Conference program

EUCOP6 PUIGCERDÀ
18-22 JUNE 2023

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WELCOME

WELCOME
FROM THE EUCOP 2023 LOCAL ORGANIZING COMMITTEE

It gives me great pleasure to welcome you all to the 6th European Conference on Permafrost (EUCOP 2023) in Puigcerdà, Eastern Pyrenees, in June 2023. The Local Organizing Committee is thrilled to have you with us for this conference, and we are sure it will be a truly enriching experience for all involved.

The Spanish branch of the International Permafrost Association has been working hard over the last years to organize the first major permafrost conference after these troubled years of the pandemic. The Universitat de Barcelona has coordinated the Local Organizing Committee, with the involvement of several Spanish universities and research centres, to host in the Cerdanya region the largest scientific conference ever organized in the Pyrenees. Puigcerdà, in the heart of the Catalan Pyrenees, surrounded by several mountains of ca. 3,000 m, will host the EUCOP 2023 conference.

More than 440 experts from various fields coming from all continents will present nearly 500 communications, sharing ideas during six days of meetings, workshops, oral and lecture sessions, panel discussions and field trips to several exciting sites representative of the glacial and periglacial environments in the Pyrenees. We encourage you to take advantage of every opportunity to connect with your fellow participants and speakers. You never know what insights you might gain from a casual conversation over coffee or during a networking break.

We would like to extend our gratitude to all the speakers, sponsors, and volunteers who have worked hard to make this conference possible. We hope that you will find the conference to be both informative and enjoyable and that you leave with new knowledge, inspiration, and a network of valuable contacts.

Marc Oliva, Universitat de Barcelona, Catalonia

On behalf of the EUCOP 2023 Local Organizing Committee

WELCOME

WELCOME
FROM INTERNATIONAL PERMAFROST ORGANIZATION (IPA)

I am delighted to welcome you to the Sixth European Conference on Permafrost, organized for the International Permafrost Association by Marc Oliva and his team. It is marvellous to meet again in person for the first time since the Fifth European Conference in 2018. We have been through a pandemic and now we face the challenge to international cooperation posed by the war in Ukraine. I am sure we all find the situation appalling, that we regret profoundly the actions and decisions that have brought us this conflict, and that we hope for an end to the suffering and destruction.

The founding of the IPA in 1983 was implicitly part of the general rapprochement that led to the end of the Cold War. Science will have, again, a valuable role to play in rebuilding bridges between nations. The IPA has always maintained that contributions to our conferences are made by individuals, welcomed without regard to personal characteristics, gender, race, nationality, or faith. Our meetings have been focused on ideas and innovation and have been conducted in an atmosphere of respect.

I expect such an atmosphere will prevail in Puigcerdà. We all look forward to the presentations and posters, to renewing friendships, making new ones, and learning from each other. Please take time during the week to thank Marc and his organizing team for what they have done for us.

Chris Burn, Carleton University, Ottawa

President, IPA, 2020-2024

MEETING VENUE

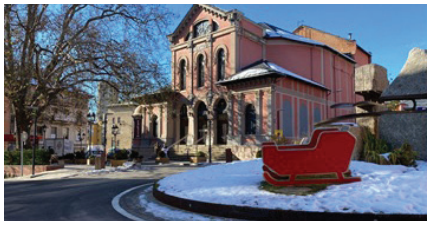
1. Hotel Villa Paulita
2. Hotel del Lago
3. Hotel Park Puigcerdà
4. Hotel del Prado
5. Hotel Parada Puigcerdà
6. Hotel Puigcerdà
7. Hotel Terminus
9. Alberg Campus Cerdanya
10. Camping Stel
11. Hostal di Verena
12. Hostal Estació
13. Hostal Rita Belvedere
14. Pensió Fonda Cerdanya

MEETING VENUE

A

CASINO CERETÀ

Plaça de Barcelona, 3, 17520 Puigcerdà,



B

CINEMA AVINGUDA

Carrer Major, 49, 17520 Puigcerdà

C

MUSEU CERDÀ

Carrer Higini de Rivera, 4, 17520 Puigcerdà

D

BIBLIOTECA

Carrer del Claustre, 12, 17520 Puigcerdà

E

PLAÇA DEL CALL

Poster area & coffee breaks

F

LAKE

Ice breaker & lunch

COMMITTEES

LOCAL ORGANIZING COMMITTEE

Marc Oliva, Chair, *Universitat de Barcelona*
Julia García-Oteyza, *Universitat de Barcelona*
Josep Ventura, *Universitat de Barcelona*
Ferran Salvador, *Universitat de Barcelona*
Olga Margalef, *Universitat de Barcelona*
Sergi Pla, *CREAF-Universitat Autònoma de Barcelona*
Oriol Grau, *CREAF-PNAP*
David Palacios, *Universidad Complutense de Madrid*
Nuria de Andrés, *Universidad Complutense de Madrid*
Luis Miguel Tanarro, *Universidad Complutense de Madrid*
Miguel Ramos, *Universidad de Alcalá*
Miguel Ángel de Pablo, *Universidad de Alcalá*
Enrique Serrano, *Universidad de Valladolid*
Ignacio López-Moreno, *IPE-CSIC*
Ramón Pellitero-Ondicol, *UNED*
Rosa Blanca González Gutiérrez, *Universidad de León*
Javier Santos, *Universidad de León*
Marcos Valcárcel, *Universidade de Santiago de Compostela*
Marcelo Fernandes, *Universidade de Lisboa*
José María Fernández, *National PYRN representative, Universidad Complutense de Madrid*
Rosa María Carrasco, *Universidad de Castilla-La Mancha*
Valentí Turu, *Fundació Marcel Chevalier, Andorra*
Magali Delmas, *Université de Perpignan*
Enric Quílez, *Grup Recerca Cerdanya*
Josep Bonsoms, *Universitat de Barcelona*

INTERNATIONAL SCIENTIFIC COMMITTEE

Andrey Abramov, *Russian Academy of Sciences*
Dermot Antoniades, *Laval University*
Christopher R. Burn, *Carleton University*
Hanne H. Christiansen, *University Centre in Svalbard*
Attila Çiner, *Istanbul Technical University*
Reynald Delaloye, *Université de Fribourg*
Isabelle Gärtner-Roer, *University of Zürich*
Mauro Guglielmin, *Insubria University*
Filip Hrbacek, *Masaryk University*
Andreas Kellerer-Pirklbauer-Eulenstein, *University of Graz*
Michael Krautblatter, *Technical University of Munich*
Yuanming Lai, *Chinese Academy of Sciences*
Hugues Lantuit, *Alfred Wegener Institute*
Antoni Lewkowicz, *University of Ottawa*
Florence Magnin, *Université Savoie Mont Blanc*
Frederick «Fritz» Nelson, *Michigan State University*
Marc Oliva, *Universitat de Barcelona*
Vladimir E. Romanovski, *University of Alaska Fairbanks*
Kazuyuki Saito, *Japan Agency for Marine-Earth Science and Technology*
Matt Strzelecki, *University of Wroclaw*
Petru Urdea, *University of Timisoara*
Gonçalo Vieira, *Universidade de Lisboa*

KEYNOTE SPEAKERS

GONÇALO VIEIRA

Instituto de Geografia e Ordenamento do Território,Universidade de Lisboa, Portugal

Gonçalo Vieira is Associate Professor at the Institute of Geography and Spatial Planning of the University of Lisbon and Senior researcher at the Centre for Geographical Studies. He is Director of the College on Polar and Extreme Environments of the University of Lisbon and member of the research group on Climate Change and Environmental Systems, where he coordinates the Polar and Mountain Environments team. He is external collaborator at the Centre for Nordic Studies (University Laval, Canada), external collaborator of the Antarctic, Arctic and Alpine Research Group of the University of Barcelona (Spain) and member of ArcticNet (Canada). He is Vice-President of the International Permafrost Association. His research interests focus on the effects of changing climate on permafrost environments, especially on permafrost degradation and dynamics, as well as on using high resolution remote sensing techniques for studying terrestrial environments. He has lead and participated in numerous projects in the Antarctic Peninsula (13 campaigns), Svalbard (2), Eastern Hudson Bay (3), Beaufort Sea Coast (2), the Patagonian Andes, the High and Middle Atlas (2) and the Portuguese mountains. Gonçalo Vieira is the Portuguese representative at the International Permafrost Association, International Association of Cryosphere Sciences and Cryosphere Working Group of the International Arctic Science Committee, SCAR Standing Committee on Geosciences, national delegate at the European Polar Board and was member of the EPB Executive Committee from 2012 to 2014. He is member of the Executive Committee of the Global Terrestrial Network for Permafrost. He was member of the the Transnational Board of Evaluators of INTERACT from 2016 to 2020. In Portugal, Gonçalo Vieira is the Coordinator of the Portuguese Polar Program (ProPolar), is Science Advisor at the Foundation for Science and Technology and Scientific Coordinator of the Estrela Geopark. He was Co-Chair of the SCAR Expert Group on Antarctic Permafrost, Soils and Periglacial Environments from 2011 to 2018.

THE ANTARCTIC PENINSULA ICE-FREE ENVIRONMENTS UNDER A CHANGING CLIMATE

The Antarctic Peninsula is the warmest region of Antarctica, stretching northwards into the Southern Ocean between the Bellingshausen and the Weddell seas. Its high mountains and plateaus that rise to over 2,000 m form a major orographic barrier in the eastwards movement of the moist air masses imprinting climate and the environmental dynamics. Most of the Antarctic Peninsula is glaciated, with the ice-free areas limited to low elevation areas and steep terrain, scattered in numerous discontinuous patches of land. Despite the relatively small area, ice-free areas are key for biological activity, with bird nesting areas, lakes and sensitive vegetation communities. They are also hotspots of human activity, some with over 100 years of antropogenic impacts, first with commercial whaling and later with military bases, which evolved into an extensive network of research facilities following the International Geophysical Year and the Antarctic Treaty in 1951. Permafrost is widespread in the Antarctic Peninsula ice-free areas, but due to the strong climatic gradient between the western (WAP) and the eastern (EAP) coasts of the the peninsula, it shows important differences and sensitivity. In the warm and moist WAP, permafrost records temperatures at low elevation of -3 to close to 0 ºC. In the cold and dry EAP, permafrost is colder and continuous, with TTOP estimates for James Ross Island are around -6 ºC. The Antarctic Peninsula has been one of the Earth's regions with a highest warming since the 1950's, pushing permafrost to its temperature limits, especially in the northwest Antarctic Peninsula and the South Shetlands archipelago. In order to better understand the dynamics of the permafrost environment in the region, during the 4th International Polar Year in 2007-08, the Antarctic Permafrost, Soils and Periglacial Environments (ANTPAS) inititiative framed by SCAR and the IPA, lead to the installation of several permafrost and active layer observatories. These, together with projects on vegetation dynamics, snow cover analysis and geomorphological mapping, resulted in significant advances on the understanding of the past and current dynamics of the Antarctic Peninsula region. After an introductory framework, this talk will focus on the results obtained within the PERMANTAR component of the ANTPAS initiative, a network of permafrost observatories installed from the Palmer archipelago to King George Island. These observatories include GTN-P boreholes, active layer monitoring sites (CALM-S), meteorological stations, A-ERT stations and slope movement monitoring sites (rockglaciers and solifluction). Key current topics and needs for future permafrost research in the Antarctic Peninsula will be addressed, with a glimpse on new projects in the region by different research groups.

KEYNOTE SPEAKERS

ISABELLE GÄRTNER-ROER

University of Zurich, Switzerland

Isabelle Gärtner-Roer studied Geography, Biology, and Water management at the University of Bonn (Germany) and the University of Perugia (Italy). She obtained her PhD at the University of Bonn with a dissertation on rock glacier kinematics. Today, Isabelle is group leader at the Department of Geography at the University of Zurich (Switzerland). Her research focuses on the study of cryospheric landforms, in particular the quantification of rock glacier activity by in-situ and remote sensing techniques, the changes of these landforms in relation to climate implications, as well as its significance within the Alpine sediment budget. Besides smaller projects in Alaska, Iceland and Chile, she is mainly working in the European Alps and in Greenland.

PERMAFROST IN HIGH-MOUNTAIN ENVIRONMENTS: DECIPHERING CHANGES AND RELATED FORCINGS

High-mountain environments are characterized by perennial surface and subsurface ice, typically found in glaciers and permafrost. Although glaciers produce the most impressive landforms in these environments, substantial amounts of the surface is shaped by ice that is mostly hidden from view in the permafrost zone. Both, glaciers and permafrost are important for landscape evolution, the hydrological cycle, the sediment budget, the stability of mountain slopes and associated natural hazards. Due to their characteristic thermal conditions, the occurrence and preservation of glaciers and permafrost is strongly affected by atmospheric temperature rise, which appears to be stronger in mountain regions than on a global average.

The importance of permafrost as an essential climate variable has become more and more evident during the last decades, not only in high-mountain environments. In reaction, research on and monitoring of permafrost parameters has evolved significantly. More sophisticated in-situ studies allow detailed insights into subsurface processes, while remote-sensing data with increasing spatial and temporal resolution provide global coverage of topographic and atmospheric data. In addition, long-term monitoring data nicely document the rising permafrost temperatures, the deepening of the active layer and changes in rockglacier velocities for many mountain regions. These data and insights are used to better quantify ongoing changes and their spatio-temporal patterns as well as to deduce direct links to forcing factors.

Permafrost degradation essentially involves a deepening of the summer thaw, thawing of the permafrost body, changes of the hydrological cycle or the development of taliks. In high-mountain environments, the changes in permafrost temperature and extent have a directly influence on slope stability. Hence, rock falls, detachment slides as well as rockglacier acceleration and destabilization indicate reactions to changes in the thermo-hydrological regime and demonstrate the sensitivity of mountain systems to recent climatic changes. Related impacts of degrading or vanishing permafrost affect human societies directly and indirectly from local to global scales, from mountain regions down to the foothills and lowlands.

KEYNOTE SPEAKERS

HUGUES LANTUIT

Institute of Geosciences, University of Potsdam; Alfred Wegener Institute, Potsdam, Germany

Hugues Lantuit studied in France (Université Paris 7) and Canada (McGill University) before completing a Ph.D. in geosciences at the Alfred Wegener Institute for Polar and Marine research (AWI) in Germany. He is now the leader of the Arctic coastal erosion research group at the AWI and professor for geomorphology of polar coasts at the University of Potsdam. He has led many expeditions to the Arctic, and has coordinated several large-scale projects related to permafrost thaw and the vulnerability of the Arctic coast, including the H2020 project Nunataryuk. He is actively involved in partnerships with the Inuvialuit in Canada and a keen mentor of early career scientists.

THE VANISHING ARCTIC COAST

The coasts of the Arctic are mostly made of permafrost and are warming at a greater rate most other coasts on Earth. The impacts are manyfold and include greater coastal erosion, threats to coastal infrastructure and cultural sites and major ecosystem change. In this presentation, we harness knowledge gained in the Nunataryuk and PerCS-Net project to report on the latest information on Arctic coastal dynamics, particularly on the pace of erosion, on the impacts for nothern communities and on future scenarios for the Arctic shoreline.

ROUNDTABLE

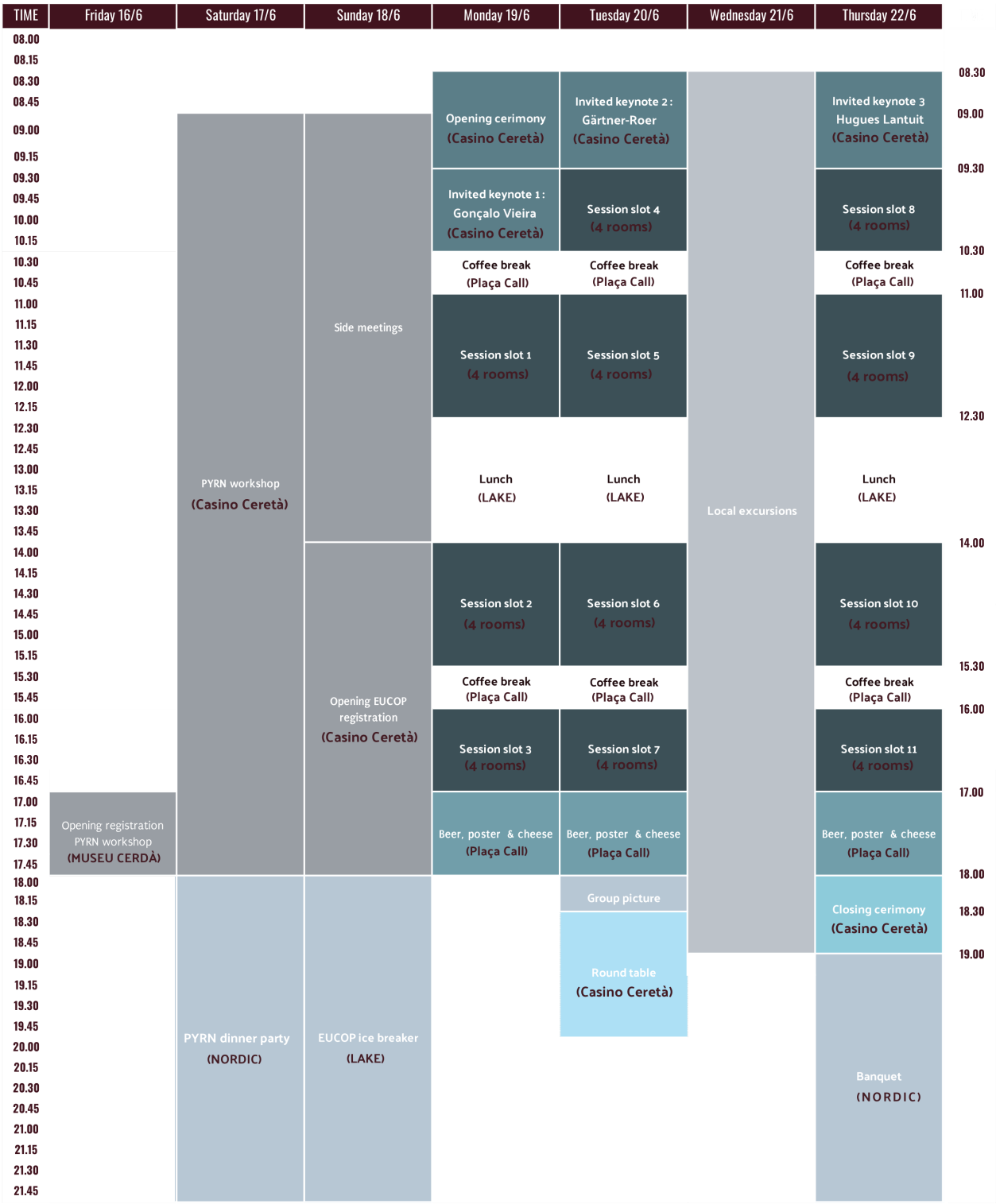
THE FUTURE OF PERMAFROST RESEARCH

In the middle of our scientific meeting, we invite you to a round-table debate with our distinguished keynote speakers- Isabelle Gärtner-Roer (University of Zurich), Gonçalo Vieira (University of Lisbon) and Hugues Lantuit (Alfred Wegener Institute/University of Potsdam), hosted by Mateusz Strzelecki (University of Wroclaw). The round-table will be an opportunity not only to hear from the experts what inspired them to undertake research in the diverse frozen environments of the Arctic, high mountains or Antarctica. Together, we will discuss how to design cutting-edge research projects that address the gaps in our understanding of landscapes affected by cold climates. We will also talk about our community's readiness to challenge the post-pandemic crisis that affected academia in many ways, inspiring young people to study permafrost and periglacial processes. Is the world of permafrost research ready for the challenges of a rapidly changing and dividing world? Join us during the third day of the conference in Casino Ceretà!

MATEUSZ STRZELECKI

University of Wroclaw, Poland

GENERAL CONFERENCE PROGRAM



MEETINGS & WORKSHOPS

IPA Executive Council meeting
Saturday, 9-11 h
Room: Hotel del Prado
Contact: Emma Stockton (contact@ipa-permafrost.org)

IPA Council Members Reception
Saturday, 19 h
Room: Hotel del Prado
Contact: Emma Stockton (contact@ipa-permafrost.org)

IPA Council meeting
Sunday, 9-13 h / Wednesday 17-19 h
Room: Arxiu Comarcal de Cerdanya (library, 3rd floor)
Contact: Emma Stockton (contact@ipa-permafrost.org)

Workshop on permafrost internship (open for all)
Monday, 18.30-20.30 h
Room: Hotel del Prado
Contact: Ylva Sjöberg (ys@ign.ku.dk)

IPA Action Group Rock glacier inventories and kinematics (RGIK)
Saturday, 9-18 h
Room: Library
Contact: Sebastián Vivero (sebastian.viveroandrade@unifr.ch)

'CCI+ Permafrost tutorial – data access and use'
Sunday, 10-12 h
Room: Library
Contact: Annett Barsch (annett.bartsch@bgeos.com)

Tuesday, 7.30-8.30 h
Room: Library
Contact: Annett Barsch (annett.bartsch@bgeos.com)

Towards an International Database of Geoelectrical Surveys on Permafrost (IDGSP)
Sunday, 14-17 h
Room: Library
Contact: Coline Mollaret (coline.mollaret@unifr.ch)

GTN-P meeting
Sunday, 14-17 h
Room: Arxiu Comarcal de Cerdanya (library, 3rd floor)
Contact: Anna Irrgang (gtnp-office@awi.de)

ICARP-IV Meeting
Monday, 18.30-20 h
Room: Casino Ceretà
Contact: Gonçalo Vieira (vieira@edu.ulisboa.pt)

IPA action group RTSinTrain
Sunday, 9-12 h
Room: Casino Ceretà
Contact: Alexandra Runge (alexandra.runge@awi.de)

DAILY PROGRAM OVERVIEW
MONDAY 19/06

TIME	SLOT	SESSION	TITLE	ROOM
8:30	**Opening cerimony**			Casino
9:30	**Invited Keynote 1: Gonçalo Vieira**			Casino
10:30	Coffee break			Plaça Call
11:00	Session Slot 1	Session 24	Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost System	Casino
		Session 9	Remote sensing of Disturbances in Permafrost Regions	Cinema
		Session 14	Open session on rock glaciers	Museu
		Session 13	Permafrost and Society: how do changes in permafrost systems interact with social and cultural dynamics, economies, industries, and food systems	Biblioteca
12:30	Lunch			Lake
14:00	Session Slot 2	Session 24	Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost System	Casino
		Session 9	Remote sensing of Disturbances in Permafrost Regions	Cinema
		Session 14	Open session on rock glaciers	Museu
		Session 6	Advances in the observation and simulation of the snowpack: Implications and applications for permafrost monitoring	Biblioteca
15:30	Coffee break			Plaça Call
16:00	Session Slot 3	Session 24	Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost System	Casino
		Session 9	Remote sensing of Disturbances in Permafrost Regions	Cinema
		Session 14	Open session on rock glaciers	Museu
		Session 6	Advances in the observation and simulation of the snowpack: Implications and applications for permafrost monitoring	Biblioteca
17:00	Beer, poster & cheese			Plaça Call

DAILY PROGRAM OVERVIEW
TUESDAY 20/06

TIME	SLOT	SESSION	TITLE	ROOM
8:30	**Invited Keynote 2 Isabelle Gärtner-Roer**			Casino
9:30	Session Slot 4	Session 2	Education & Outreach: Cartoons, Communities, and Cooperation	Casino
		Session 20	Characteristic Upland Periglacial Landscapes: Reality or "Geomorphic Chimera"?	Cinema
		Session 12	Periglacial and paraglacial environments in Antarctica	Museu
		Session 16	Processes in cold rocky landforms	Biblioteca
10:30	Coffee break			Plaça Call
11:00	Session Slot 5	Session 19	Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions	Casino
		Session 21	Periglacial geomorphology	Cinema
		Session 7	Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales	Museu
		Session 8	Monitoring of electrical and electromagnetic properties in frozen ground (including the IPA Action Group IDGSP)	Biblioteca
12:30	Lunch			Lake
14:00	Session Slot 6	Session 19	Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions	Casino
		Session 21	Periglacial geomorphology	Cinema
		Session 7	Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales	Museu
		Session 10	Steep rock slope permafrost processes and hazards	Biblioteca
15:30	Coffee break			Plaça Call
16:00	Session Slot 7	Session 19	Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions	Casino
		Session 21	Periglacial geomorphology	Cinema
		Session 7	Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales	Museu
		Session 4	Structure and function of freshwater ecosystems on lowland permafrost landscapes	Biblioteca
17:00	Beer, poster & cheese			Plaça Call
18:00	Group Picture			Plaça Call
18:30	**Round Table**			Casino

DAILY PROGRAM OVERVIEW
WEDNESDAY 21/06

FIELD TRIPS

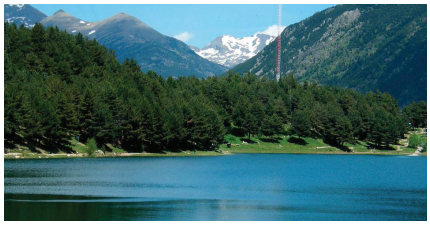
During Wednesday, the organization has planned the following field trips:

1 PUIGPEDRÓS-PERAFITA

2 QUEROL-PUYMORENS

3 NÚRIA

4 ANDORRA



5 CERDANYA

DAILY PROGRAM OVERVIEW
THURSDAY 22/06

TIME	SLOT	SESSION	TITLE	ROOM
8:30		**Invited Keynote 3: Hugues Lantuit**		Casino
9:30	Session Slot 8	Session 3	Permafrost land-ocean interactions: fluxes, transport processes and degradation pathways	Casino
		Session 22	Polar Coastal and subsea environments in Transition: Arctic – Antarctic perspectives	Cinema
		Session 23	Permafrost Engineering: risk assessment and adaptation challenges	Museu
		Session 17	Biodiversity and biogeochemistry of permafrost ecosystems and global change	Biblioteca
10:30			Coffee break	Plaça Call
11:00	Session Slot 9	Session 3	Permafrost land-ocean interactions: fluxes, transport processes and degradation pathways	Casino
		Session 22	Polar Coastal and subsea environments in Transition: Arctic – Antarctic perspectives	Cinema
		Session 23	Permafrost Engineering: risk assessment and adaptation challenges	Museu
		Session 15	Drained Lake Basins in lowland permafrost regions	Biblioteca
12:30			Lunch	Lake
14:00	Session Slot 10	Session 11	Emerging geophysical methods for permafrost investigations	Casino
		Session 5	Water in Mountain Permafrost Environments	Cinema
		Session 1	Modeling of permafrost-climate feedbacks in future scenarios	Museu
		Session 18	Studying past environments to understand current permafrost dynamics	Biblioteca
15:30			Coffee break	Plaça Call
16:00	Session Slot 11	Session 11	Emerging geophysical methods for permafrost investigations	Casino
		Session 5	Water in Mountain Permafrost Environments	Cinema
		Session 1	Modeling of permafrost-climate feedbacks in future scenarios	Museu
		Session 18	Studying past environments to understand current permafrost dynamics	Biblioteca
17:00			Beer, poster & cheese	Plaça Call
18:00			Closing ceremony	Plaça Call
19:00			Banquet	Nordic

DETAILED PROGRAM
MONDAY 19/06

PARALLEL SESSIONS 1 | 11:00 - 12:30

Session 24 / Room: Casino

Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost system

Conveners: ***Dimitry Streletskiy, Jeannette Noetzli, Philippe Schoeneich, Anna Irrgang***

TIME	AUTHOR	TITLE
11.00-11.15	Dmitry Streletskiy	Active layer thickness trends in the 21st century
11.15-11.30	Vasily Tolmanov	Spatial Autocorrelation Analysis of 28 Years of Active Layer Thickness Data from North-Central Alaska
11.30-11.45	Catherine Deslauriers	The thermal regime and thermokarst rates of palsas and lithalsas near Kangiqsualujjuaq, Nunavik, Canada
11.45-12.00	Inge Grünberg	Rapid warming and thawing of permafrost and active layer reflect climate trends at Bayelva, Svalbard
12.00-12.15	Kjersti Gleditsch Gisnås	35-years of coastal permafrost warming in Svalbard – analysis of two, 70-100 m deep, boreholes
12.15-12.30	Sarah Marie Strand and Hanne H. Christiansen	Permafrost thermal regime across periglacial landforms in Nordenskiöld Land, Svalbard, 2008-2022

Session 9 / Room: Cinema

Remote sensing of Disturbances in Permafrost Regions

Conveners: ***Alexandra Runge, Mark J. Lara, Anna Liljedahl***

TIME	AUTHOR	TITLE
11.00-11.15	Annett Bartsch	Permafrost monitoring from space – what have we learned so far?
11.15-11.30	Mark J. Lara	Short and Long-term impacts of thermokarst on vegetation change in northern Alaska
11.30-11.45	Matthias Siewert	Studying changes and disturbances in tundra terrain using UAVs
11.45-12.00	Yifeng Wang	Areal change in peatland permafrost landforms over 73 years in coastal Labrador, northeastern Canada
12.00-12.15	Diana Martins	Identification and Recent Dynamics of Geoecological Mosaics in the Tundra of Kangiqsualujjuaq (Subarctic Canada)
12.15-12.30	Go Iwahana	Thermokarst processes observed by remote sensing and ground surveys at intact and disturbed tundra on the North Slope, Alaska

Session 14 / Room: Museu

Open session on rock glaciers

Conveners: ***Cécile Pellet, Line Rouyet, Yan Hu***

TIME	AUTHOR	TITLE
11.00-11.15	Kaytan Kelkar	A Rock Glacier Inventory of the Central Alaska Range, Alaska
11.15-11.30	Benjamin Robson	Towards regional-scale and consistent rock glacier inventories using deep learning
11.30-11.45	Zhangyu Sun	Mapping and inventorying rock glaciers on the Tibetan Plateau from Planet Basemaps using deep learning
11.45-12.00	Karianne Lilleøren	Prediction modelling of rock glacier distribution in Norway
12.00-12.15	Xavier Bodin	How kinematics attributes improve geomorphological interpretation of rock glacier? Insights from the revision process of the French rock glaciers inventory
12.15-12.30	Francesco Brardinoni	A rock glacier inventory integrating geomorphological mapping and Sentinel-1 satellite SAR interferometry in western South Tyrol, Italy

Session 13 / Room: Biblioteca

Permafrost and Society: how do changes in permafrost systems interact with social and cultural dynamics, economies, industries, and food systems

Conveners: ***Melissa Ward Jones, Joachim Otto Habeck, Justine Ramage***

TIME	AUTHOR	TITLE
11.00-11.15	Susanna Gartler	Key risks of permafrost thaw in Arctic coastal Areas and Inuvialuit & Gwich'in First Nation knowledge holders' perceptions of a thawing relation
11.15-11.30	Emma Street	Exploring Traditional Knowledge of Permafrost Change in the Gwich'in Settlement Area and Inuvialuit Settlement Region
11.30-11.45	Joachim Otto Habeck	Drivers of dryness? Exploring the interaction of permafrost and land use in northern Mongolia
11.45-12.00	Kazuyuki Saito	Food Life History in Use of Natural Freezing and Snow - Traditional Preservation and Storage from the North to Japan -
12.00-12.15	Louise Farquharson	Hazard mapping in the discontinuous permafrost zone of Fairbanks, Alaska, USA
12.15-12.30	Moritz Langer	Thawing permafrost poses environmental threat to thousands of sites with legacy industrial contamination

DETAILED PROGRAM
MONDAY 19/06

PARALLEL SESSIONS 2 | 14:00 - 15:30

Session 24 / Room: Casino

Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost system

Conveners: ***Dimitry Streletskiy, Jeannette Noetzli, Philippe Schoeneich, Anna Irrgang***

TIME	AUTHOR	TITLE
14.00-14.15	Didac Pascual Descarrega	Impacts of Winter Warming Events on permafrost in the Swedish subarctic: Insights from a 15-Year manipulation experiment and 42 years of AL monitoring
14.15-14.30	Cassandra Koenig	Thermal state of Permafrost in the Central Andes
14.30-14.45	Balázs Nagy	First decade of PERMACHILE network: high altitude ground surface monitoring along the Andes
14.45-15.00	Alexandra Runge	Identifying linkages between EO-based surface variables and permafrost temperature changes
15-15.15.00	Barbara Widhalm	InSAR application for surface displacement investigations in Arctic permafrost regions: a comparison of mitigation methods for interfering atmospheric effects
15.15-15.30	Norman Julius Steinert	Impact of different permafrost definitions on the interpretation of modeling results on different scales

Session 9 / Room: Cinema

Remote sensing of Disturbances in Permafrost Regions

Conveners: ***Alexandra Runge, Mark J. Lara, Anna Liljedahl***

TIME	AUTHOR	TITLE
14.00-14.15	Thomas Schmid	Detecting surface deformation within the South Shetland Islands (Antarctica) using SAR interferometry
14.15-14.30	Kazuki Yanagiya	Acceleration of early and late summer thaw subsidence around Batagay, Northeast Siberia, detected by ALOS-2 InSAR time series analysis
14.30-14.45	Roger Michaelides	Permafrost-wildfire interactions in the Yukon-Kuskokwim River Delta characterized with InSAR, PolSAR, and imaging spectrometry
14.45-15.00	Tazio Strozzi	Surface Deformation Monitoring of the Lena River Delta with Sentinel-1 SAR Interferometry
15-15.15.00	Sylvain Fiolleau	Depth-resolved temperature and deformation measurements to evaluate soil movements and their controls in an Arctic permafrost environment
15.15-15.30	Juliette Ortet	Monitoring surface soil temperature in the Arctic permafrost areas in winter using passive microwave satellite remote sensing

Session 14 / Room: Museu

Open session on rock glaciers

Conveners: ***Cécile Pellet, Line Rouyet, Yan Hu***

TIME	AUTHOR	TITLE
14.00-14.15	Luis M. Tanarro	Nautárdalur rock glacier (Northern Iceland) dynamics between 1994 and 2021 through the analysis of aerial photographs
14.15-14.30	Sebastián Vivero	Annual kinematics and elevation changes of an active rock glacier quantified from UAV-based monitoring
14.30-14.45	Claudia Giménez	Application of differential interferometric synthetic aperture radar (DInSAR) to study of the rock glacier dynamics on the Tröllaskagi Peninsula, North Iceland
14.45-15.00	Sebastian Buchelt	Deciphering seasonal surface dynamics of rock glaciers in the Central Alps using DInSAR time series analysis
15-15.15.00	Nina Jones	Rock glacier velocity in the Italian and Swiss Alps from Sentinel-1 satellite SAR interferometry
15.15-15.30	Diego Cusicanqui	Extracting rock glacier time-series velocity maps from Landsat imagery and inversion methods

Session 6 / Room: Biblioteca

Advances in the observation and simulation of the snowpack: Implications and applications for permafrost monitoring

Conveners: ***Jesús Revuelto, Esteban Alonso González, Ixeia Vidaller, Franziska Koch***

TIME	AUTHOR	TITLE
14.00-14.15	Julia Boike	Automated snow cover observations from two Arctic permafrost sites
14.15-14.30	Marcos Valcarcel	Detection of movements in the basal layer of the seasonal snow cover by means of inclination data loggers, Cuiña Cirque (Ancares Mountains, NW Iberia).
14.30-14.45	Ian Shirley	Quantifying drivers of snow thickness variation across a discontinuous permafrost watershed
14.45-15.00	Philip Campbell	An investigation of Australian semi-perennial snowpatches using satellite imagery
15-15.15.00	Hotaek Park	Model evaluation for blowing snow impacts on permafrost and greenhouse gas fluxes
15.15-15.30	Alain Royer	Effect of snow on simulated pan-arctic ALT with a new version of the Arctic Crocus snow model

DETAILED PROGRAM
MONDAY 19/06

PARALLEL SESSIONS 3 | 16:00 - 17:00

Session 24 / Room: Casino

Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost system

Conveners: ***Dimitry Streletskiy, Jeannette Noetzli, Philippe Schoeneich, Anna Irrgang***

TIME	AUTHOR	TITLE
16.00-16.15	Filip Hrbacek	Soil moisture monitoring network in Antarctic Peninsula region
16.15-16.30	Robert Kenner	The response of ground temperatures to a rising atmospheric 0°C isotherm
16.30-16.45	Paolo Pogliotti	Evolution of mountain permafrost in north western Alps
16.45-17.00	Jeannette Noetzli	Enhanced permafrost warming in European Mountains

Session 9 / Room: Cinema

Remote sensing of Disturbances in Permafrost Regions

Conveners: ***Alexandra Runge, Mark J. Lara, Anna Liljedahl***

TIME	AUTHOR	TITLE
16.00-16.15	Ingmar Nitze	An experiment to compare digitized labels of retrogressive thaw slumps by domain experts
16.15-16.30	Konrad Heidler	Scaling Strategies for AI in Permafrost Remote Sensing
16.30-16.45	Zhuoxuan Xia	Quantifying the evolution of retrogressive thaw slumps over 50 years in central Tibet
16.45-17.00	Pedro Freitas	Deep Learning over PlanetScope imagery reveal dense and diverse permafrost thaw pond hotspots in Eastern Hudson Bay, Subarctic Canada

Session 14 / Room: Museu
Open session on rock glaciers

Conveners: ***Cécile Pellet, Line Rouyet, Yan Hu***

TIME	AUTHOR	TITLE
16.00-16.15	Alexander Bast	A novel combination of geophysical techniques for monitoring ice and water contents in ice-rich alpine rock glaciers
16.15-16.30	Alexandru Onaca	New insights into mountain permafrost occurrence and characteristics in the Southern Carpathians through geophysical surveying, temperature and surface velocity measurements
16.30-16.45	Christophe Lambiel	Recent and long-term evolution of two contiguous rock glaciers in the Swiss Alps
16.45-17.00	Benjamin Lehmann	Rock-glacier evolution over Holocene time scales : a new modelling approach

Session 6 / Room: Biblioteca
Advances in the observation and simulation of the snowpack: Implications and applications for permafrost monitoring

Conveners: ***Jesús Revuelto, Esteban Alonso González, Ixeia Vidaller, Franziska Koch***

TIME	AUTHOR	TITLE
16.00-16.15	Nick Rutter	Modelling and measurement of carbon emissions under Arctic snow
16.15-16.30	Matan Ben-Asher	Estimating surface water availability in high mountain rock slopes using a numerical energy balance model
16.30-16.45	Thibault Xavier	Impact of snow cover on soil surface temperature in a permafrost dominated catchment of Central Siberia: model comparison and climate change projection.
16.45-17.00	Josep Bonsoms	Future snowpack evolution in Disko Island, Greenland

POSTER SESSION
MONDAY 19/06

POSTER SESSION A

Session 6
Advances in the observation and simulation of the snowpack: Implications and applications for permafrost monitoring

Conveners: ***Jesús Revuelto, Esteban Alonso González, Ixeia Vidaller, Franziska Koch***

A01	Matan Ben-Asher	Real-time monitoring of snowmelt infiltration in steep permafrost affected rock slopes using fluorescent dyes
A02	Josep Bonsoms	Spatio-temporal evaluation of extreme snow melting in Greenland (1990 – 2020)
A03	Sophie Biskop	Spatio-temporal variability of snow distribution at mountain range scale from novel high-resolution satellite-derived snow data: The Pyrenees Mountains, Spain
A04	Miguel Ramos	Evolution of the properties of the snowpack at Crater Lake from 2017 to 2021 (Deception Island, Antarctica).
A05	Alexandre Langlois	Progress and limitations in simulating arctic snow cover: implications in understating soil winter temperatures
A06	Matvey Debolskiy	Modeling land use effects on the soil thermal state in Mongolia

Session 9
Remote sensing of Disturbances in Permafrost Regions

Conveners: ***Alexandra Runge, Mark J. Lara, Anna Liljedahl***

A07	Xaver Muri	The impact of wildfires on the winter SAR C-Band Backscatter in Permafrost regions
A08	Lucile Cosyn Wexsteen	Remote sensing of lake desiccation in the recent past in permafrost landscapes: focus on the Hudson Bay Lowlands
A09	Nina Nesterova	Variability in spectral properties of retrogressive thaw slumps at Vaskiny Dachi research station, central Yamal Peninsula
A10	Jennika Hammar	Snow accumulation, reduced snow albedo and snowmelt along the Inuvik-Tuktoyaktuk highway, Canada
A11	Rustam Khairullin	Land Cover Patterns for selected Retrogressive Thaw Slumps and Drained Lake Basins in Yamal-Gydan region, West Siberia
A12	Konrad Heidler	Identifying and interpreting permafrost vulnerability with machine learning
A13	Line Rouyet	Integrating InSAR Ground Movement into the Permafrost and Meteorological Response System in Longyearbyen, Svalbard
A14	Takahiro Abe	Ground surface displacement along the coast of the Laptev Sea in Northeastern Siberia detected by InSAR
A15	Cornelia Inauen	Using historical and recent satellite imagery to quantify and study permafrost degradation in gully-dominated landscapes in the Russian High Arctic
A16	Anastasiya Pozharskaya	The use of GNSS and UAVs in complex geocryological studies

A17	Jannika Gottuk	Comparison of Sentinel 2 and Landsat 8 for retrieval of land surface albedo on Disko Island, Greenland
A18	Ingmar Nitze	Continental-scale drivers of lake drainage in permafrost regions
A19	Fabian Seemann	Disappearing subarctic thermokarst lakes
A20	Cas Renette	Assessing palsa changes with high resolution UAS-Borne LiDAR in northern Sweden
A21	Shira Ellenson / Anna Klene	Quantifying plot-level canopy heights from traditional aerial photography on Alaska's North Slope
A22	Ipshita Priyadarsini Pradhan	Machine Learning based probable Permafrost mapping of Higher Himalayas in Kinnaur district, Himachal Pradesh.
A23	Maxime Thomas	Combining geophysical data, microtopography, and very-high resolution UAV imagery to map lowland permafrost degradation in the Stordalen mire, Abisko, Sweden
A24	Marie Rolf	Remote sensing-based quantification of periglacial and glacial surface changes (Bayelva basin, Svalbard)
A25	Charlotte Pearson	Quantifying and characterising abrupt permafrost thaw at a pan-Arctic scale
A26	Kirti Kumar Mahanta	Integrating Machine Learning and Statistical methods to enhance rock glacier-based Permafrost prediction in Northern Kargil regions.
A27	Aida Taghavi-Bayat	Sentinel-1 time series for retrieving soil freeze/thaw states in peatland permafrost

Session 13

Permafrost and Society: how do changes in permafrost systems interact with social and cultural dynamics, economies, industries, and food systems

Conveners: ***Melissa Ward Jones, Joachim Otto Habeck, Justine Ramage***

A28	Astrid Schetselaar	Increases in climate-related highway maintenance costs (1995–2022) throughout Yukon associated with recent climate change in a permafrost environment
A29	Benjamin Jones	The combined effects of climate change and infrastructure development on permafrost degradation in Point Lay, Alaska
A30	Ksenia Sotnikova	Numerical simulation of thermal regime of permafrost soils around ice cellar of Lorino indigenous community, Chukotka Autonomous Okrug, Russia
A31	Egor Loktionov	The possibility to ensure remote settlements food security by making the sun to cool the ice cellars and the permafrost to heat the greenhouses
A32	Melissa Ward Jones	The Permafrost-Agroecosystem Action Group: first results and future goals
A33	Svetlana Badina	Forecast of economic damage from permafrost degradation in the coastal zone of the Pechora and Kara Seas
A34	Rodrigue Tanguy	Towards a panarctic coastal settlements vulnerability and risk assessment framework based on satellite data.
A35	Tillmann Lübker	A web-based portal for serving geospatial information on permafrost disturbances to permafrost communities
A36	Evrim Celik Madenli	Microplastics in Snow in Antarctica

POSTER SESSION
MONDAY 19/06

Session 14
Open session on rock glaciers
Conveners: ***Cécile Pellet, Line Rouyet, Yan H***

A37	Andreas Gschwentner	Flow Velocity Measurements on Hochebenkar Rock Glacier
A38	Rosa B. González-Gutiérrez	Unveiling the origin of rock glaciers in the Tröllaskagi peninsula (Iceland) through high-detailed geomorphological mapping: Lambárdalur and Fremri-Grasárdalur cirques
A39	Nuria Andrés	Timing of the partial transformation of the glacier fronts into rock glaciers in a paraglacial context in the Svarfaðardalur cirques, Northern Iceland
A40	Javier Santos-González	Prospective use of Schmidt-hammer in relative-age dating of rock glaciers (northern Iceland)
A41	Mariano Brito	Is the present global warming transforming the debris free glaciers into rock glaciers or debris covered glaciers in the Tröllaskagi Peninsula, Northern Iceland?
A42	Enrique Serrano	La Paúl rock glacier (Pyrenees). Changes and evolution during the last two hundred years
A43	Manuel Gómez-Lende	Shrinking and thinning of a rock glacier in the edge of permafrost environments (2008-2022): la Maladeta rock glacier (Pyrenees)
A44	Josep Ventura	Inventory of rock glaciers in the Alt Pirineu Natural Park (Central Pyrenees)
A45	Josep Ventura	Updating of the Catalog of active rock glaciers in the Pyrenees
A46	Thomas Echelard	Towards practical guidelines for Rock Glaciers inventories (RoGI) : a new 'user-friendly' GIS tool for training the community.
A47	Rabecca Thiessen	Cataloguing of rock glaciers in dissimilar regions of the Mackenzie Mountains: Testing for possible semi-automated detection of rock glaciers using topographic data
A48	Kaytan Kelkar	A Very-Low Frequency Survey on the Rainbow Ridge Rock Glacier, Alaska
A49	Yan Hu	Rock Glacier Velocity as a new product of the Essential Climate Variable Permafrost

Session 24
Permafrost temperature changes and active layer dynamics: from local observations to global assessments of the permafrost system
Conveners: ***Dimitry Streletskiy, Jeannette Noetzli, Philippe Schoeneich, Anna Irrgang***

A50	Sergey Verkulich	New state background permafrost monitoring in Russia
A51	Nikolay Shiklomanov	Long-Term Active Layer Thickness and Ground-Surface Temperature Trends from the North Slope Of Alaska.
A52	Fedor Iurov	18 years of Active layer thickness monitoring in the Middle Siberia (R-32 Site, Norilsk, Talnakh)

A53	Sarah Morard	Bedrock permafrost degradation rates from different sites at altitudes above 2900 m a.s.l. in the Alps
A54	Kenji Yoshikawa	Diurnal and seasonal active layer and permafrost dynamics from boreholes of the Latin American permafrost network
A55	Josh Hashemi	The Arctic Methane and Permafrost Challenge – Network data catalogue and sharing platform
A56	Nicholas Brown	Open-source tools to support standardization and cleaning of ground temperature data
A57	Birgit Heim	ESA CCI+ Permafrost - Validation using international and national permafrost monitoring networks
A58	Artem Khomutov	Polygonal peatlands in permafrost of West Siberia: distribution and monitoring
A59	Cécile Pellet	State and changes of permafrost in the Swiss Alps
A60	Miguel Ramos	Two decades (2000-2022) monitoring permafrost and active layer in Livingston and Deception Islands, South Shetland Archipelago, Antarctica: the PERMATHERMAL network.
A61	Anna Irrgang	Permafrost Measurements Best Practice: GCW's contribution to standardization of global observations
A62	Dmitrii Sergeev	Results of Permafrost Monitoring in the Mountains of Northern Transbaikalia
A63	Martin Hoelzle	New and old long-term permafrost boreholes in the Inner Tien Shan, Kyrgyzstan
A64	Vladimir Romanovsky	Permafrost Changes in Alaska: Past, Present and Future
A65	Guzel Zaripova	Temporal and spatial patterns of permafrost phenomena during the operation of railways in the southern part of the Bolshezemelskaya tundra in a changing climate
A66	Florence Magnin	A decade of mountain permafrost monitoring in the French Alps from the PermaFrance network
A67	Tatiana V. Raudina	Microtopography and soil temperature regime in the northern taiga landscapes of Western Siberia
A68	Ketil Isaksen	Recent developments in near real-time monitoring of warming and degrading permafrost in Norway and on Svalbard
A69	Alexandra Veremeeva	Active layer thickness database for the Lena Delta region, Northeastern Siberia
A70	Mohammad Farzamian	Potential integration of Automated Electrical Resistivity Tomography data into GTN-P and CALM monitoring networks: Case Studies from the Western Peninsula, Antarctica
A71	Alina Gorbunova	Geotechnical monitoring of geocryological processes during the operation of railways in the southern part of the Bolshezemelskaya tundra
A72	A. Britta K. Sannel	Thermal status of permafrost peatlands in northern Fennoscandia

DETAILED PROGRAM
TUESDAY 20/06

PARALLEL SESSIONS 4 | 09:30 - 10:30

Session 2 / Room: Casino
Education & Outreach: Cartoons, Communities, and Cooperation

Conveners: ***Anna E. Klene, Xiangbing Kong, Ylva Sjöberg***

TIME	AUTHOR	TITLE
09.30-09.45	Soraya Kaiser	UndercoverEisAgenten - The bird's eye view of permafrost degradation
09.45-10.00	Jan Nitzbon	"WWF Youth: Expedition Climate": Empowering young people to communicate Arctic climate change and the need for climate action to new audiences
10.00-10.15	Antoine Sejourne	Support education of climate change and permafrost at primary school, the PRISMARCTYC project
10.15-10.30	Ylva Sjöberg	Promoting real-world working-life permafrost competence through internships

Session 20 / Room: Cinema
Characteristic Upland Periglacial Landscapes: Reality or "Geomorphic Chimera"?

Conveners: ***Kelsey E. Nyland, Raven J. Mitchell, Frederick E. Nelson***

TIME	AUTHOR	TITLE
09.30-09.45	Kelsey Nyland	The Enigmatic History of Cryoplanation Processes and Research
09.45-10.00	Wojciech Dobiński	Permafrost and periglacial landscapes: Reality or "Geomorphic Chimera"
10.00-10.15	Raven J. Mitchell	Geographical Periglacial Geomorphology of the Appalachian Highlands, Eastern USA
10.15-10.30	Susan Millar	Upland Periglacial Landscapes in the Salamanca Re-entrant, Southwestern New York, USA

Session 12 / Room: Museu
Periglacial and paraglacial environments in Antarctica

Conveners: ***Filip Hrbacek, Marc Oliva, Mauro Guglielmin, Christel Hansen***

TIME	AUTHOR	TITLE
09.30-09.45	Stefano Ponti	A new CALM grid site in Continental Antarctica (North Victoria Land)
09.45-10.00	Lucia Kaplan Pastíriková	Validation of ERA5-Land reanalysis for monitoring permafrost dynamics on James Ross Island, Antarctica
10.00-10.15	Michaela Knazkova	Interannual variability of soil thermal conductivity on the Abernethy Flats (James Ross Island) in the period 2014–2022
10.15-10.30	Filip Hrbacek	Active layer and permafrost thermal regime in Antarctica: the overview of results in the period 2005-2020

Session 16 / Room: Biblioteca
Processes in cold rocky landforms

Conveners: ***Dominik Amschwand, Tamara Mathys, Julie Wee, Răzvan Popescu***

TIME	AUTHOR	TITLE
09.30-09.45	Christin Hilbich	Geophysical surveys on coarse-blocky talus slopes – What can we learn about ice content from the ambiguity between ERT and refraction seismic results?
09.45-10.00	Yuki Sawada	Ground temperature monitoring with 2cm-interval chip sensors for detection of ice growth in block slope in Mt. Nishi-Nupukaushinupuri, Hokkaido, Japan
10.00-10.15	Răzvan Popescu	Chimney circulation, thermal regime and internal structure of a low altitude cold talus slope-rock glacier system (Detunata Goală, Romanian Carpathians)
10.15-10.30	Tim Wiegand	Thermal aspects of the Schafstein block accumulation, Central German Uplands

DETAILED PROGRAM
TUESDAY 20/06

PARALLEL SESSIONS 5 | 11:00 – 12:30

Session 19 / Room: Casino
Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions

Conveners: ***Matthias Siewert, Gustaf Hugelius, Claire Treat***

TIME	AUTHOR	TITLE
11.00-11.15	Sofie Sjogersten	Using Earth Observation to determine permafrost degradation and methane emissions from palsa peatlands in Scandinavia
11.15-11.30	Sarah Wocheslander	Testing the suitability of a low-cost CH4 sensor for flux chamber measurements in a boreal peatland
11.30-11.45	Juliane Wolter	High methane production in drained lake basin wetlands in northern Alaska
11.45-12.00	Hanna Lee	Greenhouse gas exchange beyond initial thermokarst formation in permafrost peatlands
12.00-12.15	Geert Hensgens	CO2 and methane dynamics in the Siberian tundra, a long-term case study
12.15-12.30	Nitin Chaudhary	Modelling permafrost peatland dynamics and their effect on regional carbon fluxes

Session 21 / Room: Cinema
Periglacial geomorphology

Conveners: ***Marc Oliva, Gonçalo Vieira, Isabelle Gärtner-Roer, Line Rouyet***

TIME	AUTHOR	TITLE
11.00-11.15	Saskia Eppinger	Retrogressive thaw slumps in NE Greenland - a hazard for arctic infrastructure
11.15-11.30	Anne Morgenstern	Characteristics and recent dynamics of thermo-erosional features in small catchments of Arctic Siberia
11.30-11.45	Jordan Beer	Characteristics and vulnerability of peatland permafrost along its southern limit in eastern Canada
11.45-12.00	Tabatha Rahman	The distribution and morphometry of wedge ice in the Barrens of northern Manitoba, Canada
12.00-12.15	Daria S. Pankova	Structural characterization of a coastal open-system pingo (Adventdalen, Svalbard) using electrical resistivity and induced polarization imaging
12.15-12.30	Christopher Burn	Growth of a pingo ab initio at Illisarvik, western Arctic coast, Canada

Session 7 / Room: Museu

Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales

Conveners: ***Jan Nitzbon, Simone Stünzi, Léo C. P. Martin, Sarah Chadburn***

TIME	AUTHOR	TITLE
11.00-11.15	Michelle Walvoord	Scaling Challenges in Modeling Supra-Permafrost Talik Dynamics
11.15-11.30	Baptiste Dafflon	Model and field data comparison for assessing the drivers of watershed-scale heterogeneity in soil thermal regimes and carbon fluxes
11.30-11.45	Thibault Xavier	Addressing watershed scale, centennial permafrost simulation in a permafrost-dominated catchment of Central Siberia with permaFoam
11.45-12.00	Philip Bonnaventure	An examination of near-surface permafrost modelling techniques for boreal wetland environments, Whatì, NT, Canada
12.00-12.15	Victoria Colyn	Investigating spatial variability in the ground thermal regime across divergent ecosystems in Labrador, northeastern Canada
12.15-12.30	Rachele Lodi	Can organic contaminant concentrations in permafrost soils be upscaled from soil carbon content and landform types? Case studies from Canada and Svalbard.

Session 8 / Room: Biblioteca

Monitoring of electrical and electromagnetic properties in frozen ground (including the IPA Action Group IDGSP)

Conveners: ***Mohammad Farzamian, Christin Hilbich, Theresa Maierhofer, Riccardo Scandroglio, Sebastian Uhlemann***

TIME	AUTHOR	TITLE
11.00-11.15	Coline Mollaret	The International Database of Geoelectrical Surveys on Permafrost (IDGSP) project: Overview, first analysis and challenges
11.15-11.30	Antoni Lewkowicz	Changing discontinuous permafrost evaluated using repeat electrical resistivity tomography, northwest Canada
11.30-11.45	Mohammad Farzamian	Development of a low-cost and robust autonomous electrical resistivity tomography monitoring system for remote permafrost environments
11.45-12.00	Christof Kneisel	New insights into mountain permafrost occurrence and characteristics within a high altitude glacier forefield inferred by a multi-method approach combining historical and new geophysical and remotely sensed data
12.00-12.15	Josué Bock	Monitoring steep rock wall permafrost using electrical resistivity, part 2: preliminary inversion results of a year-round series of measurements
12.15-12.30	Riccardo Scandroglio	Long-term geoelectrical monitoring of permafrost in alpine bedrock: challenges and results for quantifying climate change effects

DETAILED PROGRAM
TUESDAY 20/06

PARALLEL SESSIONS 6 | 14:00 – 15:30

Session 19 / Room: Casino
Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions

Conveners: ***Matthias Siewert, Gustaf Hugelius, Claire Treat***

TIME	AUTHOR	TITLE
14.00-14.15	Jens Strauss	Much more than carbon: Element stocks in ice-rich permafrost of the Yedoma domain
14.15-14.30	Hugo M. G. Potier	Carbon and nitrogen stocks distribution in vegetation and soil across different environments near Abisko, Northern Sweden.
14.30-14.45	Ivan Alekseev	Soil microbiome, organic carbon stocks and stability of organic matter in permafrost soils under changing environments of North-Western Siberia
14.45-15.00	Irfan Ainuddin	Topographic Variability of Soil Carbon and Nitrogen Stocks in Hilly Permafrost Terrain of the Northern Arctic Foothills
15.00-15.15	Nikita Tananaev	Byllars : typical periglacial landforms in central Yakutia, their origin and ecosystem functions
15.15-15.30	Mahya Roustaei	Non-destructive characterization of permafrost physical properties using industrial computed tomography

Session 21 / Room: Cinema
Periglacial geomorphology

Conveners: ***Marc Oliva, Gonçalo Vieira, Isabelle Gärtner-Roer, Line Rouyet***

TIME	AUTHOR	TITLE
14.00-14.15	Javier Fernández Lozano	Monitoring the major low-latitude pingo in Southern Europe using geomatic and thermal information
14.15-14.30	Norikazu Matsuoka	How large and how fast can needle ice transport stones downslope? Lessons from two-decade observations in the Japanese Alps
14.30-14.45	Matej Blatnik	Characteristics of freeze-thaw cycles at patterned ground sites in two karst caves in Slovenia
14.45-15.00	Jaroslav Obu	Quantification of hourly particle movements on sorted circles in a karst cave in Slovenia
15.00-15.15	Olli Karjalainen	Fine-scale environmental controls of solifluction and nivation activity in a sub-Arctic mountain region
15.15-15.30	Jana Eichel	What do plants do on periglacial landforms?

Session 7 / Room: Museu

Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales

Conveners: ***Jan Nitzbon, Simone Stünzi, Léo C. P. Martin, Sarah Chadburn***

TIME	AUTHOR	TITLE
14.00-14.15	Victor Brovkin	Synergetic approach to pan-Arctic interactions between hydrology and carbon
14.15-14.30	Meike Schickhoff	Analysis of resolution-induced differences in soil - hydrology - vegetation interactions in the Arctic using state-of-the-art land surface model
14.30-14.45	Robin Zweigel	Simulating forest cover and terrain effects on ground hydrothermal regime in Mongolia and Siberia
14.45-15.00	Simon Filhol	Climate Downscaling in the Southern Carpathians for Climate Analysis and Permafrost Conditions Change, 1960-2022
15.00-15.15	Sebastian Westermann	The CryoGrid community model - a multi-physics toolbox for climate-driven simulations in the terrestrial cryosphere
15.15-15.30	Cécile Osy	Influence of rapid sea ice loss events on permafrost

Session 10 / Room: Biblioteca

Steep rock slope permafrost processes and hazards

Conveners: ***Kaytan Kelkar, Florence Magnin, Bernd Etzelmuller***

TIME	AUTHOR	TITLE
14.00-14.15	Costanza Morino	Permafrost landslides with molards as a geomorphological landmark of permafrost degradation: a worldwide survey
14.15-14.30	Maike Offer	Combining ERT, SRT and GPR to decipher permafrost and fluid flow in fractures
14.30-14.45	Hanne Hvidtfeldt Christiansen	Building resilience in Longyearbyen by developing improved observations and predictions of permafrost dynamics controlling slope stability
14.45-15.00	Daniel Draebing	Elevation-dependent paraglacial and periglacial processes drive rockfall activity in the European Alps
15.00-15.15	Marco Marcer	Regional characteristics of rockwall permafrost in Central West Greenland – 68N
15.15-15.30	Léa Courtial-Manent	17 years of high-altitude rock wall monitoring by terrestrial laser scanning (Mont-Blanc massif)

DETAILED PROGRAM
TUESDAY 20/06

PARALLEL SESSIONS 7 | 16:00 - 17:00

Session 19 / Room: Casino
Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions

Conveners: ***Matthias Siewert, Gustaf Hugelius, Claire Treat***

TIME	AUTHOR	TITLE
16.00-16.15	Torben Windirsch	Large Animal-Induced Effects on Arctic Soil Carbon Storage
16.15-16.30	Maxime Thomas	More than one third of the organic carbon exposed by the world's largest thaw slump (Batagay, Siberia) is not directly available for mineralization but geochemically stabilized
16.30-16.45	Liudmila Krivenok	Greenhouse gas emissions from permafrost landscapes of Central and Northern Yakutia, Russia
16.45-17.00	Julia Wagner	Soil organic carbon and nitrogen stocks in lowland coastal tundra along the Canadian Beaufort Sea coast

Session 21 / Room: Cinema
Periglacial geomorphology

Conveners: ***Marc Oliva, Gonçalo Vieira, Isabelle Gärtner-Roer, Line Rouyet***

TIME	AUTHOR	TITLE
16.00-16.15	Marcelo Fernandes	Chronology of relict rock glaciers in European mountains since the last deglaciation
16.15-16.30	Till Mayer	Quantifying controlling factors of frost weathering in alpine rocks
16.30-16.45	Julie Wee	Interactions and interconnections between glacial and periglacial processes in high alpine environments
16.45-17.00	Jesús Revuelto	Debris cover development and its impact on the recent evolution of Infiernos glacier, Spanish Pyrenees

Session 7 / Room: Museu

Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales

Conveners: ***Jan Nitzbon, Simone Stünzi, Léo C. P. Martin, Sarah Chadburn***

TIME	AUTHOR	TITLE
16.00-16.15	Eirini Makopoulou	Susceptibility modelling of retrogressive thaw slumps across the Northern Hemisphere
16.15-16.30	Hannah Macdonell	Uncovering Ground-Temperature Model Accuracy in Permafrost Environments
16.30-16.45	Brian Groenke	Explaining uncertainty in the thermal state of permafrost with Bayesian inversion of hydrothermal dynamics
16.45-17.00	Moritz Langer	Modeling shoreline thermodynamics of lakes in the Arctic permafrost region

Session 4 / Room: Biblioteca

Structure and function of freshwater ecosystems on lowland permafrost landscapes

Conveners: ***Ada Pastor, Cecilie M. Holmboe, Tenna Riis***

TIME	AUTHOR	TITLE
16.00-16.15	Sarah Ollivier	Impact of permafrost degradation on organic matter origin and composition in modern and Holocene thermokarst lakes in Central Yakutia
16.15-16.30	Julien Fouche	Suprapermafrost groundwater transfers high concentrations of aged dissolved organic carbon to Greenlandic rivers
16.30-16.45	Carolina Olid	Coupling hydrology and biogeochemistry to evaluate the impact of groundwater inflows on CH4 cycling and food chains in thaw ponds
16.45-17.00	Liam Heffernan	Vulnerability of organic matter to enhanced enzymatic degradation in terrestrial and aquatic tundra ecosystems

POSTER SESSION
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POSTER SESSION B

Session 2
Education & Outreach: Cartoons, Communities, and Cooperation
Conveners: ***Anna E. Klene, Xiangbing Kong, Ylva Sjöberg***

B01	Raul-David Serban	The Story of Ground Surface Temperature
B02	Deanna Ewers	So real, so cool - Sunny Smog Digs Permafrost in VR!
B03	Shelley MacDonell	International postgraduate training on rock glacier monitoring in the semiarid Andes, Chile
B04	Miguel Ramos	"Introduction to permafrost": First outreach course (in Spanish) in Twitter
B05	Alexander Bast	Interactive maps: A powerful and appealing tool for knowledge transfer
B06	Antoni Lewkowicz	Progress in the development of an illustrated plain-language version of the Glossary of Permafrost and Related Ground-Ice Terms
B07	Kelsey Nyland	A New Model for Ice Cellar Monitoring Emphasizing Community Input and Practical Vulnerability Reduction Measures
B08	Kenji Yoshikawa	Food Storage in Permafrost and Seasonally Frozen Ground in the Arctic

Session 4
Structure and function of freshwater ecosystems on lowland permafrost landscapes
Conveners: ***Ada Pastor, Cecilie M. Holmboe, Tenna Riis***

B09	Sarah Ollivier	Influence of geology, permafrost thaw and wildfires on recent and Holocene thermokarst lakes in Yukon (Canada)
B10	Antoine Sejourne	Impact of permafrost thaw on the geochemistry of thermokarst lakes in Central Yakutia (Eastern Siberia)
B11	Zoé Rehder	New model simulations reveal high sensitivity of arctic pond CH4 emissions to warming
B12	Alienor Allain	DOM molecular composition among Arctic ecosystems, and influence of the vegetation cover composition
B13	Johan Rydberg	Hydrologic control on soil-, ground-, and surface water chemistry in a small catchment in the continuous permafrost zone
B14	Pedro Freitas	Understanding thaw pond characteristics, diversity and environmental controls (Nunavik, Northern Quebec, Canada)
B15	Carlos Palacin-Lizarbe	Winter nitrogen cycling in sediments of large boreal lakes affected by browning and mining
B16	Cansu Culha, James Kirchner	Characterizing periglacial catchment hydrology through seasonal and yearly variations in catchment hydrology

Session 7

Recent advances in modelling permafrost dynamics, interactions, and feedbacks across scales

Conveners: ***Jan Nitzbon, Simone Stünzi, Léo C. P. Martin, Sarah Chadburn***

B17	Simone Maria Stuenzi	Exploring the relationship between boreal forests and thermokarst development in ice-rich permafrost
B18	Nicholas Brown	Globsim v.3 Improvements to an open-source software library for utilizing atmospheric reanalyses in point-scale land surface simulation
B19	Constanze Reinken	Statistical modeling of thermokarst lakes
B20	Vladislav Isaev	Digital mapping of permafrost in the Yamal-Nenets autonomic district (YaNAD) of Russia
B21	Clarissa Willmes	Data assimilation of Sentinel-2-retrieved fractional snow-covered area and InSAR-retrieved seasonal ground subsidence on Brøgger peninsula, Svalbard
B22	Rui Chen	Modeling the impact of permafrost degradation on vegetation evolution in the 21st century over the Tibetan Plateau
B23	Jan Nitzbon	Probabilistic subgrid-representation of ice-rich permafrost dynamics in the coupled Earth system model AWI-ESM
B24	Frederieke Miesner	The Influence of Glacial Isostatic Adjustment on Past and Future Subsea Permafrost
B25	Sarah Morard	Assessment of permafrost degradation in the Alps by applying the thermal model CryoGrid Community Model (version 1.0) validated by Petrophysical Joint Inversion of geophysical data
B26	Julia Boike	Numerical modeling to estimate the impact of built infrastructure on permafrost degradation – Case study from Ilulissat, Greenland
B27	Kevin Rozmiarek	Working Towards a Better Understanding of Hotpot Methane Emissions from Big Trail Lake, Goldstream Valley, Alaska
B28	Juditha Aga	Simulating ice segregation and thaw consolidation with the CryoGrid community model
B29	Cosima Schröer	Destabilization vs. stabilization: Assessing structural uncertainty in modeling C decomposition and mineral protection in permafrost-affected soils

Session 8

Monitoring of electrical and electromagnetic properties in frozen ground (including the IPA Action Group IDGSP)

Conveners: ***Mohammad Farzamian, Christin Hilbich, Theresa Maierhofer, Riccardo Scandroglio, Sebastian Uhlemann***

B30	Josué Bock	Monitoring steep rock wall permafrost using electrical resistivity and induced polarisation, part 1: installation, instrumentation
B31	Theresa Maierhofer	Spectral induced polarization imaging to monitor seasonal and annual dynamics of frozen ground at a mountain permafrost site in the Italian Alps

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B32	Maria Sudakova	Using Ground Penetrating Radar for Permafrost Monitoring from 2018–2021 at CALM Sites in the Pechora River Delta
B33	Christian Hauck	Repeated electrical resistivity tomography surveys for analysis of ground ice loss from various permafrost areas of the world
B34	Christin Hilbich	Repeated ERT surveys on rock glaciers – challenges, results, and unexpected observations
B35	Riccardo Scandroglio	Coupling warming permafrost and rockwall erosion: the contribution of geophysical monitoring
B36	Sebastian Uhlemann	Geophysical monitoring of thermohydrological dynamics across an Arctic watershed

Session 10
Steep rock slope permafrost processes and hazards
Conveners: ***Kaytan Kelkar, Florence Magnin, Bernd Etzelmuller***

B37	Stefano Ponti	Thermal photogrammetry as tool for rock wall active layer thickness modelling
B38	Florence Magnin	Mapping release and propagation areas of permafrost-related rock slope failures in the French Alps to identify hot spots for hazard assessment
B39	Florence Magnin	Monitoring permafrost-affected rockwalls, an approach combining permafrost modelling, geophysical surveying and runout simulations. The cases of the Vallon d'Etache and Crête des Grangettes in the French Alps
B40	Felix Pfluger	Mechanical and hydrological controls of rock slope failures in polythermal cryospheric rock slope regimes
B41	Katy Medina	Rockwall permafrost in cordillera Blanca (Peru): first evidences and measurements
B42	Léa Courtial-Manent	Erosion rates of high-Alpine mountain rock walls of the Mont-Blanc massif (European Alps) on decadal and centennial time scales
B43	Christophe Lambiel	Permafrost distribution and rock slope movements around the recently deglaciated Mont Fort summit (3329 m a.s.l., Swiss Alps)
B44	Pia Blake	Understanding permafrost in bedrock slopes of intermediate steepness

Session 12
Periglacial and paraglacial environments in Antarctica
Conveners: ***Filip Hrbacek, Marc Oliva, Mauro Guglielmin, Christel Hansen***

B45	Joana Baptista	Cryogrid potential for modeling permafrost temperature in Maritime Antarctica (King Sejong Station borehole, Barton Peninsula, King George Island)
B46	Thomas Schmid	Advances in differentiating surface covers within ice-free areas of the northern Antarctic Peninsula region

B47	Marek Kasprzak	Where is the permafrost on King George Island (South Shetland Islands)?
B48	Henrique Zilhão	Contaminants in the active layer and permafrost in Barton Peninsula, King George Island (South Shetlands, Antarctic). Preliminary results.
B49	Wojciech Dobiński	Antarctic active layer: temperature changes and freeze / thaw dynamics.

Session 16

Processes in cold rocky landforms

Conveners: ***Dominik Amschwand, Tamara Mathys, Julie Wee, Răzvan Popescu***

B50	Dominik Amschwand	Detailed surface energy balance measurements on rock glacier Murtèl (Engadine, Switzerland): New views into the interaction between atmosphere and the active layer of the rock glacier
B51	Costanza Morino	Permafrost modelling of slopes affected by talus-sourced landslides in northern Iceland

Session 19

Carbon stocks, soil properties, greenhouse gas fluxes and atmospheric feedbacks of permafrost regions

Conveners: ***Matthias Siewert, Gustaf Hugelius, Claire Treat***

B52	Konstantinos-Marios Vaziourakis	The controls on carbon mineralization in permafrost peatlands following thermokarst formation
B53	Jacqueline Knutson	Investigating the lability of organic matter from degrading peatland permafrost, Northern Norway
B54	Matheus Barreto	Thermal Stability and Molecular Composition of Organic Matter Across a Permafrost (Yedoma sediment) Chronosequence in Alaska
B55	Julien Fouché	Greenlandic Glacial and Periglacial Catchments Mobilize Particulate and Dissolved Organic Carbon of Contrasted Ages and Fates
B56	Nikita Tananaev	Permafrost ground ice geochemistry with implications to its origin and potential post-thaw effects
B57	Édith Auclair-Fournier	Vegetation succession and carbon accumulation following permafrost thaw in Nunavik, (Northern Québec, Canada)
B58	Mélissa Laurent	How do post-thaw hydrologic changes affect carbon cycle during the degradation process of a palsa in northern Finland?
B59	Valery Grebenets	Research on landscape-permafrost diversity of the carbon polygon
B60	Christina Fröjd	Soil organic carbon stocks in mountain periglacial settings of Patagonia, SW Argentina and Vindelfjällen, NW Sweden
B61	Min Jung Kwon	Legacy effects of Siberian 2020 heatwave in 2021
B62	Tanja Herbst	Carbon stocks and potential greenhouse gas production of permafrost-affected active floodplains in the Lena River Delta
B63	N.A Jelinski	Predictive mapping of soil properties beyond carbon: the Alaska Soil Data Bank project

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B64	Aleksandra Efimova	The potential of high resolution landcover classification as proxy for soil properties
B65	Jaroslav Obu	Understanding cryoturbation processes – using karst caves to improve projections of soil carbon fate upon thawing permafrost
B66	Katharina Jentzsch	Methane fluxes from the Arctic – an expert survey of chamber measurement techniques
B67	Nathalie Ylenia Triches	Impact of micro habitat properties and seasonal weather conditions on N2O, CH4, and CO2 fluxes in the Arctic
B68	Mackenzie Baysinger	Exploring shoulder season greenhouse gas production along a permafrost thaw transect in sub-arctic Finnish Palsas
B69	Leonardo A. Galera	Ratio of in situ CO2 to CH4 production and its environmental controls in polygonal tundra soils of Samoylov Island, Northeastern Siberia
B70	Annegret Udke	Alpine permafrost – a CO2 source upon climate warming?
B71	Verena Bischoff	Carbon degradation and potential greenhouse gas production in a changing Arctic thermokarst landscape
B72	Peter Kuhry	Soil organic carbon burial and preservation in solifluction landforms

Session 20
Characteristic Upland Periglacial Landscapes: Reality or "Geomorphic Chimera"?
Conveners: ***Kelsey E. Nyland, Raven J. Mitchell, Frederick E. Nelson***

B73	Richard Reger	Cryoplanation Terraces of Interior and Western Alaska
B74	Vasily Tolmanov	Development of North American and Russian investigations on cryoplananation terraces
B75	Maria Peter	Constraining the frost weathering potential in blockfields in Scandinavia through near-surface temperature measurements and modeling
B76	Clayton Queen	Characteristic Periglacial Landscapes: What's in a Name?

Session 21
Periglacial geomorphology
Conveners: ***Marc Oliva, Gonçalo Vieira, Isabelle Gärtner-Roer, Line Rouyet***

B77	Enrique Serrano	Distribution and characteristics of periglacial landforms in Central-West ice-free Greenland
B78	Alexander Kholodov	Potential for development of the process of thermokarst in the zone of discontinuous permafrost in Alaska.
B79	Tamara Mathys	Estimating permafrost ground ice contents in Central Asia using a multi-method approach (in-situ geophysical measurements, remote sensing, and thermal modeling)
B80	Julius Kunz	Three-dimensional subsurface architecture and its influence on the spatiotemporal development of a retrogressive thaw slump in the Richardson Mountains, Northwest Territories, Canada

B81	Ander Palacios	Evolution of debris cover on Pyrenean glaciers from 2000 to 2020: an increasing trend?
B82	Raul-David Serban	Assessing the simulation of ground surface temperature with the physical model GEOtop
B83	Flavius Sirbu	The thermal regime of a periglaciar area in the Southern Carpathians, Romania.
B84	Marc Oliva	Past and present-day periglacial environments in the Sierra Nevada, south Spain
B85	Marc Oliva	Towards improving permafrost monitoring in the Pyrenees
B86	Marcos Valcarcel	Periglacial activity in the Central and Southern Andes
B87	Oriol Grau	The Alt Pirineu Natural Park (Central Pyrenees) is integrated into the international network INTERACT
B88	Saskia Eppinger	Detecting Internal Structures of Retrogressive Thaw Slumps
B89	Beáta Farkas	Frost weathering intensity in relict sand wedges from Hungary inferred from scanning electron microscopy
B90	Megan Andersen	A quantitative analysis of cryostructures and cryogenic soil structures in permafrost-affected soils of three contrasting Alaskan landscapes
B91	Alejandro Gómez-Pazo	Database of periglacial landforms and deposits in the NW Iberian Peninsula
B92	Mirela Vasile	Rock glaciers chronology and Holocene evolution in the mid-latitude Southern Carpathians, derived from absolute and relative dating
B93	Samuel Gagnon	Long-term stabilization of thermo-erosion gullies in the Canadian High Arctic demonstrates the resilience of permafrost to short-term disturbances
B94	Valenti Turu	Former cold – wet ice polythermal glacier inferred from erratics and moraines Schmidt hammer ages at the Madriu Valley (SE Pyrenees)
B95	Gabriel Karam	Investigating Environmental Controls on Epigenetic Ice-Wedge Development using Extended Finite Element Methods
B96	Irina Streletskaya	New Evidence of Relict Cryogenic Processes and Landforms at the East European Plain
B97	Frederick Nelson	The Periglacial Legacy of Louise Arner Boyd's American Geographical Society Expeditions to East Greenland,1933 and 1937
B98	Hemma Crisias	Geotechnical properties of Tyrrell Sea deposits: data gaps and research needs
B99	Marcelo Fernandes	Glacial-to-periglacial transition in the Lòcampo cirque, Central Pyrenees
B100	Justyna Czekirda	Relative frost damage index applied to periglacial rock walls in two-dimensions

DETAILED PROGRAM
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PARALLEL SESSIONS 8 | 09:30 - 11:00

Session 3 / Room: Casino
Permafrost land-ocean interactions: fluxes, transport processes and degradation pathways

Conveners: ***Michael Fritz, Lisa Bröder, Jorien Vonk***

TIME	AUTHOR	TITLE
09.30-09.45	Tina Sanders	Permafrost thawing provides more reactive nitrogen in the transition from soil to river and ocean – an isotopic perspective on the Lena Delta
09.45-10.00	Birgit Wild	Nitrogen dynamics in the Siberian Arctic Ocean and impact of permafrost thaw
10.00-10.15	Sophie Opfergelt	Pulses of sub-ice microbial activity during winter: evidence from nitrate concentrations and silicon isotopes in the Lena River
10.15-10.30	Olga Ogneva	Particulate and dissolved organic carbon in the Lena Delta – the Arctic Ocean interface

Session 22 / Room: Cinema
Polar Coastal and subsea environments in Transition: Arctic – Antarctic perspectives

Conveners: ***Matt C. Strzelecki, Frederieke Miesner, Mette Bendixen, Michael Angelopoulos***

TIME	AUTHOR	TITLE
09.30-09.45	Julia Guimond	Aquifer-ocean interactions as catalysts of coastal Arctic change
09.45-10.00		
10.00-10.15	Anna Irrgang	Recent coastline evolution along the Yukon Coast, western Canadian Arctic
10.15-10.30	Ngai Ham Chan	Arctic Delta Reduced Complexity Model and its Reproduction of Key Geomorphological Structures

Session 23 / Room: Museu

Permafrost Engineering: risk assessment and adaptation challenges

Conveners: ***Guy Dore, Kevin Bjella***

TIME	AUTHOR	TITLE
09.30-09.45	Lukas Arenson	Bridging the Pretty Rocks Landslide in Denali National Park
09.45-10.00	Natalie Arpin	Quantification of frost jacking of railway bridges on the Hudson Bay Railway, Canada
10.00-10.15	Tom De Ville	Powerlines in Greenland at risk from permafrost degradation
10.15-10.30	Balaussa Kameledenova	Monitoring and Long-term Predictions of Thermoprobe Performance for a buried concrete arch foundation

Session 17 / Room: Biblioteca

Biodiversity and biogeochemistry of permafrost ecosystems and global change

Conveners: ***Oriol Grau, Olga Margalef, Sergi Pla-Rabés, Nicolás Valiente***

TIME	AUTHOR	TITLE
09.30-09.45	Heleen de Wit	Contrasting water chemistry and dissolved gas concentrations in degrading thermokarst water bodies compared with surrounding wetland streams, in Iškoras, northern Norway
09.45-10.00	Eléonore du Bois	Iron, manganese and aluminum solubility with permafrost thaw in an Arctic peatland: coupled geochemical and geophysical measurements
10.00-10.15	Anne Eberle	Variability of iron involved in organic carbon protection in thawing palsa mires across northern Scandinavia
10.15-10.30	Rose-Marie Cardinal	Methylmercury concentrations in a degrading palsa field near Kangiqsualujjuaq, Nunavik (Canada)

DETAILED PROGRAM
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PARALLEL SESSIONS 9 | 11:00 - 12:30

Session 3 / Room: Casino

Permafrost land-ocean interactions: fluxes, transport processes and degradation pathways

Conveners: ***Michael Fritz, Lisa Bröder, Jorien Vonk***

TIME	AUTHOR	TITLE
11.00-11.15	Paul Mann	Enhanced river runoff and permafrost thaw affect Arctic shelf processes
11.15-11.30	Fleur van Crimpen	Release and transport of organic carbon from permafrost coasts along the Canadian Beaufort Sea
11.30-11.45	Katharina Schwarzkopf	Organic matter distribution and origin in marine surface sediments on the Canadian Beaufort Sea Shelf
11.45-12.00	Matt O'Regan	Calibrating estimates of modern carbon burial on the Canadian Beaufort Shelf
12-12.15.00	Frederieke Miesner	Organic carbon in subsea permafrost: a globally significant but inert carbon pool
12.15-12.30	David Nielsen	Coastal permafrost erosion reduces the Arctic Ocean's CO2 uptake from the atmosphere

Session 22 / Room: Cinema

Polar Coastal and subsea environments in Transition: Arctic – Antarctic perspectives

Conveners: ***Matt C. Strzelecki, Frederieke Miesner, Mette Bendixen, Michael Angelopoulos***

TIME	AUTHOR	TITLE
11.00-11.15	Ephraim Erkens	Uncertainties in the detection of subsea permafrost using marine Electrical Resistivity Tomography (Tuktoyaktuk, NWT, Canada)
11.15-11.30	Bernardo Costa	Spatial and Temporal Variability of Shoreline Change in the Tuktoyaktuk Peninsula from 1950 to 2020 (Beaufort Sea, Canada)
11.30-11.45	Boris Bukhanov	In situ temperature distribution of bottom sediments of the East Siberian Arctic Seas
11.45-12.00	Justus Gimsa	Driving mechanisms of permafrost coastal erosion investigated by laboratory model experiments
12.00-12.15	Juditha Aga	Coastal erosion dynamics of high-Arctic rock walls on Brøgger Peninsula, Svalbard
12.15-12.30	Deniz Vural	The Future of the Arctic shoreface: A study on the role of permafrost in controlling coastal changes in the subaqueous environment

Session 23 / Room: Museu

Permafrost Engineering: risk assessment and adaptation challenges

Conveners: ***Guy Dore, Kevin Bjella***

TIME	AUTHOR	TITLE
11.00-11.15	Emmanuel L'Hérault	Toward large-scale implementation of near real-time ground temperature monitoring LoRaWAN networks in northern Quebec and Yukon: challenges and opportunities
11.15-11.30	Zhaohui Joey Yang	Seismic Hazards of Degraded Permafrost: A Case Study of Northway Airport, AK
11.30-11.45	Igor Egorov	Single phase active and passive cooling systems combined with phase change material to stabilize permafrost thaw.
11.45-12.00	Thomas Schneider von Deimling	Evaluating the efficiency of adaptation measures to protect infrastructure built on permafrost
12.00-12.15	Emmanuel L'Hérault	Short-term thermal performance of gentle slope embankments for runway built on ice-rich and warm permafrost, case study of the Tasiujaq airport, Northern Quebec.
12.15-12.30	Valery Grebenets	Analysis of deformations of engineering objects during the activation of hazardous cryogenic processes

Session 15 / Room: Biblioteca

Drained Lake Basins in lowland permafrost regions

Conveners: ***Helena Bergstedt, Louise Farquharson, Guido Grosse***

TIME	AUTHOR	TITLE
11.00-11.15	Pascale Roy-Leveillee	Permafrost aggradation in drained lake basins of the forest-tundra transition, Old Crow Flats, Yukon
11.15-11.30	Julius Kunz	Resolving three-dimensional small-scale heterogeneity of surface and subsurface properties in two drained lake basins on the Tuktoyaktuk Peninsula and in the Caribou Hills, Northwest Territories, Canada
11.30-11.45	Alexandra Veremeeva	Yedoma-alas landscape elevation changes and their drivers based on Sentinel-1 SAR Interferometry, field data, and high-resolution optical imagery, Bykovsky Peninsula, Laptev Sea region
11.45-12.00	Yoshihiro Iijima	Ecohydrological changes due to channeling of alases and thermokarst lakes in Central Yakutia
12.00-12.15	Timofey Orlov	Analysis of the lake thermokarst for the period of 1966-2021 as a factor in the dynamics of ice wedges (case study of the Yano-Indigirskaya lowland).
12.15-12.30	Guido Grosse	A glimpse into past, current, and future thermokarst lake drainage across different study areas in the panarctic permafrost region

DETAILED PROGRAM
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PARALLEL SESSIONS 10 | 14:00 - 15:30

Session 11 / Room: Casino
Emerging geophysical methods for permafrost investigations

Conveners: ***Adrián Flores-Orozco, Coline Mollaret, Jonas Limbrock, Christian Hauck***

TIME	AUTHOR	TITLE
14.00-14.15	Michael Angelopoulos	Passive seismic exploration of permafrost beneath Arctic rivers, lakes, and seas
14.15-14.30	Antoine Guillemot	Passive seismic methods on rock glaciers : observations and dynamics modeling
14.30-14.45	Paloma Saporta	Investigating signal penetration depth in multi-frequency Synthetic Aperture Radar imagery over lowland permafrost
14.45-15.00	Mirko Pavoni	Application of separate-coils Frequency Domain Electromagnetic (FDEM) instruments for the characterization of rock glacier substrates
15-15.15.00	Thomas Højland Lorentzen	An Inversion scheme for MASW data collected on saline permafrost soils.
15.15-15.30	Florian Wagner	An open framework for time-lapse petrophysical joint inversion of geophysical permafrost monitoring data

Session 5 / Room: Cinema
Water in Mountain Permafrost Environments

Conveners: ***Cassandra Koenig, Stefano Brighenti, Masaki Hayashi, Nicola Colombo, Monica Tolotti***

TIME	AUTHOR	TITLE
14.00-14.15	Gerardo Zegers	Improved Permafrost Modeling in Mountain Environments Using Convective-Enhanced GeoTOP Model
14.15-14.30	Valentí Turu	The core of the Clot de la Menera rock glacier from radioactive tracers and stable isotopes (NE-Andorra, SE Pyrenees)
14.30-14.45	Jordan Harrington	Rock glacier cryo-hydrology in the Central Andes
14.45-15.00	Dominik Amschwand	Quantifying the meltwater released from rock glaciers with an energy approach: Insights on seasonal ground ice formation and melting in rock glacier Murtèl (Engadine, Switzerland) from in-situ measurements
15-15.15.00	Liudmila Lebedeva	Hydrological significance of rock glaciers in the Ozernaya river basin, northern Tien Shan region
15.15-15.30	Sebastián Ruiz-Pereira	Future groundwater/permafrost feedbacks in the High Andes (5,800 m a.s.l., 27°S).

Session 1 / Room: Museu

Modeling of permafrost-climate feedbacks in future scenarios

Conveners: ***Norman Steinert, Sarah Chadburn, Philipp de Vrese, David Wårlind***

TIME	AUTHOR	TITLE
14.00-14.15	In-Won Kim	Abrupt change in subarctic wildfires following future permafrost thawing
14.15-14.30	Madeleine Garibaldi	Modelling the impact of surface lapse rate changes on mountain permafrost distribution in four dissimilar valleys in Yukon, Canada
14.30-14.45	Ian Shirley	How do limited observations impact predictions of complex systems?: a comparison of process model and machine learning approaches to estimate current and future high-latitude carbon balance
14.45-15.00	Tobias Stacke	Representation of Arctic hydrology in a global land surface model
15-15.15.00	Goran Georgievski	Thaw depths and carbon release in adaptive emission driven MPI-ESM simulations
15.15-15.30	Radhakrishna Bangalore Lakshmiprasad	Modelling the effects of climate change on groundwater-surface water interactions in permafrost dominated regions

Session 18 / Room: Biblioteca

Studying past environments to understand current permafrost dynamics

Conveners: ***Sergi Pla-Rabés, Santiago Giralt, Dermot Antoniades, Julia Gracia-Oteyza, Olga Margalef***

TIME	AUTHOR	TITLE
14.00-14.15	Georg Schwamborn	Permafrost and depositional setting in the Beenchime-Salaatinsky Crater, Northern Yakutia
14.15-14.30	Nataliya Belova	Origin of massive ice beds and host Pleistocene sediments at Marre-Sale, Western Yamal, Russia
14.30-14.45	Nikolai Fedorov	Greenhouse gas trapped in Alaska's permafrost ice wedges
14.45-15.00	Tomáš Uxa	Optically stimulated luminescence ages for relict frost wedges in the Bohemian lowlands, Czech Republic
15-15.15.00	Frank Kienast	Plant material from the intestinal tract of a frozen steppe bison (Bison priscus) carcass - a window into ice-age environments
15.15-15.30	Frederic Bouchard	A 14,000-year record of mercury concentration from a lake sediment core in the continuous permafrost region of Central Yakutia (Sakha Republic)

DETAILED PROGRAM
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PARALLEL SESSIONS 11 | 16:00 - 17:00

Session 11 / Room: Casino
Emerging geophysical methods for permafrost investigations

Conveners: ***Adrián Flores-Orozco, Coline Mollaret, Jonas Limbrock, Christian Hauck***

TIME	AUTHOR	TITLE
16.00-16.15	Sebastian Uhlemann	Estimating permafrost distribution using colocated temperature and resistivity measurements
16.15-16.30	Andreas Hördt	Petrophysical Aspects of Ice Content Estimation from High-Frequency Induced Polarisation (HFIP) spectra
16.30-16.45	Theresa Maierhofer	Quantitative interpretation of spectral induced polarization signatures in different mountain permafrost landforms with varying geologies and ice contents
16.45-17.00	Clemens Moser	3D Spectral Induced Polarization for the estimation of ice content and hydraulic properties in an active rock glacier

Session 5 / Room: Cinema
Water in Mountain Permafrost Environments

Conveners: ***Cassandra Koenig, Stefano Brighenti, Masaki Hayashi, Nicola Colombo, Monica Tolotti***

TIME	AUTHOR	TITLE
16.00-16.15	Soumik Das	Evolving Permafrost-groundwater interactions in arid Trans-Himalayan landscapes of Spiti region, NW India
16.15-16.30	Francecsca Bearzot	Hydrological, thermal and chemical influence of an intact rock glacier discharge on a mountain stream (NW Italy)
16.30-16.45	Stefano Brighenti	Water origin and chemistry of different stream types in three Alpine catchments
16.45-17.00	Monica Tolotti	Glacier and rock glacier streams host microbial communities with distinct taxonomy, diversity, and seasonality.

Session 1 / Room: Museu

Modeling of permafrost-climate feedbacks in future scenarios

Conveners: ***Norman Steinert, Sarah Chadburn, Philipp de Vrese, David Wårlind***

TIME	AUTHOR	TITLE
16.00-16.15	Félix García-Pereira	Climate response to improved permafrost hydro-thermodynamics in historical and scenario simulations
16.15-16.30	Evgeniy Yakushev	Modeling influence of methane seeping on the water column carbonate system in the Laptev Sea Shelf
16.30-16.45	David Wårlind	Impact of active layer thickening on vertical soil organic matter GHG emissions in a dynamic vegetation model
16.45-17.00	Philipp de Vrese	Similar Arctic methane emissions under wet and under increasingly dry conditions?

Session 18 / Room: Biblioteca

Studying past environments to understand current permafrost dynamics

Conveners: ***Sergi Pla-Rabés, Santiago Giralt, Dermot Antoniades, Julia Gracia-Oteyza, Olga Margalef***

TIME	AUTHOR	TITLE
16.00-16.15	Thomas Douglas	Synthesis of historical thaw records in interior Alaska- back to the future
16.15-16.30	Julia Garcia-Oteyza Ciria	Long-term perspectives on the landscape evolution in permafrost-ice regions of NE Greenland
16.30-16.45	Marit Hichens-Bergström	Permafrost history in Fennoscandian peatlands during the last 6000 years
16.45-17.00	Lutz Schirrmeister	Western Beringia and beyond - three decades of German-Russian paleoenvironmental research on Siberian permafrost

POSTER SESSION
THURSDAY 22/06

POSTER SESSION C

Session 1
Modeling of permafrost-climate feedbacks in future scenarios
Conveners: ***Norman Steinert, Sarah Chadburn, Philipp de Vrese, David Wårlind***

C01	Esther Bender	Modeling permafrost landscape evolution and greenhouse gas emissions from rapid thawing of ground ice with a new subgrid permafrost representation in CLM5
C02	Nick Noad	Surface-based temperature inversion impact on surface air temperatures and implications for permafrost distribution in Northwestern Canada
C03	Sowon Park	Changes of permafrost environment under net-zero and negative emissions
C04	Norman Julius Steinert	Permafrost-carbon feedback under emission overshoot scenarios
C05	Sergey Marchenko	Estimation Rates of Permafrost Degradation and their Impact on Ecosystems across Alaska: Arctic and Subarctic Engineering Design Tool
C06	Simon Cazaurang	Experimental and numerical evaluation of thermal properties of moss, lichen, and peat from a permafrost-dominated wetland

Session 3
Permafrost land-ocean interactions: fluxes, transport processes and degradation pathways
Conveners: ***Michael Fritz, Lisa Bröder, Jorien Vonk***

C07	Alexandra Hamm	Mobilization and export of permafrost carbon through groundwater flow
C08	Alex Lefebre	LNAPL migration in frozen and thawed heterogenous sands using physical modelling techniques
C09	Izabela Pałka	Remineralization of permafrost-derived dissolved organic matter in Longyeardalen, Spitsbergen
C10	Lutz Schirrmeister	Water extracts from Siberian thawing permafrost - from land to ocean
C11	Ada Pastor	Nitrogen-Cycling Genes in stream sediments across the Arctic
C12	Mengli Cao	Deglacial compound-specific radiocarbon age records of lignin phenols and lipids from rivers draining Arctic and sub-Arctic permafrost regions
C13	Gesine Mollenhauer	Land-ocean transport of permafrost derived organic matter from continental Europe during the last deglaciation
C14	Lewis Sauerland	Organic matter degradation and dissolved inorganic carbon production in Siberian Arctic Ocean shelf sediments
C15	Tsai-Wen Lin	Permafrost organic matter mobilization since the last deglaciation recorded in Laptev Sea sediments

C16	Manuel Ruben	Utilization, release, and long-term fate of ancient carbon from eroding permafrost coastlines
C17	Lisa Bröder	Sedimentary organic matter composition across the Canadian Beaufort Sea – a molecular biomarker approach
C18	Lina Madaj	Fluvial versus coastal input of permafrost organic carbon - insights from the Canadian Beaufort Sea
C19	Clément Bertin	Arctic nearshore CO2 outgassing driven by the Mackenzie River terrestrial dissolved carbon runoff
C20	Michael Fritz	Mercury (Hg) distribution and its relation to organic carbon in marine surface sediments on the Canadian Beaufort Sea Shelf
C21	Pia Petzold	Composition and Transport of Organic Carbon in the Nearshore Zone of Herschel Island, Qikiqtaruk

Session 5

Water in Mountain Permafrost Environments

Conveners: ***Cassandra Koenig, Stefano Brighenti, Masaki Hayashi, Nicola Colombo, Monica Tolotti***

C22	Silvia Picone	How the ice within rock glaciers can influence the hydrology of high Mountain areas: the example of the Central Italian Alps
C23	Monica Tolotti	The project "ROCK-ME: Geochemical response of Alpine Rock Glaciers to global warming: hydroecological consequences of trace element Export"
C24	Pablo Wainstein	Water Management in Glacial / Periglacial Watersheds in the Dry Andes – A New Cryo-Hydro Modelling Approach
C25	Cassandra Koenig	Modelling Ground-Ice Degradation within the Bermejo Rock Glacier, Central Argentina
C26	Stefano Brighenti	Springs from cold rocky landforms: icy seeps in warming mountains
C27	Giulia Bertolotti	Active Rock Glaciers as Dynamic Water Storage: The Case Study of Rock Glacier Lazaun (South Tyrol, Italy)
C28	Mikkel Toft Hornum	Discovery of groundwater springs in Isortoq Valley, Western Greenland

Session 11

Emerging geophysical methods for permafrost investigations

Conveners: ***Adrián Flores-Orozco, Coline Mollaret, Jonas Limbrock, Christian Hauck***

C29	Thomas Højland Lorentzen	Near surface continues TEM mapping of saline permafrost environment
C30	Jan Šafanda	Geothermal evidence of shallow Weichselian permafrost in lowland of Northern Bohemia, Czechia
C31	Maria Sudakova	Geophysical methods in permafrost monitoring in Russia
C32	Ramón Pellitero	Recent and ongoing transformations of the Nevado Coropuna tropical cryosphere (Central Andes): the Ground-Penetrating Radar perspective

POSTER SESSION
THURSDAY 22/06

C33	Jonas K. Limbrock	Influence of temperature and ground ice content on broadband SIP signatures: Utilizing insights from controlled freeze-thaw experiments for improved characterization of Alpine permafrost sites
C34	Lukas Aigner	Improved characterization of alpine permafrost by including structural constraints from transient electromagnetic data into spectral induced polarization imaging
C35	Emmanuel Léger	Monitoring active layer dynamic using a low-cost Ground-Penetrating Radar system. A laboratory analog test case.
C36	Coline Mollaret	Petrophysical joint inversion to estimate spatio-temporal changes in ground ice content: investigation of different petrophysical relations using synthetic data
C37	Ramón Pellitero	Vertical electrical sounding in the tropical permafrost of the Nevado Coropuna volcanic complex, central Peruvian Andes
C38	Madhuri Sugand	Two-dimensional estimation of ice-content distribution in permafrost peatlands using high-frequency induced polarisation.
C39	Liudmila Lebedeva	Wide spread occurrence of the suprapermafrost subaerial taliks in continuous permafrost of Central Yakutia

Session 15
Drained Lake Basins in lowland permafrost regions
Conveners: ***Helena Bergstedt, Louise Farquharson, Guido Grosse***

C40	Clemens v. Baechmann	Land Cover Patterns for Drained Lake Basins across bioclimatic gradients
C41	Benjamin Jones	Chain reaction drainage of four permafrost region lakes in northern Alaska
C42	Helena Bergstedt	Drained lake basins on a panarctic scale
C43	Samuel Gagnon	Contemporary formation of ice-wedge pseudomorphs contributes to carbon storage in thermokarst lake basins in Old Crow Flats, Yukon, Canada
C44	Danielle Chiasson	Post-Drainage Evolution of Drained Lake Basins in Old Crow Flats, Yukon, Canada
C45	Juliane Wolter	A synthesis of drained lake basin ages for northern permafrost regions
C46	Nicole Corbiere	Assessing mercury and methylmercury concentrations in drained basins complexes in Old Crow Flats, Yukon, Canada

Session 17
Biodiversity and biogeochemistry of permafrost ecosystems and global change
Conveners: ***Oriol Grau, Olga Margalef, Sergi Pla-Rabés, Nicolás Valiente***

C47	Arthur Szylit	Interplay between microbial communities, methane flux, and environment in aquatic ecosystems under arctic permafrost context
C48	Adam Kirkwood	Mass-wasting and mercury along the Churchill River in the continuous permafrost zone of Far North Manitoba, Canada

C49	Katy Medina	A preliminary study of the biodiversity on the San Felix rock glacier, Cordillera Chila, Peru
C50	Camelia Algora	Increased microbial decomposition associated to warming in Arctic ecosystems
C51	Maëlle Villani	Flow-path changes in permafrost soils affect Fe-organic carbon interactions: evidence from silicon isotopes
C52	Oriol Grau	Biogeochemical changes in response to permafrost thaw in subarctic and arctic peatlands
C53	Laure Gandois	Influence of geomorphology and permafrost degradation on permafrost porewater DOM composition
C54	Cristian Estop	Sediment profile characterization of small thermokarst peatland lakes in the Taiga Plains

Session 18

Studying past environments to understand current permafrost dynamics

Conveners: ***Sergi Pla-Rabés, Santiago Giralt, Dermot Antoniades, Julia Gracia-Oteyza, Olga Margalef***

C55	Nataliya Belova	Cryofacies of massive ice of the western sector of Russian Arctic
C56	Julie Lattaud	Tracking climate-driven changes in carbon dynamics in the Mackenzie Delta region using compound-specific radiocarbon analysis
C57	Marek Kasprzak	Coldspots of European Mid-Mountains (the Karkonosze Mts. case study)
C58	Lev P. Kuziakin	Study of massive ice beds on Eastern Chukotka coasts (near the Lavrentiya community)
C59	Alena Giesche	Permafrost-free Miocene: a window to the future?
C60	Alba Rubio	Holocene reconstruction of a palsa mire (Abisko, Sweden, 68ºN) through macrofossil analysis
C61	Tomáš Uxa	Characteristics of last glacial polygonal sorted patterns from high-resolution airborne data

Session 22

Polar Coastal and subsea environments in Transition: Arctic – Antarctic perspectives

Conveners: ***Matt C. Strzelecki, Frederieke Miesner, Mette Bendixen, Michael Angelopoulos***

C62	Augusto Perez	Coastal processes and landforms in the South Shetland Islands (Maritime Antarctica)
C63	Annett Bartsch	Earth Observation for Permafrost dominated Arctic Coasts (EO4PAC) – contributions to the next generation of the Arctic Coastal Dynamics database
C64	Melissa Ward Jones	Observing ice-rich permafrost coastal bluff erosion at Drew Point, Beaufort Sea Coast, Alaska using UAV surveys and airborne multispectral imagery
C65	Maren Jenrich	Impact of marine inundation on permafrost thaw and pan-Arctic distribution of thermokarst lagoons

C66	Matt Strzelecki	Paraglacial coasts transformed by extreme waves – Greenlandic perspectives
C67	Matt Strzelecki	Svalbard coasts under warming climate - changes, rates and landforms
C68	Alexis Geels	Quantifying the effect of subsea permafrost thaw on Arctic shelf dissolved inorganic carbon and alkalinity fluxes
C69	Constance Lefebvre	A new microbially explicit model for the degrdation of thawed subsea permafrost organic matter
C70	Daria Bogatova	Spatial features of coastal dynamics of the Kara Sea
C71	Stanislav Ogorodov	Permafrost coasts of Pechora and Kara seas in Transition: environmental forcing change
C72	V.Z. Khilimonyuk	Regional division of the East Siberian and Chukchi Sea shelf for subsea permafrost modeling
C73	Alexsey Maslakov	Coastal erosion at Lorino community,Eastern Chukotka: new data for the western Bering Sea region
C74	Osip Kokin	Little Ice Age iceberg plughmark at the bottom of the Kara Sea
C75	Anna Denisova	Influence of permafrost on the formation of fluidogenic landforms within the shelf of the Pechora and Kara Seas
C76	Daria Bogatova	Permafrost and lithological features of the Gulf of Kruzenshtern coast, Kara Sea
C77	Georgii Kazhukalo	Beach sediment distribution in the Kharasavey key site, Kara Sea
C78	Constance Lefebvre	A new microbially explicit model for the degradation of thawed subsea permafrost organic matter

Session 23

Permafrost Engineering: risk assessment and adaptation challenges

Conveners: ***Guy Dore, Kevin Bjella***

C79	Ivan Iliushin	Response of permafrost conditions in the territory of the Yuzhno-Tambeyskoye gas field (Yamal, Russia) to climate change in the 21st century
C80	Artem Kulakov	Zoning of mountain permafrost landscapes to assess the development and forecast of geological processes on roads and railways
C81	Alexandr Shein	Development of an automated system for temperature monitoring of permafrost at the base of buildings in Salekhard city of the Yamal-Nenets Autonomous District
C82	John Thornley	A New Methodology for Estimating Earthquake-Induced Liquefaction Potential Developed from Thawing Permafrost
C83	Veronika Kapralova	Assessment of natural risks changes for linear structures in the cryolithozone using methods of mathematical morphology of landscape
C84	Vasily Tolmanov	Snowbanks impact on permafrost in the cities

C85	Boris Bukhanov	Freezing point and unfrozen water content determination of permafrost soils by the water potential method
C86	Rae Landriau	Egress of contaminated fluids from drilling waste sumps, Western Arctic Canada
C87	Greg Siemens	Laboratory evaluation of skin friction and end bearing contributions to pile capacity in warming frozen ground
C88	Anna Wagner	Investigation of thermosyphon fin designs
C89	Egor Loktionov	The examples of permafrost thermal stabilization systems powered by renewable energy
C90	Anna Pekinasova	Numerical solution for the hydro-thermo-mechanical framework of one-dimensional large-strain thaw consolidation for engineering adaptation of transportation infrastructure in permafrost regions to climate change.

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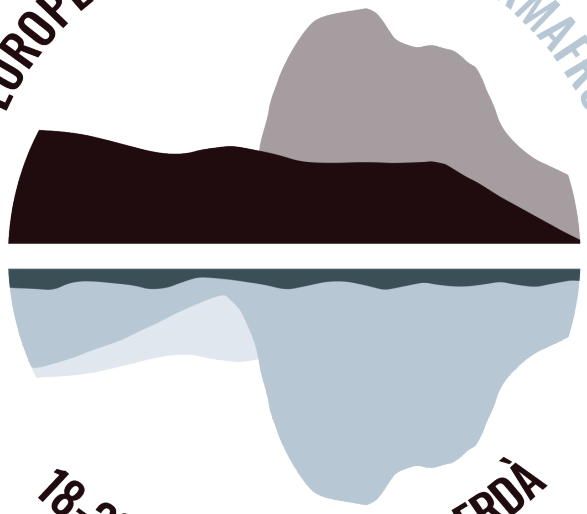

18-22 JUNE, 2023, PUIGCERDÀ

UNIVERSITAT DE BARCELONA

Ajuntament de Puigcerdà

Diputació de Girona

LaMolina CERDANYA · BERGUEDÀ · RIPOLLÉS

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