



International Conference on Mathematics, Computer Science and
Technical Education
(ICMCSTE 2024) – 21st edition

Department of Mathematics and Computer Science (DMI),
Technical University of Civil Engineering Bucharest (UTCB),
Faculty of Civil, Industrial and Agricultural Buildings (FCCIA),
Address: 122-124 Lacul Tei Blvd., Sector 2, 020396 Bucharest, Romania & (MS TEAMS cod: 2vgrgs2)

24-26 May 2024
Hybrid Meeting (on Microsoft Teams)

CONFERENCE PROGRAMME

Fri May 24th, 2024

14:00 - 14:15	Conference Opening	Room:	I-3
14:15 - 16:15	Plenary Session	Room:	I-3
16:15	Coffee Session	Room:	I-20

Sat May 25th, 2024

10:00 - 11:00	Plenary Session	Room:	I-3
11:00 - 11:30	Coffee Break	Room:	I-20
11:30 - 13:30	Parallel Sessions	Room:	I-3/I-13/I-15
15:30 - 17:30	Afternoon Session	Online	
17:30	Conference Closing	Online	

Sun May 26th, 2024

(on their own)	Cultural activities	Bucharest	
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CONFERENCE PROGRAMME

Fri May 24th, 2024

PLENARY SESSION

ROOM	I-3 (FCCIA, first floor) + ONLINE (MS- TEAMS)
14:00 – 14:15	Conference Opening
CHAIRMAN:	Leonard DĂUȘ
14:15 – 15:15	Mihai BĂRBOSU – Integration of Machine Learning and State-Space Propagation Methods in Space Dynamics
15:15 – 16:15	Valeriu BEIU – An Unexpected Twist on the Brain: We Need to Reassess Connectomics

Sat May 25th, 2024

PLENARY SESSION

ROOM	I-3 (FCCIA, first floor) + ONLINE (MS- TEAMS)
CHAIRMAN:	Ion MIERLUȘ MAZILU
10:00 - 11:00	Rakesh KUMAR – <i>Geometric Visualization of Curves and Surfaces</i>

PARALLEL SESSIONS

SESSION 1	Algebra, Geometry, Differential Equations, Mechanics
ROOM	I-3 (FCCIA, first floor) + ONLINE (MS- TEAMS)
CHAIRMAN:	Rakesh KUMAR, Ghiocel GROZA
11:30-12:00	Muhittin Evren AYDIN – Non-Newtonian Approaches in Differential Geometry
12:00-12:15	Angel POPESCU – Zeros of Polynomials over Locally Compact Fields
12:15-12:30	Alexandru CIOBANU – Characterizations of Compact Spacelike Submanifolds in Non-Negatively Curved Pseudo-Riemannian Space Forms
12:30-12:45	Ștefan-Cezar BROSCĂȚEANU – Euclidean Submanifolds with Infinitesimal Variations and Bendings
12:45-13:00	Ioana RĂDULESCU (LĂZĂRESCU) – Applications of Riemannian Geometry in Machine Learning. A Study on Text Classification using Conformal Transformation of Kernels
13:00-13:15	Ghiocel GROZA – A Note on Puiseux Series
13:15-13:30	Marilena JIANU, Leonard DĂUȘ – Counting Lattice Paths to Find the Coefficients of Reliability Polynomials



SESSION 2	Analysis, Functional Analysis, Numerical Analysis, Algebra, Differential Equations
ROOM	I-13 (FCCIA, first floor)
CHAIRMAN:	Ileana BUCUR, Gavriil PĂLTINEANU
11:30-12:00	Gheorghe BUCUR, Gavriil PĂLTINEANU – Weierstrass Approximation Theorem Revisited
12:00-12:15	Lucian NIȚĂ – Some Generalizations of Markov-Type Operators
12:15-12:30	Ileana BUCUR - Multiplicative Characteristic Functions Calculus and Applications
12:30-12:45	Rodica-Mihaela DĂNET, Marian-Valentin POPESCU, Nicoleta POPESCU – Main Difficulty that Arise in Proving Some Results from Interval Analysis, Exposed with a Hahn-Banach Existence Type Theorem
12:45-13:00	Oke Davies ADEYEMO – Symmetry, Analytic Solutions and Conservation Laws of Three-Dimensional Nonlinear YTSF Equation in Theoretical Physics
13:00-13:15	Sever ACHIMESCU, Victor ALEXANDRU – Certain Transcendental Elements in Certain Extensions of Local Fields
SESSION 3	Probabilities, Operational Research, Mathematical Statistics, Computer Science, Applications of Mathematics in Engineering Sciences, E-learning
ROOM	I-15 (FCCIA, first floor)
CHAIRMAN:	Narcisa TEODORESCU, Daniel CIUIU
11:30-11:45	Daniel CIUIU – Solving Linear Systems using Monte Carlo Methods
11:45-12:00	Narcisa TEODORESCU, Simona Cristina NARTEA – Seismic Response Analysis of Buildings by Application of Laplace Transform
12:00-12:15	Ion MIERLUȘ-MAZILU, Ștefania CONSTANTINESCU, Alice ANGHELESCU – A Survey about Barycentric Lagrange Interpolation
12:15-12:30	Ion MIERLUȘ-MAZILU, Ștefania CONSTANTINESCU, Alice ANGHELESCU – Advancing STEM Education: Digital Tools and Pedagogical Training for HEI Educators (DigiSTEM)
12:30-12:45	Ion MIERLUȘ-MAZILU, Ștefania CONSTANTINESCU, Alice ANGHELESCU – Energize Tomorrow: Service-Learning for Sustainable Energy Access (GIRLS – Generation for innovation, resilience, leadership and sustainability)
12:45-13:00	Mariana ZAMFIR - Trigonometric Formulas for Solving Euler Spherical Triangles with MathCad

AFTERNOON SESSION

SESSION 0	Geometry
ROOM	ONLINE (MS-TEAMS)
CHAIRMAN:	Adela MIHAI, Marilena JIANU
15:30-15:45	Amrinder Pal SINGH, Cyriaque ATINDOGBE, Rakesh KUMAR, Varun JAIN – Geometry of Normalized Null Graphs of GRW Spacetimes
15:45-16:00	Rashmi SACHDEVA, Rakesh KUMAR – A Study of Conformal Riemannian Maps between Riemannian Manifolds
16:00-16:15	Garima GUPTA, Rakesh KUMAR – A Study of Conformal Riemannian Maps Whose Total Manifold Admits a Yamabe Soliton
16:15-16:30	Reetu MAINI, Garima GUPTA, Rakesh KUMAR – Geometry of Slant Submersions and Conformal Slant Submersions from Nearly Kaehler Manifold
16:30-16:45	Rachna RANI – A Study of Lightlike Submanifolds of Indefinite Kaehler Manifolds
16:45-17:00	Majid Ali CHOUDHARY – Upper Bound Inequalities for δ -Casorati Curvatures on Golden Lorentzian Manifolds Equipped with GSM U-Connection
17:00-17:15	Mohd Danish SIDDIQI – Hyperbolic Ricci-Yamabe Soliton and Gradient Hyperbolic Ricci-Yamabe Soliton on Relativistic Perfect Fluid Spacetime
17:15-17:30	Ana-Irina Nistor - Magnetic curves in product manifolds