Plenarvortrag PV I Mo 9:30 Theater Vorpommern

Plasma physics of the heliosphere - from the solar corona to the heliopause — •Eckart Marsch — Max-Planck-Institut für Sonnensystemforschung, Max-Planck-Strasse 2, 37181 Katlenburg-Lindau

The heliosphere is the cavity carved by the solar wind into the local interstellar medium. A survey of the different plasmas existing in the heliosphere is given, and their basic properties, dynamics and interactions with bodies in the solar system are briefly discussed. The solar wind in its various forms originates in the solar corona. Selected new observations and concepts of solar wind acceleration and coronal heating are addressed. The heliosphere is permeated by plasma waves and turbulence from different sources. The role that turbulence plays in plasma transport and some related kinetic processes are outlined.