



# BIOMA 2012

*The 5<sup>th</sup> International Conference on  
Bioinspired Optimization Methods and their Applications*  
24 – 25 May 2012, Bohinj, Slovenia

## CONFERENCE PROGRAM

### **Thursday, 24 May 2012**

registration, 08:30-08:50

conference opening, 08:50-09:00

**invited talk I**, 09:00-10:00 (Chaired by B. Filipič)

1. Tuning Evolutionary Algorithms and Tuning Evolutionary Algorithm Controllers  
*G. Karafotias, S. K. Smit, A. E. Eiben*

coffee break, 10:00-10:20

**session A**, 10:20-12:00 (Chaired by D. W. Corne)

1. Revolutionary Algorithms  
*R. Hochreiter, C. Waldhauser*
2. Towards Social Networks Model  
*V. Vukašinović, J. Šilc, R. Škrekovski*
3. An Ant Colony Algorithm for Recycling Waste Collection  
*R. T. Evering, M. B. Reed*
4. Shrinking Three Stage Optimal Memetic Exploration  
*I. Poikolainen, G. Iacca, F. Neri, E. Mininno, M. Weber*
5. Memetic Firefly Algorithm for Combinatorial Optimization  
*I. Fister Jr., I. Fister, J. Brest, X.-S. Yang*

conference lunch, 12:00-13:30

**session B**, 13:30-15:10 (Chaired by G. Martinović)

1. GPU Based Parallel Genetic Algorithm Library  
*P. Cserti, S. Szondi, B. Gaál, G. Kozmann, I. Vassányi*
2. A Diversity-Guided Distributed Evolutionary Algorithm  
*M. Hijaze, D. W. Corne*
3. Analysis of VEGA and SPEA2 Using Exploration and Exploitation Measures  
*S.-H. Liu, M. Črepinšek, M. Mernik*
4. Multi-Agent Collaborative Search with Tchebycheff Decomposition and Monotonic Basin Hopping Steps  
*F. Zuiani, M. Vasile*
5. Bi-Objective Resource Allocation in Spatially Distributed Communication Networks  
*B. Filipič, R. Vesänen, E. Laitinen*

coffee break, 15:10-15:30

**session C**, 15:30-16:50 (Chaired by X.-S. Yang)

1. Optimization in Organizations: Things We Tend to Forget  
*U. Bole, G. Papa*
2. Min-Degree Constrained MST Problem: An Evolutionary Approach  
*A. M. de Almeida, R. Salgueiro, O. Oliveira*
3. NMPC and Genetic Algorithm Based Approach for Trajectory Tracking of UAVs  
*L. De Filippis, G. Guglieri*
4. Benchmarking of the Asymptotic Genetic Algorithm for the Noiseless Function Testbed  
*P. Galushin, E. Semenkin*

conference excursion, 17:00-20:00

conference dinner, 20:00-22:00



# BIOMA 2012

*The 5<sup>th</sup> International Conference on  
Bioinspired Optimization Methods and their Applications*  
24 – 25 May 2012, Bohinj, Slovenia

## CONFERENCE PROGRAM

### **Friday, 25 May 2012**

**invited talk II**, 09:00-10:00 (Chaired by J. Šilc)

1. Metaheuristic Optimization with Applications: Demonstration Via Bat Algorithm  
*X.-S. Yang*

*coffee break, 10:00-10:20*

**session D**, 10:20-12:00 (Chaired by A. E. Eiben)

1. Artificial Neural Networks for Detection Cover and Stego Images  
*Z. Oplatková, J. Hološka, R. Šenkeřík*
2. Artificial Neural Networks Design with Self-Configuring Genetic Programming Algorithm  
*E. Semenkin, M. Semenkina*
3. Parameter Control of EAs Using Exploration and Exploitation Measures: Preliminary Results  
*S.-H. Liu, M. Črepinšek, M. Mernik, A. Cardenas*
4. Exploring the Parameter Space of a Search Algorithm  
*K. Tashkova, J. Šilc, P. Korošec*
5. Arabic Text Categorization via Binary Particle Swarm Optimization and Support Vector Machines  
*H. K. Chantar, D. W. Corne*

*conference lunch, 12:00-13:30*

**session E**, 13:30-15:10 (Chaired by E. Semenkin)

1. A Graph-Based Evolutionary Algorithm: Cell Based Genetic Programming  
*M. Corn, G. Černe, M. Atanasijević-Kunc*
2. Solving Variational and Cauchy Problems with Genetic Programming Algorithms  
*S. Burakov, E. Semenkin*
3. Impact of NNA Implementation on GA Performance for the TSP  
*G. Martinović, D. Bajer*
4. EFIT-V - Interactive Evolutionary Generation of Facial Composites for Criminal Investigations  
*C. J. Solomon, S. J. Gibson*
5. Maximize Profit While Minimizing Risk  
*J. M. Pinto, R. F. Neves*

*coffee break, 15:10-15:30*

**session F**, 15:30-16:50 (Chaired by G. Papa)

1. An Investigation on the Chaos Driven Differential Evolution: An Initial Study  
*R. Šenkeřík, D. Davendra, I. Zelinka, M. Pluháček, Z. Oplatková*
2. Handling Non-Separability in Three Stage Optimal Memetic Exploration  
*I. Poikolainen, F. Caraffini, F. Neri, M. Weber*
3. Using Aggregation to Improve the Scheduling of Flexible Energy Offers  
*T. Tušar, L. Šikšnys, T. Bach Pedersen, E. Dovgan, B. Filipič*
4. A Multidirectional Modified Physarum Solver for Optimal Discrete Decision Making  
*L. Masi, M. Vasile*