

ICNAAM 2018
Sheraton Hotel, Rhodes, Greece,
13-18 September 2018

13 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Miloslav Feistauer (ROOM 1)		
9:30 – 9:50	<u>Petr Svacek, Jan Valasek</u>	Mathematical modelling and numerical simulation of flow induced vibrations of vocal folds model with collisions
9:50 – 10:10	<u>Melodia Lucas, Pawel Kosinski, Boris V Balakin</u>	Eulerian-Eulerian Model for Photothermal Energy Conversion in Nanofluids
10:10 – 10:30	<u>Ziad Alaswad, Gary W Rankin</u>	Numerical Simulation of Vortex-Ring Mixing of a Thermally Stratified Environment
10:30 – 10:50	<u>Camila D’ Bastiani, Jéferson Luis Alba, Gabriel Tomazzoni Mazzarotto</u>	Multiphase CFD Modelling and PIV Validation of a UASB Reactor



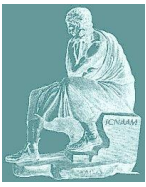
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13 September 2018 SESSION: Analytic and Numerical Methods for Stochastic Differential Equations and Applications \in Physics and Finance CHAIR: Andrea Pascucci (ROOM 2)		
09:00 – 09:30	<u>Lorenzo Diazzi</u>	
09:30 – 10:00	<u>María Jesús</u> <u>Senosiain</u>	
10:00 – 10:30	<u>Beatriz Salvador</u>	
10:30 – 11:00	<u>Anastasia Borovykh</u>	
11:00 – 11:30	<u>Hozman Tichy</u>	



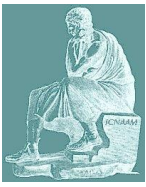
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13 September 2018		
SESSION: 3rd Symposium on Difference & Differential Equations and Applications		
CHAIR: Sandra Pinelas		
(ROOM 3)		
09:00 – 09:30	<i>Felix Sadyrbaev</i>	On controllability of nonlinear dynamical network
09:30 – 10:00	<i>Liudmila A. Uvarova</i>	Mathematical Modeling of Mass Transfer of Liquid Mixes in Capillaries under Action of external Forces with the use the Abel Equation
10:00 – 10:30	<i>Liudmila A. Uvarova</i>	Electromagnetic Field Boundary Conditions for Metamaterials on the Edge of the Wedge
10:30 – 11:00	<i>Liudmila A. Uvarova</i>	The Mathematical Model for the Formation of Complex Meso- and Nanosystems with Use of the Chapman – Kolmogorov equation
11:00 – 11:30	Coffee Break	



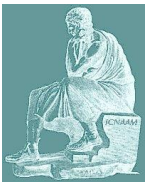
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13 September 2018		
SESSION: THE EIGHTH SYMPOSIUM ON ADVANCED COMPUTATION AND INFORMATION IN NATURAL AND APPLIED SCIENCES (Sess. 1)		
CHAIR: Dr. Claus-Peter Rückemann (ROOM 4)		
09:00 – 09:05	<u><i>Claus-Peter Rückemann</i></u>	Welcome Notes
09:05 – 09:50	<u><i>Claus-Peter Rückemann</i></u>	Keynote Lecture: Value of Knowledge and Computing Galore or The Objectives Are Governing the Embodiment of Instruments
09:50 – 10:25	<u><i>Claus-Peter Rückemann</i></u>	Principles of Superordinate Knowledge: Separation of Methodology, Implementation, and Realisation
10:25 – 11:00	<u><i>Lutz Schubert, Athanasios Tsitsipas, Lieve Donnellan</i></u>	Statistics in Archaeological Social Network Analysis
11:00 – 11:30	Coffee Break	



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13 September 2018 SESSION: Optimal Homotopy Asymptotic Approach to Nonlinear Dynamical Systems in Engineering CHAIR: Nicolae Herisanu (ROOM 5)		
09:00 – 09:30	<i>Liaqat Ali</i> <i>Saeed Islam</i> <i>Taza Gul</i>	An Improved Form of Optimal Homotopy Asymptotic Method for the Solution of System of Nonlinear Coupled Differential Equations Occuring in the Phenomenon of Fluid Mechanics
09:30 – 10:00	<i>Shaukat Iqbal,</i> <i>Muhammad Rafiq</i> <i>Mufti, Humaira</i> <i>Afzal, S.Sarwar</i>	Semi-Analytical Solutions for Fractional Order Singular Partial Differential Equations with Variable Coefficients
10:00 – 10:30	<i>Laiq Zada</i> <i>Rashid Nawaz</i>	Solution of Time-Fractional Order RLW Equation Using Optimal Homotopy Asymptotic Method
10:30 – 11:00	<i>Nicolae Herisanu</i> <i>Vasile Marinca</i>	Optimal Homotopy Asymptotic Method in the Study of Energy Harvesting Problems
11:00 – 11:30	Coffee Break	
11:30 – 12:00	<i>Rashid Nawaz</i> <i>Laiq Zada</i>	Solution of Time-Fractional Mathematical Model of Nonlinear Wave in Hyperplastic Rod
12:00 – 12:30	<i>Vasile Marinca</i> <i>Nicolae Herisanu</i>	Optimal Homotopy Asymptotic Method for Polytrophic Spheres of the Lane-Emden Type Equations



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13 September 2018 SESSION: Symposium#21 Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures CHAIR: Juraj Králik and Jozef Melcer (ROOM 6)		
09:00 – 09:30	<u><i>Juraj Králik</i></u>	Risk Analysis of the Failure of Hermetic Steel Doors in NPP During Technology Accident
09:30 – 10:00	<u><i>Juraj Kralik, Peter Rosko and Juraj Kralik, jr.</i></u>	Analysis of the Soil-Structure Interaction Considering the Impedance Functions
10:00 – 10:30	<u><i>Kamila Kotrasová, Eva Kormaníková and Martin Vašina</i></u>	Parametric study of seismic response of cylindrical tank
10:30 – 11:00	<u><i>Jozef Melcer Daniela Kuchárová</i></u>	Numerical Simulation of Vehicle Response on Road Profile Quality
11:00 – 11:30	Coffee Break	
11:30 – 12:00	<u><i>Vladimíra Michalcová, Ivan Kološ and Lenka Lausová</i></u>	Numerical Modeling of the Aerodynamic Coefficient of the Circular Cylinder
12:00 – 12:30	<u><i>Juraj Králik, Juraj Králik, jr.</i></u>	Experimental and Numerical Analysis of the Seismic Safety of Technology Support Structures in NPP



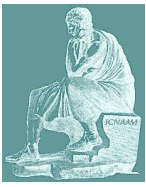
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13 September 2018 SESSION: General Session CHAIR: Michele Cedolin (ROOM 7)		
09:00 – 09:30	<i>Mehtap Dursun, <u>Nazli Goker</u> and Hakan Multu</i>	A Fuzzy Decision Aid for Evaluating Agile Project Management Performance Indicators
09:30 – 10:00	<i>Mehtap Dursun, Nazli Goker and Guray Gumus</i>	Evaluation of Supply Chain Configuration Criteria Using Fuzzy Cognitive Map
10:00 – 10:30	<i>Mujde Erol Genevois and <u>Michele Cedolin</u></i>	Financial Service Evaluation of Countries by Data Envelopment Analysis
10:30 – 11:00	<i>A.Aimi, <u>L.Diazzi</u> and C.Guardasoni</i>	Integral Approach to Asian Barrier Option Pricing
11:00 – 11:30	<i><u>M.S.Aminzadeh</u> and Min Deng</i>	Bayesian estimation of ruin probability based on NHPP claim arrivals and Inverse-Gaussian distributed claim aggregates



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13 September 2018		
SESSION: Some Applications of Novel Numerical Methods for Differential Equations		
CHAIR: Ali AKGÜL (ROOM 8)		
09:00 – 09:30	<u>Ali Akgül and Fazlollah Soleymani</u>	How to construct a fourth-order scheme for Heston-Hull-White equation
09:30 – 10:00	<u>Selçuk BAŞ</u>	A New Method For Inextensible Flows of Adjoint Curves in Space
10:00 – 10:30	<u>Muhammed Talat SARIAYDIN</u>	On Time Evolution Equations of Tangent Spherical Image By Inextensible Flows
10:30 – 11:00	<u>Zeliha KÖRPINAR</u>	Biswas-Milovic model and its optical solitons
11:00 – 11:30	Coffee Break	



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13 September 2018 SESSION: Mathematical Optimization in Modern Medicine and Engineering CHAIR: Flavius Pater (ROOM 9)		
09:00 – 09:30	<u>Eduard</u> <u>Riemschneider,</u> <u>Olivia Bundau,</u> <u>Adina Juratoni and</u> <u>Flavius Pater</u>	An Existence Result for the Control Problem Associated to an Economical Growth Model
09:30 – 10:00	<u>Adrian Alionescu,</u> <u>Sorin Herban and</u> <u>Clara – Beatrice</u> <u>Vilceanu</u>	3D Modelling of Cultural Heritage Objective in Timisoara using precise LiDAR
10:00 – 10:30	<u>Marioara Lapadat</u> <u>and Madalina Pasca</u>	Approximate solutions of the nonlinear standard Lane-Emden equation using the LSDQ method
10:30 – 11:00	<u>Cristian Lazureanu</u>	Chaotic Behavior of an Integrable Deformation of a Nonlinear Monetary System
11:00 – 11:30	Coffee Break	



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WELCOME DRINK

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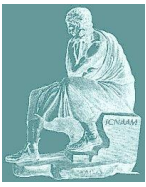
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13 September 2018 SESSION: INVITED SPEAKER CHAIR: Thomas Huckle (ROOM 1)		
11:30 – 12:30	<u>Benedetta Morini</u>	On Conditioning of KKT Systems in Inexact Interior Point Methods

13 September 2018 SESSION: INVITED SPEAKER CHAIR: Benedetta Morini (ROOM 1)		
12:30 – 13:30	<u>Thomas Huckle</u>	Parallel ILU Factorization and Accelerated Jacobi Method for Sparse Matrices



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13 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Gary W Rankin (ROOM 1)		
15:00 – 15:20	<u>Georgy A Khabakhpashev,</u> Dmitry G. Arkhipov	Modeling the collision of moderately long 3D disturbances of small but finite amplitude in a viscous fluid layer
15:20 – 15:40	Sidra Aman, <u>Qasem Almdallal</u>	SA-Copper Based Maxwell Nanofluid Flow with Second Order Slip Effect using Fractional Derivatives
15:40 – 16:00	Arturo Hidalgo, <u>Lourdes Tello</u>	On the Number of Steady States of a Climate Energy Balance Model
16:00 – 16:20	Talha Atta, <u>Zaib Ali,</u> Syed Mudassir Ali, Emad Uddin	Hydrodynamic Design and Performance Analysis of Underwater Vehicles Using CFD
16:20 – 16:40	<u>Kirill Delendik, N Kolyago, O Voitik</u>	Design of Cooling System for High-power LED Luminaire
16:40 – 17:00	R Sheldon Herbst	The Numerical Intricacies of Simulating Relativistic Gas Dynamics
Coffee Break		



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SESSION#14: The 7th Symposium on Generating Functions of Special Numbers and Polynomials and their Applications (GFSNP2018)		
CHAIR: Ahmet YARDIMCI (ROOM 2)		
15:00 – 15:30	<u>Yilmaz SIMSEK</u>	Remarks and some formulas associated with combinatorial numbers
15:30 – 16:00	<u>Ahmet YARDIMCI</u>	A note on Korobov type polynomials associated with molecular dynamic model
16:00 – 16:30	<u>Mustafa Gurhan YALCIN</u>	Statistical Evaluation of the Geochemical Content of Beach Sand along the Sarisu-Kemer Coastline of Antalya, Turkey
16:30 – 17:00	<u>Ortac ONES and Mustafa ALKAN</u>	On The Relations Between Subgroups And Ideals
17:00 – 17:30	Coffee Break	



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13 September 2018 SESSION: Asymptotics of Special Functions CHAIR: Mourad EH Ismai (ROOM 3)		
15:00 – 15:30	<i>Luc Vinet</i>	TBA
15:30 – 16:00	<i>Rodrick Wong</i>	TBA
16:00 – 16:30	<u><i>Dan Dai</i></u>	TBA
16:30 – 17:00	<u><i>Ruiming Zhang</i></u>	TBA
17:00 – 17:30	Coffee Break	

13 September 2018 SESSION: THE EIGHTH SYMPOSIUM ON ADVANCED COMPUTATION AND INFORMATION IN NATURAL AND APPLIED SCIENCES (Sess. 2) CHAIR: Dr. Claus-Peter Rückemann (ROOM 4)		
15:00 – 15:35	<u><i>Raffaella Pavani</i></u>	D-stability characterization problem can exhibit a polynomial computational complexity
15:35 – 17:00	<i>Claus-Peter Rückemann, Raffaella Pavani, Lutz Schubert, Birgit Gersbeck-Schierholz, Friedrich Hülsmann, Olaf Lau, Martin Hofmeister (and audience)</i>	Delegates' Summit: Best Practice and Definitions of Data Value



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13 September 2018 SESSION: The Fourth Symposium on Applied Problems in Probability Theory and Mathematical Statistics Related to Modeling of Information Systems" (APPT+MS) CHAIR: Elvira Zaripova (ROOM 5)		
15:00 – 15:20	<i><u>Elvira Zaripova,</u></i> <i>Alexander Grebeshkov, Nika Ivanova, Konstantin Samouylov</i>	Modeling of Vertical Handover from LTE to a Cognitive Network
15:20 – 15:40	<i><u>Ivan Sinitsyn, Elvira Zaripova, Yuliya Gaidamaka, Aminu Adamu, Vsevolod Shorgin</u></i>	Random-Access Performances Measures Evaluation with the Concept of Virtual Preamble
15:40 – 16:00	<i><u>Vitalii Beschastnyi,</u></i> <i>Mikhail Polovov, Daria Ostrikova, Irina Gudkova, Sergey Shorgin</i>	Analytical Model for Performance Analysis of Video Flow Transmission to Multicast Subgroups in 5G Wireless Networks
16:00 – 16:20	<i>Vitalii Beschastnyi,</i> <i>Valeria Savich, <u>Daria Ostrikova, Irina Gudkova, Vsevolod Shorgin</u></i>	Analysis of Machine-Type Communication Data Transmission by Multicasting Technology in 5G Wireless Networks
16:20 – 16:40	<i><u>Dmitry Kozyrev,</u></i> <i>Dmitry Radkevich</i>	Reliability Estimation of a Broadband Wireless Network with Linear Topology and Cross Redundancy
16:40 – 17:00	<i>Abdelhamied Ateya,</i> <i><u>Ammar Muthanna,</u></i> <i>Andrey Koucheryavy</i>	Energy Aware Multilevel Clustering Protocol for WSNs and Future Sensor Based Systems
17:00 – 17:30	Coffee Break	
17:35 – 18:05	<i><u>Alexander Zeifman,</u></i> <i>Yacov Satin, Ksenia Kiseleva, Anastasia Kryukova</i>	Applications of Differential Inequalities to Bounding the Rate of Convergence for Continuous-time Markov Chains



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SESSION: Symposium#21 Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures		
CHAIR: Martin Krejsa and Zdenek Kala (ROOM 6)		
15:00 – 15:30	<u>Martin Krejsa</u>, Jiri Koltan, Petr Janas, Jiri Brozovsky, Stanislav Seitl, Zdenek Kala and Vlastimil Krejsa	Parallelization in DOProC method and its using in probabilistic modelling of fatigue problems
15:30 – 16:00	<u>Zdeněk Kala</u>, Stanislav Seitl, Martin Krejsa and Abayomi Omishore	Reliability Assessment of Steel Bridges based on Experimental Research
16:00 – 16:30	<u>Zdeněk Kala</u>, David Lehký and Drahomír Novák	Utilization of Artificial Neural Networks for Global Sensitivity Analysis of Model Outputs
16:30 – 17:00	<u>Jakub Flodr</u>, Přemysl Pařenica, Petr Lehner, Martin Krejsa	Numerical analysis of double C profile connected by clinching technology
17:00 – 17:30	Coffee Break	



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13 September 2018 SESSION: Numerical Optimization and Applications CHAIR: Ana I. Pereira (ROOM 7)		
15:00 – 15:30	<i>Luis Piardi, José Lima, <u>Ana I. Pereira</u> and Paulo Costa</i>	Coverage Path Planning Optimization Based on Q-Learning Algorithm
15:30 – 16:00	<i>Andrey Romanenko, <u>Florbela P. Fernandes</u> and Natércia C.P. Fernandes</i>	PID Controllers Tuning with MCSFilter
16:00 – 16:30	<i>Gonçalo Silva, Pedro Costa, Luís Rocha and <u>José Lima</u></i>	Path Planning Optimization for a Mobile Manipulator
16:30 – 17:00	<i>José Lima, Pedro Costa, Paulo Costa, Lucas Eckert, Luis Piardi, A. Paulo Moreira and Alberto Nakano</i>	A* Search Algorithm Optimization Path Planning in Mobile Robots Scenarios
17:00 – 17:30	Coffee Break	



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13 September 2018 SESSION: Some Applications of Novel Numerical Methods for Differential Equations CHAIR: Ali AKGÜL (ROOM 8)		
15:00 – 15:30	<i>Qinxu Ding and Patricia J.Y. Wong</i>	Numerical Treatment of a System of Second-order Boundary Value Problems via Mid-knot Cubic Non-polynomial Spline
15:30 – 16:00	<i>Qinxu Ding and Patricia J.Y. Wong</i>	An Efficient Numerical Approach for a New Generalized Fractional Diffusion Equation
16:00 – 16:30	<i>Qinxu Ding and Patricia J.Y. Wong</i>	Numerical Method For Fractional Bagley-Torvik Equation

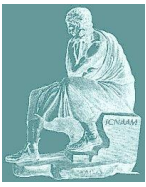
13 September 2018 SESSION: Mathematical Optimization in Modern Medicine and Engineering CHAIR: Flavius Pater (ROOM 9)		
15:00 – 15:30	<u><i>Nicolin L. Alma, Popescu Cosmin Alin, Rujescu I. Ciprian, Herbei V. Mihai, Sala Florin</i></u>	Fractal Characterisation of the Cork Cambium in <i>Fraxinus angustifolia</i> Vahl. Depending on Image Caption Distance
15:30 – 16:00	<u><i>Nicolin L. Alma, Popescu Cosmin Alin, Rujescu I. Ciprian, Herbei V. Mihai, Sala Florin</i></u>	Interdependence Relations between Biometric Indices in the Fruits of <i>Quercus rubra</i> L.
16:00 – 16:30	<u><i>Iulia ROATEȘI, Simona ROATEȘI</i></u>	Application of Numerical Modeling in Dental Implantology Biomechanics



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13 September 2018 SESSION: Computational Bio-Imaging and Visualization CHAIR: Yu-Fen Chang (ROOM 9)		
16:30 – 17:00	<u><i>Yu-Fen Chang</i></u>	Numerical Investigation of a Transformable Modular PET System: Consideration of Point-Spread Functions, Module Arrangements, and Operation Protocols

13 September 2018 SESSION: 1st Symposium on Advanced Methods and Information Technologies Applications (AMITA) CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova (ROOM 10)		
15:00 – 15:30	<i>Petr S. Martyshko</i>	On Solution of 3D Inverse Problems of Magnetic Explorations
15:30 – 15:50	<i>Elena N. Akimova, Vladimir E. Misilov</i>	Algorithm for Solving the Linear Inverse Problem of Finding Magnetization in a Horizontal Layer
15:50 – 16:10	<i>Elena N. Akimova, Egor V. Belinsky</i>	Conjugate Gradient Algorithm for Solving Linear Systems with Block-Fivediagonal Matrices on GPU
16:10 – 16:30	<i>Denis A. Letavin, Nikolay S. Knyazev</i>	Digital Model for Construction a Compact Crossover
16:30 – 16:50	<i>Denis A. Letavin, Danil A. Trifonov</i>	Method, Algorithm and Implementation of Microstrip Phase Shifter
17:00 – 17:30	Coffee Break	



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13 September 2018 SESSION: INVITED SPEAKER CHAIR: Walter Gander (ROOM 1)		
17:30 – 18:30	<i>Fabrizio Colombo,</i> <i><u>Irene Sabadini</u> and</i> <i>Daniele C. Struppa</i>	A Panorama on Superoscillations



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13 September 2018 SESSION 47: Title V Mini symposium on symmetry methods and their applications to differential equations CHAIR: Maria Luz Gandarias, Chaudry Masood Khalique and Rita Tracinà (ROOM 2)		
18:35 – 19:05	<i>Rita Tracinà</i>	Differential invariants of a class of second order nonlinear evolution equations
19:05 – 19:35	<i>Maria Luz Gandarias</i>	Conservation laws for a double dispersion equation
19:35 – 20:05	<i>Masood Khalique</i>	A study of two-dimensional Zakharov-Kuznetsov-Burgers equation
20:05 – 20:35	<u><i>Geory Burde</i></u>	Partially Nonclassical Method and Conformal Invariance

13 September 2018 SESSION: Asymptotics of Special Functions CHAIR: Mourad EH Ismai (ROOM 3)		
18:35 – 19:05	<i>Mark Dunster</i>	TBA
19:05 – 19:35	<i>Mourad Ismail</i>	TBA
19:35 – 20:05	<u><i>Pert Blaschke</i></u>	TBA
20:05 – 20:35	<u><i>Adri Dalhuis</i></u>	TBA



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13 September 2018 SESSION: General Session CHAIR: Zacharoula Kalogiratou (ROOM 4)		
19:05 – 19:35	<i><u>Z. Kalogiratou, Th. Monovasilis, T.E. Simos</u></i>	Two Derivative Runge Kutta methods of order six
19:35 – 20:05	<i>Th. Monovasilis, Z. Kalogiratou, T.E. Simos</i>	Optimize Two Derivative Runge Kutta methods for solving orbital and oscillatory problems
20:05 – 20:35	<i>Galina Mehdiyeva, Vagif Ibrahimov, Mehriban Imanova</i>	One Relationship Between Volterra Integro-Differential and Ordinary Differential Equations

13 September 2018 SESSION: General Session CHAIR: Aleksandra Mikołajczak (ROOM 5)		
20:00 – 20:30	<i>Piotr Darnowski and Aleksandra Mikołajczak</i>	Monte Carlo Simulations of the 1000 MWthSFROECD/NEA Benchmark with SERPENT Code
20:30 – 21:00	<i>Aleksandra Mikołajczak, Piotr Krawczyk, Krzysztof Badyda</i>	Initial Investigation of the Dry Ice Blasting Convergent-Divergent Nozzle Geometry with the CFD methods



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13 September 2018 SESSION: Symposium#21 Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures CHAIR: Martin Krejsa (ROOM 6)		
17:35 – 18:05	<u><i>Petr Král, Petr Hradil, Jiří Kala, Zdeněk Kala, and Filip Hokeš</i></u>	Using the Inverse Identification of Parameters of a Nonlinear Concrete Material Model for Analysis of RC Structural Element
18:05 – 18:35	<u><i>Filip Hokes, Petr Kral and Miroslav Trcala</i></u>	Modelling Uniaxial Compression of Concrete Specimen with Utilization of Nonlinear Material Models inside ANSYS and RFEM
18:35 – 19:05	<u><i>Petr Lehner and Petr Konečný</i></u>	Effect of Different Concrete Material Parameters on the Accuracy of FEM Model of Diffusion
19:05 – 19:35	<u><i>Pavlina Mateckova, Marie Kozielova, Zuzana Marcalikova and Lubos Pazdera</i></u>	Detection of Cracks in Concrete Slab on Subsoil Using Acoustic Emission and Numerical Modelling

13 September 2018 SESSION: Numerical Optimization and Applications CHAIR: Ana I. Pereira (ROOM 7)		
18:35 – 19:05	<u><i>Marina A. Matos, Ana Maria A.C. Rocha and Ana I. Pereira</i></u>	On Optimizing the Build Orientation Problem using Genetic Algorithm
19:05 – 19:35	<u><i>Pedro Moura, Pedro Costa, José Lima and Paulo Costa</i></u>	A Temporal Optimization Applied to Time Enhanced A*
19:35 – 20:05	<u><i>Rui Fernandes and M.T. Andrade</i></u>	Adaptation Execution Cost Definition for a Multimedia Adaptation Decision Engine Using a Neural Network



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13 September 2018 SESSION 47: Title V Mini symposium on symmetry methods and their applications to differential equations CHAIR: Maria Luz Gandarias, Chaudry Masood Khalique and Rita Tracinà (ROOM 2)		
20:35 – 21:05	<i>Petr Vojcak</i>	Coverings and nonlocal symmetries of Lax-integrable PDEs
21:05 – 21:35	<i>Daddy Moleleki</i>	Lagrangian formulation of the Calogero-Bogoyavlenskii-Schiff_ equation
21:35 – 22:05	<u><i>Gabriel Magalakwe</i></u>	Conservation laws for a (3 + 1)-dimensional extended Zakharov-Kuznetsov equation

13 September 2018 SESSION: Symposium#21 Recent Advances in Numerical Methods and Simulations in Statics and Dynamics of Structures CHAIR: Ivan Baláž and Radim Čajka (ROOM 6)		
19:35 – 20:05	<u><i>Ivan Baláž and Yvona Koleková</i></u>	Aluminium Battened Built-up Column
20:05 – 20:35	<u><i>Přemysl Pařenica, Petr Lehner and Oldřich Sucharda</i></u>	Study of bearing capacity of support connection of thin-walled roof purlins Z350
20:35 – 21:05	<u><i>Jiri Koktan, Radim Cajka and Jiri Brozovsky</i></u>	Efficient Application of Numerical Integration in Settlement Calculation for Iterative Coupled Analysis of Foundation Slab Interaction
21:05 – 21:35	<u><i>Lukas Novak and Drahomir Novak</i></u>	Safety Format for Non-linear Analysis with Correlated Material Characteristics



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13 September 2018 SESSION: General Session CHAIR: Michalina Kurkus-Gruszecka (ROOM 7)		
20:05 – 20:35	<i>Michalina Kurkus-Gruszecka, Piotr Krawczyk and Krzysztof Badyda</i>	CFD Modelling of a Fluid Flow in a Rotary Lobe Expander
20:35 – 21:05	<i>Michalina Kurkus-Gruszecka, Piotr Krawczyk</i>	Impact of Operating Parameters on the Air Consumption by the Rotary Lobe Expander
21:05 – 21:35	<i>Dawid Czapla, Katarzyna Horbacz and Hanna Wojewódka</i>	Limit theorems for a Markov Model of Autoregulated Gene Expression
21:35 – 22:05	<i>Miroslav Vorechovský and Jan Masek</i>	Construction of space-filling designs using a dynamical system of repulsive particles

13 September 2018 SESSION: 1st Symposium on Advanced Methods and Information Technologies Applications (AMITA) CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova (Virtual) (ROOM 10)		
18:35 – 18:55	<i>Victor G. Kobernichenko, Andrey V. Sosnovsky</i>	Accuracy Estimation for the Radar Interferometric Remote Sensing of the Earth Data (Skype)
18:55 – 19:15	<i>Yulia S. Timoshenkova, Sergey V. Porshnev, Nikolay T. Safiullin</i>	Application of Data Assimilation Methods Based on Kalman Ensemble Filters for the Lorenz Attractor (Skype)
19:15 – 19:35	<i>Alexander G. Tsidaev</i>	Controlling the Execution Steps of Data Processing Algorithm with Visual Workflow (Skype)



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13 September 2018 POSTER SESSION: 1st Symposium on Advanced Methods and Information Technologies Applications (AMITA) CHAIR: Prof. Dr. Petr S. Martyshko and Prof. Dr. Elena N. Akimova 18:00 – 19:30	
<i>Konstantin A. Aksyonov, Anna S. Antonova</i>	Implementation of an Algorithm of Multicriteria Analysis under Uncertainty Based on the Integration of Expert Systems, Fuzzy Sets Theory, and Numerical Methods
<i>Natalia A. Buravova, Konstantin A. Aksyonov, Olga P. Aksyonova, Natalia R. Spiricheva</i>	Modeling the Project Management Process in the Teddy Designer of the BPsim.DSS Simulation System
<i>Natalia V. Fedorova, Lev A. Muravyev, Alexey L. Roublev</i>	Mathematical Methods for the Lithospheric Magnetic Anomalies Modelling (Case Study of Taratash Anticlinorium, South Urals)
<i>Sergey I. Kumkov</i>	Interval Approach to Identification of the Describing Function of Experimental Noised Process
<i>Sergey V. Porshnev, Dmitrii V. Kusaykin, Mihail A. Klevakin</i>	On undocumented features of the software implementation of the discrete-time signal reconstruction method based on the interpolation filter
<i>Viktor S. Nagovicin, Alexander P. Buinosov, Alexey A. Kalmykov, Mikhail V. Ronkin</i>	On a numerical simulation method for railway wheels wear probability
<i>Mikhail V. Ronkin, Alexey A. Kalmykov</i>	On a precision measurements of a small distance changes in radar FMCW level gauges
<i>Nina S. Vinogradova, Andrey V. Sosnovsky</i>	Computer Simulation and Analysis of Atomistic and Electron Properties of Defect ZnO Structures
<i>. Sergei N. Shabunin, Petr A. Vekshin</i>	A mathematical model of electromagnetic wave diffraction by a body of revolution
<i>Sergei N. Shabunin, Victor A. Chechetkin</i>	Application of the Green's function method for continuous line-source distribution analysis

END OF THE 1ST DAY



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14 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Peer Ueberholz (ROOM 1)		
9:00 – 10:00	Invited lecture Professor Jiequan Li High Order Temporal-Spatial Coupled Methods for Compressible Multiphase Fluid Flow Problems	
10:00 – 10:20	<u>Zdenek Chara</u>, B Kysela	Comparison of saw tooth impeller and Rushton turbine
10:20 – 10:40	<u>Mihai L Niculescu</u>, M C. Fadgyas, D Pepelea	Development of a Hypersonic Axisymmetric CFD Code Based on Chemical Equilibrium Hypothesis
10:40 – 11:00	<u>R Sheldon Herbst</u>, Dia Zeidan	A Fourth-Order Time Accurate TVD SLIC Scheme for Two-Phase Flow Equations
Coffee Break		



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**SESSION: 11-st Symposium on Recent Trends in the
Numerical Solution of Differential Equations**

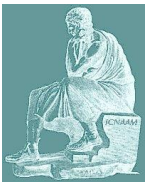
**CHAIR: E. Weinmueller
(ROOM 2)**

09:00 – 09:30	<u>L.Brugnano</u>	Spectrally accurate space-time solution of Hamiltonian PDEs
09:30 – 10:00	<u>A.Eremin</u>	Runge-Kutta methods for differential equations with distributed delays Bespoke finite difference methods that preserve two local conservation laws of the modified KdV equation
10:00 – 10:30	<u>G.Frasca Caccia</u>	Adaptive Magnus-type integrators for the simulation of solar cells
10:30 – 11:00	<u>O.Koch</u>	
11:00 – 11:30		Coffee Break



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14 September 2018 SESSION No 39: 4th Symposium on Computational Modeling and Experimental Assessment of Transport Processes in Porous Building Materials CHAIR: prof. Oldřich Zmeškal, prof. Zbyšek Pavlík (ROOM 3)		
09:00 – 09:15	<i><u>Oldrich Zmeskal,</u> Katerina Pechackova, Pavel Florian, Zbysek Pavlik</i>	Influence of Annealing on Thermal Properties of Ultra High Performance Fiber Reinforced Concrete
09:15 – 09:30	<i><u>Pavel Beran, Jan Fořt</u></i>	Heat Bridges in Passive Houses
09:30 – 09:45	<i><u>Ondřej Holčapek, Jan Machovec, Jaroslav Pokorný</u></i>	Study of Pore Structure of Refractory Concrete with Ceramic Powder Addition
09:45 – 10:00	<i><u>Lucie Zemanová,</u> Jaroslav Pokorný, <u>Milena Pavlíková,</u> Zbyšek Pavlík</i>	Hygric and Thermal Properties of Lime Plasters Modified with Wood Chips Ash-Based Mineral Admixture
10:00 – 10:15	<i><u>Jan Machovec, Pavel Reiterman</u></i>	Influence of Surface Water Absorption on Deicer Salt Scaling Resistance
10:15 – 10:30	<i><u>Jaroslav Pokorný,</u> Martina Záleská, Milena Pavlíková, Zbyšek Pavlík</i>	Properties of Cement Based Mortars Enriched with Diatomaceous Earth
10:30 – 10:45	<i><u>Jaroslav Pokorný,</u> Milena Pavlíková, <u>Zbyšek Pavlík</u></i>	Mechanical Parameters of Different Kinds of Renders Exposed to Sodium Sulfate Solution
10:45 – 11:00	<i><u>Lucie Zemanová,</u> Martina Záleská, Milena Pavlíková, Zbyšek Pavlík</i>	Hygric Parameters of Lightweight Mortar Accessed by Combined Computational- Experimental Approach
11:00 – 11:30	Coffee Break	



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14 September 2018 SESSION: INVITED SPEAKER CHAIR: Stefano Serra-Capizzano (ROOM 1)		
11:30 – 12:30	<u>Tony Chan</u> <i>in collaboration</i> <i>with: Wei Ke, Ke</i> <i>Yin and Xue-</i> <i>Cheng Tai</i>	New Regional Force for Variational Models in Image Segmentation and High Dimensional Data Clustering

14 September 2018 SESSION: INVITED SPEAKER CHAIR: Tony Chan (ROOM 1)		
12:30 – 13:30	<i>Carlo Garoni and</i> <u>Stefano Serra-</u> <u>Capizzano</u>	Multilevel Generalized Locally Toeplitz Sequences: An Overview and an Example of Application



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14 September 2018 SESSION No 39: 4th Symposium on Computational Modeling and Experimental Assessment of Transport Processes in Porous Building Materials CHAIR: prof. Oldřich Zmeřkal, prof. Zbyšek Pavlík (ROOM 3)		
11:30 – 11:45	<u><i>Jan Machovec</i></u>	Combined Application of Fly ash and Ceramic Powder in Low Strength Concrete
11:45 – 12:00	<u><i>Pavel Beran, Jiří Maděra</i></u>	Condensation of Water Vapor in Baroque Church

14 September 2018 SESSION: 3rd Symposium on Difference & Differential Equations and Applications CHAIR: Felix Sadyrbaev (ROOM 4)		
09:00 – 09:30	<i>Sandra Pinelas</i>	Necessary and Sufficient Conditions for the Oscillatory Behavior of Solutions to Second Order Nonlinear Differential Equations with Several Delays
09:30 – 10:00	<i>Marlene Frigon</i>	Existence and Multiplicity Results for Systems of First Order Differential Equations Via the Method of Solution-Regions
10:00 – 10:30	<i>Qi Wang</i>	Mathematical Models for Optimising Bi-enzyme Biosensors - Part Two
10:30 – 11:00	<i>Afonso Fernando Tsandzana</i>	Homogenization of a compressible cavitation model with moving rough surface
11:00 – 11:30	Coffee Break	



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14 September 2018		
SESSION: Analysis of Quantum Field Theory IV		
CHAIR: Peter Tsang		
(ROOM 5)		
09:45 -09:55	<u>Peter Tsang</u>	<u>Welcome</u>
10:00 – 10:50	<u>Ralf Hofmann</u>	<u>SU(2) Yang-Mills thermodynamics, a modified CMB temperature-redshift relation, the cosmological model, and the value of H_0</u>
11:00 – 11:30	Coffee Break	
11:30 – 12:30	<u>Hugo Reinhardt</u> <u>Variational Approach To QCD In Coulomb Gauge</u>	
12:30 – 13:30	<u>Thierry Grandou</u> <u>Chiral Symmetry Breaking out of QCD</u> <u>Effective Locality</u>	



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14 September 2018 SESSION: 3rd Symposium on mathematical modeling and numerical simulation of physical and chemical phenomena in porous materials CHAIR: Jaroslav Kruis (ROOM 6)		
09:00 – 09:15	<i>Jan Kočí, Jiří Maděra and Robert Černý</i>	<i>Effect of the Current Warming Trend on the Computational Damage Assessment of Building Materials</i>
09:15 – 9:30	<i>Jan Kočí, Jan Fořt and Jiří Maděra</i>	<i>Comparison of Hygric Responses of Three Different Plasters for Interior Applications</i>
9:30 – 9:45	<i>Jiří Maděra, Václav Kočí and Pavel Beran</i>	<i>Material Homogenization Technique based on Overall Hygrothermal Performance</i>
9:45 – 10:00	<i>Igor Medved' and Robert Černý</i>	<i>Concentration dependence of diffusion coefficients of $^{22}\text{Na}^+$ and $^{134}\text{Cs}^+$ in opalinus clay rocks</i>
10:00 – 10:15	<i>Miloš Jerman, Michaela Petříková, Lukáš Fiala, Jiří Maděra and Robert Černý</i>	<i>Self-heating Experiment: Alkali-activated Aluminosilicate with Carbon-based Admixture</i>
10:15 – 10:30	<i>Lukáš Fiala, Petr Konrád, Jiří Maděra and Robert Černý</i>	<i>Data Acquisition and Acoustic Modeling of Heterogeneous Building Materials</i>
10:30 – 10:45	<i>Tomáš Ondro, Omar Al-Shantir, and Anton Trník</i>	<i>Kinetic Analysis of Illite Dehydroxylation</i>
10:45 – 11:00	<i>Jiří Maděra, Jaroslav Kruis, Tomáš Koudelka and Radoslav Sovják</i>	<i>Analysis of Plaster Detachment and Experimental Determination of Plaster--Masonry Interface Shear Capacity</i>



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14 September 2018		
SESSION: 4th Symposium on Modelling and Simulation in Computer Sciences and Engineering (MSCSE 2018)		
CHAIR: Jascha Grübel (ROOM 7)		
09:00 – 09:30	<i>Giorgio Geraci and Ferri M H Aliabadi</i>	Micromechanical Modelling of Thermoelastic Cracking in Polycrystalline Materials
09:30 – 10:00	<i>Weronika Wojtak, Flora Ferreira, Estela Bicho and Wolfram Erlhagen</i>	Numerical Analysis of the Shape of Bump Solutions in a Neuronal Model of Working Memory
10:00 – 10:30	<i>M. A. Forjaz, A. M. Almeida, T. de Lacerda-Arôso and J. Pamplona</i>	Balance Between Viscous and Elastic Parameters for Ductile Materials Flow under an Overdamped Regime
10:30 – 11:00	<i>Jascha Grübel, Sarah Wise, Tyler Thrash and Christoph Hölscher</i>	A Cognitive Model for Routing in Agent-Based Modelling
11:00 – 11:30	Coffee Break	



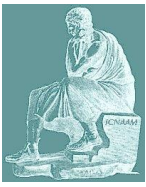
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14 September 2018		
SESSION 76: Dynamical systems and their applications to advanced materials, structures and technologies		
CHAIR: Jiří Vala (ROOM 8)		
09:00 – 09:30	<u>J. Diblík,</u> <i>M. Růžičková, G. Vážanová</i>	Exponential-type Estimates of Solutions Linear Discrete Systems with Constant Coefficients and Single Delay
09:30 – 10:00	<u>M. Růžičková,</u> <i>I. Dzhalladova, J. Diblík</i>	Dynamical System with Markov Parameters for Modelling System Security of Threats in Cyberspace
10:00 – 10:30	<u>Z. Pátíková</u>	Some Remarks on Asymptotics of Nonoscillatory Solutions of Half-Linear Riemann-Weber Type Equations
10:30 – 11:00	<u>Z. Svoboda,</u> <i>J. Diblík</i>	Existence of Strictly Decreasing Positive Solutions of Linear Differential Equations of Neutral Type
11:00 – 11:30	Coffee Break	



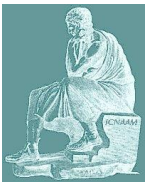
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14 September 2018 SESSION: Third Symposium on Border Zones between Experimental and Numerical Applications Including Solution Approaches by Extensions of Standard Numerical Methods (Part I) CHAIR: Christian Seidel (ROOM 9)		
09:00 – 09:30	<u>Michael Gross</u>	Locking-free higher-order energy-momentum schemes for thermo-viscoelastic fiber-reinforced materials derived by the principle of virtual power
09:30 – 10:00	<u>Sigrun Ortleb</u>	A Fourier-Type Analysis of the Gauss and Gauss-Lobatto P1-Discontinuous Galerkin Methods for the Linear Advection-Diffusion Equation
10:00 – 10:30	<u>Robert Geise</u>	On the Superposition of Error Contributions



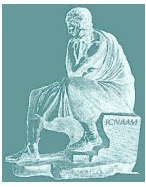
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14 September 2018		
SESSION: Mathematical modeling in applied research		
CHAIR: Alexander Krishchenko, Inga Savelyeva (ROOM 10)		
09:00 – 09:30	<i>A.P. Krishchenko</i>	Trajectories Behavior of the Duffing Equation with External Unknown Forcing.
09:30 – 10:00	<i>V.S. Zarubin, E.S. Sergeeva</i>	Mathematical Modeling of the Structure-sensitive Composite Elastic Properties
10:00 – 10:30	<i>A.S. Epikhin, V.T. Kalugin</i>	Numerical modeling of vortices impact processes on the tail of aircraft with airbrake at subsonic flow
10:30 – 11:00	<i>T.V. Glazkov, A.E. Golubev, A.V. Gorbunov, A.P. Krishchenko,</i>	Control of Quadcopter Motion in the Horizontal Plane
11:00 – 11:30	Coffee Break	



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14 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Vitaly Malinin (ROOM 1)		
15:00 – 15:20	Espen Hiis, Marcus Stenhje, Gleb I Pisarev, <u>Boris V Balakin</u>	Theoretical and Experimental Study of Hydraulic Accumulator Discharge
15:20 – 15:40	<u>Emad Uddin</u> , Usman Iqbal, Nabeel Arif, Samiur Rehman Shah	Analysis of Metal Transfer in Gas Metal Arc Welding
15:40 – 16:00	<u>Nitish Arya</u> , Ashoke De	A dynamic Two-Coefficient Wall Adapting Local Eddy Viscosity Model
16:00 – 16:20	<u>Arturo Hidalgo</u> , Lourdes Tello	Numerical simulation of a porous-medium type two- dimensional atherosclerosis model
16:20 – 16:40	<u>AR Appadu</u> , KM Agbavon	Comparison of some numerical methods for FitzHugh-Nagumo equation
16:40 – 17:00	Sidra Aman, <u>Qasem Almdallal</u>	Flow of Ferrofluids with magnetite nanoparticles under Second Order Slip Effect
Coffee Break		



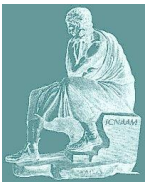
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**SESSION: 11-st Symposium on Recent Trends in the
Numerical Solution of Differential Equations**

**CHAIR: L. Brugnano
(ROOM 2)**

15:00 – 15:30	<u><i>F.Iavernaro</i></u>	Spectrally accurate solutions of nonlinear fractional initial value problems
15:30 – 16:00	<u><i>A.Pedas</i></u>	Numerical solution of fractional integro- differential equations with weakly singular kernels
16:00 – 16:30	<u><i>E.Weinmueller</i></u>	Numerical simulation of flow in smetic liquid crystals
16:30 – 17:00	GROUP PHOTO	
17:00 – 17:30		Coffee Break



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14 September 2018		
SESSION#14: The 7th Symposium on Generating Functions of Special Numbers and Polynomials and their Applications (GFSNP2018)		
CHAIR: Kursat ER (ROOM 3)		
15:00 – 15:30	<u>Dmitry V. KRUCHININ</u>, Vadim S. MELMAN and Yuriy V. SHABLYA	A Library for Calculating Polynomials Based on Compositae of Generating Functions
15:30 – 16:00	<u>Dmitry V. KRUCHININ</u>, Vladimir V. KRUCHININ and Yuriy V. SHABLYA	Explicit Formulas for the Eulerian Numbers of the Second Kind
16:00 – 16:30	<u>Kursat ER and Yilmaz SIMSEK</u>	Recent development on mathematical models including human root dentin and the other applications
16:30 – 17:00	<u>Fusun YALCIN</u>	Linear Programming Approaches and Production Planning for Investments in the Dairy Industry
17:00 – 17:30	Coffee Break	



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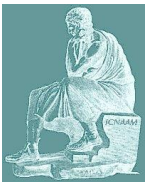
14 September 2018 SESSION: Statistical Inference in Copula Models and Markov Processes III CHAIR: V.A. González-López University of Campinas, Brazil (ROOM 4)		
15:00 – 15:30	<u>Jesús E. García and S.L.M. Londoño</u>	Optimal Model for a Set of Markov Processes
15:30 – 16:00	<u>V. A. González-López, N. Rodrigues and N. Romano</u>	Copula Model between Rates of Sexually Transmitted Diseases and Rates of Unemployment
16:00 – 16:30	<u>V. A. González-López, N. Rodrigues and N. Romano</u>	Upper Tail Dependence between Rates of Sexually Transmitted Diseases and Rates of Unemployment/Poverty
16:30 – 17:00	<u>V. A. González-López</u>	Open Problems
17:00 – 17:30	Coffee Break	

14 September 2018 SESSION: Analysis of Quantum Field Theory IV CHAIR: Huge Reinhardt (ROOM 5)		
15:00 – 15:50	<u>Roman Höllwieser</u>	<i>tba</i>
16:00 – 16:30	<u>Herbert Weigel</u>	<u>Quantum Instabilities of Solitons</u>
16:30 – 17:00	<u>Tiziana Durante</u>	<u>Homogenization of Elliptic Operators in a Strip Perforated Along A Curve</u>



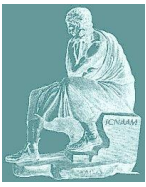
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14 September 2018 SESSION: 6th Symposium on Decision Support Systems in Construction Management CHAIR: Plebankiewicz; Skorupka (ROOM 6)		
15:00 – 15:15	<i>Dariusz Skorupka, Stanisław Stanek and Mariusz Żytniewski</i>	Agent Supported Process Mining
15:15– 15:30	<i>Skorupka Dariusz, Duchaczek Artur, Kowacka Magdalena and Zagrodnik Paweł</i>	Evaluation of Likelihood of Occurrence of Selected Geodetic Risk Factors
15:30- 15:45	<i>Dariusz Skorupk, Artur Duchaczek, Agnieszka Waniewska, Jakub Malewicz</i>	Taxonomical Analysis of Regional Differentiation of Road Infrastructure in Poland
15:45- 16:00	<i>Edyta Plebankiewicz, Michał Juszczyk, Jarosław Malara, Michał Cichoń and Robert Możdżeń</i>	Development of the Innovative System for Monitoring Efficiency of Labour and Progress of Construction Works
16:00 – 16:15	<i>Bożena Hoła, Anna Hoła and Mariusz Szóstak</i>	A Model of the Development of an Accident Situation Involving Construction Scaffolding
16:15 – 16:30	<i>Dominika Dudziak- Gajowiak and Krzysztof Juszczyszyn</i>	Complex Networks Modelling of Supply Chains in Construction and Logistics
16:30 – 16:45	<i>Joanna Goszczyńska and Michał Krzemiński and Tomasz Wojtkiewicz</i>	Risk Analysis for Building Materials Supply and Storage Strategy
17:00 – 17:30	Coffee Break	



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14 September 2018		
SESSION: 4th Symposium on Modelling and Simulation in Computer Sciences and Engineering (MSCSE 2018)		
CHAIR: Francisco Miranda (ROOM 7)		
15:00 – 15:30	<i>Renata Filipowska</i>	The Use of the Cosine Function in Modelling of a Ski Jumping In-Run Hill
15:30 – 16:00	<i>Kevin Aleixo and António Curado</i>	Envelope Analysis of a Habitable Attic by the Use of Infrared Thermography Assessment
16:00 – 16:30	<i>D. Miranda, F. Miranda, A. M. Almeida, S. Lanceros-Méndez and C. M. Costa</i>	Theoretical Simulation of the Influence of Cathode Formulation on Lithium- Ion Battery Performance
16:30 – 17:00	<i>Carlos Abreu, Francisco Miranda and Paula Felgueiras</i>	Carbohydrate Counting: How Accurate Should It Be to Achieve Glycemic Control in Patients on Intensive Insulin Regimens?
17:00 – 17:30	Coffee Break	



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14 September 2018		
SESSION 76: Dynamical systems and their applications to advanced materials, structures an technologies		
CHAIR: Josef Diblík (ROOM 8)		
15:00 – 15:30	<i>J. Chvalina, M. Novák, <u>Š. Křehlík</u></i>	Hyperstructure Generalizations of Quasi-Automata Induced by Modelling Functions and Signal Processing
15:30 – 16:00	<i><u>J. Rebenda,</u> Z. Šmarda</i>	Solution to Delayed Fractional Differential Equations of Second Order
16:00 – 16:30	<i><u>J. Rebenda,</u> Z. Šmarda</i>	Application of Differential Transform to Two-Term Fractional Differential Equations with Noncommensurate Orders
16:30 – 17:00	<i><u>J. Rebenda,</u> Z. Šmarda</i>	Boundary Value Problem for Elliptic Equations: A Differential Transformation Approach
17:00 – 17:30	Coffee Break	



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14 September 2018 SESSION: Methods of Nonlinear Mathematical Physics CHAIR: Nikolay Kudryashov (ROOM 9)		
15:00 – 15:15	<u>Yu.A. Poveshchenko</u> , Yu.S. Sharova, V.O. Podryga, V.A. Gasilov	Integral-Consistent Numerical Technique for Self-Gravitating Medium Model
15:15 – 15:30	<u>V.O. Podryga</u> , S.V. Polyakov	Molecular Dynamic Modeling of Metal Nanocluster Motion Caused by Gas Flow Influence
15:30 – 15:45	<u>Aleksandr Sboev</u> , Dmitry Gudovskikh, Ivan Moloshnikov, Roman Rybka	A gender identification of text author in mixture of Russian multi-genre texts with distortions on base of data-driven approach using machine learning models
15:45 – 16:00	Aleksandr Sboev, Alexey Serenko, <u>Roman Rybka</u> , Danila Vlasov	Influence of input encoding on solving a classification task by spiking neural network with STDP
16:00 – 16:15	<u>I. Modin</u> , A. Kochetkov, N. Leontiev	Numerical Simulation of Quasistatic and Dynamic Compression of a Granular Layer
16:15 – 16:30	Dmitry Sinelshchikov	On first integrals for some non-autonomous Lienard-type equations
16:30 – 16:45	Nikolay A. Kudryasho, Rodion Muratov, <u>Pavel Ryabov</u>	On Collective Behaviour of Shear Bands in Dipolar HY-100 Steel and OFHC Copper
16:45 – 17:00	Nikolay A. Kudryashov	Traveling wave solutions of the equation for surface wave in a convecting fluid



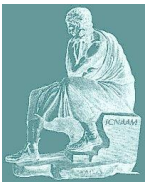
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14 September 2018		
SESSION: Mathematical modeling in applied research		
CHAIR: Alexander Krishchenko, Inga Savelyeva (ROOM 10)		
15:00 – 15:30	<i>G.N. Kuvyrkin, I.Yu. Savelyeva</i>	One Mathematical Model of Heat Conduction in Nonlocal Medium
15:30 – 16:00	<i>N.E. Stadnik, E.V. Murashkin, E.P. Dats</i>	Residual Stresses in Blood Vessel Wall During Atherosclerosis
16:00 – 16:30	<i>I.Yu. Savelyeva, A.V. Zhuravsky</i>	Thermal Processes in Built- up Curvilinear Surface Considering the Features of Heat Exchange
16:30 – 17:00	<i>A.E. Golubev, Nay Thway, A.V. Gorbunov, A.P. Krishchenko, N.V. Utkina</i>	Construction of Quadrocopter Programmed Motion in a Flat Labyrinth
17:00 – 17:30	Coffee Break	



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14 September 2018 SESSION: Mathematical Methods and Models for Nano-Science CHAIR: Igor Popov (ROOM 11)		
15:00 – 15:30	<i>Jacob Katriel</i>	Open-Shell Quantum Dots And Atoms In Nano-Cavities
15:30 – 16:00	<i>Anton I. Popov</i>	Time-dependent Metric Graph: Wave Dynamics
16:00 – 16:30	<u><i>Irina V. Blinova</i></u>	Spectral Analysis of the Dirac Operator on Y-type Chain Quantum Graph
16:30 – 17:00	<u><i>Ilya Makeev</i></u>	Benchmark Solutions for Two- Component Flows in Microchannels
17:00 – 17:30	Coffee Break	



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14 September 2018 SESSION: INVITED SPEAKER CHAIR: Irene Sabadini (ROOM 1)		
17:30 – 18:30	<u>Walter Gander</u> and <u>Qiquan Shi</u>	Matrix Completion with ϵ-algorithm



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14 September 2018 SESSION: Sinc Methods in Honor of Frank Stenger's 80th birthday CHAIR: Gerd Baumann (ROOM 2)		
18:35 – 19:05	<u><i>Frank Stenger</i></u>	Indefinite integration and orthogonal polynomials
19:05 – 19:35	<i>Frank Stenger, Robert S. Anderssen and S.-Sum Chow</i>	A Sinc-Fourier Approach to Scattering Problems
19:35 – 20:05	<u><i>Fuminori Tatsuoka, Tomoaki Okayama, Shao-Liang Zhang, Masaaki Sugihara</i></u>	A Note on Computing the p th Root of Sinc Matrices
20:05 – 20:35	<u><i>Ken'ichiro Tanaka and Masaaki Sugihara</i></u>	Energy Minimization for Approximating Analytic Functions
20:35 – 21:05	<i>Mourad Ismail</i>	Quasi Orthogonal Polynomial
21:05 – 21:35	<i>Gerd Baumann and Frank Stenger</i>	On Finite Domain Lévy-Schrödinger Equation: Their Eigenvalues and Eigenfunctions using Sinc Methods

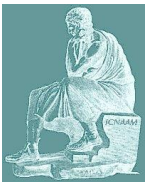
14 September 2018 SESSION: Some Applications of Novel Numerical Methods for Differential Equations CHAIR: Ali AKGÜL (ROOM 3)		
18:35 – 19:05	<i>Roman Trobec and Majaz Depolli</i>	Calculation complexity of fretting fatigue simulations



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14 September 2018		
SESSION: The Fifth Symposium on Approximation of Curves and Surfaces (ACS 2018)		
CHAIR: Abedallah Rababah and Ulrich Reif (ROOM 4)		
18:35 – 19:05	<u><i>U Reif</i></u>	TBA
19:05 – 19:35	<u><i>A Weinmann</i></u>	TBA
19:35 – 20:05	<u><i>J Peters</i></u>	TBA
20:05 – 20:35	<u><i>A Rababah</i></u>	Methods of high order approximation

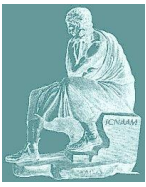
14 September 2018		
SESSION: Analysis of Quantum Field Theory IV		
CHAIR: Thierry Grandou (ROOM 5)		
18:35 – 19:35	<u><i>Peter Tsang</i></u>	<u><i>Schwinger Generating Functional Derivation of LHC Elastic Proton-Proton Scattering Amplitudes</i></u>
19:35 – 20:35	<u><i>Stanley Brodsky</i></u>	<u><i>tba</i></u>



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14 September 2018		
SESSION: 6th Symposium on Decision Support Systems in Construction Management		
CHAIR: Plebankiewicz; Skorupka (ROOM 6)		
18:35 – 18:50	<i>Robert Balcerzyk, Dorota Balcerzyk, Józef Ledzianowski, Rafał Siczek</i>	Fluctuation of Employees in Construction Company as a Measurable Phenomenon
18:50 – 19:05	<i>Renata Kozik, Agnieszka Leśniak, Marcin Majka</i>	Application of Multi-criteria Analysis Method for Thermal Insulation Solutions Selection
19:05 – 19:20	<i>Krzysztof Zima and Kinga Sup</i>	Planning the Renovation Policy of Multi-Family Buildings Built in Large-Panel Technology with Use of Fuzzy Logic
19:20 – 19:35	<i>Agnieszka Dziadosz and Mariusz Rejment</i>	Risk Assessment in Construction Project Using Statistic Approach

14 September 2018		
SESSION: General Session		
CHAIR: Ottavia Corbi (ROOM 6)		
19:35 – 20:05	<i>Ileana Corbi and Ottavia Corbi</i>	Fabric Reinforced Cementitious Matrix for Strengthening of Masonry Vaulted Structures



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14 September 2018 SESSION: 4th Symposium on Modelling and Simulation in Computer Sciences and Engineering (MSCSE 2018) CHAIR: Francisco Miranda (ROOM 7)		
18:35 – 19:05	<i>Carlos Abreu, Francisco Miranda, Anna Dabrowska and Paula Felgueiras</i>	Home Glucose Meters: How Accurate Should They Be to Avoid Dysglycemia in Patients Using Carbohydrate Counting?
19:05 – 19:35	<i>Carlos Abreu, Francisco Miranda and Paula Felgueiras</i>	An Adaptive Mealtime Bolus Calculator to Minimize the Effects of Inaccurate Carbohydrate Counting

14 September 2018 SESSION 76: Dynamical systems and their applications to advanced materials, structures an technologies CHAIR: Jaroslav Bařtinec (ROOM 8)		
18:35 – 19:05	<i><u>J. Vala</u></i>	New Composite Time Integration Schemes in Structural Dynamics
19:05 – 19:35	<i><u>H. řtekbauer,</u> I. Němec</i>	Improved Stability of a Node-to-Node Algorithm in the Explicit Method
19:35 – 20:05	<i><u>M. Tůma,</u> P. Jura</i>	Choice of Time-Scale Parameter for Dead Time Estimation in Laguerre Basis
20:05 – 20:35	<i><u>M. Tůma,</u> P. Jura</i>	Impulse Response Approximation of Dead Time LTI SISO Systems Using Ggeneralized Laguerre Functions



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14 September 2018 SESSION: Mathematical Methods and Models for Nano-Science CHAIR: Igor Popov (ROOM 9)		
18:35 – 19:05	<i>A.O.Bochkarev</i>	Buckling of an Annular Nanoplate Stretched by Point Loads
19:05 – 19:35	<i>Aleksandra B.Vakaeva</i>	The Finite Element Modeling of an Elastic Body with a Nanometer Surface Relief
19:35 – 20:05	<i>Igor Y.Popov</i>	Scattering of Elastic Waves by Point-like Obstacle in Two-dimensional Case

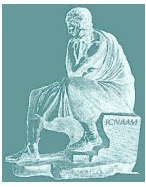
14 September 2018 SESSION 76: Dynamical systems and their applications to advanced materials, structures an technologies CHAIR: Zdeněk Šmarda (ROOM 8)		
20:35 – 21:05	<i><u>B. Dorociaková,</u> R. Olach</i>	A Note on Machine Tool Vibration Model
21:05 – 21:35	<i><u>J. Baštinec,</u> J. Diblík, K. Mencáková</i>	Initial Data Generating Bounded Solutions of Systems of Linear Discrete Equations



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14 September 2018 SESSION: General Session CHAIR: Dorota Bielinska-Waz (ROOM 6)		
20:05 – 20:35	<i>Agnieszka Bielinska, Mikołaj Majkowicz, Dorota Bielinska-Waz and Piotr Waz</i>	A New Method in Bioinformatics – Interdisciplinary Similarity Studies
20:35 – 21:05	<i>Agnieszka Bielinska, Mikołaj Majkowicz, Piotr Waz and Dorota Bielinska-Waz</i>	A New Computational Method: Interdisciplinary Classification Analysis
21:05 – 21:35	<i>Zuomin Dong, Jiajun Liu, and Hao Xiao</i>	Nested Models and Optimization for the Optimal Design of Complex Multiphysics Systems under Optimal Operations

14 September 2018 Poster Session: General Session CHAIR: Ottavia Corbi 19:00 - 20:00	
<i>Alessandro Baratta, Ileana Corbi and <u>Ottavia Corbi</u></i>	On the Identification of Manageable Structural Patterns through Convex Functions' Combination
<i>Alessandro Baratta, Ileana Corbi and <u>Ottavia Corbi</u></i>	Beams on Stochastic Unilateral Ground Profile



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14 September 2018		
SESSION: Third Symposium on Border Zones between Experimental and Numerical Applications Including Solution Approaches by Extensions of Standard Numerical Methods (Part II)		
CHAIR: Robert Geise		
(ROOM 9)		
20:35 – 21:05	<i>Christian Seidel</i>	Investigation of the Closing Operation of Emergency Sluice Gates and Their Influence on the Flow of Run-of-River Hydroelectricity
21:05 – 21:35	<i>Dominik Kern</i>	A Variational Approach to Optimal Control of Underactuated Mechanical Systems with Collisions
21:35 – 22:05	<i>Lars Ostermann</i>	Hybrid and Coupled Modelling of the Hydraulic Behaviour in Reaches and of the Groundwater Flow

END OF THE 2ND DAY



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15 September 2018 SESSION: INVITED SPEAKER CHAIR: Jainlin Xia (ROOM 1)		
09:30 – 10:30	<i>Stanislav Morozov</i> and <u>Eugene</u> <u>Tyrtysnikov</u>	Further generalization of locally Toeplitz sequences

15 September 2018 SESSION: INVITED SPEAKER CHAIR: Eugere Tyrtysnikov (ROOM 1)		
10:30 – 11:30	<u>Raymond Chan</u>	Flexible Methodology for Image Segmentation

15 September 2018 SESSION: INVITED SPEAKER CHAIR: Raymond Chan (ROOM 1)		
11:30 – 12:30	<u>Jianlin Xia</u>	How fast can we solve Toeplitz linear systems directly?



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15 September 2018 SESSION: 3rd Symposium on Difference & Differential Equations and Applications CHAIR: Qi Wang (ROOM 4)		
09:00 – 09:30	<i>Vladimir Vasilyev</i>	On Discrete Solutions for Pseudo-Differential Equations
09:30 – 10:00	<i>Karel Hasík</i>	Pushed traveling fronts in reaction-diffusion equations
10:00 – 10:30	<i>Ewa Schmeidel</i>	Leader-following Consensus of Fractional Nonlinear Multiagent Systems Involving a Caputo-type Derivative
10:30 – 11:00	<i>Natig M. Atakishiyev</i>	More on algebraic properties of the discrete Fourier transform raising and lowering operators
11:00 – 11:30	Coffee Break	



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15 September 2018

12:30

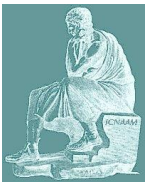
Photo of the Conference

15 September 2018

13:30

Excursion

**Gathering Point:
Outside the Reception**



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20:30

Central Dinner

- **Introduction by Professor Dr. Theodore E. Simos**
- **Honouring Professor Dr. Raymond Honfu Chan for his career on Numerical Analysis and Applied Mathematics and his 60th birthday. Introduction by Professor Dr. Tony F. Chan**
- **Presentation of the Honorary Fellowship Awards of the European Society of Computational Methods in Sciences, and Engineering**
- **Dinner**

**CENTRAL DINNER WILL TAKE PLACE AT MEDITERANEO RESTAURANT
AT FLOOR 1**

END OF THE 3RD DAY



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16 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Jiequan Li (ROOM 1)		
9:00 – 10:00	Invited lecture Professor Peter Farber Computational Fluid Dynamics Simulations of Biotechnological Processes	
10:00 – 10:20	<u>Rafal Przekop</u> , Jakub Mazurczak	Lattice-Boltzmann Modelling of Blood Clotting
10:20 – 10:40	<u>Georgios Bakalis</u> , KC Tang Yuk, XC Mi, HD Ng, N Nikiforakis	Numerical Modelling of Detonation Initiation via Shock Interaction with Multiple Flame Kernels
10:40 – 11:00	Anas Hadlabdaoui, Philippe Parnaudeau, <u>Eric Goncalves</u> , Dia Zeidan	Modelling of Wall Damages by Bubble Collapse
Coffee Break		



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16 September 2018 SESSION: Symposium Computers, Modelling and Interactive Environments in Science, Technology, Engineering and Mathematics Education CHAIR: Rui Neves (ROOM 2)		
09:00 – 09:30	<u>Rui Neves</u>	Teaching Physics in Science, Technology, Engineering and Mathematics Education Contexts with Interactive Computational Modelling
09:30 – 10:00	<u>Paulo Silveira & Rui Neves</u>	How to Achieve Better Performance in Teaching Computer Programming: Cases of Iterative and Recursive Programming



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16 September 2018 SESSION: “Fourth Symposium on Mathematical Modelling of Hydrological Sciences” CHAIR: Fabio Russo and Francesco Napolitano (ROOM 3)		
09:00 – 09:20	<i>C. Mineo, E. Ridolfi, <u>F. Russo</u></i>	“Areal Reduction Factor: the Effect of the Return Period”
09:20 – 09:40	<i><u>A. Neri</u>, M. Sarcinella</i>	“Regional Flood Frequency Analysis With a Region of Influence Approach: Case Study of Pescara River Basin”
09:40 – 10:00	<i>F. Astrologo, C. Bertini, C. Mineo, B. Moccia, <u>A. Neri</u>, S. Magnaldi</i>	“On the Feasibility of Thresholds for the Classification of Daily Precipitation in Lazio Region”
10:00 – 10:20	<i>E. Duangdai and <u>C. Likasiri</u></i>	“Gross Domestic Product Predictions Based on Population, Rainfall, Water Inflow and Water Outflow: A Northern Thailand Model”
10:20 – 10:40	<i><u>C. Bertini</u>, C. Mineo, B. Moccia</i>	“Setting a Methodology to Detect Main Directions of Synchronous Heavy Daily Rainfall Events for Lazio Region Using Complex Networks”
10:40 – 11:00	<i>C. Mineo, E. Ridolfi, C. Bertini, <u>F. Napolitano</u></i>	“Kinetic Energy and Rainfall Intensity Relationships: a Review”
11:00 – 11:30	Coffee Break	



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16 September 2018 SESSION: General Session CHAIR: Ch. Tsitouras (ROOM 4)		
09:00 – 09:30	<i>Ch. Tsitouras and Ioannis Th. Famelis</i>	Extended Precision Rational L1 Approximations to the Matrix Exponential
09:30 – 10:00	<i>Vjeran Hari</i>	Complex Cholesky-Jacobi Algorithm for PGEP
10:00 – 10:30	<i>Alexander Gavrikov</i>	The Numerical Method for Solution of Eigenproblems for Linear Hamiltonian Systems and Its Application to Eigenproblem for a Rotating Wedge Beam with a Crack
10:30 – 11:00	<i>Emrah Kilic and <u>Aynur Yalciner</u></i>	Explicit Spectrum of a Circulant- Tridiagonal Matrix with Applications
11:00 – 11:30	<i><u>Nikitas Karanikolas</u></i>	Machine Learning of Phonetic Transcription Rules for Greek



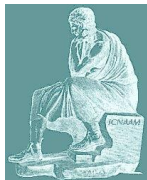
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16 September 2018 SESSION: Numerical Methods for Static and Dynamic Analysis of New and Existing Structures in Seismic Areas: Design and Performance Evaluation CHAIR: Rosario Montuori and Elide Nastri (ROOM 5)		
09:00 – 09:15	<i>G. Ferrante Cavallaro</i>	Accuracy of Tightening for High Strength Preloadable Bolts
09:15 – 09:30	<i>G. Ferrante Cavallaro, A.B. Francavilla</i>	Design of steel Moment Resisting Frames for real scale pseudodynamic tests
09:30 – 09:45	<i>M. Zimbru, R. Tartaglia, R. Landolfo</i>	Preliminary Finite Element Analyses on the experimental mock-up Frames of FREEDAM Research Project
09:45 – 10:00	<i>S. Streppone</i>	Problems of Leaning Column Modeling in Common Structural Software
10:00 – 10:15	<i>S. Streppone</i>	Comments on IDA Analysis Results for MRFs with and without FREEDAM connections
10:15 – 10:30	<i>R. Tartaglia, M. Zimbru</i>	Influence of dissipative joints on the behavior of Steel MRFs: FREEDAM vs Equal-strength bolted Joints
10:30 – 10:40	<i>G. Della Porta, I. Russo, E. Nastri</i>	Preliminary Comparison on MRFs and Dual Systems Equipped with Extended Stiffened Connections
10:40 – 10:50	<i>B. Tagliaferro, E. Nastri</i>	Seismic Design Lateral Force Distributions Based on Elastic Analysis of Structures
10:50 – 11:00	<i>R. Montuori</i>	Second Order Effects: Critical Analysis of EC8 Provisions



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16 September 2018 SESSION: General Session CHAIR: Vladislav N. Kovalnogov (ROOM 6)		
09:00 – 09:30	<i>Vladislav N. Kovalnogov, Ruslan V. Fedorov, Larisa V. Khakhaleva, Andrei V. Chukalin and Aleksandr N. Zolotov</i>	Numerical Research of Perspective Technical Solutions for Thermal Protection of Surfaces Flowed by High-Speed Dispersed Flows
09:30 – 10:00	<u><i>Vladislav N. Kovalnogov,</i></u> <i>Ruslan V. Fedorov, Larisa V. Khakhaleva, Andrei V. Chukalin and Yury A. Khakhalev</i>	Modeling and Numerical Technique for Investigating of Turbulent Transfer in a Non- stationary Boundary Layer at Impacts
10:00 – 10:30	<u><i>Vladislav N. Kovalnogov,</i></u> <i>Ruslan V. Fedorov, Mikhail S. Boyarkin and Ekaterina V. Tsvetova</i>	Mathematical Modeling and Numerical Research of Heat Transfer in Heterogeneous Flows
10:30 – 11:00	<i>Vladislav N. Kovalnogov, Ruslan V. Fedorov, Mikhail S. Boyarkin and Tamara V. Karpukhina</i>	Mathematical Modeling and Research of Heat-and-Mass Transfer of Moisture and Gas in the Capillary-Porous Space of Solid Biofuel Elements
11:00 – 11:30	<i>Murat Altekin</i>	Approximate Fundamental Frequency of a Circular Mindlin Plate by Morley's Formula



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16 September 2018 SESSION: General Session CHAIR: Sandor Kristyan (ROOM 7)		
09:00 – 09:30	<i>Sandor Kristyan</i>	Optimizing single Slater determinant for Electronic Hamiltonian with Lagrange multipliers and Newton-Raphson methods as an alternative to ground state calculations via Hartree-Fock self consistent field
09:30 – 10:00	<i>Sandor Kristyan</i>	Numerical evaluation of Coulomb integrals for 1, 2 and 3-electron distance operators, $R_{C1^{-n}R_{D1^{-m}}}$, $R_{C1^{-n}r_{12^{-m}}}$ and $r_{12^{-n}r_{13^{-m}}$ with real (n, m) and the Descartes product of 3 dimension common density functional numerical integration scheme
10:00 – 10:30	<i>Sandor Kristyan</i>	Single determinant basis set for the non-relativistic electronic Schrödinger equation using the coupling strength parameter generalized Brillouin theorem
10:30 – 11:00	<i>Dmitri Knyazkov</i>	Application of the Method of Directed Orthogonalization to the Problem of Diffraction on a Periodic Layer
11:00 – 11:30	<i>Francisco Gallego Lupiáñez</i>	On Some Paracompactness-type Properties of Fuzzy Topological Spaces



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16 September 2018 SESSION: General Session CHAIR: Viktor A. Rukavishnikov (ROOM 8)		
09:00 – 09:30	<i>V.A. Rukavishnikov and E.I. Rukavishnikova</i>	Comparative Analysis of the Finite Element Methods for the Elasticity Problem with Singularity
09:30 – 10:00	<i>Viktor A. Rukavishnikov and Alexey V. Rukavishnikov</i>	The Method of Numerical Analysis for the Hydrodynamics Problem with Corner Singularity
10:00 – 10:30	<i>E.J. Kansa</i>	Convergent Solutions
10:30 – 11:00	<i>Elisa Francomano, Guido Ala, Graziella Giglia and Marta Paliaga</i>	Computational Issues of an Electromagnetics Transient Meshless Method
11:00 – 11:30	<i><u>Petr Bittnar</u>, Vít Šmilauer and Zdeněk Bittnar</i>	Validation of Multiscale Simulation of Concrete Hardening

16 September 2018 SESSION: 14th Symposium Clifford Analysis and Applications CHAIR: Irene Sabadini (ROOM 9)		
09:00 – 09:30	<i><u>Maria Elena Luna</u></i>	On hyperbolic curves in dimension Four using Bicomplex Numbers
09:30 – 10:00	<i><u>Klaus Gürlebeck</u></i>	On Dirichlet and Schwarz problems for generalized Beltrami equations
10:00 – 10:30	<i><u>Anastasiia Legatiuk</u></i>	Numerical modelling of an induction heating problem
10:30 – 11:00	<i><u>Dmitrii Legatiuk</u></i>	Finite Element Exterior Calculus with Script Geometry



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16 September 2018 SESSION: Numerical mathematics and High Performance Computing in Engineering and Environmental Sciences CHAIR: Jaroslav Haslinger (ROOM 10)		
09:00 – 09:15	<u>J. Haslinger,</u> R. Kučera, V. Šátek	The Semi-smooth Newton Method for Solving the StokesFlow with Coulomb Slip Boundary Conditions
09:15 – 09:30	<u>R. Kučera,</u> K. Motyčková, V. Šátek, J. Haslinger, T. Sassi	The Semi-smooth Newton Method for Solving the StokesFlow Under the Leak Boundary Condition
09:30 – 09:45	<u>J. Hlosta,</u> <u>M. Čermák,</u> J. Rozbroj, D. Žurovec	CFD-DEM Numerical Model of Laboratory Scale Fluidized Bed Coffee Roaster
09:45 – 10:00	L. Jezerská, M. Žídek, D. Gelnar, B. Palkovská, J. Zegzulka, <u>M. Čermák</u>	DEM Model Calibration Based on Mechanical-physical Properties
10:00 – 10:15	<u>L. Malý,</u> J. Zapletal, M. Merta	Vectorized Evaluation of Boundary Integral Operators
10:15 – 10:30	A. Vašatová, M. Jaroš, <u>T. Karásek,</u> P. Strakoš, L. Malý	Procedure for Modification of a Head Scan for CranialOrthosis Design
10:30 – 10:45	P. Maršálek, A. Grygar, <u>T. Karásek,</u> T. Brzobohatý	Virtual Prototyping of 3D Printed Cranial Orthoses by Finite Element Analysis
10:45 – 11:00	P. Zondlak, P. Maršálek, <u>T. Karásek</u>	Modelling of Holding Power of Lever-type Mechanical Stopper



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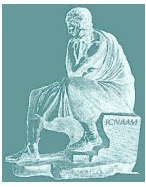
16 September 2018		
SESSION: Fuzzy Logic with Engineering Applications II		
CHAIR: Christos Tzimopoulos		
(ROOM 11)		
09:00 – 09:30	<i>Georgios Souliotis, Basil Papadopoulos</i>	Yet Another Method Of Generating New Implications From A Given One Implication
09:30 – 10:00	<i>Avriia Konguetsof, Nikos Mylonas, Basil Papadopoulos</i>	A New Approach In Seismic Behavior Using Fuzzy Methods
10:00 – 10:30	<i>Christos Tzimopoulos, Christos Evangelides, Kyriakos Papadopoulos</i>	Fuzzy Solution To The Second Order Unsteady Partial Differential Equation
10:30 – 11:00	<i>Nikos Mylonas, Basil Papadopoulos</i>	Selection Of The Most Appropriate Implication Via A Set Of Data
11:00 – 11:30	<i>K.Mattas, G. Botzoris, B. Papadopoulos</i>	Framework For Fuzzy Surrogate Metrics For Modeling Road safety



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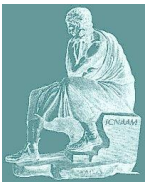
16 September 2018 SESSION: INVITED SPEAKER CHAIR: James Nagy (ROOM 1)		
11:30 – 12:30	<u>Lek Heng Lim</u>	Structured matrix computations via tensors

16 September 2018 SESSION: INVITED SPEAKER CHAIR: Lek Heng Lim (ROOM 1)		
12:30 – 13:30	<u>James Nagy</u>	Flexible Krylov Subspace Methods for Inverse Problems



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16 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Petr Svacek (ROOM 1)		
15:00 – 15:20	Andrea Giuliano, Michele Ferlauto, <u>Jinguang Yang</u>	Reduced Order Modeling of Thermal Transients in High- Performance Engineering Systems
15:20 – 15:40	<u>Dmitry Kuzmenkov,</u> KV Kutsenko, MI Delov, DG Karelova, BV Balakin	Numerical studies of boiling in nanofluids exposed to thermal radiation
15:40 – 16:00	<u>Anas A Altawallbeh,</u> I Hashim, B S Bhadauria	Magneto-Double Diffusive Convection in a Viscoelastic Fluid Saturated Porous Layer with Internal Heat Source
16:00 – 16:20	<u>Nitish Arya,</u> Dia Zeidan, Ashoke De	Water Faucet Problem by Mixture Two Phase Flow Equations
16:20 – 16:40	IC Totorean, <u>Alin F</u> <u>Totorean,</u> SI Bernad, D Gaita	Flow Field Alterations in Case of Coronary Stent Malapposition - a Computational Fluid Dynamics Study
16:40 – 17:00	<u>Jiri Felcman,</u> P Kubera	Splitting Schemes for the Pedestrian Flow Problem
Coffee Break		



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16 September 2018 SESSION: Mathematical Modelling of Economic Systems IV CHAIR: David Hampel (ROOM 2)		
15:00 – 15:30	<u>Čampulová, Issever</u> <u>Grochová, Michálek</u>	The comparison of algorithms for the automatic detection of outliers in environmental data
15:30 – 16:00	<u>Střelec</u>	Notes on Robustness of RT Class Tests for Normality
16:00 – 16:30	<u>Issever Grochová,</u> <u>Plecitá</u>	Validity of the Purchasing Power Parity Theory in the Euro Area
16:30 – 17:00	<u>Viskotová,</u> <u>Roubalová, Hampel</u>	Starting Parameters for the Estimation of Production Functions
17:00 – 17:30	Coffee Break	



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16 September 2018		
SESSION#14: The 7th Symposium on Generating Functions of Special Numbers and Polynomials and their Applications (GFSNP2018)		
CHAIR: Mustafa Gurhan YALCIN (ROOM 3)		
15:00 – 15:30	<u>Erkan AGYUZ</u>	(p,q)-Type polynomials and Their Properties
15:30 – 16:00	<u>Eda YULUKLU</u>	Identities and relations associated with Milne- Thomson type polynomials and numbers
16:00 – 16:30	<u>Eda YULUKLU</u>	Series representation for Milne-Thomson type polynomials with approach of Mellin transformation
16:30 – 17:00	<u>Aykut Ahmet AYGUNES</u>	Convolution formulae related to special case of Euler and Bernoulli polynomials
17:00 – 17:30	Coffee Break	



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16 September 2018 SESSION: The Second Symposium on Mathematical Methods in Economics and Nature Use CHAIR: Alexander Medvedev, Marina Medvedeva (ROOM 4)		
15:00 – 15:20	<u><i>A.S. Sydikhov, A.G. Tyagunov, O.B. Milder, A.A. Ganeev</i></u>	Application of artificial neural networks for the alloy features assessment based on the alloy compound
15:20 – 15:40	<u><i>A.S. Sydikhov, A.G. Tyagunov, O.B. Milder, A.A. Ganeev</i></u>	ANN approach for Larsson-Miller factor approximation in the space of alloy features
15:40 – 16:00	<u><i>D. Tarasov, A. Sergeev, A. Sydikhov</i></u>	Application of Nonlinear Autoregressive Neural Network with Exogen for Modeling Demographic Dynamics in Large Urban Agglomeration
16:00 – 16:20	<u><i>D. Tarasov, A. Buevich, T. Fominykh</i></u>	Resolution of Achromatic Prints as a Predictor of Qualimetric Decision
16:20 – 16:40	<u><i>D.A. Tarasov, O.B. Milder</i></u>	Gradation Trajectories of Binaries as Geodesics of Gradation Surfaces: Discrete Approach
16:40 – 17:00	<u><i>D.A. Tarasov, O.B. Milder</i></u>	Discrete approach for gradation surfaces in grey balance adjusting
17:00 – 17:30	Coffee Break	



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16 September 2018 SESSION: Numerical Methods for Static and Dynamic Analysis of New and Existing Structures in Seismic Areas: Design and Performance Evaluation CHAIR: Rosario Montuori and Elide Nastri (ROOM 5)		
15:00 – 15:15	A. Pisapia	FEM Calibration for Aluminium I-Beams under Moment Gradient
15:15 – 15:30	A. Pisapia	Definition of an Empirical Relation to Estimate the Overstrength Factor of dissipative zones for global mechanism collapsing structures
15:30 – 15:45	A. Formisano, G. Di Lorenzo, R. Landolfo	Non-linear analyses and fragility curves of European existing single-story steel buildings
15:45 – 16:00	A. Formisano, G. Di Lorenzo, R. Landolfo	Seismic retrofitting of industrial steel buildings hit by the 2012 Emilia-Romagna earthquake: a case study
16:00 – 16:15	B. Bucciero, S. Shakeel, T. Pali, L. Fiorino, R. Landolfo	Shake Table Testing of Architectural Nonstructural Drywall Systems for Seismic Performance Evaluation
16:15 – 16:30	S. Shakeel, B. Bucciero, A. Campiche, T. Pali, L. Fiorino, R. Landolfo	Shake Table Testing and Numerical Modelling of LWS Strap-Braced Structures for Seismic Performance Evaluation
16:30 – 16:45	F.Barbagallo, M.Bosco, A.Gheresi, E.M. Marino, F.Neri, P.P.Rossi	Cyclic pushover analysis for seismic assessment of steel MRFs
16:45 – 17:00	B. Faggiano, G. Iovine, R. Tartaglia, G. Ciccone, R. Landolfo, F. M. Mazzolani, M. Andreolli, R. Tomasi, M. Piazza	Numerical simulation of monotonic tests on beam-column timber joints equipped with steel links for heavy timber seismic resistant MRF



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16 September 2018 SESSION: Computational Mechanics. Analysis and Design Optimization CHAIR: Jüri Majak (ROOM 6)		
15:00 – 15:30	<i>J.Majak, M.Pohlak, M.Eerme, B.Shvartsman</i>	Solving Ordinary Differential Equations with Higher Order Haar Wavelet Method
15:30 – 16:00	<i>M.Kirs, E.Tungel</i>	Evaluation of Haar Wavelet Method in Engineering Applications
16:00 – 16:30	<i>M.Ratas</i>	Application of Haar Wavelet Method for Solving Nonlinear Evolution Equations
16:30 – 17:00	<i>H.Hein, L.Jaanuska</i>	Modal-based Parameter Identification in Vibrating Nanobeams using Machine Learning
17:00 – 17:30	Coffee Break	



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16 September 2018		
SESSION: Mathematical Modeling, Numerical Algorithms, Optimization Methods and Flow Control for Aerospace Techniques		
CHAIR: Alexandru DUMITRACHE (ROOM 7)		
15:00 – 15:30	<i>Catalin NAE, Gabriela Liliana STROE, <u>Irina- Carmen ANDREI</u>, Sorin BERBENTE</i>	Flutter suppression by active control technology
15:30 – 16:00	<i>Cătălin NAE, Gabriela- Liliana STROE, <u>Irina Carmen ANDREI</u>, Sorin BERBENTE</i>	Dynamic systems modeling and numerical simulations for optimal control
16:00 – 16:30	<i>Constantin Rotaru, <u>Răzvan-Viorel Mihai</u></i>	Aspects Regarding Helicopter Capabilities and Performance Evaluation
16:30 – 17:00	<i><u>Răzvan-Viorel Mihai</u>, Adrian-Mihail Stoica, Constantin-Iulian Vizitiu</i>	Development of an onboard real time system for the members of a heterogeneous UAV formation
17:00 – 17:30	Coffee Break	



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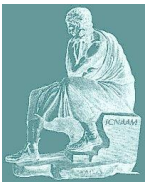
16 September 2018 SESSION: General Session CHAIR: Marcin Wołowicz (ROOM 8)		
15:00 – 15:30	<i>Marcin Wołowicz and Raveendra Kakumanu</i>	Mathematical model of compressed air energy storage expansion part with flue gas recovery
15:30 – 16:00	<i>Marcin Wołowicz, Jarosław Milewski, Kamil Futyma and Arkadiusz Szczęśniak</i>	The construction of the mathematical model of supercritical CO ₂ cycles using EBSILON software
16:00 – 16:30	<i>Marcin Wołowicz, Jarosław Milewski, Arkadiusz Szczęśniak, Kamil Futyma and Piotr Lis</i>	Heat exchanger for supercritical CO ₂ cycle - mathematical modelling and validation on available experimental data
16:30 – 17:00	<i>Pablo Benitez, Eugenio Rocha and Fernanda Rodrigues</i>	Frontier Analysis on Optimal Inspection Times for Reinforced Concrete Structures

16 September 2018 SESSION: 14th Symposium Clifford Analysis and Applications CHAIR: Klaus Gürlebeck (ROOM 9)		
15:00 – 15:30	<i>Sören Kraußhar</i>	Applications of a fractional operator calculus
15:30 – 16:00	<i>Fabrizio Colombo</i>	The S-spectrum approach to fractional diffusion processes
16:00 – 16:30	<i><u>Irene Sabadini</u></i>	Symmetries of slice monogenic functions
16:30 – 17:00	<i><u>Sebastian Bock</u></i>	Special classes of monogenic functions in H



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16 September 2018		
SESSION: Numerical mathematics and High Performance Computing in Engineering and Environmental Sciences		
CHAIR: Radek Kučera (ROOM 10)		
15:00 – 15:15	<u>M. Čermák</u>	Numerical realization of elastoplastic one-dimensional problems
15:15 – 15:30	M. Jaroš, P. Strakoš, L. Říha, <u>L. Malý</u>	Interactive Rendering with Blender Cycles for Virtual Reality using High Performance Computing Clusters
15:30 – 15:45	T. Panoc, O. Meca, T. Brzobohatý, L. Říha, <u>L. Malý</u>	An Automatically Generated Graphical Configuration Tool for the Massively Parallel Library ESPRESO
15:45 – 16:00	T. Kmínek, P. Maršálek, <u>T. Karásek</u>	Analysis of Steel Tanks for Water Storage Using Shell Elements
16:00 – 16:15	<u>P. Sehnalová</u>, V. Šátek	35 Years of Taylor–Kunovsky Simulation Language
16:15 – 16:30	P. Veigend, <u>V. Šátek</u>	Linear System Control Using High Order Method
16:30 – 16:45	G. Nečasová, <u>V. Šátek</u>	Parallel Solution of Telegraph Line



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16 September 2018 SESSION: Fuzzy Logic with Engineering Applications II VIRTUAL CHAIR: Avrilia Konguetsof (ROOM 11)		
15:00 – 15:30	<i>Kingsley Adjenughwure, Basil Papadopoulos</i>	Constructing Fuzzy- statistical Prediction Intervals from Crisp Linear Regression Models
15:30 – 16:00	<i>A. Kapsimallis, G. Botzoris, B. Papadopoulos</i>	The use of fuzzy sets for the determination of the optimal path between high- traffic locations of the city of Thessaloniki



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16 September 2018		
SESSION: Mathematical Modelling of Economic Systems IV		
CHAIR: Luboš Střelec		
(ROOM 2)		
17:35 – 18:05	<i>Zámková, <u>Prokop</u>, Stolín</i>	A study of consumer shopping preferences based on correspondence analysis and contingency tables
18:05 – 18:35	<i>Zámková, <u>Prokop</u>, Stolín</i>	A Review of Flight Delay Causes at Spanish Airports Based on Statistical Analysis of Categorical Data
18:35 – 19:05	<i>Staňková, <u>Hampel</u></i>	Efficiency of the Building Project Sector in the Czech Republic – Stochastic Frontier Analysis Approach
19:05 – 19:35	<i>Zámková, <u>Prokop</u>, Stolín</i>	On the Way to Better Grades in Mathematics at the College of Polytechnics in Jihlava



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16 September 2018 SESSION: Operational Research and Applications CHAIR: Fernanda A. Ferreira (ROOM 3)		
17:35 – 17:55	<i>Fernanda A. Ferreira, Flávio Ferreira</i>	Privatization and subsidization in a quantity-price-setting leadership duopoly
17:55 – 18:15	<i>Youssef El-Khatib, Abdunasser Hatemi-J</i>	Option pricing in high volatile markets with illiquidity
18:15 – 18:35	<i>Kanokon Leungsubthawee, Panida Chamchang, Radom Pongvuthithum, Chulin Likasiri</i>	Maximum Matching for Multi-capacitated Fleet Backhaul Management
18:35 – 18:55	<i>Sirilak Phonin, Chulin Likasiri</i>	Minimum Total Distance Clustering and Balanced Distance Clustering in Northern Thailand's Corn Crop Residue Management System
18:55 – 19:15	<i>Teresa Pereira, Fernanda A. Ferreira, Alexandra Martins</i>	Logistics trade-offs
19:15 – 19:35	<i>Fernanda A. Ferreira, Conceição Castro</i>	Tourism, terrorism, perceived risk and the social media
19:35 – 19:55	<i>Rui Gonçalves</i>	The Power Normal distribution
19:55 – 20:15	<i>Luis Vieira</i>	Euclidean Jordan Algebras and Some Admissibility Conditions on the Parameters of a Strongly Regular Graph



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16 September 2018		
SESSION: Application of Mathematical Methods in Social and Economic Studies		
CHAIR: Svetlana Lapshina, Maxim Medvedev (ROOM 4)		
17:30 – 17:45	<u>P.I. Zhuravlev, S.V. Mihryakov, O.E. Khorev, V. Y. Oshchepkova</u>	An Algorithm of Universities Ranking Formation Based on the Data about the Career Success of Their Graduates
17:45 – 18:00	<u>S.N. Lapshina, M.A. Ilysheva, A.A. Detkov</u>	Construction of Scenarios for The Development of Economic Systems Using the Imitation Models
18:00 – 18:15	<u>D.A. Vasilevich, S.N. Lapshina</u>	Development of a System for Assessing the Functionality Based on KPI Analysis
18:15 – 18:30	<u>I.A. Berg, S.V. Porshnev, M.A. Medvedev</u>	Control of Nitrogen Oxides Content in Torch Combustion Products Based on System Analysis Approach
18:30 – 18:45	<u>E.M. Romanovskaia, E.A. Mityushov, S.A. Berestova, N.D. Romanovskaia</u>	Competing Effect of Disperse Particles on Kinetic Properties of Multiphase System
18:45 – 19:00	<u>E.M. Romanovskaia, E.A. Mityushov, S.A. Berestova, N.D. Romanovskaia</u>	Forecasting of the Elastic Properties of Fibrous Materials



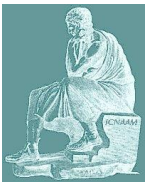
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16 September 2018		
SESSION: Mathematical Modeling, Numerical Algorithms, Optimization Methods and Flow Control for Aerospace Techniques		
CHAIR: Alexandru DUMITRACHE/Florin FRUNZULICA (ROOM 7)		
17:35 – 18:05	<u>Cristian Vidan, Răzvan-Viorel Mihai, Ovidiu-Gheorghe Tăban, Cristina-Loredana Sava, Florin-Gheorghe Catargiu</u>	<i>UAV mission planning interface development with trajectory optimization algorithm</i>
18:05 – 18:35	<u>Răzvan-Viorel Mihai, Cristian Vidan, Alexandru-Daniel Radu, Alexandru Gavril</u>	<i>Vision based cooperative distributed collision avoidance estimation in a dynamic environment for a heterogeneous UAV formation</i>
18:35 – 19:05	<u>Dan Radulescu, Marius Deaconu, Georgel Vizitiu</u>	<i>Aeroacoustic Noise Estimation for a Coflow-Jet NACA Airfoil</i>
19:05 – 19:35	<u>Dan Radulescu, Georgel Vizitiu, Marius Deaconu</u>	<i>Numerical Study of a Thermoacoustic Impulse Turbine</i>



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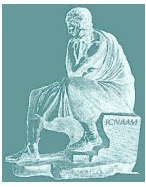
16 September 2018 SESSION: General Session CHAIR: Artur Krowiak (ROOM 8)		
17:35 – 18:05	<u>Artur Krowiak</u> and <u>Jordan Podgórski</u>	On Choosing a Value of Shape Parameter in Radial Basis Function Collocation Methods
18:05 – 18:35	<u>Marta Kapturczak</u> and <u>Eugeniusz Zieniuk</u>	Verification of Interval PIES Solutions on Examples of Uncertainly Defined Boundary Value Problems Modeled by Laplace's Equation
18:35 – 19:05	<u>Artur Krowiak</u> and <u>Renata Filipowska</u>	Kansa Method for Problems with Weak Discontinuity
19:05 – 19:35	<u>Michal Benes</u> and <u>Radek Stefan</u>	Homogenization of transport processes in early age concrete
19:35 – 20:05	<u>Lotfi Abdelhakim</u>	Numerical solver for analyzing the thermal behaviour of permanent magnet synchronous machines
20:05 – 20:35	<u>A. Khan</u>, <u>M. Ferlauto</u> and <u>J. Yang</u>	A Fault/Failure Detection Algorithm based on a Grid of Virtual Sensors for Engine Health Monitoring
20:35 – 21:05	<u>Adnan S. Saeed</u> and <u>Mohammed A. AL-Shudeifat</u>	Energy Redistribution Using Cubic Nonlinear Energy Sink in a Large-Scale Structure



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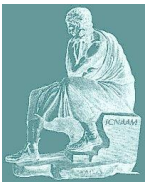
16 September 2018		
SESSION: 14th Symposium Clifford Analysis and Applications		
CHAIR: Maria Elena Luna		
(ROOM 9)		
17:35 – 18:05	<u>Craig Nolder</u>	Much to do about octonions
18:05 – 18:35	<u>Yuri Grigoriev</u>	On quaternionic functions of an ill posed problem for a viscous fluid
18:35 – 19:05	<u>Wolfgang Sprößig</u>	TBI
19:05 – 19:35	<u>Allah Ghanmi</u>	TBI

16 September 2018		
SESSION: Mathematical Modelling of Economic Systems IV		
CHAIR: Ladislava Issever Grochová		
(ROOM 2)		
19:35 – 20:05	<u>Blašková, Střelec</u>	Company Marketing Strategy Based on Analysis of Advertising Campaigns



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16 September 2018 SESSION: The Second Symposium on Mathematical Methods in Economics and Nature Use (Part 2) CHAIR: Alexander Medvedev, Marina Medvedeva (ROOM 4)		
19:20 – 19:40	<u>V.A. Poddubny, E.S.</u> <u>Dubinkina, J.I.</u> <u>Markelov, A.G.</u> <u>Buevich, K.L.</u> <u>Antonov, E.V.</u> <u>Omelkova, I.L.</u> <u>Manzhurov, A.N.</u> <u>Medvedev</u>	The Results of the Retrieval of Average Atmospheric Methane Fields from Summer Ground-Based Measurements on Bely Island in 2016 and 2017
19:40 – 20:00	<u>E.A. Iskra, A.N.</u> <u>Medvedev, A.V.</u> <u>Brodskaya</u>	On the identification of threats to information security using the method of systemic dynamics
20:00 – 20:20	<u>M.A. Kazeeva, E.G.</u> <u>Chepurov, M.A.</u> <u>Medvedeva, D.B.</u> <u>Berg</u>	Life Cycle Analysis of Study Projects in “Projects Cloud” Information System
20:20 – 20:40	<u>S.P. Trofimov, M.A.</u> <u>Medvedeva, D.B.</u> <u>Berg</u>	Calculation of Cash-Flow Based on the Complex Interest Rate



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16 September 2018 SESSION: Computational Mechanics. Analysis and Design Optimization CHAIR: Jüri Majak (ROOM 6)		
17:35 – 18:05	<i>F.Auriemma</i>	Genetic Algorithm vs Finite Differences in an Optimization Procedure Including FEM with Fixed Mesh
18:05 – 18:35	<i>E.Öunapuu, J.Anton, A.Klauson</i>	Modelling residual stresses in glass structures
18:35 – 19:05	<i><u>I.Aziz, S Yasmeen,</u></i> <i><u>P.Tsukrejev</u></i>	Numerical Solution of Stiff ODEs using Non-Uniform Haar Wavelets



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16 September 2018 SESSION: Mathematical Modeling, Numerical Algorithms, Optimization Methods and Flow Control for Aerospace Techniques CHAIR: Alexandru DUMITRACHE/Daniel Crunteanu (ROOM 7)		
19:35 – 20:05	<u>Marius Deaconu,</u> <u>Dan Radulescu</u>	<i>Numerical Simulation for a Metamaterial Based Muffler</i>
20:05 – 20:35	<i>Mihai Victor PRICOP, Mihăiță Gilbert Stoican, Corneliu Ioan Stoica, Mihaela Manea, <u>Mihai-Leonida Niculescu</u></i>	<i>Optimal configuration of high- speed wind tunnel campaign</i>
20:35 – 21:05	<u>Alexandru Dumitrache, Tudor Ionescu, Mihai Victor Pricop, Mihai- Leonida Niculescu</u>	<i>Model Reduction for Systems with Transfer Functions</i>
21:05 – 21:35	<i>Ionuț-Cristian Stan, Marius-Adrian Lupescu, Florin Frunzulica, <u>Alexandru Dumitrache</u></i>	<i>Using CFD to improve vehicles aerodynamics</i>

16 September 2018 SESSION: 14th Symposium Clifford Analysis and Applications CHAIR: Wolfgang Spröβig (ROOM 9)		
19:35 – 20:05	<i>Allal Ghanmi</i>	TBI

END OF THE 4TH DAY



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17 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Jiri Felcman (ROOM 1)		
9:00 – 9:20	<u>Miloslav Feistauer,</u> Vit Dolejsi, Petr Svacek	Numerical Simulation of Two-Phase Flow by the Finite Element, Discontinuous Galerkin Methods and the Level Set Method
9:20 – 9:40	Vitaly Malinin	Estimation of Friction Losses in Oil-Free Turbomachinery
9:40 – 10:00	<u>Jinguang Yang,</u> Michele Ferlauto, Jiri Blazek	Characteristic-Based Formulation of Boundary Conditions for Preconditioned or Non-Preconditioned Flow Equations
10:00 – 10:20	<u>Kuzmenkov DM,</u> Kutsenko KV, Delov MI, Karelova DG, Balakin BV	Numerical studies of boiling in nanofluids exposed to thermal radiation
10:20 – 10:40	<u>Kirill Delendik,</u> N Kolyago, O Voitik	Investigation of Cooling System on the Base of Heat Pipes for High-Power LEDs
10:40 – 11:00	<u>Ilias Sibgatullin,</u> Xiulin Xu, Artem Tretyakov, Evgeny Ermanyuk	Influence of geometry on energy flow and instability in inertial wave attractors for rotating annular frustum
11:00 – 11:20	<u>A.F. Totorean,</u> I.C. Totorean, S.I. Berna	Local vs. Global Parameters in Case of Grid-Sensitivity Study for Computational Fluid Dynamics with Application in Bypass Hemodynamics
Coffee Break		



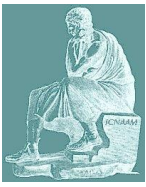
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17 September 2018 SESSION: SCLIT 2018 8th Symposium on Computer Languages, Implementations and Tools CHAIR: Gordana Rakić (ROOM 2)		
09:00 – 09:20	<u>Tomas Skersys,</u> <u>Paulius Danenas</u> <i>and</i> <u>Rimantas Butleris</u>	Wizard-guided Extraction of SBVR Business Vocabularies and Rules from UML Use Case Models: Practical Implementation Aspect
09:20 - 09:40	<u>Péter Soha</u> <i>and</i> <u>Norbert Pataki</u>	Effective Type Parametrization in Java
09:40 – 10:00	<u>Bence Babati</u> <i>and</i> <u>Norbert Pataki</u>	Static Analysis of Functors' Mathematical Properties in C++ Source Code
10:00 – 10:20	<u>Robert Husák</u> <i>And</i> <u>Filip Zavoral</u>	Source Code Assertion Verification Using Backward Symbolic Execution
10:20 -10:40	<u>Gábor Horváth</u> <i>And</i> <u>Norbert Pataki</u>	Predicting Bugs using Symbolic Execution Graph



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17 September 2018 SESSION: General Session CHAIR: F. Torriano (ROOM 3)		
09:00 – 09:30	<i>Adriano Montanaro</i>	Relaxation Functions in Thermo-electro-viscoelasticity (after 16 and poster)
09:30 – 10:00	<i><u>F. Torriano</u>, S. Stella, Y. Jayet, T. Ardaillon, J-P. Charest-Fournier, C. Hudon, A. Merkhouf and E. Guillot</i>	Numerical and Experimental Study of the Ventilation in an Operating Hydrogenerator
10:00 – 10:30	<i>Katsuyuki Nakayama</i>	A Numerical Analysis for Specifying Key Flow and its Flow Scale for Vortex Generation
10:30 – 11:00	<i>Petko D. Proinov and <u>Stoil I. Ivanov</u></i>	On the local convergence of Sakurai-Torii-Sugiura method for simultaneous approximation of polynomial zeros



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17 September 2018 SESSION: General Session CHAIR: Pavel Martinek (ROOM 4)		
09:00 – 09:30	<i><u>Loreta Saunoriene,</u></i> <i>Sandra Aleksiene, Vilma</i> <i>Petrauskiene and Jurate</i> <i>Ragulskiene</i>	Near-optimal Pitch for the Optical Implementation of Dynamic Visual Cryptography
09:30 – 10:00	<i>Pavel Martinek</i>	An Adaptation of CYK Algorithm to Multiset Languages
10:00 – 10:30	<i>Adham S. Bekhit and</i> <i>Adrian Lungu</i>	Simulation of the POW Performance of the JBC Propeller
10:30 – 11:00	<i>LingHai Kong and</i> <i>LingBo Kong</i>	A Localized Higher-Order Regularization Model for Simultaneous Image Reconstruction and Bias Field Correction



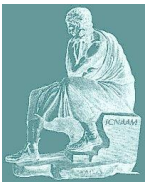
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17 September 2018		
SESSION: Mathematical modeling in applied research		
CHAIR: Alexander Krishchenko,		
Alexander Manzhirov		
(ROOM 5)		
09:00 – 09:30	<i>E.V. Murashkin, E.P. Dats</i>	Thermal Stresses Computation under Toroidal Symmetry Conditions
09:30 – 10:00	<i>S.P. Kurdina, K.E. Kazakov</i>	Axisymmetric contact problem for a punch and nonuniform foundation with rough surfaces
10:00 – 10:30	<i>M.D. Kovalenko, I.V. Menshova, A.P. Kerzhaev</i>	On Some Properties of Exact Solutions in the Form of Series in Papkovitch–Fadle Eigenfunctions
10:30 – 11:00	<i>A.V. Manzhirov</i>	Modeling of Additive Manufacturing and Surface Growth Processes
11:00 – 11:30	Coffee Break	



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17 September 2018 SESSION: Geomatics Approaches for Environmental Surveying and Modelling CHAIR: Michele Mangiameli (ROOM 6)		
09:00 – 09:30	<i>Argese F., Erriquez G., Galeandro A, Giraldo M. S., Imperiale M. G, Scarano M., Specchiarello A. R., Tarantino E., Turso A.</i>	A Procedure for Automating Earthwork Computations Using UAV Photogrammetry and Open-Source Software
09:30 – 10:00	<i>Mirko Saponaro, Eufemia Tarantino, Umberto Fratino.</i>	Generation of 3D Surface Models from UAV Imagery Varying Flight Patterns and Processing Parameters
10:00 – 10:30	<i>S. Cafiso, C. D’Agostino², E. Delfino, and A. Di Graziano.</i>	Information Modeling for Road Asset Management
10:30 – 11:00	<i>S.Cafiso, A.Di Graziano, D.Goulias,M.Mangiameli, and G.Mussumeci.</i>	Bridge Monitoring Combining Laser Scanning and Ground Penetrating Radar
11:00 – 11:30	Coffee Break	



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17 September 2018 The 13th International Symposium on Numerical Analysis of Fluid Flow, Heat and Mass Transfer Numerical Fluids 2018 CHAIR: Jiri Felcman (ROOM 1)		
15:00 – 15:20	<u>Arturo Hidalgo,</u> <i>Lourdes Tello</i>	Numerical simulation of a porous-medium type two-dimensional atherosclerosis model
15:20 – 15:40	<i>Mihai L Niculescu, M C. Fadgyas, D Pepelea</i>	Development of a Hypersonic Axisymmetric CFD Code Based on Chemical Equilibrium Hypothesis
15:40 – 16:00	<u>Nitish Arya, Ashoke De</u>	A dynamic Two-Coefficient Wall Adapting Local Eddy Viscosity Model
16:00 – 16:20	<u>Kirill Delendik, N Kolyago, O Voitik</u>	Investigation of Cooling System on the Base of Heat Pipes for High-Power LEDs
16:20 – 16:40	<u>Ilias Sibgatullin, Xiulin Xu, Artem Tretyakov, Evgeny Ermanyuk</u>	Influence of geometry on energy flow and instability in inertial wave attractors for rotating annular frustum



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17 September 2018 SESSION: 4th Computational Tools for Direct Digital Manufacturing (CT4DDM) CHAIR: Nuno Alves, Paula Pascoal-Faria, Sandra Amado (ROOM 2)		
15:00 – 15:30	Nuno Alves, Miguel Belbut, Tânia Viana, Sara Biscaia and Paula Pascoal-Faria	Computer aided optimization in additive manufacturing: processing parameters and 3D Scaffold reconstruction.
15:30 – 16:00	<i>Dora Sousa, Joao Pinheiro, Pedro Carreira, Juliana Dias, Saba Abdulgahni, Paula Pascoal-Faria, Christina S. Kamma-Lorger and Geoffrey R Mitchell</i>	Tools To Define And Evaluate Morphology Mapping A Route To Complex Structures Using Direct Digital Manufacturing.
16:00 – 16:30	<i>Stefan Junk</i>	Case Study on the Application of a Cloud-Based CAD System in Design Teaching.
16:30 – 17:00	<i>Paula Pascoal-Faria, Nuno Alves, Christina S. Kamma-Lorger, Rita Marques, Marta Gomes, Anurag Venkat, Rui Silva, Lourenço Bastos, Filipa Carneiro, Sachin Nanjunda, Jorge Cunha, Artur Mateus and Geoffrey R Mitchell</i>	Multi-scale Computer Simulations of Multi-tubular Components Manufactured by Water-assisted Injection Moulding.
17:00 – 17:30	Coffee Break	



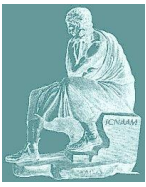
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17 September 2018		
SESSION#14: The 7th Symposium on Generating Functions of Special Numbers and Polynomials and their Applications (GFSNP2018)		
CHAIR: Mustafa ALKAN (ROOM 3)		
15:00 – 15:30	<u>Fusun YALCIN</u>	Regression Analysis of the Effect of Meteorological Parameters on Air Quality in Three Neighboring Cities Located on the Mediterranean Coast of Turkey
15:30 – 16:00	<u>Irem KUCUKOGLU</u>	Derivative formulas related to unification of generating functions for Sheffer type sequences
16:00 – 16:30	<u>Neslihan KILAR and Yilmaz SIMSEK</u>	Some relationships between Fubini type polynomials and other special numbers and polynomials
16:30 – 17:00	<u>Orli HERSCOVICI</u>	On Construction Of A New Interpolation Tool: Cubic q-Spline
17:00 – 17:30	<u>Burcin SIMSEK</u>	Extention of the distribution of photon counts with censoring in two-photon laser scanning microscopy



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17 September 2018		
SESSION47: Title V Mini symposium on symmetry methods and their applications to differential equations		
CHAIR: Name and Surname Maria Santos Bruzón, Maria, Chaudry Masood Khalique and Rita Tracinà		
(ROOM 4)		
15:00 – 15:30	<u>Basetsana P Ntsime and Raseelo.J. Moitsheki</u>	<i>Analysis of a Solute Transport Model with Non-constant Dispersion</i>
15:30 – 16:00	<u>Maria Santos Bruzón</u>	Lie symmetries of the nonlinear waves in the inhomogeneous Fisher-Kolmogorov equation
16:00 – 16:30	<u>A.R. Adem</u>	<i>Group Classification, Symmetry Reductions and Exact Solutions of a Generalized Korteweg-de Vries-Burgers Equation</i>



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17 September 2018 SESSION: Geomatics Approaches for Environmental Surveying and Modelling CHAIR: Michele Mangiameli (ROOM 6)		
15:00 – 15:30	<i>Alessandra Jannelli, Marianna Ruggieri and Maria Paola Speciale¹</i>	<i>Numerical solutions of Space- Fractional Advection- Diffusion Equation with a nonlinear source term</i>
15:30 – 16:00	<i>Umberto Robustelli and Giovanni Pugliano</i>	<i>Assessment of Pseudorange Measurements of Galileo FOC Satellites with Incorrect Highly Eccentric Orbits</i>
16:00 – 16:30	<i>Nikolaos S. Papageorgiou, and Andrea Scapellato</i>	<i>Advances in nonlinear differential problems with parametric reaction</i>
16:30 – 17:00	<i>Candiano Alessio, Fargione Gabriele, Gennaro Andrea, Mangiameli Michele and Mussumeci Giuseppe</i>	<i>Experimental Band Combination of Multispectral Satellite Imagery For The Analysis And Classification Of Archaeological Features</i>
17:00 – 17:30	Coffee Break	



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17 September 2018 SESSION: Statistical Models and Computational Challenges with Applications CHAIR: Teresa A. Oliveira (ROOM 7)		
15:00 – 15:30	<i>Karl Moder</i>	Estimating Interaction in Non-Repeated Experimental Designs
15:30 – 16:00	<i>Antonio Seijas-Macias, Amílcar Oliveira and Teresa Oliveira</i>	Product of Two Normal Variables. An Historical Review
16:00 – 16:30	<i>Flora Ferreira, Miguel Gago, Nafiseh Mollaei, Estela Bicho, Nuno Sousa, João Gama, Carlos Ferreira</i>	Objective Graphical Clustering of Spatio-temporal Gait Pattern in Parkinson's Disease Using Principal Components
16:30 – 17:00	<i>Jorge Basilio, Amílcar Oliveira and Rahim Mahmoudvand</i>	An overview of the Systemic Risk Measures
17:00 – 17:30	Coffee Break	

17 September 2018 SESSION: 4th Computational Tools for Direct Digital Manufacturing (CT4DDM) CHAIR: Nuno Alves, Paula Pascoal-Faria, Sandra Amado (ROOM 2)		
17:35 – 18:05	<i>Jordan Palmer, Paula Pascoal-Faria, Nuno Pedro, Vítor Fernandes and Nuno Alves</i>	Capabilities and Limitations of Simulation Software for Additive Manufacturing.



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17 September 2018		
MS 95) Title: Open Challenges Towards a Seismic Protection of New and Existing Buildings		
Organizers: Francesco Clementi, Gabriele Milani, Francesco Fabbrocino, Antonio Formisano		
CHAIR: ANTONIO FORMISANO (ROOM 5)		
17:35 – 17:50	<i>F. Clementi, G. Cocchi, S. Lenci</i>	Mechanical characterization of unfired earth via numerical assessment of the experimental data
17:50 – 18:10	<i>F. Fabbrocino, G. Vaiano, A. Formisano</i>	Parametric analysis on local collapse mechanisms of masonry churches
18:10 – 18:30	<i>S. Tiberti, G. Milani</i>	3D limit analysis voxel approach for the homogenization of masonry with irregular texture
18:30 – 18:50	<i>F. Clementi, G. Milani, V. Gazzani, M. Poiani, S. Lenci</i>	Damage assessment by the Non-Smooth Contact Dynamics method of the iconic crumbling of the clock tower in Amatrice after the 2016 central Italy seismic sequence
18:50 – 19:10	<i>A.B. Habieb, G. Milani, V. Quaglioni, F. Milani</i>	Experimentation and numerical modelling of low cost rubber pads for the seismic isolation of masonry buildings



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17 September 2018 SESSION: General Session CHAIR: Adam J. Zakrzewski (ROOM 6)		
17:35 – 18:05	<i>Adam J. Zakrzewski</i>	New highly precise results for the three body Coulomb systems. Pt. II
18:05 – 18:35	<i><u>Inga Timofejeva</u>, Rollin McCraty and Minvydas Ragulskis</i>	Estimation of Geometrical Synchronization Between Human Heart Rate Variability and Local Magnetic Field via Attractor Reconstruction Techniques
18:35 – 19:05	<i>Gordana Jovanovic</i>	Exploring Three Classes of Symmetrical Polynomials for Improving Comb Filter Design
19:05 – 19:35	<i>A. Moskal and A.A. Fus</i>	The Influence of Aggregate Diameter Description on the Correctness of the Sedimentation Model – CFD Investigations

17 September 2018 SESSION: Statistical Models and Computational Challenges with Applications CHAIR: Teresa A. Oliveira (ROOM 7)		
17:35 – 18:05	<i>José António Pereira, André L. Pereira and Teresa A. Oliveira</i>	Semi-Parametric Models - An Application in Medicine
18:05 – 18:35	<i>Abdujabar Rasulov, Gulnora Raimova and Matyokub Bakoev</i>	Solution of some Semi-linear Dirichlet Problem by Monte Carlo method
18:35 – 19:05	<i>Teresa A. Oliveira</i>	The interplay of Experimental Design with several areas of Mathematics
19:05 – 19:35	<i>Sandra Nunes, Teresa A. Oliveira, Amílcar Oliveira</i>	Statistics and Big Data: different perspectives



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17 September 2018 MS 95) Title: Open Challenges Towards a Seismic Protection of New and Existing Buildings Organizers: Francesco Clementi, Gabriele Milani, Francesco Fabbrocino, Antonio Formisano CHAIR: ANTONIO FORMISANO (ROOM 5)		
19:10 – 19:30	<i>R.S. Olivito, C. Scuro, S. Porzio, R. Codispoti</i>	Seismic vulnerability of ancient masonry buildings: the case study of low-rise towers
19:30 -19:50	<i>A. Chiozzi, N. Grillanda, G. Milani, A. Tralli</i>	Fully automated assessment of local mechanisms in historical masonry churches through a new kinematic limit analysis approach
19:50 – 20:10	<i>F. Clementi, G. Cocchi, S. Lenci</i>	Mechanical characterization of unfired earth via numerical assessment of the experimental data
20:10 – 20:30	<i>A. Formisano, G. Vaiano, F. Fabbrocino</i>	A seismic-energetic-economic combined procedure for retrofitting residential buildings: a case study in the province of Avellino (Italy)
20:30 – 20:50	<i>E. Bertolesi, G. Milani, B. Ghiassi</i>	Out-of-plane homogenization model for masonry reinforced with FRCM
20:50 -21:10	<i>O. Bergamo</i>	A New monitoring system for maintenance planning of road bridges with visual analysis



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17 September 2018 SESSION: Statistical Models and Computational Challenges with Applications CHAIR: Teresa A. Oliveira (ROOM 7)		
19:35 – 20:05	<i>Dário Ferreira, Sandra S. Ferreira, Célia Nunes, Teresa A. Oliveira and João T. Mexia</i>	Inference in nonorthogonal mixed models
20:05 – 20:35	<i>Filomena Teodoro</i>	Modeling of the occurrence of ear injuries
20:35 – 21:05	<i>Raquel Oliveira, A. Manuela Gonçalves and Rosa M. Vasconcelos</i>	Evaluation of the applicant's satisfaction index in engineering courses in Portugal, during the Pre and Post Bologna Process

END OF THE 5TH DAY



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18 September 2018 SESSION: General Session CHAIR: Vladimir Ostapenko (ROOM 1)		
09:00 – 09:30	<i>Olyana Kovyrkina and Vladimir Ostapenko</i>	Explicit Combined Finite-Difference Scheme of High Accuracy
09:30 – 10:00	<i>K.C. Patidar and A. Ramanantoanina</i>	Non-Standard Finite Difference Method for Antagonistic Interactions with Cross-Diffusion
10:00 – 10:30	<i>Olyana Kovyrkina and Vladimir Ostapenko</i>	Explicit Combined Finite-Difference Scheme of High Accuracy
10:30 – 11:00	<i><u>C. Harley</u> and K. R. Rajagopal</i>	Numerical Simulations Describing Inhomogeneous Non-Unidirectional Deformations of an ElasticWedge

18 September 2018 SESSION: General Session CHAIR: Jan Sladek (ROOM 2)		
09:00 – 09:30	<i><u>Jan Sladek</u>, Vladimir Sladek and Milan Jus</i>	The MLPG for Modeling of Flexoelectricity
09:30 – 10:00	<i>Dorota Aniszewska and Marek Rybaczuk</i>	Modelling Highly Porous Brittle Materials with the Movable Cellular Automata Method
10:00 – 10:30	<i>Codruta Stoica</i>	On classes of dichotomy for sjew-evolution semiflows associated to control systems



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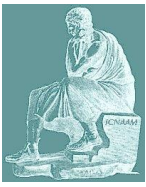
18 September 2018		
SESSION: Title		
CHAIR: Name and Surname		
(ROOM 4)		
09:00 – 09:30	<i>Masatomo Matsushima and Hironori Matsushima</i>	Infectious pattern of foot-and- mouth disease and the modified SIR model
09:30 – 10:00	<i>Nozomi Okano, Masaru Higashi, Toshimichi Wakabayashi, Yasuko Kawahata and Akira Ishii</i>	Analysis of seasonal events on social media and internet search using sociophysics model
10:00 – 10:30	<i>Masatomo Matsushima</i>	Characteristics of cities based on the correlation between blood donation and crime
10:30 – 11:00	<i>Ryosuke Kono and Masatomo Matsushima</i>	Modeling of the oscillation circuit and analysis of oscillation synchronization phenomenon of multiple circuits using MapleSim



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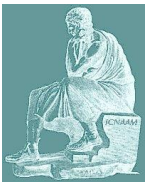
18 September 2018 SESSION: General Session CHAIR: Gordana Jovanovic (ROOM 1)		
11:30 – 12:00	<i>M. Victoria Fernandez Munoz</i>	Approximated solution of some integro-differential equations by means of Schauder bases
12:00 – 12:30	<i>Josef Rak</i>	Singularity Subtraction In A Multidimensional Fredholm Integral Equation of the Second Kind with singular kernel

18 September 2018 SESSION: General Session CHAIR: Veronika Hedija (ROOM 2)		
11:30 – 12:00	<i>Veronika Hedija' and Roman Fiala</i>	Testing the Validity of Gibrat's Law in Slovakia: Quantile Approach
12:00 – 12:30	<i><u>Ji Hwan Cha</u> and Hyunju Lee</i>	Application of the Generalized Polya Process to Two Types of Shock Models
12:30 – 13:00	<i>Veronika Hedija and Roman Fiala</i>	Testing the Validity of Gibrat's Law in Slovakia: Quantile Approach



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18 September 2018 SESSION: General Session CHAIR: M. J. Senosain (ROOM 4)		
11:30 – 12:00	<i>M. J. Senosain and A. Tocino</i>	MS-Stability of Non-normal Stochastic Differential Systems
12:00 – 12:30	<u><i>Adham S. Bekhit and Adrian Lungu</i></u>	Numerical Free Roll Decay Prediction for the DTMB Hull



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18 September 2018 SESSION: Mathematics in Relation to Computer Science and Electronics (Virtual) CHAIR: Jose C. Valverde (ROOM 5)		
11:30 – 12:00	<i>Jose C. Valverde</i>	<u>Welcome</u>
12:00 – 12:30	<u>Parthiban Natarajan</u> <u>parthiban24589@gmail.com</u>	<u>Embedding Parameters in Interconnection Networks</u>

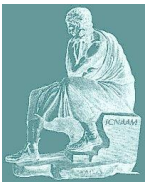
18 September 2018 SESSION: Virtual General Session CHAIR: Constantinos Giannakopoulos, Mariana Grypari, Sotirios Oikonomou and George Vordonis (ROOM 6)		
09:00 – 09:30	<i>Huimin CUI, Feng XU, Suvash C. SAHA, and Qingkuan Liu</i>	Asymmetric natural convection flow in three dimensional attic space
09:30 – 10:00	<i>Hiroyuki Fujii, Yukio Yamada, Yoko Hoshi, Kazumichi Kobayashi¹ and Masao Watanabe</i>	Numerical errors of light propagation in the two-dimensional human neck model using the time-dependent radiative transfer equation with renormalized phase
10:00 – 10:30	<i>Selçuk Baş</i>	A New Method For Inextensible Flows of Adjoint Curves in Space
10:30 – 11:00	<u>Kosuke Tabayashi</u> , <i>Hiroyuki Fujii, Kazumichi Kobayashi and Masao Watanabe</i>	Finite element investigation of a void region on light propagation in scattering media using the radiative transfer equation



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18 September 2018 SESSION: Virtual General Session CHAIR: Constantinos Giannakopoulos, Mariana Grypari, Sotirios Oikonomou and George Vordonis (ROOM 6)		
11:30 – 12:00	<i>Irina Zaitseva</i>	Numerical method of distribution of labor resources by game-theoretic model
12:00 – 12:30	<i>Oleg Malafeyev, <u>Irina Zaitseva</u>, Vladislav Onishenko, Afanasy Zubov, Lidia Bondarenko, Vyacheslav Orlov, Valentina Petrova and Aleksandr Kirjanen</i>	Optimal location problem in the transportation network as an investment project: a numerical method
12:30 – 13:00	<i>Oleg Malafeyev, <u>Irina Zaitseva</u>, Andrey Parfenov. Tatiana Smirnova, Afanasy Zubov, Lidia Bondarenko, Nikita Ugegov, Maria Strekopytova and Sergei Strekopytov</i>	Game-theoretical model of cooperation between producers
13:00 – 13:30	<i><u>Irina Zaitseva</u>, Oleg Malafeyev, Anna Dolgopolova, Viktoriya Zhukova and Yana Vorokhobina</i>	Numerical method for computing equilibria in economic system models with labor force

18 September 2018 SESSION: Virtual General Session CHAIR: Sotirios Constantinos Giannakopoulos, Mariana Grypari, Sotirios Oikonomou and George Vordonis (ROOM 6)		
13:30 – 14:00	<i>Tomasz Howiacki, Rafal Sienko and <u>Miroslav Sykora</u></i>	Reliability Analysis of Serviceability of Long Span Roof Using Measurements and FEM Model



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18 September 2018 Poster Session of the Second Symposium on Mathematical Methods in Economics and Nature Use CHAIR: Alexander Medvedev, Marina Medvedeva 9:30 - 10:30	
<u><i>Alexandr A. Tarasyev,</i></u> <u><i>Gavriil A. Agarkov</i></u>	Modern Tendencies of Scientific Migration in the Russian Federation
<u><i>Gavriil A. Agarkov,</i></u> <u><i>Alexandr A. Tarasyev,</i></u> <u><i>Anastasia D. Sushchenko,</i></u> <u><i>Pavel D. Kuznetsov,</i></u> <u><i>Tatyana E. Pechenkinga</i></u>	Assessment of the Compliance of the University's Students Output with the Labor Market Requirements
<u><i>Gavriil A. Agarkov,</i></u> <u><i>Alexandr A. Tarasyev</i></u>	Development of an Algorithm for the Optimal Distribution of Mutual Indebtedness in the Economic System Using the Transportation Problem
<u><i>Anna P. Rylova, Anatole N.</i></u> <u><i>Varaksin</i></u>	Exploring two periods of Russian monetary policy by regresion models
<u><i>Anna P. Rylova, Vladimir</i></u> <u><i>G. Panov</i></u>	Assessing the best linear model of the interest rate policy and inflation in Russia in 2014-2017
<u><i>Vasiliy N. Kruglov and</i></u> <u><i>Artem V. Kruglov</i></u>	Application of the Machine Vision System «GRANICS-PELLETS» for Grain- Size Analysis of Green Ore Pellets
<u><i>Vasiliy N. Kruglov and</i></u> <u><i>Artem V. Kruglov</i></u>	Implementation of the Digital Image Processing Algorithms in Grain-Size Analyzing System «GRANICS-STONES»
<u><i>B.Ye. Bolshakov,</i></u> <u><i>A.Karibaev, E.F. Shamaeva</i></u>	Introduction to the Theory of Management of Novations with the Use of Spatiotemporal Measures



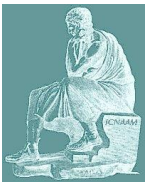
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18 September 2018 Poster Session of the Second Symposium on Mathematical Methods in Economics and Nature Use CHAIR: Alexander Medvedev, Marina Medvedeva 10:30 - 11:30	
<u>A.S. Minzov, A.Yu. Nevsky,</u> <u>P.A. Osipov, B.Ye.</u> <u>Bolshakov</u>	Modeling of Information Security Risks in the Digital Economy
<u>I.Ya. Lvovich, Ya.E.</u> <u>Lvovich, Yu.S. Sakharov,</u> <u>B.Ye. Bolshakov</u>	Solution of the Multiple-Choice Problem Based on Visualization of the Computational Experiment and Expert Evaluation Results
<u>N.R. Spiricheva, S.A.</u> <u>Akulich, and O.M. Zvereva</u>	Comparison of Fuzzy Search Algorithms on the Basis of the Russian Language
<u>Andrey Tarasiev,</u> <u>Margarita Filippova,</u> <u>Konstantin Aksyonov, Olga</u> <u>Aksyonova, Vasiliy Kruglov</u>	Using of Model-Driven and Object- Oriented Approach to Designing Image Processing Application
<u>Alexander Sergeev,</u> <u>Alexander Buevich, Ashat</u> <u>Sydikhov, Sergey Arapov</u>	Ternary Information in Psychophysical Research. Receiving and Primary Processing
<u>Andrey Shichkin, Alexander</u> <u>Buevich, Alexander</u> <u>Sergeev, Alexander</u> <u>Medvedev, Alexandra</u> <u>Kosachenko, Anastasia</u> <u>Moskaleva, Marina</u> <u>Sergeeva</u>	Training Algorithms for Artificial Neural Networks for Time Series Forecasting of Greenhouse Gas Concentrations
<u>Ashat Sydikhov, Alexander</u> <u>Buevich, Alexander</u> <u>Sergeev, Andrey Shichkin,</u> <u>Irina Subbotina, Elena</u> <u>Baglaeva</u>	Method of Selecting Spatially Distributed Information for Constructing Training Set of Artificial Neural Networks
<u>M.V. Kiseleva, Y.A.</u> <u>Kuznetsov</u>	Imitation Model of Students Evacuation from the Institute of Radioelectronics and Information Technologies, Yekaterinburg, Russia



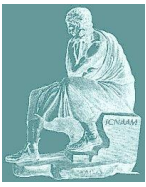
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CHAIR: Alexander Medvedev, Marina Medvedeva	
11:30 - 12:30	
<u>Leonid Dorosinskiy,</u> <u>Andrew Kurganski</u>	Analysis of Clutter Suppression Algorithm in Synthetic-Aperture Radar
<u>Leonid Dorosinskiy</u>	The Algorithm of Boundaries Detection in Low-Contrast Radar Images of the Earth
<u>Yu.Yu. Nazarova, Yu.O. Bozhko, A.N. Medvedev, N.N. Dubinin</u>	Information Support of Teaching Process in the Sparsely Populated Areas of the Russian Arctic
<u>T.A. Ovchinnicova, M.A. Medvedeva</u>	Comparative Analysis of Transactions Networks Structure in Local Payment System
<u>Anna Kolomytseva, Helen Iskra, Marina Medvedeva, Juliya Glumova</u>	Imitation Modeling of Commodity Flows in a Logistic Distribution System



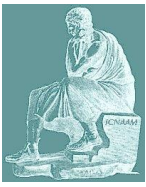
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18 September 2018 Poster Session: Application of Mathematical Methods in Social and Economic Studies CHAIR: Svetlana Lapshina, Maxim Medvedev 9:30 - 10:30	
<u>S.N. Lapshina, E.M. Romanovskaia</u>	The Relevance of the Use of Electronic Educational Resources in Professional Education
<u>T.V. Bakunova, A.V. Prisyazhniy, A.A. Detkov, T.SH. Moldobaev</u>	Method of Spectral-Score for the Analysis of Financial Indicators of Commercial Enterprises
<u>M.A. Ilysheva, A.A. Detkov, D.I. Patrakova, A.S. Safrygin</u>	Statistical Analysis of the Impact of Macroeconomic Regulators on the Consumption Stimulation
<u>Arkadii Kim, Valentin Kormyshev, Kwon Oh Bok, Maksim Novikov, Evgenia Fitina, Svetlana Lapshina</u>	The Use of the Fifth Variant of Explicit Solutions of Generalized Riccati Equations for Stabilization of the HIV Model with Delay
<u>I.L. Manzhurov, K.L. Antonov, D.B. Berg, D. Denisov</u>	Information System for Decision Support in Waste Management in the Arctic Region of Russia
<u>A.A Polozov, M.V. Krayev, S.V. Mikhryakov, L. Ryabova, D. Denisov</u>	Information Model of Football on the Example of Participation of Russian Assembly Team in the 2018 World Championship
<u>A.A Polozov, A.V. Rolis, S.V. Mihryakov, E.A. Goncharova, T.Yu. Novikova</u>	Team Structure Optimization Using a Personal Rating Calculation in Team Sports
<u>A.A. Panachev, E.I. Komotskiy, D.B. Berg, M.A. Saif, K.B. Spasov</u>	Effective Model of the Market Prices Forecasting Using Neural Networks



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18 September 2018 Poster Session: Application of Mathematical Methods in Social and Economic Studies CHAIR: Svetlana Lapshina, Maxim Medvedev 10:30 - 11:30	
<u><i>Kyrill Balaqura, Daliant</i></u> <u><i>Maximus, Victoria</i></u> <u><i>Turygina</i></u>	Mathematical Models of Cognitive Interaction Identification in the Conditions of Information Influence
<u><i>Arkadii Kim, Valentin</i></u> <u><i>Kormyshev, Maksim</i></u> <u><i>Novikov, Tatiana</i></u> <u><i>Novikova, Evgenia Fitina,</i></u> <u><i>Oleg Khorev</i></u>	Stabilization of The HIV Model with Delay Based on the Fourth Variant of Explicit Solutions of Generalized Riccati Equations
<u><i>I.A. Berg, S.V. Porshnev,</i></u> <u><i>B.K. Asamoah</i></u>	On Testing the Feasibility of Infrared Studies of Torch Burning in Unsteady Mode
<u><i>A.A. Polozov, T.</i></u> <u><i>Ovchinnikova, S.V.</i></u> <u><i>Mikhryakov, M.V. Kraev,</i></u> <u><i>P.V. Zhuravlev, A.V. Rolis</i></u>	Optimization of Rating Algorithm in Sports in Comparison with Bookmakers' Ratings
<u><i>AlinaBodnar, Alena</i></u> <u><i>Andreieva, Maxim</i></u> <u><i>Medvedev</i></u>	Information Architecture of the Data Analysis and Management Using Fuzzy Logic Tools
<u><i>Helen Kazakova, Ivan</i></u> <u><i>Zayarsky, Maxim</i></u> <u><i>Medvedev</i></u>	Forecasting of Financial Flows in Business Systems Taking into Account the Risk and Uncertainty of Interaction
<u><i>Victoria Panova, Tatyana</i></u> <u><i>Lavrinenko, Maxim</i></u> <u><i>Medvedev</i></u>	On the Use of the Systemic Dynamics Method in the Assessment of the Company's IT Strategies Portfolio Efficiency



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18 September 2018 Poster Session: Application of Mathematical Methods in Social and Economic Studies CHAIR: Svetlana Lapshina, Maxim Medvedev 11:30 - 12:30	
<u>AlinaBodnar, Alena Andreieva, Maxim Medvedev</u>	Information Architecture of the Data Analysis and Management Using Fuzzy Logic Tools
<u>Helen Kazakova, Ivan Zayarsky, Maxim Medvedev</u>	Forecasting of Financial Flows in Business Systems Taking into Account the Risk and Uncertainty of Interaction
<u>Victoria Panova, Tatyana Lavrinenko, Maxim Medvedev</u>	On the Use of the Systemic Dynamics Method in the Assessment of the Company's IT Strategies Portfolio Efficiency

END OF THE 6TH DAY
END OF THE CONFERENCE