that the z= 0.3 and the z= 0.5 clusters have overall masses statistically consistent with each other: $6.3(^{+3.9}_{-2.1})$ and $8.6(^{+5.2}_{-1.6}) \times 10^{14} M_{\odot}$ respectively.

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THE CONNECTION BETWEEN THE ORIGINS OF GLOBULAR CLUSTERS (GCS) AND THE EVOLUTION OF THEIR HOST GALAXY

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Star kinematics is directly connected to the evolution history of their host galaxy. To recover the correct kinematics, though, it is necessary to assign each star to the galaxy component it belongs to: the disk (thin or thick) or the spheroid. Performing a multi-band decomposition of infrared images of NGC 3115, and planetary nebulae (PNe) as tracers of the overall stellar populations, we recovered the velocity and velocity dispersion of the thick disk and of the spheroid. We then studied the GCs population in NGC 3115. Given a GC position and velocity we can estimate its probability of belonging to the disk, to the spheroid and in general to the system. We find that most GCs are consistent of being drawn from the light weighted velocity distribution of NGC 3115 stars. Nearly half of the GCs belongs to the disk and half to the spheroid, but we don't find any trend between their colour (b-r) or calcium triplet abundances and their kinematics.

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STAR FORMING, AGN AND PASSIVE PHASES OF GALAXY EVOLUTION SINCE Z = 0.5 AS TOLD BY SDSS DATA

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Our goal is to study the interplay between star forming, AGN and passive phases of galaxy evolution. For that we need a wide database of galaxy spectra, binning the sample into stellar mass and redshift bins to deal with mass-dependent evolution and completeness. We extracted our galaxy sample from de SDSS/DR7 between 0.05<z<0.50. The stellar mass and the emission line measurements were taken from the STARLIGHT database and average values of galaxy properties were obtained for each bin. In order to distinguish star forming and AGN hosts, we first considered the BPT diagram as it is generally used. Higher stellar mass migrates to the right wing as redshift decreases and one can erroneously infer that the importance of AGN versus star formation increases with time for these objects. However the BPT diagram cannot distinguish retired galaxies from AGN hosts. For that purpose, the WHAN diagram can be used. Purely star forming galaxies dominates at low stellar mass bins while as the mass increases the AGN becomes more significant. Retired and lineless galaxies dominate the galaxy population at the highest stellar mass bins.

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GALAXY CONCENTRATION INDEX IN LOW X-RAY LUMINOSITY GALAXY CLUSTERS

H. Cuevas[1], J. L. Nilo Castellón[1], and M. V. Alonso[2]

Using a sample of 10 low x-ray luminosity galaxy clusters (Nilo Castellón et al. 2013B), we studied the properties of 146 galaxies classified as members in a redshift range of $0.185 < z < 0.701$.

Following Concelice et al. 2000, we define the galaxy concentration index (C) , as the ratio of two circular radii which contain 80 and 20 percent of the total Petrosian flux. Mainly, we observed an increment of C for early-type and lenticular galaxies at redshifts lower than 0.3, that can be related to the presence of giant galaxies in these low redshift clusters ($C > 4$). Contrary to these results, for late-type galaxies we found smaller C values for the lower redshift clusters.

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These results could be associated to the morphological evolution of galaxies, as proposed by different authors (Poggianti et al. 2009, Dressler et al. 2009) for rich clusters.

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THE RELATION BETWEEN THE SPECTRAL SYNTHESIS OF GALAXIES IN THE VISIBLE REGION AND THEIR UV EMISSION

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The STARLIGHT Project has analyzed almost a million spectra extracted from the Sloan Digital Sky Survey (SDSS) by using the empirical spectral synthesis approach described by Cid Fernandes et al.(2005). Spectral synthesis consists on the optical spectrum fitting by using simple stellar population libraries, such as Bruzual & Charlot (2003). It also considers the reddening caused by dust and the velocity dispersion due to the motion of the stars within the galaxy. Since the model that best fits the optical region can also be extended to the ultraviolet, we compare our predictions to the UV photometry of the same galaxies measured by the GALEX satellite, studying the systematics and nature of the differences. In this current presentation, we show the upcoming challenges in order to accomplish this investigation. The main motivation of this study is to obtain realistic spectral models from the UV to the optical regions for the study of high redshift galaxies.

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RESOLVING GALAXIES IN TIME AND SPACE: APPLYING STARLIGHT TO CALIFA DATA CUBES

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Fossil record methods based on spectral synthesis techniques have matured over the past decade, and their application to integrated galaxy spectra fostered substantial advances on the understanding of galaxies and their evolution. Yet, because of the lack of spatial resolution, these studies are limited to a global view, providing no information about the internal physics of galaxies. Motivated by the CALIFA survey, which is gathering Integral Field Spectroscopy over the full optical extent of 600 galaxies, we have developed an end-to-end pipeline which: (i) partitions the observed data cube into Voronoi zones in order to, when necessary and taking due account of correlated errors, increase the S/N, (ii) extracts spectra, including propagated errors and bad-pixel flags, (iii) feeds the spectra into the STARLIGHT spectral synthesis code, (iv) packs the results for all galaxy zones into a single file, (v) performs a series of post-processing operations, including zone-to-pixel image reconstruction and unpacking the spectral and stellar population properties into multi-dimensional time, metallicity, and spatial coordinates. This work provides a description of this whole pipeline and its data products. These include 3D cubes of the stellar formation history, 2D maps of galaxy properties such as the v-field, stellar extinction, mean ages and metallicities, mass surface densities, star formation rates on different time scales and normalized in different ways, 1D averages in the temporal and spatial dimensions, projections of the stellar light and mass growth (x,y,t) cubes onto radius-age diagrams, etc. The results illustrate the richness of the combination of IFS data with spectral synthesis, providing a glimpse of what is to come from CALIFA and future IFS surveys.

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OPEN CLUSTER RADIAL VELOCITY DETERMINATION FROM OBSERVATIONS AT OBSERVATÓRIO PICO DOS DIAS

M. A. F. Faria[1], H. Monteiro[1], W. S. Dias[1], and J. R. D. Lépine[2]

In studies of the dynamics of the Galactic disk, such as the determination of the speed of the spiral pattern and the permanence of stars in the spiral arms, it is crucial to know orbits obtained from proper

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