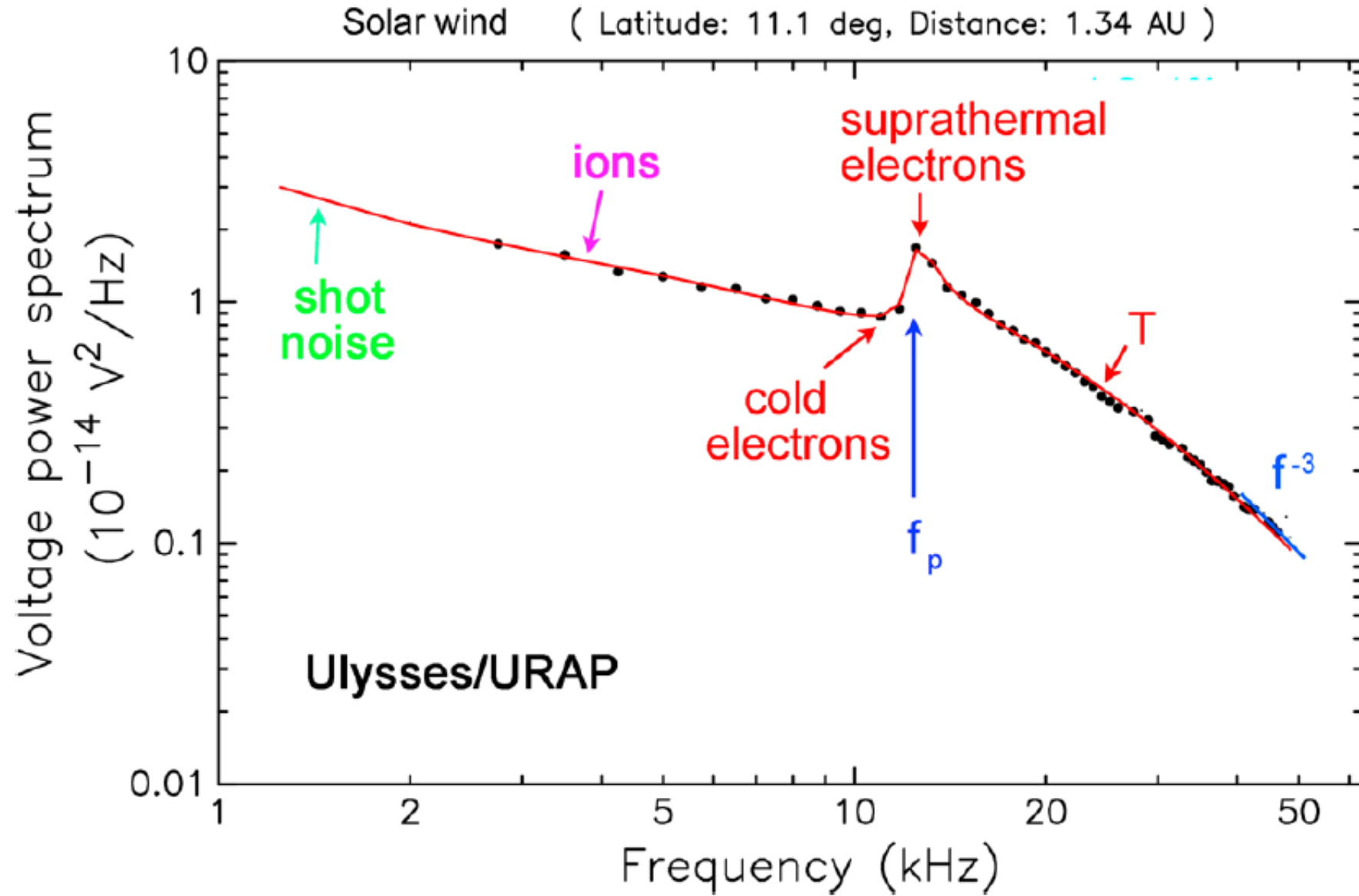
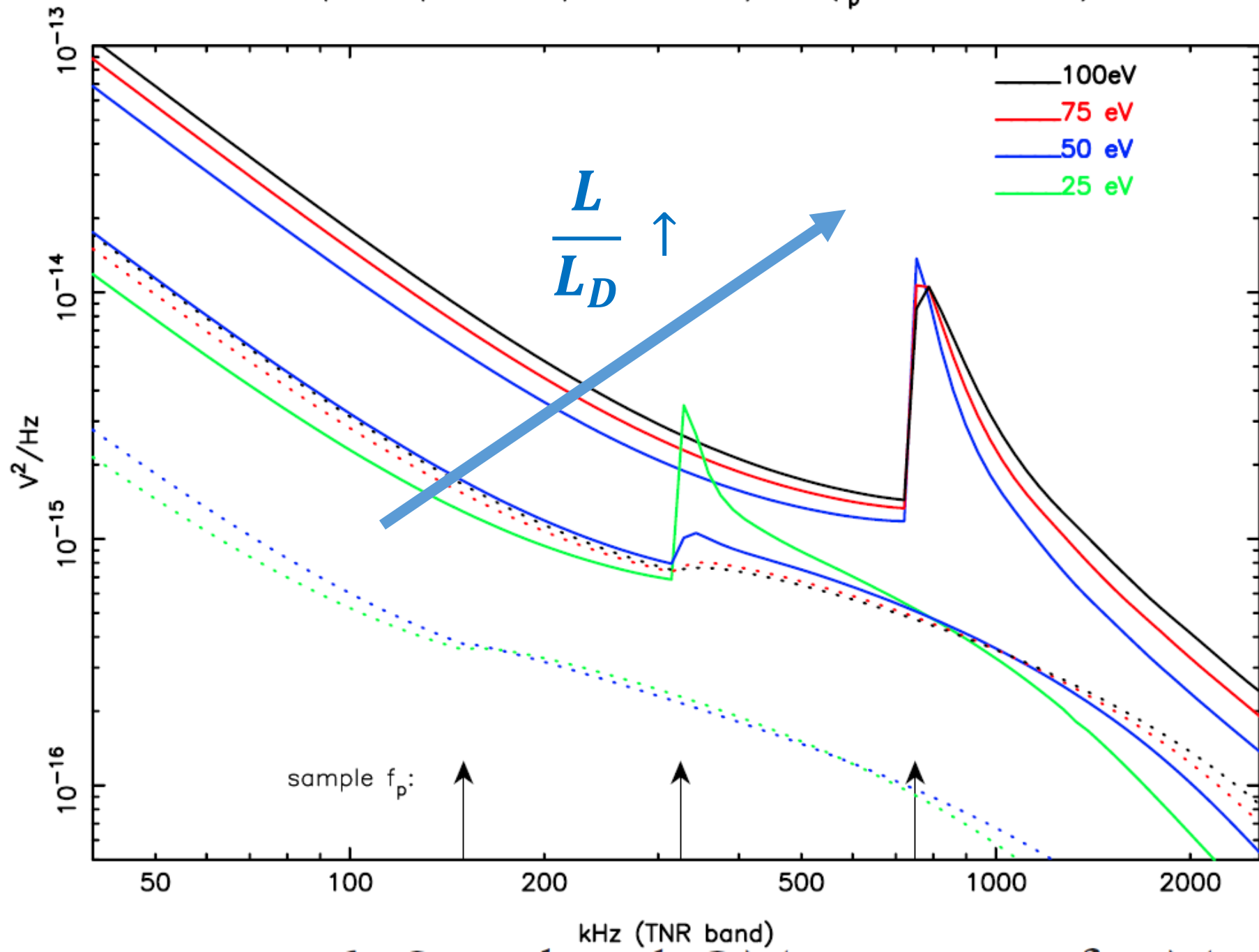
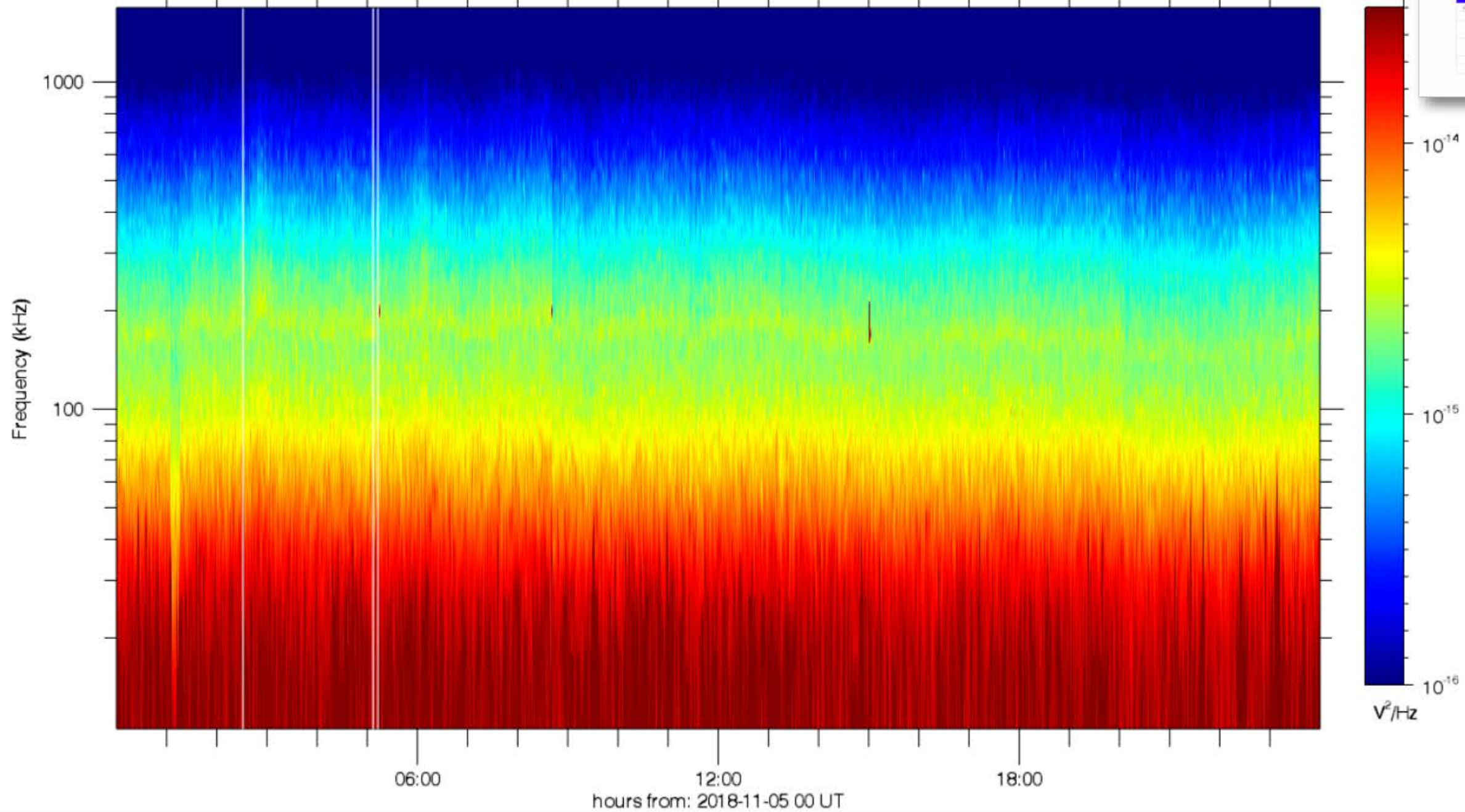


Some PSP (and Helios) results

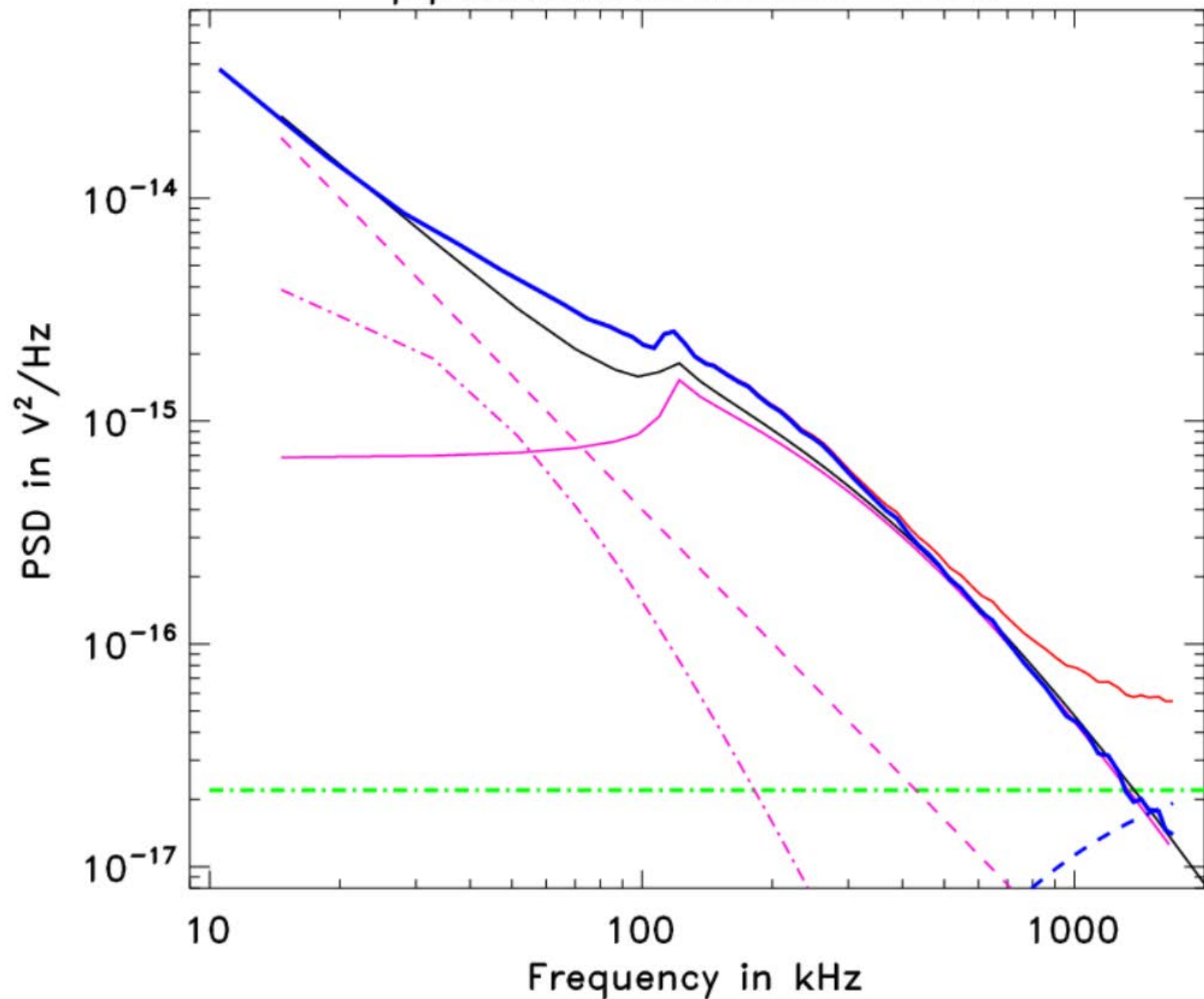


QTN power spectra samples on FIELDS/SP+ ($f_p=150,325,750\text{kHz}$)





psp fld J2 rfs Jfr 20181031 @ 11:42



- **Observed**
- **Observed-Galaxy-noise**
- - - **Galaxy with $L_{eff} = 3.5 m$**
- . - . **Receiver noise**
- **Electron QTN ; $\kappa=2$**
- - - **Shot Noise**
- . - . **Proton QTN**

Fitting not understood around the peak

- **Due to the effect of the dipole separation ?**
- **Due to the electron VDF?**

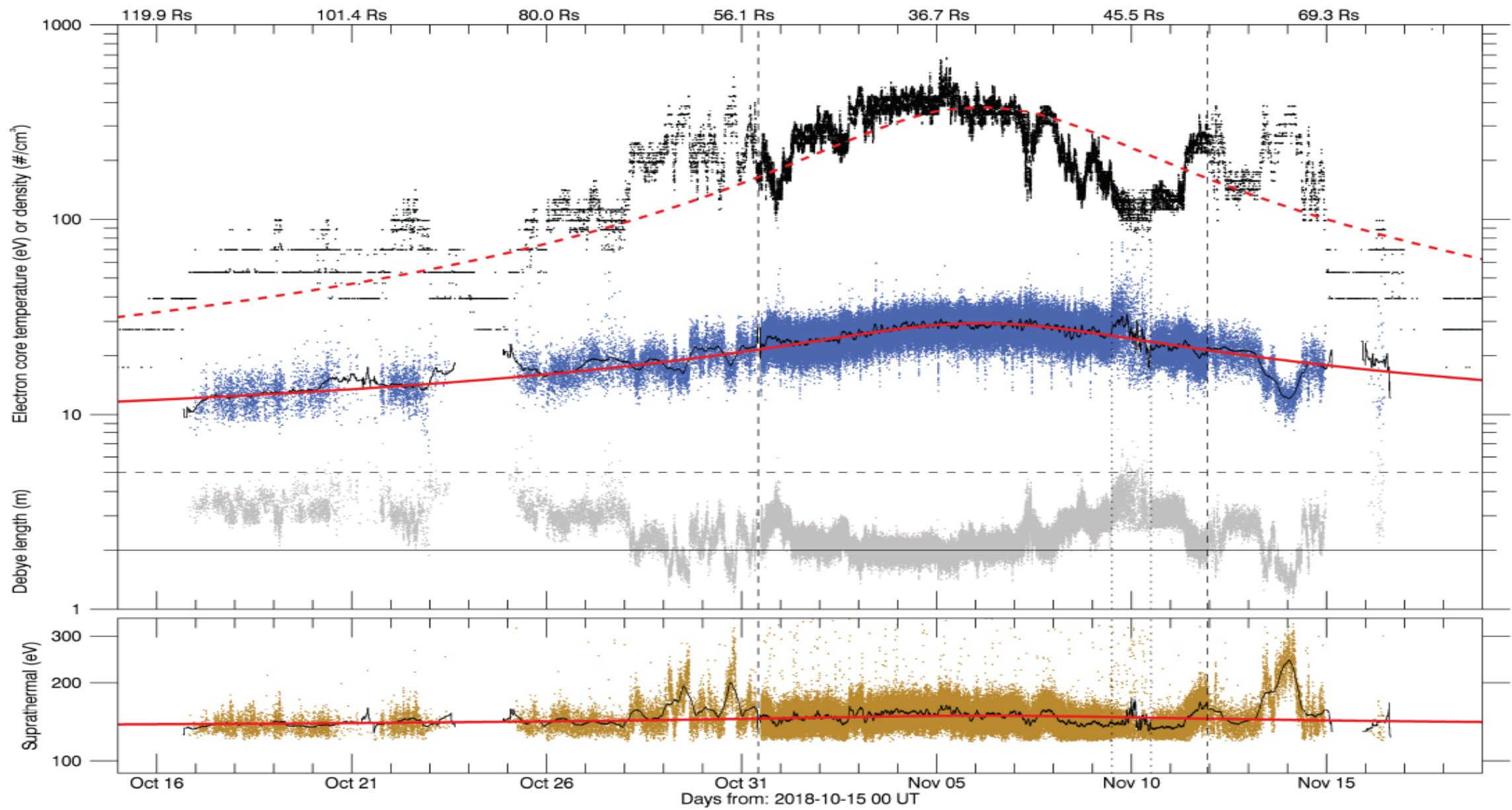
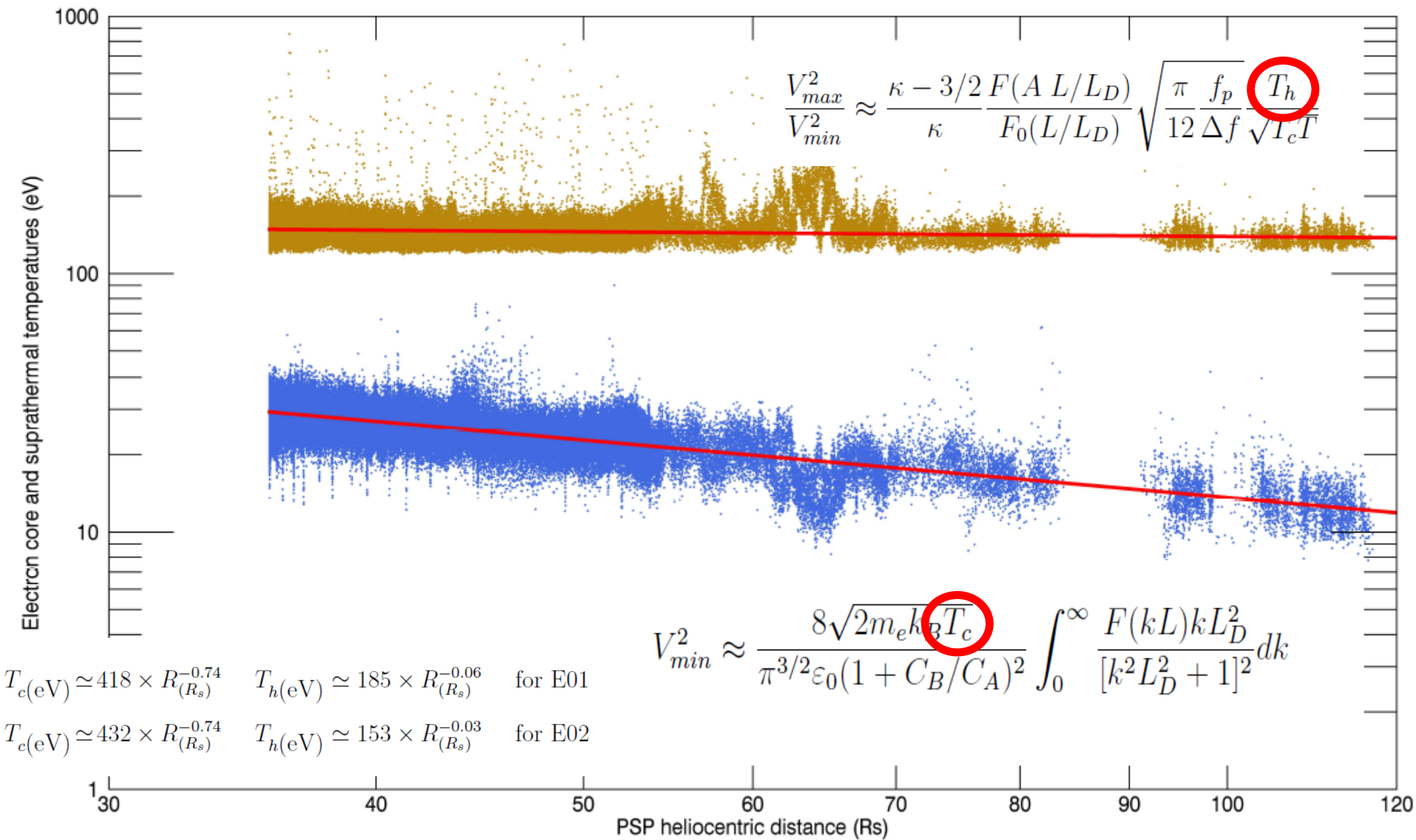
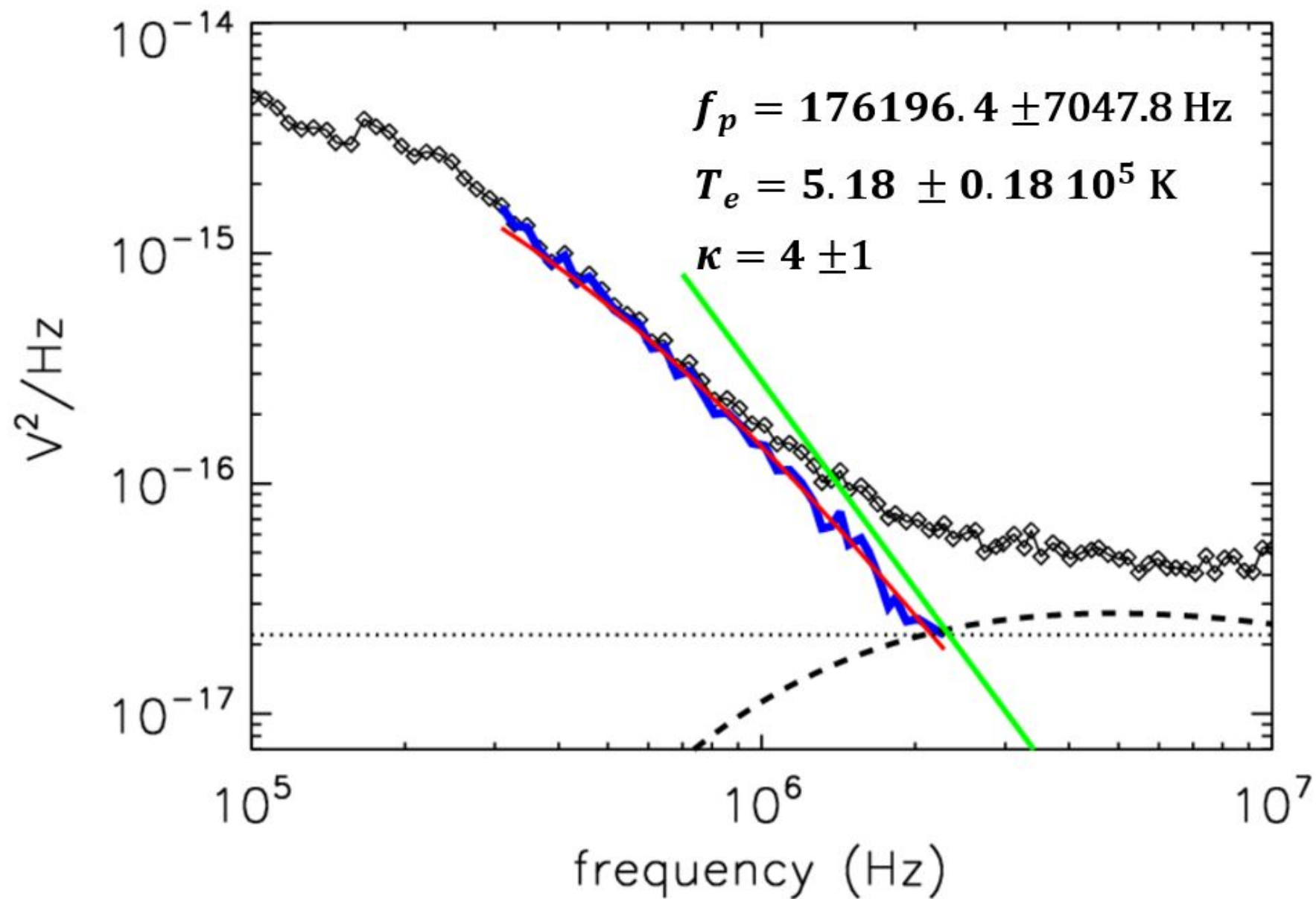
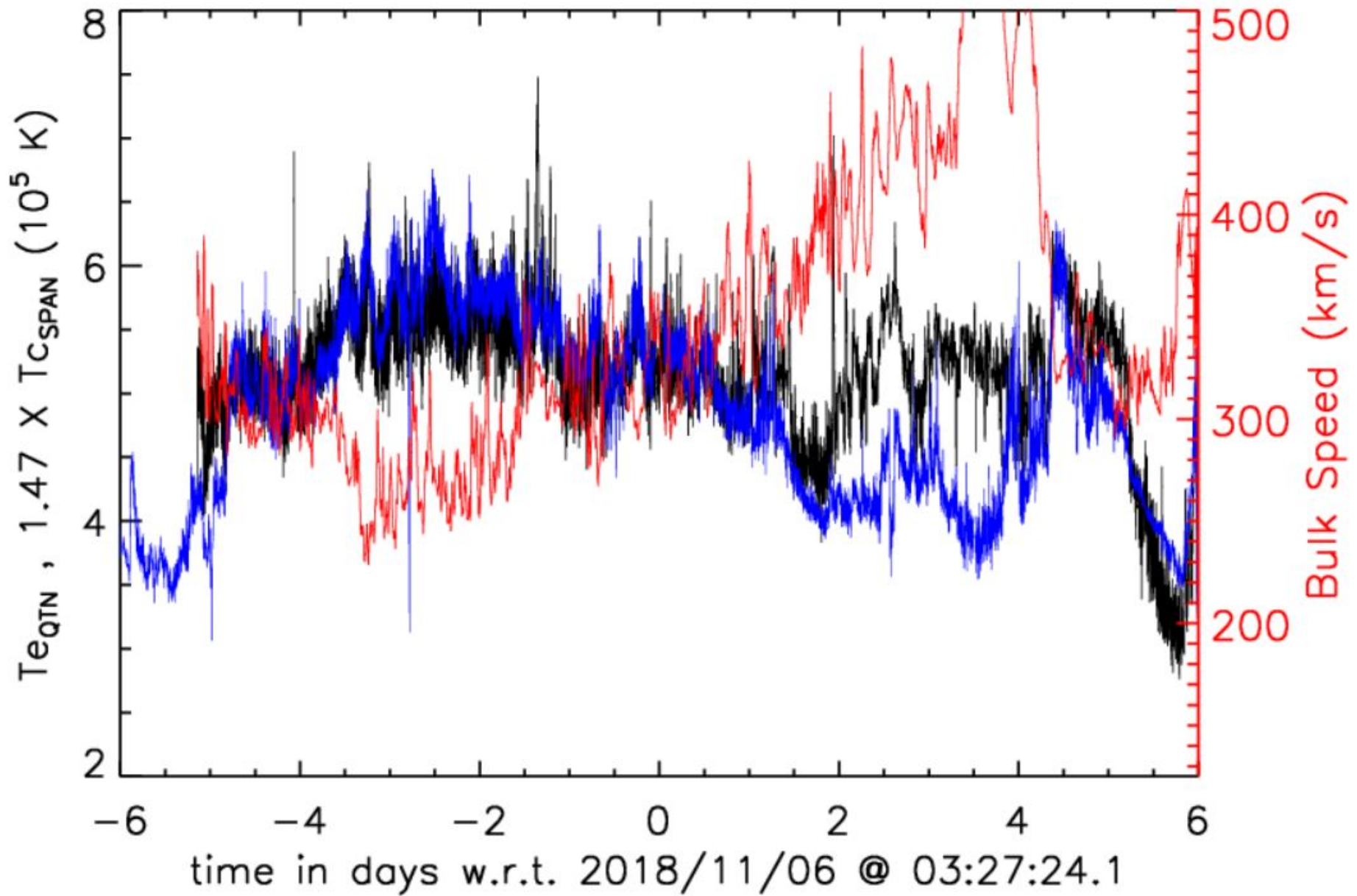


Fig3_First PSP perihelion



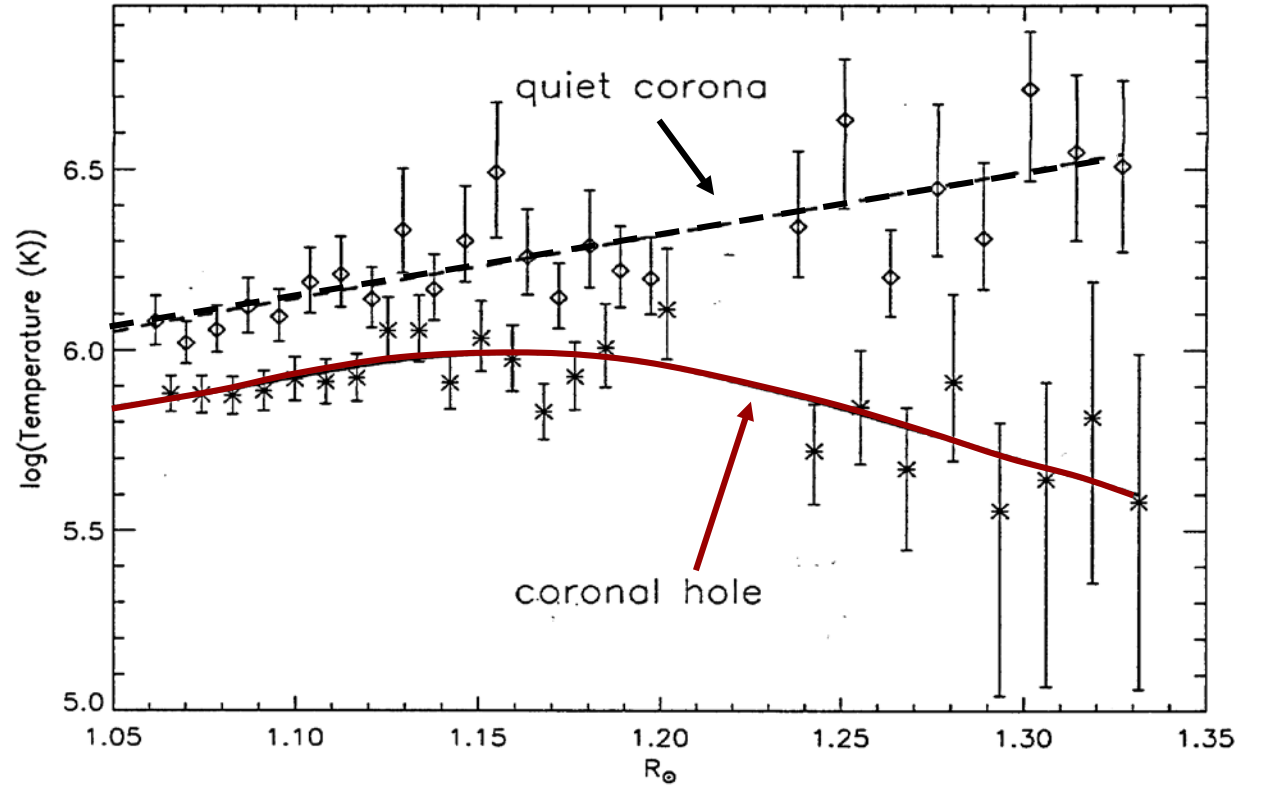
[V1-V2] dipole ; 03/11/2018 - 14:41:3.47





Electron temperature in the corona
OVI 1032 Å & 150 Å intensity ratio high sensitivity to temperature

T_e reaches a maximum of 10^6 K in the coronal holes
- T_e higher in the quiet corona



David et al., A&A 336, L90, 1998

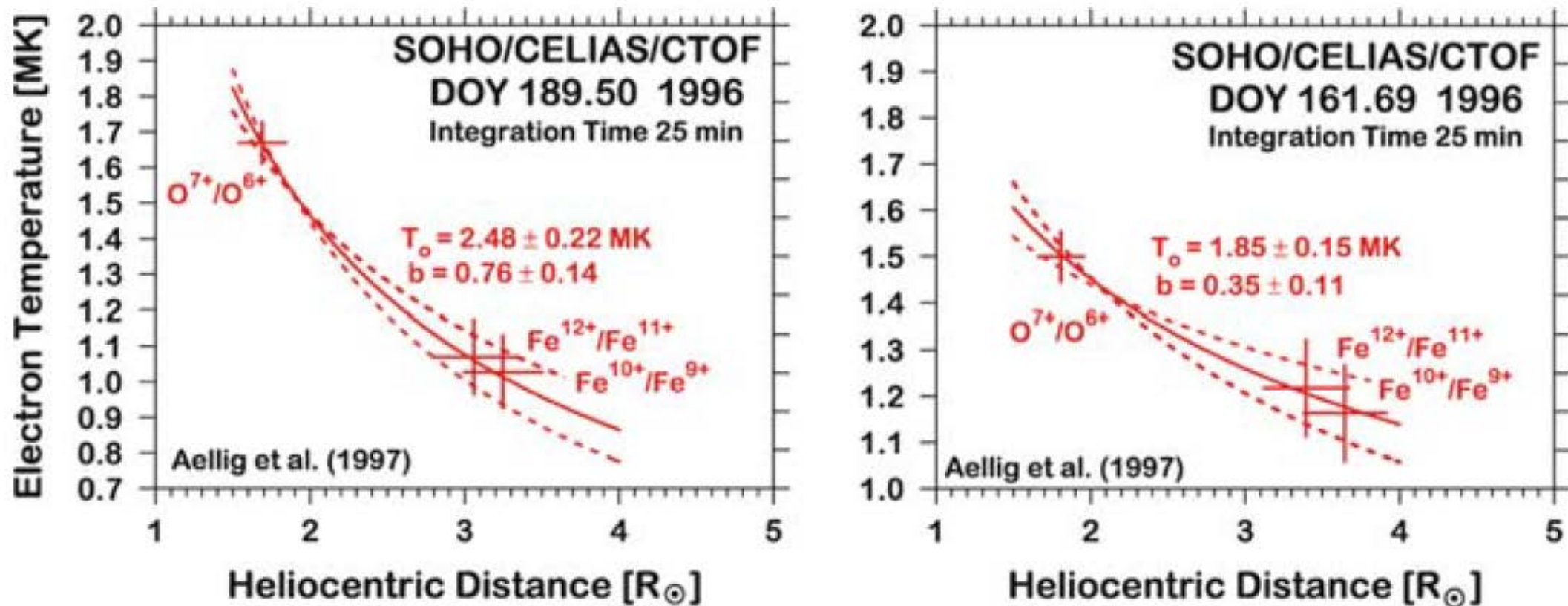


Fig. 7 Coronal temperature profile derived from observations of oxygen and iron charge states with SOHO/CELIAS (adapted from Aellig et al. (1997a)). Such profiles could be derived routinely with high time resolution. The *left panel* shows a case with a rather steep profile and elevated electron temperatures up to 1.7×10^6 K. Such profiles are typical for low-speed solar wind. The *right-hand side panel* illustrates a flatter profile, representative for high-speed, coronal-hole-associated solar wind with a maximum near 1.5×10^6 K.

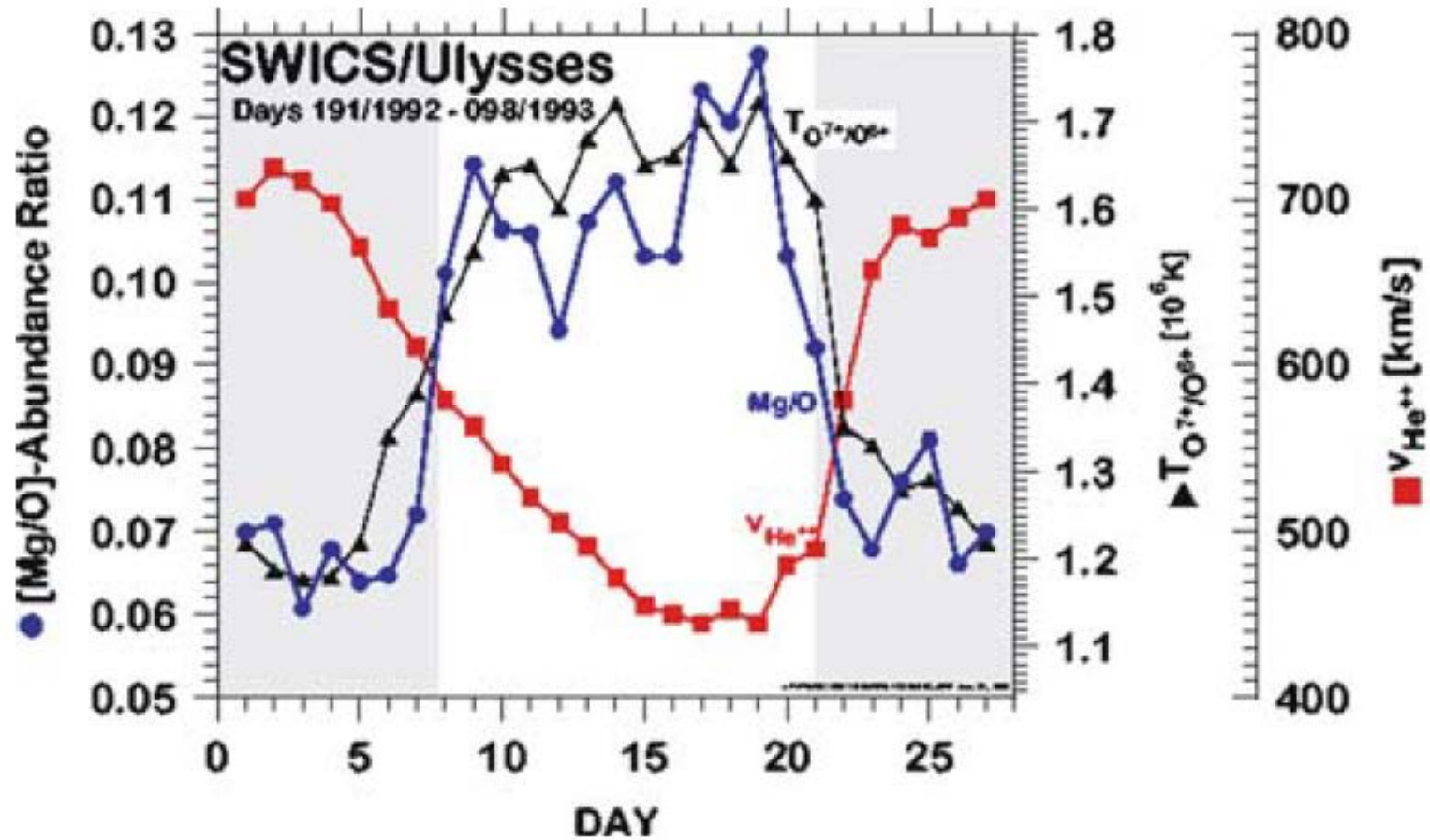
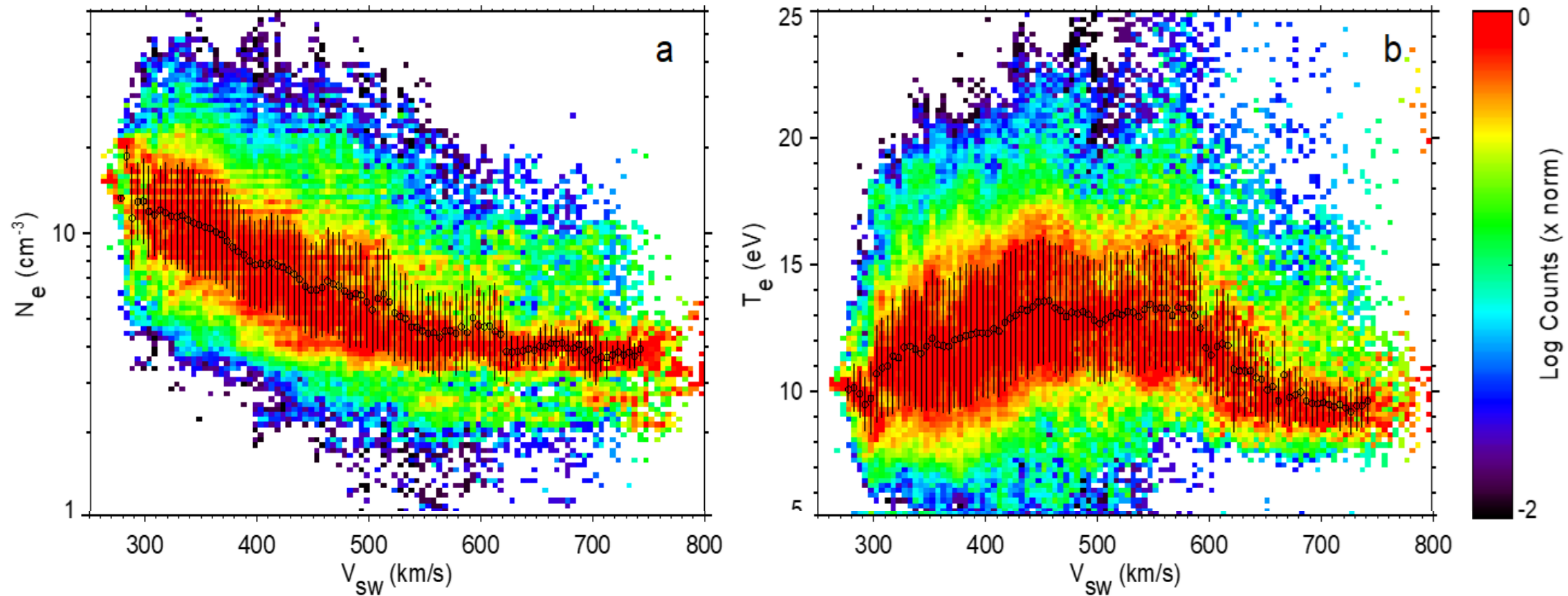
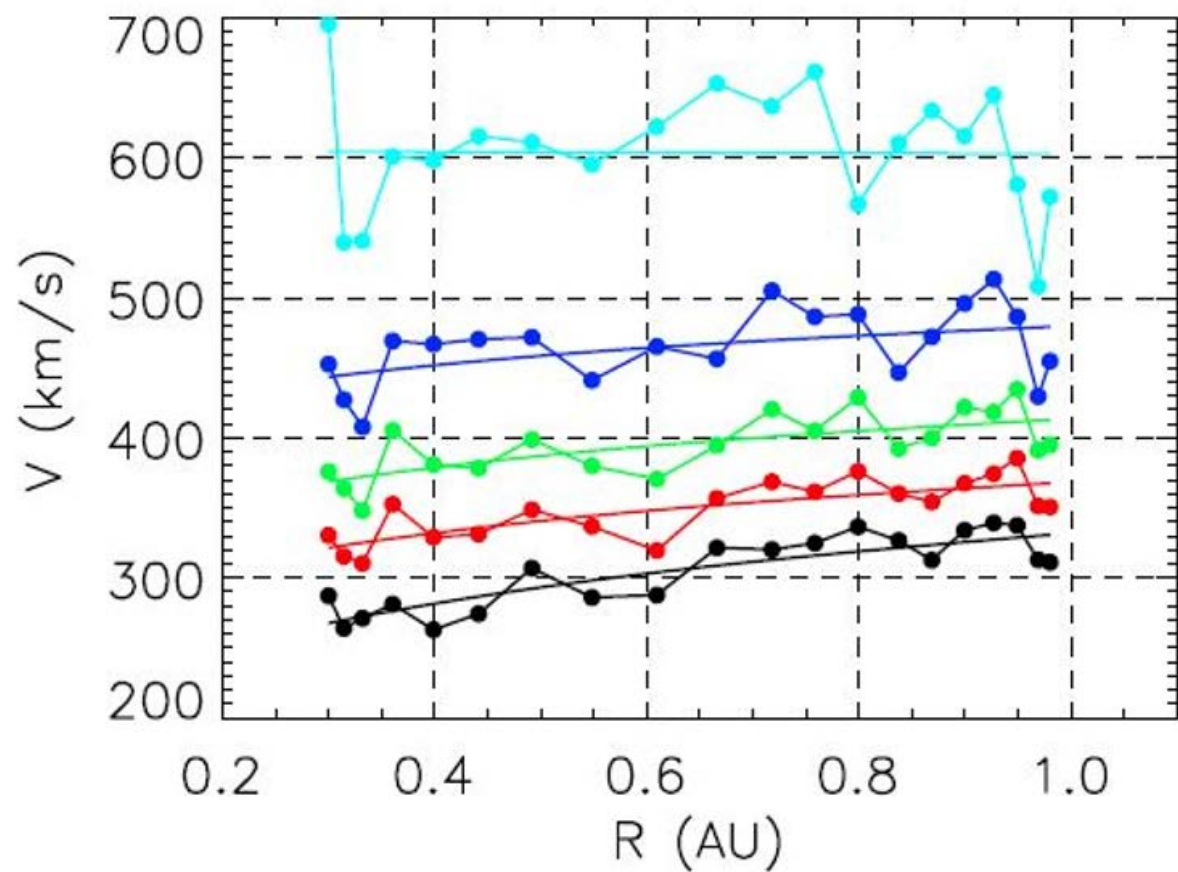
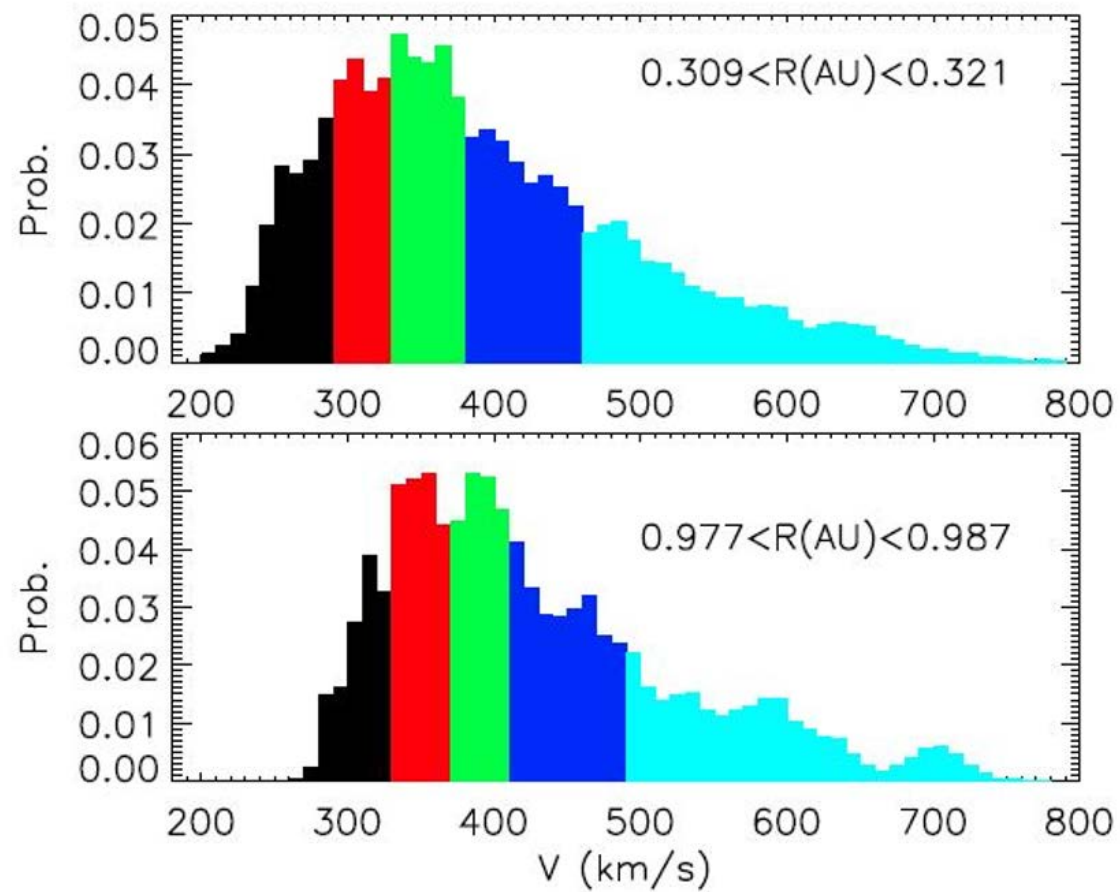


Fig. 8 Superposed epoch analysis of Ulysses/SWICS data covering ten solar rotations (adapted from Geiss et al. (1995)). The three measured parameters are established in three different domains of the solar wind: the Mg/O-abundance ratio (*blue full circles*) is fixed in the source region of the solar wind, i.e., in the chromosphere. The oxygen freezing temperature (*black triangles*) is established in the corona near the temperature maximum (see discussion above). The solar-wind velocity (*red squares*) is modified by wave-particle interaction and stream-stream interactions throughout the heliosphere. During the period of observation, Ulysses was moving at low heliographic latitudes cruising between the southern coronal hole and the streamer belt, which led to a repetitive high-speed wind stream (*gray-shaded area in the plot*) and the region near the repetitive current sheet (*marked white*). Note that the compositional features show rapid changes at the fringes while the kinetic property (solar-wind speed) changes smoothly

Chadi's 1 AU WIND fits





~1877000 data points

