## Список литературы

- [Acan(2004)] Acan, A. (2004) Clonal selection algorithm with operator multiplicity. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1909–1915, IEEE Press, Portland, Oregon.
- [Aguirre & Tanaka(2004a)] Aguirre, H. & Tanaka, K. (2004a) Effects of elitism and population climbing on multiobjective mnk-landscapes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 449–456, IEEE Press, Portland, Oregon.
- [Aguirre & Tanaka(2004b)] Aguirre, H. & Tanaka, K. (2004b) Insights on properties of multiobjective mnk-landscapes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 196–203, IEEE Press, Portland, Oregon.
- [Aldasht et al.(2004)Aldasht, Ortega, Puntonet & Diaz] Aldasht, M., Ortega, J., Puntonet, C.G. & Diaz, A.F. (2004) A genetic exploration of dynamic load balancing algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1158–1163, IEEE Press, Portland, Oregon.
- [Aleti & de Garis(2004)] Aleti, S.H. & de Garis, H. (2004) Evolutionary algorithms based on machine learning accelerate mathematical function optimization but not neural net evolution. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1172–1177, IEEE Press, Portland, Oregon.
- [Alkhalifah & Wainwright (2004)] Alkhalifah, Y. & Wainwright, R. (2004) A genetic algorithm applied to graph problems involving subsets of vertices. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 303–308, IEEE Press, Portland, Oregon.
- [Anderson et al.(2004)Anderson, Bonabeau & Scott] Anderson, C., Bonabeau, E. & Scott, J. (2004) Evolutionary testing as both a testing and redesign tool: a study of a shipboard firemain's valve and pump controls. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1089–1097, IEEE Press, Portland, Oregon.
- [Ando & Iba(2004)] Ando, S. & Iba, H. (2004) Estimation of gene network using real-coded ga and robustness analysis. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 827–834, IEEE Press, Portland, Oregon.
- [Annaluru et al.(2004)Annaluru, Das & Pahwa] Annaluru, R., Das, S. & Pahwa, A. (2004) Multi-level ant colony algorithm for optimal placement of capacitors in distribution systems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1932–1937, IEEE Press, Portland, Oregon.
- [Arnold(2004)] Arnold, D. (2004) An analysis of evolutionary gradient search. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 47–54, IEEE Press, Portland, Oregon.
- [Ashburn & Bonabeau(2004)] Ashburn, T. & Bonabeau, E. (2004) Interactive inversion of financial markets agent-based models. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 522–529, IEEE Press, Portland, Oregon.
- [Ashlock & Bryden(2004)] Ashlock, D. & Bryden, K. (2004) Evolutionary control of lsystem interpretation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2273–2279, IEEE Press, Portland, Oregon.
- [Ashlock et al.(2004a)Ashlock, Bryden & Corns] Ashlock, D., Bryden, K. & Corns, S. (2004a) On taxonomy of evolutionary computation problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1713–1719, IEEE Press, Portland, Oregon.
- [Ashlock & Lathrop(2004)] Ashlock, D. & Lathrop, J. (2004) Program induction: Building a wall. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1844–1850, IEEE Press, Portland, Oregon.

- [Ashlock & Oftelie (2004)] Ashlock, D. & Oftelie, J. (2004) Simulation of floral specialization in bees. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1859–1864, IEEE Press, Portland, Oregon.
- [Ashlock & Powers (2004)] Ashlock, D. & Powers, B. (2004) The effect of tag recognition on non-local adaptation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2045—2051, IEEE Press, Portland, Oregon.
- [Ashlock et al.(2004b)Ashlock, Willson & Leahy] Ashlock, D., Willson, S. & Leahy, N. (2004b) Coevolution and tartarus. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1618–1624, IEEE Press, Portland, Oregon.
- [Ashlock et al.(2004c)Ashlock, youn Kim & von Roeschlaub] Ashlock, D., youn Kim, E. & von Roeschlaub, W. (2004c) Fingerprints: Enabling visualization and automatic analysis of strategies for two player games. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 381–387, IEEE Press, Portland, Oregon.
- [Augugliaro et al. (2004) Augugliaro, Dusonchet, Favuzza & Sanseverino] Augugliaro, A., Dusonchet, L., Favuzza, S. & Sanseverino, E.R. (2004) A fuzzy-logic based evolutionary multiobjective approach for automated distribution networks management. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 847–854, IEEE Press, Portland, Oregon.
- [Bain et al.(2004)Bain, Thornton & Sattar] Bain, S., Thornton, J. & Sattar, A. (2004) Evolving algorithms for constraint satisfaction. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 265–272, IEEE Press, Portland, Oregon.
- [Bajurnow & Ciesielski(2004)] Bajurnow, A. & Ciesielski, V. (2004) Layered learning for evolving goal scoring behavior in soccer players. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1828–1835, IEEE Press, Portland, Oregon.
- [Bandte(2004)] Bandte, O. (2004) Visualizing information in an interactive evolutionary design process. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 691–698, IEEE Press, Portland, Oregon.
- [Bartz-Beielstein & Markon(2004)] Bartz-Beielstein, T. & Markon, S. (2004) Tuning search algorithms for real-world applications: A regression tree based approach. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1111–1118, IEEE Press, Portland, Oregon.
- [Bernstein et al.(2004)Bernstein, Li, Ciesielski & Song] Bernstein, Y., Li, X., Ciesielski, V. & Song, A. (2004) Multiobjective parsimony enforcement for superior generalisation performance. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 83–89, IEEE Press, Portland, Oregon.
- [Bleuler et al.(2004)Bleuler, Prelic & Zitzler] Bleuler, S., Prelic, A. & Zitzler, E. (2004) An ea framework for biclustering of gene expression data. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 166–173, IEEE Press, Portland, Oregon.
- [Blumenthal & Parker (2004)] Blumenthal, J. & Parker, G. (2004) Punctuated anytime learning for evolving multi-agent capture strategies. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1820–1827, IEEE Press, Portland, Oregon.
- [Bonino et al.(2004)Bonino, Corno & Squillero] Bonino, D., Corno, F. & Squillero, G. (2004) Dynamic optimization of semantic annotation relevance. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1301–1308, IEEE Press, Portland, Oregon.
- [Brabazon et al.(2004)Brabazon, Silva, de Sousa, O'Neill, Matthews & Costa] Brabazon, A., Silva, A., de Sousa, T.F., O'Neill, M., Matthews, R. & Costa, E. (2004) Investigating organizational strategic inertia using a particle swarm model. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 652–659, IEEE Press, Portland, Oregon.

- [Branke et al.(2004)Branke, Schmeck, Deb & Maheshwar] Branke, J., Schmeck, H., Deb, K. & Maheshwar, R. (2004) Parallelizing multi-objective evolutionary algorithms: Cone separation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1952–1957, IEEE Press, Portland, Oregon.
- [Brewster & Reynolds(2004)] Brewster, J. & Reynolds, R.G. (2004) Alternative fuel adoption. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2364–2371, IEEE Press, Portland, Oregon.
- [Bryden et al.(2004)Bryden, Ashlock & McCorkle] Bryden, K., Ashlock, D. & McCorkle, D. (2004) An application of graph based evolutionary algorithms for diversity preservation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 419–426, IEEE Press, Portland, Oregon.
- [Burian & Takala(2004)] Burian, A. & Takala, J. (2004) Evolved gate arrays for image restoration. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1185–1192, IEEE Press, Portland, Oregon.
- [Buzing et al.(2004)Buzing, Eiben, Schut & Toma] Buzing, P., Eiben, A., Schut, M. & Toma, T. (2004) Cooperation and communication in evolving artificial societies. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2030–2037, IEEE Press, Portland, Oregon.
- [Cagnina et al.(2004)Cagnina, Esquivel & Gallard] Cagnina, L., Esquivel, S. & Gallard, R. (2004) Particle swarm optimization for sequencing problems: A case study. *Proceedings of the 2004* IEEE Congress on Evolutionary Computation, pp. 536–541, IEEE Press, Portland, Oregon.
- [Castillo et al.(2004)Castillo, Sweeney & Zirk] Castillo, F., Sweeney, J. & Zirk, W. (2004) Using evolutionary algorithms to suggest variable transformations in linear model lack-of-fit situations. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 556–560, IEEE Press, Portland, Oregon.
- [Chakraborty(2004)] Chakraborty, U. (2004) Analysis of encoding in 1+1-ea. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 911–917, IEEE Press, Portland, Oregon.
- [Chan et al.(2004a)Chan, Aydin & Fogarty] Chan, K.Y., Aydin, E. & Fogarty, T. (2004a) An empirical study on the performance of factorial design based crossover on parametrical problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 620–627, IEEE Press, Portland, Oregon.
- [Chan et al.(2004b)Chan, Aydin & Fogarty] Chan, K.Y., Aydin, E. & Fogarty, T. (2004b) Parameterisation of mutation in evolutionary algorithms using the estimated main effect of genes. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1972–1979, IEEE Press, Portland, Oregon.
- [Chang et al.(2004)Chang, Ohkura, Ueda & Sugiyama] Chang, M., Ohkura, K., Ueda, K. & Sugiyama, M. (2004) Modeling coevolutionary genetic algorithms on two-bit landscapes: Partnering strategies. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2349–2356, IEEE Press, Portland, Oregon.
- [Chen et al.(2004)Chen, Chootinan & Pravinvongvuth] Chen, A., Chootinan, P. & Pravinvongvuth, S. (2004) An evolutionary approach for finding optimal automatic vehicle identification reader locations in transportation networks. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 181–187, IEEE Press, Portland, Oregon.
- [Chen & guo Feng(2004)] Chen, H. & guo Feng, D. (2004) An effective evolutionary strategy for bijective s-boxes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2120–2123, IEEE Press, Portland, Oregon.
- [Chen & Wineberg(2004)] Chen, J. & Wineberg, M. (2004) Enhancement of the shifting balance genetic algorithm for highly multimodal problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 744–751, IEEE Press, Portland, Oregon.

- [Chiang & Chen(2004)] Chiang, C.H. & Chen, L.H. (2004) A new cellular automaton: Five elements balance chart and its application to forest industry ecosystem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1901–1908, IEEE Press, Portland, Oregon.
- [Cho & Park(2004)] Cho, S.B. & Park, C. (2004) Speciated ga for optimal ensemble classifiers in dna microarray classification. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 590–597, IEEE Press, Portland, Oregon.
- [Chong & Yao(2004)] Chong, S.Y. & Yao, X. (2004) The impact of noise on iterated prisoner's dilemma with multiple levels of cooperation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 348–355, IEEE Press, Portland, Oregon.
- [Chow(2004)] Chow, R. (2004) Effects of phenotypic feedback and the coupling of genotypic and phenotypic spaces in genetic searches. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 242–249, IEEE Press, Portland, Oregon.
- [Chung-Yuan & Chuen-Tsai(2004)] Chung-Yuan, H. & Chuen-Tsai, S. (2004) Self-adaptive routing based on learning classifier systems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 678–682, IEEE Press, Portland, Oregon.
- [Ciesielski & Li(2004)] Ciesielski, V. & Li, X. (2004) Experiments with explicit for-loops in genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 494–501, IEEE Press, Portland, Oregon.
- [Clark et al.(2004a)Clark, Jacob & Stepney] Clark, J.A., Jacob, J.L. & Stepney, S. (2004a) The design of s-boxes by simulated annealing. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1533–1537, IEEE Press, Portland, Oregon.
- [Clark et al.(2004b)Clark, Jacob & Stepney] Clark, J.A., Jacob, J.L. & Stepney, S. (2004b) Searching for cost functions. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1517–1524, IEEE Press, Portland, Oregon.
- [Coelho & Bouillard(2004)] Coelho, R.F. & Bouillard, P. (2004) Pamuc ii for multicriteria optimization of mechanical designs with expert rules. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 17–22, IEEE Press, Portland, Oregon.
- [Cohen(2004a)] Cohen, D. (2004a) Ea-lect: An evolutionary algorithm for constructing logical rules to predict election into cooperstown. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1354–1361, IEEE Press, Portland, Oregon.
- [Cohen(2004b)] Cohen, D. (2004b) Using sat scores as predictors for future academic success. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 671–677, IEEE Press, Portland, Oregon.
- [Cole et al.(2004)Cole, Louis & Miles] Cole, N., Louis, S. & Miles, C. (2004) Using a genetic algorithm to tune first-person shooter bots. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 139–145, IEEE Press, Portland, Oregon.
- [Corne & Pridgeon(2004)] Corne, D. & Pridgeon, C. (2004) Investigating issues in the reconstructability of genetic regulatory networks. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 582–589, IEEE Press, Portland, Oregon.
- [Corno et al.(2004)Corno, Sanchez & Squillero] Corno, F., Sanchez, E. & Squillero, G. (2004) On the evolution of corewar warriors. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 133–138, IEEE Press, Portland, Oregon.
- [Cruz(2004)] Cruz, A. (2004) A hybrid deterministic/genetic test generator to improve fault. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1325–1330, IEEE Press, Portland, Oregon.
- [Cui et al.(2004)Cui, Zeng & Cai] Cui, Z., Zeng, J. & Cai, X. (2004) A new stochastic particle swarm optimizer. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 316–319, IEEE Press, Portland, Oregon.

- [Curran & O'Riordan(2004)] Curran, D. & O'Riordan, C. (2004) The effect of noise on the performance of cultural evolution in multi-agent systems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1767–1773, IEEE Press, Portland, Oregon.
- [Czarn et al.(2004)Czarn, MacNish, Vijayan & Turlach] Czarn, A., MacNish, C., Vijayan, K. & Turlach, B. (2004) Statistical exploratory analysis of genetic algorithms: The importance of interaction. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2288–2295, IEEE Press, Portland, Oregon.
- [Dahal et al.(2004)Dahal, Siewierski, Galloway, Burt & McDonald] Dahal, K.P., Siewierski, T.A., Galloway, S.J., Burt, G.M. & McDonald, J.R. (2004) An evolutionary generation scheduling in an open electricity market. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1135–1142, IEEE Press, Portland, Oregon.
- [Daida et al. (2004a) Daida, Samples, Hart, Halim & Kumar] Daida, J., Samples, M., Hart, B., Halim, J. & Kumar, A. (2004a) Demonstrating constraints to diversity with a tunably difficulty problem for genetic programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1217–1224, IEEE Press, Portland, Oregon.
- [Daida et al.(2004b)Daida, Ward, Hilss, Long & Hodges] Daida, J., Ward, D., Hilss, A., Long, S. & Hodges, M. (2004b) Visualizing the loss of diversity in genetic programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1225–1232, IEEE Press, Portland, Oregon.
- [Dandass(2004)] Dandass, Y. (2004) Genetic list scheduling for soft real-time parallel applications. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1164–1171, IEEE Press, Portland, Oregon.
- [Daneshyari & Yen(2004)] Daneshyari, M. & Yen, G. (2004) Talent based social algorithm for optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 786–791, IEEE Press, Portland, Oregon.
- [Daoud et al.(2004)Daoud, Kharma, Haidar & Popoola] Daoud, M., Kharma, N., Haidar, A. & Popoola, J. (2004) Ayo, the awari player, or how better representation trumps deeper search. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1001–1006, IEEE Press, Portland, Oregon.
- [Day et al.(2004)Day, Kleeman & Lamont] Day, R., Kleeman, M. & Lamont, G. (2004) Multiobjective fast messy genetic algorithm solving deception problems. *Proceedings of the 2004 IEEE* Congress on Evolutionary Computation, pp. 1502–1509, IEEE Press, Portland, Oregon.
- [Day & Lamont(2004)] Day, R. & Lamont, G. (2004) Force field approximations using artificial neural networks. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1020–1027, IEEE Press, Portland, Oregon.
- [de Garis & Batty(2004a)] de Garis, H. & Batty, T. (2004a) "multi-mod": A pc based software system for handling the interconnectivity and neural signaling of an artificial brain containing 10,000 evolved neural net modules. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 816–819, IEEE Press, Portland, Oregon.
- [de Garis & Batty(2004b)] de Garis, H. & Batty, T. (2004b) Robust, reversible, nano-scale, femto-second-switching circuits and their evolution. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 639–645, IEEE Press, Portland, Oregon.
- [De Jong(2004)] De Jong, E. (2004) Towards a bounded pareto-coevolution archive. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2341–2348, IEEE Press, Portland, Oregon.
- [de la Cruz-Garcia et al.(2004)de la Cruz-Garcia, Risco-Martin, Herran-Gonzalez & Fernandez-Blanco] de la Cruz-Garcia, J.M., Risco-Martin, J.L., Herran-Gonzalez, A. & Fernandez-Blanco, P. (2004) Hybrid heuristic and mathematical programming in oil pipelines networks. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1479–1486, IEEE Press, Portland, Oregon.

- [de Paula et al.(2004)de Paula, de Castro & de Geus] de Paula, F., de Castro, L. & de Geus, P. (2004) An intrusion detection system using ideas from the immune system. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1059–1066, IEEE Press, Portland, Oregon.
- [De San Pedro et al.(2004)De San Pedro, Pandolfi, Villagra, Lasso & Gallard] De San Pedro, M., Pandolfi, D., Villagra, A., Lasso, M. & Gallard, R. (2004) Effect of crossover operators under multirecombination: Weighted tardiness, a test case. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 699–705, IEEE Press, Portland, Oregon.
- [Dengiz et al.(2004)Dengiz, Dozier & Smith] Dengiz, O., Dozier, G.V. & Smith, A.E. (2004) Non-deterministic decoding with memory to enhance precision in binary-coded genetic algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2166–2172, IEEE Press, Portland, Oregon.
- [Denzinger et al.(2004)Denzinger, Chan, Gates, Loose & Buchanan] Denzinger, J., Chan, B., Gates, D., Loose, K. & Buchanan, J. (2004) Evolutionary behavior testing of commercial computer games. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 125–132, IEEE Press, Portland, Oregon.
- [Deschenes & Wiese (2004)] Deschenes, A. & Wiese, K.C. (2004) Using stacking-energies (inn and innhb) for improving the accuracy of rna secondary structure prediction with an evolutionary algorithm - a comparison to known structures. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 598–606, IEEE Press, Portland, Oregon.
- [Deugo & Ferguson(2004)] Deugo, D. & Ferguson, D. (2004) Evolution to the xtreme: Evolving evolutionary strategies using a meta-level approach. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 31–38, IEEE Press, Portland, Oregon.
- [Devicharan & Mohan(2004)] Devicharan, D. & Mohan, C. (2004) Particle swarm optimization with adaptive linkage learning. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 530–535, IEEE Press, Portland, Oregon.
- [Di Pietro et al.(2004)Di Pietro, While & Barone] Di Pietro, A., While, L. & Barone, L. (2004) Applying evolutionary algorithms to problems with noisy, time-consuming fitness functions. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1254–1261, IEEE Press, Portland, Oregon.
- [Dimopoulos(2004)] Dimopoulos, C. (2004) A review of evolutionary multiobjective optimization applications in the area of production research. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1487–1494, IEEE Press, Portland, Oregon.
- [Ding et al.(2004)Ding, Liu, Wu & Yang] Ding, S., Liu, J., Wu, C. & Yang, Q. (2004) A genetic algorithm applied to optimal gene subset selection. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1654–1660, IEEE Press, Portland, Oregon.
- [Doctor et al.(2004)Doctor, Venayagamoorthy & Gudise] Doctor, S., Venayagamoorthy, G. & Gudise, V. (2004) Optimal pso for collective robotic search applications. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1390–1395, IEEE Press, Portland, Oregon.
- [Dorris et al.(2004)Dorris, Carnahan, Orsini & Kuntz] Dorris, N., Carnahan, B., Orsini, L. & Kuntz, L.A. (2004) Interactive evolutionary design of anthropomorphic symbols. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 433–440, IEEE Press, Portland, Oregon.
- [Dorronsoro et al.(2004)Dorronsoro, Alba, Giacobini & Tomassini] Dorronsoro, B., Alba, E., Giacobini, M. & Tomassini, M. (2004) The influence of grid shape and asynchronicity on cellular evolutionary algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2152–2158, IEEE Press, Portland, Oregon.
- [Doty(2004)] Doty, D. (2004) Non-local evolutionary adaptation in gridplants. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1602–1609, IEEE Press, Portland, Oregon.

- [Dozier(2004)] Dozier, G.V. (2004) Recurrent distributed constraint satisfaction via genetic and evolutionary societies of hill-climbers. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 273–279, IEEE Press, Portland, Oregon.
- [Dozier et al.(2004)Dozier, Brown, Hurley & Cain] Dozier, G.V., Brown, D., Hurley, J. & Cain, K. (2004) Vulnerability analysis of ais-based intrusion detection systems via genetic and particle swarm red teams. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 111–116, IEEE Press, Portland, Oregon.
- [Dukkipati et al.(2004)Dukkipati, Musti & Bhatnagar] Dukkipati, A., Musti, N.M. & Bhatnagar, S. (2004) Cauchy annealing schedule: An annealing schedule for boltzmann selection scheme in evolutionary algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 55–62, IEEE Press, Portland, Oregon.
- [Dunn et al.(2004)Dunn, Olague, Lutton & Schoenauer] Dunn, E., Olague, G., Lutton, E. & Schoenauer, M. (2004) Pareto optimal sensing strategies for an active vision system. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 457–463, IEEE Press, Portland, Oregon.
- [Eberbach & Eberbach(2004)] Eberbach, E. & Eberbach, A. (2004) On designing co\$t: A new approach and programming environment for distributed problem solving based on evolutionary computation and anytime algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1836–1843, IEEE Press, Portland, Oregon.
- [Eguchi et al.(2004) Eguchi, Hirasawa, Hu & Markon] Eguchi, T., Hirasawa, K., Hu, J. & Markon, S. (2004) Elevator group supervisory control systems using genetic network programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1661–1667, IEEE Press, Portland, Oregon.
- [Enee & Escazut (2004)] Enee, G. & Escazut, C. (2004) Evolution of communication in a genetic based multi-agent system: Use wise resources. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2038–2044, IEEE Press, Portland, Oregon.
- [English(2004)] English, T. (2004) No more lunch: Analysis of sequential search. *Proceedings of the* 2004 IEEE Congress on Evolutionary Computation, pp. 227–234, IEEE Press, Portland, Oregon.
- [Eriksson & Olsson(2004)] Eriksson, R. & Olsson, B. (2004) On the performance of evolutionary algorithms with life-time adaptation in dynamic fitness landscapes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1293–1300, IEEE Press, Portland, Oregon.
- [Eskridge & Hougen(2004)] Eskridge, B. & Hougen, D. (2004) Imitating success: A memetic crossover operator for genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 809–815, IEEE Press, Portland, Oregon.
- [Esquivel et al.(2004)Esquivel, Garcia, Leguizamon & Ribba] Esquivel, S., Garcia, M., Leguizamon, G. & Ribba, M. (2004) A comparison of two mutation operators for the path planning problem. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 879–883, IEEE Press, Portland, Oregon.
- [Eto et al.(2004)Eto, Hirasawa & Hu] Eto, S., Hirasawa, K. & Hu, J. (2004) Functional localization of genetic network programming and its application to a pursuit problem. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 683–690, IEEE Press, Portland, Oregon.
- [Fan et al.(2004)Fan, Goodman, Jiachuan, Ronald, Kisung & Jianjun] Fan, Z., Goodman, E., Jiachuan, W., Ronald, R., Kisung, S. & Jianjun, H. (2004) Hierarchical evolutionary synthesis of mems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2320–2327, IEEE Press, Portland, Oregon.
- [Farina & Gobbi(2004)] Farina, M. & Gobbi, M. (2004) A fuzzy-optima definition based multiobjective optimization of a racing car tyre-suspension system. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 9–16, IEEE Press, Portland, Oregon.

- [Fernandez et al.(2004)Fernandez, Grana & Ruiz-Cabello] Fernandez, E., Grana, M. & Ruiz-Cabello, J. (2004) An instantaneous memetic algorithm for illumination correction. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1105–1110, IEEE Press, Portland, Oregon.
- [Ferreira et al.(2004)Ferreira, Vasconcelos & Adeodato] Ferreira, T., Vasconcelos, G. & Adeodato, P. (2004) A hybrid intelligent system approach for improving the prediction of real world time series. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 736–743, IEEE Press, Portland, Oregon.
- [Filipic & Robic(2004)] Filipic, B. & Robic, T. (2004) A comparative study of coolant flow optimization on a steel casting machine. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 569–573, IEEE Press, Portland, Oregon.
- [Fletcher & Zwick(2004)] Fletcher, J. & Zwick, M. (2004) Hamilton's rule applied to reciprocal altruism. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 994–1000, IEEE Press, Portland, Oregon.
- [Fogel(2004)] Fogel, D.B. (2004) Evolving strategies in blackjack. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1427–1434, IEEE Press, Portland, Oregon.
- [Fogel et al.(2004a)Fogel, Hays & Johnson] Fogel, D.B., Hays, T. & Johnson, D. (2004a) A platform for evolving characters in competitive games. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1420–1426, IEEE Press, Portland, Oregon.
- [Fogel et al.(2004b)Fogel, Weekes, Sampath & Ecker] Fogel, G.B., Weekes, D.G., Sampath, R. & Ecker, D.J. (2004b) Parameter optimization of an evolutionary algorithm for rna structure discovery. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 607–613, IEEE Press, Portland, Oregon.
- [Franken & Engelbrecht(2004)] Franken, N. & Engelbrecht, A. (2004) Pso approaches to co-evolve ipd strategies. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 356–363, IEEE Press, Portland, Oregon.
- [Fuller et al.(2004)Fuller, Millan & Dawson] Fuller, J., Millan, W. & Dawson, E. (2004) Multi-objective optimisation of bijective s-boxes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1525–1532, IEEE Press, Portland, Oregon.
- [Funes et al. (2004) Funes, Bonabeau, Herve & Morieux] Funes, P., Bonabeau, E., Herve, J. & Morieux, Y. (2004) Interactive multi-participant task allocation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1699–1705, IEEE Press, Portland, Oregon.
- [Gao(2004)] Gao, W. (2004) Fast immunized evolutionary programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 666–670, IEEE Press, Portland, Oregon.
- [Garrett(2004)] Garrett, S. (2004) Parameter-free, adaptive clonal selection. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1052–1058, IEEE Press, Portland, Oregon.
- [Goldstein & Yen(2004)] Goldstein, M. & Yen, G. (2004) An evolutionary algorithm method for sampling n-partite graphs. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2250–2257, IEEE Press, Portland, Oregon.
- [Gomez(2004a)] Gomez, J. (2004a) Evolution of fuzzy rule based classifiers. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1727–1734, IEEE Press, Portland, Oregon.
- [Gomez(2004b)] Gomez, J. (2004b) Self adaptation of operator rates in evolutionary algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1720–1726, IEEE Press, Portland, Oregon.
- [Gonzalez & Cannady(2004)] Gonzalez, L. & Cannady, J. (2004) A self-adaptive negative selection approach for anomaly detection. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1561–1568, IEEE Press, Portland, Oregon.

- [Gordon & Matley(2004)] Gordon, S. & Matley, Z. (2004) Evolving sparse direction maps for maze pathfinding. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 835–838, IEEE Press, Portland, Oregon.
- [Gordon & Slocum(2004)] Gordon, S. & Slocum, T. (2004) The knight's tour evolutionary vs. depth-first search. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1435–1440, IEEE Press, Portland, Oregon.
- [Greenwood(2004)] Greenwood, G. (2004) Differing mathematical perspectives of genotype space in combinatorial problems: Metric spaces vs pretopological spaces. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 258–264, IEEE Press, Portland, Oregon.
- [Grosan(2004)] Grosan, C. (2004) Improving the performance of evolutionary algorithms for the multiobjective 0/1 knapsack problem using epsilon -dominance. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1958–1963, IEEE Press, Portland, Oregon.
- [Guo & Mak(2004)] Guo, Z. & Mak, K. (2004) A heuristic ga for the stochastic vehicle routing problems with soft time windows. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1449–1456, IEEE Press, Portland, Oregon.
- [Gutierrez(2004)] Gutierrez, C. (2004) Heuristics in a general scheduling problem. *Proceedings of the* 2004 IEEE Congress on Evolutionary Computation, pp. 660–665, IEEE Press, Portland, Oregon.
- [Habib & Parker(2004)] Habib, S. & Parker, A. (2004) Synthesizing complex multimedia network topologies using an evolutionary approach. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1193–1200, IEEE Press, Portland, Oregon.
- [Hamaker & Boggess (2004)] Hamaker, J. & Boggess, L. (2004) Non-euclidean distance measures in airs, an artificial immune classification system. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1067–1073, IEEE Press, Portland, Oregon.
- [Harding & Miller(2004)] Harding, S. & Miller, J. (2004) Evolution in materio: A tone discriminator in liquid crystal. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1800–1807, IEEE Press, Portland, Oregon.
- [Hartono et al. (2004) Hartono, Hashimoto & Wahde] Hartono, P., Hashimoto, S. & Wahde, M. (2004) Labeled-ga with adaptive mutation rate. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1851–1858, IEEE Press, Portland, Oregon.
- [Hatanaka et al.(2004)Hatanaka, Kawaguchi & Uosaki] Hatanaka, T., Kawaguchi, Y. & Uosaki, K. (2004) Nonlinear system identification based on evolutionary fuzzy modeling. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 646–651, IEEE Press, Portland, Oregon.
- [Hati & Sengupta(2004)] Hati, S. & Sengupta, S. (2004) A ga-based integrated approach to model-assisted matching and pose estimation for automated visual inspection applications. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1346–1353, IEEE Press, Portland, Oregon.
- [Hayward (2004)] Hayward, S. (2004) Setting up performance surface of an artificial neural network with genetic algorithm optimization: in search of an accurate and profitable prediction for stock trading. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 948–954, IEEE Press, Portland, Oregon.
- [He et al.(2004)He, Yao & Zhang] He, J., Yao, X. & Zhang, Q. (2004) To understand one-dimensional continuous fitness landscapes by drift analysis. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1248–1253, IEEE Press, Portland, Oregon.
- [Hernandez et al. (2004a) Hernandez, Dasgupta, Nino & Garcia] Hernandez, G., Dasgupta, D., Nino, F. & Garcia, J. (2004a) On geometric and statistical properties of the attractors of a generic evolutionary algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1240–1247, IEEE Press, Portland, Oregon.

- [Hernandez & Isasi(2004)] Hernandez, J.C. & Isasi, P. (2004) New results on the genetic cryptanalysis of tea and reduced-round versions of xtea. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2124–2129, IEEE Press, Portland, Oregon.
- [Hernandez et al.(2004b)Hernandez, Isasi & Seznec] Hernandez, J.C., Isasi, P. & Seznec, A. (2004b) On the design of state-of-the-art pseudorandom number generators by means of genetic programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1510–1516, IEEE Press, Portland, Oregon.
- [Hernandez-Aguirre et al.(2004)Hernandez-Aguirre, Botello-Rionda & Coello-Coello] Hernandez-Aguirre, A., Botello-Rionda, S. & Coello-Coello, C. (2004) Passss: An implementation of a novel diversity strategy for handling constraints. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 403–410, IEEE Press, Portland, Oregon.
- [Hernandez-Aguirre & Coello-Coello(2004)] Hernandez-Aguirre, A. & Coello-Coello, C. (2004) Mutual information-based fitness functions for evolutionary circuit synthesis. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1309–1316, IEEE Press, Portland, Oregon.
- [Hingston & Kendall(2004)] Hingston, P. & Kendall, G. (2004) Learning versus evolution in iterated prisoner's dilemma. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 364–372, IEEE Press, Portland, Oregon.
- [Ho & Tay(2004)] Ho, N.B. & Tay, J.C. (2004) Genace: An efficient cultural algorithm to solve the flexible job-shop problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1759–1766, IEEE Press, Portland, Oregon.
- [Hong & Cho(2004)] Hong, J.H. & Cho, S.B. (2004) Evolution of emergent behaviors for shooting game characters in robocode. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 634–638, IEEE Press, Portland, Oregon.
- [Hotz(2004a)] Hotz, P.E. (2004a) Asymmetric cell division in artificial evolution. *Proceedings of the* 2004 IEEE Congress on Evolutionary Computation, pp. 2180–2186, IEEE Press, Portland, Oregon.
- [Hotz(2004b)] Hotz, P.E. (2004b) Comparing direct and developmental encoding schemes in artificial evolution: A case study in evolving lens shapes. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 752–757, IEEE Press, Portland, Oregon.
- [Hou & Dozier(2004)] Hou, H. & Dozier, G.V. (2004) Comparing performance of binary-coded and constraint-based detectors. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 772–777, IEEE Press, Portland, Oregon.
- [Hu & Goodman(2004)] Hu, J. & Goodman, E. (2004) Wireless access point configuration by genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1178–1184, IEEE Press, Portland, Oregon.
- [Hu et al.(2004)Hu, Shi & Eberhart] Hu, X., Shi, Y. & Eberhart, R. (2004) Recent advances in particle swarm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 90–97, IEEE Press, Portland, Oregon.
- [Hughes(2004)] Hughes, E. (2004) Swarm guidance using a multi-objective co-evolutionary on-line evolutionary algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2357–2363, IEEE Press, Portland, Oregon.
- [Hunter(2004)] Hunter, D. (2004) Some lessons learned on constructing an automated testbench for evolvable hardware experiments. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1808–1812, IEEE Press, Portland, Oregon.
- [Inoue et al.(2004)Inoue, Tohge & Iba] Inoue, Y., Tohge, T. & Iba, H. (2004) Object transportation by two humanoid robots using cooperative learning. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1201–1208, IEEE Press, Portland, Oregon.

- [Ippolito et al.(2004)Ippolito, Sanseverino & Vuinovich] Ippolito, M., Sanseverino, E.R. & Vuinovich, F. (2004) Multiobjective ant colony search algorithm for optimal electrical distribution system strategical planning. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1924–1931, IEEE Press, Portland, Oregon.
- [Isaacs & Foo(2004)] Isaacs, J. & Foo, S. (2004) Optimized wavelet hand pose estimation for american sign language recognition. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 797–802, IEEE Press, Portland, Oregon.
- [Ishibuchi & Narukawa(2004)] Ishibuchi, H. & Narukawa, K. (2004) Performance evaluation of simple multiobjective genetic local search algorithms on multiobjective 0/1 knapsack problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 441–448, IEEE Press, Portland, Oregon.
- [Jang et al.(2004)Jang, Han & Kim] Jang, J.S., Han, K.H. & Kim, J.H. (2004) Face detection using quantum-inspired evolutionary algorithm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2100–2106, IEEE Press, Portland, Oregon.
- [Ji et al.(2004)Ji, Chen & Subprasom] Ji, Z., Chen, A. & Subprasom, K. (2004) Finding multiobjective paths in stochastic networks: A simulation-based genetic algorithm approach. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 174–180, IEEE Press, Portland, Oregon.
- [Ji & Dasgupta(2004)] Ji, Z. & Dasgupta, D. (2004) Augmented negative selection algorithm with variable-coverage detectors. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1081–1088, IEEE Press, Portland, Oregon.
- [Jin et al.(2004)Jin, Okabe & Sendhoff] Jin, Y., Okabe, T. & Sendhoff, B. (2004) Neural network regularization and ensembling using multi-objective evolutionary algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1–8, IEEE Press, Portland, Oregon.
- [Johnson et al. (2004) Johnson, Melich, Michalewicz & Schmidt] Johnson, R., Melich, M., Michalewicz,
  Z. & Schmidt, M. (2004) Coevolutionary tempo game. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1610–1617, IEEE Press, Portland, Oregon.
- [Jones et al.(2004)Jones, Tiwari, Roy & Corbett] Jones, P., Tiwari, A., Roy, R. & Corbett, J. (2004) Optimisation of the high efficiency deep grinding process with fuzzy fitness function and constraints. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 574–581, IEEE Press, Portland, Oregon.
- [Kamio & Iba(2004)] Kamio, S. & Iba, H. (2004) Evolutionary construction of a simulator for real robots. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2202–2209, IEEE Press, Portland, Oregon.
- [Kang et al.(2004)Kang, Zhou, McKay, Li & Kang] Kang, L., Zhou, A., McKay, R.I., Li, Y. & Kang, Z. (2004) Benchmarking algorithms for dynamic travelling salesman problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1286–1292, IEEE Press, Portland, Oregon.
- [Katada et al.(2004)Katada, Ohkura & Ueda] Katada, Y., Ohkura, K. & Ueda, K. (2004) The nei's standard genetic distance in artificial evolution. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1233–1239, IEEE Press, Portland, Oregon.
- [Katare et al.(2004)Katare, Kalos & West] Katare, S., Kalos, A. & West, D. (2004) A hybrid swarm optimizer for efficient parameter estimation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 309–315, IEEE Press, Portland, Oregon.
- [Katsumata & Terano (2004)] Katsumata, Y. & Terano, T. (2004) Cabling and scheduling for electric power plant operation via tabu-boa algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1675–1682, IEEE Press, Portland, Oregon.

- [Kendall & Spoerer (2004)] Kendall, G. & Spoerer, K. (2004) Scripting the game of lemmings with a genetic algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 117–124, IEEE Press, Portland, Oregon.
- [Kendall et al.(2004)Kendall, Yaakob & Hingston] Kendall, G., Yaakob, R. & Hingston, P. (2004) An investigation of an evolutionary approach to the opening of go. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2052–2059, IEEE Press, Portland, Oregon.
- [Kennedy(2004)] Kennedy, J. (2004) Probability and dynamics in the particle swarm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 340–347, IEEE Press, Portland, Oregon.
- [Kephart & Lefevre (2004)] Kephart, D. & Lefevre, J. (2004) Codegen: The generation and testing of dna code words. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1865–1873, IEEE Press, Portland, Oregon.
- [Khabzaoui et al.(2004)Khabzaoui, Dhaenens & Talbi] Khabzaoui, M., Dhaenens, C. & Talbi, E.G. (2004) A multicriteria genetic algorithm to analyze dna microarray data. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1874–1881, IEEE Press, Portland, Oregon.
- [Khan & Perkowski(2004)] Khan, M.H. & Perkowski, M.A. (2004) Genetic algorithm based synthesis of multi-output ternary functions using quantum cascade of generalized ternary gates. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2194–2201, IEEE Press, Portland, Oregon.
- [Kicinger et al. (2004) Kicinger, Arciszewski & De Jong] Kicinger, R., Arciszewski, T. & De Jong, K. (2004) Morphogenesis and structural design: Cellular automata representations of steel structures in tall buildings. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 411–418, IEEE Press, Portland, Oregon.
- [Kimbrough et al.(2004)Kimbrough, Lu & Safavi] Kimbrough, S., Lu, M. & Safavi, S. (2004) Exploring a financial product model with a two-population genetic algorithm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 855–862, IEEE Press, Portland, Oregon.
- [kin Chow & tat Tsui(2004)] kin Chow, C. & tat Tsui, H. (2004) Autonomous agent response learning by a multi-species particle swarm optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 778–785, IEEE Press, Portland, Oregon.
- [Kleeman et al.(2004)Kleeman, Day & Lamont] Kleeman, M., Day, R. & Lamont, G. (2004) Multi-objective evolutionary search performance with explicit building-block sizes for npc problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 728–735, IEEE Press, Portland, Oregon.
- [Kobayashi & Aiyoshi(2004)] Kobayashi, Y. & Aiyoshi, E. (2004) Optimization algorithm using multiagents and reinforcement learning. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 63–68, IEEE Press, Portland, Oregon.
- [Kobti et al.(2004)Kobti, Reynolds & Kohler] Kobti, Z., Reynolds, R.G. & Kohler, T. (2004) The effect of kinship cooperation learning strategy and culture on the resilience of social systems in the village multi-agent simulation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1743–1750, IEEE Press, Portland, Oregon.
- [Koduru et al. (2004) Koduru, Das, Welch & Roe] Koduru, P., Das, S., Welch, S. & Roe, J.L. (2004) A multi-objective ga-simplex hybrid approach for gene regulatory network models. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2084–2091, IEEE Press, Portland, Oregon.
- [Koeppen(2004)] Koeppen, M. (2004) No-free-lunch theorems and the diversity of algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 235–241, IEEE Press, Portland, Oregon.

- [Korczak & Lipinski(2004)] Korczak, J.J. & Lipinski, P. (2004) Evolutionary building of stock trading experts in a real-time system. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 940–947, IEEE Press, Portland, Oregon.
- [Kordon & Lue(2004)] Kordon, A. & Lue, C.T. (2004) Symbolic regression modeling of blown film process effects. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 561–568, IEEE Press, Portland, Oregon.
- [Kotani & Kato(2004)] Kotani, M. & Kato, D. (2004) Feature extraction using coevolutionary genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 614–619, IEEE Press, Portland, Oregon.
- [Krink et al.(2004)Krink, Filipic, Fogel & Thomsen] Krink, T., Filipic, B., Fogel, G.B. & Thomsen, R. (2004) Noisy optimization problems a particular challenge for differential evolution? Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 332–339, IEEE Press, Portland, Oregon.
- [Krohling et al.(2004)Krohling, Hoffmann & dos Santos Coelho] Krohling, R.A., Hoffmann, F. & dos Santos Coelho, L. (2004) Co-evolutionary particle swarm optimization for min-max problems using gaussian distribution. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 959–964, IEEE Press, Portland, Oregon.
- [Krusienski & Jenkins(2004)] Krusienski, D. & Jenkins, W.K. (2004) Particle swarm optimization for adaptive iir filter structures. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 965–970, IEEE Press, Portland, Oregon.
- [Lamont et al. (2004) Lamont, Esslinger, Ewing & Abdel-Aty-Zohdy] Lamont, G., Esslinger, M., Ewing, R. & Abdel-Aty-Zohdy, H. (2004) An artificial immune system strategy for robust chemical spectra classification via distributed heterogeneous sensors. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1036–1043, IEEE Press, Portland, Oregon.
- [Lasso et al.(2004)Lasso, Pandolfi, De San Pedro, Villagra & Gallard] Lasso, M., Pandolfi, D., De San Pedro, M., Villagra, A. & Gallard, R. (2004) Solving dynamic tardiness problems in single machine environments. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1143–1149, IEEE Press, Portland, Oregon.
- [Lee et al.(2004)Lee, Bulitko & Levner] Lee, G., Bulitko, V. & Levner, I. (2004) Automated selection of vision operator libraries with evolutionary algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1127–1134, IEEE Press, Portland, Oregon.
- [Legg et al.(2004)Legg, Hutter & Kumar] Legg, S., Hutter, M. & Kumar, A. (2004) Tournament versus fitness uniform selection. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2144–2151, IEEE Press, Portland, Oregon.
- [Leon et al.(2004)Leon, Nasraoui & Gomez] Leon, E., Nasraoui, O. & Gomez, J. (2004) Anomaly detection based on unsupervised niche clustering with application to network intrusion detection. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 502–508, IEEE Press, Portland, Oregon.
- [Lichodzijewski et al.(2004)Lichodzijewski, Zincir-Heywood & Heywood] Lichodzijewski, P., Zincir-Heywood, N. & Heywood, M. (2004) Cascaded gp models for data mining. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2258–2264, IEEE Press, Portland, Oregon.
- [Liu & Iba(2004)] Liu, H. & Iba, H. (2004) A hierarchical approach for adaptive humanoid robot control. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1546–1553, IEEE Press, Portland, Oregon.
- [Liu et al.(2004)Liu, Qin & He] Liu, Y., Qin, Z. & He, X. (2004) Supervisor-student model in particle swarm optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 542–547, IEEE Press, Portland, Oregon.

- [Lucas(2004)] Lucas, S. (2004) Cellz: A simple dynamic game for testing evolutionary algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1007–1014, IEEE Press, Portland, Oregon.
- [Lucidarme(2004)] Lucidarme, P. (2004) An evolutionary algorithm for multi-robot unsupervised learning. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2210–2215, IEEE Press, Portland, Oregon.
- [Malinchik et al.(2004)Malinchik, Orme, Rothermich & Bonabeau] Malinchik, S., Orme, B., Rothermich, J. & Bonabeau, E. (2004) Interactive exploratory data analysis. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1098–1104, IEEE Press, Portland, Oregon.
- [Mark et al.(2004)Mark, Sendhoff & Wersing] Mark, A., Sendhoff, B. & Wersing, H. (2004) A decision making framework for game playing using evolutionary optimization and learning. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 373–380, IEEE Press, Portland, Oregon.
- [Marwaha et al.(2004)Marwaha, Srinivasan, Tham & Vasilakos] Marwaha, S., Srinivasan, D., Tham, C.K. & Vasilakos, A. (2004) Evolutionary fuzzy multi-objective routing for wireless mobile ad hoc networks. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1964–1971, IEEE Press, Portland, Oregon.
- [Miguelanez et al.(2004)Miguelanez, Zalzala & Tabor] Miguelanez, E., Zalzala, A. & Tabor, P. (2004) Evolving neural networks using swarm intelligence for binmap classification. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 978–985, IEEE Press, Portland, Oregon.
- [Miles et al.(2004)Miles, Louis, Cole & McDonnell] Miles, C., Louis, S., Cole, N. & McDonnell, J. (2004) Learning to play like a human: Case injected genetic algorithms for strategic computer gaming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1441–1448, IEEE Press, Portland, Oregon.
- [Miller et al. (2004) Miller, Arguello & Greenwood] Miller, D., Arguello, R. & Greenwood, G. (2004) Evolving artificial neural network structures: Experimental results for biologically-inspired adaptive mutations. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2114–2119, IEEE Press, Portland, Oregon.
- [Mohais et al.(2004)Mohais, Ward & Posthoff] Mohais, A., Ward, C. & Posthoff, C. (2004) Randomized directed neighborhoods with edge migration in particle swarm optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 548–555, IEEE Press, Portland, Oregon.
- [Mostaghim et al.(2004)Mostaghim, Hoffmann, Koenig, Frauenheim & Teich] Mostaghim, S., Hoffmann, M., Koenig, P.H., Frauenheim, T. & Teich, J. (2004) Molecular force field parametrization using multi-objective evolutionary algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 212–219, IEEE Press, Portland, Oregon.
- [Mostaghim & Teich(2004)] Mostaghim, S. & Teich, J. (2004) Covering pareto-optimal fronts by subswarms in multi-objective particle swarm optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1404–1411, IEEE Press, Portland, Oregon.
- [Mumford(2004)] Mumford, C. (2004) A hierarchical evolutionary approach to multi-objective optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1944–1951, IEEE Press, Portland, Oregon.
- [Nagata(2004)] Nagata, Y. (2004) Criteria for designing crossovers for tsp. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1465–1472, IEEE Press, Portland, Oregon.
- [Nakagoe et al.(2004)Nakagoe, Hirasawa & Hu] Nakagoe, H., Hirasawa, K. & Hu, J. (2004) Genetic network programming with automatically generated variable size macro nodes. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 713–719, IEEE Press, Portland, Oregon.

- [Nakamura et al.(2004)Nakamura, Yamashiro & Gong] Nakamura, M., Yamashiro, N. & Gong, Y. (2004) Iterative parallel and distributed genetic algorithms with biased initial population. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2296–2301, IEEE Press, Portland, Oregon.
- [Neal & Labrosse(2004)] Neal, M. & Labrosse, F. (2004) Rotation-invariant appearance based maps for robot navigation using an artificial immune network algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 863–870, IEEE Press, Portland, Oregon.
- [Nedjah & Mourelle(2004)] Nedjah, N. & Mourelle, L. (2004) Secure evolutionary hardware for public-key cryptosystems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2130–2137, IEEE Press, Portland, Oregon.
- [Neel et al.(2004)Neel, Garzon & Penumetsa] Neel, A., Garzon, M. & Penumetsa, P. (2004) Soundness and quality of semantic retrieval in dna-based memories with abiotic data. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1889–1895, IEEE Press, Portland, Oregon.
- [Neumann(2004)] Neumann, F. (2004) Expected runtimes of evolutionary algorithms for the eulerian cycle problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 904–910, IEEE Press, Portland, Oregon.
- [Nguyen & Ian(2004)] Nguyen, X.H. & Ian, M.R. (2004) An investigation on the roles of insertion and deletion operators in tree adjoining grammar guided genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 472–477, IEEE Press, Portland, Oregon.
- [Nicosia et al.(2004)Nicosia, Cutello & Pavone] Nicosia, G., Cutello, V. & Pavone, M. (2004) An immune algorithm with hyper-macromutations for the 2d hydrophilic-hydrophobic model. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1074–1080, IEEE Press, Portland, Oregon.
- [Nojima et al.(2004)Nojima, Kubota & Kojima] Nojima, Y., Kubota, N. & Kojima, F. (2004) Trajectory generation and accumulation for partner robots based on structured learning. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2224–2229, IEEE Press, Portland, Oregon.
- [Noman et al.(2004)Noman, Okada, Hosoyama & Iba] Noman, N., Okada, K., Hosoyama, N. & Iba, H. (2004) Use of clustering to improve the layout of gene network for visualization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2068–2075, IEEE Press, Portland, Oregon.
- [Nuser & Deaton(2004)] Nuser, M. & Deaton, R. (2004) A probabilistic analysis of in vitro selection of independent dna words for computation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1882–1888, IEEE Press, Portland, Oregon.
- [Oh & Barlow(2004)] Oh, C. & Barlow, G. (2004) Autonomous controller design for unmanned aerial vehicles using multi-objective genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1538–1545, IEEE Press, Portland, Oregon.
- [Oh & Volper(2004)] Oh, J. & Volper, D. (2004) Design of rationality-based computing middleware: A preliminary study. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 839–846, IEEE Press, Portland, Oregon.
- [Okabe et al. (2004) Okabe, Jin, Sendhoff & Olhofer] Okabe, T., Jin, Y., Sendhoff, B. & Olhofer, M. (2004) Voronoi-based estimation of distribution algorithm for multi-objective optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1594–1601, IEEE Press, Portland, Oregon.
- [Oltean(2004)] Oltean, M. (2004) Solving even-parity problems using traceless genetic programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1813–1819, IEEE Press, Portland, Oregon.

- [O'Neill et al.(2004)O'Neill, Brabazon & Adley] O'Neill, M., Brabazon, A. & Adley, C. (2004) The automatic generation of programs for classification problems with grammatical swarm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 104–110, IEEE Press, Portland, Oregon.
- [Ono et al.(2004)Ono, Seike, Morishita, Ono & Matsui] Ono, I., Seike, Y., Morishita, R., Ono, N. & Matsui, M. (2004) An evolutionary algorithm taking account of mutual interactions among substances for inference of genetic networks. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2060–2067, IEEE Press, Portland, Oregon.
- [O'Riordan et al.(2004)O'Riordan, Griffith, Newell & Sorensen] O'Riordan, C., Griffith, J., Newell, J. & Sorensen, H. (2004) Co-evolution of strategies for an n-player dilemma. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1625–1630, IEEE Press, Portland, Oregon.
- [Osmera(2004)] Osmera, P. (2004) Evolvable controllers with hierarchical structure. *Proceedings of the* 2004 IEEE Congress on Evolutionary Computation, pp. 758–765, IEEE Press, Portland, Oregon.
- [Ostrowski & Reynolds(2004)] Ostrowski, D. & Reynolds, R.G. (2004) Using cultural algorithms to evolve strategies for recessionary markets. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1780–1785, IEEE Press, Portland, Oregon.
- [Ouellette et al.(2004)Ouellette, Browne & Hirasawa] Ouellette, R., Browne, M. & Hirasawa, K. (2004) Genetic algorithm optimization of a convolutional neural network for autonomous crack detection. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 516–521, IEEE Press, Portland, Oregon.
- [Ozcan & Onbasioglu(2004)] Ozcan, E. & Onbasioglu, E. (2004) Genetic algorithms for parallel code optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1375–1381, IEEE Press, Portland, Oregon.
- [Parker(2004)] Parker, G. (2004) Partial recombination for the co-evolution of model parameters. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2216–2223, IEEE Press, Portland, Oregon.
- [Parker & Blumenthal(2004)] Parker, G. & Blumenthal, J. (2004) Varying sample sizes for the coevolution of heterogeneous agents. *Proceedings of the 2004 IEEE Congress on Evolutionary* Computation, pp. 766–771, IEEE Press, Portland, Oregon.
- [Parmee & Abraham(2004)] Parmee, I. & Abraham, J. (2004) Supporting implicit learning via the visualisation of coga multi-objective data. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 395–402, IEEE Press, Portland, Oregon.
- [Parrott & Li(2004)] Parrott, D. & Li, X. (2004) A particle swarm model for tracking multiple peaks in a dynamic environment using speciation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 98–103, IEEE Press, Portland, Oregon.
- [Parsopoulos et al.(2004)Parsopoulos, Tasoulis, Pavlidis, Plagianakos & Vrahatis] Parsopoulos, K., Tasoulis, D., Pavlidis, N., Plagianakos, V. & Vrahatis, M. (2004) Vector evaluated differential evolution for multiobjective optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 204–211, IEEE Press, Portland, Oregon.
- [Paterlini & Krink(2004)] Paterlini, S. & Krink, T. (2004) High performance clustering with differential evolution. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2004–2011, IEEE Press, Portland, Oregon.
- [Paul & Iba(2004)] Paul, T. & Iba, H. (2004) Selection of the most useful subset of genes for gene expression-based classification. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2076–2083, IEEE Press, Portland, Oregon.
- [Peng & Reynolds(2004)] Peng, B. & Reynolds, R.G. (2004) Cultural algorithms: Knowledge learning in dynamic environments. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1751–1758, IEEE Press, Portland, Oregon.

- [Pfaffmann et al.(2004)Pfaffmann, Bousmalis & Colombano] Pfaffmann, J., Bousmalis, K. & Colombano, S. (2004) A scouting-inspired evolutionary algorithm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1706–1712, IEEE Press, Portland, Oregon.
- [Piaseczny et al.(2004)Piaseczny, Suzuki & Sawai] Piaseczny, W., Suzuki, H. & Sawai, H. (2004) Chemical genetic programming evolution of amino acid rewriting rules used for genotype-phenotype translation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1639–1646, IEEE Press, Portland, Oregon.
- [ping Chen & Goldberg(2004)] ping Chen, Y. & Goldberg, D. (2004) Convergence time for the linkage learning genetic algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 39–46, IEEE Press, Portland, Oregon.
- [Pirzada et al.(2004)Pirzada, Datta & McDonald] Pirzada, A., Datta, A. & McDonald, C. (2004) Trusted routing in ad-hoc networks using pheromone trails. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1938–1943, IEEE Press, Portland, Oregon.
- [Pulido & Coello-Coello(2004)] Pulido, G.T. & Coello-Coello, C. (2004) A constraint-handling mechanism for particle swarm optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1396–1403, IEEE Press, Portland, Oregon.
- [Randall(2004)] Randall, M. (2004) Heuristics for ant colony optimisation using the generalised assignment problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1916–1923, IEEE Press, Portland, Oregon.
- [Ray et al.(2004)Ray, Venkatarayalu, Won & Chan] Ray, T., Venkatarayalu, N., Won, K.S. & Chan, K.P. (2004) Study on the behaviour and implementation of parent centric crossover within the generalized generation gap model. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1996–2003, IEEE Press, Portland, Oregon.
- [Ross et al.(2004)Ross, Marin-Blazquez & Hart] Ross, P., Marin-Blazquez, J.G. & Hart, E. (2004) Hyper-heuristics applied to class and exam timetabling problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1691–1698, IEEE Press, Portland, Oregon.
- [Rowland(2004)] Rowland, J. (2004) On genetic programming and knowledge discovery in transcriptome data. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 158–165, IEEE Press, Portland, Oregon.
- [S. et al.(2004)S., Alphones & Suganthan] S., B., Alphones, A. & Suganthan, P.N. (2004) Concurrent pso and fdr-pso based reconfigurable phase-differentiated antenna array design. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2173–2179, IEEE Press, Portland, Oregon.
- [S. & Suganthan(2004)] S., B. & Suganthan, P.N. (2004) A novel concurrent particle swarm optimization (cpso). *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 792–796, IEEE Press, Portland, Oregon.
- [Sait & Al-Ismail(2004)] Sait, S.M. & Al-Ismail, M. (2004) Enhanced simulated evolution algorithm for digital circuit design yielding faster execution in a larger solution space. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1794–1799, IEEE Press, Portland, Oregon.
- [Salomon(2004a)] Salomon, R. (2004a) The curse of high-dimensional search spaces: Observing premature convergence in unimodal functions. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 918–923, IEEE Press, Portland, Oregon.
- [Salomon(2004b)] Salomon, R. (2004b) The force model: Concept, behavior, interpretation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1119–1126, IEEE Press, Portland, Oregon.
- [Sanchez et al.(2004a)Sanchez, Squillero & Violante] Sanchez, E., Squillero, G. & Violante, M. (2004a) A local analysis of the genotype-fitness mapping in hardware optimization problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 871–878, IEEE Press, Portland, Oregon.

- [Sanchez et al.(2004b)Sanchez, Galan & Rubio] Sanchez, J.J., Galan, M. & Rubio, E. (2004b) Genetic algorithms and cellular automata: A new architecture for traffic light cycles optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1668–1674, IEEE Press, Portland, Oregon.
- [Santos & Ohishi(2004)] Santos, E. & Ohishi, T. (2004) A hydro unit commitment model using genetic algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1368–1374, IEEE Press, Portland, Oregon.
- [Sarif et al.(2004)Sarif, Abd-El-Barr, Sait & Al-Saiari] Sarif, B., Abd-El-Barr, M., Sait, S.M. & Al-Saiari, U. (2004) Fuzzified ant colony optimization algorithm for efficient combinational circuits. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1317–1324, IEEE Press, Portland, Oregon.
- [Sastry et al. (2004) Sastry, Pelikan & Goldberg] Sastry, K., Pelikan, M. & Goldberg, D. (2004) Efficiency enhancement of genetic algorithms via building-block-wise fitness estimation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 720–727, IEEE Press, Portland, Oregon.
- [Sato et al.(2004)Sato, Aguirre & Tanaka] Sato, H., Aguirre, H. & Tanaka, K. (2004) Local dominance using polar coordinates to enhance multiobjective evolutionary algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 188–195, IEEE Press, Portland, Oregon.
- [Schoenemann(2004)] Schoenemann, L. (2004) The impact of population sizes and diversity on the adaptability of evolution strategies in dynamic environments. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1270–1277, IEEE Press, Portland, Oregon.
- [Schonfeld & Ashlock(2004)] Schonfeld, J. & Ashlock, D. (2004) Comparison of robustness of solutions located by evolutionary computation and other search algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 250–257, IEEE Press, Portland, Oregon.
- [Sedighi et al.(2004)Sedighi, Ashenayi, Manikas, Tai & Wainwright] Sedighi, K., Ashenayi, K., Manikas, T., Tai, H.M. & Wainwright, R. (2004) Autonomous local path-planning for a mobile robot using a genetic algorithm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1338–1345, IEEE Press, Portland, Oregon.
- [Seo et al.(2004)Seo, Yasunaga & Kim] Seo, D., Yasunaga, M. & Kim, J.H. (2004) A computatioal approach to detect transcritpion regulatory elements in dictyostelium discoideum. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1647–1653, IEEE Press, Portland, Oregon.
- [Seredynski & Bouvry(2004)] Seredynski, M. & Bouvry, P. (2004) Block cipher based on reversible cellular automata. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2138–2143, IEEE Press, Portland, Oregon.
- [Shan et al.(2004)Shan, McKay, Baxter, Abbass, Essam & Nguyen] Shan, Y., McKay, R.I., Baxter, R., Abbass, H., Essam, D. & Nguyen, H. (2004) Grammar model-based program evolution. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 478–485, IEEE Press, Portland, Oregon.
- [Sheng & Liu(2004)] Sheng, W. & Liu, X. (2004) A hybrid algorithm for k-medoid clustering of large data sets. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 77–82, IEEE Press, Portland, Oregon.
- [Shuyuan et al. (2004a) Shuyuan, Min & Licheng] Shuyuan, Y., Min, W. & Licheng, J. (2004a) A novel quantum evolutionary algorithm and its application. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 820–826, IEEE Press, Portland, Oregon.
- [Shuyuan et al.(2004b)Shuyuan, Min & Licheng] Shuyuan, Y., Min, W. & Licheng, J. (2004b) A quantum particle swarm optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 320–324, IEEE Press, Portland, Oregon.

- [Simionescu et al. (2004) Simionescu, Beale & Dozier] Simionescu, P.A., Beale, D.G. & Dozier, G.V. (2004) Constrained optimization problem solving using estimation of distribution algorithms. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 296–302, IEEE Press, Portland, Oregon.
- [Simsek et al.(2004)Simsek, Albayrak & Korth] Simsek, B., Albayrak, S. & Korth, A. (2004) Reinforcement learning for procurement agents of the factory of the future. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1331–1337, IEEE Press, Portland, Oregon.
- [Sinka & Corne(2004)] Sinka, M. & Corne, D. (2004) Evolving document features for web document clustering: A feasability study. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 891–897, IEEE Press, Portland, Oregon.
- [Slade et al.(2004)Slade, Ressom, Musavi & Miller] Slade, W., Ressom, H., Musavi, M. & Miller, R. (2004) Ocean color inversion by particle swarm optimization. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 971–977, IEEE Press, Portland, Oregon.
- [Smith et al.(2004)Smith, Everson & Fieldsend] Smith, K., Everson, R. & Fieldsend, J. (2004) Dominance measures for multi-objective simulated annealing. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 23–30, IEEE Press, Portland, Oregon.
- [Song & Ciesielski(2004)] Song, A. & Ciesielski, V. (2004) Texture analysis by genetic programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2092–2099, IEEE Press, Portland, Oregon.
- [Speer et al.(2004)Speer, Spieth & Zell] Speer, N., Spieth, C. & Zell, A. (2004) A memetic co-clustering algorithm for gene expression profiles and biological annotation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1631–1638, IEEE Press, Portland, Oregon.
- [Spieth et al. (2004a) Spieth, Streichert, Speer & Zell] Spieth, C., Streichert, F., Speer, N. & Zell, A. (2004a) A memetic inference method for gene regulatory networks based on s-systems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 152–157, IEEE Press, Portland, Oregon.
- [Spieth et al.(2004b)Spieth, Streichert, Speer & Zell] Spieth, C., Streichert, F., Speer, N. & Zell, A. (2004b) Utilizing an island model for ea to preserve solution diversity for inferring gene regulatory networks. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 146–151, IEEE Press, Portland, Oregon.
- [Stanhope(2004)] Stanhope, S. (2004) Evolution strategies for multivariate-to-anything partially specified random vector generation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2235–2240, IEEE Press, Portland, Oregon.
- [Stephan & Sullivan(2004)] Stephan, C. & Sullivan, J. (2004) An agent-based hydrogen vehicle/infrastructure model. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1774–1779, IEEE Press, Portland, Oregon.
- [Stoica et al.(2004)Stoica, Arslan, Keymeulen, Duong, Zebulum, Guo, Ferguson & Daud] Stoica, A., Arslan, T., Keymeulen, D., Duong, V., Zebulum, R., Guo, X., Ferguson, I. & Daud, T. (2004) Evolutionary recovery of electronic circuits from radiation induced faults. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1786–1793, IEEE Press, Portland, Oregon.
- [Streichert et al.(2004)Streichert, Ulmer & Zell] Streichert, F., Ulmer, H. & Zell, A. (2004) Evaluating a hybrid encoding and three crossover operators on the constrained portfolio selection problem. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 932–939, IEEE Press, Portland, Oregon.
- [Sun et al.(2004)Sun, Feng, Xu, Liu & Bao] Sun, J., Feng, B., Xu, W., Liu, J. & Bao, L. (2004) Particle swarm optimization with particles having quantum behavior. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 325–331, IEEE Press, Portland, Oregon.

- [Sun & Just(2004)] Sun, X. & Just, W. (2004) Evolution of strategies in modified sequential assessment games. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 388–394, IEEE Press, Portland, Oregon.
- [Suram et al. (2004) Suram, Bryden & Ashlock] Suram, S., Bryden, K. & Ashlock, D. (2004) Quantitative trait loci based solution of an inverse radiation heat transfer problem. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 427–432, IEEE Press, Portland, Oregon.
- [Takahashi & Kobayashi(2004)] Takahashi, O. & Kobayashi, S. (2004) An angular distance dependent alternation model for real-coded genetic algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2159–2165, IEEE Press, Portland, Oregon.
- [Tanaka-Yamawaki & Motoyama(2004)] Tanaka-Yamawaki, M. & Motoyama, T. (2004) Predicting the tick-wise price fluctuations by means of evolutional computation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 955–958, IEEE Press, Portland, Oregon.
- [Tanev et al.(2004)Tanev, Ray & Buller] Tanev, I., Ray, T. & Buller, A. (2004) Evolutionary design, robustness and adaptation of sidewinding locomotion of simulated libmless wheelless robot. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2312–2319, IEEE Press, Portland, Oregon.
- [Tang et al.(2004)Tang, Suganthan & Yao] Tang, K., Suganthan, P.N. & Yao, X. (2004) Generalized lda using relevance weighting and evolution strategy. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2230–2234, IEEE Press, Portland, Oregon.
- [Tasgetiren et al.(2004) Tasgetiren, Sevkli, Liang & Gencyilmaz] Tasgetiren, M.F., Sevkli, M., Liang, Y.C. & Gencyilmaz, G. (2004) Particle swarm optimization algorithm for single machine total weighted tardiness problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1412–1419, IEEE Press, Portland, Oregon.
- [Tasoulis et al. (2004) Tasoulis, Pavlidis, Plagianakos & Vrahatis] Tasoulis, D., Pavlidis, N., Plagianakos, V. & Vrahatis, M. (2004) Parallel differential evolution. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2023–2029, IEEE Press, Portland, Oregon.
- [Tavares et al.(2004) Tavares, Pereira & Costa] Tavares, J., Pereira, F. & Costa, E. (2004) Understanding the role of insertion and correction in the evolution of golomb rulers. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 69–76, IEEE Press, Portland, Oregon.
- [Teredesai & Govindaraju(2004)] Teredesai, A. & Govindaraju, V. (2004) Issues in evolving gp based classifiers for a pattern recognition task. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 509–515, IEEE Press, Portland, Oregon.
- [Thomsen(2004)] Thomsen, R. (2004) Multimodal optimization using crowding-based differential evolution. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1382–1389, IEEE Press, Portland, Oregon.
- [Timmis et al.(2004)Timmis, Edmonds & Kelsey] Timmis, J., Edmonds, C. & Kelsey, J. (2004) Assessing the performance of two immune inspired algorithms and a hybrid genetic algorithm for function optimisation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1044–1051, IEEE Press, Portland, Oregon.
- [Tinos & Carvalho(2004)] Tinos, R. & Carvalho, A. (2004) A genetic algorithm with gene dependent mutation probability for non-stationary optimization problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1278–1285, IEEE Press, Portland, Oregon.
- [Tomassini et al.(2004)Tomassini, Vanneschi, Cuendet & Fernandez] Tomassini, M., Vanneschi, L., Cuendet, J. & Fernandez, F. (2004) A new technique for dynamic size populations in genetic programming. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 486–493, IEEE Press, Portland, Oregon.

- [Tongchim & Yao(2004)] Tongchim, S. & Yao, X. (2004) Parallel evolutionary programming. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1362–1367, IEEE Press, Portland, Oregon.
- [Treptow & Zell(2004)] Treptow, A. & Zell, A. (2004) Combining adaboost learning and evolutionary search to select features for real-time object detection. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2107–2113, IEEE Press, Portland, Oregon.
- [Tsutsui & Wilson(2004)] Tsutsui, S. & Wilson, G. (2004) Solving capacitated vehicle routing problems using edge histogram based sampling algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1150–1157, IEEE Press, Portland, Oregon.
- [Tulai & Oppacher(2004)] Tulai, A. & Oppacher, F. (2004) Maintaining diversity and increasing the accuracy of classification rules through automatic speciation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2241–2249, IEEE Press, Portland, Oregon.
- [Ulmer et al.(2004)Ulmer, Streichert & Zell] Ulmer, H., Streichert, F. & Zell, A. (2004) Evolution strategies with controlled model assistance. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1569–1576, IEEE Press, Portland, Oregon.
- [Uosaki et al.(2004)Uosaki, Kimura & Hatanaka] Uosaki, K., Kimura, Y. & Hatanaka, T. (2004) Evolution strategies based particle filters for state and parameter estimation of nonlinear models. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 884–890, IEEE Press, Portland, Oregon.
- [Uyar & Uyar(2004)] Uyar, A.S. & Uyar, H.T. (2004) An event-driven test framework for evolutionary algorithms in dynamic environments. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2265–2272, IEEE Press, Portland, Oregon.
- [Venkatraman & Yen(2004)] Venkatraman, S. & Yen, G. (2004) A simple elitist genetic algorithm for constrained optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 288–295, IEEE Press, Portland, Oregon.
- [Verel et al.(2004)Verel, Collard & Clergue] Verel, S., Collard, P. & Clergue, M. (2004) Scuba search: when selection meets innovation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 924–931, IEEE Press, Portland, Oregon.
- [Vesterstroem & Thomsen(2004)] Vesterstroem, J. & Thomsen, R. (2004) A comparative study of differential evolution, particle swarm optimization, and evolutionary algorithms on numerical benchmark problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1980–1987, IEEE Press, Portland, Oregon.
- [Vigraham & Gallagher (2004)] Vigraham, S. & Gallagher, J. (2004) On the relative efficacies of space saving \*cgas for evolvable hardware applications. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2187–2193, IEEE Press, Portland, Oregon.
- [Walker(2004)] Walker, R.L. (2004) Honeybee search strategies: Adaptive exploration of an information ecosystem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1209–1216, IEEE Press, Portland, Oregon.
- [Walsh & Fenton(2004)] Walsh, P. & Fenton, P. (2004) A high-throughput computing environment for job shop scheduling genetic algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1554–1560, IEEE Press, Portland, Oregon.
- [Watanabe & Nodu(2004)] Watanabe, I. & Nodu, M. (2004) A genetic algorithm for optimizing switching sequence of service restoration in distribution systems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1683–1690, IEEE Press, Portland, Oregon.
- [Wei & Lee(2004)] Wei, J.D. & Lee, D.T. (2004) A new approach to the traveling salesman problem using genetic algorithms with priority encoding. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1457–1464, IEEE Press, Portland, Oregon.

- [Weinberg & Talbi(2004)] Weinberg, B. & Talbi, E.G. (2004) Nfl theorem is unusable on structured classes of problems. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 220–226, IEEE Press, Portland, Oregon.
- [White & Yen(2004)] White, C. & Yen, G. (2004) A hybrid evolutionary algorithm for traveling salesman problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1473–1478, IEEE Press, Portland, Oregon.
- [Won & Ray(2004)] Won, K.S. & Ray, T. (2004) Performance of kriging and cokriging based surrogate models within the unified framework for surrogate assisted optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1577–1585, IEEE Press, Portland, Oregon.
- [Wong et al.(2004)Wong, Cote & Sabourin] Wong, T., Cote, P. & Sabourin, R. (2004) A hybrid moea for the capacitated exam proximity problem. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1495–1501, IEEE Press, Portland, Oregon.
- [Wood & Chen(2004)] Wood, D. & Chen, J. (2004) Fredkin gate circuits via recombination enzymes. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1896–1900, IEEE Press, Portland, Oregon.
- [Wu et al.(2004)Wu, Tang, Zou, Kang & Li] Wu, Z., Tang, Z., Zou, J., Kang, L. & Li, M. (2004) An evolutionary algorithm for solving parameter identification problems in elliptic systems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 803–808, IEEE Press, Portland, Oregon.
- [Xie et al.(2004a)Xie, Zhang & Bi] Xie, X.F., Zhang, W.J. & Bi, D.C. (2004a) Handling equality constraints by adaptive relaxing rule for swarm algorithms. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2012–2016, IEEE Press, Portland, Oregon.
- [Xie et al.(2004b)Xie, Zhang & Bi] Xie, X.F., Zhang, W.J. & Bi, D.C. (2004b) Optimizing semiconductor devices by self-organizing particle swarm. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2017–2022, IEEE Press, Portland, Oregon.
- [Xu et al.(2004)Xu, Salcedo-Sanz & Yao] Xu, Y., Salcedo-Sanz, S. & Yao, X. (2004) Non-standard cost terminal assignment problems using tabu search approach. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2302–2306, IEEE Press, Portland, Oregon.
- [Yang & Shen(2004)] Yang, J.M. & Shen, T.W. (2004) A pharmacophore-based evolutionary approach for screening estrogen receptor antagonists. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1028–1035, IEEE Press, Portland, Oregon.
- [Yang(2004)] Yang, S. (2004) Constructing dynamic test environments for genetic algorithms based on problem difficulty. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1262–1269, IEEE Press, Portland, Oregon.
- [Yannakakis et al.(2004) Yannakakis, Levine & Hallam] Yannakakis, G., Levine, J. & Hallam, J. (2004) An evolutionary approach for interactive computer games. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 986–993, IEEE Press, Portland, Oregon.
- [Yapicioglu et al. (2004) Yapicioglu, Dozier & Smith] Yapicioglu, H., Dozier, G.V. & Smith, A.E. (2004) Bi-criteria model for locating a semi-desirable facility on a plane using particle swarm optimization. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 2328–2334, IEEE Press, Portland, Oregon.
- [Yong-Duk et al.(2004)Yong-Duk, Jong-Hwan & Yong-Jae] Yong-Duk, K., Jong-Hwan, K. & Yong-Jae, K. (2004) Behavior selection and learning for synthetic character. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 898–903, IEEE Press, Portland, Oregon.
- [Yuchi & Kim(2004)] Yuchi, M. & Kim, J.H. (2004) Grouping-based evolutionary algorithm: Seeking balance between feasible and infeasible individuals of constrained optimization problems. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 280–287, IEEE Press, Portland, Oregon.

- [Yun et al.(2004)Yun, Nakayama & Arakawa] Yun, Y., Nakayama, H. & Arakawa, M. (2004) Fitness evaluation using generalized data envelopment analysis in moga. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 464–471, IEEE Press, Portland, Oregon.
- [Zhang & Dozier (2004)] Zhang, F. & Dozier, G.V. (2004) A comparison of distributed restricted recombination operators for genetic and evolutionary societies of hill-climbers: A disacsp perspective. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1988– 1995, IEEE Press, Portland, Oregon.
- [Zhang & Huang(2004)] Zhang, G.Z. & Huang, D.S. (2004) Radial basis function neural network optimized by ga for soybean protein sequence residue spatial distance prediction. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1015–1019, IEEE Press, Portland, Oregon.
- [Zhang et al.(2004a)Zhang, Chung & Hu] Zhang, J., Chung, H. & Hu, B. (2004a) Adaptive probabilities of crossover and mutation in genetic algorithms based on clustering technique. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2280–2287, IEEE Press, Portland, Oregon.
- [Zhang et al.(2004b)Zhang, Yuan & Buckles] Zhang, J., Yuan, X. & Buckles, B. (2004b) Subspace fdc for sharing distance estimation. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 1735–1742, IEEE Press, Portland, Oregon.
- [Zhang et al.(2004c)Zhang, Xie & Bi] Zhang, W.J., Xie, X.F. & Bi, D.C. (2004c) Handling boundary constraints for numrical optimization by particle swarm flying in periodic search space. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2307–2311, IEEE Press, Portland, Oregon.
- [Zheng et al.(2004)Zheng, Ling, Shi & Xie] Zheng, J., Ling, C.X., Shi, Z. & Xie, Y. (2004) Some discussions about mogas: Individual relations, non-dominated set, and application on automatic negotiation. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 706–712, IEEE Press, Portland, Oregon.
- [Zhou et al.(2004)Zhou, Ong & Nair] Zhou, Z., Ong, Y.S. & Nair, P.B. (2004) Hierarchical surrogate-assisted evolutionary optimization framework. *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, pp. 1586–1593, IEEE Press, Portland, Oregon.
- [Zou et al.(2004a)Zou, Zhou, Chen & Yao] Zou, P., Zhou, Z., Chen, G. & Yao, X. (2004a) A novel memetic algorithm with random multi-local-search: A case study of tsp. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 2335–2340, IEEE Press, Portland, Oregon.
- [Zou et al.(2004b)]Zou, Zhuang & Chen] Zou, Y., Zhuang, Z. & Chen, H. (2004b) Hw-sw partitioning based on genetic algorithm. Proceedings of the 2004 IEEE Congress on Evolutionary Computation, pp. 628–633, IEEE Press, Portland, Oregon.