

Saturday, September 26	
8:00-9:40	Registration (West University of Timisoara, ground floor, room 045C)
9:40-10:00	Opening. Room A02
10:00-10:50	Invited talk. Room A02. Chair: Stephen Watt <i>Tetsuo Ida</i> – A Compiler for Origami Construction and Verification
10:50-11:00	Coffee break
11:00-12:20	Symbolic Computation. Room A02. Chair: Tetsuo Ida <ul style="list-style-type: none"> • <u>Grant Passmore</u> and Leonardo de Moura. Superfluous S-polynomials in Strategy- Independent Grobner Bases • <u>Yanli Huang</u> and Dongming Wang. Computing Self-intersection Loci of Parametrized Surfaces Using Regular Systems and Groebner Bases • <u>Alberto Zanoni</u>. Toom-Cook 8-way For Long Integers Multiplication • <u>Rafael Grimson</u>. Point Location in arrangements of algebraic hypersurfaces
11:00-12:40	Numerical Computing. Room A11. Chair: Stefan Maruster and Ioan A. Rus <ul style="list-style-type: none"> • <u>Ioan A. Rus</u>. Ulam-Hyers stability of difference equations • <u>Adrian Petrusel</u>. Multivalued Picard operators and applications • Viorica Muresan. An algorithm for the approximation of the solution of a functional-integral equation • Anton S. Muresan. On a functional-differential equation from price theory • <u>Damian Trif</u>. MATLAB Package for Laguerre Spectral Method
11:00-13:00	SEE-Grid-SCI Dissemination. Room: 045C. Chair: Gabriel Neagu
12:20-14:00	Lunch break
14:00-14:50	Invited talk. Room A02. Chair: Dongming Wang <i>James Davenport</i> – The Sparsity Challenge
14:50-15:00	Coffee break
15:00-16:20	Logic and Programming. Room A02. Chair: Stephen Watt <ul style="list-style-type: none"> • <u>Madalina Erascu</u> and Tudor Jebelean. A Calculus for Imperative Programs: Formalization and Implementation • <u>Eugen-Ioan Goriac</u>, Georgiana Caltais and Dorel Lucanu. Simplification and Generalization in CIRC • <u>Codrut-Lucian Lazar</u>, Ioan Lazar, Bazil Parv, Simona Motogna and Istvan Gergely Czibula. Using a fUML Action Language to construct UML models • <u>Lucian Radu Teodorescu</u>, Alin Suciuc and Rodica Potolea. Sparrow: Towards a New Multi-Paradigm Language
	Global Computing Workshop. Room: 045C. Chair: TBA <ul style="list-style-type: none"> • Gabriel Ciobanu, <u>Eneia Todoran</u>: Continuation semantics for multiset rewriting: a step towards a denotational semantics for membrane computing • Ana-Maria Mirea, Constantin Teodorescu-Mihai, Doina Preda, Mircea Preda: Improved resources sharing environment • Mugurel Ionut Andreica, Eduard-Marius Dragomir, Nicolae Tapus: Centralized and Decentralized Techniques for the Real-Time Scheduling of Deadline-Constrained Out-of-Order Data Transfers • Bogdan Crainicu: A Local Search Approach for Recovering an Internal State of RC4 Stream Cipher
16:20-16:30	Coffee break
16:30-17:50	Symbolic Computation . Room: A02. Chair: Dongming Wang <ul style="list-style-type: none"> • <u>Qi Ding</u> and Hongqing Zhang. m-Hilbert Polynomial and Arbitrariness of the General Solution of Partial Differential Equations • Amir Hashemi and <u>Mahzad Kalantari</u>. A Hybrid Algorithm for Solving 7 Parameters Transformation • Jianping Yu and Yongli Sun. Lagrange Interpolation Method for Implicitizing Parametric Surfaces • Ryszard Walentynski. On Computer Algebra Aid to Analytic Integration within Tetragonal Finite Element
16:30-17:50	Global Computing Workshop. Room: 045C. Chair: TBA <ul style="list-style-type: none"> • Cristina Gutiu: Modular Platforms for Enterprise Applications • Ploscar Adina: Passing and returning data to and from a SOAP-based web service • Stefanescu Gheorghe, Tataram Monica: TBA
19:00	Welcome reception

Sunday, September 27	
8:00-8:50	Invited talk. Room A02. Chair: Gabriel Istrate <i>Lefteris. Kirousis – Coloring Random Graphs</i>
8:50-9:00	Coffee break
9:00-10:20	Logic and Programming. Room A02. Chair: Tudor Jebelean <ul style="list-style-type: none"> • Stefan Andrei, <u>Gheorghe Grigoras</u>, Martin Rinard and Roland Yap. A Hierarchy of Tractable Subclasses for SAT and Counting SAT Problems • Maxime Dénès, Benjamin Lesage, <u>Yves Bertot</u> and Adrien Richard. Formal proof of theorems on genetic regulatory networks • <u>Alexander Lyaletski</u>. On Herbrand-like Theorems for Cut-free Modal Sequent Logics • <u>Andrew Schumann</u> and Andy Adamatzky. Physarum Spatial Logic
9:00-10:00	ACSys workshop. Room 045C. Chair: Viorel Negru <ul style="list-style-type: none"> • <u>Mugurel Ionut Andreica</u> and Nicolae Tapus. Algorithmic Solutions for Several Offline Constrained Resource Processing and Data Transfer Multicriteria Optimization Problems • Andrei Olaru, <u>Cristian Gratie</u> and Adina Magda Florea. Context-Aware Emergent Behaviour in a MAS for Information Exchange • <u>Costin Badica</u> and Mihnea Scafes. Service Negotiation Framework for Disaster Management
10:20-10:30	Coffee break
10:30-11:30	Advanced Theory of Computing. Room A02. Chair: Lefteris Kirousis <ul style="list-style-type: none"> • <u>Olaf Beyersdorff</u>. On the Existence of Complete Disjoint NP-Pairs • Miklos Bartha and <u>Miklos Kresz</u>. A depth-first algorithm to reduce graphs in linear time • <u>Mugurel Ionut Andreica</u>, Andrei Grigorean and Nicolae Tapus. Algorithms for Identifying Sequence Patterns with Several Types of Occurrence Constraints
10:30-11:30	ACSys workshop. Room 045C. Chair: Adina Magda Florea <ul style="list-style-type: none"> • <u>Aritoni Ovidiu</u> and Negru Viorel. Multi-Agent Oriented Architecture for Data-Stream Processing in an Ambient Assisted Living System • Sorin Ilie and <u>Costin Badica</u>. Solving the Traveling Salesman Problem Using Ant Colony Optimization on a Distributed Architecture • <u>Bogdan Alexandru Caprarescu</u> and Dana Petcu. Engineering Biologically-Inspired Multi-Agent Feedback Loops for Autonomic Computing
11:30-11:40	Coffee break
11:40-12:40	Advanced Theory of Computing. Room A02. Chair: Gabriel Istrate <ul style="list-style-type: none"> • Mircea Marin and <u>Adrian Craciun</u>. Factorizations of Regular Hedge Languages • Liliana Cojocaru, Erkki Makinen and <u>Ferucio Laurentiu Tiplea</u>. Classes of Szilard Languages in NC1 • Gabriel Ciobanu and <u>Eneia Nicolae Todoran</u>. A Methodology for Parallel and Distributed Languages Development Based on Denotational Semantics
12:40-14:00	Lunch break
14:00-15:40	Numerical Computing. Room A02. Chair: Stefan Maruster <ul style="list-style-type: none"> • <u>Nadia Bonchis</u>. The Lucas optimal growth model on finite horizon • <u>Ivan Simecek</u>. Sparse Matrix Computations Using the Quadtree Storage Format • <u>Rongfen Lin</u>, Hao Jiang and Lizhi Cheng. Solving Nonsmooth Interval Equations with Slopes • <u>Cristian Mihai Cira</u>. Finding the solutions of nonlinear equation systems from an interval • <u>David Edwards</u>. Semi Linear Singularly Perturbed Boundary Value Problem Using Multi-Region FDM: High Precision Calculation
14:00-15:40	Training GISHEO. Room: 045C. Chair Dana Petcu
15:40-15:50	Coffee break
15:50-17:10	Numerical Computing Room A02. Chair: Ioan A. Rus <ul style="list-style-type: none"> • <u>Marius Paltanea</u>, Sabin Tabirca, Yin Jie Chen and Mark Tangney. Cancer Prediction Modeling from Volumetric Data • <u>Olariu Emaneul Florentin</u>. Monte Carlo Variance Reduction. Importance Sampling Techniques. • <u>Iuliana Borza</u>, Flavius Turcu and Najim Mohamed. Hybrid modeling of an audio signal based on 1-D Wold decomposition • Constantin Bota, Bogdan Caruntu and Ciprian Bota. An optimal collocation type method for the computation of an approximate polynomial solution of some differential equations with application in economy
17:30-17:40	Coffee break
17:40-19:00	Training GISHEO. Room: 045C. Chair: TBA
20:00	Conference dinner

Monday, September 28	
8:00-8:50	Invited talk. Room A02. Chair: Tudor Jebelean <i>Andrei Voronkov -Finding Loop Invariants Using a Theorem Prover</i>
8:50-9:00	Coffee break
9:00-10:20	Parallel Computing Room: A02. Chair: Dana Petcu <ul style="list-style-type: none"> Alina Simion, Dragos Sbirlea, <u>Florin Pop</u> and Valentin Cristea. Dynamic Scheduling Algorithms for Workflow Applications in Grid Environment Marius Ion, <u>Florin Pop</u>, Ciprian Dobre and Valentin Cristea. Dynamic Resources Allocation in Grid Enviroments Simona Caraiman, <u>Alexandru Archip</u> and Vasile Manta. A Grid Enabled Quantum Computer Simulator <u>Boro Jakimovski</u>, Dragan Sahpaski and Goran Velinov. Performance Improvement of Genetic Algorithms by Adaptive Grid Workflows
9:00-10:30	Tutorials on Software Verification and Theorem Proving Room 045C Helmut Veith - Automated Software Analysis (part 1)
10:30-10:40	Coffee break
10:40-12:40	Parallel Computing Room: A02. Chair: Boro Jakimovski <ul style="list-style-type: none"> <u>Marc Frincu</u>. Distributed Scheduling Policy in Service Oriented Environments Marieta Nastase, Ciprian Dobre, <u>Florin Pop</u> and Valentin Cristea. Fault Tolerance using a Front-End Service for Large Scale Distributed Systems <u>Mugurel Ionut Andreica</u>, Irina Borozan, Lucian-Ionut Balaceanu and Nicolae Tapus. Fairness and QoS Enhancement Models and Techniques for Peer-to-Peer Content Sharing Systems <u>Alexandru Carstea</u>, Macariu Georgiana, Marc Eduard Frincu and Dana Petcu. Description and Execution of Patterns for Symbolic Computations Virginia Niculescu and <u>Adriana Guran</u>. Bounded Parallelism in PowerList and ParList Theories Denisa Rodila, Victor Bacu and Dorian Gorgan. Semantic Annotation based Service Composition for Grid Workflow Description and Execution
10:40-12:10	Tutorials on Software Verification and Theorem Proving Room 045C Helmut Veith - Automated Software Analysis (part 2)
12:10-14:00	Lunch break
14:00-15:40	Artificial Intelligence Room: A02. Chair: Daniela Zaharie <ul style="list-style-type: none"> <u>Mihai Alexandru Ordean</u>, Andrei Saupe, Melania Duma, Mihaela Ordean and Gheorghe Cosmin Silaghi. Enhanced Rule-based Phonetic Transcription for the Romanian Language <u>Istvan Gergely Czibula</u>, Gabriela Czibula and Adriana Mihaela Guran. Dynamic customization of data structures instances using an agent based approach <u>Cioara Tudor</u>, Ionut Anghel, Ioan Salomie and Mihaela Dinsoreanu. A Policy-based Context Aware Self-Management Model <u>Ciprian Pungila</u>. A Bray-Curtis Weighted Automaton for Detecting Malicious Code Through System-Call Analysis OZTEN CHELAI. A CONCEPTUAL ARCHITECTURE FOR CONTEXT-AWARE SYSTEMS
14:00-15:30	Tutorials on Software Verification and Theorem Proving Room 045C Andrei Voronkov – Satisfiability and Theories (part 1)
15:40-15:50	Coffee break
15:50-17:10	Artificial Intelligence Room A02. Chair: TBA <ul style="list-style-type: none"> Ion-Mircea Diaconescu and Gerd Wagner. BELIEFS AND COMMUNICATION, THE BASIS OF COLLABORATIVE AGENTS <u>Letitia Velcescu</u> and Laurentiu Vasile. Relational operators in heterogeneous random databases <u>Vidrighin Bratu Camelia</u> and Potolea Rodica. Unified Strategy for Feature Selection and Data Imputation Alexandru-Ciprian Zavoianu and <u>Ciprian-Dorin Craciun</u>. On sensor data simulation
15:50-17:20	Tutorials on Software Verification and Theorem Proving Room 045C Andrei Voronkov – Satisfiability and Theories (part 2)
17:30	Trip (Recas wine cellars) / Town tour

Tuesday, September 29	
8:00-8:50	Invited talk. Room A02. Chair: Andrei Voronkov <i>Helmut Veith -TBA</i>
8:50-9:00	Coffee break
9:00-10:20	Artificial Intelligence Room A02. Chair: TBA <ul style="list-style-type: none"> • <u>Cristina Bianca Pop</u>, viorica rozina chifu, Ioan Salomie, Mihaela Dinsoreanu, Iulia Vartic and Monica Vlad. Immune-inspired Web Service Composition Framework • D. Dumitrescu, Rodica Ioana Lung and <u>Tudor Dan Mihoc</u>. Approximating and Combining Equilibria in Non-cooperative Games • <u>Nicolaie Popescu-Bodorin</u>. Exploring New Directions in Iris Recognition • <u>Viorica Rozina Chifu</u>, Ioan Salomie, Roland Vachter and Alpar Kover. Matching Semantic Web Services Using Learning Accuracy
9:00-10:30	Tutorials on Software Verification and Theorem Proving Room 045C Nicolaj Bjorner – SMT Solvers for Testing , Program Analysis and Verification at Microsoft (part 1)
10:30-10:40	Coffee break
10:40-11:20	Artificial Intelligence Room: A02. Chair: TBA <ul style="list-style-type: none"> • <u>Viorica Rozina Chifu</u>, Ioan Salomie, Ioana Harsa and Marius Gherga. Semantic Web Service Composition Method based on Fluent Calculus • Ion Iancu and Mihaela Colhon. Mamdani FLC with various implications • <u>Cristian Gratie</u> and <u>Adina Magda Florea</u>. Alleviating Urban Traffic Congestion by Means of Adaptive Routing • Ciprian Costa. HypergraphDB Framework for Communication Activities
10:40-12:10	Tutorials on Software Verification and Theorem Proving Room 045C Nicolaj Bjorner – SMT Solvers for Testing , Program Analysis and Verification at Microsoft (part 2)
12:10-14:00	Lunch break
14:00-15:20	DMC Workshop. Room: A02. Chair: TBA <ul style="list-style-type: none"> • Ion Iancu. Approximate reasoning with contrary observation and premise • Mihaela Verona Ghindeanu Colhon. Knowledge Transfer and Path-based Reasoning in Hyper-schemas • Claudiu Ionut Popîrlan. Knowledge Bases Management using Mobile Agents • Nicolae Constantinescu. Authentication hierarchy based on blind signature
14:00-15:30	Tutorials on Software Verification and Theorem Proving Room 045C Andrey Rybalchenko – Automated methods for proving program termination and liveness (part 1)
15:30-15:40	Coffee break
15:40-17:00	NCA Workshop. Room: A02. Chair: TBA <ul style="list-style-type: none"> • <u>Elena Bautu</u>, Andrei Bautu and Henri Luchian. Stock Market Trend Forecasting with GEP Ensembles • Camelia Pinteaa, <u>Camelia Chira</u> and D. Dumitrescu. Results of Ant-Based Models for Solving the Linear Ordering Problem • <u>Andrei Bautu</u> and Henri Luchian. Further Investigations on Using the Tree Bond-based Representation for Ising Spin Glasses • <u>Flavia Zamfirache</u>. Robustness Analysis of Ant-based Scheduling in Heterogeneous Computing Environments
15:40-17:10	Tutorials on Software Verification and Theorem Proving Room 045C Andrey Rybalchenko – Automated methods for proving program termination and liveness (part 2)
17:20	Closing