

Table of Contents

Papers

Evaluation of Chess Position by Modular Neural Network Generated by Genetic Algorithm	1
<i>Mathieu Autonès, Ariel Beck, Philippe Camacho, Nicolas Lassabe, Hervé Luga, François Scharffe</i>	
Coevolution of Algorithms and Deterministic Solution of Equations in Free Groups	11
<i>Richard F. Booth, Alexandre V. Borovik</i>	
Designing Optimal Combinational Digital Circuits Using a Multiple Logic Unit Processor	23
<i>Sin Man Cheang, Kin Hong Lee, Kwong Sak Leung</i>	
A Data Structure for Improved GP Analysis via Efficient Computation and Visualisation of Population Measures	35
<i>Anikó Ekárt, Steven Gustafson</i>	
Boosting Technique for Combining Cellular GP Classifiers	47
<i>Gianluigi Folino, Clara Pizzuti, Giandomenico Spezzano</i>	
Co-evolving Faults to Improve the Fault Tolerance of Sorting Networks	57
<i>Michael L. Harrison, James A. Foster</i>	
Toward an Alternative Comparison between Different Genetic Programming Systems	67
<i>Nguyen Xuan Hoai, R.I. (Bob) McKay, D. Essam, H.A. Abbass</i>	
Lymphoma Cancer Classification Using Genetic Programming with SNR Features	78
<i>Jin-Hyuk Hong, Sung-Bae Cho</i>	
A Practical Approach to Evolving Concurrent Programs	89
<i>David Jackson</i>	
Evolutionary Induction of Grammar Systems for Multi-agent Cooperation	101
<i>Clayton M. Johnson, James Farrell</i>	
Genetic Programming Applied to Mixed Integer Programming	113
<i>Konstantinos Kostikas, Charalambos Fragakis</i>	

Efficient Crossover in the GAuGE System	125
<i>Miguel Nicolau, Conor Ryan</i>	
Grammatical Evolution by Grammatical Evolution: The Evolution of Grammar and Genetic Code	138
<i>Michael O’Neill, Conor Ryan</i>	
Constrained Molecular Dynamics as a Search and Optimization Tool	150
<i>Riccardo Poli, Christopher R. Stephens</i>	
On the Performance of Genetic Operators and the Random Key Representation	162
<i>Eoin Ryan, R. Muhammad Atif Azad, Conor Ryan</i>	
Analysis of GP Improvement Techniques over the Real-World Inverse Problem of Ocean Color	174
<i>Grégory Valigiani, Cyril Fonlupt, Pierre Collet</i>	
Evolution and Acquisition of Modules in Cartesian Genetic Programming	187
<i>James Alfred Walker, Julian Francis Miller</i>	
How to Choose Appropriate Function Sets for Gentic Programming	198
<i>Gang Wang, Terence Soule</i>	
Improving Grammar-Based Evolutionary Algorithms via Attributed Derivation Trees	208
<i>Szilvia Zvada, Róbert Ványi</i>	
Posters	
Evolved Matrix Operations for Post-processing Protein Secondary Structure Predictions	220
<i>Varun Aggarwal, Robert M. MacCallum</i>	
Genetic Programming for Natural Language Parsing	230
<i>Lourdes Araujo</i>	
Comparing Hybrid Systems to Design and Optimize Artificial Neural Networks	240
<i>P.A. Castillo, M.G. Arenas, J.J. Merelo, G. Romero, F. Rateb, A. Prieto</i>	
An Evolutionary Algorithm for the Input-Output Block Assignment Problem	250
<i>Kit Yan Chan, Terence C. Fogarty</i>	
Genetic Programming for Subjective Fitness Function Identification	259
<i>Dan Costelloe, Conor Ryan</i>	

Saving Effort in Parallel GP by Means of Plagues	269
<i>F. Fernández, A. Martín</i>	
Sampling of Unique Structures and Behaviours in Genetic Programming	279
<i>Steven Gustafson, Edmund K. Burke, Graham Kendall</i>	
The Evolution of Concurrent Control Software Using Genetic Programming	289
<i>John Hart, Martin Shepperd</i>	
Extending Grammatical Evolution to Evolve Digital Surfaces with Genr8	299
<i>Martin Hemberg, Una-May O'Reilly</i>	
Evolving Text Classifiers with Genetic Programming	309
<i>Laurence Hirsch, Masoud Saeedi, Robin Hirsch</i>	
Automatic Synthesis of Instruction Decode Logic by Genetic Programming	318
<i>David Jackson</i>	
Alternatives in Subtree Caching for Genetic Programming	328
<i>Maarten Keijzer</i>	
Structural Risk Minimization on Decision Trees Using an Evolutionary Multiobjective Optimization	338
<i>DaeEun Kim</i>	
Global Distributed Evolution of L-Systems Fractals	349
<i>W.B. Langdon</i>	
Reusing Code in Genetic Programming	359
<i>Edgar Galván López, Riccardo Poli, Carlos A. Coello Coello</i>	
Exploiting Reflection in Object Oriented Genetic Programming	369
<i>Simon M. Lucas</i>	
Evolutionary Feature Construction Using Information Gain and Gini Index	379
<i>Mohammed A. Muharram, George D. Smith</i>	
On the Evolution of Evolutionary Algorithms	389
<i>Jorge Tavares, Penousal Machado, Amílcar Cardoso, Francisco B. Pereira, Ernesto Costa</i>	
Genetic Programming with Gradient Descent Search for Multiclass Object Classification	399
<i>Mengjie Zhang, Will Smart</i>	
Author Index	409