



An investigation of heliospheric entropy fluctuations using plasma parameters from the Ulysses mission

A. Balogh(1,2) and **J. M. Gloag(2)**

(1)ISSI, Bern, (2)Imperial College,
London(jonathan.gloag@imperial.ac.uk/Phone:+44-020-7594-7764)

The Ulysses spacecraft has been operational for over 15 years during which time an unprecedented continuous data set of solar wind measurements has been created. These measurements have been made during both periods of solar minimum and solar maximum and through a wide range of solar latitudes. This has resulted in the Ulysses spacecraft encountering a large variety of solar wind conditions during which different physical processes can dominate. In the work presented here plasma parameters from the SWOOPS experiment are used to calculate fluctuations in the proton entropy. We combine magnetic field and solar wind composition observations to investigate the dependence of entropy fluctuations on solar wind regimes and solar activity indicators throughout the solar cycle and the Ulysses out-of-ecliptic orbit.