Список литературы

[1] H.-G. Beyer *et al.*, editors, *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, Washington DC, USA, 2005, ACM Press.

[2] C. Paul, H. Lipson and F. J. V. Cuevas, Evolutionary form-finding of tensegrity structures, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 3–10, Washington DC, USA, 2005, ACM Press.

[3] V. Valsalam, J. Bednar and R. Miikkulainen, Constructing good learners using evolved pattern generators, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 11–18, Washington DC, USA, 2005, ACM Press.

[4] J. Schonfeld and D. Ashlock, A study of evolutionary robustness in stochastically tiled polyominos, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 19–26, Washington DC, USA, 2005, ACM Press.

[5] R. L. Becerra and C. A. Coello Coello, Optimization with constraints using a cultured differential evolution approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 27–34, Washington DC, USA, 2005, ACM Press.

[6] M. Scheutz and P. Schermerhorn, Predicting population dynamics and evolutionary trajectories based on performance evaluations in alife simulations, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 35–42, Washington DC, USA, 2005, ACM Press.

[7] K. L. Downing, The predictive basis of situated and embodied artificial intelligence, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 43–50, Washington DC, USA, 2005, ACM Press.

[8] M. McPartland, S. Nolfi and H. A. Abbass, Emergence of communication in competitive multi-agent systems: a pareto multi-objective approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 51–58, Washington DC, USA, 2005, ACM Press.

[9] D. Ashlock and E.-Y. Kim, The impact of cellular representation on finite state agents for prisoner's dilemma, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 59–66, Washington DC, USA, 2005, ACM Press.

[10] H.-L. Liang, C. Lee and J.-S. Wu, Multiplex pcr primer design for gene family using genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 67–74, Washington DC, USA, 2005, ACM Press.

[11] A. E. Eiben, M. C. Schut and T. Toma, Comparing multicast and newscast communication in evolving agent societies, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 75–81, Washington DC, USA, 2005, ACM Press.

[12] T. G. W. Gordon and P. J. Bentley, Bias and scalability in evolutionary development, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 83–90, Washington DC, USA, 2005, ACM Press.

[13] S. Luke, Evolutionary computation and the c-value paradox, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 91–97, Washington DC, USA, 2005, ACM Press.

[14] J. Rieffel and J. Pollack, Automated assembly as situated development: using artificial ontogenies to evolve buildable 3-d objects, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 99–106, Washington DC, USA, 2005, ACM Press.

[15] R. Breukelaar and T. Bäck, Using a genetic algorithm to evolve behavior in multi dimensional cellular automata: emergence of behavior, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 107–114, Washington DC, USA, 2005, ACM Press.

[16] E. Schlessinger, P. J. Bentley and R. B. Lotto, Evolving visually guided agents in an ambiguous virtual world, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 115–120, Washington DC, USA, 2005, ACM Press.

[17] R. R. Cazangi, F. J. Von Zuben and M. F. Figueiredo, Autonomous navigation system applied to collective robotics with ant-inspired communication, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 121–128, Washington DC, USA, 2005, ACM Press.

[18] A. Brabazon *et al.*, Agent-based modelling of product invention, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 129–136, Washington DC, USA, 2005, ACM Press.

[19] A. Stout and L. Spector, Validation of evolutionary activity metrics for long-term evolutionary dynamics, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 137–142, Washington DC, USA, 2005, ACM Press.

[20] T. Murata and M. Yamaguchi, Neighboring crossover to improve ga-based q-learning method for multi-legged robot control, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 145–146, Washington DC, USA, 2005, ACM Press.

[21] G. Parker and R. Georgescu, Evolution of multi-loop controllers for fixed morphology with a cyclic genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 147–148, Washington DC, USA, 2005, ACM Press.

[22] A. Matos, R. Suzuki and T. Arita, Evolutionary models for maternal effects in simulated developmental systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 149–150, Washington DC, USA, 2005, ACM Press.

[23] H. F. Wedde *et al.*, Beeadhoc: an energy efficient routing algorithm for mobile ad hoc networks inspired by bee behavior, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 153–160, Washington DC, USA, 2005, ACM Press.

[24] M. Settles and T. Soule, Breeding swarms: a ga/pso hybrid, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 161–168, Washington DC, USA, 2005, ACM Press.

[25] R. Poli, C. Di Chio and W. B. Langdon, Exploring extended particle swarms: a genetic programming approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 169–176, Washington DC, USA, 2005, ACM Press.

[26] S. Das, A. Konar and U. K. Chakraborty, Improving particle swarm optimization with differentially perturbed velocity, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 177–184, Washington DC, USA, 2005, ACM Press.

[27] M. Settles, P. Nathan and T. Soule, Breeding swarms: a new approach to recurrent neural network training, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 185–192, Washington DC, USA, 2005, ACM Press.

[28] C. K. Monson and K. D. Seppi, Bayesian optimization models for particle swarms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 193–200, Washington DC, USA, 2005, ACM Press.

[29] J. Kennedy, Dynamic-probabilistic particle swarms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 201–207, Washington DC, USA, 2005, ACM Press.

[30] A. E. M. Zavala, A. H. Aguirre and E. R. V. Diharce, Constrained optimization via particle evolutionary swarm optimization algorithm (peso), in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 209–216, Washington DC, USA, 2005, ACM Press.

[31] V. Hartmann, Evolving agent swarms for clustering and sorting, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 217–224, Washington DC, USA, 2005, ACM Press.

[32] E. Mezura-Montes, J. Velázquez-Reyes and C. A. Coello Coello, Promising infeasibility and multiple offspring incorporated to differential evolution for constrained optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 225–232, Washington DC, USA, 2005, ACM Press.

[33] M. Fleischer, Scale invariant pareto optimality: a meta–formalism for characterizing and modeling cooperativity in evolutionary systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 233–240, Washington DC, USA, 2005, ACM Press.

[34] C. K. Monson and K. D. Seppi, Exposing origin-seeking bias in pso, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 241–248, Washington DC, USA, 2005, ACM Press.

[35] W. K. Foong, H. R. Maier and A. R. Simpson, Ant colony optimization for power plant maintenance scheduling optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 249–256, Washington DC, USA, 2005, ACM Press.

[36] C. R. Raquel and P. C. Naval, Jr., An effective use of crowding distance in multiobjective particle swarm optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 257–264, Washington DC, USA, 2005, ACM Press.

[37] B.-F. Liu, H.-M. Chen, J.-H. Chen, S.-F. Hwang and S.-Y. Ho, Meswarm: memetic particle swarm optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 267–268, Washington DC, USA, 2005, ACM Press.

[38] M. El-Abd and M. Kamel, Factors governing the behavior of multiple cooperating swarms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 269–270, Washington DC, USA, 2005, ACM Press.

[39] T. N. Bui and M. Colpan, Solving geometric tsp with ants, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 271–272, Washington DC, USA, 2005, ACM Press.

[40] T. Schmickl, R. Thenius and K. Crailsheim, Simulating swarm intelligence in honey bees: foraging in differently fluctuating environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 273–274, Washington DC, USA, 2005, ACM Press.

[41] R. Bello, A. Nowe, Y. Caballero, Y. Gómez and P. Vrancx, A model based on ant colony system and rough set theory to feature selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 275–276, Washington DC, USA, 2005, ACM Press.

[42] Z. Cui and J. Zeng, A modified particle swarm optimization predicted by velocity, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 277–278, Washington DC, USA, 2005, ACM Press.

[43] Z. Ji and D. Dasgupta, Estimating the detector coverage in a negative selection algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 281–288, Washington DC, USA, 2005, ACM Press.

[44] F. O. de França, F. J. Von Zuben and L. N. de Castro, An artificial immune network for multimodal function optimization on dynamic environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 289–296, Washington DC, USA, 2005, ACM Press.

[45] F. A. González, J. C. Galeano, D. A. Rojas and A. Veloza-Suan, Discriminating and visualizing anomalies using negative selection and self-organizing maps, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 297–304, Washington DC, USA, 2005, ACM Press.

[46] Z. Guo, H. K. Han and J. C. Tay, Sufficiency verification of hiv-1 pathogenesis based on multi-agent simulation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 305–312, Washington DC, USA, 2005, ACM Press.

[47] P. Spellward and T. Kovacs, On the contribution of gene libraries to artificial immune systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 313–319, Washington DC, USA, 2005, ACM Press.

[48] T. Stibor, P. Mohr, J. Timmis and C. Eckert, Is negative selection appropriate for anomaly detection?, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 321–328, Washington DC, USA, 2005, ACM Press.

[49] J.-Y. Wu and Y.-K. Chung, Artificial immune system for solving generalized geometric problems: a preliminary results, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 329–336, Washington DC, USA, 2005, ACM Press.

[50] J. M. Shapiro, G. B. Lamont and G. L. Peterson, An evolutionary algorithm to generate hyper-ellipsoid detectors for negative selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 337–344, Washington DC, USA, 2005, ACM Press.

[51] X. Hang and H. Dai, Applying both positive and negative selection to supervised learning for anomaly detection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 345–352, Washington DC, USA, 2005, ACM Press.

[52] I. Nunn and T. White, The application of antigenic search techniques to time series forecasting, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 353–360, Washington DC, USA, 2005, ACM Press.

[53] J. C. Galeano, A. Veloza-Suan and F. A. González, A comparative analysis of artificial immune network models, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 361–368, Washington DC, USA, 2005, ACM Press.

[54] H. Knidel, L. N. de Castro and F. J. Von Zuben, Rabnet: a real-valued antibody network for data clustering, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 371–372, Washington DC, USA, 2005, ACM Press.

[55] M. Gong, L. Jiao, H. Du, R. Shang and B. Lu, Performance assessment of an artificial immune system multiobjective optimizer by two improved metrics, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 373–374, Washington DC, USA, 2005, ACM Press.

[56] J. L. Payne and M. J. Eppstein, A hybrid genetic algorithm with pattern search for finding heavy atoms in protein crystals, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 377–384, Washington DC, USA, 2005, ACM Press.

[57] T. N. Bui and G. Sundarraj, An efficient genetic algorithm for predicting protein tertiary structures in the 2d hp model, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 385–392, Washington DC, USA, 2005, ACM Press.

[58] P. Koduru, S. Das, S. Welch, J. L. Roe and Z. P. Lopez-Dee, A co-evolutionary hybrid algorithm for multi-objective optimization of gene regulatory network models, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 393–399, Washington DC, USA, 2005, ACM Press.

[59] R. Seehuus, A. Tveit and O. Edsberg, Discovering biological motifs with genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 401–408, Washington DC, USA, 2005, ACM Press.

[60] G. C. Townsend, W. N. Hazel and R. Smock, Using evolutionary computation methods to support analytical models for the evolution and maintenance of conditional strategies in chthamalus anisopoma, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 409–414, Washington DC, USA, 2005, ACM Press.

[61] L. Poladian, A ga for maximum likelihood phylogenetic inference using neighbour-joining as a genotype to phenotype mapping, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 415–422, Washington DC, USA, 2005, ACM Press.

[62] T. Hohm and D. Hoffmann, A multi-objective evolutionary approach to peptide structure redesign and stabilization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 423–429, Washington DC, USA, 2005, ACM Press.

[63] H. Ressom *et al.*, Particle swarm optimization for analysis of mass spectral serum profiles, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 431–438, Washington DC, USA, 2005, ACM Press.

[64] N. Noman and H. Iba, Inference of gene regulatory networks using s-system and differential evolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 439–446, Washington DC, USA, 2005, ACM Press.

[65] D. Che, Y. Song and K. Rasheed, Mdga: motif discovery using a genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 447–452, Washington DC, USA, 2005, ACM Press.

[66] T. K. Paul and H. Iba, Extraction of informative genes from microarray data, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 453–460, Washington DC, USA, 2005, ACM Press.

[67] H. Firpi, E. Goodman and J. Echauz, Epileptic seizure detection by means of genetically programmed artificial features, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 461–466, Washington DC, USA, 2005, ACM Press.

[68] C. Spieth, F. Streichert, N. Speer and A. Zell, Identifying valid solutions for the inference of regulatory networks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 469–470, Washington DC, USA, 2005, ACM Press.

[69] D. E. Cairns, G. J. Cameron and T. J. Wess, Evolving an improved axial structure for fibrillar collagen, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 471–472, Washington DC, USA, 2005, ACM Press.

[70] J. S. Aguilar-Ruiz and F. Divina, Ga-based approach to discover meaningful biclusters, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 473–474, Washington DC, USA, 2005, ACM Press.

[71] F.-M. Lin, H.-D. Huang, H.-Y. Huang and J.-T. Horng, Primer design for multiplex pcr using a genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 475–476, Washington DC, USA, 2005, ACM Press.

[72] P. Seeluangsawat and P. Chongstitvatana, A multiple objective evolutionary algorithm for multiple sequence alignment, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 477–478, Washington DC, USA, 2005, ACM Press.

[73] K. C. Wiese, A. Hendriks, A. Deschênes and B. B. Youssef, The impact of pseudorandom number quality on p-rnapredict, a parallel genetic algorithm for rna secondary structure prediction, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 479–480, Washington DC, USA, 2005, ACM Press.

[74] E. de Jong, The maxsolve algorithm for coevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 483–489, Washington DC, USA, 2005, ACM Press.

[75] F. J. Gomez and J. Schmidhuber, Co-evolving recurrent neurons learn deep memory pomdps, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 491–498, Washington DC, USA, 2005, ACM Press.

[76] S. G. Ficici, Monotonic solution concepts in coevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 499–506, Washington DC, USA, 2005, ACM Press.

[77] E. Popovici and K. De Jong, Understanding cooperative co-evolutionary dynamics via simple fitness landscapes, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 507–514, Washington DC, USA, 2005, ACM Press.

[78] P. Funes and E. Pujals, Intransitivity revisited coevolutionary dynamics of numbers games, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 515–521, Washington DC, USA, 2005, ACM Press.

[79] N. Williams and M. Mitchell, Investigating the success of spatial coevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 523–530, Washington DC, USA, 2005, ACM Press.

[80] J. C. Bongard and H. Lipson, 'managed challenge' alleviates disengagement in co-evolutionary system identification, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 531–538, Washington DC, USA, 2005, ACM Press.

[81] A. Bucci and J. B. Pollack, On identifying global optima in cooperative coevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 539–544, Washington DC, USA, 2005, ACM Press.

[82] C.-F. Huang and L. M. Rocha, Tracking extrema in dynamic environments using a coevolutionary agent-based model of genotype edition, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 545–552, Washington DC, USA, 2005, ACM Press.

[83] D. V. Duong and J. Grefenstette, The emulation of social institutions as a method of coevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 555–556, Washington DC, USA, 2005, ACM Press.

[84] J. Horn, Shape nesting by coevolving species, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 557–558, Washington DC, USA, 2005, ACM Press.

[85] C. Philemotte and H. Bersini, Intrinsic emergence boosts adaptive capacity, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 559–560, Washington DC, USA, 2005, ACM Press.

[86] K. A. Lehmann and M. Kaufmann, Evolutionary algorithms for the self-organized evolution of networks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 563–570, Washington DC, USA, 2005, ACM Press.

[87] C. Gunia, On the analysis of the approximation capability of simple evolutionary algorithms for scheduling problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 571–578, Washington DC, USA, 2005, ACM Press.

[88] B. Skellett, B. Cairns, N. Geard, B. Tonkes and J. Wiles, Maximally rugged nk landscapes contain the highest peaks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 579–584, Washington DC, USA, 2005, ACM Press.

[89] B. A. Julstrom, The blob code is competitive with edge-sets in genetic algorithms for the minimum routing cost spanning tree problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 585–590, Washington DC, USA, 2005, ACM Press.

[90] K. Tumer and A. Agogino, Coordinating multi-rover systems: evaluation functions for dynamic and noisy environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 591–598, Washington DC, USA, 2005, ACM Press.

[91] A. Defaweux, T. Lenaerts, J. van Hemert and J. Parent, Transition models as an incremental approach for problem solving in evolutionary algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 599–606, Washington DC, USA, 2005, ACM Press.

[92] B. A. Julstrom, Greedy, genetic, and greedy genetic algorithms for the quadratic knapsack problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 607–614, Washington DC, USA, 2005, ACM Press.

[93] G. Hernandez, K. Wilder, F. Nino and J. Garcia, Towards a self-stopping evolutionary algorithm using coupling from the past, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 615–620, Washington DC, USA, 2005, ACM Press.

[94] J. Tang, M. H. Lim, Y. S. Ong and M. J. Er, Solving large scale combinatorial optimization using pma-sls, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 621–628, Washington DC, USA, 2005, ACM Press.

[95] Y. Yoon, Y.-H. Kim and B.-R. Moon, An evolutionary lagrangian method for the 0/1 multiple knapsack problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 629–635, Washington DC, USA, 2005, ACM Press.

[96] H. Terashima-Marín, E. J. Flores-Álvarez and P. Ross, Hyper-heuristics and classifier systems for solving 2d-regular cutting stock problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 637–643, Washington DC, USA, 2005, ACM Press.

[97] L. Perelman and A. Ostfeld, Water distribution systems optimal design using cross entropy, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 647–648, Washington DC, USA, 2005, ACM Press.

[98] I. Borgulya, A hybrid evolutionary algorithm for the p-median problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 649–650, Washington DC, USA, 2005, ACM Press.

[99] Z. W. Geem, K. S. Lee and C.-L. Tseng, Harmony search for structural design, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 651–652, Washington DC, USA, 2005, ACM Press.

[100] M. V. Butz, M. Pelikan, X. Llorà and D. E. Goldberg, Extracted global structure makes local building block processing effective in xcs, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 655–662, Washington DC, USA, 2005, ACM Press.

[101] M. Pelikan, K. Sastry and D. E. Goldberg, Multiobjective hboa, clustering, and scalability, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 663–670, Washington DC, USA, 2005, ACM Press.

[102] K. Sastry, H. A. Abbass, D. E. Goldberg and D. D. Johnson, Sub-structural niching in estimation of distribution algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 671–678, Washington DC, USA, 2005, ACM Press.

[103] S. Droste, Not all linear functions are equally difficult for the compact genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 679–686, Washington DC, USA, 2005, ACM Press.

[104] I. Tanev, Learned mutation strategies in genetic programming for evolution and adaptation of simulated snakebot, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 687–694, Washington DC, USA, 2005, ACM Press.

[105] A. H. Wright and S. Pulavarty, On the convergence of an estimation of distribution algorithm based on linkage discovery and factorization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 695–702, Washington DC, USA, 2005, ACM Press.

[106] J. Sakuma and S. Kobayashi, Real-coded crossover as a role of kernel density estimation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 703–710, Washington DC, USA, 2005, ACM Press.

[107] S. Yang, Population-based incremental learning with memory scheme for changing environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 711–718, Washington DC, USA, 2005, ACM Press.

[108] B. Yuan and M. Gallagher, On the importance of diversity maintenance in estimation of distribution algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 719–726, Washington DC, USA, 2005, ACM Press.

[109] S. Shakya, J. McCall and D. Brown, Using a markov network model in a univariate eda: an empirical cost-benefit analysis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 727–734, Washington DC, USA, 2005, ACM Press.

[110] C. F. Lima, K. Sastry, D. E. Goldberg and F. G. Lobo, Combining competent crossover and mutation operators: a probabilistic model building approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 735–742, Washington DC, USA, 2005, ACM Press.

[111] Y. Hong, Q. Ren and J. Zeng, Genetic drift in univariate marginal distribution algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 745–746, Washington DC, USA, 2005, ACM Press.

[112] M. Looks, B. Goertzel and C. Pennachin, Learning computer programs with the bayesian optimization algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 747–748, Washington DC, USA, 2005, ACM Press.

[113] S. I. V. Peña, S. B. Rionda and A. H. Aguirre, Multiobjective shape optimization with constraints based on estimation distribution algorithms and correlated information, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 749–750, Washington DC, USA, 2005, ACM Press.

[114] C.-F. Huang, S. Bieniawski, D. H. Wolpert and C. E. M. Strauss, A comparative study of probability collectives based multi-agent systems and genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 751–752, Washington DC, USA, 2005, ACM Press.

[115] P. A. N. Bosman and E. D. de Jong, Exploiting gradient information in numerical multi–objective evolutionary optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 755–762, Washington DC, USA, 2005, ACM Press.

[116] F. Neumann and I. Wegener, Minimum spanning trees made easier via multi-objective optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 763–769, Washington DC, USA, 2005, ACM Press.

[117] M. Li, S. Azarm and V. Aute, A multi-objective genetic algorithm for robust design optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 771–778, Washington DC, USA, 2005, ACM Press.

[118] L. T. Bui, H. A. Abbass and D. Essam, Fitness inheritance for noisy evolutionary multi-objective optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 779–785, Washington DC, USA, 2005, ACM Press.

[119] H. Ishibuchi and K. Narukawa, Comparison of evolutionary multiobjective optimization with rference solution-based single-objective approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 787–794, Washington DC, USA, 2005, ACM Press.

[120] Y. Zhang and P. I. Rockett, Evolving optimal feature extraction using multi-objective genetic programming: a methodology and preliminary study on edge detection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 795–802, Washington DC, USA, 2005, ACM Press.

[121] M. E. Kurz and S. Canterbury, Minimizing total flowtime and maximum earliness on a single machine using multiple measures of fitness, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 803–809, Washington DC, USA, 2005, ACM Press.

[122] K. Xu, S. J. Louis and R. C. Mancini, A scalable parallel genetic algorithm for x-ray spectroscopic analysis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 811–816, Washington DC, USA, 2005, ACM Press.

[123] H. Ishibuchi, K. Narukawa and Y. Nojima, An empirical study on the handling of overlapping solutions in evolutionary multiobjective optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 817–824, Washington DC, USA, 2005, ACM Press.

[124] K. Schmitt, J. Mehnen and T. Michelitsch, Using predators and preys in evolution strategies, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 827–828, Washington DC, USA, 2005, ACM Press.

[125] S. Watanabe and K. Sakakibara, The effectiveness of multiobjective optimizer in single-objective optimization enviroment, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 829–830, Washington DC, USA, 2005, ACM Press.

[126] T. Storch, On the impact of objective function transformations on evolutionary and black-box algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 833–840, Washington DC, USA, 2005, ACM Press.

[127] T. Jansen and U. Schellbach, Theoretical analysis of a mutation-based evolutionary algorithm for a tracking problem in the lattice, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 841–848, Washington DC, USA, 2005, ACM Press.

[128] J. Jägersküpper and C. Witt, Rigorous runtime analysis of a $(\mu+1)$es for the sphere function, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 849–856, Washington DC, USA, 2005, ACM Press.

[129] A. Auger, M. Schoenauer and O. Teytaud, Local and global order 3/2 convergence of a surrogate evolutionary algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 857–864, Washington DC, USA, 2005, ACM Press.

[130] M. Preuss, L. Schönemann and M. Emmerich, Counteracting genetic drift and disruptive recombination in (μ⁺,λ)-ea on multimodal fitness landscapes, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 865–872, Washington DC, USA, 2005, ACM Press.

[131] X. Li, Efficient differential evolution using speciation for multimodal function optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 873–880, Washington DC, USA, 2005, ACM Press.

[132] J. Liu and J. Lampinen, A differential evolution based incremental training method for rbf networks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 881–888, Washington DC, USA, 2005, ACM Press.

[133] P. Y. Ho and K. Shimizu, Simple addition of ranking method for constrained optimization in evolutionary algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 889–896, Washington DC, USA, 2005, ACM Press.

[134] M. Nashvili, M. Olhofer and B. Sendhoff, Morphing methods in evolutionary design optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 897–904, Washington DC, USA, 2005, ACM Press.

[135] T. Phienthrakul and B. Kijsirikul, Evolutionary strategies for multi-scale radial basis function kernels in support vector machines, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 905–911, Washington DC, USA, 2005, ACM Press.

[136] O. M. Shir and T. Bäck, Niching in evolution strategies, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 915–916, Washington DC, USA, 2005, ACM Press.

[137] O. Kramer, C.-K. Ting and H. K. Büning, A mutation operator for evolution strategies to handle constrained problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 917–918, Washington DC, USA, 2005, ACM Press.

[138] K. Schmitt, Using gene deletion and gene duplication in evolution strategies, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 919–920, Washington DC, USA, 2005, ACM Press.

[139] S. M. Sait, S. Sanaullah, A. M. Zaidi and M. I. Ali, Comparative evaluation of parallelization strategies for evolutionary and stochastic heuristics, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 921–922, Washington DC, USA, 2005, ACM Press.

[140] L. Schönemann, Optimal number of evolution strategies mutation step sizes in dynamic environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 923–924, Washington DC, USA, 2005, ACM Press.

[141] D. Keymeulen *et al.*, Evolutionary computation applied to the tuning of mems gyroscopes, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 927–932, Washington DC, USA, 2005, ACM Press.

[142] S. A. Vigraham, J. C. Gallagher and S. K. Boddhu, Evolving analog controllers for correcting thermoacoustic instability in real hardware, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 933–940, Washington DC, USA, 2005, ACM Press.

[143] L. Prodan, M. Udrescu and M. Vladutiu, Multiple-level concatenated coding in embryonics: a dependability analysis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 941–948, Washington DC, USA, 2005, ACM Press.

[144] M. K. Pakhira and R. K. De, A hardware pipeline for function optimization using genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 949–956, Washington DC, USA, 2005, ACM Press.

[145] R. Hunt, G. S. Hornby and J. D. Lohn, Toward evolved flight, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 957–964, Washington DC, USA, 2005, ACM Press.

[146] N. Noman and H. Iba, Enhancing differential evolution performance with local search for high dimensional function optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 967–974, Washington DC, USA, 2005, ACM Press.

[147] J. F. McLoughlin, III and W. Cedeño, The enhanced evolutionary tabu search and its application to the quadratic assignment problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 975–982, Washington DC, USA, 2005, ACM Press.

[148] D. Quintana, C. Luque and P. Isasi, Evolutionary rule-based system for ipo underpricing prediction, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 983–989, Washington DC, USA, 2005, ACM Press.

[149] S. Das, A. Konar and U. K. Chakraborty, Two improved differential evolution schemes for faster global search, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 991–998, Washington DC, USA, 2005, ACM Press.

[150] A. Duarte, Ángel Sánchez, F. Fernández and R. Cabido, A low-level hybridization between memetic algorithm and vns for the max-cut problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 999–1006, Washington DC, USA, 2005, ACM Press.

[151] S. F. Adra, I. Griffin and P. J. Fleming, Hybrid multiobjective genetic algorithm with a new adaptive local search process, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1009–1010, Washington DC, USA, 2005, ACM Press.

[152] P. McMinn and M. Holcombe, Evolutionary testing of state-based programs, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1013–1020, Washington DC, USA, 2005, ACM Press.

[153] L. C. Briand, Y. Labiche and M. Shousha, Stress testing real-time systems with genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1021–1028, Washington DC, USA, 2005, ACM Press.

[154] M. Harman, S. Swift and K. Mahdavi, An empirical study of the robustness of two module clustering fitness functions, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1029–1036, Washington DC, USA, 2005, ACM Press.

[155] C. D. Grosso, G. Antoniol, M. D. Penta, P. Galinier and E. Merlo, Improving network applications security: a new heuristic to generate stress testing data, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1037–1043, Washington DC, USA, 2005, ACM Press.

[156] O. Seng, M. Bauer, M. Biehl and G. Pache, Search-based improvement of subsystem decompositions, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1045–1051, Washington DC, USA, 2005, ACM Press.

[157] S. Wappler and F. Lammermann, Using evolutionary algorithms for the unit testing of object-oriented software, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1053–1060, Washington DC, USA, 2005, ACM Press.

[158] Y. Zhan and J. A. Clark, Search-based mutation testing for simulink models, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1061–1068, Washington DC, USA, 2005, ACM Press.

[159] G. Canfora, M. D. Penta, R. Esposito and M. L. Villani, An approach for qos-aware service composition based on genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1069–1075, Washington DC, USA, 2005, ACM Press.

[160] A. Sutton, H. Kagdi, J. I. Maletic and L. G. Volkert, Hybridizing evolutionary algorithms and clustering algorithms to find source-code clones, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1079–1080, Washington DC, USA, 2005, ACM Press.

[161] K. Derderian, R. M. Hierons, M. Harman and Q. Guo, Generating feasible input sequences for extended finite state machines (efsms) using genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1081–1082, Washington DC, USA, 2005, ACM Press.

[162] F. Lammermann and S. Wappler, Benefits of software measures for evolutionary white-box testing, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1083–1084, Washington DC, USA, 2005, ACM Press.

[163] J. Haas, M. Peysakhov and S. Mancoridis, Ga-based parameter tuning for multi-agent systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 1, pp. 1085–1086, Washington DC, USA, 2005, ACM Press.

[164] S. Yang, Memory-based immigrants for genetic algorithms in dynamic environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1115–1122, Washington DC, USA, 2005, ACM Press.

[165] E. Alba, H. Alfonso and B. Dorronsoro, Advanced models of cellular genetic algorithms evaluated on sat, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1123–1130, Washington DC, USA, 2005, ACM Press.

[166] A. Sokolov and D. Whitley, Unbiased tournament selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1131–1138, Washington DC, USA, 2005, ACM Press.

[167] R. Giráldez and J. S. Aguilar-Ruiz, Feature influence for evolutionary learning, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1139–1145, Washington DC, USA, 2005, ACM Press.

[168] U. C. de Silva and J. Suzuki, On the stationary distribution of gas with fixed crossover probability, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1147–1151, Washington DC, USA, 2005, ACM Press.

[169] N. F. McPhee and E. F. Crane, A theoretical analysis of the hiff problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1153–1160, Washington DC, USA, 2005, ACM Press.

[170] D. Sudholt, Crossover is provably essential for the ising model on trees, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1161–1167, Washington DC, USA, 2005, ACM Press.

[171] D.-I. Seo and B.-R. Moon, Computing the epistasis variance of large-scale traveling salesman problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1169–1176, Washington DC, USA, 2005, ACM Press.

[172] I. Garibay, A. S. Wu and O. Garibay, On favoring positive correlations between form and quality of candidate solutions via the emergence of genomic self-similarity, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1177–1184, Washington DC, USA, 2005, ACM Press.

[173] C. Zhang and K. Rasheed, Improving ga search reliability using maximal hyper-rectangle analysis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1185–1192, Washington DC, USA, 2005, ACM Press.

[174] H. J. Barbosa and A. C. Lemonge, A genetic algorithm encoding for a class of cardinality constraints, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1193–1200, Washington DC, USA, 2005, ACM Press.

[175] E. D. de Jong, R. A. Watson and D. Thierens, On the complexity of hierarchical problem solving, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1201–1208, Washington DC, USA, 2005, ACM Press.

[176] M. Lunacek, D. Whitley and J. N. Knight, Measuring mobility and the performance of global search algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1209–1216, Washington DC, USA, 2005, ACM Press.

[177] T.-L. Yu, K. Sastry and D. E. Goldberg, Linkage learning, overlapping building blocks, and systematic strategy for scalable recombination, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1217–1224, Washington DC, USA, 2005, ACM Press.

[178] S. Whiteson, P. Stone, K. O. Stanley, R. Miikkulainen and N. Kohl, Automatic feature selection in neuroevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1225–1232, Washington DC, USA, 2005, ACM Press.

[179] J. N. Richter, J. Paxton and A. Wright, Ea models and population fixed-points versus mutation rates for functions of unitation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1233–1240, Washington DC, USA, 2005, ACM Press.

[180] S.-S. Choi, K. Jung and J. H. Kim, Phase transition in a random nk landscape model, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1241–1248, Washington DC, USA, 2005, ACM Press.

[181] H. Stringer and A. S. Wu, Behavior of finite population variable length genetic algorithms under random selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1249–1255, Washington DC, USA, 2005, ACM Press.

[182] S. Uyar and G. Eryiğit, Improvements to penalty-based evolutionary algorithms for the multi-dimensional knapsack problem using a gene-based adaptive mutation approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1257–1264, Washington DC, USA, 2005, ACM Press.

[183] L. Graham, H. Masum and F. Oppacher, Statistical analysis of heuristics for evolving sorting networks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1265–1270, Washington DC, USA, 2005, ACM Press.

[184] S. Legg and M. Hutter, Fitness uniform deletion: a simple way to preserve diversity, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1271–1278, Washington DC, USA, 2005, ACM Press.

[185] A. Konak and A. E. Smith, Designing resilient networks using a hybrid genetic algorithm approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1279–1285, Washington DC, USA, 2005, ACM Press.

[186] B. Yossi and R. Poli, Information landscapes and the analysis of search algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1287–1294, Washington DC, USA, 2005, ACM Press.

[187] Z. Skolicki and K. De Jong, The influence of migration sizes and intervals on island models, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1295–1302, Washington DC, USA, 2005, ACM Press.

[188] M. T. Iglesias, B. Naudts, A. Verschoren and C. Vidal, Walsh transforms, balanced sum theorems and partition coefficients over multary alphabets, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1303–1308, Washington DC, USA, 2005, ACM Press.

[189] A. Agogino, K. Tumer and R. Miikkulainen, Efficient credit assignment through evaluation function decomposition, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1309–1316, Washington DC, USA, 2005, ACM Press.

[190] A. S. Yilmaz and A. S. Wu, Preservation of genetic redundancy in the existence of developmental error and fitness assignment error, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1317–1324, Washington DC, USA, 2005, ACM Press.

[191] K. W. Tang and R. A. Jarvis, From supervised ranking to evolving behaviours of a robotic team, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1325–1332, Washington DC, USA, 2005, ACM Press.

[192] M. Giacobini, M. Tomassini and A. Tettamanzi, Takeover time curves in random and small-world structured populations, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1333–1340, Washington DC, USA, 2005, ACM Press.

[193] S. Kimura and K. Matsumura, Genetic algorithms using low-discrepancy sequences, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1341–1346, Washington DC, USA, 2005, ACM Press.

[194] J. Sakuma and S. Kobayashi, Latent variable crossover for k-tablet structures and its application to lens design problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1347–1354, Washington DC, USA, 2005, ACM Press.

[195] A. V. Samsonovich and K. A. De Jong, Pricing the 'free lunch' of meta-evolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1355–1362, Washington DC, USA, 2005, ACM Press.

[196] X. Llorà, K. Sastry, D. E. Goldberg, A. Gupta and L. Lakshmi, Combating user fatigue in igas: partial ordering, support vector machines, and synthetic fitness, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1363–1370, Washington DC, USA, 2005, ACM Press.

[197] J. K. Bassett, M. A. Potter and K. A. De Jong, Applying price's equation to survival selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1371–1378, Washington DC, USA, 2005, ACM Press.

[198] D. Pardoe, M. Ryoo and R. Miikkulainen, Evolving neural network ensembles for control problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1379–1384, Washington DC, USA, 2005, ACM Press.

[199] C. Kavka, P. Roggero and M. Schoenauer, Evolution of voronoi based fuzzy recurrent controllers, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1385–1392, Washington DC, USA, 2005, ACM Press.

[200] Y.-H. Kim and B.-R. Moon, New topologies for genetic search space, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1393–1399, Washington DC, USA, 2005, ACM Press.

[201] W. A. Greene, Schema disruption in tree-structured chromosomes, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1401–1408, Washington DC, USA, 2005, ACM Press.

[202] L. Ding and J. Yu, Some theoretical results about the computation time of evolutionary algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1409–1415, Washington DC, USA, 2005, ACM Press.

[203] S. Ando, J. Sakuma and S. Kobayashi, Adaptive isolation model using data clustering for multimodal function optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1417–1424, Washington DC, USA, 2005, ACM Press.

[204] Y. Borenstein and R. Poli, Information landscapes and problem hardness, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1425–1431, Washington DC, USA, 2005, ACM Press.

[205] J. Branke, E. Salihoğlu and Şima Uyar, Towards an analysis of dynamic environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1433–1440, Washington DC, USA, 2005, ACM Press.

[206] N. Guofang, L. Minqiang and K. Jisong, Multi-level genetic algorithm (mlga) for the construction of clock binary tree, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1441–1445, Washington DC, USA, 2005, ACM Press.

[207] Y. Gong, M. Nakamura and S. Tamaki, Parallel genetic algorithms on line topology of heterogeneous computing resources, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1447–1454, Washington DC, USA, 2005, ACM Press.

[208] J.-H. Chen, S.-Y. Ho and D. E. Goldberg, Quality-time analysis of multi-objective evolutionary algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1455–1462, Washington DC, USA, 2005, ACM Press.

[209] T. J. Ong, R. Saunders, J. Keyser and J. J. Leggett, Terrain generation using genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1463–1470, Washington DC, USA, 2005, ACM Press.

[210] C. hsiung Chan, S.-A. Lee, C.-Y. Kao and H.-K. Tsai, Improving eax with restricted 2-opt, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1471–1476, Washington DC, USA, 2005, ACM Press.

[211] S. Yilmaz, K. Ivanov and S. Levine, Application of genetic algorithm to optimize burnable poison placement in pressurized water reactors, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1477–1483, Washington DC, USA, 2005, ACM Press.

[212] N. Mori, M. Takeda and K. Matsumoto, A comparison study between genetic algorithms and bayesian optimize algorithms by novel indices, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1485–1492, Washington DC, USA, 2005, ACM Press.

[213] W. Rand and R. Riolo, The problem with a self-adaptative mutation rate in some environments: a case study using the shaky ladder hyperplane-defined functions, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1493–1500, Washington DC, USA, 2005, ACM Press.

[214] Z. hua Yang, J. cheng Fang and Z. qiang Qi, Flight midcourse guidance control based on genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1501–1506, Washington DC, USA, 2005, ACM Press.

[215] J. G. Martin, Subproblem optimization by gene correlation with singular value decomposition, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1507–1514, Washington DC, USA, 2005, ACM Press.

[216] Y. Borenstein and R. Poli, Information landscapes, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1515–1522, Washington DC, USA, 2005, ACM Press.

[217] M. A. Russell and G. B. Lamont, A genetic algorithm for unmanned aerial vehicle routing, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1523–1530, Washington DC, USA, 2005, ACM Press.

[218] H. B. Amor and A. Rettinger, Intelligent exploration for genetic algorithms: using self-organizing maps in evolutionary computation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1531–1538, Washington DC, USA, 2005, ACM Press.

[219] D. Thierens, An adaptive pursuit strategy for allocating operator probabilities, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1539–1546, Washington DC, USA, 2005, ACM Press.

[220] M. R. Peterson, T. E. Doom and M. L. Raymer, Ga-facilitated classifier optimization with varying similarity measures, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1549–1550, Washington DC, USA, 2005, ACM Press.

[221] M. Lyman and G. Lewandowski, Genetic programming for association rules on card sorting data, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1551–1552, Washington DC, USA, 2005, ACM Press.

[222] A. Paszynska, An extension of vose's markov chain model for genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1553–1554, Washington DC, USA, 2005, ACM Press.

[223] Z.-G. Wang, M. Rahman and Y.-S. Wong, Multi-niche crowding in the development of parallel genetic simulated annealing, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1555–1556, Washington DC, USA, 2005, ACM Press.

[224] L. T. Bui, J. Branke and H. A. Abbass, Diversity as a selection pressure in dynamic environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1557–1558, Washington DC, USA, 2005, ACM Press.

[225] J. A. M. H., Search space modulation in genetic algorithms: evolving the search space by sinusoidal transformations, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1559–1560, Washington DC, USA, 2005, ACM Press.

[226] K. Ohnishi and K. Yoshida, Evolutionary change in developmental timing, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1561–1562, Washington DC, USA, 2005, ACM Press.

[227] D. Vrajitoru and J. DeBoni, Hybrid real-coded mutation for genetic algorithms applied to graph layouts, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1563–1564, Washington DC, USA, 2005, ACM Press.

[228] D. M. Cherba, W. Punch, P. Duxbury, S. Billinge and P. Juhas, Conformation of an ideal bucky ball molecule by genetic algorithm and geometric constraint from pair distance data: genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1565–1566, Washington DC, USA, 2005, ACM Press.

[229] S. Auwatanamongkol, Inexact pattern matching using genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1567–1568, Washington DC, USA, 2005, ACM Press.

[230] L. Cong, Y. Sha, L. Jiao and F. Liu, Directional self-learning of genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1569–1570, Washington DC, USA, 2005, ACM Press.

[231] C. Reis, J. A. T. Machado and J. B. Cunha, Fractional dynamic fitness functions for ga-based circuit design, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1571–1572, Washington DC, USA, 2005, ACM Press.

[232] S. Ando and S. Kobayashi, Fitness-based neighbor selection for multimodal function optimization, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1573–1574, Washington DC, USA, 2005, ACM Press.

[233] J. Berntsson and M. Tang, Adaptive sizing of populations and number of islands in distributed genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1575–1576, Washington DC, USA, 2005, ACM Press.

[234] J. Zhang, H. S. H. Chung and J. Zhong, Adaptive crossover and mutation in genetic algorithms based on clustering technique, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1577–1578, Washington DC, USA, 2005, ACM Press.

[235] J. Berntsson and M. Tang, Dynamic optimization of migration topology in internet-based distributed genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1579–1580, Washington DC, USA, 2005, ACM Press.

[236] J.-H. Kim, S.-S. Choi and B.-R. Moon, Normalization for neural network in genetic search, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1581–1582, Washington DC, USA, 2005, ACM Press.

[237] C. W. Ahn, S. Oh and R. S. Ramakrishna, On the practical genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1583–1584, Washington DC, USA, 2005, ACM Press.

[238] S. M. Sait, M. Faheemuddin, M. R. Minhas and S. Sanaullah, Multiobjective vlsi cell placement using distributed genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1585–1586, Washington DC, USA, 2005, ACM Press.

[239] E. Ferretti and S. Esquivel, Knowledge insertion: an efficient approach to reduce effort in simple genetic algorithms for unrestricted parallel equal machines scheduling, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1587–1588, Washington DC, USA, 2005, ACM Press.

[240] A. Sokolov, D. Whitley and M. Lunacek, Alternative implementations of the griewangk function, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1589–1590, Washington DC, USA, 2005, ACM Press.

[241] P. A. Diaz-Gomez and D. F. Hougen, Analysis and mathematical justification of a fitness function used in an intrusion detection system, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1591–1592, Washington DC, USA, 2005, ACM Press.

[242] P. Fenton and P. Walsh, A comparison of messy ga and permutation based ga for job shop scheduling, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1593–1594, Washington DC, USA, 2005, ACM Press.

[243] M. Affenzeller, S. Wagner and S. Winkler, Goal-oriented preservation of essential genetic information by offspring selection, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1595–1596, Washington DC, USA, 2005, ACM Press.

[244] A. Leóón-Barranco, S. E. Barajas and C. A. Reyes, Argen + arepo: mixing the artificial genetic engineering and artificial evolution of populations to improve the search process, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1597–1598, Washington DC, USA, 2005, ACM Press.

[245] F. W. Moore, A genetic algorithm for optimized reconstruction of quantized one-dimensional signals, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1599–1600, Washington DC, USA, 2005, ACM Press.

[246] S. Chen and G. Pitt, Isolating the benefits of respect, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1601–1602, Washington DC, USA, 2005, ACM Press.

[247] J. Stevens, R. B. Heckendorn and T. Soule, Exploiting disruption aversion to control code bloat, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1605–1612, Washington DC, USA, 2005, ACM Press.

[248] M. Collins, Finding needles in haystacks is harder with neutrality, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1613–1618, Washington DC, USA, 2005, ACM Press.

[249] J. Hu, X. Zhong and E. D. Goodman, Open-ended robust design of analog filters using genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1619–1626, Washington DC, USA, 2005, ACM Press.

[250] J. M. Daida, Towards identifying populations that increase the likelihood of success in genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1627–1634, Washington DC, USA, 2005, ACM Press.

[251] C. W. G. Lasarczyk and W. Banzhaf, Total synthesis of algorithmic chemistries, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1635–1640, Washington DC, USA, 2005, ACM Press.

[252] E. M. Zechman and S. R. Ranjithan, Multipopulation cooperative coevolutionary programming (mccp) to enhance design innovation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1641–1648, Washington DC, USA, 2005, ACM Press.

[253] J. A. Walker and J. F. Miller, Investigating the performance of module acquisition in cartesian genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1649–1656, Washington DC, USA, 2005, ACM Press.

[254] P. Massey, J. A. Clark and S. Stepney, Evolution of a human-competitive quantum fourier transform algorithm using genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1657–1663, Washington DC, USA, 2005, ACM Press.

[255] I. Dempsey, M. O'Neill and A. Brabazon, Meta-grammar constant creation with grammatical evolution by grammatical evolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1665–1671, Washington DC, USA, 2005, ACM Press.

[256] S. Silva and E. Costa, Resource-limited genetic programming: the dynamic approach, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1673–1680, Washington DC, USA, 2005, ACM Press.

[257] D. Jackson, Parsing and translation of expressions by genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1681–1688, Washington DC, USA, 2005, ACM Press.

[258] L. Spector, J. Klein and M. Keijzer, The push3 execution stack and the evolution of control, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1689–1696, Washington DC, USA, 2005, ACM Press.

[259] C. Z. Janikow and C. J. Mann, Cgp visits the santa fe trail: effects of heuristics on gp, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1697–1704, Washington DC, USA, 2005, ACM Press.

[260] T. Murata and T. Nakamura, Genetic network programming with automatically defined groups for assigning proper roles to multiple agents, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1705–1712, Washington DC, USA, 2005, ACM Press.

[261] J. M. Daida, M. E. Samples and M. J. Byom, Probing for limits to building block mixing with a tunably-difficult problem for genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1713–1720, Washington DC, USA, 2005, ACM Press.

[262] M. D. Richards *et al.*, Evolving cooperative strategies for uav teams, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1721–1728, Washington DC, USA, 2005, ACM Press.

[263] G. S. Hornby, Measuring, enabling and comparing modularity, regularity and hierarchy in evolutionary design, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1729–1736, Washington DC, USA, 2005, ACM Press.

[264] J. F. Smith, III, Evolving fuzzy decision tree structure that adapts in real-time, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1737–1744, Washington DC, USA, 2005, ACM Press.

[265] D. Jackson, Dormant program nodes and the efficiency of genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1745–1751, Washington DC, USA, 2005, ACM Press.

[266] R. Cavill, S. Smith and A. Tyrrell, Multi-chromosomal genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1753–1759, Washington DC, USA, 2005, ACM Press.

[267] B.-T. Zhang and H.-Y. Jang, Molecular programming: evolving genetic programs in a test tube, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1761–1768, Washington DC, USA, 2005, ACM Press.

[268] S. Besetti and T. Soule, Function choice, resiliency and growth in genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1771–1772, Washington DC, USA, 2005, ACM Press.

[269] H. Majeed, C. Ryan and R. M. A. Azad, Evaluating gp schema in context, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1773–1774, Washington DC, USA, 2005, ACM Press.

[270] K. Yanai and H. Iba, Probabilistic distribution models for eda-based gp, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1775–1776, Washington DC, USA, 2005, ACM Press.

[271] R. Poli and W. B. Langdon, Backward-chaining genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1777–1778, Washington DC, USA, 2005, ACM Press.

[272] N. Foreman and M. Evett, Preventing overfitting in gp with canary functions, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1779–1780, Washington DC, USA, 2005, ACM Press.

[273] N. Pillay, An investigation into using genetic programming as a means of inducing solutions to novice procedural programming problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1781–1782, Washington DC, USA, 2005, ACM Press.

[274] S. Gelly, O. Teytaud, N. Bredeche and M. Schoenauer, A statistical learning theory approach of bloat, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1783–1784, Washington DC, USA, 2005, ACM Press.

[275] R. Ondas, M. Pelikan and K. Sastry, Scalability of genetic programming and probabilistic incremental program evolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1785–1786, Washington DC, USA, 2005, ACM Press.

[276] X. Luo, M. I. Heywood and A. N. Zincir-Heywood, Evolving recurrent models using linear gp, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1787–1788, Washington DC, USA, 2005, ACM Press.

[277] J. Antolík and W. H. Hsu, Evolutionary tree genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1789–1790, Washington DC, USA, 2005, ACM Press.

[278] M. E. Samples, J. M. Daida, M. Byom and M. Pizzimenti, Parameter sweeps for exploring gp parameters, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1791–1792, Washington DC, USA, 2005, ACM Press.

[279] D. Wierstra, F. J. Gomez and J. Schmidhuber, Modeling systems with internal state using evolino, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1795–1802, Washington DC, USA, 2005, ACM Press.

[280] B. Ravichandran, A. Gandhe and R. E. Smith, Xcs for robust automatic target recognition, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1803–1810, Washington DC, USA, 2005, ACM Press.

[281] L. S. Shafti and E. P. Pérez, Constructive induction and genetic algorithms for learning concepts with complex interaction, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1811–1818, Washington DC, USA, 2005, ACM Press.

[282] D. Mellor, A first order logic classifier system, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1819–1826, Washington DC, USA, 2005, ACM Press.

[283] P. L. Lanzi, D. Loiacono, S. W. Wilson and D. E. Goldberg, Extending xcsf beyond linear approximation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1827–1834, Washington DC, USA, 2005, ACM Press.

[284] M. V. Butz, Kernel-based, ellipsoidal conditions in the real-valued xcs classifier system, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1835–1842, Washington DC, USA, 2005, ACM Press.

[285] J. Bacardit, Analysis of the initialization stage of a pittsburgh approach learning classifier system, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1843–1850, Washington DC, USA, 2005, ACM Press.

[286] J. Drugowitsch and A. M. Barry, Xcs with eligibility traces, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1851–1858, Washington DC, USA, 2005, ACM Press.

[287] P. L. Lanzi, D. Loiacono, S. W. Wilson and D. E. Goldberg, Xcs with computed prediction in multistep environments, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1859–1866, Washington DC, USA, 2005, ACM Press.

[288] S. Landau, O. Sigaud and M. Schoenauer, Atnosferes revisited, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1867–1874, Washington DC, USA, 2005, ACM Press.

[289] W. Browne and D. Scott, An abstraction agorithm for genetics-based reinforcement learning, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1875–1882, Washington DC, USA, 2005, ACM Press.

[290] H. H. Dam, H. A. Abbass and C. Lokan, Dxcs: an xcs system for distributed data mining, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1883–1890, Washington DC, USA, 2005, ACM Press.

[291] X. Llorà, K. Sastry and D. E. Goldberg, The compact classifier system: motivation, analysis, and first results, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1993–1994, Washington DC, USA, 2005, ACM Press.

[292] I. Ecemis, E. Bonabeau and T. Ashburn, Interactive estimation of agent-based financial markets models: modularity and learning, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1897–1904, Washington DC, USA, 2005, ACM Press.

[293] J. Budynek, E. Bonabeau and B. Shargel, Evolving computer intrusion scripts for vulnerability assessment and log analysis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1905–1912, Washington DC, USA, 2005, ACM Press.

[294] Y. F. Sit and R. Miikkulainen, Learning basic navigation for personal satellite assistant using neuroevolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1913–1920, Washington DC, USA, 2005, ACM Press.

[295] D. Garrett, J. Vannucci, R. Silva, D. Dasgupta and J. Simien, Genetic algorithms for the sailor assignment problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1921–1928, Washington DC, USA, 2005, ACM Press.

[296] J. P. Ridder and J. C. HandUber, Mission planning for joint suppression of enemy air defenses using a genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1929–1936, Washington DC, USA, 2005, ACM Press.

[297] L. Bradstreet, L. Barone and L. While, Map-labelling with a multi-objective evolutionary algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1937–1944, Washington DC, USA, 2005, ACM Press.

[298] T. Schlichter, C. Haubelt and J. Teich, Improving ea-based design space exploration by utilizing symbolic feasibility tests, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1945–1952, Washington DC, USA, 2005, ACM Press.

[299] J. R. Koza, S. H. Al-Sakran and L. W. Jones, Automated re-invention of six patented optical lens systems using genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1953–1960, Washington DC, USA, 2005, ACM Press.

[300] U. Grasemann and R. Miikkulainen, Effective image compression using evolved wavelets, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1961–1968, Washington DC, USA, 2005, ACM Press.

[301] E.-W. Lameijer, A. IJzerman and J. Kok, The molecule evoluator: an interactive evolutionary algorithm for designing drug molecules, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1969–1976, Washington DC, USA, 2005, ACM Press.

[302] K. Stanley, N. Kohl, R. Sherony and R. Miikkulainen, Neuroevolution of an automobile crash warning system, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1977–1984, Washington DC, USA, 2005, ACM Press.

[303] I. Mierswa, Incorporating fuzzy knowledge into fitness: multiobjective evolutionary 3d design of process plants, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1985–1992, Washington DC, USA, 2005, ACM Press.

[304] D. Montana and J. Redi, Optimizing parameters of a mobile ad hoc network protocol with a genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1993–1998, Washington DC, USA, 2005, ACM Press.

[305] M. Keijzer, M. Baptist, V. Babovic and J. R. Uthurburu, Determining equations for vegetation induced resistance using genetic programming, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 1999–2006, Washington DC, USA, 2005, ACM Press.

[306] R. Kicinger, T. Arciszewski and K. De Jong, Parameterized versus generative representations in structural design: an empirical comparison, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2007–2014, Washington DC, USA, 2005, ACM Press.

[307] D. Stevens, S. Das and B. Natarajan, A multi-objective algorithm for ds-cdma code design based on the clonal selection principle, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2015–2020, Washington DC, USA, 2005, ACM Press.

[308] F. Rothlauf, D. Schunk and J. Pfeiffer, Classification of human decision behavior: finding modular decision rules with genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2021–2028, Washington DC, USA, 2005, ACM Press.

[309] G. Lee and V. Bulitko, Gamm: genetic algorithms with meta-models for vision, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2029–2036, Washington DC, USA, 2005, ACM Press.

[310] Y.-S. Choi, B.-R. Moon and S. Y. Seo, Genetic fuzzy discretization with adaptive intervals for classification problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2037–2043, Washington DC, USA, 2005, ACM Press.

[311] J. Han and B. Bhanu, Hierarchical multi-sensor image registration using evolutionary computation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2045–2052, Washington DC, USA, 2005, ACM Press.

[312] B. T. Nassu, E. P. Duarte, Jr. and A. T. R. Pozo, A comparison of evolutionary algorithms for system-level diagnosis, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2053–2060, Washington DC, USA, 2005, ACM Press.

[313] Y.-K. Kwon, S.-S. Choi and B.-R. Moon, Stock prediction based on financial correlation, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2061–2066, Washington DC, USA, 2005, ACM Press.

[314] G. Wilson and M. Heywood, Use of a genetic algorithm in brill's transformation-based part-of-speech tagger, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2067–2073, Washington DC, USA, 2005, ACM Press.

[315] J. Wight and Y. Zhang, An "ageing"operator and its use in the highly constrained topological optimization of hvac system design, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2075–2082, Washington DC, USA, 2005, ACM Press.

[316] B. Ahrens, Genetic algorithm optimization of superresolution parameters, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2083–2088, Washington DC, USA, 2005, ACM Press.

[317] Y.-K. Kwon and B.-R. Moon, Nonlinear feature extraction using a neuro genetic hybrid, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2089–2096, Washington DC, USA, 2005, ACM Press.

[318] A. Sureka and P. R. Wurman, Applying metaheuristic techniques to search the space of bidding strategies in combinatorial auctions, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2097–2103, Washington DC, USA, 2005, ACM Press.

[319] M. Gong, L. Wang, L. Jiao and H. Du, An artificial immune system algorithm for cdma multiuser detection over multi-path channels, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2105–2111, Washington DC, USA, 2005, ACM Press.

[320] E. Carter, S. Ebdon and C. Neal-Sturgess, Optimization of passenger car design for the mitigation of pedestrian head injury using a genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2113–2120, Washington DC, USA, 2005, ACM Press.

[321] S. L. Hijazi, B. Natarajan and S. Das, An ant colony algorithm for multi-user detection in wireless communication systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2121–2126, Washington DC, USA, 2005, ACM Press.

[322] G. Cochenour, J. Simon, S. Das, A. Pahwa and S. Nag, A pareto archive evolutionary strategy based radial basis function neural network training algorithm for failure rate prediction in overhead feeders, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2127–2132, Washington DC, USA, 2005, ACM Press.

[323] J. Nummela and B. A. Julstrom, Evolving petri nets to represent metabolic pathways, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2133–2139, Washington DC, USA, 2005, ACM Press.

[324] B. Yuan, M. Gallagher and S. Crozier, Mri magnet design: search space analysis, edas and a real-world problem with significant dependencies, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2141–2148, Washington DC, USA, 2005, ACM Press.

[325] S. Talaie, R. Leigh, S. J. Louis and G. L. Raines, Predicting mining activity with parallel genetic algorithms, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2149–2155, Washington DC, USA, 2005, ACM Press.

[326] S. Das, A. Konar and U. K. Chakraborty, An efficient evolutionary algorithm applied to the design of two-dimensional iir filters, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2157–2163, Washington DC, USA, 2005, ACM Press.

[327] A. Soltoggio, An enhanced ga to improve the search process reliability in tuning of control systems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2165–2172, Washington DC, USA, 2005, ACM Press.

[328] M. Hasenjäger, B. Sendhoff, T. Sonoda and T. Arima, Three dimensional evolutionary aerodynamic design optimization with cma-es, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2173–2180, Washington DC, USA, 2005, ACM Press.

[329] Q. T. Pham, Evolutionary optimization of dynamic control problems accelerated by progressive step reduction, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2181–2187, Washington DC, USA, 2005, ACM Press.

[330] F. Alim and K. Ivanov, Heuristic rules embedded genetic algorithm to solve in-core fuel management optimization problem, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2191–2192, Washington DC, USA, 2005, ACM Press.

[331] E. Sanchez *et al.*, New evolutionary techniques for test-program generation for complex microprocessor cores, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2193–2194, Washington DC, USA, 2005, ACM Press.

[332] T. Hiroyasu, M. Miki, S. Nakayama and Y. Hanada, Multi-objective optimization of diesel engine emissions and fuel economy using spea2+, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2195–2196, Washington DC, USA, 2005, ACM Press.

[333] K. P. Dahal, S. J. Galloway, G. M. Burt, J. R. McDonald and I. Hopkins, A case study of process facility optimization using discrete event simulation and genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2197–2198, Washington DC, USA, 2005, ACM Press.

[334] S. R. Szumlanski, A. S. Wu and C. E. Hughes, Collaborative interactive evolution, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2199–2200, Washington DC, USA, 2005, ACM Press.

[335] Y. Sato and R. Kanno, Event-driven learning classifier systems for online soccer games, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2201–2202, Washington DC, USA, 2005, ACM Press.

[336] P. Whiting, P. W. Poon and J. N. Carter, A genetic algorithm approach to the selection of near-optimal subsets from large sets, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2203–2204, Washington DC, USA, 2005, ACM Press.

[337] M.-H. Jin *et al.*, Compact genetic algorithm for active interval scheduling in hierarchical sensor networks, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2205–2206, Washington DC, USA, 2005, ACM Press.

[338] F. A. Castillo and C. M. Villa, Symbolic regression in multicollinearity problems, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2207–2208, Washington DC, USA, 2005, ACM Press.

[339] M. Daoud and N. Kharma, Gats 1.0: a novel ga-based scheduling algorithm for task scheduling on heterogeneous processor nets, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2209–2210, Washington DC, USA, 2005, ACM Press.

[340] T. Meekhof and R. B. Heckendorn, Using evolutionary optimization to improve markov-based classification with limited training data, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2211–2212, Washington DC, USA, 2005, ACM Press.

[341] R. O. Day, A. S. Nunez and G. B. Lamont, Moea design of robust digital symbol sets, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2213–2214, Washington DC, USA, 2005, ACM Press.

[342] K. Seo, E. D. Goodman and R. C. Rosenberg, Design of air pump system using bond graph and genetic programming method, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2215–2216, Washington DC, USA, 2005, ACM Press.

[343] C. Lim and E. Sim, Production planning in manufacturing/remanufacturing environment using genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2217–2218, Washington DC, USA, 2005, ACM Press.

[344] D. S. Díaz and M. G. Romay, Introducing a watermarking with a multi-objective genetic algorithm, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2219–2220, Washington DC, USA, 2005, ACM Press.

[345] T. A. E. Ferreira, G. C. Vasconcelos and P. J. L. Adeodato, A new evolutionary method for time series forecasting, in *GECCO 2005: Proceedings of the 2005 conference on Genetic and evolutionary computation*, edited by H.-G. Beyer *et al.* Vol. 2, pp. 2221–2222, Washington DC, USA, 2005, ACM Press.