

Progress report

SPECTRAL LINES MEASUREMENTS IN CLUSTER GALAXIES: HINTS ON THEIR STAR FORMATION HISTORY

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The Wide-field Imaging Nearby Galaxy cluster Survey (WINGS) is a project aiming at the study of the cosmic variance of the cluster population in the local universe ($z < 0.07$) and the influence of environment on the physical properties of cluster galaxies. This survey has provided the astronomical community with a high quality set of photometric and spectroscopic data of 77 galaxy cluster. The study of such a large amount of objects requires the development of automatic tools capable of extracting as much information as possible from the data. I will describe a new method to automatically measure the equivalent width of spectral lines with a good accuracy. In this way it is possible to easily classify galaxies according to the presence/absence and intensity of given lines, namely [OII] $H\delta$, reflecting in this way their stellar content. Based on these widely used spectral classification criteria, we give a broad but still significant description of the characteristics of star-forming and post-starburst galaxies in local clusters, as function of the cluster's characteristics.