

## Список литературы

- [1] Zhou, Y. and Tan, Y., Particle swarm optimization with triggered mutation and its implementation based on gpu, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1–8, Portland, Oregon, USA, 2010, ACM.
- [2] Chen, Z., He, Z., and Zhang, C., Particle swarm optimizer with self-adjusting neighborhoods, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 9–14, Portland, Oregon, USA, 2010, ACM.
- [3] Vanneschi, L., Codecasa, D., and Mauri, G., An empirical comparison of parallel and distributed particle swarm optimization methods, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 15–22, Portland, Oregon, USA, 2010, ACM.
- [4] Lin, Y., min Hu, X., and Zhang, J., An ant-colony-system-based activity scheduling method for the lifetime maximization of heterogeneous wireless sensor networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 23–30, Portland, Oregon, USA, 2010, ACM.
- [5] jie Yu, W. and Zhang, J., Pheromone-distribution-based adaptive ant colony system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 31–38, Portland, Oregon, USA, 2010, ACM.
- [6] Zhan, Z.-H. and Zhang, J., Self-adaptive differential evolution based on pso learning strategy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 39–46, Portland, Oregon, USA, 2010, ACM.
- [7] Lemmens, N. and Tuyls, K., Stigmergic landmark routing: a routing algorithm for wireless mobile ad-hoc networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 47–54, Portland, Oregon, USA, 2010, ACM.
- [8] Deb, K. and Padhye, N., Development of efficient particle swarm optimizers by using concepts from evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 55–62, Portland, Oregon, USA, 2010, ACM.
- [9] Neumann, F., Sudholt, D., and Witt, C., A few ants are enough: Aco with iteration-best update, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 63–70, Portland, Oregon, USA, 2010, ACM.
- [10] Lopez-Ibanez, M. and Stuetzle, T., The impact of design choices of multiobjective antcolony optimization algorithms on performance: an experimental study on the biobjective tsp, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 71–78, Portland, Oregon, USA, 2010, ACM.
- [11] Salim, S., Javed, M., and Akbar, A. H., Honey-bee dancing-inspired architecture for fault tolerance in wireless sensor networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 79–80, Portland, Oregon, USA, 2010, ACM.
- [12] Mohemmed, A. W., Zhang, M., and Browne, W. N., Particle swarm optimisation for outlier detection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 83–84, Portland, Oregon, USA, 2010, ACM.
- [13] Brown, J. B. and Huber, M., Pseudo-hierarchical ant-based clustering using a heterogeneous agent hierarchy and automatic boundary formation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 85–86, Portland, Oregon, USA, 2010, ACM.

- [14] Ducatelle, F., Di Caro, G. A., and Gambardella, L. M., Cooperative self-organization in a heterogeneous swarm robotic system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 87–94, Portland, Oregon, USA, 2010, ACM.
- [15] Pilat, M. L. and Jacob, C., Evolution of vision capabilities in embodied virtual creatures, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 95–102, Portland, Oregon, USA, 2010, ACM.
- [16] Lehman, J. and Stanley, K. O., Revising the evolutionary computation abstraction: minimal criteria novelty search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 103–110, Portland, Oregon, USA, 2010, ACM.
- [17] Bongard, J. C. and Hornby, G. S., Guarding against premature convergence while accelerating evolutionary search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 111–118, Portland, Oregon, USA, 2010, ACM.
- [18] Koos, S., Mouret, J.-B., and Doncieux, S., Crossing the reality gap in evolutionary robotics by promoting transferable controllers, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 119–126, Portland, Oregon, USA, 2010, ACM.
- [19] Knudson, M. and Tumer, K., Coevolution of heterogeneous multi-robot teams, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 127–134, Portland, Oregon, USA, 2010, ACM.
- [20] Goldsby, H. J., Knoester, D. B., and Ofria, C., Evolution of division of labor in genetically homogenous groups, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 135–142, Portland, Oregon, USA, 2010, ACM.
- [21] Connelly, B. D., Beckmann, B. E., and McKinley, P. K., Resource abundance promotes the evolution of public goods cooperation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 143–150, Portland, Oregon, USA, 2010, ACM.
- [22] Hiller, J. D. and Lipson, H., Morphological evolution of freeform robots, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 151–152, Portland, Oregon, USA, 2010, ACM.
- [23] Fernando, C., Neuronal replicators solve the stability-plasticity dilemma, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 153–154, Portland, Oregon, USA, 2010, ACM.
- [24] Wong, K.-C., Leung, K.-S., and Wong, M.-H., Protein structure prediction on a lattice model via multimodal optimization techniques, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 155–162, Portland, Oregon, USA, 2010, ACM.
- [25] Farinaccio, A., Vanneschi, L., Giacobini, M., Mauri, G., and Provero, P., On the use of genetic programming for the prediction of survival in cancer, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 163–170, Portland, Oregon, USA, 2010, ACM.
- [26] Lo, L.-Y., Chan, T.-M., Lee, K.-H., and Leung, K.-S., Challenges rising from learning motif evaluation functions using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 171–178, Portland, Oregon, USA, 2010, ACM.

- [27] Kamath, U., De Jong, K. A., and Shehu, A., Selecting predictive features for recognition of hypersensitive sites of regulatory genomic sequences with an evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 179–186, Portland, Oregon, USA, 2010, ACM.
- [28] García-Martínez, C., Lima, C., Twycross, J., Krasnogor, N., and Lozano, M., P system model optimisation by means of evolutionary based search algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 187–194, Portland, Oregon, USA, 2010, ACM.
- [29] Urbanowicz, R. J. and Moore, J. H., The application of michigan-style learning classifiersystems to address genetic heterogeneity and epistasis in association studies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 195–202, Portland, Oregon, USA, 2010, ACM.
- [30] Holzinger, E. R. et al., Initialization parameter sweep in athena: optimizing neural networks for detecting gene-gene interactions in the presence of small main effects, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 203–210, Portland, Oregon, USA, 2010, ACM.
- [31] Atilgan, E. and Hu, J., Efficient protein-ligand docking using sustainable evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 211–212, Portland, Oregon, USA, 2010, ACM.
- [32] Kubalik, J., Buryan, P., and Wagner, L., Solving the dna fragment assembly problem efficiently using iterative optimization with evolved hypermutations, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 213–214, Portland, Oregon, USA, 2010, ACM.
- [33] Sinnott-Armstrong, N. A., Greene, C. S., and Moore, J. H., Fast genome-wide epistasis analysis using ant colony optimization for multifactor dimensionality reduction analysis on graphics processing units, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 215–216, Portland, Oregon, USA, 2010, ACM.
- [34] Jiang, H. and Chen, Y., An efficient algorithm for generalized minimum spanning tree problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 217–224, Portland, Oregon, USA, 2010, ACM.
- [35] Iordache, S., Consultant-guided search: a new metaheuristic for combinatorial optimization problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 225–232, Portland, Oregon, USA, 2010, ACM.
- [36] Wu, S. X. and Banzhaf, W., A hierarchical cooperative evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 233–240, Portland, Oregon, USA, 2010, ACM.
- [37] Bibai, J., Saveant, P., Schoenauer, M., and Vidal, V., On the generality of parameter tuning in evolutionary planning, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 241–248, Portland, Oregon, USA, 2010, ACM.
- [38] Hildebrandt, T., Heger, J., and Scholz-Reiter, B., Towards improved dispatching rules for complex shop floor scenarios: a genetic programming approach, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 257–264, Portland, Oregon, USA, 2010, ACM.
- [39] Leung, K. M. and Zhang, X., Discrete versus continuous parametrization of bank credit rating systems optimization using differential evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 265–272, Portland, Oregon, USA, 2010, ACM.

- [40] Stonedahl, F. and Stonedahl, S. H., Heuristics for sampling repetitions in noisy landscapes with fitness caching, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 273–280, Portland, Oregon, USA, 2010, ACM.
- [41] Ren, Z. and Feng, Z., An ant colony optimization approach to the multiple-choice multidimensional knapsack problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 281–288, Portland, Oregon, USA, 2010, ACM.
- [42] Doğan, E., Erdal, F., and Saka, M. P., Optimum design of grillage systems under code provisions using particle swarm optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 289–290, Portland, Oregon, USA, 2010, ACM.
- [43] Merelo, J. J., Mora, A. M., and Runarsson, T. P., Beating exhaustive search at its own game: revisiting evolutionary mastermind, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 291–292, Portland, Oregon, USA, 2010, ACM.
- [44] Tsai, C.-W., Tseng, S.-P., Chiang, M.-C., and Yang, C.-S., A framework for accelerating metaheuristics via pattern reduction, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 293–294, Portland, Oregon, USA, 2010, ACM.
- [45] Kimbrough, S. O., Kuo, A., and Lau, H. C., Effective heuristic methods for finding non-optimal solutions of interest in constrained optimization models, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 295–296, Portland, Oregon, USA, 2010, ACM.
- [46] López-Camacho, E., Terashima-Marín, H., Ross, P., and Valenzuela-Rendón, M., Problem-state representations in a hyper-heuristic approach for the 2d irregular bpp, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 297–298, Portland, Oregon, USA, 2010, ACM.
- [47] Montero, E., Riff, M.-C., and Neveu, B., An evaluation of off-line calibration techniques for evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 299–300, Portland, Oregon, USA, 2010, ACM.
- [48] Steitz, W. and Rothlauf, F., Solving ocsst problems with problem-specific guided local search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 301–302, Portland, Oregon, USA, 2010, ACM.
- [49] Radetic, E. and Pelikan, M., Spurious dependencies and eda scalability, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 303–310, Portland, Oregon, USA, 2010, ACM.
- [50] Chuang, C.-Y. and Hsu, W.-L., Multivariate multi-model approach for globally multimodal problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 311–318, Portland, Oregon, USA, 2010, ACM.
- [51] hui Zhong, J. and Zhang, J., A robust estimation of distribution algorithm for power electronic circuits design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 319–326, Portland, Oregon, USA, 2010, ACM.
- [52] Yang, J., Xu, H., Cai, Y., and Jia, P., Effective structure learning for eda via l1-regularizedbayesian networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 327–334, Portland, Oregon, USA, 2010, ACM.

- [53] Luong, H. N., Nguyen, H. T., and Ahn, C. W., Entropy-based substructural local search for the bayesian optimization algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 335–342, Portland, Oregon, USA, 2010, ACM.
- [54] Nguyen, H. T., Luong, H. N., and Ahn, C. W., Entropy measurement-based estimation model for bayesian optimization algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 343–350, Portland, Oregon, USA, 2010, ACM.
- [55] Bosman, P. A., The anticipated mean shift and cluster registration in mixture-based edas for multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 351–358, Portland, Oregon, USA, 2010, ACM.
- [56] Salinas-Gutiérrez, R., Hernández-Aguirre, A., and Villa-Diharce, E. R., D-vine eda: a new estimation of distribution algorithm based on regular vines, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 359–366, Portland, Oregon, USA, 2010, ACM.
- [57] Nikanjam, A., Sharifi, H., Helmi, B. H., and Rahmani, A., A new dsm clustering algorithm for linkage groups identification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 367–368, Portland, Oregon, USA, 2010, ACM.
- [58] Melkozerov, A. and Beyer, H.-G., On the analysis of self-adaptive evolution strategies on elliptic model: first results, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 369–376, Portland, Oregon, USA, 2010, ACM.
- [59] Chwatal, A. M., Raidl, G. R., and Zöch, M., Fitting multi-planet transit models to photometric time-data series by evolution strategies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 377–384, Portland, Oregon, USA, 2010, ACM.
- [60] Arnold, D. V. and Hansen, N., Active covariance matrix adaptation for the (1+1)-cma-es, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 385–392, Portland, Oregon, USA, 2010, ACM.
- [61] Glasmachers, T., Schaul, T., Yi, S., Wierstra, D., and Schmidhuber, J., Exponential natural evolution strategies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 393–400, Portland, Oregon, USA, 2010, ACM.
- [62] Preuss, M., Rudolph, G., and Wessing, S., Tuning optimization algorithms for real-world problems by means of surrogate modeling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 401–408, Portland, Oregon, USA, 2010, ACM.
- [63] Gong, W., Álvaro Fialho, and Cai, Z., Adaptive strategy selection in differential evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 409–416, Portland, Oregon, USA, 2010, ACM.
- [64] Ma, H. and Simon, D., Biogeography-based optimization with blended migration for constrained optimization problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 417–418, Portland, Oregon, USA, 2010, ACM.
- [65] Gonzales, E., Mabu, S., Taboada, K., Hirasawa, K., and Shimada, K., Pruning association rules using statistics and genetic relation algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 419–420, Portland, Oregon, USA, 2010, ACM.

- [66] Shir, O. M., Roslund, J., and Rabitz, H., Forced optimal covariance adaptive learning: modified cma-es for efficient hessian determination, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 421–422, Portland, Oregon, USA, 2010, ACM.
- [67] Liu, R., Zhang, W., Jiao, L., Liu, F., and Ma, J., A sphere-dominance based preference immune-inspired algorithm for dynamic multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 423–430, Portland, Oregon, USA, 2010, ACM.
- [68] Lochtefeld, D. F. and Ciarallo, F. W., Deterministic helper-objective sequences applied to job-shop scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 431–438, Portland, Oregon, USA, 2010, ACM.
- [69] Schrum, J. and Miikkulainen, R., Evolving agent behavior in multiobjective domains using fitness-based shaping, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 439–446, Portland, Oregon, USA, 2010, ACM.
- [70] Ulrich, T., Bader, J., and Zitzler, E., Integrating decision space diversity into hypervolume-based multiobjective search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 455–462, Portland, Oregon, USA, 2010, ACM.
- [71] Li, M., Zheng, J., Shen, R., Li, K., and Yuan, Q., A grid-based fitness strategy for evolutionary many-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 463–470, Portland, Oregon, USA, 2010, ACM.
- [72] Loshchilov, I., Schoenauer, M., and Sebag, M., A mono surrogate for multiobjective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 471–478, Portland, Oregon, USA, 2010, ACM.
- [73] Sharma, D. and Collet, P., An archived-based stochastic ranking evolutionary algorithm (asrea) for multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 479–486, Portland, Oregon, USA, 2010, ACM.
- [74] Voß, T., Hansen, N., and Igel, C., Improved step size adaptation for the mo-cma-es, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 487–494, Portland, Oregon, USA, 2010, ACM.
- [75] Berghammer, R., Friedrich, T., and Neumann, F., Set-based multi-objective optimization, indicators, and deteriorative cycles, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 495–502, Portland, Oregon, USA, 2010, ACM.
- [76] Kramer, O. and Danielsiek, H., Dbscan-based multi-objective niching to approximate equivalent pareto-subsets, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 503–510, Portland, Oregon, USA, 2010, ACM.
- [77] Bringmann, K. and Friedrich, T., The maximum hypervolume set yields near-optimal approximation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 511–518, Portland, Oregon, USA, 2010, ACM.
- [78] Ishibuchi, H., Sakane, Y., Tsukamoto, N., and Nojima, Y., Simultaneous use of different scalarizing functions in moea/d, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 519–526, Portland, Oregon, USA, 2010, ACM.

- [79] Folino, F. and Pizzuti, C., Multiobjective evolutionary community detection for dynamic networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 535–536, Portland, Oregon, USA, 2010, ACM.
- [80] Zapotecas Martínez, S. and Coello Coello, C. A., A multi-objective meta-model assisted memetic algorithm with non gradient-based local search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 537–538, Portland, Oregon, USA, 2010, ACM.
- [81] Dumitrescu, D., Lung, R. I., Nagy, R., Zaharie, D., and Bartha, A., Exploring evolutionary detected fuzzy equilibria: a link between normative theory and real life, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 539–540, Portland, Oregon, USA, 2010, ACM.
- [82] Hutzschenreuter, A. K., Bosman, P. A., and La Poutré, H., Enhanced hospital resource management using anticipatory policies in online dynamic multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 541–542, Portland, Oregon, USA, 2010, ACM.
- [83] Schmidt, M. D. and Lipson, H., Age-fitness pareto optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 543–544, Portland, Oregon, USA, 2010, ACM.
- [84] Martí, L., García, J., Berlanga, A., and Molina, J. M., Moving away from error-based learning in multi-objective estimation of distribution algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 545–546, Portland, Oregon, USA, 2010, ACM.
- [85] Verbancsics, P. and Stanley, K. O., Transfer learning through indirect encoding, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 547–554, Portland, Oregon, USA, 2010, ACM.
- [86] Downing, K. L., The baldwin effect in developing neural networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 555–562, Portland, Oregon, USA, 2010, ACM.
- [87] Risi, S., Lehman, J., and Stanley, K. O., Evolving the placement and density of neurons in the hyperneat substrate, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 563–570, Portland, Oregon, USA, 2010, ACM.
- [88] Steiner, T., Jin, Y., and Sendhoff, B., Evolving heterochrony for cellular differentiation using vector field embryogeny, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 571–578, Portland, Oregon, USA, 2010, ACM.
- [89] Harding, S., Miller, J. F., and Banzhaf, W., Self modifying cartesian genetic programming: finding algorithms that calculate pi and e to arbitrary precision, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 579–586, Portland, Oregon, USA, 2010, ACM.
- [90] Mouret, J.-B., Doncieux, S., and Girard, B., Importing the computational neuroscience toolbox into neuro-evolution-application to basal ganglia, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 587–594, Portland, Oregon, USA, 2010, ACM.
- [91] Trefzer, M. A., Kuyucu, T., Miller, J. F., and Tyrrell, A. M., Image compression of natural images using artificial gene regulatory networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 595–602, Portland, Oregon, USA, 2010, ACM.

- [92] Knoester, D. B., Goldsby, H. J., and McKinley, P. K., Neuroevolution of mobile ad hoc networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 603–610, Portland, Oregon, USA, 2010, ACM.
- [93] Moriguchi, H. and Honiden, S., Sustaining behavioral diversity in neat, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 611–618, Portland, Oregon, USA, 2010, ACM.
- [94] Koutnik, J., Gomez, F., and Schmidhuber, J., Evolving neural networks in compressed weight space, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 619–626, Portland, Oregon, USA, 2010, ACM.
- [95] Auerbach, J. E. and Bongard, J. C., Evolving cppns to grow three-dimensional physical structures, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 627–634, Portland, Oregon, USA, 2010, ACM.
- [96] Clune, J., Beckmann, B. E., McKinley, P. K., and Ofria, C., Investigating whether hyperneat produces modular neural networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 635–642, Portland, Oregon, USA, 2010, ACM.
- [97] Inden, B., Jin, Y., Haschke, R., and Ritter, H., Neatfields: evolution of neural fields, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 645–646, Portland, Oregon, USA, 2010, ACM.
- [98] Soule, T. and Heckendorn, R. B., A developmental algorithm for multi-agent swarms with scalable hierarchies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 647–648, Portland, Oregon, USA, 2010, ACM.
- [99] Collier, R. and Wineberg, M., Approaches to multidimensional scaling for adaptive landscape visualization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 649–656, Portland, Oregon, USA, 2010, ACM.
- [100] Benjamin, J. and Julstrom, B. A., Breaking ties with secondary fitness in a genetic algorithm for the bin packing problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 657–664, Portland, Oregon, USA, 2010, ACM.
- [101] Pelikan, M., Nk landscapes, problem difficulty, and hybrid evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 665–672, Portland, Oregon, USA, 2010, ACM.
- [102] Yehoshua, R., Avigal, M., and Unger, R., Analysis of the effects of lifetime learning on population fitness using vose model, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 681–688, Portland, Oregon, USA, 2010, ACM.
- [103] Tulshyan, R., Arora, R., Deb, K., and Dutta, J., Investigating ea solutions for approximate kkt conditions in smooth problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 689–696, Portland, Oregon, USA, 2010, ACM.
- [104] Lien, T.-C., Yu, T.-L., and You, Y.-S., Co-evolution of cooperative strategies under egoism, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 697–704, Portland, Oregon, USA, 2010, ACM.
- [105] Jansen, T. and Zarges, C., Aging beyond restarts, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 705–712, Portland, Oregon, USA, 2010, ACM.



- [106] Hauschild, M. W. and Pelikan, M., Network crossover performance on nk landscapes and deceptive problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 713–720, Portland, Oregon, USA, 2010, ACM.
- [107] Vafaei, F., Turán, G., and Nelson, P. C., Optimizing genetic operator rates using a markov chain model of genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 721–728, Portland, Oregon, USA, 2010, ACM.
- [108] Wen, Y., Xu, H., and Yang, J., A heuristic-based hybrid genetic algorithm for heterogeneous multiprocessor scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 729–736, Portland, Oregon, USA, 2010, ACM.
- [109] Unachak, P. and Goodman, E., Solving multiobjective flexible job-shop scheduling using an adaptive representation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 737–742, Portland, Oregon, USA, 2010, ACM.
- [110] de Mendonca Neta, B. M., Araujo, G. H. D., Guimaraes, F. G., and Mesquita, R. C., A hybrid genetic algorithm for automatic graph drawing based on the topology-shape-metric approach, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 743–750, Portland, Oregon, USA, 2010, ACM.
- [111] Barreto, A. M., Bernardino, H. S., and Barbosa, H. J., Probabilistic performance profiles for the experimental evaluation of stochastic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 751–758, Portland, Oregon, USA, 2010, ACM.
- [112] Doerr, B. and Johannsen, D., Edge-based representation beats vertex-based representation in shortest path problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 759–766, Portland, Oregon, USA, 2010, ACM.
- [113] Álvaro Fialho, Schoenauer, M., and Sebag, M., Toward comparison-based adaptive operator selection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 767–774, Portland, Oregon, USA, 2010, ACM.
- [114] Galan, S. F. and Mengshoel, O. J., Generalized crowding for genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 775–782, Portland, Oregon, USA, 2010, ACM.
- [115] Avery, P. and Louis, S., Coevolving influence maps for spatial team tactics in a rts game, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 783–790, Portland, Oregon, USA, 2010, ACM.
- [116] Carlson, B. P. and Hougen, D. F., Phenotype feedback genetic algorithm operators for heuristic encoding of snakes within hypercubes, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 791–798, Portland, Oregon, USA, 2010, ACM.
- [117] Crofford, J., Eskridge, B. E., and Hougen, D. F., Applying the triple parameter hypothesis to maintenance scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 799–806, Portland, Oregon, USA, 2010, ACM.
- [118] Cook, J. E. and Tauritz, D. R., An exploration into dynamic population sizing, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 807–814, Portland, Oregon, USA, 2010, ACM.

- [119] Ter-Sarkisov, A., Marsland, S. R., and Holland, B. R., The k-bit-swap: a new genetic algorithm operator, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 815–816, Portland, Oregon, USA, 2010, ACM.
- [120] De Prisco, R., Zaccagnino, G., and Zaccagnino, R., Evobasscomposer: a multi-objective genetic algorithm for 4-voice compositions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 817–818, Portland, Oregon, USA, 2010, ACM.
- [121] Nadi, F., Khader, A. T., and Al-Betar, M. A., Adaptive genetic algorithm using harmony search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 819–820, Portland, Oregon, USA, 2010, ACM.
- [122] Kureichik, V. M., Lebedev, B. K., and Lebedev, O. B., Hybrid evolutionary algorithm of planning vlsi, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 821–822, Portland, Oregon, USA, 2010, ACM.
- [123] Addicoat, M. A. and Brain, Z. E., Using a meta-ga for parametric optimization of simple gas in the computational chemistry domain, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 823–824, Portland, Oregon, USA, 2010, ACM.
- [124] Abbas, H. M., Mixed-coded evolutionary algorithm for gaussian mixture maximum likelihood clustering with model selection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 825–826, Portland, Oregon, USA, 2010, ACM.
- [125] Esparcia-Alcazar, A. I., Martínez-García, A., Mora, A. M., Merelo, J. J., and García-Sánchez, P., Genetic evolution of fuzzy finite state machines to control bots in a first-person shooter game, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 829–830, Portland, Oregon, USA, 2010, ACM.
- [126] Ortegon-Cano, P., Hartasánchez, D. A., and Stephens, C. R., Why recombination should be adaptive, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 831–832, Portland, Oregon, USA, 2010, ACM.
- [127] Meekhof, T. and Soule, T., Noise pressure: systematic overestimation of population fitness in genetic algorithms with noisy fitness functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 833–834, Portland, Oregon, USA, 2010, ACM.
- [128] Herrera-Ortiz, J. A., Oliver-Morales, C., and Rodríguez-Vázquez, K., Amount and type of information: a ga-hardness taxonomy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 835–836, Portland, Oregon, USA, 2010, ACM.
- [129] Bhowan, U., Zhang, M., and Johnston, M., Auc analysis of the pareto-front using multi-objective gp for classification with unbalanced data, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 845–852, Portland, Oregon, USA, 2010, ACM.
- [130] Lichodziejewski, P. and Heywood, M. I., Symbiosis, complexification and simplicity under gp, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 853–860, Portland, Oregon, USA, 2010, ACM.
- [131] Trujillo, L., Legrand, P., and Lévy-Véhel, J., The estimation of hölderian regularity using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 861–868, Portland, Oregon, USA, 2010, ACM.

- [132] Uy, N. Q., Hoai, N. X., O'Neill, M., and McKay, B., Semantics based crossover for boolean problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 869–876, Portland, Oregon, USA, 2010, ACM.
- [133] Downey, C., Zhang, M., and Browne, W. N., New crossover operators in linear genetic programming for multiclass object classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 885–892, Portland, Oregon, USA, 2010, ACM.
- [134] Azad, R. M. A. and Ryan, C., Abstract functions and lifetime learning in genetic programming for symbolic regression, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 893–900, Portland, Oregon, USA, 2010, ACM.
- [135] Galván-López, E., McDermott, J., O'Neill, M., and Brabazon, A., Towards an understanding of locality in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 901–908, Portland, Oregon, USA, 2010, ACM.
- [136] Zafra, A. and Ventura, S., Grammar guided genetic programming for multiple instance learning: an experimental study, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 909–916, Portland, Oregon, USA, 2010, ACM.
- [137] Pennachin, C. L., Looks, M., and de Vasconcelos, J. A., Robust symbolic regression with affine arithmetic, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 917–924, Portland, Oregon, USA, 2010, ACM.
- [138] Augusto, D. A., Barbosa, H. J. C., and Ebecken, N. F. F., Coevolutionary multi-population genetic programming for data classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 933–940, Portland, Oregon, USA, 2010, ACM.
- [139] Vladislavleva, K., Veeramachaneni, K., Burland, M., Parcon, J., and O'Reilly, U.-M., Knowledge mining with genetic programming methods for variable selection in flavor design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 941–948, Portland, Oregon, USA, 2010, ACM.
- [140] Foster, B. and Somayaji, A., Object-level recombination of commodity applications, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 957–964, Portland, Oregon, USA, 2010, ACM.
- [141] Fast, E., Le Gouse, C., Forrest, S., and Weimer, W., Designing better fitness functions for automated program repair, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 965–972, Portland, Oregon, USA, 2010, ACM.
- [142] Momm, H. G. and Easson, G., Population restarting: a study case of feature extraction from remotely sensed imagery using textural information, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 973–974, Portland, Oregon, USA, 2010, ACM.
- [143] Barrero, D. F., Camacho, D., and R-Moreno, M. D., Confidence intervals of success rates in evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 975–976, Portland, Oregon, USA, 2010, ACM.
- [144] Ahalpara, D. P., Improved forecasting of time series data of real system using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 977–978, Portland, Oregon, USA, 2010, ACM.

- [145] Wang, J. and Tan, Y., A novel genetic programming based morphological image analysis algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 979–980, Portland, Oregon, USA, 2010, ACM.
- [146] Curran, D., Freuder, E., and Jansen, T., Incremental evolution of local search heuristics, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 981–982, Portland, Oregon, USA, 2010, ACM.
- [147] Gajda, Z. and Sekanina, L., When does cartesian genetic programming minimize the phenotype size implicitly?, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 983–984, Portland, Oregon, USA, 2010, ACM.
- [148] Borges, C. E., Alonso, C. L., and Montana, J. L., Model selection in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 985–986, Portland, Oregon, USA, 2010, ACM.
- [149] McMullin, M. and Soule, T., Constant versus variable arity operators in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 987–988, Portland, Oregon, USA, 2010, ACM.
- [150] Alonso, F., Martínez, L., Santamaría, A., Pérez, A., and Valente, J. P., Ggpp-based method for modeling time series: operator selection, parameter optimization and expert evaluation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 989–990, Portland, Oregon, USA, 2010, ACM.
- [151] Toledo-Suárez, C. D., A first assessment of the use of extended relational alphabets in accuracy classifier systems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 991–998, Portland, Oregon, USA, 2010, ACM.
- [152] Manning, E. P., Coevolution in a large search space using resource-limited nash memory, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 999–1006, Portland, Oregon, USA, 2010, ACM.
- [153] Johansson, U., König, R., and Niklasson, L., Genetic rule extraction optimizing brier score, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1007–1014, Portland, Oregon, USA, 2010, ACM.
- [154] Lode, C., Richter, U., and Schmeck, H., Adaption of xcs to multi-learner predator/prey scenarios, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1015–1022, Portland, Oregon, USA, 2010, ACM.
- [155] Orriols-Puig, A., Llorà, X., and Goldberg, D. E., How xcs deals with rarities in domains with continuous attributes, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1023–1030, Portland, Oregon, USA, 2010, ACM.
- [156] Snel, M. and Whiteson, S., Multi-task evolutionary shaping without pre-specified representations, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1031–1038, Portland, Oregon, USA, 2010, ACM.
- [157] Franco, M. A., Krasnogor, N., and Bacardit, J., Speeding up the evaluation of evolutionary learning systems using gpgpus, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1039–1046, Portland, Oregon, USA, 2010, ACM.
- [158] Liškiewicz, M. and Textor, J., Negative selection algorithms without generating detectors, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1047–1054, Portland, Oregon, USA, 2010, ACM.

- [159] Macià, N., Orriols-Puig, A., and Bernadó-Mansilla, E., In search of targeted-complexity problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1055–1062, Portland, Oregon, USA, 2010, ACM.
- [160] Su, C., Gao, Y., and Cao, C., Learning classifier system using both labeled and unlabeled data, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1065–1066, Portland, Oregon, USA, 2010, ACM.
- [161] Behdad, M., French, T., Barone, L., and Bennamoun, M., On the problems of using learning classifier systems for fraud detection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1067–1068, Portland, Oregon, USA, 2010, ACM.
- [162] Meiguins, A. S., Freitas, A. A., Lima, R. C., Junior, S. F., and Meiguins, B. S., An estimation of distribution algorithm for the automatic generation of clustering algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1069–1070, Portland, Oregon, USA, 2010, ACM.
- [163] Buryan, P. and Kubalik, J., Context-sensitive refinements for stochastic optimization algorithms in inductive logic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1071–1072, Portland, Oregon, USA, 2010, ACM.
- [164] Rajagopalan, P., Rawal, A., and Miikkulainen, R., Emergence of competitive and cooperative behavior using coevolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1073–1074, Portland, Oregon, USA, 2010, ACM.
- [165] Walton, M., Grewal, G., and Darlington, G., Parallel fpga-based implementation of scatter search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1075–1082, Portland, Oregon, USA, 2010, ACM.
- [166] Luque, G. and Alba, E., Selection pressure and takeover time of distributed evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1083–1088, Portland, Oregon, USA, 2010, ACM.
- [167] Vrajitoru, D., Shared memory genetic algorithms in a multi-agent context, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1097–1104, Portland, Oregon, USA, 2010, ACM.
- [168] Lässig, J. and Sudholt, D., The benefit of migration in parallel evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1105–1112, Portland, Oregon, USA, 2010, ACM.
- [169] Shimada, K. and Hirasawa, K., A method of association rule analysis for incomplete database using genetic network programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1115–1122, Portland, Oregon, USA, 2010, ACM.
- [170] Salichon, M. and Tumer, K., A neuro-evolutionary approach to micro aerial vehicle control, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1123–1130, Portland, Oregon, USA, 2010, ACM.
- [171] II, J. F. S. and Tumer, K., Robust neuro-control for a micro quadrotor, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1131–1138, Portland, Oregon, USA, 2010, ACM.
- [172] Wilson, G. and Banzhaf, W., Interday foreign exchange trading using linear genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1139–1146, Portland, Oregon, USA, 2010, ACM.

- [173] Myburgh, C. and Deb, K., Evolutionary algorithms in large-scale open pit mine scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1155–1162, Portland, Oregon, USA, 2010, ACM.
- [174] Garrett, A., Chen, Z., and Smith, D. E., Constructing numerically stable real number codes using evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1163–1170, Portland, Oregon, USA, 2010, ACM.
- [175] Jaros, J. and Dvorak, V., Evolutionary-based conflict-free scheduling of collective communications on spidergon nocs, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1171–1178, Portland, Oregon, USA, 2010, ACM.
- [176] Kim, K., McKay, R. B., and Moon, B.-R., Multiobjective evolutionary algorithms for dynamic social network clustering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1179–1186, Portland, Oregon, USA, 2010, ACM.
- [177] Reehuis, E. and Bäck, T., Mixed-integer evolution strategy using multiobjective selection applied to warehouse design optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1187–1194, Portland, Oregon, USA, 2010, ACM.
- [178] Al-Betar, M. A., Khader, A. T., and Nadi, F., Selection mechanisms in memory consideration for examination timetabling with harmony search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1203–1210, Portland, Oregon, USA, 2010, ACM.
- [179] Lee, S.-K. and Moon, B.-R., A new modular genetic programming for finding attractive technical patterns in stock markets, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1219–1226, Portland, Oregon, USA, 2010, ACM.
- [180] Colmenar, J. M. et al., Improving reliability of embedded systems through dynamic memory manager optimization using grammatical evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1227–1234, Portland, Oregon, USA, 2010, ACM.
- [181] Ovriiu, M. and Simon, D., Biogeography-based optimization of neuro-fuzzy system parameters for diagnosis of cardiac disease, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1235–1242, Portland, Oregon, USA, 2010, ACM.
- [182] Stracquadanio, G., Drago, C., Romano, V., and Nicosia, G., Multi-objective optimization of doping profile in semiconductor design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1243–1250, Portland, Oregon, USA, 2010, ACM.
- [183] Pedersen, G. K. and Butz, M. V., Evolving robust controller parameters using covariance matrix adaptation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1251–1258, Portland, Oregon, USA, 2010, ACM.
- [184] Padhye, N. and Deb, K., Evolutionary multi-objective optimization and decision making for selective laser sintering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1259–1266, Portland, Oregon, USA, 2010, ACM.

- [185] Ceriani, M., Ferrandi, F., Lanzi, P. L., Sciuto, D., and Tumeo, A., Multiprocessor systems-on-chip synthesis using multi-objective evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1267–1274, Portland, Oregon, USA, 2010, ACM.
- [186] Tanji, M. and Iba, H., Conbreo: a music performance rendering system using hybrid approach of iec and automated evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1275–1282, Portland, Oregon, USA, 2010, ACM.
- [187] Veeramachaneni, K., Vladislavleva, K., Burland, M., Parcon, J., and O'Reilly, U.-M., Evolutionary optimization of flavors, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1291–1298, Portland, Oregon, USA, 2010, ACM.
- [188] Mayfield, E. and Penstein-Rosé, C., Using feature construction to avoid large feature spaces in text classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1299–1306, Portland, Oregon, USA, 2010, ACM.
- [189] Sierra, A. and Ponsoda, V., Shorter, more reliable and valid tests by means of a genetic algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1307–1308, Portland, Oregon, USA, 2010, ACM.
- [190] Choi, Y.-S., Koo, B.-K., and Moon, B.-R., Optimization of an image set by genetic feature selection for real-time photomosaics, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1309–1310, Portland, Oregon, USA, 2010, ACM.
- [191] Sugawara, T., Fukuda, K., Hirotsu, T., and Kurihara, S., Adaptive probabilistic task allocation in large-scale multi-agent systems and its evaluation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1311–1312, Portland, Oregon, USA, 2010, ACM.
- [192] de A. Araújo, R., de Oliveira, A. L., and Soares, S. C., A covariance matrix adaptation based evolutionary methodology for phase adjustment in financial time series forecasting, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1315–1316, Portland, Oregon, USA, 2010, ACM.
- [193] Mosnier, D., Gillot, F., Ducloux, A., and Ichchou, M., Integrated pre-design step methodology based on multi-objective evolutionary optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1317–1318, Portland, Oregon, USA, 2010, ACM.
- [194] You, Y.-S., Yu, T.-L., and Lien, T.-C., Psychological preference-based optimization framework on the nurse scheduling problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1319–1320, Portland, Oregon, USA, 2010, ACM.
- [195] Sato, M., Sato, Y., and Namiki, M., Proposal of a multi-core processor architecture for effective evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1321–1322, Portland, Oregon, USA, 2010, ACM.
- [196] Tutum, C. C. and Hattel, J. H., Multi-objective optimization of process parameters in friction stir welding, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1323–1324, Portland, Oregon, USA, 2010, ACM.
- [197] Roychoudhury, S. et al., Mitigation strategies in epidemics: evolutionary optimization using a hierarchy of objective functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1325–1326, Portland, Oregon, USA, 2010, ACM.

- [198] Evins, R., Pointer, P., and Vaidyanathan, R., Configuration of a genetic algorithm for multi-objective optimisation of solar gain to buildings, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1327–1328, Portland, Oregon, USA, 2010, ACM.
- [199] Di Carlo, S. et al., Towards drift correction in chemical sensors using an evolutionary strategy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1329–1330, Portland, Oregon, USA, 2010, ACM.
- [200] Afridi, M. J., Manzoor, S., Rasheed, U., Ahmed, M., and Faraz, K., Performance evaluation of evolutionary algorithms for road detection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1331–1332, Portland, Oregon, USA, 2010, ACM.
- [201] Jensen, A. C. and Cheng, B. H., On the use of genetic programming for automated refactoring and the introduction of design patterns, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1341–1348, Portland, Oregon, USA, 2010, ACM.
- [202] Windisch, A., Search-based test data generation from stateflow statecharts, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1349–1356, Portland, Oregon, USA, 2010, ACM.
- [203] Zhang, Y., Alba, E., Durillo, J. J., Eldh, S., and Harman, M., Today/future importance analysis, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1357–1364, Portland, Oregon, USA, 2010, ACM.
- [204] Xu, Z., Cohen, M. B., and Rothmel, G., Factors affecting the use of genetic algorithms in test suite augmentation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1365–1372, Portland, Oregon, USA, 2010, ACM.
- [205] Conrad, A. P., Roos, R. S., and Kapfhammer, G. M., Empirically studying the role of selection operators during search-based test suite prioritization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1373–1380, Portland, Oregon, USA, 2010, ACM.
- [206] Hall, M., McMin, P., and Walkinshaw, N., Superstate identification for state machines using search-based clustering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1381–1388, Portland, Oregon, USA, 2010, ACM.
- [207] Kremmel, T., Kubalik, J., and Biffl, S., Multiobjective evolutionary algorithm for software project portfolio optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1389–1390, Portland, Oregon, USA, 2010, ACM.
- [208] Wilkerson, J. L. and Tauritz, D., Coevolutionary automated software correction, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1391–1392, Portland, Oregon, USA, 2010, ACM.
- [209] Kötzing, T., Lehre, P. K., Neumann, F., and Oliveto, P. S., Ant colony optimization and the minimum cut problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1393–1400, Portland, Oregon, USA, 2010, ACM.
- [210] Akimoto, Y., Nagata, Y., Ono, I., and Kobayashi, S., Theoretical analysis of evolutionary computation on continuously differentiable functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1401–1408, Portland, Oregon, USA, 2010, ACM.



- [211] Whitley, L. D., Chicano, F., Alba, E., and Luna, F., Elementary landscapes of frequency assignment problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1409–1416, Portland, Oregon, USA, 2010, ACM.
- [212] Sanyal, S., S. R., and Biswas, S., Necessary and sufficient conditions for success of the metropolis algorithm for optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1417–1424, Portland, Oregon, USA, 2010, ACM.
- [213] Chicano, F., Luque, G., and Alba, E., Elementary landscape decomposition of the quadratic assignment problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1425–1432, Portland, Oregon, USA, 2010, ACM.
- [214] Johannsen, D., Kurur, P. P., and Lengler, J., Can quantum search accelerate evolutionary algorithms?, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1433–1440, Portland, Oregon, USA, 2010, ACM.
- [215] Lehre, P. K. and Witt, C., Black-box search by unbiased variation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1441–1448, Portland, Oregon, USA, 2010, ACM.
- [216] Horoba, C. and Sudholt, D., Ant colony optimization for stochastic shortest path problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1465–1472, Portland, Oregon, USA, 2010, ACM.
- [217] Manzoni, L., Vanneschi, L., and Mauri, G., Definition of a crossover based distance for genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1473–1474, Portland, Oregon, USA, 2010, ACM.
- [218] Valsecchi, A., Vanneschi, L., and Mauri, G., Optimization speed and fair sets of functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1475–1476, Portland, Oregon, USA, 2010, ACM.
- [219] de Mattos Neto, P. S., Lima Junior, A. R., and Ferreira, T. A., Time series forecasting using a perturbative intelligent system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by Branke, J. et al., pages 1477–1478, Portland, Oregon, USA, 2010, ACM.