

[GC-30] Preliminary results of 86 GHz GMVA observations on AGN

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We present the preliminary results from 86 GHz GMVA observations on 2 AGN - 0954+658 and 0716+714. The observation was taken with the Global mm-VLBI Array in Oct. 2010, with dual polarization mode. The aim of the observation is to produce the polarization maps of the sources, with the Stokes parameters - I, Q, U and V. The final results will be used for estimating the strength of the intrinsic magnetic field and the geometries of AGN jets.

[GC-31] HOW TO MONITOR AGN INTRA-DAY VARIABILITY AT 230 GHz

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We probe the feasibility of high-frequency radio observations of very rapid flux variations in compact active galactic nuclei (AGN). Our study assumes observations at 230 GHz with a small 6-meter class observatory, using the SNU Radio Astronomical Observatory (SRAO) as example. We find that 33 radio-bright sources are observable with signal-to-noise ratios larger than ten. We derive statistical detection limits via exhaustive Monte Carlo simulations assuming (a) periodic, and (b) episodic flaring flux variations on time-scales as small as tens of minutes. We conclude that a wide range of flux variations is observable. This makes high-frequency radio observations - even with small observatories - a powerful probe of AGN intra-day variability; especially, those observations complement observations at lower radio frequencies with larger observatories like the Korean VLBI Network (KVN).