## Список литературы

- David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors. *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*. IEEE Press, 2002.
- [] Andrew Meade, David Corne, and Richard Sibly. Discovering patterns in microsatellite flanks with evolutionary computation by evolving discriminatory dna motifs. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1–6. IEEE Press, 2002.
- Stevan J. Anastasoff. The presence of old alus in gc-rich regions of the human genome a genetic algorithm perspective. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 7–12. IEEE Press, 2002.
- Dan Ashlock, Andrew Wittrock, and Tsui-Jung Wen. Training finite state machines to improve pcr primer design. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 13–18. IEEE Press, 2002.
- [] Naoki Matsumaru, Silvano Colombano, and Klaus-Peter Zauner. Scouting enzyme behavior. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 19–24. IEEE Press, 2002.
- [] Gary G. Yen and Haiming Lu. Hierarchical rank density genetic algorithm for radial-basis function neural network design. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 25–30. IEEE Press, 2002.
- [] K. C. Tan, K. Sengupta, T. H. Lee, and R. Sathikannan. Autonomous registration of disparate spatial data via an evolutionary algorithm toolbox. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 31–36. IEEE Press, 2002.
- [] Robert Thomson and Tughrul Arslan. An evolutionary algorithm for the multi-objective optimisation of vlsi primitive operator filters. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 37–42. IEEE Press, 2002.
- Justin Gan and Kevin Warwick. Modelling niches of arbitrary shape in genetic algorithms using niche linkage in the dynamic niche clustering framework. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 43–48. IEEE Press, 2002.
- Jianjun Hu and Erik D. Goodman. The hierarchical fair competition (hfc) model for parallel evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 49–54. IEEE Press, 2002.
- [] Stefan Droste. Analysis of the (1+1) ea for a dynamically changing onemax-variant. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 55–60. IEEE Press, 2002.
- [] Kalyanmoy Deb, Dhiraj Joshi, and Ashish Anand. Real-coded evolutionary algorithms with parent-centric recombination. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 61–66. IEEE Press, 2002.

- Vic Ciesielski and Dylan Mawhinney. Prevention of early convergence in genetic programming by replacement of similar programs. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 67–72. IEEE Press, 2002.
- [] Fumiaki Tanaka, Masashi Nakatsugawa, Masahito Yamamoto, Toshikazu Shiba, and Azuma Ohuchi. Towards a general-purpose sequence design system in dna computing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 73–78. IEEE Press, 2002.
- [] Soo-Yong Shin, Dong-Min Kim, In-Hee Lee, and Byoung-Tak Zhang. Evolutionary sequence generation for reliable dna computing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 79–84. IEEE Press, 2002.
- [] Masahito Yamamoto, Atsushi Kameda, Nobuo Matsuura, Toshikazu Shiba, and Azuma Ohuchi. Simulation analysis of hybridization process for dna computing with concentration control. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 85–90. IEEE Press, 2002.
- [] Masashi Nakatsugawa, Masahito Yamamoto, Toshikazu Shiba, and Azuma Ohuchi. Design of a per protocol for improving reliability of per in dna computing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 91–96. IEEE Press, 2002.
- [] Lino Costa and Pedro Oliveira. An evolution strategy for multiobjective optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 97–102. IEEE Press, 2002.
- David J. Caswell and Gary B. Lamont. Wire-antenna geometry design with multiobjective genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 103–108. IEEE Press, 2002.
- [] Krzysztof Socha and Marek Kisiel-Dorohinicki. Agent-based evolutionary multiobjective optimisation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 109–114. IEEE Press, 2002.
- W. Pullan. Optimising multiple aspects of network survivability. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 115–120. IEEE Press, 2002.
- René Thomsen, Gary B. Fogel, and Thiemo Krink. A clustal alignment improver using evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 121–126. IEEE Press, 2002.
- [] Richard O. Day, Jesse B. Zydallis, Gary Lamont, and Ruth Pachter. Analysis of fine granularity and building block sizes in the parallel fast messy ga. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 127–132. IEEE Press, 2002.

- [] Jem J. Rowland and Janet Taylor. Adaptive denoising in spectral analysis by genetic programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 133–138. IEEE Press, 2002.
- [] L. Gwenn Volkert. Levels of adaptation: Insights into survival in dynamic environments. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 139–144. IEEE Press, 2002.
- [] Claus N. Bendtsen and Thiemo Krink. Dynamic memory model for non-stationary optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 145–150. IEEE Press, 2002.
- Sibylle D. Mueller, Nicol N. Schraudolph, and Petros D. Koumoutsakos. Step size adaptation in evolution strategies using reinforcement learning. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 151–156. IEEE Press, 2002.
- Janet Wiles and Bradley Tonkes. Visualisation of hierarchical cost surfaces for evolutionary computing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 157–162. IEEE Press, 2002.
- [] Seung-Ik Lee and Sung-Bae Cho. Measuring evolvability in evolutionary robotics. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 163–168. IEEE Press, 2002.
- [] Kwok Ching Tsui and Jiming Liu. Evolutionary diffusion optimization, part i: Description of the algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 169–174. IEEE Press, 2002.
- [] Ana Madureira, Carlos Ramos, and Si'lvio do Carmo Silva. A coordination mechanism for real world scheduling problems using genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 175–180. IEEE Press, 2002.
- Janusz Kacprzyk and Grazyna Szkatula. An integer programming approach to inductive learning using genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 181–186. IEEE Press, 2002.
- [] Walker H. Land, Jr., Margaret Bryden, Daniel W. McKee, Joseph Y. Lo, and Frances R. Anderson. Performance tradeoff between evolutionary computation (ec)/adaptive boosting (ab) hybrid and support vector machine breast cancer classification paradigms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 187–192. IEEE Press, 2002.
- [] Michael Watts, Louise Major, and Warren Tate. Evolutionary optimisation of mlp for modeling protein synthesis termination signal efficiency. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 193–198. IEEE Press, 2002.
- Dana Landavazo and Gary B. Fogel. Evolved neural networks for quantitative structure-activity relationships of anti-hiv compounds. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 199–204. IEEE Press, 2002.

- Nicholas Geard, Janet Wiles, Jennifer Hallinan, Bradley Tonkes, and Ben Skellett. A comparison of neutral landscapes nk, nkp and nkq. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 205–210. IEEE Press, 2002.
- Nicholas Geard and Janet Wiles. Diversity maintenance on neutral landscapes an argument for recombination. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 211–213. IEEE Press, 2002.
- [] Alden H. Wright, Jonathan E. Rowe, and James R. Neil. Analysis of the simple genetic algorithm on the single-peak and double-peak landscapes. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 214–219. IEEE Press, 2002.
- [] Hyeon-Kuk Jeong and Se-Young Oh. Evolutionary programming integrating 3-generation based mutation and local competition based selection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 220–224. IEEE Press, 2002.
- [] Fredrik Lindblad, Peter Nordin, and Krister Wolff. Evolving 3D model interpretation of images using graphics hardware. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 225–230. IEEE Press, 2002.
- Ivanoe De Falco, Antonio Della Cioppa, and Ernesto Tarantino. Unsupervised spectral pattern recognition for multispectral images by means of a genetic programming approach. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 231–236. IEEE Press, 2002.
- [] Takaya Yuizono, Yu Wang, Kiminori Satoh, and Shigeru Nakayama. Study on individual recognition for ear images by using genetic local search. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 237–242. IEEE Press, 2002.
- [] Andy Song, Vic Ciesielski, and Hugh Williams. Texture classifiers generated by genetic programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 243–248. IEEE Press, 2002.
- [] Manuel Clergue and Philippe Collard. Ga-hard functions built by combination of trap functions. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 249–254. IEEE Press, 2002.
- Thilo Mahnig and Heinz Muehlenbein. A comparison of stochastic local search and population based search. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 255–260. IEEE Press, 2002.
- Nam Geun Kim, Jin M. Won, Jin S. Lee, and S. W. Kim. Local convergence rate of evolutionary algorithm with combined mutation operator. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 261–266. IEEE Press, 2002.
- [] Makoto Iwashita and Hitoshi Iba. Island model gp with immigrants aging and depth-dependent crossover. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 267–272. IEEE Press, 2002.

- Jason M. Daida. Limits to expression in genetic programming: Lattice-aggregate modeling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 273–278. IEEE Press, 2002.
- [] Thomas Philip Runarsson and Xin Yao. Continuous selection and self-adaptive evolution strategies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 279–284. IEEE Press, 2002.
- [] Moritoshi Yasunaga, Kentaro Ushiyama, Hidetoshi Fujiwara, Ikuo Yoshihara, Jung H. Kim, and Noriyuki Aibe. An evolutionary kernel-based reasoning system using reconfigurable vlsis: Its hardware prototyping and application to the splicing boundary problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 285–290. IEEE Press, 2002.
- [] Shin Ando, Hitoshi Iba, and Erina Sakamoto. Modeling genetic network by hybrid gp. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 291–296. IEEE Press, 2002.
- Juan Liu and Hitoshi Iba. Selecting informative genes using a multiobjective evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 297–302. IEEE Press, 2002.
- [] Isao Ono, Hiroshi Fujiki, Masaki Ootsuka, Naoto Nakashima, Norihiko Ono, and Shinichi Tate. Global optimization of protein 3-dimensional structures in nmr by a genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 303–308. IEEE Press, 2002.
- [] H. D. Nguyen, I. Yoshihara, K. Yamamori, and M. Yasunaga. A parallel hybrid genetic algorithm for multiple protein sequence alignment. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 309–314. IEEE Press, 2002.
- [] Shinji Chiba and Ken Sugawara. Estimation of protein function with an evolutionary dictionary. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 315–320. IEEE Press, 2002.
- [] Shingo Mabu, Kotaro Hirasawa, Jinglu Hu, and Junichi Murata. Online learning of genetic network programming (gnp). In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 321–326. IEEE Press, 2002.
- [] Joset A. Etzel. "marigolds:"an evolutionary algorithm simulation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 327–332. IEEE Press, 2002.
- [] C. M. Jonker, A. P. G. de Kock, J. Meijer, and B. J. Vermeulen. Deliberate evolution agents: Comparing reproduction strategies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 333–338. IEEE Press, 2002.
- [] Fu-Shiung Hsieh. Design of evolvable manufacturing processes. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 339–344. IEEE Press, 2002.

- [] Christophe Cambier, Marie Piron, and Alain Cardon. Self-adaptive systems using a massive multi-agent system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 345–350. IEEE Press, 2002.
- [] Ahmad Al-Yamani, Sadiq M. Sait, and Hassan R. Barada. Hpts: Heterogeneous parallel tabu search for vlsi placement. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 351–355. IEEE Press, 2002.
- [] Koh Giok Khoo and Ponnuthurai Nagaratnam Suganthan. Objective function decomposition within genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 356–359. IEEE Press, 2002.
- [] Yasuhito Sano and Hajime Kita. Optimization of noisy fitness functions by means of genetic algorithms using history of search with test of estimation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 360–365. IEEE Press, 2002.
- V. Cutello, E. Mastriani, and F. Pappalardo. An evolutionary algorithm for the t-constrained variation of minimum hitting set problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 366–371. IEEE Press, 2002.
- [] Sadiq M. Sait, Mahmood R. Minhas, and Junaid A. Khan. Performance and low power driven vlsi standard cell placement using tabu search. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 372–377. IEEE Press, 2002.
- [] Sang-Keon Oh, Choon-Young Lee, and Ju-Jang Lee. A new distributed evolutionary algorithm for optimization in nonstationary environments. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 378–383. IEEE Press, 2002.
- [] Yun-Chia Liang, Sadan Kulturel-Konak, and Alice E. Smith. Meta heuristics for the orienteering problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 384–389. IEEE Press, 2002.
- [] Khaled Rasheed, Xiao Ni, and Swaroop Vattam. Comparison of methods for developing dynamic reduced models for design optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 390–395. IEEE Press, 2002.
- Brian Greer, Henri Hakonen, Risto Lahdelma, and Risto Miikkulainen. Numerical optimization with neuroevolution. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 396–401. IEEE Press, 2002.
- [] A. Cincotti, V. Cutello, and M. Pavone. Graph partitioning with genetic algorithms using odpx. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 402–406. IEEE Press, 2002.
- [] Kyung Joong Kim and Sung-Bae Cho. Evolving speciated checkers players with crowding algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 407–412. IEEE Press, 2002.

- Donald Sofge, Kenneth De Jong, and Alan Schultz. A blended population approach to cooperative coevolution for decomposition of complex problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 413–418. IEEE Press, 2002.
- [] Tapabrata Ray. Constrained robust optimal design using a multiobjective evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 419–424. IEEE Press, 2002.
- [] Rajeev Kumar, Prajna P. Parida, and Mohit Gupta. Topological design of communication networks using multiobjective genetic optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 425–430. IEEE Press, 2002.
- [] Anil Bahuman, Khaled Rasheed, and Benjamin Bishop. An evolutionary approach for vlsi standard cell design. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 431–436. IEEE Press, 2002.
- [] Keum sung Hwang and Sung bae Cho. Evolving diverse hardwares using speciated genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 437–442. IEEE Press, 2002.
- [] Chen-Chien Hsu, Wei-Yen Wang, and Chih-Yung Yu. Genetic algorithms-derived digital integrators and their applications in discretization of continuous systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 443–448. IEEE Press, 2002.
- [] Chin Kuan Ho, Yashwant Prasad Singh, and Sze Wei Lee. Enhancement of a genetic algorithm for optical orthogonal code design using simulated annealing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 449–453. IEEE Press, 2002.
- [] Hugo de Garis. Evolvability limits: A case study concerning the modular evolvable capacities (mecs) of a new neural net model for a second generation brain building machine bm2. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 454–459. IEEE Press, 2002.
- [] Jong-Ha Lee and Sung-Bae Cho. Analysis of direct manipulation in interactive evolutionary computation on fitness landscape. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 460–465. IEEE Press, 2002.
- Renato Reder Cazangi and Mauricio Figueiredo. Simultaneous emergence of conflicting basic behaviors and their coordination in an evolutionary autonomous navigation system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 466–471. IEEE Press, 2002.
- [] Yoichi Takenaka and Akihiro Hashimoto. Dna computing by competitive hybridization for maximum satisfiability problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 472–476. IEEE Press, 2002.

- [] Wu Bin, Zheng Yi, Liu Shaohui, and Shi Zhongzhi. Csim: A document clustering algorithm based on swarm intelligence. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 477–482. IEEE Press, 2002.
- [] Dong Hwa Kim, Won pyo Hong, and Jin ILL Park. Auto-tuning of reference based pid controller using immune algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 483–488. IEEE Press, 2002.
- Buthainah Al-kazemi and Chilukuri K. Mohan. Multi-phase generalization of the particle swarm optimization algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 489–494. IEEE Press, 2002.
- [] Alistair Sutcliffe, Wei-Chun Chang, and Richard Neville. Optimizing system requirements with evolutionary computation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 495–499. IEEE Press, 2002.
- [] Chunmiao Wang, Y. C. Soh, Han Wang, and Hui Wang. A hierarchical genetic algorithm for path planning in a static environment with obstacles. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 500–505. IEEE Press, 2002.
- [] Cheng-Fa Tsai, Chun-Wei Tsai, and Chi-Ping Chen. A novel multiple-searching genetic algorithm for multimedia multicast routing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 506–511. IEEE Press, 2002.
- [] Chen Wen and Russell C. Eberhart. Genetic algorithm for logistics scheduling problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 512–516. IEEE Press, 2002.
- Dipankar Dasgupta and Alexei Stoliartchouk. Evolving pc system hardware configurations. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 517–522. IEEE Press, 2002.
- [] Isamu Watanabe, Kenji Okada, Ken ichi Tokoro, and Shouichi Matsui. Adaptive multiagent model of electric power market with congestion management. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, Proceedings of the 2002 Congress on Evolutionary Computation CEC2002, pages 523–528. IEEE Press, 2002.
- [] Artemis Moroni, F. Von Zuben, J. Manzolli, and A. Mammana. Capturing human judgment to simulate objective function. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 529–534. IEEE Press, 2002.
- [] Julio Cesar Hernandez, Pedro Isasi, and Arturo Ribagorda. Easing collision finding in cryptographic primitives with genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 535–539. IEEE Press, 2002.
- [] Bahram Kimiaghalam, Abdollah Homaifar, Marwan Bikdash, and Bijan Sayyarrodsari. Genetic algorithm based gain scheduling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 540–545. IEEE Press, 2002.

- [] Yasuhiro Tsujimura, Mitsuo Gen, and Admi Syarif. Solving a nonlinear side constrained transportation problem by using spanning tree-based genetic algorithm with fuzzy logic controller. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 546–551. IEEE Press, 2002.
- [] Gerry Dozier. A comparison of adaptive virtual constraint identification strategies for recurrent dynamic constraint satisfaction. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 552–557. IEEE Press, 2002.
- [] Yuanxiang Li and Lishan Kang. Analysis of optimal trajectory on evolutionary algorithm and some control strategies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 558–563. IEEE Press, 2002.
- [] Eugene Eberbach. On expressiveness of evolutionary computation: Is ec algorithmic? In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 564–569. IEEE Press, 2002.
- [] Kai Willadsen and Janet Wiles. All binary representations are equal: but some are more equal than others. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 570–575. IEEE Press, 2002.
- [] P. Popela, J. Roupec, P. Osmera, and R. Matousek. The formal stochastic framework for comparison of genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 576–581. IEEE Press, 2002.
- [] A. E. Eiben and M. Jelasity. A critical note on experimental research methodology in ec. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 582–587. IEEE Press, 2002.
- [] Mark Coletti. A preliminary study of learnable evolution methodology implemented with c4. 5. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 588–593. IEEE Press, 2002.
- [] Shinn-Ying Ho, Chia-Cheng Liu, Soundy Liu, and Jun-Wen Jou. Design of an optimal nearest neighbor classifier using an intelligent genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 594–599. IEEE Press, 2002.
- James Watson and Janet Wiles. The rise and fall of learning: A neural network model of the genetic assimilation of acquired traits. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 600–605. IEEE Press, 2002.
- M. Watts and N. Kasabov. Evolutionary optimisation of evolving connectionist systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 606–610. IEEE Press, 2002.
- [] Miguel A. Guinea, Germa'n Gutierrez, Ine's Galvan, Araceli Sanchis, and Jose M. Molina. Generative capacities of grammars codification for evolution of nn architectures. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 611–616. IEEE Press, 2002.

- Pang Ki Kim, Prahlad Vadakkepat, Tong-Heng Lee, and Xiao Peng. Evolution of control systems for mobile robots. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 617–622. IEEE Press, 2002.
- [] A. v. E. Conradie, R. Mikkulainen, and C. Aldrich. Intelligent process control utilising symbiotic memetic neuro-evolution. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 623–628. IEEE Press, 2002.
- [] Sven E. Eklund. A massively parallel GP engine in VLSI. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 629–633. IEEE Press, 2002.
- [] S. Y. Chen and Y. F. Li. Optimum viewpoint planning for model-based robot vision. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 634–639. IEEE Press, 2002.
- [] Kunihiko MORI, Syougo Nishi, Takayasu Fuchida, and Sadayuki Murashima. Two dimensional resolution improvement of frame images by genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 640–645. IEEE Press, 2002.
- [] Adnan Acan. Reciprocal translocation with adaptive segment length. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 646–651. IEEE Press, 2002.
- [] Yong Liu and Xin Yao. How to control search step size in fast evolutionary programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 652–656. IEEE Press, 2002.
- [] Ambedkar Dukkipati and M. Narasimha Murty. Selection by parts: 'selection in two episodes' in evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 657–662. IEEE Press, 2002.
- [] Tadahiko Murata, Hiroyuki Nozawa, Yasuhiro Tsujimura, Mitsuo Gen, and Hisao Ishibuchi. Effect of local search on the performance of cellular multi-objective genetic algorithms for designing fuzzy rule-based classification systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 663–668. IEEE Press, 2002.
- Verena Hafner and Ralf Salomon. Evolving neural controllers for visual navigation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 669–674. IEEE Press, 2002.
- Dong Hwa Kim. Tuning of 2-dof pid controller by immune algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 675–680. IEEE Press, 2002.
- Jong-Wook Kim, Sang Woo Kim, PooGyeon Park, and Tae Joon Park. On the similarities between binary-coded ga and real-coded ga in wide search space. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 681–686. IEEE Press, 2002.

- [] Marco A. Janssen and Daniel W. Stow. An application of immunocomputing to the evolution of rules for ecosystem management. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 687–692. IEEE Press, 2002.
- [] Fernando Nino and Oscar Beltran. A change detection software agent based on immune mixed selection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 693–698. IEEE Press, 2002.
- [] Leandro N. de Castro and Jon Timmis. An artificial immune network for multimodal function optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 699–704. IEEE Press, 2002.
- [] Fabio Gonzalez, Dipankar Dasgupta, and Robert Kozma. Combining negative selection and classification techniques for anomaly detection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 705–710. IEEE Press, 2002.
- [] Joshua Knowles and David Corne. On metrics for comparing non-dominated sets. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 711–716. IEEE Press, 2002.
- [] Christine Valenzuela. A simple evolutionary algorithm for multi-objective optimization (seamo). In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 717–722. IEEE Press, 2002.
- [] Ali Farhang-Mehr and Shapour Azarm. Diversity assessment of pareto-optimal solution sets: An entropy approach. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 723–728. IEEE Press, 2002.
- [] T. Tassier, M. P. Everson, and D. Ostrowski. Agent-based models as a complement to economic theory: A durable goods example. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 729–734. IEEE Press, 2002.
- [] Mark P. Everson, Christophe G. E. Mangin, Cody Stumpo, JoAnn M. Schwartz, and David A. Ostrowski. Evaluating strategies for foreign exchange risk reduction. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 735–740. IEEE Press, 2002.
- [] D. Ostrowski, T. Tassier, M. P. Everson, and R. G. Reynolds. Using cultural algorithms to evolve strategies in agent-based models. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 741–746. IEEE Press, 2002.
- [] G. Schleis and M. Rizki. Learning from a random player using the reference neuron model. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 747–752. IEEE Press, 2002.
- Duncan Crutchley and Mark Zwolinski. Using evolutionary and hybrid algorithms for do operating point analysis of nonlinear circuits. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 753–758. IEEE Press, 2002.

- [] Charles L. Karr, Thomas A. Zeiler, and Rajiv Mehrotra. Determining critical gust loads on aircraft structures using an evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 759–764. IEEE Press, 2002.
- [] Ryuji Goto and Yuji Sato. Applicability of genetic algorithms to motion analysis of a moving object. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 765–770. IEEE Press, 2002.
- [] Zoran Stejic, Eduardo M. Iyoda, Yasufumi Takama, and Kaoru Hirota. Image similarity computation using local similarity patterns generated by genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 771–776. IEEE Press, 2002.
- [] Thomas Beielstein and Sandor Markon. Threshold selection, hypothesis tests, and doe methods. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 777–782. IEEE Press, 2002.
- Marcus Hutter. Fitness uniform selection to preserve genetic diversity. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 783–788. IEEE Press, 2002.
- [] Yong Liang and Kwong-Sak Leung. Two-way mutation evolution strategies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 789–794. IEEE Press, 2002.
- [] Hernan Aguirre and Kiyoshi Tanaka. Parallel varying mutation genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 795–800. IEEE Press, 2002.
- [] Luo Wenjian, Cao Xianbin, and Wang Xufa. An immune genetic algorithm based on immune regulation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 801–806. IEEE Press, 2002.
- [] Steve Cayzer and Uwe Aickelin. A recommender system based on the immune network. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 807–812. IEEE Press, 2002.
- Daryl Bradley and Andy Tyrrell. A hardware immune system for benchmark state machine error detection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 813–818. IEEE Press, 2002.
- [] Carlos A. Coello Coello and Nareli Cruz Cortes. A parallel implementation of the artificial immune system to handle constraints in genetic algorithms: Preliminary results. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 819–824. IEEE Press, 2002.
- [] Kalyanmoy Deb, Lothar Thiele, Marco Laumanns, and Eckart Zitzler. Scalable multi-objective optimization test problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 825–830. IEEE Press, 2002.

- [] Hussein A. Abbass. The self-adaptive pareto differential evolution algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 831–836. IEEE Press, 2002.
- [] Zhong-Yao Zhu and Kwong-Sak Leung. Asynchronous self-adjustable island genetic algorithm for multi-objective optimization problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 837–842. IEEE Press, 2002.
- [] Sanaz Mostaghim, Juergen Teich, and Ambrish Tyagi. Comparison of data structures for storing pareto-sets in moeas. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 843–848. IEEE Press, 2002.
- [] J. Brewster, R. G. Reynolds, and Monica A. Brockmeyer. Not in my backyard: A simulation of the effects of agent mobility on environmental poisoning. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 849–854. IEEE Press, 2002.
- [] N. Rychtyckyj and R. G. Reynolds. Knowledge base maintenance using cultural algorithms: Application to the dlms manufacturing process system at ford motor company. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 855–860. IEEE Press, 2002.
- [] R. G. Reynolds and Alina Lazar. Simulating the evolution of the archaic states. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 861–866. IEEE Press, 2002.
- [] Steve Goodhall, R. G. Reynolds, and Robert Whallon. Altruism, selfishness, and survival: An agent-based model of sharing behavior. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 867–871. IEEE Press, 2002.
- [] Yung-Chien Lin, Kao-Shing Hwang, and Feng-Sheng Wang. Hybrid differential evolution with multiplier updating method for nonlinear constrained optimization problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 872–877. IEEE Press, 2002.
- [] B. G. W. Craenen and A. E. Eiben. An experimental comparison of sawing eas for a new class of random binary csps. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 878–883. IEEE Press, 2002.
- [] Sana Ben Hamida and Marc Schoenauer. Aschea: New results using adaptive segregational constraint handling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 884–889. IEEE Press, 2002.
- [] Xiufen Zou, Lishan Kang, and Yuanxiang Li. A dynamical evolutionary algorithm for constrained optimization problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 890–895. IEEE Press, 2002.
- [] Arthur Kordon, Guido Smits, Elsa Jordaan, and Ed Rightor. Robust soft sensors based on integration of genetic programming, analytical neural networks, and support vector machines. In

- David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 896–901. IEEE Press, 2002.
- [] A. Berlanga J. Garcia-Herrero J. M. Molina J. Besada J. Portillo. Ocr parameters tuning by means of evolution strategies for aircraft's tail number recognition. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 902–907. IEEE Press, 2002.
- [] K. C. Tan, T. H. Lee, J. Cai, and Y. H. Chew. Automating the drug scheduling of cancer chemotherapy via evolutionary computation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 908–913. IEEE Press, 2002.
- [] Toshiharu Hatanaka, Katsuji Uosaki, and Masazumi Koga. Evolutionary computation approach to wiener model identification. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 914–919. IEEE Press, 2002.
- [] A. M. Costa, P. A. Vargas, F. J. Von Zuben, and P. M. Franca. Makespan minimization on parallel processors: An immune-based approach. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 920–925. IEEE Press, 2002.
- [] Andrew B. Watkins and Lois C. Boggess. A resource limited artificial immune classifier. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 926–931. IEEE Press, 2002.
- [] John J. Cheh. A heuristic approach to efficient production of detector sets for an artificial immune algorithm-based bankruptcy prediction system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 932–937. IEEE Press, 2002.
- [] Alexander Tarakanov and Victor Skormin. Pattern recognition by immunocomputing. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 938–943. IEEE Press, 2002.
- [] Haiming Lu and Gary Yen. Rank-density based multiobjective genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 944–949. IEEE Press, 2002.
- [] Hisao Ishibushi, Tadashi Yoshida, and Tadahiko Murata. Selection of initial solutions for local search in multiobjective genetic local search. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 950–955. IEEE Press, 2002.
- [] Marco Farina. A neural network based generalized response surface multiobjective evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 956–961. IEEE Press, 2002.
- [] B. Anthony Kadrovach, Jesse B. Zydallis, and Gary B. Lamont. Use of mendelian pressure in a multi-objective genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 962–967. IEEE Press, 2002.

- [] Masaya Shinkai, Hernan Aguirre, and Kiyoshi Tanaka. Mutation strategy improves ga's performance on epistatic problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 968–973. IEEE Press, 2002.
- [] Shigeyoshi Tsutsui and David E. Goldberg. Simplex crossover and linkage identification: Single-stage evolution vs. multi-stage evolution. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 974–979. IEEE Press, 2002.
- [] Dirk Thierens. Adaptive mutation rate control schemes in genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 980–985. IEEE Press, 2002.
- [] Michael Lones and Andy Tyrrell. Crossover and bloat in the functionality model of enzyme genetic programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 986–991. IEEE Press, 2002.
- [] Claus N. Bendtsen and Thiemo Krink. Phone routing using the dynamic memory model. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 992–997. IEEE Press, 2002.
- J. Xu, T. Arslan, and D. W. Qing-Wang. Gps attitude determination using a genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 998–1002. IEEE Press, 2002.
- [] Yong Zhang, Lawrence O. Hall, Dmitry B. Goldgof, and Sudeep Sarkar. A constrained genetic approach for reconstructing young's modulus of elastic objects from boundary displacement measurements. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1003–1008. IEEE Press, 2002.
- [] Nivedita Sumi Majumdar and Dipankar Dasgupta. Determining optimal configuration for turbine generator cooler. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1009–1014. IEEE Press, 2002.
- [] Jungwon Kim and Peter J. Bentley. Toward an artificial immune system for network intrusion detection: An investigation of dynamic clonal selection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1015–1020. IEEE Press, 2002.
- [] Roberto Michelan and Fernando J. Von Zuben. Decentralized control system for autonomous navigation based on an evolved artificial immune network. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1021–1026. IEEE Press, 2002.
- [] Kevin P. Anchor, Paul D. Williams, Gregg H. Gunsch, and Gary B. Lamont. The computer defense immune system: Current and future research in intrusion detection. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1027–1032. IEEE Press, 2002.

- [] S. P. N. Singh, S. M. Thayer, and W. P. Thayer. A foundation for kilorobotic exploration. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1033–1038. IEEE Press, 2002.
- Dipankar Dasgupta and Nivedita Sumi Majumdar. Anomaly detection in multidimensional data using negative selection algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1039–1044. IEEE Press, 2002.
- [] Justin Balthrop, Stephanie Forrest, and Matthew R. Glickman. Revisting lisys: Parameters and normal behavior. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1045–1050. IEEE Press, 2002.
- [] Carlos A. Coello Coello and Maximino Salazar Lechuga. Mopso: A proposal for multiple objective particle swarm optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1051–1056. IEEE Press, 2002.
- [] A. P. Alves da Silva and P. J. Abrao. Applications of evolutionary computation in electric power systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1057–1062. IEEE Press, 2002.
- [] D. M. Falcao. Genetic algorithms applications in electrical distribution systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1063–1068. IEEE Press, 2002.
- [] K. Y. Lee and P. S. Mohamed. A real-coded genetic algorithm involving a hybrid crossover method for power plant control system design. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1069–1074. IEEE Press, 2002.
- [] I. N. Kassabalidis, M. A. El-Sharkawi, and R. J. Marks II. Border identification for power system security assessment using neural network inversion: An overview. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1075–1079. IEEE Press, 2002.
- V. Miranda and N. Fonseca. Epso best-of-two worlds meta-heuristic applied to power system problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1080–1085. IEEE Press, 2002.
- [] Timothy E. Revello and Robert McCartney. Generating war game strategies using a genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1086–1091. IEEE Press, 2002.
- [] Shinn-Ying Ho, Shinn-Jang Ho, and Zhen-Bang Huang. An evolutionary approach for pose determination and interpretation of occluded articulated objects. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1092–1097. IEEE Press, 2002.
- [] F. Rojas, C. G. Puntonet, I. Rojas, J. Ortega, and A. Prieto. Genetic algorithm approach to nonlinear blind source separation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1098–1102. IEEE Press, 2002.

- Pierre Collet, Jean Louchet, and Evelyne Lutton. Issues on the optimisation of evolutionary algorithms code. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1103–1108. IEEE Press, 2002.
- [] P. Hingston, L. Barone, and L. While. Evolving crushers. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1109–1114. IEEE Press, 2002.
- Diego H. Milone, Juan J. Merelo, and H. L. Rufiner. Evolutionary algorithm for speech segmentation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1115–1120. IEEE Press, 2002.
- [] Yan Qiao and Xie WeiXin. A network ids with low false positive rate. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1121–1126. IEEE Press, 2002.
- [] Evan J. Hughes. Multi-objective evolutionary guidance for swarms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1127–1132. IEEE Press, 2002.
- [] Fernando Jimenez, Antonio F. Gomez-Skarmeta, Gracia Sanchez, and Kalyanmoy Deb. An evolutionary algorithm for constrained multi-objective optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1133–1138. IEEE Press, 2002.
- [] Kiam Heong Ang, Gregory Chong, and Yun Li. Preliminary statement on the current progress of multi-objective evolutionary algorithm performance measurement. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1139–1144. IEEE Press, 2002.
- Nateri Madavan. Multiobjective optimization using a pareto differential evolution approach. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1145–1150. IEEE Press, 2002.
- [] Matthieu Basseur, Franck Seynhaeve, and El ghazali Talbi. Design of multi-objective evolutionary algorithms: Application to the flow-shop scheduling problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1151–1156. IEEE Press, 2002.
- [] Jason Lohn, William F. Kraus, and Gary L. Haith. Comparing a coevolutionary genetic algorithm for multiobjective optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1157–1162. IEEE Press, 2002.
- [] Anil K. Seth. Distinguishing adaptive from non-adaptive evolution using ashby's law of resuisite variety. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1163–1168. IEEE Press, 2002.
- Bryant A. Julstrom. A scalable genetic algorithm for the rectilinear steiner problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1169–1173. IEEE Press, 2002.

- N. Sadati and S. Kuchakkhani. Genetic approach to pole placement by static output feedback. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1174–1179. IEEE Press, 2002.
- [] Masao Iwamatsu. Co-evolutionary global optimization algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1180–1184. IEEE Press, 2002.
- [] Peter Cowling, Graham Kendall, and Limin Han. An investigation of a hyperheuristic genetic algorithm applied to a trainer scheduling problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1185–1190. IEEE Press, 2002.
- Paul J. Darwen. Search landscape of a realistic single-machine scheduling task: Peaks with big differences. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1191–1196. IEEE Press, 2002.
- [] Edmund K Burke, Patrick De Causmaecker, Sanja Petrovic, and Greet Vanden Berghe. A multi criteria meta-heuristic approach to nurse rostering. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1197–1202. IEEE Press, 2002.
- [] Jingpeng Li and Raymond Kwan. A fuzzy evolutionary approach with taguchi parameter setting for the set covering problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1203–1208. IEEE Press, 2002.
- Nikolay Nikolaev, Lilian M. de Menezes, and Hitoshi Iba. Overfitting avoidance in genetic programming of polynomials. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1209–1214. IEEE Press, 2002.
- [] Manfred M. Fischer. A novel modular product unit neural network for modelling constrained spatial interaction flows. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1215–1220. IEEE Press, 2002.
- [] Taichirou Endou and Qiangfu Zhao. Generation of comprehensible decision trees through evolution of training data. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1221–1225. IEEE Press, 2002.
- [] Celso Yoshikazu Ishida and Aurora Trinidad Ramirez Pozo. Gpsql miner: Sql-grammar genetic programming in data mining. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1226–1231. IEEE Press, 2002.
- [] Mamoru Minami, Atsushi Tamamura, and Toshiyuki Asakura. Machine intelligence of a mobile manipulator to utilize dynamically interfered motion and nonlinear friction. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1232–1237. IEEE Press, 2002.
- [] I. Sarafis, A. M. S. Zalzala, and P. Trinder. A genetic rule-based data clustering toolkit. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1238–1243. IEEE Press, 2002.

- [] E. Avgerinos, A. M. S. Zalzala, and G. Zografos. Towards evolutionary optimisation for high resolution bathymetry from sidescan sonars. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1244–1249. IEEE Press, 2002.
- [] T. Burczynski, W. Kus, E. Majchrzak, P. Orantek, and M. Dziewonski. Evolutionary computation in identification of a tumor. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1250–1254. IEEE Press, 2002.
- [] Francesco Cupertino, David Naso, Luigi Salvatore, and Biagio Turchiano. Design of cascaded controllers for dc drives using evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1255–1260. IEEE Press, 2002.
- [] M. Chrzanowska-Jeske, G. Greenwood, and B. Wang. Combining evolution strategies with lagrangian relaxation for constructing nonslicing vlsi floorplans with soft modules. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1261–1266. IEEE Press, 2002.
- [] R. O. Canham and A. M. Tyrrell. Evolved fault tolerance in evolvable hardware. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1267–1271. IEEE Press, 2002.
- [] K. C. Tan, C. M. Chew, K. K. Tan, L. F. Wang, and Y. J. Chen. Autonomous robot navigation via intrinsic evolution. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1272–1277. IEEE Press, 2002.
- [] Chengjian Wei, Zhenya He, Yifeng Zhang, and Wenjiang Pei. Swarm directions embedded in fast evolutionary programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1278–1283. IEEE Press, 2002.
- [] Kwok Ching Tsui and Jiming Liu. Evolutionary diffusion optimization, part ii: Performance assessment. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1284–1289. IEEE Press, 2002.
- [] Huai-Kuang Tsai, Jinn-Moon Yang, and Cheng-Yan Kao. Solving traveling salesman problems by combining global and local search mechanisms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1290–1295. IEEE Press, 2002.
- Daniel Ashlock, Ling Guo, and Fang Qiu. Greedy closure evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1296–1301. IEEE Press, 2002.
- [] K. C. Tan, A. Tay, T. H. Lee, and C. M. Heng. Mining multiple comprehensible classification rules using genetic programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1302–1307. IEEE Press, 2002.
- [] Hamid Ghezelayagh and Kwang Y. Lee. Intelligent predictive control of a power plant with evolutionary programming optimizer and neuro-fuzzy identifier. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1308–1313. IEEE Press, 2002.

- [] Man Leung Wong, Shing Yan Lee, and Kwong Sak Leung. A hybrid approach to learn bayesian networks using evolutionary programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1314–1319. IEEE Press, 2002.
- [] Xin Xu, Han gen He, and Dewen Hu. Evolutionary adaptive-critic methods for reinforcement learning. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1320–1325. IEEE Press, 2002.
- [] N. X. Hoai, R. I. McKay, D. Essam, and R. Chau. Solving the symbolic regression problem with tree-adjunct grammar guided genetic programming: The comparative results. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1326–1331. IEEE Press, 2002.
- [] Masaharu Munetomo. Linkage identification based on epistasis measures to realize efficient genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1332–1337. IEEE Press, 2002.
- [] Sanjoy Das. Gene spill: An evolutionary algorithm based on bacterial gene exchange. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1338–1342. IEEE Press, 2002.
- [] Kosuke Yamamoto, Tomohiro Yoshikawa, Takeshi Furuhashi, Tsuyoshi Shinogi, and Shinji Tsuruoka. Evaluation of search performance of bacterial evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1343–1347. IEEE Press, 2002.
- [] Tom Smith, Andy Philippides, Phil Husbands, and Michael O'Shea. Neutrality and ruggedness in robot landscapes. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1348–1353. IEEE Press, 2002.
- [] Marc Toussaint and Christian Igel. Neutrality: A necessity for self-adaptation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1354–1359. IEEE Press, 2002.
- [] Rob Shipman, Mark Shackleton, and Marc Ebner. Issues in designing a neutral genotype-phenotype mapping. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1360–1365. IEEE Press, 2002.
- [] Walling Cyre. Learning grammars with a modified classifier system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1366–1371. IEEE Press, 2002.
- [] Rasmus K. Ursem and Thiemo Krink. Genetic programming with smooth operators for arithmetic expressions: Diviplication and subdition. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1372–1377. IEEE Press, 2002.
- Shinn-Ying Ho. Shinn-Jang Ho. and Tai-Kang Chen. Design of high performance fuzzy controllers using flexible parameterized membership functions and intelligent genetic algorithms. In David B.

- Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1378–1383. IEEE Press, 2002.
- [] Myriam Regattieri Delgado, Fernando Von Zuben, and Fernando Gomide. Coevolutionary design of takagi-sugeno fuzzy systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1384–1389. IEEE Press, 2002.
- [] Roberto Santana and Heinz Muehlenbein. Blocked stochastic sampling versus estimation of distribution algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1390–1395. IEEE Press, 2002.
- Dong-Yeon Cho and Byoung-Tak Zhang. Evolutionary optimization by distribution estimation with mixtures of factor analyzers. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1396–1401. IEEE Press, 2002.
- [] Yuji Katsumata, Setsuya Kurahashi, and Takao Terano. We need multiple solutions for electric equipments configuration in a power plant applying bayesian optimization algorithm with tabu search. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1402–1407. IEEE Press, 2002.
- [] J. E. Davis and G. Kendall. An investigation, using co-evolution, to evolve an awari player. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1408–1413. IEEE Press, 2002.
- [] Raj Subbu and Arthur C. Sanderson. Network performance of distributed coevolutionary agents. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1414–1419. IEEE Press, 2002.
- John Cartlidge and Seth Bullock. Learning lessons from the common cold: How reducing parasite virulence improves coevolutionary optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1420–1425. IEEE Press, 2002.
- [] D. D. B. van Bragt and J. A. La Poutre. Co-evolving automata negotiate with a variety of opponents. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1426–1431. IEEE Press, 2002.
- [] Taiji Satoh, Heijiro Kuwabara, Masakazu, Kanezashi, and Koichi Nara. Artificial life system and its application to multiple-fuel economic load dispatch problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1432–1437. IEEE Press, 2002.
- [] Suihong Liang, A. Nur Zincir-Heywood, and Malcolm I. Heywood. The effect of routing under local information using a social insect metaphor. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1438–1443. IEEE Press, 2002.
- Luk Schoofs and Bart Naudts. Swarm intelligence on the binary constraint satisfaction problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1444–1449. IEEE Press, 2002.

- Jason Isaacs, Robert Watkins, and Simon Foo. Evolving ant colony systems in hardware for random number generation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1450–1455. IEEE Press, 2002.
- [] Xiaofeng Xie, Wenjun Zhang, and Zhilian Yang. A dissipative particle swarm optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1456–1461. IEEE Press, 2002.
- [] Tim Blackwell and Peter J. Bentley. Improvised music with swarms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1462–1467. IEEE Press, 2002.
- [] Jouni Lampinen. A constraint handling approach for the differential evolution algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1468–1473. IEEE Press, 2002.
- [] Thiemo Krink, Jakob S. Vesterstrøm, and Jacques Riget. Particle swarm optimisation with spatial particle extension. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1474–1479. IEEE Press, 2002.
- Ji Hun Koo, Tae Seon Kim, Sung Soo Dong, and Chong Ho Lee. Development of fpga based adaptive image enhancement filter system using genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1480–1485. IEEE Press, 2002.
- [] F. Corno, G. Cumani, M. Sonza Reorda, and G. Squillero. Efficent machine-code test-program induction. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1486–1491. IEEE Press, 2002.
- [] Naofumi Homma, Takafumi Aoki, and Tatsuo Higuchi. Graph-based individual representation for evolutionary synthesis of arithmetic circuits. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1492–1497. IEEE Press, 2002.
- [] Ralf Salomon. The force model: Reducing the complexity by reformulating the problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1498–1503. IEEE Press, 2002.
- [] K. Boonlong, N. Chaiyaratana, and S. Kuntanapreeda. Using a co-operative co-evolutionary genetic algorithm to solve optimal control problems in a hysteresis system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1504–1509. IEEE Press, 2002.
- [] Hugues Bersini. And the winner is not the fittest. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1510–1515. IEEE Press, 2002.
- Bo Yuan. Deterministic crowding, recombination and self-similarity. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1516–1521. IEEE Press, 2002.

- [] Y. Murakami, H. Sato, and A. Namatame. Realizing unstable social efficiency with mutual learning of meta-rules. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1522–1527. IEEE Press, 2002.
- [] O. Wittner and B. E. Helvik. Cross entropy guided ant-like agents finding dependable primary/backup path patterns in networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1528–1533. IEEE Press, 2002.
- [] R. Bjarnason and T. Peterson. Multi-agent learning via implicit opponent modeling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1534–1539. IEEE Press, 2002.
- [] M. Jelasity, M. Preuss, and B. Paechter. A scalable and robust framework for distributed applications. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1540–1545. IEEE Press, 2002.
- [] Andrew Watkins and Lois Boggess. A new classifier based on resource limited artificial immune systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1546–1551. IEEE Press, 2002.
- [] Shin Ando and Hitoshi Iba. Ant algorithm for construction of evolutionary tree. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1552–1557. IEEE Press, 2002.
- [] Christian Blum and Michael Sampels. Ant colony optimization for fop shop scheduling: A case study on different pheromone representations. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1558–1563. IEEE Press, 2002.
- [] Michael Schreyer and Günther R. Raidl. Letting ants labeling point features. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1564–1569. IEEE Press, 2002.
- [] Jakob S. Vesterstrøm, Jacques Riget, and Thiemo Krink. Division of labor in particle swarm optimisation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1570–1575. IEEE Press, 2002.
- [] E. C. Laskari, K. E. Parsopoulos, and M. N. Vrahatis. Particle swarm optimization for minimax problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1576–1581. IEEE Press, 2002.
- [] E. C. Laskari, K. E. Parsopoulos, and M. N. Vrahatis. Particle swarm optimization for integer programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1582–1587. IEEE Press, 2002.
- [] Morten Løvbjerg and Thiemo Krink. Extending particle swarm optimisers with self-organized criticality. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1588–1593. IEEE Press, 2002.

- Dave Harris and Seth Bullock. Enhancing game theory with coevolutionary simulation models of honest signaling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1594–1599. IEEE Press, 2002.
- [] R. Paul Wiegand, William Liles, and Kenneth De Jong. Analyzing cooperative coevolution with evolutionary game theory. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1600–1605. IEEE Press, 2002.
- [] Toby Ord and Alan Blair. Exploitation and peacekeeping: introducing more sophisticated interactions to the iterated prisoner's dilemma. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1606–1611. IEEE Press, 2002.
- [] Hajime Murao, Hisashi Tamaki, and Shinzo Kitamura. A coevolutionary approach to adapt the genotype-pheonotype map in genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1612–1617. IEEE Press, 2002.
- [] Kevin Anchor, Gary Lamont, and Gregg Gunsch. An evolutionary programming approach for detecting novel computer network attacks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1618–1623. IEEE Press, 2002.
- [] Chao-Hsien Chu, JunHua Gu, Xiang Dan Hou, and Qijun Gu. A heuristic ant algorithm for solving qos multicast routing problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1630–1635. IEEE Press, 2002.
- [] Cheng-Fa Tsai, Chun-Wei Tsai, and Ching-Chang Tseng. A new approach for solving large traveling salesman problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1636–1641. IEEE Press, 2002.
- [] Junaid A. Khan, Sadiq M. Sait, and Mahmood R. Minhas. Fuzzy biasless simulated evolution for multiobjective vlsi placement. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1642–1647. IEEE Press, 2002.
- [] Haiming Lu and Gary G. Yen. Dynamic population size in multiobjective evolutionary algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1648–1653. IEEE Press, 2002.
- [] Hussein A. Abbass, Nguyen Xuan Hoai, and Robert I. McKay. Anttag: A new method to compose computer programs using colonies of ants. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1654–1659. IEEE Press, 2002.
- [] Jih Tsung Yang, Hsien-Da Huang, and Jorng-Tzong Horng. Devising a cost effective baseball scheduling by evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1660–1665. IEEE Press, 2002.
- [] X. Hu and R. Eberhart. Adaptive particle swarm optimization: Detection and response to dynamic systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1666–1670. IEEE Press, 2002.

- J. Kennedy and R. Mendes. Population structure and particle swarm performance. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1671–1676. IEEE Press, 2002.
- [] X. Hu and Russell Eberhart. Multiobjective optimization using dynamic neighborhood particle swarm optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1677–1681. IEEE Press, 2002.
- [] Y. Shi and R. A. Krohling. Co-evolutionary particle swarm optimization to solve min-max problems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1682–1687. IEEE Press, 2002.
- [] R. A. Krohling, H. Knidel, and Y. Shi. Solving numerical equations of hydraulic problems using particle swarm optimization. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1688–1690. IEEE Press, 2002.
- [] Tim Blackwell and Peter J. Bentley. Don't push me! collision-avoiding swarms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1691–1696. IEEE Press, 2002.
- Jonathan Vincent. A comparison of reproductive success and the effect of mating restrictions in coarse-grained parallel genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1697–1702. IEEE Press, 2002.
- [] Kwong Sak Leung, Kin Hong Lee, and Sin Man Cheang. Evolving parallel machine programs for a multi-alu processor. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1703–1708. IEEE Press, 2002.
- [] Xiaodong Li and Michael Kirley. The effects of varying population density in a fine-grained parallel genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1709–1714. IEEE Press, 2002.
- [] Kazunori Kojima, Hiroshi Matsuo, and Masaaki Ishigame. Reduction of communication quantity for network based parallel ga. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1715–1720. IEEE Press, 2002.
- [] Andrew Hamilton-Wright and Deborah Stacey. Fault-tolerant network computation of individuals in genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1721–1726. IEEE Press, 2002.
- [] G. Galeano, F. Fernandez, M. Tomassini, and L. Vanneschi. Studying the influence of synchronous and asynchronous parallel gp on programs' length evolution. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1727–1732. IEEE Press, 2002.
- [] Jeffrey A. Joines and Mike G. Kay. Hybrid genetic algorithms and random linkage. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1733–1738. IEEE Press, 2002.

- [] Ruijian Zhang, Willis K. King, and Qingdong Wang. Applying evolutionary programming to improve branch classification in the hybrid branch prediction method using switch-counter. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1739–1744. IEEE Press, 2002.
- [] Ming Chang, Kazuhiro Ohkura, Kanji Ueda, and Masaharu Sugiyama. A symbiotic evolutionay algorithm for dynamic facility layout problem. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1745–1750. IEEE Press, 2002.
- Dipti Srinivasan, Tian Hou Seow, and Jian Xin Xu. Automated time table generation using multiple context reasoning for university modules. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1751–1756. IEEE Press, 2002.
- [] Kenneth O. Stanley and Risto Miikkulainen. Efficient evolution of neural network topologies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1757–1762. IEEE Press, 2002.
- [] Yan Wang and Yilong Lu. The fast neural network solution for problems based on slow genetic algorithm solutions. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1763–1768. IEEE Press, 2002.
- [] D. C. Edwards, K. E. Brown, and N. K. Taylor. An evolutionary method for the design of generic neural networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1769–1774. IEEE Press, 2002.
- Daniel Weingaertner, Victor K. Tatai, Ricardo R. Gudwin, and Fernando J. Von Zuben. Hierarchical evolution of heterogeneous neural networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1775–1780. IEEE Press, 2002.
- [] Tim Kovacs. Performance and population state metrics for rule-based learning systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1781–1786. IEEE Press, 2002.
- [] Akiko Aizawa. A co-evolutionary framework for clustering in information retrieval systems. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1787–1792. IEEE Press, 2002.
- [] Cin-Young Lee and Erik K. Antonsson. Reinforcement learning in steady-state cellular genetic algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1793–1797. IEEE Press, 2002.
- [] Luis Miramontes Hercog and Terence C. Fogarty. Co-evolutionary classifier systems for multiagent simulation. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1798–1803. IEEE Press, 2002.
- [] Yin Yee Wai, Chi Kin Chow, and Tong Lee. Resolving ambiguity in depth extraction for motion capture using genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1804–1809. IEEE Press, 2002.

- [] Markus J. Kaiser, Kwok Ching Tsui, and Jiming Liu. Adaptive distributed caching. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1810–1815. IEEE Press, 2002.
- Sudhakar Chavali, Anil Pahwa, and Sanjoy Das. A genetic algorithm approach for optimal distribution feeder restoration during cold load pickup. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1816–1819. IEEE Press, 2002.
- Igor E. Golovkin, Sushil J. Louis, and Roberto C. Mancini. Parallel implementation of niched pareto genetic algorithm code for x-ray plasma spectroscopy. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1820–1824. IEEE Press, 2002.
- Burcin Aktan, Garrison Greenwood, and Molly Shor. Improving evolutionary algorithm performance on maximizing functional test coverage of asics using adaptation of the fitness criteria. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1825–1829. IEEE Press, 2002.
- [] Adrian Stoica, Ricardo Zebulum, Didier Keymeulen, M. I. Ferguson, and Vu Duong. Fuzzy controller implementations with fewer than ten transistors? In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, Proceedings of the 2002 Congress on Evolutionary Computation CEC2002, pages 1830–1835. IEEE Press, 2002.
- [] Jon Bird and Paul Layzell. The evolved radio and its implications for modelling the evolution of novel sensors. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1836–1841. IEEE Press, 2002.
- Raymond H. Mazza, III and Clare Bates Congdon. Towards a genetic algorithms approach to designing 3D polygonal tree models. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1842–1847. IEEE Press, 2002.
- [] Yoshiyuki Matsumura, Kazuhiro Ohkura, and Kanji Ueda. Advantages of global discrete recombination in (mu, mu, lambda) evolution strategies. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1848–1853. IEEE Press, 2002.
- O. Monakhov and E. Monakhova. Using evolutionary algorithm for generation of dense families of circulant networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1854–1859. IEEE Press, 2002.
- Jian-Xin Xu, Sanjib Kumar Panda, and Qing Zheng. Multiobjective optimization of current waveforms for switched reluctance motors by genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1860–1865. IEEE Press, 2002.
- [] Xiaodan Wu, Chao-Hsien Chu, Yunfeng Wang, and Weli Yan. A genetic algorithm for integrated cell formation and layout decision. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1866–1871. IEEE Press, 2002.

- [] Josh C. Bongard. Evolving modular genetic regulatory networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1872–1877. IEEE Press, 2002.
- [] P R W Harvey, D M Booth, and J F Boyce. Evolving the mapping between input neurons and multi-source imagery. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1878–1883. IEEE Press, 2002.
- [] B. Verma and R. Ghosh. A novel evolutionary neural learning algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1884–1889. IEEE Press, 2002.
- [] Xiuju Fu and Lipo Wang. A GA-based novel RBF classifier with class-dependent features. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1890–1894. IEEE Press, 2002.
- [] Gary G. Yen and Nethrie Nithianandan. Facial feature extraction using genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1895–1900. IEEE Press, 2002.
- Brian Blaha and Don Wunsch. Evolutionary programming to optimize an assembly program. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1901–1903. IEEE Press, 2002.
- [] T. Beielstein, J. Dienstuhl, C. Feist, and M. Pompl. Circuit design using evolutionary algorithms. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1904–1909. IEEE Press, 2002.
- [] Ricardo Hoar, Joanne Penner, and Christian Jacob. Evolutionary swarm traffic: If ant roads had traffic lights. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1910–1915. IEEE Press, 2002.
- [] Xiuju Fu and Lipo Wang. Rule extraction from an rbf classifier based on class-dependent features. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1916–1921. IEEE Press, 2002.
- [] P Mordaunt and AMS Zalzala. Towards an evolutionary neural network for gait analysis. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1922–1927. IEEE Press, 2002.
- [] S. H. Ling, H. K. Lam, F. H. F. Leung, and P. K. S. Tam. Learning of neural network parameters using a fuzzy genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1928–1933. IEEE Press, 2002.
- Ozer Ciftcioglu. GA with orthogonal transformation for RBFN configuration. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1934–1939. IEEE Press, 2002.

- [] Kang-Hee Lee, Chi-Ho Lee, Jong-Hwan Kim, Han-Lim Choi, and Min-Jea Tahk. Evolutionary optimized pitching motion control for f-16 aircraft. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1940–1945. IEEE Press, 2002.
- [] C. K. Chan, H. B. Gooi, and M. H. Lim. A co-evolutionary algorithm approach to a university timetable system. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1946–1951. IEEE Press, 2002.
- [] Simon Lucas. Evolving spring-mass models: a test-bed for graph encoding schemes. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1952–1957. IEEE Press, 2002.
- [] Rodolfo Torres-Velazquez and Vladimir Estivill-Castro. A memetic algorithm instantiated with selection sort consistently finds global optima for the error-correcting graph isomorphism. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1958–1963. IEEE Press, 2002.
- [] Seong-Joo Kim, Jong-Soo Kim, Jae-Yong Seo, Hyun-Chan Cho, and Hong-Tae Jeon. Optimal initial structure of the rbf networks using time-frequency localization and genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1964–1969. IEEE Press, 2002.
- [] Elio Tuci, Matt Quinn, and Inman Harvey. Evolving fixed-weight networks for learning robots. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1970–1975. IEEE Press, 2002.
- [] Shinichi Oeda, Takumi Ichimura, and Toshiyuki Yamashita. Biological immune system by evolutionary adaptive learning of neural networks. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1976–1981. IEEE Press, 2002.
- [] Yongsheng Ding and Lihong Ren. A new dna-based evolutionary algorithm with application to the design of fuzzy controllers. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1982–1987. IEEE Press, 2002.
- Dan Taylor, David Corne, David Taylor, and Jack Harkness. Predicting alarms in supermarket refrigeration systems using evolved neural networks and evolved rulesets. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1988–1993. IEEE Press, 2002.
- [] Liu Xin, Prahlad Vadakkepat, Tong Heng Lee, Xiao Peng, and Pang Ki Kim. Comparison of robot navigation by evolutionary neural networks and pain-based algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 1994–1999. IEEE Press, 2002.
- [] R. K. H. Galvao, V. M. Becerra, and M. Abou-Seada. Variable selection for financial distress classification using a genetic algorithm. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2000–2005. IEEE Press, 2002.

- Nils Svangard, Stefan Lloyd, Peter Nordin, and Clas Wihlborg. Evolving short-term trading strategies using genetic programming. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2006–2010. IEEE Press, 2002.
- [] Takahiro Hamada, Hidenori Kawamura, Masahito Yamamoto, and Azuma Ohuchi. A study on behavioral structure of artificial market based on adaptive game. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2011–2016. IEEE Press, 2002.
- [] Kazuko Yamasaki, Kazuhisa Kitakaze, and Masuteru Sekiguchi. Dynamic optimization by evolutionary algorithms applied to financial time series. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2017–2022. IEEE Press, 2002.
- [] T. Minerva and S. Paterlini. Evolutionary approaches for statistical modelling. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2023–2028. IEEE Press, 2002.
- Dave Cliff. Evolution of market mechanism through a continuous space of auction-types. In David B. Fogel, Mohamed A. El-Sharkawi, Xin Yao, Garry Greenwood, Hitoshi Iba, Paul Marrow, and Mark Shackleton, editors, *Proceedings of the 2002 Congress on Evolutionary Computation CEC2002*, pages 2029–2034. IEEE Press, 2002.