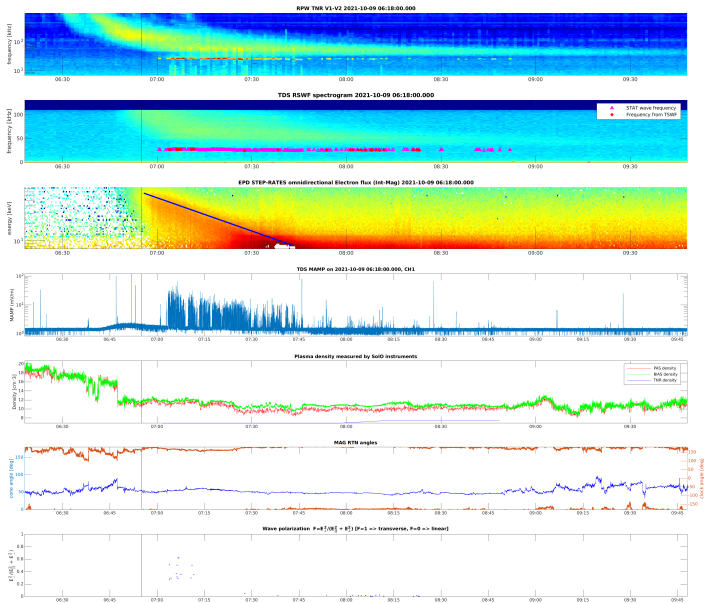


The background of the slide is a composite image. On the right side, there is a large, bright, orange-yellow sun with visible solar flares and a granular surface. On the left side, the Solar Orbiter spacecraft is shown in a dark space filled with stars. The spacecraft has a central body with various instruments and two large, rectangular solar panel arrays extending outwards. The title text is overlaid on this background.

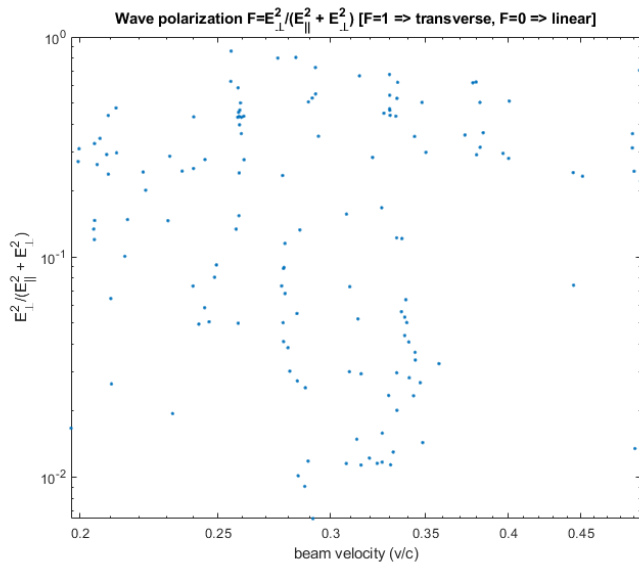
Analysis of in situ type III radio emissions in the solar wind observed by the Solar Orbiter spacecraft

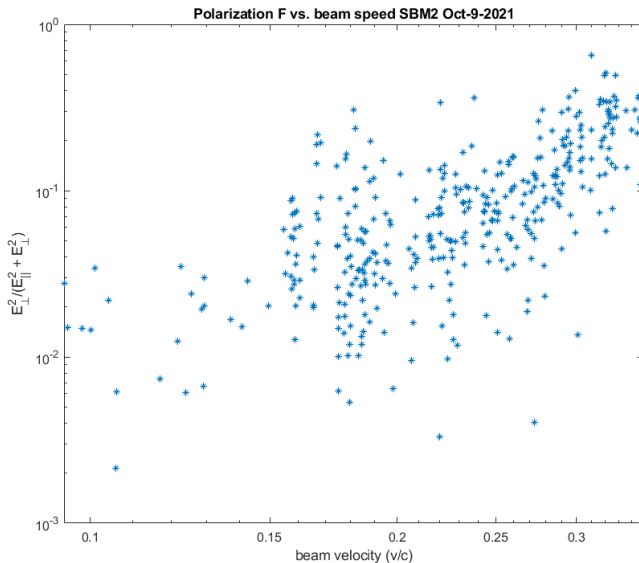
Tomáš Formánek, D. Píša, J. Souček

Dep. of Space Physics, IAP, Czech Academy of Sciences
and
Charles University, Faculty of Mathematics and Physics



Wave polarization statistics





Wave polarization from STEREO

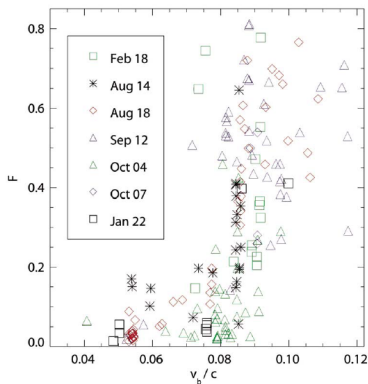


Figure 3. Fraction of total wave energy density (F) contained in E_{\perp} fluctuations (F) for all TDS events from the seven type III periods as a function of the estimated v_b associated with each TDS event. E_{\parallel} and E_{\perp} are defined using magnetic field aligned coordinates as described in text.

(Malaspina et al., 2011)

Statistics from type III events

- ▶ polarization factor F
- ▶ wave energy
- ▶ beam energy
- ▶ distance from the sun
- ▶ solar wind velocity
- ▶ magnetic field strength, cone angle and clock angle
- ▶ plasma density

Beam speed prediction

