



**ICNAAM 2012**

**Kypriotis Hotels and Conference Center, Kos, Greece, 19-25  
September 2012**

<b>19 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Martin Hairer</b> <b>(ROOM 1)</b>		
<b>09:00 – 10:00</b>	<b>Andrew Stuart</b>	<b>Posterior Contraction Rates for Bayesian Inverse Problems</b>

<b>19 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Christian Corda</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b>Ruggero Maria Santilli</b>	<b>The Novel Mathematics Underlying Hadronic Mechanics for Matter and Antimatter</b>
<b>Coffee Break</b>		



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<b>19 September 2012</b>		
<b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b>		
<b>CHAIR: F. Smit (ROOM 1)</b>		
11:30 - 12:00	<i><u>Giacomo Viccione and Vincenzo Tibullo</u></i>	An effective approach for designing circular pipes with the Colebrook-White formula
12:00 – 12:30	<i><u>F. Dierich and P.A. Nikrityuk</u></i>	Parallelization of the SIP Algorithm
12:30 – 13:00	<i><u>Adi T. Utomo, Ashkan I. T. Zavareh, Heiko Poth, Mohd Wahab, Mohammad Boonie, Phillip T. Robbins Andrzej W. Pacek</u></i>	Heat Transfer Coefficient of Nanofluids in Minichannel Heat Sink
13:00 – 13:30	<i><u>B. Krasnopolsky, A. Starostin, and A. Osipov</u></i>	Multi-fluid Pipe Flow Model for Analysis of Wellbore Dynamics
<b>Lunch Break</b>		



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<p><b>19 September 2012</b></p> <p><b>SYMPOSIUM ON INTEGRATED COMPUTATIONAL TOOLS FOR ADVANCED MANUFACTURING</b></p> <p><b>CHAIR: NUNO ALVES</b></p> <p><b>(ROOM 2)</b></p>		
11:30 – 12:00	<i>Carina Ramos, Pedro Carreira, Paulo Bártolo, Nuno Alves</i>	Optimalmould-Part I: Multi-objective Optimization to Moulds Design for Injection of Polymers
12:00 – 12:30	<i>Carina Ramos, Pedro Carreira, Paulo Bártolo, Nuno Alves</i>	Optimalmould-Part II: Global Optimization of the Injection Moulding Cycle Time
12:30 – 13:00	<i>Paulo Bártolo</i>	Thermo-kinetic Curing Model for Stereolithographic Applications
13:00 – 13:30	<i>Artur Mateus, Paulo Bártolo, Geoffrey Mitchell</i>	Computational Fluid Dynamics of Reaction Injection Moulding
<p><b>Lunch Break</b></p>		

<p><b>19 September 2012</b></p> <p><b>SESSION: Numerical Methods for Stochastic Differential Equations and Their Applications</b></p> <p><b>CHAIR: Dongsheng Xu</b></p> <p><b>(ROOM 3)</b></p>		
11:30 – 12:00	<i>Shanshan Jiang</i>	Stochastic Multi-symplectic Integrator for Stochastic KdV Equation
12:00 – 12:30	<i>Lijin Wang</i>	The Third Kind of Generating Functions of Stochastic Symplectic Integrators
12:30 – 13:00	<i>Jingjing Zhang</i>	A New Symplectic Method for a Linear Stochastic Oscillator via Stochastic Variational Integrators



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<b>19 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 1 Morning - Mathematics</b> <b>CHAIR: R. M. Santilli</b> <b>(ROOM 4)</b>	
<b>11:30 – 12.30</b>	<b>Introduction to Santilli Isonumbers</b> Christian Corda
<b>12.30 – 13.30</b>	<b>Studies on Lie-Santilli isothery with unit of general form</b> Ascar Aringazin
<b>Lunch Break</b>	

<b>19 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Ali Sanayei</b> <b>(ROOM: 5)</b>		
<b>11:30 – 12:00</b>	<b><u>Ali Sanayei</u></b>	<b>Symposium Foreword</b>
<b>12:00 – 12:15</b>	<b><u>S. Barry Cooper</u></b>	<b>A Short Report from the Turing Centenary Advisory Committee Chair on the Alan Turing Year</b>
<b>12:15 – 13:00</b>	<b><u>S. Barry Cooper</u></b>	<b>From Natural Philosophy to Computation, and Back Again</b>
<b>Lunch Break</b>		



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<p><b>19 September 2012</b></p> <p><b>SESSION: Advances in OLAP and Datawarehousing</b></p> <p><b>CHAIR: Francisco Moreno</b></p> <p><b>(ROOM 5)</b></p>		
<p><b>13:00 – 13:30</b></p>	<p><i>Juan C. Alzate, <u>Francisco J. Moreno,</u> and Jaime Echeverri</i></p>	<p><b>Spatio-Temporal Extension to the Map Cube Operator</b></p>

<p><b>19 September 2012</b></p> <p><b>SESSION: Generating Functions of Special Numbers and Their Applications</b></p> <p><b>CHAIR: I. Naci CANGUL</b></p> <p><b>(ROOM 6)</b></p>		
<p><b>11:15 – 11:45</b></p>	<p><i>Y. Simsek</i></p>	<p>Relations between Eulerian polynomials and Array Polynomials ‘</p>
<p><b>11:45 – 12:15</b></p>	<p><i>V. Kurt</i></p>	<p>A Study on the Hurwitz-Lerch Zeta Function and Some Identities on the Frobenius-Euler Polynomials</p>
<p><b>12:15 – 12:45</b></p>	<p><i>R. Dere</i></p>	<p>Remarks on the Frobenius-Euler polynomials on the Umbral algebra</p>
<p><b>12:45 – 13:15</b></p>	<p><i>B. Kurt</i></p>	<p>Some Identities on the Second Kind Bernoulli Polynomials and Second Kind Euler Polynomials</p>
<p><b>13:15 – 13:45</b></p>	<p><i>A. A. Aygunes</i></p>	<p>Weber functions and Weierstrass <math>\wp</math>-function associated with Hecke operators</p>
<p><b>13:45 – 14:15</b></p>	<p><i>K.Erdem</i></p>	<p>Bernoulli polynomial approach to High-Order Linear Differential Difference Equations</p>
<p><b>Lunch Break</b></p>		



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<b>19 September 2012</b> <b>SYMPOSIUM: Semigroups of Linear Operators and Applications</b> <b>CHAIR: Ludovic Dan LEMLE</b> <b>(ROOM 7)</b>		
11:30 – 11:50	<u>L.D. Lemle,</u> <i>D.M. Stoica</i>	On the Existence of Evolution Semigroups on $L^\infty$
11:50 – 12:10	<u>D.M. Stoica,</u> <i>M. Megan</i>	Concepts of Dichotomy for Stochastic Skew-Evolution Semiflows in Hilbert Spaces
12:10 – 12:30	<i>A. Budiul,</i> <i>T. Vasiu,</i> <u>D.M. Stoica</u>	Mathematical Model for Preventive Maintenance Cycles. Study of Case
12:30 – 12:50	<u>L. Pascu,</u> <i>D.M. Stoica,</i> <i>A. Socalici</i>	Determining the Cooling Affected Volume by Adding Microcoolers in the Steel
12:50 – 13:10	<u>L. Pascu,</u> <i>A. Putan,</i> <i>V. Putan,</i> <i>A. Lascutoni</i>	Analysis on the Similarity Between Steel Ladles and Hot-Water Models Regarding Natural Convection Phenomena

<b>19 September 2012</b> <b>SESSION: Applications and Theory for Uncertainty Quantification and Optimization in Large-Scale Problems</b> <b>CHAIR: Kody J. H. Law and Marco Iglesias</b> <b>(ROOM 8)</b>		
11:30 – 12:00	<u>Michaela Ottobre</u>	Markovian approximation of Classical Open Systems
12:00 – 12:30	<u>M.A. Iglesias-Hernandez,</u> <i>K.J.H. Law,</i> and <i>A.M. Stuart.</i>	MCMC for the evaluation of Gaussian approximations to Bayesian inverse problems in groundwater flow
12:30 – 13:00	<u>K.J.H. Law,</u> and <u>D. Bloemker,</u> <i>A.M. Stuart,</i> and <i>K. C. Zygalakis</i>	The 3DVAR Filter for The Navier-Stokes Equation: Accuracy and Stability in the Limit of High-Frequency Observations



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<b>19 September 2012</b>		
<b>SESSION: Modeling of Multiphase Flows in Porous and Fissured Media</b>		
<b>CHAIR: Nikolai Botkin (ROOM 9)</b>		
11:30 – 12:00	<i>Alexander A. Lukyanov</i>	A Meshless Multi-Point Flux Approximation Method
12:00 – 12:30	<i><u>Thomas G. Amler</u>, Ibrahim Hoteit, Tariq A. Alkhalifah</i>	A Combined ADER-DG and PML Approach for Simulating Wave Propagation in Unbounded Domains
12:30 – 13:00	<i><u>Lautaro Rayo</u>, Ibrahim Hoteit</i>	Ensemble Kalman Filter Regularization Using Leave One-Out Data Cross-Validation
13:00 – 13:30	<i>Mathias Trojer, <u>Eduard R. Oberaigner</u></i>	Statistical Mechanics Approach Describing Gravity Driven Migration Phenomena in Non-Percolating Porous Media
13:30 – 14:00	<i><u>Nikolai Botkin</u>, Martin Brokate, Karl-Heinz Hoffmann, Oleg Pykhteev, Varvara Turova</i>	Simulation of Hysteretic Effects in Multi-Phase Flows in Aquifers
<b>Lunch Break</b>		



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<b>19 September 2012</b> <b>SESSION: Numerical Optimization and Applications</b> <b>CHAIR: Ana I Pereira and M. Fernanda Costa</b> <b>(ROOM 10)</b>		
11:30 – 11:50	<i>David Bento, Diana Pinho, Ana I. Pereira and Rui Lima</i>	Cell-Free Layer (CFL) Analysis in a Glass Capillary: Comparison Between a Manual and Automatic Method
11:50 – 12:10	<i>Marcy A. Dias and Fernando C. Monteiro</i>	Optic Disc Detection Using Ant Colony Optimization
12:10 – 12:30	<i>Ana Sofia Torres and Fernando C. Monteiro</i>	Image Segmentation by Graph Partitioning
12:30 – 12:50	<i>Carlos Afonso, Fábio Ferreira, José Exposto and Ana I. Pereira</i>	Comparing Clustering and Partitioning Strategies
<p style="color: blue; font-weight: bold;">Lunch Break</p>		

<b>19 September 2012</b> <b>SESSION: Statistics and Modelling III</b> <b>CHAIR:</b> <b>(ROOM 11)</b>		
11:30 – 12:00	<i>Astrid Hilbert</i>	Asymptotic Stationarity for a rescaled Mean Field model
12:00 – 12:30	<i>Karl Moder</i>	A new and easy to use method to evaluate interaction in block designs
12:30 – 13:00	<i>Evrin Korkmaz Özyay</i>	Möbius Transformational High Dimensional Model Representation on Multi-way Arrays
<p style="color: blue; font-weight: bold;">Lunch Break</p>		





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<b>19 September 2012</b>		
<b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b>		
<b>CHAIR: G. Warnecke (ROOM 1)</b>		
<b>15:00 – 15:30</b>	<b><i>Eric Goncalves, <u>Jean Decaix</u></i></b>	<b>Numerical Simulation of Cavitating Tube Problems with Isothermal Model</b>
<b>15:30 – 16:00</b>	<b><i>E. Goncalves and <u>D. Zeidan</u></i></b>	<b>Numerical Simulation of Cavitating Tube Problems with Non-Isothermal Model</b>
<b>16:00 – 16:30</b>	<b><i><u>García-Cascales J.R.</u>, <u>Otón-Martínez R.A.</u>, <u>Vera-García F.</u>, <u>Amat-Plata S.</u>, <u>Sánchez-Velasco F.J.</u>, <u>Bentaib A.</u>, <u>Meynet N.</u>, <u>Bleyer A.</u></i></b>	<b>Some Advances in the Characterization of Gas and Solid Mixtures under Low Pressure Conditions</b>
<b>16:30 – 17:00</b>	<b><i><u>Jean Decaix</u>, <u>Eric Goncalves</u></i></b>	<b>Study of Compressibility Effects on Turbulent Cavitating Flows</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>19 September 2012</b> <b>SYMPOSIUM ON INTEGRATED COMPUTATIONAL TOOLS FOR ADVANCED MANUFACTURING</b> <b>CHAIR: NUNO ALVES</b> <b>(ROOM 2)</b>		
<b>15:00 – 15:30</b>	<b><i>Belbut Gaspar, N. Martins-Ferreira</i></b>	<b>Maximizing the Placement of Congruent Polyhedra in a Parallelepiped Container</b>
<b>15:30 – 16:00</b>	<b><i>Inês Oliveira, Nuno Leal, Pedro Silva, A. da Costa Ferreira, Rui J. Neto, F. Jorge Lino, Ana Reis</i></b>	<b>Advanced Engineering Tools for Design and Fabrication of a Custom Nasal Prosthesis</b>
<b>16:00 – 16:30</b>	<b><i>Pedro F. Silva, Nuno Leal, Rui J. Neto, F. Jorge Lino, Ana Reis</i></b>	<b>Custom Hip Prostheses by Integrating CAD and Casting Technology</b>
<b>16:30 – 17:00</b>	<b><i>Shenghua Wu, Ana Reis, Pedro Teixeira, A. Barata da Rocha, Jorge Lino</i></b>	<b>Damage Prediction in Incremental Forming by using Lemaitre Damage Model</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>19 September 2012</b> <b>SESSION: Numerical Methods for Stochastic Differential Equations and Their Applications</b> <b>CHAIR: Lihai Ji, Xiuling Yin</b> <b>(ROOM 3)</b>		
15:00 – 15:30	<i>Lihai Ji</i>	Stochastic Multi-symplectic Wavelet Collocation Method for Stochastic Hamiltonian Maxwell's Equations
15:30 – 16:00	<i>Dongsheng Xu</i>	A Class of Numerical Methods with One Parameter for Backward Stochastic Differential Equations
16:00 – 16:30	<i>Xiuling Yin</i>	The Well-posedness of A Special Partial Differential Equation

<b>19 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 2 Afternoon - Mathematics</b> <b>CHAIR: R. M. Santilli</b> <b>(ROOM 4)</b>	
15:00 – 16:00	Fundamentally Very Thin H/v-Structure Thomas Vougiouklis
16:00 – 17.00	Santilli Category of Isotopic Groups Stephan Moskaliuk



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<b>19 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Renzo Ricca</b> <b>(ROOM: 5)</b>		
15:00 – 15:45	<u><i>Daniel L. Stein</i></u>	Rugged Landscapes and Timescale Distributions in Complex Systems
15:45 – 16:30	<u><i>Burton Voorhees</i></u>	Virtual Stability: A General Complex Systems Principle?
16:30 – 17:00	<u><i>Roman Senkerik</i></u>	Influence of Chaotic Dynamics on the Performance of Evolutionary Algorithms – A Primary Study
17:00 – 17:30	<b>Coffee Break</b>	

<b>19 September 2012</b> <b>SESSION: Generating Functions of Special Numbers and Their Applications</b> <b>CHAIR: Y. Simsek</b> <b>(ROOM 6)</b>		
15:00 – 15:30	<u><i>I. N. Cangul,</i></u> <i>A. Yurttas, M. Togan and</i> <i>A. S. Cevik</i>	Some formulae for the Zagreb indices of graphs
15:30 – 16:00	<u><i>B. Ozgur A. Yurttas and I.</i></u> <i>N. Cangul</i>	Determining the minimal polynomial of $\cos(2n\pi/n)$ over $\mathbb{Q}$ with Maple
16:00 – 16:30	<u><i>A. Yurttas, B. Ozgur and I.</i></u> <i>N. Cangul</i>	Calculation of the minimal polynomial of $2\cos(n\pi/q)$ over $\mathbb{Q}$ with maple
16:30 – 17:00	<i>M. Alkan</i>	On Dedekind Modules
<b>Coffee Break</b>		



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<b>19 September 2012</b>		
<b>SESSION: Operational Research and Applications</b>		
<b>CHAIR: Fernanda A. Ferreira</b>		
<b>(ROOM 7)</b>		
<b>15:00 – 15:20</b>	<b><i>Fernanda A. Ferreira</i></b>	<b>International Stackelberg model with tariffs</b>
<b>15:20 – 15:40</b>	<b><i>Fernanda A. Ferreira and Flávio Ferreira</i></b>	<b>Desirable role in an international duopoly model with tariffs</b>
<b>15:40 – 16:00</b>	<b><i>Kashif Rashid, William Bailey and Benoît Couët</i></b>	<b>Large-scale expensive blackbox function optimization</b>
<b>16:00 – 16:20</b>	<b><i>Francesc Llerena and Cori Vilella</i></b>	<b>An axiomatic characterization of the strong constrained egalitarian solution</b>
<b>16:20 – 16:40</b>	<b><i>San-Nah Sze, Ada Ng Suk-Fung and Kang-Leng Chiew</i></b>	<b>An Insertion Heuristic Manpower Scheduling for In-Flight Catering Service Application</b>
<b>16:40 – 17:00</b>	<b><i>San-Nah Sze, Kang-Leng Chiew and Jeeu-Fong Sze</i></b>	<b>Multi-trip Vehicle Routing and Scheduling Problem with Time Window in Real Life</b>



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<b>19 September 2012</b>		
<b>SESSION: Numerical Optimization and Applications</b>		
<b>CHAIR: Ana I Pereira and M. Fernanda Costa</b>		
<b>(ROOM 10)</b>		
<b>15:00 – 15:20</b>	<i>M. Fernanda P. Costa and C. Ribeiro</i>	<b>Generalized Fractional Maxwell Model: Parameter Estimation of a Viscoelastic Material</b>
<b>15:20 – 15:40</b>	<i>Jairson Dinis, Ana I. Pereira and Elza M. Fonseca</i>	<b>Mathematical Model for the Assessment of Fracture Risk Associated with Osteoporosis</b>
<b>15:40 – 16:00</b>	<i>Fernando C. Monteiro and Aurélio C. Campilho</i>	<b>Distance Measures for Image Segmentation Evaluation</b>
<b>16:00 – 16:20</b>	<i>M.F. Teodoro</i>	<b>Numerical Approximation of a nonlinear Delay-Advance Functional Differential Equation by a Finite Element Method</b>
<b>16:20 – 16:40</b>	<i>Ana S. R. Brásio, Andrey Romanenko and Natércia C. P. Fernandes</i>	<b>System identification as an application of optimization</b>
<b>16:40 – 17:00</b>	<i>Teófilo Melo and M. Teresa T. Monteiro, João Matias</i>	<b>Solving a Signalized Traffic Intersection Problem with an Hyperbolic Penalty Function</b>



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<b>19 September 2012</b> <b>SESSION: Statistics and Modelling III</b> <b>CHAIR:</b> <b>(ROOM 11)</b>		
<b>15:00 – 15:30</b>	<i>Jan Picek</i>	Estimators of Extreme Value Index in Linear Regression Model
<b>15:30 – 16:00</b>	<i>Katharina Proksch</i>	Uniform confidence bands for multivariate inverse regression models
<b>16:00 – 16:30</b>	<i>Wolf-Dieter Richter</i>	Exact distributions under generalized normality assumptions
<b>16:30 – 17:00</b>	<i>Lubos Strelec</i>	Some notes on robustification of the Jarque-Bera test
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	

<b>19 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Andrew Stuart</b> <b>(ROOM 1)</b>		
<b>17:30 – 18:30</b>	<b>Martin Hairer</b>	<b>TBA</b>

<b>19 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Luigi Brugnano</b> <b>(ROOM 1)</b>		
<b>18:30 – 19:30</b>	<b>Denis Talay</b>	<b>TBA</b>



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<b>19 September 2012</b>		
<b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b>		
<b>CHAIR: P. Kosinski</b>		
<b>(ROOM 1)</b>		
19:35 – 20:05	<i><u>Zdenek Chara, Bohus Kysela and Pavel Vlasak</u></i>	Velocity Field around a Falling Particle
20:05 – 20:35	<i><u>Shiva P. Pudasaini and Stephen A. Miller</u></i>	Buoyancy Induced Mobility in Two-phase Debris Flow
20:35 – 21:05	<i><u>H. Sarlak, J. N. Sørensen and R. Mikkelsen</u></i>	Large Eddy Simulation of Atmospheric Boundary Layer over Wind Farms using a Prescribed Boundary Layer Approach

<b>19 September 2012</b>		
<b>SESSION: Computational Nanomaterials</b>		
<b>CHAIR: Yakup Hundur</b>		
<b>(ROOM 2)</b>		
19:35 – 20:05	<i><u>Sule Celasun</u></i>	Secret of Nanomaterials
20:05 – 20:35	<i><u>Yakup Hundur and Burçin Danacı</u></i>	Thermal Effects on Nickel





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<b>19 September 2012</b> <b>SESSION: Applied and Numerical Mathematics I</b> <b>CHAIR: Ping Yi</b> <b>(ROOM 3)</b>		
19:35 – 20:05	<i>Ping Yi</i>	On Models of Design Optimization with Bounded-butunknown Uncertainty
20:05 – 20:35	<i>Adérito Araújo, Cidália Neves and Ercília Sousa</i>	A Laplace Transform Piecewise Linearized Method for a Second Order Hyperbolic Equation
20:35 – 21:05	<i><u>Mantas Landauskas,</u> Jurate Ragulskiene and Minvydas Ragulskis</i>	H-rank as a Control Tool for Discrete Dynamical Systems
21:05 – 21:35	<i>Ji-Ting Qu</i>	A New Placement Optimization Method for Viscoelastic Dampers: Energy Dissipation Method

<b>19 September 2012</b> <b>SESSION: Approximation, Scientific Computation and Applications "ASCA-2012"</b> <b>CHAIR: Gradimir V. Milovanović</b> <b>(ROOM 5)</b>		
19:30 – 19:55	<i><u>Marija P. Stanić,</u> Aleksandar S. Cvetković, Tatjana V. Tomović</i>	Error Bounds for Some Quadrature Rules With Maximal Trigonometric Degree of Exactness
19:55 – 20:20	<i><u>Gradimir V. Milovanović,</u> Dobrilo D. Tošić, Miloljub Albijanić</i>	Numerical Integration of Analytic Functions
20:20 – 20:45	<i>Gradimir V. Milovanović, <u>Tomislav Iajić,</u> Novica Tončev</i>	Quadrature Formulae for Problems in Mechanics
20:45 – 21:10	<i><u>Gradimir V. Milovanović,</u> Dušan Joksimović</i>	Some Properties of Boubaker Polynomials and Applications



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<b>19 September 2012</b> <b>SESSION: Numerical Optimization and Applications</b> <b>CHAIR: Ana I Pereira and M. Fernanda Costa</b> <b>(ROOM 10)</b>		
19:35 – 19:55	<i>Mario Sáenz Espinoza, Ana I. Pereira and José Gonçalves</i>	Optimization Methods for Hyper-redundant Robots' Inverse Kinematics in Biomedical Applications
19:55 – 20:15	<i>Gisela C.V. Ramadas and Edite M.G.P. Fernandes</i>	Solving Systems of Inequalities and Equalities by a Nonmonotone Hybrid Tabu Search Method
20:15 – 20:35	<i>Rita Vilaça and Ana Maria A.C. Rocha</i>	An Adaptive Penalty Method for DIRECT Algorithm in Engineering Optimization

<b>19 September 2012</b> <b>SESSION: Statistics and Modelling III</b> <b>CHAIR:</b> <b>(ROOM 11)</b>		
19:35 – 20:05	<i>Bernd Schmeikal</i>	Hyperbolic Distributions In Social Science
20:05 – 20:35	<i>Milan Stehlik</i>	To be announced

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



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<b>20 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Gerhard Wanner</b> <b>(ROOM 1)</b>		
<b>09:00 – 10:00</b>	<b><u>Ernst Hairer</u></b> <b>and Christophe J.</b> <b>Zbinden</b>	<b>Conjugate Symplectic B- Series</b>

<b>20 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Ernst Hairer</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b>Gerhard Wanner</b>	<b>The Importance of Pappus for the Development of Mathematics</b>
<b>Coffee Break</b>		



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<b>20 September 2012</b> <b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b> <b>CHAIR: D. Zeidan</b> <b>(ROOM 1)</b>		
11:30 – 12:00	<b>INVITED TALK:</b> <u><i>Professor Gerald Warnecke</i></u> Riemann problems for conservations laws with phase transitions	
12:00 – 12:30		
12:30 – 13:00	<i>Marèt Cloete and <u>Francois Smit</u></i>	Modeling of Generalized Newtonian Fluid Flow at a Fluid-porous Interface
13:00 – 13:30	<i><u>D. A. Hoang</u>, V. van Steijn, L. M. Portela, M. T. Kreutzer and C. R. Kleijn</i>	Modeling of Low-Capillary Number Segmented Flows in Microchannels Using OpenFOAM

<b>20 September 2012</b> <b>SESSION: Fifth Symposium on Recent Trends in the Numerical Solution of Differential Equations</b> <b>CHAIR: L. Brugnano</b> <b>(ROOM 2)</b>		
11:30 – 12:00	<i><u>E. Weinmueller</u></i>	Numerical Approach to the Finite Hankel Transform Eigenfunctions
12:00 – 12:30	<i><u>M. Trummer</u></i>	Where Have All The Digits Gone?
12:30 – 13:00	<i><u>P. Lima</u></i>	Numerical Solution of Two-Dimensional Integral-Algebraic Systems Using Legendre Functions
13:00 – 13:30	<i><u>T. Diogo</u></i>	Numerical methods for nonlinear singular Volterra integral equations



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<b>20 September 2012</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Prof. K. Gürlebeck</b> <b>(ROOM 3)</b>		
<b>11:30 – 12:00</b>	<b><u>R. Lavicka</u></b> , F. Brackx, H. De Schepper, V. Soucek	<i>Branching of monogenic polynomials</i>
<b>12:00 – 12:30</b>	<b><u>Malonek, H.R.</u></b> , G. Tomaz, I. Falcao	<i>Pascal's triangle in Hypercomplex Function Theory</i>
<b>12:30 – 13:00</b>	<b><u>D. Pena Pena</u></b> , H. De Bie, F. Sommen	<i>The generating function of the Clifford-Gegenbauer polynomials</i>
<b>Lunch Break</b>		

<b>20 September 2012</b> <b>SESSION: Numerical Analysis and Applied Mathematics</b> <b>CHAIR: Özgür Demir</b> <b>(ROOM 3)</b>		
<b>13:00 – 13:30</b>	<b><i>Özgür Demir,</i></b> <b><i>Abdurrahman Sahin,</i></b> <b><i>Tamer Yilmaz</i></b>	<b>Investigation of Charge Weight and Shock Factor Effect on Non-linear Transient Structural Response of Rectangular Plates Subjected to Underwater Explosion (UNDEX) Shock Loading</b>



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<p><b>20 September 2012 – Symposium # 50</b>  <b>Seminar Course on Hadronic Mechanics and Chemistry</b>  <b>SESSION: 3 – Morning - IsoRelativity</b>  <b>CHAIR: C. Corda</b>  <b>(ROOM 4)</b></p>	
9.00 – 10.00	<p>Causal and Time Invariant Description of Superluminal Speeds within Physical Media via the Universal Isotopies of the Lorentz-Poincare' Symmetry  <b>Ruggero Maria Santilli</b></p>
10.00 – 11-00	<p>Experimental Confirmation of Santilli Iso- and Blue-Shift for Monochromatic Laser Light  <b>Gene Westy and Gino Amato</b></p>
11.30 – 12.30	<p>Anomalous Measurements of the Mossbauer Effect in Rotating Disks and Santilli IsoRed-BlueShift  <b>Alexander Kholmetskii</b></p>
12.30 – 13.30	<p>On the Cosmological Redshift  <b>Georgi Shpenkov</b></p>

<p><b>20 September 2012</b>  <b>SESSION: Interdisciplinary Symposium on Complex Systems</b>  <b>CHAIR: Daniel Stein</b>  <b>(ROOM: 5)</b></p>		
11:30 – 12:15	<p><u><b>Otto E. Rössler</b></u></p>	<p>Cryodynamics Can Solve the Energy Problem by Stabilizing ITER: A Prediction</p>
12:15 – 13:00	<p><u><b>Renzo L. Ricca</b></u></p>	<p>Tackling Fluid Tangles Complexity by Knot Polynomials</p>
13:00 – 13:30	<p><u><b>Minos Axenides</b></u></p>	<p>Nambu Mechanics as a Window to Deterministic Chaos</p>
<p><b>Lunch Break</b></p>		



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<b>20 September 2012</b>		
<b>SESSION: Generating Functions of Special Numbers and Their Applications</b>		
<b>CHAIR: M. Akan</b>		
<b>(ROOM 6)</b>		
<b>11:15 – 11:45</b>	<b><i>A. Kim and D. Kim</i></b>	A property of convolution sum for divisor functions
<b>11:45 – 12:15</b>	<b><i>D.Kruchinin, V.Kruchinin</i></b>	A Method for Obtaining Expressions for Polynomials Based on a Composition of Generating Functions
<b>12:15 – 12:45</b>	<b><i>I. C. Huang</i></b>	Algebraic Structures of Sequences of Numbers
<b>12:45 – 13:15</b>	<b><i>L. F. Ahmed</i></b>	On Two Applications of Herschel's Theorem
<b>13:15 – 13:45</b>	<b><i>N. Akgunes</i></b>	Analyzing special parameters over zero-divisor graphs
<b>13:45 – 14:15</b>	<b><i>O. Ozkan Kilic</i></b>	Neighborhoods of a class of analytic functions defined by using a differential equation
<b>Lunch Break</b>		



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<p><b>20 September 2012</b></p> <p><b>SESSION: Structure-Preserving Numerical Methods for Differential Equations</b></p> <p><b>CHAIR: T. Matsuo (ROOM 7)</b></p>		
11:30 – 12:00	<u>T. Matsuo</u>	An alternating discrete variational derivative method
12:00 – 12:30	<u>D. Furihata</u>	A new technique to design numerical schemes with weak nonlinearity based on discrete variational derivative method
12:30 – 13:00	<u>Y. Miyatake</u>	Energy conservative/dissipative $H^1$ -Galerkin semi-discretizations for partial differential equations

<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Methods and Computational Procedures for Special Problems in Physics and Chemistry - The symposium is dedicated to Prof. Liviu Ixaru to celebrate his 70th birthday and give him the honour he deserves for his major scientific contributions</b></p> <p><b>CHAIR: B. Paternoster (ROOM 8)</b></p>		
11:30 – 11:45	<i>B. Paternoster</i>	Introduction
11:45 – 12:15	<i>L. Gr. Ixaru,</i>	CP and EF methods for the Schrödinger equation. A comparison
12:15 – 12:35	<i>V. Ledoux</i>	On the use of CP methods for the numerical solution of the Schrödinger equation
12:35 – 12:55	<u>N. S. Scott, M.P. Scott</u>	Ixaru's extended frequency dependent quadrature rules for Slater integrals: parallel computation issues





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<b>20 September 2012</b> <b>SESSION: Biomathematics VI</b> <b>CHAIR: Nico Stollenwerk</b> <b>(ROOM 9)</b>		
11:30 – 12:00	<i>Maira Aguiar</i>	Describing dengue epidemics: insights from simple mechanistic models
12:00 – 12:30	<i><u>Filipe Rocha</u></i>	Understanding the effect of vector dynamics in epidemic models using center manifold analysis
12:30 – 13:00	<i>Ezio Venturino</i>	A meta-epidemic model with steady state demographics and migrations saturation

<b>20 September 2012</b> <b>SESSION: International Workshop on</b> <b>Computational Intelligence and Cyber Security</b> <b>CHAIRS: Prof. Jiankun Hu and Dr. Frank Jiang</b> <b>(ROOM 10)</b>		
11:30 – 12:00	<i>Wencheng Yang, Kai Xi and Cai Li</i>	A Cancellable and Fuzzy Fingerprint Scheme for Mobile Computing Security
12:00 – 12:30	<i><u>Cai Li</u></i>	Double Layer Secure Sketch
12:30 – 13:00	<i>Quang Anh Tran, Minh Tuan Vu, Michael Frater, Frank Jiang</i>	Email User Ranking Based on Email Networks



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<b>20 September 2012</b>		
<b>SESSION: Statistical Inference in Linear Models</b>		
<b>CHAIR: João Tiago Mexia</b>		
<b>(ROOM 11)</b>		
<b>11:30 – 12:00</b>	<b><i>Roman Zmysłony</i></b>	Inference for the interclass correlation in familial data using small sample asymptotics
<b>12:00 – 12:30</b>	<b><i>Ricardo Covas</i></b>	Binary operations on Jordan algebras: an application to statistical inference in linear models
<b>12:30 – 13:00</b>	<b><i>Dina Salvador</i></b>	Structured families of stochastic symmetric matrices
<b>Lunch Break</b>		

<b>20 September 2012</b>		
<b>SESSION: Statistics and Modelling III</b>		
<b>CHAIR:</b>		
<b>(ROOM 12)</b>		
<b>11:30 – 12:00</b>	<b><i>Christine Duller</i></b>	Model selection for logistic regression models
<b>12:00 – 12:30</b>	<b><i>Polychronis Economou</i></b>	How to identify the used sampling mechanism
<b>12:30 – 13:00</b>	<b><i>Dietmar Ferger</i></b>	Empirical processes in stochastic optimization
<b>Lunch Break</b>		



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<p><b>20 September 2012</b></p> <p><b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b></p> <p><b>CHAIR: P. Kosinski</b></p> <p><b>(ROOM 1)</b></p>	
15:00 – 15:30	<p>PLENARY LECTURE:</p> <p><u><i>Professor Marwan Darwish</i></u></p> <p>A review of Discretization Schemes for the Advection and Transient Terms with special application to Interface Problems</p>
15:30 – 16:00	
16:00 – 16:30	<p>KEYNOTE LECTURE:</p> <p><u><i>Dr Djamel Lakehal</i></u></p> <p>Computational Multi-Fluid Flow &amp; Heat Transfer: A Review of the State-of-the-Art</p>
16:30 – 17:00	
17:00 – 17:30	<p><b>Coffee Break</b></p>

<p><b>20 September 2012</b></p> <p><b>SESSION: Fifth Symposium on Recent Trends in the Numerical Solution of Differential Equations</b></p> <p><b>CHAIR: K. In't Hout</b></p> <p><b>(ROOM 2)</b></p>		
15:00 – 15:30	<u><i>G.Vainikko</i></u>	A Smooth Solution to Singular ODEs
15:30 – 16:00	<u><i>A.Y.Tsai</i></u>	Two-derivative Runge-Kutta methods for differential equations
16:00 – 16:30	<u><i>M.Rebello</i></u>	An hybrid collocation method for fractional terminal value problems
16:30 – 17:00	<u><i>R.Pavani</i></u>	Numerical simulation of blow up oscillating solutions for nonlinear fourth order differential equations



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<p><b>20 September 2012</b>  <b>SESSION: Clifford Analysis and Applications</b>  <b>CHAIR: Prof. H. R. Malonek</b>  <b>(ROOM 3)</b></p>		
15:00 – 15:30	Smid, D.	<i>A fifth order conformally invariant higher spin operator on the sphere</i>
15:30 – 16:00	Sommen, F.	<i>Cauchy-type Theorems on Surfaces</i>
16:00 – 16:30	<u>Soucek, V.</u> D. Eelbode, P. Van Lancker	<i>The Fueter theorem by representation theory</i>
16:30 – 17:00	<u>Krump, L.</u> , F. Brackx, H. De Schepper, V. Soucek	<i>Selfdual 2-forms in dimension 4 and their Fischer decomposition</i>
17:00 – 17:30	<b>Coffee Break</b>	

<p><b>20 September 2012 – Symposium # 50</b>  <b>Seminar Course on Hadronic Mechanics and Chemistry</b>  <b>SESSION: 4 Afternoon – Cosmology</b>  <b>CHAIR: E. Trell</b>  <b>(ROOM 4)</b></p>	
15:30 – 16:30	<p><b>Experimental Dismissal of Universe Expansion, Expansion Acceleration, Big Bang, Space Expansion, Dark Matter and Dark Energy</b>  <b>J. V. Kadeisvili, Russia</b></p>
16.40 – 17-30	<p><b>A new Renaissance in Cosmology</b>  <b>John Pace</b></p>



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<b>20 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Barry Cooper</b> <b>(ROOM: 5)</b>		
15:00 – 15:45	<u><i>Klaus Mainzer</i></u>	The Cause of Complexity in Nature: An Analytical and Computational Approach
15:45 – 16:30	<u><i>Glenda Eoyang</i></u>	Human Systems Dynamics: Toward a Computational Model
16:30 – 17:00	<u><i>Joost J. Joosten</i></u>	Complexity, Universality and Intermediate Degrees
17:00 – 17:30	<b>Coffee Break</b>	

<b>20 September 2012</b> <b>SESSION: Generating Functions of Special Numbers and Their Applications</b> <b>CHAIR: V. Kurt</b> <b>(ROOM 6)</b>		
15:00 – 15:30	<i>M. Kilic</i>	Some important Physical of Laminated Veneer Lumber (LVL) made from oriental beech and Lombardy polar
15:30 – 16:00	<i>O. Karaoglu</i>	A Study on Marangoni Convection by the Variational Iteration Method



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<b>20 September 2012</b> <b>SESSION: Structure-Preserving Numerical Methods</b> <b>for Differential Equations</b> <b>CHAIR: Y. Sun</b> <b>(ROOM 7)</b>		
<b>15:00 – 15:30</b>	<b><u>J. Zhang</u></b>	Energy-preserving Sinc collocation method for Klein-Gordon-Schrödinger equations
<b>15:30 – 16:00</b>	<b><u>H. Duan</u></b>	Comparison of two equivalent multisymplectic numerical methods for nonlinear wave equations
<b>16:00 – 16:30</b>	<b><u>X. Yin</u></b>	Solvability of the central box scheme for a kind of nonlinear partial differential equations
<b>16:30 – 17:00</b>	<b><u>L. Kong</u></b>	Conservative properties analysis of multi-symplectic integrator for the Schrödinger equation with wave operator
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	



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<b>20 September 2012</b>		
<b>SESSION: Numerical Methods and Computational Procedures for Special Problems in Physics and Chemistry - The symposium is dedicated to Prof. Liviu Ixaru to celebrate his 70th birthday and give him the honour he deserves for his major scientific contributions</b>		
<b>CHAIR: N.S. Scott (ROOM 8)</b>		
15:00 – 15:20	<i>V. Melezhib</i>	Non-direct product discrete variable representation in some non-stationary quantum problems
15:20 – 15:40	<i>T. Vertse, R. G. Lovas, A. Rácz, P. Salamon</i>	The use of Ixaru's method in calculating poles of the S-matrix in strictly finite range potentials
15:40 – 16:00	<i>Y. Liu, Y. Zhang</i>	An Inverse Problem of Mass Resonator: Detection of Mass and Position of an Adsorbed Particle
16:00 – 16:20	<i>M. Van Daele and D. Hollevoet</i>	Exponentially-fitted methods and their stability functions
16:20 – 16:40	<i>L. Aceto, P. Ghelardoni, C. Magherini</i>	P-stable Boundary Value Methods for second order IVPs
16:40 – 17:00	<i>F. Diele, C. Marangi, S. Ragni</i>	Implicit - Symplectic Partitioned (IMSP) Runge-Kutta schemes for predator-prey dynamics
17:00 – 17:30	<b>Coffee Break</b>	



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<b>20 September 2012</b> <b>SESSION: Biomathematics VI</b> <b>CHAIR: Ezio Venturino</b> <b>(ROOM 9)</b>		
15:00 – 15:30	<u><i>Maira Aguiar</i></u>	Rich dynamics in multi-strain models: non-linear dynamics and deterministic chaos in dengue fever epidemiology
15:30 – 16:00	<u><i>Peyman Ghaffari</i></u>	Evolution of n-species Kimura/voter models towards criticality, a surrogate for general models of accidental pathogens
16:00 – 16:30	<u><i>Jean Clairambault</i></u>	Modelling targets for anticancer drug control optimisation in physiologically structured cell population models
16:30 – 17:00	<u><i>Chakib Jerry</i></u>	A viability analysis for a stock/price model

<b>20 September 2012</b> <b>SESSION: Numerical Functional Analysis</b> <b>CHAIR: Veli B. Shakhmurov</b> <b>(ROOM 10)</b>		
15:00 – 15:30	<i>Fatih Sabahattin Tetikoğlu</i>	The Positivity of Differential Operator with Periodic Conditions
15:30 – 16:00	<i>Deniz Ağırseven</i>	Approximate Solutions of Delay Parabolic Equations with the Neumann Condition
16:00 – 16:30	<i>Yasar Sozen</i>	Reidemeister Torsion of Hitchin Representations of $PSp(2n, \mathbb{R})$
16:30 – 17:00	<i>Fatma Songül Özesenli Tetikoğlu</i>	A Fourth Order of Accuracy Difference Scheme for the Bitsadze-Samarskii Type Nonlocal Boundary Value Problem





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<b>20 September 2012</b>		
<b>SESSION: The 1st Symposium on Numerical Methods of Boundary Value Problems (BVPs): Analysis, Algorithms and Real World Applications</b>		
<b>CHAIR: Ali Sayfy &amp; Suheil Khoury (ROOM 11)</b>		
<b>14:30 – 15:00</b>	<i>Thomas Wunderli</i>	On Total Variation Flows with $H^{-1}$ Penalty
<b>15:00 – 15:30</b>	<i>Suheil Khoury &amp; Ali Sayfy</i>	A fourth-order adaptive collocation approach for the solution of a generalized Emden-Fowler type equations
<b>15:30 – 16:00</b>	<i>Elcin Yusufoglu and Ilkem Turhan</i>	Longitudinally Cracked Orthotropic Strip with Hinged Boundaries
<b>16:00 – 16:30</b>	<i>Mohammad Ismail</i>	Finite Element Solution of Coupled Korteweg-de Vries Equations
<b>16:30 – 17:00</b>	<i>Ali Sayfy &amp; Suheil Khoury</i>	A fourth-order spline collocation approach for the numerical solution of a generalized system of second-order boundary-value problems
<b>Coffee Break</b>		



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<b>20 September 2012</b> <b>SESSION: Statistics and Modelling III</b> <b>CHAIR:</b> <b>(ROOM 12)</b>		
<b>15:00 – 15:30</b>	<i>Lidia Z. Filus</i>	Multivariate "pseudo-distributions" as natural extension of the bivariate normal density pattern - Theory
<b>15:30 – 16:00</b>	<i>Jerzy K. Filus</i>	Multivariate "pseudo-distributions" as natural extension of the bivariate normal density pattern - Applications
<b>16:00 – 16:30</b>	<i>M. Ivette Gomes</i>	The Extreme Value Birnbaum-Saunders Model in Athletics
<b>16:30 – 17:00</b>	<i>Harald Heinzl</i>	Quantitative Assessment of Scientific Quality
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	

<b>20 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Peter Deufhard</b> <b>(ROOM 1)</b>		
<b>17:30 – 18:30</b>	<b>John Butcher</b>	<b>Hopf algebras, B-series, order stars and order arrows</b>



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<b>20 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: John Butcher</b> <b>(ROOM 1)</b>		
<b>18:30 – 19:30</b>	<b>Peter Deuflhard</b>	<b>Lady Windermere's Dual Fan and the Motion of her Knee</b>

<b>20 September 2012</b> <b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b> <b>CHAIR: D. Lakehal</b> <b>(ROOM 1)</b>		
<b>19:35 – 20:05</b>	<b><i>E. Ramos-Gómez, C. González-Rivera and <u>M.A</u> <u>Ramírez-Arquéz</u></i></b>	<b>Mathematical Modeling of Fluid Flow in Aluminium Ladles for Degasification with Impeller - Injector</b>
<b>20:05 – 20:35</b>	<b><i><u>Yanhai Lin</u>, Liancun Zheng and Xinxin Zhang</i></b>	<b>Marangoni Convection Flow and Heat Transfer in Pseudo-plastic Non- Newtonian Nanofluids with Radiation Effects and Heat Generation or Absorption Effects</b>
<b>20:35 – 21:05</b>	<b><i><u>Maryam Ghaffari</u>, Yu-Fen Chang, Alex C. Hoffmann and Boris Balakin</i></b>	<b>CFD Modeling of PEPT Results of Particle Motion Trajectories in a Pipe over an Obstacle</b>



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<b>20 September 2012</b> <b>SESSION: Recent Advances and Current Research on the Difference Equations and its Applications</b> <b>CHAIR: Prof. Seifedine Kadry</b> <b>(ROOM 2)</b>		
19:35 – 20:05	<i>Francisco Miranda</i>	Differential Inclusions and Optimization Problem on Time Scales
20:05 – 20:35	<i>Kuniyoshi Abe, Gerard L. G. Sleijpen</i>	A BiCGStab2 variant of the IDR(s) method for solving linear equations
20:35 – 21:05	<i>Kenji Sato, Makoto Yano</i>	A Simple Condition for Uniqueness of the Absolutely Continuous Ergodic Measure and Its Application to Economic Models
21:05 – 21:35	<i>Seifedine Kadry, Chibli Joumaa</i>	Solutions Behavior of the System of Rational Difference Equations

<b>20 September 2012</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Prof. B. Schmeikal</b> <b>(ROOM 3)</b>		
19:35 – 20:05	<i>G. McClellan</i>	<i>Geometric Calculus-based Postulates for the Derivation and Extension of the Maxwell Equations</i>
20:05 – 20:35	<i>V. Abramov</i>	<i>Geometric Approach to Ghost Fields</i>
20:35 – 21:05	<i>D. Bryukhov</i>	<i>On Modified Quaternionic Analysis, Irrotational Velocity Fields and New Applications of the Riesz system in <math>R^3</math></i>



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<p><b>20 September 2012</b></p> <p><b>SESSION: Recent Developments in Modeling and Simulation for Partial Differential Equations (PDEs)</b></p> <p><b>CHAIR: Mohammad Siddique (ROOM 5)</b></p>		
19:35 – 20:05	<i>Abir Alharbi</i>	<p>A Solution to Neural Field Equations by a Recurrent Neural Network Method</p> <p>Name of the author</p>
20:05 – 20:35	<i>A. A. Aderogba, M. Chapwanya and J. K. Djoko</i>	<p>Travelling Wave Solution of the Kuramoto-Sivashinsky Equation: A Computational Study</p>

<p><b>20 September 2012</b></p> <p><b>SESSION: Geometry of Kenmotsu Manifolds and Their Submanifolds</b></p> <p><b>CHAIR: Mohammad Siddique (ROOM 5)</b></p>		
20:35 – 21:05	<i>Ram Shankar GUPTA</i>	<p>Geometry of Lightlike Hypersurfaces of an Indefinite Cosymplectic Manifolds</p>

<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Phenomena and Analysis of Fluid Flow in Joule- Heated Cavity of Low-Prandtl Number Fluid</b></p> <p><b>CHAIR: Zhang Xiaohui (ROOM 5)</b></p>		
21:05 – 21:35	<i>Zhang Xiaohui, Zhang mingjie, Zhong Qigang</i>	<p>Numerical Analyses of Fluid Flow in Joule-heated Cavity of low-Prandtl Number Fluid</p>



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<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Analysis of Irreversible Deformation, Micro- and Macro-Fracture of Isotropic and Anisotropic Materials under Shock Loading Conditions</b></p> <p><b>CHAIR: Alexander A. Lukyanov (ROOM 6)</b></p>		
19:35 – 20:05	<i>Alexander A. Lukyanov</i>	Modelling the Shock Response of a Damageable Anisotropic Composite Material
20:05 – 20:35	<i><u>Vladimir M. Sadovskij</u> and Oxana V. Sadovskaya</i>	Parallel Program Systems for Modeling Elastic-Plastic Waves in Structurally Inhomogeneous Materials

<p><b>20 September 2012</b></p> <p><b>SESSION: SEISMIC WAVEFORM ANALYSIS AND INVERSION PROBLEMS (SWAIP): OVERVIEW OF SGRAPH TOOLS AND APPLICATIONS</b></p> <p><b>CHAIR: Mohamed F. Abdelwahed (ROOM 6)</b></p>		
20:35 – 21:05	<i>Mohamed F. Abdelwahed</i>	Solving Seismological Problems Using SGRAPH Program: I- Source parameters and hypocentral location
21:05 – 21:35	<i>Mohamed F. Abdelwahed</i>	Solving Seismological Problems Using SGRAPH Program: II- Waveform modeling

<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Solutions to Problems in Matrix Operations</b></p> <p><b>CHAIR: Petero Kwizera (ROOM 6)</b></p>		
21:35 – 22:05	<i>Petero Kwizera</i>	Matrix Singular Value Decomposition to a Linear Combination of Rank One Partial Isometries



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<p><b>20 September 2012</b></p> <p><b>SESSION: Multiscale methods and their application to the problems arising in complex system's modeling</b></p> <p><b>CHAIR: Eugene B. Postnikov (ROOM 7)</b></p>		
19:35 – 20:05	<i>Eugene Postnikov</i>	Mean-field approach to diffusion processes with many scales of mobility
20:05 – 20:35	<i>Andrea Fernandez</i>	Sharp-interface models for concrete carbonation
20:35 – 21:05	<i>Markus Kettmann</i>	Heterogeneous Multiscale Methods for Penalty Methods in Multibody Dynamics

<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Methods and Computational Procedures for Special Problems in Physics and Chemistry - The symposium is dedicated to Prof. Liviu Ixaru to celebrate his 70th birthday and give him the honour he deserves for his major scientific contributions</b></p> <p><b>CHAIR: M. van Daele (ROOM 8)</b></p>		
19:35 – 19:55	<i>F. Diele, C.Marangi, <u>S.Ragni</u></i>	Exponential Runge-Kutta integrators for modelling predator-prey interactions
19:55 – 20:15	<i>B.Pace, F. Diele, <u>C.Marangi</u></i>	Energy preservation in separable Hamiltonian systems by splitting schemes
20:15 – 20:35	<i>A. <u>Cardone</u>, B. Paternoster, G. Santomauro</i>	Exponential fitting quadrature rule for functional equations
20:35 – 20:55	<i>R. <u>D'Ambrosio</u>, B. Paternoster</i>	Diagonally implicit exponentially fitted Runge-Kutta methods with equation dependent coefficients
20:55 – 21:15	<i>D. Conte, <u>B. Paternoster</u>, G. Santomauro</i>	An exponential fitted quadrature rule over unbounded intervals



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<p><b>20 September 2012</b></p> <p><b>SESSION: International Workshop on Computational Intelligence and Cyber Security</b></p> <p><b>CHAIRS: Prof. Jiankun Hu and Dr. Frank Jiang</b></p> <p><b>(ROOM 9)</b></p>		
19:35 – 19:55	<i>Gideon Creech and Frank Jiang</i>	The Application of Extreme Learning Machines to the Network Intrusion Detection Problem
19:55 – 20:15	<i>Gideon Creech, and Frank Jiang</i>	Semantics based Multi-layered Networks for Spam Email Detection
20:15 – 20:35	<i>Iraj Fathirad, John Devlin, Frank Jiang</i>	Comparative Study of Key Exchange and Authentication Methods in Application, Transport and Network Level Security Mechanisms
20:35 – 20:55	<i>Cong Tuan Vu, Quang Anh Tran, Frank Jiang</i>	A Comparison of Two IPv4/IPv6 Transition Mechanisms – OpenVPN and IVI

<p><b>20 September 2012</b></p> <p><b>SESSION: Numerical Functional Analysis</b></p> <p><b>CHAIR: Yaşar Sözen</b></p> <p><b>(ROOM 10)</b></p>		
19:35 – 20:35	Nese Nalbant	The Positivity of Differential Operator with Nonlocal Boundary Conditions
20:35 – 21:05	Muzaffer Akat	An Approximation of Stochastic Telegraph Equations
21:05 – 21:35	Zeynep Odemiş Özger and Faruk Özger	A First Order of Accuracy Stable Difference Scheme for Hyperbolic-Elliptic Equations
21:35 – 22:05	Johnny Henderson and Rodica Luca	Positive Solutions for Second-Order Multi-Point Discrete Boundary Value Problems





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<b>20 September 2012</b> <b>SESSION: Statistical Inference in Linear Models</b> <b>CHAIR: Roman Zmyślony</b> <b>(ROOM 11)</b>		
19:35 – 20:05	<i>Francisco Carvalho</i>	Commutative orthogonal block structure: orthogonal features
20:05 – 20:35	<i>João Tiago Mexia</i>	Models of symmetric stochastic matrices
20:35 – 21:05	<i>Célia Fernandes</i>	Joining models with stair nesting
21:05 – 21:35	<i>Célia Nunes</i>	One-way random effects ANOVA: an extension to samples with random size

<b>20 September 2012</b> <b>SESSION: The Numerical Analysis and Applied Mathematics in Geodynamics</b> <b>CHAIR: Bojing Zhu</b> <b>(ROOM 12)</b>		
19:35 – 20:05	<i><u>Dongsheng Sun</u> and <u>Hongcai Wang</u> and <u>Yinsheng Ma</u> and <u>Chunjing Zhou</u></i>	Estimation of Co-seismic Stress Change of the 2008 Wenchuan Ms8.0 Earthquake
20:05 – 20:35	<i><u>Lu Gao</u> and <u>Lianjie Wang</u></i>	Laboratory Experiment of the Rock Anelastic Strain Recovery Compliances
20:35 – 21:05	<i><u>Qiao Yanchao</u> and <u>Tian Ye</u> and <u>Guo Ziqi</u> and <u>Shi Yaolin</u></i>	What is the Main Mechanism for the Yanshanian Magmatism?

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



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<b>21 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Christopher J. Marx</b> <b>(ROOM 1)</b>		
<b>09:00 – 10:00</b>	<b>Robert Beardmore</b>	<b>TBA</b>

<b>21 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Prof. K. Gürlebeck</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b>D. Hildenbrand</b>	<b>Foundations of Geometric Algebra Computing</b>
<b>Coffee Break</b>		

<b>21 September 2012</b> <b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b> <b>CHAIR: M. Darwish</b> <b>(ROOM 1)</b>		
<b>11:30 - 12:00</b>	<b><u>J.M. Floryan</u> and <u>H.V. Moradi</u></b>	<b>Grooved Surfaces for Laminar Drag Reduction</b>
<b>12:00 – 12:30</b>	<b><u>J. Delgado-Álvarez, Marco A. Ramírez-Argáez and C. González-Rivera</u></b>	<b>Mathematical Modeling of a Gas Jet Impinging on a Two Phase Bath</b>
<b>12:30 – 13:00</b>	<b><u>R. Keslerová, K. Kozel and P. Louda</u></b>	<b>Numerical Solution of Newtonian Fluids Flow through the Branching Channel</b>
<b>13:00 – 13:30</b>	<b><u>Henrik Ström, Ebrahim Karimi Sibaki and Srdjan Sasic</u></b>	<b>Numerical Simulations of the Interaction between a Settling Particle and a Rising Microbubble</b>



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<b>21 September 2012</b> <b>SESSION: Fifth Symposium on Recent Trends in the Numerical Solution of Differential Equations</b> <b>CHAIR: G. Vainikko</b> <b>(ROOM 2)</b>		
11:30 – 12:00	<u><i>P.Amodio</i></u>	A finite difference Matlab code for the numerical solution of singular perturbation problems
12:00 – 12:30	<u><i>R.D'Ambrosio</i></u>	P-stable Nordsieck General Linear Methods for second order Ordinary Differential Equations
12:30 – 13:00	<u><i>V.Finek</i></u>	The construction of well-conditioned wavelet basis based on quadratic B-splines
13:00 – 13:30	<u><i>A.Gorqev</i></u>	Active and passive symmetrization of Runge-Kutta Lobatto IIIA methods
<b>Lunch Break</b>		

<b>21 September 2012</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Prof. V. Soucek</b> <b>(ROOM 3)</b>		
11:30 – 12:00	<u><i>C. Cruz,</i></u> <i>M. I. Falcao,</i> <i>H. R. Malonek</i>	<i>On the structure of generalized Appell sequences of paravector valued homogeneous monogenic polynomial</i>
12:00 – 12:30	<i>K. Gürlebeck</i>	<i>Polynomial Appell systems in the framework of <math>\varphi</math>-<math>\psi</math> hyperholomorphic functions</i>
12:30 – 13:00	<i>W. Sprößig</i>	<i>A retrospective on hypercomplex Pi-operators</i>



## ICNAAM 2012

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<b>21 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 5 Morning – Superluminal Communications</b> <b>CHAIR: R. M. Santilli</b> <b>(ROOM 4)</b>	
9.00 – 10.00	Physical Background and Limits of Superluminal Signal Transport Guenter Nimtz
10.00 – 11.00	Application of Faster than Light in Information Technology and in Media Communication Alexander Carôt
11.30 – 13.30	Actual Measurements of Superluminal Communications via Electromagnetic Waves propagating within Special Guides Guenter Nimtz and Alexander Carôt

<b>21 September 2012</b> <b>SESSION: Dynamical systems:</b> <b>a Framework for Robot Locomotion</b> <b>CHAIR: Dr. Carla M.A. Pinto and Dr. Cristina M.P. Santos</b> <b>(ROOM 5)</b>		
11:30 – 12:00	<i>Mafalda Couto, Cristina Santos and José Machado</i>	Design and Modelling of a 3D Compliant Leg for Bioloid
12:00 – 12:30	<i>José Pontes and Cristina P. Santos</i>	Velocity Control of a Two DOFWalking System
12:30 – 13:00	<i>Carla M.A. Pinto</i>	Quadruped Robots' Modular Trajectories: Stability Issues
13:00 – 13:30	<i>Ana Filipa Duarte, Pedro Silva and Cristina Peixoto dos Santos</i>	Reinforcement Learning: Solving Two Case Studies
13:30 – 14:00	<i>Miguel Oliveira, Cristina P. Santos and Lino Costa</i>	Sensitivity Analysis of Multi-objective Optimization of CPG Parameters for Quadruped Robot Locomotion



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<b>21 September 2012</b> <b>SESSION: Allelopathic Stimulatory Phytoplankton Model with Stochastic Perturbation</b> <b>CHAIR: Syed Abbas</b> <b>(ROOM 6)</b>		
11:30 – 12:00	<u>Lakshman Mahto and Syed Abbas</u>	Existence and Uniqueness of Solution of Fractional Differential equations of Caputo Type
12:00 – 12:30	<u>Syed Abbas and Lakshman Mahto</u>	Existence of Almost Periodic Solution of a Model of Phytoplankton Allelopathy with Delay
12:30 – 13:00	<u>Jai Prakash Tripathi, Syed Abbas, Manoj Thakur</u>	Stability Analysis of Two Preys One Predator Model

<b>21 September 2012</b> <b>SESSION: 2nd Symposium on Analysis of Quantum Field Theory</b> <b>CHAIR: Ralf Hofmann</b> <b>(ROOM 6)</b>		
11:30 – 12:00	<i>Carl Bender</i>	PT-Symmetric Quantum Systems
12:00 – 12:30	<i>Anthony Thomas</i>	Non-perturbative aspects of hadron structure in QCD.
12:30 – 13:00	<i>Carl Bender</i>	Discussion
13:00 – 13:30	<i>Anthony Thomas</i>	Discussion



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<b>21 September 2012</b>		
<b>SESSION: Structure-Preserving Numerical Methods for Differential Equations</b>		
<b>CHAIR: D. Furihata (ROOM 7)</b>		
<b>11:30 – 12:00</b>	<b><u>T. Yaguchi</u></b>	<b>Application of the Lagrangian approach of the discrete gradient method to scleronomic holonomic systems</b>
<b>12:00 – 12:30</b>	<b><u>W.Tang</u></b>	<b>A new approach to construct Runge-Kutta type methods and geometric numerical integrators</b>
<b>12:30 – 13:00</b>	<b><u>Y. Sun</u></b>	<b>On an integrable discretisation of the Lotka-Volterra system</b>
<b>13:00 – 13:30</b>	<b><u>R.Kozlov</u></b>	<b>On conservative discretization of the Kepler problem</b>



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<b>21 September 2012</b> <b>SESSION: Biomathematics VI</b> <b>CHAIR: Ezio Venturino &amp; Nico Stollenwerk</b> <b>(ROOM 8)</b>		
11:30 – 12:00	<u><i>Roberto A. Kraenkel</i></u>	When Transients are Permanent: the Unusual Exclusion Patterns in Intraguild Predation
12:00 – 12:30	<u><i>Gabriel Andreguetto Maciel</i></u>	How Individual Response to Habitat Edges Affects Population Persistence and Spatial Spread
12:30 – 13:00	<u><i>F. Azevedo</i></u>	Competitive Release and Area Effects
13:00 – 13:30	<u><i>Urszula Skwara</i></u>	Applications of fractional calculus to epidemiological models
<b>Lunch Break</b>		
15:00 – 15:30	<u><i>Ezio Venturino</i></u>	A model for which toxic and non-toxic phytoplankton are indistinguishable by the zooplankton
15:30 – 16:00	<u><i>Roberto Cavoretto</i></u>	Landmark-Based Image Registration using Gneiting's Compactly Supported Functions
16:00 – 16:30	<u><i>Nico Stollenwerk</i></u>	Parameter estimation and model comparison for stochastic epidemiological processes in a Bayesian framework



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<b>21 September 2012</b>		
<b>SESSION: Mini symposium on symmetry methods and applications for differential equations</b>		
<b>CHAIR: Rita Tracinà</b>		
<b>(ROOM 9)</b>		
11:15 – 11:35	<i><u>Maria Luz Gandarias</u>, Maria Santos Bruzón, Maria Rosa</i>	Symmetries and nonlinear self-adjointness for a generalized Fisher equation
11:35 – 12:00	<i>Giampaolo Cicogna</i>	Symmetry properties and reduction procedures for ODE's
12:00 – 12:25	<i>Raseelo Joel Moitsheki</i>	Classical Lie point symmetry analysis and exact solutions for the two-dimensional fin problem
12:25 – 12:50	<i>Georgy I. Burde</i>	Alternative Sets of Multisoliton Solutions of Some Integrable KdV Type Equations via Direct Methods
12:50 – 13:10	<i><u>Maria Santos Bruzón</u>, Maria Luz Gandarias, Jose-Carlos Camacho, José Ramírez</i>	Symmetry reductions for a generalized Dullin-Gottwald-Holm equation
13:10 – 13:30	<i>Rita Tracinà</i>	Nonlinear self-adjointness of a class of generalized diffusion equations
13:30 – 13:50	<i><u>Mariano Torrisi</u>, Igor L. Freire</i>	On a Model for Aedes Aegypti
<b>Lunch Break</b>		





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<p><b>21 September 2012</b></p> <p><b>SESSION: Analysis of Wave-Induced Response and Instability of Seabed</b></p> <p><b>CHAIR: Dr. M.B. Can Ulker (ROOM 10)</b></p>		
11:30 – 12:00	<i>Ji-Sheng Zhang, Chi Zhang and Dong-Sheng Jeng</i>	Three-dimensional model for wave-induced dynamic pore pressure around monopile foundation
12:00 – 12:30	<i>Can Ulker</i>	Dynamic Pore Pressure Response of Two-Layer Seabed under Nonlinear Waves
12:30 – 13:00	<i>C. C. Liao and Dong-Sheng Jeng</i>	Dynamic soil response of poroelastic seabed to nonlinear water waves and uniform currents
13:00 – 13:30	<i>Can Ulker</i>	Instantaneous Liquefaction in a Multi-Layer Seabed under Nonlinear Progressive Waves

<p><b>21 September 2012</b></p> <p><b>SESSION: Statistical Inference in Linear Models</b></p> <p><b>CHAIR: Francisco Carvalho (ROOM 11)</b></p>		
11:30 – 12:00	<i>Dário Ferreira</i>	Confidence regions for variance components using inducing pivot variables
12:00 – 12:30	<i>Miguel Fonseca</i>	Discriminant analysis in models with structured mean and covariance
12:30 – 13:00	<i>Paulo Ramos</i>	Study of the interactions in a three-way crossed classification model
13:00 – 13:30	<i>Sandra Ferreira</i>	Linear and Quadratic Sufficiency and Commutativity



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<b>21 September 2012</b> <b>SESSION: The Latest Development in the Theory of the Homotopy Analysis Method and Its Applications</b> <b>CHAIR: Mohamad Hajji</b> <b>(ROOM 12)</b>		
11:30 – 12:00	<i>Dali Xu, Zhiliang Lin and Shijun Liao</i>	On the quartet resonance of gravity waves in water of finite depth"
12:00 – 12:30	<i>Fathi M Allan and Mohamed A. Hajji</i>	On the similarity solution of nanofluid flow over a moving flat plate using the Homotopy analysis method
12:30 – 13:00	<i>Yinlong Zhao and Shijun Liao</i>	On the HAM-based Mathematica package BVPh for coupled nonlinear ODEs

<b>21 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Ali Sanayei</b> <b>(ROOM: 12)</b>		
13:00 – 14:00	<u><i>Otto E. Röessler</i></u>  <u><i>Klaus Mainzer</i></u>  <u><i>Minos Axenides</i></u>	<u>Round Table:</u>  The History of "Chaos" and its Future



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<p><b>21 September 2012</b></p> <p><b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b></p> <p><b>CHAIR: J.R. García-Cascales</b></p> <p><b>(ROOM 1)</b></p>		
15:00 – 15:30	<i>N. Tofighi, A. Zainali and <u>M. Yildiz</u></i>	Modelling of Bubble Rising by Smoothed Particle Hydrodynamics Method
15:30 – 16:00	<i>Vasily Novozhilov and <u>Conor Byrne</u></i>	Lattice Boltzmann Modeling of Thermal Explosion in Dynamic Mixtures
16:00 – 16:30	<i><u>Giacomo Viccione</u>, Vittorio Bovolin and Eugenio Pugliese Carratelli</i>	Simulating fluid-structure interaction with SPH
16:30 – 17:00	<i>M.S. Shadloo and <u>M. Yildiz</u></i>	Simulation of Rayleigh-Taylor Instability by Smoothed Particle Hydrodynamics: Advantages and Limitations
17:00 – 17:30	<b>Coffee Break</b>	

<p><b>21 September 2012</b></p> <p><b>SESSION: Fifth Symposium on Recent Trends in the Numerical Solution of Differential Equations</b></p> <p><b>CHAIR: E. Weinmueller</b></p> <p><b>(ROOM 2)</b></p>		
15:00 – 15:30	<i><u>F.lavernaro</u></i>	A parallel implementation of the Gauss method for ODEs
15:30 – 16:00	<i><u>K.In't Hout</u></i>	ADI schemes for multidimensional PDEs in finance
16:00 – 16:30	<i><u>C.Magherini</u></i>	Generalized Adams Methods for Fractional Differential Equations
16:30 – 17:00	<i><u>R.Quispel</u></i>	TBA



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<b>21 September 2012</b> <b>SESSION: Clifford Analysis and Applications</b> <b>CHAIR: Prof. F. Sommen</b> <b>(ROOM 3)</b>		
15:00 – 15:30	<u><b>F. Colombo,</b></u> <i>I. Sabadini, F. Sommen</i>	<i>An overview on the Inverse Fueter Mapping Theorem</i>
15:30 – 16:00	<u><b>I. Sabadini,</b></u> <i>D. Alpay, F. Colombo</i>	<i>Schur analysis in the slice hypercomplex setting</i>
16:00 – 16:30	<b>M. Ferreira</b>	<i>Complex dilations, shearings, and rotations</i>
16:30 – 17:00	<u><b>D. Legatiuk,</b></u> <i>K. Gürlebeck</i>	<i>On a special finite element based on holomorphic functions</i>
17:00 – 17:30	<b>Coffee Break</b>	

<b>21 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 6 Afternoon – Measuring Santilli IsoRedShift</b> <b>CHAIR: A. K. Aringazin</b> <b>(ROOM 4)</b>	
13.30 – 14.30	<b>Ether propulsion requires surpassing the standard model</b> <b>Athanasios Nassikas</b>
14.30 to Sunset	<b>Actual Measurements on a beach of Santilli IsoRedShift of the Sun in the transition from the Zenith to the Horizon Via a Telescope and Avantes Wavelength Analyzer</b> <b>S. Moskaliuk, Mr. G. Amato and P. Murphy</b>
At Dusk	<b>Dinner offered by the Santilli Foundation to all participants of the 2012 Seminar Course on Hadronic Mechanics, Time and restaurant to be announced</b>



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<p><b>21 September 2012</b>  <b>SESSION: Interdisciplinary Symposium on Complex Systems</b>  <b>Public Panel Discussion</b>  <b>CHAIR: Markus Kirkilionis</b>  <b>(ROOM: 5)</b></p>		
<p><b>15:00 – 17:00</b></p>	<p><u><i>Barry Cooper</i></u>   <u><i>Glenda Eoyang</i></u>   <u><i>Klaus Mainzer</i></u>   <u><i>Emily Shuckburgh</i></u>   <u><i>Daniel Stein</i></u></p>	<p><b>Public Panel Discussion</b></p>
<p><b>17:00 – 17:15</b></p>	<p><b>Symposium Photos</b></p>	

<p><b>21 September 2012</b>  <b>SESSION: 2nd Symposium on Distribution Theory, Estimation and Inference</b>  <b>CHAIR: Carlos A. Coelho</b>  <b>(ROOM 6)</b></p>		
<p><b>15:00 – 15:30</b></p>	<p><u><i>Manuela Neves, Ivette Gomes, Fernanda Figueiredo, Dora Prata Gomes</i></u></p>	<p><b>Modeling Extreme Events: Sample Fraction Adaptive Choice in Parameter Estimation</b></p>
<p><b>15:30 – 16:00</b></p>	<p><u><i>Frederico Caeiro, M. Ivette Gomes</i></u></p>	<p><b>A Reduced Bias Estimator of a "Scale" Second Order Parameter</b></p>
<p><b>16:00 – 16:30</b></p>	<p><u><i>Ayana Mateus, Margarida Tomé</i></u></p>	<p><b>Generalized Least Squares Method in Nonlinear Equations</b></p>



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<b>21 September 2012</b> <b>SESSION: Numerical Functional Analysis</b> <b>CHAIR: Yaşar Sözen</b> <b>(ROOM 7)</b>		
15:00 – 15:30	Betul Topcu Hiçdurmaz	Stable Difference Schemes for the Fractional Schrödinger Differential Equation
15:30 – 16:00	Ali Ugur Sazaklıoğlu	A Second Order of Accuracy Stable Implicit Difference Scheme for a Two-Phase Fluid Flow Model
16:00 – 16:30	Necmettin Aggez	Stable Difference Scheme for Nonlocal Boundary Value Hyperbolic Problems Involving Multi-Point and Integral Conditions
16:30 – 17:00	Okan Gercek	On the Numerical Solution of a Two Dimensional Elliptic-Parabolic Equation

<b>21 September 2012</b> <b>SESSION: Symposium on the Numerical Solution of Differential Equations and their Applications</b> <b>CHAIR: Z. Kalogiratou, Th. Monovasilis</b> <b>(ROOM 9)</b>		
14:30 – 15:00	<i><u>Ioannis Th. Famelis, George Galanis and Dimitrios Triandafyllou</u></i>	On the Numerical Solution of a Boundary Value Problem which Rises in the Prediction of Meteorological Parameters
15:00 – 15:30	<i><u>D. Černá, Václav Finěk</u></i>	Adaptive solution of the biharmonic problem with shortly supported cubic spline-wavelets.
15:30 – 16:00	<i><u>E. González, M. J. Villena</u></i>	Stability Analysis for Spatial Attrition with n Forces
16:00 – 16:30	<i><u>Yoshio Komori, K. Burrage</u></i>	Multi-dimensional linear stability analysis of S-ROCK methods for Itô stochastic differential equations.
16:30 – 17:00	<i><u>Z. Kalogiratou, Th. Monovasilis, T.E.Simos</u></i>	Diagonally Implicit Symplectic Runge-Kutta methods with special properties.



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<b>21 September 2012</b>		
<b>SESSION: 131 BE-SMART- BIOMETRY AND EXTREMES: STATISTICAL MODELLING AND R TECHNIQUES</b>		
<b>CHAIR: Teresa Oliveira (ROOM 10)</b>		
<b>15:00 – 15:30</b>	<b><i>M. Fátima Brilhante, M. Ivette Gomes and Dinis D. Pestana</i></b>	<b>A Non-Parametric Double-Bootstrap Method for an Adaptive MOP EVI-Estimation</b>
<b>15:30 – 16:00</b>	<b><i>Clara Cordeiro and M. Manuela Neves</i></b>	<b>How bootstrap can help in forecasting time series with more than one seasonal pattern</b>
<b>16:00 – 16:30</b>	<b><i>M. R. Ramos, E. Carolino, T.A. Oliveira, M. Bicho</i></b>	<b>Two-way MANCOVA: An Application to Public Health</b>
<b>16:30 – 17:00</b>	<b><i>Oliveira A., Oliveira T.A. and Mejza, S.</i></b>	<b>Joint Regression Analysis and AMMI model applied to oat improvement</b>



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<b>21 September 2012</b> <b>SESSION: MATHEMATICAL MODELING IN HYDROLOGY</b> <b>CHAIR: prof. Lucio UBERTINI</b> <b>(ROOM 11)</b>		
15:00 – 15:15	<i>A. Petroselli</i>	Convolution Of Linear System Using Geomorphological Watershed Information <i>S. Grimaldi A. Petroselli, F. Nardi</i>
15:15 – 15:30	<i>A. Petroselli</i>	Empirical Solution of Green-Ampt Equation Using Soil Conservation Service – Curve Number Values <i>S. Grimaldi A. Petroselli, N. Romano</i>
15:30 – 15:45	<i>E. Ridolfi</i>	An Entropy Method for Floodplain Monitoring Network Design <i>E. Ridolfi, K. Yan, L. Alfonso, G. Di Baldassarre, F. Napolitano, F. Russo, and Paul D. Bates</i>
15:45 – 16:00	<i>E. Ridolfi</i>	A Comparison of Two Rainfall Disaggregation Models <i>V. Montesarchio, F. Napolitano, E. Ridolfi and L. Ubertini</i>
16:00 – 16:15	<i>F. Russo</i>	Assessment Of An Adjustment Factor To Model Radar Range Dependent Error <i>S. Sebastianelli, F. Russo, F. Napolitano, and L. Baldini</i>
16:15 – 16:30	<i>M. Rianna</i>	Soil Conservation Service Curve Number: How to take into account spatial and temporal variability <i>M. Rianna, D. Orlando, V. Montesarchio, F. Russo, F. Napolitano</i>
16:30 – 16:45	<i>C. Biscarini</i>	LBM method for Roughness effect in open channel flows <i>S. Di Francesco, G. Falcucci, C. Biscarini, P. Manciola</i>
16:45 – 17:00	<i>L. Ubertini</i>	Discussion and Conclusion
17:00 – 17:30	<b>Coffee Break</b>	





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<b>21 September 2012</b> <b>SESSION: The Latest Development in the Theory of the Homotopy Analysis Method and Its Applications</b> <b>CHAIR: Fathi Allan</b> <b>(ROOM 12)</b>		
15:00 – 15:30	<i>Hang Xu, Tao Fan and Xiang-Cheng You</i>	Three-dimensional boundary-layer flow and heat transfer of a Cu-water nanofluid over a stretching surface
15:30 – 16:00	<i>Xiangcheng You and Hang Xu</i>	Application of Homotopy Analysis Method for Mechanical Model of Deepwater SCR Installation
16:00 – 16:30	<i>Li Zou, Wang Zhen Zong Zhi and Tian Shoufu</i>	A Study Of The Initial Guess In Homotopy Analysis Method
16:30 – 17:00	<i>Zeng Liu, Zhiliang Lin and Shijun Liao</i>	On The Dispersion Relation Of Nonlinear Wave Current Interaction By Means Of The HAM

<b>21 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Robert Beardmore</b> <b>(ROOM 1)</b>		
17:30 – 18:30	<b>Ivana Gudelj</b>	<b>TBA</b>

<b>21 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Ivana Gudelj</b> <b>(ROOM 1)</b>		
17:30 – 18:30	<b>Christopher J. Marx</b>	<b>TBA</b>



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<p><b>21 September 2012</b></p> <p><b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b></p> <p><b>CHAIR: M. Yildiz</b></p> <p><b>(ROOM 1)</b></p>		
19:35 – 20:05	<i><u>Shiva P. Pudasaini</u> and Stephen A. Miller</i>	A Real Two-Phase Submarine Debris Flow and Tsunami
20:05 – 20:35	<i><u>Maryam Ghaffari</u>, Anders Vestvik, Boris Balakin and Alex C. Hoffmann</i>	Deposition Capabilities of Turbulent Particle-laden Flow Passing an Obstacle Using Experiment and CFD
20:35 – 21:05	<i><u>Yuming Chen</u> and Frederik Arbeiter</i>	Numerical Simulation on Gas-Cooled Closely-Packed Solid Specimens

<p><b>21 September 2012</b></p> <p><b>SESSION: Clifford Analysis and Applications</b></p> <p><b>CHAIR: Prof. W. Sprößig</b></p> <p><b>(ROOM 3)</b></p>		
19:35 – 20:05	<i><u>B. Schmeikal</u></i>	<i>On Motion</i>
20:05 – 20:35	<i><u>L. Krump</u>, T. Salac</i>	<i>Exactness of the generalised Dolbeault complex for <math>\mathbb{S}^k</math> Dirac operators in the stable rank</i>
20:35 – 21:05	<i><u>S. Georgiev</u>, J. Morais</i>	<i>An explicit formula for the monogenic Szegő kernel function on 3D spheroids</i>



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<b>21 September 2012</b> <b>SESSION: 2nd Symposium on Analysis of Quantum Field Theory</b> <b>CHAIR: Ralf Hofmann (ROOM 5)</b>		
19:35 – 20:05	<i>Mikhail Shifman</i>	Non-Abelian Strings in Supersymmetric Yang-Mills
20:05 – 20:35	<i>Mikhail Shifman</i>	Discussion
20:35 – 21:05	<i>Francesco Giacosa</i>	Thermodynamics of O(3)-Model in 2 D
21:05 – 21:35	<i>Francesco Giacosa</i>	Discussion

<b>21 September 2012</b> <b>SESSION: 2nd Symposium on Distribution Theory, Estimation and Inference</b> <b>CHAIR: Carlos A. Coelho (ROOM 6)</b>		
19:35 – 20:05	<u><i>Miguel Felgueiras, Rui Santos</i></u>	Exploring Pareto Scale Mixtures
20:05 – 20:35	<i>Miguel Felgueiras, João Martins, Rui Santos</i>	Pseudo-Convex Mixtures
20:35 – 21:05	<u><i>Filipe J. Marques, Carlos A. Coelho</i></u>	The Multi-Sample Independence Test
21:05 – 21:35	<u><i>Carlos A. Coelho, Barry C. Arnold</i></u>	Instances of the Product of Independent Beta Random Variables and of the Meijer G and Fox H Functions with Finite Representations



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<b>21 September 2012</b> <b>SESSION: Numerical Functional Analysis</b> <b>CHAIR: Rodica Luca</b> <b>(ROOM 7)</b>		
19:35 – 20:35	Aida Sahmurova	Separable Convolution Equations Occuring in Atmospheric Dispersion of Pollutants
20:35 – 21:05	Veli B. Shakhmurov	Navier-Stokes Problems with Small Parameters in All Plane
21:05 – 21:35	Mehmet Ali Akturk	Weighted Markov Inequality on Several Intervals
21:35 – 22:05	Sema Akturk	The Structure of Fractional Spaces Generated by the Difference Operator on the Half Plane

<b>21 September 2012</b> <b>SESSION: Symposium (86) on the "Numerical Solution of Differential Equations and their Applications"</b> <b>CHAIR: Z. Kalogiratou, Th. Monovasilis</b> <b>(ROOM 9)</b>		
19:35 – 20:05	<i>E. Pindza,</i> <i><u>K. C. Patidar</u></i>	Spectral method for pricing options in illiquid markets
20:05 – 20:35	<i><u>Th. Monovasilis,</u></i> <i>Z. Kalogiratou, T.E.Simos</i>	Exponentially Fitted Symplectic Runge-Kutta-Nyström methods



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<b>21 September 2012</b> <b>SESSION: High Accuracy Solution of Ordinary and Partial Differential Equations</b> <b>CHAIR: Murli M. Gupta</b> <b>(ROOM 10)</b>		
19:35 – 20:05	<i><u>D. Fishelov</u>, M. Ben-Artzi and J-P. Croisille</i>	Fourth-order Convergence of a Compact Scheme for the One-dimensional Biharmonic Equation
20:05 – 20:35	<i>Bill Spatz</i>	High Order Finite Difference Methods for Forward and Inverse Acoustic Problems
20:35 – 21:05	<i>Jiten C Kalita and <u>Murli M Gupta</u></i>	Oscillatory Flow Past an Inclined Square Cylinder at Low Reynolds Numbers

<b>21 September 2012</b> <b>SESSION: Statistical Inference in Linear Models</b> <b>CHAIR: Ricardo Covas</b> <b>(ROOM 11)</b>		
19:35 – 20:05	<i>Cristina Andrade</i>	Statistical coupling between winter cold days / warm nights in Europe and the underlying atmospheric flow
20:05 – 20:35	<i>Aníbal Areia</i>	Transversal analysis in matched series of studies



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<b>21 September 2012</b> <b>SESSION: The Latest Development in the Theory of the Homotopy Analysis Method and Its Applications</b> <b>CHAIR: Dali Xu</b> <b>(ROOM 12)</b>		
19:35 – 20:05	<i>Youssef El-Khatib,</i>	A Homotopy Analysis Method For The Option Pricing PDE In Illiquid Markets With Jumps
20:05 – 20:35	<i>Mohamed A. Hajji and Fathi M Allan</i>	Solving Non Linear Boundary Value Problems Using The Homotopy Analysis Method

<b>21 September 2012</b> <b>SESSION: Approximation, Scientific Computation and Applications "ASCA-2012"</b> <b>CHAIR: Gradimir V. Milovanović</b> <b>(ROOM 12)</b>		
20:35 – 21:00	<i>Roberto Cavoretto</i>	A Unified Version of Efficient Partition of Unity Algorithms for Meshless Interpolation

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



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<b>22 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Jesus Maria Sanz Serna</b> <b>(ROOM 1)</b>		
<b>09:00 – 10:00</b>	<b>Luigi Brugnano</b>	<b>Geometric Integration by Playing with Matrices</b>

<b>22 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Luigi Brugnano</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b>Jesus Maria Sanz Serna</b>	<b>A New Approach to High-Order Averaging</b>

<b>22 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Luigi Brugnano</b> <b>(ROOM 1)</b>		
<b>11:00 – 12:00</b>	<b>Tobias Jahnke</b>	<b>Convergence of Piecewise Deterministic Processes Modeling Two-scale Reaction Networks</b>



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**22 September 2012**

**12:30**

**Photo of the Conference**

**22 September 2011**

**13:00**

**Excursion**





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**22 September 2011**

**20:30**

### **Central Dinner**

- Introduction by Professor Dr. Theodore E. Simos
- Honouring Professor Dr. Gerhard Wanner on the occasion of his 70<sup>th</sup> birthday. Introduction by Prof. Dr. John Butcher, Prof. Dr. Ernst Hairer and Prof. Dr. Jeff Cash
- Presentation of the Honorary Fellowship Awards of the European Society of Computational Methods in Sciences, Engineering and Technology
- Dinner

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



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<b>23 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Alexander Ostermann</b> <b>(ROOM 1)</b>		
<b>09:00 – 10:00</b>	<b>F. Castella, <u>Ph. Chartier</u>, F. Méhats and A. Murua</b>	<b>Stroboscopic Averaging in Banach Spaces: Application to NLS</b>

<b>23 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Philippe Chartier</b> <b>(ROOM 1)</b>		
<b>10:00 – 11:00</b>	<b>Alexander Ostermann</b>	<b>Strang splitting for partial differential equations</b>
<b>Coffee Break</b>		



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<b>23 September 2012</b> <b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b> <b>CHAIR: J.M. Floryan</b> <b>(ROOM 1)</b>		
11:30 - 12:00	E. Romenski	Hyperbolic Systems of Conservation Laws for Compressible Multiphase Flows Based on Thermodynamically Compatible Systems Theory
12:00 – 12:30	<u>D. Zeidan</u> , A. Slaouti and R. Touma	Compressible Gas-Solid Mixture Conservation Laws Simulations
12:30 – 13:00	<u>S. Schwarz</u> and J. Fröhlich	Representation of Deformable Bubbles by Analytically Defined Shapes in an Immersed Boundary Method

<b>23 September 2012</b> <b>SESSION: Memristor-Based Neuromorphic Circuits and Unconventional Computing</b> <b>CHAIR: Victor Erokhin</b> <b>(ROOM 3)</b>		
11:30 – 11:45	<u>Victor Erokhin</u>	Memristor-based neuromorphic circuits and unconventional computing. Preface.
11:45 – 12:15	<u>Tatiana Berzina</u> , Konstantin Gorshkov and Victor Erokhin	Chains of Organic Memristive Devices: Cross-Talk of Elements
12:15 – 13:00	V. Beiu, M. Calame, G. Cuniberti, C. Gamrat, Z. Konkoli, D. Vuillaume, G. Wendin, and S. Yitzchaik	Aspects of Computing with Locally Connected Networks
13:00 – 13:30	<u>Gerard Howard</u> , Larry Bull, Ben de Lacy Costello and Andrew Adamatzky	Creating Unorganised Machines from Memristors



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<b>23 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 7 – Morning - Hadronic Chemistry</b> <b>CHAIR: C. Corda</b> <b>(ROOM 4)</b>	
9.00 – 10.00	Structural Insufficiencies of Quantum Chemistry and their Apparent Resolution via the Covering Hadronic Chemistry R. M. Santilli
10.00 – 11-00	Studies on Santilli-Shillady model of the hydrogen molecule Ascar Aringazin
11.30 – 12.30	Exact Solution of Santilli-Shilady's Three-Body Hydrogen Molecule Raul Perez-Enriquez
12.30 – 13.30	Hadronic Chemistry Applied to Hydrogen and Water Molecules Vijay Tangde

<b>23 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Ivan Zelinka</b> <b>(ROOM: 5)</b>		
11:30 – 12:15	<u><i>Markus Kirkilionis</i></u>	Structures and Rules: Complex Systems as a Combination of Relations and Agent-Based Modeling
12:15 – 12:50	<u><i>Natalja Strelkowa</i></u>	Stochastic Oscillatory Dynamics of Generalized Repressilators
<b>Lunch Break</b>		



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<b>23 September 2012</b> <b>SESSION: Helix Fitting by a Total Least Squares Method</b> <b>CHAIR: Norio Matsushima and Purevjav Enkhbayar</b> <b>(ROOM 6)</b>		
11:30 – 12:00	<i>Purevjav Enkhbayar</i>	HELFIT: Algorithm and Applications
12:00 – 12:30	<i>Shintaro Takastuka</i>	Spectrum Analysis for Non-uniform Sampling based on Least Squares Fitting a Sinusoid
12:30 – 13:00	<i>Norio Matsushima</i>	Structural Features of Helical Secondary Structures and Leucine-Rich Repeat Superhelix in Proteins as Revealed by HELFIT Analyses

<b>23 September 2012</b> <b>SESSION: Recent Developments in Hilbert Space Tools and Methodology for Scientific Computing I</b> <b>CHAIR: Metin Demiralp</b> <b>(ROOM 7)</b>		
11:30 – 12:00	<u><i>Metin Demiralp</i></u>	Opening a new era for solving ODEs: Probabilistic Evolution Approach (PEA), (Lecture based on preface)
12:00 – 12:30	<u><i>Cosar Gozukirmizi</i></u>	Space Extension Possibilities for Probabilistic Evolution with Multinomial Right Hand Side Functions
12:30 – 13:00	<u><i>Ercan Gurvit, N.Abdulbaki Baykara</i></u>	Multinomialization of the Classical Three Body Problem Before Applying Probabilistic Evolution Approach
13:00 – 13:30	<i>Burcu Tunga, Metin Demiralp</i>	Probabilistic Evolutions in Classical Dynamics: Conicalization and Block Triangularization of Lennard-Jones Systems
<b>Lunch Break</b>		



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<b>23 September 2012</b> <b>SESSION: 67 (Hamilton-Jacobi Equations Arising from Optimal Control Problems and Differential Games: Analysis, Numerical Methods and Applications)</b> <b>CHAIR: Varvara Turova</b> <b>(ROOM 8)</b>		
11:30 – 12:00	<u>Sourabh Bhattacharya</u> , <i>Tamer Basar, Naira Hovakimyan</i>	Game-Theoretic Analysis of a Visibility Based Pursuit-Evasion Game in the Presence of a Circular Obstacle
12:00 – 12:30	<i>Marianna Troeva</i>	Existence of Equilibrium Point for Noncooperative Differential Game in Banach Space
12:30 – 13:00	<i>Martin Brokate</i> , <u>Mukhayo Rasulova</u>	The Cauchy Problem for BBGKY Hierarchy of Quantum Kinetic Equations with Coulomb Potential
13:00 – 13:30	<i>Nikolai Botkin</i> , <u>Varvara Turova</u>	Application of Dynamic Programming Approach to Aircraft Take-Off in a Windshear
<b>Lunch Break</b>		

<b>23 September 2012</b> <b>SESSION: FIRST SYMPOSIUM ON COMPUTER SCIENCE AND APPLIED MATHEMATICS (CSAM 2012)</b> <b>CHAIR: Armagan Elibol</b> <b>(ROOM 9)</b>		
11:30 – 12:00	<u>Armagan Elibol</u> , <i>Nuno Gracias and Rafael Garcia</i>	Reducing the optimisation effort in batch mosaicing



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<b>23 September 2012</b>		
<b>SESSION: Mathematical optimization in modern medicine Symposium</b>		
<b>CHAIR: Dr. Flavius PATER, Dr. Med. Dr. Şerban ROŞU</b>		
<b>(ROOM 10)</b>		
11:30 – 12:00	<u>F.PATER</u>	A Multiplier Algebra Representation with Application to Harmonic Signal Models
12:00 – 12:30	<u>M. TOTH-TASCAU, L. RUSU, F. BALANEAN, F. PATER, C. TOADER-PASTI</u>	Meshing Influence on Numerical Analysis of Ulna Bone
12:30 – 13:00	<u>M. TOTH-TASCAU, D. I. STOIA, C. VIGARU, O. PASCA</u>	Influence of the Surface Area Approximation on Plantar Arch Index Calculus

<b>23 September 2012</b>		
<b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b>		
<b>CHAIR: E. Romenski</b>		
<b>(ROOM 1)</b>		
15:00 – 15:30	<u>Princia Anandan, Florinda Schembri and Maide Bucolo</u>	Computational Modeling of Droplet Based Logic Circuits
15:30 – 16:00	<u>Tomas Neustupa</u>	On the Stokes Operator Associated With the Flow Through a Cascade of Profiles
16:00 – 16:30	<u>Piotr Maciol, Leszek Gotfryd and Andrzej Maciol</u>	Knowledge Based System for Runtime Controlling of Multiscale Model of Ion-Exchange Solvent Extraction
16:30 – 17:00	<u>Rukiye Kara and Mine Caglar</u>	The Energy Spectrum for Stochastic Eddies with Gamma Distribution



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<b>23 September 2012</b>		
<b>SESSION: State of the Art of Modeling and Numerical Analysis for Design, Determining the Performances and Controls of Wind Turbines</b>		
<b>CHAIR: Alexandru Dumitrache Florin Frunzulica (ROOM 2)</b>		
<b>15:00 – 15:30</b>	<b><i><u>Diana Petrila</u> and Nicolae Muntean</i></b>	<b>Simulation and Experiment of a Fuzzy Logic Based MPPT Controller for a Small Wind Turbine System</b>
<b>15:30 – 16:00</b>	<b><i>Andreea Bobonea</i></b>	<b>Unsteady Computational Simulation for Active Aerodynamic Control of a Horizontal Axis Wind Turbine</b>
<b>16:00 – 16:30</b>	<b><i><u>Sorin Ilin</u>, Horia Dumitrescu, Vladimir Cardos, Alexandru Dumitrache</i></b>	<b>A Free Wake Method for Performance Prediction of VAWT</b>
<b>16:30 – 17:00</b>	<b><i><u>Alexandru Dumitrache</u>, H Dumitrescu</i></b>	<b>An Aeroelastic model for Horizontal Axis Wind Turbines</b>
<b>17:00 – 17:30</b>	<b>Coffee Break</b>	





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<b>23 September 2012</b> <b>SESSION: Memristor-Based Neuromorphic Circuits and Unconventional Computing</b> <b>CHAIR: Victor Erokhin</b> <b>(ROOM 3)</b>		
15:00 – 16:00	<i>Giuseppe Tarabella, Nicola Coppedè, Roberto Mosca, Fabio Cicoira and <u>Salvatore Iannotta</u></i>	Organic Electrochemical Transistors operating with Electrolytes of Increasing Complexity for (Bio)sensing
16:00 – 16:30	<i>O.Bogomolova, J.Boeva, V.Sereyev, <u>D.Godovsky</u></i>	Memristors based on Polyaniline- Nafion interpolyelectrolyte complexes
16:30 – 17:00	<i><u>Anteo Smerieri</u>, François Duport, Yvan Paquot, Marc Haelterman, Benjamin Schrauwen and Serge Massar</i>	Towards Fully Analog Hardware Reservoir Computing For Speech Recognition
17:00 – 17:30	<b>Coffee Break</b>	

<b>23 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic mechanics and Chemistry</b> <b>SESSION: 8 – Afternoon = Hadronic Chemistry</b> <b>CHAIR: A. Kholmetskii</b> <b>(ROOM 4)</b>	
15.30 – 16.30	Implications of Santilli's IsoRedShift Measurements for Gamma-Ray Burst Observed by SWIFT Satellite Herman J. Mosquera Cuesta
16.30 – 17.30	On the Geno-GPITT Framework: Spatially Uniform Systems and Geno-nonequilibrium Thermodynamic Time's Arrows Anil Bhalekar
17.30 – 18.30	Electrically bound quantum particles and Pure Bound Field Theory: precise physics of simple atoms and new bound state of the proton and electron Alexander Kholmetskii



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<b>23 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Glenda Eoyang</b> <b>(ROOM: 5)</b>		
15:00 – 15:45	<u><i>Emily F. Shuckburgh</i></u>	Mapping Unstable Manifolds Using Drifters/Floats in a Southern Ocean Field Campaign
15:45 – 16:30	<u><i>Ivan Zelinka</i></u>	Controlling Complexity
16:30 – 16:55	<u><i>Felipe Marcel Neves</i></u>	Self-organization in the Movement Activity of Social Insects (Hymenoptera: Formicidae)
17:00 – 17:30	<b>Coffee Break</b>	

<b>23 September 2012</b> <b>SESSION: Computational methods in actuarial and financial risk evaluations, Part I</b> <b>CHAIR: R. Gatto</b> <b>(ROOM 6)</b>		
15:00 – 15:45	<i>Pablo Padilla Longoria</i>	A Minimum-Entropy-Production Criterion to compare Credit Risk Models
15:50 – 16:35	<i>Riccardo Gatto</i>	Saddlepoint Approximations to Distributions and to Measures of Risk of Aggregate Losses
16:40 – 17:10	<i>Benjamin Baumgartner</i>	Measures of Risk for the Classical Risk Process using Saddlepoint Approximations



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<p><b>23 September 2012</b></p> <p><b>SESSION: Recent Developments in Hilbert Space Tools and Methodology for Scientific Computing II</b></p> <p><b>CHAIR: Metin Demiralp (ROOM 7)</b></p>		
15:00 – 15:30	<i>Ayla Okan, N.Abdulbaki Baykara, Metin Demiralp</i>	Fluctuation Suppression to Optimize Initial Data to Increase the Quality of Truncation Approximants in Probabilistic Evolution Approach for ODEs: Basic Philosophy
15:30 – 16:00	<u><i>Zeynep Gundogar, N. Abdulbaki Baykara</i></u>	Probabilistic Evolution Approach to ODEs with Laurent Series Expandable Descriptive Functions
16:00 – 16:30	<u><i>Fatih Hunutlu N. Abdulbaki Baykara</i></u>	Unidirectional Semi-Analytic Continuation in the Probabilistic Evolution Approach to Van der Pol Equation
16:30 – 17:00	<i>Berfin Kalay, Metin Demiralp</i>	Fundamental Elements of Vector Enhanced Multivariance Product Representation

<p><b>23 September 2012</b></p> <p><b>SESSION: Distance Functions and Mathematical Models in Computer Science</b></p> <p><b>CHAIR: Salvador Romaguera / Manuel Sanchis (ROOM 8)</b></p>		
15:00 – 15:30	<i>Josefa Marín</i>	Partial Quasi-Metric Completeness and Caristi's Type Mappings
15:30 – 16:00	<i>Josefa Marín</i>	Submetrizable Yoneda Complete Structures for a Metric Dcpo
16:00 – 16:30	<u><i>Michel Schellekens</i></u>	MOQA Min-Max Heapify: A Randomness Preserving Algorithm
16:30 – 17:00	<u><i>Francisco Castro-Company</i></u>	Some Classes of t-norms and Fuzzy Metric Spaces



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<b>23 September 2012</b>		
<b>SYMPOSIUM: Dynamics of Complex Systems &amp; Networks: Modelling, Computational Analysis and Control</b>		
<b>CHAIR: Constantinos Siettos (ROOM 9)</b>		
<b>15:00 – 15:25</b>	<b><i>Maria Philippou, Yiolanda Damianou, George Kaoullas and Georgios C. Georgiou</i></b>	<b>Stopping Times in Cessation Flows of Bingham Plastics with Slip at the Wall</b>
<b>15:25 – 15:50</b>	<b><i>Andreas Reppas and G. Lawyer</i></b>	<b>Low K-Shells Identify Bridge Elements Critical to DiseaseFlow in Small- World Networks</b>
<b>15:50 – 16:15</b>	<b><i>Michail E. Kavousanakis, Lucia Russo, Francesco Saverio Marra and Constantinos Siettos</i></b>	<b>Systematic Bifurcation Analysis of a Planar Diffusion FlameModel with Radiative Heat Losses</b>
<b>16:15 – 16:40</b>	<b><i>Konstantinos G. Spiliotis, Hari Radhakrishnan and George C. Georgiou</i></b>	<b>Randomness Switches the Dynamics in a Biophysical Model for Parkinson Disease</b>
<b>16:40 – 17:00</b>	<b><i>Constantinos Siettos</i></b>	<b>A Computational Approach for Approximating Center Manifolds of Black-Box Simulators</b>



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<b>23 September 2012</b> <b>SESSION: Mathematical optimization in modern medicine Symposium</b> <b>CHAIR: Dr. Flavius PATER, Dr. Med. Dr. Şerban ROŞU</b> <b>(ROOM 10)</b>		
15:00 – 15:30	<u>A. POGOREVICI, A. JURATONI and O. BUNDAU</u>	Hopf Bifurcations Analysis for a Mathematical Model of a Biomedical Process
15:30 – 16:00	<u>A. POGOREVICI, A. JURATONI and O. BUNDAU</u>	Mathematical Modeling and Analysis of a Cardiovascular System
16:00 – 16:30	<u>M. KREPELKA and M. TOTH-TASCĂU</u>	Optimization of Acetabular Component Orientation using DOE
16:30 – 17:00	<u>M. BOLDEA and F. SALA</u>	Bifactorial Model for the Assessment of Agricultural Yield and Economic Efficiency of Fertilization

<b>23 September 2012</b> <b>SESSION: 2nd Symposium on Analysis of Quantum Field Theory</b> <b>CHAIR: Mikhail Shifman</b> <b>(ROOM 11)</b>		
15:00 – 15:30	<u>H.M. Fried and T. Grandou, Y. Gabellini, Y-M Sheu</u>	A New, Analytic, Non-Perturbative, Gauge-Invariant Formulation of Realistic QCD
15:30 – 16:00	<i>T. Grandou</i>	Non-Perturbative QCD Seen From the Property of Effective Locality
16:00 – 16:30	<i>H.M. Fried</i>	Discussion
16:30 – 17:00	<i>T. Grandou</i>	Discussion



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<b>23 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Christian Lubich</b> <b>(ROOM 1)</b>		
<b>17:30 – 18:30</b>	<b>Abdulle Assy</b>	<b>Explicit Stabilized Integration of Stiff Deterministic or Stochastic Problems</b>

<b>23 September 2012</b> <b>SESSION: INVITED SPEAKER</b> <b>CHAIR: Abdulle Assy</b> <b>(ROOM 1)</b>		
<b>18:30 – 19:30</b>	<b>Christian Lubich</b>	<b>TBA</b>

<b>23 September 2012</b> <b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b> <b>CHAIR: D. Zeidan</b> <b>(ROOM 1)</b>		
<b>19:35 – 20:05</b>	<b><i>Oana Marcu and Adrian Lungu</i></b>	<b>Numerical Investigation of the Flow around the KVLCC2 Hull in Static Drift Motion</b>
<b>20:05 – 20:35</b>	<b><i>K. El Wassifi, A. Ouahsine, H. Smaoui, R. Khiri and P. Sergent</i></b>	<b>Numerical Modeling and Parameters Identification of Overland and Channel Flows in Watersheds</b>
<b>20:35 – 21:05</b>	<b><i>Oana Marcu and Dan Constantin Obreja</i></b>	<b>RANS Simulation of the Planar Motion Mechanism Tests for a VLCC Hull</b>



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<p><b>23 September 2012</b></p> <p><b>SESSION: State of the Art of Modeling and Numerical Analysis for Design, Determining the Performances and Controls of Wind Turbines</b></p> <p><b>CHAIR: Alexandru Dumitrache Florin Frunzulica</b></p> <p><b>(ROOM 2)</b></p>		
19:35 – 20:05	<i>H. Dumitrescu<sup>**</sup>, F. Frunzulica<sup>*</sup>, and V. Cardos</i>	Physical Mechanism of Rotational Stall for HAWTs
20:05 – 20:35	<i>Aurelian Crăciunescu, Claudia Laurența Popescu and Mihai Octavian Popescu</i>	A Complementary Review of Maximum Power Point Tracking Methods for Wind Generators
20:35 – 21:05	<i>Victor Pricop, Mihai L. Niculescu, Marius G. Cojocaru and Dorin Barsan</i>	Design, analysis and testing of small, affordable HAWT rotors
21:05 – 21:35	<i>F. Frunzulica, H. Dumitrescu and V. Cardos</i>	Modeling Stall-Delay using corrected BEM

<p><b>23 September 2012</b></p> <p><b>SESSION: Memristor-Based Neuromorphic Circuits and Unconventional Computing</b></p> <p><b>CHAIR: Victor Erokhin</b></p> <p><b>(ROOM 3)</b></p>		
19:35 – 20:05	<i>Ella Gale, Ben de Lacy Costello and Andrew Adamatzky</i>	Observation And Characterization Of Memristor Current Spikes And Their Application To Neuromorphic Computation
20:05 – 21:05	<i>S. Iannotta, V. Sorokin, and V. Erokhin</i>	Round Table and Conclusions



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<b>23 September 2012</b> <b>SESSION: Shape Preserving Splines and Applications</b> <b>CHAIR: Mridula Dube</b> <b>(ROOM 5)</b>		
19:35 – 20:05	<i>Xuli Han</i>	A Monotonicity Preserving Local Interpolation Method
20:05 – 20:35	<i>Peter Massopust</i>	Splines of Complex Order: An Introduction
20:35 – 21:05	<i><u>Mridula Dube and Preeti</u></i> <i>Tiwari</i>	Convexity Preserving $C^2$ Rational Quadratic Trigonometric Spline

<b>23 September 2012</b> <b>SESSION: Computational methods in actuarial and financial risk evaluations, Part II</b> <b>CHAIR: R. Gatto</b> <b>(ROOM 6)</b>		
19:35 – 20:20	<i>Jeffrey Collamore</i>	An Importance Sampling Algorithm for Estimating Extremes of Perpetuity Sequences
20:25 – 21:10	<i>Mogens Bladt</i>	Phase-Type Distributions and heavy tails in Risk Theory





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<b>23 September 2012</b> <b>SESSION: Distance Functions and Mathematical Models in Computer Science</b> <b>CHAIR: Michel Schellekens (ROOM 8)</b>		
19:35 – 20:05	<i>Francisco-Castro Company</i>	The Bicompletion of Intuitionistic Fuzzy Quasi-Metric Spaces
20:05 – 20:35	<i>Manuel Sanchis</i>	A Note on the Hausdorff <i>KM</i> -Fuzzy Metric
20:35 – 21:05	<i><u>Salvador Romaguera</u></i>	A Quantative Model for the Upper and Lower Hausdorff Distance of a Metric Space

<b>23 September 2012</b> <b>SESSION: Mathematical optimization in modern medicine Symposium</b> <b>CHAIR: Dr. Flavius PATER, Dr. Med. Dr. Șerban ROȘU (ROOM 10)</b>		
19:35 – 20:05	<i><u>I. SAMFIRA, M. BOLDEA and C. POPESCU</u></i>	Statistic-Mathematical Interpretation of Some Assessment Parameters of the Grassland Ecosystem According to Soil Characteristics



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<b>23 September 2012</b> <b>SESSION: 2nd Symposium on Analysis of Quantum Field Theory</b> <b>CHAIR: Francesco Giacosa</b> <b>(ROOM 11)</b>		
19:35 – 20:05	<i>Richard A. Battye and <u>Mareike Haberichter</u></i>	Classically Spinning and Isospinning Solitons
20:05 – 20:35	<i><u>Mareike Haberichter</u></i>	Discussion

**END OF THE 5<sup>TH</sup> DAY**



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<p><b>24 September 2012</b></p> <p><b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b></p> <p><b>CHAIR: F. Smit</b></p> <p><b>(ROOM 1)</b></p>		
09:00 – 09:30	<p><i><u>S.C.P. Cheung, G.H. Yeoh</u></i> <i>and J.Y. Tu</i></p>	Modelling Isothermal Bubbly-cap Flows Using Two-group Averaged Bubble Number Density Approach
09:30 – 10:00	<p><i>Botong Li, Liancun Zheng,</i> <i><u>Yanhai Lin</u> and Xinxin Zhang</i></p>	Numerical Investigation on Heat Transfer in Power-law Fluids with Variable Thermal Diffusivity in the Presence of Viscous Dissipation and Radiation
10:00 – 10:30	<p><i><u>Herbert Obame Mve,</u></i> <i>Romuald Rullière, Rémi Goulet and Philippe Haberschill</i></p>	Numerical and Experimental Analysis of a Flow Confined by a Wire Screen

<p><b>24 September 2012</b></p> <p><b>SESSION: Metaheuristic and Numerical Analysis</b></p> <p><b>CHAIR: Gebrail Bekdas</b></p> <p><b>(ROOM 2)</b></p>		
09:00 – 09:30	<p><i>Gebrail Bekdas and Sinan Melih Nigdeli</i></p>	Metaheuristic Algorithms in Structural Dynamics: An Application of Tuned Mass Damper Optimization
09:30 – 10:00	<p><i>Sinan Melih Nigdeli and Gebrail Bekdas</i></p>	Investigation of Earthquake Factor for Optimum Tuned Mass Dampers
10:00 – 10:30	<p><i>Hasan Omur Ozer and Nurkan Yagız</i></p>	Dynamic Absorber Design for Experimental Two Storey Building Model



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<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics II</b> <b>CHAIR: Shihchung Chiang</b> <b>(ROOM 3)</b>		
09:00 – 09:30	<i>R. Guirardello</i>	A Variational Formulation for the Diffusion Equation
09:30 – 10:00	<i>Shihchung Chiang and Wei-Chun Wu</i>	Issues of One Kind of Integro-Differential Equations
10:00 – 10:30	<i>Ikuo Saitoh</i>	A Method of Plaiting Hair
<b>Coffee Break</b>		

<b>24 September 2012 – Symposium # 50</b> <b>Seminar Course on Hadronic Mechanics and Chemistry</b> <b>SESSION: 8 – Morning = Intermediate Nuclear Fusions</b> <b>CHAIR: R. M. Santilli</b> <b>(ROOM 4)</b>	
9.00 – 10.00	Theoretical studies on Santilli's intermediate nuclear fusion without radiations <i>Wei Cai</i>
10.00 – 11-00	Experimental Verification of Santilli's Intermediate Controlled Nuclear Fusions Without Radiations <i>Leong Ying</i>
11.30 – 12.30	Kinetic Advantage of Controlled Intermediate Nuclear Fusion <i>Xiaoming Guo</i>
12.30 – 13.30	World Economy Crisis, New Energy Technology and CINP in China <i>Daxi Li</i>



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<b>24 September 2012</b> <b>SESSION: Interdisciplinary Symposium on Complex Systems</b> <b>CHAIR: Emily Shuckburgh</b> <b>(ROOM: 5)</b>		
09:00 – 09:30	<u><i>Tom Barlow</i></u>	Hidden Quantum Markov Models with One Qubit
09:30 – 10:05	<u><i>Vic Law</i></u>	3-Dimensional (Orthogonal) Structural Complexity of Time-Series Data Using Low Order Moment Analysis
10:05 – 10:30	<u><i>Lucia V. Gambuzza</i></u>	Emulating Fire Propagation by Using Cellular Nonlinear Networks
<p style="color: blue; font-weight: bold;">Coffee Break</p>		

<b>24 September 2012</b> <b>SESSION: Statistics and Modelling III &amp; Fractal Geometry, Quantization Dimension and Related Topics</b> <b>CHAIR:</b> <b>(ROOM 6)</b>		
09:00 – 09:30	<u><i>Peter Massopust</i></u>	<u>Fractal Interpolation Functions Generated by a Class of Bilinear Mappings and their Box Dimensions</u>
09:30 – 10:00	<i>Mokhtar Konsowa</i>	Commute Times of Random Walks on Trees
10:00 – 10:30	<i>Loredana Madalina Ioana</i>	The relation between the attractors of IIFSs and the sets of type $\mathcal{A}$
<p style="color: blue; font-weight: bold;">Coffee Break</p>		



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<b>24 September 2012</b> <b>SESSION: Recent Developments in Hilbert Space Tools and Methodology for Scientific Computing III</b> <b>CHAIR: Metin Demiralp (ROOM 7)</b>		
09:00 – 09:30	<i>Derya Bodur, Metin Demiralp</i>	A Perturbative Approach to High Dimensional Model Representation (HDMR) Under Nonproduct Type Weight and Over Orthogonal Geometry
09:30 – 10:00	<u><i>Evrin Korkmaz Ozay</i></u>	A New Multiway Array Decomposition via Enhanced Multivariance Product Representation
10:00 – 10:30	<u><i>Kemal Ozen</i></u>	Green's Function To The Forced Duffing Equation Involving Nonlocal Integral Conditions By Green's Functional Concept

<b>24 September 2012</b> <b>SESSION: SCLIT – Symposium on Computer Languages, Implementations and Tools</b> <b>CHAIR: Dr. Zoran Budimac (ROOM 8)</b>		
09:00 – 09:20	<u><i>Dániel Leskó,</i></u> <i>Máté Tejfel</i>	Testing framework for embedded languages
09:20 – 09:40	<u><i>Hemang Mehta,</i></u> <i>Balaji S J,</i> <i>Janakiram D</i>	A g++ Extension for Supporting Nontrivial Designated Initializers
09:40 – 10:00	<u><i>Gergely Dévai,</i></u> <i>Zoltán Gera,</i> <i>Zoltán Kelemen</i>	Language Abstractions for Low Level Optimization Techniques
10:00 – 10:20	<u><i>Jakub Kroustek,</i></u> <i>Dušan Kolář</i>	Object-File-Format Description Language and Its Usage in Retargetable Decompilation



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<p><b>24 September 2012</b></p> <p><b>SESSION: Boundary value problems and integral equations with applications</b></p> <p><b>CHAIR: P.A.Krutitskii</b></p> <p><b>(ROOM 9)</b></p>		
09:00 – 09:30	<i>P.A.Krutitskii</i>	The Dirichlet problem for the diffusion equation in the exterior of non-closed Lipschitz surfaces
09:30 – 10:00	<i>Serhii Gryshchuk and Massimo Lanza de Cristoforis</i>	Singular perturbation of simple Steklov eigenvalues
10:00 – 10:30	<i>Arvet Pedas and Gennadi Vainikko</i>	What is the complexity of weakly singular integral equations?"
10:30 – 11:00	<i>Arvet Pedas and Mikk Vikerpuur</i>	Smoothing transformation and cubic spline collocation for weakly singular Fredholm integral equations with boundary singularities

<p><b>24 September 2012</b></p> <p><b>SESSION: Sequence spaces, Summability and Applications</b></p> <p><b>CHAIR: Aasma, Ants</b></p> <p><b>(ROOM 10)</b></p>		
09:00 – 09:30	<i>Savas, Ekrem</i>	$\lambda$ - Statistical Convergence in Intuitionistic Fuzzy 2- Normed Space
09:30 – 10:00	<i>Altundag, Selma and Basarir, Metin</i>	Lacunary Statistical Convergence in a Paranormed Space
10:00 – 10:30	<i>Aydin Akgun, Fatma, Rhoades and Billy E.</i>	Absolute Tauberian Constants for H-J Hausdorff matrices
10:30 – 11:00	<i>Gumus, Hafize and Savas, Ekrem</i>	On $S_{\lambda}^L(I)$ -Asymptotically Statistical Equivalent Sequences
11:00 – 11:30	<i>Salih Aytar</i>	Rough Statistically Convergent Double Sequences



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<p><b>24 September 2012</b></p> <p><b>SESSION: 7th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer</b></p> <p><b>CHAIR: A. Slaouti</b></p> <p><b>(ROOM 1)</b></p>		
11:30 – 12:00	<i>C. Harley</i>	Unsteady Heat Transfer through a Longitudinal Fin: An Investigation into the Effects of Key Parameters
12:00 – 12:30	<i>G. Mercurio, P. Peerani, P. Richir, W. Janssens and G. Eklund</i>	Modeling of UF6 Enrichment with Gas Centrifuges for Nuclear Safeguards Activities
12:30 – 13:00	<i>Vai Kuong Sin, Wen Yue Deng and Wei Hang Xiao</i>	Study of Motion of Flexible Eel from the Wake of Bluff Body in a Cross Flow

<p><b>24 September 2012</b></p> <p><b>SESSION: 2nd Symposium on Analysis of Quantum Field Theory</b></p> <p><b>CHAIR: Anthony Thomas</b></p> <p><b>(ROOM 2)</b></p>		
11:30 – 12:00	<i>Markus Schwarz</i>	Applications of Yang-Mills Thermodynamics
12:00 – 12:30	<i>Ralf Hofmann</i>	Fundamental and Effective Yang-Mills Vertices
12:30 – 13:00	<i>Markus Schwarz</i>	Discussion
13:00 – 13:30	<i>Ralf Hofmann</i>	Discussion





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<p><b>24 September 2012</b></p> <p><b>SESSION: Symposium on Modelling, Simulation and Model Reduction Approaches of Complex and Networked Chemical and Biochemical Systems</b></p> <p><b>CHAIR: Constantinos Theodoropoulos (ROOM 3)</b></p>		
11:30 – 12:00	<u>Gábor Szederkényi, Z. A. Tuza and Katalin M. Hangos</u>	Determining Biochemical Reaction Network Structures for Kinetic Polynomial Models with Uncertain Coefficients
12:00 – 12:30	<u>Michael Binns and Constantinos Theodoropoulos</u>	Construction and Analysis of Biochemical Networks
12:30 – 13:00	<u>Christina Charalampidou, Ioannis K. Kookos</u>	Validation of a Solid Oxide Fuel Cell Model

<p><b>24 September 2012</b></p> <p><b>SESSION: Interdisciplinary Symposium on Complex Systems</b></p> <p><b>CHAIR: Vic Law (ROOM: 5)</b></p>		
11:30 – 12:05	<u>Tatyana A. Smaglichenko</u>	Structural Algorithm to Reservoir Reconstruction Using Passive Seismic Data (Synthetic Example)
12:05 – 12:30	<u>Aude Maignan</u>	Graph Algorithm for the Simulation of the Interaction between Particles
12:30 – 12:55	<u>Cuneyt Guzelis</u>	Engineering Applications of a Dynamical State Feedback Chaotification Method
12:55 – 13:20	<u>Lucia V. Gambuzza</u>	Chaos Control in a Chaotic System with Only One Stable Equilibrium Point
13:20 – 13:40	<u>All Participants</u>	Closing Ceremony



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<b>24 September 2012</b> <b>SESSION: Statistics and Modelling III &amp; Fractal Geometry, Quantization Dimension and Related Topics</b> <b>CHAIR:</b> <b>(ROOM 6)</b>		
11:30 – 12:00	<i>A.K. Bedabrata Chand</i>	Cubic Hermite and Cubic Spline Fractal Interpolation Functions
12:00 – 12:30	<i>Harald Luschgy</i>	Geometry of optimal functional quantizers for Gaussian processes
12:30 – 13:00	<i>Klaus Pötzelberger</i>	Consistency of the Empirical Quantization Error
13:00 – 13:30	<i>Mrinal Kanti Roychowdhury</i>	Quantization coefficients for infinite self-similar mappings

<b>24 September 2012</b> <b>SESSION: Feedback Linearization of Control Systems</b> <b>CHAIR: Philippe Mullhaupt (Laura Menini)</b> <b>(ROOM 7)</b>		
11:30 – 11:55	<i>Issa A. Tall</i>	Partial Feedback Linearization of Control Systems
11:55 – 12:20	<i>Christopher Nielsen and Manfredi maggiore</i>	Local Transverse Feedback Linearization with Partial Information for single-input Systems
12:20 – 12:45	<i>Laura Menini and Antonio Tornambe</i>	Feedback Linearization of Impulsive Nonlinear Control Systems
12:45 – 13:10	<i>S.S. Willson, Ph. Mullhaupt,</i>	Numerical Algorithm for Feedback Linearizable Systems
13:10 – 13:35	<i>Basile Graf and Philippe Mullhaupt</i>	Bilinear Control Systems with Forced Integrable Filtration



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<b>24 September 2012</b>		
<b>SESSION: SCLIT – Symposium on Computer Languages, Implementations and Tools</b>		
<b>CHAIR: Dr. Mirjana Ivanović (ROOM 8)</b>		
<b>11:30 – 11:50</b>	<b><i><u>Crt Gerlec,</u></i> <i>Marjan Heričko</i></b>	The impact of structural source code changes on software quality
<b>11:50 – 12:10</b>	<b><i><u>Draaisa Zunic,</u></i> <i>Pierre Lescanne</i></b>	Classical computation with negation
<b>12:10 – 12:30</b>	<b><i>Dejan Mitrović,</i> <i><u>Mirjana Ivanović,</u></i> <i>Zoran Budimac</i></b>	Towards an agent-oriented programming language based on Scala
<b>12:30 – 12:50</b>	<b><i>Djordje Herceg,</i> <i><u>Davorka Radaković,</u></i> <i>Dejana Herceg</i></b>	Generalizing the Extensibility of a Dynamic Geometry Software
<b>12:50 – 13:10</b>	<b><i>Miloš Savić,</i> <i>Gordana Rakić,</i> <i><u>Zoran Budimac,</u></i> <i>Mirjana Ivanović</i></b>	Extractor of Software Networks from Enriched Concrete Syntax Trees
<b>13:10 – 13:30</b>	<b><i>Norbert Pataki,</i> <i><u>Tamás Csérij,</u></i> <i>Zalán Szűgyi</i></b>	Task-Specific Style Verification
<b>Lunch Break</b>		



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<b>24 September 2012</b> <b>SESSION: Boundary value problems and integral equations with applications</b> <b>CHAIR: P.A.Krutitskii</b> <b>(ROOM 9)</b>		
11:30 – 12:00	<u>SASAMOTO Akira</u> and P. A. Krutitskii	Integral representation of voltage in half-plane conductor with crack from surface by D.C. potential difference method
12:00 – 12:30	<i>Gleb V. Ryzhakov</i>	On the Convergence of a some Numerical Method for a Hypersingular Integral Equation
12:30 – 13:00	<i>A.V. Setukha</i>	The singular integral equation method in 3-D boundary value problems and its applications
13:00 – 13:30	<i>Andrey Aparinov</i>	Efficient vortex method for numerical solution of boundary value problems in aerodynamics
<b>Lunch Break</b>		

<b>24 September 2012</b> <b>SESSION: Sequence spaces, Summability and Applications</b> <b>CHAIR: Savas, Ekrem</b> <b>(ROOM 10)</b>		
11:30 – 12:00	<i>Aasma, Ants</i>	Some Alternative Methods of Convergence Acceleration
12:00 – 12:30	<i>Guncan, Ayşe Nur and Akduman, Seyma</i>	The q-pell Hyperbolic Functions
12:30 – 13:00	<i>Guncan, Ayşe Nur and Erbil, Yeşim</i>	The q-Fibonacci Hyperbolic Functions
13:00 – 13:30	<i>Gurdal, Mehmet , Huban, Mualla Birgul and Yamanci, Ulas</i>	On Generalized Statistical Limit Points in Random 2-Normed Spaces



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<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics III</b> <b>CHAIR: Toshiaki Itoh</b> <b>(ROOM 1)</b>		
15:00 – 15:30	<i>Mohammed Al-Kadhi</i>	Approximation of Solutions to an Abstract Cauchy Problem for a System of Parabolic Equations
15:30 – 16:00	<i>Toshiaki Itoh</i>	Construction of Difference Equations from Symmetries of ODEs
16:00 – 16:30	<i>M. Itskov, R. Dargazany and K. Hörnes</i>	A Simple Procedure for Higher-Order Derivatives of the Inverse Function
16:30 – 17:00	<i>Ryosuke Miyaura and Atsushi Mukaihira</i>	Newton Interpolation and the Nonautonomous Discrete KP Equation
17:00 – 17:30	<b>Coffee Break</b>	

<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics IV</b> <b>CHAIR: D. Papadopoulos</b> <b>(ROOM 2)</b>		
15:00 – 15:30	<i>Di Wang and Fucheng Liao</i>	Robust Preview Control for Uncertain Discrete-time Systems
15:30 – 16:00	<i>D. Papadopoulos</i>	Optimal Control of Coupled PDE Networks with Automated Code Generation
16:00 – 16:30	<i>Xiaoming Guo</i>	Kinetic Advantage of Controlled Intermediate Nuclear Fusion
16:30 – 17:00	<i>Jens Hugger and Sima Mashayekhi</i>	Feedback Options in Nonlinear Numerical Finance



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<p><b>24 September 2012</b></p> <p><b>SESSION: Applied and Numerical Mathematics V</b></p> <p><b>CHAIR: Jiří Maděra</b></p> <p><b>(ROOM 3)</b></p>		
15:00 – 15:30	<p><i><u>Jan Kočí, Jiří Maděra,</u></i> <i><u>Zbyšek Pavlík and Robert</u></i> <i><u>Černý</u></i></p>	<p>Identification of Water Vapour Transport Properties of Gypsum Using Evolutionary Algorithms</p>
15:30 – 16:00	<p><i><u>Václav Kočí, Jiří Maděra,</u></i> <i><u>Miloš Jerman, Anton</u></i> <i><u>Trník, and Robert Černý</u></i></p>	<p>Computational Analysis of a Modified Guarded Hot Plate Experiment</p>
16:00 – 16:30	<p><i><u>Václav Kočí, Jiří Maděra,</u></i> <i><u>and Robert Černý</u></i></p>	<p>Computational Simulation of Salt Transport and Crystallization in Surface Layers of Building Envelopes</p>
16:30 – 17:00	<p><i><u>Jiří Maděra, Kamil</u></i> <i><u>Řurana, Jan Kočí and</u></i> <i><u>Robert Černý</u></i></p>	<p>Effect of Hysteresis on Moisture Transport in Porous Building Materials</p>

<p><b>24 September 2012 – Symposium # 50</b></p> <p><b>2012 Seminar Course on Hadronic mechanics and Chemistry</b></p> <p><b>SESSION: 9 – ThMorning = Hadronic Chemistry</b></p> <p><b>CHAIR: A. Kholmetskii</b></p> <p><b>(ROOM 4)</b></p>	
15.30 – 16.30	<p>Structural Insufficiencies of Relativistic Scattering Theories and their Apparent resolutions via the Hadronic Scattering Theory R. M. Santilli</p>
16.30 – 17.30	<p>Non-Unitary Lie-Isotopic Scattering Theory of Hadronic Mechanics, Alex Animalu</p> <p>DEMONSTRATION of ICNF will be done in the event the Hadronic Reactor and related neutron and other counters are admitted by Greek Custom</p>



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<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics VI</b> <b>CHAIR: Zdeněk Kala</b> <b>(ROOM 5)</b>		
15:00 – 15:30	<i>Zdeněk Kala and Jiří Kala</i>	Lateral-Torsional Buckling Analysis of I-Beams using Shell Finite Elements and Nonlinear Computation Methods
15:30 – 16:00	<i>Zdeněk Kala and Giedrė Sandovič</i>	Fuzzy Stochastic Analysis of Serviceability and Ultimate Limit States of Two-Span Pedestrian Steel Bridge
16:00 – 16:30	<i>Rodrigo R. Gomes and Ricardo C. Barros</i>	Computational Modeling of Monoenergetic Neutral Particle Inverse Transport Problems in Slab Geometry
16:30 – 17:00	<i>Jiří Kala and Zdeněk Kala</i>	The Interaction of Local Buckling and Stability Loss of a Thin-Walled Column under Compression

<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics VII</b> <b>CHAIR: Jiří Kunovský</b> <b>(ROOM 6)</b>		
14:30 – 15:00	<i>Robert Gold</i>	On Cyclomatic Complexity and Decision Graphs
15:00 – 15:30	<i>Jiří Kunovský, Michal Kraus, Václav Šátek and Alexandr Szöllös</i>	Parallel Computations Based on Modified Numerical Integration Methods
15:30 – 16:00	<i>J. Vala and M. Horák</i>	Nondestructive Identification of Engineering Properties of Metal Fibre Composites
16:00 – 16:30	<i>Jiří Kunovský, Václav Šátek, Václav Vopěnka and Alexander Schirrer</i>	Stiffness in Technical Initial Problems
16:30 – 17:00	<i>Lotfi Abdelhakim</i>	A Numerical Method for Creating and Reconstructing Computer-Generated Holograms



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<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics VIII</b> <b>CHAIR: Karel In't Hout</b> <b>(ROOM 7)</b>		
15:00 – 15:30	<i>K. Volders</i>	Stability of Central Finite Difference Schemes on Non-uniform Grids for the Black–Scholes PDE with Neumann Boundary Condition
15:30 – 16:00	<i>Jens Brouwer, Julius Reiss and Jörn Sesterhenn</i>	Fully Conservative Finite-Difference Schemes of Arbitrary Order for Compressible Flow
16:00 – 16:30	<i>Chittaranjan Mishra</i>	A Stability Result for the MCS Scheme Applied to 2D Convection-Diffusion Equations with Mixed Derivative
16:30 – 17:00	<i>Tinne Haentjens</i>	ADI FD Schemes for the Numerical Solution of the Three-dimensional Heston–Cox–Ingersoll–Ross PDE

<b>24 September 2012</b> <b>SESSION: Applied and Numerical Mathematics IX</b> <b>CHAIR: Hartmut Schwandt</b> <b>(ROOM 8)</b>		
15:00 – 15:30	<i>Ihor Lubashevsky</i>	Trajectory Classification of Random Motion with Stochastic Self-Acceleration and its Anomalous Properties
15:30 – 16:00	<i><u>Dominik Staab</u>, Tomasz Waclawczyk, Dörte C. Sternel and Michael Schäfer</i>	Discretization of Mass Forces and its Impact on Drop Break-up in Stirrers
16:00 – 16:30	<i><u>Hartmut Schwandt</u>, Frank Huth, Günter Bärwolff and Stefan Berres</i>	A Macroscopic Model for Crossing Pedestrian Streams
16:30 – 17:00	<i>Abayomi Omishore</i>	Verification of Design Procedures of Structural Stability using Probabilistic Methods of Reliability Analysis
17:00 – 17:30	<i>Vasile S. Craciun, Carsten Bojesen and Viorel Trifa</i>	A Custom Flexible Experimental setup to Test Air Source Heat Pump for Smart Buildings





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<b>24 September 2012</b> <b>SESSION: Boundary value problems and integral equations with applications</b> <b>CHAIR: A.V. Setukha</b> <b>(ROOM 9)</b>		
15:00 – 15:30	<i>Anton I. Popov</i>	Wave wall type solution for liquid surface waves
15:30 – 16:00	<i>M.Kohr</i>	TBA

<b>24 September 2012</b> <b>SESSION: Sequence spaces, Summability and Applications</b> <b>CHAIR: Savas, Ekrem</b> <b>(ROOM 10)</b>		
15:00 – 15:30	<i>Gurdal, Mehmet , Yamanci, Ulas and Saltan, S</i>	Generators of Certain Function Banach Algebras and Related Questions
15:30 – 16:00	<i>Konca, Sukran and Ozturk, Mahpeyker</i>	Some Topological and Geometric Properties of Sequence Spaces Involving Lacunary Sequence in n-Normed Spaces
16:00 – 16:30	<i>Ozturk, Mahpeyker and Basarir, Metin</i>	On Some Euler Weighted Difference Sequence Space of Non-Absolute Type
16:30 – 17:00	<i>Sahiner, Ahmet , Gokkaya, Havva and Yigit, Tuba</i>	A New Filled Function for Nonsmooth Global Optimization
17:00 – 17:30	<i>Sahiner, Ahmet and Yigit, Tuba</i>	2-Cone Banach Spaces and fixed Point Theorems

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



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<p><b>25 September 2012</b></p> <p><b>SESSION: Necessary Conditions for Pareto Minimizers and Applications in Mathematical Finance/Economics</b></p> <p><b>CHAIR: Bao Truong and Christiane Tammer</b></p> <p><b>(ROOM 1)</b></p>		
09:30 – 10:00	<i>Behnam Soleimani (joint work with Christiane Tammer)</i>	Approximate Solutions of Vector Optimization Problem with Variable Ordering Structure
10:00 – 10:30	<i>Elisabeth Köbis (joint work with Christiane Tammer)</i>	Relations Between Strictly Robust Optimization Problems and a Nonlinear Scalarization Method
10:30 – 11:00	<i>Shaghaf Alzorba (joint work with Christian Günther)</i>	Algorithms for Multicriteria Location Problems

<p><b>25 September 2012</b></p> <p><b>SESSION: Applied and Numerical Mathematics X</b></p> <p><b>CHAIR: Magda Monteiro</b></p> <p><b>(ROOM 2)</b></p>		
09:00 – 09:30	<i>Magda Monteiro and Marco Costa</i>	A Note on Prediction Bias for State Space Models with Estimated Parameters
09:30 – 10:00	<i><u>Shaghaf Alzorba</u> and Christian Günther</i>	Algorithms for Multicriteria Location Problems
10:00 – 10:30	<i>R.Parvathi, C.Malathi</i>	Linear Programming Using Symmetric Triangular Intuitionistic Fuzzy Numbers



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<p><b>25 September 2012</b></p> <p><b>SESSION: Applied and Numerical Mathematics XI</b></p> <p><b>CHAIR: Ch. G. Massouros</b></p> <p><b>(ROOM 3)</b></p>		
09:00 – 09:30	<i>R.-D. Ene, V. Marinca and B. Căruntu</i>	Optimal Homotopy Perturbation Method for Solving a Nonlinear Problem in Elasticity
09:30 – 10:00	<i>Vasile Marinca and Nicolae Herişanu</i>	An Optimal Homotopy Perturbation Approach to Thin Film Flow of a Fourth Grade Fluid
10:00 – 10:30	<u>Ch. G. Massouros</u> and G. G. Massouros	On 2-element Fuzzy and Mimic Fuzzy Hypergroups
10:30 – 11:00	<i>Vasile Marinca and Nicolae Herişanu</i>	An Approximate Solution for the Nonlinear Lane-Emden Type Equation on a Semi-Infinite Domain
<p><b>Coffee Break</b></p>		

<p><b>25 September 2012 – Symposium # 50</b></p> <p><b>2012 Seminar Course on Hadronic Mechanics and Chemistry</b></p> <p><b>SESSION: 10 – Morning = Lie-admissible Formulations</b></p> <p><b>CHAIR: R. M. Santilli</b></p> <p><b>(ROOM 4)</b></p>	
9.00 – 10.00	Non-Unitary Lie-Admissible Scattering Theory of Hadronic Mechanics Alex Animalu
10.00 – 11-00	Ex "On the Geno-GPITT Framework: Spatially Non-Uniform, Complex and Antimatter Systems Anil Bhalekar
11.30 – 12.30	Isounit and Digital Outline of Elementary Particles With Substantiation of Mutual Electron/Nucleon Lattice Erik Trel
12.30 – 13.30	The problems of the 'standard' model of cosmology and the solutions arising from Santilli's theory Peter Rowlands



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<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XII</b> <b>CHAIR: Umair Siddique</b> <b>(ROOM 5)</b>		
09:00 – 09:30	<i><b>Umair Siddique and Osman Hasan</b></i>	Analysis Techniques for Fractional Order Systems: A Survey
09:30 – 10:00	<i><b>Zhang Xiaohui, Zhang mingjie, Zhong Qigang</b></i>	Numerical Analyses of Fluid Flow in Joule-heated Cavity of low-Prandtl Number Fluid
10:00 – 10:30	<i><b>M. K. Hasana and Y. H. Nga</b></i>	Steady State Heat Simulator using Generalized AOR Scheme

<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XIII</b> <b>CHAIR: Erik Trell</b> <b>(ROOM 6)</b>		
09:00 – 09:30	<i><b>Erik Trell</b></i>	Mathemimetics I: Self-Computational Prime-Number Line and Three-Dimensional Diophantine Equation Matrix
09:30 – 10:00	<i><b>Erik Trell</b></i>	Mathemimetics II. Demonstratio Mirabilis of FLT by Infinitely Ascending Cubical Crystal Growth
10:00 – 10:30	<i><b>Zihai Shi, Yukari Nakamura, and Masaaki Nakano</b></i>	Strain Energy Diagram for Characterizing Fatigue Behavior
10:30 – 11:00	<i><b>Pavel Kůs, František Mach, Pavel Karban and Ivo Doležel</b></i>	Genetic Algorithms for Multicriteria Shape Optimization of Induction Furnace



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<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XIV</b> <b>CHAIR: Julius Reiss</b> <b>(ROOM 7)</b>		
09:00 – 09:30	<i>Julius Reiss</i>	Energy Stable, Collocated High Order Schemes for Incompressible Flows on Distorted Grids
09:30 – 10:00	<i>Wieme GADACHA and Faouzi GHORBEL</i>	A Discretized Surface Representation: Approximation On 3D Meshes
10:00 – 10:30	<i>Yu Chen, Y.T. Chew and B.C. Khoo</i>	Heat Transfer in Turbulent Channel Flow Over Protrusions
10:30 – 11:00	<i>Mehdi Hajji, Tarak Bannour and Faouzi Ghorbel</i>	Toward an Isotropic Representation of 3D Triangulated Surface Object
<p style="font-size: 1.2em; color: blue;"><b>Coffee Break</b></p>		

<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XV</b> <b>CHAIR: Massimiliano Ferronato</b> <b>(ROOM 8)</b>		
09:00 – 09:30	<i>Massimiliano Ferronato, Carlo Janna, Giorgio Pini and Giuseppe Gambolati</i>	Generalizing Block FSAI Preconditioning to Unsymmetric Indefinite Matrices
09:30 – 10:00	<i>Danilo Durante and Riccardo Broglia</i>	Analytical Solutions of One-dimensional Stokes' Problems for Infinite and Finite Domains with Generally Periodic Boundary Conditions
10:00 – 10:30	<i>Stamatis Kalođerakos, Mustapha Gourma and Chris P. Thompson</i>	Y-dependent Perturbation Analysis of Wave Growth for 2D Volume of Fluid Model
10:30 – 11:00	<i>A. Ramírez-López, D. Muñoz- Negrón, M. Palomar- Pardeve, M. A. Romero- Romo &amp; V. Cruz-Morales</i>	Using Finite Difference to Solve Heat Removal in Metallic Sections Industrially Produced



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<p><b>25 September 2012</b></p> <p><b>SESSION: Applied and Numerical Mathematics XVI</b></p> <p><b>CHAIR: Gordon R.J. Cooper</b></p> <p><b>(ROOM 9)</b></p>		
09:00 – 09:30	<i>Gordon R.J. Cooper</i>	The Extraction of Edges and Ridges from Potential Field Data Using Gradient Vector Information
09:30 – 10:00	<i>J.C. Nacher and T.Ochiai</i>	Data Analysis Unveils a New Stylized Fact in Foreign Currency Markets
10:00 – 10:30	<i>Khalil AbuDahab, Dong-ling Xu and John Keane</i>	Induction of Belief Decision Trees from Data

<p><b>25 September 2012</b></p> <p><b>SESSION: Necessary Conditions for Pareto Minimizers and Applications in Mathematical Finance/Economics</b></p> <p><b>CHAIR: Bao Truong and Christiane Tammer</b></p> <p><b>(ROOM 1)</b></p>		
11:30 – 12:00	<i>Christiane Tammer (joint work with Johannes Tannert)</i>	Multicriteria Approaches for a Private Equity Fund
12:00 – 12:30	<i>Bao Truong (joint work with Christiane Tammer)</i>	Lagrange Necessary Conditions for Pareto Minimizers in Asplund Spaces and Applications
12:30 – 13:00	<i>Morteza Oveisiha</i>	
13:00 – 13:30	<i>Suvendu Pattanaik</i>	



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<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XVII</b> <b>CHAIR: Dorota Aniszewska</b> <b>(ROOM 2)</b>		
11:30 – 12:00	<i>Raphael G. d' A. Vilamiu, Sonia Ternes, Guilherme A. Braga and Francisco F.Laranjeira</i>	A Model for Huanglongbing Spread between Citrus Plants Including Delay Times and Human Intervention
12:00 – 12:30	<i><u>Dorota Aniszewska</u> and Marek Rybaczuk</i>	Modelling the Behaviour of Ceramics under Various Modes of Mechanical Loading with Movable Cellular Automata
12:30 – 13:00	<i>Maria Kmetova and Tibor Kmet</i>	Duality Concept in Curve and Surface Modelling

<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XVIII</b> <b>CHAIR: Duygu Bayram</b> <b>(ROOM 3)</b>		
11:30 – 12:00	<i>Duygu Bayram, Sezen Yıldırım Ünnü, Serhat Şeker</i>	Lyapunov Exponent for Aging Process in Induction Motor
12:00 – 12:30	<i>Lyubov Voloshko and Olena Kiselyova</i>	To the Identification of an Inverse Boundary-Value Problem for the Biharmonic Equation



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<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XIX</b> <b>CHAIR: S. Štátník</b> <b>(ROOM 5)</b>		
11:30 – 12:00	<i>S. Štátník</i>	Evaluation of Thermal Resistance of Building Insulations with Reflective Surfaces
12:00 – 12:30	<i>Yun-Che Wang and Chern-Hwa Chen</i>	Dynamic Characteristics of a Cable-Stayed Bridge Measured From Traffic-Induced Vibrations
12:30 – 13:00	<i>Juan C. Alzate, Francisco J. Moreno, and Jaime Echeverri</i>	A Spatio-Temporal Extension to the Map Cube Operator
13:00 – 13:30	<i>P. Lara, A. Poveda and C. Allen</i>	On the Structural law of Exoplanetary Systems

<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XX</b> <b>CHAIR: Oleg Nikonov</b> <b>(ROOM 6)</b>		
11:30 – 12:00	<i>Oleg Nikonov, Marina Medvedeva</i>	On the Microeconomic Problems Studied by Portfolio Theory
12:00 – 12:30	<i>U. Hämarik, U. Kangro, R. Palm, T. Raus</i>	On Parameter Choice in the Regularization of Ill-posed Problems with Rough Estimate of the Noise Level of the Data





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<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XXI</b> <b>CHAIR: Y. Kozak</b> <b>(ROOM 7)</b>		
11:30 – 12:00	<i>Maryam Sadeghi and Bagher Menhaj</i>	Controlling Chaos in a Defined Trajectory Using Adaptive Fuzzy Logic Algorithm
12:00 – 12:30	<i>Y. Kozak and G. Ziskind</i>	Numerical Modeling of a Finned PCM Heat Sink
12:30 – 13:00	<i>Urve Kangro</i>	Solution of Three-dimensional Electromagnetic Scattering Problems by Interior Source Methods
13:00 – 13:30	<i>Igor Averbakh and Jorge Pereira</i>	Network Construction Problems with Flowtime Objective

<b>25 September 2012</b> <b>SESSION: Applied and Numerical Mathematics XXII</b> <b>CHAIR: P. Ø. Andersen</b> <b>(ROOM 8)</b>		
11:30 – 12:00	<i>P. Ø. Andersen and S. Evje</i>	Two-phase Flow in a Fissurized-porous Media
12:00 – 12:30	<i>Olawanle P. Layeni and Jesse V. Johnson</i>	Some Explicit Solutions for a Class of One-Phase Stefan Problems
12:30 – 13:00	<i>Raffaello Seri and Christine Choirat</i>	Comparison of Quadrature Rules for the Wielandt-Nyström Method with Statistical Applications



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<b>25 September 2012 – Symposium # 50</b> <b>2012 Seminar Course on Hadronic mechanics and Chemistry</b> <b>SESSION: 11 – Afternoon = Hadronic Chemistry</b> <b>CHAIR: A. Kholmetskii</b> <b>(ROOM 4)</b>	
<b>15.30 – 16.30</b>	<b>On the Geno-GPITT Framework: Spatially Uniform Systems and Geno-nonequilibrium Thermodynamic Time's Arrows</b> <b>Anil Bhalekar</b>
<b>16.30 – 17.30</b>	<b>Non-Unitary Lie-Isotopic Scattering Theory of Hadronic Mechanics</b> <b>Alex Animalu</b>
<b>17.30 – 18.30</b>	<b>Implications of Santilli's IsoRedShift Measurements for Gamma- Ray Burst Observed by SWIFT Satellite</b> <b>Herman J. Mosquera Cuesta</b>



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<b>Poster Session</b>	
<b>21 September 2012</b>	
<b>15:00-18:00</b>	
<b>SESSION: Symposium (86) on the "Numerical Solution of Differential Equations and their Applications"</b>	
<b><i>D. F. Papadopoulos, T. E. Simos</i></b>	<b>A Runge-Kutta method with zero phase-lag and derivatives for the numerical solution of orbital problems.</b>
<b>SESSION (131) BE-SMART- BIOMETRY AND EXTREMES: STATISTICAL MODELLING AND R TECHNIQUES</b>	
<b>Raquel Oliveira, A. Manuela Gonçalves and Rosa M. Vasconcelos</b>	<b>A Statistical Model for the Demand of Undergraduate Engineering Courses in Portugal: A First Study of Bologna Process Impact</b>
<b>Lúcio B. de Araújo, Manuela M. Oliveira, Carlos Tadeu dos S. Dias, Amílcar Oliveira, Teresa A. Oliveira</b>	<b>Tucker3 Method in Biometrical research: Analysis of Experiments with three factors, using R</b>
<b>GENERAL SESSION</b>	
<b><i>J. Kruis and J. Maděra</i></b>	<b>Numerical Analysis of Coupled Heat and Moisture Transport with Discontinuities</b>
<b><i>O.T. Kosmas and S. Leyendecker</i></b>	<b>Phase Fitted Variational Integrators using Interpolation Techniques on non Regular Grids</b>

**END OF THE 7<sup>th</sup> DAY**

**END OF THE CONFERENCE**