

Enabling US Leadership in Artificial Intelligence for Weather

Board on Atmospheric Sciences and Climate Spring 2024 Meeting

MAY 13, 2024

Virtual | National Academy of Sciences Building (2101 Constitution Ave NW Washington DC, 20418)

Additional information available on the [event page](#)

Advances in artificial intelligence (AI) are rapidly transforming the landscape for weather forecasting—expanding prediction capabilities and presenting new challenges for ensuring forecasts are trustworthy. The [Board on Atmospheric Sciences and Climate \(BASC\)](#) spring meeting will provide an overview of the current landscape of weather and AI in the US today, and the resources needed for the US to lead in this space in the future; consider cross-sectoral perspectives on developing trustworthy AI-informed weather forecasts for different end users; and explore opportunities and challenges of facilitating novel partnerships across academia, government, and industry.

10:30–10:45 Introduction and Overview of AI and Weather Forecasting

Amy McGovern, Elizabeth Barnes, and Brad Colman, BASC Board Members

10:45–12:15 Session 1: Integrating AI into Weather Forecasting: Opportunities for Federal Leadership

Moderator: Mary Glackin, BASC Chair

8-10-minute remarks + 10 minute Q&A for each speaker

- Tsengdar Lee, National Aeronautics and Space Administration (NASA)
- Gary Geernaert, Department of Energy
- Eric DeWeaver, National Science Foundation
- Isidora Jankov, National Oceanic and Atmospheric Administration (NOAA)

12:15–13:15 Lunch

13:15–15:15 Session 2: Developing Trustworthy AI-informed Weather Forecasts for End Users

Moderators: Elizabeth Barnes and Amy McGovern, BASC Members

Panel 1: Focus on Utilizing AI Tools to Enhance Forecast Capabilities

7-minute talks + 20 minutes Q&A/discussion

- Chris Karstens, NOAA
- Jason Levit, NOAA
- Tom Hamill, The Weather Company
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Panel 2: Focus on Trust in AI for Weather Forecasts

7-minute talks + 20 minutes Q&A/discussion

- Reva Schwartz, National Institute of Standards and Technology
- Ann Bostrom, University of Washington

- **William Livingston**, University of Oklahoma
- **Scott Mackaro**, Vaisala Xweather

25-minute discussion with all Session 2 panelists

15:15–15:30 **Break**

15:30–16:20 **Session 3: Facilitating Novel Partnerships Across Sectors**

Moderators: Brad Colman and Andrea Lopez Lang, BASC Members

5-minute lightning talks + 25 minutes Q&A/discussion with all speakers

- **Matthew Chantry**, European Centre for Medium-Range Weather Forecasts
- **Daniel Rothenberg**, OpenEarthAI
- **Ryan McGranaghan**, NASA Jet Propulsion Laboratory
- **John Kreider**, Kreider Consulting LLC/NOAA Science Advisory Board
- **Angel Farguell**, San Jose State University

16:20–16:30 **Synthesis and Closing Remarks**

Amy McGovern, **Elizabeth Barnes**, and **Brad Colman**, BASC Board Members

16:30 **ADJOURN**