

The National Academies of Academies of MEDICINE

DIVISION ON ENGINEERING AND PHYSICAL SCIENCES BOARD ON PHYSICS AND ASTRONOMY SPACE STUDIES BOARD

# Panel on Electromagnetic Observations from Space 2

Meeting #1: November 5-7, 2019 State Plaza Hotel, Ambassador Room 2117 E St NW, Washington, DC 20037

## Tuesday, November 5, 2019 Ambassador Room

#### **OPEN SESSION**

8:00 a.m. Room Opens (Working Breakfast Available for Panel and Invited Guests)

9:00 a.m. **Welcome** Steve Kahn, Panel Chair

9:10 a.m Perspective from NASA Astrophysics Paul Hertz, NASA

10:10 a.m. Break to go to Closed Session

#### **CLOSED SESSION**

10:30 a.m. Closed, committee-only discussion

5:30 p.m. *Meeting adjourns to alternate location* 

6:00 p.m. Committee-only working dinner

## Wednesday, November 6, 2019 Ambassador Room

### **OPEN SESSION**

8:00 a.m. Room Opens (Working Breakfast Available for Panel and Invited Guests)

9:00 a.m. Let's discover our ORIGINS

(40 min presentation, 10 min questions) Alexandra Pope, University of Massachusetts, Co-Lead, *Origins* Galaxy Evolution and Cosmology Science Working Group Klaus Pontoppidan, STScI,

Co-Lead, *Origins* Disks Working Group Tiffany Kataria, Caltech/Jet Propulsion Lab, Co-Lead, *Origins* Exoplanets Working Group Asantha Cooray, UC Irvine, *Origins* Co-Chair

9:50 a.m.	Origins Space Telescope Mission Design: As defined by science requirements  (40 min presentation, 10 min questions) Margaret Meixner, STScI/Johns Hopkins University,  Origins Co-Chair
10:40 a.m.	Break
11:00 a.m.	Origins Space Telescope: Enabling Technology and Technology Development Plan (25 min presentation, 10 min questions) Michael DiPirro, NASA GSFC, Origins Technology Lead
11:35 a.m.	Origins Space Telescope: Technology Development and Lifecycle Mission Cost (25 min presentation, 10 min questions)  David Leisawitz, NASA GSFC, Origins Study Scientist
12:10 p.m.	Working lunch available for committee and invited guests
1:00 p.m.	Key science questions and issues addressed by Lynx (25 min presentation, 15 min questions)  Alexey Vikhlinin, SAO, Lynx Co-Chair
1:40 p.m.	Flowdown from science requirements to Design Reference Mission Observatory Architecture. Observatory Configuration and Mission Design Trades (20 min presentation, 15 min questions) Alexey Vikhlinin, SAO, Lynx Co-Chair Jessica Gaskin, NASA MSFC, Lynx Study Scientist
2:15 p.m.	Break
2:30 p.m.	Lynx technology readiness (30 min presentation, 15 min questions)  Jessica Gaskin, NASA MSFC, Lynx Study Scientist
3:15 p.m.	Costing methodologies (pre-Phase A to operations & data analysis) (20 min presentation, 15 min questions)  Karen Gelmis, NASA MSFC, Lynx Study Manager
3:50 p.m.	Conclusions Alexey Vikhlinin, SAO, Lynx Co-Chair
4:00 p.m.	Break to reconvene in closed session
CLOSED SESSION	
4:15 p.m.	Closed, committee-only discussion
5:30 p.m.	Meeting adjourns for the day

## Thursday, November 7, 2019 Ambassador Room

### **CLOSED SESSION**

8:00 a.m. Closed, committee-only agenda

5:00 p.m. *Meeting adjourns* 

#### **GENERAL NOTES**

State Plaza Hotel: Ambassador Room, 2117 E St NW, Washington, DC 20037

Parking: Not available on-site

Wi-Fi Connection: Available on-site

Astro2020 Project Website: <a href="https://www.nas.edu/astro2020">www.nas.edu/astro2020</a>

#### REMOTE CONNECTION DETAILS

#### Zoom Web Conference & Telecon Instructions

Open Sessions: https://nasem.zoom.us/j/548499766 Meeting ID: 548 499 766

#### Join from a computer:

- 1. Click on the URL (above). A popup will appear that says "Open URL: Zoom Launcher;" Click the "Open" button and let Zoom load (may take a minute).
- 2. Once loaded, Zoom will automatically display another pop-up for the audio connection. Please click the "call me" tab and enter the phone number you would like to be called at (i.e. home, office, mobile). Click "Call me" and follow the prompts.

#### Join from a mobile device:

- 1. Download the Zoom app from your phone's app store (if you do not have it installed already).
- 2. Click on the URL, or open the Zoom app and enter the Meeting ID, and press join. Enter your name if requested.
- 3. The Zoom app will automatically display a pop-up window for the audio connection. Select the "Call my Phone" option from the menu, enter your phone number, press call, and follow any prompts.

#### Join by phone only:

1. Connection quality is much better via Zoom's "Call me" feature from the web-conference, so we strongly recommend that you connect this way.

NOTICE: The Zoom service allows audio and any materials exchanged or viewed during the session to be recorded and shared. Please be aware that by participating in this activity, you consent to your voice, likeness, and any materials you provide, being recorded for use and dissemination, without payment of any compensation for such use, in any language, format, or media now known or later devised, and you release the National Academies of Sciences, Engineering, and Medicine from any and all claims,

liability, or damages arising from any such use. The Academies will proceed in reliance upon such consent and release. If you do not consent to the foregoing, please do not join the session.

### The following information is provided for any members of the general public who may be in attendance:

This meeting is being held to gather information to help the committee conduct its study. This committee will examine the information and material obtained during this, and other public meetings, in an effort to inform its work. Although opinions may be stated and lively discussion may ensue, no conclusions are being drawn at this time and no recommendations will be made. In fact, the committee will deliberate thoroughly before writing its draft report. Moreover, once the draft report is written, it must go through a rigorous review by experts who are anonymous to the committee, and the committee then must respond to this review with appropriate revisions that adequately satisfy the Academy's Report Review committee and the chair of the NRC before it is considered an NRC report. Therefore, observers who draw conclusions about the committee's work based on today'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 regarding findings or recommendations in the final report are therefore also premature.