

# The 18<sup>th</sup> International Symposium on Symbolic and Numerical Algorithms for Scientific Computing

24<sup>th</sup> – 27<sup>th</sup> September 2016  
Timișoara, Romania

<http://synasc.ro/>

## Organizers



**Department of  
Computer Science**

*West University of Timișoara  
(Timișoara, Romania)*



**Institute e-Austria Timișoara**

*(Timișoara, Romania)*



**Research Institute for  
Symbolic Computation**

*Johannes Kepler University  
(Linz, Austria)*

## Honorary Chairs

**Bruno Buchberger**

*Johannes Kepler University (Austria)*

**Ștefan Mărușter**

*West University of Timișoara (Romania)*

## General Chairs

**Viorel Negru**

*West University of Timișoara (Romania)*

**Dana Petcu**

*West University of Timișoara (Romania)*

## Program Chairs

**James Davenport**

*University of Bath (UK)*

**Daniela Zaharie**

*West University of Timișoara (Romania)*

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*University of Tsukuba (Japan)*

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## Track Chairs

### Symbolic Computation

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**Alin Bostan**

*INRIA (France)*

**Manuel Kauers**

*Johannes Kepler University (Austria)*

### Numerical Computing

**Eva Kaslik**

*West University of Timișoara (Romania)*

**Stefan Takacs**

*Johannes Kepler University (Austria)*

### Logic and Programming

**Nikolaj Björner**

*Microsoft (USA)*

**Laura Kovacs**

*TU Wien (Austria)*

**Tudor Jebelean**

*Johannes Kepler University (Austria)*

### Artificial Intelligence

**Andrei Petrovski**

*Robert Gordon University (UK)*

**Daniela Zaharie**

*West University of Timișoara (Romania)*

### Distributed Computing

**Karoly Bosa**

*Johannes Kepler University (Austria)*

**Marc Frîncu**

*West University of Timișoara (Romania)*

### Advances in the Theory of Computing

**Gabriel Istrate**

*Institute e-Austria Timișoara (Romania)*

**Mircea Marin**

*West University of Timișoara (Romania)*

# Workshops Chairs

## Agents for Complex Systems

**Adina Magda Florea**

*Politehnica University of Bucharest (Romania)*

**Costin Bădică**

*University of Craiova (Romania)*

## Geoinformatics

**Marcel Torok**

*West University of Timișoara (Romania)*

**Cosmin Bonchiș**

*West University of Timișoara (Romania)*

## Iterative Approximation of Fixed Points

**Vasile Berinde**

*North University Center at Baia Mare (Romania)*

**Ioan Rus**

*Babeș-Bolyai University (Romania)*

**Ștefan Mărușter**

*West University of Timișoara (Romania)*

## HPC-ST

**Dana Petcu**

*West University of Timișoara (Romania)*

**Daniel Pop**

*West University of Timișoara (Romania)*

## Management of Resources and Services in Cloud and Sky Computing

**Dana Petcu**

*West University of Timișoara (Romania)*

## Natural Computing and Applications

**Siby Abraham**

*University of Mumbai (India)*

**Catalin Stoean**

*University of Craiova (Romania)*

## SC<sup>2</sup> First International Workshop on Satisfiability Checking and Symbolic Computation

**Erika Ábrahám**

*RWTH Aachen University (Germany)*

**Pascal Fontaine**

*Université de Lorraine (France)*

# Special Sessions and Workshops Chair

**Daniel Pop**

*West University of Timișoara (Romania)*

## Tutorials Chair

**Florin Fortiș**

*West University of Timișoara (Romania)*

## Proceedings Chairs

**James Davenport**

*University of Bath (UK)*

**Daniela Zaharie**

*West University of Timișoara (Romania)*

## Invited Speakers

**Erika Ábrahám**

*RWTH Aachen University (Germany)*

**Qamrul Hasan Ansari**

*Aligarh Muslim University (India)*

**Chris Brown**

*US Naval Academy (USA)*

**Dan Cristea**

*Alexandru Ioan Cuza University (Iași)*

**Tetsuo Ida**

*University of Tsukuba (Japan)*

**Sorin Stratulat**

*University of Lorraine (France)*

**Stephen Watt**

*University of Waterloo (Canada)*

## Tutorial Speakers

**Ralf-Peter Mundani**

*Technical University Munich (Germany)*

**Florin Manaila**

*IBM (Germany)*

## Local Chairs

**Isabela Drămnesc**

*West University of Timișoara (Romania)*

**Silviu Panica**

*Institute e-Austria Timișoara (Romania)*

**Monica Tirea**

*West University of Timișoara (Romania)*

**Mihai Gaiianu**

*West University of Timișoara (Romania)*

# Tracks

## Saturday, 24th September

- Registration ..... (08:00)
- Opening ..... (09:00)  
(chair: James Davenport, room: A11)
- **Invited Talk** ..... (09:20–10:10)  
(chair: James Davenport, room: A11)  
  
Real polynomial constraints : satisfiability checking brings a new perspective  
to symbolic computing  
  
**Chris Brown**
- Break ..... (10:10)
- **Numerical Computing (1)** ..... (10:30–11:50)  
(chair: Eva Kaslik, room: A11)  
  
(10:30) A numerical method for analyzing the stability of bi-parametric biological  
systems  
*Changbo Chen and Wenyuan Wu*  
  
(10:50) Approximate duals of Gabor-like frames based on realizable multi-window  
spline-type constructions  
*Darian Onchis and Simone Zappala*  
  
(11:10) Linking Fourier and PCA methods for image look-up  
*Daniel Lichtblau*  
  
(11:30) Identifiability for gauge regularizations and algorithms for block-sparse  
synthesis in compressive sensing  
*Flavius Turcu, Charles Dossal and Marc Nicodeme*
- Lunch ..... (12:00)
- **Invited Talk** ..... (13:30–14:20)  
(chair: Chris Brown, room: A11)  
  
Symbolic computation techniques in satisfiability checking  
  
**Erika Abraham**
- Break ..... (14:20)

- **Distributed Computing** ..... (14:40–16:00)
  - (chair: Dana Petcu, room: A11)
  - (14:40) Continuation semantics of a language inspired by membrane computing with symport/antiport Interactions  
*Gabriel Ciobanu and Eneia Nicolae Todoran*
  - (15:00) On issues concerning Cloud environments in scope of scalable multi-projection methods  
*Byron Moutafis, Christos Filelis-Papadopoulos, George Gravvanis and John Morrison*
  - (15:20) AUGURY: A time-series based application for the analysis and forecasting of system and network performance metrics  
*Nicolas Gutierrez, Manuela Wiesinger-Widi*
  - (15:40) Tuning logstash garbage collection for high throughput in a monitoring platform  
*Dong-Nguyen Doan and Gabriel Iuhasz*
- **Break** ..... (16:20)
- **Numerical Computing (2)** ..... (16:40–18:00)
  - (chair: Q.A. Ansari, room: A11)
  - (16:40) Parallel experiments with RARE-BLAS  
*Chemseddine Chohra, Philippe Langlois, David Parello*
  - (17:00) Numerical results for the coupling of a simple neutronics diffusion model and a simple hydrodynamics low mach number model without coupling codes  
*Stephane Dellacherie, Erell Jamelot, Olivier Lafitte and Riyaz Mouhamad*
  - (17:20) Convergence acceleration of iterative methods for inverting real matrices using Frobenius norm minimization  
*Ajinkya Borle, Samuel Lomonaco*
  - (17:40) Parallel simulations for fractional-order systems  
*Andrada Băban, Cosmin Bonchiş, Alexandru Fikl and Florin Roşu*
- **Welcome Reception** ..... (18:20)

# Tracks

Sunday, 25th September

■ **Invited Talk** ..... (09:00–09:50)

(chair: Tudor Jebelean, room: A11)

Mechanically certifying formula-based Noetherian Induction Reasoning

**Sorin Stratulat**

■ **Break** ..... (09:50)

■ **Symbolic Computation** ..... (10:10–11:50)

(chair: Erika Abraham, room: A11)

(10:10) Using machine learning to decide when to precondition cylindrical algebraic decomposition with Groebner bases

*Zongyan Huang, Matthew England, James Davenport and Lawrence Paulson*

(10:30) Polynomial GCDs by syzygies

*Eliana Duarte and Daniel Lichtblau*

(10:50) Effective nondeterministic positive definiteness test for unidiagonal integral matrices

*Andrzej Mroz*

(11:10) Parallel integer polynomial multiplication

*Changbo Chen, Svyatoslav Covanov, Farnam Mansouri, Marc Moreno Maza, Ning Xie, Yuzhen Xie*

■ **Lunch** ..... (12:00)

■ **Invited Talk** ..... (13:30–14:20)

(chair: Vasile Berinde, room: A11)

Split type problems in nonlinear analysis

**Qamrul-Hassan Ansari**

■ **Break** ..... (14:20)

■ **Logic and Programming (1)** ..... (14:40–15:40)

(chair: Tudor Jebelean, room: A11)

(14:40) The quest for perfect and compact symmetry breaking for graph problems

*Marijn Heule*

(15:00) Resource bounding for non-preemptive task scheduling on a multiprocessor platform

*Vlad Radulescu, Stefan Andrei and Albert Cheng*

(15:20) Coverability analysis of time basic Petri nets with non-urgent behavior

*Matteo Camilli, Carlo Bellettini, Lorenzo Capra and Mattia Monga*

■ **Break** ..... (15:40)

■ **Logic and Programming (2)** ..... (16:00–17:00)

(chair: Sorin Stratulat, room: A11)

(16:00) A hybrid test generation approach based on extended finite state machines

*Ana Turlea, Florentin Ipate and Raluca Lefticaru*

(16:20) A duality-aware calculus for quantified boolean formulas

*Katalin Fazekas, Martina Seidl and Armin Biere*

(16:40) Venn diagrams for multisets

*Aurelian Radoaca*

■ **Trip and Conference Dinner** ..... (17:15)



# Tracks

## Monday, 26th September

### ■ Invited Talk ..... (08:30–09:20)

(chair: Viorel Negru, room: A11)

Time tracks and time segments. Rethinking the way to look at texts

**Dan Cristea**

### ■ Break ..... (09:20)

### ■ Artificial Intelligence (1) ..... (09:40–12:00)

(chair: Dan Cristea, room: A11)

(09:40) Towards lexicalization of DBpedia ontology with unsupervised learning and semantic role labeling

*Anca Marginean and Eniko Kando*

(10:00) Extracting gamers' opinions from reviews

*Maria-Dorinela Sirbu, Ana Secui, Mihai Dascalu, Scott Crossley, Stefan Ruseti and Stefan Trausan-Matu*

(10:20) Comparing different term weighting schemas for Topic Modeling

*Ciprian-Octavian Truică, Florin Radulescu and Alexandru Boicea*

(10:40) A novel approach for software defect prediction using fuzzy decision trees

*Zsuzsanna Marian, Ioan-Gabriel Mircea, Istvan Gergely Czibula and Gabriela Czibula*

(11:00) Machine learning based approaches for sex identification in bioarchaeology

*Diana-Lucia Miholca, Gabriela Czibula, Ioan-Gabriel Mircea and Istvan Gergely Czibula*

(11:20) Gesture recognition on Kinect time series data using dynamic time warping and hidden Markov models

*Alina-Delia Calin*

(11:40) Malware classification based on dynamic behavior

*George-Beniamin Cabau, Magda Buhu and Ciprian Oprisa*

### ■ Lunch ..... (12:00)

### ■ Invited Talk ..... (13:00–13:50)

(chair: James Davenport, room: A11)

Reflection on Geometric Exercises in Origami

**Tetsuo Ida**

### ■ Invited Talk ..... (13:50–14:40)

(chair: James Davenport, room: A11)

How Can We Build a Global Digital Mathematics Library?

**Stephen Watt**

### ■ Break ..... (14:40)

■ **Advances in the Theory of Computing** ..... (15:00–15:40)

(chair: Gabriel Istrate, room: A11)

(15:00) On complexity of the detection problem for bounded length polymorphic viruses

*Cătălin Lita*

(15:20) Partial finitely generated bi-ideals

*Raivis Bēts and Jānis Buls*

■ **Symbolic Computation** ..... (15:40–16:20)

(chair: Gabriel Istrate, room: A11)

(15:40) Combinatorics of hybrid sets

*Shaoshi Chen, Stephen Watt*

(16:00) Various enhancements of extended Hensel construction for sparse multivariate polynomials

*Tateaki Sasaki and Daiju Inaba*

■ **Break** ..... (16:20)

■ **Artificial Intelligence (2)** ..... (16:40–19:00)

(chair: Daniela Zaharie, room: A11)

(16:40) Parameterized cellular automata in image segmentation

*Laura Diosan, Anca Andreica and Irina Voiculescu*

(17:00) Efficient and robust median-of-means algorithms for location and regression

*Alexander Kogler and Patrick Traxler*

(17:20) Optimizing test input generation for reactive systems with an adaptive Differential Evolution

*Annamária Szenkovits, Noémi Gaskó and Hunor Jakab*

(17:40) A CUDA implementation of the standard Particle Swarm Optimization

*Maruf Hussain, Hiroshi Hattori and Noriyuki Fujimoto*

(18:00) Hybrid immune based method for generating healthy meals for older adults

*Viorica-Rozina Chifu, Ioan Salomie, Laura Petrisor, Emil-Stefan Chifu and Dorin Moldovan*

(18:20) Lowering evolved artificial neural network overfitting through high-probability mutation

*Nicolae-Eugen Croitoru*

(18:40) Handwritten digit recognition using rotations

*Anca Ignat and Bogdan Aciobanitei*

# Tracks

## Tuesday, 27th September

- **Tutorial** ..... (08:30–10:00)  
(chair: Dana Petcu, room: A11)  
(08:30) HPC for Environmental Simulations  
*Ralf-Peter Mundani*
- **Break** ..... (10:00)
- **Tutorial** ..... (10:20–11:50)  
(chair: Daniel Pop, room: A11)  
(10:20) Preservation of cultural heritage and textual content processing  
*Dan Cristea*
- **Lunch** ..... (12:00)
- **Artificial Intelligence (3)** ..... (13:00–15:00)  
(chair: Irina Voiculescu, room: A11)  
(13:00) Detecting malicious URLs. A semi-supervised machine learning system approach.  
*Dan Anton, Dragos Gavrilut, Alexandru Baetu and Adrian Popescu*  
(13:20) Identifying DGA-based botnets using network anomaly detection  
*Dragos Gavrilut, George Popoiu and Mihai-Razvan Benchea*  
(13:40) Irrelevance in incomplete fuzzy arithmetic  
*Laura Franzoi*  
(14:00) Levenberg-Marquardt learning algorithm for quaternion-valued neural networks  
*Călin-Adrian Popa*  
(14:20) Behavioral trading system - detecting crisis, risk and stability in emerging financial markets  
*Monica Tirea and Viorel Negru*  
(14:40) Parallel heuristics for systems of equations preconditioning  
*Liviu-Octavian Mafteiu-Scai and Calin-Alexandru Cornigeanu*
- **Break** ..... (15:00)
- **Industrial Presentation** ..... (15:10–16:00)  
(chair: Viorel Negru, room: A11)  
Deep Learning with IBM OpenPower and NVIDIA Tesla P100 (Pascal) GPU  
**Florin Mănăilă**
- **Closing** ..... (16:00)  
(chair: Viorel Negru, room: A11)

# Workshop and tutorials

**Saturday, 24th September**

■ **IAFP Workshop (1)** ..... (10:30–12:45)

(chair: Stefan Maruster, room: 045c)

(10:30) Fixed point theorem for non-self mappings in strictly convex fuzzy metric spaces

*Rale Nikolić, Sinisa Jesic and Natasa Cirovic*

(10:45) A Maia type fixed point theorem on product metric spaces

*Margareta-Eliza Balazs*

(11:00) Iterative approximations of asymptotically aemicontractive mappings defined as admissible perturbations

*Cristina Ticala*

(11:15) The continuity of almost local contractions

*Monika Zakany*

(11:30) Fixed point approximation for Suzuki generalized nonexpansive mappings using Picard-S iteration process

*Muhammad-Arshid Zia*

(11:30) Fixed point theorems for a new multivalued generalized hybrid mappings in CAT(k) spaces

*Emirhan Hacioğlu and Vatan Karakaya*

(11:45) On fixed point results for a new Kirk type iteration method

*Yunus Atalan and Vatan Karakaya*

(12:00) Some fixed point results for continuous functions on an arbitrary intervals

*Kadri Dogan and Faik Gursoy*

(12:15) Some collage theorems and data dependence result for multivalued WR operators

*Faik Gursoy*

■ **SCSC Workshop (1)** ..... (10:30–12:00)

(chair: Chris Brown, room: A01)

(10:30) Experience with heuristics, benchmarks & standards for cylindrical algebraic decomposition

*Matthew England and James Davenport*

(11:00) CoCoA and CoCoALib: fast prototyping and flexible C++ library for computations in commutative algebra

*John Abbott and Anna Maria Bigatti*

(11:30) Computing boolean border bases

*Jan Horacek, Martin Kreuzer and Ange-Salome Messeng Ekossono*

■ **Lunch** ..... (12:00)

■ **IAFP Workshop (2)** ..... (14:40–16:20)

(chair: Vasile Berinde, room: 045c)

(14:40) Laudatio: In honor of 80th Anniversary of Professor Ioan A. Rus

*Adrian Petrusel, Stefan Maruster, Mihail Megan*

(15:00) Relevant classes of weakly Picard operators

*Ioan Rus*

(15:20) Coupled coincidence points for single-valued operators in complete metric spaces

*Adrian Petrusel*

(15:40) Contributions to the fixed point theory of diagonal operators

*Adrian Petrusel, Ioan A. Rus and Marcel Serban*

(16:00) Coupled fixed point theorems in metric spaces endowed with a reflexive relation

*Melânia-Iulia Dobrican*

■ **SCSC Workshop (2)** ..... (14:40–16:10)

(chair: Matthew England, room: A01)

(14:40) A CEGAR-based approach for proving invariant properties of Transition Systems on Non-Linear Real Arithmetic

*Alessandro Cimatti, Ahmed Irfan, Alberto Griggio, Marco Roveri and Roberto Sebastiani*

(15:10) MathCheck2: A SAT+CAS verifier for combinatorial conjectures

*Curtis Bright, Vijay Ganesh, Albert Heinle, Ilias Kotsireas, Saeed Nejati and Krzysztof Czarnecki*

(15:40) Accurate dead code detection in embedded C code by arithmetic constraint solving

*Felix Neubauer, Karsten Scheibler, Bernd Becker, Ahmed Mahdi, Martin Fränzle, Tino Teige, Tom Bienmüller and Detlef Fehrer*

■ **Break** ..... (16:20)

■ **ACSys Workshop** ..... (16:40–17:40)

(chair: Catalin Stoean, room: 045c)

(16:40) Automated negotiation framework for the transport logistics service

*Lucian Luncean, Andrei Mocanu and Alex Becheru*

(17:00) Towards a multi-agent system for medical records processing and knowledge discovery

*Todor Ivascu, Adriana Dinis and Viorel Negru*

(17:20) Multi-agent aspect level sentiment analysis in CRM systems

*Doru Rotovei*

■ **SCSC Workshop (3)** ..... (16:40–18:10)

(chair: Thomas Sturm, room: A01)

(16:40) Satisfaction meets practice and confidence

*Tom Bienmüller and Tino Teige*

(17:10) What does “without loss of generality” mean (and how do we detect it)

*James Davenport*

(17:40) Algebraic techniques in software verification: challenges and opportunities

*Martin Brain, Daniel Kroening and Ryan McCleary*

# Workshop and tutorials

**Sunday, 25th September**

- **IAFP Workshop (3)** ..... (10:10–11:50)  
(chair: Adrian Petrusel, room: 045c)
  - (10:10) Estimating local radius of convergence  
*Stefan Maruster*
  - (10:30) About Karamata mean value theorem, some consequences and some stability results  
*Dan Marinescu, Mihai Monea*
  - (10:50) Probabilistic stability for Baker's functional equation  
*Dorel Mihet and Claudia Zaharia*
  - (11:10) A Comparative study of bandwidth and average bandwidth of matrices and their influence in solving systems of equations  
*Liviu-Octavian Mafteiu-Scai and Calin-Alexandru Cornigeanu*
  - (11:30) Approximating Fixed Points of Nonself Contractive Type Mappings in Banach Spaces Endowed with a Graph  
*Laszlo Balog, Vasile Berinde and Madalina Pacurar*
  
- **Lunch** ..... (12:00)
  
- **HPC-ST Workshop** ..... (14:40–15:40)  
(chair: Dana Petcu, room: 045c)
  - (14:40) A hybrid CPU/GPU approach for the parallel algebraic recursive multilevel solver pARMS  
*Aygul Jamal, Marc Baboulin, Amal Khabou and Masha Sosonkina*
  - (15:00) Analysis of OpenCL work-group reduce for Intel GPUs  
*Grigore Lupescu, Emil Slusanschi and Nicolae Tapus*
  - (15:20) A parallel heuristic for bandwidth reduction based on matrix geometry  
*Liviu-Octavian Mafteiu-Scai and Calin-Alexandru Cornigeanu*
  
- **MICAS Workshop** ..... (15:40–16:00)  
(chair: Dana Petcu, room: 045c)
  - (15:40) A combined analytical modeling machine learning approach for performance prediction of MapReduce jobs in Hadoop clusters  
*Ehsan Ataie, Eugenio Gianniti, Danilo Ardagna and Ali Movaghgar*

# Workshop and tutorials

## Monday, 26th September

- **NCA Workshop** ..... (15:00–16:00)  
(chair: Flavia Micota, room: 032)
  - (15:00) Censoring sensitive data from images  
*Stefan Postavaru and Ionut Mihaita Plesea*
  - (15:20) In search of the optimal set of indicators when classifying histopathological images  
*Catalin Stoean*
  - (15:40) Use of genetic algorithms in numerical weather prediction  
*Oana Liviu, Spataru Adrian*
- **Tutorial** ..... (15:00–16:20)  
(chair: Dana Petcu, room: 045c)
  - (15:00) Tutorial on Monitoring of Big Data Applications  
*Daniel Pop, Gabriel Iuhasz*
- **Project Presentation** ..... (16:40–17:40)  
(chair: Florin Fortis, room: 045c)
  - CloudLightning - HPC Cloud Services  
*Ioana Drăgan, Marian Neagul*
- **MICAS Workshop** ..... (17:40–18:20)  
(chair: Florin Fortis, room: 045c)
  - (17:40) Towards building a uniform Cloud database representation for data interchange  
*Alina Andreica*



# Workshop and tutorials

**Tuesday, 27th September**

■ **GeoInfo Workshop (1)** ..... (10:20–12:20)

(chair: Marcel Torok-Oance, room: 045c)

(10:20) The SnowBall Project - Remote sensing, model and in-situ data fusion for snowpack parameters and related hazards in a climate change perspective

*Gheorghe Stăncălie*

(10:40) Automatic detection and segmentation of avalanches in remote sensing images using deep convolutional neural networks

*Arnt Salberg, Jarle Bauck Hamar, Florina Ardelean, Thomas Johansen and Michael Kampffmeyer*

(11:00) Single and multi-sensor snow wetness mapping by Sentinel-1 and Sentinel-3 data

*Rune Solberg, Øystein Rudjord, Øivind Due Trier, Gheorghe Stancalie, Andrei Diamandi and Anisoara Irimescu*

(11:20) Some Considerations on using Copernicus Sentinel satellite data for characterizing the snow cover in the Romanian mountains

*Ion Nedelcu, Anisoara Irimescu, Andrei Diamandi, Denis Mihailescu, Vasile Craciunescu, Gheorghe Stancalie and Radu Constantin Gogu*

(11:40) Snow water equivalent estimation using a data fusion approach

*Marius Matreata and Simona Matreata*

(12:00) High resolution temperature and precipitation under present and future climate scenarios

*Alexandru Dumitrescu, Roxana Bojariu, Sorin Ionut Dascalu, Madalina Gothard, Marius, Victor Birsan, Roxana Cica, Liliana Velea, Gheorghe Stancalie and Anisoara Irimescu*

■ **Lunch** ..... (12:20)

■ **GeoInfo Workshop (2)** ..... (13:00–15:00)

(chair: Gheorghe Stăncălie, room: 045c)

- (13:00) MODIS-based, mapping and analysis platform for flood affected areas. Case study: 2006 Danube floods

*Vasile Craciunescu, Gheorghe Stancalie and Anisoara Irimescu*

- (13:20) Assessment of SMOS and SMAP soil moisture products over Romania with in-situ data

*Andrei Diamandi, Elena Mateescu, Gheorghe Stancalie, Oana Nicola, Anisoara Irimescu, Denis Mihailescu, Vasile Craciunescu, Luca Eduard, Ionut Sandric and Daniela Saizu*

- (13:40) Snow avalanche hazard assessment in Făgăraș Mountains, Southern Carpathians

*Marcel Török-Oance, Anișoara Irimescu, Narcisa Miliian, Andrei Diamandi, Florina Ardelean and Mircea Voiculescu*

- (14:00) Numerical simulation of documented snow avalanche events in Făgăraș Mountains

*Florina Ardelean, Marcel Török-Oance, Arnt-Børre Salberg, Mircea Voiculescu, Narcisa Miliian and Anișoara Irimescu*

- (14:20) Using OBIA for delineating eligible grassland parcels for agricultural subsidies in L.P.I.S. (Land Parcel Identification System)

*Andra Moldovan and Marcel Torok-Oance*

- (14:40) Using OBIA for delineating management units in forest planning projects. Case study: National Park Cozia

*Tiberiu Banu and Marcel Torok-Oance*

## Live status on the web and mobile

The following QRCode contains the URL `http://m.synasc.ro/` for our web application with live status about the current and upcoming presentations and other events.



## Internet access

### Wireless access

Wireless access is available inside the premises of the university, by choosing the network named SYNASC-WiFi. The wireless network is encrypted using WPA/WPA2. The access passphrase is nifojuvaleda (that is nifo juva leda without spaces).



Alternatively **eduroam** is available — provided that it is already properly configured on your device — it should work by default without any further configuration. For additional details please consult the following links: <http://eduroam.uvt.ro/> or <https://www.eduroam.org/>.

### Security information

Unsecured SMTP (port 25) is disabled. Instead SMTP over SSL (port 465) can be used. POP3, IMAP for email retrieval can be used. And of course HTTP/HTTPS, FTP and SSH are available.

For more informations and questions please contact the support staff.

# City of Timișoara

## Highlights

The first record of the city of Timișoara, built on the site of an ancient Roman fortress called Castrum Regium Themes, dates back to 1212. Over the years, Timișoara, the largest city in western Romania, has been influenced by many cultures. The Romans used it as an important crossroads fortress until the Tatars destroyed it in the 13th century. Conquered by Turkish armies in 1552, Timișoara remained under their protection until 1718 when the region of Banat came under Austrian rule for two centuries. Timișoara later became a vital medieval commercial and manufacturing town. Turks, Austrians, Germans and Serbs all left their mark and their influence can be seen in neighborhoods throughout the city even today.

The charm of this city, settled on the northern bank of the Bega River, lies in its distinct architectural character and vibrant cultural life. Frequently referred to as “Little Vienna”, Timișoara is home to year-round musical and theatrical performances, art galleries, museums and a buzzing nightlife. A progressive, cosmopolitan place, Timișoara was the first city in Europe and second in the world after New York, to use electricity to illuminate its public streets.

Thanks to a Mediterranean climate, life is best observed outdoors, in the many public squares and lush green retreats. Timișoara is easy to explore on foot. If you get tired, a tram will be along in a moment; the system is fast, frequent and efficient.

Timișoara abounds with churches of several denominations, a Jewish quarter, an elegant baroque square and a pedestrian-only downtown area. Some of the monuments in the heart of the city afford panoramic views, while the many parks in this “city of flowers” provide an idyllic spot to take a break from sightseeing.

Interesting facts: Timișoara was the first European city to introduce horse-drawn trams (in 1869) and electrical street lighting (in 1889); Timișoara was built on a swamp; the Metropolitan Cathedral has 5000 oaks supports underneath it; Johnny Weissmuller, Hollywood’s original Tarzan, was born here.

(Information from <http://www.romaniatourism.com/timisoara.html>)

## Public transportation

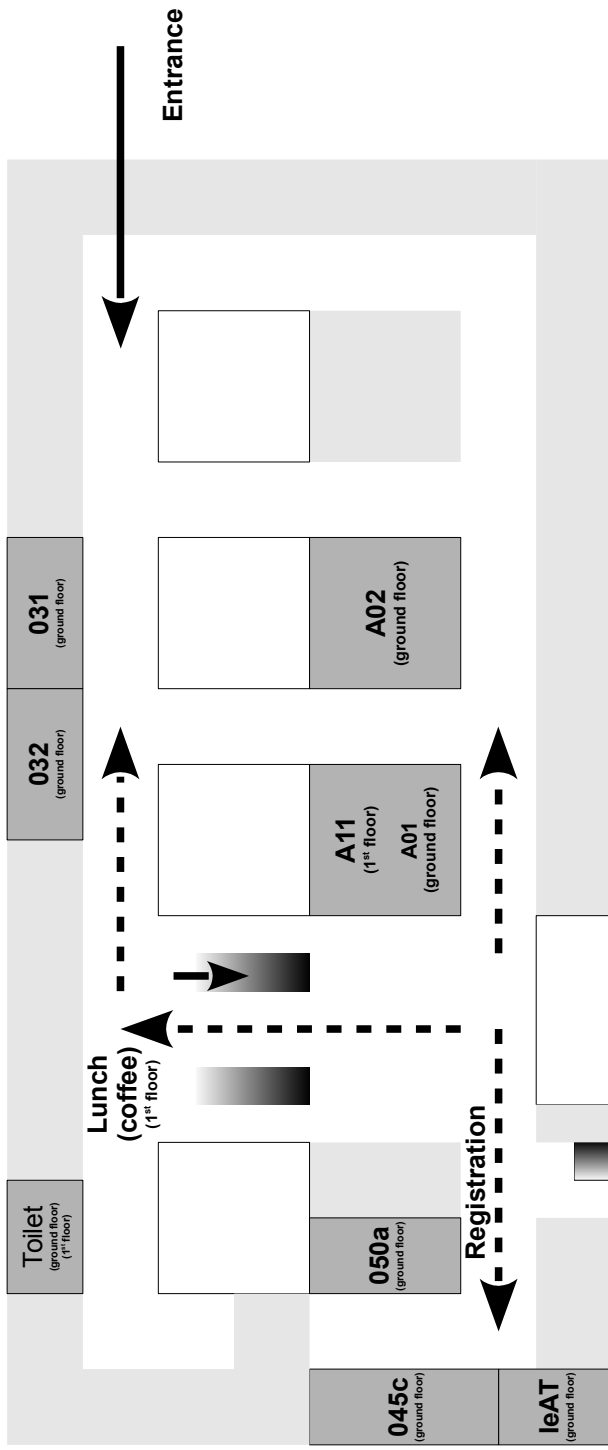
Several bus (“autobuz”), tram (“tramvai”) and trolleybus (“troilebuz”) routes connect Timișoara’s main areas and tourist attractions. The public transportation system runs between 4:45am and 11:15pm. Paper tickets must be purchased before boarding at kiosks near the station, and validated once boarded at the ticket-stamping machine in front of the vehicle. Tickets are interchangeable for all three forms of transport with the exception of express buses, which can be recognized by an **E** prefixing their number.

Taxi companies: City Taxi (+40 256) 949; Grup Taxi (+40 256) 946; Radio Taxi (+40 256) 940; Tudo Taxi (+40 256) 945.

## Useful phone numbers

Organizers: Viorel Negru (+40) 755 240 164; Daniela Zaharie (+40) 729 639 576; Isabela Drămnesc (+40) 723 572 401; Monica Tirea (+40) 766 102 375.

Emergencies (police, hospital, fire station): 112.



- **A11** – 1<sup>st</sup> floor:
  - invited talks
  - tracks / workshops
  - opening
- **A01** – ground floor:
  - workshops
  - project meetings
- **A02** – ground floor:
  - backup
- **045c** – ground floor:
  - workshops
  - registration
- **031, 032** – ground floor:
  - workshops
  - internet
- **050a** – ground floor:
  - internet

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