Geophysical Research Abstracts Vol. 21, EGU2019-18768, 2019 EGU General Assembly 2019 © Author(s) 2019. CC Attribution 4.0 license.



Some first results from the FIELDS instrument suite on Parker Solar Probe

Stuart Bale (1), John Bonnell (1), Thierry Dudok de Wit (2), Keith Goetz (3), Peter R. Harvey (1), Robert J. MacDowall (4), David M. Malaspina (5), Marc Pulupu (1), and the PSP/FIELDS team

(1) University of California, Berkeley, USA, (2) LPC2E, CNRS, 3A avenue de la Recherche Scientifique, Orléans, France, (3) University of Minnesota, USA, (4) NASA Goddard Space Flight Center, USA, (5) Laboratory for Atmospheric and Space Physics, The University of Colorado, Boulder, USA

The NASA Parker Solar Probe mission launched on August 12, 2018 and reached its first perihelion of 35.7 solar radii on November 5, 2018. The FIELDS instrument suite made the first measurements the solar wind magnetic field, DC electric fields, plasma waves, quasi-thermal noise, and radio emissions below \sim 20 MHz at this distance from the Sun. Here we present the status of the FIELDS instrument and an overview of early results from the first perihelion. FIELDS measures large switchbacks of the radial magnetic field, copious ion cyclotron waves, whistler and Langmuir waves, as well as magnetized turbulence and magnetic field null points.