

R006-12

Zoom meeting B : 11/1 PM1 (13:45-15:30)  
13:45-14:00

## 朝側 Pc-3 の出現を決める太陽風磁場の方向について

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### IMF control of Pc-3 occurrence in the morning sector

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It has been recognized that there are two major candidates for the origin of daytime low-latitude Pc-3 magnetic pulsations; i.e. upstream waves in the solar wind and surface waves at the magnetopause boundary. In order to have a solid proof, we have surveyed MAGDAS magnetic field data obtained at Kyushu University and found following things. Pc-3 pulsations in the day time likely occur during low cone angle of inter planetary magnetic field (IMF). However, morning time (6~9 LT) Pc-3 pulsation tends to have a strong dependence on the IMF orientation. That is, these morning time Pc-3 pulsations mostly appear during Parker spiral situation of IMF. During Parker spiral condition, surface of the magnetopause boundary becomes unstable due to the Kelvin-Helmholtz (KH) instability, causing large surface waves, which penetrate into the magnetosphere and to the ground. The evidence, we identified, is likely to be a proof of significant contribution of the surface waves to the Pc-3 pulsation in the morning side magnetosphere.