

	Friday, 26th September			Saturday, 27th September		
08:00						
09:00	Registration (room 045c)			Invited talk: Matthias Hoelzl (room A11)		
09:30	Opening (room A11)					
10:00	Invited talk: Tudor Jebelean, Gabor Kusper (room A11)			Coffee break		
10:30	Coffee break			Data Mining and Natural Language Processing (room A11)	GlobalComp workshop (I) (room 045c)	GridCAD workshop (I) (room A02)
11:00	Automated Reasoning (room A11)	ACSys workshop (I) (room A02)	IMNE workshop (I) (room 045c)			
11:30						
12:00	Lunch			Lunch		
14:00	Invited talk: Charles Chidume (room A11)			Invited talk: Stephen M. Watt (room A11)		
14:30						
15:00	Coffee break			Coffee break		
15:30	Distributed Systems (room A11)	ACSys workshop (II) (room A02)	IMNE workshop (II) (room 045c)	Computer Algebra (room A11)	GlobalComp workshop (II) (room 045c)	GridCAD workshop (II) (room A02)
16:00						
16:30				Coffee break		
17:00	Coffee break			SYNASC Business Meeting (open discussion on the future organization of the symposium) (room 045c)		
17:30	Numerical Algorithms & Mathematical Programming (room A11)					
18:00						
18:30						
19:00	Welcome reception (room 050a)			Conference dinner (Hotel Timisoara)		

	Sunday, 28th September		Monday, 29th September			
08:00						08:00
09:00	Invited talk: Hugo Zbinden (room A11)		Invited talk: Tetsuo Ida (room A11)			09:00
09:30						09:30
10:00	Coffee break		Coffee break			10:00
10:30	Software Engineering (I) (room A11)	GTA-RNS workshop (room A02)	Software Engineering (II) (room A11)	NCA workshop (I) (room A02)	WfPM workshop (I) (room 045c)	10:30
11:00						11:00
11:30						11:30
12:00	Lunch		Lunch			12:00
14:00	Soft Computing and Signal Processing (room A11)	RTES workshop (room A02)	Invited talk Dongming Wang (room A11)			14:00
14:30						14:30
15:00			Coffee break			15:00
15:30			Security and Search- based Algorithms (room A11)	NCA workshop (II) (room A02)	WfPM workshop (II) (room 045c)	15:30
16:00	Trip (Recas wine cellars)					
16:30						16:30
17:00			Closing			17:00
17:30						17:30
18:00						18:00
18:30						18:30
19:00						19:00

INVITED TALKS

Friday, 26th September, 09:50 – 10:40, room A11

Chair: Stefan Maruster

Multi-Domain Logic and its Applications to SAT

Tudor Jebelean and Gabor Kusper

Friday, 26th Setpmeber, 14:00 – 14:50, room A11

Chair: I.A. Rus

A unified treatment of some iterative algorithms in signal processing and image reconstruction

Charles Chidume

Saturday, 27th September, 09:00 – 09:50, room A11

Chair: Enea Nicolae Todoran

Constraints for Decisions with Multiple Objectives

Matthias Hoelzl

Saturday, 27th September, 14:00 – 14:50, room A11

Chair: Dongming Wang

Functional Decomposition of Symbolic and Multivariate Laurent Polynomials

Stephen M. Watt

Sunday, 28th September, 09:00 – 09:50, room A11

Chair: Alin Suciu

Random Numbers for Quantum Key Distribution

Hugo Zbinden

Monday, 29th September, 09:00 – 09:50, room A11

Chair: Stefan Maruster

Algebraic Graph Rewriting in Computational Origami

Tetsuo Ida

Monday, 29th September, 14:00 – 14:50, room A11

Chair: Tudor Jebelean

Triangular Decomposition for Algebraic and Geometric Computing

Dongming Wang

AUTOMATED REASONING

Friday, 26th September, 11:00 – 12:00, room A11

Chair: Tudor Jebelean

Expansions and Equivalence of Queries using Views with Parameters

Victor Felea and Marian Balta

Axiomatization of Credulous Reasoning in Default Logics using Sequent Calculus

Mihaiela Lupea

DISTRIBUTED SYSTEMS

Friday, 26th September, 15:10 – 17:10, room A11

Chair: Dana Petcu

Constrained Content Distribution and Communication Scheduling for Several Restricted Classes of Graphs

Mugurel Ionut Andreica and Nicolae Tapus

Resource Competition and Synchronization in Membranes

Bogdan Aman and Gabriel Ciobanu

Data compression on multisets. Submultisetfree codes

Cosmin Bonchis, Gabriel Ciobanu, Gratiela Ghergu and Cornel Izbasa

Optimal Scheduling of Two Communication Flows on Multiple Disjoint Packet-Type Aware Paths

Mugurel Ionut Andreica and Nicolae Tapus

Coverability Problems for Jumping Petri Nets

Cristian Vidrascu

A (Timed) State-Transition Semantics for Reflective Petri Nets

Lorenzo Capra

NUMERICAL ALGORITHMS & MATHEMATICAL PROGRAMMING

Friday, 26th September, 17:30 – 18:50, room A11

Chair: Octavian Cira

The Numerical Solutions for an Elliptic Control Problem

Stefanescu Razvan and Viorel Arnautu

Analytic approximate periodic solutions based on harmonic analysis

Constantin Bota, Bogdan Caruntu and Marius Babescu

**A local-global approach to the Generalized
Minimum Spanning Tree Problem**

Petrica Claudiu Pop, Corina Pop Sitar, Andrei Horvat and Ioana Zelina

Gauss-Lobatto-Kronrod formulae and adaptive numerical integration

Radu Trimbilas and Maria Gabriela Trimbilas

DATA MINING & NATURAL LANGUAGE PROCESSING

Saturday, 27th September, 10:10 – 11:50, room A11

Chair: Viorel Negru

Lexical Chains Segmentation in Summarization

Doina Tatar, Andreea Diana Mihis and Gabriela Czibula

Supply Chain Risk Management by Mining Business Dependencies

Lucian Hancu

**Building a Textual Entailment system for the RTE3 competition. Application
to a QA system**

Adrian Iftene

**Clustering Heterogeneous Web Data using Clustering by Compression.
Cluster Validity**

Alexandra Cernian, Dorin Carstoiu and Adriana Olteanu

Grammar-based Automatic Extraction of Definitions

Adrian Iftene, Ionut Cristian Pistol and Diana Trandabat

COMPUTER ALGEBRA

Saturday, 27th September, 15:10 – 16:50, room A11

Chair: Dongming Wang

Abstract Matrix Arithmetic

Alan Sexton, Volker Sorge and Stephen Watt

**On Computing Solutions of Linear Diophantine Equations
with One Nonlinear Parameter**

Armin Größlinger and Stefan Schuster

Groebner bases and solutions to Diophantine equations

Mihai Cipu

Complementaries of Greek means with respect to the logarithmic mean

Iulia Costin

A Rewrite Stack Machine for ROC!

Georgiana Caltais, Eugen-Ioan Goriac, Dorel Lucanu and Gheorghe Grigoras

SOFT COMPUTING & SIGNAL PROCESSING

Sunday, 28th September, 14:00 – 15:40, room A11

Chair: Doina Tatar

**Avoiding Segmentation in Multi-digit Numeral String Recognition
by Combining Single and Two-digit Classifiers Trained
without Negative Examples**

Dan Ciresan

A Genetic Algorithm for Utility based Video Proxy-Caching

Claudiu Cobarzan and Cristina Mihaila

**Prüfer number encoding for genetic Bayesian network
structure learning algorithm**

Beata Reiz, Lehel Csató and Dan Dumitrescu

Automatic Assessment of Cardiac Artery Disease using DCAD Module

Vahid Khalilzadeh-Sharghi, Alireza Talebpour, Alireza Kamali Asl and Nastaran Hendijani

**An Algorithm for Estimating the Independent Components
with Improved Convergence Rate**

Constantin Doru and Luminita State

SOFTWARE ENGINEERING

Sunday, 28th September, 10:10 – 11:50, room A11

Chair: Gheorghe Grigoras

iComponent: A Platform-Independent Component Model for Dynamic Execution Environments

Ioan Lazar, Bazil Parv, Simona Motogna, Istvan-Gergely Czibula and Codrut-Lucian Lazar

ContractCML: A Contract Aware Component Modeling Language

Vladiela Petrascu, Dan Chiorean and Dragos Petrascu

Verbalising R2ML rules into SBVR

Oana Nicolae and Gerd Wagner

Clustering based automatic refactorings identification

Istvan-Gergely Czibula and Gabriela Czibula

Concern-Oriented and Ontology-based Design Approach of Software Architectures

Crenguta Bogdan

Monday, 29th September, 10:10 – 11:50, room A11

Chair: Tetsuo Ida

Towards a Reverse Engineering Dataflow Analysis Framework for Java and C++

Petru F. Mihancea

Termination Analysis by Program Inversion

Stefan Andrei

Semantic interpreter for modern communication abstractions in concurrent object-oriented programming

Eneia Nicolae Todoran and Nicolae Gherman

niSiDe: Interactive Tool for Understanding Distributed Software

Dan C. Cosma

SECURITY AND SEARCH-BASED ALGORITHMS

Monday, 19th September, 15:10 – 16:50, room A11

Chair: Dorel Lucanu

A CRT-based Solution to Yao's Millionaires' Problem

Sorin Iftene and Daniel Pasaila

Secrecy for Bounded Security Protocols under Composed Keys and Disequality Tests

Catalin Birjoveanu

Some Structural and Security Properties of the Modular Secret Sharing

Tatsiana Galibus, Gennadii Matveev and Nikolay Shenets

A comparative landscape analysis of fitness functions for search-based testing

Raluca Lefticaru and Florentin Ipate

Semi-automated Wrappers using Rule Trees

Adrian Iasinschi and Mirel Cosulschi

Combining Old-fashioned Computer Go with Monte Carlo Go

Florin Chelaru

IMNE WORKSHOP

Friday, 26th September, 11:00 – 12:00, room 045c

Chair: Charles Chidume

On the convergence of successive approximation in the step method for a system of functional equations.

I.A. Rus

On the omnipresence of fixed point iterative methods

V. Berinde

Start iteration for a family of Chebyshev-Halley-type methods

C.-M. Cira and O. Cira

Friday, 26th September, 15:10 – 17:10, room 045c

Chair: Vasile Berinde

Weak and strong convergence theorems for iterative algorithms

C. Popirlan

Higher order methods on the local convergence of some iterative processes and higher order methods for solving

V. Radu

On the demicontractive mappings

St. Maruster

Friday, 26th September, 11:00 – 12:00, room A02*Chair: Adina Magda Florea***From Formal Specification of Code Mobility to Design
and Implementation: an UML-based Mobile Agent Approach***Amelia Badica and Costin Badica***Using Mobile Agents and Intelligent Data Analysis Techniques
for Climate Environment Modeling, Weather Analysis and Prediction***Radu Ioan Mogo and Liliana Paula Socoll***A hybrid approach to multiplayer game AI with respect to the assessment
of higher level semantic elements***Valentin Raduti***Friday, 26th September, 15:10 – 17:10, room A02***Chair: Costin Badica***Solving the Countdown Problem using Automatic Composition
of Semantic Web Services***A. Mogos and A. M. Florea***DL-AgentRecom – A multi-agent based recommendation system
for scientific documents***H.-E. Popa, V. Negru, D. Pop and I. Muscalagiu***Considerations on Using Ontologies in Complex Systems***V. Jordan and A. Cicortas***Agent based Simulation of Offshore Oil Pollution***Andrei Bautu and Elena Bautu***Saturday, 27th September, 10:10 – 11:50, room 045c***Chair: Matthias Hoelzl***A Theory of Adaptable Contract-based Service Composition***G. Bernardi, M. Bugliesi, D. Macedonio and S. Rossi***Solving Storage Limitations using a Peer-to-Peer Web File System***F. M. Boian and R.F. Boian***A New Method of Deciding on the Expansion
of a LAN Distributed Video Proxy-Cache***C. Cobarzan and A. Mihaila***UML Model Refactoring as Refinement: A Coalgebraic Perspective***S. Meng and L. S. Barbosa***Primal Congestion Control Algorithms for Multimedia Streams***A. Sterca***Saturday, 27th September, 15:10 – 16:50, room 045c***Chair: Florian Boian***Time Slot Groups – A Data Structure for QoS-Constrained Advance
Bandwidth Reservation and Admission Control***M. I. Andreica and N. Tapus***BBUFs: A new lookup mechanism based on IPV6***D. Cojocar***A Modeling Framework for Generating Security Protocol Specifications***B. Genge and P. Haller***Undecidability Results for Finite Interactive Systems***A. Sofronia, A. Popa and G. Stefanescu*

GRIDCAD WORKSHOP

Saturday, 27th September, 10:10 – 11:50, room A02

Chair: Dorian Gorgan

Workflow Management for Symbolic Grid Services

Alexandru Carstea, Georgiana Macariu, Marc Frincu and Dana Petcu

A Distributed Algorithm for Critical Area Detection in Satellite Imagery

Razvan Alecsandrescu, Florin Pop and Valentin Cristea

Design and Performance Evaluation of a Resource Allocation System based on Agreement Services

Michel Hurfin and Jean-Pierre Le Narzul

Designing a Grid-based Training Platform for Earth Observation

Silviu Panica, Dana Petcu, Teodor Stefanut and Dorian Gorgan

Grid Services and Satellite Image Processing for urban and river bed changes assessment

Cristina Gherghina and Eliza Isbasoiu

Saturday, 27th September, 15:10 – 16:50, room A02

Chair: Dana Petcu

Implementing A Brokered Notification System for Grid Middleware

Andrei Mihut and Horia Ciocirlie

Designing a Dynamic Replication Engine for Grid Shared Data Programming

Georgiana Macariu, Dacian Tudor and Vladimir Cretu

Broadcasting clouds masks and snow areas detected in MedioGrid on mobile devices

Ciprian Bortos, Mihaela Ordean and Gheorghe Cosmin Silaghi

Cluster based Modeling and Visualization of Virtual Geographical Space

Victor Bacu, Lucian Muresan and Dorian Gorgan

GTA-RNS WORKSHOP

Sunday, 28th September, 10:10 – 11:50, room A02

Chair: Hugo Zbinden

Practical Issues in Implementing TRNGs in FPGAs based on the Ring Oscillator Sampling Method

Octavian Cret, Alin Suciu and Tamas Gyorfi

Software Random Number Generation based on Race Conditions

Adrian Colesa, Radu Tudoran and Sebastian Banescu

Data Flow Entropy Collector

Alin Suciu, Kinga Marton and Zoltan Antal

Bipolar Junction Effects for High Entropy Data Harvesters

Gabriel Chindris and Marius Muresan

A cryptographic algorithm based on a pseudorandom number generator

Dominic Bucerzan

RTES WORKSHOP

Sunday, 28th September, 14:00 – 15:40, room A02

Chair: Stefan Andrei

Anatomy of Differential Power Analysis for AES

Jude Angelo Ambrose, Naeill Aldon, Aleksandar Ignjatovic and Sri Parameswaran

Towards a Real-Time Scheduling Framework for Data Transfers in Tree Networks

Mugurel Ionut Andreica and Eliana-Dina Tirsa

Optimizing Automotive Cyber-Physical System Specifications with Multi-Event Dependencies

Stefan Andrei and Albert Cheng

Timed and Hybrid Automata in SAL

P. Vijay Suman and Paritosh K. Pandya

Hardware and Software Analysis of a Lynx 5 Robotic Arm

Adhikari, Sandip Man Singh; Agrwal, Aakash; Ale, Deepesh; Bhandhari, Bishnu; Denson, Richard; Deshmukh, Aniket; Guidry, Rick; K.C., Manoj; Patel, Nikunj; Pinney, Mathew; Romero, Rafael; Shrestha, Ashish; Shrestha, Bikram

Monday, 29th September, 10:10 – 11:50, room A02

Chair: Dumitru Dumitrescu

Operating Environment for the Implementation of a Partially Parallel Distributed Architecture using Microcontrollers in the Evolution of P-Systems

S.M. Gomez, A. Gutierrez and S. Alonso

New Algorithm for Application of Evolution Rules based on linear systems

Alberto Arteta, Luis Fernandez and Javier Gil

Modelling Dynamic Time Series with a Change Points based Genetic Approach

E. Bautu, A. Bautu and H. Luchian

Selective Breeding analysed as a Communication Channel: Channel Capacity and a Fundamental Limit on Adaptive Complexity

C. Watkins

Searching Ground States of Ising Spin Glasses with a Tree Bond-based Representation

A. Bautu, E. Bautu and H. Luchian

Using Base Pairing Probabilities for MiRNA Recognition

D. Pasaila, I. Mohorianu and L. Ciortuz

Monday, 29th September, 15:10 – 16:50, room A02

Chairs: Daniela Zaharie and Dumitru Dumitrescu

Stigmergy and Sensitivity in Heterogeneous Agent-based Models

C. Chira, C.-M. Pintea and D. Dumitrescu

Shaping up clusters with PSO

M. Breaban and H. Luchian

Shifting from Radius-Centered Separation to Local Landscape Topology-based Partition into Subpopulations within Crowding Genetic Chromodynamics

R. Stoean, C. Stoean and D. Dumitrescu

Analysis of a Distributed Collaborative Evolutionary Algorithm

A.Gog, C. Chira, D. Zaharie and D. Dumitrescu

An Adaptive Particle Swarm Optimizer with Balanced Explorative and Exploitative Behaviors

K. Suresh, S. Ghosh, D. Kundu, S. Das and A. Abraham

Monday, 29th September, 10:10 – 11:50, room 045c

Chair: Florin Fortis

Decentralized Dynamic Resource Allocation for Workflows in Grid Environments

F. Pop, C. Dobre and V. Cristea

Towards Validating Prediction Systems for Process Understandability: Measuring Process Understability

J. Melcher and D. Seese

Checking Correctness and Compliance of Integrated Process Models

R. Worzberger, T. Kurpick and T. Heer

Visualization and Clustering of Business Process Collections based on Process Metric Values

J. Melche and D. Seese

Monday, 29th September, 15:10 – 16:50, room 045c

Chair: Florin Fortis

An Approach to Modeling and Management of Scientific Workflows

C. Stratan, A. Costan, E. Tirsu and V. Cristea

Towards a Security Architecture for Workflows in Grid

C. Leordeanu and V. Cristea

Analyzing WS-BPEL processes using Reo and Constraint Automata

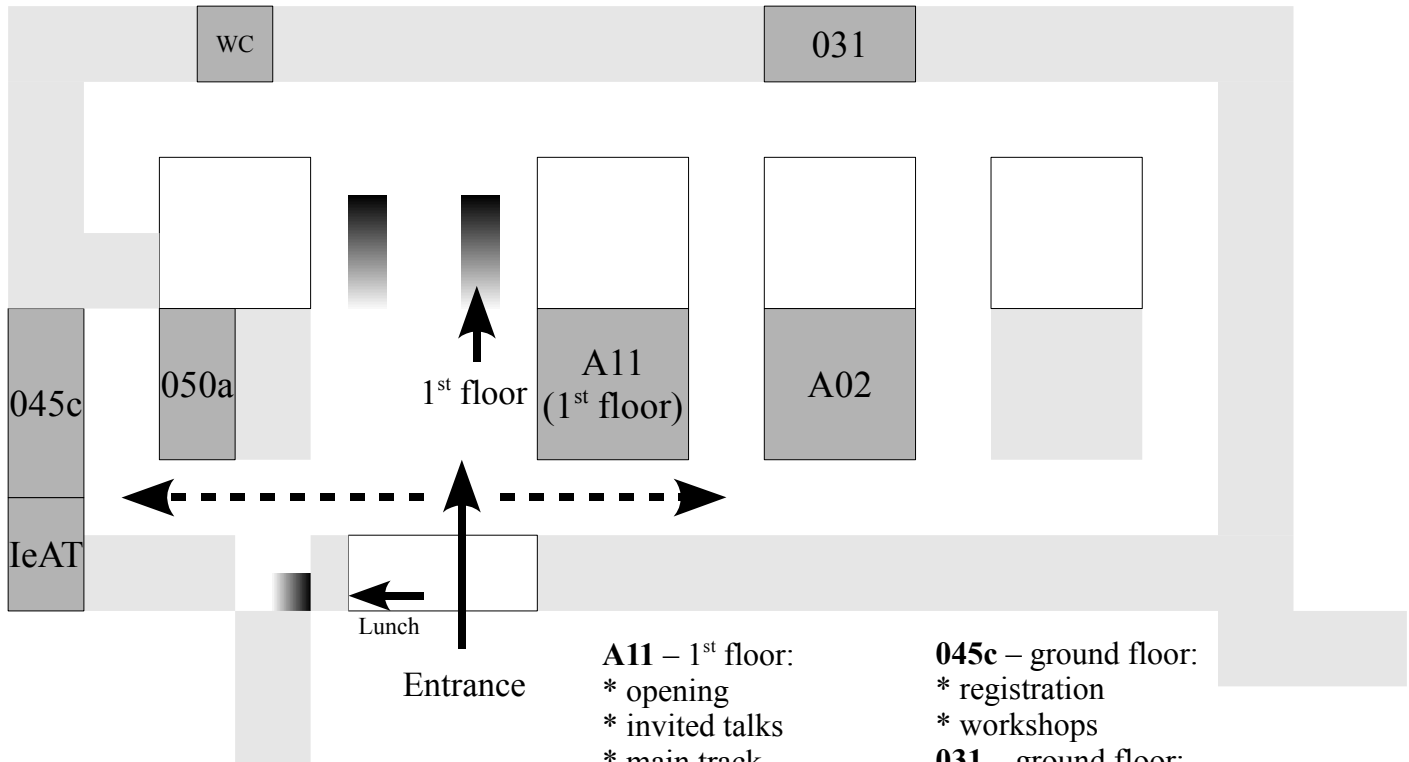
F. Mahdikhani

A Workflow Modelling and Analysis Tool based on Petri Nets

Z. Sbai, R. Ben Ayed and K. Barkaoui

QoS issues in composing Web Services using Reo and Constraint Automata – A case study

F. Mahdikhani, S. Tasharofi, M. Sirjani and M. R. Hashemi



West University of Timisoara

A11 – 1st floor:

- * opening
- * invited talks
- * main track

A02 – ground floor:

- * workshops

IeAT – ground floor:

- * office

045c – ground floor:

- * registration
- * workshops

031 – ground floor:

- * project meetings

050a – ground floor:

- * coffee break
- * internet