



**TUESDAY, MARCH 19, 2024**

**PLENARY SESSION**

Livestream Link: <https://vimeo.com/event/4096317>

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**Opening Session: Introductions and NASA, NSF, and NOAA Science Program Update**  
Auditorium

<b>7:30 AM</b>	Registration Opens in the Great Hall	
<b>9:00 AM</b>	<b>Welcome</b>	<b>Mr. Jim Crocker</b> SSB Vice Chair
<b>9:00 AM</b>	<b>Update from the NASA Deputy Administrator</b> (20-minute address)	<b>Ms. Pamela Melroy</b> NASA Deputy Administrator
<b>9:20 AM</b>	<b>NASA Science Mission Directorate (SMD) Overview</b> (30-minute presentation and 30-minute discussion)	<b>Dr. Nicola Fox</b> Assoc. Administrator NASA-SMD
<b>10:20 AM</b>	Break	
<b>10:40 AM</b>	<b>National Science Foundation (NSF) Program Update</b> (20-minute presentation and 10-minute discussion)	<b>Dr. Saul Gonzalez</b> Division Director, Mathematical and Physical Sciences (MPS) Division of Physics NSF
<b>11:10 AM</b>	<b>National Oceanic and Atmospheric Administration (NOAA) Program Update</b> (20-minute presentation and 10-minute discussion)	<b>Dr. Stephen Volz</b> Assistant Administrator for Satellite and Information Services, NESDIS, NOAA
<b>11:40 AM</b>	<b>Update on the U.S. Space Council</b> (15-minute presentation and 5-minute discussion)	<b>General Lester Lyles</b> Vice Chief of Staff, Commander AFMC, USAF (retired)
<b>12:00 PM</b>	<b>U.S. Department of State Update on Space Policy</b> (20-minute presentation and 10-minute discussion)	<b>Mr. Anthony Fernandes</b> Principal Deputy Assistant Secretary U.S. State Department

**Space Science Week**  
**March 19-21, 2024**

**12:30 PM** Working Lunch for Members, Speakers, and Invited Guests in the Great Hall

**International Partners Presentations**  
Auditorium

<b>1:30 PM</b>	<b>European Space Agency (ESA) Program Science Highlights</b> (25-minute presentation and 10-minute discussion)	<b>Dr. Carole Mundell</b> Director of Science, ESA
<b>2:05 PM</b>	<b>European Space Agency (ESA) Exploration Program</b> (25-minute presentation and 10-minute discussion)	<b>Dr. Daniel Neuenschwander</b> Director of Exploration, ESA
<b>2:40 PM</b>	<b>Japanese Aerospace Exploration Agency (JAXA) Science Highlights</b> (25-minute presentation and 10-minute discussion)	<b>Dr. Hitoshi Kuninaka</b> Director General, JAXA
<b>3:15 PM</b>	Break	
<b>3:45 PM</b>	<b>Chinese National Space Science Center (NSSC) Science Highlights</b> (25-minute presentation and 10-minute discussion)	<b>Prof. Dong Xiaolong</b> Deputy Director, NSSC
<b>4:20 PM</b>	<b>Indian Space Research Organisation (ISRO) Update</b> (25-minute presentation and 10-minute discussion)	<b>Mr. Krunal Joshi</b> Counsellor, Space Embassy of India
<b>4:55 PM</b>	<b>Space Law: Challenges and Predictions</b> (25-minute presentation and 15-minute discussion)	<b>Prof. Frans Von der Dunk,</b> Harvey & Susan Perlman Alumni and Othmer Professor of Space Law University of Nebraska-Lincoln
<b>5:30 PM</b>	Break	

**Committee on Biological and Physical Sciences in Space Meeting**  
Lecture Room

**WEDNESDAY, MARCH 20, 2024**

**CLOSED SESSION**

**8:30 AM** Committee and Staff Only  
**9:50 AM** Meeting Adjourns to Open Session

**OPEN SESSION**

Livestream link: <https://vimeo.com/event/4088818>

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**7:30 AM** Registration Opens in the Great Hall

**10:00 AM** **Latest Status of BPS Decadal Survey Dissemination** **Robert Ferl**, University of Florida & **Krystyn Van Vliet**, Cornell University  
*(30 minute presentation & 45 minute discussion period)*

**11:15 AM** **BPS Division Status & SMD Response to Decadal Survey** **Lisa Carnell**  
*(45 minute presentation & 15 minute discussion period)* NASA SMD BPS

**12:15 PM** Working Lunch for Members, Speakers, Registered Guests, and Staff (60 minutes)  
Great Hall

**1:15 PM** **Panel: Probing Phenomena Hidden by Gravity or Terrestrial Limitations**  
Panel Description: What science questions can we only address in space?  
*(4 x 10 minute presentations & 25 minute discussion period)*  
**Panel Introduced by:** **Ajay Agrawal**, University of Alabama  
**Panelists:** **Jeffrey Allen**, Michigan Technological University  
**John Callas**, Jet Propulsion Laboratory  
**Kevin Crosby**, Carthage College  
**Paul Ronney**, University of Southern California (virtual)

**2:20 PM** **Panel: Adapting to Space**  
Panel Description: How and why do organisms change to adapt to life in space?  
*(3 x 10 minute presentations & 25 minute discussion period)*  
**Panel Introduced by:** **Anna-Lisa Paul**, University of Florida  
**Panelists:** **Dorit Donoviel**, Translational Research Institute for Space Health  
(virtual)  
**Gioia Massa**, NASA Kennedy Space Center  
**Jonathan Galazka**, NASA Ames Research Center

**3:15 PM** Break (15 minutes)

**Space Science Week**  
**March 19-21, 2024**

**3:30 PM**

**Panel: Living and Traveling in Space**

Panel Description: What does living and traveling in space look like today and what will it look like in the future? How could inter-agency and public-private partnerships support BPS goals and US leadership?

*(4 x 10 minute presentations & 25 minute discussion period)*

**Panel Introduced by:** **Jana Stoudemire**, Axiom Space

**Panelists:** **Greg Autry**, Arizona State University

**Anna Brady-Estevez**, National Science Foundation

**Curtis Hill**, NASA Marshall Space Flight Center

**Aaron Rogers**, Redwire Space Technologies, Inc.

**4:35 PM**

**Panel: BLISS – A Combined Initiative**

Panel Description: Creating opportunities to thrive in space using both biological and physical science initiatives and public-private partnerships

*(4 x 10 minute presentations & 25 minute discussion period)*

**Panel Introduced by:** **Martha Vitaterna**, Northwestern University

**Panelists:** **Jess Bunchek**, DLR (virtual)

**Gioia Massa**, NASA Kennedy Space Center

**Annie Meier**, NASA Kennedy Space Center

**Mark Weislogel**, IRPI, LLC

**5:40 PM**

Meeting Adjourns for the Day

**Keynote Space Science Week Public Lecture**  
Auditorium

**PUBLIC LECTURE SESSION**

Livestream Link: <https://vimeo.com/event/4096320>

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**7:00 PM**

**Growing Insight into Space**

**Plants are Enablers of Extraterrestrial Exploration**

**Dr. Anna-Lisa Paul**

Director, Interdisciplinary Center for Biotechnology Research (ICBR)  
University of Florida

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**Speaker Biography**

Dr. Anna-Lisa Paul is a plant molecular biologist; she is a Professor at the University of Florida and the Director of UF's Interdisciplinary Center for Biotechnology Research (ICBR). She has been active in the spaceflight research community for over 25 years and has served that community as the President of the American Society for Gravitational and Space Research, as a member of the ISS Standing Review Board, on NASA's GeneLab Science Council, and on the Suborbital Applications Research Group (SARG) advisory board for the Commercial Spaceflight Federation. She serves on the National Academies Committee on Biological and Physical Sciences in Space (CBPSS). Paul has launched 12 orbital experiments to study how plants respond to the spaceflight environment, taken her science to extreme terrestrial environments (the Arctic and Antarctica) as planetary analogs, and worked with true lunar regolith from the Apollo era to evaluate plant molecular responses to that novel environment. She also uses suborbital launch vehicles to explore the effect of the transition to space on the molecular processes of plants. Paul is a recipient of the NASA Medal of Honor for Exceptional Scientific Achievement. She is a Fellow of the American Association for the Advancement of Science (AAAS) and a Fellow of the American Society for Gravitational and Space Research (ASGSR). Paul's fundamental belief is that humans are explorers, and when we leave Earth's orbit, plants will help us make the journey.



**Committee on Biological and Physical Sciences in Space Meeting**  
**Board Room**

**THURSDAY, MARCH 21, 2024**

**CLOSED SESSION**

**8:30 AM**      Committee and Staff Only  
**2:00 PM**      Meeting Adjourns

**IMPORTANT NOTES**

**Pre-Registration:** All participants, including committee members, invited speakers and other attendees, are strongly encouraged to preregister at <https://cvent.me/EP5L7y>.

**Registration** will be located in the Great Hall during the event (see last page for a map). Please check-in there to receive your badge.

**SSW Website:** <https://www.nationalacademies.org/event/03-18-2024/space-science-week-2024>

**NAS Building:** Is located at 2101 Constitution Ave. NW, between the State Department and the Vietnam Veterans Memorial. Visitors must show a valid government ID (or a digital photo of the card) to the security staff at the NAS Building. Additional information about the NAS Building is available at <http://www.nationalacademies.org/about/contact/nax.html>.

**Wi-Fi Connection:** To connect to the Wi-Fi chose "Visitor Network" then open a browser and click "Accept terms and conditions." You will then be connected to the internet.

## **Space Science Week March 19-21, 2024**

**Metro:** The closest Metro station (0.5 miles) is Foggy Bottom (Blue, Orange, and Silver lines; exit and turn right, then turn left onto C Street once you have passed the State Department.

**Parking:** Very limited public parking is available onsite at the NAS. The 22 available parking spaces are available first come first served and fill rapidly. Note: construction on 21st St. may impact access to the garage at the NAS Building via Constitution Avenue. If so, the garage can be accessed from 21st via C Street and the arm may be raised to temporarily allow access from 22nd St NW.

### **Members of the General Public:**

- Remote access will be provided through a live stream on Vimeo. This will also be publicly available and posted on the Board's website. You do not need to register.

### **Presenters:**

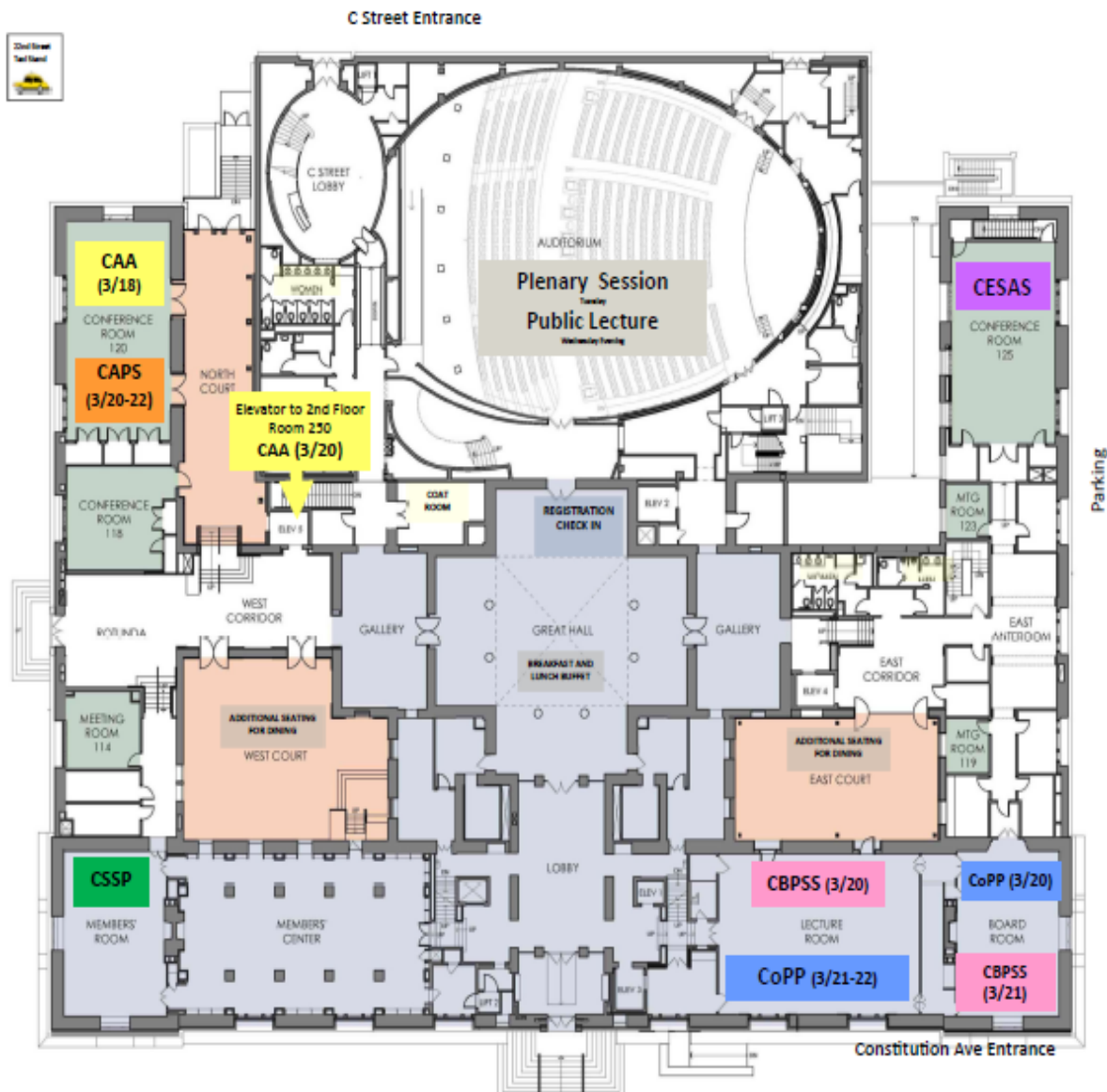
- Please do not include unpublished data, ITAR-controlled or sensitive information in your presentation.
- A National Academies Board staff member will ask you to sign a form before the meeting allowing us permission to use your likeness and presentation for our livestream video, which will be posted on our Board website after the meeting. Please get in touch with us before the meeting if you have any concerns about this usage.

### **Members and Presenters:**

- Remote access will be provided through Zoom. This will allow you to participate in the meeting even if you can't be physically present.
- Please note that Zoom allows audio and any materials exchanged or viewed during the session to be recorded and shared.
- By participating in this activity, you agree to let your voice, likeness, and any materials you provide be recorded for use and dissemination. This includes any language, format, or media now known or later devised.
- You release the National Academies of Sciences, Engineering, and Medicine from any and all claims, liability, or damages arising from any such use. If you disagree, please do not join the session.

**Thank you all for your cooperation, and we look forward to a successful meeting.**

**Space Science Week  
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March 18-22, 2024

CAA	Room 120 (3/18); Room 250 (3/20)
CAPS	Room 120
CBPSS	Lecture Room (3/20); Board Room (3/21)
CESAS	Room 125
CoPP	Board Room (3/20); Lecture Room (3/21-22)
CSSP	Members' Room