

Development of a method to estimate TEC fluctuation by using the GPS for a interferometer observation of the Jovian radiation

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We have developed an estimation method of TEC difference for a multi-frequency interferometer which have been developed to identify the source location of Jovian decameter radiations, by using TEC information from the GPS network in Japan. The validity of this estimation is examined by regarding one of the GPS satellites as a radio source. The result shows that we can estimate TEC difference for two observation stations with error of less than 20%. So we can determine the source location of JDRs with trustworthy spatial resolution by using the multi-frequency interferometer method and the method of TEC estimation on the basis of GPS observations.