## [구SE-23] Relation between Earthward magnetotail flow and low-latitude Pi2 pulsations

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It has been suggested that oscillatory earthward bursty bulk flows (BBFs) in the magnetotail are driving Pi2 oscillations on the ground. However, only a few studies examined the BBF-driven Pi2 model. The goal of this study is to establish the relation between BBFs and Pi2s. In order to examine BBF-drive model, we will conduct the timing analysis between BBFs and Pi2s for the intervals during which both Pi2 and BBF are present. In our study BBFs are identified with earthward flow speeds up to 200 km/s from THEMIS probes with a geocentric distance between 7 and 12 RE in the nightside magnetosphere for the interval from January 2008 to March 2008. Pi2 pulsations are identified at three low/mid-latitude ground stations having different local times; Bohyun ($L$ = 1.35, LT ~ UT +9 hr), Hermanus ($L$ = 1.83, LT ~ UT +2 hr) and Carson city ($L$ = 2.00, LT ~ UT -2 hr). It is found that ~28% of BBFs have onset timing nearly identical to Pi2 onset. To investigate whether there is high similarity in the waveform between BBF and Pi2 oscillations, the coherence analysis is applied to the time series of BBF and Pi2 events. We found that there is no high coherence between BBF and Pi2 oscillations. Thus our observations suggest that low-latitude Pi2 oscillations are not directly driven by earthward flow bursts.

## [구SE-24] The statistical analysis of low-latitude Pi2 pulsations during the intervals of extremely quiet geomagnetic conditions

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Several case studies reported that low-latitude Pi2 pulsations can occur under extremely quiet geomagnetic condition (Kp = 0) and that those are not associated with substorms. Until now, no statistical study has investigated Pi2 activity at low latitude during non-substorm intervals. In this study, we statistically examine the properties of Pi2 pulsations (i.e., Pi2 pulsation's power, frequency, and duration) observed at low-latitude Bohyun (BOH, L = 1.35) station in Korea. 161 Pi2s are identified during the intervals of extremely quiet geomagnetic conditions (Kp = 0-1) on November 2008. It is found that their frequencies increase as the solar wind speed increases. It is also found that the Pi2 pulsations frequently occurred periodically every ~30 min. Using solar wind data, we discuss what determines the 30-min recurrence time of Pi2 pulsations.