

[7GC-19] Pilot observations of VLBI fringe survey at 43 GHz using VERA

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We present the preliminary results of the pilot observations for the fringe survey at 43 GHz with the VLBI Exploration of Radio Astrometry (VERA). The main goals of the fringe survey are to establish a full list of phase calibrators for the VERA dual-beam astrometric observations, and for the KVN multi-frequency phase referencing observations. We performed two 24 hours experiments as a pilot observation to test the feasibility of the fringe survey. Each source from a list of 220 sources has been observed in one scan for 2 minutes. 67 sources were detected with the SNR threshold of 3.5. The correlated flux densities of the detected sources are presented in four ranges of projected baseline lengths.

[7GC-20] Flux Monitoring of Intraday Variable Source with the KVN Ulsan Radio Telescope

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We introduce the preliminary results of flux monitoring of BL Lac object 0716+714 with the KVN Ulsan 21m radio telescope. This radio source is well known as the intraday variable (IDV) source which is characterized by the rapid flux variation on the time scale of a day or less. In general, the IDV phenomenon is interpreted as the effect of refractive scintillation in the interstellar medium or the evidence of intrinsic flux variation. In previous observations that took a few days, however, it had not been detected the flux variation of short time scale but the monotonic increase and decrease. Therefore, to investigate the longer time scale of 0716+714, we had the flux variation monitoring at 22GHz and 43GHz simultaneously for 9 months from October 2010 to June 2011. We present here the structure functions and the cross correlation functions between different frequencies as well as the light curves.