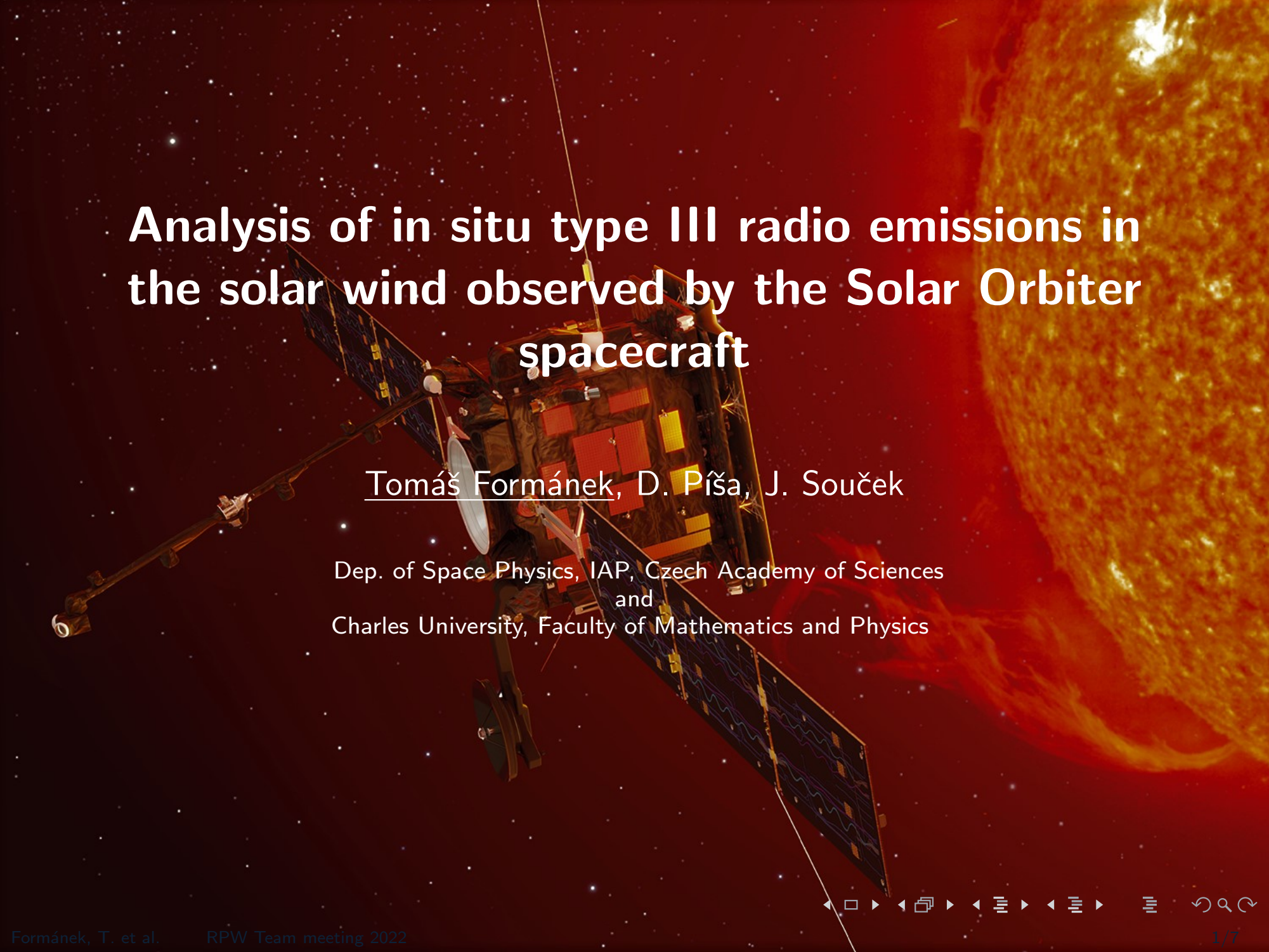


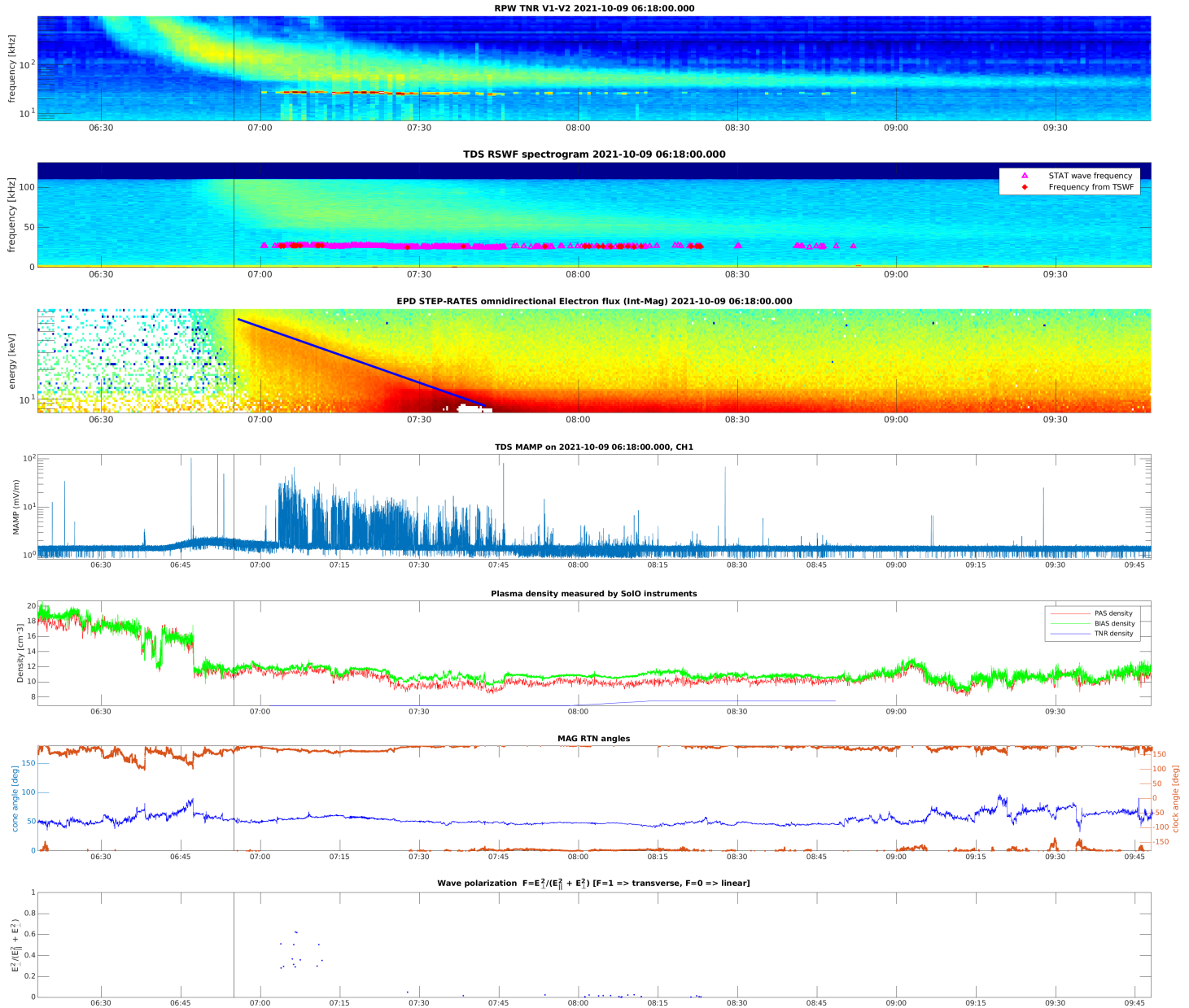
Analysis of in situ type III radio emissions in the solar wind observed by the Solar Orbiter spacecraft

Tomáš Formánek, D. Píša, J. Souček

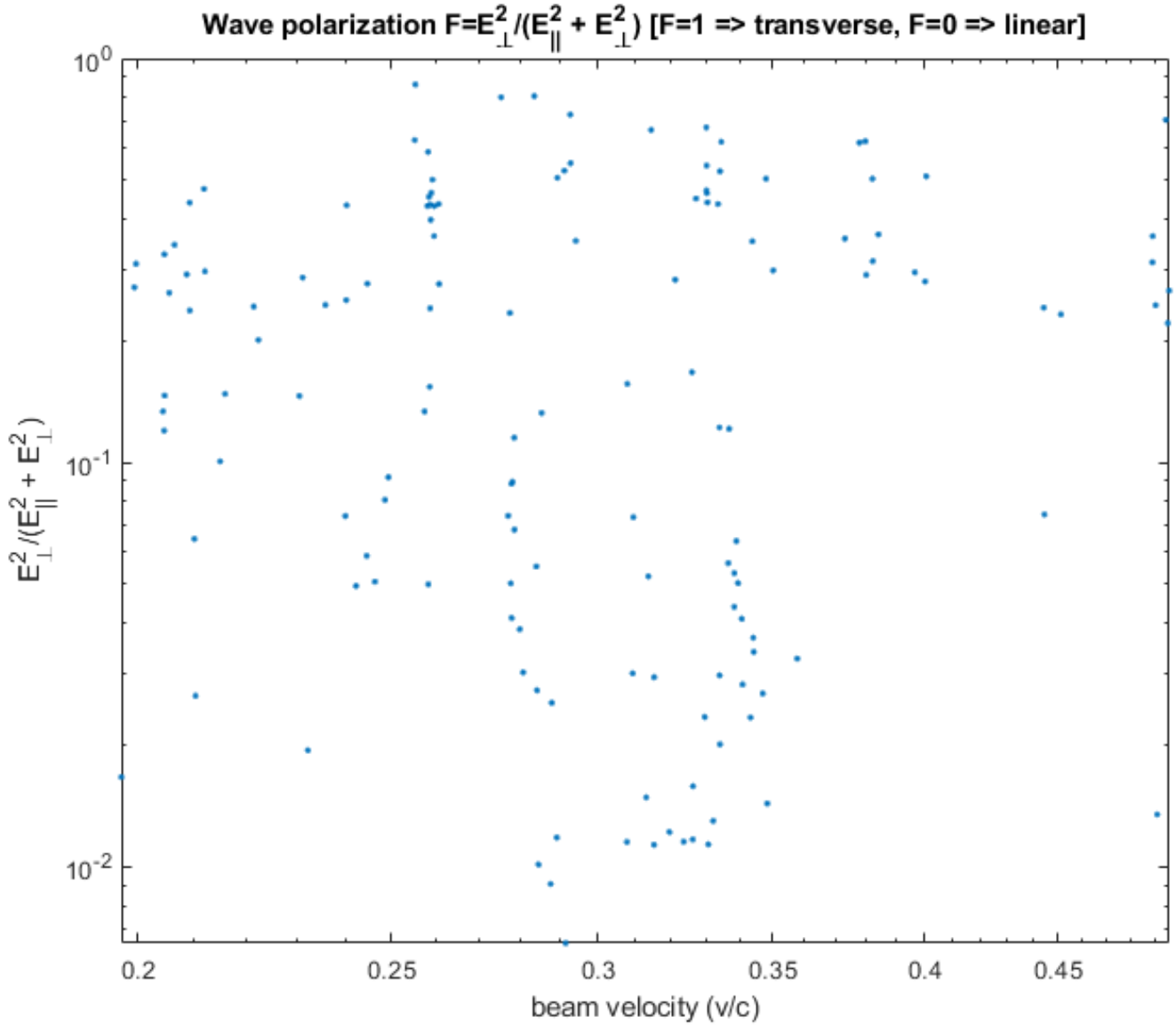
Dep. of Space Physics, IAP, Czech Academy of Sciences
and
Charles University, Faculty of Mathematics and Physics

Overview panels

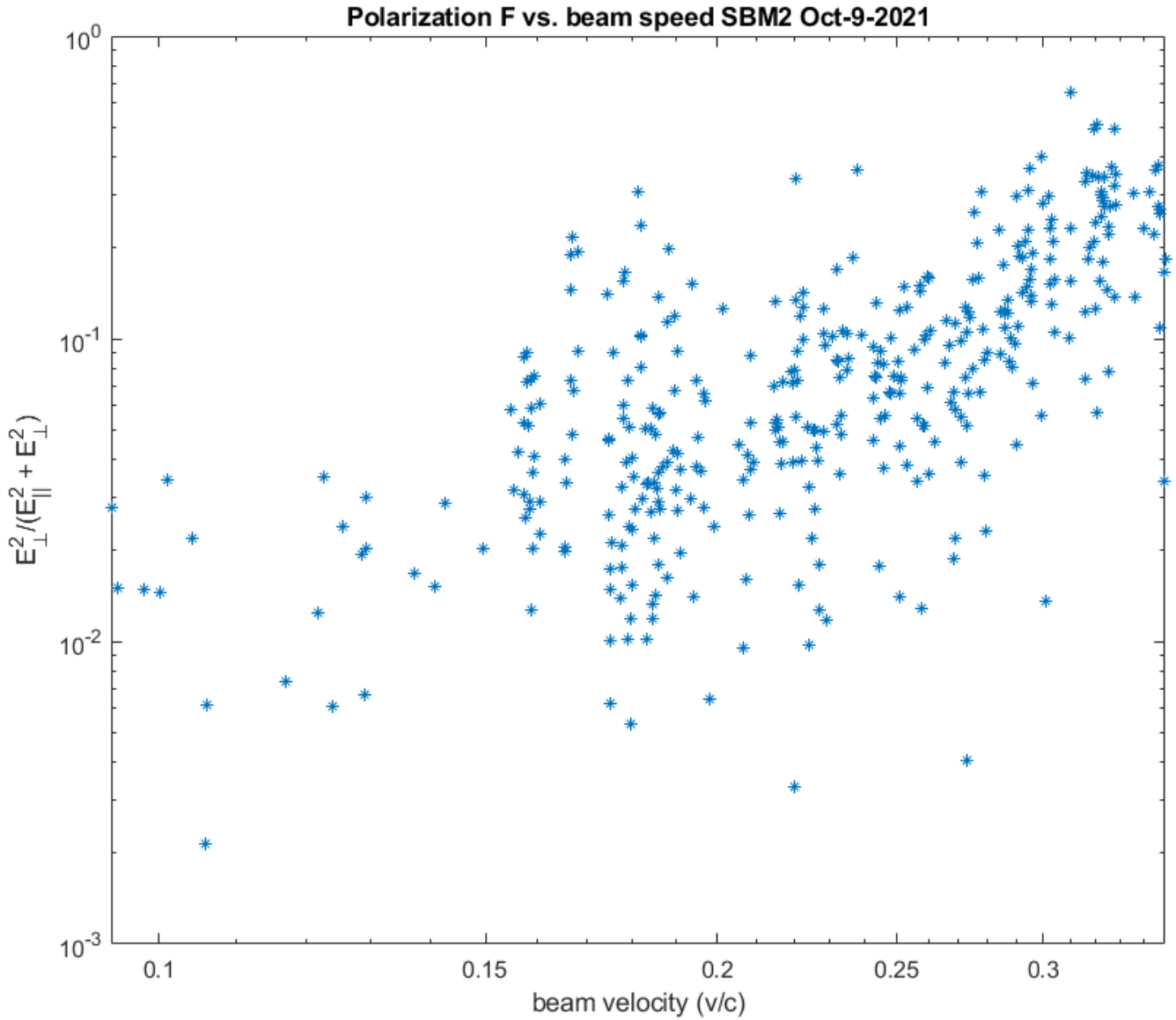
2021-10-09



Wave polarization statistics



Wave polarization from SBM2 data 2021-10-09



EGU (Souček et al., 2022)

Wave polarization from STEREO

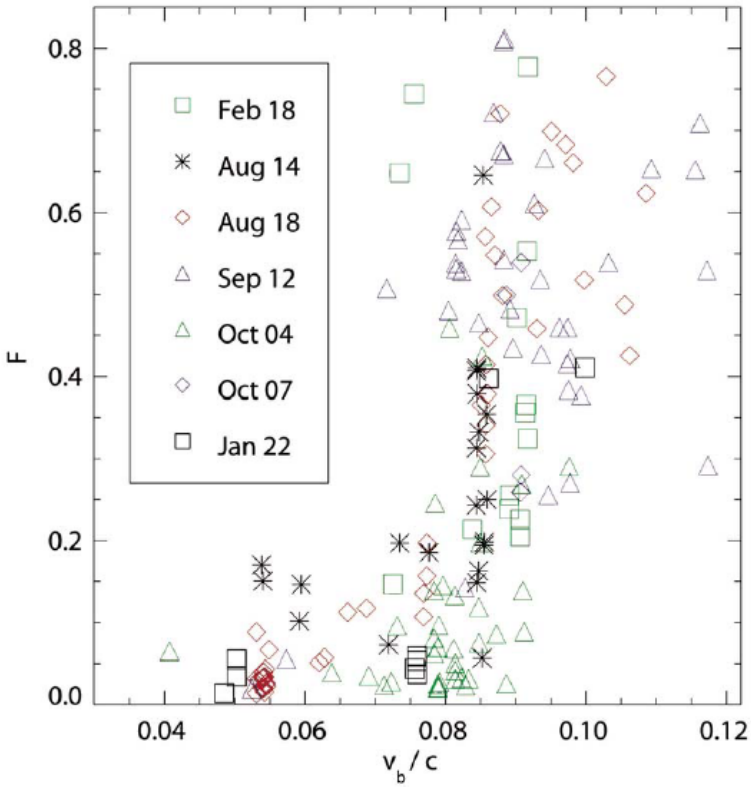


Figure 3. Fraction of total wave energy density (F) contained in $E_\perp$ fluctuations (F) for all TDS events from the seven type III periods as a function of the estimated v_b associated with each TDS event. $E_\parallel$ and $E_\perp$ are defined using magnetic field aligned coordinates as described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