

[구ID-13] Design of IGRINS Wavelength Calibration System

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IGRINS (the Immersion GRating Infrared Spectrograph) is a high resolution infrared spectrograph which is being developed by a collaboration of the University of Texas, the Korea Astronomy and Space Science Institute, and Kyung Hee University. The wavelength calibration unit of IGRINS will be situated between the telescope flange and IGRINS dewar. It will include Th-Ar hollow cathode lamp, optical elements, and gas absorption cell for the case that requires precise calibration (e.g., radial velocity observation). The system will also use a tungsten halogen lamp in an integrating sphere as a blackbody source for the flat-field imaging. IGRINS will be placed initially on the McDonald 2.7m Harlan J. Smith telescope and later on 4-8m class telescopes. We present an overview of the plan for the wavelength calibration sources and of the development process for the optical and mechanical design of the IGRINS calibration system.

[구ID-14] Release of AKARI/FIS Bright Source Catalogue β -2

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The infrared astronomy satellite AKARI/FIS (Far-Infrared Surveyor) performed all-sky survey in 4 Far-IR bands (50 - 200 μ m range). It observed around 94% of the whole sky twice or more with a higher spatial resolution and a wider wavelength coverage than that of previous all-sky mission, IRAS. The AKARI/FIS bright source catalogue β -2 is the second released version which included around 290,000 point sources. It provides us with more reliable position and flux information, and around 4 times larger number of sources compared with the first version of catalogue. The sensitivity limit at 90 μ m band is 0.6 Jy and the estimated flux uncertainty is 20-35% for bright sources. The catalogue will be open to public in this year after the improvement of accuracy, reliability and completeness.