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Three-Dimensional Structure of the Solar Wind in the Inner Heliosphere

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The observations obtained with the Interplanetary Scintillation (IPS)technique over the period of a solar cycle have allowed a thoroughstudy and characterization of the physical parameters of the solarwind plasma and their evolution out to about 1 AU. This paper reviewsthe three-dimensional structure of the solar wind over the solar cycleand examines other recent observations in order to understand how theheliospheric structure evolves from the chaos of solar maximum to thesimplicity observed throughout most of the solar cycle. This paper alsoreviews the results of dynamical interactions between the solar windplasma and magnetic cloud (i.e., coronal mass ejection), as it movesaway from the Sun.