PPSN 2010 Programme

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IMPORTANT NOTES

1) All plenary lectures on Monday, Tuesday and Wednesday will be held in the aula of the AGH Conference and Teaching Center U-2.

2) All poster sessions will be held in the main hall on the 1st floor of the AGH Conference and Teaching Center U-2, while their introductory presentations provided by the session chairs in the aula of the same building.

3) Room 429 is located in the AGH building C-2 in about 200 meter distance from U-2 (the maps and directions will be available).

PPSN 2010 – Overall Programme

SATURDAY (September 11, 2010) - WORKSHOPS		
Separate table (see page 3)		
SUNDAY (September 12, 2010) - TUTORIALS		
Separate table (see page 4)		
MONDAY (September 13, 2010)		
08:30 – 09:30	Opening ceremony, Introductory lecture H.-P. Schwefel; On Forgotten Island Treasures and Future Jungle Paths	
09:30 – 09:35	Technical break	
09:35– 11:05	Session 1 (see page 5)	Chair: D. Corne
11:05 – 11:25	Coffee Break	
11:25 – 12:55	Session 2 (see page 6)	Chair: M. Schoenauer
13:00 – 14:30	Lunch	
14:30 – 16:00	Session 3 (see page 7)	Chair: C. Cotta
16:00 - 16:20	Coffee Break	
16:20 – 17:50	Session 4 (see page 8)	Chair: J.J. Merelo
18:30 – The last guest	WELCOME RECEPTION	
TUESDAY (September 14, 2010)		
08:30 – 9:30	Invited lecture 1, D. Whitley; Elementary Landscapes made Easy	
09:30 – 09:35	Technical break	
09:35 – 11:05	Session 5 (see page 9)	Chair: G. Rudolph
11:05 – 11:25	Coffee Break	
11:25 – 12:55	Session 6 (see page 10)	Chair: T. Jansen
13:00 – 14:30	Lunch	
14:30 – 16:00	Session 7 (see page 11)	Chair: J. Arabas
16:00 – 16:20	Coffee Break	
16:20 – 17:20	Invited lecture 2, Z. Michalewicz; Some Thoughts on Wine Production	
18:00 – The last guest	Cracow Sightseeing and Conference Gala Dinner	
WEDNESDAY (September 15, 2010)		
08:30 – 09:30	Invited lecture 3 J. Garibaldi; Ensemble Fuzzy Reasoning	
09:30 – 09:35	Technical break	
09:35– 11:05	Session 8 (see page 12)	Chair: J. Kołodziej
11:05 – 11:25	Coffee Break	
11:25 – 12:55	Session 9 (see page 13)	Chair: R. Schaefer
12:55 – 13:10	Closing Ceremony	
13:10 – 14:40	Lunch	

PPSN 2010 – Workshop Programme

Saturday September 11, 2010		
9:00 -10:30	**SESSION I**	
SELF Part 1	**Self-tuning, self-configuring and self-generating search heuristics (SELF 2010)** Gabriela Ochoa, Univ. of Nottingham, U.K. Marc Schoenauer, Univ. Paris Sud, France. Darrell Whitley, Colorado State Univ., USA.	Aula U-2
10:30 – 11:00	**Coffee Break**	
11:00 – 12:30	**SESSION II**	
SELF Part 2	**Self-tuning, self-configuring and self-generating search heuristics (SELF 2010)** Gabriela Ochoa, Univ. of Nottingham, U.K.Marc Schoenauer, Univ. Paris Sud, France. Darrell Whitley, Colorado State Univ., USA.	Aula U-2
12:30 – 14:00	**Lunch**	
14:00 – 15:30	**SESSION III**	
WEMACS Part 1	**Experimental methods for the assessment of computational systems (WEMACS)** Thomas Bartz-Beielstein, Cologne Univ. of Applied Sciences. Marco Chiarandini, Univ. of Southern Denmark. Luis Paquete, Univ. of Coimbra, Portugal Mike Preuss, TU Dortmund, Germany.	Room 429, Building C-2
UHEUR/PARCO Part 1	**Understanding Heuristics: How do we get the best of both theory and empirical methods?** Ender Ozcan & Andrew Parkes, Univ. of Nottingham, UK, Jonathan Rowe, Univ. of Birmingham, UK **Workshop on parallel and cooperative search methods.** **Djamila Ouelhadj, Univ. of Portsmouth, UK.** **Ender Ozcan, Univ. of Nottingham, UK.** **Michel Toulouse, Oklahoma State Univ., USA.**	Aula U-2
15:30 – 16:00	**Coffee Break**	
16:00 – 17:30	**SESSION IV**	
WEMACS Part 2	**Experimental methods for the assessment of computational systems (WEMACS)** Thomas Bartz-Beielstein, Cologne Univ. of Applied Sciences. Marco Chiarandini, Univ. of Southern Denmark. Luis Paquete, Univ. of Coimbra, Portugal Mike Preuss, TU Dortmund, Germany.	Room 429, Building C-2
UHEUR/PARCO Part 2	**Understanding Heuristics: How do we get the best of both theory and empirical methods?** Ender Ozcan & Andrew Parkes, Univ. of Nottingham, UK, Jonathan Rowe, Univ. of Birmingham, UK **Workshop on parallel and cooperative search methods.** **Djamila Ouelhadj, Univ. of Portsmouth, UK.** **Ender Ozcan, Univ. of Nottingham, UK.** **Michel Toulouse, Oklahoma State Univ., USA.**	Aula U-2

PPSN 2010 – Tutorial Programme

SUNDAY September 12, 2010		
9:00 -10:40	**SESSION I**	
TUTORIAL 1	Tony Brabazon, Michael O'Neill: "Natural Computing and Finance "	Aula U-2
TUTORIAL 2	Tadeusz Burczyński, Michał Bereta i Wacław Kuś: "Artificial Immune Systems in Optimization and Classification Problems with Engineering and Biomedical Applications"	Room 429, Building C-2
10:40 – 11:00	**Coffee Break**	
11:00 – 12:40	**SESSION II**	
TUTORIAL 3	Frank Neumann, Tobias Friedrich: "Foundations of Evolutionary Multi-Objective Optimization "	Aula U-2
TUTORIAL 4	Fatos Xhafa: "Heuristic and Meta-heuristic Approaches for Scheduling in Large Scale Distributed Computing Environments "	Room 429, Building C-2
12:40 – 14:00	**Lunch**	
14:00-15:40	**SESSION III**	
TUTORIAL 5	Xin Yao: "A Rigorous Theoretical Framework for Measuring Generalisation of Co-evolutionary Learning"	Aula U-2
TUTORIAL 6	Günther Raidl: "Hybrid Optimization Approaches"	Room 429, Building C-2
15:40 – 16:00	**Coffee Break**	
16:00 – 17:40	**SESSION IV**	
TUTORIAL 7	Simon M. Lucas: "Learning to Play Games"	Aula U-2
TUTORIAL 8	Piotr Faliszewski: "The Complexity of Elections: new domain for heuristic computations"	Room 429, Building C-2

SESSION 1 MONDAY 09:35 – 11:05, Chair: D. Corne

1. Evolutionary Optimization on Problems Subject to Changes of Variables.
   Richard Allmendinger and Joshua Knowles

2. An island model for the no-wait flow shop scheduling problem.
   Istvan Borgulya

3. Drift Analysis with Tail Bounds.
   Benjamin Doerr and Leslie Ann Goldberg

4. Evolutionary Multiobjective Optimization Algorithm as a Markov System.
   Ewa Gajda, Robert Schaefer and Maciej Smołka

5. An Archive Maintenance Scheme for Finding Robust Solutions
   Johannes Kruisselbrink, Michael Emmerich and Bäck Thomas

6. Enhancing Diversity for Average Ranking Method in Evolutionary Many-Objective Optimization.
   Miqing Li, Jinhua Zheng, Ke Li, Qizhao Yuan and Ruimin Shen

7. A Memetic Algorithm with Non Gradient-Based Local Search Assisted by a Meta-Model.
   Saúl Zapotecas Martínez and Carlos A. Coello Coello

8. First-improvement vs. Best-improvement Local Optima Networks of NK Landscapes.
   Gabriela Ochoa, Sébastien Verel and Marco Tomassini

9. Feature Selection for Multi-Purpose Predictive Models: a Many-Objective Task.
   Alan P. Reynolds, David W. Corne and Michael J. Chantler

10. GPGPU-compatible Archived Based Stochastic Ranking Evolutionary Algorithm (G-ASREA) for Multi-Objective Optimization.
    Deepak Sharma and Pierre Collet

11. A Framework for Incorporating Trade-off Information Using Multi-objective Evolutionary Algorithms.
    Pradyumn Kumar Shukla, Christian Hirsch and Hartmut Schmeck

12. General Lower Bounds for the Running Time of Evolutionary Algorithms.
    Dirk Sudholt

13. Incorporating Domain Knowledge into Evolutionary Computing for Discovering Gene-Gene Interaction.
    Stephen D. Turner, Scott M. Dudek and Marylyn D. Ritchie

14. A Study of Multi-Parent Crossover Operators in a Memetic Algorithm
    Yang Wang, Zhipeng Lü and Jin-Kao Hao

15. The Layered Learning method and its application to generation of evaluation functions for the game of checkers.
    Karol Walędzik and Jacek Mańdziuk

SESSION 2 MONDAY 11:25 – 12:55 Chair: M. Schoenauer

1. Tight Bounds for the Approximation Ratio of the Hypervolume Indicator.
   Karl Bringmann and Tobias Friedrich

2. Entropy-Driven Evolutionary Approaches to the Mastermind Problem.
   Carlos Cotta, Juan J. Merelo Guervós, Antonio M. Mora García and Thomas P. Runarsson

3. Adaptive Drift Analysis.
   Benjamin Doerr and Leslie Ann Goldberg

4. Design and Comparison of two Evolutionary Approaches for Solving the Rubik's Cube.
   Nail El-Sourani and Markus Borschbach

5. Indirect Encoding of Neural Networks for Scalable Go.
   Jason Gauci and Kenneth O. Stanley

6. Path-guided mutation for stochastic Pareto local search algorithms.
   Madalina M. Drugan and Dirk Thierens

7. Solving the One-Commodity Pickup and Delivery Problem Using an Adaptive Hybrid VNS/SA Approach.
   Manar I. Hosny and Christine L. Mumford

8. An Effective Hybrid Evolutionary Local Search for Orienteering and Team Orienteering Problems with Time Windows.
   Nacima Labadi, Jan Melechovský and Roberto Wolfler Calvo

9. Parallel Evolutionary Approach of Compaction Problem using MapReduce.
   Doina Logofătu and D. Dumitrescu

10. pMODE-LD+SS: An Effective and Efficient Parallel Differential Evolution Algorithm for Multi-Objective Optimization.
    Alfredo Arias Montaño, Carlos A. Coello Coello and Efrén Mezura-Montes

11. Adaptive Modularization of the MAPK Signaling Pathway using the Multiagent Paradigm.
    Abbas Sarraf Shirazi, Sebastian von Mammen and Christian Jacob

12. An Analysis of the XOR Dynamic Problem Generator Based on the Dynamical System.
    Renato Tinós and Shengxiang Yang

13. The role of degenerate robustness in the evolvability of multi-agent systems in dynamic environment.
    James M. Whitacre, Philipp Rohlfshagen, Axel Bender and Xin Yao

14. Towards Analyzing Recombination Operators in Evolutionary Search.
    Yang Yu, Chao Qian and Zhi-Hua Zhou

SESSION 3 MONDAY 14:30 – 16:00 Chair: C. Cotta

1. Parallel Artificial Immune System in Optimization and Identification of Composite Structures.
   Witold Beluch, Tadeusz Burczyński and Wacław Kuś

2. Ownership and Trade in Spatial Evolutionary Memetic Games.
   Juan C. Burguillo and Ana Peleteiro

3. Discrete Differential Evolution Algorithm for solving the Terminal Assignment Problem.
   Eugénia Moreira Bernardino, Anabela Moreira Bernardino, Juan Manuel Sánchez-Pérez, Juan Antonio Gómez-Pulido and Miguel Angel Vega-Rodríguez

4. Improved Dynamic Lexicographic Ordering for Multi-objective Optimisation.
   Juan Castro-Gutierrez, Dario Landa-Silva and José A. Moreno-Pérez

5. Large-Scale Global Optimization using Cooperative Coevolution with Variable Interaction Learning.
   Wenxiang Chen, Thomas Weise, Zhenyu Yang and Ke Tang

6. A Novel Similarity-Based Crossover for Artificial Neural Network Evolution.
   Mauro Dragoni, Antonia Azzini and Andrea G. B. Tettamanzi.

7. Privacy-Preserving Multi-Objective Evolutionary Algorithms.
   Daniel Funke and Florian Kerschbaum

8. Secure and Task Abortion Aware GA-based Hybrid Metaheuristics for Grid Scheduling.
   Joanna Kołodziej, Fatos Xhafa and Marcin Bogdański

9. Fixed Parameter Evolutionary Algorithms and Maximum Leaf Spanning Trees: A Matter of Mutatio.
   Stefan Kratsch, Per Kristian Lehre, Frank Neumann and Pietro Simone Oliveto

10. Objective Space Partitioning Using Conflict Information for Many-objective Optimization.
    Antonio López-Jaimes, Hernán Aguirre, Kiyoshi Tanaka and Carlos A. Coello Coello

11. The Application of Pittsburgh-Style Learning Classifier Systems to Address Genetic Heterogeneity and Epistasis in Association Studies.
    Ryan J. Urbanowicz and Jason H. Moore

12. The Role of Syntactic and Semantic Locality of Crossover in Genetic Programming
    Nguyen Quang Uy, Nguyen Xuan Hoai, Michael O'Neill and Bob McKay

13. A binary encoding supporting both mutation and recombination.
    Karsten Weicker

14. A Hybrid Genetic Algorithm for the Traveling Salesman Problem using Generalized Partition Crossover.
    Darrell Whitley, Doug Hains and Adele Howe

SESSION 4 MONDAY 16:20 – 17:50 Chair: J.J. Merelo

1. Evolutionary Learning of Technical Trading Rules without Data-mining Bias.
   Alexandros Agapitos, Michael O'Neill and Anthony Brabazon

2. Environment-driven Embodied Evolution in a Population of Autonomous Agents.
   Nicolas Bredeche and Jean-Marc Montanier

3. Mirrored Sampling and Sequential Selection for Evolution Strategies.
   Dimo Brockhoff, Anne Auger, Nikolaus Hansen, Dirk V. Arnold and Tim Hohm

4. Globally Induced Model Trees: An Evolutionary Approach.
   Marcin Czajkowski and Marek Krętowski

5. More Effective Crossover Operators for the All-Pairs Shortest Path Problem.
   Benjamin Doerr, Daniel Johannsen, Timo Kötzing, Frank Neumann and Madeleine Theile

6. Differential Evolution Algorithms with Cellular Populations.
   Bernabé Dorronsoro and Pascal Bouvry

7. Evolutionary Detection of New Classes of Equilibria. Application in Behavioral Games.
   D. Dumitrescu, Rodica Ioana Lung, Réka Nagy, Daniela Zaharie, Attila Bartha and Doina Logofătu

8. Scheduling English Football Fixtures over the Holiday Period Using Hyper-heuristics.
   Jonathon Gibbs, Graham Kendall and Ender Özcan

9. Solving Multiobjective Optimization Problem by Constraint Optimization.
   He Jiang, Shuyan Zhang and Zhilei Ren

10. General Scheme for Analyzing Running Times of Parallel Evolutionary Algorithms.
    Jörg Lässig and Dirk Sudholt

11. One-Point Geometric Crossover.
    Alberto Moraglio

12. Hybrid Directional-biased Evolutionary Algorithm for Multi-objective Optimization.
    Tomohiro Shimada, Masayuki Otani, Hiroyasu Matsushima, Hiroyuki Sato, Kiyohiko Hattori and Keiki Takadama

13. Evolving Strategies for Updating Pheromone Trails: a Case Study with the TSP.
    Jorge Tavares and Francisco B. Pereira

14. Evolving a Single Scalable Controller for an Octopus Arm with a Variable Number of Segments.
    Brian G. Woolley and Kenneth O. Stanley.

SESSION 5 TUESDAY 09:35 – 11:05 Chair: G. Rudolph

1. Using Computational Intelligence to Identify Performance Bottlenecks In a Computer System.
   Faraz Ahmed, Farrukh Shahzad and Muddassar Farooq

2. A Memetic Cooperative Optimization Schema and its Application to the Tool Switching Problem.
   Jhon Edgar Amaya, Carlos Cotta and Antonio J. Fernández

3. EvoShelf : A System for Managing and Exploring Evolutionary Data.
   Timothy Davison, Sebastian von Mammen and Christian Jacob

4. Statistical analysis for parameter setting in real-coded evolutionary algorithms.
   Maria I. García-Arenas, Pedro Á. Castillo-Valdivieso, Antonio M. Mora García, Juan J. Merelo Guervós, Juan L. Jiménez Laredo and Pablo García Sánchez

5. A Natural Evolution Strategy for Multi-Objective Optimization.
   Tobias Glasmachers, Tom Schaul and Jürgen Schmidhuber

6. Towards Directed Open-ended Search by a Novelty Guided Evolution Strategy.
   Lars Graening, Nikola Aulig and Markus Olhofer

7. Performance of Network Crossover on NK Landscapes and Spin Glasses.
   Mark Hauschild and Martin Pelikan

8. How to Choose Solutions for Local Search in Multiobjective Combinatorial Memetic Algorithms.
   Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Yoshihiko Wakamatsu and Yusuke Nojima

9. Many-Objective Test Problems to Visually Examine the Behavior of Multiobjective Evolution in a Decision Space.
   Hisao Ishibuchi, Yasuhiro Hitotsuyanagi, Noritaka Tsukamoto and Yusuke Nojima

10. Log-linear Convergence of the Scale-invariant (μ/μm,λ)-ES and Optimal mu for Intermediate Recombination for Large Population Sizes.
    Mohamed Jebalia and Anne Auger

11. Fractal Gene Regulatory Networks for Nonlinear Control.
    Jean Krohn and Denise Gorse

12. Secret Key Specification for a Variable-Length Cryptographic Cellular Automata Model.
    Gina M. B. Oliveira, Luiz G. A. Martins, Giordano B. Ferreira and Leonardo S. Alt

13. Stopping criteria for genetic algorithms with application to multiobjective optimization
    Marcin Studniarski

14. Log(λ) Modifications for optimal parallelism.
    Fabien Teytaud and Olivier Teytaud

15. New Uncertainty Handling Strategies in Multi-Objective Evolutionary Optimization.
    Thomas Voß, Heike Trautmann and Christian Igel

SESSION 6 TUESDAY 11:25 – 12:55 Chair: T. Jansen

1. Experimental comparison of methods to handle boundary constraints in Differential Evolution.
   Jarosław Arabas, Adam Szczepankiewicz and Tomasz Wroniak

2. Convergence Rates of (1+1) Evolutionary Multiobjective Algorithms.
   Nicola Beume, Marco Laumanns and Günter Rudolph

3. Graph Clustering Based Model Building.
   David Iclănzan and D. Dumitrescu

4. Experimental Supplements to the Theoretical Analysis of Migration in the Island Model.
   Jörg Lässig and Dirk Sudholt

5. Comparison-Based Optimizers Need Comparison-Based Surrogates.
   Ilya Loshchilov, Marc Schoenauer and Michèle Sebag

6. Benchmarking Evolutionary Algorithms: Towards Exploratory Landscape Analysis.
   Olaf Mersmann, Mike Preuss and Heike Trautmann

7. A Novel Smart Multi-Objective Particle Swarm Optimisation using Decomposition.
   Noura Al Moubayed, Andrei Petrovski and John McCall

8. How Crossover Speeds Up Evolutionary Algorithms for the Multi-Criteria All-Pairs-Shortest-Path Problem.
   Frank Neumann and Madeleine Theile

9. Decentralized Evolutionary Agents streamlining Logistic Network Design.
   Stephan Otto and Tobias Bannenberg

10. Path relinking on many-objective NK-landscapes.
    Joseph M. Pasia, Hernán Aguirre and Kiyoshi Tanaka

11. A Cooperative Coevolutionary Approach to Partitional Clustering.
    Mitchell A. Potter and Christine Couldrey

12. Evolution of XPath lists for document data selection .
    Pablo García Sánchez, Juan J. Merelo Guervós, Pedro Ángel Castillo Valdivieso , Jesús González Penãlver, Juan L. Jiménez Laredo, Antonio M. Mora García and María I. García Arenas

13. In Search of Equitable Solutions Using Multi-objective Evolutionary Algorithms.
    Pradyumn Kumar Shukla, Christian Hirsch and Hartmut Schmeck.

14. The Linkage Tree Genetic Algorithm.
    Dirk Thierens

SESSION 7 TUESDAY 14:30 – 16:00 Chair: J. Arabas

1. Topography-Aware Sensor Deployment Optimization with CMA-ES.
   Vahab Akbarzadeh, Albert Hung-Ren Ko, Christian Gagné and Marc Parizeau.

2. Theoretically Investigating Optimal μ-Distributions for the Hypervolume Indicator: First Results For Three Objectives.
   Anne Auger, Johannes Bader and Dimo Brockhoff

3. Optimizing Monotone Functions Can Be Difficult.
   Benjamin Doerr, Thomas Jansen, Dirk Sudholt, Carola Winzen and Christine Zarges

4. Optimizing Delivery Time in Multi-Objective Vehicle Routing Problems with Time Windows.
   Abel Garcia Najera and John Bullinaria

5. PMF: A Multicore-Enabled Framework for the Construction of Metaheuristics for Single and Multiobjective Optimization.
   Deon Garrett

6. Promoting Phenotypic Diversity in Genetic Programming.
   David Jackson

7. Testing the Dinosaur Hypothesis under Empirical Datasets.
   Michael Kampouridis, Shu-Heng Chen and Edward Tsang

8. A Genetic Programming Approach to the Matrix Bandwidth-Minimization Problem.
   Behrooz Koohestani and Riccardo Poli

9. Exploiting Overlap when Searching for Robust Optima.
   Johannes Kruisselbrink, Michael Emmerich, André Deutz and Thomas Bäck.

10. Negative Drift in Populations.
    Per Kristian Lehre

11. Preference-Based Multi-Objective Particle Swarm Optimization Using Desirabilities.
    Sanaz Mostaghim, Heike Trautmann and Olaf Mersmann

12. A Memetic Algorithm for the Pickup and Delivery Problem with Time Windows using Selective Route Exchange Crossover.
    Yuichi Nagata and Shigenobu Kobayashi

13. Variable Neighborhood and Ant Colony Optimization for the Rooted Delay-Constrained Minimum Spanning Tree Problem.
    Mario Ruthmair and Günther R. Raidl

14. Threshold selection, mitosis and dual mutation in cooperative co-evolution: application to medical 3D tomography.
    Franck P. Vidal, Evelyne Lutton, Jean Louchet and Jean-Marie Rocchisani

15. Consultant-Guided Search Algorithms with Local Search for the Traveling Salesman Problem.
    Serban Iordache

SESSION 8 WEDNESDAY 09:35 – 11:05 Chair: J. Kołodziej

1. Bidirectional Relation between CMA Evolution Strategies and Natural Evolution Strategies.
   Youhei Akimoto, Yuichi Nagata, Isao Ono and Shigenobu Kobayashi

2. Selecting Small Audio Feature Sets in Music Classification by Means of Asymmetric Mutation.
   Bernd Bischl, Igor Vatolkin and Mike Preuss

3. Asymptotic Analysis of Computational Multi-Agent Systems.
   Aleksander Byrski, Robert Schaefer, Maciej Smołka and Carlos Cotta

4. Optimization and Generalisation: Footprints in Instance Space.
   David W. Corne and Alan P. Reynolds

5. Bioreactor Control by Genetic Programming.
   Dimitris Dracopoulos and Riccardo Piccoli

6. Flocking in Stationary and Non-Stationary Environments: A Novel Communication Strategy for Heading Alignment.
   Eliseo Ferrante, Ali Emre Turgut, Nithin Mathews, Mauro Birattari and Marco Dorigo

7. Speculative Evaluation in Particle Swarm Optimization.
   Matthew Gardner, Andrew McNabb and Kevin Seppi

8. A Fine-Grained View GP Locality with Binary Decision Diagrams as Ant Phenotypes
   James McDermott, Edgar Galván-Lopéz and Michael O'Neill

9. Using Co-solvability to Model and Exploit Synergetic Effects in Evolution.
   Krzysztof Krawiec and Paweł Lichocki

10. Ant Based Hyper Heuristics with Space Reduction: A Case Study of the p-Median Problem.
    Zhilei Ren, He Jiang , Jifeng Xuan and Zhongxuan Luo

11. Defining and Optimizing Indicator-based Diversity Measures in Multiobjective Search.
    Tamara Ulrich, Johannes Bader and Lothar Thiele

12. On Expected-Improvement Criteria for Model-Based Multi-Objective Optimization.
    Tobias Wagner, Michael Emmerich, André Deutz and Wolfgang Ponweiser

13. Analyzing the Credit Default Swap Market Using Cartesian Genetic Programming.
    Laleh Zangeneh and Peter J. Bentley

SESSION 9 WEDNESDAY 11:25 – 12:55 Chair: R. Schaefer

1. A Hybrid Scalarization and Adaptive ε-Ranking Strategy for Many-objective Optimization.
   Hernán Aguirre and Kiyoshi Tanaka

2. On-Line Purchasing Strategies for an Evolutionary Algorithm Performing Resource-Constrained Optimization.
   Richard Allmendinger and Joshua Knowles

3. Optimal Fixed and Adaptive Mutation Rates for the LeadingOnes Problem.
   Süntje Böttcher, Benjamin Doerr and Frank Neumann

4. A Hyper-heuristic Approach to Strip Packing Problems.
   Edmund K. Burke, Qiang Guo and Graham Kendall

5. Open-Ended Evolutionary Robotics: an Information Theoretic Approach.
   Pierre Delarboulas, Marc Schoenauer and Michèle Sebag

6. Comparison-based Adaptive Strategy Selection with Bandits in Differential Evolution.
   Álvaro Fialho, Raymond Ros, Marc Schoenauer and Michèle Sebag

7. Fast Grammar-Based Evolution Using Memoization.
   Martin Luerssen and David Powers

8. Ant Colony Optimization with Immigrants Schemes in Dynamic Environments.
   Michalis Mavrovouniotis and Shengxiang Yang

9. When Does Dependency Modelling Help? Using a Randomized Landscape Generator to Compare Algorithms in Terms of Problem Structure.
   Rachael Morgan and Marcus Gallagher

10. Differential Mutation Based on Population Covariance Matrix.
    Karol Opara and Jarosław Arabas

11. Evolution of Conventions and Social Polarization in Dynamical Complex Networks.
    Enea Pestelacci and Marco Tomassini

12. Testing the permutation space based Geometrical Differential Evolution on the Job-Shop Scheduling Problem.
    Antonin Ponsich and Carlos A. Coello Coello

13. Parameter Tuning Boosts Performance of Variation Operators in Multiobjective Optimization.
    Simon Wessing, Nicola Beume, Günter Rudolph and Boris Naujoks

14. Comparative Analysis of Search and Score Metaheuristics for Bayesian Network Structure Learning using Node Juxtaposition Distributions.
    Yanghui Wu, John McCall and David W. Corne