



Florida Space Summit presented by the Florida Space Research Consortium. Thank you to our Platinum sponsor Starfighters Space and our host the Astraeus Space Institute at the University of Florida.

Provisional Schedule

October 20, 2026

Registration for the Florida Space Summit includes an access pass to the Kennedy Space Center Visitors Center. Participants are encouraged to explore the visitors center during break and lunch times.

8:30am **Parking Opens at Kennedy Space Center Visitors Center**

Conference Registration at KSC Visitors Center Entry Gate

Check-in at gate, directions will be provided to meeting space

9:00am **Gates Open**

Conference Facility Opens - Center for Space Education

Coffee Provided

Exhibit Hall Opens

9:30am **KSC Facility Tours Meet**

10:00am **Industry Seminars**

KSC Facility Tours Depart

11:00am **Doing Business with NASA, Kathy Loftin, Research and University Relations Manager, KSC**

11:30am **KSC updates on SBIR/STTR, Michael Vinje, Small Business Technical Advisor, KSC**

12:00pm **Lunch**

Boxed lunch will be provided for all registered participants in the Exhibit Hall

1:30pm Opening Remarks

Consortium Leadership will join KSC Center Director to open the conference

1:45pm Seminars

All seminars are listed with the presenting author, the abstract number, and talk title. The full abstract is available in the Florida Space Summit 2026 abstract booklet.

AI in Space

- 1:50 Tina Tran, #8, "PSI-Net: A Deep Learning-Based Optical Image Restoration Network for Lunar Plume-Surface Interaction"
- 2:05 Shuzhen Luo, #25, "Deep Reinforcement Learning-Driven Simulation of Human Locomotion and Exoskeleton Assistance in Reduced Gravity"
- 2:20 Bala Prenith Reddy Gopu, #126, "Reconstructing Non-Cooperative Space Objects from a Flyby using Neuralangelo"
- 2:35 Amy Miller, #202, "Automated detection of semi-resolved star clusters in the Magellanic Clouds and the morphology of young stellar systems"
- 2:50 Sweetie Sarker, #28, "Overcoming Airframe-Induced Sensor Distortion: A Neural Network Approach to Wind Measurement on the Dragonfly Titan Lander"
- 3:05 Closing Remarks

Habitability Session #1: Space Plants & Fungi

- 1:50 Shubha Dixit, #62, "A Compact Sealed Plant Health Monitoring Payload for Controlled-Environment and Future CubeSat Deployment"
- 2:05 Hunter Strickland, #77, "Built for Earth, Remodeled by Spaceflight: Long-duration spaceflight alters the cell wall matrix and inflorescence stem morphology of Arabidopsis"
- 2:20 Natasha Haveman, #92, "Evaluating the Effects of Carbon Dioxide (CO₂) Concentration and Airflow Level on Sporeless Pearl Oyster Mushroom (*Pleurotus ostreatus*)."
- 2:35 Haley Murphy, #127, "Systematic isolation of the mineral constituents of MGS-1 reveals cause of seed germination inhibition"
- 2:50 Sarah Ross, #154, "CHARGE: Comparing Hydroponics vs Regolith Growth and Evolution Between Two Generations"
- 3:05 Closing Remarks

Infrastructure Session #1: Space Manufacturing, Materials, and Inspection

- 1:50 Evan Bell, #10, "Swamp Works Regolith Compaction Technologies"
- 2:05 Curtis Taylor, #121, "Thermoplastic Composites for Lightweight Aerospace Structures and In-Space Manufacturing"
- 2:20 Michael Tonks, #23, "Physics-Based Predictive Modeling of Radiation-Hardened Electronics for Space Applications"
- 2:35 Xiang He, #76, "Structures and Electrochemical Behaviors of High-Entropy Oxides: A Case Study on the MnFeCoNiCuO Electrocatalyst"
- 2:50 Rajendra Prasath Palanisamy, #122, "Generalizable Acoustic Damage Detection in Complex Space Infrastructure"
- 3:05 Closing Remarks

3:15pm Break**3:30pm Seminars**

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Discovery Session #1: Exploration Cislunar to Distant Universe

- 3:30 Franco Criscola, #21, "Mission Concept for the Study of Cislunar Space Hazard from L4 Quasi-Periodic Orbits"
- 3:45 Simon Barke, #102, "From Gainesville to Deep Space: Florida's Role in LISA, the International Gravitational Wave Observatory"

- 4:00 Anish Damodaran, #113, "PHOENIX: A Photonics-Enabled Heterodyne Submillimeter/Far-Infrared Interferometer for Planet Formation, Star Formation, and Galaxy Evolution"
- 4:15 Nicholas Cicotte, #167, "Tracing the Sagittarius Stream Through the Galactic Disk"
- 4:30 Kingsley Ehrich, #193, Detectable Species in Exoplanet Atmospheres with a Space-Based High-Resolution Germanium Immersion Grating Spectrograph"
- 4:45 Michael Bess, #185, "Embedded Stellar Clusters in 30 Doradus: A JWST NIRCам Photometric Study"

Habitability Session #2: Space Health

- 3:35 Heath Mills, #170, "Biomanufacturing Beyond Earth: Results from Rhodium Scientific's Industry Leading ISS Biomanufacturing Program"
- 3:50 Begum Mathyk, #50, "Beyond LEO: A Clinical Framework for Women's Health in the Artemis Era"
- 4:05 Sumire Sato, #94, "Combined effects of head-down tilt and hypercapnia on human lymphatic function"
- 4:20 Cuiping Zhang, #67, "Age and Gender Influence Mesenchymal Stem Cells' Osteogenesis during Spaceflight"
- 4:35 Courtney Wheelock, #117, "Effect of sex and age on central nervous system oxygen toxicity using a hyperbaric oxygen chamber model in rats"
- 4:50 Closing Remarks: Rachael Seidler and Begum Mathyk

5:00pm Program Ends

October 21, 2026

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9:00am Gates Open
Conference Facility Opens - Center for Space Education
Coffee Provided
Exhibit Hall open all day

10:00am General Session
Tim Franta, CEO and Director, Starfighter Space
Lisa Carnell, Division Director of the Biological and Physical Sciences Division
Dorit Donoviel, Executive Director of Translational Research Institute for Space Health (TRISH)
Keynote Speaker
Elizabeth "Zibi" Turtle, Planetary Scientist at Johns Hopkins University Applied Physics Laboratory, Dragonfly Mission Principal Investigator

12:00pm Poster Session and Lunch
Boxed lunch will be provided for all registered participants in the Exhibit Hall.
Student poster presentations supported by the Florida Space Grant Consortium.
Posters Session 1 Hosted 12:00pm – 12:45pm
Posters Session 2 Hosted 12:45pm – 1:30pm

1:45pm Habitability Fireside Chat
Lisa Carnell and Dorit Donoviel
2:35 Suman Chowdhury, #208, "Multiscale Biomechanical Digital Twin Framework for Space Health and Performance Research"
2:50 TBA
3:05 Tie Liu, #5, "From Spectral Signatures to Smart Agriculture: Integrating Hyperspectral Imaging, Multi-Omics, and AI to Advance Sustainable Space Crop Production"

1:45pm Seminars

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Discovery Session #2: Lunar and Exoplanet Exploration

- 1:45 Caldon Whyte, #34, "3D Climate-Chemistry Modeling of White Dwarf Exoplanets"
- 2:00 Brent Christner, #54, "Lunar Underground eXplorer (LUX): a hovering mobility platform for subsurface science and exploration"
- 2:15 C sarine Graham, #74, "A Contiguous South Polar Map of Martian Araneiforms and Periglacial Features with Topographical Analysis"
- 2:30 Bernard Isaiah Lo, #209, "Full-Stokes Spectropolarimetry for Detecting Chiral Biosignatures"
- 2:45 Stephen Elardo, #171, "Findings and Recommendations from NASA's South Pole-Aitken Basin Sample Return and Exploration (SPARX) Science Definition Team Report"
- 3:00 Ana Carolina de Souza Feliciano, #159, "Modeling the Surface Composition of Small Bodies in the Solar System in the JWST era"

Infrastructure Session #2: Thermal-Fluid Modeling & Propulsion

- 1:50 Jeremy Smith, #40, "Fuel Performance Modeling of Nuclear Thermal Propulsion Rockets"
- 2:05 Jeongwon Kim, #53, "Investigation of Azimuthal Velocity Effects on Detonation Stability in Rotating Detonation Rocket Engines Using a Reduced-Order Model"
- 2:20 Justin Watson, #65, "Advancing Gas Core Reactor Design for Nuclear Thermal and Electric Propulsion"
- 2:35 Anup Mannem, #73, "Machine learning modelling for LN2 transient two-phase pressure drop during chill down."
- 2:50 Sunjae Kim, #177, "In-space Cryogenic Propellant Management – Impact of Reduced and Partial Gravity"
- 3:05 Closing Remarks

3:15pm Break

3:30pm Seminars

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Discovery Session #3: Human Dimensions of Space Exploration: Education, Ethics, Teams, and Access

- 3:35 Heather Gierke, #4, "Science Fiction as Ethical Simulation: Experiential Approaches to Teaching the Human Dimensions of Space Exploration"
- 3:50 Ata Sarajedini, #59, "Human Mission to Mars: Using an Interdisciplinary Grand Challenge to Transform Undergraduate Learning"
- 4:05 Jeffery Johnson, #140, "Team Dynamics in Space Analogs: Shared Cognition, Informal Social Roles, and Team Cohesion, Viability, and Conflict"
- 4:20 Alan Hanstein, #166, "From Curiosity to Career: Building Florida's Space Talent Pipeline"
- 4:35 Serena DeCandia, #198, "Touching the Cosmos: A Systems Engineering Approach to Accessible Tactile Astronomy Models"
- 4:50 Terry Harpold, Closing Remarks

Habitability Session #3: Space Microbes, Crops, and Closed-Loop Life Support

- 3:35 Nils Aversch, #26, "The Plastic Ceiling — Opportunities and Limitations of Microbial Carbon Recovery in Crewed Spaceflight"
- 3:50 Kelly Rice, #61, "Transcriptional profiling of Staphylococcus aureus grown under simulated microgravity using a random positioning machine"
- 4:05 Amy Padolf, #188, "Growing Beyond Earth: Expanding Space Crop Research Through Distributed Classroom Science"
- 4:20 Ellen Garcia, #44, "Leveraging Hyperspectral Imaging as a Molecular Proxy for Autonomous Crop Monitoring in Space Agriculture"
- 4:35 Alexandra Smith, #192, "Closing the Loop: Fecal Waste Treatment and Resource Recovery for Lunar Habitats Using an Anaerobic Membrane Bioreactor"
- 4:50 Closing Remarks

Infrastructure Session #3: Space Systems, Sensing, & Autonomy

- 3:35 Andrea D'Ambrosio, #20, "Physics-Informed Orbit Determination for Sustainable Space Domain Awareness Operations"
- 3:50 Peng Jiang, #42, "Reconfigurable Nanooptics and Smart Chromogenic Sensors Enabled by Multi-Stimuli-Responsive Shape Memory Polymers for Space Applications"
- 4:05 Corey Richardson, #104, "Impact of Solar Energetic Particle Events on LISA Charge Management System Performance"
- 4:20 Aidan Rowell, #162, "The Advanced Underground Resource Observation lunar surveyor (AURORA), Mission Concept and State of Development"
- 4:35 Ethan Butz, #163, "GRATTIS Payload Integration: Micrometer-Level Metrology on a Dual Inertial Sensor Assembly"
- 4:50 Closing Remarks

5:00pm Program Ends
