

Thomas Philip Runarsson
Hans-Georg Beyer
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Xin Yao (Eds.)

Parallel Problem Solving from Nature – PPSN IX

9th International Conference
Reykjavik, Iceland, September 2006
Proceedings

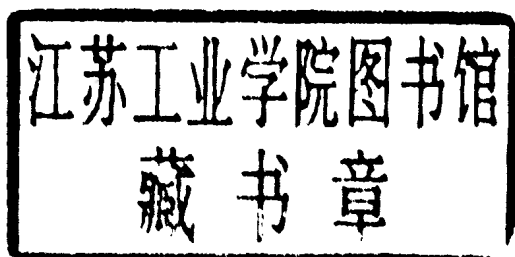


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9th International Conference
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Preface

We are very pleased to present this LNCS volume, the proceedings of the 9th International Conference on Parallel Problem Solving from Nature (PPSN IX). PPSN is one of the most respected and highly regarded conference series in evolutionary computation and natural computing / computation. This biennial event was first held in Dortmund in 1990, and then in Brussels (1992), Jerusalem (1994), Berlin (1996), Amsterdam (1998), Paris (2000), Granada (2002), and Birmingham (2004). PPSN continues to be the conference of choice by researchers all over the world, who value its high quality.

We received 255 paper submissions this year. After an extensive peer review process involving more than 1000 reviews, the programme committee selected the top 106 papers for inclusion in this volume and, of course, for presentation at the conference. This represents an acceptance rate of 42%.

The papers included in this volume cover a wide range of topics, from evolutionary computation to swarm intelligence and from bio-inspired computing to real-world applications. They represent some of the latest and best research in evolutionary and natural computation. Following the PPSN tradition, all papers at PPSN IX were presented as posters. There were 7 sessions: each session consisting of around 15 papers. For each session, we covered as wide a range of topics as possible so that participants with different interests could find some relevant papers in every session.

The conference featured three distinguished keynote speakers: Herschel Rabitz, Nadia Busi, and Edward Tsang. Their backgrounds in chemistry, theoretical computer science, and financial engineering, respectively, reflect the interdisciplinary nature of PPSN IX. Herschel Rabitz's talk was on "Controlling Quantum Phenomena: The Dream Is Alive", Nadia Busi's was on "Computing with Calculi and Systems Inspired by Biological Membranes", and Edward Tsang's was on "Wind-tunnel Testing for Strategy and Market Design". Both Edward Tsang and Nadia Busi gave introductory tutorials related to their talks. Furthermore, Nadia Busi is the co-author of some notes on (Mem)Brane Computation included in this volume. We are very grateful to them for contributing valuable time from their busy schedules.

PPSN IX included 10 tutorials and 4 workshops. We were extremely fortunate to have such an impressive list of internationally leading scientists from across natural computing as tutorial speakers. They provided an excellent start to the five-day event. The workshops offered an ideal opportunity for participants to explore specific topics in natural computing in an informal setting. They were sowing the seeds for the future growth of natural computing.

To encourage and reward high-quality research in the international community, PPSN IX presented a Best Paper Award. All accepted papers were eligible

to enter the competition. A separate Best Student Paper Award was also given at the conference.

The success of a conference depends on its authors, reviewers and organizers. PPSN IX was no exception. We are grateful to all the authors for their paper submissions and to all the reviewers for their outstanding work in refereeing the papers within a very tight schedule. We relied heavily upon a team of volunteers to keep the PPSN IX wheel turning. We are very grateful for their efforts.

September 2006

Thomas Philip Runarsson
Hans-Georg Beyer
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Table of Contents

Theory

Evolutionary Optimization in Spatio-temporal Fitness Landscapes.....	1
<i>Hendrik Richter</i>	
Cumulative Step Length Adaptation on Ridge Functions	11
<i>Dirk V. Arnold</i>	
General Lower Bounds for Evolutionary Algorithms	21
<i>Olivier Teytaud, Sylvain Gelly</i>	
On the Ultimate Convergence Rates for Isotropic Algorithms and the Best Choices Among Various Forms of Isotropy	32
<i>Olivier Teytaud, Sylvain Gelly, Jérémie Mary</i>	
Mixed-Integer NK Landscapes	42
<i>Rui Li, Michael T.M. Emmerich, Jeroen Eggermont, Ernst G.P. Bovenkamp, Thomas Bäck, Jouke Dijkstra, Johan H.C. Reiber</i>	
How Comma Selection Helps with the Escape from Local Optima.....	52
<i>Jens Jägersküpper, Tobias Storch</i>	
When Do Heavy-Tail Distributions Help?	62
<i>Nikolaus Hansen, Fabian Gemperle, Anne Auger, Petros Koumoutsakos</i>	
Self-adaptation on the Ridge Function Class: First Results for the Sharp Ridge	72
<i>Hans-Georg Beyer, Silja Meyer-Nieberg</i>	
Searching for Balance: Understanding Self-adaptation on Ridge Functions.....	82
<i>Monte Lunacek, Darrell Whitley</i>	
Diversity Loss in General Estimation of Distribution Algorithms	92
<i>Jonathan L. Shapiro</i>	
Information Perspective of Optimization	102
<i>Yossi Borenstein, Riccardo Poli</i>	

New Algorithms

A Novel Negative Selection Algorithm with an Array of Partial Matching Lengths for Each Detector	112
<i>Wenjian Luo, Xin Wang, Ying Tan, Xufa Wang</i>	
Hierarchical BOA, Cluster Exact Approximation, and Ising Spin Glasses.....	122
<i>Martin Pelikan, Alexander K. Hartmann, Kumara Sastry</i>	
Towards an Adaptive Multimeme Algorithm for Parameter Optimisation Suiting the Engineers' Needs	132
<i>Wilfried Jakob</i>	
Niche Radius Adaptation in the CMA-ES Niching Algorithm	142
<i>Ofer M. Shir, Thomas Bäck</i>	
A Tabu Search Evolutionary Algorithm for Solving Constraint Satisfaction Problems	152
<i>B.G.W. Craenen, Ben Paechter</i>	
cAS: Ant Colony Optimization with Cunning Ants	162
<i>Shigeyoshi Tsutsui</i>	
Genetic Algorithm Based on Independent Component Analysis for Global Optimization	172
<i>Gang Li, Kin Hong Lee, Kwong Sak Leung</i>	
Improved Squeaky Wheel Optimisation for Driver Scheduling.....	182
<i>Uwe Aickelin, Edmund K. Burke, Jingpeng Li</i>	
A Local Genetic Algorithm for Binary-Coded Problems	192
<i>Carlos García-Martínez, Manuel Lozano, Daniel Molina</i>	
Hill Climbers and Mutational Heuristics in Hyperheuristics.....	202
<i>Ender Özcan, Burak Bilgin, Emin Erkan Korkmaz</i>	
A Multi-level Memetic/Exact Hybrid Algorithm for the Still Life Problem	212
<i>José E. Gallardo, Carlos Cotta, Antonio J. Fernández</i>	
Transmission Loss Reduction Based on FACTS and Bacteria Foraging Algorithm	222
<i>M. Tripathy, S. Mishra, L.L. Lai, Q.P. Zhang</i>	
Substructural Neighborhoods for Local Search in the Bayesian Optimization Algorithm	232
<i>Claudio F. Lima, Martin Pelikan, Kumara Sastry, Martin Butz, David E. Goldberg, Fernando G. Lobo</i>	

Theory and Practice of Cellular UMDA for Discrete Optimization	242
<i>Enrique Alba, Julio Madera, Bernabe Dorronsoro, Alberto Ochoa, Marta Soto</i>	
A Memetic Approach to Golomb Rulers	252
<i>Carlos Cotta, Iván Dotú, Antonio J. Fernández, Pascal Van Hentenryck</i>	
Some Notes on (Mem)Brane Computation	262
<i>Nadia Busi, Miguel A. Gutiérrez-Naranjo</i>	

Applications

Evolutionary Local Search for Designing Peer-to-Peer Overlay Topologies Based on Minimum Routing Cost Spanning Trees	272
<i>Peter Merz, Steffen Wolf</i>	
Nature-Inspired Algorithms for the Optimization of Optical Reference Signals	282
<i>Sancho Salcedo-Sanz, José Saez-Landete, Manuel Rosa-Zurera</i>	
Optimum Design of Surface Acoustic Wave Filters Based on the Taguchi's Quality Engineering with a Memetic Algorithm	292
<i>Kiyoharu Tagawa, Mikiyasu Matsuoka</i>	
Genetic Algorithm for Burst Detection and Activity Tracking in Event Streams	302
<i>Lourdes Araujo, José A. Cuesta, Juan J. Merelo</i>	
Computationally Intelligent Online Dynamic Vehicle Routing by Explicit Load Prediction in an Evolutionary Algorithm	312
<i>Peter A.N. Bosman, Han La Poutré</i>	
Novel Approach to Develop Rheological Structure-Property Relationships Using Genetic Programming	322
<i>Elsa Jordaan, Jaap den Doelder, Guido Smits</i>	
An Evolutionary Approach to the Inference of Phylogenetic Networks . . .	332
<i>Juan Diego Trujillo, Carlos Cotta</i>	
An Evolutive Approach for the Delineation of Local Labour Markets . . .	342
<i>Francisco Flórez-Revuelta, José Manuel Casado-Díaz, Lucas Martínez-Bernabeu</i>	
Direct Manipulation of Free Form Deformation in Evolutionary Design Optimisation	352
<i>Stefan Menzel, Markus Olhofer, Bernhard Sendhoff</i>	

An Evolutionary Approach to Shimming Undulator Magnets for Synchrotron Radiation Sources	362
<i>Olga Rudenko, Oleg Chubar</i>	
New EAX Crossover for Large TSP Instances.....	372
<i>Yuichi Nagata</i>	
Functional Brain Imaging with Multi-objective Multi-modal Evolutionary Optimization	382
<i>Vojtech Krmicek, Michèle Sebag</i>	
A New Neural Network Based Construction Heuristic for the Examination Timetabling Problem	392
<i>P.H. Corr, B. McCollum, M.A.J. McGreevy, P. McMullan</i>	
Optimisation of CDMA-Based Mobile Telephone Networks: Algorithmic Studies on Real-World Networks	402
<i>Paul Weal, David Corne, Chris Murphy</i>	
Evolving Novel and Effective Treatment Plans in the Context of Infection Dynamics Models: Illustrated with HIV and HAART Therapy	413
<i>Rebecca Haines, David Corne</i>	
Automatic Test Pattern Generation with BOA.....	423
<i>Tiziana Gravagnoli, Fabrizio Ferrandi, Pier Luca Lanzi, Donatella Sciuto</i>	
Multi-objective Optimization	
Multiobjective Genetic Programming for Natural Language Parsing and Tagging.....	433
<i>Lourdes Araujo</i>	
Modelling the Population Distribution in Multi-objective Optimization by Generative Topographic Mapping	443
<i>Aimin Zhou, Qingfu Zhang, Yaochu Jin, Bernhard Sendhoff, Edward Tsang</i>	
Multiobjective Optimization of Ensembles of Multilayer Perceptrons for Pattern Classification.....	453
<i>P.A. Castillo, M.G. Arenas, Juan J. Merelo, V.M. Rivas, G. Romero</i>	
Multi-Objective Equivalent Random Search	463
<i>Evan J. Hughes</i>	
Compressed-Objective Genetic Algorithm	473
<i>Kuntinee Maneeratana, Kittipong Boonlong, Nachol Chaiyaratana</i>	

A New Proposal for Multiobjective Optimization Using Particle Swarm Optimization and Rough Sets Theory.....	483
<i>Luis V. Santana-Quintero, Noel Ramírez-Santiago, Carlos A. Coello-Coello, Julián Molina Luque, Alfredo García Hernández-Díaz</i>	
Incorporation of Scalarizing Fitness Functions into Evolutionary Multiobjective Optimization Algorithms	493
<i>Hisao Ishibuchi, Tsutomu Doi, Yusuke Nojima</i>	
Solving Multi-objective Optimisation Problems Using the Potential Pareto Regions Evolutionary Algorithm	503
<i>Nasreddine Hallam, Graham Kendall, Peter Blanchfield</i>	
Pareto Set and EMOA Behavior for Simple Multimodal Multiobjective Functions.....	513
<i>Mike Preuss, Boris Naujoks, Günter Rudolph</i>	
About Selecting the Personal Best in Multi-Objective Particle Swarm Optimization	523
<i>Jürgen Branke, Sanaz Mostaghim</i>	
Are All Objectives Necessary? On Dimensionality Reduction in Evolutionary Multiobjective Optimization	533
<i>Dimo Brockhoff, Eckart Zitzler</i>	
Solving Hard Multiobjective Optimization Problems Using ε -Constraint with Cultured Differential Evolution.....	543
<i>Ricardo Landa Becerra, Carlos A. Coello-Coello</i>	
A Fast and Effective Method for Pruning of Non-dominated Solutions in Many-Objective Problems	553
<i>Saku Kukkonen, Kalyanmoy Deb</i>	
Multi-level Ranking for Constrained Multi-objective Evolutionary Optimisation	563
<i>Philip Hingston, Luigi Barone, Simon Huband, Lyndon While</i>	
Module Identification from Heterogeneous Biological Data Using Multiobjective Evolutionary Algorithms	573
<i>Michael Calonder, Stefan Bleuler, Eckart Zitzler</i>	
A Multiobjective Differential Evolution Based on Decomposition for Multiobjective Optimization with Variable Linkages	583
<i>Hui Li, Qingfu Zhang</i>	