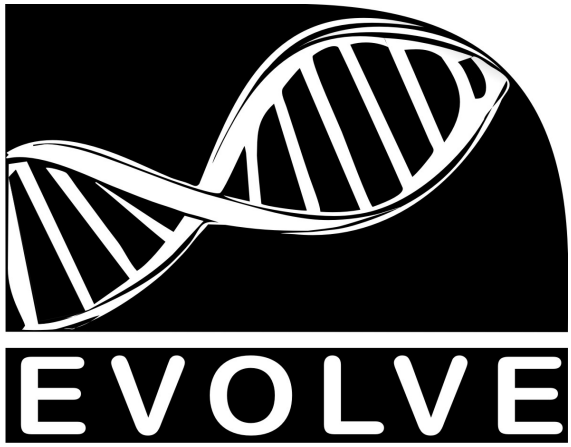
Programs for EVOLVE 2014

A Bridge between Probability, Set Oriented Numerics, and Evolutionary Computing

Beijing, China

July 1-4, 2014



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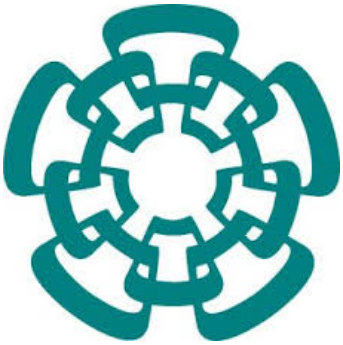

July 1, 2014 Tuesday

Time	Topic
08:00-09:00	Opening Ceremony and Conference Picture

Moderators: Alexandru-Adrian Tantar and Oliver Schütze Room A

Time	Keynote	Title
09:00-09:50	Kalyanmoy Deb	
09:50-10:00	**Coffee Break**	
10:00-10:50	Thomas Stützle	
10:50-11:00	**Coffee Break**	
11:00-11:50	Li-Ming Wu	

12:00-13:30 Lunch

Moderator: Emilia Tantar Room A

Time	Speaker	Tutorials
13:30-15:30	Massimiliano Vasile	Optimisation Under Uncertainty: a Natural Bridge Between Probabilities and Evolutionary Computation
15:30-16:00	**Coffee Break**	
16:00-18:00	Madalina Drugan	Evolutionary Reinforcement Learning or Reinforcement Evolutionary Algorithms?

July 2, 2014 Wednesday

Session I: Set Oriented Numerics and Cell Mapping Methods (8) Room: A

Chairs: Oliver Schütze and Jian-Qiao Sun

Time	Speaker	Title
08:30-09:00	Fu-Rui Xiong, Zhi-Chang Qin, Oliver Schütze, Qian Ding and Jian-Qiao Sun	Finding Zeros of Nonlinear Functions Using the Hybrid Cell Mapping Method
09:00-09:30	Yang Xue, Fu-Rui Xiong, Zhi-Chang Qin, Xiang Li and Jian-Qiao Sun	An Algorithm for Robot Path Planning with Obstacle Avoidance Using Cell Mapping
09:30-10:00	Ling Hong, Jun Jiang and Jian-Qiao Sun	Response Analysis Of A Forced Duffing Oscillator With Fuzzy Uncertainty
10:00-10:30	Hai Shen	Biological population communication and the dynamics model research
10:30-10:50	**Coffee Break**	
10:30-11:00	Jesús Fernández Cruz, Oliver Schütze, Jian-Qiao Sun and Fu-Rui Xiong	Parallel Cell Mapping for Unconstrained Multi-Objective Optimization Problems
11:00-11:30	Xia Liu, Weijian Yi, Huzhi Zhang and Huajun He	Topological Optimization Experiment of Reinforced Concrete Deep Beams with Openings
11:30-12:00	Jesús Fernández Cruz, Oliver Schütze and Jian-Qiao Sun	Simple Cell Mapping for Multi-Objective Bi-Level Optimization Problems
12:00-12:30	Yousef Naranjani, Yousef Sardahi, Jesús Fernández, Oliver Schütze and Jian-Qiao Sun	A Simple Cell Mapping and Genetic Algorithm Hybrid Method for Multi-Objective Optimization Problems

Session II: Genetic Programming and Combinatorial Opt (4) Room B

Chairs: Leonardo Trujillo and Edgar Galvan-Lopez

Time	Speaker	Title
08:30-09:00	Bithin Datta, Om Prakash and J Sreekanth	Application of Genetic Programming Models Incorporated in Optimization Models for Contaminated Groundwater Systems Management
09:00-09:30	Yuliana Martínez, Leonardo Trujillo, Enrique Naredo and Pierrick Legrand	A comparison of fitness-case sampling methods for Symbolic Regression
09:30-10:00	Eneko Osaba, Roberto Carballedo, Fernando Diaz, Enrique Onieva, Pedro Lopez and Asier Perallos	On the influence of using initialization functions on genetic algorithms solving combinatorial optimization problems
10:00-10:30	Emigdio Z-Flores, Leonardo Trujillo, Oliver Schütze and Pierrick Legrand	Evaluating the Effects of Local Search in Genetic Programming

10:30-11:00 **Coffee Break**

Session III: Computational Game Theory (3) Room B

Chairs: Rodica Ioana Lung and Dan Dumitrescu

Time	Speaker	Title
11:00-11:30	Tudor Dan Mihoc	A Generative relation for Nash Equilibria on Symmetric Action Graph Games
11:30-12:00	Noémi Gaskó, Mihai Suciu, Rodica Ioana Lung and Dan Dumitrescu	An evolutionary approach for detecting Berge-Zhukovskii-Nash equilibrium in auction games
12:00-12:30	Ahmad Termimi Ab Ghani	On values of games

Session IV: Robust Optimization (6) Room A

Chairs: Massimiliano Vasile and Vitor Basto-Fernandes

Time	Speaker	Title
13:30-14:00	Jinchun Lan, Zhike Peng, Wenming Zhang and Guang Meng	Uncertain eigenvalues analysis by sparse grid stochastic collocation method
14:00-14:30	Yingjie Zheng, Guangming Dai, Lei Peng and Maocai Wang	Robustness analysis method based on the opening degree
14:30-15:00	Massimiliano Vasile	On the Solution of Min-Max Problems in Robust Optimization
15:00-15:30	**Coffee Break**	
15:30-16:00	Chia-Li Wang	Socially Optimal Queue Length and Comparison with Self-Optimal Policy
16:00-16:30	Liqiang Hou, Yuanli Cai, Jisheng Li and Jin Liu	Robust Optimization with Tchebysheff Decomposition for Mars Entry Probe Design

Session V: Engineering Applications (2) Room A

Chairs: Xiao-Dong Yang and Xiangying Guo

16:30-17:00	Yingjing Qian and Wei Zhang	Stationkeeping Strategy for Quasi-periodic Orbit around Earth-Moon L2 Point
17:00-17:30	Bo Wang and Changguo Wang	Differential quadrature solution of forced vibration of axially moving viscoelastic beams constituted by the standard linear solid model

Session VI: Complex Networks (3) Room B

Chair: Michael Emmerich

Time	Speaker	Title
13:30-14:00	Ofer Shir, Shahar Chen, David Amid, Oded Margalit, Michael Masin, Ateret Anaby-Tavor and David Boaz	Pareto Landscapes Analyses via Graph-Based Modeling for Interactive Decision-Making
14:00-14:30	Pascal Kerschke, Mike Preuss, Carlos Hernández, Oliver Schütze, Jian-Qiao Sun, Christian Grimme, Günter Rudolph, Bernd Bischl and Heike Trautmann	Cell Mapping Techniques for Exploratory Landscape Analysis
14:30-15:00	Carlos Hernández, Oliver Schütze, Michael Emmerich, Fu-Rui Xiong and Jian-Qiao Sun	Barrier Tree for Continuous Landscapes by Means of Generalized Cell Mapping

15:00-15:30 **Coffee Break**

Session VII: Local Search and Optimization (3) Room B

Chairs: Jing Liu and Rui Li

Time	Speaker	Title
15:30-16:00	Sergio Alvarado and Oliver Schütze	GSA-DE: A Memetic Algorithm Based on the Gradient Subspace Approximation
16:00-16:30	Adanay Martín and Oliver Schütze	A New Predictor Corrector Variant for Unconstrained Bi-objective Optimization Problems
16:30-17:00	Madalina Drugan and El-Ghazali Talbi	Adaptive Multi-operator Meta Heuristics for quadratic assignment problems

July 3, 2014 Thursday

Session VIII: Evolutionary and Numerical MO (8) Room A

Chairs: Günter Rudolph and Oliver Schütze

Time	Speaker	Title
08:30-09:00	Oluwatosin Olofintoye and Josiah Adeyemo	Optimized Fourier approximation models for estimating monthly stream flow in the Vanderkloof dam, South Africa
09:00-09:30	Valerio Lattarulo and Geoffrey T. Parks	Application of the MOAA for the optimization of wireless sensor networks
09:30-10:00	Hai Shen and Yunlong Zhu	Adaptive Bacterial Foraging Optimization Algorithm with Social Foraging Strategy for Multi-modal optimization problem
10:00-10:30	Jörn Mehnen	***Panel Discussion I***: Ask the Expert
10:30-10:50	**Coffee Break**	
10:30-11:00	Alejandro Hernández, Oliver Schütze and Kalyanmoy Deb	A Memetic Variant of R-NSGA-II for Reference Point Problems
11:00-11:30	Adrian Sosa, Oliver Schütze and Michael Emmerich	Hypervolume Maximization via Set Based Newton's Method
11:30-12:00	Rudolph Günter, Oliver Schütze, Christian Grimme and Heike Trautmann	A Multiobjective Evolutionary Algorithm Guided by Averaged Hausdorff Distance to Aspiration Sets
12:00-12:30	Alexandru-Adrian Tantar	Objective Space Distortion Dominance

Session IX: Practical Aspects of EA (6) Room A

Chairs: Jörn Mehnen and Emilia Tantar

Time	Speaker	Title
13:30-14:00	Oluwaseun Oyebode and Josiah Adeyemo	Reservoir Inflow Forecasting Using Differential Evolution Trained Neural Networks
14:00-14:30	Emilia Tantar, Maria Rita Palattella, Tigran Avanesov and Miroslaw Kantor	Cognition: a Tool for Reinforcing Security in Software Defined Networks
14:30-15:00	Timoleon Kipouros	Human-in-the-loop Computational Engineering Design
15:00-15:30	**Coffee Break**	
15:30-16:00	Sławomir Kukliński, Jacek Wytrębowicz, Khoa Truong Dinh and Emilia Tantar	Application of Cognitive Techniques to Network Management and Control
16:00-16:30	Abimbola Motunrayo Enitan, Josiah Adeyemo, Oluwatosin O. Olofintoye, Faizal Bux and Feroz M. Swahala	Multi-objective Optimization of Methane Producing UASB Reactor Using a Combined Pareto Multi–objective Differential Evolution Algorithm (CPMDE)
16:30-17:15	Jörn Mehnen	***Panel Discussion II***: How to find a job in EC

18:30 **Conference Banquet**

July 4, 2014 Friday

Conference Tour