

[ㄱGC-39] HIGH RESOLUTION NEAR-INFRARED SPECTRA OF NEARBY QUASAR, PG1426+015

Huynh Anh Nguyen LE¹, Soojong PAK², Myungshin IM³, Luis C.HO⁴

¹*School of Space Research, Kyung Hee University*

²*Department of Astronomy, University of Texas at Austin*

³*Department of Physics and Astronomy, Seoul National University*

⁴*The Observatories of the Carnegie Institution for Science*

We observed low- z quasar PG1426+015 ($z=0.086$), using the near-IR high resolution echelle spectrometer, IRCS, at the SUBARU 8.2 m telescope. Using an Adoptive Optics system, the full width at half maximum of the point spread function was about 0.3 arcsec, which can effectively separate the quasar spectra from the host galaxy spectra. We also maximize the total exposure time up to several hours per target, and develop data reduction methods to increase the signal-to-noise ratios. This poster presents the data reduction processes and sample spectra from the quasar and its host galaxy. These spectral lines will be used to study the physical mechanism of quasars, and the velocity dispersions of the stars in the bulge of the host galaxy.

[ㄱGC-40] Establishing New Black Hole Mass Estimators of Active Galactic Nuclei with Hydrogen Brackett Lines

김도형¹, 임명신¹

¹*서울대학교*

Red Active Galactic Nuclei (AGNs) are suspected to intermediate stage between ULIRG and AGN phase. As well as, red AGNs are suspected to have more than 50% of whole AGN population. For understanding the characteristics of red AGN, Black Hole (BH) mass is a key property and can not be estimated by existed method such as reverberation mapping and single epoch method using 5100Å continuum and Balmer lines. Thus we still don't know their characteristics and properties in clearly. To estimate properties of red AGNs without the effect of dust extinction, we obtained Near InfraRed (NIR) spectra of 31 reverberation mapped AGNs and 49 Palomar-Green(PG) Quasi-Stellar Objects (QSOs) by using the infrared camera (IRC) of AKARI space telescope with unique wavelength range 2.5-5.0 μm . Upon this spectra, we measured the FWHM and luminosity of Brackett α and β lines for deriving new BH mass estimators of AGNs.