

## NASA Small Spacecraft Systems Virtual Institute A Quarterly Brief of NASA's Small Spacecraft Community Resources



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### **Upcoming Opportunity Due Dates & Events**

March 9	Closing - NASA SBIR 2022 Program Solicitation See Focus Area 21 - Small Spacecraft Technologies
March 15	Mini Proposal Questions Due: <u>Announcement for Partnership Proposals (AFPP) to Advance Tipping Point Technologies</u> See solicitation for complete schedule of due dates.
March 31	Mini Proposals Due: Space Technology Announcement of Collaboration Opportunity (ACO) See solicitation for complete schedule of due dates.  Research Opportunities in Space and Earth Sciences – 2022 (ROSES-2022) Programs listed below offer CubeSat / SmallSat
	elements. See solicitation for complete schedule of due dates.
April 1	<ul> <li>D.2 Astrophysics Data Analysis - Notice of Intent Due April 1</li> </ul>
May 24	<ul> <li><u>B.4 Heliophysics Guest Investigators</u> - Step 1 Proposals Due May 24</li> </ul>
June 22	<ul> <li>B.11 Heliophysics Flight Opportunities for Science and Technology - Full Proposal Due June 22</li> </ul>
October 21	<ul> <li>D.3 Astrophysics Research and Analysis Program - Mandatory Notice of Intent Due Oct 21, 2022</li> </ul>
Mar 29, '23	<ul> <li>B.12 Heliophysics Data Environment Enhancements - The last day proposals may be submitted is March 29, 2023</li> </ul>
Jan 27, '23	<ul> <li>D.13 Astrophysics Pioneers - Mandatory Notice of Intent Due Jan 27, 2023</li> </ul>
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Mar 16

Small Spacecraft Community of Practice Webinar RAVAN Mission Overview

Apr 4-7

37th Space Symposium Colorado Springs, CO

Apr 26-28

<u>Cu</u>

CubeSat Developer's Workshop San Luis Obispo, CA

May 2-3

Interplanetary Small Satellite Conference San Luis Obispo, CA

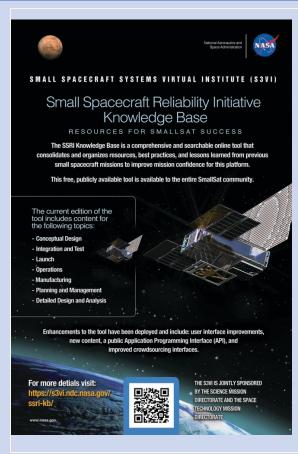
May 16-20

4S Symposium Vilamoura, Portugal

Jun 7-8

<u>24th Annual Small Payload Ride Share Symposium</u> U.S. Air Force Academy, CO

# RELEASED! NASA's Small Spacecraft Reliability Initiative Knowledge Base Tool v2.0



The Small Satellite Reliability Initiative (SSRI) Knowledge Base is a comprehensive and searchable online tool that consolidates and organizes resources, best practices, and lessons learned from previous NASA small satellite missions and those sponsored by other organizations.

Recent enhancements to the Knowledge Base tool have been deployed and include user interface improvements, new content, a public Application Programming Interface, and improved crowdsourcing interfaces.

Read the Full Story
Access SSRI KB Tool v2.0

# CubeSat Design Standard Announced as a 2022 Space Technology Hall of Fame Inductee

Space Foundation, a nonprofit advocate organization founded in 1983 for the global space ecosystem, announced that three innovative technologies developed for space will be inducted as the 2022 class into the organization's Space Technology Hall of Fame®. The induction ceremony will occur during the 37th Space Symposium, held April 4-7, 2022, at The Broadmoor in Colorado Springs.



Image Source: Space Foundation

#### **Read the Full Story**

### **Community Engagement & Learning**



RAVAN Image Source: Johns Hopkins University Applied Physics Laboratory / Blue Canyon Technologies

# Small Spacecraft Community of Practice Webinar Series

Join us for our upcoming "Mission Accomplished" webinar, Radiometer Assessment using Vertically Aligned Nanotubes (RAVAN) Mission Overview by William H. Swartz, Ph.D., Johns Hopkins University Applied Physics Laboratory

**Bookmark Webinar Schedule** 

### **New Space Mission Design Tools Listed**

The S3VI tracks publicly available software tools found useful in the development of small spacecraft missions. New tools included in this quarter's list include those for small spacecraft avionics, constellation remote sensing, and guidance, navigation, and control.

- **PyCubed** is an open-source, radiation-tested CubeSat avionics platform that integrates power, computing, communication, and attitude determination and control functionality into a single low-cost PC104-compatible module programmable entirely in Python.
- Scheduling Planning Routing Inter-satellite Network Tool (SPRINT)
  can be used to simulate the actions of a constellation by utilizing
  crosslinks to consolidate data to be downlinked at scheduled times.
- Commercial Off-The-Shelf Star Tracker (COTS Star Tracker) is intended to enable reasonably high accuracy attitude estimation using COTS cameras and computers.

**Learn More** 

### **More Opportunities to Engage**

NASA Solicitations

Conferences & Events

Information Search

Webinar Series

**NASA Resources** 

### **Around the Agency**

Highlights and links to NASA centers engaged in small spacecraft activities Image Credit: Spaceflight Inc.



### Launch Window

#### **NASA Launch Portal**

Looking for a ride? NASA's Launch Portal is a resource to provide SmallSat/CubeSat developers an opportunity to find potential secondary launch opportunities on flights that are support upcoming NASA SmallSat/CubeSat missions.

### **Recent NASA Launches**

Wondering what NASA has launched lately? Visit our listing of recently launched and deployed small spacecraft. Each mission highlight offers information on launch date and vehicle, orbit, deployment status and mission description.

A quarterly brief by the Small Spacecraft Systems Virtual Institute <u>WEBSITE</u> | <u>EMAIL</u>