

**13th Serbian Mathematical Congress**  
**Vrnjačka banja, May 22–25, 2014**

## **Conference Schedule**

### **Field 6: Theoretical Computer Sciences, Computer Sciences**

#### **May 22, 2014**

- 15:00–17:00    **Plenary lectures**
- 17:00–17:30    Cofee break
- 17:30–19:20    Field 6 – Chairman: Marko Petković
- 17:30–17:50    Gordana Rakić, Miloš Savić, Zoran Budimac, Mirjana Ivanović  
*Toward The Formalization of Software Measurement by Involving Network Theory*
- 17:50–18:10    Miloš Savić, Mirjana Ivanović, Miloš Radovanović  
*The construction of co-authorship networks supported by author name analysis*
- 18:10–18:30    Branimir Todorovic, Dejan Mancev  
*Adaptive Clustering of Gaussian Mixture components in Nonlinear Bayesian Estimation of Recurrent Neural Networks*
- 18:30–18:50    Svetozar Rancic  
*A new efficient algorithm for finding  $k$  shortest simple paths in undirected graphs*
- 18:50–19:10    Marko Petković  
*Construction and verification of the spherical coverage by hypercaps*
- 19:10–19:30    Dušan Tošić, Ana Zeković  
*Representation of computations in Knot theory by using XML technologies*

## May 23, 2014

- 09:00–11:00 **Plenary lectures**
- 11:00–11:30 Coffee break
- 11:30–13:30 Field 6 – Chairman: Predrag Krtolica
- 11:30–12:00 Heiko Vogler  
*Syntax-directed models for statistical machine translation*
- 12:00–12:30 David Pokrajac, Andrew Maidment, Marko Petković, Predrag Bakić  
*Mathematical Issues in Software Breast Phantom Simulation*
- 12:30–12:50 David Pokrajac, Predrag Bakić, Andrew Maidment, Shane Jensen, Xiquan Shi, Feiyu Chen  
*Partial volume simulation in software breast phantoms*
- 12:50–13:10 Marko Milosevic  
*Web GRAPH - an online graph filtering system*
- 13:10–13:30 Marjan Kuchaki Rafsanjani, E Eskandari, A Borumand Saeid  
*Genetic Algorithm and Local Search Hybridization to Solve Traveling Salesman Problem*
- 13:30–15:00 Lunch break
- 15:00–17:00 Field 6 – Chairman: Heiko Vogler
- 15:00–15:20 Ivana Micić, Jelena Ignjatović, Miroslav Ćirić  
*Algorithms for computing the greatest simulations and bisimulations for fuzzy automata*
- 15:20–15:40 Zorana Jančić, Ivana Micić, Jelena Ignjatović, Miroslav Ćirić  
*Algorithms for determinization of fuzzy and weighted automata*
- 15:40–16:00 Ivan Stanković, Jelena Ignjatović, Miroslav Ćirić  
*Application of relation equations in data analysis*
- 16:00–16:20 Marjan Milanović, Miroslav Ćirić, Jelena Ignjatović, Aleksandar Stamenković  
*State reduction for fuzzy automata with outputs*
- 16:20–16:40 Aleksandar Stamenković  
*Rank of fuzzy matrices. Applications in state reduction of fuzzy automata*
- 16:40–17:00 Milan Bašić  
*Interconnection networks with recursive structure*