

Список литературы

- [1] BANERJEE, A. and ABU-MAHFOUZ, I., Evolutionary algorithm-based parameter identification for nonlinear dynamical systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1–5, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [2] RAICH, A. and FRITZ, K., Benefits of implicit redundant representation genetic algorithms for conceptual design and damage identification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 6–13, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [3] MIRMOMENI, M. and PUNCH, W., Co-evolving data driven models and test data sets with the application to forecast chaotic time series, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 14–20, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [4] YAGOUBI, M., THOBOIS, L., and SCHOENAUER, M., Asynchronous evolutionary multi-objective algorithms with heterogenous evaluation costs, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 21–28, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [5] LEMONGE, A., SILVA, M., and BARBOSA, H., Design optimization of geometrically nonlinear truss structures considering cardinality constraints, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 29–36, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [6] LI, X., LI, B., MABU, S., and HIRASAWA, K., A novel estimation of distribution algorithm using graph-based chromosome representation and reinforcement learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 37–44, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [7] CHEN, S.-H. and CHEN, M.-C., Bi-variate artificial chromosomes with genetic algorithm for single machine scheduling problems with sequence-dependent setup times, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 45–53, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [8] PITANGUI, C. and ZAVERUCHA, G., Inductive logic programming through estimation of distribution algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 54–61, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [9] GONCALVES, A. R. and Von Zuben, F. J., Online learning in estimation of distribution algorithms for dynamic environments, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 62–69, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [10] ROHLFSHAGEN, P. and LUCAS, S., Ms pac-man versus ghost team cec 2011 competition, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 70–77, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [11] JUNQING, L., QUANKE, P., and SHENGXIAN, X., Flexible job shop scheduling problems by a hybrid artificial bee colony algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 78–83, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [12] OZTURK, C. and KARABOGA, D., Hybrid artificial bee colony algorithm for neural network training, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 84–88, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [13] AKAY, B. and KARABOGA, D., Wavelet packets optimization using artificial bee colony algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 89–94, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [14] OZCAN, T. and ESNAF, S., A heuristic approach based on artificial bee colony algorithm for retail shelf space optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 95–101, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [15] ALDRIDGE, S., BABB, B., MOORE, F., and PETERSON, M., Improved reconstruction of deep space images via genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 102–109, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [16] YAPICIOGLU, H. and SMITH, A. E., Disservice representation using the gini coefficient in semi-desirable facility location problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 110–114, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [17] ANDRES, C., LLANA, L., and NUNEZ, M., Self-adaptive fuzzy-timed systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 115–122, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [18] ESPITIA, H. and SOFRONY, J., Path planning of mobile robots using potential fields and swarms of brownian particles, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 123–129, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [19] WEI GONG, D., LIANG QI, C., ZHANG, Y., and LI, M., Modified particle swarm optimization for odor source localization of multi-robot, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 130–136, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [20] HIRUMA, H., FUKUNAGA, A., KOMIYA, K., and IBA, H., Evolving an effective robot tour guide, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 137–144, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [21] JENNINGS, A. and ORDONEZ, R., Population based optimization for variable operating points, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 145–151, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [22] JEONG, I.-B., PARK, C.-S., NA, K.-I., HAN, S., and KIM, J.-H., Particle swarm optimization-based central pattern generator for robotic fish locomotion, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 152–157, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [23] CUCCU, G., GOMEZ, F., and GLASMACHERS, T., Novelty-based restarts for evolution strategies, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 158–163, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [24] FUKUSHIMA, N., NAGATA, Y., KOBAYASHI, S., and ONO, I., Proposal of distance-weighted exponential natural evolution strategies, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 164–171, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [25] PARKINSON, E., GHANDAR, A., MICHALEWICZ, Z., and TUSON, A., Estimating the reproductive potential of offspring in evolutionary heuristics for combinatorial optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary*

Computation, pp. 172–178, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [26] UCHITANE, T. and HATANAKA, T., Applying evolution strategies to biped locomotion learning in robocup 3d soccer simulation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 179–185, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [27] KRAUSE, A., Performance of evolving trading strategies with different discount factors, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 186–191, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [28] LOHPETCH, D. and CORNE, D., Multiobjective algorithms for financial trading multiobjective out-trades single-objective, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 192–199, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [29] PALOTTI, J., SALLES, T., PAPPA, G. L., GONCALVES, M. A., and Meira, Jr., W., Assessing documents’ credibility with genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 200–207, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [30] QADIR, O., LIU, J., TEMPESTI, G., TIMMIS, J., and TYRRELL, A., Hardware architecture for a bidirectional hetero-associative protein processing associative memory, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 208–215, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [31] HEINRICH, E., JOOST, R., and SALOMON, R., Learning from the barn owl auditory system: A bio-inspired localization hardware architecture, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 216–221, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [32] PAPA, G. and GARBOLINO, T., Optimal on-line built-in self-test structure for system-reliability improvement, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 222–229, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [33] ZAMORANO, A. G., TIMMIS, J., and TYRRELL, A., A flexible decentralised communication architecture on a field programmable gate array for swarm system simulations, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 230–237, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [34] ATKINS, D., NESHTIAN, K., and ZHANG, M., A domain independent genetic programming approach to automatic feature extraction for image classification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 238–245, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [35] MAHDI, S., MENGJIE, Z., and MARK, J., Edge detection using constrained discrete particle swarm optimisation in noisy images, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 246–253, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [36] FU, W., JOHNSTON, M., and ZHANG, M., Genetic programming for edge detection: A global approach, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 254–261, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [37] WONG, M., HE, X., and CHANG YEH, W., Image clustering using particle swarm optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 262–268, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [38] VASICEK, Z. and BIDLO, M., Evolutionary design of robust noise-specific image filters, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 269–276, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [39] KAMATH, U., De Jong, K., and SHEHU, A., An evolutionary-based approach for feature generation: Eukaryotic promoter recognition, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 277–284, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [40] BECKER, M., Design of fault tolerant networks with agent-based simulation of physarum polycephalum, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 285–291, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [41] GHAFARIZADEH, A., AHMADI, K., and FLANN, N. S., Sorting unsigned permutations by reversals using multi-objective evolutionary algorithms with variable size individuals, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 292–295, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [42] SATO, Y., HASEGAWA, N., and SATO, M., Gpu acceleration for sudoku solution with genetic operations, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 296–303, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [43] GARCIA-ARENAS, M., MERELO, J. J., MORA, A. M., CASTILLO, P., and ROMERO, G., Assessing speed-ups in commodity cloud storage services for distributed evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 304–311, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [44] MUNETOMO, M., Realizing robust and scalable evolutionary algorithms toward exascale era, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 312–317, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [45] MUNAWAR, A., WAHIB, M., MUNETOMO, M., and AKAMA, K., Advanced genetic algorithm to solve minlp problems over gpu, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 318–325, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [46] OKDEM, S., KARABOGA, D., and OZTURK, C., An application of wireless sensor network routing based on artificial bee colony algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 326–330, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [47] GARRO, B. A., SOSSA, H., and VAZQUEZ, R. A., Artificial neural network synthesis by means of artificial bee colony (abc) algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 331–338, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [48] ONER, A., OZCAN, S., and DENGİ, D., Optimization of university course scheduling problem with a hybrid artificial bee colony algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 339–346, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [49] TASGETİREN, M. F., BULUT, O., and FADİLOĞLU, M. M., A discrete artificial bee colony algorithm for the economic lot scheduling problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 347–353, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [50] AYOB, A. F. M., RAY, T., and SMITH, W., Scenario-based hydrodynamic design optimization of high speed planing craft for coastal surveillance, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 354–361, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [51] WILCOX, D., MCNABB, A., and SEPPI, K., Solving virtual machine packing with a reordering grouping genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 362–369, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [52] TIZZO, N. P., COELLO, J. M. A., and CARDOZO, E., Automatic composition of semantic web services using a-teams with genetic agents, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 370–377, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [53] POLADIAN, L., A genotype-to-phenotype mapping for microstructured polymer optical fibres, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 378–385, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [54] VERONEZE, R., de Franca, F., and Von Zuben, F. J., Assessing the performance of a swarm-based biclustering technique for data imputation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 386–393, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [55] ZHANG, D., MABU, S., WEN, F., and HIRASAWA, K., A sequential subspace face recognition framework using genetic-based clustering, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 394–400, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [56] DOHARE, D. and DEVI, V. S., Combination of similarity measures for time series classification using genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 401–408, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [57] AHN, E. Y., MULLEN, T., and YEN, J., Evolutionary based feature extraction with dynamic mutation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 409–416, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [58] GALLAGHER, J. and OPPENHEIMER, M., An improved evolvable oscillator for all flight mode control of an insect-scale flapping-wing micro air vehicle, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 417–425, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [59] KIJOWSKI, M., GALLAGHER, J., and MERKLE, L., Improved learning in an evolvable hardware hover controller for an insect scale flapping-wing micro air vehicle, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 426–431, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [60] LI, R., ETEMAADI, R., EMMERICH, M., and CHAUDRON, M., An evolutionary multiobjective optimization approach to component-based software architecture design, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 432–439, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [61] BREMNER, P., SAMIE, M., PIPE, A., and TYRRELL, A., Multi-objective optimisation of cell-array circuit evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 440–446, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [62] KIMURA, S. and MATSUMURA, K., Constrained multimodal function optimization using a simple evolutionary algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 447–454, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [63] DOBSLAW, F., Iteration-wise parameter learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 455–462, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [64] GREENWOOD, G., On the value of operator-induced neighborhoods in fitness landscapes, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 463–467, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [65] DOUCETTE, J. and HEYWOOD, M., Revisiting the acrobot ‘height’ task: An example of efficient evolutionary policy search under an episodic goal seeking task, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 468–475, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [66] MOKOM, F. and KOBTI, Z., Evolution of artifact capabilities, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 476–483, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [67] De la Fraga, L. G. and DOMINGUEZ, G. M. L., Robust detection of several circles or ellipses with heuristics, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 484–490, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [68] NGUYEN, H. T. and BHANU, B., Tracking pedestrians with bacterial foraging optimization swarms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 491–495, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [69] SHI, Q. and SONG, A., Selective motion detection by genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 496–503, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [70] GENG, J. and LIU, J., Image texture classification using a multiagent genetic clustering algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 504–508, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [71] DANESHYARI, M. and YEN, G., Dynamic optimization using cultural based pso, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 509–516, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [72] COELHO, L., BERNERT, D., and MARIANI, V., A chaotic firefly algorithm applied to reliability-redundancy optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 517–521, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [73] MARIANI, V., LUVIZOTTO, L. G., KLEIN, C., and COELHO, L., A normative differential evolution approach for estimation of heat transfer coefficient during freezing treatment by inverse analysis, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 522–528, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [74] de Armas, J., MIRANDA, G., and LEON, C., Two encoding schemes for a multi-objective cutting stock problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 529–536, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [75] NETO, O. V., PACHECO, M. A., PIMENTEL, A., and SILVEIRA, E., A parallel evolutionary algorithm to search for global minima geometries of heterogeneous ab initio atomic clusters, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 537–543, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [76] NETO, O. V., BEZERRA, I., PACHECO, M. A., and PIMENTEL, A., Evolutionary optimization of sets of basis functions for first-row atoms by using discretization process, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 544–549, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [77] Green, II, R., WANG, L., ALAM, M., and FORMATO, R., Central force optimization on a gpu: A case study in high performance metaheuristics using multiple topologies, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 550–557, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [78] LIPING, J. and YUPING, W., Genetic algorithm based on primal and dual theory for solving multiobjective bilevel linear programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 558–565, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [79] ROSBERG, I., GOLDBARG, E., and GOLDBARG, M., Solving the light up with ant colony optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 566–573, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [80] RIVERO, D., FERNANDEZ-BLANCO, E., DORADO, J., and PAZOS, A., A new signal classification technique by means of genetic algorithms and knn, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 574–579, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [81] RIVERO, D., FERNANDEZ-BLANCO, E., DORADO, J., and PAZOS, A., Using recurrent anns for the detection of epileptic seizures in eeg signals, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 580–585, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [82] ASCONAVIETA, P., GOLDBARG, M., and GOLDBARG, E., Evolutionary algorithm for the car renter salesman, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 586–593, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [83] MENEZES, L. and COELHO, A., On ensembles of biclusters generated by nichepso, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 594–600, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [84] HIJAZE, M. and CORNE, D., Distributed evolutionary algorithm topologies with adaptive migration schemes, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 601–608, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [85] LOTIF, M. and COELHO, A., Visually inspecting the search behavior of harmony search and its variants with viz3d, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 609–616, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [86] CARDAMONE, L., MOCCI, A., and GHEZZI, C., Dynamic synthesis of program invariants using genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 617–624, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [87] de Franca, F. and Von Zuben, F. J., Extracting additive and multiplicative coherent biclusters with swarm intelligence, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 625–631, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [88] GONZALEZ-PARDO, A. and CAMACHO, D., Analysis of grammatical evolution approaches to regular expression induction, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 632–639, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [89] ESTEVEZ, J., TOLEDO, P., and ALAYON, S., Using an induced relational decision tree for rule injection in a learning classifier system, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 640–647, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [90] KHAN, M., AYOB, A., ISAACS, A., and RAY, T., A novel evolutionary approach for 2d shape matching based on b-spline modeling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 648–654, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [91] HAMADA, N., NAGATA, Y., KOBAYASHI, S., and ONO, I., On scalability of adaptive weighted aggregation for multiobjective function optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 655–664, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [92] VAZQUEZ, R. A., Training spiking neural models using cuckoo search algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 665–672, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [93] OISO, M., MATSUMURA, Y., YASUDA, T., and OHKURA, K., Accelerating steady-state genetic algorithms based on cuda architecture, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 673–678, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [94] Dos Santos, E. M. and SABOURIN, R., Classifier ensembles optimization guided by population oracle, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 679–684, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [95] LEE, B., SEOK, H.-S., and ZHANG, B.-T., Evolving a population code for multimodal concept learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 685–692, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [96] CARPENTIERI, M., On robustness of permutations sequencing operators: Solving satisfiability of random 3-cnfs by simple crossover, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 693–700, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [97] LUGO-CORDERO, H., FUENTES-RIVERA, A., GUHA, R., and ORTIZ-RIVERA, E., Particle swarm optimization for load balancing in green smart homes, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 701–706, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [98] HASSANEIN, O., ANAVATTI, S., and RAY, T., Genetic fuzzy controller for robot manipulator position control based upon inverse dynamics, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 707–714, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [99] WANG, Z., YANG, R., WANG, L., Green, II, R., and DOUNIS, A., A fuzzy adaptive comfort temperature model with grey predictor for multi-agent control system of smart building, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 715–722, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [100] AHN, E. Y., MULLEN, T., and YEN, J., A two-population evolutionary algorithm for feature extraction: Combining filter and wrapper, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 723–730, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [101] GOH, C. K., LIM, D., MA, L., ONG, Y. S., and DUTTA, P., A surrogate-assisted memetic co-evolutionary algorithm for expensive constrained optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 731–736, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [102] HALDER, U., DAS, S., MAITY, D., ABRAHAM, A., and PREETAM, D., Self adaptive cluster based and weed inspired differential evolution algorithm for real world optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 737–743, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [103] PRADIPTA, G., HAMIM, Z., DAS, S., and ABRAHAM, A., Hierarchical dynamic neighborhood based particle swarm optimization for global optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 744–751, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [104] NASIR, M., MONDAL, A., SENGUPTA, S., DAS, S., and ABRAHAM, A., An improved multiobjective evolutionary algorithm based on decomposition with fuzzy dominance, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 752–759, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [105] SILVA, D., PACIFICO, L., and LUDERMIR, T., An evolutionary extreme learning machine based on group search optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 760–766, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [106] HAIDAR, A., NOMAN, K., AL-JAWFI, R., and AZIZ, H. A., An intelligent placement of distributed capacitance based on loss minimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 767–771, New Orleans, USA, 2011, IEEE Computational Intelligence Society.
- [107] ROSS, B., Evolution of stochastic bio-networks using summed rank strategies, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 772–779, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [108] ASHLOCK, D., SHILLER, E., and LEE, C., Comparison of evolved epidemic networks with diffusion characters, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 780–787, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [109] VANSANT, G., PEZZOLI, P., MONFORTE, J., and FOGEL, G., High-throughput toxicological classification of candidate drug compounds using gene expression, evolved neural networks, and a cell-based platform, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 788–794, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [110] KROMER, P., PLATOS, J., and SNASEL, V., Differential evolution for the linear ordering problem implemented on cuda, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 795–801, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [111] WAHIB, M., MUNAWAR, A., MUNETOMO, M., and AKAMA, K., Optimization of parallel genetic algorithms for nvidia gpus, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 802–810, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [112] TSUTSUI, S. and FUJIMOTO, N., Fast qap solving by aco with 2-opt local search on a gpu, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 811–818, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [113] GONG, Y. and FUKUNAGA, A., Distributed island-model genetic algorithms using heterogeneous parameter settings, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 819–826, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [114] ASHLOCK, D. and NGUYEN, S., Financial control of the evolution of autonomous npcs, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 827–834, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [115] PICCOLO, E. and SQUILLERO, G., Adaptive opponent modelling for the iterated prisoner’s dilemma, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 835–840, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [116] VAZQUEZ, E., Coello Coello, C. A., and SAGOLS, F., An evolutionary algorithm for tuning a chess evaluation function, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 841–847, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [117] ASHLOCK, D. and MCGUINNESS, C., Decomposing the level generation problem with tiles, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 848–855, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [118] ELSAYED, S., SARKER, R., and ESSAM, D., Ga with a new multi-parent crossover for constrained optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 856–863, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [119] HAMZA, N., ELSAYED, S., SARKER, R., and ESSAM, D., Differential evolution combined with constraint consensus for constrained optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 864–871, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [120] PEREZ, L. and RIFF, M.-C., New bounds for the relaxed traveling tournament problems using an artificial immune algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 872–878, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [121] CLANCEY, O. and WITTEN, M., A memetic algorithm for dosimetric optimization in cyberknife robotic radiosurgical treatment planning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 879–884, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [122] U, M., HO, C., FUNK, S., and RASHEED, K., Gart: A genetic algorithm based real time system scheduler, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 885–892, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [123] REYNOLDS, A., ABDOLLAHZADEH, A., CORNE, D., CHRISTIE, M., DAVIES, B., et al., A parallel boa-pso hybrid algorithm for history matching, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 893–900, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [124] TUTUM, C. C. and FAN, Z., Multi-criteria layout synthesis of mems devices using memetic computing, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 901–907, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [125] MENEZES, T., Evolutionary modeling of a blog network, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 908–915, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [126] WANG, P., TANG, K., TSANG, E., and YAO, X., A memetic genetic programming with decision tree-based local search for classification problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 916–923, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [127] JUNIOR, Z. C. and PAPPA, G. L., A pso algorithm for improving multi-view classification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 924–931, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [128] CARVALHO, R., BRUNORO, G., and PAPPA, G. L., Hcga: A genetic algorithm for hierarchical classification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 932–939, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [129] FRIEDLANDER, A., NESHATIAN, K., and ZHANG, M., Meta-learning and feature ranking using genetic programming for classification: Variable terminal weighting, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 940–947, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [130] MALAGO', L., MATTEUCCI, M., and PISTONE, G., Stochastic natural gradient descent by estimation of empirical covariances, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 948–955, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [131] MARTI, L., GARCIA, J., BERLANGA, A., and MOLINA, J. M., Indicator-based moneda: A comparative study of scalability with respect to decision space dimensions, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 956–963, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [132] LEAL, L., LEMOS, M., HOLANDA, R., RABELO, R., and BORGES, F., A hybrid approach based on genetic fuzzy systems for wireless sensor networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 964–971, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [133] LI, B., LI, X., MABU, S., and HIRASAWA, K., Variable size genetic network programming with binomial distribution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 972–979, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [134] WU, Y., MCCALL, J., and CORNE, D., Fitness landscape analysis of bayesian network structure learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 980–987, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [135] MUEHLEISEN, H., WALTHER, T., and TOLKSDORF, R., Multi-level indexing in a distributed self-organized storage system, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 988–993, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [136] PETERSON, G., MAYER, C., and COUSIN, K., Wolf ant, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 994–1001, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [137] ISLAM, M. K., CHETTY, M., and MURSHED, M., Novel local improvement techniques in clustered memetic algorithm for protein structure prediction, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1002–1010, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [138] CHOWDHURY, A. R. and CHETTY, M., An improved method to infer gene regulatory network using s-system, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1011–1018, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [139] CORNS, S., On the effects of graph based evolutionary algorithms for training finite state classifiers, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1019–1025, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [140] LATORRE, A., MUELAS, S., and PENA, J.-M., Benchmarking a hybrid de-rhc algorithm on real world problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1026–1032, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [141] ELSAYED, S., SARKER, R., and ESSAM, D., Ga with a new multi-parent crossover for solving ieee-cec2011 competition problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1033–1039, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [142] ELSAYED, S., SARKER, R., and ESSAM, D., Differential evolution with multiple strategies for solving cec2011 real-world numerical optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1040–1047, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [143] SAHA, A. and RAY, T., How does the good old genetic algorithm fare at real world optimization?, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1048–1055, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [144] ASAFUDDOULA, M., RAY, T., and SARKER, R., An adaptive differential evolution algorithm and its performance on real world optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1056–1061, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [145] ASHLOCK, D., KUUSELA, C., and COJOCARU, M., Shopkeeper strategies in the iterated prisoner’s dilemma, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1062–1069, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [146] PARKER, G. and FRITZSCHE, P., Fitness biasing for evolving an xpilot combat agent, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1070–1075, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [147] DZIUK, A. and MIIKKULAINEN, R., Creating intelligent agents through shaping of coevolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1076–1082, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [148] AVERY, P., TOGELIUS, J., ELVIS, A., and van Leeuwen, R. P., Computational intelligence and tower defence games, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1083–1090, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [149] LIANG, F., YEW-SOON, O., AH-HWEE, T., and XIAN-SHUN, C., Towards human-like social multi-agents with memetic automaton, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1091–1098, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [150] CARINA, V., GEOFF, N., and van Heerden, W., Evolution of a fictional dialogue, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1099–1106, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [151] ASHLOCK, D. and BROWN, J., Fitness functions for searching the mandelbrot set, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1107–1114, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [152] BROWN, J. A., ASHLOCK, D., HOUGHTEN, S., and ORTH, J., Autogeneration of fractal photographic mosaic images, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1115–1122, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [153] FERNANDES, C. M., ISIDORO, C., BARATA, F., ROSA, A. C., and MERELO, J. J., From pherographia to color pherographia - color sketching with artificial ants, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1123–1130, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [154] NAIRAT, M., DAHLSTEDT, P., and NORDAHL, M., Character evolution approach to generative storytelling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1131–1136, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [155] SEGREDO, E., SEGURA, C., and LEON, C., A multiobjectivised memetic algorithm for the frequency assignment problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1137–1144, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [156] COIA, C. and ROSS, B., Automatic evolution of conceptual building architectures, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1145–1152, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [157] THILLAINATHAN, L. and SRINIVASAN, D., Lrga for solving profit based generation scheduling problem in competitive environment, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1153–1159, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [158] HINGSTON, P. and PREUSS, M., Red teaming with coevolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1160–1168, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [159] BARRERO, D. F., R-MORENO, M., CASTANO, B., and CAMACHO, D., An empirical study on the accuracy of computational effort in genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1169–1176, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [160] ALESHUNAS, J. and JANIKOW, C., Cost-benefit analysis of using heuristics in acgp, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1177–1183, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [161] NGUYEN, T. H., NGUYEN, X. H., and MCKAY, R. I., A study on genetic programming with layered learning and incremental sampling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1184–1190, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [162] DOWNEY, C. and ZHANG, M., Execution trace caching for linear genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1191–1198, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [163] TOLEDO, C., OLIVEIRA, R., and FRANCA, P., A hybrid heuristic approach to solve the multi level capacitated lot sizing problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1199–1206, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [164] PILAT, M. and NERUDA, R., Asm-moma: Multiobjective memetic algorithm with aggregate surrogate model, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1207–1213, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [165] HANDOKO, S. D., KWOH, C. K., ONG, Y. S., and CHAN, J., Classification-assisted memetic algorithms for solving optimization problems with restricted equality constraint function mapping, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1214–1221, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [166] CRUZ, A., CARDOSO, R., WANNER, E., and TAKAHASHI, R., Using convex quadratic approximation as a local search operator in evolutionary multiobjective algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1222–1229, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [167] ALI, M., SALHIEH, A., SNAINEH, R. A., and REYNOLDS, R., Boosting cultural algorithms with an incongruous layered social fabric influence function, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1230–1237, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [168] REYNOLDS, R. and LIU, D., Multi-objective cultural algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1238–1246, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [169] COELHO, G., de Franca, F., and Von Zuben, F. J., A concentration-based artificial immune network for combinatorial optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1247–1254, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [170] CASTRO, P. and Von Zuben, F. J., Training multilayer perceptrons with a gaussian artificial immune system, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1255–1262, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [171] ANTONAKOPOULOS, K. and TUFTE, G., A common genetic representation capable of developing distinct computational architectures, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1263–1270, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [172] STEINER, T. and SENDHOFF, B., Evolvability of graph- and vector field embryogeny representations, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1271–1278, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [173] ESKRIDGE, B., Extrapolation of regularity using indirect encodings, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1279–1286, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [174] TSANG, H. H. and JACOB, C., Rnadbcompare: An algorithm for comparing rna secondary structures based on image processing techniques, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1287–1294, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [175] MARCO, D., CAIRNS, D., and SHANKLAND, C., Optimisation of process algebra models using evolutionary computation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1295–1300, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [176] SALEKDEH, A. Y. and WIESE, K. C., Improving splice-junctions classification employing a novel encoding schema and decision-tree, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1301–1306, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [177] AMARAL, L. and HRUSCHKA, E., Transgenic, an operator for evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1307–1313, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [178] WANG, Y., LI, B., and ZHANG, K., Estimation of distribution and differential evolution cooperation for real-world numerical optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1314–1320, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [179] SINGH, H. K. and RAY, T., Performance of a hybrid ea-de-memetic algorithm on cec 2011 real world optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1321–1325, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [180] KOROSEK, P. and SILC, J., The continuous differential ant-stigmergy algorithm applied to real-world optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1326–1333, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [181] BANDARU, S., TULSHYAN, R., and DEB, K., Modified sbx and adaptive mutation for real world single objective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1334–1341, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [182] SCHAUL, T., SUN, Y., WIERSTRA, D., GOMEZ, F., and SCHMIDHUBER, J., Curiosity-driven optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1342–1348, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [183] COBOS, C., MENDOZA, M., and LEON, E., A hyper-heuristic approach to design and tuning heuristic methods for web document clustering, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1349–1357, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [184] FALCON, R., ALMEIDA, M., and NAYAK, A., Fault identification with binary adaptive fireflies in parallel and distributed systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1358–1365, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [185] CHICA, M., CORDON, O., and DAMAS, S., Tackling the 1/3 variant of the time and space assembly line balancing problem by means of a multiobjective genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1366–1373, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [186] ABEGAZ, T., DOZIER, G., BRYANT, K., ADAMS, J., SHELTON, J., et al., Ssga and eda based feature selection and weighting for face recognition, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1374–1380, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [187] COSTA, B. C., ALMEIDA, P. E. M., and CALDEIRA, E., Traffic lights timing inside microregion simulator using multiobjective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1381–1386, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [188] MENZEL, S., Evolvable free-form deformation control volumes for evolutionary design optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1387–1394, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [189] MORITZ, R., ULRICH, T., THIELE, L., and BUERKLEN, S., Mutation operator characterization: Exhaustiveness, locality, and bias, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1395–1402, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [190] HILL, S. and O’RIORDAN, C., Examining the use of a non-trivial fixed genotype-phenotype mapping in genetic algorithms to induce phenotypic variability over deceptive uncertain landscapes, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1403–1410, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [191] DYMOND, A., ENGELBRECHT, A. P., and HEYNS, S., The sensitivity of single objective optimization algorithm control parameter values under different computational constraints, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1411–1418, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [192] IOANNIDES, C., EDER, K., and BARRETT, G., Improving xcs performance on overlapping binary problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1419–1426, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [193] PREEN, R. J. and BULL, L., Arithmetic dynamical genetic programming in the xcsf learning classifier system, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1427–1434, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [194] SONSTROD, C., JOHANSSON, U., and KONIG, R., Evolving accurate and comprehensible classification rules, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1435–1442, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [195] JOHANSSON, U., SONSTROD, C., and LOFSTROM, T., One tree to explain them all, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1443–1450, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [196] YOON, J.-W. and CHO, S.-B., An efficient genetic algorithm with fuzzy c-means clustering for traveling salesman problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1451–1455, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [197] AZUMA, R. M., COELHO, G., and Von Zuben, F. J., Evolutionary multi-objective optimization for the vendor-managed inventory routing problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1456–1463, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [198] ISHIBUCHI, H., AKEDO, N., OHYANAGI, H., and NOJIMA, Y., Behavior of emo algorithms on many-objective optimization problems with correlated objectives, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1464–1471, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [199] CHIANG, T.-C. and LAI, Y.-P., Moea/d-ams: Improving moea/d by an adaptive mating selection mechanism, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1472–1479, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [200] ADAM, G. and ZBIGNIEW, M., Using cellular evolution for diversification of the balance between accurate and interpretable fuzzy knowledge bases for classification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1480–1487, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [201] CHUAN, S., ZHENYU, Y., XIN, P., YANAN, C., and BIN, W., Multi-objective decisionmaking in the detection of comprehensive community structures, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1488–1494, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [202] ERGEZER, M. and SIMON, D., Oppositional biogeography-based optimization for combinatorial problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1495–1502, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [203] GRAHAM, L., BORBONE, J., and PARKER, G., Comparison of a greedy selection operator to tournament selection and a hill climber, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1503–1507, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [204] PARKER, G. and TARIMO, W., The effects of using a greedy factor in hexapod gait learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1508–1513, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [205] HANDA, H., Dimensionality reduction of scene and enemy information in mario, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1514–1519, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [206] ALLEN, M. and FRITZSCHE, P., Reinforcement learning with adaptive kanerva coding for xpilot game ai, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1520–1527, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [207] PARKER, G., TARIMO, W., and CANTOR, M., Quadruped gait learning using cyclic genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1528–1533, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [208] HANCOCK, D. and LAMONT, G., Multi agent system for network attack classification using flow-based intrusion detection, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1534–1541, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [209] ALSHAMMARI, R. and ZINCIR-HEYWOOD, A. N., Is machine learning losing the battle to produce transportable signatures against voip traffic?, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1542–1549, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [210] REYNOSO-MEZA, G., SANCHIS, J., BLASCO, X., and HERRERO, J. M., Hybrid de algorithm with adaptive crossover operator for solving real-world numerical optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1550–1555, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [211] MALLIPEDDI, R. and PONNUTHURAI, N. S., Ensemble differential evolution algorithm for cec2011 problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1556–1563, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [212] ANKUSH, M., DAS, A. K., MUKHERJEE, P., DAS, S., and SUGANTHAN, P. N., Modified differential evolution with local search algorithm for real world optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1564–1571, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [213] ECHEGOYEN, C., ZHANG, Q., MENDIBURU, A., SANTANA, R., and LOZANO, J. A., On the limits of effectiveness in estimation of distribution algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1572–1579, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [214] MALAGO', L., MATTEUCCI, M., and VALENTINI, G., Introducing l1-regularized logistic regression in markov networks based edas, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1580–1587, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [215] VALDES, J. J., CHEUNG, C., and WANG, W., Evolutionary computation methods for helicopter loads estimation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1588–1595, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [216] ZHOU, L., ZHOU, A., ZHANG, G., and SHI, C., An estimation of distribution algorithm based on nonparametric density estimation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1596–1603, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [217] LOPEZ-JAIMES, A., ARIAS-MONTANO, A., and Coello Coello, C. A., Preference incorporation to solve many-objective airfoil design problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1604–1611, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [218] WALSH, P. and GADE, P., The use of an aesthetic measure for the evolution of fractal landscapes, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1612–1618, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [219] AWAD, M. and De Jong, K., Optimization of spectral signature selection using multi-objective genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1619–1626, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [220] TOMFORDE, S., BRAMESHUBER, A., HAEHNER, J., and MUELLER-SCHLOER, C., Restricted on-line learning in real-world systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1627–1634, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [221] WEI, J. and ZHANG, M., A memetic particle swarm optimization for constrained multi-objective optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1635–1642, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [222] CHU, W., GAO, X., and SOROOSHIAN, S., Fortify particle swarm optimizer (pso) with principal components analysis—an example in improving bound-handling for optimizing high-dimensional and complex problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1643–1647, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [223] SEREN, C., A hybrid jumping particle swarm optimization method for high dimensional unconstrained discrete problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1648–1655, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [224] MONSON, C., Simple adaptive cognition for pso, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1656–1663, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [225] HWANG, J.-W., LEE, Y.-S., and CHO, S.-B., Structure evolution of dynamic bayesian network for traffic accident detection, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1664–1670, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [226] ABRAMSON, M., WILL, I., and MITTU, R., Hybrid tuning of an evolutionary algorithm for sensor allocation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1671–1677, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [227] CHIANG, W.-C., CAI, G., XU, X., MUDUNURI, G., and ZHU, W., Two-stage tabu - particle swarm algorithms for the facility layout problem with size constraints, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1678–1685, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [228] LATORRE, A., MUELAS, S., PENA, J.-M., SANTANA, R., and MERCHAN-PEREZ, A., A differential evolution algorithm for the detection of synaptic vesicles, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1686–1693, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [229] LEPAGNOT, J., NAKIB, A., OULHADJ, H., and SIARRY, P., Brain cine mri segmentation based on a multiagent algorithm for dynamic continuous optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1694–1701, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [230] ABELLO, M., BUI, L. T., and MICHALEWICZ, Z., An adaptive approach for solving dynamic scheduling with time-varying number of tasks - part i, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1702–1709, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [231] RUDOLPH, G., On geometrically fast convergence to optimal dominated hypervolume of set-based multiobjective evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1718–1722, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [232] HE, Z. and YEN, G., An ensemble method for performance metrics in multiobjective evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1723–1728, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [233] SHELOKAR, P., ARNAUD, Q., and OSCAR, C., Subgraph mining in graph-based data using multiobjective evolutionary programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1729–1736, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [234] YEN, L. T. X., SHARMA, D., SRINIVASAN, D., and MANJI, P. N., A modified hybrid particle swarm optimization approach for unit commitment, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1737–1744, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [235] ZHANG, H., Assessment of an evolutionary particle swarm optimizer with inertia weight, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1745–1752, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [236] ZHANG, H., An analysis of multiple particle swarm optimizers with inertia weight with diversive curiosity, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1753–1760, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [237] TJIONG, A. and MONTEIRO, S., Feature selection with pso and kernel methods for hyperspectral classification, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1761–1768, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [238] HUO, C.-L., LAI, T.-Y., and SUN, T.-Y., The preliminary study on multi-swarm sharing particle swarm optimization: Applied to uav path planning problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1769–1775, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [239] LI, J., ZHENG, C., and HU, X., A hypervolume based approach for minimal visual coverage shortest path, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1776–1783, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [240] HSIEH, M.-N., CHIANG, T.-C., and FU, L.-C., A hybrid constraint handling mechanism with differential evolution for constrained multiobjective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1784–1791, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [241] SHIRASAKI, Y., SHIMOMURA, S., SUGIMOTO, M., UWATE, Y., and NISHIO, Y., Effectiveness of guidepost pheromone for honeybee colony optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1792–1797, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [242] YE, Z. and MOHAMADIAN, H., Strengthen accuracy of feature recognition via integration of ant colony detection and adaptive contour tracking, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1798–1803, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [243] NIEN LIN, C., HUO, C.-L., LIN, S.-Y., YU, Y.-H., and SUN, T.-Y., Taguchi-based disturbance with tournament selection to improve on mopso, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1804–1809, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [244] TSUJIMOTO, T., SHINDO, T., and JIN’NO, K., The neighborhood of canonical deterministic pso, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1810–1816, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [245] HUANG, Y.-H. and TING, C.-K., Genetic algorithm with path relinking for the multi-vehicle selective pickup and delivery problem, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1817–1824, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [246] KHAIRY, M., FAYEK, M. B., and HEMAYED, E. E., Pso2: Particle swarm optimization with pso-based local search, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1825–1831, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [247] HSIEH, S.-T., CHIU, S.-Y., and YEN, S.-J., Sharing mutation genetic algorithm for solving multi-objective optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1832–1838, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [248] MORSHED, N. and CHETTY, M., Reconstructing genetic networks with concurrent representation of instantaneous and time-delayed interactions, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1839–1846, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [249] MOUSAVI, M., HOQUE, S., RAHNAMAYAN, S., DINCER, I., and NATERER, G. F., Optimal design of an air-cooling system for a li-ion battery pack in an electric vehicle with a genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1847–1854, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [250] BENKHELIFA, E., TIWARI, A., De Rueda, A. G., and MONIRI, M., Evolutionary multi-objective design optimisation of energy harvesting mems: The case of a piezoelectric, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1855–1862, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [251] ZHANG, J., CHEN, S., LEVY, D., and LU, Y., Feedback loop mechanisms based particle swarm optimization with neighborhood topology, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1863–1870, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [252] MOJICA-NAVA, E. and QUIJANO, N., A replicator dynamics weighted control technique for a dc-dc converter, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1871–1877, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [253] SHI, E. C., LEUNG, F. H., and LAI, J. C., An adaptive differential evolution with unsymmetrical mutation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1878–1885, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [254] CHEN, P.-L., YANG, M.-C., and SUN, T.-Y., Pso-based on-line tuning pid controller for setpoint changes and load disturbance, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1886–1893, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [255] PARRACHO, P., NEVES, R., and HORTA, N., Trading with optimized uptrend pattern template using a genetic algorithm kernel, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1894–1900, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [256] LUNG, R. I. and DUMITRESCU, D., A new evolutionary approach to minimax problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1901–1904, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [257] LIN LIU, H. and GU, F., A improved nsga-ii algorithm based on sub-regional search, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1905–1910, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [258] NETO, A. F., CANUTO, A., GOLDBARG, E., and GOLDBARG, M., Optimization techniques for the selection of members and attributes in ensemble systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1911–1918, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [259] OLIVEIRA, P. and INTERCISO, M., Ternary representation improves the search for binary, one-dimensional density classifier cellular automata, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1919–1925, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [260] SCOLA, L., NETO, O., TAKAHASHI, R., and CERQUEIRA, S., Multi-objective optimal multiple reservoir operation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1926–1932, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [261] LEGUIZAMON, G. and Coello Coello, C. A., A multi-region differential evolution algorithm for continuous optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1933–1939, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [262] GHOSH, S., ROY, S., SWAGATAM, D., AJITH, A., and MINHAZUL, I., Peak-to-average power ratio reduction in ofdm systems using an adaptive differential evolution algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1940–1948, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [263] ISLAM, M., GHOSH, S., DAS, S., ABRAHAM, A., and ROY, S., A modified discrete differential evolution based tdma scheduling scheme for many to one communications in wireless sensor networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary*

- Computation*, pp. 1949–1956, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [264] LANDASSURI-MORENO, V. M. and BULLINARIA, J. A., Biasing the evolution of modular neural networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1957–1964, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [265] POLUSHINA, T. and SOFRONOV, G., Change-point detection in biological sequences via genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1965–1970, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [266] MALLIPEDDI, R., IACCA, G., PONNUTHURAI, N. S., NERI, F., and MININNO, E., Ensemble strategies in compact differential evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1971–1976, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [267] HERNANDEZ, J. and TOSCANO-PULIDO, G., A comparison on the search of particle swarm optimization and differential evolution on multi-objective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1977–1984, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [268] LU, X., TANG, K., and YAO, X., Classification-assisted differential evolution for computationally expensive problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1985–1992, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [269] PRAMPERO, P. S. and ATTUX, R., Magnetic particle swarm optimization with estimation of distribution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 1993–2000, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [270] SHABAN-NEJAD, A. and HAARSLEV, V., An abstract representation model for evolutionary analysis of multi-agent interactions, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2001–2008, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [271] GREENWOOD, G. and CHOPRA, S., A numerical analysis of the evolutionary iterated snowdrift game, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2009–2015, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [272] FERNANDEZ-ARES, A., MORA, A. M., MERELO, J. J., GARCIA-SANCHEZ, P., and FERNANDES, C., Optimizing player behavior in a real-time strategy game using evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2016–2023, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [273] ELLEFSEN, K. O., Dynamic robot scheduling using a genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2024–2031, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [274] AZEVEDO, C. and ARAUJO, A., Generalized immigration schemes for dynamic evolutionary multiobjective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2032–2039, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
 - [275] HELBIG, M. and ENGELBRECHT, A. P., Archive management for dynamic multi-objective optimisation problems using vector evaluated particle swarm optimisation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2040–2047, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [276] COULTER, D. and EHLERS, E., Biologically inspired obsolescence management in mobile agent systems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2048–2055, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [277] ALFORD, A., HANSEN, C., DOZIER, G., BRYANT, K., KELLY, J., et al., Gec-based multi-biometric fusion, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2056–2059, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [278] DIAS, D., SINGULANI, A., PACHECO, M. A., SOUZA, P., PIRES, M., et al., Self-assembly quantum dots growth prediction by quantum-inspired linear genetic programming, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2060–2067, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [279] ROEDLAND, T. A. L., Classifying glyphs by combining evolution and learning, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2068–2075, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [280] YU, J. J., LAM, A. Y., and LI, V. O., Evolutionary artificial neural network based on chemical reaction optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2076–2083, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [281] UEMURA, K., ICHI KINOSHITA, S., NAGATA, Y., KOBAYASHI, S., and ONO, I., A new framework taking account of multi-funnel functions for real-coded genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2084–2091, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [282] HERBAWI, W. and WEBER, M., Comparison of multiobjective evolutionary algorithms for solving the multiobjective route planning in dynamic multi-hop ridesharing, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2092–2099, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [283] DAVARYNEJAD, M., REZAEI, J., VRANCKEN, J., van den Berg, J., and Coello Coello, C. A., Accelerating convergence towards the optimal pareto front, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2100–2107, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [284] GARZA-FABRE, M., TOSCANO-PULIDO, G., Coello Coello, C. A., and RODRIGUEZ-TELLO, E., Effective ranking + speciation = many-objective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2108–2115, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [285] SAHA, A., RAY, T., and SMITH, W., Towards practical evolutionary robust multi-objective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2116–2123, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [286] MCCLYMONT, K. and KEEDWELL, E., Benchmark multi-objective optimisation test problems with mixed encodings, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2124–2131, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [287] LOCKETT, A. and MIKKULAINEN, R., Measure-theoretic evolutionary annealing, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2132–2139, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [288] EMMERICH, M., DEUTZ, A., and KLINKENBERG, J. W., Hypervolume-based expected improvement: Monotonicity properties and exact computation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2140–2147, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [289] DIAZ-MANRIQUEZ, A., TOSCANO-PULIDO, G., and GOMEZ-FLORES, W., On the selection of surrogate models in evolutionary optimization algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2148–2155, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [290] SPANGENBERG, J., TUTUM, C. C., HATTEL, J. H., ROUSSEL, N., and GEIKER, M. R., Optimization of casting process parameters for homogeneous aggregate distribution in self-compacting concrete: A feasibility study, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2156–2162, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [291] TRIVEDI, A., M.PINDORIYA, N., SRINIVASAN, D., and SHARMA, D., Improved multi-objective evolutionary algorithm for day-ahead thermal generation scheduling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2163–2170, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [292] MADEIRO, S., GALVAO, E., CAVELLUCCI, C., LYRA, C., and Von Zuben, F. J., Simultaneous capacitor placement and reconfiguration for loss reduction in distribution networks by a hybrid genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2171–2178, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [293] LIU, H. and QIU, A., Space active noise control system design with multi-objective genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2179–2185, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [294] AMIRI, B., HOSSAIN, L., and CRAWFORD, J. W., An efficient multiobjective evolutionary algorithm for community detection in social networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2186–2192, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [295] CHIRA, C. and GOG, A., Fitness evaluation for overlapping community detection in complex networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2193–2199, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [296] NARUCHITPARAMES, J., GUNES, M., and LOUIS, S., Friend recommendations in social networks using genetic algorithms and network topology, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2200–2207, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [297] TAKAHAMA, T. and SAKAI, S., Efficient nonlinear optimization by differential evolution with a rotation-invariant local sampling operation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2208–2215, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [298] CHAKRABORTY, U., DAS, S., and ABBOTT, T., Clustering in mobile ad hoc networks with differential evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2216–2221, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [299] NOMAN, N., BOLLEGALA, D., and IBA, H., An adaptive differential evolution algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2222–2229, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [300] ADRA, S., KIRAN, M., MCMINN, P., and WALKINSHAW, N., A multiobjective optimisation approach for the dynamic inference and refinement of agent-based model specifications, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2230–2237, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [301] SHIRAZI, A. S., von Mammen, S., and JACOB, C., Hierarchical self-organized learning in agent-based modeling of the mapk signaling pathway, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2238–2244, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [302] AL-KHATEEB, B. and KENDALL, G., The importance of look-ahead depth in evolutionary checkers, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2245–2251, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [303] WANG, L., MABU, S., and HIRASAWA, K., Genetic network programming with updating rule accumulation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2252–2259, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [304] GOULART, N., DIAS, L., SOUZA, S., and NORONHA, T., Biased random-key genetic algorithm for fiber installation in optical network optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2260–2264, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [305] ROCHA, M., SA, T., SOUSA, P., CORTEZ, P., and RIO, M., Multiobjective evolutionary algorithms for intradomain routing optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2265–2272, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [306] HUI ZHONG, J. and ZHANG, J., Energy-efficient local wake-up scheduling in wireless sensor networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2273–2277, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [307] SCHROEDER, A., WRZODEK, C., WOLLNIK, J., DRAEGER, A., WANKE, D., et al., Inferring transcriptional regulators for sets of co-expressed genes by multi-objective evolutionary optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2278–2285, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [308] MILLER, C., MOORE, F., BABB, B., and PETERSON, M., Improved reconstruction of quantized ct scans via genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2286–2292, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [309] CHIRA, C., A hybrid evolutionary approach to protein structure prediction with lattice models, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2293–2299, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [310] GARZA-FABRE, M., RODRIGUEZ-TELLO, E., and TOSCANO-PULIDO, G., Comparing alternative energy functions for the hp model of protein structure prediction, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2300–2307, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [311] KESSENTINI, S., BARCHIESI, D., GROSGES, T., and de la Chapelle, M. L., Particle swarm optimization and evolutionary methods for plasmonic biomedical applications, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2308–2313, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [312] PASTI, R., MAIA, R. D., Von Zuben, F. J., and de Castro, L. N., Heuristics to avoid redundant solutions on population-based multimodal continuous optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2314–2321, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [313] BUI, L. T., ABBASS, H., BAKER, S., BARLOW, M., and BENDER, A., A grid-based heuristic for two-dimensional packing problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2322–2329, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [314] GROBLER, J., ENGELBRECHT, A. P., KENDALL, G., and YADAVALLI, V., Investigating the impact of alternative evolutionary selection strategies on multi-method global optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2330–2337, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [315] ALIMADAD, A., DABBAGHIAN, V., SINGH, S., and TSANG, H. H., Modeling hiv spread through sexual contact using a cellular automaton, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2338–2343, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [316] LEGRIEL, J., COTTON, S., and MALER, O., On universal search strategies for multi-criteria optimization using weighted sums, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2344–2351, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [317] BATISTA, L., CAMPELO, F., GUIMARAES, F., and RAMIREZ, J., A comparison of dominance criteria in many-objective optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2352–2359, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [318] MARTINEZ, S. Z., ARIAS-MONTANO, A., and Coello Coello, C. A., A nonlinear simplex search approach for multi-objective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2360–2367, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [319] HAMADA, N., NAGATA, Y., KOBAYASHI, S., and ONO, I., Adaptive weighted aggregation 2: More scalable awa for multiobjective function optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2368–2375, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [320] ZENG, F., JAMES, D., LOW, M. Y. H., CAI, W., and HINGSTON, P., Studies of pareto-based multi-objective competitive coevolutionary dynamics, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2376–2383, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [321] ROTHMAN, D., LUKE, S., and SULLIVAN, K., Do multiple trials help univariate methods?, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2384–2391, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [322] LY, D. and LIPSON, H., Trainer selection strategies for coevolving rank predictors, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2392–2399, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [323] IBRAHIMOV, M., MOHAIS, A., SCHELLENBERG, S., and MICHALEWICZ, Z., Comparison of different evolutionary algorithms for global supply chain optimisation and parameter analysis, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2400–2407, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [324] WEN, Y. and XU, H., A cooperative coevolution-based pittsburgh learning classifier system embedded with memetic feature selection, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2408–2415, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [325] DUMAS, L., RHABI, M. E., and ROCHEFORT, G., An evolutionary approach for blind deconvolution of barcode images with nonuniform illumination, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2416–2421, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [326] SALMANI-JELODAR, M., STEIGER, S., PAUL, A., and KLIMECK, G., Model development for lattice properties of gallium arsenide using parallel genetic algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2422–2428, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [327] N., M. R. R. and KOBTI, Z., A machine operation lists based memetic algorithm for job shop scheduling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2429–2436, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [328] BRAUN, J., KRETTEK, J., HOFFMANN, F., and BERTRAM, T., Structure and parameter identification of nonlinear systems with an evolution strategy, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2437–2444, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [329] WANG, Y., BIN, L., ZHEN, H., and KAIBO, Z., Enhancing differential evolution with effective evolutionary local search in memetic framework, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2445–2452, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [330] KIA, H. S. and CRISTINEL, A., A new fault-tolerant and congestion-aware adaptive routing algorithm for regular networks-on-chip, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2453–2460, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [331] XING, Y., MABU, S., and HIRASAWA, K., Pruning generalized rules for stock markets accumulated by genetic network programming with rule accumulation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2461–2467, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [332] CHUANG, Y.-C. and CHEN, C.-T., A study on real-coded genetic algorithm for process optimization using ranking selection, direction-based crossover and dynamic mutation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2468–2475, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [333] LI, H. and WANG, Y., A real-binary coded genetic algorithm for solving nonlinear bilevel programming with nonconvex objective functions, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2476–2480, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [334] SHINDO, T., KURIHARA, T., TAGUCHI, H., and JIN'NO, K., Particle swarm optimization for single phase pwm inverters, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2481–2485, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [335] KI-BAEK, L. and JONG-HWAN, K., Multi-objective particle swarm optimization with preference-based sorting, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2486–2493, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [336] ZHONG, W., ZHANG, Y., and LIU, J., Evolutionary dynamics of continuous strategy games on social networks under weak selection: A preliminary study, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2494–2498, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [337] SRINIVASAN, D. and LY, T. T., Co-evolutionary bidding strategies for buyers in electricity power markets, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2499–2506, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [338] SHARMA, D., SRINIVASAN, D., and TRIVEDI, A., Multi-agent approach for profit based unit commitment, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2507–2513, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [339] NAMURA, N., SHIMOYAMA, K., JEONG, S., and OBAYASHI, S., Kriging/rbf-hybrid response surface method for highly nonlinear functions, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2514–2521, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [340] FANG JI, X., WEI GONG, D., and PING MA, X., Solving optimization problems with intervals and hybrid indices using evolutionary algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2522–2529, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [341] MASUDA, K., YOKOTA, H., and KURIHARA, K., An empirical study on the search directions of differential evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2530–2537, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [342] KUDO, F., TOMOHIRO, Y., and TAKESHI, F., A study on analysis of design variables in pareto solutions for conceptual design optimization problem of hybrid rocket engine, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2538–2542, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [343] ZHAN, Z. and ZHANG, J., Orthogonal learning particle swarm optimization for power electronic circuit optimization with free search range, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2543–2550, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [344] Fernandez de Vega, F., Chavez de la O, F., FERNANDEZ, R. A., and TRIGUERO, F. H., Musical genre classification by means of fuzzy rules based systems: A preliminary approach, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2551–2557, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [345] KAMEYA, Y. and PRAYOONSRI, C., Pattern-based preservation of building blocks in genetic algorithms, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2558–2565, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [346] AHMADI-JAVID, A., Anarchic society optimization: A human-inspired method, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2566–2572, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [347] SERIDI, K., JOURDAN, L., and TALBI, E.-G., Multi-objective evolutionary algorithm for biclustering in microarrays data, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2573–2579, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [348] CHEN, Z. and LUO, P., Qisa: Incorporating quantum computation into simulated annealing for optimization problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2580–2587, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [349] LIMA, N. and LUDERMIR, T., Frankenstein pso applied to neural network weights and architectures, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2588–2592, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [350] CELEBI, R. and KILIC, H., Mobile prisoner’s dilemma game played on diverse habitats, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2593–2597, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [351] LI, S. and YUAN, J., The modularity in freeform evolving neural networks, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2598–2603, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [352] KIM, E.-S., HA, J.-W., JUNG, W. H., JANG, J. H., KWON, J. S., et al., Mutual information-based evolution of hypernetworks for brain data analysis, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2604–2610, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [353] ELSAYED, S., SARKER, R., and ESSAM, D., Integrated strategies differential evolution algorithm with a local search for constrained optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2611–2618, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [354] WANG, H., RAHNAMAYAN, S., and WU, Z., Adaptive differential evolution with variable population size for solving high-dimensional problems, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2619–2625, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [355] NOMAN, N. and IBA, H., Solving dynamic economic dispatch problems using cellular differential evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2626–2633, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [356] ESMAILZADEH, A. and RAHNAMAYAN, S., Enhanced differential evolution using center-based sampling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2634–2641, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [357] NAGY, R., DUMITRESCU, D., and LUNG, R. I., Fuzzy equilibria for games involving $n > 2$ players, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2642–2648, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [358] SANCHEZ, E., SQUILLERO, G., and TONDA, A., Group evolution: Emerging synergy through a coordinated effort, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2649–2655, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [359] MERELO, J. J., MORA, A. M., and COTTA, C., Optimizing worst-case scenario in evolutionary solutions to the mastermind puzzle, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2656–2663, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [360] KNITTEL, A. and BOSSOMAIER, T., Formation and activation of feature hierarchies under reinforcement, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2664–2671, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [361] ASHLOCK, D., SCHONFELD, J., and MCNICHOLAS, P., Translation tables: A genetic code in an evolutionary algorithm, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2672–2679, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [362] LEHMAN, J. and STANLEY, K., Improving evolvability through novelty search and self-adaptation, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2680–2687, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [363] de Bruyn, K., NITSCHKE, G., and van Heerden, W., Evolutionary algorithms and particle swarm optimization for artificial language evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2688–2695, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [364] DORN, M., BURIOL, L. S., and LAMB, L. C., A hybrid genetic algorithm for the 3-d protein structure prediction problem using a path-relinking strategy, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2696–2703, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [365] OH, I. S., LEE, Y.-G., and MCKAY, R. I., Simulating chemical evolution, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2704–2711, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [366] ALFORD, A., POPPLEWELL, K., DOZIER, G., BRYANT, K., KELLY, J., et al., A comparison of gec-based feature selection and weighting for multimodal biometric recognition, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2712–2715, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [367] KUMAR, P., SKINNER, S., and SAHAR, D., Nearest-neighbor architecture to overcome the effects of qubit precessions on gate operations, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2716–2721, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [368] LEE, J.-H., LEE, B., KIM, J. S., DEATON, R., and ZHANG, B.-T., A molecular evolutionary algorithm for learning hypernetworks on simulated dna computers, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2722–2729, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [369] Paper not in the database, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [370] AZEVEDO, C. and ARAUJO, A., Correlation between diversity and hypervolume in evolutionary multiobjective optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2730–2737, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [371] EPPE, S., LOPEZ-IBANEZ, M., STUETZLE, T., and De Smet, Y., An experimental study of preference model integration into multi-objective optimization heuristics, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2738–2745, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [372] TANTAR, E., TANTAR, A.-A., and PASCAL, B., On dynamic multi-objective optimization, classification and performance measures, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2746–2753, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [373] XIONG, J., LIU, J., CHEN, Y., and ABBASS, H., An evolutionary multi-objective scenario-based approach for stochastic resource investment project scheduling, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2754–2761, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [374] MUNOZ, D., LLANOS, C., COELHO, L., and AYALA, M., Opposition-based shuffled pso with passive congregation applied to fm matching synthesis, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2762–2768, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.
- [375] BANDARU, S., TUTUM, C. C., DEB, K., and HATTEL, J. H., Higher-level innovization: A case study from friction stir welding process optimization, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2769–2776, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.

- [376] SAKURAI, Y., TAKADA, K., TSUKAMOTO, N., ONOYAMA, T., KNAUF, R., et al., A simple optimization method based on backtrack and ga for delivery schedule, in SMITH, A. E., editor, *Proceedings of the 2011 IEEE Congress on Evolutionary Computation*, pp. 2777–2784, New Orleans, USA, 2011, IEEE Computational Intelligence Society, IEEE Press.