

[AT-07] Data reduction package for the Immersion Grating Infrared Spectrograph (IGRINS)

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We present a python-based data reduction pipeline for the Immersion Grating Infrared Spectrograph (IGRINS). IGRINS covers the complete H- and K-bands in a single exposure with a spectral resolving power of greater than 40,000. IGRINS is designed to be compatible with telescopes of diameters ranging from 2.7-m (the Harlan J. Smith telescope at McDonald Observatory) to 8-10m. Commissioning and initial operation will be on the 2.7-m telescope from late 2013. The pipeline package is a part of the IGRINS software and designed to be compatible with other package that maneuvers the spectrograph during the observation. This package provides high-quality spectra with minimal human intervention and the processes of order extraction, distortion correction, and wavelength calibration can be automatically carried out using the predefined functions (e.g. echellogram mapping and 2D transform). Since the IGRINS is a prototype of the Giant Magellan Telescope Near-Infrared Spectrometer (GMTNIRS), this pipeline will be extended to the GMTNIRS software.

[AT-08] Current Status of Development of High Speed Sampler with VDIF output for e-VLBI

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KVN 샘플러의 국산화를 위하여, 우리는 지난 3년간의 연구로 1GHz 샘플러 Proto-Type을 설계하고 제작하였다. 첨단망인 KREONET을 이용하여 각 전파천문대를 연결하고, 바로 대전 센터로 관측 데이터를 전송하는 e-VLBI를 구현할 수 있다면, 연구의 가치와 효율을 극대화 할 수 있다. 이를 위하여 샘플러에서 직접 첨단망으로 VDIF(VLBI Data Interchange Format, VLBI 자료전송 규격)의 자료를 보낼 수 있게 새로운 샘플러를 설계하고 제작하고자 한다.