EPSC Abstracts Vol. 8, EPSC2013-18-1, 2013 European Planetary Science Congress 2013 © Author(s) 2013



## **Pi2** Waves in the Earth's Plasma Sheet

M. Volwerk (1), R. Nakamura (1), T.L. Zhang (1,2), P. Boakes (1), G.Q. Wang (2)

(1) Space Research Institute, Austrian Academy of Sciences, Graz, Austria, (2) CAS Key Laboratory of Geospace Environment, University of Science and Technology of China, Hefei, China. (martin.volwerk@oeaw.ac.at / Fax: +43-316-4120590)

## Abstract

Pi2 waves are wave modes closely associated with magnetospheric substorms. Thez have clear signatures in ground magnetometer data. Using the ECLAT event list of wavy current sheet periods, we will make an event study of Pi2 mode waves in the Earth's plasma sheet. Pi2 waves have been measured in the Earth's magnetotail, where one study showed that in the lobes the waves were travelling tailward (Volwerk et al., 2008). Here we will study the waves in the plasma sheet, using Cluster's multi-point measurements to obtain the propagation direction and other wave characteristics and compare e.g. the wave period with those observed in conjugate ground based magnetometer chains.

