



Evolution of solar wind turbulence from the Sun to the Heliosheath

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The evolution of solar wind turbulence over heliocentric distance is determined by several sources in the inner and outer heliosphere. These include 1) compressions and shears from stream-stream interactions, 2) pressure gradients of energetic particle populations, 3) pick-up ion driven magnetohydrodynamic waves, and 4) heliospheric shocks. An overview on theoretical models for the different processes is given. The results of these models are compared to recent spacecraft data of sensors on board the SOHO, ACE, Ulysses, and Voyager spacecraft including the measurements of Voyager 1 in the heliosheath. Heliospheric transport parameters are derived from the observed and modeled turbulent fluctuations, in particular those for the heliosheath region.