

Study on star formation using VERA (VLBI Exploration of Radio Astrometry)

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VERA (VLBI Exploration of Radio Astrometry) is a VLBI (very long baseline interferometry) project of National Astronomical Observatory, which was approved last year. Three radio telescopes with 20-m diameter dish each will be constructed at Mizusawa, Kagoshima, and Ogasawara Is. The science targets of VERA put mainly on constructing three-dimensional atlas of the Galaxy and revealing its dynamics. On the other hand, water maser emission associated with star forming regions is also a target of VERA. Accuracy of absolute position measurements of such water masers may achieve 10-100 micro-arcseconds. This enables us to understand structure and dynamics of circumstellar disks and outflows around protostar with a spatial resolution better than 1 AU.

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