

Abstract Submitted
for the DPP06 Meeting of
The American Physical Society

Spectral Energy Transfer and Dissipation of Magnetic Fluctuations in the Solar Wind S. PETER GARY, Los Alamos National Laboratory — We will give an overview of observations of magnetic fluctuations in the solar wind, followed by an overview of various physical models that have been put forward to explain the formation and dynamics of the magnetic fluctuation spectra. We will discuss in detail the physical processes might be present in the relatively high frequency range where both the proton and electron damping of the solar wind magnetic fluctuations might play an important role. Assumptions, limitations and the subsequent results from different approaches will be presented. Results from many different numerical simulations designed for understanding the wave-particle interactions in the solar wind conditions will be described as well.

William Matthaeus
University of Delaware

Date submitted: 27 Jul 2006

Electronic form version 1.4