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**[기ID-11] VLBI Astrometry with Source Frequency Phase Referencing in KVN**Taehyun Jung<sup>1</sup>, Maria Rioja<sup>2</sup>, Richard Dodson<sup>2</sup>, Bong Won Sohn<sup>1</sup><sup>1</sup>*Korea Astronomy & Space Science Institute (KASI),*<sup>2</sup>*International Center for Radio Astronomy Research (ICRAR)*

The multi-band receiving feed which is one of the unique characteristics of the Korean VLBI Network (KVN) system compare to the other VLBI network enables to study precise astrometry with a source frequency phase referencing (SFPR) techniques. SFPR almost perfectly compensates the dominant non-dispersive tropospheric fluctuations by observing sources with multi-frequency simultaneously, and it also corrects the dispersive ionospheric fluctuations by adding a slow source-switching observation. In this talk, I will present the results from the KVN astrometric observations with SFPR and the achievable astrometric accuracy in KVN will be discussed.

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**[기ID-12] MEDIUM RESOLUTION SPECTRAL LIBRARY OF LATE-TYPE STELLAR TEMPLATES IN NEAR-INFRARED BAND**Huynh Anh Le Nguyen<sup>1</sup>, Soojong Pak<sup>1</sup>, Myungshin Im<sup>2</sup>, Wonseok Kang<sup>1</sup>,  
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We present medium resolution spectra in the near-infrared (IR) band 1.4-1.8 microns at a resolving power of  $R = 5000-10000$  of template stars in G, K, and M types with luminosity classes of III observed by the echelle spectrometer, IRCS, at the SUBARU 8.2 m telescope. Identification of lines in the template star spectra has been completed base on the reference of Arcturus spectrum. We measured equivalent width (EW) of the lines, and analyze the trends of EW through the stellar spectral types.