

THE 9th GERMAN-POLISH CONFERENCE ON OPTIMIZATION

Methods and Applications

Workshop: 19-20 September, 2026
Conference: 21-25 September, 2026

Białystok, Poland

Conference Programme

Monday - 21 September

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
08:30-09:30	Registration				
09:30-10:00	Opening Ceremony				
10:10-11:00	Lecture 1	Dariusz Uciński	<i>Multiple Facets of Modern Optimal Experimental Design</i>	35	Marc C. Steinbach
11:00-11:30	Coffee Break				
11:30-12:20	Lecture 2	Marc C. Steinbach	<i>Optimizing Vascular Trees</i>	31	Dariusz Uciński
12:20-13:10	Lecture 3	Piotr Kalita	<i>On the Structure of Attractors for Lotka–Volterra Systems</i>	25	Dariusz Uciński
13:10-14:00	Lunch				
14:00-14:20	Presentation	Andrzej Olbryś	<i>Remarks on Generalized Convexity</i>	102	Radosław Pytlak
14:20-14:40	Presentation	Johannes Weiland	<i>Performance Optimization of Winch Launches in Gliding</i>	128	Andrzej Olbryś
14:40-15:00	Presentation	Radosław Pytlak	<i>On Solving Large Scale Stochastic Dynamic Weapon Target Assignment Problems</i>	104	Andrzej Olbryś
15:00-15:20	Presentation	Monika Syga	<i>Subdifferentiability in ΦIsC-Convex Analysis and Zero Duality Gap Conditions</i>	118	Andrzej Olbryś
15:20-15:40	Coffee Break				
15:40-16:00	Presentation	The Hung Tran	<i>Proximity Characterization in the Setting of Abstract Convexity</i>	126	Krzysztof Leśniewski
16:00-16:20	Presentation	Giovanni Brucola	<i>Global Solutions for the Sensors Placement Problem via Weakly Convex Optimization</i>	52	Krzysztof Leśniewski

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
16:20-16:40	Presentation	Katarzyna Szulc	<i>Approximation Methods for Solving the Linearized Model of a Hinged-Free Reduced Plate</i>	120	Krzysztof Leśniewski
16:40-17:00	Presentation	Krzysztof Leśniewski	<i>Second-Order Conditions Beyond Surjectivity</i>	84	Giovanni Bruccola

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Workshop: 19-20 September, 2026
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Conference Programme

Tuesday - 22 September

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
09:00-09:50	Lecture 4	Christian Kirches	<i>Mixed-Integer Optimal Control: From ODEs and PDEs to Graphon Dynamical Networks</i>	27	Piotr Kalita
09:50-10:40	Lecture 5	Claudia Totzeck	<i>Consensus-Based Global Optimization Methods in Finite and Infinite Dimensions</i>	33	Piotr Kalita
10:40-11:10	Coffee Break				
11:10-12:00	Lecture 6	Rafał Kamocki	<i>The Necessary and Sufficient Optimality Conditions for Selected Fractional Optimal Control Problems</i>	29	Claudia Totzeck
12:00-13:00	Lunch				
13:00-13:20	Presentation	Andreas Fischer	<i>Packing Problems in Additive Manufacturing</i>	64	Andreas Löhne
13:20-13:40	Presentation	Krzysztof Rutkowski	<i>On the Projection Problem onto a Set Defined by Quadratic Functions Lower-Level Set</i>	114	Andreas Löhne
13:40-14:00	Presentation	Andreas Löhne	<i>Computing all Nash Equilibria of Low-Rank Bi-matrix Games</i>	86	Andrzej Cegielski
14:00-14:20	Presentation	Andrzej Cegielski	<i>Randomized Kaczmarz Algorithm in the Product Space</i>	54	Andreas Löhne
14:20-14:40	Coffee Break				
14:40-15:00	Presentation	Szymon Franecki	<i>Multi-Objective Optimization of Reward Function Weights for Reinforcement Learning Control of a Snake-Like Robot</i>	66	Tomasz Grześ
15:00-15:20	Presentation	Tomasz Grześ	<i>Optimizing Speech Codec for Automatic Speech Recognition on Resource-Constrained IoT Nodes</i>	70	Kacper Romaniuk

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
15:20-15:40	Presentation	Kacper Romaniuk	<i>Interpretable Machine Learning for Identifying Multivariate Biochemical Signatures Associated with the Niacin Skin Test Response</i>	106	Tomasz Grześ
15:40-16:00	Presentation	Kacper Romaniuk	<i>When Simpler Is Safer: Stability and Interpretability of Machine Learning Models for Clinical Biomarkers under Limited Data Conditions</i>	110	Tomasz Grześ
16:00-16:20	Presentation	Jakub Kowalewski	<i>Multi-Objective Optimization of Hyperparameters and Feature Set Size for File Encryption Algorithm Identification</i>	80	Tomasz Grześ
16:30-16:50	Presentation	Jakub Kierznowski	<i>Parameter Optimization of the MCTS Algorithm for the Combinatorial n^d game</i>	78	Marzena Filipowicz, Ewa Girejko
16:50-17:10	Presentation	Dorota Łapińska	<i>Genetic Algorithms as a Combinatorial Optimization Method for Solving Sudoku</i>	88	Marzena Filipowicz, Ewa Girejko
17:10-17:30	Presentation	Katarzyna Zdancewicz	<i>Analysis and Optimization of Methods for Solving the Discrete Logarithm Problem</i>	134	Marzena Filipowicz, Ewa Girejko

Note: The original programme lists Kacper Romaniuk twice without talk titles. The two titles are matched here in the order in which the abstracts appear in the Book of Abstracts (pp. 106 and 110).

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Workshop: 19-20 September, 2026
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Białystok, Poland

Conference Programme

Wednesday - 23 September

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
09:00-09:50	Lecture 7	Yury Luchko	<i>Maximum Principle for the Fractional Diffusion Equations and its Applications</i>	48	Kai Diethelm
09:50-10:40	Lecture 8	Małgorzata Klimek	<i>Fractional Diffusion Problems with Fixed Memory Length</i>	44	Kai Diethelm
10:40-11:10	Coffee Break				
11:10-12:00	Lecture 9	Wojciech Sumelka	<i>Current Achievements of Fractional Mechanics</i>	50	Małgorzata Klimek
12:00-13:00	Lunch				
13:00-13:20	Presentation	Urszula Skwara	<i>Mathematical Modeling of Dengue Dynamics: From a General Host–Vector Model to a Two–Strain Dengue Model with a Constant Recruitment</i>	116	Michał Dariusz Kuczyński
13:20-13:40	Presentation	Renu Chaudhary	<i>A Discretized Stackelberg Approach to Bilevel Optimization for Decarbonizing Urban Heating Systems</i>	56	Urszula Skwara
13:40-14:00	Presentation	Jiaming Zhang	<i>Global-in-Time Well-Posedness of Two-Level Knowledge Growth Mean Field Games in Economics</i>	136	Urszula Skwara
14:00-14:20	Presentation	Michał Dariusz Kuczyński	<i>Stabilization of the Ramsey Growth Model with Controlled Population Dynamics</i>	82	Urszula Skwara
14:20-14:40	Coffee Break				
14:40-15:00	Presentation	Mario Jelitte	<i>Covering Results for Constrained Equations Beyond Metric Regularity</i>	76	Piotr Tokarski
15:00-15:20	Presentation	Karol Łazaruk	<i>Generalized Choquet Integrals for Enhancing Classical Machine Learning via Non-Additive Feature Modeling in Eye-Tracking-Based UX Behavioral Classification</i>	90	Mario Jelitte

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
15:20-15:40	Presentation	Piotr Tokarski	<i>Optimized Feature Selection for Gaze-Based Classification of Pre-Inspection and Solving Phases in Speedcubing</i>	122	Mario Jelitte
15:40-16:00	Presentation	Michał Jakubowski	<i>Mean Field Games with Common Noise Applied to Smart Grids</i>	72	Mario Jelitte
16:00-16:20	Presentation	Wojciech Derecki	<i>Planning Tourist Trips Using Genetic Algorithms</i>	58	Marzena Filipowicz-Chomko, Ewa Girejko
16:20-16:40	Presentation	Róża Wiktoria Jaroszewicz	<i>The Curious Case of Surface Optimization and Soap Bubbles</i>	74	Marzena Filipowicz-Chomko, Ewa Girejko
16:40-17:00	Presentation	Marzena Filipowicz-Chomko	<i>A Fuzzy Belief-Based TOPSIS Framework for Ordinal Survey Data Analysis: An Application to Airline Customer Satisfaction</i>	62	Ewa Girejko
18:00-20:00	Conference Dinner	Branicki Hotel			

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Workshop: 19-20 September, 2026
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Conference Programme

Thursday- 24 September

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
09:00-09:50	Lecture 10	Kai Diethelm	<i>Principal Zeros of Mittag-Leffler Functions: Their Location and Their Role in the Construction and Analysis of Optimization Algorithms</i>	38	Andreas Fischer
09:50-10:40	Lecture 11	Dirk Lorenz	<i>Optimization without (Exact) Adjoints</i>	46	Andreas Fischer
10:40-11:10	Coffee Break				
11:10-12:00	Lecture 12	Dariusz Gałtarek	<i>Why the Black-Scholes Model Is Good and the Gaussian Copula Is Not</i>	40	Ewa Bednarczuk
12:00-13:00	Lunch				
13:00-19:00	Excursion				

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Friday - 25 September

Time	Activity	Speaker	Presentation title	Book of Abstracts page	Chairman
10:00-10:20	Presentation	Nicholas Fewster-Young	<i>Fractional Calculus Unified Across Time Scales for Dynamical Systems</i>	60	Agnieszka Malinowska
10:20-10:40	Presentation	Iván Monzón-Catalán	<i>Optimizing Traffic Flow in Peri-urban Road Networks through Multi-agent SUMO Simulation: The Effect of Intelligent Vehicle Penetration with Dynamic Rerouting</i>	94	Agnieszka Malinowska
10:40-11:00	Coffee Break				
11:00-11:20	Presentation	Dorota Mozyrska	<i>Alternating Memory in Grünwald–Letnikov Fractional Discrete-Time Systems</i>	98	Małgorzata Wyrwas
11:20-11:40	Presentation	Małgorzata Wyrwas	<i>Stability Analysis of Fractional Discrete-Time Systems with Alternating Orders</i>	132	Dorota Mozyrska
11:40-12:00	Presentation	Tatiana Odziejewicz	<i>Subdiffusion Difference Equations of Fractional Order</i>	100	Dorota Mozyrska
12:00-13:00	Lunch				
13:00-13:20	Presentation	Ewa Girejko	<i>Finite-Time Stability Analysis of Switched Systems Involving Caputo Fractional Derivatives with Respect to Arbitrary Kernels</i>	68	Tatiana Odziejewicz
13:20-13:40	Presentation	Agnieszka Malinowska	<i>On the Stability of Memory-Dependent Systems</i>	92	Tatiana Odziejewicz