

## **PYRN Newsletter**

**February 2013**

Dear PYRN-members,

Welcome to 2013 (hopefully a cooler year for permafrost than the last couple decades)! The year is off to a fast start and there is still a lot to come. The PYRN newsletter has been given an extreme makeover (thanks Andrea) so read below for the scoop on recent permafrost events, announcements, and upcoming meetings.

Sincerely,

The PYRN Executive Committee

### *Announcements*

#### **EUCOP 1st Circular - Call for Session Proposals**

Dear colleagues,

The 4th European Conference on Permafrost – IPA Regional Conference (EUCOP4), will be held in Évora, Portugal from 18 to 21 June 2014. The conference will cover all aspects of permafrost research, engineering and outreach and will have a Global scope, including planetary permafrost.

Sessions at EUCOP4 will be driven by the scientific community and we hereby open the call for session proposals, which should be submitted on-line until 30 March 2013.



**EUCOP 4**  
**4th European  
Conference on  
Permafrost**  
18-21 June 2014  
Evora, Portugal

Each session should have two conveners, which will be responsible for the final selection of abstracts and for their organization into oral or poster presentations. By 30 April 2013, a decision will be presented on acceptance of submitted sessions. The decision will be made based on the scientific interest and quality of the session, potential to attract participants, thematic overlap and number of available slots at the conference. Invitation of one key-note speaker for each session is expected. If key fields are not represented in the submitted list of session proposals, EUCOP4 National and International Scientific Committees will organize special session proposals to guarantee a wide scope for the conference.

The call for abstracts for the accepted sessions will be open until 15 December 2013. After that date, depending on number of abstracts being submitted to each session, EUCOP4 Scientific Committees may propose session joining or cancelling. The selection of abstracts will be made by session conveners until 30 January 2014 and decisions will be communicated to authors by then. The final program will be ready in March 2014. EUCOP4 will only publish normal abstracts, which will be about 1

page A4 in length. The online form for submitting session proposals is available at EUCOP4 website ([www.eucop4.org](http://www.eucop4.org)) and will be open until 30 March 2013.

If you intend to submit a session proposal, the following items will be requested in the online form:

- a) Title of session;
- b) Convenors (name, affiliation, and e-mail);
- c) Session description (max. 300 words);
- d) Name and affiliation of one confirmed keynote speaker who has agreed to contribute a presentation to this session.

Looking forward to receiving your contribution to EUCOP4!  
Best wishes,  
The EUCOP4 National Scientific and Organizing Committee

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## 2nd SVALI summer school on Earth System Models and Ice Models



The Nordic Centre of Excellence, SVALI (Stability and Variations of Arctic Land Ice) will hold its second summer school on the topic of Glaciology and Earth System Models from 13 - 24 May 2013 in Espoo, Finland. The summer school this year will address the following scientific question: "Can we quantify the average ice loss/gain of Svalbard glaciers connected to climate change despite the strong temporal variation due to surge behaviour?". The participants will get a certificate from the school that contains a recommendation to your university for granting 5 credits (ECTS) for the school. The school is aimed for graduate students up to senior scientists who want to get insight into applications in Earth system models and ice flow models.

Registration by 05.04.2013, 16:00.

[http://www.csc.fi/english/csc/courses/archive/svali\\_summerschool2013](http://www.csc.fi/english/csc/courses/archive/svali_summerschool2013)

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## Interdisciplinary summer field school "Cold Lands" in Yakutsk, Siberia



The North-Eastern Federal University in Yakutsk, Russia is organizing an interdisciplinary summer field school, 'Cold Lands'. The 3-week program includes lectures, workshops and field work on physical geography, human geography, northern studies, resource management, biology, permafrost study. Students will get a great opportunity taking participation in summer field school. The program includes: physical and human geography, flora and fauna of Yakutia, geo-information systems and cartography, regional development and resource management, permafrost studies and landscape management, social health of northern people. The summer school is suitable for international undergraduate, graduate and post-graduate students, scientists, teachers and researchers.

Duration: 20 June - 11 July 2013

Participation fee: 1000 \$ (accommodation, meals, health/medical care, museum fees)

Deadline for registration: 30.03.2013

Contact: Department of Northern studies NEFU, Irina Dranaeva: [dranaeva@mail.ru](mailto:dranaeva@mail.ru)

<http://www.uarctic.org/SingleNewsArticle.aspx?m=539&amid=14413>



**Juneau Icefield Research Program**

Educational expeditions for upper-level high school, undergraduate and graduate students on Alaska and British Columbia's spectacular Juneau Icefield

June 21 - August 16, 2013

For more information and to apply: [www.juneauicefield.com](http://www.juneauicefield.com)

**Witness stunning scenery, examine fascinating natural phenomena, and challenge your physical abilities while skiing, hiking, and living in this extreme environment.**

The Juneau Icefield Research Program (JIRP) provides an expeditionary learning experience for upper-level high school, undergraduate and graduate students. During the 8-week expedition, students traverse the 75-mile distance across the Juneau Icefield participating in long-running surveys of glacier dynamics and mass balance, state-of-the-art scientific research, academic lectures, and independent research projects.

**Experience the Outdoor Classroom**  
Earn college credits and build valuable field research experience while learning in this incredible outdoor classroom. JIRP features a diverse academic curriculum in Earth System Science taught by leading researchers in the fields of glaciology, geology, climatology, meteorology, environmental sciences, ecology, biology, and other disciplines. Since 1946, over 1,400 students have participated.

**Kickstart Your Career**  
JIRP has a long history of research in glacier dynamics and mass balance, geology, and alpine ecology. JIRP has maintained one of the longest-running glaciological research programs in the world, making it an ideal location to document the impacts of climate change on alpine and glacial environments. Student participants have gone on to become leading researchers in a wide range of fields, including glaciology, geology, biology, space science, and medicine. Participants have also become artists, photographers, adventurers, writers, and teachers.

**Apply Today!**  
The cost of the 8-week program is \$4,900, including all transportation, food, lodging, and instruction following arrival in Juneau, Alaska. Participants are responsible for transportation to and from Juneau. Some scholarships are available. For more information, please contact Dr. Jeffrey Kavanaugh, JIRP Director, at [jkavanaugh@uwaterloo.ca](mailto:jkavanaugh@uwaterloo.ca).

*"I'd always wanted to be an explorer when I grew up...JIRP essentially taught me how. It's not about being the first person to plant flags and leave footprints somewhere. It's about mapping the world in new ways, and in the process, discovering uncharted territory in yourself."*

Kate Hearn (JIRP 2004)  
Named one of Canada's Top 10 Adventurers by Explore Magazine

## The Juneau Icefield Research Program

The program provides education and field training of earth system sciences to students and scientists through field research and classroom training. These activities help maintain the longest continuous research program of any glacier in the western hemisphere, and contribute to the monitoring of Alaskan glaciers and their sensitivity to climate change. Student and professional scientists participate in an interdisciplinary study of the Juneau Icefield, the fifth largest icefield in the Western Hemisphere. Summer Programs and Expedition Training in Interdisciplinary Arctic and Mountain Earth Systems Science will take place from June 21 to August 16, 2013 at Juneau Icefield, Alaska and British Columbia and Yukon Territory, Canada.

The deadline for registration is April 15, 2013.

<http://juneauicefield.com/>

## Advanced Seminar on Permafrost Engineering Applied to Transportation Infrastructure

### Whitehorse, Yukon

This is an advanced, graduate level seminar on permafrost engineering applied to transportation infrastructure. The seminar will include a description of permafrost environment and dynamics. Principles and methods for site investigation, design and management of roads, airstrips, railways and other linear structures built in permafrost environments will also be explored. The seminar also includes two field visits to sites where interesting permafrost and engineering features can be observed. The course is offered by Yukon College in cooperation with Transport Canada, the Cold Climate Innovation of the Yukon Research Centre, Yukon Highways and Public Works, Laval University and Carleton University.

Duration: May 9-15, 2013

Pre-requisite: Bachelor degree in Engineering or Earth Sciences

Fees for Graduate Students (three credit course):

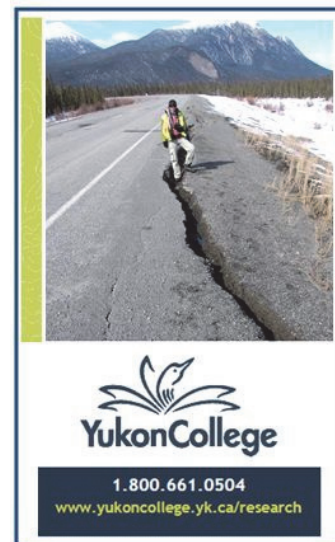
Tuition and Activity Fees: \$324 + \$275 = \$599

Fees for Professionals (non-credit):

Tuition and Activity Fees: \$1050 + \$275 = \$1325

<http://www.yukoncollege.yk.ca/research/publications/promotional>

[http://www.yukoncollege.yk.ca/downloads/Permafrost\\_Brochure\\_2013.pdf](http://www.yukoncollege.yk.ca/downloads/Permafrost_Brochure_2013.pdf)



**Yukon College**

1.800.661.0504

[www.yukoncollege.yk.ca/research](http://www.yukoncollege.yk.ca/research)

## Reports

### PAGE21 General Assembly

14-16 November 2012, Hamburg/Germany



The PAGE21 is a large-scale integrating collaborative project under the ENV call topic "Vulnerability of Arctic permafrost to climate change and implications for global GHG emissions and future climate" (ENV.2011.1.1.3-1) coordinated by Professor Hans-Wolfgang Hubberten from AWI.

PAGE21 aims to understand and quantify the vulnerability of permafrost environments to a changing global climate, and to investigate the feedback mechanisms associated with increasing greenhouse gas emissions from permafrost zones. This research makes use of a unique set of Arctic permafrost investigations performed at stations that span the full range of Arctic bioclimatic zones. The project brings together the best European permafrost researchers and eminent scientists from Canada, Russia, the USA, and Japan.

The PAGE21 General Assembly is held each year for dissemination purposes, reviewing the progress and strategy of the project. The PAGE21 General Assembly 2012 was held at the Max Planck Institute for Meteorology (MPI-M), in Hamburg in Germany from 14 to 16 November 2012 at the kind invitation of the MPI.

During the 2012 General Assembly, data management and the access to data was the major discussion. Other issue very much emphasized in the meeting was the close cooperation of the "field scientists" and the "climate-modeling scientists". Overall, the project is on a very good path to fulfill its objectives and the consortium is determined to continue the good work.

ExCom member Altug Ekici represented PYRN at this meeting and new PAGE21 researchers were informed about the several PYRN activities and collaborations.

Next PAGE21 General Assembly will be held in Abisko in Northern Sweden from 23. - 27. September 2013 in conjunction with the FP7 funded INTERACT project. International media representatives as well as Young Researchers will be especially invited to this meeting. All PYRN members will be informed about the opportunities in participating to the planned joint workshop.

<http://www.page21.eu/>



*Group picture of PAGE 21 General Assembly participants in 2012 in Hamburg, Germany.*

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### Third PYRN-Germany Meeting

15 November 2012, Potsdam

The third PYRN-Germany meeting was held on 15 November 2012 in Potsdam, Germany. This event was embedded in the annual meeting of the German branch of the International Permafrost Association (IPA) and hosted by the German Society for Polar Research (DGP) from 15 to 17 November 2012. Like

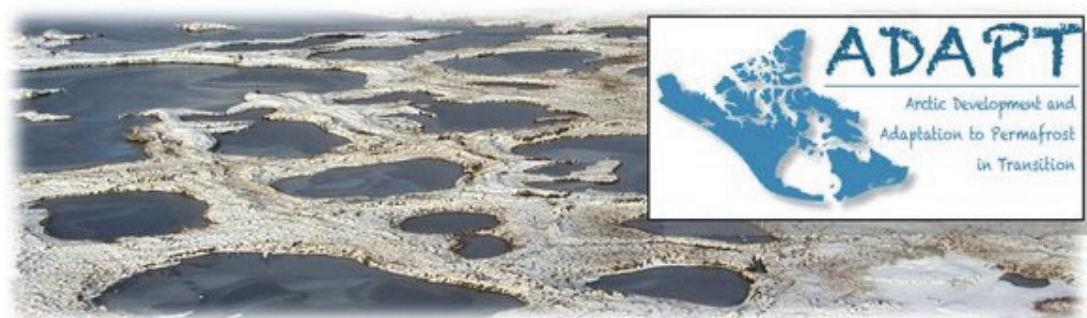
in the years before, the PYRN meeting, lead by Michael Fritz from the Alfred Wegener Institute in Potsdam (AWI Potsdam), was used to foster collaboration amongst German speaking early career researchers dealing with permafrost. About 30 young researchers from Germany, Austria and Switzerland introduced their projects on Masters, PhD, and Postdoc level. Three main topics emerged during the discussion that range from (1) geophysical applications in alpine and polar permafrost, (2) carbon in permafrost, and (3) palaeoenvironmental reconstructions using archives in permafrost. (1) The group of geophysicists agreed on establishing a mailing list and data base to share their knowledge on frequently used methods and study areas. This will be coordinated by Daniel Draebing from the University of Bonn. (2) Carbon in permafrost is currently one of the hottest topics in permafrost research. Under the leadership of Jens Strauss from the (AWI Potsdam), we are in process of establishing a sampling protocol for studying carbon in permafrost in a comprehensive manner. The aim is to standardize methods in order to make results comparable and to make the most out of a single sample that was acquired with huge logistical and personal efforts from a remote locality. The suggested protocols will focus on harmonizing sampling procedures and analyzing solid, dissolved and gaseous phases of carbon. (3) A third group of paleoecologists lead by Romy Zibulski (AWI Potsdam) will try to link the well-known summer climate proxies with the rare winter temperature proxies. They will furthermore gather existing relevant literature and compile genetic databases and herbariums as baseline datasets.

The three-day meeting attracted about 60 colleagues from Germany, Austria and Switzerland from 18 universities and research institutes as well as cooperation partners from Russia, Norway, China and Great Britain.

The next meeting will be held in autumn 2013 in Cologne or Munich.



*Group picture of PYRN-Germany participants 2012 in Potsdam, Germany.*



## Launch of the ADAPT Early Career Researchers Association 'AECRA'

11 December 2012, Vancouver/Canada

AECRA is the new student association within the ADAPT program, bringing together young researchers from 15 laboratories across Canada. The launch of AECRA was held last December during the 3rd ADAPT workshop in Vancouver. This workshop occurred during the beginning of the 2012 ArcticNet's Eighth Annual Scientific Meeting.



[ADAPT – Arctic Development and Adaptation to Permafrost in Transition](#) – is the largest multidisciplinary research program on permafrost in Canada. This new Integrated Permafrost Systems Science approach focuses on how changing permafrost and snowfall in the Arctic affect tundra landscapes, water and wildlife, and the implications for Northern communities and industries that depend on these resources.

The young researchers from the AECRA association will work at numerous sites in the Arctic from the Yukon to the Labrador. The creation of AECRA aims to generate a forum allowing early career researchers to share their knowledge, information, skills, expertise and experiences amongst Canadian graduate students and also with international organizations such as PAGE 21. Members of PAGE 21 were present at this ADAPT workshop to present their program to the Canadian researchers and students. International collaborations will help to expand the ADAPT projects to the circumpolar scale.

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## PYRN Portugal and Spain Activities

During the last year, PYRN Portugal and Spain join efforts for spreading research activities on permafrost topics in the Iberian Peninsula.

A workshop entitled “Antarctic and the geographers” was also carried out within Iberian PYRN activities in Barcelona (22-29th May).

[http://paisatge.wix.com/servei\\_ub/ipa-2013#!\\_ipa-2013](http://paisatge.wix.com/servei_ub/ipa-2013#!_ipa-2013)

Outreach activities were conducted by Alexandre Nieuwendam and Marc Oliva who gave several lectures in schools and in the Pavilion of Knowledge (Lisbon) explaining the importance of conducting permafrost research in Antarctica.

Members of PYRN Spain and Portugal have also conducted research in Antarctica during 2012, mainly focusing on the monitoring of permafrost state in the South Shetland Islands, geomorphological processes and reconstructing the role of permafrost (i.e. climate) in several ice-free areas of these islands.

<http://holoantar.weebly.com/>



Permafrost research at the South Shetland Islands, 2012.



Explaining the importance permafrost research in Antarctica.

## Upcoming Meetings

### 43rd International Arctic Workshop

The 43rd International Arctic Workshop will be held at the University of Massachusetts, Amherst, USA from Monday March 11 through Wednesday March 13. Abstracts will be due by February 20, 2013. For more details, visit the 2013 Arctic Workshop website <http://instaar.colorado.edu/news-events/conferences/43rd-international-arctic-workshop/>

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### European Geophysical Union (EGU)

The EGU 2013 will be held in Vienna/Austria from 7-12 April 2013. The EGU General Assembly 2013 will bring together geoscientists from all over the world into one meeting covering all disciplines of the Earth, Planetary and Space Sciences. Especially for young scientists, it is the aim of the EGU to provide a forum where they can present their work and discuss their ideas with experts in all fields of geosciences. Registration deadline is March 13, 2013. <http://www.equ2013.eu/>



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### Davos Atmosphere and Cryosphere Assembly (DACA-13)

The International Association of Meteorology and Atmospheric Sciences (IAMAS) and the International Association of Cryospheric Sciences (IACS) welcome you to the Davos Atmosphere and Cryosphere Assembly. DACA-13 will be held from July 8–12 in Davos/Switzerland. Registration deadline is March 31, 2013. [http://www.daca-13.org/index\\_EN](http://www.daca-13.org/index_EN)

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### Geocryological mapping: problems and perspectives

The meeting will be held in Moscow/Russia from 15-17 May 2013. Deadline for registration is March 1, 2013. <http://geocryology.ru/>

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## Alpine Glaciology Meeting (AGM)

In 2013, the Alpine Glaciology Meeting (AGM) will be held in Grenoble, France, at February 14-15. The meeting serves as informal exchange platform for researchers working on snow, glaciers or permafrost. The deadline for registration is February 1, 2013.

<http://lgge.osug.fr/AGM2013/home.html>

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## Geocryological Conference and Third Forum for Young Permafrost Scientists



### **Third Forum for Young Permafrost Scientists commemorating the 140th birthday of M.I. Sumgin. Yakutsk, Russia, 24 June - 13 July 2013**

The Forum will be held in Yakutsk, Russia from 24 June to 13 July 2013. The Forum for Young Permafrost Scientists will include the Geocryological Conference held from 24–27 June and a Geocryological Field Workshop from 29 June to 13 July 2013. A photo contest will be run as part of the Third Forum for Young Permafrost Scientists, participants are invited to submit photographs.

Topics to be included are:

- Regional and historical geocryology
- Thermal regime of cryolithozone
- Periglacial processes and forms
- Landscape dynamics in permafrost regions
- Permafrost geochemistry
- Permafrost hydrology and hydrogeology
- Climate change and permafrost evolution
- Greenhouse gases and gas hydrates
- Permafrost microbiology
- Remote sensing of permafrost
- Stability of engineering structures on permafrost

The workshop will be based at the Tompo field camp of the North-Eastern Federal University in the Verkhoyansk Mountains and will focus on mountain permafrost with five main topics:

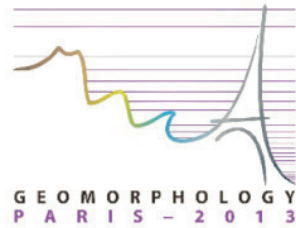
- Paleogeography and glaciation
- Periglacial processes and forms (slope processes, solifluction, patterned ground, thermokarst, frost cracking, frost heaving)
- Hydrology and hydrogeology (mountain streams, springs)
- Ground temperature regime
- Roads on permafrost

The estimated cost is about 120–250 Euro per person depending on the availability of additional funding.



The deadline for registration is March 1, 2013.

<http://mpi.ysn.ru/index.php/en/welcome.html>



## 8th International Conference on Geomorphology

The 8th International Conference on Geomorphology of the International Association of Geomorphologists (IAG) will take place in Paris/France from August 27 to 31, 2013. The main topic of this 8th Conference is "Geomorphology and Sustainability".

Early bird registration until March 1, 2013. [http://www.geomorphology-](http://www.geomorphology-iaq-paris2013.com/)

[iaq-paris2013.com/](http://www.geomorphology-iaq-paris2013.com/)

## 6th International Conference on Cryopedology

The conference focusses frost-affected soils and dynamic soils in the dynamic world and will be held in Kraków/Poland from 24-29 August 2013.

The aim of the conference is to encompass the whole range of research associated with soils affected by frost, either at present or in the past. Presentations and posters will be grouped in thematic sessions connected with the following topics:

- Genesis and classification of frost-affected soils
- Paleocryogenic imprints in contemporary soils
- Functioning of Cryosols in contemporary ecosystems
- The effect of climate change on Cryosols
- Carbon dynamics in Cryosols
- Soil management in polar regions
- Soil databases and mapping of Cryosols

The deadline for registration, abstract submission and payment is May 31, 2013.

<http://www.geo.uj.edu.pl/konferencja/cryosols2013/index.php?page=main>



## International Conference on Earth Cryology: XXI Century

The Scientific Council on Earth Cryology, Russian Academy of Science and Earth Cryosphere Institute would like to invite you to Pushchino, Russia from

September 29 to October 3, 2013.

The main topics of the conference will be:

- Mountain and volcanic permafrost
- Subsea permafrost
- Subglacial permafrost
- Permafrost on the other planets
- Permafrost processes
- Permafrost modelling and mapping
- Permafrost engineering, constructions on frozen ground
- Permafrost microbiology and astrobiology
- Permafrost dating and paleoreconstructions
- Permafrost-affected soils and biosystems
- Permafrost biogeochemistry
- Permafrost hydrology and hydrogeology
- Permafrost warming and thawing, long-term monitoring
- Permafrost and trace gas exchanges



International conference  
**"Earth Cryology: XXI century"**  
Russia, Pushchino, September 29 - October 3, 2013

Several roundtables will be organized: Antarctic permafrost and soils (ANPAS), TSP, CALM, Antarctic and mountain permafrost, palaeoreconstructions, PYRN.

The deadline for registration is April 15, 2013. [http://cryosol.ru/index/earth\\_cryology2013/0-45](http://cryosol.ru/index/earth_cryology2013/0-45)



## Intl. Symposium in Radioglaciology

The Centre of Remote Sensing of Ice Sheets (CReSIS) will host the International Symposium on Radioglaciology, in conjunction with the International Glaciological Society from September 9 to 13, 2013 at the University of Kansas, Lawrence, Kansas. Prospective participants are strongly encouraged to check deadline information when available and to register online.

<https://www.cresis.ku.edu/meetings/conferences>

## 10th International Symposium on Permafrost Engineering

In order to further research on interaction of permafrost in cold regions and the environment, engineering, climate, ecology and continue to deepen the Russia and other countries exchange and cooperation in the fields of permafrost science and engineering the '10th International symposium on permafrost engineering' will be held on the 20 - 22 August 2014 in Harbin, China.

Conference Topic: Challenge and Adaptation of Permafrost Engineering in Changing Climate

Sub Topics:

- \* Ensuring the safety of human activities in permafrost regions of ecological, technical conditions
- \* Hydrological effect of frozen soil and frost-resistant technology of hydraulic engineering
- \* Engineering construction in permafrost regions
- \* Physical and mechanical properties of frozen soil, modeling and forecasting

- \* Permafrost, ice, snow, monitoring, modeling and forecasting
- \* Study on typical in cold area of Northeast China project

<http://www.208hanshui.org/hanshui.asp>

[http://ispe.allconfs.org/meeting/index\\_en.asp?id=1857](http://ispe.allconfs.org/meeting/index_en.asp?id=1857)



## IAEG XII CONGRESS

The IAEG XII Congress in Torino, Italy from September 15-19, 2014 aims to analyse the dynamic role of Engineering Geology in our changing world. Within a large variety of topics, the following sessions might be of special interest for the permafrost community:

1.9 - Environmental and engineering geological problems in permafrost regions in the context of a warming climate

Convener: Prof Wei Shan

Co-conveners: Tonglu Li, Marten Geertsema, Marina Leibman, Marta Chiarle, Ying Guo

1.12 - Instabilities of alpine permafrost

Convener: Prof Denis Fabre, Co-convener: Héloïse Cadet

The Deadline for submitting your abstract is April 15, 2013.

<http://www.iaeg2014.com/>



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