

**18th Workshop on Antarctic Meteorology and Climate (WAMC)**

**Madison, Wisconsin**

**Pyle Center**

**Wednesday 31 May 2023**

**0900-0905** Conference Logistics: Matthew Lazzara (In person)

**0905-0910** Welcome: Brad Pierce, Director, Space Science and Engineering Center, University of Wisconsin-Madison (In person)

**Session 1:** Automatic Weather Station Network

**Chair:** Isabella Onsi

**0915-0935** 2022-2023 Field Season Overview

Taylor Norton (in-person)

**0935-0955** Antarctic Peninsula Automatic Weather Station Network 2022-23 - Field Season Review

Jo Cole (virtual)

**0955-1015** Future AWS

Matthew Lazzara (in-person)

**1015-1035** Reimagining the AWS -- lessons from astronomy in Antarctica

Craig Kulesa (in-person)

**1035-1055** An Overview of the YOPP-SH 2022 Winter Special Observing Period

David Bromwich (in-person)

**1055-1115** Break (Posters available to view)

**Discussion 1:** AWS

**1115-1215** Moderator - Matthew Lazzara

**1215-1345** Lunch on your own

**1345-1400** Group Picture

**Session 2:** Research I

**Chair:** Ethan Koudelka

**1400-1420** Strong Warming over the Antarctic Peninsula during Combined Atmospheric River and Foehn Events

Xun (Jerry) Zou (in-person)

**1420-1440** On the Seasonal and Spatial Dependence of Extreme Warm Days in Antarctica

Min Xu (virtual)

**1440-1500** The Role of Atmospheric Rivers in Antarctic Sea Ice Variations

Kaixin Liang (virtual)

**1500-1520** Break (Posters available to view)

**1520-1540** SAT change at Relay Station in the interior East Antarctica during the last 30 years

Naoyuki Kurita (virtual)

**1540-1600** Analysis of a Rain Event on January 2-3, 2022 at Syowa Station, Antarctica

Naohiko Hirasawa (virtual)

**1600-1620** Summer extreme-high temperatures, surface melt and atmospheric rivers in the Antarctic Peninsula linked to central tropical Pacific convection

Kyle Clem (in-person)

## Thursday 1 June 2023

### Session 3: Data & Observations

**Chair:** Xun (Jerry) Zou

**0900-0920** Sea ice and ABL parameterizations in the regional climate model “CCLM polar”  
Guenther Heinemann (virtual)

**0920-0940** Digitisation of early Antarctic Peninsula meteorological records for climate research  
Steve Colwell (virtual)

**0940-1000** Real time monitoring of observations by Regional WIGOS Centres  
Luis Nunes (virtual)

**1000-1020** WMO WIGOS working group obs data  
Matthew Lazzara (in-person)

**1020-1040** Break (Posters available to view)

**1040-1100** AMRDC Repository 1.0  
Matthew Lazzara (in-person)

**1100-1120** Scalable Antarctic Thermoelectric Generator for Harvesting Ocean Thermal Energy  
In-Situ for Free Floating or Ice-Tethered Antarctic Observation Buoys  
Bobby Kovach (in-person)

**1120-1140** Toward an Antarctic Radiation Regional Network  
Claudia Frangipani (virtual)

### **Discussion II: Data**

**1140-1240** Moderator: Joseph Snarski

**1240-1400** Lunch

### Session 4: Research II

**Chair:** Taylor Norton

**1400-1420** Exploring the Possible Connection Between Hut Point Peninsula's Terrain and a Moderate Northeast Wind Event at McMurdo, Antarctica

Jeffrey Fournier (in-person)

**1420-1440** Characterizing Precipitation and Accumulation Variability at Hercules Dome, Antarctica

David B. Reusch (in-person)

**1440-1500** Variability in Boundary Layer Stability Across Antarctica

John Cassano (in-person)

**1500-1520** Break (Posters available to view)

**1520-1540** Cooling the coldest continent: The 4 December 2021 Total Solar Eclipse over Antarctica

René Garreaud (virtual)

**1540-1600** Climate Change and Variability in the East Antarctic Icescape

Ryan Eagan (virtual)

## Friday 2 June 2023

### Session 5: Research III

**Chair:** David Mikolajczyk

**0900-0920** Small-scale temporal variability of surface winds in Adelie land  
Davrinche Cécile (in-person)

**0920-0940** Future Atmospheric Rivers in Antarctica: intensity and impacts  
Barthelemy Léonard (virtual)

**0940-1000** Observational Analysis of an Atmospheric River Impacting the Antarctic Peninsula During the Winter YOPP-SH Special Observing Period  
Marianna Fontolan Litell (in-person)

**1000-1020** Polar WRF Modeling of a May 2022 Atmospheric River Impact on the Antarctic Peninsula  
Keith M. Hines (virtual)

**1020-1025** A message from Art Cayette

**1025-1040** Break

### **1040 - 1150** Formal Poster Session

- Ross Sea Polynya and wave erosion at the Ross Ice Shelf front  
Nicolas B. Sartore
- The Warming and Cooling within the Antarctic Climate: Marble Point Station  
Ethan Koudelka
- Extreme Wind Event in the Black Island Region of Antarctica  
Isabella Onsi
- Connecting Antarctica to the World: WMO's OSCAR/Surface metadata system and the Antarctic AWS network  
Anastasia Tomanek & Matthew Lazzara
- Heat Transfer Characteristics of a Scalable Antarctic Thermoelectric Generator for Harvesting Ocean Thermal Energy to Generate Electricity During the Polar Night  
Bobby Kovach
- Analysis of Tragic Summer Antarctic Storms Between 14 November – 2 December 2022  
Dave Bromwich on behalf of Blake Murray

- An Examination of Faulty Station Pressure Measurements within the Antarctic Automatic Weather Station Network  
Mercedes Hernandez-Natera and Matthew A. Lazzara

1150 - 1320 Lunch Break

**Session 6:** Forecasting & Modeling

**Chair:** Karissa Shannon

1320-1340 Polar WRF Forecast Performance for Antarctica and the Southern Ocean  
David H Bromwich (in-person)

1340-1400 The AMPS Winter YOPP-SH Forecast Data Impact Study  
Jordan Powers (in-person)

1400-1420 Improvements to NPP Operational Forecaster Training  
Joey Snarski (in-person)

1420-1440 AMPS Update -- 2023  
Kevin W Manning (in-person)

1440-1500 Break

**Discussion III:** Forecast & Models

1500-1550 **Moderator:** Kevin Manning

1550-1600 Closing Remarks