Список литературы

[1] Y. Zhou and Y. Tan, Particle swarm optimization with triggered mutation and its implementation based on GPU, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1–8, Portland, Oregon, USA, 7-11 July 2010, ACM.

[2] Z. Chen, Z. He, and C. Zhang, Particle swarm optimizer with self-adjusting neighborhoods, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 9–14, Portland, Oregon, USA, 7-11 July 2010, ACM.

[3] L. Vanneschi, D. Codecasa, and G. Mauri, An empirical comparison of parallel and distributed particle swarm optimization methods, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 15–22, Portland, Oregon, USA, 7-11 July 2010, ACM.

[4] Y. Lin, X. min Hu, and J. Zhang, An ant-colony-system-based activity scheduling method for the lifetime maximization of heterogeneous wireless sensor networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 23–30, Portland, Oregon, USA, 7-11 July 2010, ACM.

[5] W. jie Yu and J. Zhang, Pheromone-distribution-based adaptive ant colony system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 31–38, Portland, Oregon, USA, 7-11 July 2010, ACM.

[6] Z.-H. Zhan and J. Zhang, Self-adaptive differential evolution based on PSO learning strategy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 39–46, Portland, Oregon, USA, 7-11 July 2010, ACM.

[7] N. Lemmens and K. Tuyls, Stigmergic landmark routing: a routing algorithm for wireless mobile ad-hoc networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 47–54, Portland, Oregon, USA, 7-11 July 2010, ACM.

[8] K. Deb and N. Padhye, Development of efficient particle swarm optimizers by using concepts from evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 55–62, Portland, Oregon, USA, 7-11 July 2010, ACM.

[9] F. Neumann, D. Sudholt, and C. Witt, A few ants are enough: ACO with iteration-best update, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 63–70, Portland, Oregon, USA, 7-11 July 2010, ACM.

[10] M. Lopez-Ibanez and T. Stuetzle, The impact of design choices of multiobjective antcolony optimization algorithms on performance: an experimental study on the biobjective TSP, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 71–78, Portland, Oregon, USA, 7-11 July 2010, ACM.

[11] S. Salim, M. Javed, and A. H. Akbar, Honey-bee dancing-inspired architecture for fault tolerance in wireless sensor networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 79–80, Portland, Oregon, USA, 7-11 July 2010, ACM.

[12] A. W. Mohemmed, M. Zhang, and W. N. Browne, Particle swarm optimisation for outlier detection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 83–84, Portland, Oregon, USA, 7-11 July 2010, ACM.

[13] J. B. Brown and M. Huber, Pseudo-hierarchical ant-based clustering using a heterogeneous agent hierarchy and automatic boundary formation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 85–86, Portland, Oregon, USA, 7-11 July 2010, ACM.

[14] F. Ducatelle, G. A. Di Caro, and L. M. Gambardella, Cooperative self-organization in a heterogeneous swarm robotic system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 87–94, Portland, Oregon, USA, 7-11 July 2010, ACM.

[15] M. L. Pilat and C. Jacob, Evolution of vision capabilities in embodied virtual creatures, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 95–102, Portland, Oregon, USA, 7-11 July 2010, ACM.

[16] J. Lehman and K. O. Stanley, Revising the evolutionary computation abstraction: minimal criteria novelty search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 103–110, Portland, Oregon, USA, 7-11 July 2010, ACM.

[17] J. C. Bongard and G. S. Hornby, Guarding against premature convergence while accelerating evolutionary search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and*

evolutionary computation, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 111–118, Portland, Oregon, USA, 7-11 July 2010, ACM.

[18] S. Koos, J.-B. Mouret, and S. Doncieux, Crossing the reality gap in evolutionary robotics by promoting transferable controllers, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 119–126, Portland, Oregon, USA, 7-11 July 2010, ACM.

[19] M. Knudson and K. Tumer, Coevolution of heterogeneous multi-robot teams, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 127–134, Portland, Oregon, USA, 7-11 July 2010, ACM.

[20] H. J. Goldsby, D. B. Knoester, and C. Ofria, Evolution of division of labor in genetically homogenous groups, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 135–142, Portland, Oregon, USA, 7-11 July 2010, ACM.

[21] B. D. Connelly, B. E. Beckmann, and P. K. McKinley, Resource abundance promotes the evolution of public goods cooperation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 143–150, Portland, Oregon, USA, 7-11 July 2010, ACM.

[22] J. D. Hiller and H. Lipson, Morphological evolution of freeform robots, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 151–152, Portland, Oregon, USA, 7-11 July 2010, ACM.

[23] C. Fernando, Neuronal replicators solve the stability-plasticity dilemma, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 153–154, Portland, Oregon, USA, 7-11 July 2010, ACM.

[24] K.-C. Wong, K.-S. Leung, and M.-H. Wong, Protein structure prediction on a lattice model via multimodal optimization techniques, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 155–162, Portland, Oregon, USA, 7-11 July 2010, ACM.

[25] A. Farinaccio, L. Vanneschi, M. Giacobini, G. Mauri, and P. Provero, On the use of genetic programming for the prediction of survival in cancer, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van

Hemert, L. Vanneschi, and C. Witt, pages 163–170, Portland, Oregon, USA, 7-11 July 2010, ACM.

[26] L.-Y. Lo, T.-M. Chan, K.-H. Lee, and K.-S. Leung, Challenges rising from learning motif evaluation functions using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 171–178, Portland, Oregon, USA, 7-11 July 2010, ACM.

[27] U. Kamath, K. A. De Jong, and A. Shehu, Selecting predictive features for recognition of hypersensitive sites of regulatory genomic sequences with an evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 179–186, Portland, Oregon, USA, 7-11 July 2010, ACM.

[28] C. García-Martínez, C. Lima, J. Twycross, N. Krasnogor, and M. Lozano, P system model optimisation by means of evolutionary based search algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 187–194, Portland, Oregon, USA, 7-11 July 2010, ACM.

[29] R. J. Urbanowicz and J. H. Moore, The application of michigan-style learning classifiersystems to address genetic heterogeneity and epistasisin association studies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 195–202, Portland, Oregon, USA, 7-11 July 2010, ACM.

[30] E. R. Holzinger, C. C. Buchanan, S. M. Dudek, E. C. Torstenson, S. D. Turner, and M. D. Ritchie, Initialization parameter sweep in ATHENA: optimizing neural networks for detecting gene-gene interactions in the presence of small main effects, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 203–210, Portland, Oregon, USA, 7-11 July 2010, ACM.

[31] E. Atilgan and J. Hu, Efficient protein-ligand docking using sustainable evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 211–212, Portland, Oregon, USA, 7-11 July 2010, ACM.

[32] J. Kubalik, P. Buryan, and L. Wagner, Solving the DNA fragment assembly problem efficiently using iterative optimization with evolved hypermutations, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 213–214, Portland, Oregon, USA, 7-11 July 2010, ACM.

[33] N. A. Sinnott-Armstrong, C. S. Greene, and J. H. Moore, Fast genome-wide epistasis analysis using ant colony optimization for multifactor dimensionality reduction analysis on graphics

processing units, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 215–216, Portland, Oregon, USA, 7-11 July 2010, ACM.

[34] H. Jiang and Y. Chen, An efficient algorithm for generalized minimum spanning tree problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 217–224, Portland, Oregon, USA, 7-11 July 2010, ACM.

[35] S. Iordache, Consultant-guided search: a new metaheuristic for combinatorial optimization problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 225–232, Portland, Oregon, USA, 7-11 July 2010, ACM.

[36] S. X. Wu and W. Banzhaf, A hierarchical cooperative evolutionary algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 233–240, Portland, Oregon, USA, 7-11 July 2010, ACM.

[37] J. Bibai, P. Saveant, M. Schoenauer, and V. Vidal, On the generality of parameter tuning in evolutionary planning, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 241–248, Portland, Oregon, USA, 7-11 July 2010, ACM.

[38] T. Hildebrandt, J. Heger, and B. Scholz-Reiter, Towards improved dispatching rules for complex shop floor scenarios: a genetic programming approach, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 257–264, Portland, Oregon, USA, 7-11 July 2010, ACM.

[39] K. M. Leung and X. Zhang, Discrete versus continuous parametrization of bank credit rating systems optimization using differential evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 265–272, Portland, Oregon, USA, 7-11 July 2010, ACM.

[40] F. Stonedahl and S. H. Stonedahl, Heuristics for sampling repetitions in noisy landscapes with fitness caching, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 273–280, Portland, Oregon, USA, 7-11 July 2010, ACM.

[41] Z. Ren and Z. Feng, An ant colony optimization approach to the multiple-choice multidimensional knapsack problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard,

A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 281–288, Portland, Oregon, USA, 7-11 July 2010, ACM.

[42] E. Doğan, F. Erdal, and M. P. Saka, Optimum design of grillage systems under code provisions using particle swarm optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 289–290, Portland, Oregon, USA, 7-11 July 2010, ACM.

[43] J. J. Merelo, A. M. Mora, and T. P. Runarsson, Beating exhaustive search at its own game: revisiting evolutionary mastermind, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 291–292, Portland, Oregon, USA, 7-11 July 2010, ACM.

[44] C.-W. Tsai, S.-P. Tseng, M.-C. Chiang, and C.-S. Yang, A framework for accelerating metaheuristics via pattern reduction, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 293–294, Portland, Oregon, USA, 7-11 July 2010, ACM.

[45] S. O. Kimbrough, A. Kuo, and H. C. Lau, Effective heuristic methods for finding non-optimal solutions of interest in constrained optimization models, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 295–296, Portland, Oregon, USA, 7-11 July 2010, ACM.

[46] E. López-Camacho, H. Terashima-Marín, P. Ross, and M. Valenzuela-Rendón, Problem-state representations in a hyper-heuristic approach for the 2D irregular BPP, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 297–298, Portland, Oregon, USA, 7-11 July 2010, ACM.

[47] E. Montero, M.-C. Riff, and B. Neveu, An evaluation of off-line calibration techniques for evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 299–300, Portland, Oregon, USA, 7-11 July 2010, ACM.

[48] W. Steitz and F. Rothlauf, Solving OCST problems with problem-specific guided local search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 301–302, Portland, Oregon, USA, 7-11 July 2010, ACM.

[49] E. Radetic and M. Pelikan, Spurious dependencies and EDA scalability, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry,

D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 303–310, Portland, Oregon, USA, 7-11 July 2010, ACM.

[50] C.-Y. Chuang and W.-L. Hsu, Multivariate multi-model approach for globally multimodal problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 311–318, Portland, Oregon, USA, 7-11 July 2010, ACM.

[51] J. hui Zhong and J. Zhang, A robust estimation of distribution algorithm for power electronic circuits design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 319–326, Portland, Oregon, USA, 7-11 July 2010, ACM.

[52] J. Yang, H. Xu, Y. Cai, and P. Jia, Effective structure learning for EDA via L1-regularizedbayesian networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 327–334, Portland, Oregon, USA, 7-11 July 2010, ACM.

[53] H. N. Luong, H. T. Nguyen, and C. W. Ahn, Entropy-based substructural local search for the bayesian optimization algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 335–342, Portland, Oregon, USA, 7-11 July 2010, ACM.

[54] H. T. Nguyen, H. N. Luong, and C. W. Ahn, Entropy measurement-based estimation model for bayesian optimization algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 343–350, Portland, Oregon, USA, 7-11 July 2010, ACM.

[55] P. A. Bosman, The anticipated mean shift and cluster registration in mixture-based EDAs for multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 351–358, Portland, Oregon, USA, 7-11 July 2010, ACM.

[56] R. Salinas-Gutiérrez, A. Hernández-Aguirre, and E. R. Villa-Diharce, D-vine EDA: a new estimation of distribution algorithm based on regular vines, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 359–366, Portland, Oregon, USA, 7-11 July 2010, ACM.

[57] A. Nikanjam, H. Sharifi, B. H. Helmi, and A. Rahmani, A new DSM clustering algorithm for linkage groups identification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 367–368, Portland, Oregon, USA, 7-11 July 2010, ACM.

[58] A. Melkozerov and H.-G. Beyer, On the analysis of self-adaptive evolution strategies on elliptic model: first results, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 369–376, Portland, Oregon, USA, 7-11 July 2010, ACM.

[59] A. M. Chwatal, G. R. Raidl, and M. Zöch, Fitting multi-planet transit models to photometric time-data series by evolution strategies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 377–384, Portland, Oregon, USA, 7-11 July 2010, ACM.

[60] D. V. Arnold and N. Hansen, Active covariance matrix adaptation for the (1+1)-CMA-ES, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 385–392, Portland, Oregon, USA, 7-11 July 2010, ACM.

[61] T. Glasmachers, T. Schaul, S. Yi, D. Wierstra, and J. Schmidhuber, Exponential natural evolution strategies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 393–400, Portland, Oregon, USA, 7-11 July 2010, ACM.

[62] M. Preuss, G. Rudolph, and S. Wessing, Tuning optimization algorithms for real-world problems by means of surrogate modeling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 401–408, Portland, Oregon, USA, 7-11 July 2010, ACM.

[63] W. Gong, Álvaro Fialho, and Z. Cai, Adaptive strategy selection in differential evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 409–416, Portland, Oregon, USA, 7-11 July 2010, ACM.

[64] H. Ma and D. Simon, Biogeography-based optimization with blended migration for constrained optimization problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 417–418, Portland, Oregon, USA, 7-11 July 2010, ACM.

[65] E. Gonzales, S. Mabu, K. Taboada, K. Hirasawa, and K. Shimada, Pruning association rules using statistics and genetic relation algoritm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 419–420, Portland, Oregon, USA, 7-11 July 2010, ACM.

[66] O. M. Shir, J. Roslund, and H. Rabitz, Forced optimal covariance adaptive learning: modified CMA-ES for efficient hessian determination, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba,

D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 421–422, Portland, Oregon, USA, 7-11 July 2010, ACM.

[67] R. Liu, W. Zhang, L. Jiao, F. Liu, and J. Ma, A sphere-dominance based preference immune-inspired algorithm for dynamic multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 423–430, Portland, Oregon, USA, 7-11 July 2010, ACM.

[68] D. F. Lochtefeld and F. W. Ciarallo, Deterministic helper-objective sequences applied to job-shop scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 431–438, Portland, Oregon, USA, 7-11 July 2010, ACM.

[69] J. Schrum and R. Miikkulainen, Evolving agent behavior in multiobjective domains using fitness-based shaping, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 439–446, Portland, Oregon, USA, 7-11 July 2010, ACM.

[70] T. Ulrich, J. Bader, and E. Zitzler, Integrating decision space diversity into hypervolume-based multiobjective search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 455–462, Portland, Oregon, USA, 7-11 July 2010, ACM.

[71] M. Li, J. Zheng, R. Shen, K. Li, and Q. Yuan, A grid-based fitness strategy for evolutionary many-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 463–470, Portland, Oregon, USA, 7-11 July 2010, ACM.

[72] I. Loshchilov, M. Schoenauer, and M. Sebag, A mono surrogate for multiobjective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 471–478, Portland, Oregon, USA, 7-11 July 2010, ACM.

[73] D. Sharma and P. Collet, An archived-based stochastic ranking evolutionary algorithm (asrea) for multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 479–486, Portland, Oregon, USA, 7-11 July 2010, ACM.

[74] T. Voß, N. Hansen, and C. Igel, Improved step size adaptation for the MO-CMA-ES, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 487–494, Portland, Oregon, USA, 7-11 July 2010, ACM.

[75] R. Berghammer, T. Friedrich, and F. Neumann, Set-based multi-objective optimization, indicators, and deteriorative cycles, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 495–502, Portland, Oregon, USA, 7-11 July 2010, ACM.

[76] O. Kramer and H. Danielsiek, DBSCAN-based multi-objective niching to approximate equivalent pareto-subsets, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 503–510, Portland, Oregon, USA, 7-11 July 2010, ACM.

[77] K. Bringmann and T. Friedrich, The maximum hypervolume set yields near-optimal approximation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 511–518, Portland, Oregon, USA, 7-11 July 2010, ACM.

[78] H. Ishibuchi, Y. Sakane, N. Tsukamoto, and Y. Nojima, Simultaneous use of different scalarizing functions in MOEA/D, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 519–526, Portland, Oregon, USA, 7-11 July 2010, ACM.

[79] F. Folino and C. Pizzuti, Multiobjective evolutionary community detection for dynamic networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 535–536, Portland, Oregon, USA, 7-11 July 2010, ACM.

[80] S. Zapotecas Martínez and C. A. Coello Coello, A multi-objective meta-model assisted memetic algorithm with non gradient-based local search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 537–538, Portland, Oregon, USA, 7-11 July 2010, ACM.

[81] D. Dumitrescu, R. I. Lung, R. Nagy, D. Zaharie, and A. Bartha, Exploring evolutionary detected fuzzy equilibria: a link between normative theory and real life, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 539–540, Portland, Oregon, USA, 7-11 July 2010, ACM.

[82] A. K. Hutzschenreuter, P. A. Bosman, and H. La Poutré, Enhanced hospital resource management using anticipatory policies in online dynamic multi-objective optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 541–542, Portland, Oregon, USA, 7-11 July 2010, ACM.

[83] M. D. Schmidt and H. Lipson, Age-fitness pareto optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke,

M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 543–544, Portland, Oregon, USA, 7-11 July 2010, ACM.

[84] L. Martí, J. García, A. Berlanga, and J. M. Molina, Moving away from error-based learning in multi-objective estimation of distribution algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 545–546, Portland, Oregon, USA, 7-11 July 2010, ACM.

[85] P. Verbancsics and K. O. Stanley, Transfer learning through indirect encoding, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 547–554, Portland, Oregon, USA, 7-11 July 2010, ACM.

[86] K. L. Downing, The baldwin effect in developing neural networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 555–562, Portland, Oregon, USA, 7-11 July 2010, ACM.

[87] S. Risi, J. Lehman, and K. O. Stanley, Evolving the placement and density of neurons in the hyperneat substrate, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 563–570, Portland, Oregon, USA, 7-11 July 2010, ACM.

[88] T. Steiner, Y. Jin, and B. Sendhoff, Evolving heterochrony for cellular differentiation using vector field embryogeny, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 571–578, Portland, Oregon, USA, 7-11 July 2010, ACM.

[89] S. Harding, J. F. Miller, and W. Banzhaf, Self modifying cartesian genetic programming: finding algorithms that calculate pi and e to arbitrary precision, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 579–586, Portland, Oregon, USA, 7-11 July 2010, ACM.

[90] J.-B. Mouret, S. Doncieux, and B. Girard, Importing the computational neuroscience toolbox into neuro-evolution-application to basal ganglia, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 587–594, Portland, Oregon, USA, 7-11 July 2010, ACM.

[91] M. A. Trefzer, T. Kuyucu, J. F. Miller, and A. M. Tyrrell, Image compression of natural images using artificial gene regulatory networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba,

D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 595–602, Portland, Oregon, USA, 7-11 July 2010, ACM.

[92] D. B. Knoester, H. J. Goldsby, and P. K. McKinley, Neuroevolution of mobile ad hoc networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 603–610, Portland, Oregon, USA, 7-11 July 2010, ACM.

[93] H. Moriguchi and S. Honiden, Sustaining behavioral diversity in NEAT, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 611–618, Portland, Oregon, USA, 7-11 July 2010, ACM.

[94] J. Koutnik, F. Gomez, and J. Schmidhuber, Evolving neural networks in compressed weight space, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 619–626, Portland, Oregon, USA, 7-11 July 2010, ACM.

[95] J. E. Auerbach and J. C. Bongard, Evolving CPPNs to grow three-dimensional physical structures, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 627–634, Portland, Oregon, USA, 7-11 July 2010, ACM.

[96] J. Clune, B. E. Beckmann, P. K. McKinley, and C. Ofria, Investigating whether hyperNEAT produces modular neural networks, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 635–642, Portland, Oregon, USA, 7-11 July 2010, ACM.

[97] B. Inden, Y. Jin, R. Haschke, and H. Ritter, NEATfields: evolution of neural fields, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 645–646, Portland, Oregon, USA, 7-11 July 2010, ACM.

[98] T. Soule and R. B. Heckendorn, A developmental algorithm for multi-agent swarms with scalable hierarchies, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 647–648, Portland, Oregon, USA, 7-11 July 2010, ACM.

[99] R. Collier and M. Wineberg, Approaches to multidimensional scaling for adaptive landscape visualization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 649–656, Portland, Oregon, USA, 7-11 July 2010, ACM.

[100] J. Benjamin and B. A. Julstrom, Breaking ties with secondary fitness in a genetic algorithm for the bin packing problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 657–664, Portland, Oregon, USA, 7-11 July 2010, ACM.

[101] M. Pelikan, NK landscapes, problem difficulty, and hybrid evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 665–672, Portland, Oregon, USA, 7-11 July 2010, ACM.

[102] R. Yehoshua, M. Avigal, and R. Unger, Analysis of the effects of lifetime learning on population fitness using vose model, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 681–688, Portland, Oregon, USA, 7-11 July 2010, ACM.

[103] R. Tulshyan, R. Arora, K. Deb, and J. Dutta, Investigating EA solutions for approximate KKT conditions in smooth problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 689–696, Portland, Oregon, USA, 7-11 July 2010, ACM.

[104] T.-C. Lien, T.-L. Yu, and Y.-S. You, Co-evolution of cooperative strategies under egoism, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 697–704, Portland, Oregon, USA, 7-11 July 2010, ACM.

[105] T. Jansen and C. Zarges, Aging beyond restarts, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 705–712, Portland, Oregon, USA, 7-11 July 2010, ACM.

[106] M. W. Hauschild and M. Pelikan, Network crossover performance on NK landscapes and deceptive problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 713–720, Portland, Oregon, USA, 7-11 July 2010, ACM.

[107] F. Vafaee, G. Turán, and P. C. Nelson, Optimizing genetic operator rates using a markov chain model of genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 721–728, Portland, Oregon, USA, 7-11 July 2010, ACM.

[108] Y. Wen, H. Xu, and J. Yang, A heuristic-based hybrid genetic algorithm for heterogeneous multiprocessor scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht,

N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 729–736, Portland, Oregon, USA, 7-11 July 2010, ACM.

[109] P. Unachak and E. Goodman, Solving multiobjective flexible job-shop scheduling using an adaptive representation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 737–742, Portland, Oregon, USA, 7-11 July 2010, ACM.

[110] B. M. de Mendonca Neta, G. H. D. Araujo, F. G. Guimaraes, and R. C. Mesquita, A hybrid genetic algorithm for automatic graph drawing based on the topology-shape-metric approach, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 743–750, Portland, Oregon, USA, 7-11 July 2010, ACM.

[111] A. M. Barreto, H. S. Bernardino, and H. J. Barbosa, Probabilistic performance profiles for the experimental evaluation of stochastic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 751–758, Portland, Oregon, USA, 7-11 July 2010, ACM.

[112] B. Doerr and D. Johannsen, Edge-based representation beats vertex-based representation in shortest path problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 759–766, Portland, Oregon, USA, 7-11 July 2010, ACM.

[113] Álvaro Fialho, M. Schoenauer, and M. Sebag, Toward comparison-based adaptive operator selection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 767–774, Portland, Oregon, USA, 7-11 July 2010, ACM.

[114] S. F. Galan and O. J. Mengshoel, Generalized crowding for genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 775–782, Portland, Oregon, USA, 7-11 July 2010, ACM.

[115] P. Avery and S. Louis, Coevolving influence maps for spatial team tactics in a RTS game, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 783–790, Portland, Oregon, USA, 7-11 July 2010, ACM.

[116] B. P. Carlson and D. F. Hougen, Phenotype feedback genetic algorithm operators for heuristic encoding of snakes within hypercubes, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 791–798, Portland, Oregon, USA, 7-11 July 2010, ACM.

[117] J. Crofford, B. E. Eskridge, and D. F. Hougen, Applying the triple parameter hypothesis to maintenance scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 799–806, Portland, Oregon, USA, 7-11 July 2010, ACM.

[118] J. E. Cook and D. R. Tauritz, An exploration into dynamic population sizing, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 807–814, Portland, Oregon, USA, 7-11 July 2010, ACM.

[119] A. Ter-Sarkisov, S. R. Marsland, and B. R. Holland, The K-bit-swap: a new genetic algorithm operator, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 815–816, Portland, Oregon, USA, 7-11 July 2010, ACM.

[120] R. De Prisco, G. Zaccagnino, and R. Zaccagnino, EvoBassComposer: a multi-objective genetic algorithm for 4-voice compositions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 817–818, Portland, Oregon, USA, 7-11 July 2010, ACM.

[121] F. Nadi, A. T. Khader, and M. A. Al-Betar, Adaptive genetic algorithm using harmony search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 819–820, Portland, Oregon, USA, 7-11 July 2010, ACM.

[122] V. M. Kureichik, B. K. Lebedev, and O. B. Lebedev, Hybrid evolutionary algorithm of planning VLSI, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 821–822, Portland, Oregon, USA, 7-11 July 2010, ACM.

[123] M. A. Addicoat and Z. E. Brain, Using a Meta-GA for parametric optimization of simple gas in the computational chemistry domain, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 823–824, Portland, Oregon, USA, 7-11 July 2010, ACM.

[124] H. M. Abbas, Mixed-coded evolutionary algorithm for Gaussian mixture maximum likelihood clustering with model selection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 825–826, Portland, Oregon, USA, 7-11 July 2010, ACM.

[125] A. I. Esparcia-Alcázar, A. Martínez-García, A. M. Mora, J. J. Merelo, and P. García-Sánchez, Genetic evolution of fuzzy finite state machines to control bots in a first-person shooter game, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*,

edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 829–830, Portland, Oregon, USA, 7-11 July 2010, ACM.

[126] P. Ortegon-Cano, D. A. Hartasanchez, and C. R. Stephens, Why recombination should be adaptive, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 831–832, Portland, Oregon, USA, 7-11 July 2010, ACM.

[127] T. Meekhof and T. Soule, Noise pressure: systematic overestimation of population fitness in genetic algorithms with noisy fitness functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 833–834, Portland, Oregon, USA, 7-11 July 2010, ACM.

[128] J. A. Herrera-Ortiz, C. Oliver-Morales, and K. Rodríguez-Vázquez, Amount and type of information: a GA-hardness taxonomy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 835–836, Portland, Oregon, USA, 7-11 July 2010, ACM.

[129] U. Bhowan, M. Zhang, and M. Johnston, AUC analysis of the pareto-front using multi-objective GP for classification with unbalanced data, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 845–852, Portland, Oregon, USA, 7-11 July 2010, ACM.

[130] P. Lichodzijewski and M. I. Heywood, Symbiosis, complexification and simplicity under GP, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 853–860, Portland, Oregon, USA, 7-11 July 2010, ACM.

[131] L. Trujillo, P. Legrand, and J. Lévy-Véhel, The estimation of hölderian regularity using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 861–868, Portland, Oregon, USA, 7-11 July 2010, ACM.

[132] N. Q. Uy, N. X. Hoai, M. O'Neill, and B. McKay, Semantics based crossover for boolean problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 869–876, Portland, Oregon, USA, 7-11 July 2010, ACM.

[133] C. Downey, M. Zhang, and W. N. Browne, New crossover operators in linear genetic programming for multiclass object classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 885–892, Portland, Oregon, USA, 7-11 July 2010, ACM.

[134] R. M. A. Azad and C. Ryan, Abstract functions and lifetime learning in genetic programming for symbolic regression, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 893–900, Portland, Oregon, USA, 7-11 July 2010, ACM.

[135] E. Galván-López, J. McDermott, M. O'Neill, and A. Brabazon, Towards an understanding of locality in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 901–908, Portland, Oregon, USA, 7-11 July 2010, ACM.

[136] A. Zafra and S. Ventura, Grammar guided genetic programming for multiple instance learning: an experimental study, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 909–916, Portland, Oregon, USA, 7-11 July 2010, ACM.

[137] C. L. Pennachin, M. Looks, and J. A. de Vasconcelos, Robust symbolic regression with affine arithmetic, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 917–924, Portland, Oregon, USA, 7-11 July 2010, ACM.

[138] D. A. Augusto, H. J. C. Barbosa, and N. F. F. Ebecken, Coevolutionary multi-population genetic programming for data classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 933–940, Portland, Oregon, USA, 7-11 July 2010, ACM.

[139] K. Vladislavleva, K. Veeramachaneni, M. Burland, J. Parcon, and U.-M. O'Reilly, Knowledge mining with genetic programming methods for variable selection in flavor design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 941–948, Portland, Oregon, USA, 7-11 July 2010, ACM.

[140] B. Foster and A. Somayaji, Object-level recombination of commodity applications, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 957–964, Portland, Oregon, USA, 7-11 July 2010, ACM.

[141] E. Fast, C. Le Gouse, S. Forrest, and W. Weimer, Designing better fitness functions for automated program repair, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 965–972, Portland, Oregon, USA, 7-11 July 2010, ACM.

[142] H. G. Momm and G. Easson, Population restarting: a study case of feature extraction from remotely sensed imagery using textural information, in *GECCO '10: Proceedings of the 12th*

annual conference on Genetic and evolutionary computation, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 973–974, Portland, Oregon, USA, 7-11 July 2010, ACM.

[143] D. F. Barrero, D. Camacho, and M. D. R-Moreno, Confidence intervals of success rates in evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 975–976, Portland, Oregon, USA, 7-11 July 2010, ACM.

[144] D. P. Ahalpara, Improved forecasting of time series data of real system using genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 977–978, Portland, Oregon, USA, 7-11 July 2010, ACM.

[145] J. Wang and Y. Tan, A novel genetic programming based morphological image analysis algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 979–980, Portland, Oregon, USA, 7-11 July 2010, ACM.

[146] D. Curran, E. Freuder, and T. Jansen, Incremental evolution of local search heuristics, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 981–982, Portland, Oregon, USA, 7-11 July 2010, ACM.

[147] Z. Gajda and L. Sekanina, When does Cartesian genetic programming minimize the phenotype size implicitly?, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 983–984, Portland, Oregon, USA, 7-11 July 2010, ACM.

[148] C. E. Borges, C. L. Alonso, and J. L. Montana, Model selection in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 985–986, Portland, Oregon, USA, 7-11 July 2010, ACM.

[149] M. McMullin and T. Soule, Constant versus variable arity operators in genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 987–988, Portland, Oregon, USA, 7-11 July 2010, ACM.

[150] F. Alonso, L. Martínez, A. Santamaría, A. Pérez, and J. P. Valente, GGGP-based method for modeling time series: operator selection, parameter optimization and expert evaluation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke,

M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 989–990, Portland, Oregon, USA, 7-11 July 2010, ACM.

[151] C. D. Toledo-Suárez, A first assessment of the use of extended relational alphabets in accuracy classifier systems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 991–998, Portland, Oregon, USA, 7-11 July 2010, ACM.

[152] E. P. Manning, Coevolution in a large search space using resource-limited nash memory, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 999–1006, Portland, Oregon, USA, 7-11 July 2010, ACM.

[153] U. Johansson, R. König, and L. Niklasson, Genetic rule extraction optimizing brier score, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1007–1014, Portland, Oregon, USA, 7-11 July 2010, ACM.

[154] C. Lode, U. Richter, and H. Schmeck, Adaption of XCS to multi-learner predator/prey scenarios, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1015–1022, Portland, Oregon, USA, 7-11 July 2010, ACM.

[155] A. Orriols-Puig, X. Llorà, and D. E. Goldberg, How XCS deals with rarities in domains with continuous attributes, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1023–1030, Portland, Oregon, USA, 7-11 July 2010, ACM.

[156] M. Snel and S. Whiteson, Multi-task evolutionary shaping without pre-specified representations, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1031–1038, Portland, Oregon, USA, 7-11 July 2010, ACM.

[157] M. A. Franco, N. Krasnogor, and J. Bacardit, Speeding up the evaluation of evolutionary learning systems using GPGPUs, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1039–1046, Portland, Oregon, USA, 7-11 July 2010, ACM.

[158] M. Liśkiewicz and J. Textor, Negative selection algorithms without generating detectors, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1047–1054, Portland, Oregon, USA, 7-11 July 2010, ACM.

[159] N. Macià, A. Orriols-Puig, and E. Bernadó-Mansilla, In search of targeted-complexity problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1055–1062, Portland, Oregon, USA, 7-11 July 2010, ACM.

[160] C. Su, Y. Gao, and C. Cao, Learning classifier system using both labeled and unlabeled data, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1065–1066, Portland, Oregon, USA, 7-11 July 2010, ACM.

[161] M. Behdad, T. French, L. Barone, and M. Bennamoun, On the problems of using learning classifier systems for fraud detection, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1067–1068, Portland, Oregon, USA, 7-11 July 2010, ACM.

[162] A. S. Meiguins, A. A. Freitas, R. C. Limao, S. F. Junior, and B. S. Meiguins, An estimation of distribution algorithm for the automatic generation of clustering algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1069–1070, Portland, Oregon, USA, 7-11 July 2010, ACM.

[163] P. Buryan and J. Kubalik, Context-sensitive refinements for stochasticoptimization algorithms in inductive logic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1071–1072, Portland, Oregon, USA, 7-11 July 2010, ACM.

[164] P. Rajagopalan, A. Rawal, and R. Miikkulainen, Emergence of competitive and cooperative behavior using coevolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1073–1074, Portland, Oregon, USA, 7-11 July 2010, ACM.

[165] M. Walton, G. Grewal, and G. Darlington, Parallel FPGA-based implementation of scatter search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1075–1082, Portland, Oregon, USA, 7-11 July 2010, ACM.

[166] G. Luque and E. Alba, Selection pressure and takeover time of distributed evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1083–1088, Portland, Oregon, USA, 7-11 July 2010, ACM.

[167] D. Vrajitoru, Shared memory genetic algorithms in a multi-agent context, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by

J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1097–1104, Portland, Oregon, USA, 7-11 July 2010, ACM.

[168] J. Lässig and D. Sudholt, The benefit of migration in parallel evolutionary algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1105–1112, Portland, Oregon, USA, 7-11 July 2010, ACM.

[169] K. Shimada and K. Hirasawa, A method of association rule analysis for incomplete database using genetic network programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1115–1122, Portland, Oregon, USA, 7-11 July 2010, ACM.

[170] M. Salichon and K. Tumer, A neuro-evolutionary approach to micro aerial vehicle control, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1123–1130, Portland, Oregon, USA, 7-11 July 2010, ACM.

[171] J. F. S. II and K. Tumer, Robust neuro-control for a micro quadrotor, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1131–1138, Portland, Oregon, USA, 7-11 July 2010, ACM.

[172] G. Wilson and W. Banzhaf, Interday foreign exchange trading using linear genetic programming, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1139–1146, Portland, Oregon, USA, 7-11 July 2010, ACM.

[173] C. Myburgh and K. Deb, Evolutionary algorithms in large-scale open pit mine scheduling, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1155–1162, Portland, Oregon, USA, 7-11 July 2010, ACM.

[174] A. Garrett, Z. Chen, and D. E. Smith, Constructing numerically stable real number codes using evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1163–1170, Portland, Oregon, USA, 7-11 July 2010, ACM.

[175] J. Jaros and V. Dvorak, Evolutionary-based conflict-free scheduling of collective communications on spidergon NoCs, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1171–1178, Portland, Oregon, USA, 7-11 July 2010, ACM.

[176] K. Kim, R. B. McKay, and B.-R. Moon, Multiobjective evolutionary algorithms for dynamic social network clustering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1179–1186, Portland, Oregon, USA, 7-11 July 2010, ACM.

[177] E. Reehuis and T. Bäck, Mixed-integer evolution strategy using multiobjective selection applied to warehouse design optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1187–1194, Portland, Oregon, USA, 7-11 July 2010, ACM.

[178] M. A. Al-Betar, A. T. Khader, and F. Nadi, Selection mechanisms in memory consideration for examination timetabling with harmony search, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1203–1210, Portland, Oregon, USA, 7-11 July 2010, ACM.

[179] S.-K. Lee and B.-R. Moon, A new modular genetic programming for finding attractive technical patterns in stock markets, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1219–1226, Portland, Oregon, USA, 7-11 July 2010, ACM.

[180] J. M. Colmenar, J. L. Risco-Martín, D. Atienza, O. Garnica, J. I. Hidalgo, and J. Lanchares, Improving reliability of embedded systems through dynamic memory manager optimization using grammatical evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1227–1234, Portland, Oregon, USA, 7-11 July 2010, ACM.

[181] M. Ovreiu and D. Simon, Biogeography-based optimization of neuro-fuzzy system parameters for diagnosis of cardiac disease, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1235–1242, Portland, Oregon, USA, 7-11 July 2010, ACM.

[182] G. Stracquadanio, C. Drago, V. Romano, and G. Nicosia, Multi-objective optimization of doping profile in semiconductor design, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1243–1250, Portland, Oregon, USA, 7-11 July 2010, ACM.

[183] G. K. Pedersen and M. V. Butz, Evolving robust controller parameters using covariance matrix adaptation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1251–1258, Portland, Oregon, USA, 7-11 July 2010, ACM.

[184] N. Padhye and K. Deb, Evolutionary multi-objective optimization and decision making for selective laser sintering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic*

and evolutionary computation, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1259–1266, Portland, Oregon, USA, 7-11 July 2010, ACM.

[185] M. Ceriani, F. Ferrandi, P. L. Lanzi, D. Sciuto, and A. Tumeo, Multiprocessor systems-on-chip synthesis using multi-objective evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1267–1274, Portland, Oregon, USA, 7-11 July 2010, ACM.

[186] M. Tanji and H. Iba, ConBreO: a music performance rendering system using hybrid approach of IEC and automated evolution, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1275–1282, Portland, Oregon, USA, 7-11 July 2010, ACM.

[187] K. Veeramachaneni, K. Vladislavleva, M. Burland, J. Parcon, and U.-M. O'Reilly, Evolutionary optimization of flavors, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1291–1298, Portland, Oregon, USA, 7-11 July 2010, ACM.

[188] E. Mayfield and C. Penstein-Rosé, Using feature construction to avoid large feature spaces in text classification, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1299–1306, Portland, Oregon, USA, 7-11 July 2010, ACM.

[189] A. Sierra and V. Ponsoda, Shorter, more reliable and valid tests by means of a genetic algorithm, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1307–1308, Portland, Oregon, USA, 7-11 July 2010, ACM.

[190] Y.-S. Choi, B.-K. Koo, and B.-R. Moon, Optimization of an image set by genetic feature selection for real-time photomosaics, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1309–1310, Portland, Oregon, USA, 7-11 July 2010, ACM.

[191] T. Sugawara, K. Fukuda, T. Hirotsu, and S. Kurihara, Adaptive probabilistic task allocation in large-scale multi-agent systems and its evaluation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1311–1312, Portland, Oregon, USA, 7-11 July 2010, ACM.

[192] R. de A. Araújo, A. L. de Oliveira, and S. C. Soares, A covariance matrix adaptation based evolutionary methodology for phase adjustment in financial time series forecasting, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited

by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1315–1316, Portland, Oregon, USA, 7-11 July 2010, ACM.

[193] D. Mosnier, F. Gillot, A. Ducloux, and M. Ichchou, Integrated pre-design step methodology based onmulti-objective evolutionary optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1317–1318, Portland, Oregon, USA, 7-11 July 2010, ACM.

[194] Y.-S. You, T.-L. Yu, and T.-C. Lien, Psychological preference-based optimization framework on the nurse scheduling problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1319–1320, Portland, Oregon, USA, 7-11 July 2010, ACM.

[195] M. Sato, Y. Sato, and M. Namiki, Proposal of a multi-core processor architecture for effective evolutionary computation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1321–1322, Portland, Oregon, USA, 7-11 July 2010, ACM.

[196] C. C. Tutum and J. H. Hattel, Multi-objective optimization of process parameters in friction stir welding, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1323–1324, Portland, Oregon, USA, 7-11 July 2010, ACM.

[197] S. Roychoudhury, S. Das, C. Scoglio, S. Das, B. K. Panigrahi, and S. S. Pattnaik, Mitigation strategies in epidemics: evolutionary optimization using a hierarchy of objective functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1325–1326, Portland, Oregon, USA, 7-11 July 2010, ACM.

[198] R. Evins, P. Pointer, and R. Vaidyanathan, Configuration of a genetic algorithm for multi-objective optimisation of solar gain to buildings, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1327–1328, Portland, Oregon, USA, 7-11 July 2010, ACM.

[199] S. Di Carlo, E. Sanchez, A. Scionti, G. Squillero, A. P. Tonda, and M. Falasconi, Towards drift correction in chemical sensors using an evolutionary strategy, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1329–1330, Portland, Oregon, USA, 7-11 July 2010, ACM.

[200] M. J. Afridi, S. Manzoor, U. Rasheed, M. Ahmed, and K. Faraz, Performance evaluation of evolutionary algorithms for road detection, in *GECCO '10: Proceedings of the 12th annual*

conference on Genetic and evolutionary computation, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1331–1332, Portland, Oregon, USA, 7-11 July 2010, ACM.

[201] A. C. Jensen and B. H. Cheng, On the use of genetic programming for automated refactoring and the introduction of design patterns, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1341–1348, Portland, Oregon, USA, 7-11 July 2010, ACM.

[202] A. Windisch, Search-based test data generation from stateflow statecharts, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1349–1356, Portland, Oregon, USA, 7-11 July 2010, ACM.

[203] Y. Zhang, E. Alba, J. J. Durillo, S. Eldh, and M. Harman, Today/future importance analysis, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1357–1364, Portland, Oregon, USA, 7-11 July 2010, ACM.

[204] Z. Xu, M. B. Cohen, and G. Rothermel, Factors affecting the use of genetic algorithms in test suite augmentation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1365–1372, Portland, Oregon, USA, 7-11 July 2010, ACM.

[205] A. P. Conrad, R. S. Roos, and G. M. Kapfhammer, Empirically studying the role of selection operators duringsearch-based test suite prioritization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1373–1380, Portland, Oregon, USA, 7-11 July 2010, ACM.

[206] M. Hall, P. McMinn, and N. Walkinshaw, Superstate identification for state machines using search-based clustering, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1381–1388, Portland, Oregon, USA, 7-11 July 2010, ACM.

[207] T. Kremmel, J. Kubalik, and S. Biffl, Multiobjective evolutionary algorithm for software project portfolio optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1389–1390, Portland, Oregon, USA, 7-11 July 2010, ACM.

[208] J. L. Wilkerson and D. Tauritz, Coevolutionary automated software correction, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill,

K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1391–1392, Portland, Oregon, USA, 7-11 July 2010, ACM.

[209] T. Kötzing, P. K. Lehre, F. Neumann, and P. S. Oliveto, Ant colony optimization and the minimum cut problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1393–1400, Portland, Oregon, USA, 7-11 July 2010, ACM.

[210] Y. Akimoto, Y. Nagata, I. Ono, and S. Kobayashi, Theoretical analysis of evolutionary computation on continuously differentiable functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1401–1408, Portland, Oregon, USA, 7-11 July 2010, ACM.

[211] L. D. Whitley, F. Chicano, E. Alba, and F. Luna, Elementary landscapes of frequency assignment problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1409–1416, Portland, Oregon, USA, 7-11 July 2010, ACM.

[212] S. Sanyal, R. S, and S. Biswas, Necessary and sufficient conditions for success of the metropolis algorithm for optimization, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1417–1424, Portland, Oregon, USA, 7-11 July 2010, ACM.

[213] F. Chicano, G. Luque, and E. Alba, Elementary landscape decomposition of the quadratic assignment problem, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1425–1432, Portland, Oregon, USA, 7-11 July 2010, ACM.

[214] D. Johannsen, P. P. Kurur, and J. Lengler, Can quantum search accelerate evolutionary algorithms?, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1433–1440, Portland, Oregon, USA, 7-11 July 2010, ACM.

[215] P. K. Lehre and C. Witt, Black-box search by unbiased variation, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1441–1448, Portland, Oregon, USA, 7-11 July 2010, ACM.

[216] C. Horoba and D. Sudholt, Ant colony optimization for stochastic shortest path problems, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1465–1472, Portland, Oregon, USA, 7-11 July 2010, ACM.

[217] L. Manzoni, L. Vanneschi, and G. Mauri, Definition of a crossover based distance for genetic algorithms, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1473–1474, Portland, Oregon, USA, 7-11 July 2010, ACM.

[218] A. Valsecchi, L. Vanneschi, and G. Mauri, Optimization speed and fair sets of functions, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1475–1476, Portland, Oregon, USA, 7-11 July 2010, ACM.

[219] P. S. de Mattos Neto, A. R. Lima Junior, and T. A. Ferreira, Time series forecasting using a perturbative intelligent system, in *GECCO '10: Proceedings of the 12th annual conference on Genetic and evolutionary computation*, edited by J. Branke, M. Pelikan, E. Alba, D. V. Arnold, J. Bongard, A. Brabazon, J. Branke, M. V. Butz, J. Clune, M. Cohen, K. Deb, A. P. Engelbrecht, N. Krasnogor, J. F. Miller, M. O'Neill, K. Sastry, D. Thierens, J. van Hemert, L. Vanneschi, and C. Witt, pages 1477–1478, Portland, Oregon, USA, 7-11 July 2010, ACM.