Committee on Astronomy and Astrophysics

March 28-30, 2023

NAS Building, 2101 Constitution Ave. NW, Room 120, Washington, DC 20418

Hybrid Meeting

ALL TIMES IN US EASTERN STANDARD TIME (UTC-4:00)

PUBLIC DRAFT AGENDA

This agenda is a draft, subject to change, and was last updated on 3/27/2023 8:22 PM

TUESDAY, MARCH 28, 2023

Space Science Week Plenary Session
Located in the Auditorium

Introductions and JWST Science Update

Public Livestream link: https://vimeo.com/event/2973366

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

11:00 AM **Introductions** — ***Dr. Margy Kivelson, SSB Chair***

11:05 AM **Panel: JWST Science Update**
(15-minute presentation each and 15-minute discussion)
Moderator: ***Dr. Colleen Hartman, SSB Director***
Panelists: ***Dr. Tommaso Treu, University of California, Los Angeles, via Zoom***
Dr. Steven Finkelstein, The University of Texas at Austin, via Zoom
Dr. Thomas Greene, NASA Ames Research Center

12:05 PM *Lunch in the Great Hall*
(60-minute break; additional seating in the East and West Courts)

NASA, NSF, and NOAA Science Program Update

1:00 PM **Welcome** — ***Dr. Margy Kivelson, SSB Chair***

1:05 PM **Address by NASA Associate Administrator** — ***Mr. Bob Cabana, NASA Associate Administrator***
(20-minute address)

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1:25 PM	**NASA Science Mission Directorate (SMD) Overview** (30-minute presentation and 30-minute discussion)	***Dr. Nicky Fox*** *SMD* ***Associate Administrator, NASA***
2:25 PM	**National Science Foundation (NSF) Science Program Update** (20-minute presentation and 10-minute discussion)	***Dr. Sean Jones, Director, Directorate for Mathematical and Physical Sciences, NSF***
2:55 PM	**National Oceanic and Atmospheric Administration (NOAA) Update** (20-minute presentation and 10-minute discussion)	***Dr. Michael Morgan*** ***Asst. Secretary of Commerce for Environmental Observation and Prediction, Dept. of Commerce***
3:25 PM	*Break* *(15-minute break)*	

International Partners' Presentations

3:40 PM	**European Space Agency (ESA) Program Science Highlights** (15-minute presentation and 10-minute discussion)	***Dr. Carole Mundell, Director of Science, ESA*** ***Dr. Gaitee Hussain, Head of Science Division, ESA***
4:05 PM	**Japanese Aerospace Exploration Agency (JAXA) Science Highlights** (15-minute presentation and 10-minute discussion)	***Dr. Masaki Fujimoto*** ***Deputy Director General, JAXA***
4:30 PM	**French National Centre for Space Studies (CNES) Science Highlights** (15-minute presentation and 10-minute discussion)	**TBD**
4:55 PM	**South Korean Science Highlights** (15-minute presentation and 10-minute discussion)	***Dr. Young Deuk Park, President*** ***Korean Astronomy and Space Science Institute***
5:20 PM	**Indian Space Research Organization Science Highlights** (15-minute presentation and 10-minute discussion)	***Mr. Krunal Joshi, Counsellor, Space Embassy of India***
5:45 PM	*Break* *(15-minute break)*	

Special Session on NASA's Artemis Program

6:00 PM **Panel: How Science is Managed within the Artemis Program**
(5-minute presentation each and 40-minute discussion)

Moderator:	***Dr. Colleen Hartman, SSB Director***
Panelists:	***Mr. Jim Free, NASA-ESDMD***
	Dr. Joel Kearns, NASA-SMD
	Dr. Brett Denevi, JHU-APL
	Dr. Jack Burns, U. Colorado

7:00 PM *Plenary Session Adjourns for the Day*

WEDNESDAY, MARCH 29, 2023

Committee on Astronomy Closed Session
Room 120

7:30 AM	*Registration opens in the Great Hall*	
9:55 AM	**Committee and Staff Only**	
12:00 PM	*Closed Session Adjourns to Lunch in the Great Hall*	

Committee on Astronomy Open Session
Room 120

Public Livestream link: https://vimeo.com/event/2973331

12:55 PM	**Welcome**	***Chris McKee, CAA Co-Chair/ Alycia Weinberger, CAA Co-Chair***
1:00 PM	**Lunar Cosmology** (15-minute presentation & 5-minute Q&A)	***Joe Silk, CAA Member***
1:20 PM	**Dark Skies Panel: Space Traffic Management Challenges Posed by Satellite Constellations*** (20-minute presentation & 10-minute Q&A)	***Dr. Roger Thompson, Senior Engineering Specialist, Aerospace Corp.'s Mission Analysis and Operations Department***
1:50 PM	**Dark Skies Panel: CORF and AAS Approaches to Addressing Satellite Constellations*** (20-minute presentation & 10-minute Q&A)	***Dr. Kelsey Johnson, Professor, UVA, President, AAS, Member, CORF***
2:20 PM	**Dark Skies Panel: Ground-based Observing Mitigation Strategies for Satellite Constellations*** (20-minute presentation & 10-minute Q&A)	***Dr. Tony Tyson, Distinguished Professor, UC Davis, LSST Chief Scientist, Rubin Observatory***
2:50 PM	**Dark Skies Panel: Roundtable Discussion** (20-minute discussion) ***Participants:*** ***Dr. Kelsey Johnson, Professor, UVA*** ***Dr. Roger Thompson, Senior Engineering Specialist, Aerospace Corp.*** ***Dr. Tony Tyson, Distinguished Professor, UC Davis***	
3:10 PM	*Break* *(20-minute break)*	
3:30 PM	**Lessons Learned from MREFC Applied to US-ELT*** (30-minute talk & 30-minute discussion)	**Dr. *Matt Mountain, President, AURA***
4:30 PM	*Open Session Adjourns*	

*** Placeholder Title – To Be Updated by Speaker**

Committee on Astronomy Closed Session
Room 120

4:30 PM	**Discussion of Issues Raised During Open Session**	
5:30 PM	*Committee Meeting Adjourns for the Day*	

Public Lecture Session
In the Auditorium

Public Livestream Link: https://vimeo.com/event/2973372

7:00 PM **An Infinity of Worlds: Cosmic Inflation and the Beginning of the Universe**

Dr. William Kinney
Professor, Dept. of Physics
University of Buffalo

Abstract:
In the beginning was the Big Bang: an unimaginably hot fire almost fourteen billion years ago in which the first elements were forged. The physical theory of the hot nascent universe -- the Big Bang -- was one of the most consequential developments in twentieth-century science. And yet it leaves many questions unanswered: Why is the universe so big? Why is it so old? What is the origin of structure in the cosmos? Physicist Will Kinney explains a more recent theory that may hold the answers to these questions, and sheds light the ultimate origins of the universe: cosmic inflation.

Speaker Biography:
Will Kinney is a professor in the Department of Physics at the University at Buffalo, SUNY, where he has been on faculty since 2003. Dr. Kinney received his Bachelor of Arts from Princeton University, and PhD from the University of Colorado, Boulder. He has worked as a research associate at Fermi National Accelerator Laboratory, the University of Florida, and Columbia University, and held visiting positions at Yale University, Perimeter Institute for Theoretical Physics, Harish Chandra Research Institute, Allahabad, the University of Chicago, the University of Valencia, Indian Institute of Technology Madras, and Stockholm University. Dr. Kinney's research focuses on the physics of the very early universe, including inflationary cosmology, the Cosmic Microwave Background, Dark Matter, and Dark Energy. He has authored more than seventy published research articles and received the SUNY Chancellor's award for excellence in teaching in 2014.

THURSDAY, MARCH 30, 2023

Committee on Astronomy Open Session
Room 120

Public Livestream link: https://vimeo.com/event/2973336

7:30 AM	*Registration opens in the Great Hall*	
9:00 AM	*Working Breakfast in the Great Hall*	
9:55 AM	**Welcome and Setting Discussion for Day 2**	***Chris McKee, CAA Co-Chair/ Alycia Weinberger, CAA Co-Chair***
10:00 AM	**Update from NASA Astrophysics** *(45-minute talk and 15-minute Q&A)*	***Dr. Mark Clampin, Astrophysics Division Director, NASA-SMD*** (virtual)
11:00 AM	**Update from NSF AST** *(45-minute talk and 15-minute Q&A)*	***Dr. Debra Fischer, Division Director, AST, NSF-MPS***
12:00 PM	*Working Lunch in the Great Hall*	

1:00 PM	**Update from DOE Cosmic Frontier** *(45-minute talk and 15-minute Q&A)*	***Dr. Kathy Turner, Cosmic Frontier Program Manager, DOE-HEP***
2:00 PM	*Open Session Adjourns*	

Committee on Astronomy Closed Session
Room 120

2:00 PM	**Committee and Staff Only**
3:00 PM	*Meeting Adjourns*

REMOTE CONNECTION DETAILS

Topic	Time	Join URL
TUESDAY, MARCH 28, 2023		
Space Science Week Plenary Session	**8:00 AM/11:00 AM**	https://vimeo.com/event/2973366
WEDNESDAY, MARCH 29, 2023		
CAA Open Session	**10:00 AM/1:00 PM**	https://vimeo.com/event/2973331
Keynote Space Science Week Public Lecture	**4:00 PM/7:00 PM**	https://vimeo.com/event/2973372
THURSDAY, MARCH 30, 2023		
CAA Open Session	**6:55 AM/9:55 AM**	https://vimeo.com/event/2973336

IMPORTANT NOTES

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

Registration will be located in the Great Hall during the event. Please check-in there to receive your badge.

SSW Website: https://www.nationalacademies.org/event/03-27-2023/space-science-week-2023

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.

COVID Policies: Please see the most recent information available at https://www.nationalacademies.org/about/operating-status.

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.

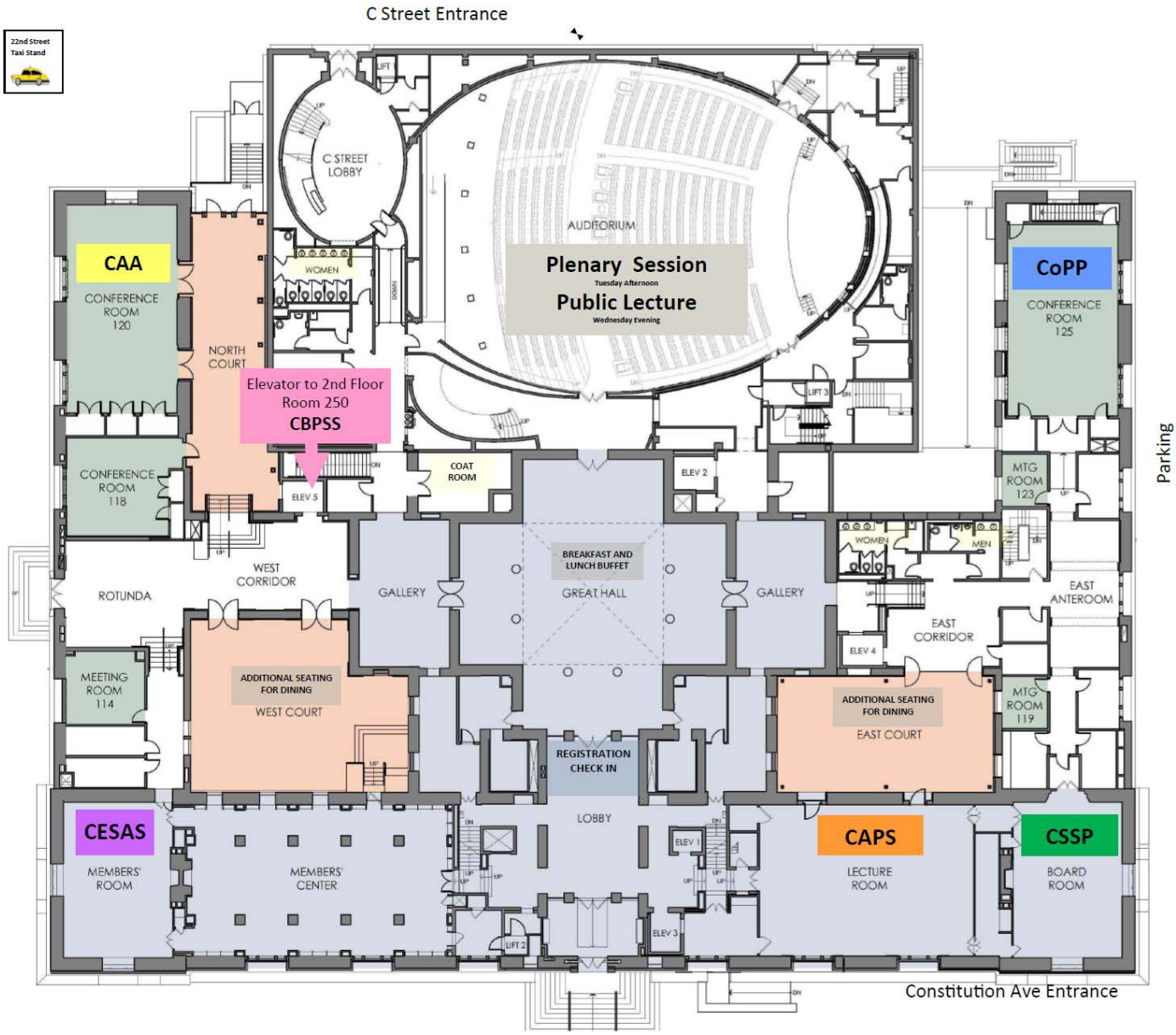
Metro: The closest Metro station (0.5 miles) is Foggy Bottom (Blue, Orange, and Silver lines; exit and turn right, then turn left onto C Street once you have passed the State Department.

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.

Notes for All Attendees: This meeting is being held to gather information to help the committee in its charge. This committee will examine the information and material obtained during this, and other public meetings, to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn nor will recommendations be made. Observers who draw conclusions about the committee's work based on this meeting's discussions will be doing so prematurely. Furthermore, individual committee members often engage in discussion and questioning for the specific purpose of probing an issue and sharpening an argument. The comments of any given committee member may not necessarily reflect the position he or she may actually hold on the subject under discussion, to say nothing of that person's future position as it may evolve in the course of the project. Any inference about an individual's position are therefore also premature.

Recording and Webcasting of the Meeting: This meeting will be recorded and webcast to remote participants by the National Academies. Please be aware that by attending the meeting, you consent to your voice and image being recorded for use by the National Academies for the purpose of notetaking. This recording will not be publicly released, shared outside of the National Academies, or used for other public purposes.

Notes for Presenters: If your presentation contains unpublished data, ITAR controlled and/or other sensitive information, please be aware that the open sessions at the meeting may be recorded and/or webcast. Presentation materials given to the committee may be posted on a publicly accessible website. Please edit your presentations accordingly. Mac users should assume that their presentation will be displayed via one of the NRC's PCs. If your presentation is graphics heavy and best displayed via your own laptop, you should also bring a plain-vanilla pdf version of your presentation with you. The audience in the meeting room will see your presentation via your laptop and we will webcast the pdf file. At some point a staff member will be asking you to sign a consent form allowing us to use your presentation, specifically to post it on our website.



March 28-30, 2023

CAA	Room 120
CAPS	Lecture Room
CBPSS	Room 250
CESAS	Member's Room
CoPP	Room 125
CSSP	Board Room