



NGEE Arctic

NEXT-GENERATION ECOSYSTEM EXPERIMENTS

Advancing the predictive power of Earth system models through understanding of the structure and function of Arctic terrestrial ecosystems

Tenth Annual All-Hands Meeting • January 26 and 28, 2021 • Virtual Meeting

Agenda (All times in Eastern Standard Time) **Tuesday, January 26, 2021**

<i>Time</i>	<i>Topic</i>	<i>Location</i>
8:00 am	Homemade Coffee and “Hang Out Zoom Café’s”	Zoom Meeting
12:00 pm	Opening Remarks and Day 1 Charge (Stan Wullschleger)	Plenary
12:15 pm	Thoughts from DOE BER (Dan Stover)	Plenary
12:30 pm	What’s New and What’s Next from Q1 through Q6 (5 minutes each)	Plenary
1:15 pm	Dr. Rebecca Barnes (30 minutes with time for questions) AdvanceGEO (https://serc.carleton.edu/advancegeo/index.html)	Plenary
2:00 pm	Group Picture (Zoom) and Break	Plenary
2:15 pm	IM overview (Peter)	Plenary
3:15 pm	Rising Leader Sessions (Verity and Katrina) Theme 1: Nutrients & Microbes (Verity Salmon) Theme 2: Permafrost Dynamics (Katrina Bennett)	Breakout Room 1 Breakout Room 2
4:15 pm	Rising Leaders: Report back from breakout sessions (Verity and Katrina)	Plenary
4:45 pm	Break and Sketch Your Science	Plenary
5:00 pm	Breakout Sessions Meet and Greet Dan Stover (Early Career Scientists) AdvanceGEO – Further discussion (Colleen Iversen)	Breakout Room 1 Breakout Room 2
6:00 pm	Day 1 Summary, game time (Arctic-style scattergories)	Plenary



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Agenda (All times in Eastern Standard Time) **Thursday, January 28, 2021**

<i>Time</i>	<i>Topic</i>	<i>Location</i>
8:00 am	Homemade Coffee and “Hang Out Zoom Café’s”	Zoom Meeting
12:00 pm	Opening Remarks and Day 2 Charge (Stan Wullschleger) Celebration and Awards (Stan Wullschleger)	Plenary
12:30 pm	Panel Discussion on NGEE Arctic Field Work in 2021 (Bob Bolton)	Plenary
1:30 pm	Guest Speaker, Matt Heavner, Arctic Energy Office https://www.energy.gov/arctic-energy-office/contributors/matt-heavner	Plenary
1:45 pm	Cross-Project Activities: Updates (15 minutes each) Ecotype Workshop (Katrina, Daryl) Remote Sensing & Modeling Synthesis (Shawn, Jitu) Vegetation - Disturbance (Joel, Bill)	Plenary
2:30 pm	Breakout Sessions (Verity and Katrina) Rising Leader Theme 3: Disturbance (Amy Breen) Rising Leader Theme 4: Carbon (Kim Ely) Continued discussion on field work in 2021 (Bob Bolton)	Breakout Room 1 Breakout Room 2 Breakout Room 3
3:30 pm	Rising Leaders: Report back from breakout sessions (Amy, Kim and Bob)	Plenary
4:00 pm	Updates from the Data Team (Terri Velliquette/Ranjeet Devarakonda)	Plenary
4:30 pm	Feedback from Science Advisory Board (Chip Miller)	Plenary
5:00 pm	Final Comments (Stan Wullschleger)	Plenary
5:15 pm	Game time (Arctic-style scattergories)	Plenary



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Day 1 Breakout session speakers:

Breakout Session	Speaker	Email address	Title
Nutrients & Microbes	Nick Bouskill	njbouskill@lbl.gov	Microbial feedback and tundra ecosystem recovery post-fire
	Mara Nutt	mnutt@lanl.gov	The chemostatic and chemodynamic behavior of DOC and other analytes in the six largest Arctic rivers
	Erin Berns	bernsec@ornl.gov	pH and redox dynamics in Arctic soils
	Elizabeth Herndon	herndonem@ornl.gov	Geochemical controls on nutrient dynamics
	Tang Jinyun	jinyuntang@lbl.gov	Seeking biogeochemical scaling rules from first principles
	Verity Salmon	salmonvg@ornl.gov	Impact of short-term warming on nutrient uptake and allocation
	Neslihan Tas	ntas@lbl.gov	Mysteries of Arctic Microbes
Permafrost Dynamics	Katrina Bennett	kbennett@lanl.gov	Ecosystem type analysis for scaling snow redistribution in the Seward Peninsula, Alaska
	Shannon Dillard	sldillard@wisc.edu	Microtopography in shrub-dominated tundra hillslopes using UAV LiDAR
	Elchin Jafarov	elchin@lanl.gov	The importance of freeze/thaw cycles on lateral transport in ice-wedge polygons
	Ahmad Jan	jana@ornl.gov	Exploring the interactions between dynamic microtopography, thaw-induced subsidence, and permafrost hydrology using a multiscale modeling approach
	Greta Miller	gretam@lanl.gov	Testing variability across simple snow redistribution models in the Seward Peninsula of Alaska
	Ian Shirley	IShirley@lbl.gov	Numerical analysis of controls on talik formation and implications for biogeochemical fluxes
	Sebastian Uhlemann	suhlemann@lbl.gov	Geophysical monitoring shows that thermohydrological dynamics reshape a transitional permafrost system
	Stijn Wielandt	stijnwielandt@lbl.gov	Distributed wireless sensor networks for dense spatiotemporal measurements of snow thickness, soil and snow temperature, and soil deformation



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Day 2 Breakout session speakers:

Breakout Session	Speaker	Email address	Title
Disturbance	Adam Atchley	aatchley@lanl.gov	Building a conceptual smoldering fire behavior model for Arctic tundra fires
	Nate Conroy	nconroy@lanl.gov	Identifying subterranean disturbance: Could we locate physical disturbance before it occurs?
	Rachel Glade	rcglade@lanl.gov	Solifluction patterns analogous to fluid instabilities
	Joanmarie Del Vecchio	joanmarie@psu.edu	How topography and climate control sediment flux and carbon storage on Seward Peninsula hillslopes
	Yanlan Liu	yanlanliu@lbl.gov	Impact of seed dispersal and fire on Arctic shrub expansion
	Chuck Abolt	cabolt@lanl.gov	Pan-Arctic observations of ice wedge melting and thermokarst pool expansion
	Zelalem Mekonnen	zmekonnen@lbl.gov	Changes in precipitation and air temperature contribute comparably to permafrost degradation in a warmer climate
Carbon	Tobey Carman	tcarman2@alaska.edu	Evaluating dvm-dos-tem parameter uncertainty using the PEcAn framework
	Kenneth Davidson	kdauidson@bnl.gov	The water cost of photosynthesis: assessing dynamics of stomatal optimality from the Tropics to the Arctic
	Sigrid Dengel	sdengel@lbl.gov	Influence of tundra polygon type and climate variability on CO ₂ and CH ₄ fluxes near Utqiagvik, Alaska
	Kim Ely	kely@bnl.gov	Tundra plant gas exchange beyond 2050: the ZPW warming experiment
	Jitendra Kumar	jkumar@climatemodeling.org	Remote sensing of Arctic vegetation distribution, structure and function
	Emma Lathrop	elathrop@lanl.gov	Analysis of shrub winter snow pack temperatures at Teller and Kougarak
	Benjamin Sulman	sulmanbn@ornl.gov	Integrating arctic plant functional types into the E3SM Land Model
	Daryl Yang	dediyang@bnl.gov	Multi-scale remote sensing of plant biodiversity and functional traits in the Arctic tundra



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Zooming Around (Instructions to navigate the virtual meeting)

IMPORTANT: Update your Zoom Desktop Application to the most recent update. This will enable many features (like Breakout Rooms) we are using during the meeting. <http://Zoom.us>. Log in early to ensure your Zoom Client is working properly.

Link to Zoom Meeting:

<https://www.zoomgov.com/j/1600493276?pwd=ZndpMG1ZN1B1NDRVamx6VXN1d0RyUT09>

Do not share your Zoom link to this meeting as this is a closed meeting for registered attendees only.

Zoom AV Technician: @Greg Albertson

You can reach Greg during the meeting for technical assistance via the chat feature. You can also reach @Susan Heinz for assistance or questions.

Breakout Rooms: A list of breakout rooms is available on the lower information bar of Zoom. You can freely enter and exit any Breakout Room, Lounge or Plenary.

Per agenda

- Breakout Room 1
- Breakout Room 2
- Breakout Room 3

Lounge Hangouts (visit anytime for impromptu hallway discussions)

- Growler Lounge
- Arctic Café Lounge
- Fix a Flat Lounge
- Bearing Sea Lounge
- Milano's Pizza Lounge

Chat:

Chat will be open for questions and comments. Only questions in Chat will be presented to speaker as time allows

Mentimeter: an interactive audience presentation will be highlighted during the meeting. Please go to Menti.com to enter code presented during the meeting or download the Mentimeter App to your devices.



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Google Drive Archive for Presentations: Tenth Annual All-Hands Meeting January 26 and 28, 2021 • Virtual Meeting
<https://drive.google.com/drive/folders/1-B5OvKL-cUf5OzMAdfzq0MVtopC8TER4?usp=sharing>