## Список литературы

- [1] Fabio Abbattista, Valeria Carofiglio, and Mario Koppen. Scout algorithms and genetic algorithms: A comparative study. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 769, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [2] Adam V. Adamopoulos, Efstratios F. Georgopoulos, Spiridon D. Likothanassis, and Photios A. Anninos. Forecasting the magnetoencephalogram (meg) of epileptic patients using genetically optimized neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1457–1462, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [3] Alexandru Agapie. Random systems with complete connections. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 770, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [4] Jesus Aguilar, Jose Riquelme, and Miguel Toro. Three geometric approaches for representing decision rules in a supervised learning system. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 771, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [5] Jose Aguilar and Pablo Miranda. Approaches based on genetic algorithms for multiobjective optimization problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 3–10, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [6] Hernan E. Aguirre, Kiyoshi Tanaka, and Tatsuo Sugimura. Cooperative crossover and mutation operators in genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 772, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [7] Manu Ahluwalia and Larry Bull. Coevolving functions in genetic programming: Classification using k-nearest-neighbour. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 947–952, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [8] Manu Ahluwalia and Larry Bull. A genetic programming-based classifier system. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 11–18, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [9] Enrique Alba, Carlos Cotta, and Jose M. Troya. Entropic and real-time analysis of the search with panmictic, structured, and parallel distributed genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 773, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [10] Joaquim N. Aparicio, Luis Correia, and Fernando Moura-Pires. Populations are multisets-plato. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1845–1850, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [11] Patrick Van Bael, Dirk Devogelaere, and M. Rijckaert. The job shop problem solved with simple, basic evolutionary search elements. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 665–669, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [12] A. J. Bagnall and G. D. Smith. Using an adaptive agent to bid in a simplified model of the uk market in electricity. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 774, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [13] Alwyn Barry. Aliasing in xcs and the consecutive state problem: 1 effects. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 19–26, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [14] Alwyn Barry. Aliasing in xcs and the consecutive state problem: 2 solutions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 27–34, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [15] Daryl Battle, Abdollah Homaifar, Edward Tunstel, and Gerry Dozier. Genetic programming of full knowledge bases for fuzzy logic controllers. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 2, pages 1463–1468, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [16] M. A. Beck and I. C. Parmee. Extending the bounds of the search space: A multi-population approach. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1469–1476, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [17] G. N. Beligiannis, E. N. Demiris, and S. D. Likothanassis. Evolutionary multimodel partitioning filters for nonlinear systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 2, page 1227, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [18] Peter Bentley and Sanjeev Kumar. Three ways to grow designs: A comparison of embryogenies for an evolutionary design problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 35–43, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [19] Jean Berger, Mourad Sassi, and Martin Salois. A hybrid genetic algorithm for the vehicle routing problem with time windows and itinerary constraints. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 44–51, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [20] Michael L. Best. Coevolving mutualists guide simulated evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 941, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [21] Hans-Georg Beyer and Dirk V. Arnold. Fitness noise and localization errors of the optimum in general quadratic fitness models. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the*

- Genetic and Evolutionary Computation Conference, volume 1, pages 817–824, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [22] Stefan Boettcher and Allon G. Percus. Extremal optimization: Methods derived from co-evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 825–832, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [23] Celia C. Bojarczuk, Heitor S. Lopes, and Alex A. Freitas. Discovering comprehensible classification rules by using genetic programming: a case study in a medical domain. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 953–958, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [24] Andrea Bonarini. Comparing reinforcement learning algorithms applied to crisp and fuzzy learning classifier systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 52–59, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [25] Christopher R. Bonham and Ian C. Parmee. An investigation of exploration and exploitation within cluster oriented genetic algorithms (cogas). In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1491–1497, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [26] Peter A. N. Bosman and Dirk Thierens. Linkage information processing in distribution estimation algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 60–67, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [27] Markus Brameier, Frank Hoffmann, Peter Nordin, Wolfgang Banzhaf, and Frank Francone. Parallel machine code genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1228, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [28] Jurgen Branke, Massimo Cutaia, and Heinrich Dold. Reducing genetic drift in steady state evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 68–74, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [29] Carlos A. Brizuela and Nobuo Sannomiya. A diversity study in genetic algorithms for job shop scheduling problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 75–82, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [30] Larry Bull. On using zcs in a simulated continuous double-auction market. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 83–90, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [31] Stephane Calderoni. Behavior-based control system in multiagent domain. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1439, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [32] Angelo Cangelosi. Heterochrony and adaptation in developing neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1241–1248, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [33] Erick Cantu-Paz. Migration policies and takeover times in genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 775, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [34] Erick Cantu-Paz. Topologies, migration rates, and multi-population parallel genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 91–98, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [35] Hongqing Cao, Lishan Kang, and Yuping Chen. Evolutionary modeling of ordinary differential equations for dynamic systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 2, pages 959–965, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [36] Lijuan Cao and Tay Eng Hock (Francis). Neuro-genetic based method to the classification of acupuncture needle: A case study. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 99–105, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [37] Lijuan Cao, Tay Eng Hock (Francis), Ma Lawrence, and Wai Cheong Yeong. Classification of the market states using neural network. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 776, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [38] P. A. Castillo, V. Rivas, J. J. Merelo, J. Gonzalez, A. Prieto, and G. Romero. G-prop-iii: Global optimization of multilayer perceptrons using an evolutionary algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 942, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [39] Robert Cattral, Franz Oppacher, and Dwight Deugo. Rule acquisition with a genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 778, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [40] Zeke S. H. Chan, H. W. Ngan, and A. B. Rad. Minimum-allele-reserve-keeper (mark): A fast and effective mutation scheme for genetic algorithm (ga). In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 106–113, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [41] Shu-Heng Chen and Tzu-Wen Kuo. Towards an agent-based foundation of financial econometrics: An approach based on genetic-programming artificial markets. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 966, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [42] Shu-Heng Chen, Wei-Yuan Lin, and Chueh-Iong Tsao. Genetic algorithms, trading strategies and stochastic processes: Some new evidence from monte carlo simulations. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 114–121, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [43] Stephen Chen, Cesar Guerra-Salcedo, and Stephen F. Smith. Non-standard crossover for a standard representation commonality-based feature subset selection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 129–134, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [44] Stephen Chen and Stephen F. Smith. Improving genetic algorithms by search space reductions (with applications to flow shop scheduling). In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 1, pages 135–140, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [45] Stephen Chen and Stephen F. Smith. Introducing a new advantage of crossover: Commonality-based selection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 122–128, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [46] Maezawa Chikara and Atsumi Masayasu. Collaborative learning agents with structural classifier systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 777, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [47] Fuey Sian Chong and W. B. Langdon. Java based distributed genetic programming on the internet. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1229, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [48] Chao-Hsien Chu, G. Premkumar, Carey Chou, and Jianzhong Sun. Dynamic degree constrained network design: A genetic algorithm approach. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 1, pages 141–148, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [49] Mark Coletti, Thomas D. Lash, Ryszard Michalski, Craig Mandsager, and Rida Moustafa. Comparing performance of the learnable evolution model and genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 779, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [50] Pierre Collet, Evelyne Lutton, Frederic Raynal, and Marc Schoenauer. Individual gp: an alternative viewpoint for the resolution of complex problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 974–981, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [51] J. J. Collins and Conor Ryan. Non-stationary function optimization using polygenic inheritance. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 781, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [52] J. J. Collins, Lucia Sheehan, and Conor Casey. Genetic planner for a mobile robot navigation system. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 782, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [53] Trevor D. Collins. A comparison of search space visualization techniques. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 780, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [54] David Corney and Ian Parmee. N-dimensional surface mapping using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1230, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [55] Lino Costa and Pedro Oliveira. Gas in global optimization of mixed integer non-linear problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1773, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [56] Carlos Cotta, Enrique Alba, and Jose M. Troya. Improving the scalability of dynastically optimal forms recombination by tuning the granularity of the representation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 783, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [57] Kelly D. Crawford, Michael D. McCormack, and Donald J. MacAllister. Modified gradient techniques for normalized solution vectors. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1498–1503, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [58] Dragan Cvetkovic and Ian C. Parmee. Use of preferences for ga-based multi-objective optimisation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1504–1509, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [59] Jason M. Daida, Derrick S. Ampy, Michael Ratanasavetavadhana, Hsiaolei Li, and Omar A. Chaudhri. Challenges with verification, repeatability, and meaningful comparison in genetic programming: Gibson's magic. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1851–1858, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [60] Jason M. Daida, John A. Polito, Steven A. Stanhope, Robert R. Bertram, Jonathan C. Khoo, and Shahbaz A. Chaudhary. What makes a problem gp-hard? analysis of a tunably difficult problem in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 982–989, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [61] Dipankar Dasgupta, Yuehua Cao, and Congjun Yang. An immunogenetic approach to spectra recognition. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 149–155, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [62] G. F. Davenport, M. D. Ryan, and V. J. Rayward-Smith. Rule induction using a reverse polish representation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 990–995, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [63] H. de Garis, A. Buller, M. Korkin, F. Gers, N. E. Nawa, and M. Hough. Atr's artificial brain ("cam-brain") project: A sample of what individual "codi-1bit" model evolved neural net modules can do with digital and analog i/o. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1233, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [64] Russell Deaton. Reaction temperature constraints in dna computing. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1803–1804, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [65] Kalyanmoy Deb. Construction of test problems for multi-objective optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 164–171, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [66] Kalyanmoy Deb and Hans-Georg Beyer. Self-adaptation in real-parameter genetic algorithms with simulated binary crossover. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 172–179, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [67] Myriam Delgado, Fernando Von Zuben, and Fernando Gomide. Modular and hierarchial evolutionary design of fuzzy systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 180–187, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [68] Lisa M. Desjarlais, Mohammad-R. Akbarzadeh-T., and Craig W. Wright. Control system optimization using genetic algorithms within the softlab toolkit. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1774, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [69] Antonello Dessi, Antonella Giani, and Antonia Starita. An analysis of automatic subroutine discovery in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 996–1001, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [70] David Digby and William Seffens. Evolutionary algorithm analysis of the biological genetic codes. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1440, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [71] Christos Dimopoulos and Ali MS Zalzala. Evolving scheduling policies through a genetic programming framework. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1231, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [72] Peter Dittrich, Andre Skusa, Wolfgang Kantschik, and Wolfgang Banzhaf. Dynamical properties of the fitness landscape of a gp controlled random morphology robot. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1002–1008, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [73] Stefan Droste, Thomas Jansen, and Ingo Wegener. Perhaps not a free lunch but at least a free appetizer. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon,

- Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 833–839, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [74] R. Dupas, G. Cavory, and G. Goncalves. Real-world applications. optimising the throughput of a manufacturing production line using a genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1775, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [75] E. William East. Infrastructure work order planning using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1510–1516, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [76] Marc Ebner and Andreas Zell. Evolving a behavior-based control architecture- from simulations to the real world. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1009–1014, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [77] William Edelson and Michael L. Gargano. Efficient calculation of compute-intensive fitness in genetic computations using a survival indicator for population members. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 784, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [78] A. E. Eiben, D. Elia, and J. I. van Hemert. Population dynamics and emerging mental features in aegis. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1257–1264, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [79] Mohammed A. El-Beltagy, Prasanth B. Nair, and Andy J. Keane. Metamodeling techniques for evolutionary optimization of computationally expensive problems: Promises and limitations. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 196–203, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [80] Craig Eldershaw and Stephen Cameron. Real-world applications: Motion planning using gas. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1776, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [81] Matthew Evett, Taghi Khoshgoftaar, Pei der Chien, and Edward Allen. Modelling software quality with gp. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1232, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [82] I. De Falco, A. Iazzetta, E. Tarantino, A. Della Cioppa, and A. Iacuelli. Towards a simulation of natural mutation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 156–163, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [83] Francine Federman, Gayle Sparkman, and Stephanie Watt. Representation of music in a learning classifier system utilizing bach chorales. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of*

- the Genetic and Evolutionary Computation Conference, volume 1, page 785, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [84] Carlos Fernandes, Joao Paulo Caldeira, Fernando Melicio, and Agostinho Rosa. Evolutionary algorithm for school timetabling. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1777, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [85] J. Jaime Fernandez Jr. and Ian D. Walker. A biologically inspired fitness function for robotic grasping. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1517–1522, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [86] Gianluigi Folino, Clara Pizzuti, and Giandomenico Spezzano. A cellular genetic programming approach to classification. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1015–1020, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [87] Frank D. Francone, Markus Conrads, Wolfgang Banzhaf, and Peter Nordin. Homologous crossover in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1021–1026, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [88] Marc Fuchs, Dirk Fuchs, and Matthias Fuchs. Generating lemmas for tableau-based proof search using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1027–1032, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [89] Matthias Fuchs. Large populations are not always the best choice in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1033–1038, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [90] Alex S. Fukunaga. Portfolios of genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 786, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [91] Yoshikazu Fukuyama, Shinichi Takayama, Yosuke Nakanishi, and Hirotaka Yoshida. A particle swarm optimization for reactive power and voltage control in electric power systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1523–1528, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [92] Hiroshi Furutani. Analytical solutions for infinite population genetic algorithms on multiplicative landscape. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 204–211, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [93] Alexei A. Gaivoronski. Modeling of complex economic systems with agent nets. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1265–1272, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [94] John C. Gallagher and Randall D. Beer. Evolution and analysis of dynamical neural networks for agents integrating vision, locomotion, and short-term memory. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1273–1280, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [95] Marcus Gallagher, Marcus Frean, and Tom Downs. Real-valued evolutionary optimization using a flexible probability density estimator. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 840–846, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [96] Max H. Garzon, Russell J. Deaton, and Ken Barnes. On self-assembling graphs in vitro. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1805–1809, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [97] Robert Ghanea-Hercock, Divine T. Ndumu, and Jaron Collis. Distributed genetic programming with mobile agents. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1441, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [98] Matthew R. Glickman and Katia Sycara. Evolution of goal-directed behavior from limited information in a complex environment. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1281–1288, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [99] David E. Goldberg. Using time efficiently: Genetic-evolutionary algorithms and the continuation problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 212–219, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [100] David E. Goldberg and Siegfried Voessner. Optimizing global-local search hybrids. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 220–228, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [101] Igor E. Golovkin, Roberto C. Mancini, and Sushil J. Louis. Plasma x-ray spectra analysis using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1529–1534, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [102] Francisco Gordillo, Ismael Alcala, and Javier Aracil. A tool for solving differential games with coevolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1535–1542, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [103] V. Scott Gordon, Rebecca Pirie, Adam Wachter, and Scottie Sharp. Terrain-based genetic algorithm (tbga): Modeling parameter space as terrain. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 229–235, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [104] Martina Gorges-Schleuter. An analysis of local selection in evolution strategies. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 847–854, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [105] Jens Gottlieb. Evolutionary algorithms for multidimensional knapsack problems: the relevance of the boundary of the feasible region. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 787, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [106] Marko Gronroos. A comparison of some methods for evolving neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1442, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [107] Cesar Guerra-Salcedo and Darrell Whitley. Genetic approach to feature selection for ensemble creation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 236–243, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [108] Alexis Guigue, Sofiane Oussedik, and Daniel Delahaye. Sequencing aircraft landings by genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 788, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [109] Tim Hackworth. India and pakistan, a classic "richardson" arms race: A genetic algorithmic approach. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1543–1550, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [110] Gary L. Haith, Silvano P. Colombano, Jason D. Lohn, and Dimitris Stassinopoulos. Coevolution for problem simplification. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 244–251, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [111] Hisashi Handa, Osamu Katai, Tadataka Konishi, and Mitsuru Baba. Coevolutionary genetic algorithms for solving dynamic constraint satisfaction problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 252–257, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [112] Akira Hara and Tomoharu Nagao. Emergence of the cooperative behavior using adg; automatically defined groups. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1039–1046, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [113] Georges R. Harik and Fernando G. Lobo. A parameter-less genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 258–265, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [114] Laura J. Harrell and S. Ranji Ranjithan. Evaluation of alternative penalty function implementations in a watershed management design problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith,

- editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1551–1558, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [115] S. D. Harris, L. Elliott, D. B. Ingham, M. Pourkashanian, and C. W. Wilson. The retrieval of chemical reaction rates using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 2, page 1780, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [116] S. D. Harris, R. Mustata, L. Elliott, D. B. Ingham, and D. Lesnic. Parameter identification within rocks using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1779, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [117] Emma Hart and Peter Ross. An immune system approach to scheduling in changing environments. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1559–1566, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [118] William E. Hart. Comparing evolutionary programs and evolutionary pattern search algorithms: A drug docking application. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 855–862, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [119] Adrian R. Hartley. Accuracy-based fitness allows similar performance to humans in static and dynamic classification environments. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 266–273, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [120] Brad Harvey, James Foster, and Deborah Frincke. Towards byte code genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1234, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [121] K. Burton Harvey and Chrisila C. Pettey. The outlaw method for solving multimodal functions with split ring parallel genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 274–280, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [122] Robert B. Heckendorn, Soraya Rana, and Darrell Whitley. Polynomial time summary statistics for a generalization of maxsat. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, pages 281–288, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [123] Guy Helmer, Johnny Wong, Vasant Honavar, and Les Miller. Feature selection using a genetic algorithm for intrusion detection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1781, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [124] German Hernandez, Jerome A. Goldstein, and Fernando Niao. Stochastic differential model for evolutionary algorithms over continuous spaces. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 1, pages 863–870, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [125] Mark Hinchliffe, Mark Willis, and Ming Tham. Dynamic chemical process modelling using a multiple basis function genetic programming algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1782, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [126] Shinn-Ying Ho and Xiao-I Chang. An efficient generalized multiobjective evolutionary algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 871–878, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [127] Shinn-Ying Ho, Hung-Ming Chen, and Li-Sun Shu. Solving large knowledge base partitioning problems using an intelligent genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1567–1572, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [128] Shinn-Ying Ho, Li-Sun Shu, and Hung-Ming Chen. Intelligent genetic algorithm with a new intelligent crossover using orthogonal arrays. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 289–296, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [129] Theodore P. Hoehn and Chrisila C. Pettey. Parental and cyclic-rate mutation in genetic algorithms: An initial investigation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 297–304, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [130] Steven A. Hofmeyr and Stephanie Forrest. Immunity by design: An artificial immune system. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1289–1296, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [131] John H. Holmes. Evaluating learning classifier system performance in two-choice decision tasks: An lcs metric toolkit. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 789, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [132] Tzung-Pei Hong, Hong-Shung Wang, and Wei-Chou Chen. Simultaneously applying multiple crossover and mutation operators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 790, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [133] Jeffrey Horn. Controlling the cooperative-competitive boundary in niched genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 305–312, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [134] G. S. Hornby, M. Fujita, S. Takamura, T. Yamamoto, and O. Hanagata. Autonomous evolution of gaits with the sony quadruped robot. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1297–1304, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [135] Gregory S. Hornby and Brian Mirtich. Diffuse versus true coevolution in a physics-based world. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1305–1312, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [136] Daniel Howard and Simon C. Roberts. A staged genetic programming strategy for image analysis. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1047–1052, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [137] William H. Hsu, William M. Pottenger, Michael Welge, Jie Wu, and Ting-Hao Yang. Genetic algorithms for attribute synthesis in large-scale data mining. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1783, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [138] Hsien-Da Huang, Jih Tsung Yang, Shu Fong Shen, and Jorng-Tzong Horng. An evolution strategy to solve sports scheduling problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 943, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [139] Francesc Xavier Llora i Fabrega and Josep Maria Garrell i Guiu. Genifer: A nearest neighbour based classifier system using ga. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 797, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [140] Hitoshi Iba. Bagging, boosting, and bloating in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1053–1060, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [141] Christian Igel and Kumar Chellapilla. Investigating the influence of depth and degree of genotypic change on fitness in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1061–1068, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [142] Forrest H Bennett III, John R. Koza, Martin A. Keane, Jessen Yu, William Mydlowec, and Oscar Stiffelman. Evolution by means of genetic programming of analog circuits that perform digital functions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1477–1483, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [143] Forrest H Bennett III, John R. Koza, James Shipman, and Oscar Stiffelman. Building a parallel computer system for \$18,000 that performs a half peta-flop per day. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1484–1490, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [144] H. Brown Cribbs III. Aircraft maneuvering via genetics-based adaptive agent. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1249–1256, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [145] Hitoshi Iima and Nobuo Sannomiya. Genetic algorithm for a large-scale scheduling problem in an electric wire production process. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1784, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [146] Mark Jelasity. The adaptationist stance and evolutionary computation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1859–1864, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [147] Yong-Gun Jo and Hoon Kang. Evolutionary cellular automata for optimal path planning of mobile robots. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1443, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [148] Maria John, David Panton, and Kevin White. Genetic algorithm for regional surveillance. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1573–1579, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [149] Bryant A. Julstrom. Redundant genetic encodings may not be harmful. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 791, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [150] Tatiana Kalganova, Julian F. Miller, and Terence C. Fogarty. Evolution of the digital circuits with variable layouts. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1235, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [151] Ilkka Karanta, Topi Mikkola, Catherine Bounsaythip, Olli Jokinen, and Juha Savola. Solving wood collection problem using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1787, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [152] Hillol Kargupta and Kakali Sarkar. Function induction, gene expression, and evolutionary representation construction. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 313–320, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [153] Charles L. Karr and Ken Borgelt. Modeling a grinding circuit using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1785, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [154] Charles L. Karr and Barry Weck. Solutions to systems of nonlinear equations via genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1786, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [155] J. Kaschel, Gunnar Kobernik, Bernd Meier, and Tobias Teich. Genetic algorithm, avoiding of deadlocks and gantt-chart-generation for the job shop scheduling problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E.

- Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 792, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [156] Kengo Katayama and Hiroyuki Narihisa. Iterated local search approach using genetic transformation to the traveling salesman problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 321–328, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [157] Edward Keedwell, Ajit Narayanan, and Dragan Savic. Using genetic algorithms to extract rules from trained neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 793, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [158] Maarten Keijzer and Vladan Babovic. Dimensionally aware genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1069–1076, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [159] Robert E. Keller and Wolfgang Banzhaf. The evolution of genetic code in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1077–1082, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [160] Claire J. Kennedy and Christophe Giraud-Carrier. A depth controlling strategy for strongly typed evolutionary programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 879–885, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [161] Cathy Key. Non-reciprocal altruism and the evolution of paternal care. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1313–1320, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [162] Brig Klyce. In real or artificial life, is evolutionary progress in a closed system possible? In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1444, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [163] Joshua Knowles, David Corne, and Martin Oates. A new evolutionary approach to the degree constrained minimum spanning tree problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 1, page 794, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [164] Gary J. Koehler. Computing simple ga expected waiting times. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 795, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [165] Gabriella Kokai, Zoltan Toth, and Robert Vanyi. Generic evolution algorithms programming library. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1867, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [166] Gabriella Kokai, Robert Vanyi, and Zoltan Toth. Parametric l-system description of the retina with combined evolutionary operators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1588–1595, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [167] Stephan Kopp, Henning S. Mortveit, and Christian M. Reidys. Sequential dynamical systems and simulation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1445, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [168] Tim Kovacs. Deletion schemes for classifier systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 329–336, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [169] John R. Koza, Martin A. Keane, Forrest H Bennett III, Jessen Yu, William Mydlowec, and Oscar Stiffelman. Searching for the impossible using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1083–1091, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [170] Natalio Krasnogor, William E. Hart, Jim Smith, and David A. Pelta. Protein structure prediction with evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1596–1601, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [171] Thiemo Krink, Brian H. Mayoh, and Zbigniew Michalewicz. A patchwork model for evolutionary algorithms with structured and variable size populations. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1321–1328, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [172] Sourav Kundu. Complexity engineering, evolution and optimality of structures. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 796, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [173] W. B. Langdon. Size fair and homologous tree genetic programming crossovers. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1092–1097, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [174] A. E. Langham and P. W. Grant. A multilevel k-way partitioning algorithm for finite element meshes using competing ant colonies. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1602–1608, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [175] Pier Luca Lanzi. Extending the representation of classifier conditions part i: From binary to messy coding. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 337–344, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [176] Pier Luca Lanzi and Marco Colombetti. An extension to the xcs classifier system for stochastic environments. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and*

- Evolutionary Computation Conference, volume 1, pages 353–360, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [177] Pier Luca Lanzi and Alessandro Perrucci. Extending the representation of classifier conditions part ii: From messy coding to s-expressions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 345–352, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [178] Chang-Yong Lee and Yoonseon Song. Evolutionary programming using the levy probability distribution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 886–893, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [179] Joo-Young Lee and Sung-Bae Cho. Incorporating human preference into content-based image retrieval using interactive genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 2, page 1788, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [180] Patricio Lerena and Michele Courant. Complexity in mate choice. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1446, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [181] James R. Levenick. Swappers: Introns promote flexibility, diversity and invention. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 361–368, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [182] Y. Li, K. F. Man, and K. S. Tang. Multiobjective genetic algorithm for rolling-horizon production planning. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1789, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [183] Ik Soo Lim and Daniel Thalmann. How not to be a black-box: Evolution and genetic-engineering of high-level behaviours. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1329–1335, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [184] Wen-Yang Lin. Improving parallel ordering of sparse matrices using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1790, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [185] Daniel H. Loughlin and S. Ranji Ranjithan. Chance-constrained genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 369–376, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [186] Sushil J. Louis and Rilun Tang. Interactive genetic algorithms for the traveling salesman problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 385–392, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [187] Sushil J. Louis and Yongmian Zhang. A sequential similarity metric for case injected genetic algorithms applied to tsps. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 377–384, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [188] Sean Luke, Shugo Hamahashi, and Hiroaki Kitano. "genetic" programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1098–1105, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [189] C. C. Maley. Four steps toward open-ended evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1336– 1343, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [190] Elena Marchiori and Claudio Rossi. A flipping genetic algorithm for hard 3-sat problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 393–400, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [191] Carlos E. Mariano and Eduardo Morales M. Moaq an ant-q algorithm for multiple objective optimization problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 894–901, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [192] Jesus Marin and Ricard V. Sole. Evolutionary optimization through extinction dynamics. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1344–1349, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [193] Robert E. Marks, David F. Midgley, Lee G. Cooper, and G. M. Shiraz. Coevolution with the genetic algorithm: Repeated differentiated oligopolies. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1609– 1615, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [194] Lionel Martin, Frederic Moal, and Christel Vrain. Declarative expression of biases in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 401–408, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [195] Dirk C. Mattfeld. Scalable search spaces for scheduling problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1616–1621, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [196] Craig Mautner and Richard K. Belew. Coupling morphology and control in a simulated robot. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1350–1357, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [197] Bruce Maxwell and Sven Anderson. Training hidden markov models using population-based learning. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary*

- Computation Conference, volume 1, page 944, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [198] Ben McKay, Mark Willis, Dominic Searson, and Gary Montague. Non-linear continuum regression using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1106–1111, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [199] Nicholas Freitag McPhee and Nicholas J. Hopper. Analysis of genetic diversity through population history. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1112–1120, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [200] Ole J. Mengshoel and David E. Goldberg. Probabilistic crowding: Deterministic crowding with probabilistic replacement. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, pages 409–416, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [201] Peter Merz and Bernd Freisleben. Genetic algorithms for binary quadratic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 417–424, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [202] Mark M. Meysenburg and James A. Foster. Random generator quality and gp performance. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1121–1126, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [203] Mark M. Meysenburg and James A. Foster. Randomness and ga performance, revisited. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 425–432, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [204] Victor V. Miagkikh and William F. Punch III. An approach to solving combinatorial optimization problems using a population of reinforcement learning agents. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1358–1365, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [205] Julian F. Miller. Digital filter design at gate-level using evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1127–1134, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [206] Julian F. Miller. An empirical study of the efficiency of learning boolean functions using a cartesian genetic programming approach. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1135–1142, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [207] Cristina Mota, Heitor Ferreira, and Agostinho Rosa. Independent and simultaneous evolution of fuzzy sleep classifiers by genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1622–1629, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [208] Rida E. Moustafa, Kenneth A. De Jong, and Edward J. Wegman. Using genetic algorithms for adaptive function approximation and mesh generation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 798, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [209] Masaharu Munetomo and David E. Goldberg. Identifying linkage groups by nonlinearity/non-monotonicity detection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 433-440, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [210] Tadahiko Murata, Hisao Ishibuchi, and Mitsuo Gen. Specification of local search directions in genetic local search algorithms for multi-objective optimization problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 441–448, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [211] Jorge Muruzabal. Mining the space of generality with uncertainty-concerned cooperative classifiers. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 449–457, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [212] James W. Myers, Kathryn B. Laskey, and Kenneth A. DeJong. Learning bayesian networks from incomplete data using evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings* of the Genetic and Evolutionary Computation Conference, volume 1, pages 458–465, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [213] Mori Naoki and Kita Hajime. The entropy evaluation method for the thermodynamical selection rule. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 799, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [214] Bart Naudts and Adriaan Schippers. A motivated definition of exploitation and exploration. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 800, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [215] Georges Nault, Vincent Rialle, and Jean-Guy Meunier. Progen: a genetic-based semi-automatic hypertext construction tool-first steps and experiment. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1630–1635, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [216] Pedro Luis Kantek Garcia Navarro, Pedro P. B. de Oliveira, Fernando M. Ramos, and Haroldo F. Campos-Velho. Magnetotelluric inversion using problem-specific genetic operators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1580–1587, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [217] Ana Neves, Arlindo Silva, and Ernesto Costa. Evolutionary path planning for nonholonomic robots. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 466–472, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [218] Jose Neves, Miguel Rocha, Hugo Rodrigues, Miguel Biscaia, and Jose Alves. Adaptive strategies and the design of evolutionary applications. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 473–479, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [219] Fernando Niao, German Hernandez, and Dipankar Dasgupta. On evolution of stochastic dynamical neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, page 801, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [220] Akio Nishikawa, Masami Hagiya, and Masayuki Yamamura. Virtual dna simulator and protocol design by ga. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1810–1816, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [221] Martin Oates, David Corne, and Roger Loader. Variation in ea performance characteristics on the adaptive distributed database management problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 480–487, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [222] Shigeru Obayashi, Daisuke Sasaki, and Yukihiro Takeguchi. Evolutionary computation of supersonic wing shape optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1791, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [223] Gabriela Ochoa, Inman Harvey, and Hilary Buxton. On recombination and optimal mutation rates. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 488–495, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [224] Mitsunori Ogihara. Relating the minimum model for dna computation and boolean circuits. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1817–1821, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [225] Jae C. Oh. Effects of "physical body" on biased opponent selection in the iterated prisoner's dilemma game. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1447, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [226] Gustavo Olague. Analysis of genetic algorithms convergence applied to mensuration problems in computer vision. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1792, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [227] Bjorn Olsson. Using evolutionary algorithms in the design of protein fingerprints. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1636–1642, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [228] Michael O'Neill and Conor Ryan. Under the hood of grammatical evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1143–1148, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [229] Isao Ono, Hajime Kita, and Shigenobu Kobayashi. A robust real-coded genetic algorithm using unimodal normal distribution crossover augmented by uniform crossover: Effects of self-adaptation of crossover probabilities. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 496–503, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [230] David W. Opitz. An evolutionary approach to feature set selection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, page 803, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [231] David W. Opitz, Subhash C. Basak, and Brian D. Gute. Hazard assessment modeling: An evolutionary ensemble approach. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1643–1650, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [232] Franz Oppacher and Mark Wineberg. The shifting balance genetic algorithm: Improving the ga in a dynamic environment. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 504–510, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [233] Mihaela Oprea and Stephanie Forrest. How the immune system generates diversity: Pathogen space coverage with random and evolved antibody libraries. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1651–1656, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [234] Andreas Ostermeier and Nikolaus Hansen. An evolution strategy with coordinate system invariant adaptation of arbitrary normal mutation distributions within the concept of mutative strategy parameter control. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 902–909, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [235] Paolo Palazzari and Moreno Coli. Evolving probabilistic chromosomes in genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 511–518, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [236] Gary B. Parker and Jonathan W. Mills. Adaptive hexapod gait control using anytime learning with fitness biasing. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 519–524, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [237] Ian C. Parmee and Andrew H. Watson. Preliminary airframe design using co-evolutionary multiobjective genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1657–1665, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [238] A. Pazos, J. Pazos, and Alfonso R. Paton. Dna assembly and recombination for hamiltonian paths and binary words. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1822–1824, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [239] Alejandro Pazos, A. Santos del Riego, Julian Dorado, and J. J. Romero Cardalda. Adaptive aspects of rhythmic composition: Genetic music. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1794, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [240] Alejandro Pazos, Julian Dorado, Antonino Santos, and Juan Ramon Rabunal. Optimization of ga parameters to train recurrent ann through weight adjustment and selection of activation functions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1793, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [241] Martin Pelikan, David E. Goldberg, and Erick Cantu-Paz. Boa: The bayesian optimization algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 525–532, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [242] Angela Guimaraes Pereira. Road design by evolutionary modelling of routes. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1778, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [243] Francisco B. Pereira, Penousal Machado, Ernesto Costa, and Amilcar Cardoso. Graph based crossover-a case study with the busy beaver problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1149–1155, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [244] Simon Perkins. Evolving effective visual tracking through shaping. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1156–1161, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [245] Mathieu Perrenoud, Marco Tomassini, Moshe Sipper, and Mose Zolla. Evolving high-quality random number generators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 804, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [246] A. Petrowski and S. Ben Hamida. A logarithmic mutation operator to solve constrained optimization problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 805, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [247] Andrzej J. Pindor. Using genetic algorithm to manipulate polynomial expressions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1666–1671, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [248] V. P. Plagianakos and M. N. Vrahatis. Training neural networks with 3-bit integer weights. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar,

- Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 910–915, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [249] Hartmut Pohlheim. Visualization of evolutionary algorithms set of standard techniques and multidimensional visualization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, pages 533–540, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [250] Hartmut Pohlheim and Adolf Heissner. Optimal control of greenhouse climate using real-world weather data and evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1672–1677, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [251] Hartmut Pohlheim and Joachim Wegener. Testing the temporal behavior of real-time software modules using extended evolutionary algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1795, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [252] Riccardo Poli. Schema theorems without expectations. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 806, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [253] Riccardo Poli, Jonathan Page, and W. B. Langdon. Smooth uniform crossover, sub-machine code gp and demes: A recipe for solving high-order boolean parity problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1162–1169, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [254] Josiah Poon. Problem solving: Search, exploration and co-evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 541–548, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [255] Mark A. Porter, Mark J. Willis, and Gary A. Montague. Modelling antibiotic production using standard and sequential hybridised symbolic annealing. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1796, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [256] Dilip Kumar Pratihar, Kalyanmoy Deb, and Amitabha Ghosh. Design of a genetic-fuzzy system for planning optimal path and gait simultaneously of a six-legged robot. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1678–1684, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [257] Joao Carlos Figueira Pujol and Riccardo Poli. Evolution of neural networks using weight mapping. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1170–1177, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [258] Sheel Punya and Brahma Deo. Prediction of silicon content of hot metal using fuzzy-ga regression. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1685–1690, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [259] Amr Radi and Riccardo Poli. Evolutionary discovery of learning rules for feedforward neural networks with step activation function. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1178–1183, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [260] Anne M. Raich and Jamshid Ghaboussi. Frame design synthesis using implicit redundant genetic algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1691–1698, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [261] Gunther R. Raidl. An evolutionary approach to point-feature label placement. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 807, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [262] Soraya Rana. The distributional biases of crossover operators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 549–556, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [263] Andreas Rechsteiner and Mark A. Bedau. A generic neutral model for measuring excess evolutionary activity of genotypes. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 2, pages 1366–1373, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [264] Fengrong Ren, Hiroshi Tanaka, Toshitsugu Okayama, and Takashi Gojobori. Reconstructing molecular phylogenetic tree with multifurcation by using minimum complexity principle. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1825–1828, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [265] Alberto Ochoa Rodriguez. Finding wavelet packet bases with an estimation distribution algorithm. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 802, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [266] John A. Rose, Russell J. Deaton, Donald R. Franceschetti, Max Garzon, and S. Edward Stevens Jr. A statistical mechanical treatment of error in the annealing biostep of dna computation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1829–1834, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [267] Alejandro Rosete-Suarez, Alberto Ochoa-Rodriguez, and Michele Sebag. Automatic graph drawing and stochastic hill climbing. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1699–1706, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [268] Brian J. Ross. Logic-based genetic programming with definite clause translation grammars. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1236, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [269] Jonathan E. Rowe. Finding attractors for periodic fitness functions. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 557–563, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [270] Mark Ryan, Justin Debuse, George Smith, and Ian Whittley. A hybrid genetic algorithm for the fixed channel assignment problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1707–1714, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [271] Vivian Salim. Genetic algorithms in road investment planning with computational comparisons to simulated annealing and heuristics. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 808, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [272] Ayed A. Salman, Kishan Mehrotra, and Chilukuri K. Mohan. Linkage crossover for genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 564–571, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [273] Rafal P. Salustowicz and Jurgen Schmidhuber. Sequence learning through pipe and automatic task decomposition. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1184–1191, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [274] Jayshree Sarma and Kenneth De Jong. The behavior of spatially distributed evolutionary algorithms in non-stationary environments. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 572–578, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [275] Hidefumi Sawai and Susumu Adachi. Parallel distributed processing of a parameter-free hierarchical migration methods. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 579–586, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [276] Shaun Saxon and Alwyn Barry. Xcs and the monk's problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 809, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [277] Ralf Schleiffer and Hans-Jurgen Sebastian. A fuzzy neighborhood based ga in fuzzy engineering design. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1797, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [278] Nicola Senin, David R. Wallace, and Nick Borland. Object-based design modeling and optimization with genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1715–1722, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [279] Franciszek Seredynski and Cezary Z. Janikow. Designing cellular automata-based scheduling algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant

- Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 587–594, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [280] James G. Shanahan, James F. Baldwin, and Trevor P. Martin. Constructive induction of fuzzy cartesian granule feature models using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1237, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [281] Oliver Sharpe. Continuing beyond nfl: Dissecting real world problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 595–602, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [282] Oliver Sharpe. Persistence, search and autopoiesis. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1374–1381, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [283] Sotaro Shimada and Yuichiro Anzai. Fast and robust convergence of chained classifiers by generating operons through niche formation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 810, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [284] Hisashi Shimodaira. A diversity control oriented genetic algorithm (dcga): Development and experimental results. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 603–611, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [285] Arlindo Silva, Ana Neves, and Ernesto Costa. Genetically programming networks to evolve memory mechanisms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1448, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [286] Anabela Borges Simoes and Ernesto Costa. Transposition versus crossover: An empirical study. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 612–619, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [287] Mark C. Sinclair. Optical mesh network topology design using node-pair encoding genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1192–1197, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [288] Charles E. Smith. An application of genetic programming to investment system optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1798, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [289] Hiroshi Someya and Masayuki Yamamura. A genetic algorithm without parameters tuning and its application on the floorplan design problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 620–627, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [290] Geum-Beom Song and Sung-Bae Cho. Adaptive behavior of incrementally evolved neural networks based on cellular automata. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1449, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [291] Terence Soule. Voting teams: A cooperative approach to non-typical problems using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 916–922, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [292] A. Spalanzani, S. A. Selouani, and H. Kabre. Evolutionary algorithms for optimizing speech data projection. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1799, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [293] Louis Steinberg and Khaled Rasheed. Optimization by searching a tree of populations. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1723–1730, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [294] C. R. Stephens. Effect of mutation and recombination on the genotype-phenotype map. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1382–1389, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [295] Richard Stewart and Paul L. Rosin. Neural network construction using voronoi dissections. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 811, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [296] Adrian Stoica, Carlos-Salazar Lazaro, Didier Keymeulen, and Ken Hayworth. Evolution of cmos circuits in simulations and directly in hardware on a programmable chip. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1198–1203, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [297] David Sturgill and Gautam Pant. Evaluation criteria for genetically-tuned problem-solving experts. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1390–1397, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [298] Koji Sugai. Stochastic evolution on the hierarchical population. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 628–634, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [299] Yasuhiro Suzuki and Hiroshi Tanaka. Practical and theoretical investigation of a collective work. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, page 1450, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [300] Stephen Swift and Xiaohui Liu. Modelling and forecasting of glaucomatous visual fields using genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and*

- Evolutionary Computation Conference, volume 2, pages 1731–1737, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [301] Keiki Takadama, Takao Terano, and Katsunori Shimohara. How to design good learning agents in organization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1398–1405, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [302] Eiichi Takahashi, Masahiro Murakawa, Kenji Toda, and Tetsuya Higuchi. An evolvable-hardware-based clock timing architecture towards gigahz digital systems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1204–1210, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [303] Hugo Terashima-Marin, Peter Ross, and Manuel Valenzuela-Rendon. Evolution of constraint satisfaction strategies in examination timetabling. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 635–642, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [304] Dirk Thierens. Estimating the significant non-linearities in the genome problem-coding. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 643–648, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [305] Yajie Tian, Nobuo Sannomiya, and Toru Yokokura. A simulation study on adaptive behavior of fish schools under environmental variation. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1451, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [306] David S. Todd and Pratyush Sen. Directed multiple objective search of design spaces using genetic algorithms and neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1738–1743, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [307] Andy Tomlinson and Larry Bull. On corporate classifier systems: Increasing the benefits of rule linkage. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 649–656, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [308] Adrian Trenaman. Further investigations into the evolution of agents with concurrent genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1452, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [309] Shigeyoshi Tsutsui, Masayuki Yamamura, and Takahide Higuchi. Multi-parent recombination with simplex crossover in real coded genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 657–664, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [310] Allan Tucker and Xiaohui Liu. Extending evolutionary programming methods to the learning of dynamic bayesian networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic*

- and Evolutionary Computation Conference, volume 1, pages 923–929, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [311] Eiji Uchibe, Masateru Nakamura, and Minoru Asada. Cooperative and competitive behavior acquisition for mobile robots through co-evolution. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1406–1413, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [312] Kimitaka Uno and Akira Namatame. Evolutionary behaviors emerged through strategic interactions in the large. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1414–1421, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [313] Christine L. Valenzuela. Evolutionary divide and conquer (ii) for the tsp. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1744–1749, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [314] Edgar E. Vallejo and Fernando Ramos. Result-sharing: A framework for cooperation in genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1238, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [315] S. van Dijk, D. Thierens, and M. de Berg. On the design of genetic algorithms for geographical applications. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 188–195, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [316] Kanta Vekaria and Chris Clack. Biases introduced by adaptive recombination operators. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 670–677, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [317] Mark S. Voss and Christopher M. Foley. Evolutionary algorithm for structural optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 678–685, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [318] Dana Vrajitoru. Genetic programming operators applied to genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 686–693, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [319] Nicolaas J. Vriend. The difference between individual and population genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 812, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [320] Kyle Wagner. Habitat, communication and cooperative strategies. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 694–701, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.

- [321] Reginald L. Walker. Assessment of the web using genetic programming. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1750–1755, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [322] Richard Walker and Orazio Miglino. Simulating exploratory behavior in evolving neural networks. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1422–1428, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [323] Paul Walsh. A functional style and fitness evaluation scheme for inducting high level programs. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1211–1216, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [324] Hirokazu Watabe and Tsukasa Kawaoka. Solving combinatorial optimization problems with multi-step genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, page 813, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [325] Jean-Paul Watson. A performance assessment of modern niching methods for parameter optimization problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 702–709, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [326] Richard A. Watson and Jordan B. Pollack. Incremental commitment in genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 710–717, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [327] Gary M. Weiss. Timeweaver: a genetic algorithm for identifying predictive patterns in sequences of events. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 718–725, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [328] Tony White and Bernard Pagurek. Application oriented routing with biologically-inspired agents. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1453, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [329] D. Whitley. A free lunch proof for gray versus binary encodings. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 1, pages 726–733, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [330] Kenneth P. Williams and Shirley A. Williams. Two evolutionary representations for automatic parallelization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, pages 1429–1436, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [331] Kit Po Wong, Jason Yuryevich, and An Li. Evolutionary programming based method for evaluation of power flow. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and*

- Evolutionary Computation Conference, volume 2, pages 1756–1761, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [332] David Wood, Junghuei Chen, Eugene Antipov Bertrand Lemieux, and Walter Cedeno. A dna implementation of the max 1s problem. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1835–1842, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [333] Alden H. Wright and Yong Zhao. Markov chain models of genetic algorithms. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 734–741, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [334] Congjun Yang, Dipankar Dasgupta, and Yuehua Cao. A group encoding technique for set partitioning problems. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 742–749, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [335] Jihoon Yang, Asok Tiyyagura, Fajun Chen, and Vasant Honavar. Feature subset selection for rule induction using ripper. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 2, page 1800, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [336] Jinn-Moon Yang and Cheng-Yan Kao. An evolutionary algorithm for continuous global optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic and Evolutionary Computation Conference*, volume 1, pages 930–938, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [337] John Yen, Linyu Yang, Bogju Lee, and James C. Liao. A supervisory simplex-ga approach for metabolic model optimization. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, pages 750–757, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [338] Takahiro Yoshimi and Toshiharu Taura. A computational model of a viewpoint-forming process in a hierarchical classifier system. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, pages 758–766, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [339] Mohamed M. Zahran, Ashraf H. Abdel Wahab, and Samir I. Shaheen. Adaptive genetic algorithm for multiprocessor scheduling. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, *Proceedings of the Genetic* and Evolutionary Computation Conference, volume 1, page 814, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [340] Byoung-Tak Zhang and Je-Gun Joung. Genetic programming with incremental data inheritance. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1217–1224, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.
- [341] Eckart Zitzler, Jurgen Teich, and Shuvra S. Bhattacharyya. Evolutionary algorithm based exploration of software schedules for digital signal processors. In Wolfgang Banzhaf, Jason Daida, Agoston E. Eiben, Max H. Garzon, Vasant Honavar, Mark Jakiela, and Robert E. Smith, editors, Proceedings of the Genetic and Evolutionary Computation Conference, volume 2, pages 1762–1770, Orlando, Florida, USA, 13-17 July 1999. Morgan Kaufmann.