

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

SPACE STUDIES BOARD

Fall Meeting – 175th Meeting – November 1-3, 2017

Beckman Center of the National Academies of Sciences, Engineering and Medicine

Huntington Room, 100 Academy Way, Irvine CA

DRAFT AGENDA

(subject to change)

WEDNESDAY, NOVEMBER 1, 2017

MORNING SESSIONS

EXECUTIVE CLOSED SESSION

(SSB, ESSC, & DISCIPLINE/STANDING COMMITTEE MEMBERS ONLY)

8:00 am Board Discussions

8:45 am *SHORT BREAK*

OPEN SESSION

Discipline Committee Reports and Discussion with SMD AA

8:55 am Welcome and Introduction of Members and Attendees *Fiona Harrison, SSB Chair*

9:00 am Cttee on Astronomy and Astrophysics *Steve Ritz, CAA Co-Chair*

9:10 am Cttee on Astrobiology and Planetary Science *William McKinnon, CAPS Co-Chair*

9:20 am Cttee on Earth Science and Applications from Space *Michael King and Joyce Penner, CESAS Co-Chairs*

9:30 am Cttee on Solar and Space Physics *Maura Hagan, CSSP Co-Chair*

9:40 am Discussion of Issues Raised by the Committees *All*

10:00 am Status Report from SMD *Thomas Zurbuchen, NASA*

- Impact of Recent SSB Reports
- Program and Policy Challenges
- Where might the Board focus its efforts
- Fall 2018 Workshop Topics
- Future Study Activities

10:45 am *BREAK*

11:05 am Discussion of Issues Raised by Dr. Zurbuchen *All*

12:00 pm *LUNCH*

WEDNESDAY, NOVEMBER 1, 2017
AFTERNOON SESSION

OPEN SESSION
International Activities

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| 1:00 pm | Update on Forum for New Leaders in Space Science | <i>David Smith, SSB Staff</i> |
| 1:10 pm | Update from ESSC | <i>Athena Coustenis, ESSC Chair</i> |
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OPEN SESSION R&A Programs & Improving Peer Review

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| 2:00 pm | Intro to the Theme: Peer review and R&A programs
(30 minute presentation & 10 minute discussion) | <i>TBC</i> |
| 2:40 pm | Panel Discussion: (5-minute opening statements from the three panelists and then a moderated discussion) | <u><i>3 panelist TBC</i></u> |
| 3:45 pm | Summary of the Discussion and Possible Action Items | <i>Fiona Harrison, SSB Chair</i>
<i>Michael H New, NASA</i> |
| 3:50 pm | <i>BREAK</i> | |
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EXECUTIVE CLOSED SESSION & DINNER
(by invitation only)

THURSDAY, NOVEMBER 2, 2017

OPEN SESSION

Plans for 60th Anniversary

8:30 am	Welcome and Overview of Today's Agenda	<i>Fiona Harrison, SSB Chair</i>
8:35 am	Status of Planning for January 31 st Celebration of the Birth of Earth Observation and Space Science (10 minute presentation & 10 minute discussion)	<i>Abby Sheffer, SSB Staff</i> <i>(by WebEx)</i>
8:55 am	Plans for '18 Space Science Week (10 minute presentation & 10 minute discussion)	<i>Michael Moloney, SSB Director</i>
9:15 am	Plans for COSPAR 2018 (15 minute update & 10 minute discussion)	<i>Charlie Kennel, COSPAR US Rep</i> <i>Gregg Vane, COSPAR LOC</i>
9:40 am	Spring & Fall 2018 Meetings and 2018 Workshop (5 minute presentation & 10 minute discussion)	<i>Michael Moloney, SSB Director</i>
9:55 am	Summary of the Discussion	<i>Fiona Harrison, SSB Chair</i>
10:00 am	<i>BREAK</i>	

OPEN SESSION

**Joint Meeting with the Board on Physics and Astronomy
Planning for Astro 2020**

10:30 am	Introduction to the Discussion	<i>Fiona Harrison, SSB Chair</i> <i>Avi Loeb, BPA Vice Chair</i>
10:40 am	CAA perspectives: WEITR report, JWST, and planning activities of the CAA and "Consultation Group"	<i>Steve Ritz, CAA Co-Chair</i> <i>(Marcia Rieke, CAA by Webex)</i>
11:00 am	Preparing Crosscutting Topics: Astrobiology and Exoplanet Studies	<i>Michael Moloney, SSB Dir</i>
11:10 am	Discussion <ul style="list-style-type: none">• Timing of the Survey• Challenges facing the survey.• Engaging the community,• How is NSF and NASA and DOE preparing?• Cross cutting issues like grav waves, others?	<i>All</i>
12:10 pm	Summary and Closing Remarks	<i>Fiona Harrison, SSB Chair</i> <i>Avi Loeb, BPA Vice Chair</i>
12:15 pm	<i>LUNCH</i>	

OPEN SESSION
Focus Session on Big Data

1:15 pm Intro to the Theme

Sarah Gibson, SSB Member

EXECUTIVE CLOSED SESSION
(SSB, ESSC, & DISCIPLINE/STANDING COMMITTEE MEMBERS ONLY)

1:40 pm Big Data and NOAA Science

(15 minute presentation & 5 minute discussion)

Ed Kearns, NOAA

2:00 pm Big Data Analytics and Visualization to Monitor Sea-Level Rise

(15 minute presentation & 5 minute discussion)

Thomas Huang, JPL,

2:20 pm Using Machine Learning in Astronomy

(15 minute presentation & 5 minute discussion)

George Djorgovski, Caltech

2:40 pm Machine Learning and Solar Physics

(15 minute presentation & 5 minute discussion)

Monica Bobra, Stanford

3:00 pm Commentary on CSSP Session on Data & Analytics In Solar and Space Physics

(10 minute presentation & 5 minute discussion)

CSSP Co-Chair

3:15 pm Panel Discussion with the Board Members

- Potential for new discoveries
- How can our science agencies and communities prepare
- Is there a role for an SSB activity / study?

All

3:55 pm Summary of the Discussion

Fiona Harrison, SSB Chair

4:00 pm BREAK

OPEN SESSION
Deep Dive on Gravitational Wave Astronomy - Science Talks

4:20 pm Detecting Gravitational Waves (20 minute presentation)

Dave Reitze, LIGO Director

4:40 pm E/M Follow Up of GW Detection (20 minute presentation)

Mansi Kasliwal, Caltech

5:00 pm Q&A - Discussion

5:20 pm Open Sessions Adjourn -- Evening Free

FRIDAY, NOVEMBER 3, 2017

The board meets in closed executive session only on the morning of November 3rd, and adjourns at lunch.