

Conference Program

18 December 2015					
16:00 - 21:00	Registration (ROOM 1)				
19:00 - 21:00	Welcome participants (ROOM 1)				
19 December 2015					
10:00 - 12:00	Registration (ROOM 1)				
	ROOM A	ROOM B	ROOM C	ROOM D	ROOM 18
12:00 - 13:30		Opening Ceremony (ROOM B) Plenary Speaker: Radko Mesiar "Non-standard Measure Requires Non-standard Approaches to the Integral (History and Recent Results on Integration with Respect to Monotone Measures)" Chairman: Piotr Kulczycki			
13:30 - 14:00	Coffee Break				
Sessions 1	Information Technology I (Skype) Chairwoman: Valentina Emilia Balas Co-chairwoman Joanna Świebocka-Więk	Computational and Experimental Physics Chairman: Krzysztof Kułakowski Co-chairman: Zdzisław Burda	Computational Intelligence I Chairman: László T. Kóczy Co-chairman: Piotr A. Kowalski	Applied Mathematics I Chairman: Cenap Ozel Co-chairman: Sorin Grigorescu	Intelligent Data Analysis Chairwoman: Szilvia Nagy Co-chairwoman: Zuzana Kriva
14:00 - 14:20	Marzieh Najariyan, Mehran Mazandarani and Valentina Emilia Balas, Modified Riemann-Liouville fuzzy fractional derivative	Vinod Madan and Marius Balas, Nuclear Spectrometry	Sławomir Zadrozny, Janusz Kacprzyk and Marek Gajewski, On the Detection of New Cases in Multiaspect Text Categorization: a Comparison of Approaches	Martin Kalina, On Associative Commutative and Monotone Operations on Some Bounded Lattices	Szymon Łukasik and Piotr Kulczycki, Evaluating Dissimilarity Measures for Topology Preservation Indices Used in Multidimensional Data Analysis
14:20 - 14:40	Marjan Kuchaki Rafsanjani, Hamideh Fatemidokht and Valentina Emilia Balas, A modeling framework for Quality of Service in Mobile Ad hoc Networks	Mária Minárová, Heat Radiation in Enclosure - the Dominant Heat Transfer in an Insulating Vacuum-Like Layer	Adrienn Buruzs, Miklós F. Hatwagner and László T. Kóczy, Scenarios in Waste Management by Fuzzy Cognitive Map Simulations	Ladislav Šipeky and Alexandra Šipošová, Constraint Super- and Sub-additive Transformations	Gergely Pósfai, Gábor Magyar and László T. Kóczy, IDF-Social: an Information Diffusion-Based Fuzzy Model for Social Recommender Systems
14:40 - 15:00	Jude Hemanth, Uma Maheswari, Daniela Elena Popescu and Antoanela Naaji, The Boon of Bandelet Transform and Discrete Curvelet Transform: Application to Image Steganography	Maciej Wołoszyn and Bartłomiej Spisak, Transport of Electrons in Quasiperiodic Multibarrier Semiconductor Nanowires	Viorel Nicolau and Mihaela Andrei, Fuzzy Parameter Estimator for Complex Shape Clustering Algorithms in Predictive Diagnosis	Angela Handlovičová and Izabela Riečanová, Finite Volume Method Solution to the Complex 2D Helmholtz Equation with Impedance Boundary Conditions	Sergii Stirenko and Oleksandr Zinenko, Task Parallelism on Top of MPI
15:00 - 15:20	Daniela López De Luise, Andres Pascal, Ben Saad, Pablo Pescio, Rafael Malgor, Claudia Alvarez, Joaquín Díaz and Patricio Carrilero, Intelligent Chatbot for Juridical Advice	Michał Polinski and Zdzisław Stegowski, Influence of Inlet Positions on the Flow Behavior Inside a Photoreactor	Istvan Harmati and Laszlo T. Koczy, On the Sensitivity of a Special Class of Type-2 Fuzzy Signatures	Tomáš Bacigál, Convergence of Linear Approximation of Archimedean Generator from Williamson's Transform in Examples	Dmytro Titov, Anatoliy Doroshenko and Olena Yatsenko, A Parallel Distributed System for Social Media Data Streams Processing
15:20 - 15:40	Daniela López De Luise, Walter Bel, Diego Mansilla, Alberto Lobatos, Lucia Blanc and Rigoberto Malca La Rosa, Risk Prediction Based on Time and GPS Patterns	Urszula Kaczor, Bogusław Klimas, Dominik Szydłowski, Maciej Wołoszyn and Bartłomiej Spisak, Phase-space Description of the Coherent State Dynamics in One-dimensional Small System	Oleg Morgal, Olena Savchuk, Vira Artamonova and Irina Latash, Usage of Fuzzy Sets in Technical and Medical Diagnostics	Andrea Stupňanová, Summations of Fuzzy Numbers Based on Probabilistic Approach	Miroslav Hudec, Merging Validity and Coverage for Measuring Quality of Data Summaries
15:40 - 16:00	S.M.J. Mortazavi, Omid Jaber, Atefeh Zamani, S.A.R. Mortazavi, Valentina Emilia Balas, Ali Soleimani, Ali Zamani and Masoud Haghani, The Importance of Quantification of Data in Studies on the Health Effects of Exposure to Electromagnetic Fields Generated by Mobile Base Stations	Tomasz Palutkiewicz, Bartłomiej Spisak and Maciej Wołoszyn, Simulations of Transport Characteristics of Core-shell Nanowire Transistors with Electrostatic All-around Gate	Ádám Bukovics, Istvan Harmati and Laszlo T. Koczy, Tackling Uncertainties in the Assessment of the Load Bearing Structural Condition of Residential Buildings	Radko Mesiar and Anna Kolesárová, On Some Construction Methods for Bivariate Copulas	Małgorzata Charytanowicz and Piotr Kulczycki, Classification of Wheat Grain Varieties by Image Processing
16:00 - 17:00	Lunch				

	ROOM A	ROOM B	ROOM C	ROOM D	ROOM 18
Sesions 2	Information Technology II Chairman: Sergii Telenyk Co-chairman: Marius Balas	Data Analysis and Systems Research I Chairman: Slawomir Zadrozny Co-chairman: Miklós F. Hatwagner	Computational Intelligence II Chairman: Janusz Kacprzyk Co-chairman: Szymon Lukasik	Applied Mathematics II Chairman: Radko Mesiar Co-chairman: Andrzej Myśliński	
17:00 - 17:20	Vadym Poltorak, Constructive Approach to Creating a Finite Fields for Effective BCH-code	Claudiu Pozna and Csaba Antonya, Using Intelligent Computation for Modeling in Robotics	Krzysztof Kulakowski, Computational Indeterminism in Complex Models of Social Systems	Cenap Ozel, Meltem Gullusac and Hanifa Zekraoui, Generalized Inverses of Matrices and Least-Squares Solutions in Linear Codes	
17:20 - 17:40	Sorin-Aurel Moraru, Dominic Mircea Kristaly, Milian Badea and Valentin Ghisa Intelligent Computation in Industrial Measures Management System	Dmytro Reznik, Sergii Telenyk, Oleksandr Amons and Volodymyr Khmeliuk, Logic-based Approach for Dynamic Service Provision upon Service Meshes	Artur Nowosielski, Piotr A. Kowalski and Piotr Kulczycki, Increasing the Speed of the Krill Herd Algorithm through Parallelization	Zuzana Krivá, Evaluation of Gradient Norms on a Consistent Quadtree Grid with Application to Curvature Filters	
17:40 - 18:00	Oleksandr P. Markovskiy, Nikolaos Bardis, Nikolaos Doukas and Sergej Kirilenko, Secure Modular Exponentiation in Cloud Systems	Anatoliy Doroshenko, Pavlo Ivanenko, Olga Ovdii and Olena Yatsenko, Automated Program Design – an Example of Solving Weather Forecasting Problem	László T. Kóczy, Péter Földesi and Boldizsár Tűű-Szabó, A Discrete Bacterial Memetic Evolutionary Algorithm for the Traveling Salesman Problem	Anna Mišková, Toeplitz Operators, Wavelets from Laguerre Polynomials and Very Slowly Oscillating Functions	
18:00 - 18:20	Mihaela Andrei and Viorel Nicolau, Transmission Performance of MIMO Channels Using Alamouti STBC Affected by Impulsive Noise	Marcin Wróblewski, Non-linear Schrodinger Approach to Option Pricing	Oleksandr Rolik, Valerii Kolesnik and Dmytro Halushko, Neural Network Approach for Resource Allocation in IT-infrastructure Management System	Alexandra Šipošová and Ladislav Šipeky, On Aggregation Functions with Given Superadditive and Subadditive Transformations	
18:20 - 18:40	Coffee Break				
Sesions 3	Information Technology III Chairman: Jacek Tarasiuk Co-chairman: Sergii Stirenko	Data Analysis and Systems Research II Chairman: Csaba Antonya Co-chairwoman: Mária Minárová	Computational Intelligence III Chairman: Claudiu Pozna Co-chairman: Vadym Poltorak	Applied Mathematics III Chairman: Martin Kalina Co-chairwoman: Małgorzata Charytanowicz	
18:40 - 19:00	Brigitta Sziová, Szilvia Nagy and János Pipek, Optimization of the Prediction of Second Refined Wavelet Coefficients in Electron Structure Calculation	Joanna Świebodzińska-Więk The Detection of the Retina's Lesions in Optical Coherence Tomography (OCT)	Sergii Telenyk, Olena Savchuk , Eugene Pokrovskiy and Kateryna Kryvenko, On Application of Neural Network Technologies in Diagnosing Electric Radio Components	Zdenko Takáč, Avoiding the Lack of a Linear Order in Definition of OWA Operator	
19:00 - 19:20	Marius Balas and Valentina Balas, The Parallel Shift. A Fundamental Challenge for the Information Technology after 2008.	Sorin Mihai Grigorescu and Gigel Macesanu Human-Robot Interaction through Robust Gaze Following	Volodymyr Shymkovych and Petro Kravets, Neural Network Control System with Direct and Inverse Model of Control Object Hardware and Software Realization of in FPGA	Ursula Bentkowska, Susana Susana Díaz, Józef Drewniak, Vladimir Janis and Susana Montes, Extremal Families of MN-convexity	
19:20 - 19:40	Yaroslav Dorogyy, Olena Doroga-Ivaniuk, Bogdan Mart and Vasyl Tsurkan, Life Cycle of Critical IT-infrastructure	Sergii Telenyk, Maksym Bukasov and Maksym Yasochka, Resource Management for Server Virtualization in the Limitations of Recovery Time Objective	Tomasz Kozik and Wojciech Łuźny, R-factors in Structure Determination by Use of Genetic Algorithms from Powder Diffraction Data Consisting of a Small Number of Very Broad Peaks	Lenka Halčinová, On the Smallest Semicopula-based Integrals	
19:40 - 20:00	Franciszek Białas, Lucjan Pytlak and Wiesława Sikora, MODY – Calculation of Ordered Structures by Symmetry-adapted Functions	Oleksandr Trofymchuk, Petro Bidyuk and Svitlana Trukhan, Systemic Approach to Estimation of Financial Risks	Yaroslav Sagach, Yaroslav Repeta and Artem Volokyta, Cellular Automata. Application in the Modern World	Ľubomíra Horanská and Alexandra Šipošová, A Note on a Generalization of the Discrete Choquet Integral	
20 December 2015					
10:00 - 15:00	Social event: Krakow sightseeing tour				