

## Список литературы

- [1] Y. Jin, T. Okabe and B. Sendhoff, *Neural network regularization and ensembling using multi-objective evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1–8, IEEE Press, 20–23 June, 2004.
- [2] M. Farina and M. Gobbi, *A fuzzy-optima definition based multiobjective optimization of a racing car tyre-suspension system*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 9–16, IEEE Press, 20–23 June, 2004.
- [3] R. F. Coelho and P. Bouillard, *Pamuc ii for multicriteria optimization of mechanical designs with expert rules*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 17–22, IEEE Press, 20–23 June, 2004.
- [4] K. Smith, R. Everson and J. Fieldsend, *Dominance measures for multi-objective simulated annealing*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 23–30, IEEE Press, 20–23 June, 2004.
- [5] D. Deugo and D. Ferguson, *Evolution to the xtreme: Evolving evolutionary strategies using a meta-level approach*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 31–38, IEEE Press, 20–23 June, 2004.
- [6] Y. ping Chen and D. Goldberg, *Convergence time for the linkage learning genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 39–46, IEEE Press, 20–23 June, 2004.
- [7] D. Arnold, *An analysis of evolutionary gradient search*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 47–54, IEEE Press, 20–23 June, 2004.
- [8] A. Dukkipati, N. M. Musti and S. Bhatnagar, *Cauchy annealing schedule: An annealing schedule for boltzmann selection scheme in evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 55–62, IEEE Press, 20–23 June, 2004.
- [9] Y. Kobayashi and E. Aiyoshi, *Optimization algorithm using multi-agents and reinforcement learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 63–68, IEEE Press, 20–23 June, 2004.
- [10] J. Tavares, F. Pereira and E. Costa, *Understanding the role of insertion and correction in the evolution of golomb rulers*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 69–76, IEEE Press, 20–23 June, 2004.
- [11] W. Sheng and X. Liu, *A hybrid algorithm for k-medoid clustering of large data sets*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 77–82, IEEE Press, 20–23 June, 2004.
- [12] Y. Bernstein, X. Li, V. Ciesielski and A. Song, *Multiobjective parsimony enforcement for superior generalisation performance*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 83–89, IEEE Press, 20–23 June, 2004.
- [13] X. Hu, Y. Shi and R. Eberhart, *Recent advances in particle swarm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 90–97, IEEE Press, 20–23 June, 2004.
- [14] D. Parrott and X. Li, *A particle swarm model for tracking multiple peaks in a dynamic environment using speciation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 98–103, IEEE Press, 20–23 June, 2004.
- [15] M. O’Neill, A. Brabazon and C. Adley, *The automatic generation of programs for classification problems with grammatical swarm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 104–110, IEEE Press, 20–23 June, 2004.

- [16] G. V. Dozier, D. Brown, J. Hurley and K. Cain, *Vulnerability analysis of ais-based intrusion detection systems via genetic and particle swarm red teams*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 111–116, IEEE Press, 20-23 June, 2004.
- [17] G. Kendall and K. Spoerer, *Scripting the game of lemmings with a genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 117–124, IEEE Press, 20-23 June, 2004.
- [18] J. Denzinger, B. Chan, D. Gates, K. Loose and J. Buchanan, *Evolutionary behavior testing of commercial computer games*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 125–132, IEEE Press, 20-23 June, 2004.
- [19] F. Corno, E. Sanchez and G. Squillero, *On the evolution of corewar warriors*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 133–138, IEEE Press, 20-23 June, 2004.
- [20] N. Cole, S. Louis and C. Miles, *Using a genetic algorithm to tune first-person shooter bots*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 139–145, IEEE Press, 20-23 June, 2004.
- [21] C. Spieth, F. Streichert, N. Speer and A. Zell, *Utilizing an island model for ea to preserve solution diversity for inferring gene regulatory networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 146–151, IEEE Press, 20-23 June, 2004.
- [22] C. Spieth, F. Streichert, N. Speer and A. Zell, *A memetic inference method for gene regulatory networks based on s-systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 152–157, IEEE Press, 20-23 June, 2004.
- [23] J. Rowland, *On genetic programming and knowledge discovery in transcriptome data*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 158–165, IEEE Press, 20-23 June, 2004.
- [24] S. Bleuler, A. Prelic and E. Zitzler, *An ea framework for biclustering of gene expression data*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 166–173, IEEE Press, 20-23 June, 2004.
- [25] Z. Ji, A. Chen and K. Subprasom, *Finding multi-objective paths in stochastic networks: A simulation-based genetic algorithm approach*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 174–180, IEEE Press, 20-23 June, 2004.
- [26] A. Chen, P. Chootinan and S. Pravinongvuth, *An evolutionary approach for finding optimal automatic vehicle identification reader locations in transportation networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 181–187, IEEE Press, 20-23 June, 2004.
- [27] H. Sato, H. Aguirre and K. Tanaka, *Local dominance using polar coordinates to enhance multiobjective evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 188–195, IEEE Press, 20-23 June, 2004.
- [28] H. Aguirre and K. Tanaka, *Insights on properties of multiobjective mnk-landscapes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 196–203, IEEE Press, 20-23 June, 2004.
- [29] K. Parsopoulos, D. Tasoulis, N. Pavlidis, V. Plagianakos and M. Vrahatis, *Vector evaluated differential evolution for multiobjective optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 204–211, IEEE Press, 20-23 June, 2004.
- [30] S. Mostaghim, M. Hoffmann, P. H. Koenig, T. Frauenheim and J. Teich, *Molecular force field parametrization using multi-objective evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 212–219, IEEE Press, 20-23 June, 2004.

- [31] B. Weinberg and E.-G. Talbi, *Nfl theorem is unusable on structured classes of problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 220–226, IEEE Press, 20-23 June, 2004.
- [32] T. English, *No more lunch: Analysis of sequential search*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 227–234, IEEE Press, 20-23 June, 2004.
- [33] M. Koeppen, *No-free-lunch theorems and the diversity of algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 235–241, IEEE Press, 20-23 June, 2004.
- [34] R. Chow, *Effects of phenotypic feedback and the coupling of genotypic and phenotypic spaces in genetic searches*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 242–249, IEEE Press, 20-23 June, 2004.
- [35] J. Schonfeld and D. Ashlock, *Comparison of robustness of solutions located by evolutionary computation and other search algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 250–257, IEEE Press, 20-23 June, 2004.
- [36] G. Greenwood, *Differing mathematical perspectives of genotype space in combinatorial problems: Metric spaces vs pretopological spaces*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 258–264, IEEE Press, 20-23 June, 2004.
- [37] S. Bain, J. Thornton and A. Sattar, *Evolving algorithms for constraint satisfaction*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 265–272, IEEE Press, 20-23 June, 2004.
- [38] G. V. Dozier, *Recurrent distributed constraint satisfaction via genetic and evolutionary societies of hill-climbers*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 273–279, IEEE Press, 20-23 June, 2004.
- [39] M. Yuchi and J.-H. Kim, *Grouping-based evolutionary algorithm: Seeking balance between feasible and infeasible individuals of constrained optimization problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 280–287, IEEE Press, 20-23 June, 2004.
- [40] S. Venkatraman and G. Yen, *A simple elitist genetic algorithm for constrained optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 288–295, IEEE Press, 20-23 June, 2004.
- [41] P. A. Simionescu, D. G. Beale and G. V. Dozier, *Constrained optimization problem solving using estimation of distribution algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 296–302, IEEE Press, 20-23 June, 2004.
- [42] Y. Alkhalifah and R. Wainwright, *A genetic algorithm applied to graph problems involving subsets of vertices*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 303–308, IEEE Press, 20-23 June, 2004.
- [43] S. Katare, A. Kalos and D. West, *A hybrid swarm optimizer for efficient parameter estimation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 309–315, IEEE Press, 20-23 June, 2004.
- [44] Z. Cui, J. Zeng and X. Cai, *A new stochastic particle swarm optimizer*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 316–319, IEEE Press, 20-23 June, 2004.
- [45] Y. Shuyuan, W. Min and J. Licheng, *A quantum particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 320–324, IEEE Press, 20-23 June, 2004.

- [46] J. Sun, B. Feng, W. Xu, J. Liu and L. Bao, *Particle swarm optimization with particles having quantum behavior*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 325–331, IEEE Press, 20-23 June, 2004.
- [47] T. Krink, B. Filipic, G. B. Fogel and R. Thomsen, *Noisy optimization problems - a particular challenge for differential evolution?*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 332–339, IEEE Press, 20-23 June, 2004.
- [48] J. Kennedy, *Probability and dynamics in the particle swarm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 340–347, IEEE Press, 20-23 June, 2004.
- [49] S. Y. Chong and X. Yao, *The impact of noise on iterated prisoner’s dilemma with multiple levels of cooperation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 348–355, IEEE Press, 20-23 June, 2004.
- [50] N. Franken and A. Engelbrecht, *Pso approaches to co-evolve ipd strategies*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 356–363, IEEE Press, 20-23 June, 2004.
- [51] P. Hingston and G. Kendall, *Learning versus evolution in iterated prisoner’s dilemma*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 364–372, IEEE Press, 20-23 June, 2004.
- [52] A. Mark, B. Sendhoff and H. Wersing, *A decision making framework for game playing using evolutionary optimization and learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 373–380, IEEE Press, 20-23 June, 2004.
- [53] D. Ashlock, E. youn Kim and W. von Roeschlaub, *Fingerprints: Enabling visualization and automatic analysis of strategies for two player games*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 381–387, IEEE Press, 20-23 June, 2004.
- [54] X. Sun and W. Just, *Evolution of strategies in modified sequential assessment games*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 388–394, IEEE Press, 20-23 June, 2004.
- [55] I. Parmee and J. Abraham, *Supporting implicit learning via the visualisation of coga multi-objective data*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 395–402, IEEE Press, 20-23 June, 2004.
- [56] A. Hernandez-Aguirre, S. Botello-Rionda and C. Coello-Coello, *Passss: An implementation of a novel diversity strategy for handling constraints*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 403–410, IEEE Press, 20-23 June, 2004.
- [57] R. Kicinger, T. Arciszewski and K. De Jong, *Morphogenesis and structural design: Cellular automata representations of steel structures in tall buildings*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 411–418, IEEE Press, 20-23 June, 2004.
- [58] K. Bryden, D. Ashlock and D. McCorkle, *An application of graph based evolutionary algorithms for diversity preservation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 419–426, IEEE Press, 20-23 June, 2004.
- [59] S. Suram, K. Bryden and D. Ashlock, *Quantitative trait loci based solution of an inverse radiation heat transfer problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 427–432, IEEE Press, 20-23 June, 2004.
- [60] N. Dorris, B. Carnahan, L. Orsini and L.-A. Kuntz, *Interactive evolutionary design of anthropomorphic symbols*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 433–440, IEEE Press, 20-23 June, 2004.

- [61] H. Ishibuchi and K. Narukawa, *Performance evaluation of simple multiobjective genetic local search algorithms on multiobjective 0/1 knapsack problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 441–448, IEEE Press, 20-23 June, 2004.
- [62] H. Aguirre and K. Tanaka, *Effects of elitism and population climbing on multiobjective  $mnk$ -landscapes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 449–456, IEEE Press, 20-23 June, 2004.
- [63] E. Dunn, G. Olague, E. Lutton and M. Schoenauer, *Pareto optimal sensing strategies for an active vision system*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 457–463, IEEE Press, 20-23 June, 2004.
- [64] Y. Yun, H. Nakayama and M. Arakawa, *Fitness evaluation using generalized data envelopment analysis in moga*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 464–471, IEEE Press, 20-23 June, 2004.
- [65] X. H. Nguyen and M. R. Ian, *An investigation on the roles of insertion and deletion operators in tree adjoining grammar guided genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 472–477, IEEE Press, 20-23 June, 2004.
- [66] Y. Shan, R. I. McKay, R. Baxter, H. Abbass, D. Essam and H. Nguyen, *Grammar model-based program evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 478–485, IEEE Press, 20-23 June, 2004.
- [67] M. Tomassini, L. Vanneschi, J. Cuendet and F. Fernandez, *A new technique for dynamic size populations in genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 486–493, IEEE Press, 20-23 June, 2004.
- [68] V. Ciesielski and X. Li, *Experiments with explicit for-loops in genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 494–501, IEEE Press, 20-23 June, 2004.
- [69] E. Leon, O. Nasraoui and J. Gomez, *Anomaly detection based on unsupervised niche clustering with application to network intrusion detection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 502–508, IEEE Press, 20-23 June, 2004.
- [70] A. Teredesai and V. Govindaraju, *Issues in evolving gp based classifiers for a pattern recognition task*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 509–515, IEEE Press, 20-23 June, 2004.
- [71] R. Ouellette, M. Browne and K. Hirasawa, *Genetic algorithm optimization of a convolutional neural network for autonomous crack detection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 516–521, IEEE Press, 20-23 June, 2004.
- [72] T. Ashburn and E. Bonabeau, *Interactive inversion of financial markets agent-based models*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 522–529, IEEE Press, 20-23 June, 2004.
- [73] D. Devicharan and C. Mohan, *Particle swarm optimization with adaptive linkage learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 530–535, IEEE Press, 20-23 June, 2004.
- [74] L. Cagnina, S. Esquivel and R. Gallard, *Particle swarm optimization for sequencing problems: A case study*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 536–541, IEEE Press, 20-23 June, 2004.
- [75] Y. Liu, Z. Qin and X. He, *Supervisor-student model in particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 542–547, IEEE Press, 20-23 June, 2004.

- [76] A. Mohais, C. Ward and C. Posthoff, *Randomized directed neighborhoods with edge migration in particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 548–555, IEEE Press, 20-23 June, 2004.
- [77] F. Castillo, J. Sweeney and W. Zirk, *Using evolutionary algorithms to suggest variable transformations in linear model lack-of-fit situations*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 556–560, IEEE Press, 20-23 June, 2004.
- [78] A. Kordon and C.-T. Lue, *Symbolic regression modeling of blown film process effects*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 561–568, IEEE Press, 20-23 June, 2004.
- [79] B. Filipic and T. Robic, *A comparative study of coolant flow optimization on a steel casting machine*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 569–573, IEEE Press, 20-23 June, 2004.
- [80] P. Jones, A. Tiwari, R. Roy and J. Corbett, *Optimisation of the high efficiency deep grinding process with fuzzy fitness function and constraints*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 574–581, IEEE Press, 20-23 June, 2004.
- [81] D. Corne and C. Pridgeon, *Investigating issues in the reconstructability of genetic regulatory networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 582–589, IEEE Press, 20-23 June, 2004.
- [82] S.-B. Cho and C. Park, *Speciated ga for optimal ensemble classifiers in dna microarray classification*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 590–597, IEEE Press, 20-23 June, 2004.
- [83] A. Deschenes and K. C. Wiese, *Using stacking-energies (inn and inn-hb) for improving the accuracy of rna secondary structure prediction with an evolutionary algorithm - a comparison to known structures*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 598–606, IEEE Press, 20-23 June, 2004.
- [84] G. B. Fogel, D. G. Weekes, R. Sampath and D. J. Ecker, *Parameter optimization of an evolutionary algorithm for rna structure discovery*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 607–613, IEEE Press, 20-23 June, 2004.
- [85] M. Kotani and D. Kato, *Feature extraction using coevolutionary genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 614–619, IEEE Press, 20-23 June, 2004.
- [86] K. Y. Chan, E. Aydin and T. Fogarty, *An empirical study on the performance of factorial design based crossover on parametrical problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 620–627, IEEE Press, 20-23 June, 2004.
- [87] Y. Zou, Z. Zhuang and H. Chen, *Hw-sw partitioning based on genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 628–633, IEEE Press, 20-23 June, 2004.
- [88] J.-H. Hong and S.-B. Cho, *Evolution of emergent behaviors for shooting game characters in robocode*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 634–638, IEEE Press, 20-23 June, 2004.
- [89] H. de Garis and T. Batty, *Robust, reversible, nano-scale, femto-second-switching circuits and their evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 639–645, IEEE Press, 20-23 June, 2004.
- [90] T. Hatanaka, Y. Kawaguchi and K. Uosaki, *Nonlinear system identification based on evolutionary fuzzy modeling*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 646–651, IEEE Press, 20-23 June, 2004.

- [91] A. Brabazon, A. Silva, T. F. de Sousa, M. O'Neill, R. Matthews and E. Costa, *Investigating organizational strategic inertia using a particle swarm model*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 652–659, IEEE Press, 20-23 June, 2004.
- [92] C. Gutierrez, *Heuristics in a general scheduling problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 660–665, IEEE Press, 20-23 June, 2004.
- [93] W. Gao, *Fast immunized evolutionary programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 666–670, IEEE Press, 20-23 June, 2004.
- [94] D. Cohen, *Using sat scores as predictors for future academic success*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 671–677, IEEE Press, 20-23 June, 2004.
- [95] H. Chung-Yuan and S. Chuen-Tsai, *Self-adaptive routing based on learning classifier systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 678–682, IEEE Press, 20-23 June, 2004.
- [96] S. Eto, K. Hirasawa and J. Hu, *Functional localization of genetic network programming and its application to a pursuit problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 683–690, IEEE Press, 20-23 June, 2004.
- [97] O. Bandte, *Visualizing information in an interactive evolutionary design process*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 691–698, IEEE Press, 20-23 June, 2004.
- [98] M. De San Pedro, D. Pandolfi, A. Villagra, M. Lasso and R. Gallard, *Effect of crossover operators under multirecombination: Weighted tardiness, a test case*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 699–705, IEEE Press, 20-23 June, 2004.
- [99] J. Zheng, C. X. Ling, Z. Shi and Y. Xie, *Some discussions about mogas: Individual relations, non-dominated set, and application on automatic negotiation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 706–712, IEEE Press, 20-23 June, 2004.
- [100] H. Nakagoe, K. Hirasawa and J. Hu, *Genetic network programming with automatically generated variable size macro nodes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 713–719, IEEE Press, 20-23 June, 2004.
- [101] K. Sastry, M. Pelikan and D. Goldberg, *Efficiency enhancement of genetic algorithms via building-block-wise fitness estimation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 720–727, IEEE Press, 20-23 June, 2004.
- [102] M. Kleeman, R. Day and G. Lamont, *Multi-objective evolutionary search performance with explicit building-block sizes for npc problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 728–735, IEEE Press, 20-23 June, 2004.
- [103] T. Ferreira, G. Vasconcelos and P. Adeodato, *A hybrid intelligent system approach for improving the prediction of real world time series*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 736–743, IEEE Press, 20-23 June, 2004.
- [104] J. Chen and M. Wineberg, *Enhancement of the shifting balance genetic algorithm for highly multimodal problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 744–751, IEEE Press, 20-23 June, 2004.
- [105] P. E. Hotz, *Comparing direct and developmental encoding schemes in artificial evolution: A case study in evolving lens shapes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 752–757, IEEE Press, 20-23 June, 2004.

- [106] P. Osmera, *Evolvable controllers with hierarchical structure*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 758–765, IEEE Press, 20-23 June, 2004.
- [107] G. Parker and J. Blumenthal, *Varying sample sizes for the co-evolution of heterogeneous agents*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 766–771, IEEE Press, 20-23 June, 2004.
- [108] H. Hou and G. V. Dozier, *Comparing performance of binary-coded and constraint-based detectors*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 772–777, IEEE Press, 20-23 June, 2004.
- [109] C. kin Chow and H. tat Tsui, *Autonomous agent response learning by a multi-species particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 778–785, IEEE Press, 20-23 June, 2004.
- [110] M. Daneshyari and G. Yen, *Talent based social algorithm for optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 786–791, IEEE Press, 20-23 June, 2004.
- [111] B. S. and P. N. Suganthan, *A novel concurrent particle swarm optimization (cpsp)*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 792–796, IEEE Press, 20-23 June, 2004.
- [112] J. Isaacs and S. Foo, *Optimized wavelet hand pose estimation for american sign language recognition*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 797–802, IEEE Press, 20-23 June, 2004.
- [113] Z. Wu, Z. Tang, J. Zou, L. Kang and M. Li, *An evolutionary algorithm for solving parameter identification problems in elliptic systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 803–808, IEEE Press, 20-23 June, 2004.
- [114] B. Eskridge and D. Hougen, *Imitating success: A memetic crossover operator for genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 809–815, IEEE Press, 20-23 June, 2004.
- [115] H. de Garis and T. Batty, *"multi-mod": A pc based software system for handling the interconnectivity and neural signaling of an artificial brain containing 10,000 evolved neural net modules*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 816–819, IEEE Press, 20-23 June, 2004.
- [116] Y. Shuyuan, W. Min and J. Licheng, *A novel quantum evolutionary algorithm and its application*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 820–826, IEEE Press, 20-23 June, 2004.
- [117] S. Ando and H. Iba, *Estimation of gene network using real-coded ga and robustness analysis*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 827–834, IEEE Press, 20-23 June, 2004.
- [118] S. Gordon and Z. Matley, *Evolving sparse direction maps for maze pathfinding*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 835–838, IEEE Press, 20-23 June, 2004.
- [119] J. Oh and D. Volper, *Design of rationality-based computing middleware: A preliminary study*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 839–846, IEEE Press, 20-23 June, 2004.
- [120] A. Augugliaro, L. Dusonchet, S. Favuzza and E. R. Sanseverino, *A fuzzy-logic based evolutionary multiobjective approach for automated distribution networks management*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 847–854, IEEE Press, 20-23 June, 2004.



- [121] S. Kimbrough, M. Lu and S. Safavi, *Exploring a financial product model with a two-population genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 855–862, IEEE Press, 20-23 June, 2004.
- [122] M. Neal and F. Labrosse, *Rotation-invariant appearance based maps for robot navigation using an artificial immune network algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 863–870, IEEE Press, 20-23 June, 2004.
- [123] E. Sanchez, G. Squillero and M. Violante, *A local analysis of the genotype-fitness mapping in hardware optimization problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 871–878, IEEE Press, 20-23 June, 2004.
- [124] S. Esquivel, M. Garcia, G. Leguizamón and M. Ribba, *A comparison of two mutation operators for the path planning problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 879–883, IEEE Press, 20-23 June, 2004.
- [125] K. Uosaki, Y. Kimura and T. Hatanaka, *Evolution strategies based particle filters for state and parameter estimation of nonlinear models*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 884–890, IEEE Press, 20-23 June, 2004.
- [126] M. Sinka and D. Corne, *Evolving document features for web document clustering: A feasibility study*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 891–897, IEEE Press, 20-23 June, 2004.
- [127] K. Yong-Duk, K. Jong-Hwan and K. Yong-Jae, *Behavior selection and learning for synthetic character*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 898–903, IEEE Press, 20-23 June, 2004.
- [128] F. Neumann, *Expected runtimes of evolutionary algorithms for the eulerian cycle problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 904–910, IEEE Press, 20-23 June, 2004.
- [129] U. Chakraborty, *Analysis of encoding in 1+1-ea*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 911–917, IEEE Press, 20-23 June, 2004.
- [130] R. Salomon, *The curse of high-dimensional search spaces: Observing premature convergence in unimodal functions*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 918–923, IEEE Press, 20-23 June, 2004.
- [131] S. Verel, P. Collard and M. Clergue, *Scuba search: when selection meets innovation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 924–931, IEEE Press, 20-23 June, 2004.
- [132] F. Streichert, H. Ulmer and A. Zell, *Evaluating a hybrid encoding and three crossover operators on the constrained portfolio selection problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 932–939, IEEE Press, 20-23 June, 2004.
- [133] J. J. Korczak and P. Lipinski, *Evolutionary building of stock trading experts in a real-time system*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 940–947, IEEE Press, 20-23 June, 2004.
- [134] S. Hayward, *Setting up performance surface of an artificial neural network with genetic algorithm optimization: in search of an accurate and profitable prediction for stock trading*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 948–954, IEEE Press, 20-23 June, 2004.
- [135] M. Tanaka-Yamawaki and T. Motoyama, *Predicting the tick-wise price fluctuations by means of evolutionary computation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 955–958, IEEE Press, 20-23 June, 2004.

- [136] R. A. Krohling, F. Hoffmann and L. dos Santos Coelho, *Co-evolutionary particle swarm optimization for min-max problems using gaussian distribution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 959–964, IEEE Press, 20–23 June, 2004.
- [137] D. Krusienski and W. K. Jenkins, *Particle swarm optimization for adaptive iir filter structures*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 965–970, IEEE Press, 20–23 June, 2004.
- [138] W. Slade, H. Ressom, M. Musavi and R. Miller, *Ocean color inversion by particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 971–977, IEEE Press, 20–23 June, 2004.
- [139] E. Miguelanez, A. Zalazala and P. Tabor, *Evolving neural networks using swarm intelligence for binmap classification*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 978–985, IEEE Press, 20–23 June, 2004.
- [140] G. Yannakakis, J. Levine and J. Hallam, *An evolutionary approach for interactive computer games*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 986–993, IEEE Press, 20–23 June, 2004.
- [141] J. Fletcher and M. Zwick, *Hamilton’s rule applied to reciprocal altruism*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 994–1000, IEEE Press, 20–23 June, 2004.
- [142] M. Daoud, N. Kharm, A. Haidar and J. Popoola, *Ayo, the awari player, or how better representation trumps deeper search*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1001–1006, IEEE Press, 20–23 June, 2004.
- [143] S. Lucas, *Cellz: A simple dynamic game for testing evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1007–1014, IEEE Press, 20–23 June, 2004.
- [144] G.-Z. Zhang and D.-S. Huang, *Radial basis function neural network optimized by ga for soybean protein sequence residue spatial distance prediction*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1015–1019, IEEE Press, 20–23 June, 2004.
- [145] R. Day and G. Lamont, *Force field approximations using artificial neural networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1020–1027, IEEE Press, 20–23 June, 2004.
- [146] J.-M. Yang and T.-W. Shen, *A pharmacophore-based evolutionary approach for screening estrogen receptor antagonists*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1028–1035, IEEE Press, 20–23 June, 2004.
- [147] G. Lamont, M. Esslinger, R. Ewing and H. Abdel-Aty-Zohdy, *An artificial immune system strategy for robust chemical spectra classification via distributed heterogeneous sensors*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1036–1043, IEEE Press, 20–23 June, 2004.
- [148] J. Timmis, C. Edmonds and J. Kelsey, *Assessing the performance of two immune inspired algorithms and a hybrid genetic algorithm for function optimisation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1044–1051, IEEE Press, 20–23 June, 2004.
- [149] S. Garrett, *Parameter-free, adaptive clonal selection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1052–1058, IEEE Press, 20–23 June, 2004.

- [150] F. de Paula, L. de Castro and P. de Geus, *An intrusion detection system using ideas from the immune system*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1059–1066, IEEE Press, 20–23 June, 2004.
- [151] J. Hamaker and L. Boggess, *Non-euclidean distance measures in aircs, an artificial immune classification system*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1067–1073, IEEE Press, 20–23 June, 2004.
- [152] G. Nicosia, V. Cutello and M. Pavone, *An immune algorithm with hyper-macromutations for the 2d hydrophilic-hydrophobic model*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1074–1080, IEEE Press, 20–23 June, 2004.
- [153] Z. Ji and D. Dasgupta, *Augmented negative selection algorithm with variable-coverage detectors*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1081–1088, IEEE Press, 20–23 June, 2004.
- [154] C. Anderson, E. Bonabeau and J. Scott, *Evolutionary testing as both a testing and redesign tool: a study of a shipboard firemain’s valve and pump controls*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1089–1097, IEEE Press, 20–23 June, 2004.
- [155] S. Malinchik, B. Orme, J. Rothermich and E. Bonabeau, *Interactive exploratory data analysis*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1098–1104, IEEE Press, 20–23 June, 2004.
- [156] E. Fernandez, M. Grana and J. Ruiz-Cabello, *An instantaneous memetic algorithm for illumination correction*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1105–1110, IEEE Press, 20–23 June, 2004.
- [157] T. Bartz-Beielstein and S. Markon, *Tuning search algorithms for real-world applications: A regression tree based approach*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1111–1118, IEEE Press, 20–23 June, 2004.
- [158] R. Salomon, *The force model: Concept, behavior, interpretation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1119–1126, IEEE Press, 20–23 June, 2004.
- [159] G. Lee, V. Bulitko and I. Levner, *Automated selection of vision operator libraries with evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1127–1134, IEEE Press, 20–23 June, 2004.
- [160] K. P. Dahal, T. A. Siewierski, S. J. Galloway, G. M. Burt and J. R. McDonald, *An evolutionary generation scheduling in an open electricity market*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1135–1142, IEEE Press, 20–23 June, 2004.
- [161] M. Lasso, D. Pandolfi, M. De San Pedro, A. Villagra and R. Gallard, *Solving dynamic tardiness problems in single machine environments*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1143–1149, IEEE Press, 20–23 June, 2004.
- [162] S. Tsutsui and G. Wilson, *Solving capacitated vehicle routing problems using edge histogram based sampling algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1150–1157, IEEE Press, 20–23 June, 2004.
- [163] M. Aldasht, J. Ortega, C. G. Puntonet and A. F. Diaz, *A genetic exploration of dynamic load balancing algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1158–1163, IEEE Press, 20–23 June, 2004.
- [164] Y. Dandass, *Genetic list scheduling for soft real-time parallel applications*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1164–1171, IEEE Press, 20–23 June, 2004.

- [165] S. H. Aleti and H. de Garis, *Evolutionary algorithms based on machine learning accelerate mathematical function optimization but not neural net evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1172–1177, IEEE Press, 20–23 June, 2004.
- [166] J. Hu and E. Goodman, *Wireless access point configuration by genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1178–1184, IEEE Press, 20–23 June, 2004.
- [167] A. Burian and J. Takala, *Evolved gate arrays for image restoration*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1185–1192, IEEE Press, 20–23 June, 2004.
- [168] S. Habib and A. Parker, *Synthesizing complex multimedia network topologies using an evolutionary approach*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1193–1200, IEEE Press, 20–23 June, 2004.
- [169] Y. Inoue, T. Tohge and H. Iba, *Object transportation by two humanoid robots using cooperative learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1201–1208, IEEE Press, 20–23 June, 2004.
- [170] R. L. Walker, *Honeybee search strategies: Adaptive exploration of an information ecosystem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1209–1216, IEEE Press, 20–23 June, 2004.
- [171] J. Daida, M. Samples, B. Hart, J. Halim and A. Kumar, *Demonstrating constraints to diversity with a tunably difficulty problem for genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1217–1224, IEEE Press, 20–23 June, 2004.
- [172] J. Daida, D. Ward, A. Hilss, S. Long and M. Hodges, *Visualizing the loss of diversity in genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1225–1232, IEEE Press, 20–23 June, 2004.
- [173] Y. Katada, K. Ohkura and K. Ueda, *The nei’s standard genetic distance in artificial evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1233–1239, IEEE Press, 20–23 June, 2004.
- [174] G. Hernandez, D. Dasgupta, F. Nino and J. Garcia, *On geometric and statistical properties of the attractors of a generic evolutionary algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1240–1247, IEEE Press, 20–23 June, 2004.
- [175] J. He, X. Yao and Q. Zhang, *To understand one-dimensional continuous fitness landscapes by drift analysis*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1248–1253, IEEE Press, 20–23 June, 2004.
- [176] A. Di Pietro, L. While and L. Barone, *Applying evolutionary algorithms to problems with noisy, time-consuming fitness functions*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1254–1261, IEEE Press, 20–23 June, 2004.
- [177] S. Yang, *Constructing dynamic test environments for genetic algorithms based on problem difficulty*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1262–1269, IEEE Press, 20–23 June, 2004.
- [178] L. Schoenemann, *The impact of population sizes and diversity on the adaptability of evolution strategies in dynamic environments*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1270–1277, IEEE Press, 20–23 June, 2004.
- [179] R. Tinos and A. Carvalho, *A genetic algorithm with gene dependent mutation probability for non-stationary optimization problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1278–1285, IEEE Press, 20–23 June, 2004.

- [180] L. Kang, A. Zhou, R. I. McKay, Y. Li and Z. Kang, *Benchmarking algorithms for dynamic travelling salesman problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1286–1292, IEEE Press, 20-23 June, 2004.
- [181] R. Eriksson and B. Olsson, *On the performance of evolutionary algorithms with life-time adaptation in dynamic fitness landscapes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1293–1300, IEEE Press, 20-23 June, 2004.
- [182] D. Bonino, F. Corno and G. Squillero, *Dynamic optimization of semantic annotation relevance*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1301–1308, IEEE Press, 20-23 June, 2004.
- [183] A. Hernandez-Aguirre and C. Coello-Coello, *Mutual information-based fitness functions for evolutionary circuit synthesis*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1309–1316, IEEE Press, 20-23 June, 2004.
- [184] B. Sarif, M. Abd-El-Barr, S. M. Sait and U. Al-Saiari, *Fuzzified ant colony optimization algorithm for efficient combinational circuits*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1317–1324, IEEE Press, 20-23 June, 2004.
- [185] A. Cruz, *A hybrid deterministic/genetic test generator to improve fault*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1325–1330, IEEE Press, 20-23 June, 2004.
- [186] B. Simsek, S. Albayrak and A. Korth, *Reinforcement learning for procurement agents of the factory of the future*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1331–1337, IEEE Press, 20-23 June, 2004.
- [187] K. Sedighi, K. Ashenayi, T. Manikas, H.-M. Tai and R. Wainwright, *Autonomous local path-planning for a mobile robot using a genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1338–1345, IEEE Press, 20-23 June, 2004.
- [188] S. Hati and S. Sengupta, *A ga-based integrated approach to model-assisted matching and pose estimation for automated visual inspection applications*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1346–1353, IEEE Press, 20-23 June, 2004.
- [189] D. Cohen, *Ea-lect: An evolutionary algorithm for constructing logical rules to predict election into cooperstown*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1354–1361, IEEE Press, 20-23 June, 2004.
- [190] S. Tongchim and X. Yao, *Parallel evolutionary programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1362–1367, IEEE Press, 20-23 June, 2004.
- [191] E. Santos and T. Ohishi, *A hydro unit commitment model using genetic algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1368–1374, IEEE Press, 20-23 June, 2004.
- [192] E. Ozcan and E. Onbasioglu, *Genetic algorithms for parallel code optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1375–1381, IEEE Press, 20-23 June, 2004.
- [193] R. Thomsen, *Multimodal optimization using crowding-based differential evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1382–1389, IEEE Press, 20-23 June, 2004.
- [194] S. Doctor, G. Venayagamoorthy and V. Gudise, *Optimal pso for collective robotic search applications*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1390–1395, IEEE Press, 20-23 June, 2004.

- [195] G. T. Pulido and C. Coello-Coello, *A constraint-handling mechanism for particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1396–1403, IEEE Press, 20–23 June, 2004.
- [196] S. Mostaghim and J. Teich, *Covering pareto-optimal fronts by subswarms in multi-objective particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1404–1411, IEEE Press, 20–23 June, 2004.
- [197] M. F. Tasgetiren, M. Sevkli, Y.-C. Liang and G. Gencyilmaz, *Particle swarm optimization algorithm for single machine total weighted tardiness problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1412–1419, IEEE Press, 20–23 June, 2004.
- [198] D. B. Fogel, T. Hays and D. Johnson, *A platform for evolving characters in competitive games*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1420–1426, IEEE Press, 20–23 June, 2004.
- [199] D. B. Fogel, *Evolving strategies in blackjack*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1427–1434, IEEE Press, 20–23 June, 2004.
- [200] S. Gordon and T. Slocum, *The knight’s tour - evolutionary vs. depth-first search*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1435–1440, IEEE Press, 20–23 June, 2004.
- [201] C. Miles, S. Louis, N. Cole and J. McDonnell, *Learning to play like a human: Case injected genetic algorithms for strategic computer gaming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1441–1448, IEEE Press, 20–23 June, 2004.
- [202] Z. Guo and K. Mak, *A heuristic ga for the stochastic vehicle routing problems with soft time windows*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1449–1456, IEEE Press, 20–23 June, 2004.
- [203] J.-D. Wei and D.-T. Lee, *A new approach to the traveling salesman problem using genetic algorithms with priority encoding*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1457–1464, IEEE Press, 20–23 June, 2004.
- [204] Y. Nagata, *Criteria for designing crossovers for tsp*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1465–1472, IEEE Press, 20–23 June, 2004.
- [205] C. White and G. Yen, *A hybrid evolutionary algorithm for traveling salesman problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1473–1478, IEEE Press, 20–23 June, 2004.
- [206] J. M. de la Cruz-Garcia, J. L. Risco-Martin, A. Herran-Gonzalez and P. Fernandez-Blanco, *Hybrid heuristic and mathematical programming in oil pipelines networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1479–1486, IEEE Press, 20–23 June, 2004.
- [207] C. Dimopoulos, *A review of evolutionary multiobjective optimization applications in the area of production research*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1487–1494, IEEE Press, 20–23 June, 2004.
- [208] T. Wong, P. Cote and R. Sabourin, *A hybrid moea for the capacitated exam proximity problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1495–1501, IEEE Press, 20–23 June, 2004.
- [209] R. Day, M. Kleeman and G. Lamont, *Multi-objective fast messy genetic algorithm solving deception problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1502–1509, IEEE Press, 20–23 June, 2004.

- [210] J. C. Hernandez, P. Isasi and A. Sez nec, *On the design of state-of-the-art pseudorandom number generators by means of genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1510–1516, IEEE Press, 20-23 June, 2004.
- [211] J. A. Clark, J. L. Jacob and S. Stepney, *Searching for cost functions*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1517–1524, IEEE Press, 20-23 June, 2004.
- [212] J. Fuller, W. Millan and E. Dawson, *Multi-objective optimisation of bijective s-boxes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1525–1532, IEEE Press, 20-23 June, 2004.
- [213] J. A. Clark, J. L. Jacob and S. Stepney, *The design of s-boxes by simulated annealing*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1533–1537, IEEE Press, 20-23 June, 2004.
- [214] C. Oh and G. Barlow, *Autonomous controller design for unmanned aerial vehicles using multi-objective genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1538–1545, IEEE Press, 20-23 June, 2004.
- [215] H. Liu and H. Iba, *A hierarchical approach for adaptive humanoid robot control*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1546–1553, IEEE Press, 20-23 June, 2004.
- [216] P. Walsh and P. Fenton, *A high-throughput computing environment for job shop scheduling genetic algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1554–1560, IEEE Press, 20-23 June, 2004.
- [217] L. Gonzalez and J. Cannady, *A self-adaptive negative selection approach for anomaly detection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1561–1568, IEEE Press, 20-23 June, 2004.
- [218] H. Ulmer, F. Streichert and A. Zell, *Evolution strategies with controlled model assistance*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1569–1576, IEEE Press, 20-23 June, 2004.
- [219] K. S. Won and T. Ray, *Performance of kriging and cokriging based surrogate models within the unified framework for surrogate assisted optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1577–1585, IEEE Press, 20-23 June, 2004.
- [220] Z. Zhou, Y. S. Ong and P. B. Nair, *Hierarchical surrogate-assisted evolutionary optimization framework*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1586–1593, IEEE Press, 20-23 June, 2004.
- [221] T. Okabe, Y. Jin, B. Sendhoff and M. Olhofer, *Voronoi-based estimation of distribution algorithm for multi-objective optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1594–1601, IEEE Press, 20-23 June, 2004.
- [222] D. Doty, *Non-local evolutionary adaptation in gridplants*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1602–1609, IEEE Press, 20-23 June, 2004.
- [223] R. Johnson, M. Melich, Z. Michalewicz and M. Schmidt, *Coevolutionary tempo game*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1610–1617, IEEE Press, 20-23 June, 2004.
- [224] D. Ashlock, S. Willson and N. Leahy, *Coevolution and tartarus*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1618–1624, IEEE Press, 20-23 June, 2004.

- [225] C. O’Riordan, J. Griffith, J. Newell and H. Sorensen, *Co-evolution of strategies for an n-player dilemma*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1625–1630, IEEE Press, 20-23 June, 2004.
- [226] N. Speer, C. Spieth and A. Zell, *A memetic co-clustering algorithm for gene expression profiles and biological annotation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1631–1638, IEEE Press, 20-23 June, 2004.
- [227] W. Piaseczny, H. Suzuki and H. Sawai, *Chemical genetic programming - evolution of amino acid rewriting rules used for genotype-phenotype translation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1639–1646, IEEE Press, 20-23 June, 2004.
- [228] D. Seo, M. Yasunaga and J. H. Kim, *A computational approach to detect transcription regulatory elements in dictyostelium discoideum*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1647–1653, IEEE Press, 20-23 June, 2004.
- [229] S. Ding, J. Liu, C. Wu and Q. Yang, *A genetic algorithm applied to optimal gene subset selection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1654–1660, IEEE Press, 20-23 June, 2004.
- [230] T. Eguchi, K. Hirasawa, J. Hu and S. Markon, *Elevator group supervisory control systems using genetic network programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1661–1667, IEEE Press, 20-23 June, 2004.
- [231] J. J. Sanchez, M. Galan and E. Rubio, *Genetic algorithms and cellular automata: A new architecture for traffic light cycles optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1668–1674, IEEE Press, 20-23 June, 2004.
- [232] Y. Katsumata and T. Terano, *Cabling and scheduling for electric power plant operation via tabu-boa algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1675–1682, IEEE Press, 20-23 June, 2004.
- [233] I. Watanabe and M. Nodu, *A genetic algorithm for optimizing switching sequence of service restoration in distribution systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1683–1690, IEEE Press, 20-23 June, 2004.
- [234] P. Ross, J. G. Marin-Blazquez and E. Hart, *Hyper-heuristics applied to class and exam timetabling problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1691–1698, IEEE Press, 20-23 June, 2004.
- [235] P. Funes, E. Bonabeau, J. Herve and Y. Morieux, *Interactive multi-participant task allocation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1699–1705, IEEE Press, 20-23 June, 2004.
- [236] J. Pfaffmann, K. Bousmalis and S. Colombano, *A scouting-inspired evolutionary algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1706–1712, IEEE Press, 20-23 June, 2004.
- [237] D. Ashlock, K. Bryden and S. Corns, *On taxonomy of evolutionary computation problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1713–1719, IEEE Press, 20-23 June, 2004.
- [238] J. Gomez, *Self adaptation of operator rates in evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1720–1726, IEEE Press, 20-23 June, 2004.
- [239] J. Gomez, *Evolution of fuzzy rule based classifiers*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1727–1734, IEEE Press, 20-23 June, 2004.
- [240] J. Zhang, X. Yuan and B. Buckles, *Subspace fdc for sharing distance estimation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1735–1742, IEEE Press, 20-23 June, 2004.



- [241] Z. Kobti, R. G. Reynolds and T. Kohler, *The effect of kinship cooperation learning strategy and culture on the resilience of social systems in the village multi-agent simulation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1743–1750, IEEE Press, 20-23 June, 2004.
- [242] B. Peng and R. G. Reynolds, *Cultural algorithms: Knowledge learning in dynamic environments*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1751–1758, IEEE Press, 20-23 June, 2004.
- [243] N. B. Ho and J. C. Tay, *Genace: An efficient cultural algorithm to solve the flexible job-shop problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1759–1766, IEEE Press, 20-23 June, 2004.
- [244] D. Curran and C. O’Riordan, *The effect of noise on the performance of cultural evolution in multi-agent systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1767–1773, IEEE Press, 20-23 June, 2004.
- [245] C. Stephan and J. Sullivan, *An agent-based hydrogen vehicle/infrastructure model*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1774–1779, IEEE Press, 20-23 June, 2004.
- [246] D. Ostrowski and R. G. Reynolds, *Using cultural algorithms to evolve strategies for recessionary markets*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1780–1785, IEEE Press, 20-23 June, 2004.
- [247] A. Stoica, T. Arslan, D. Keymeulen, V. Duong, R. Zebulum, X. Guo, I. Ferguson and T. Daud, *Evolutionary recovery of electronic circuits from radiation induced faults*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1786–1793, IEEE Press, 20-23 June, 2004.
- [248] S. M. Sait and M. Al-Ismaïl, *Enhanced simulated evolution algorithm for digital circuit design yielding faster execution in a larger solution space*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1794–1799, IEEE Press, 20-23 June, 2004.
- [249] S. Harding and J. Miller, *Evolution in materio : A tone discriminator in liquid crystal*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1800–1807, IEEE Press, 20-23 June, 2004.
- [250] D. Hunter, *Some lessons learned on constructing an automated testbench for evolvable hardware experiments*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1808–1812, IEEE Press, 20-23 June, 2004.
- [251] M. Oltean, *Solving even-parity problems using traceless genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1813–1819, IEEE Press, 20-23 June, 2004.
- [252] J. Blumenthal and G. Parker, *Punctuated anytime learning for evolving multi-agent capture strategies*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1820–1827, IEEE Press, 20-23 June, 2004.
- [253] A. Bajurnow and V. Ciesielski, *Layered learning for evolving goal scoring behavior in soccer players*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1828–1835, IEEE Press, 20-23 June, 2004.
- [254] E. Eberbach and A. Eberbach, *On designing co\$: A new approach and programming environment for distributed problem solving based on evolutionary computation and anytime algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1836–1843, IEEE Press, 20-23 June, 2004.
- [255] D. Ashlock and J. Lathrop, *Program induction: Building a wall*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1844–1850, IEEE Press, 20-23 June, 2004.

- [256] P. Hartono, S. Hashimoto and M. Wahde, *Labeled-ga with adaptive mutation rate*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1851–1858, IEEE Press, 20–23 June, 2004.
- [257] D. Ashlock and J. Oftelie, *Simulation of floral specialization in bees*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1859–1864, IEEE Press, 20–23 June, 2004.
- [258] D. Kephart and J. Lefevre, *Codegen: The generation and testing of dna code words*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1865–1873, IEEE Press, 20–23 June, 2004.
- [259] M. Khabzaoui, C. Dhaenens and E.-G. Talbi, *A multicriteria genetic algorithm to analyze dna microarray data*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1874–1881, IEEE Press, 20–23 June, 2004.
- [260] M. Nuser and R. Deaton, *A probabilistic analysis of in vitro selection of independent dna words for computation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1882–1888, IEEE Press, 20–23 June, 2004.
- [261] A. Neel, M. Garzon and P. Penumetsa, *Soundness and quality of semantic retrieval in dna-based memories with abiotic data*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1889–1895, IEEE Press, 20–23 June, 2004.
- [262] D. Wood and J. Chen, *Fredkin gate circuits via recombination enzymes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1896–1900, IEEE Press, 20–23 June, 2004.
- [263] C.-H. Chiang and L.-H. Chen, *A new cellular automaton: Five elements balance chart and its application to forest industry ecosystem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1901–1908, IEEE Press, 20–23 June, 2004.
- [264] A. Acan, *Clonal selection algorithm with operator multiplicity*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1909–1915, IEEE Press, 20–23 June, 2004.
- [265] M. Randall, *Heuristics for ant colony optimisation using the generalised assignment problem*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1916–1923, IEEE Press, 20–23 June, 2004.
- [266] M. Ippolito, E. R. Sanseverino and F. Vuinovich, *Multiobjective ant colony search algorithm for optimal electrical distribution system strategical planning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1924–1931, IEEE Press, 20–23 June, 2004.
- [267] R. Annaluru, S. Das and A. Pahwa, *Multi-level ant colony algorithm for optimal placement of capacitors in distribution systems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1932–1937, IEEE Press, 20–23 June, 2004.
- [268] A. Pirzada, A. Datta and C. McDonald, *Trusted routing in ad-hoc networks using pheromone trails*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1938–1943, IEEE Press, 20–23 June, 2004.
- [269] C. Mumford, *A hierarchical evolutionary approach to multi-objective optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1944–1951, IEEE Press, 20–23 June, 2004.
- [270] J. Branke, H. Schmeck, K. Deb and R. Maheshwar, *Parallelizing multi-objective evolutionary algorithms: Cone separation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1952–1957, IEEE Press, 20–23 June, 2004.

- [271] C. Grosan, *Improving the performance of evolutionary algorithms for the multiobjective 0/1 knapsack problem using epsilon -dominance*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1958–1963, IEEE Press, 20-23 June, 2004.
- [272] S. Marwaha, D. Srinivasan, C. K. Tham and A. Vasilakos, *Evolutionary fuzzy multi-objective routing for wireless mobile ad hoc networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1964–1971, IEEE Press, 20-23 June, 2004.
- [273] K. Y. Chan, E. Aydin and T. Fogarty, *Parameterisation of mutation in evolutionary algorithms using the estimated main effect of genes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1972–1979, IEEE Press, 20-23 June, 2004.
- [274] J. Vesterstroem and R. Thomsen, *A comparative study of differential evolution, particle swarm optimization, and evolutionary algorithms on numerical benchmark problems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1980–1987, IEEE Press, 20-23 June, 2004.
- [275] F. Zhang and G. V. Dozier, *A comparison of distributed restricted recombination operators for genetic and evolutionary societies of hill-climbers: A disacsp perspective*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1988–1995, IEEE Press, 20-23 June, 2004.
- [276] T. Ray, N. Venkatarayalu, K. S. Won and K. P. Chan, *Study on the behaviour and implementation of parent centric crossover within the generalized generation gap model*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 1996–2003, IEEE Press, 20-23 June, 2004.
- [277] S. Paterlini and T. Krink, *High performance clustering with differential evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2004–2011, IEEE Press, 20-23 June, 2004.
- [278] X.-F. Xie, W.-J. Zhang and D.-C. Bi, *Handling equality constraints by adaptive relaxing rule for swarm algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2012–2016, IEEE Press, 20-23 June, 2004.
- [279] X.-F. Xie, W.-J. Zhang and D.-C. Bi, *Optimizing semiconductor devices by self-organizing particle swarm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2017–2022, IEEE Press, 20-23 June, 2004.
- [280] D. Tasoulis, N. Pavlidis, V. Plagianakos and M. Vrahatis, *Parallel differential evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2023–2029, IEEE Press, 20-23 June, 2004.
- [281] P. Buzing, A. Eiben, M. Schut and T. Toma, *Cooperation and communication in evolving artificial societies*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2030–2037, IEEE Press, 20-23 June, 2004.
- [282] G. Enee and C. Esczut, *Evolution of communication in a genetic based multi-agent system: Use wise resources*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2038–2044, IEEE Press, 20-23 June, 2004.
- [283] D. Ashlock and B. Powers, *The effect of tag recognition on non-local adaptation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2045–2051, IEEE Press, 20-23 June, 2004.
- [284] G. Kendall, R. Yaakob and P. Hingston, *An investigation of an evolutionary approach to the opening of go*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2052–2059, IEEE Press, 20-23 June, 2004.
- [285] I. Ono, Y. Seike, R. Morishita, N. Ono and M. Matsui, *An evolutionary algorithm taking account of mutual interactions among substances for inference of genetic networks*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2060–2067, IEEE Press, 20-23 June, 2004.

- [286] N. Noman, K. Okada, N. Hosoyama and H. Iba, *Use of clustering to improve the layout of gene network for visualization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2068–2075, IEEE Press, 20-23 June, 2004.
- [287] T. Paul and H. Iba, *Selection of the most useful subset of genes for gene expression-based classification*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2076–2083, IEEE Press, 20-23 June, 2004.
- [288] P. Koduru, S. Das, S. Welch and J. L. Roe, *A multi-objective ga-simplex hybrid approach for gene regulatory network models*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2084–2091, IEEE Press, 20-23 June, 2004.
- [289] A. Song and V. Ciesielski, *Texture analysis by genetic programming*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2092–2099, IEEE Press, 20-23 June, 2004.
- [290] J.-S. Jang, K.-H. Han and J.-H. Kim, *Face detection using quantum-inspired evolutionary algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2100–2106, IEEE Press, 20-23 June, 2004.
- [291] A. Treptow and A. Zell, *Combining adaboost learning and evolutionary search to select features for real-time object detection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2107–2113, IEEE Press, 20-23 June, 2004.
- [292] D. Miller, R. Arguello and G. Greenwood, *Evolving artificial neural network structures: Experimental results for biologically-inspired adaptive mutations*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2114–2119, IEEE Press, 20-23 June, 2004.
- [293] H. Chen and D. guo Feng, *An effective evolutionary strategy for bijective s-boxes*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2120–2123, IEEE Press, 20-23 June, 2004.
- [294] J. C. Hernandez and P. Isasi, *New results on the genetic cryptanalysis of tea and reduced-round versions of xtea*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2124–2129, IEEE Press, 20-23 June, 2004.
- [295] N. Nedjah and L. Mourelle, *Secure evolutionary hardware for public-key cryptosystems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2130–2137, IEEE Press, 20-23 June, 2004.
- [296] M. Seredynski and P. Bouvry, *Block cipher based on reversible cellular automata*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2138–2143, IEEE Press, 20-23 June, 2004.
- [297] S. Legg, M. Hutter and A. Kumar, *Tournament versus fitness uniform selection*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2144–2151, IEEE Press, 20-23 June, 2004.
- [298] B. Dorronsoro, E. Alba, M. Giacobini and M. Tomassini, *The influence of grid shape and asynchronicity on cellular evolutionary algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2152–2158, IEEE Press, 20-23 June, 2004.
- [299] O. Takahashi and S. Kobayashi, *An angular distance dependent alternation model for real-coded genetic algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2159–2165, IEEE Press, 20-23 June, 2004.
- [300] O. Dengiz, G. V. Dozier and A. E. Smith, *Non-deterministic decoding with memory to enhance precision in binary-coded genetic algorithms*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2166–2172, IEEE Press, 20-23 June, 2004.

- [301] B. S., A. Alphones and P. N. Suganthan, *Concurrent pso and fdr-pso based reconfigurable phase-differentiated antenna array design*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2173–2179, IEEE Press, 20-23 June, 2004.
- [302] P. E. Hotz, *Asymmetric cell division in artificial evolution*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2180–2186, IEEE Press, 20-23 June, 2004.
- [303] S. Vighram and J. Gallagher, *On the relative efficacies of space saving \*cgas for evolvable hardware applications*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2187–2193, IEEE Press, 20-23 June, 2004.
- [304] M. H. Khan and M. A. Perkowski, *Genetic algorithm based synthesis of multi-output ternary functions using quantum cascade of generalized ternary gates*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2194–2201, IEEE Press, 20-23 June, 2004.
- [305] S. Kamio and H. Iba, *Evolutionary construction of a simulator for real robots*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2202–2209, IEEE Press, 20-23 June, 2004.
- [306] P. Lucidarme, *An evolutionary algorithm for multi-robot unsupervised learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2210–2215, IEEE Press, 20-23 June, 2004.
- [307] G. Parker, *Partial recombination for the co-evolution of model parameters*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2216–2223, IEEE Press, 20-23 June, 2004.
- [308] Y. Nojima, N. Kubota and F. Kojima, *Trajectory generation and accumulation for partner robots based on structured learning*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2224–2229, IEEE Press, 20-23 June, 2004.
- [309] K. Tang, P. N. Suganthan and X. Yao, *Generalized lda using relevance weighting and evolution strategy*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2230–2234, IEEE Press, 20-23 June, 2004.
- [310] S. Stanhope, *Evolution strategies for multivariate-to-anything partially specified random vector generation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2235–2240, IEEE Press, 20-23 June, 2004.
- [311] A. Tulai and F. Oppacher, *Maintaining diversity and increasing the accuracy of classification rules through automatic speciation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2241–2249, IEEE Press, 20-23 June, 2004.
- [312] M. Goldstein and G. Yen, *An evolutionary algorithm method for sampling n-partite graphs*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2250–2257, IEEE Press, 20-23 June, 2004.
- [313] P. Lichodziejewski, N. Zincir-Heywood and M. Heywood, *Cascaded gp models for data mining*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2258–2264, IEEE Press, 20-23 June, 2004.
- [314] A. S. Uyar and H. T. Uyar, *An event-driven test framework for evolutionary algorithms in dynamic environments*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2265–2272, IEEE Press, 20-23 June, 2004.
- [315] D. Ashlock and K. Bryden, *Evolutionary control of lsystem interpretation*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2273–2279, IEEE Press, 20-23 June, 2004.

- [316] J. Zhang, H. Chung and B. Hu, *Adaptive probabilities of crossover and mutation in genetic algorithms based on clustering technique*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2280–2287, IEEE Press, 20–23 June, 2004.
- [317] A. Czarn, C. MacNish, K. Vijayan and B. Turlach, *Statistical exploratory analysis of genetic algorithms: The importance of interaction*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2288–2295, IEEE Press, 20–23 June, 2004.
- [318] M. Nakamura, N. Yamashiro and Y. Gong, *Iterative parallel and distributed genetic algorithms with biased initial population*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2296–2301, IEEE Press, 20–23 June, 2004.
- [319] Y. Xu, S. Salcedo-Sanz and X. Yao, *Non-standard cost terminal assignment problems using tabu search approach*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2302–2306, IEEE Press, 20–23 June, 2004.
- [320] W.-J. Zhang, X.-F. Xie and D.-C. Bi, *Handling boundary constraints for numerical optimization by particle swarm flying in periodic search space*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2307–2311, IEEE Press, 20–23 June, 2004.
- [321] I. Tanev, T. Ray and A. Buller, *Evolutionary design, robustness and adaptation of sidewinding locomotion of simulated limbless wheelless robot*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2312–2319, IEEE Press, 20–23 June, 2004.
- [322] Z. Fan, E. Goodman, W. Jiachuan, R. Ronald, S. Kisung and H. Jianjun, *Hierarchical evolutionary synthesis of mems*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2320–2327, IEEE Press, 20–23 June, 2004.
- [323] H. Yapicioglu, G. V. Dozier and A. E. Smith, *Bi-criteria model for locating a semi-desirable facility on a plane using particle swarm optimization*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2328–2334, IEEE Press, 20–23 June, 2004.
- [324] P. Zou, Z. Zhou, G. Chen and X. Yao, *A novel memetic algorithm with random multi-local-search: A case study of tsp*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2335–2340, IEEE Press, 20–23 June, 2004.
- [325] E. De Jong, *Towards a bounded pareto-coevolution archive*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2341–2348, IEEE Press, 20–23 June, 2004.
- [326] M. Chang, K. Ohkura, K. Ueda and M. Sugiyama, *Modeling coevolutionary genetic algorithms on two-bit landscapes: Partnering strategies*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2349–2356, IEEE Press, 20–23 June, 2004.
- [327] E. Hughes, *Swarm guidance using a multi-objective co-evolutionary on-line evolutionary algorithm*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2357–2363, IEEE Press, 20–23 June, 2004.
- [328] J. Brewster and R. G. Reynolds, *Alternative fuel adoption*, in *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, (Portland, Oregon), pp. 2364–2371, IEEE Press, 20–23 June, 2004.