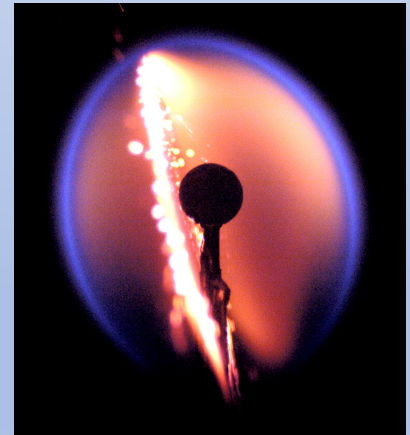
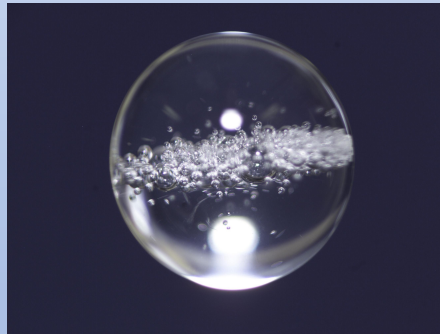


American Society for Gravitational and Space Research

Presentation to UNOOSA

58th session of the Scientific
and Technical Subcommittee



About ASGSR

- Founded in 1984 as a 501(c)(6) nonprofit organization representing the areas of biological and physical sciences.
- Provides a forum to foster research, education and professional development in the multidisciplinary fields of gravitational life and physical science research.
- Brings together a diverse group of scientists and engineers to encourage an exchange of ideas bridging basic and applied biological and physical sciences research and technology in space and on the ground.
- Devoted to furthering the field of gravitational research; members represent academia, government, and industry interests bonded by a common issue – how living organisms and physical systems respond to gravity

Vision

The Vision of ASGSR is to advance biological and physical sciences research in, of, and for space by bringing together professional communities spanning gravitational biology, radiation biology, physical sciences, bioastronautics and astrobiology, and mentoring the future scientific and engineering leaders in these fields.

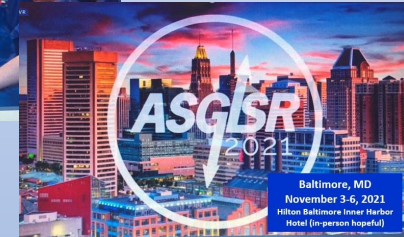
About ASGLSR

Leadership

Gale Allen	Executive Director	
Jamie Foster	President 2021	University of Florida
Steven Collicott	President-elect	Perdue University
Doug Matson	Past-President	Tufts University
Elizabeth Talburt	Student President	MEI Technologies

2021 Governing Board

Sirisha Bandla	Virgin Galactic
Thomas Graham	University of Guelph
Kasthuri Venkateswaran	Jet Propulsion Lab
Mohammad Kassemi	Case Western/NASA Glenn
Tanvir Farouk	Univ. of South Carolina
Karen Ocorr	SBP Medical Discovery Inst.
Gioia Massa	NASA KSC
Jeff Willey	Wake Forest University
William Meyer	USRA, Cleveland Ohio
Michael Roberts	ISS-NL/CASIS
Sarah Swanson	Univ of Wisconsin- Madison
Josephine Allen	University of Florida



ASGSR Journal



Gravitational and Space Research is the journal of the American Society for Gravitational and Space Research (ASGSR) and publishes quality, peer-reviewed manuscripts in several categories of both life and physical space sciences. The journal encompasses the diversity of research on gravitational research both ground-based and in space



ABOUT ASGSR STEAM Foundation

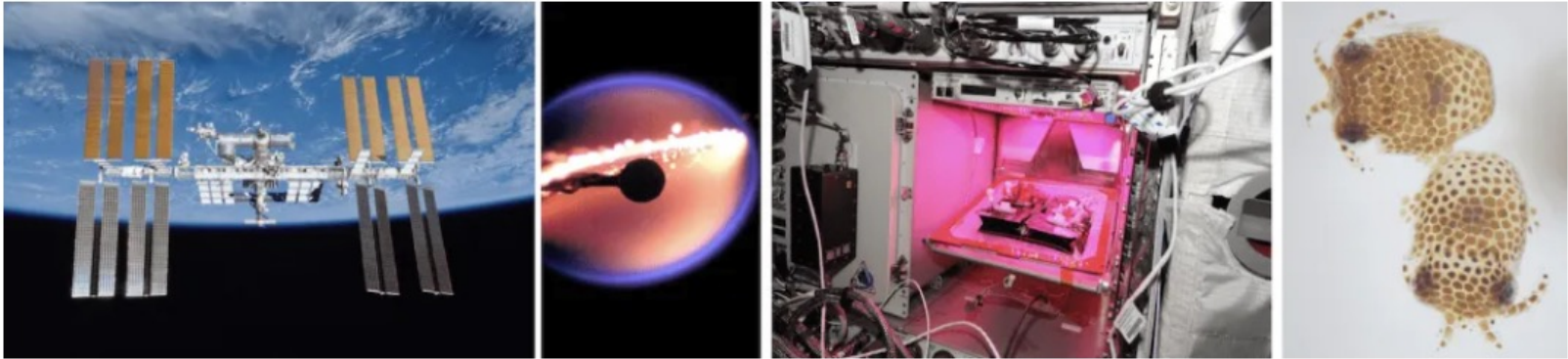
- Established Science, Technology, Engineering, Arts, and Math (STEAM) Foundation 501(c)(3)
- Formed in October 2019
- 5 member governing board
- Focused on tax deductible donations to promote educational opportunities in the field of gravitational and space research
- Currently have three funded educational awards for students Ken Souza (in collaboration with Blue Origin) and Thora Halstead (in collaboration with the Halstead family), and an inspiration award (in collaboration with Norman Lewis and Laurence Davin)
- Currently have one funded innovation award (in collaboration with Axiom Space)



ASGSR Decadal Survey Workshop Series

A once in a decade opportunity....

KNOWINNOVATION



Over the next two years the National Academies of Science, Engineering and Medicine (NASEM) will be developing the next [Decadal Survey on Life and Physical Sciences Research in space 2023-2032](#), which will serve as a critical framework to shape the upcoming vision and strategy plan for NASA's research efforts in the area of biological and physical sciences in space.

The NASEM Decadal Survey committee will be reviewing the current state of knowledge in areas of space-related biological and physical sciences research, identify the most compelling scientific challenges and frontiers within Biological and Physical Sciences in Space Research, and develop a comprehensive research strategy to advance these areas of NASA's portfolio. The full description of the NASEM Statement of Task [can be found here](#).

To facilitate the development of this survey, the American Society for Gravitational and Space Research (ASGSR) is collaborating with [KnowInnovation](#) hosting a series of workshops to help foster community-wide discussions within and across biological and physical science disciplines. Our primary goal of these workshops is to identify potential Research Campaign issues, or those potentially transformative research topics that could not be done with a normal single grant and that will drive the momentum into potential new and cross-disciplinary areas.

Jamie Foster,
President, ASGSR
Email: jfoster@ufl.edu

<https://asgsr.org/decadal-survey/>

Overall Goal for Town Halls: Narrow in on the larger Research Campaigns

1. Virtual Topical Town Halls

- The goal of these Virtual Town Hall events is to engage the larger Biological and Physical Sciences in Space research community and to identify key subjects and larger research campaigns that should be submitted to the Decadal Survey effort as Concept Papers.
- The ideas that are derived from these town halls will be used as a foundation for a series of smaller MicroLab Idea workshops that will occur in December 2020 and January 2021.
- All academic levels are welcome to participate and submit ideas for discussion topics in the Town Halls. You are welcome to participate in multiple events as cross discipline thinking is strongly encouraged.
- Town Halls will be offered in the following categories of Biological and Physical Sciences in Space: Animal, Plant, Microbiology, Fluid Physics, Complex Fluids, Materials, Combustion and Fundamental Physics. Additionally, we will offer a Town Hall focused on Educational topics as well as Diversity, Equity and Inclusion in the Space Sciences.

Want to learn more about these topics?

Please click the button to see talks about current capabilities, space access platforms and a series of Plus10 talks of where some researchers may see their work in 10 years' time.

[Decadal Talks Page](#)

[Register here](#)

Virtual Topical Town Halls 2020

Animal Research:

Nov 12 16:00–18:00 Central

Plant Research:

Nov 17 16:00–18:00 Central

Microbiology Research:

Nov 19 16:00–18:00 Central

Education, Diversity, Inclusion and Equity:

Nov 20 16:00 – 18:00 Central

Fluid Physics; Complex Fluids; Biophysics: :

Dec 1 16:00 – 18:00 Central

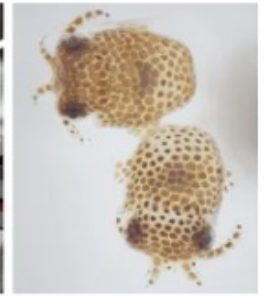
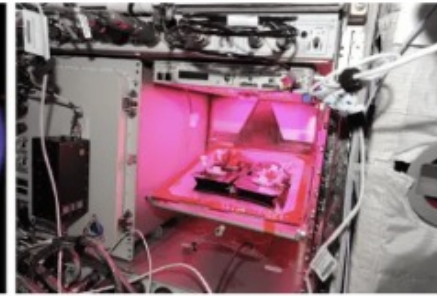
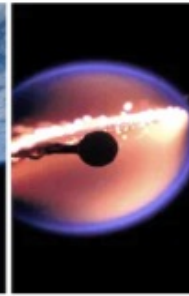
Materials; Combustion; Fundamental Physics:

Dec 3 16:00 – 18:00 Central

Outcome Goal of Town Halls: 1) Stimulate discussion; 2) identify vocal and engaged participants; 3) begin to home in on the major research campaign ideas



Partnering with
KNOWINNOVATION



3. MicroLabs – Highly Interactive workshops (2– 3 h; April/May)

- A. Invite most active participants in Town Halls and Surveys from a wide range of career stages to participate in the Knowinnovation MicroLab workshops**

Anticipate ~100 participants in each of the topical MicroLabs
topical researchers and technology experts will be included

Participants will participate in a series of break out groups and share information with
larger MicroLab

- B. Using the major campaign ideas from the Town Halls and Surveys to start developing critical areas that need to be represented in the Decadal Survey**

Outcome Goals of MicroLabs: 1) Identify the Champions who will lead the major campaign Concept Paper writing effort; 2) Generate outlines for the larger Research Campaign Ideas and identify the writing team.

Follow Up - From February – May 2021 ASGSR will follow to ensure ideas have been captured in concept papers.

36th Annual ASGSR Conference went Virtual

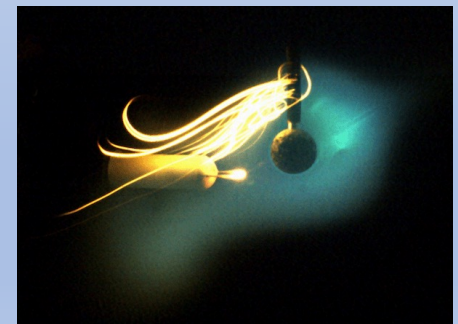
- November 5-6, 2020 <https://asgsr.org/2020meeting/>
- Plenaries were livestreamed with Q&A
- Breakout sessions were conducted via zoom
- Technical sessions were pre-recorded and are available to review for 30 days
- 287 member submissions / 125 virtual talks
- 38 undergrad / 62 grad *"lightening"* presentations
- Art competition
- 549 registered participants; over 100 students



Artemis and Her Quarry – Winner Artistic Merit (Audience Choice)



Rainbow Root Hairs
Winner Technical Merit



Flame Ignition in Space –
Journal Cover Winner

37th Annual ASGSR Conference is planned for a Face to Face Event

- November 3-6, 2021
- Hilton Inner Harbor Baltimore,
Maryland, USA
- Pre-conference workshops
- Plenaries will be livestreamed with Q&A
- Technical breakout sessions
- Abstract call is out and abstracts due June 1
- Undergrad /grad presentations
- Middle school/high school poster sessions
- Art competition

Hope to see you there!



ASGSR Student Board



About us

- Student organization with undergraduate, graduate, and recently graduated members



Career
Building



Educational
Opportunities



Spaceflight
Competitions



Political
Advocacy



- Interactive webinars with industry professionals and academic leaders
- Access to educational resources in our monthly newsletter





- Networking events at the Annual ASGSR conference and opportunity to present work in a professional setting





- Annual political advocacy trip/meetings





- Student and Early Career Associates Program



Recent graduates
Current students
Gap year students



Career
Building



Educational
Opportunities



Spaceflight
Competitions



Political
Advocacy