Statistical study on simultaneous occurrence of Pi 2 pulsations in the equatorial region

# Manabu Shinohara [1], kiyohumi yumoto [2], Hiroshi Tachihara [3], Kitamura Tai-ichi Equatorial Magnetometer Network Group


http://denji102.geo.kyushu-u.ac.jp

We statistically analyzed magnetic field data from the Equatorial Magnetometer Network in order to examine occurrence of Pi 2 pulsations in the equatorial region. Five equatorial stations (GUA(Geographic Longitude=145), PRD(81), MOK(14), ALC(-44), ANC(-77)) of the Equatorial Magnetometer Network used here are globally separated in longitude. ALC is used for the standard station. Cross correlation coefficients between ALC and the other stations are obtained for 54 Pi 2's during October 10-31, 1993.

It is found that, 70% of Pi 2 events show cross correlation coefficient higher than 0.7. 80% of Pi 2 events among the separated equatorial stations show time differences within 15 seconds.

We statistically analyzed magnetic field data from the Equatorial Magnetometer Network in order to examine occurrence of Pi 2 pulsations in the equatorial region. Five equatorial stations (GUA(Geographic Longitude=145), PRD(81), MOK(14), ALC(-44), ANC(-77)) of the Equatorial Magnetometer Network used here are globally separated in longitude. ALC is used for the standard station. Cross correlation coefficients between ALC and the other stations are obtained for 54 Pi 2's during October 10-31, 1993.

It is found that, 70% of Pi 2 events show cross correlation coefficient higher than 0.7. 80% of Pi 2 events among the separated equatorial stations show time differences within 15 seconds.