

pySPEDAS: Space Physics Environment Data Analysis Software in Python

Wednesday, October 21, 2020 2:21 PM (3 minutes)

SPEDAS (Space Physics Environment Data Analysis Software) is a framework, written in IDL, to support loading, plotting, analysis, and integration of data from a number of space- and ground-based observatories, including THEMIS, MMS, GOES, ERG, IUGONET, and most data sets archived at NASA CDAWeb. While powerful, IDL has numerous limitations, including the high cost of licensing, limited support and issues created by a single namespace. Due to these limitations and the increasing popularity of the Python programming language, we are collaborating with several missions to bring their data products into the Python environment through a project called pySPEDAS. pySPEDAS currently supports loading data from over 20 missions, as well as several ground-based observatories and includes some basic tools for analyzing these data. This presentation will include a brief introduction to the library, the current status and a brief discussion of how we're validating the data products.

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Session Classification: Tools & Software