American Geophysical Union (AGU)  
Fall 2018 Conference  
Presentations & Events Related to Permafrost

By Kristina Levine & Kate Hobart with Texas A&M University/GW Scientific  
Jerry Brown, retired USPA  
United States Permafrost Association (USPA) Communications Committee  
December 9, 2018

This is a collection of all AGU Fall 2018 Conference Presentations that are related to permafrost. Presentations are in chronological order and were searched for on the AGU Fall 2018 website using key terms (below) related to permafrost (many from the Permafrost Monthly Alert (PMA) program). The section, “First Author,” is sometimes represented by the presenting author if the first author is not presenting. This document is also searchable for other key terms of interest (i.e. groundwater) using “Ctrl+F”.

Key terms: permafrost, frozen ground, active layer, frost action, ground ice, ice level, ice wedge, solifluction, tundra soil, cryosol, periglacial, and cryoplanation.

Monday, December 10:

AM

- **OS11C Advances in Monitoring and Modeling of Subsea Permafrost Posters**  
  ○ 08:00 - 12:20 (Poster)  
  ○ First Author: Large session with multiple presenting authors (see link)  
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/48725

  ○ 08:00 - 12:20 (Poster)  
  ○ First Author: Sayedeh Sara Sayedi  
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442793
- **OS11C-1429** Modelling submarine permafrost extent and development at the circum-Arctic scale  
  - 08:00 - 12:20 (Poster)  
  - First Author: Sebastian Westermann  
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409261](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409261)

- **OS11C-1428** What Can Measurements Near the Sea Surface Tell Us About Subsea Permafrost Methane Emissions?  
  - 08:00 - 12:20 (Poster)  
  - First Author: Brett Thornton  
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/355703](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/355703)

- **OS11B-1416** A multi-criteria approach to social, economic and environmental assessment of gas hydrate development projects  
  - 08:00 - 12:20 (Poster)  
  - First Author: David Christopher Riley  
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/350984](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/350984)

- **ED11D-0750** “Climate Buddies” – Supporting Student Engagement in Authentic Environmental Research While Building Connections Between Middle School Classrooms and Post-Secondary Research Teams Through Science Fair Projects  
  - 08:00 - 12:20 (Poster)  
  - First Author: John H Wood  
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/394107](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/394107)

- **H11T-1717** RESPONSE OF GROUNDWATER STORAGE AND RECHARGE TO CLIMATE VARIATIONS IN THE QAIDAM BASIN (TIBETAN PLATEAU)  
  - 08:00 - 12:20 (Poster)  
  - First Author: Sadia Bibi  
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/362352](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/362352)

- **H11O-1644** How equilibrium state of soil moisture and groundwater table is influenced by climate on global scale  
  - 08:00 - 12:20 (Poster)
● **OS11B-1424** Characterization and quantification of gas-hydrates along the Krishna-Godavari and Mahanadi basins, eastern Indian margin
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Kalachand Sain
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432396](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432396)

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● **H11J-1606** The response of soil temperatures to vegetation cover changes in the southern Appalachians, North Carolina, USA
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Brandon Yokeley
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378564](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378564)

● **PP11E-1316** Using a Paleolimnological Approach to Understand Climate Change in Sub-Arctic Sweden
  ○ 08:00 - 12:00 (Poster)
  ○ First Author: Kellen J MacArthur
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465401](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465401)

● **B11B-2144** Tree- and stand-level hydrodynamics of black spruce (*Picea mariana*) and their environmental controls in forested boreal peat landscapes
  ○ 08:00 - 12:00 (Poster)
  ○ First Author: Christoforos Pappas
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446413](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446413)

● **PP11A-06** Thinning at the West Antarctic Ice Sheet divide during the last glacial-interglacial transition
● B11A-07 Permafrost Degradation on Alaska’s Yukon-Kuskokwim Delta: Bellwether of the Future Arctic, or Black Sheep?
  ○ 09:15 - 09:30
  ○ First Author: Perry E Spector
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/468473

● PP12B-01 A late-Holocene record of winter temperatures derived from ice-wedge water isotopes in the Mackenzie Delta region, Northwest Territories, Canada
  ○ 10:20 - 10:35
  ○ First Author: Kira Michelle Holland
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438617

● H12C-02 Cryohydrogeology - Is Groundwater a Catalyst for Arctic Change?
  ○ 10:35 - 10:50
  ○ First Author: Jeffrey McKenzie
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/417216

● B12C-04 Higher snow pack leads to rapid increases in soil temperatures and associated higher wintertime carbon emissions in East Siberia
  ○ 11:05 - 11:20
  ○ First Author: Mathias Goeckede
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/382680

● B12C-05 Long-Term Net Effect of Permafrost Thaw on the Carbon Balance of Boreal Peatlands: Evidence from Several Complementary Approaches
  ○ 11:20 - 11:35
  ○ First Author: Liam Heffernan
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/391694

● B12C-06 Quantifying methane ebullition from northern lakes with space-borne synthetic aperture radar (SAR)
  ○ 11:35 - 11:50
  ○ First Author: Melanie J Engram
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420210

● B12C-07 Broad-scale Geospatial Analysis of CH₄ Emissions Using High-Resolution Airborne Hyperspectral Imagery Across Alaska and Western Canada
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- **B12C-08 Arctic Tundra Fire Promotes Increased Greenhouse Gas Emissions from Freshwaters and Changes Methane Hotspot Locations across the Landscape in the Yukon-Kuskokwim Delta**
  - 12:05 - 12:20
  - First Author: Sarah Ludwig
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452471](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452471)

- **B13D-01 Characterizing rooting depth distribution and nitrogen acquisition by dominant tundra plant species**
  - 13:40 - 13:55
  - First Author: Colleen M Iversen
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378450](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378450)

- **A13N-2657 The importance of observations of broadband radiation in the Arctic: Utilizing the network to face current challenges**
  - 13:40 - 18:00 (Poster)
  - First Author: Christopher Cox
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/408951](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/408951)

- **B13I-2248 Functional and hydraulic traits plasticity of boreal tree species along a latitudinal climate and permafrost gradient in northwestern North America**
  - 13:40 - 18:00 (Poster)
  - First Author: Christoforos Pappas
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/454983](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/454983)

- **PP13D-1351 A U-Th chronology of late Pleistocene climate and permafrost conditions at Cave of the Mounds, Wisconsin**
  - 13:40 - 18:00 (Poster)
  - First Author: Cameron Batchelor
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378798](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378798)

- **PA13D-0884 Collaborations with the Royal Society of Canada to Develop National-Scale Engagement Tools for Arctic Sustainability in Canada**
  - 13:40 - 18:00 (Poster)
  - First Author: Merritt R Turetsky
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/433681](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/433681)
● H13U-2056 High-resolution statistically downscaled climate and hydrology projections over Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Naoki Mizukami
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/403951

● B13E-03 High-resolution Distribution and Interannual Dynamics of Permafrost Active Layer Thickness in the Alaskan Arctic Retrieved from P-band Radar
  ○ 14:10 - 14:25
  ○ First Author: Mahta Maghaddam
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/444542

● OS13A-04 Petrophysics in the lab and the field: how can we understand and quantify gas hydrate pore-morphology and saturation?
  ○ 14:25 - 14:40
  ○ First Author: Ann Cook
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/341303

● U13B-19 Shifting plant functional types in the rapidly warming high northern latitudes
  ○ 14:35 - 14:38
  ○ First Author: Jonathan Wang
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/347051

● U13B-20 Rate variation in moss associated N fixation across a diverse group of host species in Alaska is driven by moss type and latitudinal location
  ○ 14:38 - 14:41
  ○ First Author: Julia Stuart
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/413467

● NS13A-05 Assessing Borehole-Surface Electromagnetic technique with Vertical and Horizontal Sources as Tool for Gas-Hydrate Delineation using Finite Difference Method
  ○ 14:40 - 14:55
  ○ First Author: Busayo Oreoluwa Omisore
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/390497

● U13B-21 Rapid Permafrost Collapse Spurs Changes in Methane Oxidation
  ○ 14:41 - 14:44
  ○ First Author: Clarice R Perryman
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453211
• B13E-07 An ABoVE Open Water Map at 1 m Resolution from AirSWOT Airborne Camera Imagery
  ○ 15:10 - 15:25
  ○ First Author: Ethan D Kyzivat
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/359454

• B14C-01 Regional shifts in productivity resulting from multi-decadal trends in Arctic and Boreal land cover change
  ○ 16:00 - 16:15
  ○ First Author: Jonathan Wang
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420241

Tuesday, December 11:

AM

• B21I-2433 Carbon Remobilization from Permafrost and Peatlands along Siberian Rivers
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Birgit Wild
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/385205

• B21J-2457 Development of Optical Sensors for Assessment of Greenhouse Gas Concentrations Above Thawing Permafrost at the Bonanza Creek Experimental Forest near Fairbanks, Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: John Houston Houston Miller
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/379483

• B21K-2488 Verification of STICS crop model performance to predict nitrous oxide (N2O) fluxes during several growing seasons of spring wheat in eastern Canada
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Elizabeth Pattey
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449748

• GC21G-1193 Surface temperature variation induced by the LAI change in Arctic Tundra
  ○ 08:00 - 12:20 (Poster)
● C21E-1383 Active Rock Glaciers and Protalus Lobes in the Western Kunlun Shan of China: A First Assessment
  o 08:00 - 12:20 (Poster)
  o First Author: Yan Hu
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/401820
● C21E-1385 Changes in glaciers and glacial systems of transboundary basins in Central Asia over the past 60 years and their impact on runoff and water resources
  o 08:00 - 12:20 (Poster)
  o First Author: Larissa Kogutenko
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427483
● H21J-1775 Detection of shifting flow regimes for watersheds in western North America using Deep Learning techniques
  o 08:00 - 12:20 (Poster)
  o First Author: Weigang Tang
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/411247
● H21L-1828 Characterization of Spatial Heterogeneity in River Temperatures in a Tundra River Using Thermal Infrared Imagery
  o 08:00 - 12:20 (Poster)
  o First Author: Tyler King
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/448992
● GC21G-1177 A high-resolution land model with groundwater lateral flow, water use and soil freeze-thaw front dynamics and its applications in an endorheic basin
  o 08:00 - 12:20 (Poster)
  o First Author: Zhenghui Xei
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/406771
● H21K-1809 Cryoplanation terraces at the Seward Peninsula: mechanisms of origin and influence on subsurface hydrology on the local scale
  o 08:00 - 12:20 (Poster)
  o First Author: Alexander L Kholodov
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/415568
- **H21K-1820 Title:** Long-term Estimates of Inland Riverine Sediment and Particulate Organic Carbon (POC) fluxes from Reynolds Creek Experimental Watershed, Idaho USA
  - 08:00 - 12:20 (Poster)
  - First Author: Kayla Gossner
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/443484](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/443484)

- **IN21E-0751** Mapping retrogressive thaw slumps in the Beiluhe region (Tibetan Plateau) using Planet CubeSat
  - 08:00 - 12:00 (Poster)
  - First Author: Lingcoa Huang
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/385743](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/385743)

- **NOAA, Partners to Announce Findings From 2018 Arctic Report Card.**
  - 10:00 (Event)
  - Details: National Oceanic and Atmospheric Administration (NOAA) and its partners will release the latest scientific observations of the Arctic, a sensitive part of the world that impacts other parts of the planet, at a news conference on Tue., Dec. 11, at 10:00 a.m. ET, hosted by the American Geophysical Union at its annual fall meeting in Washington, D.C. A panel of scientists, led by retired Navy Rear Adm. Timothy Gallaudet, Ph.D., acting NOAA administrator, will provide this year's report on sea ice, snow cover, air temperature, ocean temperature, the Greenland ice sheet, vegetation and ecosystem changes.

- **B22D Vulnerability of Permafrost Carbon to Climate Change I**
  - 10:20 - 12:20
  - First Author: Large session with multiple presenting authors (see link)
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/60006](https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/60006)

- **B22D-02 Climate Warming Accelerated by Abrupt Permafrost Thaw Beneath Lakes**
  - 10:35 - 10:50
  - First Author: Katey M Walter Anthony
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420701](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420701)

- **B22D-03 Effects of permafrost thaw and changes in soil moisture on CH4 and CO2 fluxes in Alaskan upland tundra**
  - 10:50 - 11:05
  - First Author: Meghan Taylor
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427289](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427289)
- B22B-06 Age and history of a Buried Glacier Ice Mass, Ong Valley, Southern Transantarctic Mountains
  - 11:05 - 11:10
  - First Author: Jaakko Putkonen
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/458433

- B22D-04 Thicker Snow Cover Triggers Lateral Permafrost Carbon Loss Both Through Enhanced Warming and Surface Runoff
  - 11:05 - 11:20
  - First Author: Frans-Jan W Parmentier
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/434388

- B22D-05 Divergent Responses of a Rich Fen in Interior Alaska to Inundation: Interannual Variation in Carbon Fluxes and Water Balance
  - 11:20 - 11:35
  - First Author: Eugenie Susanne Euskirchen
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/423371

- B22D-06 New Insights Test our Fundamental Understanding of How Thermokarst Influences Permafrost Peatlands
  - 11:35 - 11:50
  - First Author: Merritt R Turetsky
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/434604

  - 11:50 - 12:05
  - First Author: Rachel Mackelprang
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/345650

**PM**

- B22D-08 Including microbial dynamics is essential for modelling Arctic methane emissions
  - 12:05 - 12:20
  - First Author: Sarah Chadburn
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438421
● B23C-01 Cascading the terrestrial soil organic carbon to hydrology within MPI-ESM: Global distribution of riverine DOC concentration and seasonality at major river basins
  ○ 13:40 - 13:55
  ○ First Author: Swati Gehlot
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/407406

● B23C Interactions Between Hydrological and Biogeochemical Change in Permafrost Environments I
  ○ 13:40 - 15:40
  ○ First Author: Large session with multiple presenting authors (see link)
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/59774

● EP23D-2363 Multidisciplinary Studies of Permafrost Coast Processes, NE Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Bruce M Richmond
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/440901

  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Deepali Singh
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464959

● PA23F-1050 Permafrost Carbon Network: Synthesis Science and Outreach
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Christina Schaedel
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/355164

● B23G-2608 Stability of old soil C in boreal peatlands following permafrost thaw: contrasting and complementary findings from anaerobic incubations, radiocarbon analysis of field fluxes, and priming experiments
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Liam Heffernan
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/366113

  ○ 13:40 - 13:50 (Poster)
  ○ First Author: Mark D White
- [EP23D-2357](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/344305) Coastal Changes on a Pan-Arctic Scale – Update of the Arctic Coastal Dynamics Database
  - 13:40 - 18:00 (Poster)
  - First Author: Anna M Irrgang
  - 13:40 - 18:00 (Poster)
  - First Author: Stephen Michael Escarzaga
- [A23G-2935](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/363824) A Quarter Century of CALM: Recent Developments in the Alaskan Component of the Circumpolar Active Layer Monitoring Program
  - 13:40 - 18:00 (Poster)
  - First Author: Raven Jessell Mitchell
- [EP23D-2356](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/407715) Channel-Lake Connectivity in Arctic Deltas
  - 13:40 - 18:00 (Poster)
  - First Author: Lawrence M Vulis
- [A23G-2931](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/415424) Arctic-COLORS (Arctic-COastal Land Ocean inteRactionS) Field Campaign Scoping Study Update and Plans
  - 13:40 - 18:00 (Poster)
  - First Author: Antonio Mannino
- [A23N-3117](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438882) High-Resolution Future Climate Change Simulation in Alaska using a Pseudo-Global Warming Scenario
  - 13:40 - 18:00 (Poster)
  - First Author: Andrew James Newman
- [OS23E-1662](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449409) Neodymium isotopes in the western Arctic highlight the role of sediment-water interaction in the distribution of Nd isotopes
  - 13:40 - 18:00 (Poster)
  - First Author: Brian Duggan
• EP23D-2351 Development of a Tightly Coupled Numerical Model for Arctic Coastal Erosion, Infrastructure Risk, and Evaluation of Associated Coastal Hazards
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Jennifer Mary Frederick
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/348861
• EP23D-2354 Arctic rocky coastal zone responses under a rapidly changing climate
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Matt C Strzelecki
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427968
• EP23F-2384 Gullies and Thermokarst Landforms in the Central Peak Region of Lyot Crater: Implications for a Late Mars Microclimate.
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Virginia C Gulick
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/388437
• B23K-2681 Shrub expansion introduces new sets of root traits in the Arctic
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Weile Chen
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/413646
• B23A-01 A pan-arctic synthesis of nongrowing season respiration: Key drivers and responses to a changing climate
  ○ 13:40 - 13:55
  ○ First Author: Susan Natali
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/355184
• B23C-03 Hydrologic and biogeochemical significance of perennial thaw zones in degrading permafrost
  ○ 14:10 - 14:25
  ○ First Author: Michelle A Wolvoord
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/392051
• B23C-04 Groundwater flow and exchange across the land surface explain carbon export patterns in a continuous permafrost watershed
  ○ 14:25 - 14:40
  ○ First Author: M Bayani Cardenas
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421097
• B23C-05 Hydrological interactions of biogeochemical and active layer dynamics within a large-scale heterogeneous permafrost environment, the Yukon River Basin.
14:40 - 14:55
First Author: Ryan Toohey
https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/423314

- **B23C-06** Landscape legacies and the biogeochemistry of surface waters in permafrost affected terrains
  14:55 - 15:10
  First Author: Suzanne E Tank
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/395835

- **B23C-07** Impacts of permafrost thaw on mercury dynamics
  15:10 - 15:25
  First Author: Kimberly Wickland
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466920

- **GC23B-05** A Retrospective Look at Some of the ‘Burning’ Research Questions about Snow and Ice from the 1970s and Where We Stand Today
  15:16 - 15:40
  First Author: Dorothy K Hall
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/469673

- **OS31F-1861** Rigorous field-wide simulation of the gas hydrate deposit located in Ulleung Basin and the geomechanical responses during depressurization.
  15:30 - 15:40
  First Author: Hyun Chul Yoon
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/396740

- **B23C-08** Instream N and P Uptake Capacity along Nutrient Gradients in the Taylor Valley, Antarctica
  15:35 - 15:40
  First Author: Christa Torrens
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/467325

- **C24A-01** Cold Roots: The Emergence of Cryospheric Science from the Heroic Age of Polar Exploration
  16:00 - 16:20
  First Author: Matthew Sturm
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451740

- **A24K-01** Towards structured coordination of sustained observations of Arctic change: An update from the Arctic Observing Summit 2018
EP24B-03 Permafrost as an important factor for valley formation in glaciated regions.
  16:30 - 16:45
  First Author: Bernd Etzelmuller
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/394867

U24A-03 New insights from the United States National Climate Assessment on anthropogenic climate change impacts, risks, and adaptation in ecosystems
  16:40 - 16:55
  First Author: Patrick Gonzalez
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/381408

A24K-15 Coalescing Community Vision for Arctic Observing
  16:45 - 17:00
  First Author: Hank W Loescher
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459209

P24A-04 The possible role of water and ice in the geology of Ceres’ Occator crater
  16:45 - 17:00
  First Author: Britney E Schmidt
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/443889

Wednesday, December 12:

AM

GC31B-01 Dynamic Ground and Design of the Built Environment in the North
  08:00 - 08:15
  First Author: Matthew G Jull
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446744

GC31B Permafrost Dynamics, Biophysical and Socioeconomic Linkages: Connecting Science to Policy I
  08:00 - 10:00
  Large session with multiple presenting authors
  https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/59060

A31L-3080 Portable, low-cost, column carbon dioxide and methane measurements for validating satellite observations in remote locations
- 08:00 - 12:20 (Poster)
- First Author: Emily Lynn Wilson
- [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/397766)

- **B31E Vulnerability of Permafrost Carbon to Climate Change II Posters**
  - 08:00 - 12:20
  - Large session with multiple presenting authors
  - [Link to Session](https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/51208)

- **B31E-2503 Spatial Heterogeneity and Environmental Controllers of Organic Carbon Stocks of Permafrost Affected Soils**
  - 08:00 - 12:20 (Poster)
  - First Author: Umakant Mishra
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442523)

- **B31E-2483 MAPPING OF PERMAFROST LANDFORMS AND SOILS OF COASTAL CATCHMENTS ALONG THE YUKON COAST, NORTHWEST CANADA**
  - 08:00 - 12:20 (Poster)
  - First Author: Julia Wagner
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/350755)

- **B31E-2484 Changes in methane flux along a permafrost thaw sequence on the Tibetan Plateau**
  - 08:00 - 12:20 (Poster)
  - First Author: Yuanhe Yang
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/355755)

- **B31E-2487 Changing Arctic Carbon cycle in the Coastal Ocean Near-shore (CACOON): a new project on the changing Arctic coast**
  - 08:00 - 12:20 (Poster)
  - First Author: Jens Strauss
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/362409)

- **B31E-2488 Organic Carbon and Nitrogen Storage Along a Thermokarst Lake Sequence on the Arctic Coastal Plain of Northern Alaska**
  - 08:00 - 12:20 (Poster)
  - First Author: Matthias Fuchs
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/362912)

- **B31E-2489 Methane Radiocarbon and Clumped Isotope Measurements in Lakes from Permafrost Landscapes Link Methanogenesis Kinetics with the Age of Carbon Substrates**
  - 08:00 - 12:20 (Poster)
  - First Author: Peter Munroe Douglas
  - [Link to Paper](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/367887)
● B31E-2490 Organic carbon accumulation in mountain permafrost regions: topography and permafrost
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Cuicui Mu
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374766

● B31E-2491 The influence of vegetation on shallow soil and air temperature coupling: a Pan-Arctic data synthesis
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Heather Kropp
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378399

● B31E-2492 Inter-annual Variation in Radiocarbon Age of Ecosystem Respiration Exceeds Permafrost Warming Effects
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Elaine Pegoraro
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/382207

● B31E-2493 Numerical Modeling of Historical and Projected Permafrost Soil Temperatures with Carbon Flux Implications
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Anthony Garnello
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/384857

● B31E-2494 Using the Relationship Between Active Layer Thickness and Subsidence to Constrain Permafrost Thaw
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Heidi Rodenhizer
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/391291

● B31E-2496 Old soil carbon decomposition is underestimated when plant productivity and surface soil decomposition are high
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Marguerite Mauritz
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/410869

● B31E-2497 Microbial methane and carbon dioxide production in permafrost peatlands of Hudson Bay Lowlands,  
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Adam Kirkwood
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/417147

● B31E-2498 Potential Decomposability of Permafrost Carbon Stocks in Ice-Wedge Polygons of the Alaskan Arctic Coastal Plain
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Julie D Jastrow
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421025
- **B31E-2499 Dynamic Changes of Soil Carbon Storage from the Last Glacial Maximum until Present**
  - 08:00 - 12:20 (Poster)
  - First Author: Amelie Lindgren
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432594](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432594)

- **B31E-2501 Soil CO2 efflux in various tundra ecosystems of polar region**
  - 08:00 - 12:20 (Poster)
  - First Author: Namyi Chae
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/434035](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/434035)

- **B31E-2502 Arctic Permafrost Microbiomes: A Meta-Analysis**
  - 08:00 - 12:20 (Poster)
  - First Author: Megan Dillon
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/435691](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/435691)

- **B31E-2505 Greenhouse Gases from Intact Permafrost Nearing Collapse: A Result of Increased Microbial Activity?**
  - 08:00 - 12:20 (Poster)
  - First Author: Mark P Waldrop
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455189](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455189)

- **B31E-2506 The cold shoulder: microbial carbon metabolism across an ancient permafrost chronosequence**
  - 08:00 - 12:20 (Poster)
  - First Author: Mary-Cathrine Leewis
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455941](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455941)

- **B31E-2507 Apportioning seasonality of soil respiration sources: A passive, quasi-continuous 14CO2 sampler**
  - 08:00 - 12:20 (Poster)
  - First Author: Shawn Pedron
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457761](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457761)

- **B31E-2509 Methane Production Rates from Laboratory Incubations of Arctic Coastal Plain Permafrost**
  - 08:00 - 12:20 (Poster)
  - First Author: Lillian Henderson
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465503](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465503)

- **B31F-2512 Modelling climate change impacts on an Arctic polygonal tundra: Changes in CO2 and CH4 exchange depend on rates of permafrost thaw as affected by changes in vegetation and drainage**
  - 08:00 - 12:20 (Poster)
  - First Author: William J Riley
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/425639](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/425639)
- **B31F-2517** A near doubling of Arctic plant silicon accumulation following a decade of post-fire succession
  - 08:00 - 12:20 (Poster)
  - First Author: Joanna Carey
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/369768](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/369768)

- **B31F-2525** Fire driven vegetation dynamics and rapid carbon turnover cause a decline in high-latitude soil carbon stocks under future climate
  - 08:00 - 12:20 (Poster)
  - First Author: Zelalem Amdie Mekonnen
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/428045](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/428045)

- **B31F-2527** Impacts of Fire on Nitrogen Cycling in Aquatic Ecosystems in the Yukon-Kuskokwim Delta, AK
  - 08:00 - 12:20 (Poster)
  - First Author: John D Schade
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/431861](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/431861)

- **B31F-2529** Plant productivity varies with experimental soil drying and active layer deepening across ecotypes of a dominant Arctic sedge
  - 08:00 - 12:20 (Poster)
  - First Author: Jonathan Gewirtzman
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/440558](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/440558)

- **B31F-2530** Low frequency behavior of organic soil for a multi-phase study of a permafrost soil dielectric model
  - 08:00 - 12:20 (Poster)
  - First Author: Kazem Bakian Dogaheh
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/441893](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/441893)

- **B31F-2534** Arctic stream resiliency and nutrient uptake dynamics across a wildfire chronosequence
  - 08:00 - 12:20 (Poster)
  - First Author: Bianca Rodriguez-Cardona
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452640](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452640)

- **B31F-2535** Understanding Controls on Arctic Soil Moisture Using In-Situ Soil Moisture and Thaw Depth Observations and Airborne SAR Data at Barrow and Seward Peninsulas, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Julian Dann
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455604](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455604)

- **B31F-2538** Climate warming causes carbon rich permafrost in the north of Siberia to degrade
  - 08:00 - 12:20 (Poster)
  - First Author: Nikita Zimov
• B31F-2541 Spatial Variation in Thermokarst Subsidence after the Anaktuvuk River Fire on the North Slope, Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Go Iwahana
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/400733

• B31F-2543 The Impact of Fire, Landscape Position, and Nitrogen Availability on Carbon Dioxide and Methane Emissions in the Yukon-Kuskokwim Delta, Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Mia Arvizu
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/401657

• B31F-2544 The impact of fire on energy balance in tundra soils in the Yukon-Kuskokwim Delta, AK: Implications for Permafrost Thaw under Climate Change
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Aiyu Zheng
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/402254

• B31F-2545 Mapping Belowground Carbon Pools and Potential Vulnerability in the Yukon-Kuskokwim Delta, Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Ann McElvein
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/407185

• B31F-2546 Investigating Physical Changes in Tundra Lakes and Ponds in Alaska’s Yukon-Kuskokwim Delta Using Remote Sensing and Stable Isotopes
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Jordan Andrew Jimmie
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/407658

• B31F-2547 Integration of Ground-based and Airborne Measurements Shows Substantial Methane Emissions from Freshwater Ecosystems in the Yukon-Kuskokwim Delta, Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Margaret Powell
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/408183

• B31F-2548 The Impacts of Fire on Plant Stoichiometry and Nitrogen Cycling in the Yukon–Kuskokwim Delta, AK
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Natalie Baillargeon
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/410263

• B31F-2549 Diel Cycling of Methane in Arctic Ponds
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Alexandra Lehman
- B31F-2550 Fate of terrestrially-derived carbon in freshwaters across the Yukon Kuskokwim Delta, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Joshua Abimael Reyes
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/411464

- B31F-2551 The Recovery of Above Ground Biomass after Fire Occurrence in the Yukon-Kuskokwim Delta, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Rhys MacArthur
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/411969

- B31F-2553 Mercury in freshwaters of the Yukon-Kuskokwim delta, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Kelly Turner
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416833

- B31F-2559 Dependence of soil respiration on temperature and moisture: Results from a site-based multivariate model in Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Christina Minions
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/435465

- B31F-2560 Detecting Recent Changes in Vegetation, Landscape Water Availability and Freeze/Thaw Characteristics in Interior Alaska Using VIS-NIR-TIR and Microwave Remote Sensing
  - 08:00 - 12:20 (Poster)
  - First Author: Susan Natali
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/439062

- B31F-2561 Quantifying Cold Season Soil CO2 Emissions in Alaska and Northwest Canada
  - 08:00 - 12:20 (Poster)
  - First Author: Jennifer Watts
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/443952

  - 08:00 - 12:20 (Poster)
  - First Author: Josette Elena Trisha McLean
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455365

- B31F-2565 Microbial community composition and functional potential of soil and water microorganisms in the Yukon Kuskokwim Delta, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Darcy L. Peter
- **B31F-2566** Plot-scale analysis of interactions between climate, vegetation, and permafrost at Toolik Lake, Alaska (1995 - 2018)
  - 08:00 - 12:20 (Poster)
  - First Author: Brianna Rick
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459516](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459516)

- **B31F-2570** Assessment of wildfire severity and vegetation recovery in tundra ecosystems using time series of satellite-derived vegetation indices from the Yukon-Kuskokwim-Delta, Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Anne-Katrin Selbmann
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465737](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465737)

- **B31G-2572** More than Methane: Biogeochemical Processes in High Arctic Fjord Valley Infill Sediments
  - 08:00 - 12:20 (Poster)
  - First Author: Eleanor Louise Jones
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416528](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416528)

- **B31G-2573** Carbon and nutrient dynamics in Arctic stream networks determined with catchment-scale estimates of redox reactions
  - 08:00 - 12:20 (Poster)
  - First Author: Benjamin W Abbott
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453780](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453780)

- **B31G-2575** Iron speciation across redox regimes in arctic tundra soil
  - 08:00 - 12:20 (Poster)
  - First Author: Elizabeth Herndon
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378030](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378030)

- **B31G-2576** Phosphate sorption to iron (oxy)hydroxides in organic tundra and boreal soils
  - 08:00 - 12:20 (Poster)
  - First Author: Lauren E Kinsman-Costello
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/397560](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/397560)

- **B31G-2577** Influence of iron (oxyhydr)oxide crystallinity on phosphorus bioavailability in fluctuating redox conditions
  - 08:00 - 12:20 (Poster)
  - First Author: Maximilian Barczok
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378360](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/378360)

- **B31H** Interactions Between Hydrological and Biogeochemical Change in Permafrost Environments II Posters
  - 08:00 - 12:20
  - Large session with multiple presenting authors
- [AGU](https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/49447)
- **B31H-2579** Soil pH Controls on Anaerobic Microbial Activity and Organic Carbon Transformations in Arctic Polygon Tundra
  - 08:00 - 12:20 (Poster)
  - First Author: David E Graham
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/456315](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/456315)

- **B31H-2580** Novel Metaproteomic Approaches Reveal Systematic Variations in Microbial Biogeochemical Pathways with Arctic Vegetation Types
  - 08:00 - 12:20 (Poster)
  - First Author: Samuel Miller
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399693](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399693)

- **B31H-2582** Impact of burn severity on thermokarst initiation and expansion in Arctic tundra ecosystems
  - 08:00 - 12:20 (Poster)
  - First Author: Yaping Chen

- **B31H-2583** Seasonal Changes in the Riverine Dissolved Organic Carbon in the Permafrost Regions on the Qinghai-Tibetan Plateau
  - 08:00 - 12:20 (Poster)
  - First Author: Xiaodong Wu
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377613](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377613)

- **B31H-2585** Carbon transport in a subarctic permafrost peatland catchment area
  - 08:00 - 12:20 (Poster)
  - First Author: Peter Tansey
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/458537](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/458537)

- **B31H-2586** Impacts of Permafrost Disturbance on DOC, Total Dissolved Solids and Suspended Sediment in Low Arctic Coastal Catchments
  - 08:00 - 12:20 (Poster)
  - First Author: Caroline Coch
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/389760](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/389760)

- **B31H-2587** Cryopegs of Northern Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Thomas D Lorenson
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/439241](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/439241)

- **B31H-2588** Source water contributions to summer baseflow in an Arctic watershed.
  - 08:00 - 12:20 (Poster)
  - First Author: Jan Franssen
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447185](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447185)

- **B31H-2589** A New Frozen Soil Parameterization including Frost and Thaw Fronts in the Land Surface Model
  - 08:00 - 12:20 (Poster)
○ First Author: Ruichao Li
○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/390465)

- **EP31D-2375 Changing Arctic river deltas**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Anastasia Piliouras
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/454147)

- **EP31D-2376 Effects of Ice and Permafrost on Delta Channel Dynamics and Morphology**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Anastasia Piliouras
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/414182)

- **PA31D-1151 Our Changing Climate: National Climate Assessment NCA4 Vol. 2, Chapter 2**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Michael F Wehner
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/350544)

- **P31C-3732 Atmospheric Loss, Climate Change, and Planetary Habitability: Mars, the Terrestrial Planets, and Exoplanets**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Bruce Martin Jakosky
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368985)

- **P31I-3826 Investigating the Formation of Noctis Labyrinthus, Mars**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Corbin L Kling
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/433983)

- **GC31B-04 Permafrost thaw and socio-economic impacts in the Disco Bay region, West Greenland: Youth voices and local stakeholders in developing adaptation and mitigation strategies.**
  ○ 08:45 - 09:00
  ○ First Author: Joan Nymand Larsen
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451229)

- **GC31B-05 Seasonal Thaw Settlement and Frost Heave in Permafrost Regions in the Arctic: A Synthesis of InSAR Observations Using Sentinel-1 SAR Images**
  ○ 09:00 - 09:15
  ○ First Author: Lin Liu
  ○ [Link](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/403178)

- **GC31B-07 Long-term Permafrost Change Projections across the Northwest Territory (NWT), Canada: Implications for Ecosystem, Infrastructure and Socio-economic Impacts.**
  ○ 09:30 - 09:45
PM

- GC31B-08 Statistical Permafrost Modeling Suggests High Risk for Arctic Infrastructure by 2050
  - 09:45 - 10:00
  - First Author: Juha Antero Aalto
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/436487](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/436487)

- C32B-06 Circumpolar mapping of permafrost temperature and thaw depth in the ESA Permafrost CCI project
  - 11:35 - 11:50
  - First Author: Sebastian Westermann
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/410787](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/410787)

- G32A-07 A Singular-Value Decomposition of Closure Phase from InSAR Phase Triplets: Potential for Improved InSAR Time-Series Analysis, and Soil Moisture Time-Series Analysis
  - 11:50 - 12:05
  - First Author: Roger J Michaelides
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/353264](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/353264)

- B33A-01 Eighty-five percent of terrestrial methane emissions arise from a single landscape feature type during spring thaw in Barrow, Alaska.
  - 13:40 - 18:00 (Poster)
  - First Author: Robert Wagner
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/381393](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/381393)

- B33K-2813 Documenting Microtopographic Change of Tundra Landscapes using Terrestrial LiDAR: A Case Study in a High-Arctic Tundra Ecosystem
  - 13:40 - 18:00 (Poster)
  - First Author: Tabatha Fuson
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446093](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446093)

- B33K-2816 Aerial photograph time series and UAS Remote Sensing application to study rapid ecosystem change of palsa mires in Fennoscandia.
  - 13:40 - 18:00 (Poster)
  - First Author: Timo Kumpula
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453452](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453452)

- B33G-2764 How Changes in Management Impact Size Distribution and Stability of Soil Aggregates
  - 13:40 - 18:00 (Poster)
  - First Author: Kenneth Wacha
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451717](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451717)
● B33M-2850 Low-severity wildfire on a tree covered peat plateau: interactive effects of runoff flowpath and ground thaw dynamics on porewater chemistry
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Caren J Ackley
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446203
● C33E-1616 Permafrost Monthly Alert (PMA): A Program to Promote, Preserve and Enhance Frozen Ground Knowledge
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Michael R Lilly
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/428436
● C33F-1628 Developing a modelling framework to characterize sensitivity of soil freezing processes to snow cover changes and active layer dynamics in Arctic Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Yonghong Yi
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/381690
● C33F-1631 High Spatial Resolution Soil Temperatures Simulation over the Northern Hemisphere
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Kang Wang
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/364644
● ED33D-1117 LuftSinn Sensors – Low-Cost Sensors for Measurement of Carbon Dioxide in Remote and Urban Environments
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: John Houston Houston Miller
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/448411
● GC33D Permafrost Dynamics, Biophysical and Socioeconomic Linkages: Connecting Science to Policy Posters
  ○ 13:40 - 18:00
  ○ Large session with multiple presenting authors
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Session/44051
● GC33D-1390 Geographical Basis of the Law “On the protection of permafrost” of the Republic of Sakha (Yakutia), Russian Federation
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Eduard M Romanov
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/403760
● GC33D-1391 Modeling permafrost temperature development on the Qinghai-Tibetan Plateau from 1966 to 2100
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Lin Zhao
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/401900
● GC33D-1392 High-resolution permafrost modeling and mapping in Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Dmitry Nicolsky
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420573](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420573)

● GC33D-1393 From Ice-Wedge Polygons to Pan-Arctic Landscapes: Intensive Mapping of Ice-Wedge Polygons at Extensive Spatial Scales Using Very High-Resolution Remote Sensing Imagery
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Chandi Witharana
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466871](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466871)

● GC33D-1394 Impacts of snow on soil temperature observed across the circumpolar north
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Yu Zhang
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416670](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416670)

● GC33D-1395 Creating High-resolution Permafrost Maps Using LiDAR as Baseline Datasets for Landscape Change on the Yukon-Kuskokwim Delta, Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Matthew Allen Whitley
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/388499](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/388499)

● GC33D-1396 Investigating the Changes in Surface Elevation of Permafrost Terrain in the Canadian Arctic Measured by GPS Interferometric Reflectometry
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Jiahua Zhang
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/366747](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/366747)

● GC33D-1397 Monitoring Active Layer of Permafrost along the Qinghai–Tibet Railway through InSAR Measurements
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Ping Lu
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409322](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409322)

● GC33D-1398 Rates of coastal destruction in areas of tabular ground ice occurrence in the western Russian Arctic
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Irina D. Streletskaya
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409233](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409233)

● GC33D-1399 Post-wildfire ground deformation in Eastern Siberian permafrost areas detected by InSAR
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Kazuki Yanagiya
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/387900](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/387900)
• GC33D-1400 Soil-surface temperatures, active-layer thickness, and satellite trends of increasing phytomass in northern Alaska
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Anna E Klene
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453857

• GC33D-1401 Gas Emission From Permafrost - New Possible Mechanism of the Lake Formation
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Yury A. Dvornikov
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447749

• GC33D-1402 Permafrost Gas Emission Craters as a Result of Methane Release from the Massive Tabular Ground Ice, Northwest Siberia
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Irina D. Streletskaya
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/370319

• GC33E-1403 The Direct Cost of Terrestrial Permafrost Degradation to the Arctic Countries by mid-21 Century
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Dmitry A Streletskiy
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/348966

• GC33E-1405 Influence of dangerous cryogenic processes on linear technogenic systems of the Arctic
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Valery I Grebenets
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377891

• GC33E-1407 Negative influence of thermoerosion processes on the Arctic infrastructure
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Vasiliy Andreevich Tolmanov
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377931

• GH33B-1239 Modelling Permafrost Thaw Relationships with Local Landscape Conditions and Waterborne Spreading Pathways as Basis for Assessing Pathogen Exposure-Risk in Northern Regions
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Georgia Destouni
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/468197

• H33L-2241 Assessing Changes in Hyporheic Storage from Over Two Decades of Diel Flood Recessions in Antarctic Streams
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Joel G Singley

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- P33D-3868 Characterizing Potential Pingo Morphology on Ceres
  - 13:40 - 18:00 (Poster)
  - First Author: Isobel Burgess
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/411147](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/411147)
- B33B-04 Measuring the amount and age of soil carbon usage: A comparison of respiration and biomarker methods
  - 14:25 - 14:40
  - First Author: Lori Ziolkowski
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/424383](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/424383)
- T33B-06 A comprehensive portrait of the central Pacific lithosphere-asthenosphere system from NoMelt seafloor geophysical observations
  - 14:55 - 15:10
  - First Author: James B Gaherty
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/415878](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/415878)
- B33A-07 Integrating Microbial and Isotopic Observations to Characterize Methane Emissions from Global High-Latitude Peatlands
  - 15:10 - 15:25
  - First Author: Carmody K McCalley
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437510](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437510)
- B33B-08 Pleistocene Park experiment: Effect of grazing on the accumulation of soil carbon in the Arctic.
  - 15:25 - 15:40
  - First Author: Nikita Zimov
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/430445](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/430445)
- H34I-10 Contribution of Groundwater System on the Streamflow of Yarlung Zangbo River and Implications for the Water-Energy Nexus
  - 16:30 - 16:33
  - First Author: Yingying Yao
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464587](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464587)
- IN34B-05 The Arctic Permafrost Geospatial Center – a portal for high-quality open access scientific data related to permafrost in the Arctic
  - 16:48 - 17:00
  - First Author: Sina Muster
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/347244](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/347244)
Thursday, December 13:

**AM**

- **EP41B-2657** Modeling Tracer Dispersal During Channel Bed Aggradation and Degradation
  - 08:00 - 12:20 (Poster)
  - First Author: Sanaz Borhani
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386409](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386409)

- **EP41B-2674** Super diffusion of bedload tracer transport at intermediate time scales explained via a new analytical formulation
  - 08:00 - 12:20 (Poster)
  - First Author: Zi Wu
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442406](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442406)

- **G41B-0688** High-performance system for monitoring ground deformation from RCM SAR data
  - 08:00 - 12:20 (Poster)
  - First Author: Sergey V Samsonov
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/359485](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/359485)

- **NS41B-0819** Characterizing the subsurface of the Critical Zone in the Garner Run Catchment at the Susquehanna Shale Hills Critical Zone Observatory using Electrical Resistivity
  - 08:00 - 12:20 (Poster)
  - First Author: Yonesha Y Donaldson
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438265](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438265)

- **GH41A-1431** The Economics of Mitigating Geological Methane Release Through Carbon Market Revenue
  - 08:00 - 12:20 (Poster)
  - First Author: Olga Irzak
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/422201](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/422201)

- **B41G-2795** Vegetation Characterization of UAS-borne Hyperspectral Imagery from an Arctic peatland in Central Interior Alaska
  - 08:00 - 12:20 (Poster)
  - First Author: Franklin Sullivan
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465864](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/465864)

- **G41B-0701** Determining the Link between Hydraulic Properties of Arctic Tundra Soils and Interferometric Synthetic Aperture Radar Deformation Measurements
  - 08:00 - 12:20 (Poster)
  - First Author: Yue WU
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374207](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374207)
• **B41G-2794 Using stable isotope analysis of methane in the bubbles and sediment porewater of ponds to determine methane production pathways**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Kathryn A Bennett
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/458676](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/458676)

• **OS41B-2006 Dynamics of dissolved organic carbon in the Chukchi Sea**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Jinyoung Jung
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/372495](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/372495)

• **B41G-2796 Earth, Wind and Mire: Utilizing low sun angle to enhance topographic estimation related to vegetation cover classes and methane flux**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Michael W Palace
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452921](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452921)

• **B41K-2860 Stimulation of anaerobic organic matter decomposition by subsurface organic N addition in tundra soils**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Michael J Philben
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416035](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/416035)

• **GC41I-1562 Integrated, Multiscale, Multidisciplinary Research of Arctic Change and Impacts on Security and Infrastructure Resilience in Alaska**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Alec Bennett
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399776](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399776)

• **GC41I-1564 Opportunity to Plan and Develop a Comprehensive US Arctic Research Infrastructure Network Hub at Oliktok Point, Alaska**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Jasper O. Hardesty
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/423462](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/423462)

• **B41G-2793 The effects of pH, temperature, and DOM on anaerobic carbon mineralization and methanogenic efficiency in ombrotrophic and minerotrophic Alaskan peatlands**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Xiao Liu
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/448705](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/448705)

• **NS41B-0818 Imaging the critical zone structure using seismic refraction in Garner Run at the Susquehanna Shale Hills Critical Zone Observatory**
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Joaquin Cambeiro
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368180](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368180)
- **NS41B-0830** Sedimentary architecture and accumulation rates of multiple lakes in New England, USA
  - 08:00 - 12:20 (Poster)
  - First Author: Ian M Nesbitt
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449070](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449070)

- **S41D-0587** Seismic hazard estimation based on active faults data for Georgia (Sakartvelo)
  - 08:00 - 12:20 (Poster)
  - First Author: Nino Sidamon Tsereteli
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/412791](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/412791)

- **OS41A-04** Gas hydrates associated with hydrothermal vents
  - 08:45 - 09:00
  - First Author: Xin Zhang
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/400340](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/400340)

- **B41B-10** Increasing disturbance in Arctic and boreal ecosystems: local mechanisms and global consequences
  - 09:12 - 09:20
  - First Author: Michelle C Mack
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386616](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386616)

- **S41B-08** Monitoring Water and Ice Dynamics in Degrading Permafrost Using Ambient Seismic Noise
  - 09:34 - 09:47
  - First Author: Stephanie R. James
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447848](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447848)

- **NS42A-02** Geophysical Investigation of Soil Moisture Distribution and Behavior in Permafrost Soils from Interior Alaska
  - 10:35 - 10:50
  - First Author: Taylor D Sullivan
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/393443](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/393443)

- **NS42A-04** Investigating Lake-Area Dynamics across a Permafrost-Thaw Spectrum Using Airborne Electromagnetic Surveys and Remote Sensing Time-series Data
  - 11:05 - 11:20
  - First Author: David Rey
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/395319](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/395319)

- **NS42A-05** Permafrost characterization near Teller, Alaska, using petrophysical joint inversion of seismic and geoelectrical data
  - 11:20 - 11:35
  - First Author: Florian M. Wagner
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409178](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409178)
• NS42A-06 Spatiotemporal changes of frozen soils in the Tibetan Plateau estimated by a processes-based model and satellite data
  ○ 11:35 - 11:50
  ○ First Author: Guanheng Zheng
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386427](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386427)

• NS42A-07 Time-lapse imaging of a controlled permafrost thaw experiment with strongly non-stationary vehicle noise and a 4,000 component distributed acoustic sensing (DAS) array
  ○ 11:50 - 12:05
  ○ First Author: Nate Lindsey
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455774](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/455774)

**PM**

• NS42A-08 Trends in Bedfast Lake Ice Extent on the Arctic Coastal Plain of Alaska
  ○ 12:05 - 12:20
  ○ First Author: Andrea Creighton
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466559](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466559)

• NS43B-0845 Observations of Long-term Subsidence in an Induced Permafrost Warming Experiment Using Distributed Acoustic Sensing (DAS)
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Verónica Rodríguez Tribaldos
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/424569](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/424569)

• B43M-3008 Mycobiont contribution to tundra plant acquisition of permafrost-derived nitrogen
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Rebecca E Hewitt
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/397309](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/397309)

• NS43B-0846 Permafrost Monitoring with Brillouin Based Fiber Optic Distributed Strain and Temperature Sensing: Findings from a Controlled Thaw Experiment
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Aleksei Titov
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432090](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432090)

• C43C-1793 Modelling Cold Region Hydrology in an Agricultural Catchment in Southern Quebec, Canada
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Okan Aygün
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/406573](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/406573)

• C43C-1809 Enhanced Degradation of Permafrost Under Increasing Inundation in The Kuparuk Delta, Alaska
  ○ 13:40 - 18:00 (Poster)
● B43K-2984 Spectroscopic characterization of permafrost natural organic matter composition and reactivity from a sub-Arctic discontinuous region
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Kristin Gagne
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/352123

● B43H-2950 Differential diversity and function of microbial communities along a salinity gradient in ancient Siberian permafrost
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Renxing Liang
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/409199

● GC43K-1721 The Spatiotemporal Changes in NPP and ET and the Driving Factors over Tibetan Plateau during 1979-2016
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Shan Lin
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/384920

● GC43K-1723 Alpine vegetation patterns along a narrow high elevational gradient in the Headwater Area of the Yellow River on the northeastern Qinghai-Tibet Plateau
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Xiaoying Jin
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/463053

● C43C-1792 The Spatiotemporal Variations of Active Layer Thickness in the Northern Hemisphere during 1901-2016
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Hong Guo
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/398510

● C43C-1799 Towards Improved Subsurface Representation in Land Surface-Hydrology Models
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Amin Haghnegahdar
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/453845

● C43C-1810 Variability of Hydraulic Conductivity in Frozen Ground Zone: A Case Study
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Fang Ji
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368455

● P43K-3877 Pockets of methane in the shallow Martian subsurface. Implications for rapid and seasonal changes of the atmospheric methane on Mars.
  ○ 13:40 - 18:00 (Poster)
- First Author: Alexander Pavlov
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/454519

- **C43C-1787** Comparison of methods for calculating freezing/thawing index using monthly and annual climate data
  - 13:40 - 18:00 (Poster)
  - First Author: Chang Liu
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/420991

- **GC43E-1571** Contrasting impacts of methane from anthropogenic and natural sources in meeting the Paris Climate Agreement.
  - 13:40 - 18:00 (Poster)
  - First Author: Garry Hayman
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464135

- **C43C-1788** Detection of Freeze and Thaw States using Sentinel SAR Measurements and Ground Observations; A Case Study in Alaska
  - 13:40 - 18:00 (Poster)
  - First Author: Marzieh Azarderakhsh
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/417759

- **C43C-1812** Predictability of variable arctic soil hydraulic and thermal properties, and implications of such variability on future thaw
  - 13:40 - 18:00 (Poster)
  - First Author: Michael O'Connor
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/415574

- **C43C-1797** The Global Water Futures Core Modelling Strategy
  - 13:40 - 18:00 (Poster)
  - First Author: Alain Pietroniro
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/460008

- **B43K-2981** CASSCADE - The Circum-Arctic Shelf Sediment CARbon DatabasE
  - 13:40 - 18:00 (Poster)
  - First Author: Jannik Martens
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/389316

- **GC43K-1703** Spatial distribution and potential changes of frozen ground on the Tibetan Plateau: analysis based on statistics and machine learning algorithms
  - 13:40 - 18:00 (Poster)
  - First Author: Taihua Wang
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/389012

- **C43C-1786** Monitoring Seasonal Soil Frost Dynamics in Boreal-Alaska Ecosystems with Multi-Frequency Radiometer Observations
  - 13:40 - 18:00 (Poster)
  - First Author: Nicholas Steiner
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451734
● C43C-1811 Impacts of microtopography on the evolution of polygonal tundra hydrology in a warming climate
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Ahmad Jan
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437739

● EP43D-2743 Transferring Periodic Sediment Supply Signals to the Stratigraphic Record
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Stephan Toby
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/430585

● B43A-01 Nitrogen availability regulates topsoil carbon dynamics after permafrost thaw by altering microbial metabolic efficiency
  ○ 13:45 - 14:00
  ○ First Author: Leiyi Chen
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/356784

● B43F-10 High affinity methanotrophs are an important overlooked methane sink in the pan-Arctic and global methane budget
  ○ 14:08 - 14:11
  ○ First Author: Youmi Oh
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/422607

● B43C-08 Arctic and Boreal Carbon: Key Findings from the State of the Carbon Cycle Report
  ○ 14:16 - 14:23
  ○ First Author: Edward Schuur
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/417576

● B43C-11 State of the Carbon Cycle in Terrestrial Wetlands of North America
  ○ 14:37 - 14:44
  ○ First Author: Randy Kolka
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/360381

● B43D-05 Arctic methane as an amplifier of global warming
  ○ 14:40 - 14:55
  ○ First Author: Torben R Christensen
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432674

● B43C-15 Soil carbon pools, processes, and vulnerabilities in North America: key findings from SOCCR-2
  ○ 15:05 - 15:12
  ○ First Author: Kate Lajtha
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/347574

● B43D-07 The contribution of geologic emissions, thawing permafrost and methane hydrates to the global methane budget – perspective from ice core records
● ED44B-22 Teaching with Numerical Models in the Earth Surface Processes
  o 16:19 - 16:22
  o First Author: Irina Overeem
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/365139

● B44D-08 Depth-Resolved Methane Chemistry and Transport in an Arctic Peatland Retrived from Isotopic Porewater Gas Profiles
  o 17:45 - 18:00
  o First Author: Richard A Wehr
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/460619

Friday, December 14:

AM

● C51B-01 Permafrost Variability over the Northern Hemisphere Based on the MERRA-2 Reanalysis
  o 08:00 - 08:15
  o First Author: Jing Tao
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/417780

● C51C-1050 Modeling trajectories of degradation of ice rich permafrost landscapes
  o 08:00 - 12:20 (Poster)
  o First Author: Moritz Langer
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399553

● C51C-1049 Modelling ground ice in permafrost using a paleogeographic approach
  o 08:00 - 12:20 (Poster)
  o First Author: Hugh O’Neill
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/387663

● C51C-1053 Modeling the response of permafrost affected mesoscale watersheds to long term warming
  o 08:00 - 12:20 (Poster)
  o First Author: Matvey Vladimirovich Debolskiy
  o https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/371370
● **C51C-1055** Origin, Burial and Preservation of Late Pleistocene-age Glacier Ice in Arctic Permafrost (Bylot Island, NU, Canada).
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Daniel Fortier
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459633](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459633)

● **C51C-1060** Development and use of a Distributed Temperature Profiling (DTP) System to Estimate Arctic Soil Thermohydrology and Depth to Permafrost, and their Relationships with Geomorphological and Vegetation Properties
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Baptiste Dafflon
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/405643](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/405643)

● **C51C-1062** Temporal Variance in Arctic Polygonal Ground Surface Water Sources
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Nathan Alec Conroy
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447453](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/447453)

● **H51H-1402** Calculation of the Palmer drought severity index (PDSI) in cold region watersheds with glaciers and permafrost.
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Melissa Mc Shea Valentin
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/426992](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/426992)

● **H51V-1621** Profile representation of permafrost active layer properties in support of radar retrievals
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Richard H Chen
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457637](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457637)

● **GC51O-0975** Enhanced Cold-Region/Cold-Season Warming and its Implications to Permafrost Degradation
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Tingjun Zhang
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449192](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449192)

● **C51C-1051** The role of subsurface freeze and thaw on groundwater storage and connectivity in a variably saturated upland Arctic hillslope
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Sarah G Evans
GC51E-0823 Increasing fire frequency in boreal Alaska and its impact on forest composition, structure, and dynamics
- 08:00 - 12:20 (Poster)
- First Author: Adrianna Foster
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/383895

GC51E-0835 Above and Belowground Carbon Emissions from Historical Fires Across Alaska and Canada
- 08:00 - 12:20 (Poster)
- First Author: Stefano Potter
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/438450

C51C-1056 A Half-Century of Biophysical Change in Polygonised Tundra on the Coastal Plain of Northern Alaska
- 08:00 - 12:20 (Poster)
- First Author: Mariana Orejel Gonzalez
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/456577

C51C-1058 Signature of spatiotemporal dynamics of encroaching vegetation in timberline ecotone of the Polar Urals region
- 08:00 - 12:20 (Poster)
- First Author: Wenbo Zhou
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/433791

B51A-01 Metabolomics as a Systems Tool for Understanding Ecosystem Responses to Environmental Drivers: Three Case Studies
- 08:00 - 08:12
- First Author: Claudia M Boot
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/444947

C51C-1071 Decadal Topographic Change in the McMurdo Dry Valleys: Thermokarst Subsidence and Glacier Thinning Indicate Transfer of Water Storage from the Cryosphere to the Hydrosphere in the Terrestrial Antarctic
- 08:00 - 12:20 (Poster)
- First Author: Joseph Levy
- https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/423693

OS51F-1314 3D thermo-baric modeling of the gas hydrate stability zone of central Spitsbergen, Arctic Norway
● B51G-2010 Accelerating rates of Arctic carbon cycling revealed by long-term atmospheric CO2 measurements
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Sujong Jeong
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/392172

● A51P-2457 Terrestrial biogenic source contribution to aerosol on the North Slope of Alaska
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Claire Elizabeth Moffett
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/384357

● A51P-2459 Understanding the controls on the Arctic surface energy budget
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Patrick C Taylor
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/391725

● C51C-1047 How permafrost thaw will affect the groundwater contribution to streams and lakes?
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Pierrick Lamontagne-Halle
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/386593

● C51C-1051 The role of subsurface freeze and thaw on groundwater storage and connectivity in a variably saturated upland Arctic hillslope
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Sarah G Evans
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374953

● C51C-1052 Modeling Surface Water and Soil Freezing Processes using WaSiM
  ○ 08:00 - 12:20 (Poster)
  ○ First Author: Ronald P Daanen
  ○ https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/366390

● C51C-1054 Sand wedges and cryoturbations on the Ordos Plateau since 50 ka BP and their paleo-environmental implications
  ○ 08:00 - 12:20 (Poster)
○ First Author: Ruixia He
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/429441](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/429441)

● C51C-1057 The use of Dynamic General Vegetation Model
○ 08:00 - 12:20 (Poster)
○ First Author: Yukun Qian
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368034](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/368034)

● C51C-1059 Estimation of polygonal tundra soil properties by coupled inversion of ERT and hydrothermal data
○ 08:00 - 12:20 (Poster)
○ First Author: Adam Lee Atchley
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421841](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421841)

● C51C-1061 Simulation of Landscape Changes on the Alaskan Arctic Coastal Plain with the Alaska Thermokarst Model
○ 08:00 - 12:20 (Poster)
○ First Author: Bob Bolton
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/422072](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/422072)

● C51C-1065 Linking Surface and Subsurface Behaviors: UAV-based multi-spectral Imagery as Predictor of Soil Wetness, Thaw Depth and Soil Respiration in an Arctic Watershed
○ 08:00 - 12:20 (Poster)
○ First Author: Ian Shirley
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442495](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/442495)

● C51C-1067 Discerning periglacial drainage evolution using historic satellite-imagery-derived digital elevation models
○ 08:00 - 12:20 (Poster)
○ First Author: Emma C Menio
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374489](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/374489)

● C51C-1068 Sources of Solutes in a High Arctic Glacial Meltwater stream
○ 08:00 - 12:20 (Poster)
○ First Author: Molly Peek
○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/396617](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/396617)

● C51C-1069 Weathering in the forelands of two rapidly retreating alpine glaciers of volcanic bedrock in the Three Sisters, Oregon, USA
○ 08:00 - 12:20 (Poster)
- First Author: Alicia M Rutledge
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421425](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/421425)

- **C51C-1073** Shifts in the quantity and quality of dissolved organic carbon delivered to the ocean as continental ice sheets retreat
  - 08:00 - 12:20 (Poster)
  - First Author: Andrea Pain
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/450287](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/450287)

- **C51C-1076** A Century-Old Geomorphic Enigma: Cryoplanation Terraces and Associated Processes
  - 08:00 - 12:20 (Poster)
  - First Author: Frederick E Nelson
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451592](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/451592)

- **C51C-1064** Rapid development of thermokarst terrains detected by repeated UAV images in the northeastern Qinghai-Tibetan Plateau, China
  - 08:00 - 12:00 (Poster)
  - First Author: Zhiwei Zhou
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/429743](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/429743)

- **GC51E-0816** Workshop Outcomes: Opportunities to Apply Remote Sensing in Arctic/Boreal Wildfire Management and Science
  - 08:00 - 12:00 (Poster)
  - First Author: Alison York
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/365075](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/365075)

- **OS51F-1322** Analysis of fracture/fault filled gas hydrate deposits in the Vestnesa Ridge
  - 08:00 - 12:00 (Poster)
  - First Author: Sunny Singhroha
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/404923](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/404923)

- **C51B-02** Seasonal precipitation elasticity and temperature sensitivity of runoff, evaporation and active layer depth in the Arctic
  - 08:15 - 08:30
  - First Author: Dianna R Gergel
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/371171](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/371171)

- **ED51A-02** Digital storytelling – using multi-media tools to explore transformation processes in Arctic permafrost landscapes
- 08:15 - 08:30
  - First Author: Sina Muster
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/348594](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/348594)

- **B51A-03** Distinct microbial communities in the active and permafrost layers on the Tibetan Plateau
  - 08:24 - 08:36
  - First Author: Yongliang Chen
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/356942](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/356942)

- **EP51B-26** Pan-arctic flux of soil organic carbon to rivers by river bank erosion
  - 08:25 - 08:28
  - First Author: Joel C Rowland
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452439](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452439)

- **P51C-08** Investigating the chemical signatures of cold-climate alteration on Mars at a glaciated volcanic complex in the Oregon Cascades
  - 08:45 - 08:50
  - First Author: Briony H. N. Horgan
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399465](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/399465)

- **C51B-04** The importance of soil moisture for permafrost modeling
  - 08:45 - 09:00
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/379589](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/379589)

- **ED51A-04** Research Experience for Undergraduates: Understanding the Arctic as a System
  - 08:45 - 9:00
  - First Author: Simon Zwieback
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457124](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/457124)

- **C51B-07** Regional scenarios of change over the Mackenzie River Basin: future hydrological projections and challenges with observational uncertainty
  - 09:30 - 09:45
  - First Author: Mohamed Elshamy
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/440604](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/440604)

- **GC51B-07** The Response of Glacial Runoff at the Headwaters of the Urumqi River, Eastern Tianshan, Central Asia
  - 09:30 - 09:45
  - First Author: Zhongqin Li
- GC51B-08 Hydrological impacts of permafrost degradation in the Source Area of Yellow River on the northeastern Qinghai-Tibet Plateau, Southwest China
  - 09:45 - 10:00
  - First Author: Huijun Jin
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/432215

- EP52B-03 How Changing Fluvio-deltaic Systems Affect Permafrost
  - 10:50 - 11:05
  - First Author: Irina Overeem
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/359559

- GC52C-05 Response of sediment transport in the up- and midstream of the Heihe River to the climate change and human activities
  - 11:20 - 11:35
  - First Author: Fan Zhang
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/385027

- GC52A-07 Collaborative Development of Coastal Hazards Scenarios in Arctic Alaska
  - 11:50 - 12:05
  - First Author: Thomas Ravens
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/446791

PM

- A53I-2605 Changes in Surface Processes Due to Tree Expansion into Tundra, Polar Urals, Russia
  - 13:40 - 18:00 (Poster)
  - First Author: Valeriy Yu Ivanov
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/435128

- B53G-2152 Measurable disturbance effects from non-invasive soil sampling
  - 13:40 - 18:00 (Poster)
  - First Author: Cameron Kyle McMillan
  - https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/402049

- ED53D-0742 Communicating with Students and the Public - Research Efforts from the Changing Arctic and the Effects on Global Climate from the Arctic-Boreal Vulnerability Experiment (ABoVE)
  - 13:40 - 18:00 (Poster)
  - First Author: John H Wood
EP53E-1904 A Sedimentary record from Burial lake, AK, reveals a covariance between erosion rate, permafrost thaw, and climate
  - 13:40 - 18:00 (Poster)
  - First Author: Nicholas aksel Wondolowski
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/456617](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/456617)

EP53F-1958 Late Pleistocene Cosmogenic 36Cl Glacial Chronology of the Mount Karanfil, Central Taurus Range, Turkey
  - 13:40 - 18:00 (Poster)
  - First Author: Attila Ciner
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/408727](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/408727)

EP53F-1966 Bedrock incision in the Channeled Scablands by megafloods during and prior to the Last Glacial Maximum
  - 13:40 - 18:00 (Poster)
  - First Author: Isaac J Larsen
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437057](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437057)

H53N-1775 Investigating climate change versus land use controls on hillslope erosion and valley sedimentation at the Cole Farm study watershed, central Pennsylvania
  - 13:40 - 18:00 (Poster)
  - First Author: Perri Silverhart
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/395867](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/395867)

H53N-1786 Historic Reservoir Sediment Storage and Erosion Rates from Lidar and DEM Differencing, Chiques Creek Watershed, Pennsylvania
  - 13:40 - 18:00 (Poster)
  - First Author: Logan Lewis
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466169](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466169)

P53F-3025 Salt Migration in Mars-like Permafrost Soil.
  - 13:40 - 18:00 (Poster)
  - First Author: Jamie Miller
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/425600](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/425600)

P53F-3034 A High-Resolution Perspective on Martian Valley Networks
  - 13:40 - 18:00 (Poster)
  - First Author: Rossman P Irwin III
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449304](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/449304)

P53F-3033 Investigating a link between scalloped depressions and topography in Utopia Planitia on Mars
  - 13:40 - 18:00 (Poster)
  - First Author: Laurence Tognetti
  - [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/439147](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/439147)
• PA53B-0795 Coastal Resilience Mapping with Local Communities in Alaska’s North Slope: Establishing Observing Networks and Usability in the Process
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Michael Brady
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464870](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464870)

• PP53E-1241 First Evidence of Low Latitude Neoproterozoic Glacial Deposits Containing Varves from Siberia and Their Isotopic Characteristics
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Sergey Rud'ko
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/390229](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/390229)

• EP53E-1907 Gully formation processes at Ny-Alesund and Longyearbyen, Spitsbergen, and applications to Martian gullies
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Jaeyong Lee
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/358592](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/358592)

• A53I-2604 Snow as a Driver for Climate Processes and its Relevance for Modeling
  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Thomas A Marrone
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/431129](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/431129)

  ○ 13:40 - 18:00 (Poster)
  ○ First Author: Xuewei Fang
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/344281](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/344281)

• C53A-04 Analyzing how scenarios of climate extremes and lake water-use impact stream low flows and connectivity in an Arctic Coastal Plain watershed in northern Alaska
  ○ 14:25 - 14:40
  ○ First Author: Anne Gaedeke
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427965](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/427965)

• C53A-06 Quantifying organic carbon mobilization and storage in permafrost river floodplains
  ○ 14:55 - 15:10
  ○ First Author: Madison Douglas
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466151](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/466151)

• C53A-07 The losers are turning green: Expanding Arctic riparian tall shrub cover indicates a shift in stream hydrologic regime
  ○ 15:10 - 15:25
  ○ First Author: Anna K Liljedahl
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/361674](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/361674)
● **C53A-08** Simulating Ice-rich Permafrost Landscapes under Climate Change with Laterally Coupled Tiles in a Land Surface Model
  ○ 15:25 - 15:40
  ○ First Author: Kjetil Schanke Aas
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464099](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/464099)

● **C54A-01** Ground ice types and amounts in permafrost on Svalbard: Overcoming the challenge of coarse-grained sediment
  ○ 16:00 - 16:15
  ○ First Author: Hanne H. Christiansen
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377810](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/377810)

● **C54A-03** Relative and Absolute Weathering Trends from Eagle Summit, Alaska Cryoplanation Terraces
  ○ 16:30 - 16:45
  ○ First Author: Kelsey E Nyland
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/364703](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/364703)

● **C54A-04** Monitoring and modelling the evolution of ice-rich peat plateaus and palsas in Northern Norway
  ○ 16:45 - 17:00
  ○ First Author: Leo Martin
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437384](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/437384)

● **C54A-05** Localized ground ice subsidence and soil water dynamics as indicators of near-surface ice content in the High Arctic
  ○ 17:00 - 17:15
  ○ First Author: Scott F Lamoureux
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/391673](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/391673)

● **C54A-06** Geomorphic feedbacks enhance the stability of high-centered polygons
  ○ 17:15 – 17:30
  ○ First Author: Charles Abolt
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452111](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/452111)

● **C54A-07** Modeling the role of preferential snow accumulation in through talik development and hillslope groundwater flow in a transitional permafrost landscape
  ○ 17:30 - 17:45
  ○ First Author: Elchin E Jafarov
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/394237](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/394237)

● **C54A-08** Exploring the interactions between thermal hydrology, soil structure, and dynamic topography in warming polygonal tundra
  ○ 17:45 - 18:00
  ○ First Author: Ethan Coon
  ○ [https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459073](https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/459073)