2022 Workshop: Facilitating SmallSat Data Distribution

Long title
Discussions to better facilitate SmallSat mission information and data distribution
Conveners
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Description

The goal of this session is to identify the challenges associated with disseminating SmallSat mission information, and brainstorming simple cost-effective ways these challenges can be addressed at a CEDAR level. The questions this session will answer are: 1) “what are the challenges that restrict SmallSat science?”, and 2) “how can these challenges be reduced at the CEDAR level?”. These questions will be answered through a series of presentations and round table discussions in which both SmallSat and non-SmallSat scientists can give their “two cents”. From here, useful resources and potential solutions will be identified and coordinated.

Agenda

10:00 - 10:05: Lindsay Goodwin - Introduction to session

10:05 - 10:20: Guiping Liu - NASA ROSES HDEE and HTM Updates

10:20 - 10:35: Jonathon Smith - Space Physics Data Facility (SPDF): Data Archives and Services

10:35 - 10:50: Phil Erickson - Madrigal Database

10:50 - 11:05: Jeffrey Klenzing - Open-Source Code Interfaces

11:05 - 12:00: Bruce Fritz and Lindsay Goodwin - Discussion Facilitation

File upload
Talk 1: NASA ROSES HDEE and HTM Updates (200.32 KB)
Talk 2: Space Physics Data Facility (SPDF) (1.48 MB)
Talk 3: Brief overview of the Madrigal database (1.24 MB)
Talk 4: Open-ended thoughts on open source and open science for small sats (360.52 KB)
Talk 5: CEDAR SmallSat Session - Discussion Facilitation (525.4 KB)
List of upcoming CubeSat missions (76.99 KB)
Justification

Discussions held during the AGU 2021 “Science from an ITM CubeSat Constellation” elightning session revealed gaps between the personnel who develop SmallSat missions and those who would be interested in using SmallSat data. Beyond posting information on a publicly available website, SmallSat missions are limited in their ability to advertise and discuss their missions compared to large-scale missions. This further leads to issues such as scientists using SmallSat data erroneously, scientists not being aware of helpful SmallSat missions, or even a general lack of knowledge as to why some SmallSat missions “fail” (negatively impacting upcoming SmallSat missions).

Resources for hosting and distributing data from successful SmallSat missions exist but the effort required to process and post the data from these missions can often be a limitation to the most effective use of the data. A forum for sharing resources, methods, and approaches for maximizing the output from smallsat missions would be of great benefit to the community.(/p>

Summary

This session consisted of five talks, followed by a one hour discussion. A link to the session discussion notes is provided here. Please feel free to suggest edits and add comments!

Workshop format
Short Presentations
Keywords
Smallsats, Data
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