[P-123/GC-11] AKARI Spectroscopic Study of the Rest-frame Optical Spectra of Quasars at 3.5 < z < 5.5

Hyunsung Jun, Myungshin Im, HyungMok Lee, and QSONG team
Center of the Exploration of the Origin of the Universe, Astronomy Program, School of Physics and Astronomy, Seoul National University

We present the initial results of rest-frame optical spectroscopy of quasars at 3.5 < z < 5.5 from the AKARI space telescope mission program QSONG (Quasar Spectroscopic Observation with NIR Grism). QSONG is an AKARI phase-3 mission program which utilizes the unique capability of spectroscopy at 2-5microns, and is adequate for detecting redshifted optical emission such as Balmer and oxygen lines. Here, we report our measurements of supermassive black hole (SMBH) masses with well calibrated optical mass estimators. The measurements allow us to assess the usefulness of UV mass estimators as a means to understand the mass evolution of the SMBHs.

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[P-124/GC-12] Seoul National University Bright Quasar Survey in Optical (SNUQSO)

Induk Lee and Myungshin Im
Center for the Exploration of the Origin of the Universe (CEOU), Astronomy Program, Department of Physics and Astronomy, Seoul National University

We present the result of second phase of Seoul National University Bright Quasar Survey in Optical (SNUQSO). From this survey, we discovered 171 new bright quasars/Seyferts (0.05<z< 0.4) at low Galactic Latitude so far. Traditionally, quasars have been searched at high Galactic latitude because of the severe stellar contamination and extreme Galactic extinction, at low Galactic latitude or also known as the zone of avoidance. In order to find quasars at the zone of avoidanace, we have made an algorithm to find quasars with high efficiency using optical, NIR, X-ray, and radio information. Using this algorithm, we selected quasar/Seyferts candidates which are J>16.5 magnitude at low Galactic latitude except for Galactic center region. The observation were carried out using the 1.8m telescope at the Bohyunsan Optical Astronomy Observatory (BOAO), the 2.1m telescope at the Kitt Peak National Observatory (KPNO), and the 1.8m telescope at the IUCAA Girawali Observatory for the Northern hemisphere, and the 1.5m telescope at the Cerro Tololo Inter-American Observatory (CTIO) for the Southern hemisphere, during 2006-2008. We found that the efficiency depends on NIR color. For candidates within 1.4 < J-K < 2.3, we can search quasars/Seyferts with >40% of efficiency. We found also that the surface number density of the quasars/Seyferts we discovered is 0.016 deg^(-2), and comparable with or slightly less than other quasar survey programs which use radio information. These objects will be useful for many astrophysical applications, such as (i) building a complete census of quasar population; (ii) studying the Galactic matters using absorption lines; (iii) studying stellar proper motion using these objects as reference points; and (iv) studying AGN host galaxies using adaptive optics (AO) with many bright stars nearby for a better AO PSF characterization. This work was supported by the Korea Science and Engineering Foundation(KOSEF) grant No. 2009-0063616, funded by the Korea government(MEST)