

**Northern Water Problems Institute of Karelian Research Centre RAS
Institute of the North Industrial Ecology Problems of Kola Science Center of RAS**



First Circular

Polar School & Workshop

Stage II of the 6th International Young Scientists
Conference

**“Water Resources: Research and Management”
(WRRM)
(School & Workshop)**

Apatity, April 2021

Dear colleagues,

We hereby invite you to take part in the **Polar School & Workshop** (Winter Limnological School) – 2nd stage of the 6th International Young Scientists Conference “Water Resources: Research and Management” (School & Workshop) to take place in Apatity in April 2021.

Venue and time

The Polar School & Workshop is organized by the Northern Water Problem Institute of the Karelian Research Centre RAS (NWPI KarRC RAS, Petrozavodsk, Republic of Karelia) and the Institute of North Industrial Ecology Problems, Kola Science Centre RAS (INEP KSC RAS, Apatity, Murmansk Region). It is the first time that the School & Workshop will take place north of the Polar circle, in the Murmansk Region, hosted by the Kola Science Centre RAS. How to get to Apatity from Petrozavodsk, St. Petersburg and Moscow see Appendix 1.

Accommodation

Participants will be accommodated at the Tietta Scientists House – a hotel owned by the Kola Science Centre RAS, situated on the shore of Lake Imandra, the largest lake in the Murmansk Region, 20 km away from Apatity. Amenities include running water, sewerage, and heating. The capacity is up to 30 guests. The hotel is not far from the research station of INEP’s Water Ecosystems Laboratory, where the field training will take place. The station has all the facilities needed for the School & Workshop.

Participants pay for their accommodation and meals at the hotel. The cost of a six-day stay is roughly RUR 10 000 per person. If, however, the event gets support from funds or sponsors, the price may be reduced.



Hotel location relative to the St. Petersburg-Murmansk highway (R-21, in Cyrillic P-21), and the cities of Apatity and Kirovsk



Tietta Scientists House in the summertime



Lake Imandra in the wintertime, view from the research station

Main thematic areas of the Polar School & Workshop

- formation of inland water resources under human impact;
- challenges for sustainable water use, protection, and management;
- challenges for Russia's transboundary waters;

- bottom sediments: geochemistry, palaeoecological and palaeoclimatic reconstructions of water bodies and their catchments;
- modeling of hydrological and ecosystem-wide processes;
- response of water objects to climate change;
- functioning of aquatic communities under climate change;
- formation process and current state of aquatic biological resources;
- bioindication and biomonitoring, ecotoxicological assessment of waters;
- the state and development of aquatic communities in response to hydrophysical processes in the water body.

The event comprises a theoretical and a practical component. Leading researchers from the Institute of North Industrial Ecology Problems KSC RAS (Apatity), Northern Water Problems Institute KarRC RAS (Petrozavodk) and other partner organizations will give lectures, including online, which will be recorded and made available at the conference website. Specialists will also introduce the participants of the School & Workshop to the main methods of studying water bodies in the spring-winter season (all the activities will take place on Lake Imandra ice): water sampling from different depths by bathometer, and sediment sampling by gravity corer, measurements of temperature, pH, Eh, turbidity, dissolved solids, and other parameters. In the research station's laboratories, the participants will learn how to prepare samples for microscopic examination of planktic and benthic organisms. Leading specialists in ichthyology will demonstrate the main techniques for capturing and laboratory treatment of fish in ecological studies. As a nice bonus, the participants will be offered to taste a meal made of the fish captured from Lake Imandra during the classes.



Sediment sampling from Lake Imandra in winter

Partner organizations

(participants of the 6th International Young Scientists Conference “Water Resources: Research and Management” (School & Workshop)

Water Problems Institute RAS (Moscow)

Marine Hydrophysics Institute RAS (Sevastopol)

Russian State Hydrometeorological University (St. Petersburg)

University of Helsinki (Finland)

Dalian University of Technology (China)

Chang'an University (China)

Russian Geographical Society Branch in the Republic of Karelia
Nansen International Center for Environment and Remote Sensing (St. Petersburg)
St. Petersburg State University (St. Petersburg)

Dates and deadlines

Until January 20, 2021 – submission of applications (number of participants is limited) through online registration on the website, indicating three research areas to help prepare the agenda and the volume of lectures and practical guidelines. The final decision regarding the participants will be taken by the Organizing Committee. Preference will be given to students in and after 3rd year of university, with aspirations for a career in science, to PhD students, and practicing young scientists;

Until March 1, 2021 – accepting contributions from researchers (S&W lecturers) for the preparation of the volume of lectures and guidelines; compiling draft programme for the Polar School & Workshop;

Until March 25, 2021 – confirmations for offline participation in the Polar School & Workshop;

Until April 1, 2021 – finalizing the program;

April 12-17, 2021 – dates of the Polar School & Workshop.

Registration

To apply for participation in the practice school, you need to register electronically on the website of the Northern Water Problems Institute of Karelian Research Centre RAS: <http://water.krc.karelia.ru/>

Working languages

The event will be held in both Russian and English

Publications

Volume of lectures and practical guidelines prepared by researchers and university lecturers will be published on the NWPI KarRC RAS website (<http://water.krc.karelia.ru/>) and INEP KSC RAS website (<http://inep.ksc.ru/>), and produced in paper version. Format requirements for contributions to the volume of lectures and practical guidelines will be circulated separately.

School & Workshop Leaders:

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Appendix 1. Getting to Apatity from Moscow and St. Petersburg directly?

Mode of transport	# of train or flight	Key stations	Days	Arrival in Apatity
Railway	Train # 016A “Arctica” (hotshot, branded)	Moscow → St. Petersburg → Petrozavodsk → Apatity (station Apatity 1) → Murmansk	daily	07:53
	Train # 022Y (hotshot, double-decker)	St. Petersburg → Petrozavodsk → Apatity (station Apatity 1) → Murmansk	daily	17:54
Flight	D2 122 (“Severstal”)	Moscow (Sheremetyevo, SVO) → Apatity (Khibiny airport, KVK)	Mon, Tue, Thu, Fri, Sun	12:30
	D2 124 (“Severstal”)	Moscow (Domodedovo, DME) → Apatity (KVK)	Mon, Tue, Wed, Thu, Fri, Sun	22:10
	D2 124 (“Severstal”)	Moscow (DME) → Apatity (KVK)	Sat	17:15
	D2 55 (“Severstal”)	St. Petersburg → Apatity (KVK)	Tue, Sun	19:30
	D2 55 (“Severstal”)	St. Petersburg → Apatity (KVK)	Mon, Wed, Thu, Fri, Sat	18:00
	S7 1255 (“S7 Airlines”)	Moscow (DME) → Apatity (KVK)	Wed, Sat, Sun	16:00
	S7 1255 (“S7 Airlines”)	St. Petersburg → Apatity (KVK)	Mon, Wed, Thu, Fri, Sat	19:30
	S7 1255 (“S7 Airlines”)	St. Petersburg → Apatity (KVK)	Tue, Sun	18:45

Note that the dates of trains and flights are subject to change by carriers, and may differ in spring 2021. For valid fares and schedules for the return trip, and for further details visit the following resources: <https://www.rzd.ru/>, <https://www.tutu.ru/>, <https://hibiny.aero/>, <https://www.aviasales.ru/>

Conference organizers will meet all the participants at the Apatity railway station or airport and provide transfer to the S&W venue.