T-MOSAiC MoU with ArcticNet

The large Canadian network of northern researchers ArcticNet (https://arcticnet.ulaval.ca/) has signed a pre-agreement with T-MOSAiC for a Memorandum of Understanding (MoU) to be finalized and ratified at ASSW21 in Lisbon next year. The purpose of the MoU is to promote scientific cooperation between ArcticNet and T-MOSAiC, and especially to encourage the exchange of knowledge and the creation of synergies in Arctic research between facilities, researchers and nations.

ArcticNet
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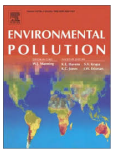
NEWS

Special T-MOSAiC Issue of Arctic Science

The T-MOSAiC special issue of "*Arctic Science*" is open for submissions until March 2022. Please visit the T-MOSAiC website for updated information or contact the secretariat: https://www.t-mosaic.com/

Special T-MOSAiC Issue on Arctic Terrestrial Pollution – Expression of Interest

A T-MOSAiC special issue on terrestrial Arctic pollution has been pre-accepted for publication in the Elsevier journal "*Environmental Pollution*" (IF:5.7). This issue will cover all areas of pollutant research: from the biogeochemical cycles to their effect on Indigenous populations. The expression of interest to publish in this special issue is now open. If you are interest in submitting a paper to this special Issue, please send a tentative title, authors and affiliation to the T-MOSAiC Secretariat by July 15th.



CALLS

The T-MOSAiC/INTERACT call is still open until September 2020. Please consult the T-MOSAiC website if you would like to submit a proposal. The May evaluation for already submitted proposals is now ongoing

INTER ⇄ ACT

ACTION GROUP ACTIVITIES

Arctic Gas Fluxes AG

The Trace Gas AG has received a grant from IASC in support of a workshop on new experimental approaches to trace gas flux measurements. The group has submitted a session proposal to the Fall AGU 2020 meeting and will plan on a back-to-back workshop in connection with this. The format will depend on the Corona measures taken centrally with respect to AGU.

Arctic Infrastructure AG

The Arctic Infrastructure Action Group is working on several activities that invite interdisciplinary collaboration on topics related to its focus:

- ***NORTHERN ROADS AND RAILWAYS" SESSIONS AT ARCTIC CHANGE 2020 AND ASSW 2021***

Topical sessions on "Northern Roads and Railways: Social and Environmental Effects of Transport Infrastructure" have been proposed for both Arctic Change 2020 (7-10 December, Toronto) and Arctic Science Summit Week 2021 (20-26 March, Lisbon). These sessions invite presentations that consider the complex entanglements between humans, environment and transportation infrastructure (roads, railways, pipelines and coastal facilities), including perspectives from the social and natural sciences, engineering and transportation studies. Session organizers are Olga Povoroznyuk (University of Vienna), Warwick Vincent

(Laval University), and Fabrice Calmels (Yukon University). ASSW 2021 abstracts are due by October 31, 2020.

- ***RATIC/T-MOSAIC WORKSHOP AT ASSW 2021 LISBON***

Our successful IASC cross-cutting proposal will provide travel funds for early career scientists, indigenous and industry representatives to participate in the workshop focused on the socioeconomic and biophysical processes and cumulative effects of Arctic infrastructure development in a time of rapid change.

- ***PAPERS IN PREPARATION FOR T-MOSAiC SPECIAL ISSUE OF 'ARCTIC SCIENCE"***

Several papers are being planned for submission to the T-MOSAiC special issue, which is open for submissions until March 2022. These include an interdisciplinary article on Arctic road and rail infrastructure authored by several action group members.

Permafrost Thaw AG

The T-MOSAiC permafrost thaw action group are working towards our major goal: Developing a sampling protocol for standardized field measurements of processes related to permafrost thaw. We are considering processes that take place across different spatial scales, where small-scale interactions (e.g., due to microtopography) can influence the landscape-scale rate of permafrost thawing. We are writing a paper alongside the protocol to describe its use and its scientific aims, which include providing data that can be used with large scale models. The overarching question that our action group will address is whether the speed and intensity of landscape-scale permafrost thaw are underestimated if we do not account for the linkage of processes across different spatial scales. The protocol will provide a guideline for standardized field data collection, and is structured according to spheres (snow, soil, permafrost, vegetation, hydrology, atmosphere) and a hierarchy of levels (0-2).

The leads of the working group are Julia Boike, Simon Zwieback, Sarah Chadburn. Several international members are currently involved (see the T-MOSAiC website). New action group members are welcome, so do get in touch with one of us! "

Remote Sensing AG

The T-MOSAiC Remote Sensing Action Group organized an online workshop in 29 April 2020 on the use of drones for terrestrial observations in the Arctic. This activity involved participants from the projects affiliated to the action group and focused on discussions around how to synthesize Arctic drone data and make it publicly available, as well as on implementing a coastal surveying protocol with drones. The meeting counted with a large participation from Hilden - drone ecology network, as well as from the action group members. Members of the action group contributed to a position paper regarding recent remote sensing trends and challenges for optical remote sensing of Arctic tundra vegetation: https://www.sciencedirect.com/science/article/pii/S003442572030242X

T-MOSAiC RS AG welcomes new members Michael Loranty (Colgate University, USA), Gabriela Schaepman-Strub (University of Zurich, Switzerland), Sergio Vargas (The University of Texas at El Paso, USA) and Stephen Michael Escarzaga (The University of Texas at El Paso, USA). The T-MOSAiC RS AG is open to all of those conducting remote sensing research in the Arctic and with objectives contributing to the T-MOSAiC Science Plan.