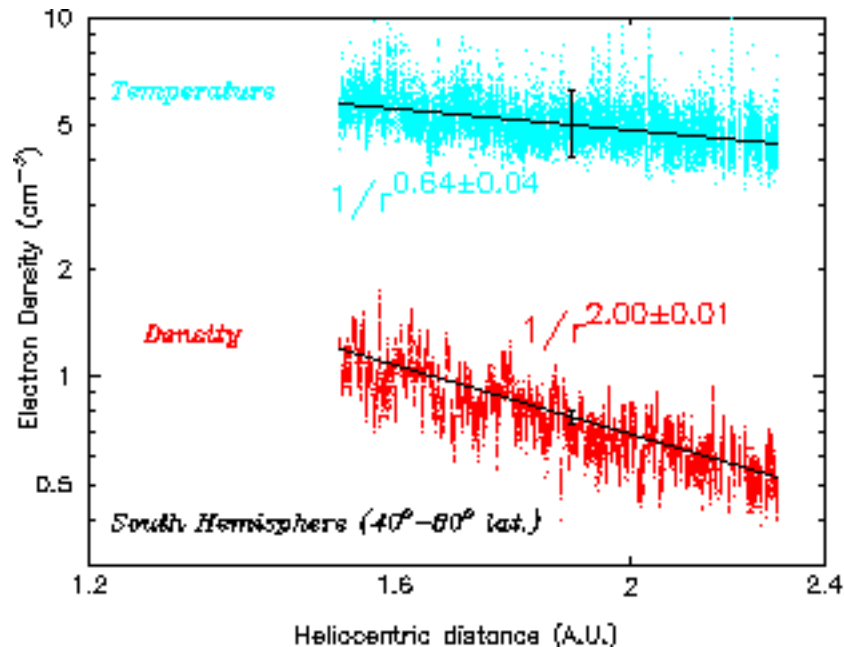
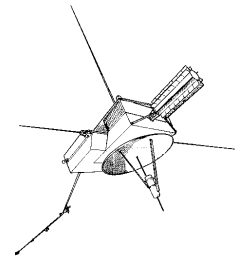


# Radial dependence of electron density and temperature in the high latitude solar wind



In the fast solar wind from the Southern coronal hole, Ulysses detects waves generated at the electron plasma frequency. Spectroscopic analysis of the wave profile yields electron density and temperature which are plotted in the figure.

Both parameters obey power laws in heliospheric distance with the density dependence resulting from the radial expansion of the solar wind. The dependence of temperature upon distance from the Sun indicates that the core electrons are being heated continuously at high latitudes and large distances from the Sun (Issautier et al., J. Geophys. Res., 103, 1969-1979, 1998).