

Development of the multiple frequency interferometer system for identification of Jovian Decametric Radiation Sources

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For identification of the source position of Jovian Decametric Radiation by eliminating the ionospheric disturbance effects, the multiple frequency interferometer system has been employed by Jovian decameter radio wave experiment group in Tohoku University. The experimental results using 100km base-line interferometer system have indicated that the necessary accuracy for measurements of the phase angle of the interferometer fringe variation should be done with error less than 2 degrees. An improved system with multiple phase detection channels and with direct calibration of the time standard at each point of the interferometer station has been developed, to achieve the required accuracy.