Pc3-4 geomagnetic pulsations observed at equatorial MAGDAS/CPMN stations

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Magnetic pulsations near the dip equator has not been studied well. Their characteristics are not yet established. Thus, the amplitude variations of Pc3 (22-100 mHz) and Pc4 (7-21 mHz) pulsations have been investigated using the data from the MAGDAS/CPMN stations. Recorded waveform and its dynamic power spectra plots during April to June 2010 and 1-31 August 1999 were analyzed. A latitudinal dependence for Pc4 has been observed while Pc3 did not show clearly. Also, there are two types of Pc4 range pulsations: one is the local mode and the other is global mode. The origin of local-mode Pc4 range pulsations maybe from the dayside magnetospheric cavity oscillation excited by solar wind generated waves. As for the global mode, we found two types: one is associated with Pi2 and the other is not consistent with Pi2. This indicates that the propagation and generation mechanisms maybe different from each other.