

**Life and Earth Sciences and
Sustainable Global
and Regional Development
(AKTRU2019)
International Symposium and
Summer Schools**

**Altai Mountains, Russia,
July 8-19, 2019**

Фото: М.Г. Суховою



National Research
**Tomsk
State
University**

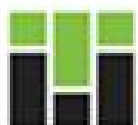


Nano & Giga®



ARCCo

ASU
ARIZONA STATE
UNIVERSITY



**TOMSK
POLYTECHNIC
UNIVERSITY**



MARCHMONT
Innovation News

Symposium Program Overview

Venue: Summer cafeteria at the tourist hotel “Manzherok”

On-site registration: July 7-11, 10 am – 5 pm

July 7

8 pm – 10 pm Informal reception and Russian sauna (banya)

July 8

9 am – 10 am Breakfast

10 am – 1 pm Morning session I

1 pm – 2 pm Lunch

2 pm – 6 pm Afternoon session I

7 pm – 10 pm Reception and networking

July 9

9 am – 10 am Breakfast

10 am – 1 pm Morning session II and poster session

1 pm – 2 pm Lunch

2 pm – 6 pm Afternoon session II and poster session

6 pm – 7 pm Dinner

8 pm – 10 pm Banya and networking

July 10

9 am – 10 am Breakfast

10 am – 1 pm Morning session III

1 pm – 2 pm Lunch

2 pm – 6 pm Excursion to the museum

7 pm – 10 pm Reception and networking

AKTRU2019 Symposium, Manzherok, July 8-10, 2019

Oral Sessions

July 8, Morning Session: Glaciers

Chairs: Lyudmila Borilo and Roman Raikin

Greetings and Introductory Remarks

Coffee break

Olga Solomina, Institute of Geography Russian Academy of Sciences, Moscow, Russia, *Mountain glacier fluctuations in the Holocene – 30 min*

Valery Zemtsov, National Research Tomsk State University, Tomsk, Russia, *Current State and Dynamics of the Aktru Glaciers (Altai Mountains, Russia) over the Period of Instrumental Observations- 30 min*

July 8: Afternoon session: Plants and Insects

Chairs: Polina Gudkova and Alexey Solodovnikov

Darya Bobkova and Polina Gudkova, Altai State University, Barnaul, Russia, *Contribution to the Flora of EuroAsian Continent: Vascular Plant Species from Altai Mountains Region – 45 min*

Mary Barkworth, Utah State University, Logan, Utah, USA, *Extending the Botanical Infrastructure – 20 min*

Marina Olonova, National Research Tomsk State University, Tomsk, Russia, *Use of MaxEnt in plant conservation – 20 min*

Coffee break

Maxim Vinarski, St Petersburg State University, St Petersburg, Russia, *Macroecology of Animal Parasitism – 30 min*

Alexey Solodovnikov, University of Copenhagen, Copenhagen, Denmark, *Rove Beetles (Coleoptera: Staphylinidae) and Similarly Mega-diverse Insects as Key Models for Understanding Earth Biota – 30 min*

July 9, Morning Session: Water and Soil

Chairs: Olga Solomina and Valery Zemtsov

Hiroshi Matsuyama, Tokyo Metropolitan University, Tokyo, Japan, *The Application of Soil Water Index to Landslide Prediction in Snowy Regions: Sensitivity Analysis in Japan and Preliminary Results at Tomsk, Russia -20 min*

Yulia Kharanzhevskaya, SibRIAP-branch of SFSCA RAS, TSU, Tomsk, Russian Federation, *Hydrology and water chemistry of north-eastern drained part of Great Vasyugan Mire (Western Siberia) – 20 min*

Sergei Kopysov, Research Tomsk State University, Tomsk, Russian Federation, *Accounting of water flow on watercourses in different landscape zones of Western Siberia - 20 min*

Nina Kocheeva, Gorno-Altaysk State University, Gorno-Altaysk, Russia, *The content of sulfate ion in the groundwater in the basin of Mayma river (Northern Altai) – 20 min*

Coffee break

Poster Session and Networking

July 9: Afternoon Session: Global and Regional Sustainability

Chairs: Stephen Goodnick and Maxim Vinarski

Charalampos Skoulikaris, Aristotle University of Thessaloniki, Thessaloniki, Greece, *Energy, Water, Food and Environment Nexus: An Integrated Water Resources Management Approach under Climate Change – 20 min*

Ioanna Louvrou, National and Kapodistrian University of Athens, Athens, Greece, *Teaching Challenges in Inland Water Biology – 20 min*

Bella Krasnoyarova, IWEP SB RAS, Barnaul, Russian Federation, *Formal Institutional Challenges in the Transboundary Water Management – 20 min*

Coffee break

Poster Session and Reception

July 10: Morning Session: Energy Technology and Instrumentation

Chairs: Hiroshi Matsuyama and Dmitry Matyushov

Viktor Bykov, NT-MDT, Zelenograd, Russia, *Modern AFM and Nanospectroscopy Applications for Biological and Mineralogical Research - 45 min*

Stephen Goodnick, Arizona State University, Tempe, Arizona, USA, *Renewable and Environmentally Friendly Energy Sources for Remote Locations – 45 min*

Coffee break

Alex Laikhtman, Holon Institute of Technology, Holon, Israel, *Adsorption and Intercalation of Hydrogen on/into WS₂ Nanoparticles for Solid State Energy Storage: Modelling and Experiment – 30 min*

Shaunna Morrison, Carnegie Institute of Science, Washington DC, USA, *Exploring Complex Mineral Systems and the Co-evolution of Earth Materials with the Biosphere Using Advanced Analytics and Visualization – 30 min*

Jeffrey Dick, The University of North Carolina at Chapel Hill,, Chapel Hill, North Carolina, USA, *Nanoelectrochemistry and Single Cell Biology – 30 min*

Poster Presentations

List of the posters

Alena Amosova, A.P. Vinogradov Institute of Geochemistry, Irkutsk, Russian Federation Late, *Glacial-Holocene environmental changes of the Eastern Sayan high-mountain areas, south of East Siberia, inferred from high-resolution geochemical analyses*

Lyubov Ershova, State University of Gorno-Altaysk, Gorno-Altaysk, Russian Federation *State support of antler maral breeding in the Republic of Altai*

Andrei Glotko, Raisa Adarina, Gorno-Altaysk State University, Горно-Алтайск, Russian Federation *Development Strategy of the Agro-Industrial Complex of the Altai Republic*

Alexander Shitov, Yury Semenov, Olga Klimova, Elena Merdesheva, Gorno-Altaysk State University, Gorno-Altaysk, Russian Federation, *Geographical and informational features of landscape planning of the Ust-Koksa District of the Altai Republic*

Marina Levkina, Olga Papina, Gorno-Altai State University, Gorno-Altaysk, Russian Federation, *Features of the state of plants in a mountainous area*

Varvara Safonova, Gorno-Altaysk State University, Gorno-Altaysk, Russian Federation, *Development and creation of a prototype of a distributed network of infrasound sensors to increase the reliability and accuracy of detection of man-made and natural sources of infrasonic waves, including forest fires*

Maria Sukhova, Marijana Lukasheva, GASU, Gorno-Altaysk, Russian Federation *Current Changes in the Thermal Regime in the Intermountain Hollows of the Central Altai*

Nadezhda Khudyakova, Olga Vozniyчук, ГАГУ, Горно-Алтайск, Russian Federation, *Biological diversity of model groups of animals at major recreational places in the Altai Republic*

Nikolay Kudryavtsev, Gorno-Altaysk State University, Gorno-Altaysk, Russian Federation, *On some features of the Ionosphere & Lightning Intention Index, I&LII*

Evgenij Uchaikin, Gorno-Altai State University, Gorno-Altai, Russian Federation,

On the implementation of the control system for automatic stabilization of frequency of the low-power turbine rotation

Svetlana Karanina, Marina Belikova, Nina Kocheeva, Andrey Karanin, Alena Glebova, GASU, Gorno-Altai, Russian Federation, *Automatic allocation of thunderstorm foci in the south of Western Siberia according to WWLLN data*

Petr Malkov, Andrey Karanin, GASU, Gorno-Altai, Russian Federation, *Probabilistic models of the Parnassius apollo (L., 1758) range dynamics in the Altai Mountains*

AFRUSS Workshop Program Overview

Venue: Summer cafeteria at the tourist hotel “Manzherok”

On-site registration: July 7-11, 10 am – 5 pm

July 10

8 pm – 10 pm Reception and networking

July 11

9 am – 10 am Breakfast

10 am – 1 pm Morning session I

1 pm – 2 pm Lunch

4 pm – 6 pm Round table discussions

6 pm – 10 pm Dinner and networking

July 12

9 am – 10 am Breakfast

10 am – 1 pm Morning session I

1 pm – 2 pm Lunch

4 pm – 6 pm Round table discussions

6 pm – 10 pm Dinner and networking

July 13

9 am – 10 am Breakfast

10 am – 7 pm Excursions (TBD)

7 pm – 10 pm Dinner and networking

AFRUSS Workshop, Manzherok, July 11 & 12, 2019

Oral Sessions and Round Tables

July 11, Morning Session I: Science in Russia

Chairs: Anatoli Korkin and Ekaterina Skorb

Ольга Соломина, Институт географии РАН, *О ценности научного знания в современном обществе*

Андрей Ростовцев, Институт проблем передачи информации РАН, *Диссернет: результаты и перспективы*

Coffee break

Михаил Гельфанд, Сколковский Институт Науки и Технологий, *Плагиаризм: есть ли там "серая зона"?*

Анна Кулешова, ВЦИОМ, *Совет по этике научных публикаций: попытка сделать этическое целесообразным*

July 11: Afternoon session I: Round Table Discussions

Проблемы российской науки и образования (модераторы: Михаил Гельфанд, Анна Кулешова, Андрей Ростовцев и Ольга Соломина)

July 12, Morning Session II: Ideas and Proposals

Chairs: Mikhail Gelfand and Andrei Rostovtsev

Екатерина Скорб, Университет ИТМО, *Инфохимия: как я дошла до такой жизни*

Анатолий Коркин, Университет штата Аризона, *Проект сетевой международной PhD программы по компьютерному дизайну функциональных материалов*

Coffee break

Михаил Гельфанд, Сколковский Институт Науки и Технологий, *О проекте "Корпус Экспертов"*

Василий Власов, Национальный исследовательский университет "Высшая Школа Экономики", *Причуды медицинского образования, практики и здравоохранной политики: как страсть к долголетию деформирует медицину и политику здравоохранения* (video presentation)

Евгений Гусев, Квалком, *Технологии искусственного интеллекта сегодня и завтра* (video presentation)

July 12: Afternoon Session II: Round Table Discussions

Идеи и предложения (модераторы: Анатолий Коркин и Екатерина Скорб)

БИЦ Горно-Алтайского государственного университета
649000, г. Горно-Алтайск, ул. Ленкина, 1.

Подписано в печать 03.07.2019 г. Формат 60x84/16.
Бумага для множительных аппаратов. Печать ризо.
Печ. л. – 0,75. Тираж 80 экз.
Заказ № 60.

Отпечатано полиграфическим отделом
Горно-Алтайского госуниверситета
649000, г. Горно-Алтайск, ул. Ленкина, 1.