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The Seoul National University AGN Monitoring Project (SAMP) is a welldesigned long-term AGN reverberation mapping project. SAMP focuses on the luminous AGNs out to z~0.5 with relative long time lags between AGN continuum and broad emission lines and aims to probe the high-end of the AGN broad line region (BLR) size-luminosity (R-L) relation. The pilot observations started in October 2015 for 100 AGNs to confirm the variability and the H and [O III] emission line strengths. Based on the initial variability test, 48 quasars has been continued spectroscopic monitoring since Feb. 2016 with Lick 3m and MDM 2.4m telescopes with a cadence of ~20 days. Supporting photometric monitoring in B and V band was conducted at multiple facilities including the MDM 1.3m, LOAO, and DOAO telescopes with a cadence of ~10 days. By the time of Feb. 2021, we have obtained five years spectroscopic and photometric data. More than 30 AGNs shows significant variability in five-year baseline and 16 of them show well detected lags between B-band and H . Here, we report some examples of SAMP light curves and lag detections using the first five-year data as well as the location of our 16 targets in the AGN BLR R-L relation. These measurements are consistent with the existing R-L relation and located at the high-end. With the coming data, SAMP are hopefully to report more AGNs with well detected lags. Our results demonstrate the general feasibility and potential of long-term reverberation project with medium cadence for luminous AGNs.

## [포 GC-11] A GMOS/IFU Study of Enhanced Star Formation Activity of Jellyfish Galaxies in Massive Galaxy Clusters

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Ram-pressure stripping (RPS) is known as a typical mechanism of quenching star formation (SF) of galaxies orbiting in clusters, but it can also boost the SF activity within a short period of time. Jellyfish galaxies, with eye-catching blue tails and knots, are such starburst galaxies undergoing strong RPS in galaxy clusters. Thus, they are very useful targets to understand their SF activity in relation to RPS. We study the SF activity of three jellyfish galaxies in massive clusters at z=0.3-0.4 (MACSJ1752-JFG2, MACSJ0916-JFG1, and A2744-F0083) with Gemini GMOS/IFU and compare our results to those of jellyfish galaxies in low-mass clusters. We obtain total star formation rates (SFRs) of up to 60 Mo/yr and SFRs in the tails of up to 15 Mo/yr, which are much higher than those of jellyfish galaxies in low-mass clusters with the median SFRs of 1.1 Mo/yr in total and 0.03 Mo/yr in tails. In addition, these SFRs are also significantly higher than the SF main sequence of galaxies at the redshifts of the three jellyfish galaxies. This implies that their SF activity is much more enhanced compared to jellyfish galaxies in low-mass clusters due to extreme RPS in massive clusters.

## [포 GC-12] Intensive Monitoring Survey of Nearby Galaxies (IMSNG) : Constraints on the progenitor system of a normal Type Ia SN 2019ein from its light curve at the early phase

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The progenitor of Type Ia supernovae (SNe Ia) is mainly believed to be a close binary system of acarbon-oxygen white dwarf (CO WD) and non-degenerate companion (single degenerate) or another WD (double degenerate). However, it is unclear which system is more prevalent. Here, we present a high cadence optical/Near-IR light curve of normal but slightly faint type Ia SN 2019ein from IMSNG project. We fit the early light curve (t <+8.3 days from the first detection) with various models to find the shock-heated cooling emission from SN ejecta-companion interaction. No significant shock-heated cooling emission is found, from which we constrain the progenitor star size as the following. The upper limit ($R_{upper,*}$) of the companion size in R-band is $\sim 0.2 R_{\odot}$ when forcing the first light time ($t_{fl}$) to have one value and $\sim 0.9 R_{\odot}$ when using the mean value of tfl from the fitting in each band. Assuming the source of the I-band curve is almost powered from the radioactive decay, we obtained $R_{upper,*} \sim 1.2 R_{\odot}$. The early B−V color curve is in agreement with the