



Federal State Budgetary Educational Institution of Higher Education
"Russian State Hydrometeorological University"
Institute of Information Systems and Geotechnology
Department of Higher Mathematics and Physics
State Budgetary General Educational Institution Lyceum No. 393 of the Kirov District of St.
Petersburg

**IV INTERNATIONAL PRACTICAL SCIENTIFIC CONFERENCE
"INNOVATIVE METHODS OF MATHEMATICS AND PHYSICS IN ECOLOGICAL AND
HYDROMETEOROLOGICAL RESEARCH",
dedicated to the 95th anniversary of the Russian State Hydrometeorological University
St. Petersburg
April 4, 2025**

1st INFORMATION LETTER

DEAR COLLEAGUES!

We invite you to take part in the IV International Scientific and Practical Conference "Innovative Methods of Mathematics and Physics in Environmental and Hydrometeorological Research" (IMMPEHR), dedicated to the 95th anniversary of the Russian State Medical University. The purpose of the conference is to discuss and exchange the results and prospects for the use of innovative methods, achievements, trends in mathematics and physics in hydrometeorological and environmental research.

The conference program includes the following directions:

Section 1. Fundamental and applied aspects of higher mathematics in modern research.

Section 2. Physical studies of natural processes.

Section 3. Modern applied information systems and geoinformation technologies.

Section 4. Development of research in hydrometeorology and ecology.

Section 5 (for school students). Research paper competition "MYTHs in Nature (mathematics, computer science, physics in nature)".

Conference partners:

Federal State Budgetary Educational Institution of Higher Education "Saint Petersburg State University";

National Association of Universities and Organizations "Kurchatov Scientific and Educational Consortium".

With the assistance of the state budgetary institution of additional professional pedagogical education, the center for advanced training of specialists "Information and Methodological Center" of the Kirovsky District of St. Petersburg.

The conference will be held **on April 4, 2025 at the address: Russia, St. Petersburg, Metallistov Avenue, 3.**

The section for school students will be held **on April 4, 2025 at the State Budgetary Educational Institution Lyceum No. 393 of the Kirovsky District of St. Petersburg at the address: Russia, St. Petersburg, Avtovskaya Street, 5, litera A.**

Conference languages: Russian, English.

Forms of participation in the conference: in-person, remote.

To participate in the events, you must register at the link:

- for the conference <https://immfegi.rshu.ru/>,

- for the competition of scientific research papers “MYTHS in Nature (mathematics, computer science, physics in nature)” <https://immfegi.rshu.ru/> section 5.

The conference is open to research and teaching workers, teachers, postgraduate students, and school students studying in basic general (grade 9) and secondary general education (grades 10–11). The conference will include a competition for the best student report on the conference topics.

The conference program includes the meeting with the round table format on the topic of "Physical and Mathematical Research in the Arctic."

Detailed information about the conference events can be found:

about the conference at the link <https://immfegi.rshu.ru/>, on the website "Konferencii.ru" <https://konferencii.ru/info/149094>, Telegram channel <https://t.me/+jyO-XAk37nFkZTli>,

about the competition of scientific research works - <https://immfegi.rshu.ru/>, Telegram channel <https://t.me/+jyO-XAk37nFkZTli>

To participate in the conference, authors (co-authors) must register on the conference website at <https://immfegi.rshu.ru/>, attach an article with the doc or docx extension, at least 3 pages long (the last page must be filled in completely), formatted in accordance with the attached requirements (Appendix 1). The file with the article must be named as follows: author's (first co-author's) surname_article_4 first letters of the article title (e.g. Ivanov_article_Vero). The number of publications from one author may not exceed 3, the number of co-authors - no more than 5. Based on the results of the work, it is planned to publish a collection of conference materials, which will include articles that have successfully passed the review process. For successful publication, it is necessary to provide **an expert opinion confirming the possibility of open publication of the article**. The file with the text of the expert opinion must be named as follows: author's (first co-author's) surname_expert opinion_4 first letters of the article title (e.g. Ivanov_expert opinion_Vero) The Organizing Committee reserves the right to technically edit the submitted materials and reject articles without explanation. All incoming articles are checked for plagiarism (illegal borrowing) before a decision is made on their acceptance for publication. The originality of the article must be at least 65%. If necessary, the article can be sent to the author for revision.

All articles that participated in the conference will be posted on eLIBRARY.ru and indexed in the Russian Science Citation (RSC) system. Participants with the best reports will be asked to prepare articles for publication in the scientific-theoretical journal "Hydrometeorology and Ecology" (included in the List of leading peer-reviewed scientific journals and publications of the Higher Attestation Commission).

To participate in the competition of research papers, you must register on the conference website at <https://immfegi.rshu.ru/>, section 5, and attach a file with the text of the work with the extension doc, docx or pdf. Appendices 2 and 3 provide requirements for the design of research papers. The file with the text must be named as follows - the author's last name of the work_NIR (for example, Ivanov_NIR).

All participants will be sent certificates of participation in the conference.

Contacts:

Russia, Saint Petersburg, Metallistov Avenue, 3, room 217, Department of Higher Mathematics and Physics

Tel. 8(812)-633-01-86 (ext. 2453)

E-mail: science_vmf@rshu.ru

Key dates:

- December 16, 2024 – sending out an information letter;
- December 16, 2024 – opening of registration; acceptance of articles and research papers;
- March 14, 2025 – end of registration and acceptance of articles;
- March 20, 2025 – end of registration and acceptance of research papers;
- April 1, 2025 – formation of the conference program;
- April 4, 2025 – holding the conference and defense of research papers.

REQUIREMENTS FOR THE COMPOSITION OF ARTICLE'S MATERIALS

The text of the article must be typed in Microsoft Word, A4 format, Times New Roman font size 14 pt, indent line – 1.25 cm, justification alignment, line spacing 1, all margins – 2 cm, the last page is filled in completely.

The article should have the following structure: UDC on the left, on the next line - the title (capital letters, semi-bold, no hyphenation, centered), after 1 interval - full name (semi-bold, italics, centered), on the next line - full place of work, city, country, e-mail address (italics, centered), after 1 interval - Annotation (from 150 to 200 words) and Key words (5-10 words) (aligned by width). After an interval in English - the title, full name, abstract and key words. Then after 1 interval - the text of the article (aligned by width). 1 interval after the text - a list of references (numbered).

All objects, formulas, figures, graphs and diagrams must be inserted into the text, grouped and must correspond to the page format. Figure and table titles are required. Figure captions (Figure 1 – Title) – at the bottom, centered, table titles and numbers (Table 1 – Title) – centered above the table. Formulas must be typed in the formula editor, **automatic word wrap is prohibited, automatic adding of a space before/after a paragraph is prohibited.**

A reference to the literature used is made in the text as a number in square brackets, for example [2]. The list of references is given at the end of the text and is formatted in accordance with GOST R 7.0.100-2018/ISO 690:2021. The number of self-citations is limited to 30% of the total number of sources in the list of references. When preparing materials, use only scientific literature. The use of textbooks and teaching aids is not allowed.

EXAMPLE

УДК 332.1

ВОПРОСЫ ОБЕСПЕЧЕНИЯ ЭФФЕКТИВНОГО РАЗВИТИЯ ТЕРРИТОРИИ

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Аннотация. В статье рассматриваются факторы и условия, обеспечивающие эффективное развитие территории, определяются этапы создания форм и видов принимаемых управленческих решений, выделены особые признаки принятия и разработки управленческих решений по устойчивому территориальному развитию.

Ключевые слова: экономика, развитие, территория, управление, стратегия.

QUESTIONS OF PROVIDING EFFECTIVE DEVELOPMENT OF THE TERRITORY

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²Russian State Hydrometeorological University, St. Petersburg, Russia

Annotation. In article the factors and conditions providing effective development of the territory are considered, stages of creation of forms and types of the made administrative decisions are defined, special signs of acceptance and development of administrative decisions on sustainable territorial development are allocated.

Keywords: economy, development, territory, management, strategy.

References:

1. Mintzberg H. The Structuring of Organizations / Englewood, NJ: Prentice Hall, 1979.– 52 p.
2. Zausaev V.K. Innovative potential of the eastern regions of Russia // V.K. Zausaev, V.P. Bystritsky, N.Y. Krivoruchko // ЕКО. – 2005. – №10. – S.40-52.

REQUIREMENTS FOR THE COMPOSITION OF RESEARCH WORK

1. Structure of the research work

The work must be constructed according to a certain structure, which is generally accepted for scientific works. The main elements of this structure are: title page; table of contents; introduction; main part; conclusion; bibliography; appendices. The file format of the work is *.doc, docx or pdf.

The title page is the first page of the work and contains: the name of the organization, the name of the competition, the topic of the work, information about the authors (full name, educational institution, class, location) and scientific supervisors (full name, academic title and degree), location and year of submission of the work.

The structure of the work corresponds to the standards of description of the results of scientific research. The description of the work must contain the following parts: statement of the problem (task), methods of its solution, conclusions. The work should highlight: the relevance of the problem being solved, comparison of the suggested methods of solving the problem with known ones, reasons for using the suggested methods (efficiency, accuracy, simplicity, etc.), proposals for the practical use of the results. The works should be distinguished by the completeness and accessibility of the presentation of the material, scientific content, logic and consistency of the presentation of the material. The main criterion for the significance of the work is the independence of the research with clear argumentation of the parameters and references to sources.

2. Requirements for the formatting of the text part

The volume of the work, including formulas and a list of references, should not exceed 20 standard pages. The appendix (no more than 10 standard pages) contains auxiliary or additional materials (tables, figures, graphs, etc.).

Format *. doc, docx or pdf, font size - 12 pt, line spacing - 1.5, file size no more than 7 MB. Page numbering are required at the bottom in the middle. The page number should not be placed on the title page.

The text may contain working hyperlinks to videos, files of models, diagrams, sketches, program codes of the project or study. Other graphic elements of the work (figures, diagrams, schemes) should be placed inside the text, grouped and correspond to the page format. The titles of figures and tables are required. Figure captions (Figure 1 – Title) – at the bottom, centered; table titles and numbers (Table 1 – Title) – centered above the table. Formulas should be typed in the formula editor.

3. Requirements for the presentation and report design

The main content of the presentation corresponds to the text of the work. The report should not exceed 7 minutes. The presentation size is no more than 15 slides. The file size does not exceed 7 MB.

Name of the participant's organization

Major: Mathematics / Computer Science
/ Physics (choose necessary)

Section 5. Competition of research
papers "MYTHs in Nature (mathematics,
computer science, physics in nature)"

NAME OF THE RESEARCH WORK

Author of the work:

Full name,
Student of class _____

Scientific adviser:

Full name

Consultant:

Full name,
Position,
Name of organization

St. Petersburg
2025