

Polar Research Board Fall Meeting (Virtual)

November 20-21, 2025

Meeting Purpose

- Explore current and emerging opportunities for using Artificial Intelligence (AI) in polar sciences
- Discuss administration Arctic priorities
- Receive U.S. National Committee Updates

THURSDAY, NOVEMBER 20, 2025 | 12:30 PM – 3:00 PM EST

PUBLIC AGENDA

Attendees can [submit questions via Slido](#), to be addressed during the Q&A and Discussion following the presentations.

Exploring Opportunities to Advance Polar Sciences Using Artificial Intelligence

Artificial intelligence (AI) provides new opportunities for advancements in scientific research in polar regions. This session will explore how AI is currently being used to address a variety of Arctic and Antarctic questions.

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| 12:30 PM | Welcome
Martin Jeffries , Polar Research Board (PRB) Chair |
| 12:35 PM | Session Overview
Anupma Prakash , Session Moderator and PRB Member |
| 12:45 PM | Invited Presentations (15min each)

Digital Twins of the Polar Regions
Jonathan Smith , British Antarctic Survey

AI in Sea Ice Research
William Gregory , Princeton University

Predicting Glacial Terminus Position using AI and the satellite record
Ginny Catania , University of Texas at Austin and PRB Member |
| 1:30 PM | Break (15 min) |
| 1:45 PM | Invited Presentations Cont'd |

AI in Permafrost Research

Anna Liljedahl, Woodwell Climate Research Center

AI in Biological Sciences

Byron Adams, Brigham Young University

2:15 PM **Q&A and Discussion with all Presenters**
Attendees can [submit questions via Slido](#)

2:45 PM **AI Activities Update from the Interagency Arctic Research Policy Committee (IARPC) Monitoring Observing Modeling and Prediction (MOMP) Collaboration Team**
David Allen, National Oceanic and Atmospheric Administration Affiliate, Global Ocean Monitoring and Observing, Arctic Research Program

2:55 PM **Session Wrap-Up**

3:00 PM **ADJOURN**

FRIDAY, NOVEMBER 21, 2025 12:00 PM – 1:30 PM EDT

Public attendees may [submit questions via Slido](#)

12:00 PM **Session Welcome and Overview**
Martin Jeffries, PRB Chair

12:05 PM **International Arctic Science Committee (IASC) Updates**
Matthew Druckenmiller, Lead Delegate to IASC, National Snow and Ice Data Center
Andrey Petrov, Alternate Delegate to IASC, University of Northern Iowa

12:25 PM **Scientific Committee on Antarctic Research (SCAR) Updates**
Allan Weatherwax, Lead Delegate to SCAR, Massachusetts Institute of Technology
Byron Adams, Life Sciences Representative, Brigham Young University

12:45 PM **Research Needs for a Secure and Prosperous Arctic – Briefing**
John Farrell, U.S. Arctic Research Commission

1:30 PM **ADJOURN**