

## Unique View through the Window of Radio Astronomy with Very Long Baseline Interferometry

Radio Astronomy is one of essential probes in the era of multi-messenger astronomy to research various astronomical phenomena and understand their evolution in the universe. In particular, very-long-baseline-interferometry (VLBI) technique in radio wavelengths is very unique, enabling us to achieve the highest spatial angular resolution in the world of 1 milliarcsecond or higher. Observations with VLBI have unveiled lots of essential astronomical phenomena: e.g., plasma jet ejections and their detailed structure/evolution in active galactic nucleus, detailed spatial/velocity structure of the Milky Way based on astrometry data, gas accretion process to grow baby of high-mass stars, gas ejection process surrounding evolved stars, and took an unprecedented photo of the supermassive black hole at the center of M87 active galaxy. In this talk, we will introduce the latest scientific observation results achieved with VLBI technique in various research fields and present the near future prospect to develop these astronomical researches with VLBI in Thailand as well with an abuilding 40-m Thai National Radio Telescope (TNRT) as a part of the RANGD project (Radio Astronomy Network and Geodesy for Development) led by National Astronomical Research Institute of Thailand (NARIT) and a national VLBI network here.

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