

DUKE SPACE SYMPOSIUM 2025

THURSDAY, APRIL 24

Master of Ceremonies: Harrison Schreiber, Master's of Public Policy '25

1:30 PM - 2:00 PM

Sanford Rhodes
Conference Room

KICKOFF AND DAY 1 OPENING

Official kick-off followed by opening talks from organizing faculty.

Opening Speakers:

- Anna Mallard, Science and Society Initiative '25
- Chelsea Nielsen, Law and Environmental Management '25
- Jonathan Wiener, Duke University School of Law
- Giovanni Zanalda, Duke SSRI and Economics
- Philip Stern, Duke Department of History

2:00 PM - 3:00 PM

Sanford Rhodes
Conference Room

HEALTH AND MEDICINE

Scenario: Small-Scale Research Settlements

Session 1 will address critical issues relative to near-term small-scale settlements, such as scientific research bases, and will primarily focus on topics within human health and medicine.

Student Presenters:

- Makayla Doyle, Psychology & Cultural Anthropology '27
- Faith Austin, Robertson Scholar, Duke AFROTC '27
- Aaron Coley, Biomedical Engineering & Computer Science '27

Panelists:

- Jonathan Schisler, UNC School of Medicine
- Jessica Snyder, Blue Marble Space Institute of Science
- Dominic Tanzillo, Duke University School of Medicine, '26
- Moderator: Nikhil Methi, Biomedical Engineering '27

3:00 PM - 3:45 PM

Sanford Room 201

COFFEE BREAK & STUDENT PROJECTS

Showcase of student projects at Duke focused on space.

List of Student Projects:

- "Future Space Settlements: Lessons from History," Bass Connections Future Space Settlements Team 2024-2025
- "Envisioning the Network of Space Healthcare," Bass Connections Technology Sub-team 2024-2025
- "Space Cybersecurity: Protecting NASA Missions from Hackers," Shristi Sharma, Computer Science '25

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THURSDAY, APRIL 24 (CONTINUED)

- "Foundations for Governance in Space: A Charter for Extraterrestrial Societies," Gavin Ockert, Physics '27; Trevor Darr, Physics & Political Science '28; Charlotte Portner, Public Policy '27; Seung Hyun Jin, Computer Science '27
 - "High-Altitude Balloon CubeSat," Maxwell Tardif, Electrical & Computer Engineering '25; Tanner Buck, Mechanical Engineering '27
 - "Sensing the Invisible: Breathing Life into the Universe," Qifeng Cheng, Ph.D. Physics '28
 - "Measuring the Distances to Asteroids from One Observatory in One Night with Upcoming All-Sky Telescopes," Maryann Fernandes, Electrical & Computer Engineering Ph.D. '28
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3:45 PM - 4:45 PM

Sanford Rhodes
Conference Room

ENVIRONMENTAL PROTECTION & COMMERCIALIZATION

Scenario: Mining Camps and Mid-Size Settlements

Session 2 will address critical issues relative to middle-scale settlements, such as mining camps, and will primarily focus on topics within environmental protection and commercialization.

Student Presenters:

- Romy Greenwald, Political Science & Entrepreneurship '27
- Karina Lu, History & French Studies '26
- Rachel Christ, Public Policy & History '25

Panelists:

- Alex Li, Teradata, Duke Alum '09
 - Amy Schmid, Duke Department of Biology
 - Susan White, NC Space Grant, NC State University
 - Moderator: Chelsea Nielsen, Law and Environmental Management '25
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4:45 PM - 5:00 PM

BREAK

Brief break before the keynote address.

5:00 PM - 6:00 PM

Sanford Rhodes
Conference Room

KEYNOTE ADDRESS: DR. ERIKA NESVOLD

Dr. Erika Nesvold will present the keynote address, titled: "History Rhymes: Ethical and Human Rights Challenges in Space Settlements."

6:00 PM - 7:00 PM

Sanford Room 201

RECEPTION

Reception following the keynote, open to all attendees. Light food will be served.

FRIDAY, APRIL 25

Master of Ceremonies: Katlin Risen, Ph.D. History '28

8:30 AM - 9:00 AM **BREAKFAST**

Sanford Rhodes
Conference Room

Light breakfast and coffee provided.

9:00 AM - 9:30 AM **DAY 2 OPENING TALKS**

Opening comments for Day 2 from organizing faculty.

9:30 AM - 9:45 AM **WELCOME FROM PROVOST ALEC GALLIMORE**

Sanford Rhodes
Conference Room

Welcome remarks from Duke Provost Dr. Alec Gallimore.

9:45 AM - 10:45
AM

Sanford Rhodes
Conference Room

LONG-TERM DEVELOPMENT AND GOVERNANCE

Scenario: Cities and Interplanetary Governance

Session 3 will address critical issues relative to large-scale settlement off-Earth, especially at the interplanetary level, and will primarily focus on topics in regulation, long-term development, and governance.

Student Presenters:

- Simran Pandey, Public Policy & Linguistics '27
- Zachary Partnoy, History, English, & Political Science '26
- Lawrence Wu, History & Economics '27

Panelists:

- Alex Li, Teradata, Duke Alum '09
 - Chase Hamilton, Akin, Gump, Strauss, Hauer and Feld LLP, Duke Alum '21, Former Bass Connections Team Member '21
 - Ambassador W. Robert Pearson, Senior Fellow, Duke Rethinking Diplomacy Program
 - Moderator: Faith Austin, Robertson Scholar, Duke AFROTC '27
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10:45 AM - 11:00
AM

BREAK

Brief break before the fourth session.

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FRIDAY, APRIL 25 (CONTINUED)

11:00 AM - 12:15 PM

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LOOKING AHEAD

Session 4 will address critical topics in the future of space, with a particular focus on challenges in science communication and panelists' perspectives on open questions in the field.

Panelists:

- Erika Nesvold, JustSpace Alliance
 - Siobhan Oca, Duke Pratt School of Engineering
 - Jessica Snyder, Blue Marble Space Institute of Science
 - Amy Schmid, Duke Department of Biology
 - Moderator: Rebecca Ball, Karsh Scholar, Mathematics '25
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12:15 PM - 12:45 PM

LUNCH

Lunch will be served prior to the virtual session.

12:45 PM - 1:30 PM

Sanford Rhodes Conference Room

VIRTUAL SESSION

Virtual speakers will share brief lightning talks on their work. Attendees are welcome to continue eating their lunches during this time.

Panelists:

- Sana Sharma, Aurelia Institute
 - John Rummel, former NASA Planetary Protection Officer
 - Moderator: Romy Greenwald, Political Science & Entrepreneurship '27
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1:30 PM - 2:30 PM

Sanford Rhodes Conference Room

FUTURE OF SPACE AT DUKE

For those interested in staying, the final session will be an open forum led by several key faculty at Duke working on space-related topics to discuss possibilities for the future of space at Duke. It will be structured as a roundtable conversation, so all attendees are welcome to stay and participate regardless of affiliation.

Discussion Leaders:

- Dan Scolnic, Duke Cosmology Group
- Jonathan Wiener, Duke University School of Law
- Giovanni Zanalda, Duke SSRI and Economics
- Philip Stern, Duke Department of History
- Tyler Felgenhauer, Duke Center on Risk
- Maryann Fernandes, Duke Cosmology Group