dominant period of the oscillations. In addition, we investigate oscillations in a few distinct regions and discuss regional characteristics of the oscillations.

항성/항성계/외계행성

[포 SA-01] Intensive Monitoring Survey of Nearby Galaxies: 2017/2018 Status

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SNe light curves have been used to understand the expansion history of the universe, and a lot of efforts have gone into understanding the overall shape of the radioactively powered light curve. However, we still have little direct observational evidence for the theorized SN progenitor systems. Recent studies suggest that the light curve of a supernova shortly after its explosion (< 1 day) contains valuable information about its progenitor system and can be used to set a limit on the progenitor size, R*. In order to catch the early light curve of SNe explosion and understand SNe progenitors, we are performing a ~8hr interval monitoring survey of nearby galaxies (d < 50 Mpc) with 1-m class telescopes around the world. Through this survey, we expect to catch the very early precursor emission as faint as R=21 mag (~0.1 Rsun for the progenitor). In this poster, we outline this project, and provide updates on IMSNG projects during 2017/2018 seasons.

[포 SA-02] Metal-Poor F-G-K type Local Subdwarfs From SDSS + GAIA GR2: Spectrophotometric & Kinematic Properties

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We introduce a new project of constructing a large spectro-photometric samples of metal-poor (i.e. [Fe/H] < -1.0) subdwarfs in the Galactic halo. The sample is collected from a compilation of the stellar objects that are cross-identified both in the Sloan Digital Sky Survey (SDSS) and recently published data from GAIA mission. The color range of the selected stars covers 0.0 < (g-r) < 2.0; thus the spectral types of our sample span from early F- through late K-type stars on the metal-poor main sequence (i.e. the local subdwarf sequence). We scrutinized the physical, chemical, and kinematical properties of our samples using their SDSS medium-resolution (R ~ 2000) spectra, combined with accurately measured proper motions from GAIA satellite. Our study will provide useful information on the global trend in the various properties (e.g. abundance pattern as a function of the galactocentric distance; rotational velocity vs [Fe/H] … etc) of the metal-poor subdwarf populations in the Galactic halo, which is ultimately important to better understand metal-poor stellar evolutionary models and chemical evolution of the Milky Way halo in the early phase of its formation. Further our comprehensive catalog of the Galactic field halo subdwarfs collected in this study will serve a solid groundwork for future follow-up high resolution spectroscopic observations on many interesting individual targets.

[포 SA-03] Peculiar Features in the Emission Lines of Symbiotic Stars AG Draconis and UV Aurigae

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공생별 AG Dra와 UV Aur에 대해 지난 10여년간 보현산천문대 1.8m망원경과 고분산 에셀 분광기 BOES(BOao Echelle Spectrograph)로 분광관측을 수행해 왔다. 최근 2017년 11월 - 2018년 6월 관측에서, AG Dra의 Fe II 방출선과 UV Aur Hα 방출선이 예년과 다른 변화 모습을 보이고 있음을 찾아내었다. 이에 대한 변화 원인을 공전주기, 밝기 변화 또는 다른 이유와 연관지어 설명하고자 한다.

[포 SA-04] Proper motion and physical parameters of the two open clusters NGC 1907 and NGC 1912

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Ultra-diffuse galaxies (UDGs) are an unusual galaxy population. They are ghostlike galaxies with fainter surface brightness than normal dwarf galaxies, but they are as large as MW-like galaxies. The key question on UDGs is whether they are 'failed' giant galaxies or 'extended' dwarf galaxies. To answer this question, we study UDGs in massive galaxy clusters. We find an amount of UDGs in deep HST images of three Hubble Frontier Fields clusters, Abell 2744 (z=0.308), Abell S1063 (z=0.347), and Abell 370 (z=0.374). These clusters are the farthest and most massive galaxy clusters in which UDGs have been discovered until now. The color-magnitude relations show that most UDGs have old stellar population with red colors, while a few of them show bluer colors implying the existence of young stars. The stellar masses of UDGs show that they have less massive stellar components than the bright red sequence galaxies. The radial number density profiles of UDGs exhibit a drop in the central region of clusters, suggesting some of them were disrupted by strong gravitational potential. Their spatial distributions are not homogeneous, which implies UDGs are not virialized enough in the clusters. With virial masses of UDGs estimated from the fundamental manifold, most UDGs have M_200 = 10^10 - 10^11 M_Sun indicating that they are dwarf galaxies. However, a few of UDGs more massive than 10^11 M_Sun indicate that they are close to failed giant galaxies.

[포 SA-05] The photometric and spectroscopic study of the near-contact binary XZ CMi

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It has been known that XZ CMi is a near-contact binary composed of a hotter and more massive main-sequence primary star close to its Roche-lobe and a Roche-lobe filling giant/subgiant secondary star. There still exist, however, many discordant matters among the previous investigators: diverse mass ratios and temperatures ranging from 0.38 to 0.83 and from 7,000 K to 8,876 K, respectively. In order to make a contribution to the two confusions we conducted spectroscopic and photometric observations. A total of 34 high-resolution spectra were obtained during 4 nights from 2010 and 2018 with the Bohyunsan Optical Echelle Spectrograph (BOES) at the Bohyunsan Optical Astronomy Observatory (BOAO). In parallel, BVRI multi-band photometric observations were carried out 5 nights in 2010 at Sobaeksan Optical Astronomy Observatory (SOAO). In this presentation, we present physical parameters of XZ CMi through the simultaneous analyses of new double-lined radial velocity curves and new light curves. We will also briefly discuss the evolutionary status of the system.