

Title:

High Frequency Observations on AGNs.

Testing the phase referencing method with the Korean VLBI Network.

Abstract:

By probing nuclear regions and overall properties of AGN hosts as a function of their environments, we aim to observationally examine how AGN activities are related to their surroundings.

We have selected a representative sample of AGN hosts in the Virgo cluster.

The selected galaxies are located in a range of density regions showing various

morphology in 1.4 GHz continuum. High-resolution observations with the Korean

VLBI Network (KVN) allow us to access the inner region of the AGN without suffering from dust

extinction and synchrotron self-absorption. Since half of our targets are too weak to be detected at K-band

we applied a phase referencing technique to extend the source integration time by calibrating atmospheric

phase fluctuations. The capability of KVN phase referencing technique and the results of high

frequency observations will be discussed.