

MOTOR 2026

Mathematical Optimization Theory and Operations Research

July 6–11, 2026, Conference Program

Monday, July 6, 2026

14:00–14:30	OPENING SESSION (CHAIR: <i>Alexander Kazakov</i>) (Main Hall) session manager: <i>Taras Madzhara</i>
14:30–17:50	PLENARY SESSION (CHAIR: <i>Michael Khachay</i>) (Main Hall) session manager: <i>Maxim Zharkov</i>
14:30–15:10	Prof. Huỳnh Thị Thanh Bình Evolutionary Multitasking: Recent Advances and Applications
15:10–15:50	Prof. Elena V. Konstantinova CayleyPy project: artificial intelligence methods for Cayley graphs
15:50–16:30 Coffee Break	
16:30–17:10	Prof. Mikhail Y. Kovalyov Routing and Charging Scheduling for Regular Electric Buses
17:10–17:50	Prof. Mikhail A. Marchenko Parallelization of statistical modeling methods
19:00 Welcome party	

Tuesday, July 7, 2026

10:00–10:40	PLENARY SESSION (CHAIR: <i>Yury Kochetov</i>) (Main Hall) session manager: <i>Taras Madzhara</i>		
10:00–10:40	Prof. Saeid Alikhani Majority Distinguishing Colorings of Graphs		
11:00–13:00 SESSIONS (In-person)			
11:00–13:00	Continuous Optimization (Section A) (Restaurant Hall) CHAIR: <i>Andrei Orlov</i> session manager: <i>Maria Barkova</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Andrei Nikolaev</i> session manager: <i>Maxim Zharkov</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Polina Kononova</i> session manager: <i>Alexander Stolbov</i>
	In-person	In-person	In-person
11:00–11:20	Anton Novitskii , Rogozin A., Gasnikov A. Decentralized Proximal Optimization Method with Consensus Procedure	Artem Pyatkin On word-representability of grid graphs	Kononov A., Tatiana Sirina Double coloring of vertices to maximize the weighted number of stable edges
11:20–11:40	Roland Hildebrand Removing multiple variables in the hybrid method for linear programming	Andrei Nikolaev , Myasnikov Y. An Integer Linear Programming Model for the Evolomino Puzzle	Khafizov F., Ermoshin M., Beznosikov A., Kasiuk V., Medyakov D., Dmitry Bylinkin Importance Compression: A New Sparsification Mechanism for Distributed Learning
11:40–12:00 Coffee Break			
	In-person	In-person	In-person
12:00–12:20	Andrei Orlov , Barkova M., Batbileg S. On solving the Bilevel Optimization Problem of Import-Export of Coal Resources	Alexander Yuskov , Melnikov A., Kulachenko I. A Multi-Agent Approach to Large-Scale Delivery Scheduling	Sergey Makogon Genetic algorithm for multi-period petrol station replenishment problem
12:20–12:40	Gruzdeva T., Maria Okhotina , Ushakov A. KL-Means Clustering via Nonconvex Optimization	Danil Kuzhman Optimization of Instruction Scheduling for VLIW Processors	Artem Melentev , Gavrish B., Kochetov Y., Kononova P. A fast heuristic for the periodic petrol station replenishment problem
12:40–13:00	Andrei Neverov Gridless methods application for mean field game coefficient inverse problem	Nadezda Lutovinova Duality for scheduling problems	Dmitry Ositsyn Relaxation algorithms for multi-period petrol station replenishment problem
13:00–14:00 Lunch			

14:00–15:40 SESSIONS (In-person)			
14:00–15:40	Continuous Optimization (Section A) (Restaurant Hall) CHAIR: <i>Maxim Demenkov</i> session manager: <i>Nikita Kosyanov</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Anton Ereemeev</i> session manager: <i>Dmitrii Iakubovskii</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Alexander Kononov</i> session manager: <i>Ilya Minarchenko</i>
	In-person	In-person	In-person
14:00–14:20	Hildebrand R., Chernov Alexey Aggregation of variables in mixed-integer linear programming	Anton Ereemeev , Zakharova Y. Quantum Crossovers for the Asymmetric Traveling Salesman Problem	Kononov A., Alexander Lyakh STAP-CAP: forming groups with acquaintance constraints
14:20–14:40	Maxim Demenkov A continuous optimization framework for linear error-correcting codes	Alexander Veremyev Graph-Based Approaches for Image Space Exploration and Representative Set Selection	Chiang Kao A Hierarchical Data Envelopment Analysis Approach for Multicriteria Decision Making Problems with Multi-Level Criteria
14:40–15:00	Makar Sidorov Last Iterate Convergence of AdaGrad-Norm for Convex Non-Smooth Optimization	Adil Erzin The drone placement problem for optimal coverage of the barrier is polynomially solvable in the rectilinear metric	Egor Grishin , Gryazina E. Worst-Case Thermal Security Analysis of Power System Operating Points
15:00–15:20	Sofya Chakhovskaya , Pirau V. Generalization Without Early Stopping for Saddle-Point Problem	Yana Glotova A destroy and repair algorithm for the temporal knapsack problem	Egor Grishin Learning-Enhanced Security-Constrained Unit Commitment Problem
15:20–15:40	Aleksandr Vyguzov Frank-Wolfe Algorithms for (L_0, L_1) -smooth functions	Dimitry Gribanov , Kuz'min N., Tereshin A., Yarmoshik D. Spectral Diameter Upper Bounds for Special Classes of Polyhedra	Ekaterina Pavlova Coded and Verifiable Distributed Computation for Trustworthy Machine Learning
15:40–16:00 Coffee Break			

16:00–18:40 SESSIONS (Online)			
16:00–18:40	Continuous Optimization (Section A) (Restaurant Hall) CHAIR: <i>Vladimir Erokhin</i> session manager: <i>Maria Barkova</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Yulia Zakharova</i> session manager: <i>Maria Okhotina</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Sergey Lavlinskii</i> session manager: <i>Maxim Zharkov</i>
	Online (virtual)	Online (virtual)	Online (virtual)
16:00–16:20	Anastasiia Murzina , Kuruzov I., Gasnikov A. Decentralized gradient descent with an increasing consensus procedure accuracy	Maxim Sakhno , Ereemeev A. Genetic Algorithm for a Temporal Bin Packing Problem with Placement Constraints	Vladimir Berikov , Kladoy D. Ensemble algorithms for clustering and forecasting time series based on the Wasserstein distance
16:20–16:40	Jiawei Chen A Parameter-Free Zeroth-Order Algorithm for Decentralized Stochastic Convex Optimization	Julia Memar Scheduling under in-tree precedence constraints to minimise maximum lateness	Alexander Vasin Optimal control and investment opportunities for “Power to Gas” energy storages
16:40–17:00	Zabotin I., Shulgina O., Rashid Yarullin Relaxation Variants of the Proximal Method and the Regularized Proximal Method via Auxiliary Functions Approximation	Vodyan M., Aleksei Ratushnyi , Turnaev A. An Integer Linear Programming Model for Combined Register Allocation and Instruction Scheduling	Sergey Lavlinskii The Stackelberg model and the design of Russian subsoil use institutions: a methodology for solving practical problems
17:00–17:20	Vladimir Erokhin Fejér-type algorithm for finding a solution to a system of linear algebraic equations with two-sided constraints	Sakhno M., Yulia Zakharova Heuristic algorithms for scheduling multi-mode jobs with resource constraint	Valery Marakulin On the fuzzy contractual core of the public goods economy, it's existence and coincidence with Lindhal equilibria
17:20–17:40	Ilya Afanasyev 2D Hadamard Gradient Filtering with Scalar-Gradient Fusion for Robust Optimization	Mazalov V., Jiarui Liu Attack-Defense Game Model with Testing	Nikolai Trusov , Shananin A. Mathematical Modeling of Credit Debt Repayment Strategies
17:40–18:00	Krutikov V., Tovbis E., Lev Kazakovtsev A method of scaling variables in large-dimensional optimization problems	Ilya Chernykh En-Route Processing in the Two-Machine Routing Open Shop: Complexity and Approximation	Artem Golenishchev , Obukhova A. Optimization of the PID-regulator model parameters for TEC temperature laser diode controller
18:00–18:20	Oleg Khamisov , Khamisov O. Application of ADMM type solver for high-dimension optimization problems	Ekaterina Glazunova On a special case of the quasi-clique partitioning problem	Danis Ibragimov , Guseva, S. A Priori Estimation of the Performance Time for Linear Discrete-Time Systems with Bounded Control Based on the Eigenset Theory
18:20–18:40	Mukhamed Aleroyev About One Method Of Studying And Optimizing Anomalous Diffusion	Sergei Gladyshev Scheduling for Stability: Optimal Ordering and Unit-Buffer Placement on a Single Machine with Three-Point Duration Uncertainty	Ruslan Drachev , Panin A., Plyasunov A. Threshold stability analysis for competitive pricing

18:40–19:00	Kazakov, A., Lebedev, P., Lempert, A. On Approximations of Optimal Coverings on Algebraic Surfaces of Constant Curvature	Kazakov, A., Lempert, A., Tran, T. Fastest Route Construction in Anisotropic Media with Flows and Moving Obstacles	Barkova, M., Gruzdeva, T., Nagul, N., Samsonyuk, O. A Two-Stage Optimization Approach to Decoding
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Thursday, July 9, 2026

10:00–10:40	PLENARY SESSION (CHAIR: <i>Dmitri Shmelkin</i>) (Main Hall) session manager: <i>Taras Madzhara</i>		
10:00–10:40	Prof. Zhi-Quan (Tom) Luo On the Principles Behind Neural Network Optimizers		
11:00–13:00 SESSIONS			
11:00–13:00	Optimal Control (Section D) (Restaurant Hall) CHAIR: <i>Alexander Strekalovsky</i> session manager: <i>Nikita Kosyanov</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Elena Musatova</i> session manager: <i>Maria Okhotina</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Anna Rettieva</i> session manager: <i>Maxim Zharkov</i>
	In-person	In-person	In-person
11:00–11:20	Vugar Hashimov Control of a dynamic nonlinear object with feedback at discrete moments of time	Simanchev R., Urazova I., Michael Baklykov On the Facets of the Vehicle Routing Problem Polytope	Ildar Muftahov , Gruzdeva T., Barkova M., Vasilyev I. Multi-Agents Approach to Delivery System Optimization Problem
11:20–11:40	Alexander Strekalovsky On Global Optimality Conditions for an Epidemic Optimal Control Problem	Elena Musatova Minimizing durations of multiple subprojects on identical parallel machines	Anna Rettieva Resource management problem with different reproduction and exploitation regimes
11:40–12:00 Coffee Break			
12:00–12:20	Nikita Kosyanov , Strekalovsky A. Numerical Local Search for Epidemic State- Nonconvex Optimal Control Problems	Beresnev V., Andrey Melnikov Improvements in the branch, bound and cut algorithm for the competitive facility location problem	Dmitry Konovalov , Yuskov A., Kulachenko I., Melnikov A. Counterfactual Routing for Explainable Accessible Navigation
12:20–12:40	Tatyana Zarodnyuk Numerical approach based on curvilinear search for solving nonconvex optimal control problems	Kirill Kulemin , Khachay, M. Towards Constant Adaptivity Gap for the Stochastic Orienteering Problem	Sergey Ivanov , Akmaeva V. Two-stage facility location problem with CVAR criterion and constraints
12:40–13:00	Kamil Aida-Zade, Samir Guliyev Zonal Control Synthesis with Memory for Rod Heating Process Under Partial Observability	Dmitry Silaev Self-adaptation of genetic algorithm parameters on pseudo-Boolean optimization problems	Igor Kulachenko , Ushakov A., Yuskov A. Configurable Optimization for Complex Industrial Problems with LLM-Based Adaptation

13:00–14:00 Lunch			
14:00–18:40 SESSIONS			
14:00–16:00	Industrial Challenge Competition (Restaurant Hall) CHAIR: <i>Igor Vasilyev</i> session manager: <i>Dmitrii Iakubovskii</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Ruslan Simanchev</i> session manager: <i>Alexander Stolbov</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Dmitry Arkhipov</i> session manager: <i>Maria Barkova</i>
	In-person + Online (virtual)	In-person	In-person
14:00–14:20	Challenge 1 Nadezda Lutovinova, Egor Grishin, Sergey Usmanov	Ivan Khmara Development of Test Instance Sets for the Robust p-Median Problem	Maxim Khabarov , Kochemazov S., Otpuschennikov I., Semenov A. Solving Branch Location Problem Using a Special Variant of VNS
14:20–14:40	Challenge 2 (virtual) Vladimir Khandeev, Liudmila Mikhailova, Sergey Neshchadim, Anna Panasenko	Akentev V., Ivan Davydov Register Allocation in Basic Blocks Using Memory-Aware and Randomized Linear Scan	Iurii Vasiliev Large-scale multi-criteria Airline Crew Recovery problem: partial pairing reassembly and adaptive hierarchical optimization
14:40–15:00	Challenge 2 Georgii Zhukov	Tatiana Levanova On an approach based on local search for solving the bi-criteria robust p-median problem	Dmitry Arkhipov , Sidorov M. Logistics Network Optimization: Algorithms and Industrial Implementation
15:00–15:20	Challenge 5 Mariia Pavlova, Ekaterina Pavlova, Vladimir Korkhov	Andrey Berezin , Simanchev R. Heuristic Search for a Parameterized Similarity Measure of Cluster Partitions in a Complete Weighted Graph	Aliya Gabdullina , Arkhipov D. School Timetabling with Meta groups and Individual Plans
15:20–15:40	Challenge 6 (virtual) Sergey Romanov	Maksim Vodyan Greedy algorithms for finding upper bounds on the temporal bin packing problem with failure domains	Makar Sidorov , Arkhipov D. Thermal Power Plant Maintenance Scheduling
15:40–16:00 Coffee Break (Teraplan)			

16:00–18:40	Industrial Challenge Competition (Restaurant Hall)	Integer Programming and Combinatorial Optimization (Section B) (Main Hall)	Operational Research Applications (Section C) (Cottage Hall)
	CHAIR: <i>Igor Vasilyev</i> session manager: <i>Dmitrii Iakubovskii</i>	CHAIR: <i>Yulia Zakharova</i> session manager: <i>Maria Okhotina</i>	CHAIR: <i>Artem Sedakov</i> session manager: <i>Maxim Zharkov</i>
	In-person + Online (virtual)	Online (virtual)	Online (virtual)
16:00–16:20	Challenge 6 (virtual) Ivan Samoylenko, Elizaveta Pribytkova	Makarovskikh T. , Mohamed Sallam Shortest Path with Precautionary Avoidance Algorithm	Zhao C., Jing Liu Leverage-Enhanced Multilinear Extension Sampling for Cooperative Game-Based Explainable AI
16:20–16:40	Challenge 6 Alexander Veremyev	Andrey Dobrynin , Glebov A. Coalition graphs of connected domination partitions in subcubic graphs	Markova E., Egor Prokofiev Application of a Genetic Algorithm to the Problem of Optimizing the Lifetime of Power Plant Equipment
16:40–17:00	Challenge 6 (virtual) Wei Rao, Eduard Inozemtsev	Gimadi E., Evgenii Goncharov On a method for ranking resources by their scarcity for a resource-constrained project scheduling problem	He Y., Zhang D., Kovalchuk S., Li P., Artem Sedakov Opinion dynamics and mutual influence with LLM agents through dialog simulation
17:00–17:20	Technical Committee meeting for selecting the winners	Andrey Totsky , Simanchev R. Heuristics for the Maximum-Weight Minimal Dominating Set Problem	Irik Mukhametzyanov A Spanning Graph Method for Priority Assessment within the AHP Process
17:20–17:40		Alexander Prolubnikov The impact of matrix graph topology on conjugate gradient convergence	Stepan Utyupin , Melnikov A., Beresnev V. Dynamic Competitive Facility Location Problem with unknown consumer budgets
17:40–18:00		Kalyagin V., Ilya Kostylev On regularization parameter for Lasso optimization in graphical model selection	Varvara Rasskazova ML and MILP Models in Production Planning under Uncertainty
18:00–18:20		I. Urazova, R. Simanchev, Egor Afonkin A new integer model for the problem of single-jobs servicing with precedence by parallel machines	Eugenia Ushakova , Zakharova Y. Evolutionary strategy for two-side market pricing problem with information distribution on a plane
18:20–18:40		Yulia Zakharova Parallel Evolutionary Algorithm with Optimized Operators for Total Weighted Tardiness Problem on One Machine	Yakov Shcherbina , Krivorotko O. Regularized PINN for epidemic forecasting
19:00 Gala Dinner			

Friday, July 10, 2026

10:00–13:00 SESSIONS (In-person)			
10:00–13:00	Game Theory (Section E) (Restaurant Hall) CHAIR: <i>Oleg Khamisov</i> session manager: <i>Nikita Kosyanov</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Adil Erzin</i> session manager: <i>Alexander Stolbov</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Vladimir Servakh</i> session manager: <i>Maxim Zharkov</i>
	In-person	In-person	In-person
10:00–10:20	Oleg V. Khamisov Finding equilibrium in networks with flow losses	Georgii Zhukov , Erzin A., Plotnikov R. A Branch-and-Cut Algorithm for the Minimum Weight 3-Coloring Problem	Pishchev P., Demyan Yarmoshik GPU-parallel alternatives for traffic assignment
10:20–10:40	Vasily Gusev , Savin K. Occupation games with stable matching mechanism	Grishin E., Lutovinova N., Sergey Usmanov Comparison of path generation techniques for optical network optimization	Vladimir Servakh , Svetlana Malakh About the problem of planning production investment projects
10:40–11:00	Anna Tur Stable Cooperation in Differential Games on Hypergraphs	Alexander Turnaev Lower Bounds for the Virtual Machine Allocation Problem with Affinity Constraints at the Subnetwork Level	Chi Zhao , Liu, J. TempShapG: Tracking Temporal Feature Importance in Time Series Forecasting
11:00–11:20	Iakov Zhukov Nash Stable Partition in Monotone Games	Ivan Stepanov Generalized Trash Compaction is $\$NP\$$ -complete	Kuzyutin D., Nadezhda Smirnova , Bulgakova M. A finite-horizon multistage spatial model of renewable resource extraction
11:20–11:40 Coffee Break			
11:40–13:00	Game Theory (Section E) (Restaurant Hall) CHAIR: <i>Igor Bykadorov</i> session manager: <i>Nikita Kosyanov</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Sergey Ivanov</i> session manager: <i>Alexander Stolbov</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Olga Samsonyuk</i> session manager: <i>Maxim Zharkov</i>
	In-person	In-person	In-person
11:40–12:00	Yaroslavna Pankratova , Petrosyan L. Cooperative Behavior in Dynamic Network Games Including the Change of Communication Structure	Alexander Kolnogorov , Kunin K. Robust Batched Version of Thompson Sampling for the Multi-Armed Bandit Problem	Mikhail Gunenkov , Zykina A., Ovchinnikov S., Lyubakov I., Nikitina P. Surrogate Modeling for Energy Optimization of Distillation Cascades

12:00–12:20	Grigoriy Siyalov , Suzdaltsev A. Matching with negative externalities via Potential games	Sofia Shperling Rearrangement Methods for the Two-Dimensional Bin Packing Problem	Anna Shchiptsova , Nesterov A. Preference discovery in large centralized higher education market with two-tier admission: the role of student beliefs
12:20–12:40	Igor Bykadorov Dixit-Stiglitz-Krugman Model: Comparative Statics of Equilibrium w.r.t. Investments in R&D	Mariia Pavlova , Pavlova E., Korkhov V. Primal-Dual LinUCB for Budget-Constrained Contextual Bandits with Delayed Feedback	Olga Samsonyuk A Matheuristic for Two-Level Resource-Constrained Assignment with Cost Balancing
12:40–13:00	Kseniya Rusakova , Parilina E. Comparison of adaptive strategies in infinitely repeated Prisoner’s Dilemma	Ivanov S., Valentina Akmaeva Stochastic facility location problem with a guaranteed income-based objective function	Nikita Gruzdev Upper Bounds on Optimization Time of Genetic Algorithm on Royal Road Functions
13:00–14:00 Lunch			
14:00–16:00	INDUSTRIAL SESSION (CHAIR: <i>Yury Kochetov</i>) (Main Hall) session manager: <i>Dmitrii Iakubovskii</i>		
14:00–14:30	Alexander Veremyev From Text Analytics to AI Agents: How LLMs Are Reshaping Work, Research, and Reality		
14:30–15:00	Alexander Maximenko GPUs for Combinatorial Optimization: Opportunities, Limits, and Practical Experience		
15:00–16:00	Round table		
16:00–16:20 Coffee Break			
16:20–17:00	TUTORIAL SESSION		
	TUTORIAL (Restaurant Hall) (CHAIR: <i>Andrei Orlov</i>) session manager: <i>Ilya Minarchenko</i>	TUTORIAL (Main Hall) (CHAIR: <i>Tatiana Levanova</i>) session manager: <i>Dmitrii Iakubovskii</i>	TUTORIAL (Cottage Hall) (CHAIR: <i>Alexander Nesterov</i>) session manager: <i>Maria Barkova</i>
16:20–17:00	Prof. Alexander Strekalovsky New Principles of Nonconvex Optimization	Prof. Anton Ereameev Expected runtime analysis of evolutionary algorithms	Prof. Alexey Chernov The universal solver QORETEX (Orsima). What has changed over the past year

17:00–18:00 SESSIONS (In-person)			
	Game Theory (Section E) (Restaurant Hall) CHAIR: <i>Andrei Orlov</i> session manager: <i>Ilya Minarchenko</i>	Integer Programming and Combinatorial Optimization (Section B) (Main Hall) CHAIR: <i>Tatiana Levanova</i> session manager: <i>Dmitrii Iakubovskii</i>	Operational Research Applications (Section C) (Cottage Hall) CHAIR: <i>Alexander Nesterov</i> session manager: <i>Maria Barkova</i>
	In-person	In-person	In-person
17:00–17:20	Maria Bykova , Parilina E. Robust approach for savings counting in stochastic games	Nikolay Pravdivets Mathematical Methods for Solving the Problem of Operational Planning in Discrete Manufacturing	Alexander Ponomarenko , Antonov I. Tuning Dispatch Thresholds for Regular Last-Mile Routes: A Simulation-Based Pareto Analysis of a Production Policy
17:20–17:40	Minarchenko I. , Khamisov O. Network equilibrium with transmission capacity constraints	Yury Semenov , Sukhoroslov O. Approximation Algorithms for Minimizing Task Execution Cost in the Cloud	Alexander Nesterov Optimal judicial system
17:40–18:00	Svetlana Gakh Dantzig-Wolfe decomposition in the CANOE energy model	Hamidreza Golmohammad Roman Coalition in Graphs	Alena Pisareva , Parilina E. Additional Support in Payment Schemes: Solution to Budget Violations in Finitely Repeated Prisoner's Dilemma
18:00–18:30	CLOSING CEREMONY (CHAIR: <i>Alexander Kazakov</i>) (Main Hall)		