Thank you to our sponsors.
Thank you to our sponsors.
### Ninth International Conference on Permafrost

#### Local Organizing Committee

- **General Conference Chair**: Douglas Kane
- **Program Committee Chair**: Larry Hinzman
- **Publications**: Douglas Kane, Kenneth Hinkel, Thomas Alton, Fran Pedersen, Sandra Boatwright
- **Conference Facilitator**: Elizabeth Lilly
- **Technical Program**: Larry Hinzman
- **Short Courses**: Larry Hinzman, Michael Lilly, Yuri Shur
- **Exhibits - Trade Show**: Michael Lilly
- **Public Affairs**: Marmian Grimes, Jenn Wagaman, Cherie Solie
- **Fundraising**: Dave Norton, Jerry Brown, Larry Hinzman, Michael Lilly, James Rooney, Douglas Kane
- **Finance**: Michael Lilly
- **Website**: Gary Whitton
- **Special Events/Social**: Elizabeth Lilly, Deborah Bennett, Melanie Jackson, Chris Lace
- **Young Researchers**: Guido Grosse, Katey Walter, Andrew Balsal, Oliver Frauenfeld
- **ICOP-IPA-IPY Celebration**: Jerry Brown, Jess Walker, John Zarling
- **Field Trip Guides**: DeAnne Stevens
- **Russian Liaison**: Vladimir Romanovsky
- **Audio/Visual**: Tohru Saito, Matt Barkdull

#### U.S. Permafrost Association Board of Directors

- Kenneth Hinkel, President
- Yuri Shur, President-Elect
- Oliver Frauenfeld, Secretary
- Michael Lilly, Treasurer
- Anna Klene, Member
- Jennifer Harden, Member
- Larry Hinzman, IPA Representative
- Jon Zufelt, Past President

#### NICOP Program Committee

- Larry Hinzman, Chair
- Jerry Brown
- Douglas Goering
- Jennifer Harden
- Kenneth Hinkel
- Douglas Kane
- Frederick Nelson
- Vladimir Romanovsky
- Katey Walter
- Jon Zufelt

#### Local Field Trip Organizers

- Beth Astley
- James Begét
- Deb Bennett
- Nancy Bigelow
- Laura Brousieus
- Patty Burns
- Ed Clarke
- Billy Connor
- Charles Collins
- Tom Douglas
- Art Gelvin
- Douglas Goering
- Jack Hébert
- Atsushi Ikeda
- Melanie Jackson
- Danielle Jamieson
- Elden Johnson
- Jerry Johnson
- Torre Jorgenson
- Elizabeth Lilly
- Michael Lilly
- O.D. Odsather
- Major Rachow
- Vladimir Romanovsky
- Sarah Seleen
- Yuri Seleen
- Diana Solie
- Matthew Sturm
- Dragos Vas
- Katey Walter
- Kenji Yoshikawa
- Jon Zufelt

#### Extended Field Trip Organizers

- Jim Begét
- Phil Brease
- Jerry Brown
- Chris Burn
- Nel Caine
- Ed Clarke
- Rob Gieck
- Tom Brease
- Kenneth Hinkel
- Elen Johnson
- Torre Jorgenson
- Tom Krzewinski
- Antoni Lewkowicz
- Gary Michaelson
- Koren Nidick
- O.D. Odsather
- Chien-Lu Ping
- Caryn Rae
- Lee Schoen
- DeAnne Stevens
- Bill Streever
- Donald “Skip” Walker
- H. Jesse Walker
- John Zarling
Short Courses and Workshops

Patty Burns
Daniel Fortier
Mikhail Kanevskiy
Michael Lilly
Jim Loftus
Paul Perreault
Tohru Saito
Yuri Shur
John Zarling

Additional people who have assisted in NICOP Organization

Michelle Bartlett
Bill Beck
Danielle Jamieson
Jennifer Moss
Deana Piedra
Judie Triplehorn
Wendy Warnick
Dan White
Helga Wilm

Others Who Have Helped Make NICOP Successful

Linda Bahr
Stephanie Defreeze
Darrin “Bear” Edson
Stefan Gammel
Catherine Grieve
Dave Hill
Kristie Holland
Kathryn Johnson
Jennifer Jolis
Karl Kowalski
Heather Kraemer
Jessica Leider
Jeri Maxwell
Steve McClung
Iwalani Namauu

U.S. National Committee

Jerry Brown, Chair
Roger Barry
Julie Brigham-Grette
Jody Deming
Craig Dorman
Kenneth Hinkel
Larry Hinzman
Douglas Kane
Heather Kraemer
Vladimir Romanovsky
Bill Streever
Rupert “Bucky” Tart

International Organizing Committee

Antoni Lewkowicz, Chair
David Gilichinsky
Huijun Jin
Truls Mølmann
Marcia Phillips

International Permafrost Association

The Ninth International Conference on Permafrost is formally endorsed under the auspices of the International Permafrost Association. A primary aim of the association is to provide on-going organization and coordination of the International Permafrost Conferences. The IPA has members from a 26-member council, and an Executive Committee:

President:    Dr. Jerry Brown    USA
Vice-President:   Prof. Charles Harris   UK
Vice-President:  Dr. Georgy Perlishstein  Russia
Member:    Dr. Hans Hubberten    Germany
Member:    Mr. Don Hayley    Canada
Member:    Dr. Ma Wei    China
Secretariat:   Dr. Hanne Christiansen  Norway

During the conference in Fairbanks, the new leadership of IPA will be selected by the IPA Council.

Sponsors

Universities
University of Alaska International Polar Year (Gold plus)
University of Alaska President’s Fund (Gold)
Alaska University Transportation Center (Gold)
University of Alaska Fairbanks Institute of Northern Engineering (Silver)
University of Alaska Fairbanks International Arctic Research Center (Silver)
University of Alaska Fairbanks Experimental Program to Stimulate Competitive Research (EPSCoR) (Bronze)
University of Alaska Young Researchers’ Network/UA IPY Outreach (Contributor plus)
University of Colorado-National Snow and Ice Data Center (Contributor)
<table>
<thead>
<tr>
<th>Government Agencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Division of Geological and Geophysical Surveys, Fairbanks (Gold)</td>
<td></td>
</tr>
<tr>
<td>U.S. National Science Foundation (Silver)</td>
<td></td>
</tr>
<tr>
<td>U.S. Geological Survey (Silver)</td>
<td></td>
</tr>
<tr>
<td>U.S. Army Cold Regions Research and Engineering Laboratory (Bronze)</td>
<td></td>
</tr>
<tr>
<td>U.S. Department of Energy (Bronze)</td>
<td></td>
</tr>
<tr>
<td>North Slope Science Initiative (Brass plus)</td>
<td></td>
</tr>
<tr>
<td>U.S. Arctic Research Commission (Brass)</td>
<td></td>
</tr>
<tr>
<td>U.S. Bureau of Land Management (Brass)</td>
<td></td>
</tr>
<tr>
<td>Denali Commission (Bronze)</td>
<td></td>
</tr>
<tr>
<td>U.S. Fish and Wildlife Service (Contributor plus)</td>
<td></td>
</tr>
<tr>
<td>U.S. Minerals Management Service (Contributor plus)</td>
<td></td>
</tr>
<tr>
<td>Norwegian Thermal State of Permafrost IPY Project (Sustaining)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Corporate and Non-Governmental Organizations</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arctic Foundations, Inc., Anchorage (Gold)</td>
<td></td>
</tr>
<tr>
<td>Alyeska Pipeline Company, Anchorage (Silver)</td>
<td></td>
</tr>
<tr>
<td>Arctic Slope Regional Corp. (Bronze plus)</td>
<td></td>
</tr>
<tr>
<td>International Permafrost Association (Bronze plus)</td>
<td></td>
</tr>
<tr>
<td>BP Foundation (Bronze)</td>
<td></td>
</tr>
<tr>
<td>Duane Miller &amp; Associates, Anchorage (Bronze)</td>
<td></td>
</tr>
<tr>
<td>Geo-Watersheds Scientific, Fairbanks (Bronze)</td>
<td></td>
</tr>
<tr>
<td>CH2MHILL Energy &amp; Power, Anchorage (Brass)</td>
<td></td>
</tr>
<tr>
<td>EBA Engineering Consultants Ltd., Canada (Brass)</td>
<td></td>
</tr>
<tr>
<td>Golder Associates, Anchorage (Brass)</td>
<td></td>
</tr>
<tr>
<td>Michael Baker Jr., Inc., Anchorage (Brass)</td>
<td></td>
</tr>
<tr>
<td>Shannon &amp; Wilson, Inc. Seattle (Brass)</td>
<td></td>
</tr>
<tr>
<td>PND Engineers, Inc, Anchorage (Contributor plus)</td>
<td></td>
</tr>
<tr>
<td>RA Kreig &amp; Associates, Anchorage (Contributor plus)</td>
<td></td>
</tr>
<tr>
<td>BeadedStream, LLC, Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>DOWL LLC, Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Hawk Consultants, LLC, Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Houston Advanced Research Center (HARC) (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Kinross Fort Knox Mine, Fairbanks (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Northern Engineering &amp; Scientific, Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Northern Geotechnical Engineering, Inc., Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>R&amp;M Consultants, Inc., Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Tryck Nyman Hayes, Inc., Anchorage (Contributor)</td>
<td></td>
</tr>
<tr>
<td>Harley H. Hightower, FAIA, Anchorage (Sustaining)</td>
<td></td>
</tr>
<tr>
<td>Resource Data, Inc., Anchorage (Sustaining)</td>
<td></td>
</tr>
<tr>
<td>URS Corporation, Anchorage (Sustaining)</td>
<td></td>
</tr>
<tr>
<td>Usibelli Foundation, Healy (Sustaining)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICOP Donor Circle (Contributor)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerry and Celia Brown</td>
<td>J. Ross Mackay (Honorary Member)</td>
</tr>
<tr>
<td>Edwin Clarke</td>
<td>Michael C. Metz</td>
</tr>
<tr>
<td>Hugh M. French</td>
<td>Frederick E. Nelson</td>
</tr>
<tr>
<td>Don W. Hayley</td>
<td>Jim and Florence Rooney</td>
</tr>
<tr>
<td>C.W. “Bill” Lovell</td>
<td>Ronald S. Sletten</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individuals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Joe Malen</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In-Kind Sponsors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Division of Geological &amp; Geophysical Surveys</td>
<td>Permafrost Young Researchers Network</td>
</tr>
<tr>
<td>ABR, Inc., Fairbanks</td>
<td>Pogo Mine</td>
</tr>
<tr>
<td>American Water Resources Association</td>
<td>Rite in the Rain</td>
</tr>
<tr>
<td>Arctic Region Supercomputer Center</td>
<td>UAF Institute of Northern Engineering</td>
</tr>
<tr>
<td>Barrow Arctic Science Consortium</td>
<td>UAF Toolik Lake Field Research Station</td>
</tr>
<tr>
<td>BP Exploration (Alaska), Inc.</td>
<td>UAF International Arctic Research Center</td>
</tr>
<tr>
<td>Cold Climate Housing Research Center</td>
<td>University of Alaska IPY Office</td>
</tr>
<tr>
<td>Elsevier</td>
<td>University of Cincinnati</td>
</tr>
<tr>
<td>Fairbanks Convention and Visitors Bureau</td>
<td>University of Colorado at Boulder</td>
</tr>
<tr>
<td>Geo-Watersheds Scientific, Fairbanks</td>
<td>U.S. Army CRREL</td>
</tr>
<tr>
<td>Institute of Arctic and Alpine Research</td>
<td>U.S. Geological Survey</td>
</tr>
<tr>
<td>Kinross Fort Knox Mine, Fairbanks</td>
<td>U.S. National Park Service</td>
</tr>
<tr>
<td>Mountain Studies Institute, Colorado</td>
<td></td>
</tr>
</tbody>
</table>
# Program Table of Contents

<table>
<thead>
<tr>
<th>Welcome</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Events</td>
<td>2</td>
</tr>
<tr>
<td>Short Courses &amp; Workshops</td>
<td>2</td>
</tr>
<tr>
<td>IPY Forum</td>
<td>2</td>
</tr>
<tr>
<td>Public Lecture</td>
<td>2</td>
</tr>
<tr>
<td>Permafrost Young Researchers Network (PYRN) Events</td>
<td>2</td>
</tr>
<tr>
<td>Professional Meetings</td>
<td>2</td>
</tr>
<tr>
<td>Field Excursions</td>
<td>3</td>
</tr>
<tr>
<td>CRREL Permafrost Tunnel Tours</td>
<td>3</td>
</tr>
<tr>
<td>Extended Field Excursions</td>
<td>3</td>
</tr>
<tr>
<td>Local Field Trips</td>
<td>3</td>
</tr>
<tr>
<td>Opening &amp; Closing Ceremonies</td>
<td>6</td>
</tr>
<tr>
<td>Plenary Sessions</td>
<td>7</td>
</tr>
<tr>
<td>Technical Program</td>
<td>8</td>
</tr>
<tr>
<td>Oral Presentations</td>
<td>9</td>
</tr>
<tr>
<td>Sunday (June 29)</td>
<td>9</td>
</tr>
<tr>
<td>Monday (June 30)</td>
<td>10</td>
</tr>
<tr>
<td>Tuesday (July 1)</td>
<td>13</td>
</tr>
<tr>
<td>Wednesday (July 2)</td>
<td>18</td>
</tr>
<tr>
<td>Thursday (July 3)</td>
<td>19</td>
</tr>
<tr>
<td>Poster Sessions</td>
<td>22</td>
</tr>
<tr>
<td>Monday (June 30)</td>
<td>22</td>
</tr>
<tr>
<td>Tuesday (July 1)</td>
<td>27</td>
</tr>
<tr>
<td>Thursday (July 3)</td>
<td>32</td>
</tr>
<tr>
<td>Registration Information</td>
<td>36</td>
</tr>
<tr>
<td>Social Events</td>
<td>36</td>
</tr>
<tr>
<td>Accompanying Persons Program</td>
<td>36</td>
</tr>
<tr>
<td>General Conference Information</td>
<td>38</td>
</tr>
<tr>
<td>UAF Information Technology Essentials</td>
<td>41</td>
</tr>
<tr>
<td>Around Fairbanks</td>
<td>42</td>
</tr>
<tr>
<td>Local Shopping and Restaurants</td>
<td>42</td>
</tr>
<tr>
<td>Things to Do</td>
<td>44</td>
</tr>
</tbody>
</table>
Welcome

On behalf of the United States, the University of Alaska is honored to host the 2008 International Conference on Permafrost (ICOP) under the auspices of the U. S. Permafrost Association (USPA) and International Permafrost Association (IPA). This Ninth International Conference on Permafrost (NICOP) marks the 25th anniversary of the formation of the IPA and the Fourth ICOP (1983), both having taken place at the University of Alaska Fairbanks. The fourth International Polar Year (IPY) will be celebrated in 2008, as will the 50th anniversary of the International Geophysical Year (IGY), and the 125th anniversary of the first International Polar Year (IPY). Both the International Union of Geological Sciences and the International Geographical Union, IPA parent organizations, will hold their international congresses in August 2008. The International Year of Planet Earth will also be celebrated in 2008. Taken together, summer 2008 represents a special time to celebrate our national and international permafrost heritage. Special efforts have been made to involve young researchers, educators and students of all ages, and native communities from all countries with an interest in permafrost science and engineering. A U.S. National Committee has been established under the USPA to assist the University of Alaska's Local Organizing Committee (LOC) as a co-sponsor and co-organizer of the conference.

The previous eight conferences have been held in West Lafayette, IN, USA (1963), Yakutsk, USSR (1973), Edmonton, Canada (1978), Fairbanks, AK, USA (1983), Trondheim, Norway (1988), Beijing, China (1993), Yellowknife, Canada (1998), and Zurich, Switzerland (2003).

Polar regions are becoming more important to everyone around the world as it becomes clearer the role that these regions play in the global climate scenario. It is necessary to give scientists and engineers an opportunity to meet regularly in order to report on progress and stimulate further work. These International Conferences on Permafrost are organized to serve this purpose.

It is a pleasure to welcome you to the conference. We are pleased to have this opportunity to invite scientists and engineers from all over the world to Fairbanks, Alaska. The Organizing Committee will try to make the conference and your stay in our country as pleasant as possible.

Larry D. Hinzman, Chair, Program Committee
Douglas L. Kane, General Conference Chair
Special Events

Short Courses & Workshops

Introduction to Permafrost and Frozen Ground Engineering: For one credit, taught by Yuri Shur. June 23–June 27, 2008. Offered through University of Alaska Fairbanks Summer Sessions as either a graduate- or undergraduate-level course.

Understanding the Role of Permafrost in a Rapidly Warming Climate: For one credit, for K–12 teachers, offered through University of Alaska Summer Sessions and taught by Larry Hinzman, Kenji Yoshikawa, Patty Burns, and DeAnne Stevens. This course will familiarize teachers with the impact of a warming climate on the Alaskan society, ecology and hydrology through degradation of permafrost.


CALM Workshop: June 25–June 27, in Duckering, Room 341. Participants representing the 165 bipolar active layer measurement sites will review data requirements and archiving procedures, new field techniques, the next 5-year program, publication plans, coordination with other programs, and visit a local CALM site.

Linc Washburn Memorial Workshop: “A Quaternary Research Center Workshop in Honor of Lincoln Washburn on New Insights into Periglacial Processes, Landforms & Environments.” Co-organizers: Bernard Hallet and Ron Sletten. July 4 (0800-1700) Duckering Building, Room 531. You are invited to attend a special workshop in honor of Linc’s remarkable achievements in polar research. This one-day workshop will present recent work from a diverse group of researchers.

Forums & Professional Meetings

IPY Forum: Sunday, June 29, 2008, in Wood Center Ballroom 1710 to 1815. Chair: Professor Dan White, Director, Institute of Northern Engineering. Topics include a Welcome from IPY Office (Dr. Cynan Ellis-Evans); IPY-IPA Program Overview (Jerry Brown); Discussion of IPY-IPA Data Requirements and the Role of Young Researchers:(Sharon Smith); ANTPAS (33): Antarctic and sub-Antarctic Permafrost, Periglacial and Soil Environments (James Bockheim and Mauro Guglielmin); TSP (50): Thermal State of Permafrost (Vladimir Romanovsky and Hanne H. Christiansen); ACCO-Net (90): Arctic Coastal Observatory Network (Paul Overduin and Nicole Couture); CAPP (363): Carbon Pools in Permafrost Regions (Peter Kuhry and Eva-Marie Pfeiffer); University of Alaska post docs (permafrost-related); International University Courses on Permafrost (Hanne Christiansen); and Open Discussion.


Wiley-Blackwell Permafrost and Periglacial Processes Public Lecture: A View from Afar: Mountain Permafrost Hazards and Remote Sensing, by Andreas Kääb, University of Oslo. Monday, June 30, 2008, in Davis Concert Hall (1645–1745). Permafrost threats commonly occur in remote regions, which are difficult or dangerous to access. The large size of areas of interest, potential chain reactions, and the far reach of some of the threats (such as floods), require observation techniques capable of covering large areas simultaneously without requiring direct ground access. Remote sensing, therefore, is an increasingly important element of hazard monitoring and management strategies. The techniques used range from optical and microwave imaging to laser and radar ranging, from ground-based, airborne or spaceborne platforms. In this presentation, we give an overview of permafrost threats in mountains, illustrated by a number of case studies. In the second part of the lecture, we explore the contribution and role of remote sensing in the management of such hazards.

Permafrost Young Researchers Network (PYRN): Three Events:

Mentor’s Panel: July 1 Salisbury Theater (1630-1730)

The purpose of this panel is to generate conversation among those who know the field best: experienced researchers; and those who could benefit most from their experience and perspectives: young researchers and students. Moderators for the panel discussion are Andrew Balsar and Daniel Fortier.

Evening Social Gathering Wood Center Pub, July 1 (1800-2200)

Meeting of National Representatives, July 3, after closing ceremony
Duckering Theater Shows Daily. Organized by Billy Connor. Room 341 Duckering. Each film will begin with a brief slide show from previous Permafrost Conferences. Films are a general audience exploration of the challenges of highway construction in permafrost regions.

**Monday 1315-1445:** The Permafrost Frontier, Haul Road: Highway to the Future, Rendezvous Road: The ALCAN

**Tuesday 1315-1445:** Building the Alaska Highway

**Thursday 1315-1445** Modern Marvels: The ALCAN Highway


- **Session I** – Ice Rich Permafrost
  - Monday, June 30, 2008 (1215-1330) Gruening 208
- **Session II** – Climate Change
  - Wednesday, July 2, 2008 (1100-1215) Gruening 208

IPA Council Meetings:
- June 28, 2008 (0930-1700) IARC 501
- July 3, 2008 (1200-1400) IARC 501

IPA Working Group Meetings:
- June 29, 2008 (0800-1030) Duckering 252

Antarctic and sub-Antarctic Permafrost, Periglacial and Soil Environments (ANTPAS) Working Group:
- July 2, 2008, 7:30 to 8:30 AM

Canadian National Committee
- July 3, Duckering 531 (following Closing Ceremony)

Extended Field Excursions

There are six extended field excursions in Alaska and one in Colorado, and one day trip.

**Trip A4:** Dalton Highway from Fairbanks to Prudhoe Bay *(cost: $1200)* June 23–27. Begins in Fairbanks and travels north along the Dalton Highway with overnight stops in Coldfoot, Toolik, and Prudhoe Bay. Highlights include the Trans-Alaska Pipeline, Toolik Lake research sites, permafrost distribution, Quaternary and periglacial geology, frost-affected soils, and Prudhoe Bay industrial developments. Leader: Skip Walker.

**Trip A-5:** Engineering Solutions on the Trans-Alaska Pipeline: Fairbanks to Prudhoe Bay *(cost: $600)* June 27–28. This trip begins with a flight to Prudhoe Bay and returns by motor coach along the Dalton Highway, with an overnight in Coldfoot. This trip will focus on engineering problems and solutions related to construction of the Trans-Alaska Pipeline. Leader: Ed Clarke.

**Trip A-6:** Pogo Mine Tour *(cost: $160)* June 27. This is a one-day trip by van from Fairbanks to the Pogo mine, about 130 km south of Fairbanks. Leader: John Zarling.

**Trip B-2:** Arctic Coastal Plain from Prudhoe Bay to Barrow *(cost: $2250)* July 4–9. On- and offshore oil and gas developments and construction, coastal permafrost, thaw lakes and thermokarst development, and a visit to the native community of Barrow and the research community. Leader: Torre Jorgenson.

**Trip B-3:** Northwest Alaska (Beringia) including Nome and Seward Peninsula *(cost: $1300)* July 4–8. View Quaternary geology, thermokarst and periglacial features, placer mining, and mineral and hot springs. Leader: Jim Begét.

**Trip B-4:** Central Alaska from Fairbanks to Denali National Park *(cost: $425)* July 4–6. View Quaternary geology, rock glaciers, geomorphic evidence of paleoseismic and cryogenic structures and periglacial environments. Leader: Phil Brease.

**Trip B-6:** Front Range and San Juan Mountains (Colorado) *(cost: $900)* July 4–10. Visits to the Rocky Mountain National Park, Niwot Ridge research site, including rock glaciers, and to the Mountain Studies Institute, Silverton, to observe avalanche and other mountain hazard research. Leader: Nel Caine.

Local Field Trips

**CRREL Permafrost Tunnel Tours:** Daily bus service is available at the following times for guided tours of the permafrost tunnel:
- Monday 1015 and 1300
- Tuesday 1015 and 1300
- Wednesday 1015
- Thursday 1015

Tours last approximately 2 hours, including travel time.
FT1: **Engineering Field Trip:** Trip Leaders: Douglas Goering, Jack Hébert, Ed Clarke, Michael Lilly, and Elden Johnson.

This route will start by visiting the newly constructed **Thompson Drive.** It combines the new UAF campus access point from the south and the new railroad overpass needed by the Alaska Department of Transportation and Public Facilities to prepare for a new University Avenue railroad overpass. Thompson Drive includes some traditional and innovative permafrost construction techniques.

The second stop is the **Cold Climate Housing Research Center** (CCHRC). The Cold Climate Housing Research Center was created to facilitate the development, use, and testing of energy-efficient, curable, healthy, and cost-effective building technologies for Alaska and the world’s cold climate regions.

From CCHRC the bus will travel to Farmers Loop Road, passing the **Ballaine Road Subdivision,** developed in the 1960’s; settlement problems and mitigation techniques will be discussed. Then on to **Sunnyside Drive** to look at an uncontrolled artesian well in permafrost. From there the bus will pass CCREL’s Fairbanks Permafrost Experiment Station, a 135 acre, site established by the U.S. Army in 1945 to conduct geotechnical engineering and geophysical investigations on permafrost. The ice-rich permafrost soil of the site and its location in a discontinuous permafrost zone make it an ideal 'worse-case-scenario' for testing construction techniques, road and airfield designs, piling and other foundations. Projects have included the long-term influence of vegetation removal on permafrost stability, experimental road surfaces, insulation of roads, experimental foundations, the measurement of frost heave forces on piles, thawing of permafrost by passive solar means, the detection of permafrost by geophysical techniques and bioremediation. The last stop is the **Trans-Alaska Pipeline.**

The Trans-Alaska Pipeline runs north to south, almost 800 miles (1,300 km), from the Arctic Ocean at Prudhoe Bay, Alaska, to the Gulf of Alaska at Valdez, Alaska, where the oil can be shipped to the lower 48 states for refining. Construction of the pipeline presented significant challenges, passing through three mountain ranges, active fault lines, miles of unstable, boggy ground underlain with frost, and migration paths of caribou and moose.

FT2: **Caribou Poker Creeks Research Watershed:** Trip Leader: Kenji Yoshikawa

The **Caribou Poker Creeks Research Watershed** (CPCRW) is unique among such research areas in the United States in that it is the only one in the zone of discontinuous permafrost, which comprises a large portion of the state of Alaska, including most of Interior Alaska. It is fairly representative of upland headwater stream basins in subarctic Alaska. The hydrology of CPCRW is a major driver of the aquatic ecology and biogeochemistry of the basin, while events in the terrestrial portions of the watersheds set the stage. Hydro-biological research in CPCRW has several major thrusts: to assess the role of disturbance in the terrestrial landscape (e.g., wildfire, herbivory, logging) on subarctic stream ecosystems, to assess the influence of discontinuous permafrost on freshwater ecology, and to assess the validity of the River Continuum concept in a subarctic context.

Permafrost is discontinuously distributed within CPCRW, determined by low sun angle at high latitude, local topography, and successional status. The permafrost mosaic of the surrounding taiga forest uplands exerts a powerful influence over hydrological patterns within the watershed. Stream flow is a mixture of highly variable shallow subsurface storm runoff events from permafrost-dominated areas and consistent groundwater base flows from permafrost-free areas. In addition to physical effects on stream ecology, these two distinct flow regimes have divergent influences on stream biogeochemistry with important ramifications for food webs. Permafrost here may be sensitive to global climate change because of its position close to the southern limit of permafrost in Alaska. In CPCRW, there are first-order streams with a range of 4% to 55% of their catchments underlain by permafrost, allowing tests of a number of hypotheses of permafrost effects on stream ecosystems, including patterns of concentrations and export of carbon, nutrients, and sediment.

FT3: **Periglacial Field Trip #1:** Trip Leaders: Jim Begét, Torre Jorgenson, DeAnne Stevens, and Atsushi Ikeda

This field trip starts at the UAF campus and drives to a site called **Goldhill,** on the Parks Highway. The site is part of a reserve, which includes 25 acres of permafrost that holds a geologic record dating back 3 million years. From there the bus will travel through the Goldstream Valley, stopping at **Murphy Dome Road, Goldstream Pond,** and **O’Brien Creek Pingo** to look at periglacial features.

Interior Alaska's permafrost has warmed in some places to the highest level since the ice age ended 10,000 years ago, its temperature now within a degree or two of thawing. Earth frozen since woolly mammoths and bison wandered Interior steppes has been turning to mush. Lakes have been shrinking. Trees are stressed. Prehistoric ice has melted underground, leaving voids that collapse into sinkholes.
Largely concentrated where people have disturbed the surface, such damage can be expensive, even heartbreaking. It is happening now in Fairbanks: Toppled spruce, roller-coaster bike trails, rippled pavement, homes and buildings that sag into ruin. The meltdown is spreading in wild areas: sinkholes, dying trees, eroding lakes.

**FT4: Periglacial Field Trip #2**

Trip Leaders: Vladimir Romanovsky, Dragos Vas, Ed Clarke, Katey Walters, Patty Burns (listed in order of stop descriptions)

The bus will start at campus and travel College Road to **College Peat** to observe periglacial features and take a short walk along the boardwalk to a “drunken forest” at **Creamers Field**. The bus will then pass the **Ballaine Subdivision** and stop at **Sheep Creek Pond**, a thermokarst pond which emits methane, before returning to the University via the University GeoData Center at the International Arctic Research Center (IARC).

The GeoData Center provides data management and archive services for the Geophysical Institute and maintains a variety of geophysical data collections in support of scientific research.

**FT5: Quaternary History #1:** Trip leader: Jim Begèt

The bus will drive out the Parks Highway to **The Troy L. Péwé Climatic Change Permafrost Reserve**. Located near Fairbanks at a site called Gold Hill, the reserve includes 25 acres of permafrost, which holds a geologic record dating back 3 million years.

An Arizona State University professor emeritus of geology, Péwé passed away on October 21, 1999. He was one of the world’s leading experts on permafrost. The University of Alaska recognized Péwé’s years of work in September 1999. The Troy L. Péwé Climatic Change Permafrost Reserve is the frozen legacy of his scientific effort and contributions.

Mining companies removed more than $4.4 million worth of gold from gravel at the site in the mid 1950s. Their operations chewed through the frozen layers of windblown “loess” dust and the ash layers deposited by prehistoric volcanic eruptions. The miners created 200-foot-high silt cliffs.

**FT6: Quaternary History Field Trip #2:** Trip Leaders: Patty Burns, Jim Begét, Tom Douglas, and Elden Johnson (listed in order of stop descriptions)

This trip will start at the UAF campus and visit the GeoData Center in the International Arctic Research Center. The GeoData Center provides data management and archive services for the Geophysical Institute and maintains a variety of geophysical data collections in support of scientific research. From there they will travel to the Goldhill site along the Parks Highway. The site is part of the Troy L. Péwé Climatic Change Permafrost Reserve, which includes 25 acres of permafrost that holds a geologic record dating back 3 million years. After Goldhill, the bus will travel out to the Steese Highway to observe the Permafrost Tunnel and Trans-Alaska Pipeline.

The Permafrost Tunnel is situated near the valley floor of Goldstream Creek, 16 km north of Fairbanks, Alaska. Permafrost distribution in Fairbanks is not continuous, but excellent reconnaissance allowed tunnel excavation entirely within frozen ground on the north slope of Hill 456 near Fox, Alaska. Excavation took place throughout the winters of 1963–65 by CRREL engineers and scientists. Initial research focused on developing new mining and tunneling methods for building underground facilities and foundations in permafrost. Special emphasis was given to tunnel behavior in permafrost, including deformation, natural air flow, feasible types of ventilation, and thermal regime.

The 800-mile-long Trans Alaska Pipeline System (TAPS) is one of the largest pipeline systems in the world. It stretches from Prudhoe Bay on Alaska’s North Slope, through rugged and beautiful terrain, to Valdez, the northernmost ice-free port in North America. Since pipeline startup in 1977, Alyeska Pipeline Service Company, the operator of TAPS, has successfully transported over 15 billion barrels of oil.

**FT7: Permafrost Driving Tour:** Trip Leaders: Ed Clarke, Michael Lilly, Elden Johnson, and Patty Burns (listed in order of stop descriptions)

The bus will leave the UAF campus and drive along Farmers Loop Road, passing the Ballaine Subdivision and stopping at the Sunnyside Drive site, where you will observe damage due to an uncontrolled artesian well in permafrost. The bus will continue along Farmers Loop Road to the Trans-Alaska Pipeline. The 800-mile-long Trans Alaska Pipeline System (TAPS) is one of the largest pipeline systems in the world. It stretches from Prudhoe Bay on Alaska’s North Slope, through rugged and beautiful terrain, to Valdez, the northernmost ice-free port in North America. Since pipeline startup in 1977, Alyeska Pipeline Service Company, the operator of TAPS, has successfully transported over 15 billion barrels of oil. Finally, the bus will return to the University of Alaska campus to see the GeoData Center at the International Arctic Research Center (IARC). The GeoData Center provides data management and archive services for the Geophysical Institute and maintains a variety of geophysical data collections in support of scientific research.
Opening Ceremony
Sunday, June 29, 2008  1100–1230
Davis Concert Hall

Welcome
Jerry Brown, President, *International Permafrost Association*
Douglas Kane, General Conference Chair, *Local NICOP Planning Committee*

Master of Ceremonies
Larry Hinzman, Chair, *Local NICOP Program Committee*

Remarks
Mark Hamilton, President, *University of Alaska*
Brian Rogers, Interim Chancellor, *University of Alaska Fairbanks*
Mayor Jim Whitaker, *Fairbanks North Star Borough*
Mead Treadwell, Chair, *U.S. Arctic Research Commission*
U.S. Senator Lisa Murkowski, (video message)

Keynote Address
Larry Hartig, Commissioner, *State of Alaska, Department of Environmental Conservation*

Closing Remarks
Larry Hinzman, Chair, *Local NICOP Program Committee*
Hugues Lantuit, Coordinator, *Permafrost Young Researchers’ Network*

Closing Ceremony
Thursday, July 3, 2008  1500–1615
Davis Hall

Background
Music and conference photographs on screen

Introductions
Larry Hinzman

Reading of necrology
H. Jesse Walker and Antoni Lewkowicz

Summary of conference achievements
Douglas Kane

Announcement of new officers of IPA
Jerry Brown

Invitations for future conferences
Russia TICOP (2012) – Dmitry Drodzov
EUROP III (2010) – Hanne H. Christiansen
Canadian Conference – Brian Moorman

Awards ceremony
Jennifer Harden
IPA Péwé and Melnikov Awards Hans – W. Hubberten
PYRN-IPA Poster Awards – Ken Hinkel

Plans for next phase of IPY-IPA activities
Hanne H. Christiansen

Conference resolutions
Antoni Lewkowicz

Thanks to the support staff
Douglas Kane

Closing of Conference
New president IPA
Plenary Sessions

Five plenary sessions will be held with the following themes and speakers from 0830-1000 each morning:

**SUNDAY PLENARY: JUNE 29, 2008**  
Living in Alaska: A Permafrost-Dominated Region  
Chair: Mead Treadwell

- J.E. Walsh: Simulations of present Arctic climate and future regional projections
- T.E. Osterkamp: Thermal state of permafrost in Alaska during the fourth quarter of the twentieth century
- M.T. Jorgenson, Y.L. Shur and T.E. Osterkamp: Thermokarst in Alaska

**MONDAY PLENARY: JUNE 30, 2008**  
Thermal State and Fate of Permafrost  
Chair: Sharon Smith

- V.E. Romanovsky et al.: Thermal state and fate of permafrost in Russia: First results of IPY
- C. Harris and K. Isaksen: Recent warming of European permafrost: Evidence from borehole monitoring
- F.E. Nelson, N.I. Shiklomanov, K.M. Hinkel, and J. Brown: Circumpolar Active Layer Monitoring Investigators: Decadal results from the Circumpolar Active Layer Monitoring (CALM) program
- L. Zhao, S.S. Marchenko, N. Sharkhuu, and T. Wu: Regional changes of permafrost in Central Asia

**TUESDAY PLENARY: JULY 1, 2008**  
Engineering Challenges in the 21st Century  
Chair: Kaare Flaate

- D.W. Hayley and B. Horne: Rationalizing climate change for design of structures on permafrost: A Canadian perspective
- S. Springman and L.U. Arenson: Recent advances in permafrost geotechnics
- G. Perlshtein: Russian approaches to permafrost engineering
- C. Guodong, M. Wei, and W. Quinbai: Innovative designs for warm permafrost construction exemplified by the Qinghai-Tibet Railway

**WEDNESDAY PLENARY: JULY 2, 2008**  
Hydrology and Terrestrial Processes  
Chair: Hans-W. Hubberten

- M. Woo, D.L. Kane, S. Carey, and D. Yang: Progress in permafrost hydrology in the new millennium
- T.R. Christensen, T. Friborg, and M. Johansson: Trace gas budgets of High Arctic permafrost regions
- J. Boike, B. Hagedorn, and K. Roth: Heat and water transfer processes in permafrost-affected soils: A review of field and modeling-based studies for the Arctic and Antarctic
- G. Boulton: Impacts of freezing and permafrost development beneath glaciers

**THURSDAY PLENARY: JULY 3, 2008**  
Alpine and Polar Periglacial Processes – A tribute to A. Lincoln Washburn (1911–2007)  
Chair: Eduard Koster

- B. Hallet, R.S. Sletten, and J. Putkonen: Advances in permafrost and periglacial research in the Dry Valleys, Antarctica
- W. Haeberli and K. Isaksen: Research challenges for permafrost in steep and cold terrain: An alpine perspective
- O. Humlum: Alpine and polar periglacial processes: The current state of knowledge
- A. Lewkowicz and C. Harris: Mass movement processes on permafrost slopes
Technical Program

Paper Presentations

The conference includes some 350 papers and 180 extended abstracts from 26 countries. Papers will be presented orally in five concurrent sessions and posters will be presented in sessions over three days.

Instructions to Oral Presenters

Each speaker in the concurrent sessions will have 15 minutes allotted for their presentation. Presenters are encouraged to reserve the final three minutes for questions. Session chairs will terminate the presentation after 15 minutes to conform to the schedule and allow conference participants to move between sessions. Presenters should upload their presentation file at the "Speaker Upload Area" in the Great Hall, preferably the day before their presentation. A speaker preparation room is available in Music Department 301 (adjacent to Great Hall).

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Session</th>
<th>Session Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td>1600-1700</td>
<td>1</td>
<td>Change Detection</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Sunday</td>
<td>1600-1700</td>
<td>2</td>
<td>Permafrost &amp; Periglacial Landscapes on Mars</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Sunday</td>
<td>1600-1700</td>
<td>3</td>
<td>Initial Results from IPY</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Sunday</td>
<td>1600-1700</td>
<td>4</td>
<td>Community Development in Permafrost Regions</td>
<td>Gruening 206</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>Ground Ice</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Monday</td>
<td>1020-1200</td>
<td>6</td>
<td>Contemporary &amp; Paleoclimatic Reconstruction</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Monday</td>
<td>1020-1200</td>
<td>7</td>
<td>Geophysical Methods in Frozen Ground</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Monday</td>
<td>1020-1200</td>
<td>8</td>
<td>Permafrost Engineering</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Monday</td>
<td>1020-1200</td>
<td>9</td>
<td>Gas Hydrates</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Monday</td>
<td>1020-1200</td>
<td>10</td>
<td>Thermal State of Permafrost</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Monday</td>
<td>1500-1630</td>
<td>11</td>
<td>Contemporary &amp; Paleoclimatic Reconstruction</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Monday</td>
<td>1500-1630</td>
<td>12</td>
<td>Geophysical Methods in Frozen Ground</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Monday</td>
<td>1500-1630</td>
<td>13</td>
<td>Permafrost Engineering</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Monday</td>
<td>1500-1630</td>
<td>14</td>
<td>Subsea and Coastal Permafrost</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Monday</td>
<td>1500-1630</td>
<td>15</td>
<td>Regional Near-Surface Studies</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1020-1200</td>
<td>16</td>
<td>Surface Hydrology</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1020-1200</td>
<td>17</td>
<td>Responses to Disturbances</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1020-1200</td>
<td>18</td>
<td>Hazards in Mountains in Permafrost Regions</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1020-1200</td>
<td>19</td>
<td>Soil Mechanics</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1020-1200</td>
<td>20</td>
<td>History of Permafrost</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1500-1630</td>
<td>21</td>
<td>Surface Hydrology</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1500-1630</td>
<td>22</td>
<td>Spatial Variability in Periglacial Landscapes</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1500-1630</td>
<td>23</td>
<td>Cold-Regions Infrastructures and Transportation</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1500-1630</td>
<td>24</td>
<td>Global Interactions</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1500-1630</td>
<td>25</td>
<td>Permafrost Distribution</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1645-1745</td>
<td>26</td>
<td>Impacts of Permafrost Degradation</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1645-1745</td>
<td>27</td>
<td>Advances in Exobiology</td>
<td>Gruening 205</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1645-1745</td>
<td>28</td>
<td>Cold-Regions Infrastructures and Transportation</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1645-1745</td>
<td>29</td>
<td>Global Interactions</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Tuesday</td>
<td>1645-1745</td>
<td>30</td>
<td>Permafrost Distribution</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1020-1200</td>
<td>31</td>
<td>Subsurface Hydrology</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1020-1200</td>
<td>32</td>
<td>Rock Glaciers</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1020-1200</td>
<td>33</td>
<td>Peatlands, Permafrost and Global Carbon Balance</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1020-1200</td>
<td>34</td>
<td>Antarctic Soils and Periglacial Processes</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1020-1200</td>
<td>35</td>
<td>Subsea and Coastal Permafrost</td>
<td>Schaible Auditorium</td>
</tr>
<tr>
<td>Thursday</td>
<td>1020-1200</td>
<td>36</td>
<td>Mountain Permafrost</td>
<td>Davis Concert Hall</td>
</tr>
<tr>
<td>Thursday</td>
<td>1020-1200</td>
<td>37</td>
<td>Spatial Variability in Periglacial Landscapes</td>
<td>Salisbury Theater</td>
</tr>
<tr>
<td>Thursday</td>
<td>1020-1200</td>
<td>38</td>
<td>Pipelines</td>
<td>Wood Center</td>
</tr>
<tr>
<td>Thursday</td>
<td>1020-1200</td>
<td>39</td>
<td>Frost-Affected Soils</td>
<td>Gruening 206</td>
</tr>
<tr>
<td>Thursday</td>
<td>1020-1200</td>
<td>40</td>
<td>Regional Near-Surface Studies</td>
<td>Schaible Auditorium</td>
</tr>
</tbody>
</table>
Oral Presentations

Session 1  1600–1700  Sunday, June 29, 2008  Davis Hall

Change Detection

Session Chairs: Hannele Zubeck and Oliver Frauenfeld

1600–1615  Monitoring Permafrost Changes on the Qinghai-Tibet Plateau. 
L. Zhao, T. Wu, Y. Ding, and C. Xie


1645–1700  Contemporary Permafrost Degradation of Northern European Russia. N. Oberman

Session 2  1600–1700  Sunday, June 29, 2008  Salisbury Theater

Permafrost and Periglacial Landscapes on Mars

Session Chairs: Wendy Ehnert and François Costard

1600–1615  Laboratory Simulations of Martian Debris Flows. F. Costard, E. Védie, M. Fc


1630–1645  Cryolithosphere on Mars and the Thickness of Frozen Rock. I. Komarov, V. Isaev, and O. Abramenko

Session 3  1600–1700  Sunday, June 29, 2008  Wood Center

Initial Results from the IPY

Session Chairs: Sharon Tahirkheli and Mark Parsons

1600–1615  Recent Advances in Russian Geocryological Research: A Contribution to the International Polar Year. D.S. Drozdov, G.V. Malkova, and V.P. Melnikov

1615–1630  Soil and Permafrost Temperature Data Obtained During the First International Polar Year, 1882–1883. K.R. Wood and D.A. Streletskiy


Session 4  1600–1700  Sunday, June 29, 2008  Gruening 206

Community Development, Risk Assessment, and Planning in Permafrost Regions

Session Chairs: Don Hayley and Lawson Brigham

1600–1615  Technocryogenesis Controls on the Permafrost Environment and Geotechnical Factors in Towns of the Permafrost Zone. V.I. Grebenets

1615–1630  Cost Impact of Climate Change-Induced Permafrost Degradation on Building Foundations in Inuvik, Northwest Territories. F. Zhou, A. Zhang, and E. Hoeve


Session 5  1600–1700  Sunday, June 29, 2008  Schaible Auditorium

**Ground Ice**

**Session Chairs:** Julian Murton and Yuri Shur

- **1600–1615**  Genesis of Reticulate-Chaotic Cryostructure in Permafrost. D. Fortier, M. Kanevskiy, and Y. Shur
- **1615–1630**  Massive Ground Ice on the Ural Coast of Baydaratskaya Bay, Kara Sea, Russia. N.G. Belova, V.I. Solomatin, and F.A. Romanenko
- **1630–1645**  Geophysical Mapping of Ground Ice in the Western Canadian Arctic. G.P. De Pascale and W.H. Pollard
- **1645–1700**  Origin and Age of Perennial Ice Within a Block Slope in the Shikaribestu Mountains, Hokkaido, Japan. Y. Sawada

Session 6  1020–1200  Monday, June 30, 2008  Davis Hall

**Contemporary Climate Change and Paleoclimatic Reconstruction in Permafrost Regions:**

Co-organized by the IGBP Past Global Changes (PAGES), the WCRP Climate and Cryosphere (CLiC) programmes

**Session Chairs:** Julie Brigham-Grette and Valeri Grebenets

- **1020–1035**  Submarginal Glaciotectonic Deformation of Pleistocene Permafrost. R. Waller, J. Murton, and C. Whiteman
- **1035–1050**  Thermokarst Lakes in Central Yakutia (Siberia) as Habitats of Freshwater Ostracods and Archives of Palaeoclimate. S. Wetterich, L. Schirrmeister, H. Meyer, and C. Siegert
- **1105–1120**  Permafrost Response to Climate Warming South of Treeline, Mackenzie Delta, Northwest Territories, Canada. J.C.N. Kanigan, C.R. Burn, and S.V. Kokelj
- **1120–1135**  Severity of Climate Conditions in the Russian Federation. S.I. Zabolotnik
- **1135–1150**  Solifluction Lobes in Sierra Nevada (Southern Spain): Morphometry and Palaeoenvironmental Changes. M. Oliva, L. Schulte, and A. Gómez Ortiz

Session 7  1020–1200  Monday, June 30, 2008  Salisbury Theater

**Geophysical Methods in Frozen Ground**

**Session Chairs:** Christian Hauck and Daniel VonderMuehll

- **1035–1050**  Electrical Freezing Potentials During Permafrost Aggradation at the Illisarvik Drained-Lake Experiment, Western Arctic Coast, Canada. V.R. Parameswaran and C.R. Burn
- **1120–1135**  Geophysical Mapping of Isolated Permafrost Lenses at a Sporadic Permafrost Site at Low Altitude in the Swiss Alps. C. Kneisel and D. Schwinding
- **1135–1150**  Geophysical Study of Talik Zones, Western Yakutia. S. Milanovskiy, S. Velikin, and V. Istratov
Session 8  1020–1200  Monday, June 30, 2008  Wood Center

Permafrost Engineering: Design, Evaluation and Economics

Session Chairs: Lukas Arenson and Ed Hoeve


1035–1050  Investigation of the Permafrost Environment for Pile Installation at Fort Wainwright, Alaska. T.S. Vinson

1050–1105  Geotechnical Considerations for Cut-Off Wall in Warm Permafrost. S.L. Anderson, T.G. Krzewinski, and J. Swendseid


Session 9  1020–1200  Monday, June 30, 2008  Gruening  206

Gas Hydrates and Permafrost

Session Chairs: Tim Collett and Scott Dallimore


1105–1120  Geologic Controls on the Occurrence of Permafrost-Associated Natural Gas Hydrates. T.S. Collett

1120–1135  Experimental Study of the Thermal Conductivity of Frozen Sediments Containing Gas Hydrates. B.A. Buhanov, E.M. Chuvilin, O.M. Guryeva, and P.I. Kotov


Session 10  1020–1200  Monday, June 30, 2008  Schaible Auditorium

Thermal State of Permafrost

Session Chairs: Sharon Smith and Bernd Etzelmuller


Session 11  1500–1630  Monday, June 30, 2008  Davis Hall
Contemporary Climate Change and Paleoclimatic Reconstruction in Permafrost Regions:
Co-organized by the IGBP Past Global Changes (PAGES) the WCRP Climate and
Cryosphere (CLiC) programmes
Session Chairs: Hans Hubberten and Panya Lipovsky
1500–1515  The Vault Creek Tunnel (Fairbanks Region, Alaska): A Late Quaternary Palaeoenvironmental
Permafrost Record. H. Meyer, K. Yoshikawa, L. Schirrmeister, and A. Andreev
1515–1530  Mid to Late Quaternary Cryogenic Weathering Conditions at Elgygytgyn Crater, Northeastern Russia: Inference from Mineralogical and Microtextural Properties of the Sediment Record. G. Schwamborn, A. Förster, B. Diekmann, L. Schirrmeister, and G. Fedorov
1530–1545  Evidence of Permafrost Formation Two Million Years Ago in Central Alaska. J.E. Begét, P. Layer, D. Stone, J. Benowitz, and J. Addison
1615–1630  Appearance of Heinrich Events on Pollen Plots of Late Pleistocene Ice Wedges. A.C. Vasil’chuk and Y.K. Vasil’chuk
1600–1615  Dansgaard-Oeschger Events on Isotope Plots of Siberian Ice Wedges. Y.K. Vasil’chuk and A.C. Vasil’chuk

Session 12  1500–1630  Monday, June 30, 2008  Salisbury Theater
Geophysical Methods in Frozen Ground
Session Chairs: Brian Moorman and Kenji Yoshikawa
1500–1515  An Integrative Observation of Kinematics and Geophysical Parameters of Gianda Grischa Rock
Glacier, Upper Engadine, Swiss Alps. R. Frauenfelder, C. Hauck, C. Hilbich, C. Kneisel, and M. Hoelzle
1515–1530  Comparison of Simulated 2D Temperature Profiles with Time-Lapse Electrical Resistivity Data at the
Schilthorn Crest, Switzerland. J. Noetzi, C. Hilbich, C. Hauck, M. Hoelzle, and S. Gruber
1530–1545  A Four-Phase Model to Quantify Subsurface Ice and Water Content in Permafrost Regions Based on
Geophysical Datasets. C. Hauck, M. Bach, and C. Hilbich
1545–1600  Geophysical Investigation of Saline Permafrost at Ilulissat, Greenland. T. Ingeman-Nielsen, N. Foged,
R. Butzbach, and A S. Jørgensen
1600–1615  A Geo-electric Monitoring Network and Resistivity-Temperature Relationships of Different Mountain
Permafrost Sites in the Swiss Alps. C. Hilbich, C. Hauck, R. Delaloye, and M. Hoelzle
1615–1630  Rock Permafrost Geophysics and Its Explanatory Power for Permafrost-Induced Rockfalls and Rock
Creep: A Perspective. M. Krautblatter

Session 13  1500–1630  Monday, June 30, 2008  Wood Center
Permafrost Engineering: Design, Evaluation and Economics
Session Chairs: Arne Instanes and Tom Krzewinski
1500–1515  Frost-Protected Shallow Foundation Design Issues: A Case Study  C.H. Riddle, J.W. Rooney, and
G.W. Carpenter
1515–1530  Influence of Temperature and Groundwater Fluctuation on LNAPL Migration at Colomac Mine Site
O. Iwakun, K.W. Biggar, and D.C. Sego
1530–1545  The Effect of Near-Freezing Temperatures on the Stability of an Underground Excavation in
Permafrost K.L. Bjella
1545–1600  Permafrost Temperatures and Erosion Protection at Shishmaref, Alaska M.T. Azelton and J.E. Zufelt
1600–1615  Increasing the Bearing Capacity of Pile Foundations by Using Thermostabilizers of Small Diameter in
Cryolithozone of Russia A.N. Tseeva, R.M. Bayasan, G.P. Pustovoit, and A.P. Okoemova
Yang, and U. Dutta

Oral Presentations  Monday 30 June 08  12
Session 14  1500–1630  Monday, June 30 2008  Gruening  206

Subsea Permafrost, Sea Level Changes, and Dynamics of Coastal Permafrost

Session Chairs: Paul Overduin and Steve Solomon

1500–1515  Freezing of Marine Sediments and Formation of Continental Permafrost at the Coasts of Yenisey Gulf I.D. Streletskaya, A.A. Vasiliev, and M.Z. Kanevskiy

1515–1530  Nearshore Ground Temperatures, Seasonal Ice Bonding, and Permafrost Formation Within the Bottom-Fast Ice Zone, Mackenzie Delta, NWT S.M. Solomon, A.E. Taylor, and C.W. Stevens

1530–1545  Coastal Processes at the Tabular-Ground-Ice-Bearing Area, Yugorsky Peninsula, Russia M. Leibman, A. Gubarkov, A. Khomutov, A. Kizyakov, and B. Vanshtein

1545–1600  Detection of Frozen and Unfrozen Interfaces with Ground Penetrating Radar in the Nearshore Zone of the Mackenzie Delta, Canada  C.W. Stevens, B.J. Moorman, and S.M. Solomon

1600–1615  “Pingo-Like” Deformation, Vilaine Estuary, Brittany B. Hallégouët, B. Van Vliet-Lanoë, and C. Hibsch

1615–1630  Effects of Changing Climate and Sea Ice Extent on Pechora and Kara Seas Coastal Dynamics S.A. Ogorodov

Session 15  1500–1630  Monday, June 30 2008  Schaible Auditorium

Regional Near-Surface Studies

Session Chairs: Ken Hinkel and Galina Mazhitova

1500–1515  Active Layer Monitoring in West Siberia under the CALM II Program A.A. Vasiliev, M.O. Leibman, and N.G. Moskalenko


1545–1600  Seasonal Thaw of Soils in the North Yakutian Ecosystems D.G. Fyodorov-Davydov, A.L. Kholodov, V.E. Ostroumov, G.N. Kraev, V.A. Sorokovikov, S.P. Davydov, and A.A. Merekelova

1600–1615  Interannual Variations in Active Layer Thickness in Svalbard H.H. Christiansen and O. Humlum

1615–1630  Recent Climate and Active Layer Changes in Northeast Russia: Regional Output of Circumpolar Active Layer Monitoring (CALM) D. Zamolodchikov, A. Kotov, D. Karelin, and V. Razzhivin

Session 16  1020–1200  Tuesday, July 1, 2008  Davis Hall

Permafrost Controls on Surface Waters, Groundwater, and Heat Flux Processes

Session Chairs: Phillip Marsh and Julia Boike

1020–1035  The Impact of Sediments Derived from Thawing Permafrost on Tundra Lake Water Chemistry: An Experimental Approach M.S. Thompson, S.V. Kokelj, T.D. Prowse, and F.J. Wrona

1035–1050  Lake Modification in a Permafrost Region, the Colville River Delta, Alaska H.J. Walker  1050–1105  Interrelation of Cryogenic and Hydrologic Processes on Small Streams and Catchments of Central Yamal A.A. Gubarkov and M.O. Leibman


1120–1135  Permafrost Dynamics Within an Upper Lena River Tributary: Modeled Impact of Infiltration on the Temperature Field Under a Plateau S. Buldovich, N. Romanovskiy, G. Tipenko, D. Sergeev, and V. Romanovsky

1135–1150  Rainfall-Runoff Hydrograph Characteristics in A Discontinuous Permafrost Watershed and Their Relation to Ground Thaw S.K. Carey and C.M. DeBeer
Session 17  1020–1200  Tuesday, July 1, 2008  Salisbury Theater

Responses to Natural and Human-Induced Disturbances

Session Chairs: Bill Streever and Skip Walker

1020–1035  Freezeback of an Anthropogenic Talik Within Tailings at Nanisivik Mine, Canada  G. Claypool, J.W. Cassie, and R. Carreau

1035–1050  Changes in Surface Topography and Active Layer Following Partial Gravel Removal in the Prudhoe Bay Oilfield, Alaska  J.G. Kidd


1105–1120  Vegetation and Permafrost Changes in the Northern Taiga of West Siberia  N. Moskalenko

1120–1135  Vegetation Response to Landslide Spreading and Climate Change in the West Siberian Tundra  N.G. Ukrain’tseva


Session 18  1020–1200 Tuesday, July 1, 2008  Schaible Auditorium

Natural and Technological Hazards in Mountainous (and High-Latitude) Permafrost Regions

Session Chairs: Marcia Phillips and Andi Kääb

1020–1035  Engineering-Induced Environmental Hazards in Permafrost Regions of the Qinghai-Tibet Plateau  F. Niu, J. Xu, Z. Lin, and P. Wang


1135–1150  Ground-Based LIDAR Data on Permafrost-Related Rockfall Activity in the Mont Blanc Massif  P. Deline, S. Jailllet, A. Rabatell, and L. Ravanel

Session 19  1020–1200 Tuesday, July 1, 2008  Wood Center

Soil Mechanics

Session Chairs: Ted Vinson and Charles Harris

1020–1035  Definition of Warm Permafrost Based on Mechanical Properties of Frozen Soil  J. Qi and J. Zhang

1035–1050  Scaled Centrifuge Modeling of Solifluction in Permafrost and Seasonally Frozen Soils  M. Kern-Luetschg, C. Harris, P. Cleall, Y. Li, and H. Thomas

1050–1105  Development and Initial Evaluation of a Daily DEM-Based Active Layer Heave and Subsidence Model  D. Gugolj, B.J. Moorman, and M.P. Tait

1105–1120  Impact of Freezing on Water Migration in Silty Clay Samples  S. Zhao, J. Zheng, W. Ma, and Y. Pu


**Session 20  1020–1200  Tuesday, July 1, 2008  Gruening   206**

**History of Permafrost Research**

 Session Chairs: Cheng Guodong and Rupert “Bucky” Tart

- **1035–1050** The Permafrost Legacy of Siemon. W. Muller H.M French and F.E. Nelson
- **1050–1105** Legacy and Accomplishments of Frozen Ground Engineering Studies in Alaska 60 Years Ago. M. Cysewski and Y. Shur
- **1105–1120** The Davidson Ditch – An Historical Review J.W.. Rooney and C.H. Riddle
- **1120–1135** Siberian Woolly Mammoths and Studies into Permafrost in the Russian Empire in the 19th Century. E. Tammiksaar and K. Kalling
- **1135–1150** The Rich Contributions of A.L. Washburn to Permafrost and Periglacial Studies. B. Hallet

**Session 21  1500–1630  Tuesday, July 1, 2008  Davis Hall**

**Permafrost Controls on Surface Waters, Groundwater, and Heat Flux Processes**

 Session Chairs: Ming-ko Woo and Atsushi Ikeda

- **1500–1515** Climatic Change and Fluvial Dynamics of the Lena River (Siberia). E. Gautier, F. Costard, D. Brunstein, J. Hammadi, A. Fedorov, and D. Yang
- **1515–1530** Thawing Permafrost and Temporal Variation in the Electrical Conductivity of Water in Small Tundra Lakes, Mackenzie Delta Region, N.W.T., Canada. S.V. Kokelj, B. Zajdlik, M.S. Thompson, and R.E.L. Jenkins
- **1530–1545** Hydrologic Status of High Arctic Ponds in a Continuous Permafrost Environment, Somerset Island, Nunavut, Canada. K.L. Young and A. Abnizova
- **1545–1600** Recent Changes in Hydrologic Response Observed in Permafrost Regions of Northwest Canada. J.R. Janowiec
- **1600–1615** Coastal Processes and Their Influence Upon Discharge Characteristics of the Stokdammene Plain, West Spitsbergen, Svalbard. H.J. Akerman
- **1615–1630** Modeling Discharge During the Rapid Drainage of Thaw Lakes in the Western Canadian Arctic P. Marsh. M. Russell, C. Onclin, and H. Haywood

**Session 22  1500–1630  Tuesday, July 1, 2008  Salisbury Theater**

**Spatial Variability in Periglacial Processes and Landscapes**

 Session Chairs: Bernard Hallet will co-chair with Ole Humlum

- **1500–1515** Stone Frost Mounds in Shallow Bedrock Depressions at Lady Franklin Point, Victoria Island, Nunavut, Canada. V.E. Roujanski
- **1515–1530** Dynamics of Patterned Ground Evolution. J.G.A. Croll
- **1530–1545** A Study of High Arctic Retrogressive Thaw Slump Dynamics, Eureka Sound Lowlands, Ellesmere Island. J.D. Grom and W.H. Pollard
- **1615–1630** Factors Controlling Periglacial Geodiversity in Subarctic Finland. J. Hjort and M. Luoto

**Session 23  1500–1630  Tuesday, July 1, 2008  Wood Center**

**Cold-Regions Infrastructures and Transportation**

 Session Chairs: Billy Connor and Niels Foged

- **1500–1515** Arctic Road-Research Program, Experiences and Implementation. S.M.I. Saarelainen
Control of Asymmetrical Subgrade Temperature with Crushed-Rock Embankments Along the Permafrost Region of the Qinghai-Tibet Railway. W. Ma, L. Zhang, and Q. Wu

Experimental Study on Mechanisms of Subgrade Deformation in Permafrost Regions Along the Qinghai-Tibetan Railway. J. Zhang, X. Ma, and B. Zheng

Climate Change and Arctic Infrastructure. A. Instanes and O. Anisimov

Foundation Design Using a Heat Pump Cooling System. B. Instanes and A. Instanes

**Session 24  1500–1630  Tuesday, July 1, 2008  Gruening  206**

**Remote Sensing in Permafrost Regions**

**Session Chairs:** Guido Grosse and Claude Duguay


- **1515–1530** A New Permafrost Map of Quebec-Labrador Derived from Near-Surface Temperature Data of the Moderate Resolution Imaging Spectroradiometer (MODIS). S. Hachem, M. Allard, and C. Duguay

- **1530–1545** ERS InSAR for Assessing Rock Glacier Activity. C. Lambiel, R. Delaloye, T. Strozzi, R. Lugon, and H. Raetzo


- **1615–1630** High Resolution DEM Extraction from Terrestrial LIDAR Topometry and Surface Kinematics of the Creeping Alpine Permafrost: the Laurichard Rock Glacier Case Study (Southern French Alps). X. Bodin, P. Schoeneich, and S. Jaillet

**Session 25  1500–1630  Tuesday, July 1, 2008  Schaible Auditorium**

**Modeling and Scaling of Permafrost Distribution and Changes**

**Session Chairs:** Vladimir Romanovsky and Dmitry Drozdov

- **1500–1515** What Dictates the Occurrence of Zero Curtain Effect? J. Putkonen

- **1515–1530** Numerical Modeling of Spatial Permafrost Dynamics in Alaska. S. Marchenko, V. Romanovsky, and G. Tipenko

- **1530–1545** The Fate of Greenland’s Permafrost: Results from High-Resolution Transient Climate Simulations. M. Stendel, J.H. Christensen, G. Aðalgeirsdóttir, R. Daanen, S. Marchenko, and V. Romanovsky

- **1545–1600** Climate, Glaciers, and Permafrost in the Swiss Alps 2050: Scenarios, Consequences, and Recommendations. W. Haebelri and R. Hohmann


- **1615–1630** High-Resolution Numerical Modeling of Climate Change Impacts to Permafrost in the Vicinities of Inuvik, Norman Wells, and Fort Simpson, NT, Canada. C. Duchesne, J.F. Wright, and M. Ednie

**Session 26  1645–1745  Tuesday, July 1, 2008  Davis Hall**

**Impacts of Permafrost Degradation on Terrestrial and Aquatic Ecosystems**

**Session Chairs:** Torre Jorgenson and Steven Kokelj

- **1645–1700** The Degradation of Ice Wedges in the Colville River Delta and Their Role in Pond Drainage. M. McGraw

- **1700–1715** Approaches to Allocation of Terrain Complexes (Landscapes) in the Areas of Thermokarst Development. A. Veremeeva and S. Gubin


- **1730–1745** Identification of Permafrost Landscape Changes Caused by Climate Variability in Central Siberia. M. Tishkova and S. Gorshkov

**Oral Presentations**  **Tuesday 1 July 08**  **16**
Session 27  1645–1745  Tuesday, July 1, 2008  Gruening 205

**Advances in Exobiology and Life in Extreme Terrestrial Environments**

Session Chairs: Ron Sletten and David Gilichinsky

- **1645–1700** Isolation and Identification of Cold-Adapted Fungi in the Fox Permafrost Tunnel, Alaska. M.P. Waldrop, R. White III, and T.A. Douglas
- **1700–1715** Permafrost Analogues of Martian Habitats. D.A. Gilichinsky

Session 28  1645–1745  Tuesday, July 1, 2008  Wood Center

**Cold-Regions Infrastructures and Transportation**

Session Chairs: Guy Doré and Seppo Saarelainen

- **1645–1700** Permafrost in Marine Deposits at Ilulissat Airport in Greenland, Revisited. N. Foged and T. Ingeman-Nielsen
- **1700–1715** Geocryological Problems Associated with Railroads and Highways. V.G. Kondratiev
- **1715–1730** Tundra Soil-Water Content and Temperature Data in Support of Winter Tundra Travel. M.R. Lilly, R.F. Paetzold, and D.L. Kane
- **1730–1745** The Effect of Fines Content and Quality on Frost Heave Susceptibility of Crushed Rock Aggregates Used in Railway Track Structure A. Nurmikolu and P. Kolisoja

Session 29  1645–1745  Tuesday, July 1, 2008  Gruening 206

**Global Interactions**

Session Chairs: Jens Christensen and Kazuyuki Saito

- **1645–1700** Does Permafrost Deserve Attention in Comprehensive Climate Models? J.H. Christensen, M. Stendel, P. Kuhry, V. Romanovsky, and J. Walsh
- **1700–1715** Refinement of Physical Land Scheme for Cold-Region Subsurface Hydrothermal Processes and Its Impact on High-Latitude Hydroclimate. K. Saito

Session 30  1645–1745  Tuesday, July 1, 2008  Schaible Auditorium

**Permafrost Distribution**

Session Chairs: Chris Burn and John Clague

- **1715–1730** Present and Past Distribution of Mountain Permafrost in the Gaissane Mountains, Northern Norway. H. Farbrot, K. Isaksen, and B. Etzelmüller
- **1730–1745** “Permafrost is No Excuse”: Geoarchaeology and Zooarchaeology of the Little John Paleoindian Site, Alaska/Yukon Borderlands. D.R. Yesner, K.J. Crossen, and N.A. Easton
Session 31  1020–1200  Wednesday, July 2, 2008  Davis Hall
Permafrost Controls on Subsurface Water and Heat Flux Processes
Session Chairs:  Michael Lilly and Bob Bolton


1105–1120  Landscape Geochemical Features and Peculiarities of 137Cs Distribution in Tundra Landscapes of the Lower Pechora Reaches. E.M. Korobova, N.G. Ukraintseva, and V.V. Surkov

1120–1135  Hydrological Dynamics of the Active Layer in the Permafrost Region, Qinghai-Tibetan Plateau C. Xie, L. Zhao, Y. Ding, and T. Wu

1135–1150  Permafrost and Cryopegs of the Anabar Shield. S.V. Alexeev, L.P. Alexeeva, and A.M. Kononov

Session 32  1020–1200  Wednesday, July 2, 2008  Salisbury Theater
Rock Glaciers
Session Chairs:  Rick Giardino and Norikazu Matsuoka

1020–1035  Seasonal Thermal Regime of a Mid-Latitude Ventilated Debris Accumulation. S. Morard, R. Delaloye, and J. Dorthe


1050–1105  Glacial Ice as a Cryogenic Factor in the Periglaciation Zone of the Composed Rock Glacier Morenasos Coloradas, Central Andes of Mendoza, Argentina. Trombotto Liaudat, L. Arena, and G. Caranti

1105–1120  Twenty Years of Permafrost Research on the Furggentälti Rock Glaciers, Western Alps, Switzerland. D. Mihajlovic, B. Staub, A. Nussbaum, B. Krummenacher, and H. Kienholz


1135–1150  Rock Glacier Distribution and the Lower Limit of Discontinuous Mountain Permafrost in the Nepal Himalaya D. Regmi

Session 33  1020–1200  Wednesday, July 2, 2008  Wood Center
Peatlands, Permafrost and the Global Carbon Balance, Including Greenhouse Gases
Session Chairs:  Jennifer Harden and Peter Kuhry

1020–1035  Permafrost Degradation and Influx of Biogeogases into the Atmosphere. E. Rivkina and G. Kraev

1035–1050  The Fate of Terrestrial Carbon Following Permafrost Degradation: Detecting Changes Over Recent Decades. J.W. Harden, C.C. Fuller, M. Wilming, I. Myers-Smith, S.E. Trumbore, and J. Bubier


Session 34  1020–1200  Wednesday, July 2, 2008  Gruening  206

Antarctic Soils and Periglacial Processes

Session Chairs:  Jim Bockheim and Mauro Guglielmin

1020–1035  Patterned Ground Features and Vegetation: Examples from Continental and Maritime Antarctica. N. Cannone and M. Guglielmin

1035–1050  Soil and Permafrost Properties in the Vicinity of Scott Base, Antarctica. I.B. Campbell and G.G.G. Claridge

1050–1105  Distribution of Permafrost Types and Buried Ice in Ice-Free Areas of Antarctica. J.G. Bockheim, I.B. Campbell, M. Guglielmin, and J. López-Martínez


1120–1135  Periglacial and Permafrost Map of Signy Island, South Orkney Islands, Maritime Antarctica. M. Guglielmin, D. Boschi, C. D’Agata, C. Ellis-Evans, and M.R. Worland


Session 35  1020–1200  Wednesday, July 2, 2008  Schaible Auditorium

Subsea Permafrost, Sea Level Changes, and Dynamics of Coastal Permafrost

Session Chairs:  Md Azharul Hoque and Nicole Couture

1020–1035  The State of Subsea Permafrost in the Western Laptev Nearshore Zone. P.P. Overduin, V. Rachold, and M.N. Grigoriev

1035–1050  Sensitivity of Coastal Erosion to Ground Ice Contents: An Arctic-Wide Study Based on the ACD Classification of Arctic Coasts. H. Lantuit, P.P. Overduin, N. Couture, and R.S. Ødegård

1050–1105  Temperatures in Coastal Permafrost in the Svea Area, Svalbard. L. Kristensen, H.H. Christiansen, and F. Caline


1120–1135  Erosion of the Barrow Environmental Observatory Coastline 2003–2007, Northern Alaska. A. Aguirre, C.E. Tweedie, J. Brown, and A. Gaylord

1135–1150  Methane Cycle in Terrestrial and Submarine Permafrost Deposits of the Laptev Sea Region D. Wagner, K. Koch, A. Gättinger, and A. Lipski

Session 36  1020–1200  Thursday, July 3, 2008  Davis Hall

Mountain Permafrost

Session Chairs:  Stephan Gruber and Sergei Marchenko

1020–1035  Effects of Recent Climate Change on High Mountains of Western North America. J.J. Clague

1035–1050  New Patterns of Permafrost Occurrence in a Mountain Environment, Based on an Example from the Tatra Mountains, Poland, and Abisko Area, Sweden. W. Dobinski

1050–1105  Experimental Study of Thermal Properties for Frozen Pyroclastic Volcanic Deposits (Kamchatka, Kluchevskaya Volcano Group). R.G. Motenko, E.P. Tikhonova, and A.A. Abramov


1120–1135  Permafrost Occurrence in Southernmost South America (Sierras de Alvear, Tierra del Fuego, Argentina). M. Valcárce-Díaz, P. Carrera-Gómez, R. Blanco-Chao, and A. Pérez-Alberti

Session 37  1020–1200  Thursday, July 3, 2008  Salisbury Theater

Spatial Variability in Periglacial Processes and Landscapes

Session Chairs:  Antoni Lewkowicz and Wojciech Dobinski


1035–1050  Ice Wedge Polygon Dynamics in Svalbard: High-Resolution Monitoring by Multiple Techniques. N. Matsuoka and H.H. Christiansen


1120–1135  Frost Boil Dynamics Using 210Pb as a Tracer for Soil Movement. B. Hagedorn, R. Aalto, R.S. Sletten, and B. Hallet

1135–1150  Stable Isotope Composition of Ice in Seasonally and Permanently Frozen Mounds K. Yoshikawa

Session 38  1020–1200  Thursday, July 3, 2008  Wood Center

Design, Construction, and Performance of Oil and Gas Pipelines

Session Chairs:  Elden Johnson and Dave Norton

1020–1035  Interactive Stress Between Frost Bulb and Chilled Pipe by an Axis-Symmetric Freezing Experiment. S. Kanie, S. Akagawa, M. Sato, and H. Okamoto

1035–1050  N-Factors and Soil Temperatures Adjacent to the Vertical Support Members on the Trans Alaska Pipeline System. J.P. Zarling, S. Sorensen, and M. Shangin


1105–1120  Pore Water and Effective Pressure in the Frozen Fringe During Soil Freezing. S. Akagawa, S. Hiasa, S. Kanie, and S.L. Huang

1120–1135  Identification and Mitigation of Frost Hazards Along the China-Russia Oil Pipeline. H. Jin, J. Zhang, Q. Yu, Y. Sheng, Z. Wei, G. Li, Y. Ji, R. He, L. Lü, J. Hao, Y. Chen, W. Wu, and Y. Zhao

1135–1150  Ground Temperature and Thaw Settlement in Frozen Peatlands Along the Norman Wells Pipeline Corridor, NWT Canada – 22 Years of Monitoring. S.L. Smith, M.M. Burgess, and D.W. Riseborough

Session 39  1020–1200  Thursday, July 3, 2008  Gruening  206

Frost-Affected Soils and Soil Carbon Storage

Session Chairs:  Charles Tarnocai and Eva Marie Pfeiffer

1020–1035  Chronosequence of Forest Fire Effects on the Active Layer, Central Yakutia, Eastern Siberia. L. Lopez, G. Guggenberger, E. Gerasimov, R. Hatano, and A.N. Fedorov

1035–1050  Classification of Arctic Tundra Soils Along the Beaufort Sea Coast, Alaska. C.L. Ping, L.A. Lynn, G.J. Michaelson, M.T. Jorgenson, Y.L. Shur, and M. Kanevskiy


1120–1135  Detection and Enrichment of Ammonia Oxidizers from Permafrost Soils of Siberia. T. Sanders, C. Fiencke, E. Spieck, and E.M. Pfeiffer

1135–1150  Characterization and Classification of Topsoils as a Tool to Monitor Carbon Pools in Frost-Affected Soils. G. Broll and C. Tarnocai
Session 40  1020–1200  Thursday, July 3, 2008  Schaible Auditorium

Regional Near-Surface Studies
Session Chairs:  Hanne H. Christiansen and Frederick Nelson

1020–1035  Recent Decade Thaw-Depth Dynamics in the European Russian Arctic Based on the Circumpolar Active Layer Monitoring (CALM) Data. G. Mazhitova, G. Malkova, O. Chestnykh, and D. Zamolodchikov


1105–1120  Freezing/Thawing Index Variations During the Last 40 Years Over the Tibet Plateau. T. Wu, L. Zhao, S. Li, C. Xie, Q. Pang, and W. Zhang


1135–1150  Estimating Active Layer and Talik Thickness from Temperature Data: Implications from Modeling Results. D.W. Riseborough
POSTER SESSIONS

Poster sessions will be located on the main floor of the Wood Center.

Each presenter is provided with a 4-foot-high by 8-foot-wide poster board. Poster boards have a 2.5-cm (1-inch) frame. Dimensions of the useable work area are ~1.16 meters high by 2.32 meters wide (~46 inches high x 96 inches wide).

Posters should be placed on display by 0830 each day, and removed each day between 1700 and 1800.

Monday: Session 1P

Session 1P-1 Monday, June 30, 2008

Contemporary Climate Change and Paleoclimatic Reconstruction in Permafrost Regions: Co-organized by the IGBP Past Global Changes (PAGES) the WCRP Climate and Cryosphere (CLiC) programmes

1P-1-1 Mid to Late Quaternary Cryogenic Weathering Conditions at Elgygytgyn Crater, Northeastern Russia: Inference from Mineralogical and Microtextural Properties of the Sediment Record. G. Schwamborn, A. Förster, B. Diekmann, L. Schirrmeister, and G. Fedorov

1P-1-2 The Application of Tritium in Permafrost Ground-Ice Studies. F.A. Michel

1P-1-3 Importance of Changes in Moisture for Geomorphic Responses to Rapid Climatic Warming in the Western Brooks Range and the Arctic Foothills, Northern Alaska: Lessons from the Past. D. Mann, P. Groves, and M. Kunz

1P-1-4 Climate Change in Permafrost Regions in North America. M. K. Gavrilova

1P-1-5 Recent Climatic Changes in Yakutia. Y.B. Skachkov

1P-1-6 Forcing Factors of Permafrost Retreat: A Comparison between LGM and Present-day Permafrost Extent in Eurasia. J. Vandenberghhe, A. Velichko, and A. Gorbunov

1P-1-7 14C Age of Fossil Wood Remains Buried by an Inactive Rock Glacier, Upper Ticino Area (Southern Swiss Alps). C. Scapozza, C. Lambiel, E. Reynard, M. Antognini, and P. Schoeneich

1P-1-8 Modeling Permafrost Evolution and Impact on Hydrogeology at the Meuse/Haute-Marne Sedimentary Site (Northeast France) During the Last 120,000 Years. V. Teles, E. Mouche, C. Grenier, D. Regnier, J. Brulhet, and H. Benaberrahmane

1P-1-9 The Effect of Climate and Permafrost on Tree Line Dynamics in Northwest Russia: A Preliminary Analysis. M. Wilmking, S. Kenter, and J. Ibendorf

1P-1-10 Establishing Initial Conditions for Transient Ground Thermal Modeling in the Mackenzie Valley: A Paleoclimatic Reconstruction Approach. M. Ednie, J.F. Wright, and C. Duchesne

Session 1P-2 Monday, June 30, 2008

Permafrost and Periglacial Landscapes on Mars

1P-2-11 Gully-Polygon Interactions and Stratigraphy on Earth and Mars: Comparison of Cold-Desert, Near-Surface, Fluvial, and Periglacial Processes. J. Levy, J.W. Head, and D.R. Marchant

1P-2-12 Emplacement of Lobate Rock Glacier Landforms and Landscape Modification. Mareotis Fossae, Mars. S. van Gasselt, E. Hauber, A.P. Rossi, and G. Neukum


1P-2-14 Thermal Conditions in Martian Permafrost: Past and Present. M.A. Kreslavsky


1P-2-16 HiRISE Observations of Fractured Mounds in the Martian Mid-Latitudes. C.M. Dundas and A.S. McEwen

1P-2-17 Pingos on Earth and Mars. D.M. Burr and K.L. Tanaka, and K. Yoshikawa

### Session 1P-3  Monday, June 30, 2008

#### Thermal State of Permafrost

1P-3-19 The Last Twenty-Five Years of Changes in Permafrost Temperature in the European Russian Arctic. **G.V. Malkova**

1P-3-20 Evaluation of Recent Changes in the Ground Thermal State, Central Yakutia. **P.N. Skryabin, S.P. Varlamov, and Y.B. Skachkov**


1P-3-23 Warming of Cold Permafrost in Northern Alaska During the Last Half-Century. **M.C. Brewer and H. Jin**

1P-3-24 NORPERM: The Norwegian TSP Permafrost Database. **K. Midttømme, G. Strand, H. Juliussen, and H.H. Christiansen**

1P-3-25 Current State and Dynamics of Permafrost in the Siberian Platform. **M.N. Zheleznyak, V.T. Balobaev, and V.G. Rusakov**

1P-3-26 Thermal State of Permafrost in Canada: A Contribution to the International Polar Year. **S.L. Smith, A.G. Lewkowicz, and C.R. Burn**

1P-3-27 First Results of Ground Surface Temperature Modeling in Finnmark, Northern Norway. **H. Farbrot, B. Ettelmüller, K. Isaksen, T.V. Schuler, O.E. Tveito, and H.H. Christiansen**

1P-3-28 Continued Permafrost Warming in Northwest Alaska as Detected by the DOI/GTN-P Borehole Array. **G.D. Clow**

1P-3-29 Temperatures of Upper Permafrost in Northern West Siberia. **A.N. Kurchatova, A.V. Boytsov, A.B. Osokin, and G.K. Smolov**

### Session 1P-4  Monday, June 30, 2008

#### Instrumentation and Methods of Analysis

1P-4-30 A Direct Method for Obtaining Thermal Conductivity of Gravel Using TP02 Probes. **H. Bing, P. He, N.I. Koemle, and W. Feng**

1P-4-31 Wireless Sensor Networks in Permafrost Research: Concept, Requirements, Implementation, and Challenges. **A. Hasler, I. Talzi, J. Beutel, C. Tschudin, and S. Gruber**

1P-4-32 A Method for the Analysis of the Thermal Permafrost Dynamics. **M.A. Hidalgo, J.J. Blanco, M. Ramos, D. Tomé, and G. Vieira**


### Session 1P-5  Monday, June 30, 2008

#### Change Detection

1P-5-34 The Influence of Snowdrift on the Geothermal Field of Permafrost: Results from Three-Dimensional Numerical Simulations at a Local Scale. **A. LeBlanc, R. Fortier, M. Allard, and R. Therrien**

1P-5-35 Permafrost Characteristics and Climate Change Consequences at Stockhorn and Gornergrat (Swiss Alps). **C.C. Maag, O. Wild, L. King, M. Baum, S. Klein, and C. Hilbich**

1P-5-36 Historic Change in Permafrost Distribution in Northern British Columbia and Southern Yukon. **M. James, A.G. Lewkowicz, S.L. Smith, and P. Lipovsky**

1P-5-37 Climatic Change and Permafrost Stability in the Eastern Canadian Cordillera. **S.A. Harris**

1P-5-38 The Omnsbreen Glacier: Possible Aggrading Permafrost, Southern Central Norway. **K.S. Lilleøren and O. Humlum**
### Session 1P-6  Monday, June 30, 2008

**Impacts of Permafrost Degradation on Terrestrial and Aquatic Ecosystems**

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P-6-39</td>
<td>Thermal and Water Conditions of the Active Layer after the 2002 Tundra Fire, Seward Peninsula, Alaska.</td>
<td>K. Harada, Y. Sawada, K. Narita, and M. Fukuda</td>
</tr>
<tr>
<td>1P-6-40</td>
<td>Impact of Permafrost Degradation on Carbon and Nitrogen Stocks Related to Pedogenesis and Ecosystem Functioning.</td>
<td>F. Baumann, J-S. He, P. Kühn, and T. Scholten</td>
</tr>
<tr>
<td>1P-6-42</td>
<td>Potential Subsidence from Thawing of Near-Surface Ground Ice, Outer Mackenzie Delta Area, Northwest Territories, Canada.</td>
<td>P.D. Morse, C.R. Burn, and S.V. Kokel</td>
</tr>
<tr>
<td>1P-6-43</td>
<td>Effects of Retrogressive Thaw Slumps on Sediment Chemistry, Submerged Macrophyte Biomass, and Invertebrate Abundance of Upland Tundra Lakes.</td>
<td>P.S. Mesquita, F.J. Wrona, and T.D. Prowse</td>
</tr>
</tbody>
</table>

### Session 1P-7  Monday, June 30, 2008

**Ground Ice**

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P-7-44</td>
<td>New Data on the Ice Complex of the Lena-Amga Rivers Plain (Central Yakutia).</td>
<td>V.B. Spektor, V.V. Spektor, and N.T. Bakulina</td>
</tr>
<tr>
<td>1P-7-45</td>
<td>Systematization of Underground Ice.</td>
<td>V.I. Solomatín and N.G. Belova</td>
</tr>
<tr>
<td>1P-7-46</td>
<td>Massive Ground Ice in the Norilsk Basin: Evidence of Segregation Origin.</td>
<td>O.A. Kazansky and M.Y. Kushchev</td>
</tr>
<tr>
<td>1P-7-47</td>
<td>Tides as a Possible Reason for the Massive Ice Beds Formation.</td>
<td>S.A. Sokratov, V.N. Golubev, and G.A. Rzhantsyn</td>
</tr>
<tr>
<td>1P-7-48</td>
<td>Ice-Wedge Thermal Regime in Northern Victoria Land, Antarctica.</td>
<td>R. Raffi and S. Segà</td>
</tr>
<tr>
<td>1P-7-50</td>
<td>The Combined Isotopic Analysis of Late Quaternary Ice Wedges and Texture Ice at the Lena-Anabar Lowland, Northern Siberia.</td>
<td>A. Dereviagin, H. Meyer, A. Chizhov, and D. Magens</td>
</tr>
<tr>
<td>1P-7-51</td>
<td>Understanding the Filling Process in Ice Wedges Using Crystallography, Isotopes and Molar Gas Ratios.</td>
<td>M. St-Jean, I.D. Clark, B. Lauriol, and P. Middlestead</td>
</tr>
<tr>
<td>1P-7-52</td>
<td>A Hypothesis: A Condition of Growth of Thick Ice Wedges.</td>
<td>A. Brouchkov</td>
</tr>
<tr>
<td>1P-7-53</td>
<td>Massive Ground Ice in the Eureka Sound Lowlands, Canadian High Arctic.</td>
<td>W.H. Pollard and N. Couture</td>
</tr>
</tbody>
</table>

### Session 1P-8  Monday, June 30, 2008

**Community Development, Risk Assessment, and Planning in Permafrost Regions**

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P-8-54</td>
<td>An Analysis of Land Suitability for Urban Construction in Permafrost Regions.</td>
<td>I.E. Guryanov</td>
</tr>
<tr>
<td>1P-8-55</td>
<td>Regional Geocryological Dangers Associated with Contemporary Climate Change.</td>
<td>A.V. Pavlov and G.V. Malkova</td>
</tr>
<tr>
<td>1P-8-57</td>
<td>Adapting and Managing Nunavik’s Transportation Infrastructure.</td>
<td>G. Doré, A. Guimond, and G. Grondin</td>
</tr>
<tr>
<td>1P-8-59</td>
<td>A Role of Description of Thaw/Freeze Processes in the Permafrost Zone for Quantifying Fire Weather.</td>
<td>S. Venevsky, and A. Rubtsov</td>
</tr>
<tr>
<td>1P-8-60</td>
<td>Maximizing Construction Season in a Sub-Arctic Environment, Fort Wainwright, Alaska.</td>
<td>Q. Gehring and F.J. Wuttig</td>
</tr>
<tr>
<td>1P-8-61</td>
<td>Human Experience of Cryospheric Change in Nunavut, Canada: Preliminary Findings.</td>
<td>N. Doubleday, S. Donaldson, T. Vlasova, A. Kushwaha, and M. Ip</td>
</tr>
</tbody>
</table>
### Session 1P-9  Monday, June 30, 2008
**Initial Results from the IPY**

1P-9-62 High-Resolution Surface and Subsurface Survey of a Non-Sorted Circle System.  *R. Daanen, V. Romanovsky, D. Walker, and M. LaDouceur*


1P-9-64 Study of Western Taymyr Permafrost in the Framework of the IPY Education Program.  *A.M. Zemskova*

1P-9-65 Permafrost in the Bibliography on Cold Regions Science and Technology.  *S.N. Tahirkheli*

### Session 1P-10  Monday, June 30, 2008
**History of Permafrost Research**

1P-10-66 Geocryology (Permafrost) Course at the University of Alaska Fairbanks.  *T.E. Osterkamp*

### Session 1P-11  Monday, June 30, 2008
**Permafrost Engineering: Design, Evaluation and Economics**


1P-11-69 Modeling Interaction Between Filterable Solutions and Frozen Ground.  *G.Z. Perlshtein and G.S. Tipenko*

1P-11-70 Factors Contributing to the Long-Term Integrity of Drilling-Mud Sump Caps in Permafrost Terrain, Mackenzie Delta Region, Northwest Territories, Canada.  *R.E.L. Jenkins, J.C.N. Kanigan, and S.V. Kokelj*

1P-11-71 Field Trials of Surface Insulation Materials for Permafrost Preservation.  *J.M. Oswell and J.R. Everts*


1P-11-73 The Account of Long-Term Air Temperature Changes for Building Design in Permafrost.  *I.V. Davidova and L.N. Khroustalev*

1P-11-74 Engineering Effect on the Thermal Status of Shallow Ground in Permafrost Regions.  *Z. Wen, Y. Sheng, W. Ma, Q. Wu, and B. Huang*

1P-11-75 Impacts of Climate Warming and Facilities on Rock Temperatures at a Tunnel in High Alpine Continuous Permafrost: Results of Long-Term Monitoring at Kleinmatterhorn, Swiss Alps.  *L. King, C.C. Maag, and C. Baumann*

1P-11-76 Permafrost Degradation Beneath a Heat Producing Coal Waste Rock Pile, Svalbard (78°N).  *J. Hollesen and B. Elberling*

1P-11-77 Non-Linear Analysis for the Thermal Characteristics of Permafrost Embankment with Crushed-Rock Revetment and Insulation on Qinghai-Tibet Plateau.  *M. Zhang, S. Li, S. Zhang, and Y. Dong*

1P-11-78 Preservation of the Alaska Highway.  *E. Stephani, D. Fortier, Y. Shur, G. Doré, and B. Stanley*

1P-11-79 Helical Piles for Power Transmission Lines: Case Study in Northern Manitoba, Canada.  *M. Sakr*

1P-11-80 Thermal Regime within an Arctic Waste Rock Pile: Observations and Implications.  *J. Cassie and L.U. Arenson*


1P-11-82 A Soil Freeze-Thaw Model Through the Soil Water Characteristic Curve.  *S. Endrizzi, R. Rigon, and M. Dall’Amico*
Session 1P-12  Monday, June 30, 2008
Gas Hydrates and Permafrost

1P-12-83 Dissociation of Methane and Propane Gas Hydrates Formed on Water Droplets at T<270 K. V.P. Melnikov, A.N. Nesterov, A.M. Reshetnikov, and V.N. Feklistov

1P-12-84 Acoustical Surveys of Methane Plumes Using the Quantitative Echo Sounder in the Japan Sea. C. Aoyama, R. Matsumoto, M. Hiromatsu, and G. Snyder

1P-12-85 Recent Advances in Mapping Deep Permafrost and Gas Hydrate Occurrences Using Industry Seismic Data, Richards Island Area, Northwest Territories, Canada. G. Bellefleur, K. Ramachandran, M. Riedel, T. Brent, and S. Dallimore

Session 1P-13  Monday, June 30, 2008
Geophysical Methods in Frozen Ground

1P-13-86 Seasonal Variations of Surface Radiowave Impedance of Frozen Ground. V.N. Efremov

1P-13-87 Use of Ground-Penetrating Radar to Characterize Cryogenic Macrostructures in Southern New Jersey, USA. M. Demitroff, J.A. Doolittle, and F.E. Nelson

1P-13-88 Tomodensitometric Analysis of Basal Ice. M. Dillon, D. Fortier, M. Kanevskiy, and Y. Shur


1P-13-91 Sounding Ice and Soil Wedge Structures with Ground-Penetrating Radar. T. Watanabe, N. Matsuoka, H.H. Christiansen, and A. Ikeda


1P-13-94 Low-Frequency Sounding During the Gas Line Engineering Investigations in the Area of the Transition through Baidaratskaya Bay. A.V. Koshurnikov, Yu.D. Zykov, and Yu.V. Kulehsov

1P-13-95 Two-Dimensional Geoelectrical Monitoring in an Alpine Frozen Moraine. C. Lambiel and L. Baron

1P-13-96 Application of DC Resistivity Tomography in the Alpine Area of Southern Carpathians (Romania). P. Urdea, F. Ardelean, A. Onaca, M. Ardelean, and M. Török-Oance


1P-13-98 Application of Georadar in the Cryosphere for the Study of Engineering Constructions. S. Velikin and R. Czhan

1P-13-99 Contribution of Terrestrial Laser Scanning for Studying the Creep of Mountain Permafrost. F. Riff, C. Lambiel, and T. Oppikofer

1P-13-100 Ground Truth Observations of the Interior of a Rock Glacier as Validation for Geophysical Monitoring Datasets. C. Hilbich, I. Roer, and C. Hauck

1P-13-101 DC Resistivity Soundings Across a Pebbly Rock Glacier, Kapp Linné, Svalbard. I. Berthling and H. Juliussen

1P-13-102 Preparatory Work for a Permanent Geoelectrical Measurement Station for Permafrost Monitoring at the Hoher Sonnblick, Austria. M. Avian, A. Kellerer-Pirklbauer, A. Römer, and R. Supper
Tuesday: Session 2P
Session 2P-1 Tuesday, July 1, 2008

Cold-Regions Infrastructures and Transportation

| 2P-1-1 | Studies of the Freezing Soil Process at the Railway Contact System Supports to Provide Safety Transportation and Operation of Facilities. S.A. Kudryavtsev and D.G. Tsvignunov |
| 2P-1-2 | Studies on the Cooling Effect of Diatomite in the Protection of Permafrost Embankment. C. Ji, S. Yu, Q. Yu, A. Xu, and H. Bo |
| 2P-1-3 | Designing the Height of the Qinghai-Tibet Highway in Permafrost Regions. J. Zhang, F. Niu, S. Wang, and Y. Zhao |
| 2P-1-5 | Experimental Research on Physical-Mechanical Characteristics of Frozen Soil Based on Ultrasonic Technique. Q. Meng, D. Li, J. Chen, A. Xu, and S. Huang |
| 2P-1-6 | The Monitoring Network of Permafrost Conditions and Embankment Performance Along the Qinghai-Tibet Railway. Q. Wu, Y. Liu, and H. Yu |
| 2P-1-7 | Challenges of Infrastructure Growth on a University Campus in Discontinuous Permafrost. F. Wuttig |

Session 2P-2 Tuesday, July 1, 2008

Modeling and Scaling of Permafrost Distribution and Changes

| 2P-2-9 | Global Simulation of Permafrost Distribution in the Past, Present, and Future Using the Frost Number Method. T. Aus der Beek and E. Teichert |
| 2P-2-10 | Sources of Discrepancy Between CCSM Simulated and Gridded Observation-Based Soil Temperature over Siberia: The Influence of Site Density and Distribution. D. PaiMazumder and N. Mölders |
| 2P-2-13 | A Permafrost Model Incorporating Dynamic Variable Soil Depth and Properties. R. Coppell and S. Venevsky |
| 2P-2-14 | Employing a Coupled Permafrost Water Balance Model to Study Possible Changes in Permafrost. D.J. Nicolsky, V.E. Romanovsky, and M.A. Rawlins |
| 2P-2-15 | Modeling Thermal and Moisture Regimes of Permafrost with New Deep Soil Configuration in CLASS. J. Blanche, L. Sushama, and R. Laprise |
| 2P-2-16 | Permafrost, Parameters, Climate Change, and Uncertainty. A.G. Slater and D.M. Lawrence |
| 2P-2-17 | Modeling Long-Term Dynamics of Snow and Their Impacts on Permafrost in Canada. Y. Zhang, W. Chen, and D.W. Riseborough |
| 2P-2-18 | Specific Features of Dynamic Modeling of Processes in the South Siberian Permafrost. V.A. Stetjukha |

Session 2P-3 Tuesday, July 1, 2008

Permafrost Distribution

| 2P-3-19 | Changes of Permafrost and the Cold-Region Environment in Northeastern China. R. He |
| 2P-3-20 | A Web-Based Arctic Geobotanical Atlas and a New Hierarchy of Maps of the Toolik Lake Region, Alaska D.A. Walker, H.A. Maier, and E.M. Barbour |
| 2P-3-21 | Modeling Mountain Permafrost Distribution: A New Permafrost Map of Austria. B. Ebohon and L. Schrott |
| 2P-3-23 | The Sensitivity of a Model Projection of Near-Surface Permafrost Degradation to Soil Column Depth and Representation of Soil Organic Matter. D.M. Lawrence, A.G. Slater, V. Romanovsky, and D. Nicolsky |
| 2P-3-24 | Sources of Discrepancy between CCSM Simulated and Gridded Observation-Based Soil-Temperature over Siberia: The Influence of Site Density and Distribution. D. PaiMazumder |
### Session 2P-4 Tuesday, July 1, 2008
#### Regional Near-Surface Studies

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2P-4-25</td>
<td>The Effect of Spatially Distributed Snow Cover on Soil Temperatures: A Field and Modeling Study</td>
<td>A. Liljedahl, L. Hinzman, S. Marchenko, and S. Berezovskaya</td>
</tr>
<tr>
<td>2P-4-26</td>
<td>Spatial and Interannual Patterns of Winter N-Factors Near Barrow, Alaska</td>
<td>K.M. Hinkel, A.E. Klene, and F.E. Nelson</td>
</tr>
<tr>
<td>2P-4-27</td>
<td>Long-Term Monitoring of Frost Heave and Thaw Settlement in the Northern Taiga of West Siberia</td>
<td>O. Ponomareva and Y. Shur</td>
</tr>
<tr>
<td>2P-4-28</td>
<td>Recent Changes in Ground Temperature and the Effect on Permafrost Landscapes in Central Yakutia</td>
<td>A.N. Fedorov and P.Y. Konstantinov</td>
</tr>
<tr>
<td>2P-4-29</td>
<td>Changes in Active Layer Thickness and Seasonal Fluxes of Dissolved Organic Carbon as a Possible Baseline for Permafrost Monitoring</td>
<td>S.P. Davydov, D.G. Fyodorov-Davydov, J.C Neff, N.I. Shiklomanov, and A.I Davydova</td>
</tr>
<tr>
<td>2P-4-30</td>
<td>Thirteen Years of Observations at Alaskan CALM Sites: Long-Term Active Layer and Ground Surface Temperature Trends</td>
<td>D.A. Streletskiy, N.I. Shiklomanov, F.E. Nelson, and A.E. Klene</td>
</tr>
<tr>
<td>2P-4-31</td>
<td>The Influence of the Winter Season on Active Layer Depth in Taiga Landscapes, the Yakutsk Vicinity, East Siberia</td>
<td>P.Y. Konstantinov, R.N. Argunov, E.Y. Gerasimov, and I.S. Ugurov</td>
</tr>
<tr>
<td>2P-4-32</td>
<td>Recent Comparative Investigations and Monitoring of Permafrost of the Eastern and Western Qinghai-Tibet Plateau, China</td>
<td>Q. Yu, K. Roth, and H. Jin</td>
</tr>
<tr>
<td>2P-4-33</td>
<td>Active Layer Monitoring at a New CALM Site, Taimyr Peninsula, Russia</td>
<td>F.N. Zepalo, V.I. Grebenets, D.A. Streletskiy, and N.I. Shiklomanov</td>
</tr>
<tr>
<td>2P-4-34</td>
<td>Relation Between Soil Temperature and Late 20th Century Climatic Change in Yakutia</td>
<td>I.S. Vasiliev</td>
</tr>
<tr>
<td>2P-4-36</td>
<td>Dynamics of Cryosphere of Northern Tien Shan as a Reaction to Climate Change</td>
<td>I.V. Severskiy and E.V. Severskiy</td>
</tr>
<tr>
<td>2P-4-37</td>
<td>The Influence of Shrubs on Soil Temperatures in Alpine Tundra</td>
<td>I.H. Myers-Smith and D.S. Hik</td>
</tr>
<tr>
<td>2P-4-38</td>
<td>Surface Offsets and N-factors Across Altitudinal Tree Line, Wolf Creek Area, Yukon Territory, Canada</td>
<td>E.A. Schultz and A.G. Lewkowicz</td>
</tr>
<tr>
<td>2P-4-40</td>
<td>Seasonal and Interannual Variability of Active Layer Development in Permafrost Wetland Systems</td>
<td>C.M. Chiu and L.C. Bowling</td>
</tr>
<tr>
<td>2P-4-41</td>
<td>Impacts of Small-Scale Surface Variations on the Energy Balance of Polygonal Tundra on Samoylov Island, Lena River Delta, Siberia</td>
<td>M. Langer, J. Boike, K. Piel, and G. Stooof</td>
</tr>
<tr>
<td>2P-4-42</td>
<td>Snowpack Evolution on Permafrost, Non-Permafrost Soils and Glaciers in the Monte Rosa Massif (Northwest Alps, Italy)</td>
<td>M. Freppaz, M. Maggioni, S. Gandino, and E. Zanini</td>
</tr>
<tr>
<td>2P-4-43</td>
<td>Relation of Active Layer Depth to Vegetation on the Central Yamal Peninsula, Russia</td>
<td>M.O. Leibman, H.E. Epstein, A.V. Khomutov, N.G. Moskalenko, and D.A. Walker</td>
</tr>
<tr>
<td>2P-4-44</td>
<td>Historical Changes in the Seasonally Frozen Ground Regions of the Russian Arctic</td>
<td>O.W. Frauenfeld, T. Zhang, A.J. Eiringer, R.G. Barry, and D. Gilichinsky</td>
</tr>
<tr>
<td>2P-4-46</td>
<td>Improve the Active Layer Temperature Profile Estimation by the Data Assimilation Method</td>
<td>R. Jin and X. Li</td>
</tr>
<tr>
<td>2P-4-47</td>
<td>Twelve-Year Thaw Progression Data from Zackenberg, Northeast Greenland</td>
<td>H.H. Christiansen and C. Sigsgård</td>
</tr>
</tbody>
</table>
**Session 2P-5 Tuesday, July 1, 2008**

**Responses to Natural and Human-Induced Disturbances**

<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examining the Temporal Variation in Headwater Drainage Networks and Potential for Thermokarst Using Remote Sensing in the Innnavit Basin.</td>
<td>E.D. Trochim, D.L. Kane, and A. Prakatsh</td>
</tr>
<tr>
<td>Inter-Alas Agricultural Landscapes and Active Layer Trends and Dynamics in Response to a Warming Climate in Central Yakutia.</td>
<td>P.P. Gavriliev</td>
</tr>
<tr>
<td>Sensitivity of Permafrost Landscapes to Anthropogenic Impacts in the Northern Verkhoyansk Area, Subarctic Yakutia.</td>
<td>R.N. Ivanova</td>
</tr>
<tr>
<td>Vegetation Differentiation Across a Topographic Yedoma–Alas Transect in the High Arctic Tundra of Oyogos Yar, East Siberia.</td>
<td>F. Kienast, L. Schirmeister, and S. Wetterich</td>
</tr>
<tr>
<td>A Model of Permafrost Distribution and Disturbance Sensitivity for Denali National Park, Using Soil-Ecological Site Inventory Information.</td>
<td>M.H. Clark</td>
</tr>
<tr>
<td>Effects of Vegetation and Grazing on Soil Temperature, Soil Moisture, and the Active Layer in the Hovsgol Mountain Forest Steppe Zone, Mongolia.</td>
<td>A. Sharkhuu, N. Sharkhuu, B. Etzelmuller, E.S.F. Heggem, and C.E. Goulden</td>
</tr>
<tr>
<td>Comparison of Thermal Regimes in Tundra Virgin and Post-Agricultural Soils of the European North-East</td>
<td>D. Kaverin</td>
</tr>
<tr>
<td>Landsliding Followig Forest Fire on Permafrost Slopes, Klondike Area, Yukon, Canada.</td>
<td>J. Coates &amp; A.G. Lewkowicz</td>
</tr>
<tr>
<td>Long-term Winter Seismic Vehicle Impacts in Permafrost Terrain.</td>
<td>J.C. Jorgenson</td>
</tr>
<tr>
<td>Permafrost Dynamics and Landscape Changes in a Subarctic Peat Plateau, Northern Sweden.</td>
<td>A.B.K. Sannel &amp; P. Kuhry</td>
</tr>
<tr>
<td>Vegetation of Northern West Siberia and Its Response to Human-Induced Disturbances.</td>
<td>L. Kazantseva</td>
</tr>
<tr>
<td>Improving the Parameterization of Snow Processes to Model the Implications of Shrub-Tundra Expansion on Soil Temperatures.</td>
<td>C. Menard, R. Essery, and D. Clark</td>
</tr>
<tr>
<td>The 2007 “Anaktuvuk River” Tundra Fire on the Arctic Slope of Alaska: A New Phenomenon?</td>
<td>C. Racine and R. Jand</td>
</tr>
<tr>
<td>Reaction of Northern Taiga Ecosystems on Human-Induced Degradation of Permafrost in West Siberia.</td>
<td>P.T. Orekhov</td>
</tr>
<tr>
<td>The Biocomplexity Manipulation Experiment: Effect of Water Table Drop on CH4 and CO2 Fluxes in the Alaskan Arctic at the Barrow Environmental Observatory.</td>
<td>D. Zona and W.C. Oechel</td>
</tr>
<tr>
<td>Interactions between Human Disturbance, Demographics of Betula fruticosa Pall. and Permafrost in the Vitimskoye Upland, East Siberia.</td>
<td>I.R. Sekulich</td>
</tr>
<tr>
<td>Scientific Opportunities and Environmental Impacts Related to Ski Run Construction, Zermatt, Swiss Alps.</td>
<td>O. Wild, I. Roer, S. Gruber, B. May, and D. Wagenbach</td>
</tr>
<tr>
<td>Accelerated Arctic Land Warming and Permafrost Degradation During Rapid Sea Ice Loss.</td>
<td>D.M. Lawrence, A.G. Slater, R.A. Tomas, M.M. Holland, and C. Deser</td>
</tr>
<tr>
<td>Preliminary Analysis of Anthropogenic Landscape Fragmentation: Tazovsky Peninsula, Russia.</td>
<td>J.S. Wallace and A.E. Klene</td>
</tr>
<tr>
<td>Retrogressive Thaw Slump Impacts on Inconnu Spawning Habitat in the Selawik River, Alaska.</td>
<td>R. Hander, K. Yoshikawa, and N. Olson</td>
</tr>
</tbody>
</table>
Session 2P-6  Tuesday, July 1, 2008
Permafrost Controls on Surface Waters, Groundwater and Heat Flux Processes

2P-6-75 A Model for Calculating the Effective Diffusion Coefficient of Water Vapour in Snow. R. Gavriliev

2P-6-76 Hydrology, Hydrochemistry, and Vegetation of a High Arctic Wetland Complex. M. Woo, D.K. Thompson, X.J. Guan, and K.L. Young

2P-6-77 Current Capabilities in Soil Thermal Representations Within a Large-Scale Hydrology Model for Regions of Continuous Permafrost. L.C. Bowling, K.A. Cherkauer, and J.C. Adam

2P-6-78 Variable Rate Modeling of Fluvial Thermal Erosion. L. Dupeyrat, R. Randriamazaoro, F. Costard, and E.C. Gailhardis


2P-6-80 Water Balance for a Low-Gradient Watershed in Northern Alaska. D.L. Kane, R.E. Gieck, and L.D. Hinzman

2P-6-81 Analysis of Discharge Characteristics in a Region of Continuous Permafrost: Yana Basin in Siberia. I. Majhi and D. Yang

2P-6-82 Spatial and Temporal Variation of Soil Temperatures and Arctic Hydrology in the Kuparuk River Basin, Alaska. L.D. Hinzman, R.E. Gieck, and D.L. Kane

2P-6-83 Snowmelt in an Arctic Catchment: Application of The Hydrological Model WATFLOOD in a Small Arctic Basin with Different Land Cover Classes. A. Strutke and Ch. Opp

2P-6-84 Impact of Frozen Ground Change on Streamflow Hydrology Over the Lena Watershed in Siberia: Preliminary Analysis. D. Yang, I. Majhi, D. Kane, and T. Zhang

2P-6-85 Modeled Continual Surface Water Storage Change of the Yukon River Basin. R. Bryan, L.D. Hinzman, and R.C. Busey

2P-6-86 Convective Heat Exchange Between Rivers and Floodplain Taliks. V.M. Mikhailov

Session 2P-7  Tuesday, July 1, 2008
Subsea Permafrost, Sea Level Changes, and Dynamics of Coastal Permafrost

2P-7-87 Thermal and Mechanical Erosion Along Ice-Rich Arctic Coasts. M.A. Hoque and W.H. Pollard

2P-7-88 Environmental Controls for the Coastal Processes on Yugorsky Peninsula, Kara Sea, Russia. A. Khomutov.

2P-7-89 Coastal Erosion Since 1950 Along the Southeast Chukchi Sea, Alaska, Based on Both GIS and Field Measurements. W.F. Manley, J.W. Jordan, L.R. Lestak, O.K. Mason, E.G. Parrish, and D.M. Sanzone

2P-7-90 The Role of Sea Ice in Coastal and Bottom Dynamics in the Baidaratskaya Bay, Kara Sea. S.A. Ogorodov

Session 2P-8  Tuesday, July 1, 2008
Advances in Exobiology and Life in Extreme Terrestrial Environments

2P-8-91 The Permafrost of the Imuruk Lake Basaltic Field Area (Alaska) and Astrobiological Implications. O. Prieto-Ballesteros, D.C. Fernández-Remolar, J. Torres Redondo, M. Fernández-Sampedro, M.P. Martín Redondo, J.A. Rodríguez-Manfredi, J. Gómez-Elvira, D. Gómez-Ortiz, and F. Gómez

2P-8-92 Cyanobacteria Within Cryptoendolithic Habitats: The Role of High pH in Biogenic Rock Weathering in the Canadian High Arctic. C.R. Omelon, W.H. Pollard, F.G. Ferris, and P.C. Bennett

Session 2P-9  Tuesday, July 1, 2008
Global Interactions

2P-9-93 The Effect of Global Radiation Budget on Seasonal Frozen Depth in the Tibetan Plateau. R. Li, L. Zhao, and Y. Ding

2P-9-94 Impact of Surface Air Temperature and Snow Cover Depth on the Upper Soil Temperature Variations in Russia. A.B. Shershyukov, B.G. Shershyukov, and P.Y. Groisman

2P-9-95 Phase Changes of Water as a Basis of the Water and Energy Exchange Function of the Cryosphere. V.V. Shepelev
### Session 2P-10  Tuesday, July 1, 2008

#### Soil Mechanics

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2P-10-97</td>
<td>Forecasting Chemical Thawing of Frozen Soil as a Result of Interaction with Cryopegs.</td>
<td>V.I. Aksenov, N.G. Bubnov, G.I. Klinova, A.V. Iospa, and S.G. Gevorkyan</td>
</tr>
<tr>
<td>2P-10-98</td>
<td>Transformations of Cryogenic Structure of Frozen Clay Soils at Shear.</td>
<td>S.S. Volokhov</td>
</tr>
<tr>
<td>2P-10-99</td>
<td>The Mechanism of Ice Formation in Connection with Deformation of the Freezing Layer</td>
<td>J.B. Gorelik</td>
</tr>
<tr>
<td>2P-10-100</td>
<td>The Freezing Process Deformation of Soil Under Higher Confining Pressure</td>
<td>D. Wang, W. Ma, and Z. Wen</td>
</tr>
<tr>
<td>2P-10-101</td>
<td>Full-Scale Physical Modeling of Solifluction Processes Associated with One-Sided and Two-Sided Active Layer Freezing.</td>
<td>C. Harris, M. Kern-Luetscheg, J. Murton, M. Font, M. Davies, and F. Smith</td>
</tr>
<tr>
<td>2P-10-102</td>
<td>Shear Strength of Ice-Filled Rock Joints.</td>
<td>F.K. Günzel</td>
</tr>
<tr>
<td>2P-10-104</td>
<td>Effects of Soil Cryostructure on the Long-Term Strength of Ice-Rich Permafrost Near Melting Temperatures.</td>
<td>M.T. Bray</td>
</tr>
<tr>
<td>2P-10-105</td>
<td>Thermal Deformation of Frozen Soils.</td>
<td>G.P. Kuzmin and V.N. Panin</td>
</tr>
<tr>
<td>2P-10-106</td>
<td>Freeze/Thaw Properties of Tundra Soils, with Applications to Trafficability on the North Slope, Alaska</td>
<td>C.F. Bryant, R.F. Paetzold, and M.R. Lilly</td>
</tr>
<tr>
<td>2P-10-107</td>
<td>Near-Surface Stress and Displacement Measurements from Vehicle Passage Over Frozen Ground.</td>
<td>S. Shoop</td>
</tr>
</tbody>
</table>

### Session 2P-11  Tuesday, July 1, 2008

#### Remote Sensing in Permafrost Regions

<table>
<thead>
<tr>
<th>Paper ID</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2P-11-110</td>
<td>Circumpolar Relationships Between Permafrost Characteristics, NDVI, and Arctic Vegetation Types.</td>
<td>M.K. Raynolds and D.A. Walker</td>
</tr>
<tr>
<td>2P-11-112</td>
<td>Time Series Analyses of Active Microwave Satellite Data for Monitoring of Hydrology at High Latitudes.</td>
<td>A. Bartsch</td>
</tr>
<tr>
<td>2P-11-113</td>
<td>Inter-annual Variability of the Near-Surface Soil Freeze-Thaw Cycle Detected from Passive Microwave Remote Sensing Data in the Northern Hemisphere.</td>
<td>T. Zhang and R. Armstrong</td>
</tr>
<tr>
<td>2P-11-114</td>
<td>Characterizing Polar Landscapes from Multispectral and Hyperspectral Imagery.</td>
<td>J.L. Rich, B. Csatho, E. Merényi, B. Bue, C-L. Ping, and L. Everett</td>
</tr>
<tr>
<td>2P-11-115</td>
<td>Mapping the Permafrost in China Using Remotely Sensed Land Surface Temperature Data.</td>
<td>X. Li, S. Wang, R. Jin, and Y. Ran</td>
</tr>
</tbody>
</table>
Thursday: Session 3P
Session 3P-1 Thursday, July 3, 2008

Mountain Permafrost

3P-1-1 Borehole and Ground Surface Temperatures and Their Relationship to Meteorological Conditions in the Swiss Alps M. Hoelzle and S. Gruber

3P-1-2 A First Estimate of Mountain Permafrost Distribution in the Mount Cook Region of New Zealand’s Southern Alps S. Allen, I. Owens, and C. Huggel

3P-1-3 Permafrost in Low Mountains of the Western Chukot Peninsula. S. Titkov, V. Chernyadyev, and M. Tsvetkova


3P-1-5 Modeling Potential Climatic Change Impacts on Mountain Permafrost Distribution, Wolf Creek, Yukon, Canada. P.P. Bonnaventure and A.G. Lewkowicz


3P-1-7 Mountain Permafrost Parameters Simulated by Regional Climate Models. N. Salzmann, C. Hauck, and L.O. Mearns


3P-1-9 Idealized Modeling of the Impact of Atmospheric Forcing Variables on Mountain Permafrost Degradation C. Hauck and N. Salzmann

3P-1-10 Alpine Permafrost Distribution at Massif Scale: Assessment of Mean Surface Temperatures During the Winter Equilibrium Period Thanks to Topoclimatic and Geomorphological Data (Combeynot Massif, French Alps) X. Bodin, P. Schoeneich, and M. Fort

Session 3P-2 Thursday, July 3, 2008

Peatlands, Permafrost and the Global Carbon Balance, Including Greenhouse Gases

3P-2-11 Simulating the Effects of Wildfire on Permafrost and Soil Carbon Dynamics of Black Spruce Over the Yukon River Basin Using a Terrestrial Ecosystem Model S. Yi, A.D. McGuire, and J. Harden

3P-2-12 Terrestrial Carbon Dynamics Along a Permafrost-Dominated North–South Transect in the Tibetan Plateau. J. He, Q. Zhuang, and T. Luo

3P-2-13 Variation of CO2 Concentrations in Active Layer in Alpine Grasslands Soil on the Qinghai-Tibet Plateau. Y. Zhao, L. Zhao, and T. Wu

3P-2-14 Spatial Variation in CO2 Release from Arctic Tundra as a Result of Permafrost Thawing and Thermokarst Development. H. Lee, E.A.G. Schuur, and J.G. Vogel

3P-2-15 Pyrogenic Dynamics of Cryosols and Carbon Pools in Open Forests of Northeast Eurasia. N.S. Mergelov


3P-2-17 Variable Peat Accumulation Rates in Stable Subarctic Peat Plateaus, West-Central Canada. A.B.K. Sannel and P. Kuhry


3P-2-19 Effects of Increased Snow Depth on Ecosystem CO2 Fluxes in Arctic Tundra. L. Taneva, P.F. Sullivan, B. Sveinjornsson, and J.M. Welker

3P-2-20 Content and Composition of Organic Matter in Quaternary Deposits on the Laptev Sea Coast A.L. Kholodov, L. Schirrmeister, H. Meyer, Ch. Knoblauch, and K. Fahl

3P-2-21 Soil Carbon Distribution in Arctic Coastal Plain. E. Pullman, M.T. Jorgenson, and Y. Shur


### Session 3P-2  Thursday, July 3, 2008

**Peatlands, Permafrost and the Global Carbon Balance, Including Greenhouse Gases (cont.)**

| 3P-2-26 | Carbon Dynamics on Permafrost Regime, North Slope of Alaska. | Y. Kim, K. Kushida, M. Shibuya, and H. Enomoto |
| 3P-2-28 | Total Storage and Landscape Distribution of Soil Carbon in the Central Canadian Arctic Using Different Upscaling Tools. | G. Hugelius, P. Kuhry, C. Tarnocai, and T. Virtanen |
| 3P-2-29 | Patterns in Soil Carbon Distribution in the Usa Basin (Russia): Linking Soil Properties to Environmental Variables in Constrained Gradient Analysis. | G. Hugelius and P. Kuhry |
| 3P-2-31 | Seasonal Sources of Soil Respiration from High Arctic Landscapes Dominated by Polar Stripes. | C.I. Czimczik, S.E. Trumbore, and J. Welker |
| 3P-2-33 | Variation of Atmospheric Methane Over the Permafrost Regions from Satellite Observation During 2003 to 2007. | X. Xiong, C. Barnet, E. Maddy, X. Liu, and M. Goldberg |

### Session 3P-3  Thursday, July 3, 2008

**Permafrost Controls on Subsurface Water and Heat Flux Processes**

| 3P-3-34 | Hydraulic Conductivity in Frozen Unsaturated Soil. | K. Watanabe and T. Wake |
| 3P-3-35 | Water Chemistry of Hydrogenous Taliks in the Middle Lena. | N.P. Anisimova and N.A. Pavlova |
| 3P-3-36 | Geochemical Analysis of Groundwater Dynamics in Permafrost Regions. | S.J. Seelen, K. Yoshikawa, T. Trainor, and L. Hinzman |
| 3P-3-37 | Developing a Digital Hydrogeological Map of Central Yakutia (the Lena-Aldan Watershed). | L.D. Ivanova and N.M. Nikitina |
| 3P-3-38 | Monitoring of the Floodplain Talik Downstream from the Ust’-Srednekan Reservoir. | S.A. Guly and V.M. Mikhailov |
| 3P-3-39 | Discontinuous Permafrost Distribution and Groundwater Flow at a Contaminated Site in Fairbanks, Alaska. | A.E. Carlson and D.L. Barnes |
| 3P-3-40 | Satellite Observations of Frozen Ground, Snowmelt (1989-2007) and Hydrological Responses at a Discontinuous Permafrost Aquifer (Fort Wainwright, AK). | S.E. Kopczynski and J.M. Ramage |

### Session 3P-4  Thursday, July 3, 2008

**Antarctic Soils and Periglacial Processes**

| 3P-4-41 | Permafrost in the South Shetland Islands (Maritime Antarctica): Spatial Distribution Pattern. | E. Serrano, J. López-Martínez, J.A. Cuchi, J.J. Durán, S. Mink, and A. Navas |
| 3P-4-42 | The Microtopography of Periglacial Landforms on Mars. | N. Mangold |
| 3P-4-43 | A Provisional 1:50,000 Scale Soil Map of Wright Valley, Antarctica. | M. McLeod, J.G. Bockheim, and M.R. Balks |
| 3P-4-44 | Irreversible Damage? Human Activity, Cumulative Impacts and Recovery Rates of the Antarctic Soil Environment. | T.A. O’Neill and M.R. Balks |
| 3P-4-45 | A Provisional Soil Map of the Transantarctic Mountains, Antarctica. | M.R. Balks, M. McLeod, and J.G. Bockheim |
**Session 3P-5  Thursday, July 3, 2008**

**Frost-Affected Soils and Soil Carbon Storage**

3P-5-46 Cryogenic Soil Genesis at the Northern Distribution Line of the West Siberian Northern Taiga Ecosystems. G.V. Matyshak, I.G. Bogatyrev, and M.S. Rozanova

3P-5-47 Pedogenesis and Its Influence on the Structure of the Upper Layer of Permafrost. A.V. Lupachev and S.V. Guhin


3P-5-52 Development of Soil Databases on the Territory of Permafrost-Affected Regions in Russia. D.I. Rukhovich, N.I. Belousova, P.V. Koroleva, E.V. Vilechevskaya, and L.G. Kolesnikova

**Session 3P-6  Thursday, July 3, 2008**

**Spatial Variability in Periglacial Processes and Landscapes**

3P-6-53 The Kind and Distribution of Mid-Latitude Periglacial Features and Alpine Permafrost in Eurasia. F. Lehmkohl


3P-6-55 Development of Frost-Crack Polygonal Relief in the Central Part of Tazovskyi Peninsula. S. Marchenko, D. Abalazina, and F. Arnold

3P-6-56 Detailed Cryostratigraphic Studies of Syngenetic Permafrost in the Winze of the CRREL Permafrost Tunnel, Fox, Alaska. M. Kanepsiv, D. Fortier, Y. Shur, M. Bray, and T. Jorgenson

3P-6-57 Micromorphological Analyses of Main Genetic Permafrost Types in West Siberia. E.A. Slogoda and A.N. Kurchatova


3P-6-59 Pleistocene and Holocene Periglacial Forms in the Cantabrian Mountains (Northwest Spain). D. Trombotta Liaudat and V. Alonso


3P-6-61 Cryogenic or Periglacial Phenomena are Widespread Within High Mountain Caucasian Region. I.V. Bondyrev


3P-6-63 Mapping the Mountain Permafrost in Areas Surrounding Ulaanbaatar City. Y. Jambaljav, A. Dashtseren, D. Battogtokh, D. Dorjgotov, Y. Iijima, M. Ishikawa, Y. Zhang, T. Kadota, and T. Ohata

3P-6-64 Block Fields, Block Slopes and Rock Glacier: A Polygenetic Block Accumulation on the Schafstein (Rhoen Mountains, Germany). C. Opp

3P-6-65 Occurrence of Permafrost and Ground Frost Phenomena in Mongolia. C. Opp

3P-6-66 Solifluction Phases During the Late Holocene in Sierra Nevada (Southern Spain). M. Oliva and L. Schulte

3P-6-67 Formation of Frost Boils and Earth Hummocks. Y. Shur, T. Jorgenson, M. Kanepsiv, and C-L. Ping

3P-6-68 Digitizing Regional Permafrost Maps for Central and Eastern Asian Permafrost Mapping. L. Wu, X. Li, and J. Brown


3P-6-70 The Role of Permafrost in the 2002 Ten Mile Creek Debris Torrent, Yukon, Canada. P. Lipovsky, C. Huscroft, A. Levkoviez, and B. Etzelmüller

3P-6-71 Towards a Permafrost Map of the Central Asia. S. Marchenko, N. Sharakhno, X. Li, M. Ishikawa, J. Brown, V. Romanovsky, and D. Drozdov

3P-6-72 Bathymetric Mapping of Lakes in the Western Arctic Coastal Plain, Alaska. B. Winston, K. Hinkel, and R. Beck

### Session 3P-7  Thursday, July 3, 2008

#### Rock Glaciers

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3P-7-74</td>
<td>Thermal Processes in the Active Layer of the Larsbreen Rock Glaciers, Central Spitsbergen, Svalbard.</td>
<td>H. Juliussen, O. Humlum, L. Kristensen, and H.H. Christiansen</td>
</tr>
<tr>
<td>3P-7-75</td>
<td>Topographical Controls on the Distribution and Size of Rock Glaciers in the Central Brooks Range, Alaska.</td>
<td>A. Ikeda and K. Yoshikawa</td>
</tr>
<tr>
<td>3P-7-76</td>
<td>The Schmidt-Hammer as a Relative Age Dating Tool for Rock Glacier Surfaces: Examples from Northern and Central Europe.</td>
<td>A. Kellerer-Pirklbauer</td>
</tr>
<tr>
<td>3P-7-77</td>
<td>Rock Glaciers in the Kåfjord Area, Troms, Northern Norway.</td>
<td>R. Frauenfelder, J. Tolegsbak, H. Farbrot, and T.R. Lauknes</td>
</tr>
<tr>
<td>3P-7-78</td>
<td>Potential Use of Rock Glaciers as Mountain Permafrost Indicators in Yukon Territory, Canada.</td>
<td>A. Page, A. Lewkowicz, P. Lipovsky, and J. Bond</td>
</tr>
<tr>
<td>3P-7-79</td>
<td>The Importance of Snow Cover Evolution in Rock Glacier Temperature Modeling.</td>
<td>M. Dall'Amico, S. Endrizzi, R. Rigon, and S. Gruber</td>
</tr>
<tr>
<td>3P-7-80</td>
<td>Surface Ice and Snow Disappearance in Alpine Cirques and Its Possible Significance for Rock Glacier Formation: Some Observations from Central Austria.</td>
<td>A. Kellerer-Pirklbauer</td>
</tr>
<tr>
<td>3P-7-81</td>
<td>Liquid Water Destabilizes Frozen Debris Slope at the Melting Point: A Case Study of a Rock Glacier in the Swiss Alps.</td>
<td>A. Ikeda and N. Matsuoka</td>
</tr>
<tr>
<td>3P-7-82</td>
<td>Collapse of the Béard Rock Glacier (Southern French Alps).</td>
<td>J-M. Krysiecki, X. Bodin, and P. Schoeneich</td>
</tr>
<tr>
<td>3P-7-83</td>
<td>Internal Structure of Rock Glacier Murtèl Delineated by Electrical Resistivity Tomography and Forward/Inverse Modeling.</td>
<td>C. Hilbich</td>
</tr>
<tr>
<td>3P-7-84</td>
<td>Rock Glacier Response to Post-Little Ice Age Warming: Spruce Creek Rock Glacier, Ten Mile Range, Colorado, USA.</td>
<td>E.M. Leonard, S.G. Weaver, J.A. Bradbury, E.E. Langbecker, and J.A. Wollenberg</td>
</tr>
<tr>
<td>3P-7-85</td>
<td>Rock Glacier Distribution in the Absaroka/Beartooth Wilderness, Montana, USA.</td>
<td>Z.M. Seligman and A.E. Klene</td>
</tr>
</tbody>
</table>

### Session 3P-8  Thursday, July 3, 2008

#### Design, Construction, and Performance of Oil and Gas Pipelines

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>3P-8-86</td>
<td>Thaw Settlement Behavior of Permafrost Along an Oil Pipeline to be Constructed in Northeastern China.</td>
<td>Y. Sheng, Z. Wen, G. Li, J. Hao, and W. Wu</td>
</tr>
<tr>
<td>3P-8-88</td>
<td>Estimation of Frost Heave and the Stress-Strain State of the Buried Chilled Gas Pipeline.</td>
<td>M.A. Magomedgadzhieva, N.B. Kutviiskaya, and S.E. Grechishchev</td>
</tr>
</tbody>
</table>
Registration Information

Early Full Conference Registration:
$400 includes proceedings on CD only
$450 includes proceedings on CD and printed proceedings

On-site Registration:
$450 includes CD only
$500 includes CD and printed proceedings
$150 for one-day registration (includes program, abstract, abstract volume, extended abstract volume, proceedings CD)

On-site Student Registration:
$250 for student registration with CD only
$300 for student registration with CD and printed proceedings

Social Events
Mixer: Saturday, June 28, 2008, 1700–1900, Great Hall, light snacks and beer
Ice Breaker: Sunday, June 29, 2008, 1800–2200, UAF Museum of the North
Barbeque: Monday, June 30, 2008, 1830–2130, Beluga Field (by the Patty Gym)
Riverboat: Tuesday, July 1, 2008, 1830–2130, Cost $65 (bus transportation will be provided)
Banquet: Wednesday, July 2, 2008, 1900–2200, Carlson Center (bus transportation will be provided), Cost: $50

Accompanying Persons Program
A Day in Denali
Wednesday, July 2, 2008 (0800–1900) Cost: $125 (ages 18 & up)
Join us for a hike in the morning and thrilling afternoon paddle rafting trip on the Nenana River through class III/IV white water.

Chena Hot Springs Resort
Sunday, June 29, 2008 (1200–1800) Cost: $40 (all ages)
Catch the shuttle in Fairbanks and head 110 km east to the Chena Hot Springs Resort. You can soak in the lovely outdoor rock pool or hot tubs, swim in the indoor pool, visit the ice museum, view the geothermal power plant and greenhouses, tour the ice museum. Endless possibilities!

Ft. Knox Gold Mine Tour
Monday, June 30, 2008 (1000–1700) Cost: $50 (ages 9 & up)
Fort Knox is owned and operated by Fairbanks Gold Mining, Inc., a wholly owned subsidiary of Kinross Gold Corporation of Toronto, Canada. The Fort Knox Mine is Alaska’s largest operating gold mine, producing approximately 900 ounces of gold each day. The tour lasts about 2 hours and begins with a short video on the history of this area and mining methods. Next the hard-hat portion of the tour begins. The tour is broken down into three stops—the excavation, the crusher, and the mill.

Highlights of Fairbanks
Monday, June 30, 2008 (0900–1600) Cost: Adult $40, Child (ages 12 & under) $30
Head to the University of Alaska’s Large Animal Research Station to tour the facility where muskoxen and caribou are studied. After that tour, take a tour of the Georgeson Botanical Gardens. The bus will then take you to downtown Fairbanks where you will have time on your own to eat lunch and shop, then join with a guide for a walking tour of Fairbanks, ending with a stop at the Fairbanks Ice Museum.

GeoCaching Fun
Monday, June 30, 2008 (0900–1800) Cost: $55 (ages 18 and up)
Enjoy a relaxing hike with us in the White Mountains and discover some hidden treasures using GPS and GeoCache technology. No GeoCaching experience is required, but we will be doing some light hiking.

Mary Shields’ Kennel
Visit Fairbanks musher Mary Shields, the first woman to finish the Iditarod and the author of several books about dogs and Alaskan living. She gives tours of her kennel in Goldstream Valley (about 16 km north of Fairbanks).

Pioneer Park
Sunday, June 29, 2008 (1100, 1300, or 1500) Cost: $10
This 44-acre park was built for the Alaska 1967 Centennial Exposition. It was later renamed Alaskaland, a name it held until October 2001. It is a theme park, emphasizing historical Fairbanks as well as serving as a community park.
Riverboat Discovery
Monday, June 30, 2008 (0815–1300) Cost: Adult $60, Child (ages 3–12) $40
Your three-and-a-half hour cruise will take you into the heart of Alaska and the heart of a family who has made the rivers of Alaska a way of life for four generations. You will see a bush plane taking off from a “bush” style runway, visit the home and kennels of four-time Iditarod winner Susan Butcher, witness the “wedding of the rivers,” and gain insight into the ancient Athabascan Indian culture. Alaskan Native guides who have worked and lived in Alaska will take you on a personalized tour of the Chena Indian Village.

Glass Workshop
Monday, June 30, 2008 (1400–1600) Cost: $40–$60 (depends on items you choose to make)
Go into a studio and learn how to make your own Alaskan suncatcher, night light, or dichroic jewelry. Visit www.expressionsinglass.net for more information.

El Dorado Gold Mine
Wednesday, July 2, 2008 (0900–1230) Cost: Adult $50, Child (ages 3–12) $35
Join the Binkley family for a trip through Alaska's gold mining history at the El Dorado Gold Mine. Ride the Tanana Valley Railroad for an adventure into the gold fields of the Interior. A two-hour guided tour takes you through a permafrost tunnel where Alaska’s history comes alive. Enjoy a walking tour of our mining camp. After a short course in gold mining, grab your own “poke” filled with pay dirt right out of a sluice box and try your hand at panning for gold. Everyone finds gold.

Chena Lakes Kayak Fun
Tuesday, July 1, 2008 (1000–1600) Cost: $40 (ages 18 & up)
Take an afternoon and join us at Chena Lakes to learn about kayaking basics. We will play some kayak games and learn basic strokes and rescues at the same time. Chena Lakes offers good flat-water protection to get used to the quirks of a kayak if you are inexperienced, and enough space to have some fun if you are experienced. We will cover some basic paddling maneuvers, navigation, and rescue skills. Experience is not necessary, but you should be able to swim.

Alaska Native Culture Seminar
Thursday, July 3, 2008 (1300–1400) Cost: $15 (ages 12 & up)
This informal session will allow you to learn about native culture from an Alaskan Native. Question-and-answer session included. Located on UAF campus.

Alaska Native Beading Workshop
Thursday, July 3, 2008 (1400–1600) Cost: $30 (ages 12 & up)
Create your own Alaskan work of art! A Native Alaskan will show you how to bead in the traditional Athabascan style. Create your own beaded item such as a barrette or keychain in this workshop. Located on UAF campus.

Arctic Region Super Computer (ARSC) Virtual Tour
Tuesday, July 1, 2008 (1500–1700) & Thursday, July 3 (1100–1300) Free
Visit the ARSC Discovery Lab and take a virtual tour of Alaska’s only supercomputing center. Learn how virtual reality 3-D applications are helping scientists better understand our world. Tours start at the back loading dock of the Rasmuson Library.

Calypso Farm and Ecology Center Tour
Sunday, June 29, 2008 (1330–1630), Cost $10
Enjoy an afternoon strolling through an educational community garden learning about community sustainable agriculture (CSA).

Drumming in Alaska and Beyond
Tuesday July 1 3:00– 4:30 pm & Wednesday July 2 10:20 – noon Cost $30.00 ages 12 and up
(Takes place on the university of Alaska campus, Music Room 223)
Come explore the rich drumming traditions of Alaska. Participants will learn about the two main types of drums found among our Native culture. These musical instruments are common cousins with drums found across the circumpolar region. We will understand how sound, story, and movement are integral parts of the power of the drum. We play with these and other percussion instruments from all over the world as we create our own joyful music. If you have a heartbeat, you are welcome! No experience necessary.

Please be aware that this workshop takes place twice.

UAF Guided Walking Tour
Monday–Wednesday, June 30–July 2, 2008 (1000)
Free student-guided campus tours lasting about two hours are available in the summer. Tours start at the front entrance of the UA Museum. No tours July 3–4. For details contact Summer Sessions at (907) 474-7021, (866) 404-7021 toll free, or e-mail summer@uaf.edu.
General Conference Information

Registration Desk
The conference Registration Desk will be located in the Great Hall of the Fine Arts Building.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, June 27</td>
<td>1600–2000</td>
</tr>
<tr>
<td>Saturday, June 28</td>
<td>1000–1900</td>
</tr>
<tr>
<td>Sunday, June 29</td>
<td>0900–1800</td>
</tr>
<tr>
<td>Monday, June 30</td>
<td>0730–1800</td>
</tr>
<tr>
<td>Tuesday, July 1</td>
<td>0730–1700</td>
</tr>
<tr>
<td>Wednesday, July 2</td>
<td>0730–1700</td>
</tr>
<tr>
<td>Thursday, July 3</td>
<td>0730–1200</td>
</tr>
</tbody>
</table>

Information Desk
The Information Desk will be staffed 0800 to 1600 each day. Flyers and information for local restaurants and attractions will be available, as will a telephone for local calls.

Refreshment Breaks
Refreshments will be available in the Great Hall on Sunday afternoon, and every morning Monday through Thursday.

Refreshments will be available in the Wood Center on Monday, Tuesday, and Thursday afternoon following the poster sessions.

Lunch
To purchase food on campus, we advise purchase of meal tickets from the registration desk. These cards are $12 per meal, or $50 for the week, for 5 lunches.

Hot buffet lunches with vegetarian options will be served at the Lola Tilly Commons, Sunday, Monday, Tuesday, and Thursday. For a deli buffet, where you can build your own sandwich, head to the Wood Center Pub (except on July 1 and 2); you must be 21 years of age or older, and please have your ID to enter. Also available each day from the Wood Center, upstairs near the food court, will be sack lunches (also with vegetarian options) to take with you to side meetings or for outdoor eating. Wednesday, all lunches will be sack lunches, to take on buses for local field trips.

If you wish to leave campus for lunch, a list of restaurants is located in the back of this program; more information and sample menus are available at the Information Desk.

Message Board
A message board is located near the Information Desk in the Great Hall.

Parking
After 1700 on weekdays and all day on weekends, parking is free in all lots on campus (except Handicapped and Reserved spaces). On weekdays during the day, please use the parking kiosks located in the Taku Parking Lot and the Nenana Parking Lot and other sites around campus, to purchase a pass. Free shuttles run from 0730 to 1930 from these lots throughout campus. Two-hour metered visitor parking spaces are located in the Signers' Hall and Bunnell lots. Thursday, July 3, is a University holiday, so no parking pass will be needed.

Shuttle Bus Service
Airport shuttle to and from campus:
This service is provided for those staying in campus housing. A shuttle will meet planes as they arrive in Fairbanks June 27 and 28, 2008. The airport is about 15 minutes from UAF. Please check at the Information Desk for return bus schedules. Taxi fare is approximately $15 to the UAF dorms from the airport.

Shuttle to evening events from campus:
All buses leave from Wood Center, upper-level bus stop. Buses will be available for persons going on the Riverboat Cruise, Tuesday, July 1, and for those attending the banquet at the Carlson Center on Wednesday, July 3.
Shuttle from evening events to campus and hotels:
Buses are available for transportation from the off-campus evening events back to campus and to local hotels. A map showing the hotels and the route for each bus will be available. Please note the departure locations and times. The last bus will leave to go to hotels at 1030 each evening.

Telephone Numbers
UAF information 474-7211 or 474-7034 Campus Police 474-7721 UAF Conference Housing 474-6769

Emergency dial 911: All campus phones and pay phones have 911 access. Special emergency phones are marked with blue lights and are available for use throughout the UAF campus.

T-shirts And Calendars
Conference t-shirts will be available for purchase while the supply lasts. Also available calendars designed by PYRN members.

Recreational Facilities
The Student Recreation Center (SRC) is available to all registrants and their guests at a rate of $7 per day, payable at entrance. Facilities include a running track, free weights and weight machines, and basketball and tennis courts. You will need to carry in an extra pair of sneakers to use the SRC facilities (474-6814). There is an ice skating rink adjacent to the SRC. For information on ice rink hours call 474-6888.

Uaf Bookstore And Post Office
The UAF Bookstore upstairs in Constitution Hall carries a wide selection of general reading books, UAF clothing and insignia, personal care items, and an assortment of food, drinks and over the counter medications. Hours are 0800–1700 weekdays. Closed for University holiday on July 3–4 (474-7348). The UAF Post Office is located in the lower level of Constitution Hall, hours are 1000–1600 weekdays, closed Thursday, July 3rd, as it is a University holiday. A Fairbanks Post Office on Geist Road will be open July 3rd.

Smoking Policy
No smoking is allowed inside buildings at the University of Alaska Fairbanks, including residence halls, dining halls, and the student center.

SAFETY and SECURITY
UAF is a safe and comfortable environment, but be prudent. Walk in the company of at least one other person, especially when off-campus. Call the Campus Police at 6200 if you become aware of a situation that concerns you from a security or safety standpoint.

DO NOT LEAVE VALUABLES IN YOUR ROOM. NEITHER THE NICOP ORGANIZERS, NOR THE UNIVERSITY OF ALASKA FAIRBANKS, ARE RESPONSIBLE FOR LOST OR STOLEN ITEMS.

Fairbanks Environment
Day length: There are about 20 hours of possible sunlight in mid-June (sun up at 0400 and down at midnight) and, if it is not cloudy, there will be daylight all night. You may find sleeping more comfortable if you have eyeshades. Remember – just because it is not dark out doesn't mean that it is not time to get some sleep.

Mosquitoes: Mosquitoes will probably be in good supply in late June, though not bad on campus. Elsewhere in Fairbanks, you may want to carry mosquito repellent with you. Wearing long sleeved shirts and long pants is recommended.

Aridity: Fairbanks, Alaska, is very dry. Make sure you drink plenty of water.

Temperature: Be prepared for a range of temperatures at this time of year. You can expect a range of about 45–75° F, (7-24 °C) but the record high was 91°F (33 °C) and record low was 30° F (-1 °C).
HEALTH and MEDICAL NEEDS
There are two walk-in medical facilities in Fairbanks:

Fairbanks Urgent Care Center       452-2178  weekdays 0700–2100
1867 Airport Way, Suite 130B       weekends 1000–1900

Tanana Valley Clinic 1st Care      458-2682  daily 0800–2000
1001 Noble Street

Two dentists are on call June 29–July 3. Both are located in the West Valley Plaza, 4001 Geist Road.

Dr. Patricia Bergdahl 479-8423
Dr. Vaughan Hoefler 452-7955

ATM Machines on campus
Wood Center (available during Wood Center hours)
Hess Commons, near the Housing Office (available 24 hours)

Banking
Spirit of Alaska Federal Credit Union located in the Wood Center: Hours 1200–1700 weekdays, will be closed Thursday, July 3, as it is a University holiday. This bank, also has a branch located on Geist Road, and is open on weekdays. For full service banking needs, there is a Wells Fargo Bank on the corner of University Avenue and Geist Road.

Local Food Shopping
There are two grocery stores, Fred Meyers and Safeway, located on the corner of University Avenue and Airport Way.
Acceptable Network Usage Agreement

The University expects that all persons who make use of University computing hardware, software, networking services, or any property related or ancillary to the use of these facilities will abide by the following policy statement:

University information technology resources are provided to the university community and are to be used in the spirit of mutual cooperation. Resources are limited and must be shared. Everyone benefits when computer users avoid activities which may cause problems for others sharing the systems.

Hardware, software, and related services supplied by the University are intended for the purpose of implementing and supporting the university's mission, as set forth in Board of Regents Policies and Regulations. Misuse of these facilities is a violation of those Policies and Regulations, and may additionally be illegal. It is a violation to provide or obtain passwords to accounts other than one's own.

By making use of UAF facilities you agree to the following conditions:

You will not use university hardware, software or services without proper authorization. You agree to use licensed software on university machines; copying, distributing and/or using software without proper licensing is a violation of federal copyright law. You may not extend use of university computing facilities for any purpose beyond their intended use, nor beyond those activities sanctioned in Regents' Policy and Regulations.

University computing facilities may not be used:

- for personal profit or gain
- to harass, threaten, or invade the privacy of others
- to initiate or forward e-mail chain letters
- to cause breaches of computer, network or telecommunications security systems
- to initiate activities which unduly consume computing or network resources

Individuals who violate this policy will be subject to disciplinary action and/or referral to law enforcement authorities. Division of Computing and Communications personnel are authorized to monitor suspected violations and to examine items stored on any university storage medium.

**Computer system availability:**

There will be computers available in the Great Hall during the conference to check e-mail.

**Wireless Network Access:**

You will have access to the UAFnet wireless network in the Great Hall, Wood Center, Library, Schaible, Salisbury Theater, and in the lobby of the upper campus dorms.
Local Restaurants

Local area dining – Fairbanks and the outlying area within walking distance of UAF
•Bun on the Run – Sandwiches and desserts (Trailer in the parking lot of Beaver Sports, 2480 College Road)
•College Coffee House – Espresso, light meals (3677 College Road) 374-0468
•College Town Pizzeria (3549 College Road) 457-2200
•Gulliver's Books & Second Story Café – Sandwiches, soups (3525 College Road) 474-9574
•Hot Licks – Homemade ice cream (3453 College Road) 479-7813
•Pad Thai – Thai (3400 College Road) 479-1251
•Pazzo G’s Pizza Joint (3677 College Road) 456-2604
•Wok N’ Roll – Chinese fast food (3535 College Road) 455-4848

Marginal walking distance from UAF
•Alaska Coffee Roasting Company – Espresso, light meals (4001 Geist Road)
•McDonald's (3905 Geist Road) 474-2010
•Pizza Hut (4001 Geist Road) 456-5656
•Sam's Sourdough Café – Family style (3702 Cameron, off University Avenue) 479-0523
•Wolf Run – Light meals and desserts (3360 Wolf Run, off University Avenue) 458-0636

Need a car – fast food
•Burger King (1690 Airport Way) 452-4206
•Kentucky Fried Chicken (62 College Road) 452-7546
•McDonald's (1930 Airport Way) 452-4600 (38 College Road, next to Bentley Mall)
•Pizza Hut (1991 Airport Way) 456-5656
•Quiznos (3598 Airport Way) 458-7849
•Subway (3574 Airport Way) 479-8688
•Taco Bell (87 College Road) 452-3166 (1453 University Avenue) 479-8319
•Wendy's (1859 Airport Way) 456-3663

Need a car – casual dining
•The Bakery Restaurant – Family style (69 College Road) 456-8600
•Boston's Pizza – Family style (Old Steese Highway)
•Brewsters – Burgers, salads (3578 Airport Way) 456-2538
•Bruegger's – Bagels, soups, salads, sandwiches (36 College Road) 452-3940
•The Chowder House – Chowder, soup, sandwiches (206 Eagle Avenue) 452-2882
•Cookie Jar – Family style (1006 Cadillac Court) 479-8319
•Denny's – Family style (1929 Airport Way) 451-8950
•Food Factory – Burgers, hot wings, cheese steak (44 College Road) 452-3313
•Ivory Jack's – 2nd best burger in Alaska, pizza (2581 Goldstream Road) 455-6665
•Alaska Salmon Bake – Salmon, halibut, prime rib (Pioneer Park) 452-7274
•El Sombrero – Mexican (1420 Cushman Street) 456-5269
•Gerald's – Italian (3226 Airport Way) 474-0409 (701 College Road) 452-2299
•Hot Tamale – Mexican (112 North Turner) 457-8350
•Lemon Grass – Thai (388 Old Chena Pump Road) 456-2200
•Thai House Restaurant – Thai (1448 South Cushman Street) 456-2170
•Taco Azteca – Mexican (3401 Airport Way) 455-8226

Need a car – fine dining
•Bear 'n Seal Grill & Bar (813 Noble Street, in the Westmark Hotel) 459-7725
•Café Alex – Seafood to steak (310 1st Avenue) 452-2539
•Gambardella's Pasta Bella – Italian (706 2nd Avenue) 456-3417
•Lavelle's Bistro (575 1st Avenue, in the Spring Hill Suites Marriott Hotel) 451-0765
•Pike's Landing Fine Dining & Sports Lounge – Fish, steak, seafood (4438 Airport Way) 479-6500
•Pump House Restaurant & Saloon – Fish, steak, seafood (Mile 1.3 Chena Pump Road) 479-8452
•River's Edge Restaurant & Cocktails (4200 Boat Street) 474-3601
•Turtle Club – Prime rib and crab (Mile 10 Old Steese Highway) 457-3883
•Two Rivers Lodge Fine Dining – Everything from alligator to steak (Mile 16 Chena Hot Springs Road) 488-6815
•The Vallata – Italian (2190 Goldstream Road) 455-6600
•Zach's – Steak, seafood, pasta (1717 University Avenue) 479-3650
Things to do in Fairbanks and the surrounding area

Activities on campus
• Check out the campus calendar http://cgis.uaf.edu/cgi-bin/events/webevent.cgi
• Georgeson Botanical Garden – Numerous varieties of flowers and vegetables cultivated for Alaska's climate. Open for viewing daily. 474-1944
• Robert G. White Large Animal Research Station – View muskox, caribou, and reindeer. Tours daily. 474-7207
• University of Alaska Museum of the North – Discover fascinating stories about Alaska’s people, places, and wildlife. Audio guide available. Museum store. 0900–1900. 474-7581

Activities around town
• Alaskan Tails of the Trail with Mary Shields – Learn about Mary's adventures in mushing the Iditarod and through the Alaska wilderness. 455-6469
• Chena Bend Golf Course – Beautiful golf course located on Fort Wainwright. 353-6223
• Chena Hot Springs Resort – Soak in the hot springs and visit the ice museum. 451-8104
• Creamer's Field Migratory Waterfowl Refuge. 452-5162
• El Dorado Goldmine – Ride the Tanana Valley Railroad and pan for gold. 479-6673
• Fairbanks Golf and Country Club – Play a game of golf under the midnight sun. 479-6555
• Gold Dredge No. 8 – Visit a gold dredge and pan for gold. 457-6058
• Greatland River Tours (Tanana Chief) dinner & Sunday brunch cruises. 452-8687
• Ice Museum – Ice sculptures on display. Downtown on 2nd Avenue. 451-8222
• Midnight Sun Balloon Tours – Take a breathtaking trip over the Tanana Valley. 456-3028
• North Star Golf Club – Northern-most USGA golf course. 457-4653
• Pioneer Park – Visit this historic park for Fairbanks history, train rides, miniature golf, picnic grounds, and many gift shops housed in historic log cabins. 459-1087
• Palace Theatre and Saloon – Musical comedy about early Fairbanks. 452-7274
• Riverboat Discovery – Enjoy a boat cruise on the Chena and Tanana Rivers, including a guided walking tour of an Indian Village. 479-6673
• Tanana Valley Farmers Market – View what Fairbanks area farmers and artisans have produced. College Road, Wednesdays & Saturdays.
• Trans-Alaska Pipeline – Information and viewing, on the Steese Highway.
• Fairbanks Shakespeare Theater Renaissance Faire, Saturday, June 28, 1200–2000, by UAF Museum.

Art galleries and shops
• First Friday Art Gallery Showings – July 4, 2008
• Fairbanks Arts Association – Bear Gallery in the Pioneer Park Civic Center. 456-6485
• Artworks – 3677 College Road. 479-2563
• New Horizons Gallery – 519 1st Avenue. 456-2063
• Alaska House – 1003 Cushman Street. 456-6449
• Well Street Art Company – 1304 Well Street. 452-6169
• Knotty Shop – Wood crafts, burl carving and 30-foot totem pole. 488-3014
• Santa Claus House – North Pole. 488-2200

Be adventurous
• Rent a canoe and travel on the Chena River.
• Hike one of the many trails located throughout the Tanana Valley.
• Visit Denali National Park.
• Relax at one of the numerous lakes for a camping and fishing trip.
• Alaska Public Lands Information Center – 250 Cushman St. Suite 1A. 456-0527.

Shopping near campus
• Beaver Sports – Sporting goods, clothing (3480 College Road) 479-2494
• Date Line Copies – Copying, office supplies (3677 College Road) 479-3831
• Fred Meyer – Groceries, housewares, clothing (3755 Airport Way) 474-1400
• Gulliver's Books – Books, gifts (3525 College Road) 474-9574
• Safeway – Groceries (3627 Airport Way) 374-4000