



Waves and turbulence in the solar wind

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Waves and turbulence are present in many astrophysical plasmas, where they can have a significant impact on energetic particle propagation and large scale energy transfer. However, many aspects of plasma turbulence are poorly understood, partly because of the difficulty of measuring it in any detail. The solar wind offers a unique opportunity to study plasma processes, including waves and turbulence, using spacecraft which can sample the medium directly. We review some of the key results in this field to date: the existence of Alfvén waves propagating away from the Sun; the development of an active turbulent cascade; and the presence of intermittency, which is also a property of neutral fluid turbulence. Finally, we discuss recent results regarding the anisotropy of the fluctuations around the magnetic field direction, and their consequences for energetic particle propagation.