

**Workshop Title:** Polar Prediction Workshop: From Weather to Interannual Time Scales

**Date:** 24–26 April 2019

**Location:** National Weather Center, Norman, Oklahoma

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Members of the SIPN2 leadership team participated in the 2019 Polar Prediction Workshop to share information about SIPN2 and exchange knowledge about sea ice prediction.

**Workshop Organizing Committee:** Cecilia Bitz, Steven Cavallo, Greg McFarquhar, and David Parsons.

**SIPN2 Project Team Members in Attendance:** John Walsh (keynote speaker), Cecilia Bitz, Muyin Wang.

**Workshop Motivation/Goals:**

The School of Meteorology and the Cooperative Institute for Mesoscale Meteorological Studies (CIMMS) at the University of Oklahoma hosted a workshop on polar prediction at the National Weather Center in Norman, Oklahoma. The workshop brought together diverse communities working on sea ice prediction, cold air outbreaks, models with varying temporal and spatial resolutions and various observing systems (radar, in-situ measurements, satellites) and those who use these products to produce weather, seasonal to subseasonal and weather forecasts. The impact of the Arctic on lower latitudes and the social and socioeconomic impacts of Arctic weather and climate were also discussed. The workshop aimed to identify the current state of knowledge of processes in the Arctic, and the impact of both processes and forecasts. The workshop included a keynote address given by Dr. John Walsh of the International Arctic Research Center at the University of Alaska.

The goal of the workshop was to bring together people from different communities currently undertaking or planning activities in the Arctic, together with those using models or analyzing remote sensing data, to determine steps that can be undertaken to use these data effectively and synergistically to use these resources to improve our understanding of Arctic weather, and in particular, forecasts, processes and impacts on lower latitude systems. Specific discussion topics included:

- Sea ice dynamics and prediction,
- Polar predictability from weather to interannual time scales,
- Impact of the Arctic on lower latitudes,
- Cold air outbreaks,
- Operational and research efforts, and
- End user needs and capacity of the scientific community to address them.