Список литературы

- [1] Thierens, D., et al. (eds.) (2007) GECCO 2007: Proceedings of the 9th annual conference on Genetic and evolutionary computation, ACM Press.
- [2] Abraham, A., Das, S., and Konar, A. (2007) Kernel based automatic clustering using modified particle swarm optimization algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 2–9, ACM Press.
- [3] Alba, E. and Chicano, F. (2007) Acohg: dealing with huge graphs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 10–17, ACM Press.
- [4] Bird, S. and Li, X. (2007) Informative performance metrics for dynamic optimisation problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 18–25, ACM Press.
- [5] Cayzer, S. and Sullivan, J. (2007) Modelling danger and anergy in artificial immune systems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 26–32, ACM Press.
- [6] Doerr, B., Neumann, F., Sudholt, D., and Witt, C. (2007) On the runtime analysis of the 1-ant aco algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 33–40, ACM Press.
- [7] Fernandes, C. M., Rosa, A. C., and Ramos, V. (2007) Binary ant algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 41–48, ACM Press.
- [8] Greensmith, J. and Aickelin, U. (2007) Dendritic cells for syn scan detection. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 49–56, ACM Press.
- [9] Halavati, R., Shouraki, S. B., Heravi, M. J., and Jashmi, B. J. (2007) An artificial immune system with partially specified antibodies. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 57–62, ACM Press.
- [10] Khan, A. A., Naeem, M., and Shah, S. I. (2007) A particle swarm algorithm for symbols detection in wideband spatial multiplexing systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 63-69, ACM Press.
- [11] Koduru, P., Welch, S. M., and Das, S. (2007) A particle swarm optimization approach for estimating parameter confidence regions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 70–77, ACM Press.
- [12] Li, X. (2007) A multimodal particle swarm optimizer based on fitness euclidean-distance ratio. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 78–85, ACM Press.
- [13] Luke, S., Sharma, D., and Balan, G. C. (2007) Finding interesting things. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 86–93, ACM Press.
- [14] Luna, F., Blum, C., Alba, E., and Nebro, A. J. (2007) Aco vs eas for solving a real-world frequency assignment problem in gsm networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 94–101, ACM Press.

- [15] Mazhar, N. and Farooq, M. (2007) Vulnerability analysis and security framework (beesec) for nature inspired manet routing protocols. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 102–109, ACM Press.
- [16] Mohais, A. S., Mohais, R., Ward, C., and Posthoff, C. (2007) Earthquake classifying neural networks trained with random dynamic neighborhood psos. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 110–117, ACM Press.
- [17] Moraglio, A. and Togelius, J. (2007) Geometric particle swarm optimization for the sudoku puzzle. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 118–125, ACM Press.
- [18] Pan, Q.-Q., Tasgetiren, M. F., and Liang, Y.-C. (2007) A discrete differential evolution algorithm for the permutation flowshop scheduling problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 126–133, ACM Press.
- [19] Poli, R. and Broomhead, D. (2007) Exact analysis of the sampling distribution for the canonical particle swarm optimiser and its convergence during stagnation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 134–141, ACM Press.
- [20] Poli, R. and Langdon, W. B. (2007) Markov chain models of bare-bones particle swarm optimizers. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 142–149, ACM Press.
- [21] Ridge, E. and Kudenko, D. (2007) Analyzing heuristic performance with response surface models: prediction, optimization and robustness. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 150–157, ACM Press.
- [22] Tasgetiren, M. F., Suganthan, P. N., and Pan, Q.-Q. (2007) A discrete particle swarm optimization algorithm for the generalized traveling salesman problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 158–167, ACM Press.
- [23] Anastasiadis, A. D., Georgoulas, G., Magoulas, G., and Tzes, A. (2007) Adaptive particle swarm optimizer with nonextensive schedule. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 168–168, ACM Press.
- [24] Baig, A. R. and Rashid, M. (2007) Honey bee foraging algorithm for multimodal & dynamic optimization problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 169–169, ACM Press.
- [25] de Freitas, A. A. and Mayer, C. B. (2007) The effectiveness of dynamic ant colony tuning. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 170–170, ACM Press.
- [26] Figueredo, G. P., Ebecken, N. F., and Barbosa, H. C. (2007) Suppression based immune mechanism to find are presentative training set in data classification tasks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 171-171, ACM Press.
- [27] Gong, T. and Tuson, A. L. (2007) Binary particle swarm optimization: a forma analysis approach. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 172–172, ACM Press.

- [28] Nguyen, X. H., Nguyen, Q. U., and McKay, R. I. (2007) Pso with randomized low-discrepancy sequences. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 173–173, ACM Press.
- [29] Lam, H. T., Nicolaevna, P. N., and Quan, N. T. M. (2007) A heuristic particle swarm optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 174–174, ACM Press.
- [30] Lavagna, M. R. (2007) Multi-objective pso for interplanetary trajectory design. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 175–175, ACM Press.
- [31] Manuel López-Ibá n., Prasad, T. D., and Paechter, B. (2007) Solving optimal pump control problem using max-min ant system. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 176–176, ACM Press.
- [32] McNabb, A. W., Monson, C. K., and Seppi, K. D. (2007) Mrpso: Mapreduce particle swarm optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 177–177, ACM Press.
- [33] Pellegrini, P. and Moretti, E. (2007) Quick-and-dirty ant colony optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 178–178, ACM Press.
- [34] Piccand, S., O'Neill, M., and Walker, J. (2007) Scalability of particle swarm algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 179–179, ACM Press.
- [35] Ridge, E. and Kudenko, D. (2007) Screening the parameters affecting heuristic performance. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 180–180, ACM Press.
- [36] Romero, A. and Nino, F. (2007) Keyword extraction using an artificial immune system. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 181–181, ACM Press.
- [37] Shafiq, M. Z., Kiani, M., Hashmi, B., and Farooq, M. (2007) Extended thymus action for reducing false positives in ais based network intrusion detection systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 182–182, ACM Press.
- [38] Snyman, J. A. and Kok, S. (2007) A strongly interacting dynamic particle swarm optimizational method. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 183–183, ACM Press.
- [39] Stewart, R. L. and Kirley, M. (2007) Swarming with logic. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 184–184, ACM Press.
- [40] Wang, J. and Zhou, Y. (2007) Hybrid quantum particle swarm optimization algorithm for combinatorial optimization problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 185–185, ACM Press.
- [41] Zeng, Y., H, J. C., and Buus, D. P. (2007) Swarmarchitect: a swarm framework for collaborative construction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 186–186, ACM Press.
- [42] Zuo, X. (2007) Robust scheduling method based on workflow simulation model and biological immune principle. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 187–187, ACM Press.

- [43] Becker, J., Trendelenburg, S., Henrici, F., and Manoli, Y. (2007) Synthesis of analog filters on an evolvable hardware platform using a genetic algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 190–197, ACM Press.
- [44] Bongard, J. (2007) Action-selection and crossover strategies for self-modeling machines. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 198–205, ACM Press.
- [45] Contreras, E. B. (2007) A biologically inspired solution for an evolved simulated agent. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 206–213, ACM Press.
- [46] Bongard, J. (2007) Exploiting multiple robots to accelerate self-modeling. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 214–221, ACM Press.
- [47] Bullinaria, J. A. (2007) The effect of learning on life history evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 222–229, ACM Press.
- [48] Di Chio, C., Poli, R., and Di Chio, P. (2007) Ecops: a particle swarm algorithm to model group-foraging. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 230–237, ACM Press.
- [49] Estévez, N. S. and Lipson, H. (2007) Dynamical blueprints: exploiting levels of system-environment interaction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 238–244, ACM Press.
- [50] Gajda, Z. and Sekanina, L. (2007) Reducing the number of transistors in digital circuits using gate-level evolutionary design. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 245– 252, ACM Press.
- [51] Gotshall, S. P. and Soule, T. (2007) Stochastic training of a biologically plausible spinoneuromuscular system model. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 253–260, ACM Press.
- [52] Gui, M., Das, S., and Pahwa, A. (2007) Procreating v-detectors for nonself recognition: an application to anomaly detection in power systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 261–268, ACM Press.
- [53] Khan, G. M., Miller, J. F., and Halliday, D. M. (2007) Coevolution of intelligent agents using cartesian genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 269–276, ACM Press.
- [54] Khor, S. (2007) Hill climbing on discrete hiff: exploring the role of dna transposition in long-term artificial evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 277–284, ACM Press.
- [55] Kim, D. (2007) A quantitative analysis of memory requirement and generalization performance for robotic tasks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 285–292, ACM Press.

- [56] Knoester, D. B., McKinley, P. K., and Ofria, C. A. (2007) Using group selection to evolve leadership in populations of self-replicating digital organisms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 293–300, ACM Press.
- [57] McCormack, J. (2007) Artificial ecosystems for creative discovery. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 301–307, ACM Press.
- [58] Payne, J. L. and Eppstein, M. J. (2007) Takeover times on scale-free topologies. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 308–315, ACM Press.
- [59] Spector, L., Klein, J., and Feinstein, M. (2007) Division blocks and the open-ended evolution of development, form, and behavior. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 316–323, ACM Press.
- [60] Togelius, J., De Nardi, R., Marques, H., Newcombe, R., Lucas, S. M., and Holland, O. (2007) Nonlinear dynamics modelling for controller evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 324–333, ACM Press.
- [61] Baddeley, B. and Philippides, A. (2007) Bee slam: a probabilistic framework for studying orientation flights in bees and wasps. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 334–334, ACM Press.
- [62] Eiben, G., Bekker, J., Griffioen, R., and Haasdijk, E. (2007) Balancing quality and quantity in evolving agent systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 335–335, ACM Press.
- [63] Brodu, N. (2007) A framework for the emergence of intra-species mutual recognition patterns. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 336–336, ACM Press.
- [64] Curran, D., O'Riordan, C., and Sorensen, H. (2007) The effects of lifetime learning on the diversity and fitness of populations. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 337–337, ACM Press.
- [65] Curran, D., O'Riordan, C., and Sorensen, H. (2007) Self-adaptation of cultural learning parameters. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 338–338, ACM Press.
- [66] Hengjie, S., Chunyan, M., and Zhiqi, S. (2007) Fuzzy cognitive map learning based on multiobjective particle swarm optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 339–339, ACM Press.
- [67] Kowall, C. A. and Krent, B. J. (2007) A simulation of evolved autotrophic reproduction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 340–340, ACM Press.
- [68] Nitschke, G. S., Schut, M. C., and Eiben, A. E. (2007) Collective specialization in multi-rover systems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 342–342, ACM Press.

- [69] Powers, S. T. and Watson, R. A. (2007) Preliminary investigations into the evolution of cooperative strategies in a minimally spatial model. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 343–343, ACM Press.
- [70] Priesterjahn, S. and Weimer, A. (2007) An evolutionary online adaptation method for modern computer games based on imitation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 344–345, ACM Press.
- [71] Bacardit, J., Stout, M., Hirst, J. D., Sastry, K., Llorà, X., and Krasnogor, N. (2007) Automated alphabet reduction method with evolutionary algorithms for protein structure prediction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 346–353, ACM Press.
- [72] Bleuler, S. and Zitzler, E. (2007) Discrimination of metabolic flux profiles using a hybrid evolutionary algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 354–360, ACM Press.
- [73] Brookes, E. H. and Demeler, B. (2007) Parsimonious regularization using genetic algorithms applied to the analysis of analytical ultracentrifugation experiments. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 361–368, ACM Press.
- [74] Bull, L. and Uroukov, I. S. (2007) Initial results from the use of learning classifier systems to control in vitro neuronal networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 369–376, ACM Press.
- [75] Chan, T.-M., Leung, K.-S., and Lee, K.-H. (2007) Tfbs identification by position- and consensus-led genetic algorithm with local filtering. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 377–384, ACM Press.
- [76] Divina, F. and Aguilar-Ruiz, J. S. (2007) A multi-objective approach to discover biclusters in microarray data. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 385–392, ACM Press.
- [77] Torres, S. R. D., Romero, D. C. B., Vasquez, L. F. N., and Ardila, Y. J. P. (2007) A novel abinitio genetic-based approach for protein folding prediction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 393–400, ACM Press.
- [78] Küçükural, A., Yeniterzi, R., Yeniterzi, S., and Sezerman, O. U. (2007) Evolutionary selection of minimum number of features for classification of gene expression data using genetic algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 401–406, ACM Press.
- [79] Looks, M., Goertzel, B., de Souza Coelho, L., Mudado, M., and Pennachin, C. (2007) Clustering gene expression data via mining ensembles of classification rules evolved using moses. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 407–414, ACM Press.
- [80] Rocha, M., Mendes, R., Maia, P., Daniel Glez-Pe n., and Fdez-Riverola, F. (2007) A platform for the selection of genes in dna microarraydata using evolutionary algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 415–423, ACM Press.

- [81] Bazzoli, A., Colombo, G., and Tettamanzi, A. G. B. (2007) Ab initio protein structure prediction with a dipeptide-assembly evolutionary algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 424–424, ACM Press.
- [82] de Lima, T. W., Faccioli, R. A., Gabriel, P. H. R., Delbem, A. C. B., and Nunes da Silva, I. (2007) Evolutionary approach to protein structure prediction with hydrophobic interactions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 425–425, ACM Press.
- [83] Fernando, C. T. and Rowe, J. (2007) Hebbian learning in a simple gene circuit. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 426–426, ACM Press.
- [84] García-Nieto, J., Alba, E., Jourdan, L., and Talbi, E.-G. (2007) A comparison of pso and ga approaches for gene selection and classification of microarray data. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 427–427, ACM Press.
- [85] Keedwell, E. and Narayanan, A. (2007) Gene finding and rule discovery with a multi-objective neural-genetic hybrid. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 428–428, ACM Press.
- [86] Latham, W., Shaw, M., Todd, S., and Leymarie, F. F. (2007) Using dna to generate 3d organic art forms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 429–429, ACM Press.
- [87] Looks, M., Goertzel, B., de Souza Coelho, L., Mudado, M., and Pennachin, C. (2007) Understanding microarray data through applying competent program evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 430–430, ACM Press.
- [88] Menolascina, F., Alves, R. T., Tommasi, S., Chiarappa, P., Delgado, M., Mastronardi, G., Paradiso, A., Freitas, A., and Bevilacqua, V. (2007) Induction of fuzzy rules with artificial immune systems in acgh based er status breast cancer characterization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 431–431, ACM Press.
- [89] Moore, J. H., Barney, N., and White, B. C. (2007) Towards human-human-computer interaction for biologically-inspired problem-solving in human genetics. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 432–433, ACM Press.
- [90] Bucci, A. and Pollack, J. B. (2007) Thoughts on solution concepts. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 434–439, ACM Press.
- [91] De Jong, E. D. (2007) Objective fitness correlation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 440–447, ACM Press.
- [92] Horn, J. (2007) Optimal nesting of species for exact cover of resources: two against many. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 448–455, ACM Press.
- [93] Li, R., Bhanu, B., and Krawiec, K. (2007) Hybrid coevolutionary algorithms vs. svm algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 456–463, ACM Press.

- [94] Lichodzijewski, P. and Heywood, M. I. (2007) Pareto-coevolutionary genetic programming for problem decomposition in multi-class classification. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 464–471, ACM Press.
- [95] Stone, C., Toth, R., Adamatzky, A., de Lacy Costello, B., and Bull, L. (2007) Towards the coevolution of cellular automata controllers for chemical computing with the b-z reaction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 472–478, ACM Press.
- [96] Yo, T.-S. and de Jong, E. D. (2007) A comparison of evaluation methods in coevolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 479–487, ACM Press.
- [97] Au, C.-K. and Leung, H.-F. (2007) Guided mutations in cooperative coevolutionary algorithms for function optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 488–488, ACM Press.
- [98] Li, R., Bhanu, B., and Krawiec, K. (2007) On the number of subpopulations in coevolutionary computation: a database application. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 489–489, ACM Press.
- [99] Ottino-Loffler, J., Rand, W., and Wilensky, U. (2007) A spatial model of the red queen effect. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 490–491, ACM Press.
- [100] Bosman, P. A. N., Grahl, J., and Rothlauf, F. (2007) Sdr: a better trigger for adaptive variance scaling in normal edas. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 492–499, ACM Press.
- [101] Bosman, P. A. N. and Thierens, D. (2007) Adaptive variance scaling in continuous multi-objective estimation-of-distribution algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 500–507, ACM Press.
- [102] Branke, J., Lode, C., and Shapiro, J. L. (2007) Addressing sampling errors and diversity loss in umda. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 508–515, ACM Press.
- [103] Grahl, J., Bosman, P. A. N., and Minner, S. (2007) Convergence phases, variance trajectories, and runtime analysis of continuous edas. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 516–522, ACM Press.
- [104] Hauschild, M., Pelikan, M., Lima, C. F., and Sastry, K. (2007) Analyzing probabilistic models in hierarchical boa on traps and spin glasses. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 523–530, ACM Press.
- [105] Lipinski, P. (2007) Ecga vs. boa in discovering stock market trading experts. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 531–538, ACM Press.
- [106] Looks, M. (2007) Scalable estimation-of-distribution program evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 539–546, ACM Press.

- [107] Pelikan, M., Kalapala, R., and Hartmann, A. K. (2007) Hybrid evolutionary algorithms on minimum vertex cover for random graphs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 547–554, ACM Press.
- [108] Pelikan, M. and Laury, Jr., J. D. (2007) Order or not: does parallelization of model building in hboa affect its scalability? Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 555–561, ACM Press.
- [109] Pošík, P. and Franc, V. (2007) Estimation of fitness landscape contours in eas. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 562–569, ACM Press.
- [110] Salhi, A., Rodríguez, J. A. V., and Zhang, Q. (2007) An estimation of distribution algorithm with guided mutation for a complex flow shop scheduling problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 570–576, ACM Press.
- [111] Sastry, K., Goldberg, D. E., and Llora, X. (2007) Towards billion-bit optimization via a parallel estimation of distribution algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 577–584, ACM Press.
- [112] Shakya, S., Oliveira, F., and Owusu, G. (2007) An application of eda and ga to dynamic pricing. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 585–592, ACM Press.
- [113] Ahn, C. W. and Ramakrishna, R. S. (2007) Multiobjective real-coded bayesian optimization algorithmrevisited: diversity preservation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 593–600, ACM Press.
- [114] Yu, T.-L., Sastry, K., Goldberg, D. E., and Pelikan, M. (2007) Population sizing for entropy-based model building in discrete estimation of distribution algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 601–608, ACM Press.
- [115] Cai, Y., Sun, X., Xu, H., and Jia, P. (2007) Cross entropy and adaptive variance scaling in continuous eda. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 609–616, ACM Press.
- [116] Zhou, A., Zhang, Q., Jin, Y., Sendhoff, B., and Tsang, E. (2007) Global multiobjective optimization via estimation of distribution algorithm with biased initialization and crossover. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 617–623, ACM Press.
- [117] Coffin, D. J. and Smith, R. E. (2007) Why is parity hard for estimation of distribution algorithms? Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 624–624, ACM Press.
- [118] Heien, E. M., Hiroyasu, T., and Fujimoto, N. (2007) Investigation of mutation operators for the bayesian optimization algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 625–625, ACM Press.
- [119] Looks, M. (2007) Meta-optimizing semantic evolutionary search. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 626–626, ACM Press.

- [120] Nannen, V. and Eiben, A. E. (2007) Variance reduction in meta-eda. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 627–627, ACM Press.
- [121] Pelikan, M. and Hartmann, A. K. (2007) Obtaining ground states of ising spin glasses via optimizing bonds instead of spins. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 628–628, ACM Press.
- [122] Pelikan, M., Tsutsui, S., and Kalapala, R. (2007) Dependency trees, permutations, and quadratic assignment problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 629–629, ACM Press.
- [123] Rimcharoen, S., Sutivong, D., and Chongstitvatana, P. (2007) A synthesis of optimal stopping time in compact genetic algorithm based on real options approach. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 630–630, ACM Press.
- [124] Schwarz, J., Jaros, J., and Ocenasek, J. (2007) Migration of probabilistic models for island-based bivariate eda algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 631–631, ACM Press.
- [125] Wu, H. and Shapiro, J. L. (2007) Parameter cross-validation and early-stopping in univariate marginal distribution algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 632–633, ACM Press.
- [126] Arnold, D. V. (2007) On the use of evolution strategies for optimising certain positive definite quadratic forms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 634–641, ACM Press.
- [127] Ebner, M. (2007) Estimating the spectral sensitivity of a digital sensor using calibration targets. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 642–649, ACM Press.
- [128] Hsieh, C.-T., Chen, C.-M., and ping Chen, Y. (2007) Particle swarm guided evolution strategy. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 650–657, ACM Press.
- [129] Knight, J. N. and Lunacek, M. (2007) Reducing the space-time complexity of the cma-es. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 658–665, ACM Press.
- [130] Kramer, O., Brügger, S., and Lazovic, D. (2007) Sex and death: towards biologically inspired heuristics for constraint handling. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 666–673, ACM Press.
- [131] Kramer, O., Gloger, B., and Goebels, A. (2007) An experimental analysis of evolution strategies and particle swarm optimisers using design of experiments. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 674–681, ACM Press.
- [132] Perez-Bellido, A. M., Salcedo-Sanz, S., Ortiz-Garcia, E. G., and Portilla-Figueras, A. (2007) A hybrid evolutionary programming algorithm for spread spectrum radar polyphase codes design. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 682–688, ACM Press.

- [133] Rönkkönen, J. I. and Lampinen, J. (2007) An extended mutation concept for the local selection based differential evolution algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 689–696, ACM Press.
- [134] Rossi, C., Barrientos, A., and del Cerro, J. (2007) Two adaptive mutation operators for optima tracking in dynamic optimization problems with evolution strategies. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 697–704, ACM Press.
- [135] Shir, O. M. and Bäck, T. (2007) Performance analysis of niching algorithms based on derandomized-es variants. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 705–712, ACM Press.
- [136] Shir, O. M. and Bäck, T. (2007) The second harmonic generation case-study as a gateway for es to quantum control problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 713–721, ACM Press.
- [137] Gomez, J. C. and Fuentes, O. (2007) Using evolution strategies for automatic extraction of parameters for stellar population synthesis of galaxy spectra from sdss. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 722–722, ACM Press.
- [138] Petrovic, P. (2007) Strengths and weaknesses of fsa representation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 723–725, ACM Press.
- [139] Abido, M. A. (2007) Two-level of nondominated solutions approach to multiobjective particle swarm optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 726–733, ACM Press.
- [140] Adra, S. F., Griffin, I., and Fleming, P. J. (2007) An informed convergence accelerator for evolutionary multiobjective optimiser. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 734–740, ACM Press.
- [141] Aggarwal, V. and O'Reilly, U.-M. (2007) Cosmo: a correlation sensitive mutation operator for multi-objective optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 741– 748, ACM Press.
- [142] Aguirre, H., Okazaki, H., and Fuwa, Y. (2007) An evolutionary multiobjective approach to design highly non-linear boolean functions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 749–756, ACM Press.
- [143] Becerra, R. L., Coello Coello, C. A., Hernández-Díaz, A. G., Caballero, R., and Molina, J. (2007) Alternative techniques to solve hard multi-objective optimization problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 757–754, ACM Press.
- [144] Brockhoff, D., Friedrich, T., Hebbinghaus, N., Klein, C., Neumann, F., and Zitzler, E. (2007) Do additional objectives make a problem harder? Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 765–772, ACM Press.

- [145] Corne, D. W. and Knowles, J. D. (2007) Techniques for highly multiobjective optimisation: some nondominated points are better than others. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 773–780, ACM Press.
- [146] Deb, K. and Kumar, A. (2007) Interactive evolutionary multi-objective optimization and decision-making using reference direction method. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 781–788, ACM Press.
- [147] Ferreira, J. C., Fonseca, C. M., and Gaspar-Cunha, A. (2007) Methodology to select solutions from the pareto-optimal set: a comparative study. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 789-796, ACM Press.
- [148] Friedrich, T., Hebbinghaus, N., Neumann, F., He, J., and Witt, C. (2007) Approximating covering problems by randomized search heuristics using multi-objective models. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 797–804, ACM Press.
- [149] Grimme, C., Lepping, J., and Papaspyrou, A. (2007) Exploring the behavior of building blocks for multi-objective variation operator design using predator-prey dynamics. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 805–812, ACM Press.
- [150] Harada, K., Sakuma, J., Kobayashi, S., and Ono, I. (2007) Uniform sampling of local pareto-optimal solution curves by pareto path following and its applications in multi-objective ga. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 813–820, ACM Press.
- [151] Ho, N. B. and Tay, J. C. (2007) Using evolutionary computation and local search to solve multiobjective flexible job shop problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the* 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 821–828, ACM Press.
- [152] Ishibuchi, H., Nojima, Y., Tsukamoto, N., and Ohara, K. (2007) Effects of the use of non-geometric binary crossover on evolutionary multiobjective optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 829–836, ACM Press.
- [153] Johnson, M. D., Tauritz, D. R., and Wilkerson, R. W. (2007) Sndl-moea: stored non-domination level moea. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 837–844, ACM Press.
- [154] Kirley, M. and Stewart, R. (2007) An analysis of the effects of population structure on scalable multiobjective optimization problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 845–852, ACM Press.
- [155] Koduru, P., Das, S., and Welch, S. M. (2007) Multi-objective hybrid pso using µ-fuzzy dominance. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 853–860, ACM Press.
- [156] Matake, N., Hiroyasu, T., Miki, M., and Senda, T. (2007) Multiobjective clustering with automatic k-determination for large-scale data. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 861–868, ACM Press.
- [157] Mostaghim, S., Branke, J., and Schmeck, H. (2007) Multi-objective particle swarm optimization on computer grids. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 869–875, ACM Press.

- [158] Nebro, A. J., Alba, E., Molina, G., Chicano, F., Luna, F., and Durillo, J. J. (2007) Optimal antenna placement using a new multi-objective chc algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 876–883, ACM Press.
- [159] Rotar, C., Dumitrescu, D., and Lung, R. I. (2007) Guided hyperplane evolutionary algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 884–891, ACM Press.
- [160] Schütze, O., Laumanns, M., Tantar, E., Coello Coello, C. A., and ghazali Talbi, E. (2007) Convergence of stochastic search algorithms to gap-free pareto front approximations. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 892–901, ACM Press.
- [161] Bailey, B. W. and Raich, A. M. (2007) Interactive multi-objective design of long-span trusses. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 902–902, ACM Press.
- [162] Borgulya, I. (2007) An ec-memory based method for the multi-objective tsp. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 903–903, ACM Press.
- [163] Hiroyasu, T., Yoshii, K., and Miki, M. (2007) Discussion of parallel model of multi-objective genetic algorithms on heterogeneous computational resources. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 904–904, ACM Press.
- [164] Kleeman, M. P., Lamont, G. B., Hopkinson, K. M., and Graham, S. R. (2007) Multiobjective evolutionary algorithms for designing capacitated network centric communications. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 905–905, ACM Press.
- [165] León, C., Miranda, G., and Segura, C. (2007) Parallel skeleton for multi-objective optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 906–906, ACM Press.
- [166] Li, X., Branke, J., and Kirley, M. (2007) Performance measures and particle swarm methods for dynamic multi-objective optimization problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 907–907, ACM Press.
- [167] Li, Z. and Rudolph, G. (2007) A framework of quantum-inspired multi-objective evolutionary algorithms and its convergence condition. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 908–908, ACM Press.
- [168] Mansouri, S. A., Hendizadeh, S. H., and Salmasi, N. (2007) Bicriteria two-machine flowshop scheduling using metaheuristics. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 909– 909, ACM Press.
- [169] Mariano, C. E., Alcocer, V. H., and Morales, E. F. (2007) Incremental refinement of solutions for multiple objective optimization problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 910-910, ACM Press.
- [170] Martí, L., García, J., Berlanga, A., and Molina, J. M. (2007) A cumulative evidential stopping criterion for multiobjective optimization evolutionary algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 911–911, ACM Press.

- [171] Vrajitoru, D. (2007) Hybrid multiobjective optimization genetic algorithms for graph drawing. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 912–912, ACM Press.
- [172] Wozniak, P. (2007) Dimensionality reduction in evolutionary multiobjective design: case study. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 913–915, ACM Press.
- [173] Auger, A. and Teytaud, O. (2007) Continuous lunches are free! Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 916–922, ACM Press.
- [174] Gong, T. and Tuson, A. L. (2007) Enhanced forma analysis of permutation problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 923–930, ACM Press.
- [175] Jansen, T. and Theile, M. (2007) Stability in the self-organized evolution of networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 931–938, ACM Press.
- [176] Jansen, T. and Weyland, D. (2007) Analysis of evolutionary algorithms for the longest common subsequence problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 939–946, ACM Press.
- [177] Reichel, J. and Skutella, M. (2007) Evolutionary algorithms and matroid optimization problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 947–954, ACM Press.
- [178] Teytaud, O. and Gelly, S. (2007) Dcma: yet another derandomization in covariance-matrix-adaptation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 955–963, ACM Press.
- [179] Watkins, C. J. C. H. (2007) The channel capacity of evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 964–965, ACM Press.
- [180] Clegg, K., Stepney, S., and Clarke, T. (2007) Using feedback to regulate gene expression in a developmental control architecture. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 966–973, ACM Press.
- [181] D'Ambrosio, D. B. and Stanley, K. O. (2007) A novel generative encoding for exploiting neural network sensor and output geometry. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 974–981, ACM Press.
- [182] Devert, A., Bredeche, N., and Schoenauer, M. (2007) Robust multi-cellular developmental design. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 982–989, ACM Press.
- [183] Downing, K. L. (2007) Supplementing evolutionary developmental systems with abstract models of neurogenesis. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 990–996, ACM Press.
- [184] Gauci, J. and Stanley, K. (2007) Generating large-scale neural networks through discovering geometric regularities. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 997–1004, ACM Press.

- [185] Grajdeanu, A. (2007) Methods for open-box analysis in artificial development. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1005–1012, ACM Press.
- [186] Haddow, P. C. and Hoye, J. (2007) Achieving a simple development model for 3d shapes: are chemicals necessary? Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1013–1020, ACM Press.
- [187] Harding, S. L., Miller, J. F., and Banzhaf, W. (2007) Self-modifying cartesian genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1021–1028, ACM Press.
- [188] Kassahun, Y., Edgington, M., Metzen, J. H., Sommer, G., and Kirchner, F. (2007) A common genetic encoding for both direct and indirect encodings of networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1029–1036, ACM Press.
- [189] Kowaliw, T., Grogono, P., and Kharma, N. (2007) Environment as a spatial constraint on the growth of structural form. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1037–1044, ACM Press.
- [190] Reisinger, J. and Miikkulainen, R. (2007) Acquiring evolvability through adaptive representations. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1045–1052, ACM Press.
- [191] Wilson, G. and Heywood, M. (2007) Learning recursive programs with cooperative coevolution of genetic code mapping and genotype. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1053–1061, ACM Press.
- [192] Chavoya, A. and Duthen, Y. (2007) Use of a genetic algorithm to evolve an extended artificial regulatory network for cell pattern generation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1062–1062, ACM Press.
- [193] Rieffel, J., Lipson, H., and Valero-Cuevas, F. J. (2007) Growing form-filling tensegrity structures using map l-systems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1063–1063, ACM Press.
- [194] Yogev, O. and Antonsson, E. K. (2007) Growth and development of continuous structures. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1064–1065, ACM Press.
- [195] Alba, E. and Chicano, F. (2007) Finding safety errors with aco. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1066–1073, ACM Press.
- [196] Ayari, K., Bouktif, S., and Antoniol, G. (2007) Automatic mutation test input data generation via ant colony. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1074–1081, ACM Press.
- [197] Bryce, R. C. and Colbourn, C. J. (2007) One-test-at-a-time heuristic search for interaction test suites. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1082–1089, ACM Press.
- [198] Di Penta, M., Canfora, G., Esposito, G., Mazza, V., and Bruno, M. (2007) Search-based testing of service level agreements. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1090–1097, ACM Press.

- [199] Lakhotia, K., Harman, M., and McMinn, P. (2007) A multi-objective approach to search-based test data generation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1098–1105, ACM Press.
- [200] Harman, M. and Tratt, L. (2007) Pareto optimal search based refactoring at the design level. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1106–1113, ACM Press.
- [201] O'Keeffe, M. K. and Cinneide, M. O. (2007) Getting the most from search-based refactoring. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1114–1120, ACM Press.
- [202] Windisch, A., Wappler, S., and Wegener, J. (2007) Applying particle swarm optimization to software testing. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1121–1128, ACM Press.
- [203] Zhang, Y., Harman, M., and Mansouri, S. A. (2007) The multi-objective next release problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1129–1137, ACM Press.
- [204] de Abreu, B. T., Martins, E., and de Sousa, F. L. (2007) Generalized extremal optimization: an attractive alternative for test data generation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1138–1138, ACM Press.
- [205] Kiper, J. D., Feather, M. S., and Richardson, J. (2007) Optimizing the v&v process for critical systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1139–1139, ACM Press.
- [206] Liaskos, K., Roper, M., and Wood, M. (2007) Investigating data-flow coverage of classes using evolutionary algorithms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 1, pp. 1140–1140, ACM Press.
- [207] Liu, X., Wang, L., Zhu, X., Bai, Z., Zhang, M., and Liu, H. (2007) Fitness calculation approach for nested if-else construct in evolutionary testing. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 1, pp. 1141–1141, ACM Press.
- [208] Alharbi, A., Rand, W., and Riolo, R. (2007) The defined cliffs variant in dynamic environments: a case study using the shaky ladder hyperplane-defined functions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1158–1164, ACM Press.
- [209] Bosman, P. A. N. and Poutré, H. L. (2007) Learning and anticipation in online dynamic optimization with evolutionary algorithms: the stochastic case. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1165–1172, ACM Press.
- [210] Chen, Y., Hu, J., Hirasawa, K., and Yu, S. (2007) Gars: an improved genetic algorithm with reserve selection for global optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1173–1178, ACM Press.
- [211] Chiotis, T. and Clack, C. D. (2007) Nonlinearity linkage detection for financial time series analysis. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1179–1186, ACM Press.

- [212] Deb, K., Sindhya, K., and Okabe, T. (2007) Self-adaptive simulated binary crossover for real-parameter optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1187–1194, ACM Press.
- [213] de Melo, V. V., Delbem, A. C. B., Dorival Leao Pinto, J., and Federson, F. M. (2007) Improving global numerical optimization using a search-space reduction algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1195–1202, ACM Press.
- [214] Doerr, B. and Johannsen, D. (2007) Adjacency list matchings: an ideal genotype for cycle covers. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1203–1210, ACM Press.
- [215] Dong, H. and Liang, Y. (2007) Genetic algorithms for large join query optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1211–1218, ACM Press.
- [216] Friedrich, T., Hebbinghaus, N., and Neumann, F. (2007) Rigorous analyses of simple diversity mechanisms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1219–1225, ACM Press.
- [217] Gallardo, J. E., Cotta, C., and Fernandez, A. J. (2007) A memetic algorithm for the low autocorrelation binary sequence problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1226–1233, ACM Press.
- [218] Garibay, O. O. and Wu, A. S. (2007) Analyzing the effects of module encapsulation on search space bias. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1234–1241, ACM Press.
- [219] Hanada, Y., Hiroyasu, T., and Miki, M. (2007) Genetic multi-step search in interpolation and extrapolation domain. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1242–1249, ACM Press.
- [220] Hippolyte, J.-L., Bloch, C., Chatonnay, P., Espanet, C., and Chamagne, D. (2007) A self-adaptive multiagent evolutionary algorithm for electrical machine design. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1250–1255, ACM Press.
- [221] Iclanzan, D. and Dumitrescu, D. (2007) Overcoming hierarchical difficulty by hill-climbing the building block structure. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1256–1263, ACM Press.
- [222] Kabli, R., Herrmann, F., and McCall, J. (2007) A chain-model genetic algorithm for bayesian network structure learning. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1264–1271, ACM Press.
- [223] Kim, M., Aggarwal, V., O'Reilly, U.-M., and Medard, M. (2007) A doubly distributed genetic algorithm for network coding. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1272–1279, ACM Press.
- [224] Li, Z. and Goodman, E. D. (2007) Learning building block structure from crossover failure. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1280–1287, ACM Press.

- [225] Lim, D., Ong, Y.-S., Jin, Y., and Sendhoff, B. (2007) A study on metamodeling techniques, ensembles, and multi-surrogates in evolutionary computation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1288–1295, ACM Press.
- [226] Lung, R. I. and Dumitrescu, D. (2007) A new evolutionary model for detecting multiple optima. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1296–1303, ACM Press.
- [227] Mattiussi, C., Dürr, P., and Floreano, D. (2007) Center of mass encoding: a self-adaptive representation with adjustable redundancy for real-valued parameters. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1304–1311, ACM Press.
- [228] Mills, R. and Watson, R. A. (2007) Variable discrimination of crossover versus mutation using parameterized modular structure. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1312–1319, ACM Press.
- [229] Paulden, T. and Smith, D. K. (2007) Some novel locality results for the blob code spanning tree representation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1320–1327, ACM Press.
- [230] Philemotte, C. and Bersini, H. (2007) A gestalt genetic algorithm: less details for better search. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1328–1334, ACM Press.
- [231] Poli, R. and Vanneschi, L. (2007) Fitness-proportional negative slope coefficient as a hardness measure for genetic algorithms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1335–1342, ACM Press.
- [232] Prugel-Bennett, A. (2007) Finding critical backbone structures with genetic algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1343–1348, ACM Press.
- [233] Qiu, Q., Burns, D., Mukre, P., and Wu, Q. (2007) Hardware acceleration of multi-deme genetic algorithm for the application of dna codeword searching. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1349–1356, ACM Press.
- [234] Rohlfshagen, P. and Bullinaria, J. A. (2007) Exga ii: an improved exonic genetic algorithm for the multiple knapsack problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1357–1364, ACM Press.
- [235] Rohlfshagen, P. and Bullinaria, J. A. (2007) A genetic algorithm with exon shuffling crossover for hard bin packing problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1365–1371, ACM Press.
- [236] Sakuma, J. and Kobayashi, S. (2007) A genetic algorithm for privacy preserving combinatorial optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1372–1379, ACM Press.
- [237] Sastry, K. and Goldberg, D. E. (2007) Let's get ready to rumble redux: crossover versus mutation head to head on exponentially scaled problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1380–1387, ACM Press.

- [238] Sastry, K., Pelikan, M., and Goldberg, D. E. (2007) Empirical analysis of ideal recombination on random decomposable problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1388–1395, ACM Press.
- [239] Sato, Y., Yasuda, Y., and Goto, R. (2007) Analysis of noisy time-series signals with ga involving viral infection with tropism. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1396–1403, ACM Press.
- [240] Schonfeld, J. (2007) A study of mutational robustness as the product of evolutionary computation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1404–1411, ACM Press.
- [241] Smith, J. E. (2007) Credit assignment in adaptive memetic algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1412–1419, ACM Press.
- [242] Stoean, C. L., Preuss, M., Stoean, R., and Dumitrescu, D. (2007) Disburdening the species conservation evolutionary algorithm of arguing with radii. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1420–1427, ACM Press.
- [243] Sutton, A. M., Lunacek, M., and Whitley, L. D. (2007) Differential evolution and non-separability: using selective pressure to focus search. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1428–1435, ACM Press.
- [244] Toledo-Suárez, C. D., Valenzuela-Rendón, M., Terashima-Marín, H., and Uresti-Charre, E. (2007) On the relativity in the assessment of blind optimization algorithms and the problem-algorithm coevolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1436–1443, ACM Press.
- [245] Tripp, H. and Palmer, P. (2007) Distribution replacement: how survival of the worst can out perform survival of the fittest. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1444–1451, ACM Press.
- [246] Watson, R. A. and Jansen, T. (2007) A building-block royal road where crossover is provably essential. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1452–1459, ACM Press.
- [247] Wickramasinghe, W. R. M. U. K., van Steen, M., and Eiben, A. E. (2007) Peer-to-peer evolutionary algorithms with adaptive autonomous selection. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1460–1467, ACM Press.
- [248] Xie, H., Zhang, M., and Andreae, P. (2007) Another investigation on tournament selection: modelling and visualisation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1468–1475, ACM Press.
- [249] Yu, L., Zhou, J., Mabu, S., Hirasawa, K., Hu, J., and Markon, S. (2007) Effects of passenger's arrival distribution to double-deck elevator group supervisory control systems using genetic network programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1476–1483, ACM Press.
- [250] Zhou, S., Sun, Z., and Heckendorn, R. B. (2007) Extended probe method for linkage discovery over high-cardinality alphabets. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1484– 1491, ACM Press.

- [251] Zilinskas, A. and Zilinskas, J. (2007) Parallel genetic algorithm: assessment of performance in multidimensional scaling. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1492–1501, ACM Press.
- [252] Boulif, M. and Atif, K. (2007) A fuzzy genetic algorithm for the dynamic cell formation problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1502–1502, ACM Press.
- [253] Chen, Y., Mabu, S., Hirasawa, K., and Hu, J. (2007) Trading rules on stock markets using genetic network programming with sarsa learning. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1503–1503, ACM Press.
- [254] Correia, M. B. and Fonseca, C. M. (2007) On the roles of redundancy and neutrality in evolutionary optimization: an experimental study. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1504–1504, ACM Press.
- [255] Drzadzewski, G. and Wineberg, M. (2007) The effects of solution density in the search space on finding spatially robust solutions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1505–1505, ACM Press.
- [256] Eiben, A. E., Schoenauer, M., van Krevelen, D. W. F., Hobbelman, M. C., ten Hagen, M. A., and van het Schip, R. C. (2007) Autonomous selection in evolutionary algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1506–1506, ACM Press.
- [257] Fayek, M. B. E., Talaat, A. S., and Darwish, N. M. (2007) Generating classification trees for small disjuncts using incremental gas. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1507–1507, ACM Press.
- [258] Galvan-Lopez, E. and Poli, R. (2007) How and why a bit-wise neutrality with and without locality affects evolutionary search. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1508–1508, ACM Press.
- [259] Galvan-Lopez, E., Togelius, J., and Lucas, S. (2007) Towards understanding the effects of neutrality on the sudoku problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1509–1509, ACM Press.
- [260] García-Nieto, J., Alba, E., and Chicano, F. (2007) Using metaheuristic algorithms remotely via ros. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1510–1510, ACM Press.
- [261] Gog, A., Dumitrescu, D., and Hirsbrunner, B. (2007) Collaborative evolutionary algorithms for combinatorial optimization. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1511–1511, ACM Press.
- [262] Gonzales, E., Shimada, K., Mabu, S., Hirasawa, K., and Hu, J. (2007) Genetic network programming with parallel processing for association rule mining in large and dense databases. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1512–1512, ACM Press.
- [263] Graff, M., Poli, R., and Moraglio, A. (2007) Linear selection. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1513–1513, ACM Press.

- [264] Graham, L. K., Christensen, S., and Oppacher, F. (2007) A simple genetic algorithm for reducible complexity. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1514–1514, ACM Press.
- [265] Halavati, R., Shouraki, S. B., Jashmi, B. J., and Heravi, M. J. (2007) Symbiotic tabu search. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1515–1515, ACM Press.
- [266] Halma, A. and Turk, R. (2007) Adaptive markov recombination. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1516–1516, ACM Press.
- [267] Hamann, A. and Ernst, R. (2007) Efficient priority optimization in complex distributed embedded systems through search space adaptation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1517–1517, ACM Press.
- [268] He, J. and Zhou, Y. (2007) A comparison of gas using penalizing infeasible solutions and repairing infeasible solutions on restrictive capacity knapsack problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1518–1518, ACM Press.
- [269] Hidalgo, J. I., de Vega, F. F., Lanchares, J., and Lombrana, D. (2007) Is the island model fault tolerant? Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1519–1519, ACM Press.
- [270] Hwang, I., Kim, Y.-H., and Moon, B.-R. (2007) Overcoming barriers by a cluster-moving genetic algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1520–1520, ACM Press.
- [271] Johnson, C. G. (2007) A genetic algorithm for coverage problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1521–1521, ACM Press.
- [272] Kimbrough, S. O. and Wood, D. H. (2007) On repair by binary interpolation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1522–1522, ACM Press.
- [273] Kramer, O. and Koch, P. (2007) Self-adaptive partially mapped crossover. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1523–1523, ACM Press.
- [274] Tiago Leit a., Pereira, F. B., Tavares, J., and Costa, E. (2007) Niching techniques: a study on the cluster geometry optimization problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1524–1524, ACM Press.
- [275] Mbogho, A. J. W. and Scarlatos, L. L. (2007) Genetic parameter tuning for reliable segmentation of colored visual tags. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1525–1525, ACM Press.
- [276] Merelo, J. J. and Cotta, C. (2007) Who is the best connected ec researcher? Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1526–1526, ACM Press.
- [277] Mitchell, G., McMullin, B., Decraene, J., and Kelly, C. (2007) Quality time tradeoff operator for designing efficient multi level genetic algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1527–1527, ACM Press.

- [278] Payne, J. L. and Eppstein, M. J. (2007) Why your mates shouldn't date. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1528–1528, ACM Press.
- [279] Pfeiffer, J. and Rothlauf, F. (2007) Analysis of greedy heuristics and weight-coded eas for multidimensional knapsack problems and multi-unit combinatorial auctions. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1529–1529, ACM Press.
- [280] Anabela Sim o. and Costa, E. (2007) Vmea: studies on replacing strategies and diversity in dynamic environments. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1530–1530, ACM Press.
- [281] Sondahl, F. and Rand, W. (2007) Evolution of non-uniform cellular automata using a genetic algorithm: diversity and computation. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1531–1531, ACM Press.
- [282] Stanoyevitch, A. (2007) Homogeneous genetic algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1532–1532, ACM Press.
- [283] Tahera, K., Ibrahim, R. N., and Lochert, P. B. (2007) Adopting dynamic operators in a genetic algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1533–1533, ACM Press.
- [284] Tengg, A., Klausner, A., and Rinner, B. (2007) An improved genetic algorithm for task allocation in distributed embedded systems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1534–1534, ACM Press.
- [285] Ting, C.-K. (2007) Multi-parent extension of edge recombination. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1535–1535, ACM Press.
- [286] Tucker, A., Swift, S., and Crampton, J. (2007) Efficiency updates for the restricted growth function ga for grouping problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1536–1536, ACM Press.
- [287] Vieira, C. C. and Fonseca, C. M. (2007) A unified model of optimisation problems. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1537–1537, ACM Press.
- [288] Wilke, D. N., Kok, S., and Groenwold, A. A. (2007) Reference frame and scale invariant real-parameter genetic and differential evolution algorithms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1538–1538, ACM Press.
- [289] Yoon, Y., Kim, Y.-H., Moraglio, A., and Moon, B.-R. (2007) Geometric crossovers for real-code representation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1539–1539, ACM Press.
- [290] Zhou, S. and Sun, Z. (2007) Matrix interpretation of generalized embedded landscape. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1540–1542, ACM Press.
- [291] Agapitos, A., Togelius, J., and Lucas, S. M. (2007) Evolving controllers for simulated car racing using object oriented genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1543–1550, ACM Press.

- [292] Badran, K. M. S. and Rockett, P. I. (2007) The roles of diversity preservation and mutation in preventing population collapse in multiobjective genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1551–1558, ACM Press.
- [293] Burke, E. K., Hyde, M. R., Kendall, G., and Woodward, J. (2007) Automatic heuristic generation with genetic programming: evolving a jack-of-all-trades or a master of one. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1559–1565, ACM Press.
- [294] Chitty, D. M. (2007) A data parallel approach to genetic programming using programmable graphics hardware. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1566–1573, ACM Press.
- [295] Christensen, S. and Oppacher, F. (2007) Solving the artificial ant on the santa fe trail problem in 20,696 fitness evaluations. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1574–1579, ACM Press.
- [296] Clegg, J., Walker, J. A., and Miller, J. F. (2007) A new crossover technique for cartesian genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1580–1587, ACM Press.
- [297] Dignum, S. and Poli, R. (2007) Generalisation of the limiting distribution of program sizes in tree-based genetic programming and analysis of its effects on bloat. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1588–1595, ACM Press.
- [298] Drugowitsch, J. and Barry, A. M. (2007) Mixing independent classifiers. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1596–1603, ACM Press.
- [299] Hirsch, L., Hirsch, R., and Saeedi, M. (2007) Evolving lucene search queries for text classification. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1604–1611, ACM Press.
- [300] Jackson, D. (2007) Hierarchical genetic programming based on test input subsets. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1612–1619, ACM Press.
- [301] Jaskowski, W., Krawiec, K., and Wieloch, B. (2007) Genetic programming for cross-task knowledge sharing. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1620–1627, ACM Press.
- [302] Klein, J. and Spector, L. (2007) Unwitting distributed genetic programming via asynchronous javascript and xml. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1628–1635, ACM Press.
- [303] Looks, M. (2007) On the behavioral diversity of random programs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1636–1642, ACM Press.
- [304] Luthi, L., Tomassini, M., Giacobini, M., and Langdon, W. B. (2007) The genetic programming collaboration network and its communities. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1643–1650, ACM Press.

- [305] Majeed, H. and Ryan, C. (2007) Context-aware mutation: a modular, context aware mutation operator for genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1651–1658, ACM Press.
- [306] Majeed, H. and Ryan, C. (2007) On the constructiveness of context-aware crossover. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1659–1666, ACM Press.
- [307] Muntean, O., Diosan, L., and Oltean, M. (2007) Best subtree genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1667–1673, ACM Press.
- [308] Schmidt, M. and Lipson, H. (2007) Comparison of tree and graph encodings as function of problem complexity. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1674–1679, ACM Press.
- [309] Schmidt, M. D. and Lipson, H. (2007) Learning noise. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1680–1685, ACM Press.
- [310] Shirakawa, S., Ogino, S., and Nagao, T. (2007) Graph structured program evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1686–1693, ACM Press.
- [311] Smith, M. and Bull, L. (2007) Improving the human readability of features constructed by genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1694–1701, ACM Press.
- [312] Sullivan, K. M. and Luke, S. (2007) Evolving kernels for support vector machine classification. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1702–1707, ACM Press.
- [313] Thomason, R. and Soule, T. (2007) Novel ways of improving cooperation and performance in ensemble classifiers. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1708–1715, ACM Press.
- [314] Walker, M., Edwards, H., and Messom, C. (2007) The reliability of confidence intervals for computational effort comparisons. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1716–1723, ACM Press.
- [315] Walker, J. A. and Miller, J. F. (2007) Solving real-valued optimisation problems using cartesian genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1724–1730, ACM Press.
- [316] Woolley, B. G. and Peterson, G. L. (2007) Genetic evolution of hierarchical behavior structures. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1731–1738, ACM Press.
- [317] Xie, H., Zhang, M., and Andreae, P. (2007) An analysis of constructive crossover and selection pressure in genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1739–1748, ACM Press.
- [318] Bader-El-Den, M. B. and Poli, R. (2007) A gp-based hyper-heuristic framework for evolving 3-sat heuristics. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1749–1749, ACM Press.

- [319] Cai, X., Welch, S. M., Koduru, P., and Das, S. (2007) Discovering structures in gene regulatory networks using genetic programming and particle swarms. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1750–1750, ACM Press.
- [320] Folino, G., Pizzuti, C., and Spezzano, G. (2007) Streamgp: tracking evolving gp ensembles in distributed data streams using fractal dimension. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1751–1751, ACM Press.
- [321] Gonzalez, D. L. and de Vega, F. F. (2007) Dynamic populations and length evolution: key factors for analyzing fault tolerance on parallel genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1752–1752, ACM Press.
- [322] Keller, R. E. and Poli, R. (2007) Linear genetic programming of metaheuristics. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1753–1753, ACM Press.
- [323] Miki, M., Hashimoto, M., and Fujita, Y. (2007) Program search with simulated annealing. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1754–1754, ACM Press.
- [324] Murphy, G. and Ryan, C. (2007) Seeding methods for run transferable libraries. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1755–1755, ACM Press.
- [325] Radi, A. M. and El-Bakry, S. Y. (2007) Genetic programming approach for positron collisions with alkali-metal atom. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1756–1756, ACM Press.
- [326] Solano, M. and Jonyer, I. (2007) Towards an optimal restart strategy for genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1757–1757, ACM Press.
- [327] Taboada, K., Shimada, K., Mabu, S., Hirasawa, K., and Hu, J. (2007) Association rule mining for continuous attributes using genetic network programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1758–1758, ACM Press.
- [328] Vanneschi, L., Rochat, D., and Tomassini, M. (2007) Multi-optimization improves genetic programming generalization ability. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1759–1759, ACM Press.
- [329] Walker, M., Edwards, H., and Messom, C. (2007) "success effort"for performance comparisons. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1760–1760, ACM Press.
- [330] Wong, P. L.-M. and Zhang, M. (2007) Numerical-node building block analysis of genetic programming with simplification. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1761–1761, ACM Press.
- [331] Wyns, B. and Boullart, L. (2007) Adaptive strategies for a semantically driven tree optimizer to control code growth. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1762–1762, ACM Press.

- [332] Wyns, B., Boullart, L., and De Smedt, P. J. (2007) Limiting code growth to improve robustness in tree-based genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1763–1763, ACM Press.
- [333] Ando, S. (2007) Heuristic speciation for evolving neural network ensemble. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1766–1773, ACM Press.
- [334] Brown, G., Kovacs, T., and Marshall, J. A. R. (2007) Ucspv: principled voting in ucs rule populations. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1774–1781, ACM Press.
- [335] Gagné, C., Sebag, M., Schoenauer, M., and Tomassini, M. (2007) Ensemble learning for free with evolutionary algorithms? Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1782–1789, ACM Press.
- [336] Jaskowski, W., Krawiec, K., and Wieloch, B. (2007) Knowledge reuse in genetic programming applied to visual learning. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1790–1797, ACM Press.
- [337] Llorà, X., Sastry, K., Yu, T.-L., and Goldberg, D. E. (2007) Do not match, inherit: fitness surrogates for genetics-based machine learning techniques. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1798–1805, ACM Press.
- [338] Loiacono, D., Marelli, A., and Lanzi, P. L. (2007) Support vector regression for classifier prediction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1806–1813, ACM Press.
- [339] Lanzi, P. L., Butz, M. V., and Goldberg, D. E. (2007) Empirical analysis of generalization and learning in xcs with gradient descent. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1814–1821, ACM Press.
- [340] Lanzi, P. L. and Loiacono, D. (2007) Classifier systems that compute action mappings. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1822–1829, ACM Press.
- [341] Mierswa, I. (2007) Controlling overfitting with multi-objective support vector machines. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1830–1837, ACM Press.
- [342] Orriols-Puig, A., Goldberg, D. E., Sastry, K., and Bernadó-Mansilla, E. (2007) Modeling xcs in class imbalances: population size and parameter settings. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1838–1845, ACM Press.
- [343] Orriols-Puig, A., Sastry, K., Lanzi, P. L., Goldberg, D. E., and Bernadó-Mansilla, E. (2007) Modeling selection pressure in xcs for proportionate and tournament selection. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1846–1853, ACM Press.
- [344] Tamee, K., Bull, L., and Pinngern, O. (2007) Towards clustering with xcs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1854–1860, ACM Press.
- [345] Tran, H. T., Sanza, C., Duthen, Y., and Nguyen, T. D. (2007) Xcsf with computed continuous action. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1861–1869, ACM Press.

- [346] Cattral, R. and Oppacher, F. (2007) Discovering rules in the poker hand dataset. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1870–1870, ACM Press.
- [347] Chen, H.-W. and ping Chen, Y. (2007) Introducing fault tolerance to xcs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1871–1871, ACM Press.
- [348] DeHaas, D., Craig, J., Rickert, C., Eppstein, M. J., Haake, P., and Stor, K. (2007) Feature selection and classification in noisy epistatic problems using a hybrid evolutionary approach. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1872–1872, ACM Press.
- [349] Diosan, L., Oltean, M., Rogozan, A., and Pecuchet, J. P. (2007) Genetically designed multiple-kernels for improving the sym performance. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1873–1873, ACM Press.
- [350] Gandhe, A., Yu, S.-H., Mehra, R., and Smith, R. E. (2007) Fused, multi-spectral automatic target recognition with xcs. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1874–1874, ACM Press.
- [351] Shafti, L. S. and Pérez, E. (2007) Mdl-based fitness for feature construction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1875–1875, ACM Press.
- [352] Shankar, A., Louis, S. J., Dascalu, S., Houmanfar, R., and Hayes, L. J. (2007) Xcs for adaptive user-interfaces. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1876–1876, ACM Press.
- [353] Smith, R. E. and Jiang, M. K. (2007) Milcs: a mutual information learning classifier system. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1877–1877, ACM Press.
- [354] Achiche, S., Wang, W., Fan, Z., Ozkil, A., Sorensen, T., Wang, J., and Goodman, E. (2007) Genetically generated double-level fuzzy controller with a fuzzy adjustment strategy. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1880–1887, ACM Press.
- [355] Agogino, A. and Tumer, K. (2007) Evolving distributed agents for managing air traffic. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1888–1895, ACM Press.
- [356] Araujo, L. and Merelo, J. J. (2007) A genetic algorithm for dynamic modelling and prediction of activity in document streams. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1896–1903, ACM Press.
- [357] Banerjee, N. and Kumar, R. (2007) Multiobjective network design for realistic traffic models. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1904–1911, ACM Press.
- [358] Bolzani, L., Sanchez, E., Schillaci, M., and Squillero, G. (2007) Coupling ea and high-level metrics for the automatic generation of test blocks for peripheral cores. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1912–1919, ACM Press.
- [359] Chen, C.-H. and ping Chen, Y. (2007) Real-coded ecga for economic dispatch. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1920–1927, ACM Press.

- [360] Chen, J.-H. (2007) Simultaneous optimization of production planning and inspection planning for flexible manufacturing systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1928–1935, ACM Press.
- [361] Choo, C. S., Chua, C. L., and Tay, S.-H. V. (2007) Automated red teaming: a proposed framework for military application. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1936–1942, ACM Press.
- [362] Demir, G. N., Uyar, A. S., and Ögüdücü, S. G. (2007) Graph-based sequence clustering through multiobjective evolutionary algorithms for web recommender systems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1943–1950, ACM Press.
- [363] Doherty, D. and O'Riordan, C. (2007) A phenotypic analysis of gp-evolved team behaviours. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1951–1958, ACM Press.
- [364] Reis, G. and Fernandez Vega, F. (2007) Electronic synthesis using genetic algorithms for automatic music transcription. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1959– 1966, ACM Press.
- [365] Dragoni, M. and Tettamanzi, A. G. B. (2007) Evolutionary algorithms for reasoning in fuzzy description logics with fuzzy quantifiers. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1967–1974, ACM Press.
- [366] Esparcia-Alcazar, A. I., Lluch-Revert, L., Cardos, M., Sharman, K., and Merelo, J. J. (2007) Configuring an evolutionary tool for the inventory and transportation problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1975–1982, ACM Press.
- [367] Fan, K., Brabazon, A., O'Sullivan, C., and O'Neill, M. (2007) Option pricing model calibration using a real-valued quantum-inspired evolutionary algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 1983–1990, ACM Press.
- [368] Förster, M., Bickel, B., Hardung, B., and Kókai, G. (2007) Self-adaptive ant colony optimisation applied to function allocation in vehicle networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1991–1998, ACM Press.
- [369] Francone, F. D., Deschaine, L. M., and Warren, J. J. (2007) Discrimination of munitions and explosives of concern at f.e. warren afb using linear genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 1999–2006, ACM Press.
- [370] Geremia, P., Poian, M., and Poles, S. (2007) Genetic optimization for yacht design. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2007–2012, ACM Press.
- [371] Hanna, S. (2007) Defining implicit objective functions for design problems. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2013–2020, ACM Press.
- [372] Hoverstad, B. A. (2007) Revisiting the personal satellite assistant: neuroevolution with a modified enforced sub-populations algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2021–2028, ACM Press.

- [373] Hung, P.-C., ping Chen, Y., and Zan, H. W. (2007) Characteristic determination for solid state devices with evolutionary computation: a case study. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2029–2036, ACM Press.
- [374] Jaros, J., Ohlidal, M., and Dvorak, V. (2007) An evolutionary approach to collective communication scheduling. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2037–2044, ACM Press.
- [375] Jenabi, M., Torabi, S. A., and Mansouri, S. A. (2007) A hybrid ga for a supply chain production planning problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2045–2052, ACM Press.
- [376] Joost, R. and Salomon, R. (2007) High quality offset printing: an evolutionary approach. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2053–2058, ACM Press.
- [377] Jursa, R. (2007) Variable selection for wind power prediction using particle swarm optimization. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2059–2065, ACM Press.
- [378] Kharbat, F., Bull, L., and Odeh, M. (2007) Mining breast cancer data with xcs. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2066–2073, ACM Press.
- [379] Koza, J. R., Al-Sakran, S. H., Jones, L. W., and Manassero, G. (2007) Automated synthesis of a fixed-length loaded symmetric dipole antenna whose gain exceeds that of a commercial antenna and matches the theoretical maximum. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2074–2081, ACM Press.
- [380] Lange, R. C. and Mancoridis, S. (2007) Using code metric histograms and genetic algorithms to perform author identification for software forensics. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2082–2089, ACM Press.
- [381] Lee, J.-W., Choi, S.-S., and Moon, B.-R. (2007) An evolutionary keystroke authentication based on ellipsoidal hypothesis space. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2090– 2097, ACM Press.
- [382] Llorà, X., Reddy, R., Matesic, B., and Bhargava, R. (2007) Towards better than human capability in diagnosing prostate cancer using infrared spectroscopic imaging. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2098–2105, ACM Press.
- [383] Lockett, A. J., Chen, C. L., and Miikkulainen, R. (2007) Evolving explicit opponent models in game playing. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2106–2113, ACM Press.
- [384] McCubbin, C., Scheidt, D., Bandte, O., Marshall, S., and Trifonov, I. (2007) Using genetic algorithms for naval subsystem damage assessment and design improvements. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2114–2121, ACM Press.
- [385] Mehnen, J., Roy, R., Kersting, P., and Wagner, T. (2007) Icspea: evolutionary five-axis milling path optimisation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2122–2128, ACM Press.

- [386] Odeh, O., Koduru, P., Das, S., Featherstone, A. M., and Welch, S. M. (2007) A multi-objective approach for the prediction of loan defaults. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2129–2136, ACM Press.
- [387] Peterson, M. R., Lamont, G. B., Moore, F., and Marshall, P. (2007) Targeted filter evolution for improved image reconstruction resolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2137–2144, ACM Press.
- [388] Powell, D. and Hollingsworth, J. (2007) A nsga-ii, web-enabled, parallel optimization framework for nlp and minlp. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2145–2150, ACM Press.
- [389] Quiroz, J. C., Louis, S. J., and Dascalu, S. M. (2007) Interactive evolution of xul user interfaces. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2151–2158, ACM Press.
- [390] Ramirez, R. and Hazan, A. (2007) Inducing a generative expressive performance model using a sequential-covering genetic algorithm. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2159–2166, ACM Press.
- [391] Sullivan, J. and Ryan, C. (2007) A destructive evolutionary process: a pilot implementation. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2167–2173, ACM Press.
- [392] Swift, S., Tucker, A., Crampton, J., and Garway-Heath, D. (2007) An improved restricted growth function genetic algorithm for the consensus clustering of retinal nerve fibre data. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2174–2181, ACM Press.
- [393] Terashima-Marin, H., Zarate, C. J. F., Ross, P., and Valenzuela-Rendon, M. (2007) Comparing two models to generate hyper-heuristics for the 2d-regular bin-packing problem. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2182–2189, ACM Press.
- [394] Thangavelu, R. and Pradeep, S. (2007) An online implementable differential evolution tuned optimal guidance law. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2190–2194, ACM Press.
- [395] Wagner, T., Michelitsch, T., and Sacharow, A. (2007) On the design of optimisers for surface reconstruction. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2195–2202, ACM Press.
- [396] Wang, C.-W., Sun, L.-M., Jin, M.-H., Fu, C.-J., Liu, L., Chan, C.-H., and Kao, C.-Y. (2007) A genetic algorithm for resident physician scheduling problem. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2203–2210, ACM Press.
- [397] Wang, J., Jing, N., Li, J., and Chen, Z. H. (2007) A multi-objective imaging scheduling approach for earth observing satellites. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2211–2218, ACM Press.
- [398] Wedge, D. C., Gaskell, S. J., Hubbard, S. J., Kell, D. B., Lau, K. W., and Eyers, C. (2007) Peptide detectability following esi mass spectrometry: prediction using genetic programming. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2219–2225, ACM Press.

- [399] Yan, W. and Clack, C. D. (2007) Diverse committees vote for dependable profits. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2226–2233, ACM Press.
- [400] Yan, W. and Clack, C. D. (2007) Evolving robust gp solutions for hedge fund stock selection in emerging markets. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2234–2241, ACM Press.
- [401] Zinchenko, L., Radecker, M., and Bisogno, F. (2007) Multi-objective univariate marginal distribution optimisation of mixed analogue-digital signal circuits. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2242–2251, ACM Press.
- [402] Azzini, A. and Tettamanzi, A. G. B. (2007) Automated trading on financial instruments with evolved neural networks. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2252–2252, ACM Press.
- [403] Cebrian, M., Alfonseca, M., and Ortega, A. (2007) Automatic generation of benchmarks for plagiarism detection tools using grammatical evolution. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2253–2253, ACM Press.
- [404] Costelloe, D. and Ryan, C. (2007) Towards models of user preferences in interactive musical evolution. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2254–2254, ACM Press.
- [405] Cummins, R. and O'Riordan, C. (2007) Using genetic programming for information retrieval: local and global query expansion. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2255–2255, ACM Press.
- [406] Danoy, G., Alba, E., Bouvry, P., and Brust, M. (2007) Optimal design of ad hoc injection networks by using genetic algorithms. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2256–2256, ACM Press.
- [407] Duke, J. and Clack, C. D. (2007) Using an evolutionary agent-based simulation to explore hedging pressure in futures markets. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2257–2257, ACM Press.
- [408] Isaacs, J. C., Foo, S., and Meyer-Baese, A. (2007) Evolutionary computation-based kernel optimal component analysis for pattern recognition. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2258–2258, ACM Press.
- [409] Kumar, R. and Singh, P. K. (2007) On quality performance of heuristic and evolutionary algorithms for biobjective minimum spanning trees. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2259–2259, ACM Press.
- [410] Lai, C.-C., Ting, C.-K., and Ko, R.-S. (2007) An effective genetic algorithm for improving wireless sensor network lifetime. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2260–2260, ACM Press.
- [411] Lourenço, N. C. and Horta, N. C. (2007) Automatic analog ic layout generation based on a evolutionary computation approach. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2261–2261, ACM Press.

- [412] Ma, I., Wong, T., and Sankar, T. (2007) Volatility forecasting using time series data mining and evolutionary computation techniques. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2262–2262, ACM Press.
- [413] Mabu, S., Chen, Y., Hirasawa, K., and Hu, J. (2007) Genetic network programming with actorcritic and its application to stock trading model. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2263–2263, ACM Press.
- [414] Oranchak, D. (2007) Evolutionary synthesis of photographic artwork using human fitness function derived from web-based social networks. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2264–2264, ACM Press.
- [415] Sekaj, I., Perkacz, J., and Palenik, T. (2007) Controller design based on genetic programming. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2265–2265, ACM Press.
- [416] Shir, O. M., Bäck, T., and Vrakking, M. J. J. (2007) On the scalability of evolution strategies in the optimization of dynamic molecular alignment. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2266–2266, ACM Press.
- [417] Tufail, M. and Ormsbee, L. E. (2007) Genetic algorithms for water quality management in an urban watershed. Thierens, D., et al. (eds.), GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation, London, 7-11 July, vol. 2, pp. 2267–2267, ACM Press.
- [418] Turner, C. J. and Tiwari, A. (2007) An experimental evaluation of genetic process mining. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2268–2268, ACM Press.
- [419] Urquhart, N. B. (2007) Carbon-friendly travel plan construction using an evolutionary algorithm. Thierens, D., et al. (eds.), *GECCO '07: Proceedings of the 9th annual conference on Genetic and evolutionary computation*, London, 7-11 July, vol. 2, pp. 2269–2269, ACM Press.