

The National Academies of
SCIENCES • ENGINEERING • MEDICINE

Polar Research Board. 2021 Fall Meeting

To register for any sessions:

<https://www.eventbrite.com/e/polar-research-board-fall-meeting-tickets-198383098187>.

Monday, November 15 (all times ET). OPEN session

- 3:00 PM **Welcome, Review Agenda and Goals** [Diana Wall (PRB Chair), Laurie Geller]
- 3:05 PM **Agency updates/discussions**
- NSF Office of Polar Programs [Jennifer Mercer, Section Head for Arctic Sciences; Douglas Kowalewski, Section Head for Antarctic Sciences]
 - NASA [Thorsten Markus, Cryosphere Program Director]
 - Cold Regions Research and Engineering Laboratory (CRREL) [Robyn Barbato; Christopher Polashenski]
 - U.S. Arctic Research Commission [John Farrell, Executive Director]
 - Interagency Arctic Research Policy Committee / Office of Science and Technology Policy [Larry Hinzman, IARPC Executive Director]
- 4:20 PM **SCAR and IASC Updates**
- SCAR [Deneb Karentz, AI Weatherwax]
- IASC [Matthew Druckenmiller, Andrey Petrov]
- 5:00 PM **Adjourn**

Friday, November 19 (all times ET). OPEN session

- 2:00 PM **Welcome, Review Agenda and Goals** [Diana Wall (PRB Chair), Laurie Geller]
- 2:05 PM **Environmental health developments/concerns for Arctic-region populations**
- session goals:** to gain insights into the landscape of research and assessment activities currently being pursued in this realm, and consider opportunities for useful PRB activities, especially building upon current NASEM initiatives focused on the health/climate/environment nexus.
- speakers:**
- The Lancet Commission on Arctic Health [Ross Virginia, Dartmouth Univ.; PRB member]
 - Recent Arctic Council activities [Ben DeAngelo, NOAA; Chair of Arctic Monitoring and Assessment Program (AMAP) Working Group]
 - The NASEM Environmental Health Matters Initiative [Kavita Berger, Alex Reich, NASEM]
- 3:15 PM **break**
- 3:20 PM **Russian Arctic: key developments, prospects for science cooperation**
- session goals:** to gain insights on important developments occurring in the Russian Arctic and consider if there is potential value in planning a larger public forum on this topic, and/or pursuing new lines of NAS

and Russian Academy of Sciences engagement. To identify particular science topics that seem most critical and feasible as a focus for engagement.

PRB member speakers (~10 min each)

- overview--the Russian Arctic in a changing climate [Lawson Brigham, Univ. of Alaska Fairbanks]
- ecological conservation, management, monitoring issues [Margaret Williams, World Wildlife Fund]
- human dimensions issues [Andrey Petrov, Univ. of Northern Iowa]
- permafrost thaw issues [Merritt Turetsky, Univ. of Colorado]

Other invited guests:

- developments with the Russian Academy of Sciences, NAS/RAS collaboration [Rita Guenther, NASEM Policy and Global Affairs Division]
- relevant developments wrt/the Agreement on International Arctic Science Cooperation [John Farrell, U.S. Arctic Research Commission]
- IASC International Science Initiative in the Russian Arctic [(note: might cover this in IASC briefing on Nov.15) [Lee Cooper, University of Maryland]

5:00 PM adjourn

Monday, November 22 (all times ET). CLOSED session

3:00 – 5:00 PM Time for the Board to reflect on the earlier sessions and discuss possible follow-up steps

Tuesday, November 30 (all times ET). OPEN session.

Tipping Points in the Climate System: a scoping discussion

[joint session with Board on Atmospheric Science and Climate (BASC) and Ocean Studies Board (OSB)]

The Academies has previously conducted two consensus studies on the topic of tipping points: *Abrupt Climate Change: Inevitable Surprises* (2002), and *Abrupt Impacts of Climate Change: Anticipating Surprises* (2013). In this session, speakers will consider the scientific advances that have been made since these previous studies, and ways that a new Academies activity could make a value contribution on this topic.

3:00 PM **Session Overview**

3:05 PM **Reflections on how tipping point issues are addressed in IPCC AR6 (including social dimensions and implications for decision-making)**

Rob Lempert, RAND Corporation
Diana Liverman, University of Arizona

3:35 PM **Reflections on Development/Needs for Chairs of the Previous NASEM Studies**

Richard Alley, Penn State University [Chair, 2002. *Abrupt Impacts of Climate Change*]
Jim White, University of Colorado Boulder [Chair, 2013. *Abrupt Climate Change*]

4:05 PM **Climate and national security perspective.** Jennifer DeCesaro, Director for Climate Security and Resilience, National Security Council

4:15 PM **Discussion**

5:00 PM

Adjourn

