The 30th International Symposium on Polar Sciences (ISPS 2025)

# The 20th Workshop on ANTARCTIC METEOROLOGY AND CLIMATE (WAMC 2025)

## July 16-18, 2025

**Korea Polar Research Institute and Online** 



Korea Polar Research Institute

## ISPS 2025 / WAMC 2025 Program

as of July 1

All times are in KST (UTC+9).

	July 16 (Wednesday)	
08:10 - 08:40	Registration	
Opening		Sejong Conference Room
08:40 - 08:50	Introduction of KOPRI	
08:50 - 08:55	<i>Welcome Address</i> Hyoung Chul Shin, President of KOPRI	
08:55 - 09:00	WAMC Opening	
Session 1. A Chair: Taejin C	WS Choi (Korea Polar Research Institute)	Sejong Conferenc Room
09:00 - 09:20	S1-1. Sabina Kucieba (British Antarctic Survey) An Overview of AWS Servicing at Halley and Rothera Research Stations and Unusual Phenomena Observed at Halley During the Summer Season	Virtual
09:20 - 09:40	S1-2. Lee Welhouse (AMRDC, University of Wisconsin - Madison) The Automatic Weather Station and Polar Climate and Weather Station Field Season 2024-2025	Virtual
09:40 - 10:00	S1-3. Lee Welhouse (AMRDC, University of Wisconsin - Madison) The Automatic Weather Station and Polar Climate and Weather Station Field Season 2025-2026 Future Plan	Virtual
10:00 - 10:20	Coffee Break	
	ata & Observations n Choi (Korea Polar Research Institute)	Sejong Conferenc Room
10:20 - 10:40	S2-1. Jinfei Wang (Sun Yat-sen University) Identification of Antarctic sea ice regimes using objective data mining	In-persoi
10:40 - 11:00	S2-2. Simone Pulimeno (Ca' Foscari University of Venice) Polar-AOD network: strengthening aerosol climatologies for the polar observing community	Virtual
11:00 - 11:20	S2-3. Matthew Lazzara (AMRDC, University of Wisconsin - Madison) The Antarctic Meteorological Research and Data Center Data Repository: A Project Update	Virtual
11:20 - 11:40	S2-4. David Mikolajczyk (AMRDC, University of Wisconsin - Madison) The Antarctic Meteorological Research and Data Center Website: An overview and discussion of the AMRDC website, featured projects, and	Virtual
11.20 - 11.40	real-time data display	
11:40 - 12:00	real-time data display S2-5. Amin Beiranvand Pour (INOS, University Malaysia Terengganu) PRISMA hyperspectral remote sensing satellite data for mineralogical mapping in Antarctica	Virtual
	S2-5. Amin Beiranvand Pour (INOS, University Malaysia Terengganu) PRISMA hyperspectral remote sensing satellite data for mineralogical	Virtual

	p <b>recasting &amp; Modeling</b> a Fontolan Litell (The Ohio State University)	Sejong Conferenc Room
13:30 - 13:50	S3-1. Michael Johnson (NIWC LANT Polar Programs) NPP Meteorology 2025: Overview, Plans, and Goals	Virtual
13:50 - 14:10	S3-2. Kevin W. Manning (NSF National Center for Atmospheric Research) AMPS Update - July 2025	In-perso
14:10 - 14:30	S3-3. Mariana Fontolan Litell (Byrd Polar and Climate Research Center - The Ohio State University) Forecast Impact of Additional Radiosonde Ascents During the Year of Polar Prediction – Southern Hemisphere (YOPP-SH) Winter Campaign	In-perso
14:30 - 14:50	S3-4. Isabella Onsi (NIWC LANT Polar Programs) Early Career Perspective on Antarctic Operations	Virtual
14:50 - 15:10	Coffee Break	
15:10 - 15:30	S3-5. Keith Hines (Byrd Polar and Climate Research Center, The Ohio State University) Skillful Polar WRF Cloud Modeling of a Warm Winter Atmospheric River at the Antarctic Peninsula	Virtua
15:30 - 15:50	S3-6. Saurav Dey Shuvo (Byrd Polar and Climate Research Center, The Ohio State University) Simulating the 12 February 2020 North Dakota Blizzard: An Application of a Blowing Snow Algorithm Coupled with the Polar Weather Research and Forecasting Model	Virtua
15:50 - 16:10	S3-7. Étienne Vignon (Laboratoire de Météorologie Dynamique /CNRS) Advanced precipitation scheme in ICOLMDZ with improved microphysics and subgrid cloud-hydrometeor interactions to better simulate polar precipitation	Virtua
16:10 - 16:30	S3-8. Jenna Palmer (NPP Meteorology) Improving Antarctic Fog Forecasting using Data Analytics	Virtua
16:30 - 16:50	S3-9. Phil Reid (Australian Bureau of Meteorology) Coupled model sea ice forecasts - some results and complexities	Virtua
16:50 - 17:10	Group Photo	
Session 4. Po n-person Only	oster Session	Sejong Conferen Room
17:10 - 18:00	S4-1. Qinghua Yang (Sun Yat-sen University, Southern Marine Scienc Engineering Guangdong Laboratory (Zhuhai)) A dataset of the edge of each polynya in the Antarctica	e and
	S4-2. Clare Eayrs (Korea Polar Research Institute) Enhancing Antarctic Forecasting and Services through the Polar Coupled and Prediction for Services (PCAPS) Project	Analys

	S4-3. Enbo Ge (Chinese Academy of Meteorological Sciences) Temperature characteristics of ABL at Zhongshan Station, Antarctica observed by MTP	
	S4-4. Matteo Willeit (Potsdam Institute for Climate Impact Research) Convection in the Southern Ocean triggered by Heinrich events	
	S4-5. Ran Yang (School of Atmospheric Sciences, Sun Yat-sen University) Unveiling the Compound Nature of Antarctic Extremes: Regional Drivers an Seasonal Variability of Precipitation and Warm Events	
	S4-6. Hyeogdo Kweon (Department of Atmospheric Sciences, Yonsei University) Spatiotemporal Correlation Between Antarctic Springtime Stratospheric Ozone and Meteorological Factors Based on MERRA-2 Reanalysis	
18:00 - 20:00	Welcome Dinner Cafeteria	

### July 17 (Thursday)

08:50 - 09:00

Registration & Beginning of the 2<sup>nd</sup>-day Workshop

Session 5. Ro Chair: Jordan I	e <b>search-I</b> Powers (NSF National Center for Atmospheric Research)	Sejong Conference Room
09:00 - 09:20	S5-1. Taejin Choi (Korea Polar Research Institute) Ten-Year Measurements of Surface Radiation and Turbulent Heat Flux at Jang Bogo Station, Terra Nova Bay, Antarctica	In-person
09:20 - 09:40	S5-2. Jordan Powers (National Center for Atmospheric Research) A Modeling Investigation of an Antarctic Mass Loss Event	In-person
09:40 - 10:00	S5-3. Satyajit Singh Saini (Indian Institute of Technology Roorkee) Seasonal Variability and Long-Range Transport of Black Carbon Aerosols over East Antarctica: Observational Insights from Bharati Station	In-person
10:00 - 10:20	S5-4. Sergi González-Herrero (WSL Institute for the Snow and Avalanche Research SLF) Instrumentation of a tall tower at Princess Elisabeth station to study the vertical energy exchange during blowing snow events in Antarctica	Virtual
10:20 - 10:40	Coffee Break	
10:40 - 11:00	S5-5. Diana Francis (Khalifa University) Role of Foehn winds in snow sublimation and land-ice changes	Virtual
11:00 - 11:20	S5-6. Diana Francis (Khalifa University) Atmospheric Triggers of Ice-Shelf Fronts Calving Events in Antarctica	Virtual
11:20 - 11:40	S5-7. Naohiko Hirasawa (National Institute of Polar Research) Detection of extremely weak precipitation	Virtual
11:40 - 12:00	S5-8. Naoyuki Kurita (Nagoya University) Summer warming in the East Antarctic interior triggered by southern Indian Ocean anthropogenic warming	Virtual
12:00 - 13:30	Lunch Break	
	12:10-13:00 Seminar for Early Career Researchers Speaker: Taejin Choi (KOPRI)	Penguin Seminar Room (In-person Only)

Session 6. Re Chair: Sang-Jo	e <b>search-II</b> ng Park (Korea Polar Research Institute)	Sejong Conferend Room
	S6-1. Christine Kaufhold (Potsdam Institute for Climate Impact	
10.00 10 50	Research)	<b>I</b>
13:30 - 13:50	Impact of Antarctic and Greenland Ice Sheet melting on sea level,	In-perso
	regional climate, and future coastlines	
	S6-2. Shoudong Zhao (Chinese Academy of Meteorological Sciences)	
13:50 - 14:10	Observed Top Ten Heatwaves in the Antarctic Peninsula (1991–2023)	In-perso
	S6-3. Sang-Jong PARK (Korea Polar Research Institute)	
14:10 - 14:30	35-YEARS OF CLIMATOLOGY OF THE KING SEJONG STATION,	In-perso
	ANTARCTICA	
	S6-4. Minghu Ding (Chinese Academy of Meteorological Sciences)	
14:30 - 14:50	Blocking Events in East Antarctica	In-perso
14:50 - 15:10	Coffee Break	
	S6-5. Evan Quinter (University of Delaware) and Mary Stack	
15:10 - 15:30	(University of Virginia)	Virtua
15:10 - 15:50	Trends in Storminess Over the West Antarctic Peninsula: A Multi-	Virtuu
	Method Analysis of ERA5 Reanalysis Data (1979-2021) S6-6. Cavaliere Alice (National Research Council, Institute of Polar	
	Sciences, Italy)	
15:30 - 15:50	Surface radiation budget data in a bipolar perspective: observations,	Virtua
	comparison and exploiting for products	
	S6-7. David H. Bromwich (Byrd Polar and Climate Research Center,	
15:50 - 16:10	The Ohio State University)	Virtua
	Is Interior Antarctica on the Threshold of Major Climate Change?	
	S6-8. Xun (Jerry) Zou (Scripps Institution of Oceanography, University	
16:10 - 16:30	of California San Diego) Marsh 2022 Fast Asternatic Heatmans Under Different Background	Virtua
	March 2022 East Antarctic Heatwave Under Different Background Climate Conditions	
16:30 - 16:50	Coffee Break	
Session 7. Re	esearch-III	Sejong Conferen
Chair: Ja-Ho Ko	oo (Yonsei University)	Room
	S7-1. Hyesun Choi (Korea Polar Research Institute)	
16:50 - 17:10	Changes in the Timing of Stratospheric Final Warming and Their Link to	In-perso
	Recent Antarctic Summer Climate S7-2. Ja-Ho Koo (Yonsei University)	
17:10 - 17:30	<i>Connection between the Antarctic stratospheric ozone and sea ice</i>	In-perso
17.10 - 17.50	extent in the Weddell Sea in austral spring	in perse
	S7-3. Dong-Chan Hong (Seoul National University)	
17:30 - 17:50	How does Antarctic ozone depletion affect the Southern Hemisphere	In-perso
	climate?	
17:50 - 18:10	S7-4. Minju Park (Yonsei University)	
	Spatiotemporal characteristics of Antarctic springtime tropopause	Vinter
17:50 - 18:10	from ozonesonde observations and its relationship with total ozone	Virtua

July 18 (Friday)		
08:50 - 09:00	Registration & Beginning of the 3 <sup>rd</sup> -day Workshop	
Session 8. Re Chair: Eui-Seol	e <b>search-IV</b> k Chung (Korea Polar Research Institute)	Sejong Conference Room
09:00 - 09:20	S8-1. Rui Zhong (School of Atmospheric Sciences, Sun Yat-sen University) Revisiting the Interaction Between Antarctic Sea Ice and Southern Ocean Cyclones	In-person
09:20 - 09:40	S8-2. Kaixin Liang (Sun Yat-sen University) Regional extreme Antarctic sea-ice retreat linked to tropical forcing	In-person
09:40 - 10:00	S8-3. Peiyi Lin (School of Atmospheric Sciences, Sun Yat-sen University) Dipolar Distribution of Cyclones and Its Influence on Sea Ice Extremes in the Amundsen–Bellingshausen Seas	In-person
10:00 - 10:20	S8-4. Antonia Louise Radlwimmer (University of Otago) Changing storm behaviour and its links to winter sea ice processes in the Ross Sea	In-person
10:20 - 10:40	Coffee Break	
10:40 - 11:00	S8-5. Diana Francis (Khalifa University) Atmospheric Drivers of Coastal and Open-Ocean Polynyas around Antarctica	Virtual
11:00 - 11:20	S8-6. Feba Francis (Universite Catholique de Louvain) Wind nudging experiments to simulate the 1970s drop in the sea ice extent in the Southern Ocean	Virtual
Closing		Sejong Conference Room

#### Online Meeting Room (Zoom)

https://us06web.zoom.us/j/87833575005?pwd=wJ0LU6GSOWnvPdoyCwMRGeYZpU Wsja.1 (Meeting ID: 878 3357 5005, Passcode: 25071618)

# North callpus al a Giance from Above

#### KOPRI Campus at a Glance from Above