AGU Fall Meeting 2019

Permafrost Related Presentations

Join Us! USPA 2019 Annual Meeting - December 10, 2019 8:30 to 10:30 pm - ThirstyBear Brewing Company
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This is a collection of all AGU Fall 2019 Conference Presentations that are related to permafrost. Presentations are in chronological order and were searched for on the AGU Fall 2019 Meeting website using the search terms listed below. The section, “First Author,” is sometimes represented by the presenting author if the first author is not presenting. This document is searchable for other key terms of interest (i.e. groundwater) using “Ctrl+F”. These permafrost related presentations will be included in future updates of the Permafrost Monthly Alert (PMA) Program.

Search terms
- permafrost
- frozen ground
- frost action
- ground ice
- ice level
- ice wedge
- solifluction
- tundra soil
- cryosol
- periglacial
- cryoplanation
- permafrost + carbon

Complied by the USPA
Communications Committee, Kristina Levine (lead author)

2019 Annual USPA Meeting Sponsors
Morning Oral Presentations

EP11B-01 Submarine Permafrost Dynamics Along the Arctic Shelf Edge
First Author: Charles K Paull (Oral Presentation)
08:00 - 08:20, Moscone West - 3009, L3

C12B-03 Coastal dynamics in the Kara Sea: spatial and temporal variability from small to large scales
First Author: Alisa Baranskaya (Oral Presentation)
10:50 - 11:05, Moscone West - 2006, L2

C12B-04 Development of a Tightly Coupled Multi-Physics Numerical Model for an Event-Based Understanding of Arctic Coastal Erosion
First Author: Diana L Bull (Oral Presentation)
11:05 - 11:20, Moscone West - 2006, L2

GC12C-04 Investigation of Boundary Layer Inversions, Urban Heat Island and Human Thermal Comfort Trends in Big Cities of Eastern Arctic: First Results (in Connection with UHIARC-Network Measurements)
First Author: Pavel Konstantinov (Oral Presentation)
11:05 - 11:20, Moscone West - 2007, L2
Morning Poster Presentations

B11P-2315 Deriving a More Detailed Vegetation Classification from NALCMS for Anchorage, Alaska
First Author: Monika P Calef (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

EP11C-2133 Using UAV imagery to characterize boulder distributions on hillslopes and in channels in the Appalachian Valley and Ridge to assess the role of resistant boulders in topographic preservation
First Author: Kristin Chilton (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

First Author: Aleksandra Tomczyk (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC11L-1101 Adaptation of the Arctic limnosystems to the climate change
First Author: Irina Fedorova (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC11G-1135 Warming-induced Release of Greenhouse Gases From the Soil into the Atmosphere: How Consequential Can It Be?
First Author: Mariia Alex Romanovskaya (Poster Presentation)
H11H-1574 A Landslide Inventory for British Columbia (Canada) using SAR Interferometry  
First Author: Manuele Pichierri (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

PA11C-0956 The Niwot Ridge Long Term Ecological Research Site: Over 30 years of alpine observations  
First Author: John T Crawford (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

NS11B-0626 Geophysical Observations of Drained Permafrost Lake Taliks, North Slope, Alaska  
First Author: Andy Parsekian (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

NS11B-0627 Geophysical Observations of Organic Matter and Soil Moisture Interactions during Freezing and Thawing of Alaskan Boreal Permafrost  
First Author: Taylor D Sullivan (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

NS11B-0628 Improved Quantification of Soil Thermal and Physical Properties from Time-Series of Soil Temperature in Permafrost Environment  
First Author: Carlotta Brunetti (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
NS11B-0633 Passive Seismic Monitoring of Arctic Environment.
First Author: Angelina Egorova (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

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**Afternoon Oral Presentations**

H13H-05 Rock Glaciers: Un(der)-Explored Hydrologic Reservoirs and Climate Refugia
First Author: Connie Millar (Oral Presentation)
14:40 - 14:55, Moscone West - 3016, L3

PP14A-05 Miocene Climate-Carbon Cycle Dynamics: A Key to Understand Future Trends?
First Author: Ann Holbourn (Oral Presentation)
17:00 - 17:15, Moscone West - 2002, L2

B14B-08 Natural wetlands and the global methane cycle: Five decades of research presents interesting and surprising challenges for the future
First Author: Elaine Matthews (Oral Presentation)
17:10 - 17:20, Moscone West - 3003, L3

B14B-09 Whither Soil Carbon?
First Author: Eric A Davidson (Oral Presentation)
17:20 - 17:30, Moscone West - 3003, L3
Afternoon Poster Presentations

A13R-3100 Evaluation of ERA5 Atmospheric Reanalysis Datasets for Surface Climatology over the Tibetan Plateau
First Author: Yan Chen (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

A13R-3110 The freeze/thaw process and the surface energy budget of the seasonally frozen ground in the source region of the Yellow River
First Author: Jingyuan Wang (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

First Author: Yongchao Yin (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13G-2562 Sunlight and iron control the oxidation of DOC leached from permafrost soils
First Author: Jennifer C Bowen (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13G-2576 Extraction efficiency and molecular characterization of organic matter from soils and sediments using high resolution mass spectrometry
First Author: Jason Toyoda (Poster Presentation)
13:40 - 18:00, N/A (but probably Moscone South - Poster Hall)
B13J-2420 New Global Datasets for Methane Modeling: Natural Wetlands, Lakes and Reservoirs
First Author: Vanessa B Genovese (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13K-2610 Energy and water balances in boreal forest with discontinuous permafrost: Implementation of a physically-based hydrological model at sites with varying disturbance histories
First Author: Adrienne Michelle Marshall (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13K-2611 Fine-scale Observations of Permafrost After Repeat Fires in Interior Alaska
First Author: Kristin Olson (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13K-2612 Fire, ice, and the battle for lake dominance: Competing aquatic invertebrates in lakes with watersheds affected by forest fire, peat, and permafrost
First Author: Thomas Pretty (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B13K-2619 Simulating soil carbon pools and fluxes in the boreal forests of Alaska using a new hybrid model of LANDIS-II and DAMM-MCNiPP
First Author: Melissa Sue Lucash (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B13K-2621 Soil Respiration in very High Frequency Boreal wildfires as a Function of Species
   First Author: Vishnu Kodicherla (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B13L-2472 Investigating Global Scale Wetland and Non-Wetland Soil Methane Emissions and Sinks Using a Land Surface Model
   First Author: Shijie Shu (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B13L-2473 Mapping and Cataloging Geologic Sources of Greenhouse Gases Across the United States
   First Author: Marc L Buursink (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B13N-2528 Spatially-explicit Estimate of Tibetan Permafrost Nitrogen Stock and Its Implication for Land Model
   First Author: Dan Kou (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13D-1342 Forecasting coastal hazards, risks, and impacts in Arctic Alaska - to promote sustainable adaptation
   First Author: Thomas Ravens (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1357 Assessment of nitrogen dynamics in soil, vegetation, and surface water across successional stages of ice-wedge degradation and stabilization in the tundra of northern Alaska
C13E-1358 Dissolved organic matter dynamics across a gradient of ice-wedge degradation and stabilization, northern Alaska
   First Author: Claire Griffin (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1360 Environmental interactions and feedbacks of degrading ice wedges and impacts on shallow ground temperatures in a high Arctic polar desert system
   First Author: Melissa Karine Ward (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1361 Causes and Consequences of Catastrophic Lake Drainage in an Evolving Arctic System: First Year Activities and Initial Results
   First Author: Kenneth M Hinkel (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1362 Groundwater Discharge in the Lagoons of Alaskan Beaufort Sea
   First Author: Cansu Demir (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1372 Evaluation of Wildfire Initiated Thermokarst Degradation Using in-situ and Remotely Sensed Data at a site on the Seward Peninsula of Alaska
   First Author: Robert Busey (Poster Presentation)
C13E-1390 Simulated the spatial and temporal distribution of freeze and thaw fronts
First Author: Ruichao Li (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1335 Coastal erosion at Western Yamal, Russia, under climate changes and anthropogenic impact
First Author: Nataliya Belova (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1336 Rates and Patterns of Shoreline Change Along the Arctic Coast of Alaska: Bering Strait to the U.S. Canadian Border
First Author: Ann Gibbs (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1339 Bluff geometry and material variability influence stress states relevant to coastal permafrost bluff failure
First Author: Matthew A. Thomas (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1340 Engineering Challenges and Options in Remediation and Prevention of Permafrost Coastal Erosion
First Author: Ming Xiao (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
C13D-1343  Geochemical characterization of eroding coastal permafrost and organic matter fluxes to the Beaufort Sea near Drew Point, Alaska
First Author: Emily M Bristol (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1344  Nutrient fluxes from deglaciated versus proglacial Greenlandic watersheds
First Author: Shaily Rahman (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1345  Impact of the length of the sea ice-free summer season on Alaskan Arctic coastal erosion rates
First Author: Matthew Wiseman (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1351  An emerging international network focused on permafrost coastal systems in transition
First Author: Benjamin M Jones (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1352  NUNATARYUK: Permafrost Thaw and the Changing Arctic Coast - Science for Socio-Economic Adaptation
First Author: Anna M. Irrgang (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13D-1353  Rights Resilience and Community-led Relocation: Co-producing Knowledge To Identify Risk
C13E-1354 The Permafrost Monthly Alert (PMA) Program: Improving Reference Searches Now and in the Future
First Author: Michael R Lilly (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1355 Tundra wildfire triggers long-term lateral nitrogen loss
First Author: Benjamin W Abbott (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1356 Ecological indicators of near-surface permafrost habitat at the southern margin of the boreal forest in China
First Author: Yongyu Yue (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1359 Self-organization of ice-wedge systems during their formation and degradation
First Author: Daniel Fortier (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1363 Characterizing Runoff Regimes in Subarctic Wetland-Dominated Landscapes: Application to the Hudson Bay Lowlands, Canada
First Author: Kenneth M Hinkel (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
C13E-1364 Changes to streamflow variability observed in continuous permafrost watersheds in remote Arctic location
   First Author: Svetlana L. Stuefer (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1365 Potential mechanistic causes of increased baseflow across northern Eurasia rivers underlain by permafrost
   First Author: Sarah G. Evans (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1366 Thaw dynamics of a rapidly degrading isolated permafrost plateau in south-central Alaska
   First Author: Joel Eklof (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1367 Impacts of forest fires on the active layer thickness and near-surface permafrost temperatures in the northern Da Xing'anling (Hinggan) Mountains, NE China
   First Author: Xiaoying Li (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1368 Navigating Disturbance Regimes in the New Arctic
   First Author: Mark J Lara (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
C13E-1369 Accounting for spatial heterogeneity of freeze/thaw cycles in surface state retrieval for permafrost landscapes
First Author: Helena Bergstedt (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1370 Post-wildfire surface deformation at Batagay, Eastern Siberia: detection by L- and C-band InSAR and preliminary report of field observations
First Author: Masato Furuya (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1371 Thermokarst subsidence in Central Yakutia revealed by ALOS/ALOS-2 InSAR analysis
First Author: Ke Takahiro Abe (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1373 Permafrost Discovery Gateway: A web platform to enable discovery and knowledge-generation of permafrost Big Imagery products
First Author: Benjamin M Jones (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1374 Big Imagery as a Resource to Understand Patterns, Dynamics, and Vulnerability of Arctic Polygonal Tundra
First Author: Md Abul Ehsan Bhuiyan (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
C13E-1375 Assessing the Utility of Three Calibration Methods for Digital Elevation Models (DEMss)
First Author: Diana Morgana Miller (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1376 High Resolution Digital Terrain Models Provide Multi-Dimensional Perspective on Thaw Slump-driven Transformation of Permafrost Terrain in the Canadian Western Arctic.
First Author: Jurjen van der Sluijs (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1377 Time Series Analyses of Interior Alaska Thermokarst Using Airborne and Terrestrial Lidar
First Author: Christopher A Hiemstra (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1378 Lateral Thermokarst Lake Dynamics: A Remote Sensing Based Analysis of Spatial Variabilities and Erosion Processes
First Author: Soraya Kaiser (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1380 Mapping Retrogressive Thaw Slumps on the Tibetan Plateau using Sentinel-2 images and Deep Learning
First Author: Lingcao Huang (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1381 Influences of topography on permafrost meltwater
C13E-1383 Frost Degree-Day Mapping over Permafrost Soils in the Arctic Boreal Zone from Multifrequency Passive Microwave Radiometry
First Author: Nick Steiner (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1384 Electrical Resistivity Imaging Reveals Thawed Substrate Beneath and Across an Entire Arctic Lagoon within Continuous Permafrost
First Author: Micaela Nicole Pedrazas (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1385 New Estimates of Future Permafrost Extent and Corresponding Carbon Feedbacks
First Author: Oliver W Frauenfeld (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1386 Coupling of Snow and Freeze-Thaw Processes to Model Permafrost State in a Timberline Ecotone
First Author: Wenbo Zhou (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C13E-1387 Evaluating Integrated Surface/Subsurface Permafrost Thermal Hydrology Models Against Field Data in Polygonal Tundra
First Author: Ahmad Jan (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
C13E-1388 Insights from Integrated Thermal Hydrology Simulations of an Arctic Watershed with Isolated Permafrost
   First Author: James Beisman (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1389 Projected near-surface permafrost degradation over northern North America based on Canadian regional climate model simulations
   First Author: Dae Il Jeong (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1391 Geologic Terrain Unit and Geohazards Mapping, Arctic Strategic Transportation and Resources (ASTAR) Project, North Slope, Alaska
   First Author: Susan Wilson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

C13E-1392 Goldstream Valley Permafrost Map
   First Author: Ronald P Daanen (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

ED13D-0912 Virtual Reality Modeling of the CRREL Permafrost Tunnel for Online Education on Permafrost and Climate Change
   First Author: Conner M Truskowski (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

G13B-0540 Tectonic Deformation and Surface Processes Across the Tibetan Plateau: Insights from Time Series Analysis of Sentinel-1 InSAR Data
   First Author: Robert Wayne Zinke (Poster Presentation)
H13N-1928 Impact of Clay Addition Size on Hyporheic Exchange During Bedform Migration
   First Author: Yoni Teitelbaum (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H13Q-1989 Stochastic model of water table depth in snow-dominated and hydrologically connected ecosystems
   First Author: Rachel Sophia Lonchar (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

MR13D-0098 Thermophysical & Rheological Properties of Natural Gas Hydrates
   First Author: Carolyn Koh (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
Tuesday, December 10th

Morning Oral Presentations

Join Us! USPA 2019 Annual Meeting - December 10, 2019 8:30 to 10:30 pm - ThirstyBear Brewing Company

B21E-01 Long-Term Local Ecological Change in the Klondike Exposed with Permafrost eDNA.
First Author: Sabrina Shirazi (Oral Presentation)
08:00 - 08:15, Moscone West - 3012, L3

C21B-01 Results from the First National Glacier Inventory of Argentine Andes
First Author: Laura Viviana Zalazar (Oral Presentation)
08:00 - 08:15, Moscone West - 2008, L2

C22C-01 High Potential for Loss of Circumpolar Pingos, Ice-wedge Polygons and Rock Glaciers due to Climate Change
First Author: Olli Karjalainen (Oral Presentation)
10:20 - 10:35, Moscone West - 2006, L2

C22C-02 Identification of Regions Susceptible to Thermokarst Initiation due to “Climate Priming” on the Alaskan Arctic Coastal Plain
First Author: Bob Bolton (Oral Presentation)
10:35 - 10:50, Moscone West - 2006, L2
C22C-03 Long-term monitoring of permafrost degradation documents two forms of landscape response
First Author: Louise Melanie Farquharson (Oral Presentation)
10:50 - 11:05, Moscone West - 2006, L2

EP22A-03 Deciphering the Controls of the Rate and Spatial Distribution of Rockwall Slope Erosion in the NW Himalaya
First Author: Elizabeth Orr (Oral Presentation)
10:50 - 11:05, Moscone West - 3009, L3

C22C-04 Induced polarization as a new tool to monitor the degradation of permafrost
First Author: Andre Revil (Oral Presentation)
11:05 - 11:20, Moscone West - 2006, L2

C22C-05 Seasonal dynamics of permafrost landscapes: InSAR ground displacements and controlling factors documented by in situ and Sentinel-1/-2 remote sensing data
First Author: Line Rouyet (Oral Presentation)
11:20 - 11:35, Moscone West - 2006, L2

C22C-06 Reduced winter off-road tundra travel under climate change
First Author: Anne Gaedeke (Oral Presentation)
11:35 - 11:50, Moscone West - 2006, L2

C22C-07 Towards First pan-Arctic Ice-wedge Polygon Map: Understanding the Synergies of Data Fusion and Deep Learning in Automated Ice-wedge Polygon Detection from High Resolution Commercial Satellite Imagery
Morning Poster Presentations

A21N-2756 Modeling Millennial Time Scale Changes in Water Balance of Mesoscale Watersheds within Permafrost Regions
First Author: Matvey Vladimirovich Debolskiy (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B21G-2420 Modelling lateral transport of riverine organic carbon as a link of terrestrial carbon and hydrology within MPI-ESM
First Author: Swati Gehlot (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B21K-2377 Warming does not lead to soil carbon loss in alpine grasslands on the Tibetan Plateau
First Author: Biao Zhu (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

C21E-1494 Ice Sheet-Moderated Changes in the Precipitation Isotope Climatology of NW Canada during the Late Deglacial
First Author: Spruce W Schoenemann (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

EP21E-2199 CHARACTERIZING SURFACE ROUGHNESS ON PERIGLACIAL ALLUVIAL FANS IN THE AKLAVIK RANGE, NORTHWEST TERRITORIES, AS AN ANALOG FOR COLD AND ICY MARTIAN FANS
EP21E-2210 Periglacial Fans in the Aklavik Range, Northwest Territories: An Analog Depositional Environment for a Cold and Icy Mars
First Author: Frances Rivera-Hernandez (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

EP21E-2212 Potential Freeze-Thaw Paleolakes and Channels on the Floor of Lyot Crater, Mars
First Author: Natalie Hanson Glines (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC21E Environmental, Socioeconomic, and Climatic Changes in Northern Eurasia II Posters
First Author: Pavel Groisman (Session)
08:00 - 12:20, Moscone South - Poster Hall

GC21E-1274 Future nitrogen availability and its effect on carbon sequestration in Northern Eurasia
First Author: David W Kicklighter (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC21E-1276 Influence of engineering-cryogenic processes on the infrastructure of the Arctic due to climatic changes and increasing antropogenic impact
First Author: Valery I Grebenets (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
GC21E-1278 Remote Sensing approaches for assessing vegetation stocks and short-term fluxes in the Sub-Arctic permafrost landscape of the Lena River Delta (Siberia)

First Author: Birgit Heim (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC21E-1279 Understanding changes in river flow to the Arctic Ocean from Eurasia using hydrological modeling

First Author: Alexander I Shiklomanov (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC21E-1280 Response of permafrost temperature regime in the North-Eastern Yakutia to the recent climate changes.

First Author: Alexander L Kholodov (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall


First Author: Evgeny Shvetsov (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC21E-1291 Formation of technogenic rock glaciers in mining areas of the Russian cryolithozone

First Author: Vasiliy Andreevich Tolmanov (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
GC21I-1375 Mapping Built-up Areas in the Arctic at 10 m by Fusing Sentinel-2 and VIIRS Nighttime Lights Data
First Author: Chang Liu (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

H21H-1836 Hydrogeological issues associated with nuclear wastes geological repository in clay rocks. Example of CigÃ©o project - France
First Author: Abdelhakim Benabderrahmane Sr (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

H21N-1954 Remotely sensed discharge and sediment flux of the Sagavanirktok River
First Author: Theodore Langhorst (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

NS21C-0834 Imaging the structure of solifluction lobes in the Garner Run Subcatchment of the Susquehanna Shale Hills Critical Zone Observatory using 2D Seismic Refraction Tomography
First Author: Angelo Tarzona (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

NS21C-0835 The Use of Electrical Resistivity Tomography (ERT) to Image Solifluction Lobes in the Garner Run Subcatchment of The Susquehanna Shale Hills Critical Zone Observatory
First Author: Aisha Rodriguez (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

PA21D-1146 Reducing Methane Leakages by Filtering Contaminated Air

First Author: Hal Gokturk (Poster Presentation)

08:00 - 12:20, Moscone South - Poster Hall

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**Afternoon Oral Presentations**

C22C-08 Examining Environmental Gradients in permafrost regions - achievements of the ESA DUE GlobPermafrost project and first results from ESA CCI+ Permafrost

First Author: Annett Bartsch (Oral Presentation)
12:05 - 12:20, Moscone West - 2006, L2

B24C-01 Fire and Ice - the impacts of changing boreal fire regimes and permafrost loss on carbon stocks and stability

First Author: Catherine M Dieleman (Oral Presentation)
16:00 - 18:00, Moscone West - 3007, L3

C24B-02 Does Tundra Fire Accelerate Drainage of Lakes in Discontinuous Permafrost? Evidence from the Yukon-Kuskokwim Delta, Alaska

First Author: Gerald V Frost Jr (Oral Presentation)
16:15 - 16:30, Moscone West - 3024, L3

PA24A-03 Importance of cross-border team science in permafrost research for risk mitigation

First Author: Louise Melanie Farquharson (Oral Presentation)
16:27 - 16:37, Moscone South - 301-302, L3
GC24C-04 Regional impacts of water cycle changes on permafrost eco-hydrological environment in north-eastern Eurasia

First Author: Yoshihiro Iijima (Oral Presentation)
16:45 - 17:00, Moscone West - 2010, L2

C24B-05 The Impact of Freeze-Thaw Cycles on Soil Porosity in Permafrost-Affected Soils

First Author: Erin Rooney (Oral Presentation)
17:00 - 17:15, Moscone West - 3024, L3

GC24C-05 Interactions Between Topography, Permafrost, and Vegetation in Siberian Larch Forest: a Simulation Study

First Author: Hisashi Sato (Oral Presentation)
17:00 - 17:15, Moscone West - 2010, L2

C24B-06 Predictable Soil Stratigraphy of the Upper Thawed Layer in Permafrost Terrain Controls Hydrological Flows and Dynamics

First Author: Michael O'Connor (Oral Presentation)
17:15 - 17:30, Moscone West - 3024, L3

C24B-07 Incorporating the Seasonal Snowpack into Thermo-Hydrologic Modeling of Frozen Ground at Niwot Ridge, CO

First Author: Michael (Mickey) Rush (Oral Presentation)
17:30 - 17:45, Moscone West - 3024, L3

C24B-08 Understanding the importance of water and ice dynamics at a thermokarst site with novel geophysical observations

First Author: Stephanie R. James (Oral Presentation)
GC24C-08 Wildfire as a Driver of Permafrost Degradation in Boreal and Tundra Ecosystems of Alaska, Siberia and Northeast China: Implications for Environmental and Socio-Economic Impacts.

First Author: Sergey S Marchenko (Oral Presentation)
17:45 - 18:00, Moscone West - 2010, L2

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Afternoon Poster Presentations

B23G Arctic Land Surface Energy Fluxes and Their Impact on the Earth System Under Current and Future Conditions I Posters
First Author: Jacqueline Oehri (Session)
13:40 - 18:00, Moscone South - Poster Hall

B23G-2485 Altering seasonal transition of surface energy fluxes in larch forest on permafrost: warming spring and wetting autumn
First Author: Ayumi Kotani (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23G-2486 Arctic tundra and boreal forest surface energy balance retrieval using a thermal-based remote sensing model
First Author: Jordi Cristobal (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23G-2488 Differences in transpiration between high latitude upland and floodplain shrubs: implications for ecosystem energy balance
   First Author: Heather Kropp (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23G-2489 Forest density influences on surface energy and soil thermal dynamics in Siberian larch forests underlain by permafrost
   First Author: Michael M Loranty (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23G-2490 Hydrological intensification causes multiple ecosystem effects in the Arctic
   First Author: Torben R Christensen (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23G-2491 Modeling Active Layer Depth of Permafrost under Changing Surface Boundary Conditions
   First Author: Jingfeng Wang (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23G-2492 Modeling Permafrost Sensitivity in Arctic Forest
   First Author: Simone Maria StÄ¼nzi (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23G-2496 Surface Energy Budget Closure and Energy Fluxes at Two Arctic Terrestrial Sites
   First Author: Andrey A Grachev (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
B23G-2499 Weighing Micro-Lysimeters Used to Quantify Dominant Vegetation Contributions to Evapotranspiration in the Arctic

First Author: Jason Clark (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23H Causes and Consequences of Changing Disturbance Regimes in Boreal Forests Across the Globe II Posters

First Author: Heather Dawn Alexander (Session)
13:40 - 18:00, Moscone South - Poster Hall

B23H-2517 Denitrification and Nitrous Oxide Production in Boreal Terrestrial and Aquatic Ecosystems Varying in Permafrost and Fire Disturbance History

First Author: Melanie Burnett (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23H-2518 Stream Chemistry Indicates Catchment Response to Disturbance and Regional Warming in the Boreal Forest

First Author: Adela Contreras (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23H-2519 Assessing land cover change and lowland vulnerability to permafrost thaw, altered fire regime, and hydrologic changes on Interior Alaska

First Author: Genet Helene (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23H-2527 Fire, Forest, Ice, and Fungi: Exploring the Mesh of Relationships that Drive Seedling Recruitment in the Siberian Arctic
B23H-2528 Post-fire larch (Larix cajanderi) recruitment in central Siberia is highest in areas with increased fire severity
   First Author: Alison Paulson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23H-2529 Post-fire larch recruitment patterns in the Siberian Arctic indicate forest loss in many areas
   First Author: Heather Dawn Alexander (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23H-2530 Post-fire seedling recruitment in high-latitude Siberian Larch (Larix cajanderi) forests associated with lower graminoid composition
   First Author: Jennie DeMarco (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I Understanding the Interactions Between Hydrological and Biogeochemical Dynamics in Permafrost Environments with Observations and Models II Posters
   First Author: Peter Munroe Douglas (Session)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2532 Influences of Hillslope Biogeochemistry on Anaerobic Soil Organic Matter Decomposition in a Tundra Watershed
   First Author: Michael J Philben (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
B23I-2533 Comparing soil moisture and geochemistry in continuous versus discontinuous permafrost watersheds in the Seward Peninsula, Alaska, USA.
   First Author: Brent D Newman (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2535 Seasonal evolution of active-layer thaw depth and streamflow chemistry in a permafrost catchment
   First Author: Jan Franssen (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2536 Detecting catchment-scale permafrost degradation and biogeochemical regime change from high-frequency stream chemistry
   First Author: Alex Webster (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2537 Shifting bottom-up controls on food webs in streams draining permafrost landscapes of the Arctic
   First Author: Jonathan A O'Donnell (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2538 Permafrost Thaw as a Mechanism for Widespread pH Increase in Boreal Lakes: Isotopic and Geochemical Evidence
   First Author: John J Gibson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23I-2540 Resolving Spatial and Temporal Greenhouse Gas Dynamics across a Heterogeneous Arctic Tundra Landscape in the Western Canadian Arctic
First Author: Carolina Voigt (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

**B23J Ecology of the Cryosphere: Biological and Environmental Interactions in Seasonally and Permanently Cold Ecosystems II Posters**

First Author: Megan Dillon (Session)
13:40 - 18:00, Moscone South - Poster Hall

**B23J-2545 Investigating Drivers of High Latitude Soil Microbial Community Distributions Across an Alaskan Transect**

First Author: Keith O'Connor (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

**B23J-2552 Model sensitivity of fall and early winter carbon and nutrient cycling to topography, hydrology, and soil properties**

First Author: Ian Shirley (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

**B23J-2553 Arctic Permafrost Microbiomes: A Meta-Analysis**

First Author: Megan Dillon (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

**B23J-2555 Assembly of microbial communities in thawed permafrost and implications for carbon processing**

First Author: Stacey Jarvis Doherty (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23K The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change VI Posters
   First Author: Michelle C Mack (Session)
   13:40 - 18:00, Moscone South - Poster Hall

B23K-2449 Examining Tundra Greening from Ground-based to Satellite Observations
   First Author: Karl F Huemmrich (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23K-2450 Influence of Land Slumping from Permafrost Thaw on Lake Methane Emissions in the Yukon-Kuskokwim Delta, Alaska
   First Author: Henry Churchill Henson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23K-2459 Determining the Effects of Thermokarst Events on the Availability and Emissions of CH4, CO2 and N2O in the YK Delta, Alaska
   First Author: Aquanette Sanders (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23K-2462 Scaling greenhouse gas emissions from freshwaters and identifying methane hotspots in the Yukon-Kuskokwim Delta
   First Author: Sarah Ludwig (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23K-2463 The Application of Machine Learning Algorithms and Landsat Data to Calculate Lake Depth in the Arctic Coastal Plain
B23K-2470 Changes in Berry and Leaf Production Following a Tundra Wildfire
First Author: Ellis David Lyles (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23K-2475 Characterizing Sources and Sinks of CO2 and CH4 Across Polygonal Tundra: A Multi-Scale Approach
First Author: Sigrid Dengel (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23K-2476 Effects of Wildfire and Permafrost Thaw on Nitrous Oxide Fluxes from Boreal Peatlands in western Canada
First Author: Christopher Schulze (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23K-2480 Plant community shifts as early indicators of abrupt permafrost thaw and thermokarst development in interior Alaska lowlands.
First Author: William Cox (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23L-2504 Stability of fen and bog peatland types over the Holocene Epoch in the Hudson Bay Lowlands, Canada
First Author: Sarah A Finkelstein (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23L-2508 Rule of Plum: Comparison of lead-210 dates derived from Bayesian analysis and the Constant Rate of Supply model using simulated and real datasets
   First Author: Nicole K Sanderson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23L-2510 Expert Assessment Suggests Global Peatlands Will Switch to a Carbon Source in Near Future
   First Author: Julie Loisel (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M Vulnerability of Permafrost Carbon to Climate Change III Posters
   First Author: Christina Schaedel (Session)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2564 Ancient C emissions from Arctic tundra: soil carbon isofluxes (14CO2) in response to long-term changes in winter snow depth
   First Author: Robert G Jespersen (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2565 Assessing the Degradation State of Soil Organic Matter in the Permafrost Region
   First Author: Julie D Jastrow (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2566 Blowing snow impacts on permafrost temperature and greenhouse gas release in the terrestrial Arctic
   First Author: Hotaek PARK (Poster Presentation)
B23M-2567 Contrasting Carbon and Nitrogen Stocks and Ice Contents along Two Arctic Hillslope Toposequences
First Author: Roser Matamala (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2568 CONTRIBUTIONS OF OPTICAL REMOTE SENSING TO PERMAFROST MAPPING IN DONNELLY TRAINING AREA, ALASKA
First Author: Kiran Thapa (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2569 Controls on organic matter degradation in thawing permafrost peatlands and subsequent greenhouse gas emissions
First Author: Roya AminiTabrizi (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2570 DOM Composition and Biodegradation from Diverse Permafrost End-members
First Author: Erin MacDonald (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2571 Estimating Soil Organic Carbon in the Active Layer of the Arctic Foothills Using Spaceborne InSAR Surface Deformation Data
First Author: Yue WU (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23M-2572 Fraction modern: molecular carbon dynamics across a Yedoma permafrost thaw chronosequence
   First Author: Elizabeth K Coward (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2573 Heat transfer from precipitation hastens permafrost degradation and decreases carbon-climate feedbacks
   First Author: Zelalem Amdie Mekonnen (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2574 High thaw lake Methane emissions at the permafrost of Qinghai Tibet plateau
   First Author: Hanbo Yun (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2575 Impact of long-term warming and wetting on carbon sequestration and nitrogen dynamics in High Arctic tundra soils
   First Author: Malissa Ann Gueco Tayo (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2576 Inter-annual Variability of CO2 and CH4 Fluxes of a Polygonal Tundra Landscape in the Siberian Arctic
   First Author: David Holl (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

B23M-2577 Methanogens Driving Methane Production from the Active Layer and Permafrost Soils on the Tibetan Plateau
   First Author: Yutong Song (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
B23M-2578 Microbial Carbon Degradation Processes in Thermokarst Lake Sediments from Bykovsky Peninsula, Northern Siberia
First Author: Maria Schindler (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2579 Mineral Controls over Permafrost Carbon Stability and Decomposition
First Author: Shuqi Qin (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2580 Patterns and drivers of potential methane oxidation and production rates across Tibetan alpine permafrost region
First Author: Qiwen Zhang (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2581 Permafrost Mapping with Electrical Resistivity Tomography in Two Wetland Systems North of the Tanana River, Interior Alaska
First Author: Christopher H Conaway (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2582 Probing Organomineral Associations across a Chronosequence of Yedoma Permafrost Deposits in Fox, AK.
First Author: Rucha Wani (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23M-2583 Radiocarbon Data from Permafrost Peatland Lakes Indicate Dissolved Methane is Dominantly Modern while Particulate Matter and Ebullition Methane Contain Older Carbon

First Author: Regina Gonzalez Moguel (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2584 Ramped PyrOx and Ultrahigh Resolution Mass Spectrometry Insights into the Age and Composition of Arctic River Dissolved Organic Matter

First Author: Jennifer Anastasia Rogers (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2585 Reconciling Historical and Contemporary Trends in Terrestrial Carbon Exchange of the High-latitude Permafrost-zone

First Author: Marguerite Mauritz (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2586 Soil CO2 Profile Measurements Reveal an Increase in the Proportion of Old Soil Carbon over a Thirteen Year Study at a Permafrost Site in Interior Alaska

First Author: Christopher Ebert (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2587 Soil warming leads to stimulate soil CO2 efflux in tundra ecosystem, Seward Peninsula of western Alaska

First Author: Yongwon Kim (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
B23M-2588 Trajectory of Topsoil Nitrogen Transformations Along a Thermo-Erosion Gully on the Tibetan Plateau
First Author: Yuanhe Yang (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B23M-2589 Using stable isotopes to determine dominant methane production pathways of thaw ponds in a subarctic peatland
First Author: Kathryn A Bennett (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

Join Us! USPA 2019 Annual Meeting - December 10, 2019 8:30 to 10:30 pm - ThirstyBear Brewing Company
Morning Oral Presentations

A31C-04 Potential methyl chloride and chloroform fluxes from the tundra soils in maritime Antarctica
   First Author: Wanying Zhang and Renbin Zhu (Oral Presentation)
   08:45 - 09:00, Moscone West - 3012, L3

GH32A-01 Water-related Infectious Disease Spreading under Hydroclimatic Change in the Arctic/Sub-Arctic Region
   First Author: Georgia Destouni (Oral Presentation)
   10:20 - 10:35, Moscone West - 2020, L2

H32G-01 Contrasting wildfire impacts on hydrologic properties and processes in boreal forest in Alaska and coniferous forest in the Southern Rocky Mountains, USA
   First Author: Brian A Ebel (Oral Presentation)
   10:20 - 10:35, Moscone West - 3014, L3

EP32A-08 Arctic Deltas: Carbon and nitrogen rich deposits in a dynamic permafrost landscape
   First Author: Matthias Fuchs (Oral Presentation)
   10:20 - 12:20, Moscone West - 3009, L3
B32D-02 Partitioning Ecosystem Respiration Using $\delta^{13}$C and $\Delta^{14}$C to Determine Sources of Permafrost C Loss After 10 Years of Experimental Warming

First Author: Elaine Pegoraro (Oral Presentation)
10:35 - 10:50, Moscone West - 3003, L3

B32B-07 Spatial heterogeneity in groundwater and evaporative fluxes and their influence on lakes with varying methane dynamics within Mackenzie River Delta (Canada)

First Author: Hadley McIntosh Marcek (Oral Presentation)
11:50 - 12:05, Moscone West - 3007, L3

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**Morning Poster Presentations**

ED31D-0997 Investigation of Methane Emission in Permafrost Using In-situ Measurements and Satellite Remote Sensing Data for Climate Change Education

First Author: Tianlin Wang (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC31E-1298 Demonstrating the Potential of CO2 Hydrate Self-Sealing During Geological CO2 Storage

First Author: Stian Almenningen (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

P31A-3429 Distinct small-scale (0.1 to 1 m) regolith features suggest regolith activity and provide clues about the bedrock at Glen Torridon, Gale Crater, Mars

First Author: Bernard Hallet (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
PA31E-1072 Climate Preparedness and Resilience Decision Making for Extreme Events
First Author: Will Veatch (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

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**Afternoon Oral Presentations**

**OS33A-02 Progress toward the establishment of an extended-duration gas hydrate reservoir response test on the Alaska North Slope**
First Author: Norihiro Okinaka (Oral Presentation)
13:55 - 14:10, Moscone West - 2002, L2

**OS33A-05 Deformation Coupled Effective Permeability Change in Hydrate-Bearing Sediment during Depressurization**
First Author: Xiang Sun (Oral Presentation)
14:40 - 14:55, Moscone West - 2002, L2

**B33B-08 Impacts of increasing wildfire severity on the long-term carbon dynamics of Alaskan boreal forests**
First Author: Michelle C Mack (Oral Presentation)
15:25 - 15:40, Moscone West - 3001, L3

**OS34A-05 Numerical Modelling Using Homogenization Techniques of Gas Hydrate Bearing Sediments**
First Author: Axelle Alavoine (Oral Presentation)
17:00 - 17:15, Moscone West - 2002, L2
Afternoon Poster Presentations

A33J-3072 Potential volatile selenium fluxes from the tundra soils in maritime Antarctica
   First Author: Wenjuan Ye and Renbin Zhu (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

   First Author: Kenneth Wacha (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

GC33F-1437 A Simple Formula for Calculating Carbon Budgets
   First Author: Bruce Parker (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

GC33G-1421 Northern High-latitude Permafrost Response to Solar Geoengineering
   First Author: Duoying Ji (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

GC33H-1477 The Investigation of the Deepest Frozen Soil Depth Variation over TP (1981-2005) by Coupled SSI B3 and A Multi-layer Frozen Soil Scheme
   First Author: Qian Li (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
H33L-2115 Deep Learning Method for Streamflow Forecasting in the Upper Stream of the Heihe River Basin in China
First Author: Yajie Wu and Yong Tian (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

IN33B-0817 rSpectral & ASTRAL: Interactive Tools for Analysis of Hyperspectral Reflectance Data Acquired through the NASA ABoVE Campaign
First Author: Ifeanyi Humphrey Nwigboji (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

NH33E-0964 Impacts of Rapid Climate Changes on Mass Movements in Denali National Park and Preserve, Alaska
First Author: Zena Valentina Robert (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall
Thursday, December 12th

Morning Oral Presentations

B41E-04 Between States: The Microbial Ecology of Biogeochemical Processes Near the Freezing Point.
First Author: Mark P Waldrop (Oral Presentation)
08:45 - 09:00, Moscone West - 3001, L3

H41B-04 Relative gravimetry in alpine permafrost-affected tunnel: a first attempt to reveal changes in hydrostatic pressure.
First Author: Markus Heinze (Oral Presentation)
08:45 - 09:00, Moscone West - 3024, L3

B41E-05 Microbiome Re-assembly After Permafrost Thaw: How Time, Space, History and Disturbance Fundamentally Differentiate Permafrost Microbial Communities
First Author: Jessica Gilman Ernakovich (Oral Presentation)
09:00 - 09:15, Moscone West - 3001, L3

B41E-06 Reconstruction of metagenome-assembled genomes from past and extant microbial populations in ancient Siberian permafrost
First Author: Renxing Liang (Oral Presentation)
09:15 - 09:30, Moscone West - 3001, L3
B41A-08 Wildfires in subarctic Canada have no impact on downstream mercury transport but cause decreased delivery of dissolved carbon and nutrients
   First Author: Ryan H.S. Hutchins (Oral Presentation)
   09:45 - 10:00, Moscone West - 3012, L3

EP42A-04 Quantifying organic carbon mobilization and storage due to bank erosion in permafrost-dominated river floodplains
   First Author: Madison Douglas (Oral Presentation)
   10:20 - 12:20, Moscone West - 3011, L3

H42A-04 The Fundamental Roles of Iron as a Mediator of Land-Water Interactions in Arctic Catchments
   First Author: William B Bowden (Oral Presentation)
   11:05 - 11:20, Moscone West - 3016, L3

EP42B-06 Permafrost control on river migration along the Koyukuk River, AK
   First Author: Jon Schwenk (Oral Presentation)
   11:35 - 11:50, Moscone West - 3009, L3

B32B-07 Spatial heterogeneity in groundwater and evaporative fluxes and their influence on lakes with varying methane dynamics within Mackenzie River Delta (Canada)
   First Author: Hadley McIntosh Marcek (Oral Presentation)
   11:50 - 12:05, Moscone West - 3007, L3
Morning Poster Presentations

A41S-2639 Monitoring of Greenhouse Gas Emission from Permafrost Regions by the GOSAT Observations of Tropospheric CO2 and CH4
   First Author: Nobuhiro Kikuchi (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

B41I-2437 Microbial community responses to decadal drainage on a Siberian floodplain
   First Author: Mincheol Kim (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

B41J-2454 CH4 Flux from Sub-arctic Mire Lakes: A Look at Relationships Between Microbial Communities and Submerged Aquatic Vegetation
   First Author: Tamara Sade Marcus (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

B41L-2456 Evolution and optimized extension of the high Northern latitude eddy covariance network.
   First Author: Martijn Pallandt (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

C41D-1490 Hazardous Permafrost Processes in Areas with Massive Ground Ice Occurrence in the Western Russian Arctic
   First Author: Alexander I. Kizyakov (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall
   First Author: Blaise Robertson Winnard (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

H41J-1818 Assessing Baseline Stream Metal Concentrations in the Cumulative Impact Monitoring Program for Hydrocarbon Extraction by Hydraulic Fracturing of the Canol Shale Play, Central Mackenzie Valley, NT, Canada
   First Author: David Eickmeyer (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

H41S-2007 Evaluation of Permafrost Changes due to Climate Change in Northern Manitoba
   First Author: Bekalu Erkabu (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

OS41B-1677 Gas-Hydrates - Indian Scenario
   First Author: Priyadarshi Kumar (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

OS41C-1688 Interpretation of Logging Data from the Hydrate-01 Stratigraphic Test Well drilled in the Prudhoe Bay Unit, Alaska North Slope
   First Author: Kiyofumi Suzuki (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall

P41C-3451 Fast methane diffusion at the interface of two clathrate structures
   First Author: livia Eleonora Bove (Poster Presentation)
   08:00 - 12:20, Moscone South - Poster Hall
P41C-3454 Historical Habitability of Mid- and High-Latitude Martian Ground Ice

First Author: Hanna G Sizemore (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

P41C-3457 Mapping Subsurface Ice and Water on Mars with Magnetic Induction Spectrometer

First Author: Svein-Erik Hamran (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

P41C-3458 Mars Drilling: Development of a 1 m Class Rotary-Percussive Drill for Mars Permafrost

First Author: Gale Paulsen (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

P41C-3465 The Northern Terminus of Ground-Ice Detections in Arcadia Planitia on Mars May Be Attributable to Surface Effects

First Author: Blake Irwin Maly (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

PP41B-1542 Exploring biomarkers in Beringian Loess as an archive of orbital-scale Pleistocene climate change

First Author: Elizabeth K Thomas (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

PP41C-1559 Microbial communities in the sedimentary substrate of the Laguna Timone maar, southern Patagonia (52ºS)

First Author: Mauricio Calderán (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
Afternoon Oral Presentations

P43B-01 The Martian Underground: Sites of potential methane generation, accumulation, and release
First Author: Dorothy Z. Oehler (Oral Presentation)

B43E-01 High-latitude terrestrial regions remain a CO2 sink over 1990-2015
First Author: Anna-Maria Virkkala (Oral Presentation)
13:40 - 13:55, Moscone West - 3001, L3

B43E Vulnerability of Permafrost Carbon to Climate Change I
First Author: Christina Schaedel (Session)
13:40 - 15:40, Moscone West - 3001, L3

B43E-05 Disturbed High Arctic Permafrost Watersheds: A Decade of Impact on Fluvial Organic Carbon Fluxes
First Author: Casey Robert Beel (Oral Presentation)
13:40 - 15:40, Moscone West - 3001, L3

B43E-02 The Net Aquatic and Terrestrial Carbon Balances are Linked by Weather Events in a Headwater Arctic Catchment
First Author: George W Kling (Oral Presentation)
13:55 - 14:10, Moscone West - 3001, L3

C43A-02 Impact of Climate Change on Water and Sediment Fluxes in Cold Region: an Example from the Source Region of the Yangtze River, High Mountain Asia
First Author: Dongfeng Li (Oral Presentation)
13:55 - 14:10, Moscone West - 3022, L3

**B43E-03 The Effect of Permafrost Thaw on the Controls and Pathways of Decomposition that Regulate the Carbon Balance of Boreal Peatlands**
First Author: Liam Heffernan (Oral Presentation)
14:10 - 14:25, Moscone West - 3001, L3

**B43E-04 Closing the winter gap - year-round measurements of soil respiration sources in Arctic tussock tundra**
First Author: Claudia I Czimczik (Oral Presentation)
14:25 - 14:40, Moscone West - 3001, L3

**C43A-05 Characteristics and changes of glaciers, rock glaciers and glacial lakes in High Mountain Asia since the 1960s**
First Author: Tobias Bolch (Oral Presentation)
14:40 - 14:55, Moscone West - 3022, L3

**B43E-06 Arctic Permafrost Soil Hydrology and Snow Cover Depth Critically Determine CO2 and CH4 emissions**
First Author: Martin Heimann (Oral Presentation)
14:55 - 15:10, Moscone West - 3001, L3

**B43E-07 Listen for the Pop: The capture and quantification of ebullitive methane from thaw ponds using a high frequency acoustic bubble trap system**
First Author: Sophia A Burke (Oral Presentation)
15:10 - 15:25, Moscone West - 3001, L3
B43E-08 Effects of Warming and Permafrost Thaw on the Three Important Greenhouse Gases - Carbon Dioxide, Methane, and Nitrous Oxide
   First Author: Carolina Voigt (Oral Presentation)
   15:25 - 15:40, Moscone West - 3001, L3

P43B-10 Martian Near-Surface S and Cl Brines in Fractured and Porous Regolith Could Trigger Microscale Soil Collapse and Cause Recurring Slope Lineae
   First Author: Janice L Bishop (Oral Presentation)
   15:28 - 15:40, Moscone South - 213-214, L2

B44E Vulnerability of Permafrost Carbon to Climate Change II
   First Author: Christina Schaedel (Session)
   16:00 - 18:00, Moscone West - 3001, L3

B44E-01 Carbon degradation and CO2 production within onshore and nearshore zones of eroding permafrost coasts
   First Author: George Tanski (Oral Presentation)
   16:00 - 18:00, Moscone West - 3001, L3

B44E-03 Influence of permafrost and site history on losses of permafrost carbon after thaw
   First Author: Kristen Manies (Oral Presentation)
   16:00 - 18:00, Moscone West - 3001, L3

B44E-08 The Vulnerability of Permafrost Carbon to Climate Change: Key Findings from a Decade of Synthesis
   First Author: Edward Schuur (Oral Presentation)
   16:00 - 18:00, Moscone West - 3001, L3
B44E-02 Accessibility of permafrost carbon in a changing Arctic: Assessing the influence of experimentally- increased snowpack height on microbial carbon sources
   First Author: Shawn Pedron (Oral Presentation)
   16:15 - 16:30, Moscone West - 3001, L3

C44A-02 Perspectives from the Next Generation of Cryosphere Scientists
   First Author: Twila A Moon (Oral Presentation)
   16:15 - 16:30, Moscone South - 201-202, L2

B44E-04 Bacterial community composition changes independently of soil edaphic parameters with anthropogenic permafrost thaw
   First Author: Brian D Lanoil (Oral Presentation)
   16:45 - 17:00, Moscone West - 3001, L3

B44E-05 Undecomposed Organic Particles Dominate the Carbon Storage in Permafrost Soils of the Lena River Delta, Arctic Russia
   First Author: Isabel Prater (Oral Presentation)
   17:00 - 17:15, Moscone West - 3001, L3

NS44A-05 Using Near Surface Geophysics and Remote Sensing to Understand Hydrogeologic Controls on Recharge to Tropical Glaciated Valleys: Cordillera Blanca, Peru
   First Author: Robin Glas (Oral Presentation)
   17:00 - 17:15, Moscone West - 2010, L2
PA44B-05 Empowering indigenous women leaders to transform the narratives of communities affected by climate change.

First Author: Karla Brollier (Oral Presentation)
17:02 - 17:15, Moscone South - 301-302, L3

B44E-06 Significant C source driven by elevated water table but sink by increasing thaw depth in Alaska tundra under experimental warming: A data assimilation study

First Author: Yiqi Luo (Oral Presentation)
17:15 - 17:30, Moscone West - 3001, L3

B44E-07 Improved Simulation of Cold-season Methane Emissions over Alaska-Permafrost with the E3SM Land Model (ELM)

First Author: Jing Tao (Oral Presentation)
17:30 - 17:45, Moscone West - 3001, L3

Afternoon Poster Presentations

A43P-2932 A miniaturized laser heterodyne radiometer for global ground-based observations of column CO2 and CH4

First Author: Emily Lynn Wilson (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

A43P-2938 The New NOAA Barrow Atmospheric Baseline Observatory Near Utqiaġvik, Alaska – Facility Upgrades and New Collaboration Opportunities

First Author: Brian A Vasel (Poster Presentation)
B43I-2602 Aquatic Carbon Exports from Alpine and Boreal Wetlands to Headwater Streams
First Author: Courtlyn Carpenter (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

B43J-2613 Organic Matter Dynamics in Arctic Lagoons: Linking Seasonal and Spatial Patterns to Terrestrial Inputs and Ocean Exchange
First Author: James W McClelland (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

C43D-1515 Heat needed to melt ice: the Cryosphere’s contribution to the Earth’s Energy Imbalance
First Author: Fiammetta Straneo (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

EP43E-2405 Measuring and modeling periglacial hillslope processes, Seward Peninsula, western Alaska
First Author: Joanmarie Del Vecchio (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

EP43E-2406 The Distribution and Occurrence of Solifluction Lobes and their Role in Mediating Hillslope Biogeochemistry
First Author: Michael Mulugetta Fratkin (Poster Presentation)
13:40 - 18:00, Moscone South - Poster Hall

EP43E-2407 Decadal impacts of wildfire and climate change on permafrost degradation in Arctic Alaska
First Author: Yaping Chen (Poster Presentation)
H43G-2057 CRITICAL PEAT project: The importance of hydrology for Carbon Reactivity along with atmosphere-peatland interactions. Preliminary results from the Frasne peatland monitoring (Jura Mountains, France).
   First Author: Alexandre Lhosmot (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H43G-2078 Seasonal and event-based concentration discharge relationships from contrasting Arctic headwater catchments
   First Author: Arial Shogren (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H43G-2081 Evidence for accelerated climate-driven weathering and sulfate export in high alpine environments
   First Author: John T Crawford (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H43I-2138 Parameter Sensitivity of the National Hydrologic Model Alaska Domain
   First Author: Theodore B Barnhart (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H43I-2148 Macro-scale Hydrologic Modeling for Depression-Dominated Cold Climate Regions
   First Author: Mohsen Tahmasebi Nasab (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
H43N-2250 Field-scale surface soil moisture from satellites for hydrology, water resources, agriculture, and disaster prevention
   First Author: Seungbum Kim (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

H43N-2259 Artificial intelligence/machine learning and remote sensing reveals over six decades of surface-water dynamics in Alaska with connections to climate change.
   First Author: Neal J. Pastick (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

P43D-3491 Martian methane and other in-situ resources for sustaining human exploration of Mars and outer solar system
   First Author: Michael D Max (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

P43F-3520 Developing consistent criteria for assessing the origins of pitted cones on Mars
   First Author: James Wray and Angela Dapremont (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

PA43D-1182 Strengthening evidence-based policy for peatlands: potential and pitfalls for quantification of C accumulation and loss using fallout radionuclides
   First Author: Nicole K Sanderson (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall

V43H-0188 Quench-induced fragmentation of magma during subaqueous eruptions
   First Author: Ingo Sonder (Poster Presentation)
   13:40 - 18:00, Moscone South - Poster Hall
Friday, December 13th

**Morning Oral Presentations**

**B51D-05** Wetland methane biogeochemistry: Can geophysical approaches improve our understanding of these spatially and temporally heterogeneous processes?

First Author: Ruth K Varner (Oral Presentation)
08:48 - 09:00, Moscone West - 3005, L3

**C52A-05** Permafrost Carbon Network: Research synthesis to quantify the permafrost carbon feedback

First Author: Christina Schaedel (Oral Presentation)
11:20 - 11:35, Moscone West - 2006, L2

**P52C-06** Evolution of Water and D/H on Mars

First Author: Bruce Martin Jakosky (Oral Presentation)
11:35 - 11:50, Moscone South - 215, L2

**Morning Poster Presentations**

**A51H-2773** Terrestrial biogenic secondary organic aerosol composition on the North Slope of Alaska

First Author: Claire Elizabeth Moffett (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
A51H-2774 Widespread Arctic lead pollution since 1000 BCE documents ancient and medieval European lead-silver smelting, major historical events, and northern-hemisphere Industrialization

First Author: Nathan Chellman (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51F-2314 Viromes from Northern Minnesota Reveal Peatland Habitat Endemism of Globally Distributed Viral Populations

First Author: Anneliek ter Horst (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51I-2352 Potential impacts of mercury released from thawing permafrost

First Author: Paul F Schuster (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51I-2353 Mercury Patterns in Permafrost Peatland Streams and Ponds

First Author: Lauren Thompson (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51I-2354 Mercury isotopic constraints on mercury cycling across a permafrost thaw gradient in Stordalen Mire, Sweden

First Author: Maria Florencia Fahnestock (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51K-2380 UAV-based mapping of galloping thermokarst - implications for methane emissions
First Author: Johan Scheller (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

B51K-2384 A new UAS System for Airborne Eddy Covariance Measurements of Heat and Carbon Fluxes
First Author: Torsten Sachs and Mathias Zöllner (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

C51B-1264 Analysis on the responses of the Asian water tower to climate warming and the consequent cryospheric changes
First Author: Taihua Wang (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

C51B-1277 Role of Permafrost and Seasonally Frozen Ground in Groundwater System of Northern Himalayan Mountains
First Author: Yingying Yao (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC51E-1115 Environmental Drivers of Arctic Methane Emissions Hot Spots Determined from Remote Sensing Datasets
First Author: Latha Baskaran (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC51P-1006 Permafrost ALT Estimation along the Qinghai-Tibet Railway through InSAR and Modeling
First Author: Ping Lu (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
GC51P-1026 Monitoring permafrost changes in the Yangtze River source region of the Qinghai-Tibetan Plateau using differential SAR interferometry
First Author: Lingxiao Wang (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

H51S-1751 Comparing L-band Radiometry and in Situ Permittivity at 50 MHz of Agricultural Soils During a Freeze/Thaw Validation Campaign
First Author: Renato Pardo (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC51L-1071 Plant Functional Traits Vary with Soil Temperature on Periglacial Patterned Ground of the Rocky Mountains in Montana
First Author: Martha E Apple (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC51P-1018 Response of sediment flux in headwater of the Yangtze River to climate and environment changes
First Author: Fan Zhang (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall

GC51P-1061 Three-in-one: measuring snow depth, surface soil moisture, and frozen ground elevation changes by GPS Interferometric Reflectometry at a site in Northwestern Qinghai-Tibet Plateau
First Author: Jiahua Zhang (Poster Presentation)
08:00 - 12:20, Moscone South - Poster Hall
PA51D-0900 Convergence NNA: Coordinate a Transdisciplinary Research Network to Identify Challenges of and Solutions to Permafrost Coastal Erosion and Its Socioecological Impacts in the Arctic

First Author: Ming Xiao (Oral Presentation)
08:00 – 12:20, Moscone South – Poster Hall

Afternoon Oral Presentations

NH53A-02 The interaction between permafrost, frost cracking and paraglacial processes and their link to rockfalls

First Author: Daniel Draebing (Oral Presentation)
13:55 - 14:10, Moscone West - 2016, L2

V53C-02 The dynamics of magma fragmentation and pyroclast dispersal during a recent explosive volcanic eruption in Elysium Planitia, Mars

First Author: Pranabendu Moitra (Oral Presentation)
13:55 - 14:10, Moscone South - 152, Upper Mezz.

OS53A-05 Predicting submarine slope instability along Arctic continental margins

First Author: Jeffrey Obelcz (Oral Presentation)
14:40 - 14:55, Moscone West - 2002, L2

H53E-06 Potential applications of SMAP brightness temperature to improve permafrost monitoring in Arctic tundra area

First Author: Yonghong Yi (Oral Presentation)
P54B-07 Putative Pingos may Populate Portions of Occator Crater, Ceres
First Author: Kynan Hughson (Oral Presentation)

17:21 - 17:33, Moscone South - 211-212, L2

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**Afternoon Poster Presentations**

B53G-2476 Quantifying the Effects of Warming and Ecosystem Change on Arctic Soil Microbial Communities
First Author: Jeffrey Ryan Propster (Poster Presentation)

13:40 - 18:00, Moscone South - Poster Hall

EP53F-2199 The Pleistocene-Holocene Transition in Eastern Glacier National Park as Evidenced by Lake Sediment Lithostratigraphy
First Author: Noah Slade (Poster Presentation)

13:40 - 18:00, Moscone South - Poster Hall

EP53F-2206 Land use versus climate controls on erosion at a farmed headwater catchment in central Pennsylvania
First Author: Perri Silverhart (Poster Presentation)

13:40 - 18:00, Moscone South - Poster Hall

GC53G-1249 Identifying rock glacier in western China using deep learning and satellite data
First Author: Min Feng (Poster Presentation)

13:40 - 18:00, Moscone South - Poster Hall
H53J-1897 Tracing to Sources of River Water by Using Environmental Isotopes and Hydrogeochemical Methods in a Cold Alpine Catchment with Seasonally Frozen Ground
  
  First Author: Zhao Pan (Poster Presentation)
  13:40 - 18:00, Moscone South - Poster Hall

H53M-1966 Does Spatially Variable Melting Seasonal Ground Ice Lead to Spatially Variable Potential Evapotranspiration? Implications for a Boreal Peatland
  
  First Author: Brandon Van Huizen and Richard M Petrone (Poster Presentation)
  13:40 - 18:00, Moscone South - Poster Hall
References
