < r_p < 10h^{-1} \text{ Mpc}$. We built different control samples using the Data Release 7 from Sloan Digital Sky Survey with different physical parameters: redshift, magnitude, stellar mass and D4000. Thus, we show the dependence of the correlation function with stellar mass and radio luminosity.

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