



**Title: In-situ observations of turbulence near Sun by Parker Solar Probe**

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**Abstract:** Turbulence is ubiquitous in naturally occurring flows, including space and astrophysical plasmas. The continuous flow of plasma from the Sun, called the Solar Wind, has been observed to be turbulent for the last few decades. Turbulence plays an important role in formation and evolution of the solar wind. In this talk, we discuss some recent observations of turbulence in the solar wind using in-situ measurements from the Parker Solar Probe mission. We will touch upon various issues such as enhanced dissipation near the Sun, its relation to intermittent structures, scale variation of Alfvénicity, and large scale isotropization of turbulence.

**List of related published papers**

1. Measures of Scale-dependent Alfvénicity in the First *PSP* Solar Encounter by T. N. Parashar *et al* 2020 *ApJS* **246** 58
2. Enhanced Energy Transfer Rate in Solar Wind Turbulence Observed near the Sun from *Parker Solar Probe* by Riddhi Bandyopadhyay *et al* 2020 *ApJS* **246** 48
3. Observations of Heating along Intermittent Structures in the Inner Heliosphere from *PSP* Data by R. A. Qudsi *et al* 2020 *ApJS* **246** 46
4. Clustering of Intermittent Magnetic and Flow Structures near *Parker Solar Probe*'s First Perihelion—A Partial-variance-of-increments Analysis by Rohit Chhiber *et al* 2020 *ApJS* **246** 31
5. Observations of Energetic-particle Population Enhancements along Intermittent Structures near the Sun from the *Parker Solar Probe* by Riddhi Bandyopadhyay *et al* 2020 *ApJS* **246** 61
6. Shear-driven Transition to Isotropically Turbulent Solar Wind Outside the Alfvén Critical Zone by D. Ruffolo *et al* 2020 *ApJ* **902** 94