different quiescent galaxy fraction. The origin of this difference is investigated, and will be presented in the presentation.

[구 GC-12] Measuring the Environmental Quenching Timescales of Galaxy Clusters in the COSMOS field

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Using 74 galaxy clusters in the COSMOS field at 0.1 < z < 1.2, we calculate the environmental quenching timescale, defined as the time required after a galaxy is accreted by a cluster for it to stop star formation. Cluster candidates are selected as the overdensities with the surface number density exceeding the 4-σ. With the "delayed-then-rapid" quenching model, we can successfully reproduce the separation of the galaxies(star-forming, intermediate, and quiescent) on the NUV-R - R-J color plane comparing with the BC03 evolutionary track. With the mass growth rate of halo mass and the ratio of categorized galaxies, we can constratin the environmental quenching timescale ~ 2Gyr at z ~ 1. We will present the result as a function of redshift and compare them with dynamical timescale and gas depletion timescale.

[구 GC-13] Mapping the Star Formation Activity of Five Jellyfish Galaxies in Massive Galaxy Clusters with GMOS/IFU

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Ram-pressure stripping (RPS) is known as the main driver of quenching the star formation (SF) activity in cluster galaxies. However, galaxies undergoing RPS in galaxy clusters often show blue star-forming knots in their disturbed disks and tails. The existence of these “jellyfish galaxies” implies that RPS can temporarily boost the SF activity of cluster galaxies. Thus, jellyfish galaxies are very unique and interesting targets to study the influence of RPS on their SF activity, in particular with integral field spectroscopy (IFS). While there have been many IFS studies of jellyfish galaxies in low-mass clusters (e.g., the GASP survey), IFS studies of those in massive clusters have been lacking. We present an IFS study of five jellyfish galaxies in massive clusters at intermediate redshifts using the Gemini GMOS/IFU. Their star formation rates (SFRs) are estimated to be up to 15 Mo/yr in the tails and 50 Mo/yr in the disks. These SFRs are by a factor of 10 higher than those of star-forming galaxies on the main sequence in the M∗-SFR relation at similar redshifts. Our results suggest that the SF activity of jellyfish galaxies tends to be more enhanced in massive clusters than in low-mass clusters. This implies that strong RPS in massive clusters can trigger strong starbursts.

[구 GC-14] The Kaiser Rocket Effect in Cosmology

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The peculiar motion of the observer, if not (or only imperfectly) accounted for, is bound to induce a well-defined clustering signal in the distribution of galaxies. This spurious signal is related to the Kaiser rocket effect. We examined the amplitude of this effect and discuss possible implications for analysis and interpretation of future cosmological surveys. We found that it can in principle bias very significantly the inference of cosmological parameters, especially for primordial non-Gaussianity.

[구 GC-15] The DESI peculiar velocity survey

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One of the most promising secondary target programmes of DESI is the peculiar velocity survey, which will notably improve the measurements of cosmology parameters in the low-redshift universe. We use the Fundamental plane and Tully-Fisher relation as distance indicators to calculate peculiar velocities for DESI. This required additional observations to obtain spectra with sufficient quality to measure the velocity dispersions in the case of the fundamental plane, and to get off-centre redshift measurements to reconstruct the rotation curve in the case of the Tully-Fisher relation. However, we devised a clever strategy for suitable target galaxies, that takes advantage of the spare fibres of DESI to gather the required additional data without causing conflicts with the main survey programmes. We provide a brief overview of the preliminary results and success rate based on the first measurements obtained during survey validation as well as an outlook on expected improvements in the $f\sigma_8$ measurements once the survey has been completed.

[구 GC-16] Cosmology with peculiar velocity