



## Mirror Mode Waves in Venus' Magnetosheath

**M. Volwerk**(1), M. Delva(1), T.L. Zhang(1), W. Baumjohann(1), K.H. Glassmeier(2), R.A. Treumann(3)

(1) Space Research Institute, Austrian Academy of Sciences, 8042 Graz, Austria, (2) Institut für Geophysik und Meteorologie, Technische Universität, 38106 Braunschweig, Germany, (3) Department of Geoscience, Geophysics Section, Ludwig-Maximilians-University Munich, 80333 Munich, Germany

Mirror mode waves are created by temperature asymmetries in the ion distribution function in high- $\beta$  plasmas, with  $T_{\text{perp}}$  greater than  $T_{\text{par}}$ . They have been found in the Earth's magnetosheath in the Equator-S magnetic field data by Lucek et al. (1999). In this paper, the Venus Express (VEX) magnetic field data are investigated with the same method to find mirror mode waves, as the resolution of the plasma data is insufficient to check for anti-correlation between magnetic and plasma pressure. We will show two examples of mirror mode waves, one located near the bow shock ( $\sim 4$  sec period and  $\sim 32$  km wavelength) and one located further in the magnetosheath just after VEX passed through pericenter ( $\sim 10$  sec period and  $\sim 90$  km wavelength).