

## Dependence of FLR structures observed at the CPMN stations on magnetic longitude and latitude

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We have attempted to estimate the temporal and spatial variations of the plasma mass density in the plasmasphere from CPMN(Circum-pan Pacific Magnetometer Network) data . As the experiment, we use two methods ; the cross-phase method and the amplitude-ratio method [Baransky et al.,1989],which are well known methods for identifying field-line eigenoscillations from ground magnetometer data at two stations closely located along the same meridian. In the research , we chosed 6 stations in Australia and 5 stations in Russia and Japan.

In addition , we compare the plasma density estimated from the two method with the visible images of the plasmasphere with the use of the EUV(Extreme Ultraviolet ) imager on board the IMAGE satellite .and with the solar wind parameters from the ACE satellite .

The possible applications of a those methods using magnetometer data of many stations and satellite data compositely are discussed.