

WAIS Workshop 2026 Agenda (all times EDT)

Northern Virginia 4-H Educational and Conference Center
Front Royal, VA USA

Monday, September 28

2:00 pm – 5:00 pm	Check in: Pick up badges, swag (check in Tuesday and Wednesday will be available during breaks in the agenda)	Auditorium
6:00 pm – 6:30 pm	WAIS Workshop Steering Group Meeting: All are welcome to join to discuss the status and future of WAIS Workshops	Auditorium
7:00 pm – 9:00 pm	Icebreaker and pizza dinner	Picnic & BBQ Area

Tuesday, September 29 – All oral presentations in the Auditorium

Upload your Tuesday presentation slides by 7 am [here](#).

Breakfast: 8:00 am – 9:00 am (Dining Hall)

Session 0	Opening Business	Presenter
9:00 am	Welcome to WAIS Workshop 2026 & Goals	WAIS Committee
9:10 am	View from the Agencies	Kelly Brunt Denis Felikson

Session 1	Artificial intelligence and computational frontiers in marine ice-sheet science	Presenter
9:40 am	It's the Data, Not the Algorithm: How Greenland became AI's ice sheet (invited)	Leigh Stearns
9:55 am	DEMOGORGN Antarctica: Geostatistical Subglacial Topography for Uncertainty-Aware Ice-Sheet Investigation	Mickey Mackie
10:05 am	CryoStack: A Unified Cyberinfrastructure Platform for Reproducible Ice-Sheet Modeling, Data Assimilation, and Scientific Computing across HPC and Cloud Environments	Brian Kyanjo
10:15 am	Comparing geological interpretation and machine learning to develop parameterization of geological influence on ice sheet flow in the Amundsen Sea	Kirsty Tinto
10:25 am	Discussion	All

Refreshment Break: 10:45 am – 11:00 am

Session 2	Snow, Flow, Fracture, Friction	Presenter
11:00 am	Snow. The unlikely champion of the 2020s	Brooke Medley
11:10 am	In-Situ Measurements of Ice Shelf and Mélange Deformation Reveal Mechanical Properties of an Ice Rift in the Ross Ice Shelf	Kathrine Udell-Lopez
11:20 am	Uncertainty in CDW access to the Grounding Line from Stochastic Gravity Inversions of Sub-ice-shelf Bathymetry	Michael Field
11:30 am	Model-data investigation of Holocene retreat-readvance in the Western Ross Sea	Ruthie Halberstadt
11:40 am	Discussion	All

Lunch: 12:00 pm – 1:00 pm

Session 3	Blast from the past: the paleo perspective	Presenter
1:00 pm	An exciting new Miocene record from beneath the West Antarctic Ice Sheet: Initial Results from the SWAIS2C Cray Ice Rise Drill Core	Molly Patterson
1:10 pm	Sensitivity of the West Antarctic Ice Sheet to sea level and ocean temperature forcing during the penultimate glacial cycle: results from coupled GIA-PISM model experiments	Sam Chester
1:20 pm	Finding signal in the noise: Holocene retreat and re-advance signals revealed through legacy cosmogenic nuclide data	Ryan Venturelli
1:30 pm	Fingerprinting glacial tills with provenance tools shows the flow history of glaciers in the McMurdo Dry Valleys, Antarctica	Dan Morgan
1:40 pm	The international Ross-Amundsen Ice Core Array (RAICA) initiative: century-long Amundsen Sea annual climate variability (Canisteo Peninsula) and prospects for future ice core reconstruction of West Antarctic paleoclimate	Peter Neff
1:50 pm	Discussion	All

Refreshment Break: 2:15 pm – 2:30 pm

Session 4	Snow, Flow, Fracture, and friction	Presenter
2:30 pm	Constraining the flow law of ice with time-dependent inversions	David Lilien
2:40 pm	Ice fabric determination from quad-polarimetric radar data collected in West Antarctica	Andrew Hoffman
2:50 pm	Inversion of subglacial effective stress for till-bedded areas of Thwaites Glacier from acoustic-impedance measurements and viscous grain shearing theory	Atsu Muto
3:00 pm	The effect of topography roughness and uncertainty in the retreat of Thwaites Glacier	Niya Shao
3:10 pm	TBD (invited)	Olga Sergienko
3:25 pm	Discussion	All
	Poster Pitches	Presenter
3:45 pm	One minute poster teaser pitches (upload your 1 slide here by 8:00 am)	Poster Presenters

Poster Session: 4:15 pm – 5:30 pm

Dinner: 5:30 pm – 6:30 pm

Post-dinner breakouts: 7:00 pm – ?? (locations TBD)

Wednesday, September 30

Upload your Wednesday presentation slides by 7 am [here](#).

Breakfast: 8:30 am – 9:30 am (Dining Hall)

Session 5	Getting to the bottom of WAIS's future: the next decade of investigations through and beneath the ice	Presenter
9:00 am	Radar imaging of ice-sheet basal units for determining past ice flow and climate on Earth and Mars	Knut Christianson
9:10 am	Rivers of Dreams: Subglacial Water and IPY5	Britney Schmidt
9:20 am	How do we expand capacity for airborne radar sounding?	Thomas Teisberg
9:30 am	Large-scale, cross-sphere investigations of West Antarctica using NASA's 777 airborne science laboratory during IPY-5	Joseph MacGregor
9:40 am	When do solid Earth and sea-level feedbacks become important in AIS projections? (invited)	Holly Han
9:55 am	Discussion	All

Refreshment Break: 10:20 am – 10:40 am

Session 6	The next decade of ice, ocean, and climate investigations	Presenter
10:40 am	ITASE Redrilling: Bridging the Gap Between Paleoclimatic and Modern Accumulation Variability in Antarctica	Advik Eswaran
10:50 am	An IPY-5 International Observational Network to Track Antarctic Ice Sheet Mass Change	Terry Wilson
11:00 am	EDGE: Tracking Change at the Ice Margins	Helen Fricker
11:10 am	SlideRulers of the world, unite! Analyzing NASA Data in the 21st century	Tyler Sutterley
11:20 am	Discussion	All
11:40 am	Extended IPY Discussion	All

Lunch: 12:00 pm – 1:00 pm Poster Session: 1:00 pm – 2:30 pm

Session 7	Snow, Flow, Fracture, and friction	Presenter
2:30 pm	GNSS Observed Crustal Deformation Accelerations in West Antarctica	Hongzhi Yao
2:40 pm	Probabilistic Inversion of Basal Conditions Using Simulated Multi-Frequency Radar	Christopher Barbarie
2:50 pm	Modeling Accelerated Ice Loss in Transient Antarctic Simulations with Supraglacial Melt Lake Depth-Driven Calving	Danielle Grau
3:00 pm	Subglacial Groundwater Exfiltration is Negligible Today, but Substantial Under Future Antarctic Ice Loss	Rohaiz Haris
3:10 pm	Discussion	All

Leg Stretch: 3:30 pm – 3:40 pm

Session 8	Interactions between ice, ocean, and atmosphere	Presenter
3:40 pm	From Observations to Projections: Constraining Antarctic Ice Sheet Models with the Satellite Record	Sara Peters
3:50 pm	Evaluating the GSFC-FDM using GNSS-IR-derived firn burial across the Antarctic and Greenland ice sheets	Marianna Marquardt
4:00 pm	Seawater Infiltration Forms a Widespread Englacial Hydrologic System in Antarctic Ice Shelves	Ian McDowell

4:10 pm	Coupled impacts of the coastal ocean and subglacial discharge on ice shelf basal melt	Mike Dinniman
4:20 pm	TBD (invited)	Helene Seroussi
4:35 pm	Discussion	All
4:50 pm	Wrap up	WAIS Workshop Committee

Posters

Title	Presenter
Investigation of what control rift propagation on eastern side of Amery Ice Shelf ,East Antarctica 2015-2025	Sapna Azad
Tracking Changes in Water Masses of the Amundsen Sea Using Stable Oxygen Isotopes	Azmair Bains
The Open Radar Code Architecture in the Classroom as Undergraduate Education and Research Infrastructure at CU Boulder	Nicole Bienert
Biological productivity and meltwater recorded in seafloor sediments from the Amundsen Sea Embayment, West Antarctica	Colton Byrne
ICESat-2 mapping and time evolution of rampart-moat structures	Georgia Carroll
Updates from the US Antarctic Program Data Center (USAP-DC) efforts to improve data sharing and access	Isabel Cordero
A Shelf-by-Shelf View of Antarctica's Largest Calving Events: Environmental Drivers and Temporal Trends, 2005–2020	Maile Corso
Rates of postglacial Antarctic Ice Sheet thinning rival future projections	Roger Creel
Optimizing Airborne Gravimetry Data to Investigate the Bathymetry of the Sub-Ice Shelf Continuation of Hayes Bank in the Eastern Ross Sea, Antarctica	Giselle DeSousa
Multi-instrument Calibration of Aerogravity over the Ross Ice Shelf	Caitlin Dieck Locke
Triple oxygen isotope evidence for cryogenic brine formation and low-temperature alteration of sedimentary biogenic opal in the Ross Sea	Justin Dodd
Spatiotemporal Distribution of IBRD in East Antarctic Marine Sediment Cores	Gabriela Gaarder
Atmospheric Rivers as Heat and Moisture Conduits to the West Antarctic Interior: Their Role in Driving Heat Waves and Potential Coupling to Sea Ice Variability	Sérgio José Gonçalves Jr.
Investigating Glacial Retreat and Biological Productivity in coastal settings of the Amundsen Sea: Cranton Bay, Antarctica	Megan Hansen
Revisiting Last Glacial Maximum Ice Stream Retreat Trajectories in the Amundsen Sea Embayment by Comparing Radiocarbon Reservoir Corrections on Deglacial Sediment Ages	Marianne Heberlein
1966-2023 Ice Core Annual Snow Accumulation at Canisteo Peninsula, Amundsen Sea, West Antarctica	Lilly Hinkley
Quantitatively identifying Mid-Pleistocene glacial to interglacial ice margin dynamics in the Ross Sea, Antarctica	Halima Ibrahim
Assessing the Influence of Glacial Cavity: Pb Isotopes Unveil the Amundsen Sea Pb Cycle	Yerim Kim
Unfreezing Glen's n: The Sensitivity of Antarctic Grounding-Line Flux to Ice Rheology	Siobhan Light
Funding Glaciological Research to Reduce the Risks of Sea-Level Rise	Lauren Mahle
The Polar Rock Repository: furthering knowledge of Antarctic ice sheet history using legacy collections	Erica Maletic
A novel time-dependent method to estimate sliding law parameters	Logan Mann

Title	Presenter
Assessment of crossover differences between CryoSat-2 and ICESat-2 on Amery Ice Shelf	Brendan Mills
Modeling Firn Storage Loss and Meltwater Runoff Across Glacier Systems Using the Community Firn Model	Larissa Ramirez
Development of a High-Resolution, ECCO-Downscaled Antarctic Peninsula Regional Model	Gobishankar Sathiyamohan
Overview of Science Results of the International Thwaites Glacier Collaboration and ongoing studies	Ted Scambos
Emulating the Microphysical Dynamics of Ice Deformation	Nathan Schoedl
Geospatial Modelling of Glacier Health and Climate Sensitivity Using Multi-Source Remote Sensing: Transferable Approaches for West Antarctic Ice-Sheet Monitoring	Swati Tak
Climate-sensitive Carbon Cycling Adjacent to a Melting Ice Shelf in West Antarctica	Patricia Yager
Whatever happened to Nye channels? A case for geologic control on subglacial hydrology	Sunme Zhao