



**ICNAAM 2019**  
**Sheraton Hotel, Rhodes, Greece,**  
**23-28 September 2019**

<b>23 September 2019</b> <b>The 14<sup>th</sup> International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer</b> <b>Numerical Fluids 2019</b> <b>CHAIR: Jiri Felcman</b> <b>(ROOM 1)</b>		
<b>9:00 – 10:00</b>	<b>Invited lecture</b> <b>Professor Sergey V. Utyuzhnikov</b>  <b>Non-Overlapping Domain Decomposition for Near- Wall Turbulence Modelling: State-of-the-Art and Perspectives</b>	
<b>10:00 – 10:20</b>	<b><u>Jin Der Lee</u> and Shao Wen Chen</b>	<b>The Nonlinear Dynamic Model for Parallel Uniformly Heated Channels with Supercritical Water under Vertical Seismic Accelerations</b>
<b>10:20 – 10:40</b>	<b><u>Lukasz Lach</u> and Dmytro Svyetlichnyy</b>	<b>Modeling of heat flow and diffusion during phase transformation by hybrid LBM and CA model</b>
<b>10:40 – 11:00</b>	<b><u>R Rajita Shenoj</u>, Neeraj P Manelil, T Sundararajan and Shaligram Tiwari</b>	<b>Effect of diameter ratio on unsteady flow past two side- by-side cylinders at Re = 2000</b>
<b>Coffee Break</b>		
<b>Lunch Break</b>		



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<b>23 September 2019</b> <b>SESSION:</b> <b>Recent Advances in Numerical Methods and Simulations in</b> <b>Statics and Dynamics of Structures</b> <b>CHAIRS: Juraj Králik, Jozef Melcer</b> <b>(ROOM 2)</b>		
<b>09:00 – 09:30</b>	<i>J. Králik</i>	<b>Nonlinear Probabilistic Analysis of the Fragility of the Reactor Hall Frame under Extreme Climatic Impact</b>
<b>09:30 – 10:00</b>	<i>J. Králik, J. Králik, jr.</i>	<b>Analysis of the Effect of Layered Subsoil on the Seismic Excitance of NPP Hall Building</b>
<b>10:00 – 10:30</b>	<i>J. Melcer</i>	<b>Numerical Simulation of Random Profile of the Road Surface</b>
<b>10:30 – 11:00</b>	<i>D. Kuchárová</i>	<b>Numerical Modelling of Moving Load Dynamic Effect on Concrete Pavements</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b> <b>SESSION: 12-th Symposium on Recent Trends in the</b> <b>Numerical Solution of Differential Equations</b> <b>CHAIR: E. Weinmueller</b> <b>(ROOM 3)</b>		
<b>09:00 – 09:30</b>	<b><u>L. Bruqnano</u></b>	<b>Spectral Hamiltonian Boundary Value Methods (SHBVMs) for the numerical solution of ODE problems</b>
<b>09:30 – 10:00</b>	<b><u>P. Burrage</u></b>	<b>Integrated Approaches for Stochastic Chemical Kinetics</b>
<b>10:00 – 10:30</b>	<b><u>A. Eremin</u></b>	<b>Some issues with the numerical treatment of delay differential equations</b>
<b>10:30 – 11:00</b>	<b><u>C.I. Gheorghiu</u></b>	<b>Spectral Collocation Based on Quasi-Classical Orthogonal Polynomials. Applications in Solving Nonlinear Singular BVPs</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



**ICNAAM 2019**  
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<b>23 September 2019</b> <b>SESSION:</b> <b>Fractional Differential Operators and their Applications in</b> <b>Nonlinear Systems</b> <b>CHAIRS: Professor Qasem Al-Mdallal</b> <b>(ROOM 4)</b>		
<b>09:00 – 09:30</b>	<i>Guo-Cheng Wu</i>	<b>Some further results of fractional discrete systems and perspective</b>
<b>09:30 – 10:00</b>	<i>Swati Tyagi and S.C. Martha</i>	<b>Existence of solutions of fractional-order neural network with proportional delay</b>
<b>10:00 – 10:30</b>	<i>Muhammed Syam</i>	<b>An efficient method for solving the fractional Fredholm integrodifferential equation</b>
<b>10:30 – 11:00</b>	<i>Ndolane Sene</i>	<b>Global asymptotic stability of the fractional differential equations</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b>		
<b>SESSION: Numerical mathematics and High Performance Computing in Engineering and Environmental Sciences</b>		
<b>CHAIR: Martin Čermák</b>		
<b>(ROOM 5)</b>		
<b>09:00 – 09:20</b>	<b><i><u>D. Žurovec, M. Čermák, J. Hlosta, J. Nečas, J. Zegzulka</u></i></b>	<b>Optimization of vibration separator using DEM modeling method</b>
<b>09:20 – 09:40</b>	<b><i><u>J. Hlosta, M. Čermák, D. Žurovec, V. Dubovský</u></i></b>	<b>Numerical Study of Galton Board Experiment via Discrete Element Method Simulation</b>
<b>09:40 – 10:00</b>	<b><i><u>S. Arul, T. Brzobohatý, T. Kozubek</u></i></b>	<b>FETI based domain decomposition methods for large-scale topology optimization</b>
<b>10:00 – 10:20</b>	<b><i><u>A. Sudhakar</u></i></b>	<b>Comparison of Solvers for Contact Problems</b>
<b>10:20 – 10:40</b>	<b><i><u>M. Čermák, S. Sysala, J. Valdman</u></i></b>	<b>On vectorized MATLAB implementation of elastoplastic problems</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b>		
<b>SESSION: Physical-chemical gas-dynamics: Non-equilibrium processes modeling and simulation</b>		
<b>CHAIR: Yuriy Gorbachev</b>		
<b>(ROOM 6)</b>		
<b>09:00 – 09:30</b>	<b><u>Yuriy Gorbachev</u> Coddan Technologies LLC, St.-Petersburg, Russia</b>	<b>On Approximations for the One-Temperature Reaction Rates</b>
<b>09:30 – 10:00</b>	<b><u>Hans Babovsky</u> Technikal University Ilmenau, Institute of Mathematics, Ilmenau, Germany</b>	<b>On local kinetic models for fluid flows – Boltzmann vs. BGK</b>
<b>10:00 – 10:30</b>	<b><u>Galina I. Zmievskaya</u> M.V.Keldysh Institute of applied mathematics, RAS Moscow, Russia</b>	<b>Pore structures in solids initiated by implantation of inert gas ions flux</b>
<b>10:30 – 11:00</b>	<b><u>A.A. Stepanenko, V.M. Zhdanov</u> National Research Nuclear University (Moscow Engineering Physics Institute), Russia</b>	<b>Relaxation phenomena in thermal molecular plasmas</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b> <b>SESSION: Mathematical Optimization in Modern Medicine and Engineering</b> <b>CHAIR: Flavius Pater</b> <b>(ROOM 7)</b>		
<b>09:00 – 09:30</b>	<i>Justyna Orwat and Sebastian Franz</i>	Average Graph of Land Surface Curvatures Induced Mining Operation Determined by Use of Fourth Order Polynomial
<b>09:30 – 10:00</b>	<i>Dan Ludovic LEMLE and Flavius PATER</i>	On Some Representation Theorems for the Yosida Approximation in Locally Convex Spaces
<b>10:00 – 10:30</b>	<i>Liana Pater and Monica Izvercian</i>	A Statistical Study on Environmental Protection of Sustainable Products Consumers
<b>10:30 – 11:00</b>	<i>Anca Morărescu, Sorin Herban, Clara – Beatrice Vîlceanu and Daniel Grecea</i>	Durable Solutions for Precision Agriculture in Romania
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b>		
<b>SESSION: Recent Theories and Applications in Computational Mathematics</b>		
<b>CHAIR: Ali AKGÜL</b>		
<b>(ROOM 8)</b>		
<b>09:00 – 09:30</b>	<i>Cindy Ortega Romero</i>	Selection of enhanced oil recovery's chemical treatments through multicriteria methodologies
<b>09:30 – 10:00</b>	<i>Kannakan Nuttara</i>	New iterative schemes for common fixed point problems of three G-nonexpansive mappings in Hilbert spaces with graphs
<b>10:00 – 10:30</b>	<i>Naruephon Boonyuang</i>	Convergence theorems of the modified SP and Noor iterations with CQ methods for three G-nonexpansive mappings in Hilbert spaces with graphs
<b>10:30 – 11:00</b>	<i>Supitcha Pheetarakorn</i>	Convergence theorems for three G-nonexpansive mappings in Hilbert spaces with graphs by modifying SP and Noor iterations with shrinking projection methods
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Luigi Brugnano</b> <b>(ROOM 1)</b>		
<b>11:30 – 12:30</b>	<b><u>Grant Lythe</u></b>	<b>Why Immunology is like Astronomy</b>

<b>23 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Grant Lythe</b> <b>(ROOM 1) - SKYPE</b>		
<b>17:30 – 18:30</b>	<b><u>Tatiana T. Marquez Lago</u></b>	<b>TBA</b>

<b>23 September 2019</b>
<b><u>Welcome Drink</u></b> <b><u>Deck 6</u></b> <b><u>12:30 – 14:00</u></b>



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<b>Numerical Fluids 2019</b>		
<b>CHAIR: R Rajita Sheno</b>		
<b>(ROOM 1)</b>		
<b>15:00 – 15:20</b>	<b>S Chen, K Fukuda, <u>Ronald M Barron</u>, and R Balachandar</b>	<b>Numerical Investigation of Conjugate Heat Transfer in a Straight Cooling Channel</b>
<b>15:20 – 15:40</b>	<b><u>Cristian S Loaiza</u> and J Mejia</b>	<b>A Comprehensive Mathematical Modeling of a Chemical Enhanced Oil Recovery Process with Polymer Reinforced by Nanoparticles</b>
<b>15:40 – 16:00</b>	<b><u>Jiri Felcman</u> and P Kubera</b>	<b>Eikonal Equation Based Cellular Automaton for a Pedestrian Evacuation Problem</b>
<b>16:00 – 16:20</b>	<b><u>Ondrej Winter</u> and Petr Svacek</b>	<b>Numerical Approximation Of Incompressible Fluid Flow Problems By Discontinuous Galerkin</b>
<b>16:20 – 16:40</b>	<b><u>Rony Touma</u> and Mira Abou Saleh</b>	<b>Finite volume methods for pollutants transport in shallow water equations</b>
<b>Coffee Break</b>		



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<b>23 September 2019</b>		
<b>SESSION: Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures</b>		
<b>CHAIRS: Milan Sokol, Petr Lehner (ROOM 2)</b>		
<b>15:00 – 15:30</b>	<i>M. Sokol, I. Véghova, K. Lamperová</i>	<b>Influence of Nonstructural Parts to Static and Dynamic Response of Railway Bridge</b>
<b>15:30 – 16:00</b>	<i>M. Márfoldi, M. Sokol, K. Lamperová, M. Venglár</i>	<b>Stress Performance Indicator of Stringers of Steel Bridges</b>
<b>16:00 – 16:30</b>	<i>P. Lenher, P. Konečný</i>	<b>Numerical approximation of time-dependent chloride diffusion model parameters via probabilistic Monte Carlo method</b>
<b>16:30 – 17:00</b>	<i>P. Lehner, P. Parenica, M. Krejsa, V. Křivý, J. Brožovský</i>	<b>Utilization of Monte Carlo method for modelling of the loading history of existing cyclically stressed structure</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b>		
<b>SESSION: 12-th Symposium on Recent Trends in the Numerical Solution of Differential Equations</b>		
<b>CHAIR: L. Brugnano (ROOM 3)</b>		
<b>15:00 – 15:30</b>	<b><u><i>Y. Komori</i></u></b>	Stability analysis of numerical methods using a linear test SDE with delay and non-delay in a diffusion term
<b>15:30 – 16:00</b>	<b><u><i>F.L. Romeo</i></u></b>	A semi-implicit high-order space-time scheme on staggered meshes for the 2D incompressible Navier-Stokes equations
<b>16:00 – 16:30</b>	<b><u><i>E. Weinmueller</i></u></b>	Convergence of the collocation method for nonlinear singular BVPs with nonsmooth data
<b>16:30 – 17:00</b>	<b><u><i>V. Rukavishnikov</i></u></b>	Finite Element Methods with the Special Graded Mesh for Elliptic Equation with Degeneration on the Entire Boundary
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>23 September 2019</b>		
<b>SESSION: Fractional Differential Operators and their Applications in Nonlinear Systems</b>		
<b>CHAIRS: Professor Qasem Al-Mdallal (ROOM 4)</b>		
<b>15:00 – 15:30</b>	<i>Thabet Abdeljawad</i>	On the oscillation of Caputo fractional differential equations with Mittag-Leffler nonsingular kernel
<b>15:30 – 16:00</b>	<i>Qasem Al-Mdallal</i>	Spectral Algorithm for Solving Higher-Order Fractional Differential Equations
<b>16:00 – 16:30</b>	<i>Mohamed Ali Hajji</i>	An efficient method based on Wavelet Galarkin Method for solving Initial Value Problems.
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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23 September 2018		
SESSION#28: The 8th Symposium on Generating Functions of Special Numbers and Polynomials and Their Applications (GFSNP2019)		
CHAIR: Geno NIKOLOV (ROOM 5)		
15:00 – 15:20	<u><i>Yilmaz SIMSEK</i></u>	Identities and Relations Containing Finite Sums of Powers of Binomial Coefficients II
15:20 – 15:40	<u><i>Buket COŞKUN, Ceren VARDAR ACAR and Hakan DEMIRTAS</i></u>	A Study on the Discretization of Fractional Brownian Motion II
15:40 – 16:00	<u><i>Irem KUCUKOGLU</i></u>	Analysis of higher-order Peters-type combinatorial numbers and polynomials by their generating functions and $p$ -adic integration II
16:00 – 16:20	<u><i>Neslihan KILAR and Yilmaz SIMSEK</i></u>	Identities and Relations Associated with Generating Function for Apostol-Genocchi Type Polynomials and Trigonometric Functions II
16:20 – 16:40	<u><i>Damla GUN and Yilmaz SIMSEK</i></u>	Formulas associated with combinatorial polynomials and two parametric Apostol-type polynomials II
16:40 – 17:00	<u><i>Eda YULUKLU</i></u>	Identities for Hermite Base Combinatorial Polynomials and Numbers II
17:00 – 17:30	<b>Coffee Break</b>	



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<b>23 September 2019</b> <b>SESSION: Physical-chemical gas-dynamics: Non-equilibrium processes modeling and simulation</b> <b>CHAIR: Yuriy Gorbachev</b> <b>(ROOM 6)</b>		
15:00 – 15:30	<u><i>Kokou Dadzie, M.H.</i></u> <u><i>Lakshminarayana Reddy,</i></u> <i>School of Engineering and Physical Sciences, Heriot-Watt University, Edinburgh, Scotland, UK</i>	Recasting Navier-Stokes Equations: shock wave structure description
15:30 – 16:00	<u><i>A.B.Nadykto, et al</i></u> <i>Atmospheric Science Research Center, State University of New York at Albany, USA</i>	Large Nucleating Ions $(H_2SO_4)_n(HSO_4^-)(NH_3)_m$ : Formation Mechanism and Appearance in the Earth's Atmosphere
16:00 – 16:30	<u><i>A.B.Nadykto, et al</i></u> <i>Atmospheric Science Research Center, State University of New York at Albany, USA</i>	Effect of Ammonia on Highly Oxidized Organonitrates Atmospheric Pre-Nucleation Clusters Containing the Common Atmospheric Ion $HSO_4^-$
16:30 – 17:00		
17:00 – 17:30	<b>Coffee Break</b>	



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<b>23 September 2019</b> <b>SESSION: Mathematical Optimization in Modern          Medicine and Engineering</b> <b>CHAIR: Flavius Pater          (ROOM 7)</b>		
<b>15:00 – 15:30</b>	<i>Alina Laura Agapie, Marinel Nicolae Horablaga, Gabriela Gorinoiu, Florin Sala</i>	Foliar surface calculation model in soybean
<b>15:30 – 16:00</b>	<i>Alina Laura Agapie, Marinel Nicolae Horablaga, Gabriela Gorinoiu, Florin Sala</i>	Fractal analysis for soybean leaves characterization
<b>16:00 – 16:30</b>	<i>Remus-Daniel ENE and Camelia PETRISOR</i>	Some mathematical approaches on the viscous flow problem on a continuous stretching surface: nonlinear stability and dual approximate analytic solutions
<b>16:30 – 17:00</b>	<i>Marioara Lapadat and Madalina Sofia Pasca</i>	Polynomial Least Squares Method for approximate solutions of fractional boundary value problems
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	

<b>23 September 2019</b> <b>SESSION: Recent Theories and Applications in Computational          Mathematics</b> <b>CHAIR: Ali AKGÜL          (ROOM 8)</b>		
<b>15:00 – 15:30</b>	<i>Nontawat Eiamniran</i>	Three-step projective methods for solving the split feasibility problems
<b>15:30 – 16:00</b>	<i>Ali AKGÜL</i>	Fractal Fractional Differential Equations



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**23 September 2018**

**SESSION: Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures**

**CHAIRS: Eva Kormaníková, Kamila Kotrasová  
 (ROOM 2)**

<b>17:35 – 18:05</b>	<i>E. Kormaníková, K. Kotrasová, S. Harabinová, E. Panulinová</i>	<b>Elastic Mechanical Properties of Random Oriented Short Fiber Composites</b>
<b>18:05 – 18:35</b>	<i>N. Frejherrová, M. Krejsa</i>	<b>Numerical Stress Analysis of Membrane Structures</b>
<b>18:35 – 19:05</b>	<i>L. Novak, D. Novak</i>	<b>On Taylor Series Expansion for Statistical Moments of Functions of Correlated Random Variables</b>
<b>19:05 – 19:35</b>	<i>D. Jindra, P. Hradil, J. Kala, V. Salajka</i>	<b>Nonlinear FEM analysis of composite concrete slab exposed to extreme loads</b>

**23 September 2018**

**SESSION: Fourth Symposium on Difference & Differential Equations and Applications 2019**

**CHAIR: Felix Sadyrbaev  
 (ROOM 3)**

<b>17:35 – 18:05</b>	<i><u>V. Vasyliiev</u> and O. Tarasova</i>	<b>On Digital Approximations for Elliptic Boundary Value Problems</b>
<b>18:05 – 18:35</b>	<i><u>L. Uvarova</u> and Oleg A. Kazakov</i>	<b>Electromagnetic Field Boundary Conditions for Metamaterials at the Apex of the Circular Cone and Polyhedral Cone</b>
<b>18:35 – 19:05</b>	<i><u>L. Uvarova</u> and A. Konovalova</i>	<b>The Mathematical Model of Effect of Mass Transfer on Deformation in Nanostructures</b>
<b>19:05 – 19:35</b>	<i><u>L. Uvarova</u> and Oleg A. Kalutskov</i>	<b>The Mathematical Modeling of Cluster Dynamics under the Effect of Electromagnetic Field</b>



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<b>23 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: J. Bonada</b> <b>(ROOM 4)</b>		
<b>17:35 – 18:05</b>	<b><u>Mustafa Hilmi PEKALP,</u></b> <b><u>Gültaç EROĞLU İNAN and</u></b> <b><u>Halil AYDOĞDU</u></b>	Parameter Estimation in Doubly Geometric Process with Exponential Inter-renewal Times
<b>18:05 – 18:35</b>	<b><u>J. Bonada, F. Roure,</u></b> <b><u>M.M. Pastor and M. Casafon,</u></b>	Comparison of First-Order Generalized Beam Theory with Shell Finite Element Analysis and Experimental Tests for Thin-Walled Members with Sectional Constraints
<b>18:35 – 19:05</b>	<b><u>Mustafa Hilmi PEKALP,</u></b> <b><u>Levent Özbek and Halil AYDOĞDU</u></b>	A Plug-in Estimator for the Mean Value Function of a Geometric Process with Exponential Distribution
<b>19:05 – 19:35</b>	<b><u>F. Roure, M.M. Pastor, J. Bonada, M. Casafon, J. Clapés</u></b>	Analysis of the failure of rack uprights under combined compression and bi-axial bending
<b>23 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Martin Prokop</b> <b>(ROOM 4)</b>		
<b>19:35 – 20:05</b>	<b><u>Martina Zámková,</u></b> <b><u>Martin Prokop and Radek Stolín</u></b>	Monitoring Students' Success Rate in College Statistics with Categorical Data Analysis
<b>20:05 – 20:35</b>	<b><u>Nikolay Baranov and Ekaterina Lemishchenko</u></b>	Integrated Algorithm Of The Wind Shear Calculating From Lidar Data
<b>20:35 – 21:05</b>	<b><u>Nikolay Baranov, Ekaterina Lemishchenko and Boris Resnick</u></b>	Numerical Modelling Of The Landing Aircraft Wake Vortices Formation Over The Sea
<b>21:05 – 21:35</b>	<b><u>Jakub Stempka and Artur Tyliszczak</u></b>	LES Analysis of the Actuation Impact on the Two-phase Jet Flame Structure and Stabilisation Region



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<b>23 September 2018</b> <b>SESSION#28: The 8th Symposium on Generating Functions of Special Numbers and Polynomials and Their Applications (GFSNP2019)</b> <b>CHAIR: Manasi MANDAL</b> <b>(ROOM 5)</b>		
17:30 – 17:50	<u><i>Buket SIMSEK</i></u>	Remarks on statistical evaluations for facial expression recognition II
17:50 – 18:10	<u><i>Ozge OZER</i></u> <i>and M. Gurhan YALCIN</i>	Modeling of elemental distribution of Kas (Antalya) bauxite deposit II
18:10 – 18:30	<u><i>Manasi MANDAL and Sarbani MUKHERJEE(GOSWAMI)</i></u>	Fuzzy Structure Space of Semigroups II
18:30 – 18:50	<u><i>Ahmet Sinan CEVIK</i></u>	To Be Announced

<b>23 September 2019</b> <b>SESSION: Operational Research and Applications</b> <b>CHAIR: Fernanda A. Ferreira</b> <b>(ROOM 6)</b>		
17:35 – 17:55	<i>Flávio Ferreira</i>	Stackelberg mixed duopoly with emission tax
17:55 – 18:15	<i>Cindy Ortega Romero, Yris Olaya Morales, Juan Manuel Mejía</i>	Selection of enhanced oil recovery's chemical treatments through multicriteria methodologies
18:15 – 18:35	<i>Petre Birtea, Ioan Casu, Dan Comanescu</i>	Characterization of the critical points for the free energy of Cosserat problem
18:35 – 18:55	<i>Fernanda A. Ferreira, Conceição Castro</i>	Partial privatization in a quantity-price-setting mixed duopoly
18:55 – 19:15	<i>Luís Vieira</i>	Some Properties of an Euclidean Jordan Algebra Spanned by a Symmetric Association Scheme



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<b>17:35 – 18:05</b>	<i>Ramona Ioana Oprea, Pater Flavius, Adina Juratoni and Olivia Bundau</i>	<b>An Introduction to Spectral Theory in Fuzzy Normed Linear Spaces</b>
<b>18:05 – 18:35</b>	<i>Ramona Ioana Oprea, Pater Flavius, Adina Juratoni and Olivia Bundau</i>	<b>Dynamic Analysis in an Economic Growth Model with CES Utility Function and Delay</b>



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<b>23 September 2018</b> <b>SESSION: Statistics and Modelling</b> <b>CHAIR: Prof. Christine Duller</b> <b>(ROOM 8)</b>		
17:35 – 18:05	<i>Christine Duller</i>	Comparison of Four Nonparametric Tests of Symmetry
18:05 – 18:35	<i>Maalee Almheidat</i>	Different ways to generate a generalization of Weibull distribution based on the quantile functions
18:35 – 19:05	<i>Tiago Dias Domingues, Helena Mouriño and Nuno Sepúlveda</i>	A statistical analysis of serological data from the UK Myalgic Encephalomyelitis/Chronic Fatigue Syndrome biobank

<b>23 September 2018</b> <b>SESSION: Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures</b> <b>CHAIRS: Kamila Kotrasová, Eva Kormaníková</b> <b>(ROOM 2)</b>		
19:35 – 20:05	<i>K. Kotrasová, S. Harabinová, E. Kormaníková, E. Panulinová</i>	Dynamic Fluid-Structure-Soil Interaction Applied on Concrete Rectangular Reservoir
20:05 – 20:35	<i>M. Kozielova, M. Smirakova, P. Mateckova, Z. Marcalikova</i>	Numerical Modelling and Analysis of Reinforced Concrete Slab with Subsoil
20:35 – 21:05	<i>J. Králik, J. Králik, jr.</i>	Numerical Analysis of Extreme Wind Impact on the Group of Cylindrical Tanks



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<b>23 September 2019</b> <b>SESSION: Symposium on Interactive Computational Modelling in Science,          Technology, Engineering and Mathematics Education Title</b> <b>CHAIR: Rui Neves</b> <b>(ROOM 5)</b>		
19:00 – 19:30	<i><u>Rui Neves</u></i>	Physics Education with Interactive Computational Modelling
19:30 – 20:00	<i><u>Rui Neves &amp; Maria C. Neves</u></i>	Interactive Computational Modelling to Improve Teaching of Physics and Mathematics in Marine Geophysics

<b>23 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Takayuki Narumi</b> <b>(ROOM 7)</b>		
19:05 – 19:35	<i>Andre Leier</i>	Mathematical Modeling of Organoids
19:35 – 20:05	<i>Takayuki Narumi and Yoshiki Hidaka</i>	Tagged-Particle Dynamics in Weak Turbulence: System Size Dependence of Nikolaevskii Turbulence
20:05 – 20:35	<i>Noufe H. Aljahdaly</i>	New Application Through Multistage Differential Transform Method
20:35 – 21:05	<i>Li Shuanggui</i>	Asymptotical Preserving SCB Scheme for Radiative hydrodynamics Calculations
21:05 – 21:35	<i>Hardy Weisweiler and Jasmina Kojouharova</i>	Underexpanded Free and Confined Jet Structures: CFD Simulations

**END OF THE 1<sup>ST</sup> DAY**



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<b>9:00 – 10:00</b>	<b>Invited lecture</b> <b>Gretar Tryggvason</b>  <b>Direct Numerical Simulations of Multiphase Flows: Opportunities and Challenges</b>	
<b>10:00 – 10:20</b>	<b>Zdenek Chara</b>	<b>CFD-DEM simulations in water channel flow</b>
<b>10:20 – 10:40</b>	<b><u>Ksenia Kozhanova,</u> Eric Goncalves, Yannick Hoarau and Philippe Parnaudeau</b>	<b>On extensions of HLLC scheme and its application to two-phase problems</b>
<b>10:40 – 11:00</b>	<b>Tomas Neustupa</b>	<b>On Flow of a Micropolar Fluid in a 2D Spatially- Periodic Domain</b>
<b>Coffee Break</b>		
<b>Lunch Break</b>		



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<b>SESSION: Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures</b>		
<b>CHAIRS: Juraj Králik, Petr Král (ROOM 2)</b>		
<b>09:00 – 09:30</b>	<i>P. Král, J. Kala, P. Hradil</i>	<b>Algorithmization and Application of Constitutive Equations for Modelling the Plane Stress State of Concrete</b>
<b>09:30 – 10:00</b>	<i>P. Mateckova, Z. Marcalikova, D. Bujdoš, M. Kozielova</i>	<b>Analysis of Reinforced Concrete Beam with Small Fibre</b>
<b>10:00 – 10:30</b>	<i>M. Kalina, P. Frantík</i>	<b>Imperfection Influence on Elastic Potential Energy Surfaces of Steep von Mises</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: Recent Advances in Nonlinear Dynamics and Applications (#63)</b>		
<b>CHAIR: Jing Li, Alaka Das, Anthony Gravouil, Shaotao Zhu (ROOM 3)</b>		
<b>09:00 – 09:30</b>	<i>Alaka Das</i>	<b>Dynamic Characterizers of Spatiotemporal Intermittency and Mapping to Cellular Automaton: An Inhomogeneous Coupled Map Lattice</b>
<b>09:30 – 10:00</b>	<i>Anthony Gravouil</i>	<b>Coupling Methods based on Multi-scale Heterogeneous Time Integrators</b>
<b>10:00 – 10:30</b>	<i>Yuanyuan Tian, Jing Li</i>	<b>Bifurcation of Periodic Solutions for a Resonant Four-dimensional System and Its Application</b>
<b>10:30 – 11:00</b>	<i>Lishuang Jiang</i>	<b>The Maximum Number of Periodic Solutions for a Deployable Circular Mesh Antenna Model</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: The Sixth Symposium on Approximation of Curves and Surfaces (ACS 2019)</b>		
<b>CHAIR: Prof. Dr. Abedallah Rababah (ROOM 4)</b>		
<b>09:00 – 09:30</b>	<i><b>Mohammad AlQudah and Maalee AlMheidat</b></i>	<b>Recurrence relation for generalized Shifted Chebyshev Koonwinder's Type Polynomials</b>
<b>09:30 – 10:00</b>	<i><b>Abedallah Rababah</b></i>	<b>Numerical Solution of Burger- Huxley Partial Differential Equations</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: 5<sup>th</sup> Computational Tools for Direct Digital Manufacturing (CT4DDM)</b>		
<b>CHAIR: Nuno Alves, Paula Pascoal-Faria, Sandra Amado (ROOM 5)</b>		
<b>09:00 – 09:30</b>	<b><u>Computational fluid dynamics as a tool to predict endodontics key parameters</u></b>	<b><u>Mário Rito Pereira, Paula Pascoal-Faria, Isabel Vasconcelos, António Ginjeira and Nuno Alves</u></b>
<b>09:30 – 10:00</b>	<b><u>Functionally graded scaffolds for bone tissue engineering: a computational mechanical approach</u></b>	<b><u>Nuno Alves, Cristiana Fernandes, Carla Moura, João Meneses, Abhishek Datta and Paula Pascoal-Faria</u></b>
<b>10:00 – 10:30</b>	<b><u>Electrical stimulation of bioscaffolds for tissue engineering: a numerical analysis</u></b>	<b><u>Paula Pascoal-Faria, João Meneses, Abhishek Datta, Carla Moura, Frederico Ferreira, Sandra Amado, Nuno Alves</u></b>
<b>10:30-11:00</b>	<b><u>A numerical study of the selective laser melting process</u></b>	<b><u>Maryam Ghalati, Paula Pascoal-Faria, Adérito Araújo, Filipe Silva and Nuno Alves</u></b>



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<b>24 September 2019</b>		
<b>SESSION: Mathematical Problem in Aerospace Science</b>		
<b>MPAS-2019</b>		
<b>CHAIR: C. Orlando, A. Esposito, S. Valvano</b>		
<b>(ROOM 6)</b>		
<b>09:00 – 09:20</b>	<b><u>C. Orlando</u></b>	<b>Welcome Speech</b>
<b>09:20 – 09:40</b>	<b><i>F. Lo Iacono, A. Alaimo, A. Esposito, G. Navarra and C. Orlando</i></b>	<b>An anthropometric 4-DOF vibration model with uncertain parameters for air transportation</b>
<b>09:40 – 10:00</b>	<b><u>M. Venczel and Á. Veress</u></b>	<b>Model development with verification for thermal analysis of torsional vibration dampers</b>
<b>10:00 – 10:20</b>	<b><u>A. Ferrero and S. Papadopoli</u></b>	<b>A numerical study on automatic mesh refinement for the simulation of Edney shock-shock interactions</b>
<b>10:20 – 10:40</b>	<b><i>A. Conte, A. Ferrero and D. Pastrone</i></b>	<b>Preliminary study of a resonant igniter for rocket engines</b>
<b>10:40 – 11:00</b>	<b><i>R. Marsilio, M. Ferlauto and M. H. Hamedi-Estakhrsar</i></b>	<b>Numerical Simulation of a Vectored Axisymmetric Nozzle</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b> <b>SESSION 56: Dynamical systems and their applications to advanced materials, structures and technologies</b> <b>CHAIR: Jiří Vala</b> <b>(ROOM 7)</b>		
<b>09:00 – 09:30</b>	<b><u>J. Diblík,</u></b> <b><u>J. Baštinec</u></b>	<b>Existence of Solutions of Discrete Equations of Volterra Type in Prescribed Domains and Fractional Discrete Equations</b>
<b>09:30 – 10:00</b>	<b><u>J. Diblík, H.</u></b> <b><u>Halfarová, J. Šafařík</u></b>	<b>On the Number of Arbitrary Parameters in the General Solution to a Weakly Delayed Planar Linear Discrete System with Constant Coefficients</b>
<b>10:00 – 10:30</b>	<b><u>J. Diblík, K.</u></b> <b><u>Mencáková</u></b>	<b>Relative Controllability of a Linear System of Discrete Equations with Single Delay</b>
<b>10:30 – 11:00</b>	<b><u>J. Baštinec, J.</u></b> <b><u>Diblík, S. Pinelas</u></b>	<b>Initial Data Generating Bounded Solution of a System of Two Linear Discrete Equations</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: 5th Symposium on Modelling and Simulation in Computer Sciences and Engineering (MSCSE 2019)</b>		
<b>CHAIR: Natércia C.P. Fernandes and Yan Liu (ROOM 8)</b>		
<b>09:00 – 09:30</b>	<b><i>Natércia C.P. Fernandes and Andrey Romanenko</i></b>	<b>Comparison of the Performance of Choudhury and Kano Valve Stiction Models</b>
<b>09:30 – 10:00</b>	<b><i>Natércia C.P. Fernandes, Florbela P. Fernandes and Andrey Romanenko</i></b>	<b>Application of Mixed Integer Nonlinear Programming for System Identification</b>
<b>10:00 – 10:30</b>	<b><i>Yan Liu and Baolin Tian</i></b>	<b>A High Resolution Cell- Centered ALE Method for Multi-Material Interface with Large Deformation</b>
<b>10:30 – 11:00</b>	<b><i>Kevin Aleixo and António Curado</i></b>	<b>Airtightness Assessment Using Blower Door Measurements in a Habitable Attic</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: Non-Perturbative Quantum Field Theory and Cosmology</b>		
<b>CHAIR: Peter Tsang (ROOM 9)</b>		
<b>09:00 – 09:30</b>		
<b>09:30 – 10:00</b>	<u><i>Peter Tsang</i></u>	<u><i>Welcome remarks</i></u>
<b>10:00 – 11:00</b>	<u><i>Hugo Reinhardt</i></u>	<u><i>Branching of Center Vortices</i></u>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	
<b>11:30 – 12:30</b>	<u><i>Ralf Hofmann</i></u> <u><i>Cracks in <math>\Lambda</math>CDM and a possible way out</i></u>	
<b>12:30 – 13:30</b>	<u><i>Herbert Fried</i></u> <u><i>Analytic Quantum Gravity first steps</i></u>	
<b>Lunch Break</b>		



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<b>24 September 2019</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Klaus Gürlebeck</b> <b>(ROOM 10)</b>		
09:00 – 09:30	<u><i>Swanhild Bernstein,</i></u> <i>Nelson Faustino</i>	The fractional Clifford Fourier Transform based on a deformed Hamiltonian for the harmonic oscillator
09:30 – 10:00	<u><i>Yuri Grigoriev,</i></u> <i>Andrei Yakovlev</i>	Properties and some Applications of the Radial Integration Operators
10:00 – 10:30	<i>Sebastian Bock</i>	On generalized monogenic power functions and their application in spatial linear elastic fracture mechanics
10:30 – 11:00	<u><i>Dmitrii Legatiuk,</i></u> <i>Klaus Gürlebeck,</i> <i>Daniel Weisz-</i> <i>Patrault</i>	Quaternionic operator calculus and its applications in different elasticity theories
11:00 – 11:30	<b>Coffee Break</b>	

<b>24 September 2019</b> <b>SESSION: Poster Session</b>		
10:00 – 10:30	<i>Albarakati Wafaa</i>	Application of Mathematical Methods of the Nonlinear Seventh



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<b>24 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: David Kay</b> <b>(ROOM 1)</b>		
<b>11:30 – 12:30</b>	<b><u>Des Higham</u></b>	<b>Differential Equations for Network Centrality</b>

<b>24 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Des Higham</b> <b>(ROOM 1)</b>		
<b>12:30 – 13:30</b>	<b><u>D. Kay, V. Styles,</u> <u>A. Münch and Q.</u> <u>Parsons</u></b>	<b>Computational Modelling of Copolymers using a Phase Field Approach</b>

<b>24 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Ian W. Turner</b> <b>(ROOM 1)</b>		
<b>17:30 – 18:30</b>	<b><u>Jeremy Levesley</u></b>	<b>Approximation using Gaussian radial basis functions at different scales</b>



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15:00 – 15:20	<b><u>J Decaix</u> and C Munch-Alligne</b>	2D numerical investigation of the cavitation sheet over a NACA 16 012
15:20 – 15:40	Qasem Al-Mdallal	A numerical study of initial flow past a circular cylinder undergoing two-degree-of-freedom forced oscillations
15:40 – 16:00	<b><u>Neeraj Paul</u> Manelil and Shaligram Tiwari</b>	Effect of aspect ratio on wake flow characteristics of prolate spheroid at $Re = 200$
16:00 – 16:20	<b><u>Ronald M Barron</u> and A Balasubramaniam</b>	A Mapped-Stencil Finite Difference Scheme for the Convection-Diffusion Equation on an Arbitrary Mesh
16:20 – 16:40	<b><u>Peter Farber</u>, Daniel Bastian, Jens Gräbel, Hannah Klasen, Christian Molls, Norman Kroppen, Liesa Pötschke, Miriam A Rosenbaum, Georg Stegschuster and Peer Ueberholz</b>	Numerical Analysis of Mass Transfer to the Anode in a Microbial Fuel Cell
Coffee Break		



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<b>24 September 2019</b> <b>SESSION: 2<sup>nd</sup> Workshop “Mathematical methods and models for nano-science”</b> <b>CHAIR: Igor Popov</b> <b>(ROOM 2)</b>		
<b>15:00 – 15:30</b>	<b><i>A.S.Melikhova</i></b>	<b>Relaxation and Driven Oscillation of Viscous Membrane</b>
<b>15:30 – 16:00</b>	<b><i>A.I.Popov</i></b>	<b>Mathematical modeling of enhanced oil recovery by microbiological methods</b>
<b>16:00 – 16:30</b>	<b><u><i>M.P.Faleeva</i></u></b>	<b>Mathematical model of quantum channel for teleportation through atmosphere</b>
<b>16:30 – 17:00</b>	<b><u><i>I.V.Blinova</i></u></b>	<b>On the spectrum and scattering for metric graph with fourth order operator</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: Recent Advances in Nonlinear Dynamics and Applications (#63)</b>		
<b>CHAIR: Jing Li, Alaka Das, Anthony Gravouil, Shaotao Zhu (ROOM 3)</b>		
<b>15:00 – 15:30</b>	<i>Yuhong Han</i>	<b>Interactive Application of Artificial Intelligence Technology in Intelligence Park</b>
<b>15:30 – 16:00</b>	<i>Shaotao Zhu, Jing Li</i>	<b>Research on the Cubic Hypernormal Form of a Class of 4 Dimensional Smooth Map</b>
<b>16:00 – 16:30</b>	<i>Tingting Quan</i>	<b>Bifurcation and Number of Subharmonic Periodic Solutions for a 4 Dimensional Non-autonomous System</b>
<b>16:30 – 17:00</b>	<i>Cheng Hong, Yuhong Han</i>	<b>Research on Visualization of the Dynamic Comfort for Human Body-Seat</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b> <b>SESSION: Geomatics Approaches for Environmental</b> <b>Surveying and Modelling</b> <b>CHAIR: Giuseppe Mussumeci and Michele Mangiameli</b> <b>(ROOM 4)</b>		
15:00 – 15:30	<u><i>Catrini Pierluigi, Michele Mangiameli, Giuseppe Mussumeci, Salvatore Zito</i></u>	<b>Mobile Stop-and-Go Laser Scanning for the digital survey of unsafe crossroads</b>
15:30 – 16:00 (SKYPE)	<u><i>Umberto Robustelli and Giovanni Pugliano</i></u>	<b>Characterization Of Dual Frequency GNSS Observations From Xiaomi Mi 8 Smartphone In Absence Of Duty Cycle</b>
16:00 – 16:30 (SKYPE)	<u><i>Gaetana Ganci, Annalisa Cappello, Giuseppe Bilotta, Claudia Corradino, Michele Mangiameli, Giuseppe Mussumeci, Ciro Del Negro</i></u>	<b>3D Lava flow mapping in volcanic areas using multispectral and stereo optical satellite data</b>
16:30 – 17:00 (SKYPE)	<u><i>Greco Filippo, Daniele Carbone, Alfio Alex Messina, Giuseppe Siligato, Mangiameli Michele, Giuseppe Mussumeci</i></u>	<b>Development of a Google Maps-based tool to quickly visualize a large gravity data set collected at Etna volcano (Italy)</b>
17:00 – 17:30	<b>Coffee Break</b>	
17:30 – 18:00	<u><i>Maria Bonanno, Michele Mangiameli, Giuseppe Mussumeci, Aldo Scibona</i></u>	<b>Planimetric transformation for the overlap of the ancient Italian cadastral cartography on the current cartographic supports and evaluation of its metric accuracy</b>



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<b>24 September 2019</b> <b>SESSION: 2nd Symposium on Advanced Methods and Information Technologies Applications (AMITA)</b> <b>CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova</b> <b>(ROOM 5)</b>		
<b>15:00 – 15:30</b>	<i>Petr S. Martyshko</i>	<b>On Solution of 2D-3D Inverse Problems of Magnetic Explorations</b>
<b>15:30 – 15:50</b>	<i>Elena N. Akimova, Artem A. Deikov</i>	<b>Super-Resolution of Satellite Images: Feasibility of Deep Learning Techniques</b>
<b>15:50 – 16:10</b>	<i>Leonid G. Dorosinsky, Nina S. Vinogradova</i>	<b>Change detection algorithms analysis over radar images using a generating function</b>
<b>16:10 – 16:25</b>	<i>Oleg B. Milder, Dmitry A. Tarasov</i>	<b>The Forward Problem of Spectral Reflection Prediction: Mutual Match between Framework Selection and the Training Set Volume</b>
<b>16:25 – 16:40</b>	<i>Oleg B. Milder, Dmitry A. Tarasov</i>	<b>The Inverse Problem of Spectral Reflection Prediction: Problems of Framework Selection</b>
<b>16:40 – 17:00</b>	<i>Dmitry A. Tarasov, Andrey G. Tyagunov</i>	<b>Approximating Heat Resistance of Nickel-based Superalloys by a Sigmoid</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b> <b>SESSION: Mathematical Problem in Aerospace Science</b> <b>MPAS-2019</b> <b>CHAIR: C. Orlando, A. Esposito, S. Valvano</b> <b>(ROOM 6)</b>		
<b>15:00 – 15:20</b>	<b><u>L. Fazzi</u>, <u>D. Klyukin</u> and <u>R. M. Groves</u></b>	Transfer matrix method for fundamental LP01 core mode coupling in a tilted FBG sensor
<b>15:20 – 15:40</b>	<b><u>A. Alaimo</u> and <u>S. Valvano</u></b>	Modal analysis of stiffened plates with advanced 2D finite element model
<b>15:40 – 16:00</b>	<b><u>A. Ferrero</u> and <u>D. D'Ambrosio</u></b>	An hybrid numerical flux for supersonic flows with application to rocket nozzles
<b>16:00 – 16:20</b>	<b><u>A. Esposito</u> and <u>C. Orlando</u></b>	Design of output feedback simple adaptive control of longitudinal aircraft dynamics
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION 56: Dynamical systems and their applications to advanced materials, structures and technologies</b>		
<b>CHAIR: Josef Diblík (ROOM 7)</b>		
<b>15:00 – 15:30</b>	<b><u>J. Rebenda</u></b>	<b>Applications of Differential Transform to Boundary Value Problems for Delayed Differential Equations</b>
<b>15:30 – 16:00</b>	<b><u>M. Tůma, P. Jura</u></b>	<b>Dead Time Estimation in Generalized Laguerre Functions Basis</b>
<b>16:00 – 16:30</b>	<b><u>M. Tůma, P. Jura</u></b>	<b>Approximation of First Order Dead Time System Using Generalized Laguerre Functions</b>
<b>16:30 – 17:00</b>	<b><u>V. Kárský</u></b>	<b>An Improved Method for Parameterizing Generalized Laguerre Functions to Compute the Inverse Laplace Transform of Fractional Order Transfer Functions</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b>		
<b>SESSION: 5th Symposium on Modelling and Simulation in Computer Sciences and Engineering (MSCSE 2019)</b>		
<b>CHAIR: Francisco Miranda (ROOM 8)</b>		
<b>15:00 – 15:30</b>	<i>D. Miranda, R. Gonçalves, F. Miranda, A. M. Almeida, C. M. Costa and S. Lanceros-Méndez</i>	<b>Theoretical Simulation of Different 3-D Separator Geometries for Lithium-Ion Batteries</b>
<b>15:30 – 16:00</b>	<i>D. Miranda, R. Gonçalves, F. Miranda, E. Vilhena, S. Lanceros-Méndez and C. M. Costa</i>	<b>Cone Geometry Optimization and Thermal Behavior for Lithium-Ion Battery Separators</b>
<b>16:00 – 16:30</b>	<i>Carlos Abreu, Francisco Miranda and Paula Felgueiras</i>	<b>Assessing the Impact of Inaccurate Insulin-to- Carbohydrate Ratio on the Patient's Glycemic Targets and Lifestyle Management</b>
<b>16:30 – 17:00</b>	<i>Carlos Abreu, Francisco Miranda and Paula Felgueiras</i>	<b>An Adaptive Bolus Calculator to Minimize the Impact of Inaccurate Insulin to Carbohydrate Ratio</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b> <b>SESSION: Non-Perturbative Quantum Field Theory</b> <b>and Cosmology</b> <b>CHAIR: Ralf Hofmann</b> <b>(ROOM 9)</b>	
<b>15:00 – 16:00</b>	<b><u>Stanley Brodsky</u></b> <b><u>TBA</u></b>
<b>16:00 – 17:00</b>	<b><u>Thierry Grandou</u></b> <b><u>Gribov Copies in the Effective Locality treatment of</u></b> <b><u>QCD</u></b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>



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<b>24 September 2019</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Wolfgang Sprößig</b> <b>(ROOM 10)</b>		
<b>15:00 – 15:30</b>	<b><u>Dmitrii</u></b> <b><u>Khristich</u>, Yuri</b> <b>Aatapov</b>	<b>The Influence of the Scale</b> <b>Factor on Results of</b> <b>Indentation Tests</b>
<b>15:30 – 16:00</b>	<b><u>Vladimir Vasiliev</u>,</b> <b>Shaban Kutaiba</b>	<b>On Solutions of Certain Limit</b> <b>Boundary Value Problems</b>
<b>16:00 – 16:30</b>	<b><u>Angela Hommel</u>,</b> <b>Klaus Gürlebeck</b>	<b>The solution of inner and</b> <b>outer Dirichlet problems</b> <b>based on a discrete double-</b> <b>layer potential</b>
<b>16:30 – 17:00</b>	<b>Anastasiia Legatiuk</b>	<b>Geometry Discretisation</b> <b>Algorithm for Finite</b> <b>Difference Operators Arising</b> <b>in Discrete Potential and</b> <b>Function Theories</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>24 September 2019</b> <b>SESSION: 2<sup>nd</sup> Workshop “Mathematical methods  and models for nano-science”</b> <b>CHAIR: Igor Popov</b> <b>(ROOM 2)</b>		
<b>17:35 – 18:05</b>	<i>E.S.Trifanova</i>	<b>Dynamical Casimir Effect and Photon Generation Process in Time Dependent Quantum Graph</b>
<b>18:05 – 18:35</b>	<i>A.B.Vakaeva</i>	<b>Two Approaches to Study Stress Concentration and Distribution in an Elastic Body with a Nearly Circular Nanohole</b>
<b>18:35 – 19:05</b>	<i>I.Y.Popov</i>	<b>Numerical Analysis Of Multi-Particle States In Coupled Nano-Layers In Electric Field</b>

<b>24 September 2019</b> <b>SESSION: Fourth Symposium on Difference &amp;  Differential Equations and Applications 2019</b> <b>CHAIR: Vladimir Vasyliiev</b> <b>(ROOM 3)</b>		
<b>17:35 – 18:05</b>	<i><u>F. Sadyrbaev</u> and S. Atslega</i>	<b>A remark on attracting sets in genetic regulatory networks</b>
<b>18:05 – 18:35</b>	<i>E. S Athanasiadou and <u>S. Zoi</u></i>	<b>Detection of a Rigid Thermoelastic Ellipsoidal Scatterer</b>
<b>18:35 – 19:05</b>	<i>E. S Athanasiadou and <u>I. Arkoudis</u></i>	<b>The method of fundamental solutions in electromagnetic scattering by a chiral obstacle</b>



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**SESSION: The Fourth Symposium in Recent Developments in Differential  
and Integro-Differential Equations and Their Applications**

**CHAIR: Prof. Muhammed I. Syam,  
(ROOM 4)**

<b>18:00 – 18:30</b>	<b><u>Muhammed Syam</u></b>	<b>An accurate method for first order delay equations based on the implicit hybrid method</b>
<b>18:30 – 19:00</b>	<b><u>Mohamed A. Hajji</u></b>	<b>Wavelet-Based Multistep Methods For Initial-Value Problems</b>
<b>19:00 – 19:30</b>	<b><u>Qasem M. Al-Mdallal</u></b>	<b>Spectral Algorithm for Solving Higher-Order Fractional Differential Equations</b>
<b>19:30 – 20:00</b>	<b>AHCENE MERAD</b>	<b>A STUDY OF HYPERBOLIC EQUATION WITH SECOND KIND NONLOCAL CONSITION</b>
<b>20:00 – 20:30</b>	<b>Mwaffage Husein Sharadga</b>	<b>An efficient method for solving a discrete orthogonal approximation to fractional boundary value Problems</b>
<b>20:30 – 21:00</b>	<b>Mohammed Abu Omar</b>	<b>An accurate method for solving second order differential equations based on hybrid method</b>



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<b>24 September 2019</b>		
<b>SESSION: 2nd Symposium on Advanced Methods and Information Technologies Applications (AMITA)</b>		
<b>CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova</b>		
<b>(ROOM 5)</b>		
<b>In green the virtual presentations via Skype</b>		
<b>17:35 – 17:55</b>	<i><b>Dmitry A. Tarasov, Andrey G. Tyagunov</b></i>	<b>Modeling the Heat Resistance of Nickel-based Superalloys by a Deep Learning Neural Network</b>
<b>17:55 – 18:15</b>	<i><b>Soltan I. Salpagarov</b></i>	<b>Mathematical Model of The Optimal Distribution of Information Data Flows In The P2P-Networks</b>
<b>18:15 – 18:35</b>	<i><b>Anna S. Antonova, Konstantin A. Aksyonov</b></i>	<b>Development of Simulation Model of Continuous Casting Machine with Dry Change of Steel Ladles (Skype)</b>
<b>18:35 – 18:55</b>	<i><b>Alexander G. Tsidaev</b></i>	<b>Software for Forward and Inverse Gravity Problems Solution for Contact Boundary between Two Layers (Skype)</b>



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<b>24 September 2019</b>		
<b>SESSION: Numerical Methods for Solving differential equations with Application to Science and Engineering</b>		
<b>CHAIR: Professor Manoj Kumar</b>		
<b>(ROOM 6)</b>		
<b>17:35 – 18:05</b>	<i>Prof. B.K.Singh</i>	<i>Population Mean Estimation Using Ratio-cum Product Compromised-method of Imputation in Two-phase Sampling Scheme</i>
<b>18:05 – 18:35</b>	<i>Prof. A.K.Singh</i>	<i>Study and analysis of statcom in transmission line</i>
<b>18:35 – 19:05</b>	<i>Prof. Manoj Kumar</i>	<i>Numerical Simulation of Van der Pol Equation Using Multiple Scales Modified Lindstedt Poincare Method</i>
<b>19:05 – 19:35</b>	<u><b>TBA</b></u>	<b>TBA</b>



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<b>24 September 2019</b>		
<b>SESSION 56: Dynamical systems and their applications to advanced materials, structures and technologies</b>		
<b>CHAIR: Jaromír Baštinec</b>		
<b>(ROOM 7)</b>		
<b>17:35 – 18:05</b>	<b><u>J. Vala</u></b>	<b>Nonlocal Damage Modelling of Quasi-Brittle Composites</b>
<b>18:05 – 18:35</b>	<b><u>M. Jedlička</u></b>	<b>Numerical Integration in the Extended Finite Element for Hexahedron</b>
<b>18:35 – 19:05</b>	<b><u>M. Trcala,</u> <u>I. Němec,</u> <u>A. Vaněčková</u></b>	<b>Visco-Elastic-Visco-Plastic / Damage Material Models for Transient Dynamic Loading</b>
<b>19:05 – 19:35</b>	<b><u>H. Štekbauer</u></b>	<b>Modelling of Welded Connections Using Lagrange Multipliers</b>



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<b>24 September 2019</b>		
<b>SESSION: Recent Advances and Current Research on the Difference Equations and its Applications</b>		
<b>CHAIR: Professor Seifedine Kadry</b>		
<b>(ROOM 8)</b>		
<b>17:35 – 17:55</b>	<i>Jakub Cavo</i>	Recurrence in non-autonomous dynamical systems
<b>17:55 – 18:15</b>	<i>Jan Tesarcik, Vojtech Pravec</i>	On the Spectrum of Piecewise monotonic maps with Markov condition
<b>18:15 – 18:35</b>	<i>Vojtech Pravec</i>	Remarks on definitions of periodic points for nonautonomous dynamical system
<b>18:35 – 18:55</b> <b>VIRTUAL</b>	<i>S. Kadry, G. Alferov, G. Ivanov, V. Korolev</i>	Possible Solutions of a Linear Homogeneous System of Differential Equations
<b>18:55 – 19:15</b> <b>VIRTUAL</b>	<i>S. Kadry, G. Alferov, G. Ivanov, V. Korolev</i>	On Estimation for Numbers of Periodic and Almost Periodic Solutions of First-Order Ordinary Differential Equations
<b>19:15 – 19:35</b> <b>VIRTUAL</b>	<i>S. Kadry, G. Alferov, G. Ivanov, V. Korolev</i>	Investigation of the stability of solutions of systems of ordinary differential equations
<b>19:35 – 19:55</b> <b>VIRTUAL</b>	<i>S. Kadry, G. Alferov, G. Ivanov, V. Korolev</i>	About of the asymptotical stability of solutions of systems of ordinary differential equations



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<b>24 September 2019</b> <b>SESSION: GRAPHS</b> <b>CHAIR: <u>Andrzej Kisielewicz</u></b> <b>(ROOM 3)</b>		
<b>19:10 – 19:40</b>	<b><u>Marius Grech,</u></b> <b><u>Andrzej Kisielewicz</u></b>	<b>Automorphism groups of hypergraphs</b>
<b>19:40 – 20:10</b>	<b><u>Marius Grech,</u></b> <b><u>Andrzej Kisielewicz</u></b>	<b>Automorphism groups of graph products of oriented graphs</b>

<b>24 September 2019</b> <b>SESSION 56: Dynamical systems and their applications to advanced materials, structures and technologies</b> <b>CHAIR: Jaromír Bařtinec</b> <b>(ROOM 7)</b>		
<b>19:35 – 20:05</b>	<b><u>S. Křehlík,</u></b> <b><u>M. Novák</u></b>	<b>Modified Product of Automata as a Better Tool for Description of Real-Life Systems</b>
<b>20:05 – 20:35</b>	<b><u>H. Demchenko, J.</u></b> <b><u>Diblík, D. Ya.</u></b> <b><u>Khusainov</u></b>	<b>Optimal Control of the Heating Process with Delay</b>
<b>20:35 – 21:05</b>	<b><u>S. řtastník</u></b>	<b>Computational Evaluation of Heat Demand of a Freezing Plant</b>



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<b>24 September 2018</b> <b>POSTER SESSION: 2nd Symposium on Advanced Methods and Information Technologies Applications (AMITA)</b> <b>CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova</b> <b>17:00 – 19:30 – PART I</b>	
<b>Konstantin A. Aksyonov, Olga P. Aksyonova, Elena K. Aksyonova, Polina E. Ziomkovskaia, and Wang Kai.</b>	<b>Development of Graphical Oriented Expert System</b>
<b>Konstantin A. Aksyonov, Julia V. Yudina, Konstantin Y. Suslov, Olga P. Aksyonova, Polina E. Ziomkovskaia</b>	<b>Research and Design of Software Package “Medved.Telemed”</b>
<b>Leonid G. Dorosinsky, Nina S. Vinogradova</b>	<b>Effectiveness of Signal Classification using Chernoff and Kailath Boundary Conditions</b>
<b>Aleksey Karpov, Lubov Lesnaya, Ilya Milochkin, Sergey N. Shabunin</b>	<b>How the Green’s Functions May Be Used for Correcting Measurements of Transmission through Flat Homogeneous and Sandwich-Type Dielectric Sheets</b>
<b>Sergey I. Kumkov, Zinaida V. Kataeva, Oleg V. Shilovskikh</b>	<b>Criteria for Analysis and Comparison of Experimental Data under Conditions of Uncertainty</b>
<b>Sergey I. Kumkov, Alexander A. Redkin, Svetlana V. Pershina, Evgeniya A. Il’ina, Alexander A. Kataev, and Yury P. Zaikov</b>	<b>Interval Approach to Processing the Noised Thermophysical Data</b>
<b>Yuriy E. Mitelman, Sergey N. Shabunin</b>	<b>Green’s Function Application for Photonic Crystal Waveguides Design</b>



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<b>POSTER SESSION: 2nd Symposium on Advanced Methods and Information Technologies Applications (AMITA)</b>	
<b>CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova</b>	
<b>17:00 – 19:30 – PART II</b>	
<b>Philip S. Myasnikov, Oleg Yu. Ivanov</b>	<b>Preclassification of remote monitoring data in change detection tasks</b>
<b>Mikhail V. Ronkin, Alexey A. Kalmykov, Elena N. Akimova, Victor S. Nagovicin</b>	<b>High-Resolution Phase Based Method For FMCW Short Range Radars</b>
<b>Andrey V. Sosnovsky, Nina S. Vinogradova</b>	<b>The phase noise suppression over interferometric radar data using Goldstein noise filtration</b>
<b>Dmitry A. Tarasov, Oleg B. Milder</b>	<b>Gradation Trajectories of Ideal Initial Printing Colorants in Electrophotography: Discrete Computation</b>
<b>Dmitry A. Tarasov, Andrey G. Tyagunov, Oleg B. Milder</b>	<b>Printing Paper as a Reflector with Idealized Properties: How to Link the Paper Industry and Printing Art</b>
<b>Sergey M. Zraenko</b>	<b>Difference of Reflections from Coniferous and Foliar Vegetation According to Spectrozonal Remote Sensing Data</b>

**END OF THE 2<sup>ND</sup> DAY**



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<b>25 September 2019</b> <b>The 14<sup>th</sup> International Symposium on Numerical Analysis of Fluid  Flow, Heat and Mass Transfer</b> <b>Numerical Fluids 2019</b> <b>CHAIR: Sergey Utyuzhnikov</b> <b>(ROOM 1)</b>		
<b>9:00 – 10:00</b>	<b>Invited lecture</b> <b>Philippe Helluy</b>  <b>Lattice Boltzmann Methods for Compressible Two-  Phase Flow Problems</b>	
<b>10:00 – 10:20</b>	<b>Miloslav Vlasak</b>	<b>Flux reconstructions in one  dimension</b>
<b>10:20 – 10:40</b>	<u><b>Satoshi Yamaguchi</b></u> <b>and B Shin</b>	<b>A Time Consistent  Preconditioning Method for  Unsteady Gas-Liquid  Two-Phase Flows</b>
<b>10:40 – 11:00</b>	<u><b>Li Zhang</b></u> and You- <b>Rong Li</b>	<b>Coupling Effect of  Evaporation on Free Surface  in Pure Steam Environment  and Thermocapillary  Convection in Annular Pool</b>
<b>Coffee Break</b>		
<b>Lunch Break</b>		



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<b>25 September 2019</b> <b>SESSION: Mathematical Problem in Aerospace Science</b> <b>MPAS-2019</b> <b>CHAIR: C. Orlando, A. Esposito, S. Valvano</b> <b>(ROOM 2)</b>		
<b>09:20 – 09:40</b>	<b><u>A. Ferrero,</u></b> <b><i>F. Larocca and</i></b> <b><i>E. A. Napoli</i></b>	<b>A penalisation approach to simulate root compressors</b>
<b>09:40 – 10:00</b>	<b><u>G. Navarra, F. Lo</u></b> <b><i>lacono, M. Oliva</i></b> <b><i>and A. Esposito</i></b>	<b>Design of a NES device via efficient stochastic linearisation</b>
<b>10:00 – 10:20</b>	<b><i>A. Ferrero,</i></b> <b><i>F. Masseni and</i></b> <b><u>D. Pastrone</u></b>	<b>Low-Order models for low-frequency combustion instability in hybrid rocket engines</b>
<b>10:20 – 10:40</b>	<b><u>R. L. Alcaraz and</u></b> <b><i>P. García-Fogeda</i></b>	<b>Signal noise filtering using wavelet coefficient temporal correlation techniques</b>
<b>10:40 – 11:00</b>	<b><i>C. Orlando and</i></b> <b><u>A. Ricciardello</u></b>	<b>Continuous Particle Swarm Optimization</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b>		
<b>SESSION: THE NINTH SYMPOSIUM ON ADVANCED COMPUTATION AND INFORMATION IN NATURAL AND APPLIED SCIENCES (Sess. 1)</b>		
<b>CHAIR: Dr. Claus-Peter Rückemann (ROOM 3)</b>		
<b>09:00 – 09:05</b>	<b><u>Claus-Peter Rückemann</u></b>	<b>Welcome Notes</b>
<b>09:05 – 09:50</b>	<b><u>Claus-Peter Rückemann</u></b>	<b>Keynote Lecture: The Reality of Formalisation and Artificial Achievements</b>
<b>09:50 – 10:25</b>	<b><u>Claus-Peter Rückemann</u></b>	<b>Superordinate Knowledge Based Comprehensive Subset of Conceptual Knowledge for Practical Mathematical- Computational Scenarios</b>
<b>10:25 – 11:00</b>	<b><u>Raffaella Pavani</u></b>	<b>The Relevant Role of Calculus in Renaissance Domes' Design, Before Differential Geometry was Born</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b>		
<b>SESSION: 5<sup>th</sup> Symposium on Computational Modeling and Experimental Assessment of Transport Processes in Porous Building Materials</b>		
<b>CHAIR: prof. Oldřich Zmeškal, prof. Zbyšek Pavlík (ROOM 4)</b>		
<b>09:00 – 09:15</b>	<b><u>Oldřich Zmeškal,</u> <i>Jan Pospíšil, Milena Pavlíková, Zbyšek Pavlík</i></b>	<b>Thermal Properties of Air Lime Lightweight Mortars</b>
<b>09:15 – 9:30</b>	<b><u>Jaroslav Pokorný,</u> <i>Martina Záleská, Milena Pavlíková, Zbyšek Pavlík</i></b>	<b>The Influence of Elevated Temperatures on Thermal Properties of Concrete with Crumb Rubber</b>
<b>9:30 – 9:45</b>	<b><u>Koťátková Jaroslava,</u> <i>Zatloukal Jan, Kolář Karel</i></b>	<b>Mechanical and Setting/Hardening Conditions of Cement Pastes for Evaporator Concentrates Incorporating Admixtures</b>
<b>9:45 – 10:00</b>	<b><u>Milena Pavlíková,</u> <i>Lenka Scheinherrová, Martina Záleská, Zbyšek Pavlík</i></b>	<b>Calculation of the Development of the Portlandite Content Based on FT-IR Spectroscopy Data</b>
<b>10:00 – 10:15</b>	<b><i>Lucie Zemanová, Jaroslav Pokorný, Milena Pavlíková, Zbyšek Pavlík</i></b>	<b>Moisture Diffusivity of Natural Hydraulic Lime-Based Plasters with Incorporated Perlite Aggregate</b>



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<b>25 September 2019</b>		
<b>SESSION: 5<sup>th</sup> Symposium on Computational Modeling and Experimental Assessment of Transport Processes in Porous Building Materials</b>		
<b>CHAIR: prof. Oldřich Zmeškal, prof. Zbyšek Pavlík (ROOM 4 - Continued)</b>		
<b>10:15 – 10:30</b>	<b><u>Šimon Marušiak,</u> Zbyšek Pavlík, Milena Pavlíková</b>	The Analysis of Plasters and Masonry of Bishop's Residence Buildings Located on "Dómský pahorek", Litoměřice
<b>10:30 – 10:45</b>	<b><u>Adéla Jiříčková,</u> Michal Lojka, Anna-Marie Lauermannová, Milena Pavlíková, Zbyšek Pavlík, Ondřej Jankovský</b>	Thermal Stability and Kinetics of Formation of $Mg_3(OH)_5Cl \cdot 4 H_2O$
<b>10:45 – 11:00</b>	<b><u>Filip Antončík,</u> Tomáš Hlásek, David Sedmidubský, Michal Lojka, Ondřej Jankovský</b>	Simple Synthesis of Nanostructured $BaZrO_3$ and its Use in Superconducting Composites
<b>11:00 – 11:15</b>	<b><u>Michal Lojka, Tomáš Hlásek, Filip Antončík, Adéla Jiříčková, Ondřej Jankovský</u></b>	Variability in levitation properties of YBCO bulks grown in one batch
<b>11:15 – 11:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b>		
<b>SESSION: 4th Symposium on Mathematical Modeling and Numerical Simulation of Physical and Chemical Phenomena in Porous Materials</b>		
<b>CHAIR: Jaroslav Kruis (ROOM 5)</b>		
<b>09:00 – 09:15</b>	<i>Lenka Scheinherrová, Eva Vejmelková, Dana Koňáková, Pavla Rovnaníková, <u>Robert Černý</u></i>	<b>Characterization of Ceramic-Based Alkali Activated Aluminosilicate Composites</b>
<b>09:15 – 09:30</b>	<i>Jan Fořt, <u>Jiří Maděra</u>, Petr Hotěk, Martin Mildner and Robert Černý</i>	<b>Optimization of Concrete Mixture Composition with Superabsorbent Polymer Admixture</b>
<b>09:30 – 09:45</b>	<i><u>Miloš Jerman</u>, Petr Konrád, Lukáš Fiala, and Robert Černý</i>	<b>Experimental Determination of Acoustic Properties of Brick Block by Reverberation Chambers Method</b>
<b>09:45 – 10:00</b>	<i><u>Václav Kočí</u></i>	<b>Sensitivity analysis of mathematical model suitable for description of biofilms growth</b>
<b>10:00 – 10:15</b>	<i>Jiří Maděra, Jaroslav Kruis and <u>Igor Medved'</u></i>	<b>Numerical assessment of radionuclide leakage in a low or intermediate level waste geological repository</b>



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<b>25 September 2019</b>		
<b>SESSION: 4th Symposium on Mathematical Modeling and Numerical Simulation of Physical and Chemical Phenomena in Porous Materials</b>		
<b>CHAIR: Jaroslav Kruis</b>		
<b>(ROOM 5 – Continued)</b>		
<b>10:15 – 10:30</b>	<b><u>Tomáš Koudelka</u>, Jaroslav Kruis</b>	<b>Coupled Hydro-Mechanical Model for Geotechnical Applications</b>
<b>10:30 – 10:45</b>	<b><u>Tomáš Krejčí</u>, L. Řehounek, Aleš Jíra, Michal Šejnoha, Jaroslav Kruis, Tomáš Koudelka</b>	<b>Homogenization of elastic properties of trabecular structures for modern implants</b>
<b>10:45 – 11:00</b>	<b><u>Jaroslav Kruis</u>, Jiří Maděra</b>	<b>Hygro-thermo-mechanical model for building materials exposed to different climatic loads</b>



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<b>25 September 2019</b> <b>SESSION: Non-Perturbative Quantum Field Theory and Cosmology</b> <b>CHAIR: Peter Tsang</b> <b>(ROOM 6)</b>	
<b>10:00 – 11:00</b>	<b><u>Hugo Weigel</u></b> <b><u>Skype talk TBA</u></b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>
<b>11:30 – 12:30</b>	<b><u>Nilanjana Mahata</u></b> <b><u>Skype talk TBA</u></b>
<b>Lunch Break</b>	



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<b>25 September 2018</b> <b>SESSION: Statistical Inference in Copula Models and Markov Processes IV</b> <b>CHAIR: V.A. González-López</b> <b>(ROOM 7)</b>		
<b>09:00 – 09:30</b>	<b><u>Jesús E. García, S. L.</u></b> <b><i>M. Londoño, T.</i></b> <b><i>Soares Silva</i></b>	<b>Minimal Models for Markov Chains with Markov covariates</b>
<b>09:30 – 10:00</b>	<b><u>Jesús E. García, V.A.</u></b> <b><u>González-López, T.</u></b> <b><i>Soares Silva, D.H.</i></b> <b><i>Dias</i></b>	<b>Discrete Representation of an Annual Precipitation Process</b>
<b>10:00 – 10:30</b>	<b><u>V.A. González-López,</u></b> <b><i>R. Rodrigues de</i></b> <b><i>Moraes</i></b>	<b>A Bayesian Copula-Based Modelling for Income Concentration and Inequality Indexes</b>
<b>10:30 – 11:00</b>	<b><u>V.A. González-López</u></b>	<b>Open Problemns</b>



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<b>25 September 2019</b> <b>MS40 - NEW TRENDS IN NUMERICAL COMPUTATION FOR SOLID AND STRUCTURAL MECHANICS</b> <b>SESSION 1: Seismic behavior of existing reinforced concrete structures and alternative retrofit strategies</b> <b>CHAIR: Francesca Nerilli</b> <b>(ROOM 8)</b>		
09:00 – 09:30	<i><u>Marcello Sabene, Maria Zucconi, Barbara Ferracuti and Stefano Pampanin</u></i>	Open Issues on existing RC Beam-Column Joints: experimental and numerical features
09:30 – 10:00	<i><u>Maria Zucconi, Marco Bovo, Fabio Romano, and Barbara Ferracuti</u></i>	Application of Bidirectional Ground Motion on Existing RC Building for Seismic Loss Analysis
10:00 – 10:30	<i><u>Marcello Sabene, Maria Zucconi, Mahdi Kioumarsji and Barbara Ferracuti</u></i>	Pre-code RC bare frame: seismic retrofit with alternative strategies
10:30 – 11:00	<i><u>Maryam Bypour, Mahdi Kioumarsji and Maria Zucconi</u></i>	Effect of stiffeners on behavior of steel plate shear wall with rectangular openings
11:00 – 11:30	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>SESSION: Seismic Analysis and Retrofitting</b> <b>of Civil Engineering Structures</b> <b>CHAIR: Francesco Clementi, Antonio Formisano,</b> <b>Gabriele Milani and Marius Mosoarca</b> <b>(ROOM 9)</b>		
<b>09:00 – 09:30</b>	<i>Michele D’Amato, Rosario Gigliotti, Raffaele Laguardia</i>	Seismic vulnerability of ancient churches: an application to a territorial case study
<b>09:30 – 10:00</b>	<i>Elisa Ribilotta, Ersilia Giordano, Angela Ferrante, Francesco Clementi, Stefano Lenci</i>	Tracking Modal Parameter Evolution Of Different Cultural Heritage Structure Damaged By Central Italy Earthquake of 2016
<b>10:00 – 10:30</b>	<i>Ersilia Giordano, Angela Ferrante, Elisa Ribilotta, Francesco Clementi and Stefano Lenci</i>	Damage Assessment Of San Francesco Church In Amandola Hit By Central Italy 2016-2017 Seismic Event
<b>10:30 – 11:00</b>	<i>Angela Ferrante, Elisa Ribilotta, Ersilia Giordano, Francesco Clementi, and Stefano Lenci</i>	Advanced seismic analyses of "Apennine Churches" stroked by the Central Italy Earthquakes of 2016 by the Non-Smooth Contact Dynamics method
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Yuri Grigoriev</b> <b>(ROOM 10)</b>		
<b>09:00 – 09:30</b>	<i>Klaus Gürlebeck</i>	<b>On polynomial solutions of generalized Maxwell equations</b>
<b>09:30 – 10:00</b>	<i>Daniel Weisz- Patraut</i>	<b>Fast Mesoscopic Simulation Of Grain Growth And Macroscopic Modeling</b>
<b>10:00 – 10:30</b>	<i>Wolfgang Sprößig</i>	<b>Beltrami flows and hypercomplex Analysis</b>
<b>10:30 – 11:00</b>	<i>Andrei Yakovlev, <u>Yuri Grigoriev</u></i>	<b>Three-dimensional quaternionic Kolosov- Muskhelishvili formulae in infinite space with a cavity</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Kevin Burrage</b> <b>(ROOM 1)</b>		
<b>11:30 – 12:30</b>	<b><u><i>Philip K. Maini</i></u></b>	<b>Modelling Collective Cell Migration</b>

<b>25 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Luigi Brugnano</b> <b>(ROOM 1)</b>		
<b>12:30 – 13:30</b>	<b><i>David Jakes, <u>Kevin Burrage</u>, Chris Drovandi, Pamela Burrage, Alfonso Bueno- Orovio, Rodrigo Weber dos Santos, Blanca Rodriguez and Brodie Lawson</i></b>	<b>Using Perlin Noise to characterise patterns of Fibrosis</b>



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<b>25 September 2019</b>		
<b>MS40 - NEW TRENDS IN NUMERICAL COMPUTATION FOR SOLID AND STRUCTURAL MECHANICS</b>		
<b>SESSION 2: Seismic behavior of existing masonry structures and retrofit strategies</b>		
<b>CHAIR: Maria Zucconi</b>		
<b>(ROOM 8)</b>		
<b>11:30 – 12:00</b>	<b><u>Antonio Formisano,</u> <i>Nicola Chieffo and Marius Moşoarcă</i></b>	<b>Probabilistic Earthquake Scenarios of a Historical Area in the Town of Amatrice</b>
<b>12:00 – 12:30</b>	<b><i>Armando Benenato Stefania Imperatore, Barbara Ferracuti and Gian Piero Lignola</i></b>	<b>Evaluation of the most efficient IM for the vulnerability assessment of masonry façades</b>
<b>12:30 – 13:00</b>	<b><u>Giovanni Crisci,</u> <i>Francesca Ceroni and Gian Piero Lignola</i></b>	<b>Efficiency Of FRCM Systems For Strengthening Of Masonry Walls</b>
<b>13:00 – 13:30</b>	<b><u>Francesca Nerilli, Sonia Marfia and Elio Sacco</u></b>	<b>Tensile Constitutive Law of FRCM Composites: a Micro- Mechanical Modelling Approach</b>



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<b>25 September 2019</b> <b>The 14<sup>th</sup> International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer</b> <b>Numerical Fluids 2019</b> <b>CHAIR: Ronald M Barron</b> <b>(ROOM 1)</b>		
<b>15:00 – 15:20</b>	<b><u>Ramachandra Gupta,</u> Amit Soni and Shaligram Tiwari</b>	<b>Numerical Simulation of Gusty Flow Past Cube with Wings</b>
<b>15:20 – 15:40</b>	<b><u>Mihai L Niculescu,</u> MV Pricop, D Pepelea and M G Stoican</b>	<b>Development of a Hypersonic CFD Code up to 20 Mach Number</b>
<b>15:40 – 16:00</b>	<b><u>Eric Goncalves</u> and Philippe Parnaudeau</b>	<b>Numerical study of a planar shock wave impacting a helium gas bubble</b>
<b>16:00 – 16:20</b>	<b>Lukas van Gemmeren, <u>Peer</u> <u>Ueberholz</u>, Dia Zeidan, Peter Farber and Jens Gabel</b>	<b>A Comparison of Two Hyperbolic Models for the Mach 3 Wind Tunnel Two-Phase Flow With a Step</b>
<b>Coffee Break</b>		



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<b>25 September 2019</b>		
<b>SESSION: Mathematical Problem in Aerospace Science</b>		
<b>MPAS-2019</b>		
<b>CHAIR: C. Orlando, A. Esposito, S. Valvano</b>		
<b>(ROOM 2)</b>		
<b>15:00 – 15:20</b>	<b><i><u>B. Xiong, M. Ferlauto and X. Fan</u></i></b>	<b>Aerodynamic Design of Inward-Turning Inlets with Shape Transition</b>
<b>15:20 – 15:40</b>	<b><i><u>A. Ferrero, F. Larocca, M. Germano and G. Scovazzi</u></i></b>	<b>A study on the statistical convergence of turbulence simulations around a cylinder</b>
<b>15:40 – 16:00</b>	<b><i><u>D. Modenini</u></i></b>	<b>A Solution to Spacecraft Position and Attitude Determination from an Imaged Ellipsoid</b>
<b>16:00 – 16:20</b>	<b><i><u>C. Orlando</u></i></b>	<b>Modified simple adaptive control of aircraft NLG shimmy</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>SESSION: THE NINTH SYMPOSIUM ON ADVANCED COMPUTATION AND INFORMATION IN NATURAL AND APPLIED SCIENCES (Sess. 2)</b> <b>CHAIR: Dr. Claus-Peter Rückemann (ROOM 3)</b>		
<b>15:00 – 15:35</b>	<b><u>Lutz Schubert,</u></b> <b><u>Athanasios Tsitsipas,</u></b> <b><u>Martina Trognitz, Keith</u></b> <b><u>Jeffery</u></b>	<b>The Impact of Probability on Archaeological Interpretation</b>
<b>15:35 – 17:00</b>	<b><u>Claus-Peter</u></b> <b><u>Rückemann, Raffaella</u></b> <b><u>Pavani,</u></b> <b><u>Birgit Gersbeck-</u></b> <b><u>Schierholz, Athanasios</u></b> <b><u>Tsitsipas, Lutz</u></b> <b><u>Schubert, Friedrich</u></b> <b><u>Hülsmann, Olaf Lau,</u></b> <b><u>Martin Hofmeister</u></b> <b><i>(and audience)</i></b>	<b>Delegates' Summit: Best Practice and Definitions of Formalisation and Formalism</b>



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<b>25 September 2019</b>		
<b>SESSION: Title VI Mini symposium on symmetry methods and their applications to differential equations</b>		
<b>CHAIR: MS Bruzón ,ML Gandarias</b>		
<b>(ROOM 4)</b>		
<b>15:00 – 15:30</b>	<b><i>Stephen Anco</i></b>	<b>Generalized symmetry structures for differential equations</b>
<b>15:30 – 16:00</b>	<b><i>Maria Luz Gandarias</i></b>	<b>Reduction of conservation laws for finding symmetry-invariant solutions of partial differential equations</b>
<b>16:00 – 16:30</b>	<b><u><i>George Burde</i></u></b>	<b>Similarity Reductions of Partial Differential Equations as the Singular Expanded Lie Group Transformations</b>
<b>16:30 – 17:00</b>	<b><u><i>Maria Santos Bruzon</i></u></b>	<b>On a family of (2+1)-dimensional Zakharov–Kuznetsov modified equal width equations</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b>		
<b>SESSION: Modelling and analysis of problems in mathematical physics and engineering</b>		
<b>CHAIR: Gabriella Bognar</b>		
<b>(ROOM 5)</b>		
<b>15:00 – 15:30</b>	<b><u>Imre Ferenc Barna,</u> Krisztián Hriczó, Gabriella Bognár, László Mátyás, Mohamed Guedda</b>	<b><i>Travelling-Wave Solutions of the Kardar-Parisi-Zhang Interface Growing Equation with Different Kind of Noise Terms</i></b>
<b>15:30 – 16:00</b>	<b><u>Imre Ferenc Barna,</u> Krisztián Hriczó, Gabriella Bognár, László Mátyás, Mohamed Guedda</b>	<b><i>Analytic Solutions of the Two dimensional Kardar- Parisi-Zhang Growing Equation</i></b>
<b>16:00 – 16:30</b>	<b><u>Krisztián Hriczó,</u> Gabriella Bognár, Imre Barna</b>	<b><i>Effect of Nonuniform Magnetic Field on Ferrofluid Flow and Heat Transfer</i></b>
<b>16:30 – 17:00</b>	<b><u>Gabriella Bognár,</u> Krisztián Hriczó, Imre Barna</b>	<b><i>Investigation of Roughening in Nonlinear Surface Evaluation Models</i></b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2018</b>		
<b>SESSION: Finite Difference Schemes of New Generation</b>		
<b>CHAIR: Vladimir Ostapenko</b>		
<b>(ROOM 6)</b>		
<b>15:00 – 15:30</b>	<i><b><u>O.A.Kovyrkina and V.V.Ostapenko</u></b></i>	On the accuracy of finite-difference schemes in smooth parts of calculated weak solutions
<b>15:30 – 16:00</b>	<i><b><u>O.A.Kovyrkina and V.V.Ostapenko</u></b></i>	On the accuracy of WENO-schemes in the calculation of shock waves
<b>16:00 – 16:30</b>	<i><b><u>M.E. Ladonkina, O.A. Nekliudova and V.F. Tishkin</u></b></i>	Combined scheme based on Rusanov scheme and discontinuous Galerkin method
<b>16:30 – 17:00</b>	<i><b><u>M.E. Ladonkina, O.A. Nekliudova, V.V. Ostapenko and V.F. Tishkin</u></b></i>	Combined DG scheme conserving increased accuracy in shock influence regions
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b>		
<b>SESSION 53: Mathematical Modeling, Numerical Algorithms, Optimization Methods and Flow Control for Aerospace Techniques</b>		
<b>CHAIR: Alexandru DUMITRACHE / Florin FRUNZULICA (ROOM 7)</b>		
<b>15:00 – 15:30</b>	<b><u>Stefan BOGOS</u></b>	Aircraft stability identification using extended similarity criteria adapted at a scaled flying model
<b>15:30 – 16:00</b>	<b><i>M. V. Pricop, A. Dumitrache, M. L. Niculescu</i></b>	Blade element optimization of HAWT with strength restrictions
<b>16:00 – 16:30</b>	<b><u>Marius STOIA-DJESKA</u></b>	An Aeroelastic Model for the Preliminary Design of a Boosted-Dart Type Sounding Rocket
<b>16:30 – 17:00</b>	<b><u>Marius STOIA-DJESKA</u> <i>Carmen SAFTA</i></b>	A simple unsteady aerodynamic model of moving wings used for energy harvesting with minimum disturbances on the environment
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>MS40 - NEW TRENDS IN NUMERICAL COMPUTATION FOR SOLID AND STRUCTURAL MECHANICS</b> <b>VIRTUAL SESSION</b> <b>CHAIR: Stefania Imperatore</b> <b>(ROOM 8)</b> <b>In green the virtual presentations</b>		
15:00 – 15:30	<u>Armando Benenato,</u> <i>Stefania Imperatore,</i> <i>Mahdi Kioumarsji, and</i> <i>Barbara Ferracuti</i>	Bond Strength of RC Elements with Consideration of Corrosion: an experimental survey
15:30 – 16:00	<u>Simone Spagnuolo,</u> <i>Fabio Di Carlo and Zila Rinaldi</i>	Cracking behavior of GFRP-reinforced concrete members subjected to pure tension
16:00 – 16:30	<i>Simona Coccia and <u>Fabio Di Carlo</u></i>	Collapse of Elliptical Masonry Arch Induced by Actual Displacements of the Supports
16:30 – 17:00	<u>Carlo Drago,</u> <i>Veronica Ciccone, Roberto Ricciuti and Paolo Delle Site</i>	Statistical Detection of Anomalies in the Economic Behavior of Traffic Flows on Road Networks
17:00 – 17:30	<b>Coffee Break</b>	
17:35 – 18:05	<u>Carlo Drago,</u> <i>Chiara Rosolino and Roberto Ricciuti</i>	Symbolic Data Analysis of the Italian Airport System
18:05 – 18:35	<i>Martina Carlino and Silvia Di Francesco</i>	Flood risk assessment for Piletto river in Sicily.
18:35 – 19:05	<i>Silvia Di Francesco and Francesca Giannone</i>	A Fast Procedure For Water Reservoir Identification And Evaluation From Sentinel 2 Images



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<b>25 September 2019</b>		
<b>SESSION: Seismic Analysis and Retrofitting of Civil Engineering Structures</b>		
<b>CHAIR: Francesco Clementi, Antonio Formisano, Gabriele Milani and Marius Mosoarca</b>		
<b>(ROOM 9)</b>		
<b>15:00 – 15:30</b>	<b><i>Antonio Formisano and Antonio Davino</i></b>	<b>Seismic Analysis and Retrofitting by Steelwork of Existing Precast RC Buildings: a Case Study</b>
<b>15:30 – 16:00</b>	<b><i>Andrea Miano, Giovanni Chiumiento, Antonio Formisano and Andrea Prota</i></b>	<b>Influence of Different Knowledge Levels on the Seismic Retrofit Cost Assessment of a RC School Building</b>
<b>16:00 – 16:30</b>	<b><i>Habieb AB, Valente M, Milani G</i></b>	<b>Seismic performance of a masonry house prototype retrofitted using FRP</b>
<b>16:30 – 17:00</b>	<b><i>Tiberti S, Milani G</i></b>	<b>Out-of-Plane Homogenized Failure Surfaces of Masonry through a Novel Voxel Approach</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>25 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Philip K. Maini</b> <b>(ROOM 1)</b>		
<b>17:30 – 18:30</b>	<b><i>Pia Wilsdorf, Fiete Haack, Kai Budde, Andreas Ruscheinski, <u>Adeline M.</u> <u>Uhrmacher</u></i></b>	<b>Conducting Systematic, Partly Automated Simulation Studies – Unde Venis et Quo Vadisscales</b>



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<b>25 September 2019</b>		
<b>Symposium 34 “Mathematical modeling in applied research”</b>		
<b>CHAIR: Prof. Dr. Alexander P. Krishchenko and Prof. Dr. Georgy N. Kuvyrkin</b>		
<b>(ROOM 3)</b>		
<b>17:30 – 17:45</b>	<b>Kazakov K.E.</b>	<b>On the Interaction of Rigid Bush and Pipe with Nonuniform Coating</b>
<b>17:45 – 18:00</b>	<b>Pankratov V. A.</b>	<b>Reconstruction of the rotational motion of a satellite by the Kalman Filter</b>
<b>18:00 – 18:15</b>	<b>Kurdina S.P., Kazakov K.E.</b>	<b>Plane Problem of Multiple Contact for Foundation with Multilayered Coating and Arbitrary System of Rigid Punches</b>
<b>18:15 – 18:30</b>	<b>Tverskaya E.S.</b>	<b>Localization of compact invariant sets in the cancer tumour growth model</b>
<b>18:30 – 18:45</b>	<b>Elizarova T. and Zlotnik A.</b>	<b>On Aggregated Regularized Equations for Homogeneous Binary Gas Mixture Flows with Viscous Compressible Components</b>
<b>18:45 – 19:00</b>	<b>Fateev V.V., Tverskaya E.S., Kuleshov A.V.</b>	<b>A mathematical model of biaxial indicator flywheel gyrostabilizer</b>
<b>19:00 – 19:15</b>	<b>Serdyukov V.I., Serdyukova N.A. and Shishkina S.I.</b>	<b>Using mathematical models for calculation of the probabilistic characteristics of product failsafe</b>
<b>19:15 – 19:30</b>	<b>Zarubin V.S., Sergeeva E.S. and Magnitsky I.V.</b>	<b>Using mathematical models for calculation of the probabilistic characteristics of product failsafe</b>



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<b>25 September 2019</b>		
<b>SESSION: Title Title VI Mini symposium on symmetry methods and their applications to differential equations</b>		
<b>CHAIR: MS Bruzón ,ML Gandarias</b>		
<b>(ROOM 4)</b>		
<b>17:35 – 18:05</b>	<b><i>A, Kasatkin</i></b>	<b>Group Classification and Symmetry Reduction of 3D Nonlinear Anomalous Diffusion Equation</b>
<b>18:05 – 18:35</b>	<b><u><i>Tamara Garrido</i></u></b>	<b>Generalized Drinfeld-Sokolov System: Conservation Laws and Solutions</b>
<b>18:35 – 19:05</b>	<b><u><i>Nitsime Basetsana</i></u></b>	<b>Double Symmetry Reductions of a 3-dimensional Solute Transport Model with Space Dependent Water Velocity</b>



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<b>25 September 2019</b> <b>General Session</b> <b>CHAIR: Marat S. Mukhametzhanov</b> <b>(ROOM 5)</b>		
<b>17:30 – 18:00</b>	<b><u>Marat S.</u></b> <b><u>Mukhametzhanov,</u></b> <b><i>and Yaroslav D.</i></b> <b><i>Sergeyev</i></b>	<b>The Infinity Computer vs. Symbolic Computations: First Steps in Comparison</b>
<b>18:00 – 18:30</b>	<b><i>Dan V. Nicolau</i></b>	<b>Numerical Intractability and the Second Law of Thermodynamics</b>
<b>18:30 – 19:00</b>	<b><i>Dmytro Svyetlichnyy</i></b> <b><i>and Michal</i></b> <b><i>Krzyzanowski</i></b>	<b>Development of Holistic Homogeneous Model of Selective Laser Melting based on Lattice Boltzmann Method: Qualitative Simulation</b>
<b>19:00 – 19:30</b>	<b><i>Liang Zhao and</i></b> <b><i>Chenglian Liu</i></b>	<b>Security Analysis of Li-Li Mixture XOR Scheme</b>
<b>19:30 – 20:00</b>	<b><i>Sonia C-I Chen and</i></b> <b><i>Chenglian Liu</i></b>	<b>Comment on Secure File Storage and Retrieval in Cloud by Sonia C-I</b>



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<b>25 September 2018</b>		
<b>SESSION: Finite Difference Schemes of New Generation</b>		
<b>CHAIR: Vladimir Ostapenko</b>		
<b>(ROOM 6)</b>		
<b>17:35 – 18:05</b>	<b><u>T.S. Gologush, A.A. Cherevko and V.V. Ostapenko</u></b>	<b>Comparison of the WENO and CABARET schemes at calculation of the scalar conservation law with a nonconvex flux</b>
<b>18:05 – 18:35</b>	<b><u>T.A. Rotanova, S.N. Korobeynikov and A.Y. Larichkin</u></b>	<b>Hyperelasticity models extending Hooke's law from the region of small strains to moderate ones</b>



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<b>25 September 2019</b> <b>SESSION 53: Mathematical Modeling, Numerical Algorithms,</b> <b>Optimization Methods and Flow Control for Aerospace Techniques</b> <b>CHAIR: Florin FRUNZULICA / Alexandru DUMITRACHE</b> <b>(ROOM 7)</b>		
17:35 – 18:05	<u><i>Al. Dumitrache,</i></u> <i>Victor Pricop,</i> <i>Mihai L. Niculescu</i>	Bifurcations and flow instabilities in conjunction with the jet flows
18:05 – 18:35	<u><i>M. V. Pricop,</i></u> <i>I. Bunescu,</i> <i>M. G. Stoican, D. Pepelea</i>	Low speed optimization of airfoils parametrized in polar coordinates
18:35 – 19:05 (Virtual Presentation )	<i>Catalin NAE, <u>Irina</u></i> <u><i>Carmen ANDREI,</i></u> <i>Gabriela</i> <i>Liliana STROE, S.</i> <i>BERBENTE</i>	Mathematical Modeling and Numerical Simulations for Performance Prediction in Case of the Turbojet Engine
19:05 – 19:35 (Virtual Presentation )	<i>Catalin NAE, <u>Irina</u></i> <u><i>Carmen ANDREI,</i></u> <i>Gabriela</i> <i>Liliana STROE, S.</i> <i>BERBENTE</i>	Mathematical Modeling and Numerical Simulations for Investigating the Perturbations at Cruise for the Burner Exit Temperature in Case of the Mixed Flows Turbofan Engine
19:35 – 20:05 (Virtual Presentation )	<i>Catalin NAE, <u>Irina</u></i> <u><i>Carmen ANDREI,</i></u> <i>Gabriela</i> <i>Liliana STROE, S.</i> <i>BERBENTE</i>	Mathematical Modeling and Numerical Simulations for Performance Prediction in Case of a Liquid Propelled Rocket Engine
20:05 – 20:35 (Virtual Presentation )	<i>A.P. Blănăriu, <u>Ş. Anghel,</u></i> <u><i>F. Frunzuliță,</i></u> <i>Al. Dumitrache,</i> <i>D. Crunţeanu</i>	Aerodynamic analysis of a winglet wing grid using CFD
20:35 – 21:05 (Virtual Presentation )	<i>Ş. Anghel, A.-P. Blănariu,</i> <u><i>F. Frunzuliță,</i></u> <i>D.</i> <i>Crunţeanu,</i> <i>Al. Dumitrache</i>	Numerical simulation of the flow around a mobile winglet



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<b>25 September 2019</b>		
<b>SESSION: Seismic Analysis and Retrofitting of Civil Engineering Structures</b>		
<b>CHAIR: Francesco Clementi, Antonio Formisano, Gabriele Milani and Marius Mosoarca</b>		
<b>(ROOM 9)</b>		
<b>17:35 – 18:05</b>	<b><i>Stockdale G, Sarhosis V, Milani G</i></b>	<b>Non-linear dynamic joint selection strategy for hinge controlled masonry arches</b>
<b>18:05 – 18:35</b>	<b><i>Scacco J, Milani G, Ghiassi B, Grillanda N</i></b>	<b>An easy and fast implementation of a discrete homogenization approach for the analysis under out-of-plane load of unreinforced and TRM reinforced masonry panels</b>
<b>18:35 – 19:05</b>	<b><i>Wang P, Li S, Milani G</i></b>	<b>Fast seismic vulnerability evaluation of Wenfeng Pagoda, Yangzhou, PRC</b>
<b>19:05 – 19:35</b>	<b><i>Pingaro N, Milani G</i></b>	<b>Automatic CAD kinematic limit analysis approach for the limit analysis of masonry towers</b>
<b>19:35 – 20:05</b>	<b><i>Milani G, Milani F</i></b>	<b>Vulcanization of Regenerated Rubber Pads for Seismic Base Isolation of Low Rise Masonry Buildings</b>
<b>20:05 – 20:35</b>	<b><i>Grillanda N, Milani G, Valente M, Chiozzi A, Tralli A</i></b>	<b>Vulnerability assessment of masonry aggregates through an automated NURBS-based limit analysis approach</b>



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**END OF THE 3<sup>RD</sup> DAY**

<b>26 September 2019</b>		
<b>SESSION: Iterative methods for solving nonlinear problems</b>		
<b>CHAIR: Ángel Alberto Magreñán and Lara Orcos</b>		
<b>(ROOM 3)</b>		
<b>09:00 – 09:30</b>	<b><u>Á. A. Magreñán</u></b>	<b>A Chebyshev-like method for approximating matrix square root</b>
<b>09:30 – 10:00</b>	<b><u>L. Orcos</u></b>	<b>Comparison of the behaviour of iterative methods based on different means</b>



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<b>26 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Daniel Weisz-Patrault</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b><u>Ian W. Turner</u></b>	<b>Multiscale Modelling Approaches for Simulating Transport Phenomena in Heterogeneous Porous Media</b>

<b>26 September 2019</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Klaus Gürlebeck</b> <b>(ROOM 1)</b>		
<b>11:00 – 12:00</b>	<b><u>Daniel Weisz-Patrault</u></b>	<b>Residual Strains In Directed Energy Deposition Additive Manufacturing</b>



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**Group Photo of the Conference**  
**ROOM 1**  
**12:05**

**26 September 2019**

**13:15**  
**Central Excursion**

**Gathering Point: Outside Of The Hotel Reception**



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**20:30**

**Central Dinner**

- **Introduction by Professor Dr. Theodore E. Simos**
- **Honouring Professor Dr. Kevin Burrage for his career on Numerical Analysis and Applied Mathematics.**
- **Introduction by Prof. Dr. Des Higham**
- **Presentation of the Honorary Fellowship Awards of the European Society of Computational Methods in Sciences, and Engineering**
- **Dinner**

**END OF THE 4<sup>TH</sup> DAY**



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<p>27 September 2019</p> <p>The 14<sup>th</sup> International Symposium on Numerical Analysis of Fluid  Flow, Heat and Mass Transfer</p> <p>Numerical Fluids 2019</p> <p>CHAIR: Miloslav Vlasak  (Room 1)</p>		
<p>9:00 – 10:00</p>	<p>Invited lecture</p> <p>Djamel Lakehal</p> <p>On the New Paradigm of Combining Data Analytics  and Engineering Simulation: Application to CFD</p>	
<p>10:00 – 10:20</p>	<p><u>Appanah Rao</u>  Appadu, Bilge Inan  and Tijani Yusuf  Olatunji</p>	<p>Comparison of Some  Numerical Methods for the  Burgers-Huxley Equation</p>
<p>10:20 – 10:40</p>	<p><u>Zhu Han</u> and B Shin</p>	<p>Numerical Simulation of  Cavitating Flow in an  Inducer</p>
<p>10:40 – 11:00</p>	<p><u>Benedetto Mele</u> and R  Tognaccini</p>	<p>Riblets and Form Drag</p>
<p>Coffee Break</p>		
<p>Lunch Break</p>		



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<b>27 September 2019</b> <b>SESSION: Computational Mechanics</b> <b>CHAIR: Jüri Majak &amp; Marco Di Sciuva</b> <b>(ROOM 2)</b>		
08:30 – 08:50	<i><u>M.Ratas</u>, S.K.Jena and S.Chakraverty</i>	Application of Haar Wavelet based methods for solving wave propagation problems
08:50 – 09:10	<i>S.K.Jena, S.Chakraverty, <u>M.Ratas</u>, M.Kirs</i>	Application of HOHWM in the Stability Analysis of Nonlocal Euler-Bernoulli Beam
09:10 – 09:30	<i><u>J.Majak</u>, M.Eerme, A.Haavajõe, R.Karunanidhi, D.Scholz, A.Lepik</i>	Function Approximation Using Haar Wavelets
09:30 – 09:50	<i>M.Arda and M.Aydogdu</i>	Nonlocal Effect on Boundary Conditions of Cantilever Nanobeam
09:50 – 10:10	<i><u>A. Haavajõe</u>, M. Mikola, M. Pohlak</i>	Modelling Process Parameters of the PA12-CF60 Carbon Fiber Laminating Tape for Low Cost Laminating Devices
<b>Coffee Break</b>		



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<b>27 September 2019</b>		
<b>SESSION: Fifth Symposium on Mathematical Modelling of Hydrological Sciences</b>		
<b>CHAIR: Fabio Russo and Francesco Napolitano (ROOM 3)</b>		
<b>09:00 – 09:30</b>	<i><b>Maurizio Latini, Andrea Neri, Benedetta Moccia, Claudia Bertini, <u>Fabio Russo</u></b></i>	<b>“On the predictability of monthly precipitation across the U.S. Midwest”</b>
<b>09:30 – 10:00</b>	<i><b>Claudio Mineo, Elena Ridolfi, Benedetta Moccia, <u>Francesco Napolitano</u></b></i>	<b>“Mapping monthly rainfall erosivity for the Lazio region (Italy)”</b>
<b>10:00 – 10:30</b>	<i><b><u>Benedetta Moccia,</u> Claudio Mineo</b></i>	<b>“A technical note on the influence of time series length on the intensity- duration-frequency curves for Lazio region”</b>
<b>10:30 – 11:00</b>	<i><b><u>Claudia Bertini,</u> Elena Ridolfi, Leonardo Alfonso, Francesco Napolitano</b></i>	<b>“Optimal rain gauge network design based on multi- objective optimization approach”</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>27 September 2019</b>		
<b>Symposium 34 “Mathematical modeling in applied research”</b>		
<b>CHAIR: Prof. Dr. Alexander P. Krishchenko and Prof. Dr. Georgy N. Kuvyrkin</b>		
<b>(ROOM 4)</b>		
<b>09:00 – 09:15</b>	Kanatnikov A. N., Krishchenko A. P.	Iteration procedure of localization in a chronic leukemia model
<b>09:15 – 09:30</b>	Zarubin V.S., Kuvyrkin G.N., Savelyeva I.Yu	The Temperature State of a Plane Dielectric Layer at Constant Voltage and Fixed Temperature of One of the Surfaces of This Layer
<b>09:30 – 09:45</b>	Krishchenko A.P., Velishchanskiy M. A.	Terminal control for systems in the canonical form with phase variables constraints
<b>09:45 – 10:00</b>	Cherednichenko A.V., Savelyeva I.Yu. and Shukhtin A.P.	Uniaxial tension of a twodimensional plate, taking into account non-local effects
<b>10:00 – 10:15</b>	Kovalenko M.D., Menshova I.V., Kerzhaev A.P., Shulyakovskaya T.D	Two Problems for a Halfstrip with Stiffeners: Exact Solutions
<b>10:15 – 10:30</b>	Kuzenov V.V. Ryzhkov S.V.	Mathematical Modeling and Simulation of the Target Compression by Lasers in an External Magnetic Field
<b>10:30 – 10:45</b>	Kovalenko M.D., Menshova I.V., Kerzhaev A.P.	The Semi-strip with Longitudinal Stiffeners in Tension-Compression and Bending: Exact Solution
<b>10:45 – 11:00</b>	Dobrynina A.O. and Shumaev V.V.	Development of Mathematical Models Adequately Resolved Spatial and Temporal Regions with Non-Stability Zones
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>27 September 2019</b> <b>SESSION: Non-Perturbative Quantum Field Theory and Cosmology</b> <b>CHAIR: Peter Tsang</b> <b>(ROOM 5)</b>	
<b>10:00 – 11:00</b>	<u><i>Roman Höllweiser</i></u> <u><i>Constrained HMC algorithms for gauge-Higgs models</i></u>
<b>11:00 – 11:30</b>	<u><b>Round table discussions of future direction of Quantum Field Theory and Cosmology (lead by Thierry Grandou, Hugo Reinhardt)</b></u>
<b>11:30 – 12:30</b>	
<b>Lunch Break</b>	



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: A. Ramirez-López</b> <b>(ROOM 6)</b>		
<b>09:00 – 09:30</b>	<b><i>Ling Zhengqiu and Qin Siqian</i></b>	<b>Blow-up Analysis of a Parabolic System</b>
<b>09:30 – 10:00</b>	<b><i>A. Ramirez-López, L. Moncayo-Martinez &amp; D. Muñoz-Negron</i></b>	<b>Computational Technical and Methods to Simulate an Industrial Processing</b>
<b>10:00 – 10:30</b>	<b><i>Lishuang Jiang, Jing Li and Wei Zhang</i></b>	<b>Bifurcation of Multi-periodic Solutions for a Four-Dimensional Deployable Circular Mesh Antenna System</b>
<b>10:30 – 11:00</b>	<b><i>Chen Yang and Tao Zhang</i></b>	<b>Application of <math>\epsilon</math>-constraints Method Based on Hammersley Sequence Sampling to Multi-objective Optimization of CCHP System</b>

<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Irina Zaitseva</b> <b>(ROOM 7)</b>		
<b>09:00 – 09:30</b>	<b><i>Oleg Malafeyev, Anna Romanova, Irina Zaitseva, Anzhelika Baicheroval, Natalya Telnova</i></b>	<b>Adaptive Mathematical Model of Investment Project of a Microfinance Company Under Conditions of Incomplete Information</b>
<b>09:30 – 10:00</b>	<b><i>Irina Zaitseva</i></b>	<b>Deterministic version of the dynamic task of assigning labor resources</b>
<b>10:00 – 10:30</b>	<b><i>Oleg Malafeyev, Irina Zaitseva, Jabir Abdullaev, Victoria Bondar, Olga Skvortsova</i></b>	<b>Modeling multi-agent interaction between labor market participants</b>
<b>10:30 – 11:00</b>	<b><i>Irina Zaitseva, Oleg Malafeyev, Ekaterina Konopko, Viktoriya Taran, Anna Durakova</i></b>	<b>Simulation of optimal solutions for assignment problems in the context of incomplete information</b>
<b>11:00 – 11:30</b>	<b>Coffee Break</b>	



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: K.C. Patidar</b> <b>(ROOM 8)</b>		
<b>09:00 – 09:30</b>	<i>Alexander Churkin, Vladimir Reinharz, Stephanie Lewkiewicz, Harel Dahari and Danny Barash</i>	HCVMultiscaleFit: A Simulator For Parameter Estimation in Multiscale Models Of Hepatitis C Virus Dynamics
<b>09:30 – 10:00</b>	<i>B.M. Fundzama and <u>K.C. Patidar</u></i>	Robust Numerical Method to Solve a Mathematical Model Describing Zika Virus Disease
<b>10:00 – 10:30</b>	<i>Alexandros Mantzanas, Nikos Dimitrioglou and Dimitris Hatzivramidis</i>	Modeling the motion of biological particles in a hydrodynamic focusing domain
<b>10:30 – 11:00</b>	<i><u>Chai Yee Loke</u> and Ean Hin Ooi</i>	Influential Factors in Optic Nerve Head Biomechanics



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: <i>Roman Trobec</i></b> <b>(ROOM 9)</b>		
<b>09:00 – 09:30</b>	<b><u><i>Roman Trobec and</i></u> <b><u><i>Rituraj Singh</i></u></b></b>	Performance of Interpolating Approximation Schemes in MLPG Meshless Solver
<b>09:30 – 10:00</b>	<b>Gregor Kosec and Jure Slak</b>	Radial basis function-generated finite differences solution of natural convection problem in 3D
<b>10:00 – 10:30</b>	<b><i>Tibor Kmet and</i></b> <b><i>Maria Kmetova</i></b>	Space-time RBF Method for Solving Hyperbolic Optimal Control Problems
<b>10:30 – 11:00</b>	<b><i>Chiang Kao</i></b>	Measuring the efficiency of the two-stage production system with stochastic data

<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: <i>Roman Trobec</i></b> <b>(ROOM 9)</b>		
<b>11:30 – 12:00</b>	<b><u><i>Chuang Wen,</i></u> <b><i>Xiaowei Zhu, Yan</i></b> <b><i>Yang, Hongbing</i></b> <b><i>Ding</i></b> <b><i>and Yuying Yan</i></b></b>	Numerical Modelling of non-equilibrium condensation of carbon dioxide (CO <sub>2</sub> ) in a converging-diverging nozzle



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: A.V. Vyatkin</b> <b>(ROOM 3)</b>		
11:35 – 12:05	<i>A.V. Vyatkin, E.V. Kuchunova, M.V. Yakubovich and E.A. Efimov</i>	Combination of Semi-Lagrangian Approach and Finite Element Method for Navier-Stokes Equations
12:05 – 12:35	<i>Codruta Stoica</i>	Advances in the stability theory of evolution equations
12:35 – 13:05	<i>Ildar N. Abdulin and Stanislav Yu. Lukashchuk</i>	Numerical Investigation of Radial Steady-State Fluid Flow Model with Riesz Potential.
13:05 – 13:35	<i>Minsoo Kim and Seungsoo Lee</i>	Comparison of Preconditioning Methods for Unstructured Adjoint Euler Solver

<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Ch. Tsitouras</b> <b>(ROOM 4)</b>		
11:30 – 12:00	A. Ch. Tsitoura and <u>Ch. Tsitouras</u>	Cubic Spline Approximation of Transfer Functions for Speeding Neural Networks Performances
12:00 – 12.30	Vaso Kaloutsas and Ioannis Th. Famelis	On the Neural Network solution of stiff Initial Value Problems



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Vladislav N. Kovalnogov</b> <b>(ROOM 6)</b>		
<b>11:35 – 12:05</b>	<i>Vladislav N. Kovalnogov, Ruslan V. Fedorov, Larisa V. Khakhaleva and Andrei V. Chukalin</i>	<b>Mathematical Modeling of Turbulent Transfer in Thermal Boundary Layer at the Influence of Hemispherical Damping Cavities</b>
<b>12:05 – 12:35</b>	<i>Vladislav N. Kovalnogov, Tamara V. Karpukhina and Mihail S. Boyarkin</i>	<b>Model of Heat Transfer of Moisture and Gases in Capillary- Porous Space in Annexes for Developing Biofuel Cells</b>
<b>12:35 – 13:05</b>	<i>Vladislav N. Kovalnogov, Ruslan V. Fedorov and Ekaterina V. Tsvetova</i>	<b>To Mathematical Modeling of Temperature Stratification Impact on Atmospheric Conditions Changes</b>
<b>13:05 – 13:35</b>	<i>Mohammad AlQudah and Maalee AlMheidat</i>	<b>Recurrence relation for generalized Shifted Chebyshev Koonwinder's Type Polynomials</b>



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Irina Zaitseva</b> <b>(ROOM 7)</b>		
<b>11:35 – 12:05</b>	<i>Oleg Malafeyev, Irina Zaitseva, Sergey Sychev, Gennady Badin, Andrey Parfenov, Andrey Shulga</i>	Competitive interaction between investing firms on the dynamic market with taxation
<b>12:05 – 12:35</b>	<i>Oleg Malafeyev, Igor Kolesin, Irina Zaitseva, Tatyana Smirnova, Dmitriy Kolesov, Vladislav Onishenko</i>	Model of Distribution of Funds on Polar Bears Protection by Arctic Area
<b>12:35 – 13:05</b>	<i>Oleg Malafeyev, Irina Zaitseva, Vladimir Shkrabak, Roman Shkrabak, Vladislav Onishenko</i>	Model of multi-agent interaction between financial service providers and consumers
<b>13:05 – 13:35</b>	<i>Irina Zaitseva, Oleg Malafeyev, Olga Pankratova, Lydia Novozhilova, Viktor Smelik</i>	Software implementation of game-theoretic models accompanying labor resource allocation processes



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Ileana Corbi</b> <b>(ROOM 8)</b>		
<b>11:35 – 12:05</b>	<i>Ileana Corbi and Ottavia Corbi</i>	<b>Analytical Formulation for Identifying Sets of Solutions in a Class of Nonlinear Structural Problems</b>
<b>12:05 – 12:35</b>	<i>Ileana Corbi and Ottavia Corbi</i>	<b>Masonry Refurbishment through Cement-Matrix Based Composites: Analytical Setup and Operational Research</b>
<b>12:35 – 13:05</b>	<i>L.A. Igumnov, N.A. Abrosimov and A.V. Elesin</i>	<b>Numerical Analysis of Nonlinear Deformation and Loss of Stability in Preliminary Stressed Composite Cylindrical Shells under Axial Dynamic Loads</b>
<b>13:05 – 13:35</b>	<i>Ileana Corbi and Ottavia Corbi</i>	<b>Modeling of structural patterns with uncertainties</b>

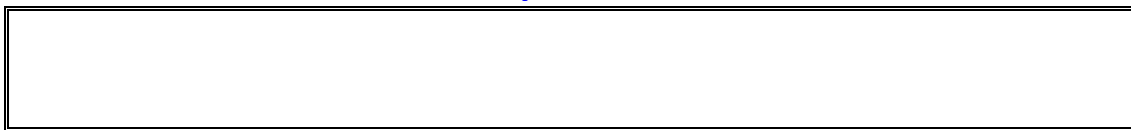


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<b>27 September 2019</b>		
<b>The 14<sup>th</sup> International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer</b>		
<b>Numerical Fluids 2019</b>		
<b>CHAIR: Djamel Lakehal</b>		
<b>(ROOM 1)</b>		
<b>15:00 – 15:20</b>	<b><u>Georgios Bakalis</u>, XQ Yuan and HD Ng</b>	<b>Numerical Simulations of Gaseous Cellular Detonation Interaction with Bluff-Body Obstacles</b>
<b>15:20 – 15:40</b>	<b><u>Rohit Sankaran Iyer</u>, Tae Ho Kim, Dong Hyeon Kim and Heuy Dong Kim</b>	<b>Effect of entrance portal inclination on the formation of entry compression wave in a high-speed railway tunnel</b>
<b>15:40 – 16:00</b>	<b><u>Khoat Ho Trong</u>, Young Man Lee, Ji Hyun Kwak, Hong Sun Ryou</b>	<b>A Numerical Study on the Effect of Sprinkler Pressure on ASET in Cinema Fire</b>
<b>16:00 – 16:20</b>	<b><u>Mikhail Basarab</u>, Alain Giani, Philippe Combette, and Igor Ivanov</b>	<b>Solving the Convection-Diffusion Problem in the Horizontal Cylindrical Annulus by the R-Function Method and Its Application for Thermal Accelerometer Simulation</b>
<b>Coffee Break</b>		



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<b>27 September 2018</b>		
<b>SESSION#28: The 8th Symposium on Generating Functions of Special Numbers and Polynomials and Their Applications (GFSNP2019)</b>		
<b>CHAIR: Ceren VARDAR ACAR (ROOM 2)</b>		
<b>15:00 – 15:20</b>	<b><i>Busra Al and Mustafa</i> <u>ALKAN</u></b>	<b>Some Relations Among Apostol-Euler Polynomials, Changhee and Stirling Numbers II</b>
<b>15:20 – 15:40</b>	<b><i>Busra Al and Mustafa</i> <u>ALKAN</u></b>	<b>Identities Related to the Bernoulli and the Euler Numbers and Polynomials II</b>
<b>15:40 – 16:00</b>	<b><i>Aykut Ahmet</i> <u>AYGUNES</u></b>	<b>An approach to Euler-Mascheroni constant by Bernoulli numbers II</b>
<b>16:00 – 16:20</b>	<b><i>Erkan</i> <u>AGYUZ</u></b>	<b>Remark and Observation On Recent Development Of Bernstein Type Polynomials II</b>
<b>16:20 – 16:40</b>	<b><i>Gunes</i> <u>AYGUNES</u></b>	<b>Modelling The Venture Capital Investments via Logistic Regression Method II</b>
<b>16:40 – 17:00</b>	<b><i>Ji Suk</i> <u>SO</u></b>	<b>To Be Announced</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>27 September 2019</b> <b>SESSION: The Third Symposium on Mathematical Methods in</b> <b>Economics and Nature Use</b> <b>CHAIR: Alexander Medvedev, Marina Medvedeva</b> <b>(ROOM 3)</b>		
15:00 – 15:20	<u><i>E.M. Romanovskaia,</i></u> <u><i>E.A. Mityushov,</i></u> <u><i>S.A. Berestova, N.D.</i></u> <u><i>Romanovskaia</i></u>	Modeling of Microstructural Stresses of Composite Materials during Phase Transformations
15:20 – 15:40	<u><i>E.M. Romanovskaia,</i></u> <u><i>E.A. Mityushov,</i></u> <u><i>S.A. Berestova, N.D.</i></u> <u><i>Romanovskaia</i></u>	Simulation of a two-phase composite material with a system of fibers disoriented in space
15:40 – 16:00	<u><i>Nagovitsyna E.S.,</i></u> <u><i>Poddubny V.A.,</i></u> <u><i>Vilinsky D.A.</i></u>	Construction of various regular computational grids on a spheroid for addressing the tasks of fluid location of the atmosphere
16:00 – 16:20	<u><i>S.N. Lapshina, P.S.</i></u> <u><i>Murzina, A.V.</i></u> <u><i>Fedorov, Thomas</i></u> <u><i>Cherny</i></u>	Model for determining the competitive identity of cities in a digital economy
16:20 – 16:40	<u><i>S.N. Lapshina, I.A.</i></u> <u><i>Bazhenov, A.D.</i></u> <u><i>Shakhova, Camilo A.</i></u> <u><i>Ospina Acosta</i></u>	Forecasting the development of mechanical engineering using the system dynamics method
17:00 – 17:30	<b>Coffee Break</b>	



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: I.G. Burova</b> <b>(ROOM 4)</b>		
<b>15:00 – 15:30</b>	<i><b>Petr Procházka</b></i>	<b>Variational Formulation of Discontinuous Boundary Element Method</b>
<b>15:30 – 16:00</b>	<i><b>I.G. Burova</b></i>	<b>Construction of Non-polynomial Splines of the First Level with Fourth Order of Approximation</b>
<b>16:00 – 16:30</b>	<i><b>Rong Yang and Guangwei Yuan</b></i>	<b>High-order Positivity-preserving Simple Corner Balance Scheme For the Radiative Transfer Equations</b>
<b>16:30 – 17:00</b>	<i><b>Petra Rabonova</b></i>	<b>Impact Of Dispersion Of Measurement On Estimation Of Polynomial Calibration Function Coefficients</b>



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Janusz Bobulski</b> <b>(ROOM 5)</b>		
<b>15:00 – 15:30</b>	<i><b>Pavel Martinek</b></i>	<b>Myhill-Nerode Theorem for Multiset Languages</b>
<b>15:30 – 16:00</b>	<i><b>O.V. Soloveva and S.A. Solovev</b></i>	<b>Numerical simulation of the aerosol particle motion in the model of single- and multi-layer open cell foam filter</b>
<b>16:00 – 16:30</b>	<i><b><u>Christos Varsakelis</u></b> <b>and Moritz von Stosch and Sandrine Dessoy and Alexander Pysik</b></i>	<b>A Mathematical Model of Decision Making for Investment in Process Modeling &amp; Simulation</b>
<b>16:30 – 17:00</b>	<i><b><u>Mariusz Kubanek,</u></b> <b>Janusz Bobulski and Joanna Kulawik</b></i>	<b>Recognizing Speech Commands Using Convolutional Neural Network</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Stefania Ragni</b> <b>(ROOM 6)</b>		
<b>15:00 – 15:30</b>	<i>S.Yu. Litvinchuk, V.A. Gorokhov and S.A. Kapustin</i>	<b>Numerical Simulation of Creep of a Thick-walled Pipe under Internal Pressure and Neutron Irradiation</b>
<b>15:30 – 16:00</b>	<b>Brandon M. Reid and <u>Roger B. Sidje</u></b>	<b>From the Transient to the Stationary Solution to the Chemical Master Equation Using Tensors</b>
<b>16:00 – 16:30</b>	<i><u>Nikita S. Belevtsov</u> and <u>Stanislav Yu.</u> <u>Lukashchuk</u></i>	<b>Numerical Algorithms for a Fractional Generalization of the Poisson Equation</b>
<b>16:30 – 17:00</b>	<i><u>Stefania Ragni</u></i>	<b>A Fixed-point Iteration Method for Optimal Control Problems Governed by Parabolic Equations</b>



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Alibek Issakhov</b> <b>(ROOM 7)</b>		
15:00 – 15:30	<i>Alibek Issakhov and Aidana Alimbek</i>	A numerical study for the assessment of air pollutant dispersion with chemical reactions from a thermal power plant
15:30 – 16:00	<u>Usama Kadri</u> <u>,Abdessalem</u> <u>Bouferrouk ,Najib</u> <u>Harari</u>	Acoustic Gravitational Waves Travelling Through a rigid vertical elastic barrier of finite width
16:00 – 16:30	<i>Alibek Issakhov and Perizat Omarova</i>	NUMERICAL STUDY OF POLLUTANT DISPERSION IN THE RESIDENTIAL AREAS
16:30 – 17:00	<u>Alibek Issakhov and</u> <u>Yeldos Zhandaulet,</u> <u>Ruslan Bulgakov</u>	Numerical simulation of the dynamics of particle motion from thermal power plant

<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Josef Slapal</b> <b>(ROOM 7)</b>		
17:35 – 18:05	Dawid Czapla, Sander C. Hille, Katarzyna Horbacz and Hanna Wojewódka- Sciazko	On the Continuous Dependence of the Stationary Distribution of a Piecewise Deterministic Markov Process on its Jump Intensity
18:05 – 18:35	Josef Slapal	Digital Jordan curves with respect to a closure operator



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<b>27 September 2018</b> <b>SESSION#28: The 8th Symposium on Generating Functions of Special Numbers and Polynomials and Their Applications (GFSNP2019)</b> <b>CHAIR: Irem KUCUKOGLU</b> <b>(ROOM 2)</b>		
17:30 – 17:50	<i>Dimitar K. DIMITROV, Ivan GADJEV, <u>Geno NIKOLOV</u> and Rumen ULUCHEV</i>	On the Sharp Constant in the $L_2$ Hardy Inequality in Certain Finite Dimensional Spaces II
17:50 – 18:10	<i>Ivan GADJEV, Parvan PARVANOV and <u>Rumen ULUCHEV</u></i>	Approximation of Functions in $L_p$ -Norm by Kantorovich-Type Operators II
18:10 – 18:30	<i>Daeyeoul KIM</i>	To Be Announced

<b>27 September 2019</b> <b>SESSION: General Session/Coulomb Integrals in Schrödinger Equation</b> <b>CHAIR: Sandor Kristyan</b> <b>(ROOM 3)</b>		
17:35 – 18:05	<i><u>Sandor Kristyan</u></i>	Semi-analytic Evaluation of 1, 2 and 3-Electron Coulomb Integrals with Gaussian expansion of Distance Operators $W= R_{C1}^{-n}R_{D1}^{-m}, R_{C1}^{-n}r_{12}^{-m}, r_{12}^{-n}r_{13}^{-m}$
18:05 – 18:35	<i><u>Sandor Kristyan</u></i>	Quasi-linear buildup of Coulomb integrals via the coupling strength parameter in the non-relativistic electronic Schrödinger equation
18:35 – 19:05	<i><u>Sandor Kristyan</u></i>	Solving the non-relativistic electronic Schrödinger equation with switching the electron-electron Coulomb integrals off and on



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Yuri K. Demyanovich</b> <b>(ROOM 5)</b>		
<b>17:05 – 17:35</b>	<b><i>Oleg Malafeyev, Irina Zaitseva, Sergey Sychev, Gennady Badin, Ilya Pavlov, Andrey Shulga</i></b>	<b>Company life cycle model: the influence of interior and exterior factors</b>
<b>17:35 – 18:05</b>	<b><i>Yuri K. Dem'yanovich, T.O.Evdokimova, O.N.Ivancova, D.M.Lebedinsky and A.Y.Ponomareva</i></b>	<b>Singular Splines</b>
<b>18:05 – 18:35</b>	<b><i><u>Borui Zheng</u> and Ming Xue</i></b>	<b>Asymmetric Separated Flow Control by the Sliding Discharge Plasma Actuation</b>



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<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Adam Kulawik</b> <b>(ROOM 6)</b>		
17:35 – 18:05	<i><u>Sandita Pacuraru, Florin Pacuraru and Adham S. Bekhit</u></i>	Numerical Analysis of Ship Motions for an Offshore Vessel
18:05 – 18:35	<i><u>Adam Kulawik and Joanna Wróbel and Robert Bęczkowski</u></i>	Comparison of stress states for padding weld with different angle of weld toe – numerical modeling
18:35 – 19:05	<i><u>Henryk Kudela</u></i>	Collapse of n-vortices, vortex sheets and coherent structures
19:05 – 19:35	<i><u>Dawid Czapla, Katarzyna Horbacz and Hanna Wojewódka-Sciazko</u></i>	On the Connection between Exponential Ergodicity of a Piecewise Deterministic Markov Process and the Chain Given by its Post-jump Locations

<b>27 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Pasculli Antonio</b> <b>(ROOM 8)</b>		
17:35 – 18:05	<i><u>Maria Varygina</u></i>	Numerical Modeling of Wave Processes in Block Medium with Fractured Interlayers
18:05 – 18:35	<i><u>Pasculli Antonio and Mangifesta Massimo</u></i>	Local seismic response change following an excavation in an area located in the territory of L'Aquila city (Italy)



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<b>27 September 2019</b> <b>POSTER SESSION: The Third Symposium on Mathematical          Methods in Economics and Nature Use</b> <b>CHAIR: Alexander Medvedev, Marina Medvedeva, Viktoria Turygina</b> <b>15:00 - 17:00 – PART I</b>	
<u><i>Alexander A. Tarasyev, Jeenat B.          Jabbar, Gavriil A. Agarkov</i></u>	<b>Modeling of the Impact of          Migration Attractiveness on the          Labor Migration Dynamics</b>
<u><i>Alexander A. Tarasyev, Camilo A.          Ospina Acosta, Gavriil A. Agarkov</i></u>	<b>Fuzzy Logic Modeling Software          for Educational Paths Data          Analysis</b>
<u><i>Alexander M. Tarasyev,          Anastasiia A. Usova, Alexander A.          Tarasyev</i></u>	<b>An optimization model of the          economic growth under          presence of structural changes</b>
<u><i>Gavriil A. Agarkov, Tatyana V.          Tarasyeva</i></u>	<b>Assessment of passive economic          security of the socio-economic          system of the region</b>
<u><i>Gavriil A. Agarkov, Tatyana V.          Tarasyeva</i></u>	<b>Estimation of economic system's          proportional development using          economic growth model</b>
<u><i>Andrey F. Shorikov, Anastasia E.          Sudakova</i></u>	<b>Dynamic model for solving          problems of minimax          management of young          specialists employment in the          regional labor market in the          presence of risks</b>
<u><i>Anastasia E. Sudakova, Alexander          A. Tarasyev</i></u>	<b>Bibliometric data as a tool for          the analysis of the scientist's          mobility</b>
<u><i>Anastasia E. Sudakova, Andrey A.          Tarasyev</i></u>	<b>Development of multifactor          dynamic model of forecasting of          scientific migration</b>



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<b>27 September 2019</b> <b>POSTER SESSION: The Third Symposium on Mathematical Methods in Economics and Nature Use</b> <b>CHAIR: Alexander Medvedev, Marina Medvedeva, Viktoria Turygina</b> <b>15:00 - 17:00 – PART II</b>	
<u><i>E.M. Romanovskaia, E.A. Mityushov, S.A. Berestova</i></u>	Prediction of effective elastic characteristics of a multiphase composite material with a spatially reinforced system of fibers
<u><i>Nagovitsyna E.S., Poddubny V.A., Luzhetskaya A.P.</i></u>	Estimation of horizontal flows of submicron atmospheric aerosol in the Middle Urals
<u><i>Igor N. Sachkov, Viktoria F. Turygina, Vitaly Ford, Anatoly P. Shamanov, Oleg E. Khorev</i></u>	Development of FEM - Programs for Modeling the Processes of Synthesis by Powder Metallurgy
<u><i>Igor N. Sachkov, Viktoria F. Turygina, Vitaly Ford, Dmitry G. Ermakov</i></u>	New FEM - Programs for Modeling Coupled Processes of Selective Vapor Condensation During Laser Processing of Materials
<u><i>Alexander Medvedev, Alexander Sergeev, Andrey Shichkin, Elena Baglaeva, Irina Subbotina, Alexander Buevich, Marina Sergeeva</i></u>	The forecast of the methane concentration changes for the different time periods on the Arctic Island Bely
<u><i>Alexander Sergeev, Alexander Buevich, Andrey Shichkin, Elena Baglaeva, Irina Subbotina, Alexander Medvedev, Marina Sergeeva</i></u>	Prediction the dynamic of changes in the concentrations of main greenhouse gases by an artificial neural network type NARX



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<b>27 September 2019</b> <b>POSTER SESSION: The Third Symposium on Mathematical Methods in Economics and Nature Use</b> <b>CHAIR: Alexander Medvedev, Marina Medvedeva, Viktoria Turygina</b> <b>15:00 - 17:00 – PART III</b>	
<p style="text-align: center;"> <u><i>Alexander Sergeev, Andrey Shichkin, Alexander Buevich, Elena Baglaeva, Irina Subbotina, Anna Rakhmatova, Alexandra Kosachenko, Anastasia Moskaleva, Alexander Medvedev, Marina Sergeeva</i></u> </p>	<p>Conjoint approach of the "residual" prediction and the nonlinear autoregressive neural network increases the forecast precision of the base model</p>
<p style="text-align: center;"> <u><i>I.A. Berg, S.V. Porshnev, A.N. Medvedev</i></u> </p>	<p>On Application of Parzen-Rosenblatt Estimation for Burning Torch Studies in Infrared Band</p>
<p style="text-align: center;"> <u><i>Zh. A. Mukanova, D.B. Berg, M. Kit, E.B. Berg, M.A. Medvedeva</i></u> </p>	<p>Quantitative analysis of the learning curve obtained for foreign language studies</p>
<p style="text-align: center;"> <u><i>Dmitry B. Berg, Anastasiya V. Apanasenko, M.A. Medvedeva, S.S. Parusheva</i></u> </p>	<p>The Entrepreneurial Network Simulation Model for the Supporting System of Management Decisions Making at the Municipal Level</p>
<p style="text-align: center;"> <u><i>S.N. Lapshina, E.M. Murzahanova, M.A. Medvedeva, A.V. Prsjazhnyj, A.O. Kolomytseva</i></u> </p>	<p>System-dynamic modeling of the development of universities in the conditions of informatization</p>
<p style="text-align: center;"> <u><i>Victoria V. Baronova, Alexander N. Nizov, Viktoria F. Turygina, Marina A. Medvedeva, T.O. Zagornaya, Natalia D. Panteleeva, Yana V. Silacheva</i></u> </p>	<p>Statistical Analysis of the Use an Internal Capital Adequacy Assessment Procedure in the Monitoring of Banks Stability</p>



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<b>27 September 2019</b> <b>POSTER SESSION: General Session</b> <b>17:30 - 18:00</b>		
<b>17:30 – 18:00</b>	<b>Wafaa A. Albarakati &amp; Aly R. Seadawy &amp; <u>Noufe H. Aljahdaly</u></b>	<b>Application of mathematical methods of the non-linear seventh order Sawada- Kotera to dynamical wave equation</b>
<b>17:30 – 18:00</b>	<b><u>Liudmyla Kozak</u>, <i>Bohdan Petrenko,</i> <i>Elena Kronberg and</i> <i>Anthony Lui</i></b>	<b>Application of Statistical and Spectral Analysis for Investigation of the Turbulent Processes in the Magnetohydrodynamics</b>



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<b>28 September 2018</b>		
<b>SESSION: Nonlinear Control in Continuous-Time Production Systems and in Economics</b>		
<b>CHAIR: Gerasimos Rigatos (ROOM 1)</b>		
<b>09:00 – 09:30</b>	<i>G. Rigatos, P. Siano, T. Ghosh, F. Wang and M. Rana</i>	<b>1. Nonlinear optimal control of the Uzawa-Lucas endogenous growth model</b>
<b>09:30 – 10:00</b>	<i>G. Rigatos, F. Zouari, P. Siano, T. Ghosh,</i>	<b>2. Flatness-based adaptive fuzzy control of the Uzawa-Lucas endogenous growth model</b>
<b>10:00 – 10:30</b>	<i>G. Rigatos, P. Siano and M.A. Hamida</i>	<b>3. Nonlinear optimal control of the industrial crystallization process</b>
<b>10:30 – 11:00</b>	<i>G. Rigatos, P. Siano, K. Busawon and M. Abbaszadeh</i>	<b>4. Nonlinear optimal control of the four water-tanks system</b>
<b>11:00 – 11:30</b>	<i>G. Rigatos, P. Siano M. Abbaszadeh and M.A. Hamida</i>	<b>5. Nonlinear optimal control of distributed marine turbine power generators</b>
<b>11:30 – 12:00</b>	<i>G. Rigatos and M. Abbaszadeh</i>	<b>6. Nonlinear optimal control of vaccination policies against epidemics</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Adam Kulawik</b> <b>(ROOM 2)</b>		
<b>09:00 – 09:30</b>	<i>Adam J. Zakrzewski</i>	Arbitrarily precise solution of the one-dimensional Schrödinger equation with an arbitrary potential. Quasi-bound states
<b>09:30 – 10:00</b>	<i><u>Joanna Wróbel</u> and Adam Kulawik and Michał Sobiepański</i>	Numerical Modeling of the Point Superficial Heating for the Axisymmetric Element
<b>10:00 – 10:30</b>	<i><u>Heidler V.</u>, Bublik O., Lobovsky L. and Vimmr J.</i>	Modeling of Free surface Flow with Dispersed Particles Using The Lattice Boltzmann Method



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Maria Pia D'Arienzo</b> <b>(ROOM 3)</b>		
<b>09:00 – 09:30</b>	<b><u>Maria Pia D'Arienzo</u></b> <b>and Luigi Rarita</b>	<b>Growth Effects on the</b> <b>Network Dynamics with</b> <b>Applications to the</b> <b>Cardiovascular System</b>
<b>09:30 – 10:00</b>	<b><u>Robertas Navakas,</u></b> <b>Algis Dziugys,</b> <b>Edgaras Misiulis,</b> <b>Gediminas</b> <b>Skarbalius</b>	<b>Applicability of fuzzy</b> <b>algorithms for analysis of</b> <b>motion in granular media</b>
<b>10:00 – 10:30</b>	<b><u>Maria Pia D'Arienzo</u></b> <b>and Luigi Rarita</b>	<b>Management of supply</b> <b>chains for the wine</b> <b>production</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Roman Trobec</b> <b>(ROOM 4)</b>		
<b>09:30 – 10:00</b>	<b><u>Georges Halim</u></b> <b><u>Atalla, Emmanuel</u></b> <b><u>Belut, Sullivan</u></b> <b><u>Lechene , Benoit</u></b> <b><u>Trouette and</u></b> <b><u>Stephane Vincent</u></b>	<b>Assessment of discretization schemes applied to the transport of a passive scalar in a ventilated enclosure</b>
<b>10:00 – 10:30</b>	<b><u>Janusz Bobulski and</u></b> <b><u>Mariusz Kubanek</u></b>	<b>The triple histogram method for waste classification</b>
<b>10:30 – 11:00</b>	<b><u>Vladimir Popov and</u></b> <b><u>Anna Gorbenko</u></b>	<b>Deceptive Actions and Demonstrations of Intentions for Robot Collision Avoidance</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Ipatov A.A.</b> <b>(ROOM 5)</b>		
<b>09:30 – 10:00</b>	<b><u>Sepeedeh</u></b> <b><u>Shahbeigi,</u></b> <b><u>Mohammad Nasr</u></b> <b><u>Esfahani and B.</u></b> <b><u>Erdem Alaca</u></b>	<b>Electromechanical Modeling</b> <b>of Silicon Nanowire</b> <b>Switches: Size and Boundary</b> <b>Condition Effects</b>
<b>10:00 – 10:30</b>	<b><u>Ipatov A.A.,</u></b> <b><u>Igumnov L.A.,</u></b> <b><u>Dell'Isola F. and</u></b> <b><u>Litvinchuk S.Yu</u></b>	<b>Application of Modified</b> <b>Durbun's Algorithm in</b> <b>Solving Poroelastodynamic</b> <b>Problems via Boundary</b> <b>Element Method</b>
<b>10:30 – 11:00</b>	<b><u>J. H. Sohn, J. R. Lee,</u></b> <b><u>S. W. Bae, J-H.</u></b> <b><u>Hwang, D-W. Jernq</u></b>	<b>Comparisons of</b> <b>condensation models with</b> <b>non-condensable gases for</b> <b>computational fluid analyses</b>



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<b>28 September 2018</b>		
<b>SESSION: The 4th Mini-Symposium on Optimal Homotopy Asymptotic Approach to Nonlinear Dynamical Systems in Engineering – Virtual Session</b>		
<b>CHAIR: Nicolae Herisanu</b>		
<b>ROOM 8</b>		
<b>09:00 – 09:20</b>	<i>Hamza Berrehal</i>	<b>First Order Approximate Solutions for Nanofluid Flow past a Stretching Sheet with a Convective Heating Boundary Condition Using OHAM</b>
<b>09:20 – 09:40</b>	<i>Nicolae Herisanu Vasile Marinca</i>	<b>Analytic Approximate Solutions to Electrically Actuated MEMS</b>
<b>09:40 – 10:00</b>	<i>Vasile Marinca Nicolae Herisanu</i>	<b>Incompressible Boundary Layer Flow of Nanofluid Over a Convectively Heated Stretching Sheet</b>
<b>10:00 – 10:20</b>	<i>Denisa Mihut, Chilibraru-Opritescu Cristina</i>	<b>An Optimal Approach to a Nonlinear Dynamical System Related to Gait Dynamics</b>
<b>10:20 – 10:40</b>	<i>Marius Dudu, Chilibraru-Opritescu Cristina</i>	<b>An Analytical Investigation on the Effect of Variable Wind Speed in Wind Energy Systems</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Koushik Ghosh</b> <b>(ROOM 1)</b>		
<b>12:05 – 12:35</b>	<i><b>Aranyak Chakravarty, Koushik Ghosh, Swarnendu Sen and Achintya Mukhopadhyay</b></i>	<b>Comparative Assessment of Natural and Mixed Convective Heat Transfer mechanisms from a Heat-Generating Porous Bed</b>
<b>12:35 – 13:05</b>	<i><b>Tomáš Oberhuber Jakub Klinkovský Radek Fucík Vítězslav Žabka Aleš Wodecki</b></i>	<b>Programming GPU using TNL</b>
<b>13:05 – 13:35</b>	<i><b>Gilbert Makanda</b></i>	<b>A mathematical model on the effect of non-adherence to drugs on diabetes control</b>
<b>13.35 – 14.05</b>	<i><b>Anita Kesuma Arum, Roberd Saragih and Dewi Handayani</b></i>	<b>Designing Robust <math>H^\infty</math> -Control Design For Virotherapy Model Using Successive Method Anita Kesuma Arum, Roberd Saragih and Dewi Handayani</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Vladimir Lyandres</b> <b>(ROOM 2)</b>		
<b>11:35 – 12:05</b>	<i>Vladimir Lyandres</i>	<b>Vertices Coloring of Weighted Graph and Communication Networks Design</b>
<b>12:05 – 12:35</b>	<i><u>Emerson W. D. Magalhães</u>, Márcio R. A. Souza and Igor F. Gomes</i>	<b>A Metamorphic Positivity-Preserving Conservative Formulation Applied to the Solution of General Anisotropic Diffusion Problems in Distorted 2-D Grids</b>
<b>12:35 – 13:05</b>	<i>Ali Abbas Zaidi</i>	<b>Effect of Bi-dispersity on Particle Microstructures in Settling of Particles at High Reynolds number</b>
<b>13:05 – 13:35</b>	<i>Kedar Nath Das and Biplab Chaudhuri</i>	<b>A robust troop-based computational method for Lennard-Jones Potential Problem</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Syamalendu Bandyopadhyay</b> <b>(ROOM 3)</b>		
<b>12:05 – 12:35</b>	<i><b>Bikash Mondal, Amar Samanta, <u>Syamalendu Bandyopadhyay</u></b></i>	<b>Activated Hindered Amine Solvent for Less Energy Intensive and Economic` Post - combustion Carbon Dioxide Capture</b>
<b>12:35 – 13:05</b>	<i><b>James C. Tyacke and Ashley Scillitoe</b></i>	<b>Separated flow prediction and assessment using LES and machine learning</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Marwa Sawan</b> <b>(ROOM 4)</b>		
<b>11:35 – 12:05</b>	<i>Marwa Sawan, Hilal Reda, Nadine Saad, Georges Nassar, Mohammad Hammoud</i>	Numerical approach of biological tissues/thin layer sensor interface behavior quantification
<b>12:05 – 12:35</b>	<i>Ahmed Bekhti, Mohamed Maizi, Madjid Tata and Sebaa Laazab</i>	Numerical investigation of turbulent flow over a vertical axis wind turbine
<b>12:35 – 13:05</b>	<i>Rangoli Goyal and Rama Bhargava</i>	GFEM Simulation Of Magnetohydrodynamics Thermo- Diffusive Effect On Nanofluid Flow Over Power- Law Stretching Sheet



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Name and Surname</b> <b>(ROOM 5)</b>		
<b>11:35 – 12:05</b>	<b><i>M.H.B.M. Shariff</i></b>	<b>A General Spectral Nonlinear 4th-order Material Elasticity Tensor Formula for Finite Element</b>
<b>12:05 – 12:35</b>	<b><i>Habib-Ollah Sayehvand and Amir Basiri Parsa</i></b>	<b>An analytical solution for solving MHD flow over a vertical stretching surface with chemical reaction and internal heat generation or absorption</b>
<b>12:35 – 13:05</b>	<b><u><i>Habib-Ollah Sayehvand and Amir Basiri Parsa</i></u></b>	<b>MHD boundary-layer flow of nanofluids towards a stretching/shrinking sheet with Newtonian heating and nonlinear Navier boundary condition</b>
<b>13:05 – 13:35</b>	<b><i>N. ATTIA, D. SEBA and A. NOUR</i></b>	<b>Reproducing Kernel Hilbert Space Method for the Fractional Differential Equations</b>



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<b>28 September 2019</b> <b>SESSION: General Session</b> <b>CHAIR: Oleg Gorshkov</b> <b>(ROOM 8)</b>		
<b>11:35 – 12:05</b>	<i>Oleg Gorshkov and Hernando Ombao</i>	Evaluation of Chaotic Properties of Inter-beat (RR) Intervals in Cardiac Signals for Differentiation Between the Normal and Pathology Classes
<b>12:05 – 12:35</b>	<i>Abderrahmane Benbrik, Mohammed Cherifi, Khaled Sahnoune, Siham Laouar-Meftah and Mourad Moderres</i>	Volumetric Gas Radiation Effects on Double-Diffusive Mixed Convection
<b>12:35 – 13:05</b>	<i>Ji Hwan Cha</i>	Stochastic Modelling and Analysis of Reliability Acceptance Sampling Tests

**END OF THE 6<sup>TH</sup> DAY**  
**END OF THE CONFERENCE**

