

Thursday, December 5	
9:00 – 9:50	XIN YAO: <i>Evolutionary Algorithm Portfolios for Numerical Optimisation</i> – Invited Talk
9:50 – 10:05	Break
10:05 – 11:20	YARA KHALUF, MAURO BIRATTARI, FRANZ RAMMIG: <i>Probabilistic Analysis of Long-term Swarm Performance under Spatial Interferences</i>
11:20 – 11:50	VÍCTOR BERROCAL-PLAZA, MIGUEL ÁNGEL VEGARODRÍGUEZ, JUAN M. SANCHEZ-PÉREZ: <i>A New Version of the Multiobjective Artificial Bee Colony Algorithm for Optimizing the Location Areas Planning in a Realistic Network</i>
11:50 – 13:05	TAKUYA NISHIDA, TAKA AKI MIZUKI, HIDEAKI SONE: <i>Securely Computing the Three-Input Majority Function with Eight Cards</i>
13:05	Coffee Break
	YAHYA O. MOHAMED ELHADJ, MANSOUR ALGHAMDI, MOHAMED ALKANHAL: <i>Approach for Recognizing Allophonic Sounds of the Classical Arabic Based on Quran Recitations</i>
	ANTONIO MARTÍ CAMPOY, FRANCISCO RODRÍGUEZ-BALLESTER, RAFAEL ORS CAROT: <i>Using Dynamic, Full Cache Locking and Genetic Algorithms for Cache Size Minimization in Multitasking, Preemptive, Real-time Systems</i>
	LINGLING JIN, IAN MCQUILLAN: <i>Computational Modelling of the Interruptional Activities between Transposable Elements</i>
	Closing

We acknowledge the support by:



2nd International Conference on the Theory and Practice of Natural Computing

TPNC 2013, December 3 - 5, 2013
Cáceres, Spain

Program



Tuesday, December 3	
9:00 – 9:50	Registration
9:50 – 10:00	Opening
10:00 – 10:50	EUGEN CZEIZLER, PEKKA ORPONEN: <i>Yield optimization strategies for (DNA) staged Tile Assembly Systems</i>
10:50 – 11:20	VINAY KUMAR GAUTAM, PAULINE C. HADDOW, MARTIN KUIPER: <i>Reliable Self-assembly by Self-triggered Activation of Enveloped DNA Tiles</i>
11:20 – 13:00	Coffee Break
	MIROSLAW KORDOS, ANDRZEJ RUSIECKI: <i>Improving MLP Neural Network Performance by Noise Reduction</i>
	OMAR K. SHOUKRY, MAGDA B. FAYEK: <i>Evolutionary Scheduling for Mobile Content Pre-fetching</i>
	MARIUS NAGY, NAYA NAGY: <i>General Quantum Encryption Scheme based on Quantum Memory</i>
	MARIUS NAGY, NAYA NAGY: <i>Quantum Secret Communication without an Encryption Key</i>
13:00 – 15:00	Lunch
15:00 – 15:50	OLIVER RICE, ROBERT SMITH, RICKARD NYMAN: <i>GPU Multi-Objective Genetic Algorithm: Asynchronously Parallel Distributed NSGA-II</i>
15:50 – 16:05	ANNE JEANNIN-GIRARDON, PASCAL BALLEST, VINCENT RODIN: <i>An Efficient Biomechanical Cell Model to Simulate Large Multi-cellular Tissue Morphogenesis: Application to Cell Sorting Simulation on GPU</i>
16:05 – 16:55	Break
	RISTO MIKKULAINEN: <i>Evolving Neural Networks: Approaches</i> – Invited Tutorial I

Wednesday, December 4

9:00 – 10:40	RIM HENTECH, ILYES JENHANI, ZIED FLOUEDI: <i>Learning from Uncertain Data Using Possibilistic Artificial Immune Recognition Systems</i>
	MASSIMILIANO D'ANGELO, BEREND WEEL, AGOSTON E. EIBEN: <i>Online Gait Learning for Modular Robots with Arbitrary Shapes and Sizes</i>
	JOSÉ M. LANZA-GUTÉRREZ, JUAN A. GÓMEZ-PULIDO, MIGUEL ÁNGEL VEGA-RODRÍGUEZ: <i>A Trajectory Algorithm to Solve the Relay Node Placement Problem in Wireless Sensor Networks</i>
	RAFAEL NOGUERAS, CARLOS COTTA, CARLOS M. FERNANDES, JUAN LUIS JIMÉNEZ LAREDO, JUAN JULIÁN MERLO, AGOSTINHO C. ROSA: <i>An Analysis of a Selecto-Lamarckian Model of Multinematic Algorithms with Dynamic Self-Organized Topology</i>
10:40 – 11:10	Coffee Break
11:10 – 11:50	Poster Session I (see next page)
11:50 – 12:05	Break
12:05 – 12:55	RISTO MIKKULAINEN: <i>Evolving Neural Networks: Applications – Invited Tutorial II</i>
12:55 – 14:50	Lunch
14:50 – 15:30	Poster Session II (see next page)
15:40	Visit to the City



Plaza Mayor

Wednesday, December 4 – Poster Session I

11:10 – 11:50	ORLANDO DURAN: <i>A Hybrid Solution to the Multi-Echelon Inventory Problem of Repairable Spare Parts Using Discrete Swarm Intelligence and a Local Search Procedure</i>
	JESÚS TORRECILLA-PINERO, FERNANDO TORRECILLA-PINERO, JUAN A. GÓMEZ-PULIDO, CARLOS URUEÑA-FERNÁNDEZ: <i>A Novel Way to Optimize Cantilever Walls by Means of Natural Computing and Multiobjective Optimization</i>
	HECTOR ZENIL: <i>Complexity and Algorithmic Probability of Animal Behaviour from Cognition to Communication</i>
	CRISTINA MARTÍNEZ-RAMÍREZ, ALBERTO BESANA: <i>Models for the Distribution of Letters in Random Generated Words</i>

Wednesday, December 4 – Poster Session II

14:50 – 15:30	RAÚL DOMÍNGUEZ, TIM KÖHLER, CHRISTIAN RAUCH, ELMAR BERGHÖFER, FRANK KIRCHNER: <i>Autonomous Robot Long Distance Traversing by a Robust Nature-Inspired Behaviour Control Model Using Sensor Feedback Expectations</i>
	KAZUNARI OZASA, JEESOO LEE, SIMON SONG, MASAHIKO HARA, MIZUO MAEDA: <i>Introduction of Artificial Pheromone Effects on Euglena Cells Toward Ant Colony Optimization Experiments</i>
	MIKHAIL PERETYAT'KIN: <i>Combinatorial Computation in First-Order Predicate Logic as a Formal Prototype of Natural Computing</i>
	ANTONIO J. TALLÓN-BALLESTEROS, JOSÉ C. RIOUELME, CÉSAR HERVÁS-MARTÍNEZ, ROBERTO RUIZ: <i>Enhancing the Performance of a Feature Selection Method Based Jointly on Feature Ranking and Feature Subset Selection in the Context of a Neural Network Classifier</i>
	ÁNGELA VILLOTA, JESÚS ARANDA: <i>Towards a General Approach to Model Biological Systems from Membrane Systems into a Concurrent Constraint Calculus</i>