



Tools for THOR: Structure analysis

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The THOR mission is designed with a comprehensive package of instruments to explore the energy dissipation and particle energization taking place in turbulent plasma environments. In this paper, we provide an overview of methods to analyse and classify plasma structures from such a suite of instruments. Most of the analysis methods are based on generic conservation laws (e.g., energy, mass and flux conservation). Combined with field measurements and particle moments from a well equipped single spacecraft such as THOR, knowledge about the orientation, motion and dimensions of plasma structures can be derived. Examples from applications using measurements from existing spacecraft missions and benchmarking against multi-spacecraft methods are shown.