

PYRN Christmas Social

By Lara Hughes-Allen

The first annual PYRN winter festivities were a success! We had a virtual bingo and virtual digital gift exchange. **Matt Q. Morrison** was selected as the winner of the virtual bingo and **Joel Eklof** was selected as winner of the virtual digital gift exchange. They will both be awarded \$50!



PYRN Seminar Series

By Charlotte Haugk

The first PYRN Seminar this year started off on February 8th with great success!

We had about 65 permafrost interested scientists from all over the world joining us online for an hour of listening to what the PYRN community is researching at the moment.

With **Josefine Walz** (“Year-round CO2 flux partitioning from snow-covered Arctic heath ecosystems”), **Sebastian Ruiz Pereira** (“Frozen Ground and landscape evolution in the Central Andes”) and **Mish lle Wehbe** (“An aerial inventory of rock glacier distribution in Banff National Park, Alberta, Canada”) we had three fantastic speakers, investigating permafrost in 3 completely different regions of the world.

You missed it and want to watch it again? No problem! Follow this link: <https://youtu.be/eiDG-G0YIYk>

Call for PYRN Seminar Series

By Adam Kirkwood

Hello PYRN members!

If you enjoyed our first seminar and are interested in being a speaker as well, please fill out the google form including a short abstract about your work and your results:

<https://docs.google.com/forms/d/e/1FAIpQLSda7AQspWtrIVi1Ww10pZGB0KwfJ3Lcj4kgOLHNZpqPOuAZ0Q/viewform>

You will be notified in time if you have been selected as a speaker. We’re looking forward to hearing from everyone! If there is an abundance of interest, we will keep your abstract on file for future seminars so that we can hear from as many PYRN members as possible, so please don’t hesitate to submit an abstract, no matter what stage of your project you’re in! We’ll be hosting monthly seminars with three (3) PYRN speakers from March until June.

For those who aren’t interested in presenting, but are interested in attending, this will be open to all PYRN members, and we will send out the zoom link/registry soon.

Support for national representatives of PYRN

By Filip Hrbacek

PYRN excom will continue with the funding support of your activities. We should be able to offer you up to 300 EUR/year for activities like workshops or meetings organised in your country or in the frame of multiple countries. The funding application form and process remains the same as in the previous years, and you can find it here: <https://pyrn.arcticportal.org/national-representatives/funding-application-form>.

We are looking for new people who can serve as National representatives in the current period 2021-2022. Unlike previous years we miss NRs of Austria, Switzerland, Norway, Italy, China, Bulgaria and Brazil. We strongly support the NRs establishment in new countries as well.

Feel free to contact us by mail: pyrn.nr@gmail.com for any questions.

Articles



The most viewed papers of winter 2021 are:

By Vasily Tolmanov

Title : Zhao, L., Zou, D., Hu, G., Wu, T., Du, E., Liu, G., ... & Cheng, G. (2021). A synthesis dataset of permafrost thermal state for the Qinghai-Xizang (Tibet) Plateau, China. *Earth System Science Data Discussions*, 1-22.

A long-term synthesis dataset of soil temperature, moisture and deep ground temperature from Tibet is published in this paper, which can really benefit multiple scientific research field, in terms this dataset can promote the verification, development, and improvement of the hydrological model, land surface process model, as well as climate mode on the Tibetan Plateau.

PYRN members in #APermafrostPaperAMonth

By Juditha Schmidt

If you want your paper to be promoted at our social media channels under #APermafrostPaperAMonth, you can contact our social media coordinator Vasily Tolmanov and we would be happy to support your work (vasiliytolmanov@gmail.com). We also decided to change up this PYRN element and feature a permafrost paper every month rather than every day. Watch out for the next featured paper!

Vacancies



By Charlotte Haugk & Juditha Schmidt

PhD positions

PhD research fellow in modeling permafrost-ecosystem interactions

A position as PhD research fellow in permafrost modeling is available in the Permafrost4Life project at the University of Oslo. Permafrost4Life is a research project on permafrost in Mongolia. It aims for a better understanding of the role of permafrost for ecosystems in Mongolia. In particular, we want to find out how climate and land-use change impact permafrost, and how permafrost thaw affects ecosystem functionality and the water cycle.

Application deadline: **March 23, 2021**

Contact: **Sebastian Westermann** (sebastian.westermann@geo.uio.no)

Link: <https://www.jobbnorge.no/en/available-jobs/job/201108/phd-research-fellow-in-modeling-permafrost-ecosystem-interactions>

PhD position: Understanding the development of permafrost thawing at an experimental site in Central Yakutia (Eastern Siberia)

The PhD thesis will investigate the thermokarst development by analyzing the spatio-temporal set of data collected since 2016. This work will improve the understanding of the initiation of permafrost thawing. Little is known about the vulnerability and resilience of Boreal ecosystems to surface disturbances. One of the main expected results will be the inference of probabilistic maps of thermokarst formation.

Application deadline: **April 26, 2021**

Contact: **Francois Costard** (francois.costard@u-psud.fr)

Link: https://www.adum.fr/as/ed/voirproposition.pl?matricule_prop=34545&site=PSaclay#version

Postdoc positions and others

Geotechnical engineer / Geophysicist (80-100%)

Work in the field of mountain permafrost research, measuring and modeling the effects of water and ice on deep-seated slope deformation in rock masses and in ice-rich sediments.

Contact: **WSL Institute for Snow and Avalanche Research SLF, Davos, Switzerland**

Position aspired to be filled **until July 1st 2021**

Link: <https://apply.refline.ch/273855/1133/pub/2/index.html>

Postdoctoral Scholar - Microbial Reactive Transport Modeling - Department of Environmental Science, Policy and Management

Postdoc opening in the Department of Environmental Science, Policy and Management at Berkeley, focused on developing reactive transport models to investigate microbial acclimation, evolution and assembly in thawing permafrost!

Deadline: **March 30th 2021**

Link: <https://aprecruit.berkeley.edu/JPF02857>

Courses

Online Technical Training Programme

Are you looking to bolster your skills for working on a research icebreaker? The online technical training series organized by the Arctic Research Icebreaker Consortium and the Association of Early Polar Career Scientists may be what you are looking for! Exciting training modules and experience are waiting for you in March and April of 2021.

Link: <https://www.apecs.is/research/apecs-projects/arice/online-technical-training.html>

Upcoming Dates



By Juditha Schmidt

Arctic Science Summit Week 2021

March 20-26 2021. Lisbon, Portugal (on-line) <https://assw2021.pt/>

EGU General Assembly 2021

April 25 - 30, 2021. Vienna, Austria. <https://egu2021.eu/>

7th Students in Polar and Alpine Research Conference (SPARC)

May 3 - 4, 2021. Brno, Czech Republic. <https://sparc-brno.webnode.cz/>

19th International Conference on Cold Regions Engineering 2021 Regional Conference on Permafrost

October 24 - 29, 2021. Boulder, Colorado, USA (online) <https://www.uspermafrost.org/21rcop/index.shtml>

12th International Conference on Permafrost (planned for June 2020) is postponed to

June 20-24, 2022. Lanzhou, China. <http://icop2020.csp.escience.cn>

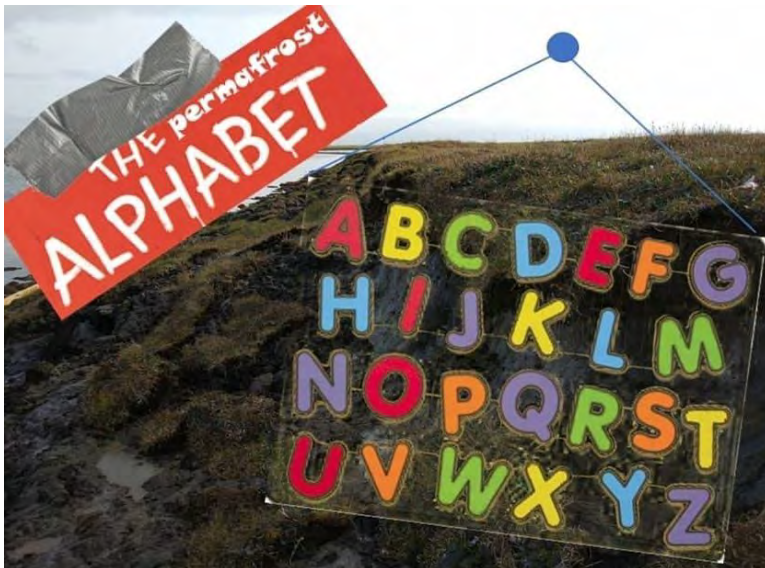
A Changing Arctic - International Summer School @ University of Oslo (Master Level Course)

5 weeks in this summer, online, Norway. <https://www.uio.no/studier/emner/iss/sommerskolen/ISSMN4030/index.html>

Stay up to date with PYRN social media

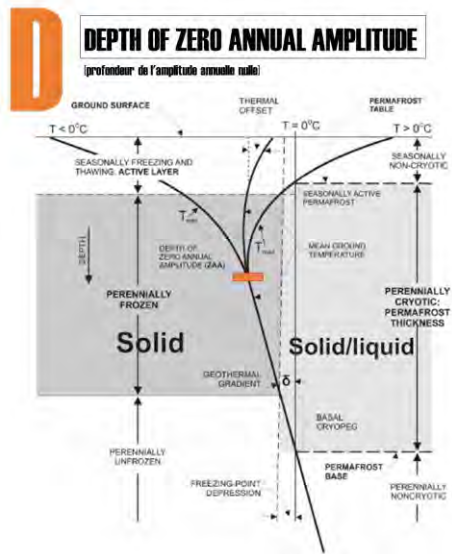
By Vasily Tolmanov

We started the Permafrost alphabet - an educational-entertaining project in social media. You can take part in the creation of the “letter”. If you have ideas or desire to help - please, contact me using one of our social networks.



We stopped at **D** letter at the end of February

D - DEPTH OF ZERO ANNUAL AMPLITUDE



What is it? The distance from the ground surface downward to the level beneath which there is practically no annual fluctuation in ground temperature.

Detailed description: A change of no more than 0.1DC throughout the year is arbitrarily considered as practically no annual fluctuation. The temperature at the depth (or level) of zero annual amplitude ranges from about -0.1 DC at the southern limit of the permafrost region to about -20GC in the extreme polar reaches of the zone of continuous permafrost.

The depth of zero annual amplitude varies widely but generally lies between 10 and 20 m below the ground surface, depending on climatic and terrain conditions such as amplitude of annual surface temperature variation, vegetation, snow cover and characteristics of the soils and rocks including thermal diffusivity (see thermal properties of frozen ground).

Reference: Muller, 1943; Glossary of permafrost and related ground ice terms

Base layer of the scheme: Dobiński, W. The Cryosphere and Glacial Permafrost as Its Integral Component. Open Geosci. 2012, 4, 623–640, doi:10.2478/s13533-012-0109-8.

Just a reminder that **PYRN** is active in a variety of social media channels! Follow us now!

We use platforms like Twitter, Facebook, Instagram and LinkedIn to communicate news about PYRN, articles, information on events and photos.



*Be part of the PYRN social media community and reach out to hundreds of permafrost enthusiasts! Use the tag **@pyrn_official** and hashtag **#pyrn** on Twitter, Facebook and Instagram to share your updates or pictures via the '**PYRN**' account.*

This Newsletter was prepared by PYRN ExCom 2020-2021 team

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