

Program



Coordination Workshop SPP 1158 September 28th to 30th, 2025 at AWI Bremerhaven

Sunday, September 28th, 2025

17:30-22:00	Icebreaker (Nordseemuseum AWI House "C", Am Handelshafen 12)
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Monday, September 29th, 2025

07:30-08:15	Registration and Coffee & Tea (Nordseemuseum AWI House "C", ground floor, Am Handelshafen 12)	
08:15-09:10	Uwe Nixdorf, Ulf Karsten, Jan Tebben	Welcome, 1 st floor
09:10-10:20	Session 1: short presentations (5min) + questions (5min)/ Session chair: Stefanie Arndt	
09:10-09:20	Laura Köhler, Silvia Henning, Zsófia Jurányi	Airborne Characterization of Cloud-Relevant Aerosol Sources Over Antarctica and Its Margins (ACCRA)
09:20-09:30	Ben Fabry, Daniel Zitterbart	Estimating Colony Health and Breeding Success of Emperor Penguin Colonies around Antarctica with a Combined Ground-Based and Satellite Imagery Approach
09:30-09:40	Niels Fuchs	Vertical Stratification of Antarctic Sea Ice Properties Over Time and Its Influence on Thermodynamic Processes and Mechanical Behaviour
09:40-09:50	Astrid Lampert, Markus Rex	Analysis of ship-borne recordings of atmospheric methane above the polar Southern Ocean – a contribution for understanding methane circulation above areas covered with sea ice (ALAMOCCI)
09:50-10:00	Gunnar Spreen, presented by Christian Melsheimer	Impact of sea ice dynamics on the Antarctic climate system (DYNICE)
10:00-10:10	Seyed Morteza Seyedpour, Silke Thoms, Tim Ricken	MUSICA: Multi-scale Sea Ice Coupled Analysis: Anisotropic biophysical coupling of sea ice processes
10:10-10:20	Gerrit Lohmann	Weddell Sea in Transition: Tidal Modulation of Ice Shelf-Ocean Interactions under a Warming Climate
10:20-11:10	Session 2: short presentations (5min) + questions (5min)/ Session chair: Helena Herr	
10:20-10:30	Kenneth Dumack	Eco-Evolutionary Characterization of Parasitoids of Antarctic Microalgae
10:30-10:40	Michael Friedrich, Lea Wunder	Diversity and Function of Fermenting Microorganisms in Antarctic Marine Sediment (DiFMAS)

10:40-10:50	Ekaterina Pushkareva	Adaptation mechanisms of bryophyte-microorganism associations in Antarctica
10:50-11:00	Matthias Wietz	Year-round dynamics and drivers of the Biological Carbon Pump in the Weddell Sea revealed by autonomous sampling
11:00-11:10	Elisa Merz , Peter Kroth	Metabolic adaptation of diatoms in dark euxinic sediments
11:10-11:30	Coffee break, ground floor	
11:30-12:30	Session 3: short presentations (5min) + questions (5min)/ Session chair: Burkhard Becker	
11:30-11:40	Tino Peplau	From Rock to Sea: Organic matter transformation in antarctic ecosystems
11:40-11:50	Ekkehard Küstermann , Christian Bock	Climate-induced nutritional changes and their consequences on the thermal tolerance of Antarctic fish
11:50-12:00	Helena Herr	Trophic Interactions of Southern Hemisphere fin whales and their prey in a changing Environment
12:00-12:10	Sarah Kempf	Natural Responses to Climate Change in Antarctic Fish: Integrating Seascape Transcriptomics with Physiological and Metabolic Insights
12:10-12:20	Kristina Lehnert-Sobotta , Charlotte Havermans, Simon Goodman	Integration of environmental nucleic acids (eDNA & eRNA) workflows into InSync to detect marine mammal occurrence and food web interactions in relation to environmental and ecological variables
12:20-12:30	Karen Krüger	Unraveling the genetic repertoire and diversity of keystone microorganisms in Antarctic marine sediments by metagenomic data mining
12:30-15:05	Session 4: presentations/ Session chair: Tilmann Harder	
12:30-13:00	Ismene Seeberg-Elverfeldt	Information from DFG on proposal submission
13:00-14:15	Lunch Break, ground floor	
14:15-14:30	Mirko Scheinert	DGP
14:30-14:50	Stefanie Arndt	Project Antarctica InSync
14:50-15:05	Olaf Eisen	AWI's Antarctic Research Infrastructure
15:05-16:20	Poster session and coffee break	
16:20-18:00	Session 5: short presentations (5min) + questions (5min)/ Session chair: Alexandra Zuhr	
16:20-16:30	Christine Thomas, Katrin Hannemann , Tanja Fromm	Ice Dynamics and Earth structure at the Ekström Ice Shelf (IDEE)
16:30-16:40	Pamela E. Rossel , presented by Dirk Wagner	Microbial Carbon dynamics on the Surface of Antarctic snow and glacier ice (MiCroSAn)
16:40-16:50	Monica Ionita-Scholz	Drivers of Antarctic Sea Ice Variability: Observations, Physical Mechanisms, and Cross-Hemispheric Perspective

16:50-17:00	Tainã Marcos Lima Pinho	Testing cosmogenic ^{10}Be as a tool for reconstructing Antarctic ice sheet melt
17:00-17:10	Sonja Berg	Response of lacustrine systems to Holocene climatic changes – Paleolimnological reconstructions from Bunger Hills, East Antarctica
17:10-17:20	Reinhard Drews	The dynamics of grounding-zone and exchange processes with the surrounding oceans
17:20-17:30	Rebecca Schlegel, presented by Alexandra Zuhr	Ground-based radar interferometry for detection of basal melt rates in Antarctica
17:30-17:40	Thorsten Bauersachs	Heterocyclic glycolipids: Novel proxies to study continental climate dynamics of Antarctica
17:40-17:50	Hartwig Deneke	Cloud-Aerosol-Radiation Interactions and their role for the Surface radiation budget and climate of Antarctica (CARISMA)
17:50-18:00	Sabrina Schnitt	Water Vapor, Clouds and Precipitation over the Antarctic Ocean - VACANT
Entry 18:45 Start 19:00	Dinner Klimahaus	Am Längengrad 8, Main entrance via “Havenwelten”

Legend:
Break
Poster session
Bio
Phys/Chem
Geo
Other

Tuesday, September 30th, 2025

08:00-08:30	Registration and Coffee & Tea (Nordseemuseum AWI House "C", ground floor, Am Handelshafen 12)	
08:30-10:10	Session 6: short presentations (5min) + questions (5min)/ Session chair: Sonja Berg	
08:30-08:40	Ole Zeising	Basal melting of Antarctic ice shelves: Understanding and advancing satellite remote sensing inferences through validation with ground-based radar observations
08:40-08:50	Jörg Ebbing	Estimating basal conditions under the Dome C and Aurora Basin Survey in East Antarctica
08:50-09:00	Hameed Moqadam	Reducing Antarctic-Peninsula Ice-Discharge Uncertainty Through Machine-Learning Radar Re-Analysis, Physics-Informed Machine Learning Thickness Interpolation, and Targeted Heli-GPR Validation
09:00-09:10	Johannes Fürst	Ice-Shelf Buttressing and Stability of Antarctic Ice Shelves in Changing Environments (BASICE)
09:10-09:20	Timm Schutz	Development of a Coupled 3D Firn and Surface Energy Model for the Simulation of Firn-Meltwater Interaction
09:20-09:30	Zhouling Zhang	Connections Between Benthic Silicon and Rare Earth Element Cycling Driven by Weathering Processes and Organic Matter Degradation in Southern Ocean Surface Sediments (CoSiREE)
09:30-09:40	Jutta Wollenburg, Christoph Vogt	Cryogenic Mineral Ballasting and the Southern Ocean Carbon Sink: Present Importance and Future Scenarios (CRYOBALL)
09:40-09:50	Johanna Kerch	Unraveling the Role of Crystal Anisotropy for the Deformation in an Ice Stream – Origin and effect of multi-scale variability of CPO in a polar ice core (CANDIS)
09:50-10:00	Micha Gryschka	Influence of sea-ice leads on the turbulent exchange of heat and CO ₂ between ocean and atmosphere using high-resolution large-eddy simulations (LeadFlux)
10:00-10:10	Niklas Neckel, Stefan Hinz	ImproviNg the Detectlon of subglacial wAater Transport beneath the Greenland and Antarctic ice sheets (INDICATE)
10:00-11:10	Session 7: short presentations (5min) + questions (5min)/ Session chair: Jan Tebben	
10:10-10:20	Tilman Harder, Jan Tebben	Microbial chemical interactions in the SO: characterization of the algicidal exudate of the Antarctic bacterium <i>Croceibacter atlanticus</i>
10:20-10:30	Carolin Mehlmann, Lars Ackermann	A continuum-particle representation of fast ice to quantify its role in Antarctic Bottom Water formation and provide projections of Antarctic fast ice
10:30-10:40	Andreas Wernecke	Similarities in CRYO2ICE: AI based reconstruction of ICESat-2 products from CryoSat-2 back to 2010 (SINCE2010)
10:40-10:50	Christopher Somes	Iron-ice interactions and impacts on the marine biological carbon pump in a changing climate

10:50-11:00	Stefano Da Vela	Role and Characterization of the Macromolecular Fraction of the Main Southern Ocean Primary Producers
11:00-11:10	Alexandra Parouffe	Southern Ocean carbon attributable to the biological carbon pump during phasing-out CO ₂ emissions
11:10-12:30	Poster session and coffee break	
12:30-13:15	Session 8: presentations/ Session chair: Petra Quillfeldt	
12:30-12:45	Rainer Lehmann	Polarlehrer: Coole Klassen in Antarktika / Cool classes in Antarctica
12:45-13:00	Amelie Driemel	PANGAEA- Data Publisher for Earth & Environmental Science
13:00-13:15	Alexandra Zuhr, Nellie Wullenweber	APECS
13:15-14:30	Lunch Break, ground floor	
14:30-15:50	Session 9: short presentations (5min) + questions (5min)/ Session chair: TBA	
14:30-14:40	Jan Phillipp Geißel	Integrated physiological investigations of the role of light cues and endogenous clocks for Antarctic Krill migration and navigation
14:40-14:50	Charlotte Havermans	Revisiting the occurrence of salps and their role as prey for higher trophic levels with improved molecular-based methods for species detection
14:50-15:00	Judith Piontek	Exploring the Antarctic niche of benthic prokaryotes: A metagenomic approach
15:00-15:10	Arlie McCarthy	Aliens in Antarctica: investigating invasion potential of non-native marine species
15:10-15:20	Ellen Oldenburg	Level-Up Zooplankton Inference (LUZI)
15:20-15:30	Ovidiu Popa	Polar Mobilome and Viral Ecosystem (PoMoVE)
15:30-15:40	Matthias Schmid, Kai Bischof	Responses of Polar Benthic Algae to Climate Change: A Multi-Method Approach to Habitat Mapping and Carbon Dynamics
15:40-15:50	Ming Khan	BEACon-SO – Benthic Ecosystem Assessment for Conservation in the Southern Ocean
15:50-16:00	Ute Hentschel-Humeida	Microbial biodiversity and function of Antarctic sponges under natural conditions and upon environmental stress
16:00-16:10	Ilse Van Opzeeland, Joseph Hoffmann	Acoustic ecology of ice-breeding pinnipeds under changing sea-ice conditions in the polar oceans
16:10-16:20	Ulf Karsten	Wrap up and Good Bye
16:20-16:45	Coffee break	
16:45	End of the workshop	