

Список литературы

- [1] Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.). 2005 *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*. Washington DC, USA: ACM Press.
- [2] Paul C, Lipson H, Cuevas FJV. 2005 Evolutionary form-finding of tensegrity structures. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 3–10. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068011>).
- [3] Valsalam V, Bednar J, Miikkulainen R. 2005 Constructing good learners using evolved pattern generators. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 11–18. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068012>).
- [4] Schonfeld J, Ashlock D. 2005 A study of evolutionary robustness in stochastically tiled polyminos. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 19–26. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068013>).
- [5] Becerra RL, Coello Coello CA. 2005 Optimization with constraints using a cultured differential evolution approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 27–34. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068014>).
- [6] Scheutz M, Schermerhorn P. 2005 Predicting population dynamics and evolutionary trajectories based on performance evaluations in alife simulations. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 35–42. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068015>).
- [7] Downing KL. 2005 The predictive basis of situated and embodied artificial intelligence. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 43–50. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068016>).
- [8] McPartland M, Nolfi S, Abbass HA. 2005 Emergence of communication in competitive multi-agent systems: a pareto multi-objective approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 51–58. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068017>).
- [9] Ashlock D, Kim EY. 2005 The impact of cellular representation on finite state agents for prisoner's dilemma. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 59–66. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068018>).
- [10] Liang HL, Lee C, Wu JS. 2005 Multiplex pcr primer design for gene family using genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 67–74. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068019>).

- [11] Eiben AE, Schut MC, Toma T. 2005 Comparing multicast and newscast communication in evolving agent societies. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 75–81. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068020>).
- [12] Gordon TGW, Bentley PJ. 2005 Bias and scalability in evolutionary development. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 83–90. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068021>).
- [13] Luke S. 2005 Evolutionary computation and the c-value paradox. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 91–97. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068022>).
- [14] Rieffel J, Pollack J. 2005 Automated assembly as situated development: using artificial ontogenies to evolve buildable 3-d objects. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 99–106. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068023>).
- [15] Breukelaar R, Bäck T. 2005 Using a genetic algorithm to evolve behavior in multi dimensional cellular automata: emergence of behavior. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 107–114. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068024>).
- [16] Schlessinger E, Bentley PJ, Lotto RB. 2005 Evolving visually guided agents in an ambiguous virtual world. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 115–120. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068025>).
- [17] Cazangi RR, Von Zuben FJ, Figueiredo MF. 2005 Autonomous navigation system applied to collective robotics with ant-inspired communication. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 121–128. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068026>).
- [18] Brabazon A, Silva A, de Sousa TF, O'Neill M, Matthews R, Costa E. 2005 Agent-based modelling of product invention. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 129–136. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068027>).
- [19] Stout A, Spector L. 2005 Validation of evolutionary activity metrics for long-term evolutionary dynamics. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 137–142. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068028>).
- [20] Murata T, Yamaguchi M. 2005 Neighboring crossover to improve ga-based q-learning method for multi-legged robot control. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 145–146. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068030>).

- [21] Parker G, Georgescu R. 2005 Evolution of multi-loop controllers for fixed morphology with a cyclic genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 147–148. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068031>).
- [22] Matos A, Suzuki R, Arita T. 2005 Evolutionary models for maternal effects in simulated developmental systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 149–150. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068032>).
- [23] Wedde HF, Farooq M, Pannenbaecker T, Vogel B, Mueller C, Meth J, Jeruschkat R. 2005 Beedhoc: an energy efficient routing algorithm for mobile ad hoc networks inspired by bee behavior. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 153–160. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068034>).
- [24] Settles M, Soule T. 2005 Breeding swarms: a ga/pso hybrid. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 161–168. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068035>).
- [25] Poli R, Di Chio C, Langdon WB. 2005 Exploring extended particle swarms: a genetic programming approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 169–176. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068036>).
- [26] Das S, Konar A, Chakraborty UK. 2005 Improving particle swarm optimization with differentially perturbed velocity. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 177–184. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068037>).
- [27] Settles M, Nathan P, Soule T. 2005 Breeding swarms: a new approach to recurrent neural network training. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 185–192. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068038>).
- [28] Monson CK, Seppi KD. 2005 Bayesian optimization models for particle swarms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 193–200. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068039>).
- [29] Kennedy J. 2005 Dynamic-probabilistic particle swarms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 201–207. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068040>).
- [30] Zavala AEM, Aguirre AH, Diharce ERV. 2005 Constrained optimization via particle evolutionary swarm optimization algorithm (peso). In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 209–216. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068041>).

- [31] Hartmann V. 2005 Evolving agent swarms for clustering and sorting. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 217–224. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068042>).
- [32] Mezura-Montes E, Velázquez-Reyes J, Coello Coello CA. 2005 Promising infeasibility and multiple offspring incorporated to differential evolution for constrained optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 225–232. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068043>).
- [33] Fleischer M. 2005 Scale invariant pareto optimality: a meta-formalism for characterizing and modeling cooperativity in evolutionary systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 233–240. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068044>).
- [34] Monson CK, Seppi KD. 2005 Exposing origin-seeking bias in pso. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 241–248. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068045>).
- [35] Foong WK, Maier HR, Simpson AR. 2005 Ant colony optimization for power plant maintenance scheduling optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 249–256. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068046>).
- [36] Raquel CR, Naval, Jr PC. 2005 An effective use of crowding distance in multiobjective particle swarm optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 257–264. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068047>).
- [37] Liu BF, Chen HM, Chen JH, Hwang SF, Ho SY. 2005 Meswarm: memetic particle swarm optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 267–268. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068049>).
- [38] El-Abd M, Kamel M. 2005 Factors governing the behavior of multiple cooperating swarms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 269–270. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068050>).
- [39] Bui TN, Colpan M. 2005 Solving geometric tsp with ants. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 271–272. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068051>).
- [40] Schmickl T, Thenius R, Crailsheim K. 2005 Simulating swarm intelligence in honey bees: foraging in differently fluctuating environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 273–274. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068052>).

- [41] Bello R, Nowe A, Caballero Y, Gómez Y, Vrancx P. 2005 A model based on ant colony system and rough set theory to feature selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 275–276. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068053>).
- [42] Cui Z, Zeng J. 2005 A modified particle swarm optimization predicted by velocity. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 277–278. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068054>).
- [43] Ji Z, Dasgupta D. 2005 Estimating the detector coverage in a negative selection algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 281–288. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068056>).
- [44] de França FO, Von Zuben FJ, de Castro LN. 2005 An artificial immune network for multimodal function optimization on dynamic environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 289–296. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068057>).
- [45] González FA, Galeano JC, Rojas DA, Veloza-Suan A. 2005 Discriminating and visualizing anomalies using negative selection and self-organizing maps. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 297–304. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068058>).
- [46] Guo Z, Han HK, Tay JC. 2005 Sufficiency verification of hiv-1 pathogenesis based on multi-agent simulation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 305–312. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068059>).
- [47] Spellward P, Kovacs T. 2005 On the contribution of gene libraries to artificial immune systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 313–319. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068060>).
- [48] Stibor T, Mohr P, Timmis J, Eckert C. 2005 Is negative selection appropriate for anomaly detection? In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 321–328. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068061>).
- [49] Wu JY, Chung YK. 2005 Artificial immune system for solving generalized geometric problems: a preliminary results. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 329–336. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068062>).
- [50] Shapiro JM, Lamont GB, Peterson GL. 2005 An evolutionary algorithm to generate hyper-ellipsoid detectors for negative selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO*

2005: *Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 337–344. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068063).

- [51] Hang X, Dai H. 2005 Applying both positive and negative selection to supervised learning for anomaly detection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 345–352. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068064).
- [52] Nunn I, White T. 2005 The application of antigenic search techniques to time series forecasting. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 353–360. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068065).
- [53] Galeano JC, Veloza-Suan A, Gonz#225;lez FA. 2005 A comparative analysis of artificial immune network models. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 361–368. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068066).
- [54] Knidel H, de Castro LN, Von Zuben FJ. 2005 Rabnet: a real-valued antibody network for data clustering. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 371–372. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068068).
- [55] Gong M, Jiao L, Du H, Shang R, Lu B. 2005 Performance assessment of an artificial immune system multiobjective optimizer by two improved metrics. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 373–374. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068069).
- [56] Payne JL, Eppstein MJ. 2005 A hybrid genetic algorithm with pattern search for finding heavy atoms in protein crystals. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 377–384. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068071).
- [57] Bui TN, Sundarraj G. 2005 An efficient genetic algorithm for predicting protein tertiary structures in the 2d hp model. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 385–392. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068072).
- [58] Koduru P, Das S, Welch S, Roe JL, Lopez-Dee ZP. 2005 A co-evolutionary hybrid algorithm for multi-objective optimization of gene regulatory network models. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 393–399. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068073).
- [59] Seehuus R, Tveit A, Edsberg O. 2005 Discovering biological motifs with genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 401–408. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068074).

- [60] Townsend GC, Hazel WN, Smock R. 2005 Using evolutionary computation methods to support analytical models for the evolution and maintenance of conditional strategies in *chthamalus anisopoma*. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 409–414. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068075>).
- [61] Poladian L. 2005 A ga for maximum likelihood phylogenetic inference using neighbour-joining as a genotype to phenotype mapping. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 415–422. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068076>).
- [62] Hohm T, Hoffmann D. 2005 A multi-objective evolutionary approach to peptide structure redesign and stabilization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 423–429. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068077>).
- [63] Resson H, Varghese RS, Saha D, Orvisky E, Goldman L, Petricoin EF, Conrads TP, Veenstra TD, Abdel-Hamid M, Loffredo CA, *et al.* 2005 Particle swarm optimization for analysis of mass spectral serum profiles. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 431–438. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068078>).
- [64] Noman N, Iba H. 2005 Inference of gene regulatory networks using s-system and differential evolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 439–446. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068079>).
- [65] Che D, Song Y, Rasheed K. 2005 Mdga: motif discovery using a genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 447–452. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068080>).
- [66] Paul TK, Iba H. 2005 Extraction of informative genes from microarray data. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 453–460. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068081>).
- [67] Firpi H, Goodman E, Echaz J. 2005 Epileptic seizure detection by means of genetically programmed artificial features. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 461–466. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068082>).
- [68] Spieth C, Streichert F, Speer N, Zell A. 2005 Identifying valid solutions for the inference of regulatory networks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 469–470. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068084>).
- [69] Cairns DE, Cameron GJ, Wess TJ. 2005 Evolving an improved axial structure for fibrillar collagen. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 471–472. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068085>).

- [70] Aguilar-Ruiz JS, Divina F. 2005 Ga-based approach to discover meaningful biclusters. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 473–474. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068086>).
- [71] Lin FM, Huang HD, Huang HY, Horng JT. 2005 Primer design for multiplex pcr using a genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 475–476. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068087>).
- [72] Seeluangsat P, Chongstitvatana P. 2005 A multiple objective evolutionary algorithm for multiple sequence alignment. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 477–478. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068088>).
- [73] Wiese KC, Hendriks A, Deschênes A, Youssef BB. 2005 The impact of pseudorandom number quality on p-rnapredict, a parallel genetic algorithm for rna secondary structure prediction. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 479–480. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068089>).
- [74] de Jong E. 2005 The maxsolve algorithm for coevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 483–489. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068091>).
- [75] Gomez FJ, Schmidhuber J. 2005 Co-evolving recurrent neurons learn deep memory pomdps. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 491–498. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068092>).
- [76] Ficici SG. 2005 Monotonic solution concepts in coevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 499–506. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068093>).
- [77] Popovici E, De Jong K. 2005 Understanding cooperative co-evolutionary dynamics via simple fitness landscapes. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 507–514. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068094>).
- [78] Funes P, Pujals E. 2005 Intransitivity revisited coevolutionary dynamics of numbers games. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 515–521. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068095>).
- [79] Williams N, Mitchell M. 2005 Investigating the success of spatial coevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 523–530. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068096>).

- [80] Bongard JC, Lipson H. 2005 'managed challenge' alleviates disengagement in co-evolutionary system identification. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 531–538. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068097>).
- [81] Bucci A, Pollack JB. 2005 On identifying global optima in cooperative coevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 539–544. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068098>).
- [82] Huang CF, Rocha LM. 2005 Tracking extrema in dynamic environments using a coevolutionary agent-based model of genotype edition. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 545–552. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068099>).
- [83] Duong DV, Grefenstette J. 2005 The emulation of social institutions as a method of coevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 555–556. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068101>).
- [84] Horn J. 2005 Shape nesting by coevolving species. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 557–558. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068102>).
- [85] Philemotte C, Bersini H. 2005 Intrinsic emergence boosts adaptive capacity. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 559–560. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068103>).
- [86] Lehmann KA, Kaufmann M. 2005 Evolutionary algorithms for the self-organized evolution of networks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 563–570. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068105>).
- [87] Gunia C. 2005 On the analysis of the approximation capability of simple evolutionary algorithms for scheduling problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 571–578. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068106>).
- [88] Skellett B, Cairns B, Geard N, Tonkes B, Wiles J. 2005 Maximally rugged nk landscapes contain the highest peaks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 579–584. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068107>).
- [89] Julstrom BA. 2005 The blob code is competitive with edge-sets in genetic algorithms for the minimum routing cost spanning tree problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 585–590. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068108>).

- [90] Tumer K, Agogino A. 2005 Coordinating multi-rover systems: evaluation functions for dynamic and noisy environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 591–598. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068109>).
- [91] Defaweux A, Lenaerts T, van Hemert J, Parent J. 2005 Transition models as an incremental approach for problem solving in evolutionary algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 599–606. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068110>).
- [92] Julstrom BA. 2005 Greedy, genetic, and greedy genetic algorithms for the quadratic knapsack problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 607–614. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068111>).
- [93] Hernandez G, Wilder K, Nino F, Garcia J. 2005 Towards a self-stopping evolutionary algorithm using coupling from the past. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 615–620. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068112>).
- [94] Tang J, Lim MH, Ong YS, Er MJ. 2005 Solving large scale combinatorial optimization using pma-sls. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 621–628. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068113>).
- [95] Yoon Y, Kim YH, Moon BR. 2005 An evolutionary lagrangian method for the 0/1 multiple knapsack problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 629–635. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068114>).
- [96] Terashima-Marín H, Flores-Ivarez EJ, Ross P. 2005 Hyper-heuristics and classifier systems for solving 2d-regular cutting stock problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 637–643. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068115>).
- [97] Perelman L, Ostfeld A. 2005 Water distribution systems optimal design using cross entropy. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 647–648. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068117>).
- [98] Borgulya I. 2005 A hybrid evolutionary algorithm for the p-median problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 649–650. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068118>).
- [99] Geem ZW, Lee KS, Tseng CL. 2005 Harmony search for structural design. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 651–652. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068119>).

- [100] Butz MV, Pelikan M, Llorca X, Goldberg DE. 2005 Extracted global structure makes local building block processing effective in xcs. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 655–662. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068121).
- [101] Pelikan M, Sastry K, Goldberg DE. 2005 Multiobjective hboa, clustering, and scalability. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 663–670. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068122).
- [102] Sastry K, Abbass HA, Goldberg DE, Johnson DD. 2005 Sub-structural niching in estimation of distribution algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 671–678. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068123).
- [103] Droste S. 2005 Not all linear functions are equally difficult for the compact genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 679–686. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068124).
- [104] Tanev I. 2005 Learned mutation strategies in genetic programming for evolution and adaptation of simulated snakebot. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 687–694. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068125).
- [105] Wright AH, Pulavarty S. 2005 On the convergence of an estimation of distribution algorithm based on linkage discovery and factorization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 695–702. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068126).
- [106] Sakuma J, Kobayashi S. 2005 Real-coded crossover as a role of kernel density estimation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 703–710. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068127).
- [107] Yang S. 2005 Population-based incremental learning with memory scheme for changing environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 711–718. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068128).
- [108] Yuan B, Gallagher M. 2005 On the importance of diversity maintenance in estimation of distribution algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 719–726. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068129).
- [109] Shakya S, McCall J, Brown D. 2005 Using a markov network model in a univariate eda: an empirical cost-benefit analysis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 727–734. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068130).

- [110] Lima CF, Sastry K, Goldberg DE, Lobo FG. 2005 Combining competent crossover and mutation operators: a probabilistic model building approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 735–742. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068131>).
- [111] Hong Y, Ren Q, Zeng J. 2005 Genetic drift in univariate marginal distribution algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 745–746. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068133>).
- [112] Looks M, Goertzel B, Pennachin C. 2005 Learning computer programs with the bayesian optimization algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 747–748. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068134>).
- [113] Peña SIV, Rionda SB, Aguirre AH. 2005 Multiobjective shape optimization with constraints based on estimation distribution algorithms and correlated information. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 749–750. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068135>).
- [114] Huang CF, Bieniawski S, Wolpert DH, Strauss CEM. 2005 A comparative study of probability collectives based multi-agent systems and genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 751–752. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068136>).
- [115] Bosman PAN, de Jong ED. 2005 Exploiting gradient information in numerical multi-objective evolutionary optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 755–762. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068138>).
- [116] Neumann F, Wegener I. 2005 Minimum spanning trees made easier via multi-objective optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 763–769. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068139>).
- [117] Li M, Azarm S, Aute V. 2005 A multi-objective genetic algorithm for robust design optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 771–778. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068140>).
- [118] Bui LT, Abbass HA, Essam D. 2005 Fitness inheritance for noisy evolutionary multi-objective optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 779–785. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068141>).
- [119] Ishibuchi H, Narukawa K. 2005 Comparison of evolutionary multiobjective optimization with rference solution-based single-objective approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.),

- GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 787–794. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068142).
- [120] Zhang Y, Rockett PI. 2005 Evolving optimal feature extraction using multi-objective genetic programming: a methodology and preliminary study on edge detection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 795–802. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068143).
 - [121] Kurz ME, Canterbury S. 2005 Minimizing total flowtime and maximum earliness on a single machine using multiple measures of fitness. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 803–809. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068144).
 - [122] Xu K, Louis SJ, Mancini RC. 2005 A scalable parallel genetic algorithm for x-ray spectroscopic analysis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 811–816. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068145).
 - [123] Ishibuchi H, Narukawa K, Nojima Y. 2005 An empirical study on the handling of overlapping solutions in evolutionary multiobjective optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 817–824. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068146).
 - [124] Schmitt K, Mehnen J, Michelitsch T. 2005 Using predators and preys in evolution strategies. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 827–828. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068148).
 - [125] Watanabe S, Sakakibara K. 2005 The effectiveness of multiobjective optimizer in single-objective optimization environment. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 829–830. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068149).
 - [126] Storch T. 2005 On the impact of objective function transformations on evolutionary and black-box algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 833–840. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068151).
 - [127] Jansen T, Schellbach U. 2005 Theoretical analysis of a mutation-based evolutionary algorithm for a tracking problem in the lattice. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 841–848. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068152).
 - [128] Jagerskaper J, Witt C. 2005 Rigorous runtime analysis of a (1+1)es for the sphere function. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 849–856. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068153).

- [129] Auger A, Schoenauer M, Teytaud O. 2005 Local and global order 3/2 convergence of a surrogate evolutionary algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 857–864. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068154>).
- [130] Preuss M, Schönemann L, Emmerich M. 2005 Counteracting genetic drift and disruptive recombination in (μpluskomaλ)-ea on multimodal fitness landscapes. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 865–872. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068155>).
- [131] Li X. 2005 Efficient differential evolution using speciation for multimodal function optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 873–880. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068156>).
- [132] Liu J, Lampinen J. 2005 A differential evolution based incremental training method for rbfn networks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 881–888. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068157>).
- [133] Ho PY, Shimizu K. 2005 Simple addition of ranking method for constrained optimization in evolutionary algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 889–896. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068158>).
- [134] Nashvili M, Olhofer M, Sendhoff B. 2005 Morphing methods in evolutionary design optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 897–904. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068159>).
- [135] Phientrakul T, Kijssirikul B. 2005 Evolutionary strategies for multi-scale radial basis function kernels in support vector machines. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 905–911. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068160>).
- [136] Shir OM, Bäck T. 2005 Niching in evolution strategies. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 915–916. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068162>).
- [137] Kramer O, Ting CK, Büning HK. 2005 A mutation operator for evolution strategies to handle constrained problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 917–918. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068163>).
- [138] Schmitt K. 2005 Using gene deletion and gene duplication in evolution strategies. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 919–920. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068164>).

- [139] Sait SM, Sanaullah S, Zaidi AM, Ali MI. 2005 Comparative evaluation of parallelization strategies for evolutionary and stochastic heuristics. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 921–922. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068165).
- [140] Schönemann L. 2005 Optimal number of evolution strategies mutation step sizes in dynamic environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 923–924. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068166).
- [141] Keymeulen D, Fink W, Ferguson MI, Peay C, Oks B, Terrile R, Yee K. 2005 Evolutionary computation applied to the tuning of mems gyroscopes. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 927–932. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068168).
- [142] Vighram SA, Gallagher JC, Boddhu SK. 2005 Evolving analog controllers for correcting thermoacoustic instability in real hardware. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 933–940. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068169).
- [143] Prodan L, Udrescu M, Vladutiu M. 2005 Multiple-level concatenated coding in embryonics: a dependability analysis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 941–948. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068170).
- [144] Pakhira MK, De RK. 2005 A hardware pipeline for function optimization using genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 949–956. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068171).
- [145] Hunt R, Hornby GS, Lohn JD. 2005 Toward evolved flight. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 957–964. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068172).
- [146] Noman N, Iba H. 2005 Enhancing differential evolution performance with local search for high dimensional function optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 967–974. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068174).
- [147] McLoughlin, III JF, Cedeño W. 2005 The enhanced evolutionary tabu search and its application to the quadratic assignment problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 975–982. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068175).
- [148] Quintana D, Luque C, Isasi P. 2005 Evolutionary rule-based system for ipo underpricing prediction. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 983–989. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068176).

- [149] Das S, Konar A, Chakraborty UK. 2005 Two improved differential evolution schemes for faster global search. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 991–998. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068177>).
- [150] Duarte A, Ángel Sánchez, Fernández F, Cabido R. 2005 A low-level hybridization between memetic algorithm and vns for the max-cut problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 999–1006. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068178>).
- [151] Adra SF, Griffin I, Fleming PJ. 2005 Hybrid multiobjective genetic algorithm with a new adaptive local search process. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1009–1010. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068180>).
- [152] McMinn P, Holcombe M. 2005 Evolutionary testing of state-based programs. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1013–1020. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068182>).
- [153] Briand LC, Labiche Y, Shousha M. 2005 Stress testing real-time systems with genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1021–1028. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068183>).
- [154] Harman M, Swift S, Mahdavi K. 2005 An empirical study of the robustness of two module clustering fitness functions. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1029–1036. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068184>).
- [155] Grosso CD, Antoniol G, Penta MD, Galinier P, Merlo E. 2005 Improving network applications security: a new heuristic to generate stress testing data. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1037–1043. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068185>).
- [156] Seng O, Bauer M, Biehl M, Pache G. 2005 Search-based improvement of subsystem decompositions. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1045–1051. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068186>).
- [157] Wappler S, Lammermann F. 2005 Using evolutionary algorithms for the unit testing of object-oriented software. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1053–1060. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068187>).
- [158] Zhan Y, Clark JA. 2005 Search-based mutation testing for simulink models. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1061–1068. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068188>).

- [159] Canfora G, Penta MD, Esposito R, Villani ML. 2005 An approach for qos-aware service composition based on genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1069–1075. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068189>).
- [160] Sutton A, Kagdi H, Maletic JI, Volkert LG. 2005 Hybridizing evolutionary algorithms and clustering algorithms to find source-code clones. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1079–1080. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068191>).
- [161] Derderian K, Hierons RM, Harman M, Guo Q. 2005 Generating feasible input sequences for extended finite state machines (efsms) using genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1081–1082. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068192>).
- [162] Lammermann F, Wappler S. 2005 Benefits of software measures for evolutionary white-box testing. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1083–1084. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068193>).
- [163] Haas J, Peysakhov M, Mancoridis S. 2005 Ga-based parameter tuning for multi-agent systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 1, pp. 1085–1086. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068194>).
- [164] Yang S. 2005 Memory-based immigrants for genetic algorithms in dynamic environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1115–1122. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068196>).
- [165] Alba E, Alfonso H, Dorronsoro B. 2005 Advanced models of cellular genetic algorithms evaluated on sat. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1123–1130. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068197>).
- [166] Sokolov A, Whitley D. 2005 Unbiased tournament selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1131–1138. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068198>).
- [167] Giráldez R, Aguilar-Ruiz JS. 2005 Feature influence for evolutionary learning. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1139–1145. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068199>).
- [168] de Silva UC, Suzuki J. 2005 On the stationary distribution of gas with fixed crossover probability. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1147–1151. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068200>).

- [169] McPhee NF, Crane EF. 2005 A theoretical analysis of the hiff problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1153–1160. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068201>).
- [170] Sudholt D. 2005 Crossover is provably essential for the ising model on trees. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1161–1167. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068202>).
- [171] Seo DI, Moon BR. 2005 Computing the epistasis variance of large-scale traveling salesman problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1169–1176. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068203>).
- [172] Garibay I, Wu AS, Garibay O. 2005 On favoring positive correlations between form and quality of candidate solutions via the emergence of genomic self-similarity. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1177–1184. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068204>).
- [173] Zhang C, Rasheed K. 2005 Improving ga search reliability using maximal hyper-rectangle analysis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1185–1192. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068205>).
- [174] Barbosa HJ, Lemonge AC. 2005 A genetic algorithm encoding for a class of cardinality constraints. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1193–1200. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068206>).
- [175] de Jong ED, Watson RA, Thierens D. 2005 On the complexity of hierarchical problem solving. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1201–1208. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068207>).
- [176] Lunacek M, Whitley D, Knight JN. 2005 Measuring mobility and the performance of global search algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1209–1216. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068208>).
- [177] Yu TL, Sastry K, Goldberg DE. 2005 Linkage learning, overlapping building blocks, and systematic strategy for scalable recombination. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1217–1224. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068209>).
- [178] Whiteson S, Stone P, Stanley KO, Miikkulainen R, Kohl N. 2005 Automatic feature selection in neuroevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1225–1232. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068210>).

- [179] Richter JN, Paxton J, Wright A. 2005 Ea models and population fixed-points versus mutation rates for functions of unitation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1233–1240. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068211>).
- [180] Choi SS, Jung K, Kim JH. 2005 Phase transition in a random nk landscape model. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1241–1248. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068212>).
- [181] Stringer H, Wu AS. 2005 Behavior of finite population variable length genetic algorithms under random selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1249–1255. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068213>).
- [182] Uyar S, Eryiğit G. 2005 Improvements to penalty-based evolutionary algorithms for the multi-dimensional knapsack problem using a gene-based adaptive mutation approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1257–1264. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068214>).
- [183] Graham L, Masum H, Oppacher F. 2005 Statistical analysis of heuristics for evolving sorting networks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1265–1270. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068215>).
- [184] Legg S, Hutter M. 2005 Fitness uniform deletion: a simple way to preserve diversity. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1271–1278. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068216>).
- [185] Konak A, Smith AE. 2005 Designing resilient networks using a hybrid genetic algorithm approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1279–1285. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068217>).
- [186] Yossi B, Poli R. 2005 Information landscapes and the analysis of search algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1287–1294. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068218>).
- [187] Skolicki Z, De Jong K. 2005 The influence of migration sizes and intervals on island models. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1295–1302. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068219>).
- [188] Iglesias MT, Naudts B, Verschoren A, Vidal C. 2005 Walsh transforms, balanced sum theorems and partition coefficients over multary alphabets. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1303–1308. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068220>).

- [189] Agogino A, Tumer K, Miikkulainen R. 2005 Efficient credit assignment through evaluation function decomposition. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1309–1316. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068221>).
- [190] Yilmaz AS, Wu AS. 2005 Preservation of genetic redundancy in the existence of developmental error and fitness assignment error. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1317–1324. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068222>).
- [191] Tang KW, Jarvis RA. 2005 From supervised ranking to evolving behaviours of a robotic team. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1325–1332. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068223>).
- [192] Giacobini M, Tomassini M, Tettamanzi A. 2005 Takeover time curves in random and small-world structured populations. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1333–1340. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068224>).
- [193] Kimura S, Matsumura K. 2005 Genetic algorithms using low-discrepancy sequences. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1341–1346. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068225>).
- [194] Sakuma J, Kobayashi S. 2005 Latent variable crossover for k-tablet structures and its application to lens design problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1347–1354. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068226>).
- [195] Samsonovich AV, De Jong KA. 2005 Pricing the 'free lunch' of meta-evolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1355–1362. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068227>).
- [196] Llorà X, Sastry K, Goldberg DE, Gupta A, Lakshmi L. 2005 Combating user fatigue in igas: partial ordering, support vector machines, and synthetic fitness. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1363–1370. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068228>).
- [197] Bassett JK, Potter MA, De Jong KA. 2005 Applying price's equation to survival selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1371–1378. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068229>).
- [198] Pardoe D, Ryoo M, Miikkulainen R. 2005 Evolving neural network ensembles for control problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1379–1384. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068230>).

- [199] Kavka C, Roggero P, Schoenauer M. 2005 Evolution of voronoi based fuzzy recurrent controllers. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1385–1392. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068231>).
- [200] Kim YH, Moon BR. 2005 New topologies for genetic search space. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1393–1399. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068232>).
- [201] Greene WA. 2005 Schema disruption in tree-structured chromosomes. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1401–1408. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068233>).
- [202] Ding L, Yu J. 2005 Some theoretical results about the computation time of evolutionary algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1409–1415. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068234>).
- [203] Ando S, Sakuma J, Kobayashi S. 2005 Adaptive isolation model using data clustering for multimodal function optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1417–1424. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068235>).
- [204] Borenstein Y, Poli R. 2005 Information landscapes and problem hardness. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1425–1431. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068236>).
- [205] Branke J, Salihoğlu E, & İma Uyar. 2005 Towards an analysis of dynamic environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1433–1440. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068237>).
- [206] Guofang N, Minqiang L, Jisong K. 2005 Multi-level genetic algorithm (mlga) for the construction of clock binary tree. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1441–1445. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068238>).
- [207] Gong Y, Nakamura M, Tamaki S. 2005 Parallel genetic algorithms on line topology of heterogeneous computing resources. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1447–1454. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068239>).
- [208] Chen JH, Ho SY, Goldberg DE. 2005 Quality-time analysis of multi-objective evolutionary algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1455–1462. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068240>).

- [209] Ong TJ, Saunders R, Keyser J, Leggett JJ. 2005 Terrain generation using genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1463–1470. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068241>).
- [210] hsiung Chan C, Lee SA, Kao CY, Tsai HK. 2005 Improving eax with restricted 2-opt. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1471–1476. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068242>).
- [211] Yilmaz S, Ivanov K, Levine S. 2005 Application of genetic algorithm to optimize burnable poison placement in pressurized water reactors. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1477–1483. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068243>).
- [212] Mori N, Takeda M, Matsumoto K. 2005 A comparison study between genetic algorithms and bayesian optimize algorithms by novel indices. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1485–1492. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068244>).
- [213] Rand W, Riolo R. 2005 The problem with a self-adaptative mutation rate in some environments: a case study using the shaky ladder hyperplane-defined functions. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1493–1500. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068245>).
- [214] hua Yang Z, cheng Fang J, qiang Qi Z. 2005 Flight midcourse guidance control based on genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1501–1506. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068246>).
- [215] Martin JG. 2005 Subproblem optimization by gene correlation with singular value decomposition. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1507–1514. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068247>).
- [216] Borenstein Y, Poli R. 2005 Information landscapes. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1515–1522. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068248>).
- [217] Russell MA, Lamont GB. 2005 A genetic algorithm for unmanned aerial vehicle routing. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1523–1530. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068249>).
- [218] Amor HB, Rettinger A. 2005 Intelligent exploration for genetic algorithms: using self-organizing maps in evolutionary computation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1531–1538. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068250>).

- [219] Thierens D. 2005 An adaptive pursuit strategy for allocating operator probabilities. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1539–1546. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068251>).
- [220] Peterson MR, Doom TE, Raymer ML. 2005 Ga-facilitated classifier optimization with varying similarity measures. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1549–1550. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068253>).
- [221] Lyman M, Lewandowski G. 2005 Genetic programming for association rules on card sorting data. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1551–1552. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068254>).
- [222] Paszynska A. 2005 An extension of vose's markov chain model for genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1553–1554. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068255>).
- [223] Wang ZG, Rahman M, Wong YS. 2005 Multi-niche crowding in the development of parallel genetic simulated annealing. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1555–1556. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068256>).
- [224] Bui LT, Branke J, Abbass HA. 2005 Diversity as a selection pressure in dynamic environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1557–1558. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068257>).
- [225] H JAM. 2005 Search space modulation in genetic algorithms: evolving the search space by sinusoidal transformations. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1559–1560. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068258>).
- [226] Ohnishi K, Yoshida K. 2005 Evolutionary change in developmental timing. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1561–1562. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068259>).
- [227] Vrajitoru D, DeBonis J. 2005 Hybrid real-coded mutation for genetic algorithms applied to graph layouts. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1563–1564. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068260>).
- [228] Cherba DM, Punch W, Duxbury P, Billinge S, Juhas P. 2005 Conformation of an ideal bucky ball molecule by genetic algorithm and geometric constraint from pair distance data: genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1565–1566. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068261>).

- [229] Auwatanamongkol S. 2005 Inexact pattern matching using genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1567–1568. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068262>).
- [230] Cong L, Sha Y, Jiao L, Liu F. 2005 Directional self-learning of genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1569–1570. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068263>).
- [231] Reis C, Machado JAT, Cunha JB. 2005 Fractional dynamic fitness functions for ga-based circuit design. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1571–1572. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068264>).
- [232] Ando S, Kobayashi S. 2005 Fitness-based neighbor selection for multimodal function optimization. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1573–1574. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068265>).
- [233] Berntsson J, Tang M. 2005 Adaptive sizing of populations and number of islands in distributed genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1575–1576. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068266>).
- [234] Zhang J, Chung HSH, Zhong J. 2005 Adaptive crossover and mutation in genetic algorithms based on clustering technique. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1577–1578. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068267>).
- [235] Berntsson J, Tang M. 2005 Dynamic optimization of migration topology in internet-based distributed genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1579–1580. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068268>).
- [236] Kim JH, Choi SS, Moon BR. 2005 Normalization for neural network in genetic search. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1581–1582. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068269>).
- [237] Ahn CW, Oh S, Ramakrishna RS. 2005 On the practical genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1583–1584. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068270>).
- [238] Sait SM, Faheemuddin M, Minhas MR, Sanaullah S. 2005 Multiobjective vlsi cell placement using distributed genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1585–1586. Washington DC, USA: ACM Press. (doi: <http://dx.doi.org/10.1145/1068009.1068271>).

- [239] Ferretti E, Esquivel S. 2005 Knowledge insertion: an efficient approach to reduce effort in simple genetic algorithms for unrestricted parallel equal machines scheduling. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1587–1588. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068272).
- [240] Sokolov A, Whitley D, Lunacek M. 2005 Alternative implementations of the griewangk function. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1589–1590. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068273).
- [241] Diaz-Gomez PA, Hougen DF. 2005 Analysis and mathematical justification of a fitness function used in an intrusion detection system. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1591–1592. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068274).
- [242] Fenton P, Walsh P. 2005 A comparison of messy ga and permutation based ga for job shop scheduling. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1593–1594. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068275).
- [243] Affenzeller M, Wagner S, Winkler S. 2005 Goal-oriented preservation of essential genetic information by offspring selection. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1595–1596. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068276).
- [244] León-Barranco A, Barajas SE, Reyes CA. 2005 Argen + arepo: mixing the artificial genetic engineering and artificial evolution of populations to improve the search process. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1597–1598. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068277).
- [245] Moore FW. 2005 A genetic algorithm for optimized reconstruction of quantized one-dimensional signals. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1599–1600. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068278).
- [246] Chen S, Pitt G. 2005 Isolating the benefits of respect. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1601–1602. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068279).
- [247] Stevens J, Heckendorn RB, Soule T. 2005 Exploiting disruption aversion to control code bloat. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1605–1612. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068281).
- [248] Collins M. 2005 Finding needles in haystacks is harder with neutrality. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1613–1618. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068282).

- [249] Hu J, Zhong X, Goodman ED. 2005 Open-ended robust design of analog filters using genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1619–1626. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068283>).
- [250] Daida JM. 2005 Towards identifying populations that increase the likelihood of success in genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1627–1634. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068284>).
- [251] Lasarczyk CWG, Banzhaf W. 2005 Total synthesis of algorithmic chemistries. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1635–1640. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068285>).
- [252] Zechman EM, Ranjithan SR. 2005 Multipopulation cooperative coevolutionary programming (mccp) to enhance design innovation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1641–1648. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068286>).
- [253] Walker JA, Miller JF. 2005 Investigating the performance of module acquisition in cartesian genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1649–1656. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068287>).
- [254] Massey P, Clark JA, Stepney S. 2005 Evolution of a human-competitive quantum fourier transform algorithm using genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1657–1663. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068288>).
- [255] Dempsey I, O'Neill M, Brabazon A. 2005 Meta-grammar constant creation with grammatical evolution by grammatical evolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1665–1671. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068289>).
- [256] Silva S, Costa E. 2005 Resource-limited genetic programming: the dynamic approach. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1673–1680. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068290>).
- [257] Jackson D. 2005 Parsing and translation of expressions by genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1681–1688. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068291>).
- [258] Spector L, Klein J, Keijzer M. 2005 The push3 execution stack and the evolution of control. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1689–1696. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068292>).

- [259] Janikow CZ, Mann CJ. 2005 Cgp visits the santa fe trail: effects of heuristics on gp. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1697–1704. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068293>).
- [260] Murata T, Nakamura T. 2005 Genetic network programming with automatically defined groups for assigning proper roles to multiple agents. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1705–1712. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068294>).
- [261] Daida JM, Samples ME, Byom MJ. 2005 Probing for limits to building block mixing with a tunably-difficult problem for genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1713–1720. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068295>).
- [262] Richards MD, Whitley D, Beveridge JR, Mytkowicz T, Nguyen D, Rome D. 2005 Evolving cooperative strategies for uav teams. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1721–1728. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068296>).
- [263] Hornby GS. 2005 Measuring, enabling and comparing modularity, regularity and hierarchy in evolutionary design. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1729–1736. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068297>).
- [264] Smith, III JF. 2005 Evolving fuzzy decision tree structure that adapts in real-time. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1737–1744. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068298>).
- [265] Jackson D. 2005 Dormant program nodes and the efficiency of genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1745–1751. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068299>).
- [266] Cavill R, Smith S, Tyrrell A. 2005 Multi-chromosomal genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1753–1759. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068300>).
- [267] Zhang BT, Jang HY. 2005 Molecular programming: evolving genetic programs in a test tube. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1761–1768. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068301>).
- [268] Besetti S, Soule T. 2005 Function choice, resiliency and growth in genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1771–1772. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068303>).

- [269] Majeed H, Ryan C, Azad RMA. 2005 Evaluating gp schema in context. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1773–1774. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068304).
- [270] Yanai K, Iba H. 2005 Probabilistic distribution models for eda-based gp. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1775–1776. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068305).
- [271] Poli R, Langdon WB. 2005 Backward-chaining genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1777–1778. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068306).
- [272] Foreman N, Evett M. 2005 Preventing overfitting in gp with canary functions. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1779–1780. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068307).
- [273] Pillay N. 2005 An investigation into using genetic programming as a means of inducing solutions to novice procedural programming problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1781–1782. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068308).
- [274] Gelly S, Teytaud O, Bredeche N, Schoenauer M. 2005 A statistical learning theory approach of bloat. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1783–1784. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068309).
- [275] Ondas R, Pelikan M, Sastry K. 2005 Scalability of genetic programming and probabilistic incremental program evolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1785–1786. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068310).
- [276] Luo X, Heywood MI, Zincir-Heywood AN. 2005 Evolving recurrent models using linear gp. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1787–1788. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068311).
- [277] Antolík J, Hsu WH. 2005 Evolutionary tree genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1789–1790. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068312).
- [278] Samples ME, Daida JM, Byom M, Pizzimenti M. 2005 Parameter sweeps for exploring gp parameters. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1791–1792. Washington DC, USA: ACM Press. (doi:http://dx.doi.org/10.1145/1068009.1068313).

- [279] Wierstra D, Gomez FJ, Schmidhuber J. 2005 Modeling systems with internal state using evoluno. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1795–1802. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068315>).
- [280] Ravichandran B, Gandhe A, Smith RE. 2005 Xcs for robust automatic target recognition. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1803–1810. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068316>).
- [281] Shafti LS, Pérez EP. 2005 Constructive induction and genetic algorithms for learning concepts with complex interaction. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1811–1818. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068317>).
- [282] Mellor D. 2005 A first order logic classifier system. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1819–1826. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068318>).
- [283] Lanzi PL, Loiacono D, Wilson SW, Goldberg DE. 2005 Extending xcsf beyond linear approximation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1827–1834. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068319>).
- [284] Butz MV. 2005 Kernel-based, ellipsoidal conditions in the real-valued xcs classifier system. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1835–1842. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068320>).
- [285] Bacardit J. 2005 Analysis of the initialization stage of a pittsburgh approach learning classifier system. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1843–1850. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068321>).
- [286] Drugowitsch J, Barry AM. 2005 Xcs with eligibility traces. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1851–1858. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068322>).
- [287] Lanzi PL, Loiacono D, Wilson SW, Goldberg DE. 2005 Xcs with computed prediction in multistep environments. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1859–1866. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068323>).
- [288] Landau S, Sigaud O, Schoenauer M. 2005 Atmosferes revisited. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1867–1874. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068324>).

- [289] Browne W, Scott D. 2005 An abstraction algorithm for genetics-based reinforcement learning. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1875–1882. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068325>).
- [290] Dam HH, Abbass HA, Lokan C. 2005 DxcS: an xcs system for distributed data mining. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1883–1890. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068326>).
- [291] Llorà X, Sastry K, Goldberg DE. 2005 The compact classifier system: motivation, analysis, and first results. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1993–1994. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068328>).
- [292] Ecemis I, Bonabeau E, Ashburn T. 2005 Interactive estimation of agent-based financial markets models: modularity and learning. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1897–1904. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068330>).
- [293] Budynek J, Bonabeau E, Shargel B. 2005 Evolving computer intrusion scripts for vulnerability assessment and log analysis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1905–1912. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068331>).
- [294] Sit YF, Miikkulainen R. 2005 Learning basic navigation for personal satellite assistant using neuroevolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1913–1920. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068332>).
- [295] Garrett D, Vannucci J, Silva R, Dasgupta D, Simien J. 2005 Genetic algorithms for the sailor assignment problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1921–1928. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068333>).
- [296] Ridder JP, HandUber JC. 2005 Mission planning for joint suppression of enemy air defenses using a genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1929–1936. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068334>).
- [297] Bradstreet L, Barone L, While L. 2005 Map-labelling with a multi-objective evolutionary algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1937–1944. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068335>).
- [298] Schlichter T, Haubelt C, Teich J. 2005 Improving ea-based design space exploration by utilizing symbolic feasibility tests. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1945–1952. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068336>).

- [299] Koza JR, Al-Sakran SH, Jones LW. 2005 Automated re-invention of six patented optical lens systems using genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1953–1960. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068337>).
- [300] Grasemann U, Miikkulainen R. 2005 Effective image compression using evolved wavelets. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1961–1968. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068338>).
- [301] Lameijer EW, IJzerman A, Kok J. 2005 The molecule evaluator: an interactive evolutionary algorithm for designing drug molecules. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1969–1976. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068339>).
- [302] Stanley K, Kohl N, Sherony R, Miikkulainen R. 2005 Neuroevolution of an automobile crash warning system. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1977–1984. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068340>).
- [303] Mierswa I. 2005 Incorporating fuzzy knowledge into fitness: multiobjective evolutionary 3d design of process plants. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1985–1992. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068341>).
- [304] Montana D, Redi J. 2005 Optimizing parameters of a mobile ad hoc network protocol with a genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1993–1998. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068342>).
- [305] Keijzer M, Baptist M, Babovic V, Uthurburu JR. 2005 Determining equations for vegetation induced resistance using genetic programming. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 1999–2006. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068343>).
- [306] Kicinger R, Arciszewski T, De Jong K. 2005 Parameterized versus generative representations in structural design: an empirical comparison. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2007–2014. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068344>).
- [307] Stevens D, Das S, Natarajan B. 2005 A multi-objective algorithm for ds-cdma code design based on the clonal selection principle. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2015–2020. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068345>).
- [308] Rothlauf F, Schunk D, Pfeiffer J. 2005 Classification of human decision behavior: finding modular decision rules with genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2021–2028. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068346>).

- [309] Lee G, Bulitko V. 2005 Gamm: genetic algorithms with meta-models for vision. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2029–2036. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068347>).
- [310] Choi YS, Moon BR, Seo SY. 2005 Genetic fuzzy discretization with adaptive intervals for classification problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2037–2043. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068348>).
- [311] Han J, Bhanu B. 2005 Hierarchical multi-sensor image registration using evolutionary computation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2045–2052. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068349>).
- [312] Nassu BT, Duarte, Jr EP, Pozo ATR. 2005 A comparison of evolutionary algorithms for system-level diagnosis. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2053–2060. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068350>).
- [313] Kwon YK, Choi SS, Moon BR. 2005 Stock prediction based on financial correlation. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2061–2066. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068351>).
- [314] Wilson G, Heywood M. 2005 Use of a genetic algorithm in brill's transformation-based part-of-speech tagger. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2067–2073. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068352>).
- [315] Wight J, Zhang Y. 2005 An "ageing" operator and its use in the highly constrained topological optimization of hvac system design. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2075–2082. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068353>).
- [316] Ahrens B. 2005 Genetic algorithm optimization of superresolution parameters. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2083–2088. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068354>).
- [317] Kwon YK, Moon BR. 2005 Nonlinear feature extraction using a neuro genetic hybrid. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2089–2096. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068355>).
- [318] Sureka A, Wurman PR. 2005 Applying metaheuristic techniques to search the space of bidding strategies in combinatorial auctions. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2097–2103. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068356>).

- [319] Gong M, Wang L, Jiao L, Du H. 2005 An artificial immune system algorithm for cdma multiuser detection over multi-path channels. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2105–2111. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068357>).
- [320] Carter E, Ebdon S, Neal-Sturgess C. 2005 Optimization of passenger car design for the mitigation of pedestrian head injury using a genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2113–2120. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068358>).
- [321] Hijazi SL, Natarajan B, Das S. 2005 An ant colony algorithm for multi-user detection in wireless communication systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2121–2126. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068359>).
- [322] Cochenour G, Simon J, Das S, Pahwa A, Nag S. 2005 A pareto archive evolutionary strategy based radial basis function neural network training algorithm for failure rate prediction in overhead feeders. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2127–2132. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068360>).
- [323] Nummela J, Julstrom BA. 2005 Evolving petri nets to represent metabolic pathways. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2133–2139. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068361>).
- [324] Yuan B, Gallagher M, Crozier S. 2005 Mri magnet design: search space analysis, edas and a real-world problem with significant dependencies. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2141–2148. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068362>).
- [325] Talaie S, Leigh R, Louis SJ, Raines GL. 2005 Predicting mining activity with parallel genetic algorithms. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2149–2155. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068363>).
- [326] Das S, Konar A, Chakraborty UK. 2005 An efficient evolutionary algorithm applied to the design of two-dimensional iir filters. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2157–2163. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068364>).
- [327] Soltoggio A. 2005 An enhanced ga to improve the search process reliability in tuning of control systems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2165–2172. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068365>).
- [328] Hasenjaeger M, Sendhoff B, Sonoda T, Arima T. 2005 Three dimensional evolutionary aerodynamic design optimization with cma-es. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO*

- 2005: *Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2173–2180. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068366>).
- [329] Pham QT. 2005 Evolutionary optimization of dynamic control problems accelerated by progressive step reduction. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2181–2187. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068367>).
 - [330] Alim F, Ivanov K. 2005 Heuristic rules embedded genetic algorithm to solve in-core fuel management optimization problem. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2191–2192. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068369>).
 - [331] Sanchez E, Schillaci M, Reorda MS, Squillero G, Sterpone L, Violante M. 2005 New evolutionary techniques for test-program generation for complex microprocessor cores. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2193–2194. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068370>).
 - [332] Hiroyasu T, Miki M, Nakayama S, Hanada Y. 2005 Multi-objective optimization of diesel engine emissions and fuel economy using spea2+. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2195–2196. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068371>).
 - [333] Dahal KP, Galloway SJ, Burt GM, McDonald JR, Hopkins I. 2005 A case study of process facility optimization using discrete event simulation and genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2197–2198. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068372>).
 - [334] Szumlanski SR, Wu AS, Hughes CE. 2005 Collaborative interactive evolution. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2199–2200. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068373>).
 - [335] Sato Y, Kanno R. 2005 Event-driven learning classifier systems for online soccer games. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2201–2202. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068374>).
 - [336] Whiting P, Poon PW, Carter JN. 2005 A genetic algorithm approach to the selection of near-optimal subsets from large sets. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2203–2204. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068375>).
 - [337] Jin MH, Kao CY, Huang YC, Hsu DF, Lee RG, Lee CK. 2005 Compact genetic algorithm for active interval scheduling in hierarchical sensor networks. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2205–2206. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068376>).

- [338] Castillo FA, Villa CM. 2005 Symbolic regression in multicollinearity problems. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2207–2208. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068377>).
- [339] Daoud M, Kharma N. 2005 Gats 1.0: a novel ga-based scheduling algorithm for task scheduling on heterogeneous processor nets. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2209–2210. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068378>).
- [340] Meekhof T, Heckendorn RB. 2005 Using evolutionary optimization to improve markov-based classification with limited training data. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2211–2212. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068379>).
- [341] Day RO, Nunez AS, Lamont GB. 2005 Moea design of robust digital symbol sets. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2213–2214. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068380>).
- [342] Seo K, Goodman ED, Rosenberg RC. 2005 Design of air pump system using bond graph and genetic programming method. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2215–2216. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068381>).
- [343] Lim C, Sim E. 2005 Production planning in manufacturing/remanufacturing environment using genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2217–2218. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068382>).
- [344] Díaz DS, Romay MG. 2005 Introducing a watermarking with a multi-objective genetic algorithm. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2219–2220. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068383>).
- [345] Ferreira TAE, Vasconcelos GC, Adeodato PJL. 2005 A new evolutionary method for time series forecasting. In: Beyer HG, O'Reilly UM, Arnold DV, Banzhaf W, Blum C, Bonabeau EW, Cantu-Paz E, Dasgupta D, Deb K, Foster JA, *et al.* (eds.), *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, vol. 2, pp. 2221–2222. Washington DC, USA: ACM Press. (doi:<http://dx.doi.org/10.1145/1068009.1068384>).