be explained as bright star clusters? 2. The elevated dynamical M/L ratios of UCDs. Are they due to highly clustered dark matter, a variation of the IMF, or maybe, due to massive central black holes that would be fossil relicts of UCD progenitor galaxies?

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SUBMILLIMETER GALAXY NUMBER COUNTS IN A SEMI-ANALYTIC MODEL: THE "COUNT MATCHING" APPROACH

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Recent interferometric observations of the Extended Chandra Deep Field South show that the brightest sub-millimeter galaxies (SMGs) detected by single-dish telescopes are comprised by emission from multiple fainter sources. With the aim of exploring the properties of SMGs, and in analogy to the now-standard abundance matching approach, we perform a "Count Matching" approach through light-cones drawn from a semi-analytic model. We choose various physical galaxy properties given by the model as proxies for their sub-millimeter fluxes, assuming a monotonic relationship so that the combined LABOCA plus bright-end ALMA observed number counts are reproduced. After turning the catalogs of galaxy positions and fluxes given by the different proxies into sub-millimeter maps, we perform a source extraction. With this we study the effects of the observational process in the recovered counts, as well as the galaxy properties derived from the detected sources for each proxy. Comparing the recovered redshift, stellar mass and host halo mass distributions with observational data, the best proxy can be found.

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PROPERTIES OF GALAXIES AND GROUPS AT Z < 1.4

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In this work, we analyze a sample of galaxy groups constructed from the fourth data release of the Deep Extragalactic Evolutionary Probe 2 (DEEP2) including the Extended Groth Strip (EGS). This sample was obtained by Gerke et al. (2012) using the Voronoi-Delaunay Method. We selected 105 galaxy groups with at least 8 members in a radius of 4 Mpc. For each group we estimated its properties such as velocity dispersion (σ), physical radius (R_{200}) and mass (M_{200}). We also classify the groups as Gaussian and non-Gaussian (dynamic evolved or not) based on their galaxy velocity distributions. This classification is based on the following statistical tests: Anderson-Darling, Kolmogorov-Smirnov, Shapiro-Wilk, Jarque-Bera, Cramer-von Mises, D'Agostino and Dip test. When the Dip test confirms the hypothesis of the unimodality and all other tests prove the normality of the system, the group is classified as Gaussian. The behavior of gaussianity was checked varying the distance to the center of the group in 2-4 times its physical radius. Our results show that the number of systems classified as non-Gaussian groups grows with the increase of the physical radius.

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THE DISTRIBUTION OF STELLAR POPULATIONS WITHIN GALAXIES

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The study of stellar populations in galaxies is particularly interesting, since they are a fossil record of several physical processes associated with the formation and evolution of galaxies. In this work we present the first results of our approach to study the

XIV Latin American Regional IAU Meeting (Florianópolis/SC, Brazil, 25-30 November 2013)
Editors: A. Mateus, J. Gregorio-Hetem & R. Cid Fernandes