October 2015, 69 AGNs have been monitored with BVR band photometry, using the MDM 1.3m & 2.4m and LOAO 1m telescopes, and long-slit spectroscopy, using the Lick 3m and MDM 2.4m telescopes. In this poster, we report the preliminary results of the variability study of a subsample of 9 AGNs, particularly with a few of tentative time rag measurements between B band magnitude and H beta luminosity based on the 1st year data set from February 2016 – January 2017.

[포 GC-18] Variability study of AGN in NGC 4395

Hojin Cho[1], Jong-Hak Woo[1], Donghoon Son[1], Huynh Anh Le[1], Hyun-Jin Bae[1,2], Jaejin Shin[1], Songyoun Park[1], Wanjin Cho[1], Edmund Hodges-Kluck[3], Ellena Gallo[3], Minjin Kim[4], Daeseong Park[4], Hyun-il Sung[4], Taewoo Kim[5], Wonseok Kang[5]
[1]Department of Physics and Astronomy, Seoul National University, [2]Department of Astronomy, Yonsei University, [3]Department of Astronomy, University of Michigan, [4]Korea Astronomy and Space Science Institute, [5]National Youth Space Center

We present the preliminary results from our intensive monitoring campaign for measuring continuum and line variability of a low-mass Seyfert galaxy, NGC 4395, which host a smallest known AGN black hole in the reverberation mapping studies. We performed consecutive photometric observations during 5 nights in April 2017. Various telescopes in the world, including BOAO 1.8-m, NYSC 1-m, MDM 2.4-m, 1.3-m, etc, were dedicated for this campaign. Preliminary results show that the tentative time lag can be determined, which is approximately order of 1-2 hours.

[포 GC-19] A Comparative Study on Star Formation of Barred and Unbarred Disk Galaxies from SDSS-IV MaNGA IFU survey

Galaxy Woong-bae Zee (지웅배), Suk-jin Yoon (윤석진)
Department of Astronomy and Center for Galaxy Evolution Research, Yonsei University (연세대학교 천문우주학과 & 은하진화연구센터)

We investigate star formation activities of ~400 barred and unbarred faced-on late-type galaxies from the SDSS-IV MaNGA (Mapping Nearby Galaxies at APO) IFU survey. We find the star formation activities in gas-poor, barred galaxies are considerably suppressed than gas-rich, barred galaxies, while there is no difference among unbarred galaxies regardless of their HI gas content. The gas-poor and barred galaxies show the steeper difference of gradient in metallicity and age with respect to the stellar mass than gas-rich or unbarred galaxies, in that their centre is more metal-rich and younger. The results suggest that, combined with the gas contents available, the bar structure plays a significant role in quenching star formation in a galaxy by transporting/mixing gas via gas inflow.

[포 GC-20] Spectral Analysis of SN 2011fe in M101 and Implications for Explosion Mechanism

Ilseung Han[1], Tae Seog Yoon[1], Hyun-Il Sung[1,2], Soo Hyun Kim[1], Hyeonwoo Moon[1]
[1]Kyungpook National University, [2]Korea Astronomy and Space Science Institute

We present some results of the spectral analysis for Type Ia supernova SN 2011fe in M101, which was discovered by the Palomar Transient Factory on August 24 2011 UT. We performed spectroscopic observations for SN 2011fe at Bohyunsan Optical Astronomy Observatory with the high resolution echelle spectrograph BOES attached to 1.8-m reflector. Spectra of 18 epochs are obtained from September 6 2011 to April 1 2012 UT. Spectral feature variations for several significant lines and explosion mechanism will be discussed.

[포 GC-21] Building the Milky Way bulge from globular clusters: Evidence from low-resolution spectroscopy for the red clump stars

Seungsoo Hong, Dongwook Lim, and Young-Wook Lee
Yonsei University, Seoul 03722, Korea

The presence of double red clump (RC; metal-rich counterpart of horizontal-branch) in high latitude field of the Milky Way (MW) bulge is widely interpreted as evidence for an X-shaped structure originated from the bar instability. However, Lee et al. (2015) recently suggested an alternative model, according to which the double RC is metal-rich manifestation of multiple stellar population phenomenon observed in globular clusters (GCs). Here we show that stars in bright