# **International Conference**

# Mathematical Optimization Theory and Operations Research (MOTOR-2022)



Petrozavodsk, July 2-6, 2022

International conference "Mathematical Optimization Theory and Operations Research" (MOTOR 2022) will be held on July 2-6, 2022, in Petrozavodsk, Republic of Karelia.

The aim of the conference is to bring together a wide research community in the fields of mathematical programming and global optimization, discrete optimization, complexity theory and combinatorial algorithms, games and their applications in relevant practical problems of operations research, mathematical economy and data analysis.

MOTOR 2022 is the fourth international conference, bringing together four wellknown Russian and international conferences which were held in Ural, Siberia, and the Far East for a long time:

- Baikal International Triennial School Seminar on Methods of Optimization and Their Applications (<u>http://isem.irk.ru/conferences/mopt2017/en/index.html</u>)
- Mathematical Programming and Applications (<u>http://mpa.imm.uran.ru/96/en</u>)

• Discrete Optimization and Operations Research (<u>http://www.math.nsc.ru/conference/door/2016/</u>)

• Optimization Problems and their Applications (<u>http://opta18.oscsbras.ru/en/</u>)

Previous MOTOR meetings:

\* Mathematical Optimization Theory and Operations Research (MOTOR 2019) (Ekaterinburg) <u>http://motor2019.uran.ru/</u>

\* Mathematical Optimization Theory and Operations Research (MOTOR 2020) (Online) <u>http://www.math.nsc.ru/conference/motor/2020/</u> \* Mathematical Optimization Theory and Operations Research (MOTOR 2021) (Irkutsk, Hybrid) <u>https://conference.icc.ru/event/3/</u>

The Conference MOTOR 2022 will be held on July 2-6, 2022, in Petrozavodsk, Republic of Karelia. The modern problems of optimization theory and operations research, in particular, problems of theory of mathematical optimization, integer programming and combinatorial optimization, global optimization, stochastic integer programming, multi-objective programming, computational complexity of combinatorial optimization problems, approximation algorithms and schemes, heuristics and metaheuristics for decision making and artificial intelligence, game theory, mathematical economics, multilevel programming, optimization in machine learning and data analysis, applications in operations research: scheduling, routing, facility location, packing and cutting, supply chain, etc., will be discussed.

Within the framework of the conference the school for young scientist on optimization theory and operations research will be held.

#### Main topics:

- theory of mathematical optimization
- integer programming and combinatorial optimization
- global optimization, stochastic integer programming, multi-objective programming
- computational complexity of combinatorial optimization problems
- approximation algorithms and schemes
- heuristics and metaheuristics for decision making and artificial intelligence
- game theory, mathematical economics, and multilevel programming
- optimization in machine learning and data analysis
- applications in operations research: scheduling, routing, facility location, packing and cutting, supply chain, etc.

# **Chairs of the Conference**

General chair: Vladimir Mazalov (Institute of Applied Mathematical Research,
Karelia Research Center of RAS, Petrozavodsk, Russia)
Honorary chair: Panos Pardalos (University Florida, USA)

**Program chairs:** Mikhail Khachay (Krasovsky Institute of Mathematics and Mechanics, Ekaterinburg, Russia)

Oleg Khamisov (Melentiev Energy Systems Institute, Irkutsk, Russia)

Yuri Kochetov (Sobolev Institute of Mathematics, Novosibirsk, Russia

Anton Eremeev (Dostoevsky Omsk State University, Russia

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- S. Raha (Indian Institute of Science, India)
- Y. Sergeyev (University of Calabria, Italy and Lobachevsky University, Russia)
- S. Sevastianov (Sobolev Institute of Mathematics, Russia)
- N. Shakhlevich (University of Leeds, GB)
- A. Shananin (Moscow Institute of Physics and Technology, Russia)
- A. Sifaleras (University of Macedonia, Greece)

- V. Skarin (Krasovsky Institute of Mathematics and Mechanics, Russia)
- P. Stetsyuk (Glushkov Institute of Cybernetics, Ukraine)

• A. Strekalovsky (Matrosov Institute for System Dynamics and Control Theory, Russia)

- M. Sviridenko (Yahoo! Labs, USA)
- T. Tchemisova (University of Aveiro, Portugal)

#### **Organizing Committee**

Vladimir Mazalov (chair) (IAMR, Petrozavodsk)

Anna Rettieva (IAMR, Petrozavodsk)

Yulia Chirkova (scientific secretary) (IAMR, Petrozavodsk)

Anna Ivashko (IAMR, Petrozavodsk)

Elena Parilina (SPbSU, Saint-Petersburg)

#### **Important dates**

- abstract submission: January 16, 2022
- full paper submission: February 13, 2022
- notification of acceptance: March 20, 2022
- camera ready version: April 2, 2022
- conference dates: July 2-6, 2022

## Abstract and paper submission

Authors are invited to submit their papers reporting on novel results that are not published or submitted simultaneously to any journal or another conference with refereed proceedings.

Abstract of the paper is sending by the Easychair Conference Management System <u>https://easychair.org/conferences/?conf=motor2022</u>, which is available now. Title of the presentation, key words, text of the abstract, and appropriate topics are included in the corresponding fields in the Easychair System. Papers should be prepared in the Springer LNCS Format according to the LaTeX templates <u>ftp://ftp.springernature.com/cs-proceeding/llncs/llncs2e.zip</u>, can have 12-15 pages.

Please, follow the official Springer authors guidelines

https://www.springer.com/gp/computer-science/Incs/conference-proceedingsguidelines

All papers should be submitted through the Easychair Conference Management System too.

Authors can send abstract without paper for oral presentation.

#### Publication and Special Issues

The organizers plan to publish the best papers of the conference in the Lecture Notes in Computer Science (Springer) and special issues of the top journals on optimization theory and operations research.

## Information about Invited Speakers and Registration Fees will be available later

#### Contacts

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