Wavelet Analysis of the Relationship between Pc5 ULF Wave and Dst during the Magnetic Storm

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The correlation between the Dst and the frequency variation of Pc5 ULF waves during the July 15-16, 2000 are studied using of ground-based observations at the IMAGE Chain. During the sudden commencement (SC), the frequency of Pc5 ULF waves increase suddenly; during the initial phase decrease and during the main phase the frequency of Pc5 ULF waves decline to the lowest point, then it increase at the beginning of the recovery phase. We also discussed the effect of several kinds of ions in the current ring during the magnetic storm on July 15-16, 2000. Due to the increase of density of ion in ring current, frequency of Pc5 ULF pulsations declined during main phase.