

LT dependence of the frequency of Pi2 waves and its difference between different parts of the pulsations

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1-second resolution geomagnetic data from 5 stations located at low-latitudes were used to examine dominant frequency and phase properties of Pi2 pulsations. We analyzed 183 events simultaneously recorded at the 5 stations. We found that the dominant frequency of H-component has a LT dependence, but the D-component does not. We also found that the frequency of different parts of a Pi2 pulsations, i.e., the dominant frequency for the initial part and rear part of the pulsation, is different, and the frequency of the rear part is clearly lower than that of the main part. Using both the satellite and ground base observation, we will discuss why the LT dependence of the dominant frequency of Pi2 pulsations is only detected in the H component but not in the D-component. What reflected by the frequency difference between different parts of Pi2 pulsations will also be examined.