

IV International Scientific and Practical Conference «The Future of the Arctic Starts Here»

Apatity, Murmansk region, April 22-25, 2020

ATTENTION! In connection with the holding of a Referendum in the Russian Federation, appointed by the President on April 22, the date of the conference is being adjusted.

April 22, 2020-registration of conference participants at the MAGU branch in Apatity.

April 23, 2020 - opening of the conference.

THIRD INFORMATION LETTER

The state interest in the mineral resources of the Kola Peninsula has been vital since the first ore-prospecting expeditions sent by Peter the Great to the North-West of the country. Nowadays the mining industry is one of the priority areas for the development of the Arctic zone of the Russian Federation, which is of strategic importance and ensures the country's national security in the Arctic.

Since the time of the first expeditions more than 1000 minerals have been discovered and studied in the territory of the modern Murmansk region, that makes up a quarter of all known minerals on the Earth. Deposits of about 100 minerals are unique. Effective mining enterprises of various types are operating in the region.

The future of the mining industry is determined by such trends as increasing the rate of development and implementation of innovative technologies based on interdisciplinary both fundamental and applied scientific researches, automation and digitalization of production. A change in the image of the profession as well as the type of a specialist and requirements applied to him are inevitable. It cannot be achieved without the integration of science and education in the training process of specialists for the mining industry.

In the Arctic, at the heart of the Kola Peninsula, in the town of Apatity the Kola Science Center of the Russian Academy of Sciences (FRC KSC RAS) – the only Russian federal research center beyond the Polar Circle – has been conducting its researches for 90 years. It functions in close cooperation with Murmansk Arctic State University (MASU) – the only flagship university in Russia situated in the Arctic. MASU trains specialists with higher and secondary vocational education for the mining industry in its two branches located in the towns of Apatity and Kirovsk.

Presentation, generalization and distribution of the experience of the universities, vocational schools, science and industrial organizations in the field of training qualified engineering specialists who meet the requirements of the time is an urgent task of integrating science and education for the development of the mining industry.

IV International Scientific and Practical Conference «**The Future of the Arctic Starts Here**» is dedicated to the:

320-th Anniversary of the Order on Ore Mining organization – the first state establishment in Russia which administered ore prospecting and creation of mining and metallurgical enterprises in Russia in the beginning of the 18th century

90-th Anniversary of the FRC KSC RAS (Federal Research Center «Kola Science Center of the Russian Academy of Sciences»)

60-th Anniversary of the Mining Institute of the Kola Science Center of the Russian Academy of Sciences

The purpose of the Conference is to determine the development strategy of the mining industry in the Arctic on the basis of analysis and generalization of the experience gained by scientific, scientific-educational and industrial organizations regarding integration of education and fundamental and applied sciences in the fields of geology, mining and geophysics.

The main topics of the Conference (sections):

- *Geology and genesis of ore deposits in the Arctic and Subarctic*
- *Fundamental and applied issues of environmental safety and waste disposal of the mining production*
- *Innovative geotechnologies in mining and beneficiation of mineral raw materials: from fundamental research to practical implementation*
- *Modern digital technologies in the mining industry*
- *Socio-economic perspective on the development of the mining industry in the Arctic*
- *Synergy of the fundamental and applied sciences, education and business*

Heads and specialists of Russian and foreign educational and scientific organizations, specialized enterprises, representatives of federal and regional ministries and departments, young researchers, students, undergraduates, postgraduates, students of secondary vocational education organizations and secondary educational institutions are invited to participate in the Conference.

Organising Committee*:

Co-Chairmen

SHADRINA – Doctor of Pedagogical Sciences, Associate Professor, Honorary
Irina Mikhailovna Worker of Higher Professional Education of the Russian Federation, Acting Rector of the Murmansk Arctic State University

LUKICHEV – Doctor of Technical Sciences, Director of the Mining Institute of the
Sergey Kola Science Center
Vyacheslavovich

Vice-Chairmen

OSTROVSKAYA – PhD in Economic sciences, Associate Professor, Director of the
Olga Mikhailovna Apatity Branch of the Murmansk Arctic State University

KNYAZEVA – PhD in Physical and Mathematical sciences, Vice-rector in scientific
Maria Aleksandrovna and research work, Murmansk Arctic State University

Organising Committee Members

LARINA – First Deputy Minister of Education and Science of the Murmansk
Tatiana Mikhailovna Region

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| <i>RUSSKOVA</i>
<i>Tatiana Vitalievna</i> | – Acting Minister of Economic Development of the Murmansk Region |
| <i>GILYAROV</i>
<i>Alexey Gennadievich</i> | – Head of the town of Apatity, Murmansk Region |
| <i>TURCHINOV</i>
<i>Vadim Viktorovich</i> | – Head of the town of Kirovsk, Murmansk Region |
| <i>DOLGORUKOV</i>
<i>Roman Igorevich</i> | – Head of HR Recruitment and Development Department, Kirovsk Branch of the JSC «Apatit» |
| <i>KONONOVA</i>
<i>Elena Igorevna</i> | – Head of Social Policy and External Communication Group, JSC «North-Western Phosphorous Company» |
| <i>TKACH</i>
<i>Evgeniy Ivanovich</i> | – Head of Recruitment and Professional Training Sector of the HR Department, JSC «Kovdorskiy GOK» (JSC «MCC «EuroChem») |
| <i>TSYMBALOV</i>
<i>Vitaliy Nikolaevich</i> | – Head of Communication Department, JSC «Olenegorsk Mining and Processing Plant» (PAO «SEVERSTAL») |
| <i>MODENOV</i>
<i>Vadim Aleksandrovich</i> | – Director of «Arctica SG» Fund for Supporting High Technological Innovative Programs of the Social and Economic Development of the Arctic, International and Regional Cooperation |
| <i>EFIMOV</i>
<i>Ivan Pavlovich</i> | – Deputy Director General of the Agency for the Human Capital Development in the Far East and in the Arctic |

Academic Secretary

- | | |
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| <i>RUMYANTCEVA</i>
<i>Ekaterina</i>
<i>Aleksandrovna</i> | – PhD in Physical and Mathematical sciences, Senior researcher of the International Information and Analytical Center for Interdisciplinary Research of the Russian Arctic, Murmansk Arctic State University |
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Technical Secretary

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| <i>DYACHENKO</i>
<i>Nonna Grigorievna</i> | – PhD in Economic sciences, Associate Professor of Economics, Management and Sociology Department, Apatity Branch of the Murmansk Arctic State University |
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Program Committee^{*} :

Chairman

- KRIVOVICHEV* – Corresponding Member of the Russian Academy of Sciences,
Sergey Vladimirovich Doctor of Geological and Mineralogical Science, Professor,
Chairman of the FRC KSC RAS

Vice-Chairman

- PETROV* – Doctor of Technical Sciences, Professor, Vice Rector of
Vadim Leonidovich Supplementary Education of the National University of Science and
Technology «MISIS», Chairman of FEMA in higher education on
UGSN 21.00.00 Applied Geology, Mining, Oil and Gas
Engineering and Geodesy
- VOITOV* – Doctor of Technical Sciences, Professor, Rector of Belarusian
Igor Vitalievich State Technological University
- DZHAMANBAEV* – Doctor of Physical and Mathematical Sciences, Professor, Rector
Muratally of Kyrgyz State Technical University named after I.Razzakov
Dzhuzumalievich

Program Committee Members

- APAKASHEV* – Doctor of Chemical Sciences, Professor, Vice Rector for Science,
Rafail Ural State Mining University
Abdrakhmanovich
- BARYSHEV* – PhD in Philosophical Sciences, Vice Rector for Science, Siberian
Ruslan Federal University
Aleksandrovich
- TERESHCHENKO* – Doctor of Technical Sciences, Professor, Head of the Department
Sergey Vasilievich of Mining, Earth Sciences and Environmental Management,
Apatity branch of Murmansk Arctic State University, Head of
the laboratory of the Mining Institute of the Kola Science Center
- KUBLITSKIY* – PhD in Geographical Sciences, Associate Professor of the
Yuriy Anatolievich Physical Geography and Environmental Management
Department of the Faculty of Geography, Herzen State
Pedagogical University of Russia

Information Support:



GORNYI ZHURNAL (MINING JOURNAL)
JSC «Publishing House «Ore and Metals»»

^{*} The compositions of the Conference Organizing and Program Committees are planning to be expanded by including the representatives of new partner organizations.

Dates and place of the Conference:

The Conference will be held on **April 22-25, 2020** in the Apatity Branch of the Murmansk Arctic State University, Apatity, Murmansk region.

Registration of the Conference participants:

Pre-registration of the Conference participants is carried out by filling in the Registration form provided in Annex 1 of this Information Letter.

The completed Registration form should be sent in electronic format (as a word-file) to the Conference Organizing Committee (conference@arcticsu.ru).

Organization of the Conference:

The Conference events will be held in the form of plenary, section and poster sessions in accordance with the topics of the Conference sections. The preliminary regulations of the Conference:

- plenary reports – time limit is 25 minutes, including 15 minutes for presentation and 10 minutes for answering questions;
- section reports – time limit is 15 minutes, including 10 minutes for presentation and 5 minutes for answering questions;
- poster reports – poster size is A0, the form of poster presentation is free.

For the plenary and sectional reports, the Conference participants are encouraged to use presentation in MS PowerPoint, Acrobat-pdf formats.

The updated final regulations of the reports will be brought to the attention of the Conference participants in the Fourth Information Letter.

The conference program will also include special sessions of long-standing partners, a foresight session, master classes, workshops, as well as an international essay Contest on mining topics for the students of secondary schools and professional educational organizations.

Under the sponsorship of the Kirovsk Branch of the JSC «Apatit» the program includes:

- Sightseeing excursion
- Visiting the «Big Wood» ski resort (Kirovsk)

The Conference papers will be published in the Conference Proceedings with indexing in the RSCI (Russian Science Citation Index) system. The Conference Organizing Committee is working on the plan to include selected articles in specialized journal publications reviewed in VAK (Higher Attestation Commission), Scopus and Web of Science indexing systems.

The requirements for the article formatting and the rules of its submission to the Conference Proceedings are presented in Annex 2 of this Information Letter.

International Essay Contest «Mining Stories»

The Contest allows its participants to express their views on the problem of the mining industry development in Russia in the form of an essay. The author should outline his individual attitude proved by various arguments, evidence, examples in compliance with the free and easy narrative style.

The participants of the Contest are: students of secondary schools (8-9 and 10-11 grades), as well as the students of professional educational organizations.

The Regulation on the Contest, the procedure for its conducting and the rules for participation are presented on the official website of the Conference https://www.arcticsu.ru/nauka/conferencia-2020/konkurs_esse/

Languages:

Russian, English.

Important dates:

First Information Letter	– <i>September 2019</i>
Second Information Letter	– <i>December 2019</i>
Start of applications submission (registration form)	– <i>December 18, 2019</i>
Start of the Conference papers submission for the Conference Proceedings	– <i>December 18, 2019</i>
Start of visa applications submission	– <i>December 18, 2019</i>
Start of the Registration fee and the closing banquet payments	– <i>January 15, 2020</i>
Deadline for visa applications submission	– <i>February 15, 2020</i>
Deadline for applications submission (registration form)	– <i>March 15, 2020</i>
Deadline for the Conference papers submission for the Conference Proceedings	– <i>March 15, 2020</i>
Third Information Letter and the preliminary Conference program publication	– <i>end of March, 2020</i>
Deadline for the Registration fee and the closing banquet payments	– <i>March 30, 2020</i>
Fourth Information Letter and the Conference program publication	– <i>beginning of April, 2020</i>

Registration Fee:

The Conference Registration Fee is:

- 3500 rubles (50 euro) for ordinary participants;
- 2000 rubles (30 euro) for researchers of the scientific institutions under the authority of the relevant Ministries of the Russian Federation and the Russian Academy of Sciences (RAS);
- 1000 rubles (15 euro) for young specialists (up to 33 years of age at the start date of the Conference – April 22, 2020);
- Extra payment: the cost of participation in the International Essay Contest «Mining Stories» is 300 rubles (4.5 euro)

The Conference Registration Fee includes:

- Full package of the Conference materials;
- Welcome reception;
- Coffee-breaks during the Conference.

Extra payments

Travel, accommodation and personal expenses, as well as the closing banquet are not included into Registration Fee.

The payment for the closing banquet is paid on extra basis (3 000 rubles or 45 euro) and is the fee for the participation in the supplementary educational seminar on the topic of «The role of digitalization in the mining and processing of useful minerals processes in the modern development of the mining industry».

Registration Fee and the closing banquet payments are paid *only in rubles* by bank transfer to the University account.

If you haven't any possibility to pay in rubles, you will be able to make payments on the first day at the Conference Registration.

Payment by credit card is not accepted.

The Organizing Committee does not provide any financial support for the Conference participation.

Accommodation:

The Conference Organizing Committee does not provide hotel booking for the Conference participants. Recommended web-sites for booking accommodation in Apatity are:

- <https://www.booking.com>
- <https://www.airbnb.ru>

There is a possibility of accommodation in the student dormitory. Please, contact Tatyana Mazina (mazina@arcticsu.ru) for the detailed information no later than April 10, 2020.

Visa:

For most non-Russian citizens it is essential to obtain Russian visa. Visa invitations and application letters may be prepared by the Conference Organizing Committee. Please, refer any questions concerning visa support to the Specialist in Public Relations (MASU) Mikhail A. Uksusov (international@masu.edu.ru).

Useful links:

<https://www.arcticsu.ru/nauka/conference/> – the Conference official website

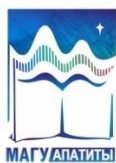
<http://www.masu.edu.ru> – the official site of the Murmansk Arctic State University

<https://www.arcticsu.ru> – the official site of the Apatity Branch of the Murmansk Arctic State University

Contact information:

conference@arcticsu.ru	–	Nonna G. Dyachenko, the Conference Technical Secretary
rumkate@rambler.ru	–	Ekaterina A. Rumyantceva, the Conference Academic Secretary

CONFERENCE ORGANIZERS

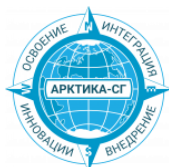


**Murmansk Arctic State
University, Apatity Branch**

ФЕДЕРАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ ЦЕНТР
КОЛЬСКИЙ НАУЧНЫЙ ЦЕНТР
РОССИЙСКОЙ АКАДЕМИИ НАУК



**Kola Science Center
of the Russian
Academy of Sciences**



«Arctica-SG»Fund



**Ministry of Education
and Science
of the Murmansk Region**



**Ministry of Economic
Development
of the Murmansk Region**



The Town of Apatity



The Town of Kirovsk



**North-Western
Phosphorous
Company**



**JSC «Apatit»,
Kirovsk Branch**



«INFORMATION SUPPORT»



MARK YOUR CALENDAR!!!

April 22-25, 2020

Apatity, Murmansk region,
Russian Federation

IV International Scientific and Practical Conference

«THE FUTURE OF THE ARCTIC STARTS HERE»

**IV International Scientific and Practical Conference
«THE FUTURE OF THE ARCTIC STARTS HERE»**

Apatity, Murmansk region, April 22-25, 2020

Registration form

Name, Surname, Middle name	
Date of birth	
Country, city	
Organization, its post address and web-site address	
Position, academic degree	
Main author/co-author/listener (specify/select)	
Title of the report (-s) For the co-authors/listeners, please, specify <i>registration without report</i>	
Section Title (choose from the list of the Conference main topics(sections))	
Phone (with code)	
E-mail address	

Please, send the completed registration form to the Conference Organizing Committee:
conference@arcticsu.ru

REQUIREMENTS FOR THE ARTICLE FORMATTING AND THE RULES OF ITS SUBMISSION TO THE CONFERENCE PROCEEDINGS

The text must be presented in the electronic form (text editor MS Office Word, format DOC/DOCX, page margins - 25 mm on all sides, font Times New Roman, size 14, single spacing, text alignment in width).

The paper title should be situated in the center in capital bold letters without abbreviations. Below the authors' full names are written in bold italic type (for example: *S.A. Petrov*), separated by a comma, with upper-script numbers indication of affiliation with the organization. Further, under the authors' names, with alignment on the left edge, in accordance with the affiliation of the authors of the article, the authors' organization, city, country, e-mail address, are written.

The abstract of the article, the volume of which should not be more than 1500 characters, without paragraph indentation, alignment in width, is given through the line. The next line contains key words in italics.

After indenting in one blank line the main text of the article is presented.

The article volume is up to 4 pages. The article allows the presence of any graphic material, by grayscale, with good resolution (not less than 300 dpi).

Automatic per-page foot-notes by numbers (size 12). New paragraph (first line) is 1,25 cm (making new paragraph line with «Space» button is not accepted). Automatic per-line word hyphenation. No page numbers.

References are made in alphabetic order at the end of the article. References should be inserted into the text of the article in square brackets in the form of the source number listed at the end of the article.

File is named by the first author's name. In case if the first author submits two articles, the number of the article is indicated after the author's name (for example, Petrov1.docx, Petrov2.docx).

The first author cannot submit more than two articles for the Conference Proceedings.

The article formatted as required should be sent in electronic format (as a word-file) to the Conference Organizing Committee (conference@arcticsu.ru).

The Conference Organizing Committee reserves the right to select the materials and partially edit them in accordance with the Conference topics. Articles that do not comply with the requirement will not be accepted for the publication.

We kindly request you to comply with the deadlines specified in the Conference Information Letter!

EXAMPLE OF THE ARTICLE

TITLE OF THE ARTICLE

N. P. Surname_1¹, N.P. Surname_2², N.P. Surname_3³

¹Employer (organization), city, country, e-mail

²Employer (organization), city, country, e-mail

³Employer (organization), city, country, e-mail

Abstract text. Abstract text. Abstract text. Abstract text. Abstract text. Abstract text. Abstract text. Abstract text.

Keywords: Text, text, text, text, text.

Text. Text. Text. Text. Text. Text [2]. Text. Text. Text [1, 3]. Text. Text. Text. Text. Text.

Text. Text. Text. Текст. Text. Text. Text.

References

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