

E108-003

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Statistical analysis of space plasma turbulence data using multi-spacecraft measurement

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MHD waves are ubiquitous in space, and they play essential roles in various physical processes such as the coronal heating and the diffusive shock acceleration of energetic particles. Due to their large amplitude, one has a possibility to directly observe nonlinear interaction among the waves. It is thus important and timely to develop robust and accurate methods to extract as much information on the MHD waves as possible using the field and plasma data obtained from multi-point measurement. After introducing some basic concepts on the higher order statistics, we present our recent efforts along this line. Some examples using simulation data will be presented as well.