

Year of Polar Prediction (YOPP) Arctic Science Workshop 2019

AGENDA

14–16 January 2019

Finnish Meteorological Institute

Address: Erik Palménin aukio 1, 00560 Helsinki, Finland

Monday 14 January 2019

08:00-09:00

Registration

Welcome & Introductory Session (Auditorium 'Brainstorm')

(chair: Helge Goessling)

09:00-09:10

Welcome from FMI, IASC and PPP

Juhani Damski (FMI Director General)
Thomas Spengler
Thomas Jung
Timo Vihma

09:10-09:25

Bridging Modelling and Observational Efforts during the Year of Polar Prediction

Thomas Jung (Alfred Wegener Institute)

Invited Presentations I (Auditorium 'Brainstorm')

(chair: Manisha Ganeshan)

09:25-09:50

Atmosphere-Ocean Single-Column Model (AOSCM) – a tool to help improve coupled models in the Arctic

Gunilla Svensson (Stockholm University)

09:50-10:15

Predictability Characteristics of Arctic Cyclones

James Doyle (Naval Research Laboratory)

10:15-10:40

Canadian Contributions to the Year of Polar Prediction: Deterministic and Ensemble Coupled Atmosphere-Ice-Ocean Forecasts

Gregory Smith (Environment and Climate Change Canada)

10:40-11:00

Coffee break

Invited Presentations II (Auditorium 'Brainstorm')

(chair: Kirstin Werner)

11:00-11:25

Large-scale Arctic sea ice modeling: Forging a community

Elizabeth Hunke (Los Alamos National Laboratory)

11:25-11:50

Co-production and user engagement in Arctic metocean forecasting: Experiences from the SALIENSEAS project

Machiel Lamers (Wageningen University and Research)

11:50-12:15

An overview of the Iceland Greenland Seas Project: Cold-Air Outbreaks and Air-Sea-Ice Fluxes

Ian Renfrew (University of East Anglia)

12:15-12:40

On forecasting sea ice trajectories using the Lagrangian sea ice model neXtSIM

Pierre Rampal (Nansen Environmental and Remote Sensing Center)

12:40-13:40

Lunch

Introduction to Breakout Groups (Auditorium 'Brainstorm')

(chair: Thomas Jung)

13:40-14:05

Breakout Groups: Groups will be assigned at registration.

Session A (Auditorium ‘Brainstorm’): Coupled Atmosphere-Ocean-Sea Ice		
(chairs: Evelien Dekker/Claudia Hinrichs)		
14:05-14:20	<i>Predicting ocean waves and sea ice and the Polar Oceans</i>	Stefanie Rynders (National Oceanography Centre)
14:20-14:35	<i>Is the Arctic Losing Climatic Resilience?</i>	James Overland (NOAA Pacific Marine Environmental Laboratory) (<i>presenting author</i> : Kevin Wood, Joint Institute for the Study of the Atmosphere and Ocean)
14:35-14:50	<i>The influence of ice fragmentation on the atmospheric boundary layer processes</i>	Marta Wenta (University of Gdansk)
14:50-15:05	<i>Results of hydrometeorological studies at Research station “Ice Base “Cape Baranova” during YOPP</i>	Alexander Makshtas (Arctic and Antarctic Research Institute)
15:05-15:20	<i>Coupling scales and components: When is an interactive sea ice component required for weather forecasting?</i>	Clemens Spensberger (University of Bergen & Bjerknes Centre for Climate Research)
15:20-15:35	<i>Next Iteration of the Arctic System Reanalysis</i>	David Bromwich (<i>remotely</i> ; Byrd Polar & Climate Research Center)
15:35-16:00	<i>Coffee Break</i>	
Session B (Auditorium ‘Brainstorm’): User Engagement		(chairs: Riina Haavisto/Machiel Lamers)
16:00-16:15	<i>Who are the end-users of improved polar environmental forecasting services?</i>	Marijn Anna Cornelia Hooghiem (Wageningen University and Research & SALIENSEAS)
16:15-16:30	<i>From detailed sea-ice services to end users</i>	Till Soya Rasmussen (Danish Meteorological Institute)
16:30-16:45	<i>Toward salient metocean services for the marine Arctic: exploring metservice perspectives on the user-producer interface</i>	Maaïke Knol (University of Tromsø) (<i>presenting author</i> : Jelmer Jeuring, Umeå University)
16:45-17:00	<i>The contribution of the Icelandic Meteorological Office to YOPP</i>	Guðrún Nína Petersen (Icelandic Meteorological Office)
17:00-17:15	<i>INTAROS – a project contributing to improving Arctic observing systems</i>	Stein Sandven (Nansen Environmental and Remote Sensing Center)
17:15-17:30	<i>General Discussion</i>	
17:30-19:00	<i>Posters I (Sessions A, B, E) & Icebreaker</i>	

Tuesday 15 January 2019

Session C (Auditorium 'Brainstorm'): Forecasting & Data Assimilation

(chairs: Madlen Kimmritz/Yonghan Choi)

09:00-09:15	<i>Impact of assimilating AIRS cloud-cleared radiances on atmospheric dynamics and boundary layer height at high latitudes</i>	Erica McGrath-Spangler (Universities Space Research Association/GESTAR) (<i>presenting author</i> : Manisha Ganeshan, Universities Space Research Association/GESTAR)
09:15-09:30	<i>On the warm bias of atmospheric reanalysis over sea-ice in Arctic winter</i>	Malte Müller (Norwegian Meteorological Institute)
09:30-09:45	<i>Dynamics of weather extremes during the YOPP Special Observations Periods</i>	Timo Vihma (Finnish Meteorological Institute)
09:45-10:00	<i>Impact of a multi-layer snow model in the ECMWF Integrated Forecasting System</i>	Gabriele Arduini (European Centre for Medium-Range Weather Forecasts)
10:00-10:15	<i>The Sea Ice Drift Forecast Experiment</i>	Helge Goessling (Alfred Wegener Institute)
10:15-10:30	Predictability of extreme weather events in North Greenland	Kent Moore (University of Toronto)
10:30-11:00	Group photo & Coffee break	

Session D (Auditorium 'Brainstorm'): Verification

(chair: Barbara Casati/Jonathan Day)

11:00-11:15	<i>Verification of sea-ice prediction by using distance measures</i>	Barbara Casati (Environment and Climate Change Canada)
11:15-11:30	<i>Merged Observatory Data Files at the YOPP Super Sites for Special Observing Periods: Preliminary Verification Results</i>	Taneil Uttal (NOAA) (<i>presenting author</i> : Leslie M. Hartten, University of Colorado/CIRES)
11:30-11:45	<i>A NWP model inter-comparison of surface weather parameters during the Year of Polar Prediction Special Observing Period 1</i>	Morten Køltzow (Norwegian Meteorological Institute)
11:45-12:00	<i>Assessing the value of the Arctic Observing System for Medium-Range NWP</i>	Jonathan Day (European Centre for Medium-Range Weather Forecasts)
12:00-12:15	<i>Evaluation of seasonal Arctic sea ice forecasts from the ECMWF SEAS5 system</i>	Cyril Palermé (Norwegian Meteorological Institute)
12:15-12:30	<i>What's in a Name? - Matching Observational Data with Model Output</i>	Siri Jodha Khalsa (University of Colorado)
12:30-13:30	Lunch break	

PARALLEL SESSIONS (13:30–15:00)

Session E (Auditorium 'Brainstorm'): Atmosphere

(chairs: Manisha Ganeshan/Carolina Viceto)

13:30-13:45	<i>Atmosphere-Wave Coupling in a NWP System</i>	Erin Thomas (Norwegian Meteorological Institute)
13:45-14:00	Profiling at Oliktok Point to Enhance YOPP Experiments (POPEYE)	Gijs de Boer (University of Colorado)
14:00-14:15	Experiences from Arctic forecasting during the Arctic Ocean 2016 expedition	Michael Tjernström (Stockholm University)

14:15-14:30	<i>The De-Icing Comparison Experiment (D-ICE): A well-characterized verification data set of Arctic broadband downwelling longwave and shortwave radiative fluxes for YOPP</i>	Christopher Cox (CIRES/NOAA)
14:30-14:45	<i>Polar lows in the ECMWF versus Arome Arctic models</i>	Matilda Hallerstig (Norwegian Meteorological Institute/ ECMWF)
14:45-15:00	Boundary layer measurements at Cape Baranov (YOPP project CATS-BL)	Günther Heinemann (University of Trier) (<i>presenting author</i> : Alexander Makshtas, Arctic and Antarctic Research Institute)
Session F (Room 'Aura'): Sea Ice and Ocean (chairs: Francesca de Santi/François Massonnet)		
13:30-13:45	<i>Nudging the Arctic Ocean to quantify sea ice feedbacks</i>	Evelien Dekker (Stockholm University)
13:45-14:00	<i>The Arctic Heat Open Science Experiment 2018: collaboration, initial results, and data availability</i>	Kevin Wood (Joint Institute for the Study of the Atmosphere and Ocean)
14:00-14:15	<i>Recent observations of sea ice thickness change in the Arctic</i>	Christian Haas (Alfred Wegener Institute)
14:15-14:30	<i>Towards an operational snow on sea ice product</i>	Julienne Stroeve (University College London)
14:30-14:45	<i>Limited predictability of extreme decadal changes in the Arctic Ocean freshwater content</i>	Torben Schmith (Danish Meteorological Institute)
14:45-15:00	Recent achievements in deriving sea ice thickness from satellite observations and transition into an operational service	Robert Ricker (Alfred Wegener Institute)
15:00-15:30	Coffee break	
GROUP DISCUSSIONS I (15:30–17:00)		
Auditorium 'Brainstorm'	Processes I	Gunilla Svensson
Briefing Room	Processes II	Thomas Spengler
Room 'Aura'	Predictability I	Thomas Jung
Room 'Mare'	Predictability II	Greg Smith
Room 'Aqua'	User Engagement	Machiel Lamers
Room 'Terra'	Verification	Barbara Casati
17:00-18:30	Poster Session II (Session C, D, F)	
19:30	No-host Conference Dinner at Ravintola Lasipalatsi Address: Mannerheimintie 22-24, 00100 Helsinki	

Wednesday 16 January 2019

GROUP DISCUSSIONS II (09:00–10:30)

Auditorium 'Brainstorm'	Processes I	Gunilla Svensson
Briefing Room	Processes II	Thomas Spengler
Room 'Aura'	Predictability I	Thomas Jung
Room 'Mare'	Predictability II	Greg Smith
Room 'Aqua'	User Engagement	Machiel Lamers
Room 'Terra'	Verification	Barbara Casati
10:30-11:00	<i>Coffee break</i>	

REPORT FROM GROUP DISCUSSIONS (Auditorium 'Brainstorm')

(chair: Thomas Jung)

11:00-11:10	Processes I	Gunilla Svensson
11:10-11:20	Processes II	Thomas Spengler
11:20-11:30	Predictability I	Thomas Jung
11:30-11:40	Predictability I	Greg Smith
11:40-11:50	User Engagement	Machiel Lamers
11:50-12:00	Verification	Barbara Casati

WRAP UP AND CLOSURE (12:00–12:30) (Auditorium 'Brainstorm')

(chair: Thomas Jung/Thomas Spengler)

12:30-13:30 *Lunch (optional)*