Sunday

May 24 Sunday, 2015 at 2F Lobby

Mo1-3FS Tutorial 0800-0945

An Overview of Evolutionary Algorithms and Hyper Heuristics

Nelishia Pillay

1600-1800 Registration with Furumai-zake (Free Japanese Sake) at Conference Building 2F in Sendai International Center

Mo2-3FS Tutorial 1000-1145

A Survey of Representations for Evolutionary Computation

Monday

Mo1-1F1 Tutorial 0800-0945	Mo2-1F1 Tutorial 1000-1145	Mo3-1F1 Tutorial 1300-1445	Mo4-1F1 Tutorial 1455-1640
Evolutionary Algorithms as a Dynamical Complex System	Differential Evolution: Population Topologies and Ensemble Strategies	Evolutionary Computation for Dynamic Optimization Problems	Convergence Detection and Stopping Criteria for Evolutionary Multi-Objective Optimization
Ivan Zelinka	P. N. Suganthan	Shengxiang Yang	Luis Marti and Nayat Sanchez-F
May 25 Monday, 2015 at Small Conference Ro	oom 2 (on the first floor)		
Mo1-1F2 Tutorial 0800-0945	Mo2-1F2 Tutorial 1000-1145	Mo3-1F2 Tutorial 1300-1445	Mo4-1F2 Tutorial 1455-1640
Decomposition and Cooperative Coevolution Techniques for Large	Evolutionary Computation and Games	Runtime Analysis of Population-based Evolutionary Algorithms	Evolutionary Multitasking and Implications for Cloud Computing
Scale Global Optimization	210 and 1 and 2 and 2	Name / mayor of repairment accordance of regional control of the region	and
Xiaodong Li	Julian Togelius	Per Kristian Lehre	Abhishek Gupta, Yew-Soon Ong and Kay Chen Tar
May 25 Monday, 2015 at Small Conference Ro	Mo2-2F4 Tutorial 1000-1145	Mo3-2F4 Tutorial 1300-1445	Mo4-2F4 Tutorial 1455-1640
Multi-Armed Bandits for Evolutionary Algorithms	Semi-Automated Algorithm Design with Genetic Programming	An Introduction to Bioinformatics for EC Researchers	Cultural Algorithms: Putting Social Networks to Work
	Jerry Swan and John R. Woodward	Wendy Ashlock	Robert G. Reynolds
Madalina M. Drugan	beny ewan and commit woodward		
	Ź		
May 25 Monday, 2015 at Small Conference Ro	oom 5 (on the second floor)		
May 25 Monday, 2015 at Small Conference Ro Mo1-2F5 Tutorial 0800-0945	oom 5 (on the second floor) Mo2-2F5 Tutorial 1000-1145	Mo3-2F5 Tutorial 1300-1445	Mo4-2F5 Tutorial 1455-1640
May 25 Monday, 2015 at Small Conference Ro	oom 5 (on the second floor)	Mo3-2F5 Tutorial 1300-1445 Thresheld Convergence in PSO, DE, and other Search Methods	Mo4-2F5 Tutorial 1455-1640 Deploying Evolutionary Computation in Industry: Challenges and Lessons Learned

Daniel Ashlock

Mo3-3FS Tutorial 1300-1445

Data-driven Evolutionary Algorithms

Mo4-3FS Tutorial 1455-1640

Ke Tang and Kai Qin

Statistical Tests for Computational Intelligence

Hideyuki Takagi

May 25 Monday, 2015 at Small Conference Room 7 (on the third floor)				
Mo1-3F7 Workshop 0840-0945	Workshop on Swarm Intelligence 1			
Chaired by: Junichi Kushida				
	0840 hrs			
	Special Invited Talk			
	From a Problem Solving Skill to an Optimization Algorithm			
	Yuнui Shi			

May 25 Monday, 2015 at Small Conference Room 7 (on the third floor)					
Mo2-3F7 Workshop 1000-1145	Workshop on S	Swarm Intelligence 2			
Chaired by: Junichi Kushida	•				
1000 hrs		1020 hrs	1040 hrs		
A Hardware Implementation of Neural Network Trained by Particle Swarm Optimization with a Control of Velocity		The Switched Ring Particle Swarm Optimizer and Its Application to Search of Maximum Power Point	Collaborative Particle Swarm Optimization on Massively Parallel Processing Units		
DANG TUAN LINH, and Yukinobu Hoshino		Naoto Ando, Kosuke Tanakajima and Toshimichi Saito	YASUYUKI MIYAZATO, Takeshi Tengan, and Morikazu Nakamura		
1100 hrs		1120 hrs			
Centripetal Accelerated Particle Swarm Optimization for Generating SNP Barcode in Breast Cancer		High exploration particle swarm optimization for Clustering Problems			
Rong Jeng, Li-Yeh Chuang, Cheng-Han Wu, ar	nd CHENG-HONG YANG	Li-Yeh Chuang, Yu-shiun Lin, Yi-Kai Kao, Yu-Da Lin, and CHENG-HONG YANG			

May 25 Monday, 2015 at Large Conference Room Tachibana (Large Hall) (on the second floor)					
1300-1445	Workshop on New Directions of Evolutionary Computation and Intelligent Systems 1 (Poster Session)				
Chaired by: Hisashi Handa					
Dictionary Learning for Discovering Visual Elements of Fashion Styles	On Mutual Relations Amongst Evolutionary Algorithm Dynamics, its Hidden Complex Network Structures and Control	Ant Colony Optimization for Small-World Network and Traveling Salesman Problem	Artificial Metamorphosis as a Way to Automatically Design Self-reconfiguring Robots	Planning of Space Station On-orbit Activities using Ontology Modeling and Time Iteration	
JU-CHIN CHEN, Bai-Fen Xue, and Kawuu W. Lin	IVAN ZELINKA	HIDEFUMI SAWAI	МіснаŁ Јоаснімсzак, Reiji Suzuki, and Takaya Arita	JIN ZHANG, and Zi-cheng Jiang	
		A Method Based on Interactive Evolutionary			
Effects of Topological Variations on Opinion	The Evolution of Day Trading Strategy by means of	Computation for Increasing the Effectiveness of			
Dynamics Optimizer	Genetic Programming with Support Vector Machine	Advertisement Texts			
RISHEMJIT KAUR, Ritesh Kumar, Amol P Bhondekar,		QUETZALI MADERA, Oscar Castillo, Mario Garcia-Valdez,			
Reiji Suzuki, Takaya Arita	HIDEYUKI MIURA, Naoki Mori, and Keinosuke Matsumoto	and Alejandra Mancilla			

May 25 Monday, 2015 at Small Confer	ence Room 7 (on the thing	rd floor)	
Workshop 1300-1445 Workshop on Evolutionary Multi-Objective Optimization 1			
Chaired by: Shinya Watanabe			
1300 hrs Special InvitedTalk			
Evolutionary Many-Objective Optimization: Difficulties and Approaches			
	Hisao Ishibuchi, and Hiroyuki Sato		
1400 hrs		1420 hrs	
An Evolutionary Many-Objective Optimization Algorithm B	ased on Intergenerational	A Control Method for Air Conditioning using Evolutionary Multi-Objective Optimization	
HIDEHIRO NAKANO, Ryu	nosuke Hayashi and Arata Miyauchi	YOSHIHIRO OHTA	

May 25 Monday, 2015 at Small Conference Room 7 (on the third floor)					
Mo4-3F7 Workshop 1455-1640 Workshop o					
Chaired by: Hiroyuki Sato					
1455 hrs	1515 hrs	1535 hrs			
A New Efficient EMO Algorithm based on Two Conflicting Mechanisms: Local Convergence and Escaping Local Optima	A Specialized Approach based on Integration of Customers and Deliberate Restoration Mechanisms for Large Scale Vehicle Routing Problem	A Study on Search to User's Preference Direction in Multi-objective Optimization Problems			
HIBIKI SAMONJI, and Shinya Watana	e Masashi Ito, and Shinya Watanabe	Toshihiro Kishigami, and Tomohiro Yoshikawa			
1555 hrs	1615 hrs				
Multi-Objective Optimization and Decision-Making of Space Station Logistics Strategies	Co-Evolutionary Algorithm for Multi-Objective Games with Postponed Objective Preferences				
YA-ZHONG LUO, and Yue-he Zhu, and Jin Zha	g Erella Eisenstadt-Matalon, AMIRAM MOSHAIOV, and Gideon Avigad				

May 25 Manday 2015 at Large Conference Deers Teshihana /Large Hall) (an the second floor)					
May 25 Monday, 2015 at Large Conference Room Tachibana (Large Hall) (on the second floor)					
1455-1640	Workshop on New Direction	ns of Evolutionary Computation and Inte	elligent Systems 2 (Poster Session)		
Chaired by: Hisashi Handa					
		An Efficient Interactive Evolutionary Computation with			
Use of an Achievement Scalarizing Function in	Graph-Based Estimation of Distribution Algorithms	Partial Solution Evaluation: A Case Study on Menu	A Study on Multipath Design Method Considering	Program Refactoring by using Abstract Syntax Trees	
MOEA/D	with Kernel Density Estimation	Planning Problem	Traffic Load Balance based on Genetic Algorithm		
		REI MATSUMOTO, Hiroshi Someya, Tomoko Kashima,			
KEN DOI, Yusuke Nojima, and Hisao Ishibuchi	KENTA MAEZAWA, and Hisashi Handa	and Yukiko Orito	Мотоніко Kanza, Yosuke Tanigawa, and Hideki Tode	TAKENORI MATSUO, and Hisashi Handa	
Constitution of Mahjong Players by Using	Transposable Mutation Methods in Artificial Life	Evaluating a Narrative Discourse Generation System	Differential Evolution on Scattered Parents with		
Evolutionary Algorithms	System	Based on Automatic Analyses of a Series of Discourse	Resetting Parameters and Restarting Optimization		
		Structures	when Optimization Stagnate		
NAOKI HANATANI, and Hisashi Handa	Мотокі Тало, and Hiroshi Someya	TAISUKE AKIMOTO, and Takashi Ogata	Ryo Iwai, and Shohei Kato		

May 26 Monday, 2015 at Large Conference Room Tachibana (Large Hall) (on the second floor)

1700-1825 Competition Summary

Organized by: Competition Organizers

Mo5-3F7 Workshop 1700-1800 Workshop on Evolutionary Multi-Objective Optimization 3 Chaired by: HISASHI HANDA 1700 hrs 1740 hrs 1740 hrs	May 25 Monday, 2015 at Small Conference Room 7 (on the third floor)					
	Mo5-3F7 Workshop 1700-1800 Workshop on Evolutionary Multi-Objective Optimization 3					
1700 hrs 1720 hrs 1740 hrs						
	1700 hrs					
An Efficient Parallel MOEA/D Generating Solutions in Less-Overlapped Update Areas of Solutions A Study on Gradual Enhancement of the Approximation Granularity of Pareto Front in Evolutionary Many-Objective Optimization Challenges in Computational Sustainability: a New Multi-Objective Artificial Immune Approach to Deal with Biodiversity Conservation	Solutions					
HIROYUKI SATO TOMOHISA HASHIMOTO, Hiroyuki Sato, and Minami Miyakawa Shana Schlottfeldt, Andre P. L. F. de Carvalho, Mariana P. C. Т	Н					

Tuesday

	Tucoday				
May 26 Tuesday, 2015 at Large Conference Room Tachibana	(Large Hall) (on the second floor)				
Plenary I 0800-0915 Opening Keynote					
Chaired by: Tadahiko Murata	AC .				
Multi-C	Objective Particle Swarm Optimizers: Past, Present and	Future			
	Profess	sor Carlos Artemio Coello Coello (CINVESTAV-IPN, Mexico)			
		, , , , , , , , , , , , , , , , , , , ,			
May 26 Tuesday, 2015 at Small Conference Room 1 (on the fin	st floor)				
Tu1-1F1 0930-1030 Genetic Algorit	hms 1				
Chaired by: OLIVIU MATEI	·····				
0930 hrs	0950 hrs	1010 hrs			
15157 An Improved GA for Identifying Susceptibility Genes in the Presence of Epistasis	15116 Advanced Genetic Operators in the Context of Evolutionary Ontology	15101 Monogamous Pair Bonding in Genetic Algorithm			
An improved OA for identifying desceptibility defies in the Presence of Epistasis	Advanced deficit operators in the context of Evolutionary Ontology	monogamous ran bonding in Genetic Algorithm			
Jyh-Ferng Yang, Yu-Da Lin, Li-Yeh Chuang and Cheng-Hong Yang	OLIVIU MATEI and Diana Contras	TING YEE LIM, Mohammed Azmi Al-Betar and Ahamad Tajudin Khader			
May 26 Tuesday, 2015 at Small Conference Room 2 (on the fir	st floor)				
Tu1-1F2 0930-1030 Particle Swarm	Optimization 1				
Chaired by: YANGMIN LI					
0930 hrs	0950 hrs	1010 hrs			
15041 Cooperative Particle Swarm Optimizer with Improved Elimination Mechanism for Global	15060 Saturation in PSO Neural Network Training: Good or Evil?	15162 Swarm Intelligence to Coordinate Decentralized Learning Automata in Identical Payoff Games			
Optimization	Saturation in PSO Neural Network Training, Good of Evil:	Swarm intelligence to Coordinate Decentralized Learning Automata in Identical Payon Games			
Geng Zhang and YANGMIN LI	Anna Rakitianskaia and Andries Engelbrecht	Jie Li, JunQi Zhang, LINWEI XU and ChangJun Jiang			
May 26 Tuesday, 2015 at Small Conference Room 3 (on the fir	st floor)				
Tu1-1F3 0930-1030 Intelligent System	ems Applications 1				
Chaired by: Тномаѕ Васк					
0930 hrs	0950 hrs	1010 hrs			
15363 Optimizing Highly Constrained Truck Loadings Using a Self-Adaptive Genetic Algorithm	15379 User-Derived Mutation in Highly Constrained Truck Loading Optimization	15281 Multi-Objective Differential Evolution Algorithm for Underwater Image Restoration			
		CAMILO SANCHEZ FERREIRA, Helon Ayala, Leandro dos S. Coelho, Daniel Munoz, Mylene Farias and			
SANDER VAN RIJN, Edgar Reehuis and Thomas Bäck	JOOST LEUVEN, Edgar Reehuis and Thomas Bäck	Carlos Llanos			
May 26 Tuesday, 2015 at Small Conference Room 4 (on the se	econd floor)				
Tu1-2F4 0930-1030 Differential Evo	olution 1				
Chaired by: Jun-Ichi Kushida					
0930 hrs	0950 hrs	1010 hrs			
15042 Differential Evolution for Strongly Noisy Optimization: Use 1.01^n Resamplings at Iteration n	15226 A Differential Evolution Algorithm for Resource Investment Problems with Tardiness	15229 Rank-Based Differential Evolution with Multiple Mutation Strategies for Large Scale Global			
and Reach the -1/2 Slope	2 - State of the s	Optimization			

Meining Liu, JING LIU and Martin O.Wimmers

JUN-ICHI KUSHIDA, Akira Hara and Tetsuyuki Takahama

Shih-Yuan Chiu, Ching-Nung Lin, JIALIN LIU, Tsan-Cheng Su, Fabian Teytaud, Olivier Teytaud and

May 20 Typeday 2045 at Creal Conference Deem 5 (an the co	and floor)				
May 26 Tuesday, 2015 at Small Conference Room 5 (on the se	orithm and Cuckoo Search 1				
Chaired by: Xin-She Yang	THE COUNCE COUNTY				
0930 hrs 15084 Fuzzy dynamic parameter adaptation in the Cuckoo Search Algorithm via Levy flights for optimizing benchmark mathematical functions Maribel Guerrero, OSCAR CASTILLO and Mario Garcia	0950 hrs 15085 Cuckoo Search Algorithm for the Optimization of Type-2 Fuzzy Image Edge Detection Systems Claudia Gonzalez, Juan Castro, PATRICIA MELIN and Oscar Castillo	1010 hrs 15189 A Modified Cuckoo Search Algorithm for Flow Shop Scheduling Problem with Blocking Hui Wang, Wenjun Wang, Hui Sun, Changhe Li, Shahryar Rahnamayan and Yong Liu			
May 26 Tuesday, 2015 at Small Conference Room 6 (on the th	ird floor)				
Tu1-3F6 0930-1030 SS47: Evolutio	nary Computation in Cognitive Robotics 1				
Chaired by: Chu Kiong Loo and Naoyuki Kubota	, ,				
0930 hrs	0950 hrs	1010 hrs			
15286 The Proposal for Real-time Sequential-decision for Optimal Action using Flexible-weight Coefficient based on the State-Action Pair	15673 Robot Posture Generation based on Genetic Algorithm for Imitation	15684 Evolving Spiking Neural Network for Robot Locomotion GenerationLiqiang Hou, Anum Pirzada,			
MASASHI SUGIMOTO and Kentarou Kurashige	TAKENORI OBO, Chu Kiong Loo and Naoyuki Kubota	Noriko Takase, Janos Botzheim and Naoyuкi Кивота			
May 26 Tuesday, 2015 at Small Conference Room 7 (on the th	ird floor) Clustering, Data Analysis and Data Mining 1				
Chaired by: DAVID CAMACHO	one coming, Data rimaryone and Data mining .				
0930 hrs 15418 GANY: A Genetic Spectral-based Clustering Algorithm for Large Data Analysis	0950 hrs 15216 Deep Community Detection based on Memetic Algorithm	1010 hrs 15381 How to Use Ants for Data Stream Clustering			
Hector Menendez and DAVID CAMACHO SHANFENG WANG, Maoguo Gong, Bo Shen, Zhao Wang, Qing Cai and Licheng Jiao NESRINE MASMOUDI, Hanane Azzag, Mustapha Lebbah, Cyrille Bertelle and Maher Ben Jemaa					
May 26 Tuesday, 2015 at Small Conference Room 8 (on the th	ird floor)				
Tu1-3F8 0930-1030 Heuristics, Met	aheuristics and Hyper-heuristics 1				
Chaired by: Han Huang					
0930 hrs 15095	0950 hrs 15113	1010 hrs 15137			
An Hybrid Evolutionary Algorithm with Scout Bee Global Search Strategy for Chinese Nurse Rostering Problems	Leaders and Followers - A New Metaheuristic to Avoid the Bias of Accumulated Information	A Benchmark Set Extension and Comparative Study for the HyFlex Framework			
Xiaoyan Zhuo, HAN HUANG, Zhaoquan Cai and Hui Hu	Yasser Gonzalez-Fernandez and STEPHEN CHEN	STEVEN ADRIAENSEN, Gabriela Ochoa and Ann Nowe			
May 26 Tuesday, 2015 at Medium Conference Room Shirakas	hi 1 (on the third floor)				
Tu1-3F9 0930-1030 Multi-Objective	Evolutionary Algorithms 1				
Chaired by: KALYANMOY DEB					
0930 hrs 15021 Performance of a Steady State Quantum Genetic Algorithm for Multi/Many-objective	0950 hrs 15662 Multi-Scenario, Multi-Objective Optimization Using Evolutionary Algorithms: Initial Results	1010 hrs 15050 An Improved Performance Metric for Multiobjective Evolutionary Algorithms with User			
Engineering Optimization Problems		Preferences			
Md Asafuddoula, Tapabrata Ray, Amitay Isaacs and HEMANT SINGH	KALYANMOY DEB, Ling Zhu and Sandeep Kulkarni	Guo Yu, HuaZheng Jin and Xiaodong Li			

May 26 Tuesday, 2015 at Medium Conference	Room Shirakash	hi 2 (on the third floor)		
Tu1-3F10 0930-1030	SS04: Bound C	Constrained Single Objective Nur	nerical Optimization Competition	1
Chaired by: P. N. SUGANTHAN AND JOSE RUEDA		<u> </u>		
0930 hrs 15031		0950 hrs 15035		1010 hrs 15096
A Self-Optimization Approach for L-SHADE Incorporated with Eigenvector-Based Crossover and Successful-Parent-Selecting Framework on CEC 2015 Benchmark Set		MVMO for Bound Constrained Single-Objective Optimization	Computationally Expensive Numerical	Tuning Maturity Model of Ecogeography-Based Optimization On CEC 2015 Single-Objective Optimization Test Problems
Shu-Mei Guo, CHIN-CHANG YANG, Jason Sheng-Hong			JOSE RUEDA and Istvan Erlich	Yu-Jun Zheng and Xiao-Bei Wu
May 26 Tuesday, 2015 at Small Conference Ro	-			
Tu2-1F1 1050-1150	Genetic Algorith	hms 2		
Chaired by: JING LIU				
1050 hrs		1110 hrs		1130 hrs
15305 A Multi-agent Genetic Algorithm with Variable Neighborhood Search for	r Resource Investment	15311 Efficiency of Adaptive Genetic Algorithm with M	Mutation Matrix in the Solution of the Knapsack	15377 Comparative Analysis of Genetic Based Approach and Apriori Algorithm for Mining Maximal
Project Scheduling Problems		Problem of Increasing Complexity	·	Frequent Item Sets
Xiaoxiao Yuan, JING	LIU and Martin Wimmers		QING JIE LI and Kwok Yip Szeto	MIR Md. Jahangir Kabir, Shuxiang Xu, Byeong Ho Kang and Zongyuan Zhao
May 26 Tuesday, 2015 at Small Conference Ro		<u> </u>		
Tu2-1F2 1050-1150	Particle Swarm	Optimization 2		
Chaired by: Liu Jun				
1050 hrs		1110 hrs		1130 hrs
15163 A Learning Automata-based Particle Swarm Optimization Algorithm		15164 Interpersonal Learning Particle Swarm Optimize	er	15334 Optimal Cloud Storage Problem in the Distributed Cloud Data Centers by the Discrete PSO
				Algorithm
JunQi Zhang, LINWEI XU, Ji	Ma and MengChu Zhou		Ji Ma, Junqi Zhang and LinWEi X∪	LIU JUN, Shi Tianyun and Li Ping
May 26 Tuesday, 2015 at Small Conference Ro	oom 3 (on the fire	st floor)		
Tu2-1F3 1050-1150	Intelligent Syste	ems Applications 2		
Chaired by: Thomas Bäeck				
1050 hrs		1110 hrs		1130 hrs
15028	- Batant Ovellto	15124	of Oherston the Beet Combined and a second	15406
Fuzzy Markup Language with Genetic Learning Mechanism for Invention Evaluation	n Patent Quality	Ant Colony Optimization Applied to the Problem Combinations of Shortest Paths in Transparent		Optimal placement and sizing of Static Var Compensator using Cuckoo search algorithm
Mei-Hui Wang, Yung-Chang Hsiao, Bing-Heng Tsai, Lee Chang-S	Shing and LIFN TING-TZU	•	ndre Soares, Ricardo Rabelo and FELIPE MAZULLO	PHUCKHAI NGUYEN, Goro Fujita and Ngoc Dieu Vo
May 26 Tuesday, 2015 at Small Conference Ro	oom 4 (on the se	econd floor)		
Tu2-2F4 1050-1130	Differential Evo	olution 2		
Chaired by: Rawaa Dawoud AL-Dabbagh				
1050 hrs			1110 hrs	
15091 Differential Evolution with Adaptive Repository of Strategies and Parame	eter Control Schemes		15093 An Improved Differential Evolution for Rule Ext	raction and Its application in Recognizing Oil Reservoir
		RAWAA DAWOUD AL-DARRAGH		YANAN LI, Yijing Li and Haixiang Guo

May 26 Tuesday, 2015 at Small Conference Ro	oom 5 (on the se	econd floor)				
Tu2-2F5 1050-1150	SS05: Bat Algo	orithm and Cuckoo Search 2				
Chaired by: XIN-SHE YANG						
15117 15186 Modification of the Bat Algorithm using fuzzy logic for dynamic parameter adaptation WSN's		1110 hrs 15186 WSN's Energy-Aware Coverage Preserving Optimization Model based on Multi-Objective Bat Swarm Optimization Algorithm MARWA SHARAWI, Eid Emary, Imane Aly Saroit and Hesham El-Mahdy		15109	Bat Algorithm for Global Optimization WANG GAI-GE and Chang Bao	
May 26 Tuesday, 2015 at Small Conference Ro	oom 6 (on the th	ird floor)				
Tu2-3F6 1050-1150	SS47: Evolutio	nary Computation in Cognitive R	obotics 2			
Chaired by: Chu Kiong Loo and Naoyuki Kubota		,	-			
1050 hrs 15595 Distributed Particle Swarm Optimization using Optimal Computing Bud	get Allocation for	1110 hrs 15586 Efficiency Energy on Humanoid Robot Walking	using Evolutionary Algorithm	1130 hrs 15647 Generic Cognitive Con	nputing for Cognition	
EZEQUIEL DI MARIO, Inaki Navar	i Navarro and Alcherio Martinoli Azhar Aulia Saputra and NAOYUKI KUBOTA OZER CIFTCIC		OZER CIFTCIOGLU and Michael S. Bittermann			
May 26 Tuesday, 2015 at Small Conference Ro	oom 7 (on the th	ird floor)				
Tu2-3F7 1050-1210 Classification, Clustering, Data Analysis and Data Mining 2						
Chaired by: HAIBO HE						
1050 hrs	1110 hrs		1130 hrs		1150 hrs	
15633 KernelADASYN: Kernel Based Adaptive Synthetic Data Generation for Imbalanced Learning Bo Tang and HAIBO HE	Sensitive Classifiers Based on Genetic Programming			Prediction of Acute Hypotensive Episodes Using Random Forest		
May 26 Tuesday, 2015 at Small Conference Ro	oom 8 (on the th	ird floor)				
Tu2-3F8 1050-1210	Heuristics. Met	aheuristics and Hyper-heuristics	2			
Chaired by: Masahiro Kanazaki		J _F				
1050 hrs 15152 Metaheuristic Optimization Algorithms for Approximate Solutions to Ordinary Differential Equations ALI SADOLLAH, Younghwan Choi and Joong Hoon Kim	1110 hrs 15296 Optimising the Deploy Search	ment of Fibre Optics using Guided Local SAM CRAMER and Michael Kampouridis	1130 hrs 15393 A Simplified Water Wave Optimization Algorith Yu-Jt	m in Zheng and BEI ZHANG	1150 hrs 15024 An Ant Colony Optimization-based Hyper-Heuristic with Genetic Programming Approach for a Hybrid Flow Shop Scheduling Problem LIN CHEN, Dan Zheng and Dongni Li	
May 26 Tuesday, 2015 at Medium Conference	Room Shirakas	hi 1 (on the third floor)				
Tu2-3F9 1050-1130	Multi-Objective	Evolutionary Algorithms 2				
Chaired by: SINYA WATANABE		•				
1050 hrs 15131 EVEBO: A New Election Inspired Optimization Algorithm			1110 hrs 15155 Multi-Objective Optimization of Auto-Tap-Chan	ger Pole transformer con	nsidering Optimum Placement in Distribution System	

MOZAFFAR POURGHANBAR, Manoochehr Kelarestaghi and Farshad Eshghi

SHIGENOBU RYUTO and Palmer Michae

May 26 Tuesday, 2015 at Medium Conference	Room Shirakasl	ni 2 (on the third floor)			
Tu2-3F10 1050-1150	SS04: Bound C	constrained Single Objective Numerical Optimization Competition	12		
Chaired by: P. N. SUGANTHAN, ISTVAN ERICH, AND SABER ELSA	AYED				
1050 hrs 15170 Testing MVMO on Learning-based Real-Parameter Single Objective Ber Problems JOSE F	nchmark Optimization	1110 hrs 15230 Neurodynamic Evolutionary Algorithm and Solving CEC2015 Competition Problems Karam Sallam, Ruhul Sarker, Daryl Essam and SABER ELSAYED	1130 hrs 15287 An Improved Covariance Matrix Leaning and Searching Preference Algorithm for Solving CEC 2015 Benchmark Problems Lei Chen, HAI-LIN LIU, Chaoda Peng and Shengli Xie		
May 26 Tuesday, 2015 at Large Conference R	oom Tachibana	Large Hall) (on the second floor)			
Plenary II 1300-1400 Chaired by: Kalyanmoy Deb	Keynote				
Optimization	n in Industry: I	From Statistics to Evolutionary Methods in Design and N	Management Applications		
	, , , , , , , , , , , , , , , , , , , ,	, , ,	sch Choze (General Electric Global Research Center, USA)		
May 26 Tuesday, 2015 at Small Conference R	oom 1 (on the fire	st floor)			
Tu3-1F1 1415-1515	Genetic Algorit	nms 3			
Chaired by: Anuraganand Sharma and Marcio Basgalupp					
1415 hrs 15384 Analysis of Evolutionary Operators for ICHEA in Solving Constraint Op	otimization	1435 hrs 15405 Evolving Balanced Decision Trees with a Multi-Population Genetic Algorithm	1455 hrs 15425 An Exploratory Path Planning Method based on Genetic Algorithm for Autonomous Mobile Robots		
	ANURAGANAND SHARMA	Vili Podgorelec, Saso Karakatic, Rodrigo Barros and MARCIO BASGALUPP	VALERIA SANTOS, Claudio Toledo and Fernando Osorio		
May 26 Tuesday, 2015 at Small Conference R	oom 2 (on the fir	st floor)			
Tu3-1F2 1415-1515	Particle Swarm	Optimization 3			
Chaired by: TBA					
1415 hrs 15169		1435 hrs 15213	1455 hrs 15597		
Fully Informed Particle Swarm Optimizer: Convergence Analysis		A Novel Community Detection Method Based on Discrete Particle Swarm Optimization Algorithms in Complex Networks	SwarmViz: An Open-Source Visualization Tool for Particle Swarm Optimization		
CHRISTOPHER CLEGHORN	and Andries Engelbrecht	Cen Cao, QINGJIAN NI and Yuqing Zhai	Guillaume Jornod, EZEQUIEL DI MARIO, Inaki Navarro and Alcherio Martinoli		
May 26 Tuesday, 2015 at Small Conference R	oom 3 (on the fir	st floor)			
Tu3-1F3 1415-1515 SS39: Evolutionary Computation for Smart Grid Operation and Planning 1					
Chaired by: Hiroyuki Mori, Yoshikazu Fukuyama, Hong-Tzer Yang, and Men-Shen Tsai					
1415 hrs 15053		1435 hrs 15199	1455 hrs 15582		
Improved PSO Based Home Energy Management Systems Integrated win a Smart Grid	•	Development of a Genetic Algorithm based Electric Vehicle Charging Coordination on Distribution Networks	EPSO-based Gaussian Process for Electricity Price Forecasting		
HONG-TZER YANG, Szu-Yao Chen, Chiao-Tung Yang, Chia-Chun	Tsai and Guan-Jhih Chen	Yen-Chih Yeh and Men-Shen Tsai	Hiroyuki Mori and Kaoru Nakano		

May 26 Tuesday 2015 at Small Conference B	oom 4 (on the se	acond floor)			
May 26 Tuesday, 2015 at Small Conference R Tu3-2F4 1415-1515	<u> </u>	tial Evolution: Past, Present, and	L Euturo 1		
Chaired by: Kai Qin and P. N. Suganthan	3317. Dilletett	liai Evolution. Past, Fresent, and	r ruture i		
1415 hrs 15438 An Improved Differential Evolution for Batching Problem in Steelmakin	g Production	1435 hrs 15273 Greedy Adaptation of Control Parameters in Di Problems	fferential Evolution for Global Optimization		ntial Evolution with Heterogeneous Influence for Numerical Optimization Awad, Rehab Duwairi, Jafar Albadarneh, Robert Reynolds and PONNUTHURAI
WenJii	E XU and Gongshu Wang		MIGUEL LEON and Ning Xiong		Suganthan
May 26 Tuesday, 2015 at Small Conference R	oom 5 (on the se	econd floor)			
Tu3-2F5 1415-1515	,	orithm and Cuckoo Search 3			
Chaired by: XIN-SHE YANG AND MILAN TUBA	0000. But 7 ligo	THE CHARGE CONTROL			
1415 hrs 15253 A modified Bat algorithm for the Quadratic Assignment Problem.		1435 hrs 15261 Modified bat algorithm with quaternion represe	entation	1455 hrs 15510 Hybridized Bat Algorit	hm for Multi-Objective Radio Frequency Identification (RFID) Network
	Apurv Shukla	IZTOK FIS	TER, Janez Brest, Iztok Jr. Fister and Xin-She Yang	Planning	MILAN TUBA and Nebojsa Bacanin
May 26 Tuesday, 2015 at Small Conference R Tu3-3F6 1415-1515	-	ird floor) nary Computation in Aerospace	Science 1		
Chaired by: Massimiliano Vasile and Masahiro Kanazaki			T		
1415 hrs 15059 Structural Optimisation of a Composite Aircraft Frame Applying a Parti	cle Swarm Algorithm		1435 hrs 15669 Efficient Global Optimization Applied to Aerod	ynamic Drag Reduction A	Around Cylinder Using Plasma Actuators in Wind Tunnel Experiment
	LE	ENNART WEISS, Hardy Koeke and Christian Huehne		N	IASAHIRO KANAZAKI, Matsuno Takashi, Maeda Kengo and Kawazoe Hiromitsu
May 26 Tuesday, 2015 at Small Conference R	oom 7 (on the th	ird floor)			
Tu3-3F7 1415-1535	SS27: Big Opti	mization & SS48: Evolutionary C	Computation in Big Data		
Chaired by: Kay Chen Tan, Shi Cheng, Yuhui Shi, Yaochu Ji	N, SABER ELSAYED, AN	ID LIU JING	<u> </u>		
1415 hrs 15007 Adaptive Configuration of Differential Evolution Algorithms for Big	1435 hrs 15317 A Multi-agent Genetic	Algorithm for Big Optimization Problems	1455 hrs 15171 Deadline Constrained Cloud Computing Resou	rces Schedulina for	1515 hrs 15239 Evolutionary Undersampling for Imbalanced Big Data Classification
Data	_		Cost Optimization Based on Dynamic Objectiv	e Genetic Algorithm	ISAAC TRIGUERO, Mikel Galar, Sarah Vluymans, Chris Cornelis, Humberto
SABER ELSAYED and Ruhul Sarker	Yutong Zhar	ng, Zhou Mingxing, Jiang Zhongzhou and LIU JING	ZONG-GAN CHEN, Ke-Jing Du, Zhi-Hui	∠han and Jun Zhang	Bustince, Francisco Herrera and Yvan Saeys
May 26 Tuesday, 2015 at Small Conference R	oom 8 (on the th	ird floor)			
Tu3-3F8 1415-1515	Heuristics, Metaheuristics and Hyper-heuristics 3				
Chaired by: REGINA BARRETTA					
1415 hrs 1435 hrs 15459 15566 Analysis of Global Information Sharing in Hyper-heuristics for Different Dynamic A Math-Hyper-Heuristic Approach for Lar			ale Vehicle Routing Problems with Time	1455 hrs 15056 A Memetic Algorithm f	or the Quadratic Assignment Problem with Parallel Local Search
Environments STEFAN VAN DER STOCKT an	d Andries P. Engelbrecht	Windows Nasser R.	Sabar, Xiuzhen Jenny Zhang and ANDY SONG	М	atthew Harris, REGINA BERRETTA, Mario Inostroza-Ponta and Pablo Moscato

May 26 Tuesday, 2015 at Medium Conference Roon		,				
	Tu3-3F9 1415-1515 Multi-Objective Evolutionary Algorithms 3					
Chaired by: CARLOS A. COELLO COELLO	1					
1415 hrs 15184 A New Evolutionary Multi-objective Algorithm for Convex Hull Maximization		1435 hrs 15198 Reference Vector Based <i>a posteriori</i> Preference Articulation for Evolutionary Multiobjective Optimization	1455 hrs 15209 GDE-MOEA: A New MOEA based on the Generational Distance indicator and epsilon-dominance			
WENJING HONG, Guanzhou Lu, Peng Yang, Yong Wang	g and Ke Tang	RAN CHENG, Markus Olhofer and Yaochu Jin	ADRIANA MENCHACA-MENDEZ and Carlos A. Coello Coello			
May 26 Tuesday, 2015 at Medium Conference Room	m Shirakash	ni 2 (on the third floor)				
Tu3-3F10 1415-1515 SS0	04: Bound C	onstrained Single Objective Numerical Optimization Competition	13			
Chaired by: P. N. Suganthan, Radoka Polakova, and Mohammed E		, , , , , , , , , , , , , , , , , , , ,				
1415 hrs 15473		1435 hrs 15485	1455 hrs 15487			
Cooperation of Optimization Algorithms: A Simple Hierarchical Model		Hybrid Cooperative Co-evolution For The CEC15 Benchmarks	Experiments on the CEC 2015 Expensive Optimization Testbed			
RADKA POLAKOVA, Josef Tvrdik	k and Petr Bujok	MOHAMMED EL-ABD	VINCENT BERTHIER			
May 26 Tuesday, 2015 at Small Conference Room 1	•					
Tu4-1F1 1545-1645 Gen	netic Algorith	nms 4				
Chaired by: Michael Fenton and Sinha Ankur						
1545 hrs 15434		1605 hrs 15488	1625 hrs 15692			
Load Balancing in Heterogeneous Networks using Grammatical Evolution		Bio-Inspired Redistribution of Urban Traffic Flow Using a Social Network Approach	Unconstrained Robust Optimization using a Descent-based Crossover Operator			
MICHAEL FENTON, David Lynch, Stepan Kucera, Holger Claussen and N	Michael O'Neill	CRISTIAN COSARIU, Alexandru Iovanovici, Prodan Lucian, Udrescu Mihai and Vladutiu Mircea	a Aleksi Porokka, Sınha Ankur, Malo Pekka and Deb Kalyanmoy			
May 26 Tuesday, 2015 at Small Conference Room 2	2 (on the fire	et floor)				
	•					
•	ticie Swarm	Optimization 4				
Chaired by: MARDE HELBIG		4005	Loop			
1545 hrs 15307 Presented by MARDE HELBIG		1605 hrs 15308	1625 hrs 15165			
Vector-Evaluated Particle Swarm Optimization with Local Search		Mentoring based Particle Swarm Optimization Algorithm for Faster Convergence	Staying Together Maybe Better for Particles			
Derek Dibblee, Justin Maltese, Beatrice Ombuki-Berman and Andr	ries Engelbrecht	MUHAMMAD RIZWAN TANWEER, Suresh Sundaram and Narasimhan Sundararajan	Ji Ma, JunQi Zhang and LinWei Xu			
May 26 Tuesday, 2015 at Small Conference Room 3 (on the first floor)						
Tu4-1F3 1545-1645 SS39: Evolutionary Computation for Smart Grid Operation and Planning 2						
Chaired by: Hiroyuki Mori and Yoshikazu Fukuyama			,			
1545 hrs		1605 hrs	1625 hrs			
15326 A Reinforcement learning algorithm for Agent-based Computational Economics of electricity markets BHARAT MENON RADHAKRISHNAN, Dipti Srinivasan, Yong Fu Alfred Lau, Balaji Gokulan	n Parasumanna,	15329 Paralell Particle Swarm Optimization for Reactive Power and Voltage Control Verifying Dependability	15373 A Multi-objective Genetic Algorithm for Unit Commitment with Significant Wind Penetration			
Akshay Kumar Rathore, Sanjib Kumar Panda and Ashwin	n Khambadkone	Yoshikazu Fukuyama	ANUPAM TRIVEDI, Dipti Srinivasan, Thomas Reindl and Chanan Singh			

May 26 Tuesday, 2015 at Small Conference R	oom 4 (on the se	cond floor)		
Tu4-2F4 1545-1645	SS17: Different	ial Evolution: Past, Present, and	Future 2	
Chaired by: Kai Qin and Tsung-Che Chiang	•	, ,		
1545 hrs		1605 hrs		1625 hrs
15293		15421		15670
Adaptive Differential Evolution: A Visual Comparison		An Improved Mutation Strategy Based on Center Algorithm	er of Solutions for Differential Evolution	A Sensitivity Study of Contribution-Based Cooperative Co-evolutionary Algorithms
Chi-An Cher	and Tsung-Che Chiang	=	G-ZHONG WANG, Dai-Fen Wu and Tsung-Ying Sun	BORHAN KAZIMIPOUR, Mohammad Omidvar, Xiaodong Li and A. K. Qin
May 26 Tuesday, 2015 at Small Conference R	oom 5 (on the se	cond floor)		
Tu4-2F5 1545-1625	SS05: Bat Algo	rithm and Cuckoo Search 4 & A	nt Colony Optimization 1	
Chaired by: XIN-SHE YANG AND ANDRES IGLESIAS			, ,	
1545 hrs			1605 hrs	
15517			15023	
Memetic Firefly Algorithm for Data Fitting with Rational Curves			ADR-Miner: An Ant-Based Data Reduction Algo	orithm for Classification
		ANDRES IGLESIAS and Akemi Galvez		ISMAIL M. ANWAR, Khalid M. Salama and Ashraf M. Abdelbar
May 26 Tuesday, 2015 at Small Conference R	oom 6 (on the thi	ird floor)		
Tu4-3F6 1545-1645	SS36: Evolution	nary Computation in Aerospace	Science 2	
Chaired by: Massimiliano Vasile, Jin Zhang and Daisuke Sa				
1545 hrs		1605 hrs		1625 hrs
15251		15310		15325
Analysis of Multiple Asteroids Rendezvous Optimization using Genetic	Algorithms	Multi-objective Evolutionary Optimization of Evasive Maneuvers Included Observability Performance		Robust Airfoil Optimization of Human-Powered Aircraft against Manufacturing Variations
JIN ZHANG, Yazhong Luo, Ha	iyang Li and Guojin Tang	DATENG YU, Yazhong Luo, Zicheng Jiang and Guojin Tang		DAISUKE SASAKI, Takahito Kurishita and Masaru Kamada
May 26 Tuesday, 2015 at Small Conference R	oom 7 (on the thi	ird floor)		
Tu4-3F7 1545-1645	SS30: When Ev	volutionary Computation Meets I	Data Mining 1	
Chaired by: Zhun Fan, Zhuan-Kang Ting, Jun Zhang, Kay C			<u> </u>	
1545 hrs		1605 hrs		1625 hrs
15424		15098		15323
Forming Classifier Ensembles with Multimodal Evolutionary Algorithm	s	Evolutionary data sampling for user movement	classification	Mining Group Stock Portfolio by Using Grouping Genetic Algorithms
STUART LACY, Michael Lo	ones and Stephen Smith		IRAKLIS VARLAMIS	Сним-Нао Снем, Cheng-Bon Lin and Chao-Chun Chen
	·			. •
May 26 Tuesday, 2015 at Small Conference R	oom 8 (on the thi	ird floor)		
Tu4-3F8 1545-1645	SS18: Evolutionary Algorithms in Hyper-heuristics			
Chaired by: Nelishia Pillay	•			
1545 hrs	1605 hrs		1625 hrs	
15518		15683		15181
Google Challenge: A Hyperheuristic for the Machine Reassignment Problem		Algorithm Structure Optimization by Choosing Search	Operators in Multiobjective Genetic Local	Comparison of Scalarization Functions within a Local Surrogate Assisted Multi-objective Memetic Algorithm Framework for Expensive Problems
Rodolfo Hoffmann, Maria-Cristina Riff, Elizabeth Mo	ntero and Nicolas Rojas		Yu Setoguchi, Yusuke Nojima and Hisao Ishibuchi	PRAMUDITA PALAR, Takeshi Tsuchiya and Geoff Parks
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May 26 Tuesday, 2015 at Medium Conference		•					
Tu4-3F9 1545-1645	Tu4-3F9 1545-1645 Multi-Objective Evolutionary Algorithms 4						
Chaired by: Takeshi Watanabe							
1545 hrs 15270							
A Multi-Objective Optimization Approach to Reliable Robot-Assisted Se	ensor Relocation	On the fast hypervolume calculation method		15382 Efficient Computation of Two-dimensional Solution Sets Maximizing the Epsilon-Indicator			
BENJAMIN DESJARDINS, Rafael Falcon, Rami Al	bielmona and Emil Petriu	Takeshi V	VATANABE, Tomoaki Tatsukawa and Akira Oyama	Karl Bringmann, Tobias Friedrich and PATRICK KLITZKE			
		-		.			
May 26 Tuesday, 2015 at Medium Conference	Room Shirakash	ni 2 (on the third floor)					
Tu4-3F10 1545-1645	SS04: Bound C	Constrained Single Objective Nur	nerical Optimization Competition	n 4			
Chaired by: P. N. Suganthan, Thomas Stuetzle, and Shi Ch	ENG	-					
1545 hrs		1605 hrs		1625 hrs			
15527 Generalized Artificial Bee Colony Algorithm with Local Search Strategi	es	15568 Multimodal Optimization Using Particle Swarm	Optimization Algorithms: CEC 2015	15598 Exponentially Decreased Dimension Number Strategy in Dynamic Search Fireworks			
		Competition on Single Objective Multi-Niche Op	otimization	Algorithm for CEC2015 Competition Problems			
Dogan Aydi	n and THOMAS STUETZLE	SHI	CHENG, Quande Qin, Yuhui Shi and Qingyu Zhang	SHAOQIU ZHENG, Chao Yu, Junzhi Li and Ying Tan			
M 00 T 1 0045 10 110 1	4 / 11 6	1.6					
May 26 Tuesday, 2015 at Small Conference R	oom 1 (on the fir	st floor)					
Tu5-1F1 1700-1800	Coevolutionary	systems					
Chaired by: Rohitash Chandra and Carlos A. Coello Coel	LO						
1700 hrs 15036		1720 hrs 15069		1740 hrs 15316			
Competitive Two-Island Cooperative Coevolution for Real Parameter G	lobal Optimisation	Multi-Objective Cooperative Neuro-Evolution of Recurrent Neural Networks for Time Series		A Non-cooperative Game for Faster Convergence in Cooperative Coevolution for			
Pohitosh Cha	ndra and KAVITESH BALI	Prediction ROHITASH CHANDRA and Shelvin Chand		Multi-objective Optimization Luis Miguel Antonio and Carlos A. Coello Coello			
Rulliasii Gila	IIUIA AIIU KAVITESH BALI		RONITASH CHANDRA AND SHEIVIN CHAND	LUIS MILGUEL ANTONIO ATIU CATIUS A. CUEIIU CUEIIU			
May 26 Tuesday, 2015 at Small Conference R	oom 2 (on the fire	st floor)					
Tu5-1F2 1700-1740	Particle Swarm	Optimization 5					
Chaired by: Toshiharu Hatanaka		•					
1700 hrs			1720 hrs				
15355 Dynamic-PSO: An Improved Particle Swarm Optimizer			15561 Three Variations of a Particle Swarm Ontimization	ion/Tabu Search Approach to the Quadratic Assignment Problem			
Zynamic Control mprotoc Landou Chaim Cpaning.			······································	and the second of the second o			
NITIN SAXENA, Ashish Tripathi, Mishra K. K. and Misra A. K. Ayah Helal, ENAS JAWDAT and Ashraf Abdelbar							
May 26 Tuesday, 2015 at Small Conference Room 3 (on the first floor)							
Tu5-1F3 1700-1800 SS39: Evolutionary Computation for Smart Grid Operation and Planning 3 & SS32: Evolutionary Computation in Energy Domain							
Chaired by: Hiroyuki Mori, Yoshikazu Fukuyama, Hailin Liu, and Oliver Kramer							
1700 hrs 15235		1720 hrs 15610		1740 hrs 15632			
Optimized Base Station Sleeping and Renewable Energy Procurement	Application of EPSO to Designing a Contract M	odel of Weather Derivatives in Smart Grid	Evolutionary Feature Weighting for Wind Power Prediction with Nearest Neighbor Repression				

HIROYUKI MORI and Hajime Fujita

NILS TREIBER and Oliver Kramer

Qiang Wang and HAI-LIN LIU

May 26 Tuesday, 2015 at Small Conference Room 4 (on the second floor)					
Tu5-2F4 1700-1800	SS17: Differential Evolution: Past, Present, ar	SS17: Differential Evolution: Past, Present, and Future 3			
Chaired by: Kai Qin					
1700 hrs		1720 hrs			
15426		15613			
Composite Differential Evolution with Queueing Se	lection for Multimodal Optimization	Local Ensemble Surrogate Assisted Crowding Differential Evolution			
	ZHANG YU-HUI, Gong Yue-Jiao and Zhang Jun		CHEN JIN, A. K. Qin and Ke Tang		

May 26 Tuesday, 2015 at Small Conference Room 5 (on the second floor)						
Tu5-2F5 1700-1800 A	nt Colony Op	timization 2				
Chaired by: STEVEN CORNS						
1700 hrs		1720 hrs		1740 hrs		
15415		15646		15039 Presented by Felipe Eduardo do Nascimento Mazullo		
A Novel Heterogeneous Feature Ant Colony Optimization and its Application on Robot Path		A Method for Tabu-Ant Colony Optimization		Artificial Immune Systems in Intelligent Agents Test		
Planning				Savio Mota Carneiro, Thiago Allisson Ribeiro da Silva, Ricardo de Andrade Lira Rabelo, Francisca		
Yiyun Yao, Qingjian Ni, Qing Lv and Kai Huang David Haynes and STEVEN CORNS Raquel de Vasconcelos Silveira and Gustavo Augusto Lima de Campos						

May 26 Tuesday, 2015 at Small Conference Room 6 (on the third floor)						
Tu5-3F6 1700-1800	SS36: Evolutionary Comp	SS36: Evolutionary Computation in Aerospace Science 3				
Chaired by: Massimiliano Vasile, Hardy Ko	OEKE					
1700 hrs		1720 hrs	1740 hrs			
15387		15428	15584			
Evolutionary Algorithm Applied to Ballistic Launch Vehicle Design Using Hybrid Rocket		BESO with Strain Controlled Material Assignment	Multi-Population Inflationary Differential Evolution Algorithm with Adaptive Local Restart			
Engine Evaluated by Enhanced Flight Simulation						
HIDEYUKI YODA, Shoma Ito, Masahiro Kanazaki, Kaz	uhisa Chiba, Koki Kitagawa and Toru Shimada	HARDY KOEKE, Lennart Weiss and Christian Huehne	Marilena Di Carlo, Massimiliano Vasile and Edmondo Minisci			

May 26 Tuesday, 2015 at Small Conference Room 7 (on the third floor)						
Tu5-3F7 1700-1820	SS30: When Evolutionary Computation Meets Data Mining 2					
Chaired by: Zhun Fan and Hiroyasu Tomoyuki						
1700 hrs	1720 hrs	1740 hrs	1800 hrs			
15419	15009	15430	15570			
Using Association Rules to Guide Evolutionary Search in Solving	Using Association Rules to Guide Evolutionary Search in Solving A Memetic Gravitation Search Algorithm for Solving Cluster A Comparison of Evolved Linear and Non-Linear Ensemble Vote Investigation of Regions of Interest (ROI) through the Selection of					
Constraint Satisfaction	Problems	Aggregators	Optimized Channels in fNIRS Data			
MADALINA RASCHIP, Cornelius Croitoru and Kilian Stoffel	Ko-Wei Huang, Jui-Le Chen, Chu-Sing Yang and Chun-Wei Tsai	STUART LACY, Michael Lones and Stephen Smith	HIROYASU ТОМОҮЦКІ, Yoshida Tomoya and Yamamoto Utako			

May 26 Tuesday, 2015 at Small Conference Room 8 (on the third floor)						
Tu5-3F8 1700-1800	Emerging Area	Emerging Areas and Technologies				
Chaired by: CLAUS DE CASTRO ARANHA AND K	ALYANMOY DEB	-				
1700 hrs		1720 hrs	1740 hrs			
15172		15461	15635			
Renumber Strategy Enhanced Particle Swarm Optimization for Cloud Computing Resource Optimization of Oil Reservoir Models Using Tuned Evolutionary Algorithms and Adaptive An Integrated Approach Involving EMO and HYDRUS-2D Software for SWRT-ba			An Integrated Approach Involving EMO and HYDRUS-2D Software for SWRT-based Precision			
Scheduling		Differential Evolution	Irrigation: Initial Results			
			Cem Tutum, Andrey Guber, KALYANMOY DEB, Alvin Smucker, A. Pouyan Nejadhashemi and Berna			
	Hai-Hao Li, Zhi-Hui Zhan and Jun Zhang	CLAUS DE CASTRO ARANHA, Ryoji Tanabe, Romain Chassagne and Alex Fukunaga	Kiraz			

May 26 Tuesday, 2015 at Medium Conference Room Shirakashi 1 (on the third floor)						
Tu5-3F9 1700-1800	Multi-Objective	Multi-Objective Evolutionary Algorithms 5				
Chaired by: Hui Li						
1700 hrs		1720 hrs	1740 hrs			
15441		15455	15466			
On the Use of Random Weights in MOEA/D		Evolutionary Algorithm with Parallel Evaluation Strategy of Feasible and Infeasible Solutions	A Multi-Objectif Genetic Algorithm-Based Adaptive Weighted Clustering Protocol in VANET			
		Considering Total Constraint Violation				
	Hui Li, Min Ding, Jingda Deng and Qingfu Zhang	TAIGA KATO, Koji Shimoyama and Shigeru Obayashi	MOHAMED HADDED, Rachid Zagrouba, Laouiti Anis, Paul Muhlethaler and Leila Azouz Saidane			

May 26 Tuesday, 2015 at Medium Conference Room Shirakashi 2 (on the third floor)						
Tu5-3F10 1700-1800	SS04: Bound C	Constrained Single Objective Numerical Optimization Competition	n 5			
Chaired by: P. N. Suganthan, Yiu-ming Cher	ung and Mostafe A li					
1700 hrs		1720 hrs	1740 hrs			
15611		15620	15642			
An Evolutionary Algorithm Based on Decomposition for Multimodal Optimization Problems A Differential Evolution with Success-based Parameter Adaptation for CEC2015 Dynamic Search Fireworks Algorithm with Covariance Mutation for Solving the CEC 20			Dynamic Search Fireworks Algorithm with Covariance Mutation for Solving the CEC 2015			
		Learning-based Optimization	Learning Based Competition Problems			
	Fangging Gu, YIU-MING CHEUNG and Jie Luo	Noor Awad, Mostafa Ali and Robert Reynolds	CHAO YU, Ling Chen Kelley and Ying Tan			

Wednesday

Plenary III & Award Ceremony Chaired by: KAY CHEN TAN Industrial Pr	
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Industrial Pr	
	oblem Solving by Evolutionary Computation
	Professor Thomas Bäck (Computer Science, Leiden University, The Netherlands)
Award Ceremony Chair: Shigeru Obayashi, Secretary: Tadahiko Murata	

May 27 Wednesday, 2015 at Small Conference	Room 1 (on the	e first floor)	
We1-1F1 0945-1045	Genetic Progra	mming 1	
Chaired by: Man-Leung Wong and Hemant Singh			
0945 hrs		1005 hrs	1025 hrs
15244		15256	15335
Financial Fraud Detection by using Grammar-based Multi-objective Gen	etic Programming	Feature Selection and Classification Using Ensembles of Genetic Programs and Within-class	A Multi-objective Genetic Programming Approach to Uncover Explicit and Implicit Equations
with ensemble learning		and Between-class Permutations	from Data
Haibing L	i and Man-LEUNG WONG	Annica Ivert, Claus Aranha and Hitoshi Iba	Bing Wang, HEMANT SINGH and Tapabrata Ray

May 27 Wednesday, 2015 at Small Conference	e Room 2 (on the	e first floor)	
We1-1F2 0945-1045	Particle Swarm	Particle Swarm Optimization 6	
Chaired by: BING XUE			
0945 hrs		1005 hrs	1025 hrs
15573		15606	15658
A Novel PSO for Portfolio Optimization base on Heterogeneous Multiple	Population Strategy	Code Coverage Optimisation in Genetic Algorithms and Particle Swarm Optimisation for	Particle Swam Optimization Based Reliability-Redundancy Allocation in a Type-2 Fuzzy
		Automatic Software Test Data Generation	Environment
Xushan Yin, Qıvo	GJIAN NI and Yuqing Zhai	Chahine Koleejan, BING XUE and Mengjie Zhang	ASHRAF ZUBAIR, Pranab K Muhuri and Danish Q. M. Lohani

May 27 Wednesday, 2015 at Small Conference Room 3 (on th	e first floor)	
	n and Operators 1	
Chaired by: Daniel Ashlock and James Montgomery	Tana operatore i	
0945 hrs 15143 Resource Allocation between Initialization and Optimization under Computational Expensive Environment	1005 hrs 15166 A Class of Representations for Evolving Graphs	1025 hrs 15315 Representation Matters: Real-valued Encodings for Meander Line RFID Antennas
Yı Sun and Victor O. K. Li	DANIEL ASHLOCK and Lee Ann Barlow	James Montgomery
May 27 Wednesday, 2015 at Small Conference Room 4 (on th	e second floor)	
We1-2F4 0945-1045 SS10: Evolution	nary Computation in Dynamic and Uncertain Environment	
Chaired by: MICHALIS MAVROVOUNIOTIS	,	
0945 hrs	1005 hrs	1025 hrs
15160 The Interval Sensor Node's Model in Wireless Sensor Network under Uncertain Environments	15242 New Performance Indicators for Robust Optimization Over Time	15500 An Adaptive Local Search Algorithm for Real-Valued Dynamic Optimization
	·	
YI-NAN GUO, Haiyuan Liu and Zhen Yang	YUANJUN HUANG, Yaochu Jin and Yongsheng Ding	MICHALIS MAVROVOUNIOTIS, Ferrante Neri and Shengxiang Yang
May 27 Wednesday, 2015 at Small Conference Room 5 (on th	e second floor)	
We1-2F5 0945-1045 SS24: Comput	ational Intelligence and Games 1	
Chaired by: Ruck Thawonmas, Daniel Ashlock and Ivan Tanev		
0945 hrs 15054 Nash Reweighting of Monte Carlo Simulations: Tsumego David L. St-Pierre, JIALIN LIU and Olivier Teytaud	1005 hrs 15266 Testing General Game Players Against a Simplified Boardgames Player Using Temporal-difference Learning JAKUB KOWALSKI and Andrzej Kisielewicz	1025 hrs 15347 Evolutionary Development of Electronic Stability Program for a Simulated Car in TORCS Environment JILIN HUANG, Ivan Tanev and Katsunori Shimohara
25.02.2.00.000,000.000.000		
May 27 Wednesday, 2015 at Small Conference Room 6 (on th	e third floor)	
We1-3F6 0945-1045 SS19: Parallel	and Distributed Evolutionary Computation in the Cloud Era 1	
Chaired by: Masaharu Munetomo, Yuji Sato and Keiko Ono		
0945 hrs 15206 Mutation-based Receiver Search in a Network for Temporary Information Sharing	1005 hrs 15288 A CUDA-based Self-adaptive Subpopulation Model in Genetic Programming: cuSASGP	1025 hrs 15538 Paralleled Fitness Optimizer with Modified Dynamic Virtual Term for Multimodal Problems
KEI OHNISHI, Kazuya Tsukamoto and Mario Koeppen	KEIKO ONO and Yoshiko Hanada	SHIQIN YANG and Yuji Sato
May 27 Wednesday, 2015 at Small Conference Room 7 (on th	e third floor)	
We1-3F7 0945-1045 SS21: Evolution	nary Bilevel Optimization 1	
Chaired by: ANKUR SINHA, KALYANMOY DEB, AND ABHISHEK GUPTA		
0945 hrs 15080 An Evolutionary Algorithm with Adaptive Scalarization for Multiobjective Bilevel Programs	1005 hrs 15104 A Memetic Algorithm for the Solution of Single Objective Bilevel Optimization Problems	1025 hrs 15490 Transportation Policy Formulation as a Multi-objective Bilevel Optimization Problem
An Evolutionary Argorithm with Adaptive Scalarization for multiobjective Dilevel Programs	A memetic Algorithm for the Solution of Shigle Objective Briever Optimization Problems	Transportation Folicy Formulation as a multi-objective bilevel Optimization Problem
ABHISHEK GUPTA and Yew-Soon Ong	MD MONJURUL ISLAM, Hemant Singh and Tapabrata Ray	ANKUR SINHA, Pekka Malo and Kalyanmoy Deb

May 27 Wednesday, 2015 at Small Conference	e Room 8 (on the	third floor)		
We1-3F8 0945-1045	SS09: Combinii	ng Evolutionary Computation an	d Reinforcement Learning 1	
Chaired by: MADALINA M. DRUGAN				
0945 hrs		1005 hrs		1025 hrs
15061 Annealing Linear Scalarized Based Multi-Armed Bandit Algorithm		15125 Risk-Sensitivity Through Multi-Objective Reinfo	orcement Learning	15134 Stochastic Pareto local search for many objective quadratic assignment problem instances
		,,,,,,,,,,,		
SABA YAHYAA, Madalina Drugan	n and Bernard Manderick		KRISTOF VAN MOFFAERT, Tim Brys and Ann Nowe	Madalina Drugan
May 27 Wednesday, 2015 at Medium Conferer		, ,		
We1-3F9 0945-1045	Multi-Objective	Evolutionary Algorithms 6		
Chaired by: BILEL DERBEL, AMIRAM MOSHAIOV				
0945 hrs		1005 hrs		1025 hrs
15489 A Fine-Grained Message Passing MOEA/D		15504 Concept-based Evolutionary Exploration of Des	sign Spaces by a Resolution-Relaxation-Pareto	15536 Incremental Non-Dominated Sorting with O(N) Insertion for the Two-Dimensional Case
		Approach		- ''
BILEL DERBEL, Arnaud Liefooghe, Gauvain Marq	quet and El-Ghazali Talbi		AMIRAM MOSHAIOV, Alon Snir and Barak Samina	Ilya Yakupov and MAXIM BUZDALOV
May 27 Wednesday, 2015 at Medium Conferer	nce Room Shirak	ashi 2 (on the third floor)		
We1-3F10 0945-1045	SS04: Bound C	constrained Single Objective Nur	merical Optimization Competition	6
Chaired by: P. N. SUGANTHAN				
0945 hrs			1005 hrs	
15664 Improved Self Regulating Particle Swarm Optimization Algorithm for So	olving CEC 2015 Bound Co	onstrained Single-Objective Computationally	15682 Parameter Tuned CMA-ES on the CEC'15 Exper	nsive Problems
Expensive Numerical Optimization Problems	_			
Mui	HAMMAD RIZWAN TANWEER,	Suresh Sundaram and Narasimhan Sundararajan		MARTIN ANDERSSON, Sunith Bandaru, Amos Ng and Anna Syberfeldt
May 27 Wednesday, 2015 at Small Conference	e Room 1 (on the	e first floor)		
We2-1F1 1105-1205	Genetic Progra	mming 2		
Chaired by: BING XUE AND MIGUEL NICOLAU				
1105 hrs		1125 hrs		1145 hrs
15342 Generalisation and Domain Adaptation in GP with Gradient Descent for	Symbolic Regression	15457 Transfer Learning in Genetic Programming		15594 Guidelines for defining benchmark problems in Genetic Programming
·	-			
Qi Chen, BING	XUE and Mengjie Zhang	Тні Тни Ні	JONG DINH, Chu Thi Huong and Nguyen Quang Uy	MIGUEL NICOLAU, Alexandros Agapitos, Michael O'Neill and Anthony Brabazon
May 27 Wednesday, 2015 at Small Conference	e Room 2 (on the	e first floor)		
We2-1F2 1105-1205	Developmental	Swarm Intelligence 1		
Chaired by: Yuhui Shi and Ying Tan				
1105 hrs		1125 hrs		1145 hrs
15114 Improved Chaotic Gravitational Search Algorithms for Global Optimization	tion	15372 Brain Storm Optimization Algorithm in Objectiv	e Space	15655 Regional Seismic Waveform Inversion Using Swarm Intelligence Algorithms
		•		
Dongmei Shen, Tao Jiang, Wei Chen, Qia	n Shi and SHANGCE GAO		Yuhui Shi	Ke Ding, Yanyang Chen, Yanbin Wang and YING TAN

May 27 Wednesday, 2015 at Small Conference	Room 3 (on the first floor)		
We2-1F3 1105-1205	Representation and Operato	rs 2	
Chaired by: RICHARD J. DURO AND DANIEL ASHLOCK			
1105 hrs 15192	1125 hrs 15268		1145 hrs 15444
Ring Optimization with Extinction		ormance of Evolutionary Algorithms by Soft-Constraining Their Sampling	Evolvability of Representations in Complex System Engineering: a Survey
Daniel Ashlock, Sierra	Gillis and Gary Fogel	Pilar Caamano, Gervasio Varela, RICHARD J. DURO	ANDREAS RICHTER, Mario Botsch and Stefan Menzel

May 27 Wednesday, 2015 at Small Conference R	oom 4 (on the	e second floor)	
We2-2F4 1105-1205 S	S06: Evolutio	nary Computation with Complex Systems	
Chaired by: Ivan Zelinka and Roman Senkerik			
1105 hrs		1125 hrs	1145 hrs
15204		15450	15520
A Discrete Particle Swarm Optimization Box-covering Algorithm for Fractal	Dimension on	Multiple Choice Strategy with Dimensional Mutation for PSO Algorithm Enhanced with	On the Parameter Settings for the Chaotic Dynamics Embedded Differential Evolution
Complex Networks		Chaotic Dissipative Standard Map	
Li Kuang, Feng Wang, Yuanxiang L	i and Haiqiang Mao	MICHAL PLUHACEK, Roman Senkerik and Donald Davendra	ROMAN SENKERIK, Michal Pluhacek and Donald Davendra

May 27 Wednesday, 2015 at Small Conference	Room 5 (on the	second floor)		
We2-2F5 1105-1205 SS24: Computational Intelligence and Games 2				
Chaired by: Ruck Thawonmas, Daniel Ashlock, David Camar	CHO, AND NELISHIA PILL	AY		
1105 hrs		1125 hrs	1145 hrs	
15475		15499	15634	
Balanced Civilization Map Generation based on Open Data		A Multi-UAV Mission Planning Videogame-based Framework for Player Analysis	Evolving Game Playing Strategies for Othello	
Gabriella A. B. Bar	ROS and Julian Togelius	Victor Rodriguez-Fernandez, Cristian Ramirez-Atencia and DAVID CAMACHO		Clive Frankland and NELISHIA PILLAY

May 27 Wednesday, 2015 at Small Conference	e Room 6 (on the	e third floor)	
We2-3F6 1105-1205	SS19: Parallel	and Distributed Evolutionary Computation in the Cloud Era 2	
Chaired by: Masaharu Munetomo, Yuji Sato and Kei Ohnish	11		
1105 hrs		1125 hrs	1145 hrs
15413		15571	15451
A Morphogenetic and Evolutionary Approach to Regulating Wireless Ad	cess Points for	A Scalable Parallel Implementation of Evolutionary Algorithms for Multi-Objective	Distributed Denial of Services Attack Protection System with Genetic Algorithms on Hadoop
Energy-Efficient and Reliable Connection Services		Optimization on GPUs	Cluster Computing Framework
KEI OHNISHI, Kazuya Tsukamoti	and Shigeru Kashihara	SAMARTH GUPTA and Gary Tan	Masataka Mizukoshi and Masaharu Munetomo

May 27 Wednesday, 2015 at Small Conference	e Room 7 (on the third floor)		
We2-3F7 1105-1225	SS21: Evolutionary Bilevel Optimization 2		
Chaired by: Ankur Sinha, Kalyanmoy Deb, Lamijed Ben Said	, Helio Barbosa		
1105 hrs	1125 hrs	1145 hrs	1205hrs
15470	15191	15193	15478
A Co-evolutionary Decomposition-based Algorithm for Bi-level	Incorporating Data Envelopment Analysis Solution Methods into	Stackelberg-Nash Differential Evolution for Bilevel Optimization with	Handling Decision Variable Uncertainty in Bilevel Optimization
Combinatorial Optimization	Bilevel Multi-Objective Optimization	Multiple Followers	Problems
Abir Chaabani, Slim Bechikh and LAMJED BEN SAID	Moriah Bostian, ANKUR SINHA, Gerald Whittaker and Brad Barnhart	Jaqueline Angelo and HELIO BARROSA	ZHICHAO LU Kalvanmov Deb and Ankur Sinha

We2-3F8 1105-1205	<u> </u>	e third floor) ng Evolutionary Computation and Reinforcement Learning 2	
Chaired by: Madalina M. Drugan and Maxim Buzdalov	3309. Combin	ng Evolutionary Computation and Reimorcement Learning 2	
1105 hrs 15274 Can OneMax Help Optimizing LeadingOnes using the EA+RL Method?	.ov and Arina Buzdalova	1125 hrs 15357 Online Distributed Voltage Control of an Offshore MTdc Network using Reinforcement Learning SILVIO RODRIGUES, Tim Brys, Rodrigo Teixeira Pinto, Ann Nowe and Pavol Bauer	1145 hrs 15535 Analysis of Q-Learning with Random Exploration for the Selection of Auxiliary Objectives in Random Local Search Maxim Buzdalov and Arina Buzdalova
May 27 Wednesday, 2015 at Medium Conferen	nce Room Shiral	cashi 1 (on the third floor)	
We2-3F9 1105-1225	Multi-Objective	Evolutionary Algorithms 7	
Chaired by: Kalyanmoy Deb			
1105 hrs 15612 Evolutionary Many-objective Optimization using Dynamic epsilon-Hoods Function	s and Chebyshev	1125 hrs 15660 Type-2 Fuzzy Induced Non-dominated Sorting Bee Colony for Noisy Optimization	1145 hrs 15030 Evolutionary Multiobjective Optimization With Hybrid Selection Principles
YUKI YAZAWA, Hernan Aguirre, Akira Oya	ama and Kiyoshi Tanaka	PRATYUSHA RAKSHIT, Amit Konar, Atulya K Nagar	Ke Li, KALYANMOY DEB and Qingfu Zhang
May 27 Wednesday, 2015 at Medium Conferen			
We2-3F10 1105-1225		cale Global Optimization 1	
Chaired by: KE TANG, XIAODONG LI, STEPHEN CHEN, XINGGUAN	I ZUO, AND DANIEL MC		
1105 hrs 15168 A Minimum Population Search Hybrid for Large Scale Global Optimization	on	1125 hrs 15412 A MOEA/D based Approach for Solving Robust Double Row Layout Problem	1145 hrs 15480 Iterative hybridization of DE with Local Search for the CEC'2015 Special Session on Large Scale Global Optimization
Bolufe-Rohler, Sonia Fiol-Gonza	alez and STEPHEN CHEN	Lingling Tang and XINGQUAN ZUO	DANIEL MOLINA and Francisco Herrera
May 27 Wednesday, 2015 at Small Conference	e Room 1 (on the	e first floor)	
We3-1F1 1315-1415	Genetic Progra	mming 3	
Chaired by: Helio Barbosa and Daniel Ashlock			
1315 hrs 15474 Co-evolutionary Genetic Programming for Dataset Similarity Induction		1335 hrs 15529 Grammar-based Immune Programming to Assist in the Solution of Functional Equations	1355 hrs 15464 Flow of Control in Linear Genetic Programming
JAKUB SMID, Martin Pilat, Klara Pesk	ova and Roman Neruda	Heder Bernardino and HELIO BARBOSA	Justin Schonfeld and DANIEL ASHLOCK
JAKUB SMID, Martin Pilat, Klara Pesk May 27 Wednesday, 2015 at Small Conference			Justin Schonfeld and Daniel Ashlock
		e first floor)	Justin Schonfeld and Daniel Ashlock
May 27 Wednesday, 2015 at Small Conference	e Room 2 (on the	e first floor)	Justin Schonfeld and Daniel Ashlock
May 27 Wednesday, 2015 at Small Conference We3-1F2 1315-1415	e Room 2 (on the	e first floor)	Justin Schonfeld and Daniel Ashlock 1355 hrs 15599 S-metric Based Multi-Objective Fireworks Algorithm

ess Landscape Analysis in Practice	
SS43: Fitness Landscape Analysis in Practice	
1335 hrs	1355 hrs
15540 Presented by KATHERINE M. MALAN	15685
Effects of Function Translation and Dimensionality Reduction on Landscape Analysis Evaluating Landscape Characteristics of Dynamic Benchmark Functions	
Ron Bond, Andries Engelbrecht and Beatrice Ombuki-Berman	KATHERINE MALAN, Johnnes Oberholzer, Andries Engelbrecht
M	15540 Presented by KATHERINE M. MALAN

May 27 Wednesday, 2015 at Small Conference Room 4 (on the second floor)						
We3-2F4 1315-1415	SS45: Complex	x Adaptive Systems 1				
Chaired by: Saori Inagawa and Hiroshi Sato	Chaired by: Saori Inagawa and Hiroshi Sato					
1315 hrs		1335 hrs	1355 hrs			
15350		15537	15628			
Analysis of Genetic Programming in Gait Recognition	Analysis of Genetic Programming in Gait Recognition Toward Robustness Against Environmental Change Speed by Artificial Bee Colony Algorithm Dynamic Leader Selection Based on Approximate Manipulability					
based on Local Information Sharing						
DIPAK GAIRE SHARMA, Ivan Tanav a	DIPAK GAIRE SHARMA, Ivan Tanav and Katsunori Shirmohara					
		RYO TAKANO, Tomohiro Harada, Hiroyuki Sato and Keiki Takadama	HIROSHI SATO, Masao Kubo, Tomohiro Shirakawa and Akira Namatame			

May 27 Wednesday, 2015 at Small Conference	e Room 5 (on the second floor)		
We3-2F5 1315-1435	SS24: Computational Intelligen	ce and Games 3 & Ecology	
Chaired by: Yusuke Nojima and Sebastian Risi			
1315 hrs	1355 hrs	1415 hrs	1435 hrs
15657	15257	15234	15496
Effects of Ensemble Action Selection with Different Usage of Player's	PCGD: Principal Components-based Great Deluge Method for	RGB Algorithm for Spatial Evolutionary Game Theory with Finite	Interactive Evolution of Levels for a Competitive Multiplayer FPS
Memory Resource on the Evolution of Cooperative Strategies for	Solving CNOP	Populations	
Iterated Prisoner's Dilemma Game			
TAKAHIKO SUDO, Kazushi Goto, Yusuke Nojima and Hisao Ishibuchi	SHICHENG WEN, Shijin Yuan, Bin Mu, Hongyu Li and Juhui Ren	CHING-I HUANG, Hsiu-Hau Lin and Chun-Chung Chen	Peter Olsted, Benjamin Ma and SEBASTIAN RISI

May 27 Wednesday, 2015 at Small Conference Room 6 (on the third floor)					
We3-3F6 1315-1415	Biometrics, Bioinformat	tics, and Biomedical Applications 1			
Chaired by: Owen Clancey					
1315 hrs	1335 hrs		1355 hrs		
15135	15262		15328		
Locating Controlling Regions of Neural Networks Using Constrained Evo	Locating Controlling Regions of Neural Networks Using Constrained Evolutionary A Mimetic Algorithm for Simultaneous Multileaf Collimator Aperture Shape and Dosimetric Evolutionary design of oscillatory genetic networks in silico				
Computation Optimization in CyberKnife Robotic Radiosurgery					
MOHAMMAD EITA, Tetsuo Shibuya	and Amin A. Shoukry	Matthew Witten and OWEN CLANCEY	Yuki Naruse, Hamada Hiroyuki, Hanai Taizo and Iba Hitoshi		

May 27 Wednesday, 2015 at Small Conference Room 7 (on the third floor)						
We3-3F7 1315-1435	SS50: Bridging Machine Learning and Evolution	nary Computation				
Chaired by: Huanhuan Chen, Kangshun Li, Aimin Zhou, and	Oliver Kramer					
1315 hrs	1335 hrs	1355 hrs	1415 hrs			
15118	15142	15322	15648			
On Anycast Routing Based on Parallel Evolutionary Algorithm	n Anycast Routing Based on Parallel Evolutionary Algorithm Multi-Objective Multi-View Clustering Ensembles based on On Neighborhood Exploration and Subproblem Exploitation in Evolution Strategies with Ledoit-Wolf Covariance Matrix Estimation					
Evolutionary Approach Decomposition Based Multiobjective Evolutionary Algorithms						
KANGSHUN LI, Xiaoyang Deng and Xinyu Zhou	ABDUL WAHID, Xiaoying Gao and Peter Andreae	Аімім Zhou, Yuting Zhang, Guixu Zhang and Wenyin Gong	OLIVER KRAMER			

May 27 Wednesday, 2015 at Small Conference Room 8 (on the third floor)						
We3-3F8 1315-1435	We3-3F8 1315-1435 Evolved Neural Networks					
Chaired by: Rohitash Chandra						
1315 hrs		1335 hrs		1355 hrs		
15180		15640		15482		
Cooperative Neuro-evolution of Elman Recurrent Networks for Tropical	Cyclone	Searching for Novelty in Pole Balancing		A Simulated Annealing Approach to Supplier Selection Aware Inventory Planning		
Wind-Intensity Prediction in the South Pacific Region	Wind-Intensity Prediction in the South Pacific Region					
ROHITASH CHA	ANDRA and Kavina Dayal		ALLEN HUANG, Geoff Nitschke, and David Shorten	SEDA TURK, Simon Miller, Ender Ozcan and Robert John		

May 27 Wednesday, 2015 at Medium Conference Room Shirakashi 1 (on the third floor)					
We3-3F9 1315-1415	Multi-Objective Optimization 1				
Chaired by: Ruimin Shen, Tepabrata Ray, Koji Shimoyama, A	AND JAN CORFIXEN SOERENSEN				
1315 hrs	1335 hrs	1355 hrs	1415 hrs		
15082	15103	15318	15351		
A Hybrid Development Platform for Evolutionary Multi-Objective	Selective Evaluation in Multiobjective Optimization: A Less Explored Effects of the Number of Design Variables on Performances in Comparative Study of Evolutionary Multi-objective Optimization				
Optimization	Avenue	Kriging-Model-Based Many-Objective Optimization	Algorithms for a Non-linear Greenhouse Climate Control Problem		
Seyyedeh Newsha Ghoreishi, Jan Corrixen Soerensen and I					
RUIMIN SHEN, Jinhua Zheng and Miqing Li	Kalyan Shankar Bhattacharjee and TAPABRATA RAY	CHANG LUO, Koji Shimoyama and Shigeru Obayashi	Noerregaard Joergensen		

May 27 Wednesday, 2015 at Medium Conference Room Shirakashi 2 (on the third floor)						
We3-3F10 1315-1355	SS20: Large Scale Global Optimization 2 & SS	08: Niching Method for Multimodal Optimization				
Chaired by: Ke Tang, Xiaodong Li, Daniel Molina, Chyon Ha	AE KIM AND FABRICIO DE FRANCA					
1315 hrs	1315 hrs	1335 hrs	1335 hrs			
15012	15596	15003	15111			
An Effective Cooperative Coevolution Framework Integrating Global	Experimental Results of Heterogeneous Cooperative Bare Bones	A Generic Niching Framework for Variable Mesh Optimization	Maximization of a Dissimilarity Measure for Multimodal Optimization			
and Local Search for Large Scale Optimization Problems	Particle Swarm Optimization with Gaussian Jump for Large Scale					
	Global Optimization					
ZIJIAN CAO, Lei Wang, Yuhui Shi, Xinhong Hei, Xiaofeng Rong, Qiaoyong	JOON-WOO LEE, Taeyong Choi, Hyunmin Do, Dongil Park, Chanhun Park					
Jiang and Hongye Li	and Young-Su Son	Ricardo Navarro, Rafael Falcon, Tadahiko Murata and Chyon HAE KIM	FABRICIO DE FRANCA			

May 27 Wednesday, 2015 at Large C	onference Room Tachibana (Large Ha	II) (on the second floor)		
1435-1810	Poster Session	,		
Chaired by: HERNAN AGUIRRE	•			
15076 A02: Artificial Immune System	15458 A02 Artificial Immune Systems	15025 A03: Coevolutionary Systems	15360 B03: Coevolution	15086 A05: Differential Evolution
Immune Network Algorithm Applied to the	Quantum immune clone for solving constrained	A Co-evolutionary Algorithm Based on Mixed Mutation	Sensory Configurations for Collective Behavior	A Differential Evolution Based Axle Detector for
Optimization of Composite SaaS in Cloud	multi-objective optimization	Strategy for WDP in Combinatorial Auction		Robust Vehicle Classification
SIMONE LUDWIG and Kevin Bauer	RONGHUA SHANG, Licheng Jiao, Hao Xu and Yangyang Li	Wei Hou, HONGBIN DONG and Guisheng Yin	JAMES WATSON and Geoff Nitschke	DEEPAK DAWAR and Simone Ludwig
15153 A05: Differential Evolution	15255 A05: Differential Evolution	15245 A09: Genetic Algorithms	15250 A09: Genetic Algorithms	15151 A09: Genetic Algorithms
Improving Differential Evolution with Impulsive	Dissipative Differential Evolution with Self-adaptive	A genetic algorithm for the distributed assembly	Ensemble System based on Genetic Algorithm For	Evolving Defensive Strategies Against Iterated
Control Framework	Control Parameters	permutation flowshop scheduling problem	Stock Market Forecasting	Induction Attacks in Cognitive Radio Networks
Du Wei, Leung Sunney Yung Sun, Kwong Chun Kit and			Rafael Thomazi Gonzalez, Carlos Alberto Padilha and	SIMING LIU, Shamik Sengupta and Sushil Louis
Tang Yang	Jinglei Guo, Zhijian Li, Wei Xie and Hui Wang	Li Xiangtao, Zhang Xin and YIN MINGHAO	DANTE AUGUSTO COUTO BARONE	
15037 A11: Heuristics	15138 A12: Iterative Evolutionary Computation	15097 A16: Multi-Objective Evolutionary Algorithms	15624 A16: Multi-Objective Evolutionary Algorithms	15077 C03: Multiobjective Optimization
Improved Harmony Search Algorithms by Tournament	Image Retrieval Based on Interactive Differential	Solving Multi-objective Multi-stage Weapon Target	Reducing Complexity in Many Objective Optimization	R2-MOPSO: A Multi-objective Particle Swarm
Selection Operator	Evolution	Assignment Problem via Adaptive NSGA-II and	Using Community Detection	Optimizer Based on R2-indicator and Decomposition
One I i Owerveys Ways and Over By	F=:V() V()i	Adaptive MOEA/D: A Comparison Study	ASEP MAULANA, Zhongzhou Jiang, Jing Liu, Thomas Bäck	Feel & Basebase Livered Objection Tea
Gang Li, QINGZHONG WANG and Quan Du	FEI YU, Yuanxiang Li and Bo Wei	Juan Li, Jie Chen and Bin Xin	and Michael Emmerich	FEI LI, Jianchang Liu and Shubin Tan 15212 A18: Particle Swarm Optimization
15344 C03: Multiobjective Optimizatino	15370 C03: Multiobjective Optimization Evolutionary Multi-objective Optimization for Evolving	15471 C03: Multiobjective Optimization	15173 A18: Particle Swarm Optimization Comparisons Study of Three PSOs on CEC2005 and	A Particle Swarm Optimization A Particle Swarm Optimization Approach for Handling
A New Algorithm based on PSO for Multi-objective		Using Genetic Algorithms to minimize the distance	CEC2014 Test Suits	
Optimization MAN-FAI LEUNG, Sin-Chun Ng, Chi-Chung Cheung and	Hierarchical Fuzzy System	and balance the routes for the multiple Traveling Salesman Problem	CEC2014 Test Suits	Network Social Balance Problem QING CAI, Maoguo Gong, Lijia Ma, Shanfeng Wang,
Kwok-Fai Lei	Yosra Jarraya, Souhir Bouaziz, Adel M. Alimi and AJITH ABRAHAM	RAULCEZAR ALVES and Carlos Lopes	YAN-FEI LI, Zhi-Hui Zhan, Ying Lin and Jun Zhang	Licheng Jiao and Haifeng Du
15045 C01: Numerical Optimization	15154 C01: Numerical Optimization	15460 SS04: Single-Objective Numerical Optimization	15629 SS04: Single-Objective Numerical Optimization	15667 SS04: Single-Objective Numerical Optimization
Adaptive Chemical Reaction Optimization for Global	Parameter Sensitivity Analysis of Social Spider	Self-adaptive Dynamic Multi-Swarm Particle Swarm	Solving CEC 2015 Multi-modal Competition Problems	Cognitive Architecture for Solving Optimization
Numerical Optimization	Algorithm	Optimizer	Using Neighborhood Based Speciation Differential	Problems
Trainerious Optimization	- Augorium	- CP.III.251	Evolution	ABDULLAH AL-DUJAILI, Kartick Subramanian and Suresh
JAMES J.Q. Yu, Albert Y.S. Lam and Victor O.K. Li	JAMES J.Q. Yu and Victor O.K. Li	J.J. LIANG, L. Guo, B.Y. Qu and R. Liu	B. Y. Qu, J. J. LIANG, Z. Y. Wang and D. M. Liu	Sundaram
15600 SS04: Single-Objective Numerical Optimization	15411 D04: Simulation Based Optimization	15298 SS11: Planning and Schedule	15145 F01: Aerospace Engineering	15340 SS36: Aerospace Science
An Ancestor based Extension to Differential	Short-term Optimal Hydrothermal Scheduling Problem	A Species Based Multiobjective Genetic Algorithm for	Optimal Tuning of Control Gains for Rigid Tapping	Many Objective Optimization of Interplanetary Space
Evolution: AncDE	Considering Power Flow Constraints	Multiobjective Flow Shop Scheduling Problem	Processes Using a Learning Automata Methodology	Mission Trajectories
RUSHIKESH SAWANT, DONAGH Hatton and Diarmuid P.	Jingrui Zhang, Shuang Lin, XIANGXIANG ZENG and Qinghui			
OlDanaghua				MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe
O'Donoghue	Tang	HONGFENG WANG, Yaping Fu and Min Huang	SYH-SHIUH YEH and Jien-I Lee	1
15136 SS36: Aerospace Science		HONGFENG WANG, Yaping Fu and Min Huang 15410 F05: Classification	SYH-SHIUH YEH and Jien-I Lee 15362 F09: Education	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe
9	Tang			MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama
15136 SS36: Aerospace Science	Tang 15108 F05: Classification	15410 F05: Classification	15362 F09: Education	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education
15136 SS36: Aerospace Science Robust Design Optimization using Integrated	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior,
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal LIQIANG HOU, Anum Pirzada, Yuanli Cai and Ma Hong	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, Yu Sun, Xinle Liang and Ke Tang	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal LIQIANG HOU, Anum Pirzada, Yuanli Cai and Ma Hong 15196 F10: Finance and Economics	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu 15197 F10: Finance and Economics	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, YU Sun, Xinle Liang and Ke Tang 15214 F10: Finance and Economics	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN 15277 F10: Finance and Economics	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis 15531 SS55: Social Simulation
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal LIOIANG HOU, Anum Pirzada, Yuanli Cai and Ma Hong 15196 F10: Finance and Economics Realised Volatility Forecasting: A Genetic	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu 15197 F10: Finance and Economics A Genetic Programming Approach for Delta Hedging Zheng Yin, ANTHONY BRABAZON, Conall O'Sullivan and	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, YU SUN, Xinle Liang and Ke Tang 15214 F10: Finance and Economics Forecasting Currency Exchange Rates with an	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN 15277 F10: Finance and Economics Robust Stock Value Prediction using Support Vector	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis 15531 SS55: Social Simulation Evolutionary Big Optimization (BigOpt) of Signals Sim Kuan Goh, Hussein Abbass, Abdullah Al-Mamun and
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal LIQIANG HOU, Anum Pirzada, Yuanli Cai and Ma Hong 15196 F10: Finance and Economics Realised Volatility Forecasting: A Genetic Programming Approach	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu 15197 F10: Finance and Economics A Genetic Programming Approach for Delta Hedging	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, YU SUN, Xinle Liang and Ke Tang 15214 F10: Finance and Economics Forecasting Currency Exchange Rates with an	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN 15277 F10: Finance and Economics Robust Stock Value Prediction using Support Vector Machines with Particle Swarm Optimization	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis 15531 SS55: Social Simulation Evolutionary Big Optimization (BigOpt) of Signals
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15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal LIOIANG HOU, Anum Pirzada, Yuanli Cai and Ma Hong 15196 F10: Finance and Economics Realised Volatility Forecasting: A Genetic Programming Approach Zheng Yin, ANTHONY BRABAZON, Conall O'Sullivan and Michael O'Neill 15324 F11: Games Analysis of Evolutionary Stability of Funds Flows in	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu 15197 F10: Finance and Economics A Genetic Programming Approach for Delta Hedging Zheng Yin, ANTHONY BRABAZON, Conall O'Sullivan and Michael O'Neill 15681 SS24: Computer Intelligence and Games Strange Evolution Behavior of 7-bit Binary String	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, YU SUN, Xinle Liang and Ke Tang 15214 F10: Finance and Economics Forecasting Currency Exchange Rates with an Artificial Bee Colony-Optimized Neural Network CHUKIAT WORASUCHEEP 15205 F13: Intelligent Systems Applications Elite Bias Genetic Algorithm for Optimal Control of	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN 15277 F10: Finance and Economics Robust Stock Value Prediction using Support Vector Machines with Particle Swarm Optimization Trevor Sands, Deep Tayal, Mathew Morris and SILDOMAR MONTEIRO 15183 F19: Emerging Area QoS-aware long-term based service composition in	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis 15531 SS55: Social Simulation Evolutionary Big Optimization (BigOpt) of Signals Sim Kuan Goh, Hussein Abbass, Abdullah Al-Mamun and KAY CHEN TAN 15238 SS06: Complex Systems Ensemble Centralities based Adaptive Artificial Bee
15136 SS36: Aerospace Science Robust Design Optimization using Integrated Evidence Computation - with Application to Orbital Debris Removal Licianko Hou, Anum Pirzada, Yuanli Cai and Ma Hong 15196 F10: Finance and Economics Realised Volatility Forecasting: A Genetic Programming Approach Zheng Yin, ANTHONY BRABAZON, Conall O'Sullivan and Michael O'Neill	Tang 15108 F05: Classification Threshold Image Segmentation Based on Dynamic Mutation and Background Cooperation YANGYANG LI, Yang Yue, Licheng Jiao and Ruochen Liu 15197 F10: Finance and Economics A Genetic Programming Approach for Delta Hedging Zheng Yin, ANTHONY BRABAZON, Conall O'Sullivan and Milchael O'Neill 15681 SS24: Computer Intelligence and Games Strange Evolution Behavior of 7-bit Binary String Strategies in Iterated Prisoner's Dilemma Game	15410 F05: Classification Evolutionary Semi-Supervised Ordinal Regression Using Weighted Kernel Fisher Discriminant Analysis YUZHOU WU, Yu Sun, Xinle Liang and Ke Tang 15214 F10: Finance and Economics Forecasting Currency Exchange Rates with an Artificial Bee Colony-Optimized Neural Network CHUKIAT WORASUCHEEP 15205 F13: Intelligent Systems Applications	15362 F09: Education A Hybrid Genetic Algorithm for Group Formation at Workplace Samuel Sabino Caetano, Deller James Ferreira, Celso Goncalves Camilo Junior and MATHEUS ULLMANN 15277 F10: Finance and Economics Robust Stock Value Prediction using Support Vector Machines with Particle Swarm Optimization Trevor Sands, Deep Tayal, Mathew Morris and SILDOMAR MONTEIRO 15183 F19: Emerging Area	MARTIN SCHLUETER, Yam Chit Hong, Takeshi Watanabe and Akira Oyama 15462 F09: Education Formation of Learning Groups in cMoocs Using Particle Swarm Optimization MATHEUS ULLMANN, Deller Ferreira, Celso Camilo-Junior, Samuel Caetano and Lucas de Assis 15531 SS55: Social Simulation Evolutionary Big Optimization (BigOpt) of Signals Sim Kuan Goh, Hussein Abbass, Abdullah Al-Mamun and KAY CHEN TAN 15238 SS06: Complex Systems
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15542 A11: Heuristics

HyFlex

A Comparison of Crossover Control Mechanisms

within Single-point Selection Hyper-heuristics using

JOHN H. DRAKE, Ender Ozcan and Edmund K. Burke

15559 C01: Numerical Optimization

Football Game Algorithm: A New Metaheuristic

ELYAS FADAKAR

Inspired from Human Teamwork Intelligence

15090 A11: Heuristics

Cross-domain Optimisation

Introducing Crossover Low-level Heuristics into a

JOHN H. DRAKE, Ender Ozcan and Edmund K. Burke

Modified Choice Function Hyper-heuristic for

15055 SS39: Smart Grid

Noisy Environment

Algorithm

Implementation of Demand Response in Home Energy

Management System Using Immune Clonal Selection

On Performance of Decomposition-based MOEAs in

15128 D01: Constraint and Uncertainty Handling

YING-YI HONG, Chao-Rong Chen and Hong-Wei Yang

QIN CHEN, Fu Cheng and Qingfu Zhang

15133 SS39: Smart Grid

Stochastic Economic Dispatch with Solar Farm

15479 D03: Meta-modeling and Surrogate Models

Robust Trajectory Optimization of Space Launch

M. S. Lı, T. Y. Ji, Q. H. Wu and P. Z. Wu

ALI ASGHAR BATALEBLU and Jafar Roshanian

Integrated by Bacterial Swarm Algorithm

Vehicle Using Computational Intelligence

May 27 Wednesday, 2015 at Small Conference Room 1 (on the first floor)					
We4-1F1 1650-1730	SS33: Evolutio	nary Computing Application in H	ardware		
Chaired by: Tyrrell Andy M. and Sanyou Zeng					
1650 hrs			1710 hrs		
15247 Two-Phase Multiobjective Genetic Algorithm for Constrained Circuit Clus	etering on EDGAs		15285 A 2.45GHz Microstrip Patch Antenna Evolved F.	or WiEi Application	
i wo-rilase multiobjective Genetic Algorithm for Constrained Circuit Clus	stering on FFGAS		A 2.45GHZ MICIOSTIP PATCII AITEIIIIA EVOIVEU P	or Wiri Application	
Wang Yu	UAN, Walker James A., B	ale Simon J., Trefzer Martin A. and Tyrrell Andy M.			Zongchao Weng, Dayue Guo and SANYOU ZENG
May 27 Wednesday, 2015 at Small Conference	•	•			
	SS07: Firework	ks Algorithms 2			
Chaired by: YING TAN AND SHI CHENG		1710 hrs		1730 hrs	
1650 hrs 15333		1710 nrs 15207		1730 hrs 15294	
Towards a More Effective Mutation Operator in Fireworks Algorithm		An Improved Fireworks Algorithm with Landscape	nformation for Balancing Exploration and	Fireworks Algorithm for	the Multi-satellite Control Resource Scheduling Problem
	JUNZHI LI and Ying Tan	Exploitation	ven Yang, Jianjun Ni, Yingjuan Xie and Sнı Снемс		ZHENBAO LIU, Zuren Feng and Liangjun Ke
	JONETH ET and Ting Tan	dameng onen, an	ren rang, danjan wi, ringjaan xie and om onewe		ZHENDAO EIO, ZUIOITT ONG UNU Elungjun No
May 27 Wednesday, 2015 at Small Conference	Room 3 (on the	e first floor)			
We4-1F3 1650-1750	SS28: Fitness	Landscape Analysis and Search	Space Structure		
Chaired by: HERNAN AGUIRRE, KIYOSHI TANAKA, OLIVER KRAMER					
1650 hrs			1710 hrs		
15195 Visualization of Evolutionary Runs with Isometric Mapping			15525 Evolving MNK-landscapes with structural constrain	te	
visualization of Evolutionary runs with isometric mapping		OLIVER KRAMER and Daniel Lueckehe	Evolving with randscapes with structural constraint	1.5	ROBERTO SANTANA, Alexander Mendiburu and Jose A. Lozano
May 27 Wednesday, 2015 at Small Conference	Room 4 (on the	e second floor)			
We4-2F4 1650-1810	SS45: Comple	x Adaptive Systems 2			
Chaired by: Saori Inagawa, Hiroshi Sato and Keiki Takadama	1				
1650 hrs 15314		1710 hrs 15440		1730 hrs 15694	
Oscillator aggregation wheeled robot actively synchronizing with externa	al environment	Application of Genetic Programming and General	ic Algorithm in Evolving Emotion Recognition		ry Optimization of Multiple Ship Companies for Distributed
		Module		Coordination of Resou	
Sho Yamauchi, Hidenori Kawa	amura and Keiji Suzuki	Raha	DIAN YUSUF, Ivan Tanev and Katsunori Shimohara	KEIKI TAKADAMA, EI	riko Azuma, Hiroyuki Sato, Takahiro Majima, Daisuke Watanabe and Mutujiro Katuhara
May 27 Wednesday, 2015 at Large Conference	Room Tachiba	na (on the second floor)			
1650-1810	Poster Session				
May 27 Wednesday, 2015 at Small Conference	Room 6 (on the	e third floor)			
We4-3F6 1650-1810	Biometrics, Bio	pinformatics, and Biomedical App	lications 2		
Chaired by: Helio Barbosa, and Richard Veale					
	1710 hrs		1730 hrs		1750 hrs
	15545	ene Selection Technique	15679 Applying Differential Evolution MCMC to Param	otorizo I argo-ecalo	15680 A Multi-objective Evolutionary Approach to Predict Protein-Protein
Characteristics of Multiple Infections and Environmental Factors in	A New Evolutionary G	one concentration reclinique	Spiking Neural Simulations	ictorize Large-Scale	Interaction Network
the Development of Allergies and Asthma			-		
Rafael Veiga, Joao Marcos de Freitas, Heder Bernardino, HELIO BARBOSA and Neuza Alcatara-Neves		ADRIAN LANCUCKI, Indrajit Saha and Piotr Lipinski	RICHARD VEALE, Tadashi Isa	and Macatochi Vochida	ARCHANA CHOWDHURY, Pratyusha Rakshit, Amit Konar and Atulya K Nagar
and Neuza Alcatala-Neves		ADMINISTRACTION INGRAJIL GARIA AND FIGURE EIDHISKI	INGRARD VEALE, LAUGSIII ISA	una masatostii 105tiidd	Autorizado Onomonores, i ratyushia isakshili, Allilit Kullat aliu Atulya K Nagal

May 27 Wednesday, 2015 at Small Conference Room 7 (on the third floor)					
We4-3F7 1650-1750	Discrete and C	ombinatorial Optimization			
Chaired by: Rolf Dornberger and Kazuhiro Ohkura					
1650 hrs		1710 hrs	1730 hrs		
15227		15243	15691		
Analysis of Chaotic Maps Applied to Self-Organizing Maps for the Trave	nalysis of Chaotic Maps Applied to Self-Organizing Maps for the Traveling Salesman A Differential Evolution Algorithm with Local Search for Resource Investment Project Evolutionary Approach to Sudoku Puzzles with Filtrated Mutations				
Problem Scheduling Problems					
Remo Ryter, Michael Stauffer, Thomas Hanne	and ROLF DORNBERGER	Yanni Song, Jing Liu, Martin Wimmers and ZHONGZHOU JIANG	Zhiwen Wang, Toshiyuki Yasuda and KAZUHIRO OHKURA		

May 27 Wednesday, 2015 at Small Conference Room 8 (on the third floor)					
We4-3F8 1650-1810	SS15: Engineering Applications of Hybrid Evolu	utionary Algorithms			
Chaired by: Kalyanmoy Deb, Eugene Semenkin, and Shaoju	n Li				
1650 hrs	1710 hrs	1730 hrs	1750 hrs		
15544	15636	15365	15148		
Design Optimization of Artificial Lateral Line System under Uncertain	Optimal Ship Design and Valuable Knowledge Discovery Under Uncertain	Self-configuring hybrid evolutionary algorithm for fuzzy classification with	A new modified Alopex-based evolutionary algorithm and its		
Conditions	Conditions	active learning	application on parameter estimation		
Ali Ahrari, Hong Lei, Montassar Aidi Sharif, KALYANMOY DEB and Xiaobo	Kalyanmoy Deb, ZHICHAO LU, Chris McKesson, Cherie C. Trumbach and				
Tan	Larry DeCan	Vladimir Stanovov, EUGENE SEMENKIN and Olga Semenkina	Pengfei He and Shaojun Li		

May 27 Wednesday, 2015 at Small Conference Room 9 (on the third floor)						
We4-3F9 1650-1750	SS01: Dynamic	Multi-Objective Optimization				
Chaired by: MARDE HELBIG						
1650 hrs		1710 hrs	1730 hrs			
15512	15512 15643					
Immune Generalized Differential Evolution for Multiobjective Dynamic	mmune Generalized Differential Evolution for Multiobjective Dynamic Optimization Problems Influence of the Archive Size on the Performance of the Dynamic Vector Evaluated Particle Expected Hypervolume Improvement Algorithm for PID Controller Tuning and the					
Swarm Optimisation Algorithm solving Dynamic Multi-objective Optimisation Problems Multiobjective Dynamical Control of a Biogas Plant						
MARIA-GUADALUPE MARTINEZ-PENALOZA	and Efren Mezura-Montes	MARDE HELBIG and Andries Engelbrecht	KAIFENG YANG, Daniel Gaida, Thomas Bäck and Michael Emmerich			

May 27 Wednesday, 2015 at Small Conference Room 10 (on the third floor)								
We4-3F10 1650-1810	We4-3F10 1650-1810 SS23: CEC Black Box Optimization Benchmarking 2015 & SS22: Nature Inspired Constrained Optimization							
Chaired by: DIMO BROCKHOFF, HELIO BARBOSA, AND BILEL DEF	Chaired by: DIMO BROCKHOFF, HELIO BARBOSA, AND BILEL DERBEL							
1650 hrs	1710 hrs	1710 hrs 1730 hrs 1750 hrs 1750 hrs						
15380	15533	15639	15505					
Simultaneous Optimistic Optimization on the Noiseless BBOB Testbed	stic Optimization on the Noiseless BBOB Testbed Parameter Tuning for Differential Evolution for Cheap, Medium, and Comparison of the MATSuMoTo Library for Expensive Optimization on the A Novel Boundary Constraint-Handling Technique for Constrained							
Expensive Computational Budgets Noiseless Black-Box Optimization Benchmarking Testbed Numerical Optimization Problems								
BILEL DERBEL and Philippe Preux	RYOJI TANABE and Alex Fukunaga	DIMO BROCKHOFF	EFREN JUAREZ-CASTILLO, Nancy Perez-Castro and Efren Mezura-Montes					

Thursday

May 28 Thursday, 2015 at Large Conference Room Tachibana (Large Hall) (on the second floor)				
Plenary IV 0830-0930	Keynote			
Chaired by: OSCAR CORDON GARCIA				
	Creativity in Evolutionary Arts			
		Professor Tatsuo Unemi (Soka University, Japan)		

May 28 Thursday, 2015 at Small Conference Room 1 (on the first floor)				
Th1-1F1 0950-1150 Es	Estimation of Distribution Algorithms			
Chaired by: Jose A. Lozano, John McCall, and Arturo Hernand	DEZ A GUIRRE			
0950 hrs		1010 hrs	1030 hrs	
15330		15443	15481	
Scale Adaptive Reproduction Operator for Decomposition based Estimation	of Distribution	Mixtures of Generalized Mallows Models for Solving the Quadratic Assignment Problem	Clustering Molecular Dynamics Trajectories with a Univariate Estimation of Distribution	
Algorithm			Algorithm	
Bo Wang, Xu H	lua and Yuan Yuan	Josu Ceberio, Roberto Santana, Alexander Mendiburu and JOSE A. LOZANO	Rodrigo Barros, Christian Quevedo, Renata De Paris and MARCIO BASGALUPP	
1050 hrs		1110 hrs	1130 hrs	
15493		15514	15539	
Structural Coherence of Problem and Algorithm: An Analysis for EDAs on all 2-bit and 3-bit Heavy tails with Parameter Adaptation in Random Projection based continuous EDA Designing the Boltzmann Estimation of Multivariate Normal Distribution: issues, g				
Problems solutions				
Alexander Brownlee, JOHN McCA	LL and Lee Christie	MOMODOU SANYANG and Ata Kaban	Ignacio Segovia Dominguez, ARTURO HERNANDEZ AGUIRRE and Ivvan Valdez Pena	

May 28 Thursday, 2015 at Small Conference Room 2 (on the first floor)					
Th1-1F2 0950-1150 S	SS02: Evolution	tionary Computation for Music, Art & Creativity			
Chaired by: Ting Chuan-Kang, Daniel Ashlock and Roisin Lou	JGHRAN				
0950 hrs 15492 Evolving Fractal Art with a Directed Acyclic Graph Genetic Programming Representation		1010 hrs 15592 Music Pattern Mining for Chromosome Representation in Evolutionary Composition 1030 hrs 15297 Artistic Image Processing with Cellular Automata and Evolutionary A			
DANIEL ASHLO	оск and Jeffrey Tsang	LIU CHIEN-HUNG and Ting Chuan-Kang	HSUAN-WEN TSENG and Ying-ping Chen		
1050 hrs 15224 Evolution of 2D Apoptotic Cellular Automata		1110 hrs 15260 Tonality Driven Piano Compositions with Grammatical Evolution			
Jennifer Garner	and DANIEL ASHLOCK	ROISIN LOUGHRAN, James McDermott and Michael O'Neill			

May 28 Thursday, 2015 at Small Conference Room 3 (on the first floor)					
Th1-1F3 0950-1150	SS41: Evolutionary Computation in Architectural Design 1				
Chaired by: M. Fatih Tasgetiren, Ozer Ciftcioglu, P. N. S	Suganthan, and Omer	Ozturkoglu			
0950 hrs		1010 hrs	1030 hrs		
15075	15075 15159 15394				
Investigating The Robustness Of Aisles in A Non-Traditional Unit-Loa	ad Warehouse Design:	Time-Cost Optimization at the Conceptual Design Stage Using Differential Evolution: Case of	Conceptual Airport Terminal Design using Evolutionary Computation		
Leverage		Single Family Housing Projects in Germany			
	OMER OZTURKOGLU	Onur Dursun, Berk Ekici and Sevil Sariyildiz	IOANNIS CHATZIKONSTANTINOU, Sevil Sariyildiz and Michael Bittermann		
1050 hrs		1110 hrs	1130 hrs		
15396		15409	15666		
Addressing the High-Rise Form Finding Problem by Evolutionary Computation Designing Self-Sufficient Floating Neighborhoods Using Computational Decision Support Sports Building			Sports Building Envelope Optimization Using Multi-objective MDO		
BERK EKICI, Seckin Kutucu, I. Sevil Sariyildiz and M. Fatih Tasgetiren AYCA KIRIMTAT, Ioannis Chatzikonstantinou, Sevil Sariyildiz and Ayca Tartar DING YANG, Michela Turrin, Sevil Sari					

May 28 Thursday, 2015 at Small Conference Room 4 (on the second floor)				
Th1-2F4 0950-1150 SS38: Imbalan	h1-2F4 0950-1150 SS38: Imbalanced Data Analysis and Medical/Healthcare Applications 1			
Chaired by: Setsuo Tsuruta, Miho Osaki, Motoki Sakai, Kentaro Kurashige				
0950 hrs	1010 hrs	1030 hrs		
15092	15219	15331		
Formulation of the Kernel Logistic Regression based on the Confusion Matrix	A Case Study on Analysis of Vocal Frequency to Estimate Blood Pressure	Teaching a series of actions by the universal evaluations of each sensory information		
Miho Ohsaki, Kenji Matsuda, PENG WANG, Shigeru Katagiri and Hideyuki Watanabe	MOTOKI SAKAI	KENTAROU KURASHIGE and Kaoru Nikaido		
1050 hrs	1110 hrs			
15623	15676			
Toward Behavioral Business Process Analysis	Tweet Credibility Analysis Evaluation by Improving Sentimental Dictionary			
ERNESTO DAMIANI, Gabriele Gianini and Marcello Leida	Takashi Kawabe, Yoshimi Namihira, Kouta Suzuki, Munehiro Nara, Yoshitaka Sakurai, Setsuo Tsuruta and Knauf Rainer			

May 28 Thursday, 2015 at Small Conference Room 5 (on the second floor)					
Th1-2F5 0950-1150 SS37: Evolu	Th1-2F5 0950-1150 SS37: Evolutionary Feature Selection and Construction & SS13: Evolutionary Computer Vision 1				
Chaired by: BING XUE, MENGJIE ZHANG, EUGENE SEMENKIN, YAOCHU JIN, AND OS	CAR CORDON				
0950 hrs	1010 hrs	1030 hrs			
15225	15345	15469			
Impact of Imputation of Missing Values on Genetic Programming based Multiple Feature	Evolutionary Feature Selection for Emotion Recognition in Multilingual Speech Analysis	Trade-off Between Computational Complexity and Accuracy in Evolutionary Image Feature			
Construction for Classification		Extraction			
Cao Truong Tran, PETER ANDREAE and MENGJIE ZHA	Christina Brester, EUGENE SEMENKIN, Maxim Sidorov, Igor Kovalev and Pavel Zelenkov	Wissam Albukhanajer, YAOCHU JIN and Johann Briffa			
1050 hrs	1110hrs	1130hrs			
15564	15576	15002			
A Multi-Objective ABC Approach to Feature Selection using Fuzzy Mutual Information	Particle Swarm Optimisation for Feature Selection: A Hybrid Filter-Wrapper Approach	Bacterial Foraging Optimization For Intensity-based Medical Image Registration			
Emrah Hancer, BING XUE, Mengjie Zhang, Dervis Karaboga and Bahriye Al	y Tony Butler-Yeoman, BING XUE and Mengjie Zhang	Enrique Bermejo, Andrea Valsecchi, Sergio Damas and OSCAR CORDON			

May 28 Thursday, 2015 at Small Conference Room 6 (on the third floor)					
Th1-3F6 0950-1150 F	Finance and Economics				
Chaired by: GARNETT WILSON, ANTHONY BRABAZON, AND AHMET M	Iurat Ozbayoglu				
0950 hrs		1010 hrs	1030 hrs		
15102		15174	15313		
Hybrid Meta-Heuristic Applied to Investments Prioritization Under Budget U	Incertainty	Better Trade Exits for Foreign Exchange Currency Trading using FXGP	A Hybrid Genetic Algorithm for a Two-Stage Stochastic Portfolio Optimization With Uncertain		
			Asset Prices		
,	JEROME LONCHAMPT	Alexander Loginov, GARNETT WILSON and Malcolm Heywood	TIANXIANG CUI, Ruibin Bai, Andrew Parkes, Rong Qu, Fang He and Jingpeng Li		
1050 hrs		1110 hrs	1130 hrs		
15436					
Developing a Two Level Options Trading Strategy Based on Option Pair Optimization of					
Spread Strategies with Evolutionary Algorithms	Spread Strategies with Evolutionary Algorithms				
Ilknur Ucar, AHMET MURAT OZBAYOGL	LU and Mustafa Ucar				

May 28 Thursday, 2015 at Small Conference Room 7 (on the third floor)				
Th1-3F7 0950-1150 Num	merical Optimization			
Chaired by: Ніречикі Такаді				
0950 hrs		1010 hrs	1030 hrs	
15115		15237	15369	
An Opposition-Based Hybrid Artificial Bee Colony with Differential Evolution		Analytical Estimation of the Convergence Point of Populations	Application of Metaheuristic Algorithms in Nano-process Parameter Optimization	
Сникіат	T WORASUCHEEP	Noboru Murata, Ryuei Nishii, HIDEYUKI TAKAGI and Yan Pei	Norlina Mohd Sabri, Nor Diyana Md Sin, Mazidah Puteh and Mohamad Rusop Mahmood	
1050 hrs		1110 hrs		
15541		15690		
Solving the Ambulance Location Problem in Tijuana-Mexico using Mixed Integer On Increasing Computational Efficiency of Evolutionary Algorithms Applied to Large				
Programming		Optimization Problems		
SERGIO MORALES, Oliver Schutze, Carlos Vera, Leonardo Trujillo and Yaz	zmin Maldonado	MACIEJ GLOWACKI and Janusz Orkisz		

May 28 Thursday, 2015 at Small Conference Room 8 (on the third floor)				
Th1-3F8 0950-1150	SS51: Evolutionary Computation in Operations Research, Management Science and Decision Making			
Chaired by: Wei-Chang Yeh, Yew Soon Ong, Wei Shang-Chia,	STEPHANUS DANIEL	Handoko, Yunzhi Jiang		
0950 hrs		1010 hrs	1030 hrs	
15156		15346	15368	
Learning of Hierarchical Fuzzy Aggregative Network Using Simplified Swa	rm Optimization	Solving Multi-vehicle Profitable Tour Problem via Knowledge Adoption in Evolutionary	Solving a Multi-Level Capacitated Lot Sizing Problem with Random Demand via a	
		Bi-level Programming	Fix-and-Optimize Heuristic	
STEPHANUS DANIEL HANDOKO, Abhishek Gupta, Chen Kim Heng, Hoong Chuin Lau, Yew Soon Ong				
WEI SHANG-CHIA, Yen Tso-Jung	g and Yeh Wei-Chang	and Puay Siew Tan	LIUXI LI, Shiji Song and Cheng Wu	
1050 hrs		1110 hrs	1130 hrs	
15555		15579 15656		
Multi-Threshold Image Segmentation Using Histogram Thresholding-Baye	sian Honey Bee	A Categorized Particle Swarm Optimization for Object Tracking	Predicting protein docking poses on a solid surface by particle swarm optimization	
Mating Algorithm				
Yunzhi Jiang	YUNZHI JIANG and Chia-Ling Huang FENG SHA and XiMeng Zhao JIMMY C. F. NGAI, Pui-In Mak and Shirley W. I. S			

May 28 Thursday, 2015 at Medium Conference Room Shirakashi 1 (on the third floor)					
Th1-3F9 0950-1150 SS03	SS03: Many-Objective Optimization				
Chaired by: HIROYUKI SATO, ANTONIO LOPEZ-JAIMES, SAUL ZAPOTECAS	S-MARTINEZ, AN	id Hui Ma,			
0950 hrs		1010 hrs	1030 hrs		
15546 15578			15578		
A Ranking Method Based on Two Preference Criteria: Chebyshev Function and		On the Low-Discrepancy Sequences and their Use in MOEA/D for High-Dimensional Objective	F-MOGP: A Novel Many-Objective Evolutionary Approach to QoS-Aware Data Intensive Web		
epsilon-Indicator		Spaces	Service Composition		
ANTONIO LOPEZ-JAIMES, Akira Oyama	and Kozo Fujii	SAUL ZAPOTECAS-MARTINEZ, Hernan Aguirre, Kiyoshi Tanaka and Carlos A. Coello Coello	Yang Yu, Hui Ma and Mengjie Zhang		
1050 hrs		1110 hrs	1130 hrs		
15580		15653	15621		
A New Non-Redundant Objective Set Generation Algorithm in Many-Objective Op	ptimization	Comparing Solution Sets of Different Size in Evolutionary Many-Objective Optimization	MOEA/D Using Constant-Distance Based Neighbors Designed for Many-Objective		
Problems Optimization					
XIAOFANG GUO, Yuping Wang, Xiaoli Wang and	XIAOFANG GUO, Yuping Wang, Xiaoli Wang and Jingxuan Wei Hisao Ishibuchi, HIROYUKI MASUDA and Yusuke Nojima HIROYUKI SATI				

May 28 Thursday, 2015 at Medium Conference Room Shirakashi 2 (on the third floor)						
Th1-3F10 0950-1150	SS52: New Dir	ections in Evolutionary Machine	Learning 1			
Chaired by: Keiki Takadama, Tim Kovacs, Yusuke Nojima, Ma	saya Nakata, Satos	hi Ono, Chun-Hao Chen, and Bernard De	BAETS			
0950 hrs 15221 Novelty-Organizing Team of Classifiers in Noisy and Dynamic Environm	ents	15231 Evolutionary Multi-objective Distance Metric Learning for Multi-label Clustering		1030 hrs 15403 A Sensor Tagging Approach For Reusing Building Blocks of Knowledge in Learning Classifier		
Danilo Vasconcellos Vargas, Hirotaka Tal	kano and Junichi Murata	Taishi Megano, հ	Cen-ichi Fukui, Masayuki Numao and SATOSHI ОNO	Systems	LIANG-YU CHEN, Po-Ming Lee and Tzu-Chien Hsiao	
1050 hrs		1010 hrs		1130 hrs		
15452 A GA-based Approach for Mining Membership Functions and Concept-	Drift Patterns	15483 An evolutionary approach to the identification observations	of Cellular Automata based on partial	15516 Handling Different Level Distribution in XCS	ol of Unstable Reward Environment Through an Estimation of Reward	
CHUN-HAO CHEN, Yu Li, Tzung-Pei Hong, Yan-Kang Li	and Eric Hsueh-Chan Lu	W	itold Bolt, Jan M. Baetens and BERNARD DE BAETS		TAKATO TATSUMI, Takahiro Komine, Hiroyuki Sato and Keiki Takadama	
May 28 Thursday, 2015 at Small Conference R	•	<u> </u>				
Th2-1F1 1300-1400	Evolution Strate	egies				
Chaired by: MICHAEL COUCEIRO, JAMES MOTGOMERY, AND CHR	ISTIAN DARABOS					
1300 hrs 15074		1320 hrs 15267		1340 hrs 15519		
Towards a Predictive Model of an Evolutionary Swarm Robotics Algoriti	nm	Evolution Strategies with Thresheld Convergence			ellular Automata with Evolving Network Topologies	
MICAEL COUCEIRO, Rocha R	ii and Martins Fernando	Alejandro Piad-Morffis, Suilan Estevez-Velarde	e, Antonio Bolufe-Rohler, JAMES MONTGOMERY and Stephen Chen		CHRISTIAN DARABOS and Jason H. Moore	
MIGNEL GOOGLING, NORTH TH	ar and martino r cinc		Otophon Onon		Officially Databoo und 3000	
May 28 Thursday, 2015 at Small Conference R	oom 2 (on the fi	rst floor)				
Th2-1F2 1300-1420	SS40: Evolutio	nary Computation with Human F	actors 1			
Chaired by: Yan Pei, Hideyuki Takagi, Pierre-Alain Fayolle	MOHAMED ABOU-ZLE	ikha, Makoto Fukumoto, and Sebastian F	Risi			
1300 hrs	1320 hrs		1340 hrs 1400 hrs			
15051 User-assisted reverse modeling with evolutionary algorithms	15241 Preference Learning w	rith Evolutionary-Based Multivariate Adaptive	15388 Interactive Differential Evolution Using Time Inf	formation Required for	15491 BrainCrafter: An Investigation Into Human Neural Network	
B 1	Regression Spline Mod		User's Selection: In A Case of Optimizing Fragr		Engineering	
PIERRE-ALAIN FAYOLLE and Alexander Pasko	MOHAMED ABOU-ZLEIN	KHA, Noor Shaker and Mads Graesboll Christensen	Макото Fuкuмото, Shimpei Koga, Makoto II	noue and Jun-ichi Imai	Jan Piskur, Peter Greve, Julian Togelius and SEBASTIAN RISI	
May 28 Thursday, 2015 at Small Conference Room 3 (on the first floor)						
Th2-1F3 1300-1400	SS41: Evolutionary Computation in Architectural Design 2					
Chaired by: M. FATIH TASGETIREN, MICHAEL S. BITTERMANN, O.	ZER CIFTCIOGLU AND F	P. N. SUGANTHAN	•			
1300 hrs		1320 hrs		1340 hrs		
15395 Evolutionary Computation for Architectural Design of Restaurant Layou	ts	15432 Architectural Design Computing Supported by	Multi-Objective Optimization	15439 Architectural Design by Cognitive Computing		
CEMRE UGURI U. Ioannis Chatzikonstantinou. Sevil Sarivildiz		MICHAEL S. BITTERMANN and Ciffcioglu Ozer		Ozer Cietciogi u and Michael S. Bittermann		

May 28 Thursday, 2015 at Small Conference Room 4 (on the second floor)					
Th2-2F4 1300-1400	SS38: Imbalanced Data Analysis and Medical/Healthcare Applications 2				
Chaired by: Setsuo Tsuruta and Tomoharu Nakashima					
1300 hrs		1320 hrs			
15560		15677			
Strategies for Addressing Class Imbalance in Ensemble Classification	of Thermography Breast Cancer Features	Case Based Human Oriented Delivery Route Optimization			
	Gerald Schaefer and TOMOHARU NAKASHIMA	Takashi Kawabe, Yuuta Kobayashi, Setsuo Tsuruta, Yoshitaka Sakurai and Rainer Knauf			

Th2-2F5 1300-1400	SS13: Evolutionary Computer Vision 2					
Chaired by: Mengjie Zhang and Alexandros Agapitos						
1300 hrs	1320 hrs	1340 hrs	1645 hrs			
15476	15601	15390	15398			
A Hybrid Genetic Algorithm for Image Denoising	Deep Evolution of Feature Representations for Handwritten Digit	Image Descriptor: A Genetic Programming Approach to Multiclass	Genetic Programming for Algae Detection in River Images			
	Recognition	Texture Classification				
	ALEXANDROS AGAPITOS, Michael O'Neill, Miguel Nicolau, David Fagan,					
JONATAS DE PAIVA, Claudio Toledo and Helio Pedrini	Ahmed Kattan and Kathleen Curran	HARITH AL-SAHAF, Mengjie Zhang, Mark Johnston and Brijesh Verma	Andrew Lensen, HARITH AL-SAHAF, Mengjie Zhang and Brijesh Verma			

May 28 Thursday, 2015 at Small Conference Room 6 (on the third floor)					
Th2-3F6 1300-1400 SS44: Probabilistic Optimization: Extended Theory and Application 1					
Chaired by: Naoki Mori and Kiyoharu Tagawa					
1300 hrs		1320 hrs 1340 hrs			
15100 15309 15378			15378		
Memetic Differential Evolutions Using Adaptive Golden Section Search and Their Concurrent Particle Filter with Extrapolation by Crossover for Nonlinear State Estimation Analyzing Exploration Exploitation Trade-off by means of P-I Similarity Index and					
Implementation Techniques Dictyostelium based Genetic Algorithm					
KIYOHARU TAGAWA, Hirokazu Takeucl	KIYOHARU TAGAWA, Hirokazu Takeuchi and Atsushi Kodama TAKU SASAKI and Isao Ono Kazuyuki Inoue, TAKU HASEGAWA, Naoki Mori and Keinosuke Mats				

May 28 Thursday, 2015 at Small Conference Room 7 (on the third floor)					
Th2-3F7 1300-1400 SS25: Recent Advances in Evolutionary Algorithms as Nonlinear Dynamical Systems 1					
Chaired by: Toshiharu Hatanaka, Hidehiro Nakano and Kenya	Jin'no				
1300 hrs 1320 hrs 1340 hrs					
15264 15341 15617					
Analysis of the Dynamic Characteristics of Firefly Algorithm Population-based Optimization Having Deterministic and Discrete Dynamics An Artificial Bee Colony Algorithm with a Memory Scheme for Dynamic Optimization					
Problems					
TAKUYA SHINDO, Jianze Xiao, Takuya Kurihara, Kazuya Mo	orita and Kenya Jin'no	Yuya Kurita and Tadashi Tsubone	Hidehiro Nakano, Masataka Kojima and Arata Miyauchi		

May 28 Thursday, 2015 at Small Conference Room 8 (on the third floor)						
Th2-3F8 1300-1400	Th2-3F8 1300-1400 SS11: Evolutionary Computation in Planning and Scheduling 1					
Chaired by: Kay Chen Tan, Mengjie Zhang, and Xiaoi	OONG LI					
1300 hrs 1320 hrs 1340 hrs						
15200 15303						
Heuristic Evolution with Genetic Programming for Traveling Thief Problem Memetic Algorithm for solving Resource Constrained Project Scheduling Problems A Novel Block-shifting Simulated Annealing Algorithm for the No-wait Flowsh			A Novel Block-shifting Simulated Annealing Algorithm for the No-wait Flowshop Scheduling			
Problem						
Mei Yi, Lı Xı	Mei Yi, Lı XIAODONG, Salim Flora and Yao Xin Ismall ALI, Saber Elsayed, Tapabrata Ray and Ruhul Sarker JIAN-YA DING, Shijii Song, Rui Zhang, Siwei Zhou and Cheng Wu					

May 28 Thursday, 2015 at Medium Conference Room Shirakashi 1 (on the third floor)						
Th2-3F9 1400-1500 SS16: Evolutionary Multi-Objective Optimization 1						
Chaired by: Sanaz Mostaghim and Kalyanmoy Deb	Chaired by: Sanaz Mostaghim and Kalyanmoy Deb					
1300 hrs	1300 hrs 1320 hrs 1340 hrs					
15190	15190 15358					
Properties of Scalable Distance Minimization Problems using the Manh	Properties of Scalable Distance Minimization Problems using the Manhattan Metric A Classification and Pareto Domination based Multiobjective Evolutionary Algorithm Sensitivity Analysis of Penalty-based Boundary Intersection on Aggregation-based EMO					
Algorithms						
HEINER ZILL	HEINER ZILLE and Sanaz Mostaghim Jinyuan Zhang, AIMIN ZHOU and Guixu Zhang ASAD MOHAMMADI, Mohammad Nabi Omidvar, Xiaodong Li and Kalyanmoy Deb					

May 28 Thursday, 2015 at Medium Conference R	oom Shirakas	hi 2 (on the third floor)	
Th2-3F10 1300-1400 S	S52: New Dire	ections in Evolutionary Machine Learning 2	
Chaired by: Keiki Takadama, Tim Kovacs, Hiroyasu Tomoyuki, Y	USUKE NOJIMA AND	Masaya Nakata	
1300 hrs 15548 Detecting Shoplifting From Customer Behavior Data by Extended XCS-SL: Extraction on Class-Imbalanced Sequence Data	Towards Feature	1320 hrs 15569 A Feature Transformation Method usingMultiobjective Genetic Programming for Two-ClassClassification	1340 hrs 15689 Effects of Heuristic Rule Generation from Multiple Patterns in Multiobjective Fuzzy Genetics-Based Machine Learning
MINATO SATO, Kotaro Usui, Masaya Nakata a	and Keiki Takadama	Нікоуаѕи Томоуикі, Shiraishi Toshihide, Yoshida Tomoya and Yamamoto Utako	YUSUKE NOJIMA, Kazuhiro Watanabe and Hisao Ishibuchi
Th3-1F1 1415-1515 H Chaired by: Hui Ma, Maxim Buzdalov and Xin Du 1415 hrs 15070 A GP Approach to QoS-Aware Web Service Composition including Condition	ardware & So	1435 hrs 15271 Hard Test Generation for Augmenting Path Maximum Flow Algorithms using Genetic	1455 hrs 15435 An Evolutionary Algorithm for Performance Opitimization at Software Architecture Level
Alexandre Sawczuk da Silva, Hui Ma	and Mengjie Zhang	Algorithms: Revisited MAXIM BUZDALOV and Anatoly Shalyto	XIN Du, Youcong Ni and Peng Ye
May 28 Thursday, 2015 at Small Conference Roo Th3-1F2 1425-1525		est floor) nary Computation with Human Factors 2	
Chaired by: Yan Pei, Hideyuki Takagi, Satoshi Ono, and Misato		iary Computation with Human Factors 2	
1425 hrs 15641 Suggestion-based Interactive Video Digest Design by User-System Coopera	ative Evolution	1445 hrs 15179 Local Information of Fitness Landscape Obtained by Paired Comparison-Based Memetic Search for Interactive Differential Evolution	1505 hrs 15399 Discussion on interactive Genetic Algorithm with brain activation measured by functional Magnetic Resonance Imaging
Hiroshi Nakamui	ra and SATOSHI ONO	YAN PEI and Hideyuki Takagi	Misato Тамака, Mitsunori Miki, Utako Yamamoto and Tomoyuki Hiroyasu

May 28 Thursday, 2015 at Small Conference Room 3 (on the first floor)						
Th3-1F3 1415-1515	Th3-1F3 1415-1515 SS41: Evolutionary Computation in Architectural Design 3					
Chaired by: M. FATIH TASGETIREN, OZER CIFTCIOGLU, AND P. I	N. SUGANTHAN					
1415 hrs	1415 hrs 1435 hrs 1455 hrs 1455 hrs					
15402 15575						
Identification of Sustainable Designs for Floating Settlements Using Computational Design Multi-Objective Diagrid Facade Optimization Using Differential Evolution Fuzzy Neural Tree in Evolutionary Computation for Architectural Design Cognition						
Techniques						
CEMRE UGURLU, Ioannis Chatzikonstantinou, Sevil Sariyildi	z and M. Fatih Tasgetiren	IOANNIS CHATZIKONSTANTINOU, Berk Ekici, I. Sevil Sariyildiz and Basak Kundakci Koyunbaba	OZER CIFTCIOGLU and Michael S. Bittermann			

May 28 Thursday, 2015 at Small Conference Room 4 (on the second floor)						
Th3-2F4 1415-1515 SS56: Computational Intelligence in Bioinformatics						
Chaired by: Steven Corns, Marco Nobile, Wendy Ashlock	Chaired by: Steven Corns, Marco Nobile, Wendy Ashlock					
1415 hrs	1415 hrs 1435 hrs 1455 hrs 1455 hrs					
15222		15513	15671			
A Double Swarm Methodology for the Parameter Estimation of Oscillating Gene Regulatory Evolving Side Effect Machines To Measure Distances Between DNA Promoter Sequences A New Model for Gene Regulatory Network Inference using Michaelis-Menten Kinetics						
Networks	Networks					
MARCO	MARCO NORIJE and Hitoshi Iba WENDY ASHLOCK AHAMMED SHERJEE KIZHAKKETHIL YOUSERH Madbu Chetty and Gour Karmaks					

May 28 Thursday, 2015 at Small Conference R	loom 5 (on the s	econd floor)			
Th3-2F5 1425-1545	SS55: Social Simulation & SS46: Application Specific Evolutionary Computation				
Chaired by: TADAHIKO MURATA, SABER ELSAYED, AND TEIJIRO I			Some Everationary Computation		
1425 hrs 15001 Designing Simulated Annealing and Evolutionary Algorithm for Estimating Attributes of Residents from Statistics Tadahiko Murata and DAIKI MASUI	1445 hrs 15453 Selecting multiple nets using two-phase evolu	· · · · · · · · · · · · · · · · · · ·		volution Algorithm in	1525 hrs 15668 Performances in GA-based Menu Production for Hospital Meals TEUJIRO ISOKAWA and Nobuyuki Matsui
		TEDINO SONAWA did NO			
May 28 Thursday, 2015 at Small Conference R	toom 6 (on the th	nird floor)			
Th3-3F6 1415-1515	SS44: Probabil	listic Optimization: Extended The	ory and Application 2		
Chaired by: Naoki Mori and Yukiko Orito		•			
1415 hrs		1435 hrs		1455 hrs	
15417 Visualization of Pareto optimal solutions using MIGSOM		15427 Search Dynamics of Fitness Landscape Learnin of Evolution Control	ng Evolutionary Computation with Two Types	15567 Equality Constraint-ha Replication Problem	andling Technique with Various Mapping Points: The Case of Portfolio
Naoto Suzuki, Takashi Okamo	oto and Seiichi Koakutsu		o Tsukada, Naoki Mori and Keinosuke Matsumoto	Replication Froblem	YUKIKO ORITO and Yoshiko Hanada
May 28 Thursday, 2015 at Small Conference R	toom 7 (on the th	nird floor)			
Th3-3F7 1415-1515	SS25: Recent	Advances in Evolutionary Algorit	hms as Nonlinear Dynamical Sys	stems 2	
Chaired by: Toshiharu Hatanaka, Hidehiro Nakano, Kenya	Jin'no and Haruna M	ATSUSHITA			
1415 hrs		1435 hrs		1455 hrs	
15407 A Basic Consideration of an Optimizer Based on Piecewise Rotational C	Chaos System	15551 Firefly Algorithm with Dynamically Changing Connections		15554 Levy flight PSO	
Voquiya Til Vanana	(4 and Tadaahi Taubana		HARUNA MATRICUTA		VOULET HADIVA Takuna Kuribara Takuna Chiada and Kanna lialaa
T OSHIKAZU T AMANAK	(A and Tadashi Tsubone		HARUNA MATSUSHITA		YOSUKE HARIYA, Takuya Kurihara, Takuya Shindo and Kenya Jin'no
May 28 Thursday, 2015 at Small Conference R	toom 8 (on the th	nird floor)			
Th3-3F8 1415-1515	SS11: Evolutio	nary Computation in Planning ar	d Scheduling 2		
Chaired by: Kay Chen Tan, Mengjie Zhang and Xiaoli Wang			-		
1415 hrs		1435 hrs		1455 hrs	
15550 A New Model and Genetic Algorithm for Multi-Installment Divisible-Load	l Scheduling	15585 Enhancing Genetic Programming based Hyper- Shop Scheduling Problems	Heuristics for Dynamic Multi-objective Job	15588 A Populated Local Sea	arch with Differential Evolution for Blocking Flowshop Scheduling
XIAOLI WANG, Yuping Wang, Zhen	Wei and Jingxuan Wei		Su Nguyen, ZHANG MENGJIE and Kay Chen Tan		M. Fatih Tasgetiren, Quan-Ke Pan, Gursel Suer and DAMLA KIZILAY
May 28 Thursday, 2015 at Medium Conference	Room Shirakas	shi 1 (on the third floor)			
Th3-3F9 1415-1515	SS16: Evolutio	nary Multi-Objective Optimization	n 2		
Chaired by: Sanaz Mostaghim and Kalyanmoy Deb				1	
1415 hrs 15562		1435s 15605		1455 hrs 15609	
Towards an Automated Innovization Method for Handling Discrete Sear	ch Spaces	Reference Point based Distributed Computing	for Multiobjective Optimization		erator on NSGA-III in Single, Multi, and Many-Objective Optimization
ARHINAV GAL	JR and Kalyanmoy Deb		OKKES TOLGA ALTINOZ and Kalyanmoy Deb		Haitham Seada and KALYANMOY DEB

May 28 Thursday, 2015 at Medium Conference	e Room Shirakas	shi 2 (on the third floor)			
Th3-3F10 1415-1535	SS52: New Dir	SS52: New Directions in Evolutionary Machine Learning 3			
Chaired by: Keiki Takadama, Tim Kovacs, Yusuke Nojima, an	ID MASAYA NAKATA				
1415 hrs 15652		1435 hrs 15661		1455 hrs 15665	
Emotion inspired adaptive robotic path planning	and Data Comments	How Should Learning Classifier Systems Cover			er System with Fixed-length Memory for Reinforcement Learning
HENRY WILLIAMS, Christopher Lee-Johnson, Will Br	owne and Dale Carnegle	MASAYA NAKATA, PIER LUCA LANZI, TI	m Kovacs, Will Neil Browne and Keiki Takadama		Thomas Pickering and TIM KOVACS
May 28 Thursday, 2015 at Small Conference F	Room 6 (on the t	nird floor)			
Th4-3F6 1545-1705	SS44 Probabili	stic Optimization: Extended Theo	ry and Application 3 & SS31: Th	neoretical Founda	tions of Bio-Inspired Computation
Chaired by: Naoki Mori, Shinya Watanabe, Makoto Fukumo	TO, AND YANG YU				
1545 hrs	1605 hrs		1625 hrs		1645 hrs
15583 A Proposal on a Decomposition-Based Evolutionary Multiobjective	15678 Investigation of Effic	iency of Manipulation in Interactive Tabu Search	15175 An Evolving Trust Paradigm for Enforcing Co	omputing System	15456 Running Time Analysis: Convergence-based Analysis Reduces to
Optimization for Large Scale Vehicle Routing Problems	for Optimizing Fragra	nnce Composition	Security		Switch Analysis
SHINYA WATANABE, Masashi Ito and Kazutoshi Sakakibara		Макото Fuкuмото and Shimpei Koga	ORHIO MARK CREADO, Phu Dung Le, J	an Newmarch and Jeff Tan	YANG Yu and Chao Qian
May 28 Thursday, 2015 at Small Conference F	Room 7 (on the t	nird floor)			
Th4-3F7 1545-1645	SS25 Recent A	dvances in Evolutionary Algorithms as	Nonlinear Dynamical Systems 3 &	SS26: Evolutionary	Computation for Nonlinear Equation Systems
Chaired by: Toshiharu Hatanaka, Hidehiro Nakano, Kenya	Jin'no, Yong Wang a	nd Crina Grosan			
1545 hrs		1605 hrs		1625 hrs	
15602 A Study on Multi-objective Particle Swarm Model by Personal Archives	with Regular Graph	15290 Nonlinear Equation Systems Solved by many-ob.	iective Hype	15515 A Collection of Challenging Systems of Equations in Science, Engineering and Economics	
	nd Toshiharu Hatanaka			Dhagash Mehta and CRINA GROSAN	
May 28 Thursday, 2015 at Small Conference F		nird floor) nary Computation in Planning and	1 Scheduling 3		
Chaired by: Kay Chen Tan, Mengjie Zhang, M. Fatih Tasget		nary compatation in rianiming and	2 Contracting C		
1545 hrs	1605 hrs		1625 hrs		1645 hrs
15589	15604		15626		15645
A Differential Evolution Algorithm with Variable Neighborhood Search for Multidimensional Knapsack Problem	A Restricted Neighbor Assignment Problem	urhood Tabu Search for Storage Location	Ant Based Solver for Dynamic Vehicle Routin Windows and Multiple Priorities	g Problem with Time	Towards Robustness Optimization of Complex Networks
M. FATIH TASGETIREN, Quan-Ke Pan, Gursel Suer and Damla Kizilay	•	, Yi Mei, Andreas Ernst, Xiaodong Li and ANDY SONG		mmerich and Thomas Bäck	XIAOKE ZHANG, Cuiying Duan, Michael Emmerich and Thomas Bäck
May 28 Thursday, 2015 at Medium Conference					
Th4-3F9 1530-1710		<u>int Handling in Multi-Objective Op</u>	timization		
Chaired by: MINAMI MIYAKAWA, CARLOS A. C. COELLO, KALYAN	MOY DEB, AND HISAO I	SHIBUCHI			
1630 hrs 15289			1650 hrs 15614		
Constrained Optimization Problem Solved by Dynamic Constrained NS	GA-III Multiobjective Opt	mizational Techniques	Directed Mating Using Inverted PBI Function for Constrained Multi-Objective Optimization		
		Xı Lı, Sanyou Zeng, Sha Qin and Kunqi Liu			MINAMI MIYAKWA, Keiki Takadama and Hiroyuki Sato
May 28 Thursday, 2015 at Medium Conference	- Poom Shirakas	chi 2 (on the third floor)			
		· · · · · · · · · · · · · · · · · · ·	- and a d		
Th4-3F10 1530-1610		ections in Evolutionary Machine L	earning 4		
Chaired by: Keiki Takadama, Tim Kovacs, Yusuke Nojima, Ma	ASAYA NAKATA, AND H	TOSHI IIMA	4550 h		
1530 hrs 15672			1550 hrs 15693		
Swarm Reinforcement Learning Methods Improving Certainty of Learni	ng for a Multi-Robot Forr		Extracting Both Generalized and Specialized Ki	nowledge by XCS using Att	
		HITOSHI IIMA and Yasuaki Kuroe			KEIKI TAKADAMA and Masaya Nakata