

PROGRAMME IN BRIEF

The conference will be held on **June 20-22, 2024**
in **A. Mickevičius st. 37, Kaunas**.

Thursday, June 20, 2024	
9.00 – 9.30	Registration of participants
9.30 – 10.15	Opening of the conference
10.15 – 11.15	Plenary presentation
11.15 – 11.45	<i>Coffee break</i>
11.45 – 12.45	Plenary presentation
12.45– 14.15	<i>Lunch break</i>
14.15– 15.45	Work in sections
15.45– 16.15	<i>Coffee break</i>
16.15 – 17.45	Work in sections

Friday, June 21, 2024	
9.00 – 10.00	Plenary presentation
10.00 – 11.00	Plenary presentation
11.00 – 11.30	<i>Coffee break</i>
11.30 – 12.30	Plenary presentation
12.30 – 14.00	<i>Lunch break</i>
14.00 – 15.30	Work in sections
15.30 – 16.00	<i>Coffee break</i>
16.00 – 17.30	Work in sections
18.30	Conference evening “Come together”

Saturday, June 22, 2024	
10.00	Community event “Along the paths of Prof. H. Minkowski in Kaunas”

DETAILED PROGRAMME OF THE CONFERENCE

Plenary presentations

will be held in the historic Aula,
A. Mickevičius st. 37, Kaunas

Thursday, June 20, 2024

<i>Time</i>	<i>Keynote Speaker</i>	<i>Title</i>
10:15–11:15	Prof. Habil. Dr. Tilman Sauer, University of Mainz, Germany	Hermann Minkowski and modern theoretical physics
<i>Coffee break</i>		
11:45–12:45	Prof. Dr. Joachim Schwermer, University of Wien, Austria	Integral equivalence and arithmetic groups

Friday, June 21, 2024

<i>Time</i>	<i>Keynote Speaker</i>	<i>Title</i>
9:00–10:00	Prof. Dr. Stefan Halverscheid, Georg-August University of Göttingen, Germany	Studying mathematics: can unfit students get fit in the first year?
10:00 – 11:00	Prof. Dr. Thorsten Hohage, Georg-August University of Göttingen, Germany;	Quantitative passive imaging of the interior of the Sun
<i>Coffee break</i>		
11:30 – 12:30	Prof. Dr. Martin Henk, Technical University Berlin, Germany	The logarithmic Minkowski problem

Work in sections

Section

Number theory

Thursday, June 20, 2024

113 room, Mickevičiaus g. 37, Kaunas

Chair: **Jörg Brüdern**

<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–15:00	Rainer Dietmann, Royal Holloway, University of London, United Kingdom	Rational lines on cubic hypersurfaces

15:00–15:45	Damaris Schindler, Georg-August University of Göttingen, Germany	Generalised quadratic forms over totally real number fields
<i>Coffee break</i>		
16:15–17:00	Artūras Dubickas, Vilnius University, Lithuania	Euclidean minima of number fields
17:00–17:45	<u>Raivydas Šimėnas</u> , Ramūnas Garunkštis, Vilnius University, Lithuania;	Prime functions

Friday, June 21, 2024

113 room, Mickevičiaus g. 37, Kaunas

Chair: Jörg Brüdern		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:00–14:30	Lukas Maciulevičius, Vilnius University, Lithuania	Some degree problems in number fields
14:30–15:00	Paulius Virbalas, Vilnius University, Lithuania	Compositum of Two Number Fields of Prime Degree
15:00–15:30	Grintas Junevičius, Vilnius University, Lithuania	On Complex Pisot Numbers which are Roots of Borwein Trinomials
<i>Coffee break</i>		
16:00–16:30	Cong Ling, Imperial College, United Kingdom	Quadratic Forms and Post- Quantum Cryptography
16:30–17:00	Igoris Belovas, Vilnius University, Lithuania	On the nature of the constant in the inequality for the Riemann zeta function
17:00–17:30	<u>Benjaminas Togobickij</u> , Roma Kačinskaitė, Vilnius University, Lithuania	One case of joint discrete universality in the Selberg- Steuding class

Section

Convex geometrie

Thursday, June 20, 2024

106 room, Mickevičiaus g. 37, Kaunas

Chair: Max Wardetzky		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–15:00	Iskander Aliev, Cardiff University, United Kingdom	Proximity and sparsity of lattice points in rational polyhedra

15:00–15:45	Andrea Colesanti, University of Firenze, Italy	Brunn-Minkowski type inequalities for variational functional in Gauss space
<i>Coffee break</i>		
16:15–17:00	Horst Martini, University of Technology, Germany	Some problems and results from Minkowski geometry
17:00–17:45	Silouanos Brazitikos, University of Crete, Greece	How many points do we need to capture the volume?

Friday, June 21, 2024

106 room, Mickevičiaus g. 37, Kaunas

Chair: Max Wardetzky		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:00–14:45	Gabriele Bianchi, University of Firenze, Italy	Rearrangement of functions and Klimov inequality
<i>Coffee break</i>		
14:45–15:30	Alar Leibak, Tallinn University of Technology, Estonia, Cong Ling, Christian Porter, Imperial College London, England	On additive generalization of Voronoi theory of perfect quadratic forms over number fields

Section

History of mathematics

Thursday, June 20, 2024

209 room, Mickevičiaus g. 37, Kaunas

Chair: Norbert Schappacher		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–15:00	Tinne Hoff Kjeldsen, University of Copenhagen, Denmark	From quadratic forms to general convex bodies and beyond: Minkowskian “inventive art” and mathematical programming
15:00–15:45	Catherine Goldstein, Institut de mathématiques de Jussieu- Paris Gauche, France	„Hermite's continuator?“ The paradoxical reception of Hermann Minkowski's number theory in France
<i>Coffee break</i>		
16:15–17:15	Scott A. Walter, Nantes University, France	The prehistory, discovery and initial impact of Hermann

		Minkowski's electrodynamics of moving media and spacetime
17:15–17:45	Discussion of the three talks of the first day	

Friday, June 21, 2024

209 room, Mickevičiaus g. 37, Kaunas

Chair: Norbert Schappacher		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:00–14:45	Rimvydas Krasauskas, Vilnius University, Lithuania	Laguerre geometry, Minkowski space and evolution of Darboux's ideas on toric sections
14:45–15:30	Norbert Schappacher, Université de Strasbourg, France	On Minkowski's Göttingen Lectures
<i>Coffee break</i>		
16:00–16:45	Jim Ritter, Sorbonne Université, France	Minkowski spacetime: the early avatars
16:45–17:30	General Discussion Which aspects of Hermann Minkowski's life and work call for more historical studies?	

Section

Applied mathematics

Thursday, June 20, 2024

208 room, Mickevičiaus g. 37, Kaunas

Chair: Minvydas Ragulskis		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–14:35	Miloš Kopa, Charles University, Prague	Stochastic dominance in portfolio optimization - from Minkowski inequality to modern financial mathematics
14:35–14:55	<u>Romas Baronas</u> , Remigijus Šimkus, Boleslovas Dapkūnas, Vilnius University, Lithuania	Application of Mathematical Models of Chemotaxis to the Analysis the Self-Organization of Bacterial and Human Populations

14:55–15:15	<u>Tomas Krilavičius</u> , Gabrielė Kasputytė, Rūta Juozaitienė, Vytautas Magnus University, Lithuania	Applied Research – Where Mathematics and Informatics Meet
15:15–15:35	<u>Olga Štikonienė</u> , Mifodijus Sapagovas, Artūras Štikonas, Vilnius University, Lithuania	Minkowski M-matrices and Modern Problems for Partial Differential Equations with Nonlocal Boundary Conditions
<i>Coffee break</i>		
Chair: Artūras Štikonas		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
16:15–16:35	<u>Rūta Levulienė</u> , Vilijandas Bagdonavičius, Vilnius University, Lithuania	Modified Chi-squared Tests for Regression Models
16:35–16:55	<u>Minvydas Kazys Ragulskis</u> , Zenonas Navickas, Tadas Telksnys, Kaunas University of Technology, Lithuania	Solitary solutions to a relativistic 2-body problem
16:55–17:15	<u>Kristina Pupalaigė</u> , M. Sapagovas, Kaunas University of Technology, Lithuania	On the convergence of the difference scheme for nonlinear parabolic equation with integral boundary condition
17:15–17:35	<u>Yaakov Malinovsky</u> , University of Maryland, Baltimore County, USA Noga Alon, Princeton University, USA, Tel Aviv University, Israel.	Hitting a prime in 2.43 dice rolls (on average)

Friday, June 21, 2024

208 room, Mickevičiaus g. 37, Kaunas

Chair: Miloš Kopa		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:00–14:20	<u>Viktor Skorniakov</u> , Ugnė Čižikovienė, Vilnius University, Lithuania	On the Generic Cut-Point Detection Procedure in the Binomial Group Testing
14:20–14:40	<u>Kestutis Dučinskas</u> , Marta Karaliutė, Klaipėda University, Lithuania	Generative approach to supervised classification of the continuous feature observations at several spatial locations via Hidden Markov Models
14:40–15:00	<u>Robertas Alzbutas</u> , Jewel Sengupta, Tomas Iešmantas, Kaunas University of Technology	Artificial Intelligence and Uncertainty Analysis for Monitoring of Subarachnoid Haemorrhage
15:00–15:20	Mindaugas Kavaliauskas, Kaunas University of Technology, Lithuania	On Segmentation of Non-Stationary Time Series

<i>Coffee break</i>		
Chair: Regimantas Čiupaila		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
16:00–16:20	Tadas Telksnys, Kaunas University of Technology, Lithuania	Beyond solitary solutions: deformed kinks in Riccati systems
16:20–16:40	<u>Audrius Kabašinskas</u> , Kristina Šutienė, Kaunas University of Technology, Miloš Kopa, Charles University Prague	Is your pension fund resilient to market stress?
16:40–17:00	<u>Aušra Gadeikytė</u> , Rimantas Barauskas, Kaunas University of Technology, Lithuania	Finite element models of heat, air, and water-vapor exchange through 3D textile structures

213 room, Mickevičiaus g. 37, Kaunas

Chair: Tomas Krilavičius		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:00–14:20	<u>Regimantas Čiupaila</u> , Vilnius Gediminas Technical University, Lithuania; Kristina Pupalaigė, Kaunas University of Technology Lithuania; Mifodijus Sapagovas, Vilnius University Lithuania; Gailė Kamilė Šaltenienė, Vilnius Gediminas Technical University	Some applications of M(Minkowski)-matrices for nonlinear elliptic equations with nonlocal conditions
14:20–14:40	<u>Jūratė Karasevičienė</u> , Jonas Šiaulys, Vilnius University, Lithuania	Some properties of generalized subexponential distributions
14:40–15:00	<u>Liepa Bikulčienė</u> , Eglė Butkevičiūtė, Kaunas University of Technology, Lithuania	Challenges of data analysis in healthcare projects
15:00–15:20	<u>Tomas Iešmantas</u> , Robertas Alzbutas, Kaunas University of Technology, Lithuania	Bayesian estimation of battery state-of-charge via state-space model
<i>Coffee break</i>		
Chair: Olga Štikonienė		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
16:00–16:20	Aleksejus Michalkovič, Kaunas University of Technology, Lithuania	On the security of the STR key agreement protocol
16:20–16:40	Inga Telksnienė, Kaunas University of Technology, Lithuania	Transforming fractional differential equations into ordinary differential equations via fractional power series
16:40–17:00	<u>Lina Dindienė</u> , Antanas Bendoraitis, Aleksejus Michalkovič, Eligijus Sakalauskas,	Conjectured One-Way Function (OWF) based on matrix power

	Kaunas University of Technology, Lithuania	function and matrix conjugator search problem
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Section

Didactics of mathematics

Thursday, June 20, 2024

112 room, Mickevičiaus g. 37, Kaunas.

Chair: Rimas Norvaiša		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–15:00	Ieva Kilienė, Vilnius university, Lithuania	Arithmetic word problem solving. Analysis of Singaporean and Spanish textbooks
15:00–15:45	Agnė Staniulytė, Vilniaus Universitetas, Lithuania	Breaking the Cycle of Math Anxiety
<i>Coffee break</i>		
16:15–17:00	<u>Gabija Pranaitytė</u> , Bronė Narkevičienė, Kaunas university of technology, Lithuania	Factors Contributing to Academic Success of First-Year University Students in Lithuania: A Comparative Analysis
17:00–17:45	<u>Monika Grigaliūnienė</u> , Erno Lehtinen, Vytautas Magnus University, Lithuania	Creating and validating confidence questionnaire for mathematics teachers

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112 room, Mickevičiaus g. 37, Kaunas

Chair: Rimas Norvaiša		
<i>Time</i>	<i>Speaker</i>	<i>Title</i>
14:15–15:00	<u>Aurelija Kasparavičiūtė</u> , Svetlana Danilenko, Rūta Simanavičienė, Vilnius tech, Lithuania	The relationship between personality traits and methods for organizing math study process
15:00–15:45	Rimas Norvaiša, Vilnius University, Lithuania	The concept of function in the 9th grade textbook and in the revised curriculum