

NIAC SYMPOSIUM 2025 AGENDA

DAY 1: Tuesday, September 9

Time (EDT)	Event	Speaker
9:20 a.m.	<i>Welcome & Overview</i>	<i>John Nelson, NIAC Program Executive, Session Chair</i>
10:30 a.m.	BREAK	
10:50 a.m.	<i>2025 Phase I</i>	<i>Gyula Greschik, Tentguild Engineering Co. <u>The Ribbon: Structure Free Sail for Solar Polar Observation</u></i>
11:10 a.m.	<i>2025 Phase I</i>	<i>Setthivoine You, Helicity Space LLC Fusion-Enabled Comprehensive Exploration of the Heliosphere</i>
11:30 a.m.	<i>2025 Phase I</i>	<i>Phillip Ansell, University of Illinois <u>Hydrogen Hybrid Power for Aviation Sustainable Systems (Hy2PASS)</u></i>
11:50 a.m.	<i>2025 Phase I</i>	<i>Michael Hecht, Massachusetts Institute of Technology <u>Exploring Venus with Electrolysis (EVE)</u></i>
12:10 p.m.	LUNCH	
1:30 p.m.	<i>2025 Phase II</i>	<i>James Bickford, Charles Stark Draper Laboratory, Inc. <u>TFINER – Thin Film Isotope Nuclear Engine Rocket</u></i>
1:50 p.m.	<i>2025 Phase II</i>	<i>Aaswath Pattabhi Raman, University of California, Los Angeles <u>Mars Roundtrip Success enabled by Integrated Cooling through Inductively Coupled LED Emission (MaRS ICICLE)</u></i>
2:10 p.m.	<i>2025 Phase II</i>	<i>Peter Cabauy, City Labs, Inc. <u>Autonomous Tritium Micropowered Sensors</u></i>
2:30 p.m.	BREAK	
2:50 p.m.	<i>2024 Phase II</i>	<i>Troy Howe, Howe Industries <u>Pulsed Plasma Rocket (PPR): Shielded, Fast Transits for Humans to Mars</u></i>
3:10 p.m.	<i>2024 Phase II</i>	<i>Stephen Polly, Rochester Institute of Technology <u>Radioisotope Thermoradiative Cell Power Generator</u></i>
3:30 p.m.	<i>2024 Phase II</i>	<i>Ethan Schaler, NASA Jet Propulsion Laboratory <u>FLOAT — Flexible Levitation on a Track</u></i>
4:50 p.m.	ADJOURN	

DAY 2: Wednesday, September 10

Time (EDT)	Event	Speaker
9 a.m.	Welcome & NIAC Plans	<i>Gary Fleming, NIAC Program Manager</i>
10:30 a.m.	BREAK	
10:50 a.m.	<i>2025 Phase I</i>	<i>Christine Gregg, NASA Ames Research Center <u>Dynamically Stable Large Space Structures via Architected Metamaterials</u></i>
11:10 a.m.	<i>2025 Phase I</i>	<i>John Mather, NASA Goddard Space Flight Center <u>Inflatable Starshade for Earthlike Exoplanets</u></i>
11:30 a.m.	<i>2025 Phase I</i>	<i>Kimberly Weaver, NASA Goddard Space Flight Center <u>Beholding Black Hole Power with the Accretion Explorer Interferometer</u></i>
11:50 a.m.	<i>2025 Phase I</i>	<i>Selim Shahriar, Northwestern University, Evanston <u>SUPREME-QG: Space-borne Ultra-Precise Measurement of the Equivalence Principle Signature of Quantum Gravity</u></i>
12:10 p.m.	LUNCH	
1:30 p.m.	<i>2025 Phase II</i>	<i>Christine Hartzell, University of Maryland, College Park <u>Addressing Key Challenges To Mapping Sub-cm Orbital Debris in LEO via Plasma Soliton Detection</u></i>
1:50 p.m.	<i>2025 Phase II</i>	<i>Benjamin Hockman, NASA Jet Propulsion Laboratory <u>Gravity Poppers: Hopping Probes for the Interior Mapping of Small Solar system Bodies</u></i>
2:10 p.m.	<i>2025 Phase II</i>	<i>Igor Bargatin, University of Pennsylvania <u>Photophoretic Propulsion Enabling Mesosphere Exploration</u></i>
2:30 p.m.	BREAK	
2:50 p.m.	<i>2024 Phase II</i>	<i>Edward Balaban, NASA Ames Research Center <u>Fluidic Telescope (FLUTE): Enabling the Next Generation of Large Space Observatories</u></i>
3:10 p.m.	<i>2024 Phase II</i>	<i>Mary Knapp, MIT Haystack Observatory <u>The Great Observatory for Long Wavelengths (GO-LoW)</u></i>
3:30 p.m.	<i>2024 Phase II</i>	<i>Mahmooda Sultana, NASA Goddard Space Flight Center <u>ScienceCraft for Outer Planet Exploration (SCOPE)</u></i>
4:50 p.m.	ADJOURN	

DAY 3: Thursday, September 11

Time (EDT)	Event	Speaker
9 a.m.	NIAC Q&A	NIAC Staff
10:30 a.m.	BREAK	
10:50 a.m.	2025 Phase I	Marco Quadrelli, NASA Jet Propulsion Laboratory <i>PULSAR: Planetary pULSe-tAkeR</i>
11:10 a.m.	2025 Phase I	Benjamin Hockman, NASA Jet Propulsion Laboratory <i>TOBIAS: Tethered Observatory for Balloon-based Imaging and Atmospheric Sampling</i>
11:30 a.m.	2025 Phase I	Justin Yim, University of Illinois <i>LEAP – Legged Exploration Across the Plume</i>
11:50 a.m.	2025 Phase I	Frank Tybor, ThinkOrbital, Inc. <i>Construction Assembly Destination</i>
12:10 p.m.	LUNCH	
1:30 p.m.	2025 Phase I	Martin Bermudez, Skyports LLC <i>Lunar Glass Structure (LUNGS): Enabling Construction of Monolithic Habitats in Low-Gravity Environment</i>
1:50 p.m.	2025 Phase I	Robert Hinshaw, NASA Ames Research Center <i>MitoMars: Targeted Mitochondria Replacement Therapy to Boost Deep Space Endurance</i>
2:10 p.m.	2025 Phase I	Saurabh Vilekar, Precision Combustion <i>Thermo-Photo-Catalysis of Water for Crewed Mars Transit Spacecraft Oxygen Supply</i>
2:30 p.m.	BREAK	
2:50 p.m.	2025 Phase II	Alvaro Romero Calvo, Georgia Tech Research Corporation <i>Breathing Beyond Earth: A Reliable Oxygen Production Architecture for Human Space Exploration</i>
3:10 p.m.	2024 Phase III	Lynn Rothschild, NASA Ames Research Center <i>Mycotecture off Planet: En route to the Moon and Mars</i>
4 p.m.	ADJOURN	