

## Список литературы

- [AC1] Enrique Alba and J. Francisco Chicano. Training neural networks with ga hybrid algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 852–863, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [AC2] Chatchawit Apornthewan and Prabhas Chongstitvatana. Simultaneity matrix for solving hierarchically decomposable functions. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 877–888, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [AL] Enrique Alba and Gabriel Luque. Growth curves and takeover time in distributed evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 864–876, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [ALA] Lourdes Araujo, Gabriel Luque, and Enrique Alba. Metaheuristics for natural language tagging. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 889–900, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Alb] Andreas A. Albrecht. On the complexity to approach optimum solutions by inhomogeneous markov chains. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 642–653, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [ARBD] Jesus Aguilar-Ruiz, Jaume Bacardit, and Federico Divina. Experimental evaluation of discretization schemes for rule induction. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 828–839, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [ARG] Chang Wook Ahn, R.S. Ramakrishna, and David E. Goldberg. Real-coded bayesian optimization algorithm: Bringing the strength of boa into the continuous world. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 840–851, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [ARMGR] Jesus S. Aguilar-Ruiz, Daniel Mateos, Raul Giraldez, and Jose C. Riquelme. Statistical test-based evolutionary segmentation of yeast genome. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 493–494, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [AT] Adrian Agogino and Kagan Tumer. Efficient evaluation functions for multi-rover systems. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1–11, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BC] Pedro J. Ballester and Jonathan N. Carter. An effective real-parameter genetic algorithm with parent centric normal crossover for multimodal optimisation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 901–913, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BDC] Erik C. Buehler, Sanjoy Das, and Jack F. Cully. Equilibrium and extinction in a trisexual diploid mating system: An investigation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 495–496, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Ber] Stefan Berlik. A step size preserving directed mutation operator. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 786–787, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Bey] Hans-Georg Beyer. Actuator noise in recombinant evolution strategies on general quadratic fitness models. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 654–665, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BG] Bulent Buyukbozkirli and Erik D. Goodman. A statistical model of ga dynamics for the onemax problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 935–946, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BKS] Jürgen Branke, Andreas Kamper, and Hartmut Schneck. Distribution of evolutionary algorithms in heterogeneous networks. In Kalyanmoy Deb, Riccardo Poli, Wolfgang

- Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 923–934, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BL] Josh C. Bongard and Hod Lipson. Automating genetic network inference with minimal physical experimentation using coevolution. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 333–345, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BLM<sup>+</sup>] Ignasi Belda, Xavier Llorà, Marc Martinell, Teresa Tarragó, and Ernest Giralt. Computer-aided peptide evolution for virtual drug design. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 321–332, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BM] Daniel J. Burns and Kevin T. May. On parameterizing models of antigen-antibody binding dynamics on surfaces: A genetic algorithm approach and the need for speed. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 497–498, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BNP] Ari Bader-Natal and Jordan B. Pollack. A population-differential method of monitoring success and failure in coevolution. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 585–586, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BPdJ] Anthony Bucci, Jordan B. Pollack, and Edwin de Jong. Automated extraction of problem structure. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 501–512, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BPJ] Jeffrey K. Bassett, Mitchell A. Potter, and Kenneth A. De Jong. Looking under the ea hood with price’s equation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 914–922, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BR] Thang N. Bui and Joseph R. Rizzo. Finding maximum cliques with distributed ants. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy

Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 24–35, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [BS1] Alain Berro and Stephane Sanchez. Autonomous agent for multi-objective optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 251–252, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BS2] Thang N. Bui and Gnanasekaran Sundarraj. Ant system for the k-cardinality tree problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 36–47, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [BSdS<sup>+</sup>] Anthony Brabazon, Arlindo Silva, Tiago Ferra de Sousa, Michael O’Neill, Robin Matthews, and Ernesto Costa. A particle swarm model of organizational adaptation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 12–23, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CH1] Darren M. Chitty and Marcel L. Hernandez. A hybrid ant colony optimisation technique for dynamic vehicle routing. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 48–59, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CH2] Lauren M. Clevenger and William E. Hart. Convergence examples of a filter-based evolutionary algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 666–677, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Chi] Darren M. Chitty. An evolved autonomous controller for satellite task scheduling. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 253–254, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Cho] Rick Chow. Genotype to phenotype mappings with a multiple-chromosome genetic algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1006–1017, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [CK1] Chihyung Derrick Cheng and Alexander Kosorukoff. Interactive one-max problem allows to compare the performance of interactive and human-based genetic algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 983–993, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CK2] David Cornforth and Michael Kirley. Cooperative problem solving using an agent-based market. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 60–71, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CM] Sung-Soon Choi and Byung-Ro Moon. Polynomial approximation of survival probabilities under multi-point crossover. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 994–1005, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CO] Dara Curran and Colm O’Riordan. Cultural evolution for sequential decision tasks: Evolving tic-tac-toe players in multi-agent systems. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 72–80, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [COUS] Ming Chang, Kazuhiro Ohkura, Kanji Ueda, and Masaharu Sugiyama. Modeling coevolutionary genetic algorithms on two-bit landscapes: Random partnering. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 513–524, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CP1] Erick Cantú-Paz. Adaptive sampling for noisy problems. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 947–958, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CP2] Erick Cantú-Paz. Feature subset selection, class separability, and genetic algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 959–970, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [CS] Chrysomalis Chrysomalakos and Christopher R. Stephens. What basis for genetic dynamics? In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer,

Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1018–1029, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [DBHC] Gerry Dozier, Douglas Brown, John Hurley, and Krystal Cain. Vulnerability analysis of immunity-based intrusion detection systems using evolutionary hackers. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 263–274, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DBLC] Elizabeth Dicke, Andrew Bye, Paul Layzell, and Dave Cliff. Using a genetic algorithm to design and improve storage area network architectures. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1066–1077, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DCBZ] Gerry Dozier, Hurley Cunningham, Winard Britt, and Funing Zhang. Distributed constraint satisfaction, restricted recombination, and hybrid genetic search. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1078–1087, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DdCP<sup>+</sup>] A.C.B. Delbem, Andre de Carvalho, Claudio A. Policastro, Adriano K.O. Pinto, Karen Honda, and Anderson C. Garcia. Node-depth encoding for evolutionary algorithms applied to network design. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 678–687, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DG] Kalyanmoy Deb and Naveen Kumar Gupta. Optimal operating conditions for overhead crane maneuvering using multi-objective evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1042–1053, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [dJ] Edwin D. de Jong. The incremental pareto-coevolution archive. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 525–536, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [dJT] Edwin D. de Jong and Dirk Thierens. Exploiting modularity, hierarchy, and repetition in variable-length problems. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1030–1041, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [dMBD] Camila S. de Magalhães, Helio J.C. Barbosa, and Laurent E. Dardenne. Selection-insertion schemes in genetic algorithms for the flexible ligand docking problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 368–379, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DMLG] Rich Drewes, James Maciokas, Sushil J. Louis, and Philip Goodman. An evolutionary autonomous agent with visual cortex and recurrent spiking columnar neural network. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 257–258, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Dow] Keith L. Downing. Artificial life and natural intelligence. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 81–92, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DP1] Kalyanmoy Deb and Koushik Pal. Efficiently solving: A large-scale integer linear program using a customized genetic algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1054–1065, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [DP2] Stephen Dignum and Riccardo Poli. Multi-agent foreign exchange market modelling via gp. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 255–256, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Dro] Stefan Droste. Analysis of the  $(1 + 1)$  ea for a noisy onemax. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1088–1099, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Fis] Simon Fischer. A polynomial upper bound for a mutation-based algorithm on the two-dimensional ising model. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James

- Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1100–1112, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [FW] Simon Fischer and Ingo Wegener. The ising model on the ring: Mutation versus recombination. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1113–1124, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [GATT] Mario Giacobini, Enrique Alba, Andrea Tettamanzi, and Marco Tomassini. Modeling selection intensity for toroidal cellular evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1138–1149, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [GB] Osvaldo Gómez and Benjamin Barán. Arguments for aco’s success. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 259–260, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [GGW] Ivan I. Garibay, Ozlem O. Garibay, and Annie S. Wu. Effects of module encapsulation in repetitively modular genotypes on the search space. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1125–1137, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [GJ] Adrian Grajdeanu and Kenneth De Jong. Improving the locality properties of binary representations. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1186–1196, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Gom1] Jonatan Gomez. Evolution of fuzzy rule based classifiers. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1150–1161, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Gom2] Jonatan Gomez. Self adaptation of operator rates in evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1162–1173, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.



- [GR] Jörn Grahl and Franz Rothlauf. Polyeda: Combining estimation of distribution algorithms and linear inequality constraints. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1174–1185, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Gre] William A. Greene. Schema disruption in chromosomes that are structured as binary trees. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1197–1207, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Gro] Crina Grosan. A comparison of several algorithms and representations for single objective optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 788–789, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [HD] Xiaoshu Hang and Honghua Dai. Constructing detectors in schema complementary space for anomaly detection. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 275–286, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [HG] Jianjun Hu and Erik Goodman. Robust and efficient genetic algorithms with hierarchical niching and a sustainable evolutionary computation model. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1220–1232, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [HR] Chien-Feng Huang and Luis M. Rocha. A systematic study of genetic algorithms with genotype editing. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1233–1245, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [HS] Brian Howard and John Sheppard. The royal road not taken: A re-examination of the reasons for ga failure on r1. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1208–1219, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [IL] Antony W. Iorio and Xiaodong Li. A cooperative coevolutionary multiobjective algorithm using non-dominated sorting. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James

- Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 537–548, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [IN] Hisao Ishibuchi and Kaname Narukawa. Some issues on the implementation of local search in evolutionary multiobjective optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1246–1258, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [IS] Hisao Ishibuchi and Youhei Shibata. Mating scheme for controlling the diversity-convergence balance for multiobjective optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1259–1271, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [ITI] Yutaka Inoue, Takahiro Tohge, and Hitoshi Iba. Learning to acquire autonomous behavior: Cooperation by humanoid robots. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 590–602, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [JA] Bryant A. Julstrom and Athos Antoniadis. Three evolutionary codings of rectilinear steiner arborescences. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1282–1291, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [JBB] Wilfried Jakob, Christian Blume, and Georg Bretthauer. Towards a generally applicable self-adapting hybridization of evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 790–791, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [JD] Zhou Ji and Dipankar Dasgupta. Real-valued negative selection algorithm with variable-sized detectors. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 287–298, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [JM] Soonchul Jung and Byung-Ro Moon. Central point crossover for neuro-genetic hybrids. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1292–1303, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [JS1] Yaochu Jin and Bernhard Sendhoff. Reducing fitness evaluations using clustering techniques and neural network ensembles. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 688–699, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [JS2] Winfried Just and Xiaolu Sun. Is the predicted ess in the sequential assessment game evolvable? In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 499–500, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Jul] Bryant A. Julstrom. Encoding bounded-diameter spanning trees with permutations and with random keys. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1272–1281, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [KDWR] Praveen Koduru, Sanjoy Das, Stephen Welch, and Judith L. Roe. Fuzzy dominance based multi-objective ga-simplex hybrid algorithms applied to gene network models. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 356–367, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [KGK] T. Kowaliw, P. Grogono, and N. Kharma. Bluenome: A novel developmental model of artificial morphogenesis. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 93–104, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [KLM1] Yong-Hyuk Kim, Su-Yeon Lee, and Byung-Ro Moon. A genetic approach for gene selection on microarray expression data. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 346–355, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [KLM<sup>+</sup>2] Gunnar W. Klau, Ivana Ljubic, Andreas Moser, Petra Mutzel, Philipp Neuner, Ulrich Pfersch, Günther Raidl, and René Weiskircher. Combining a memetic algorithm with integer programming to solve the prize-collecting steiner tree problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1304–1315, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [KZD<sup>+</sup>] Didier Keymeulen, Ricardo Zebulum, Vu Duong, Xin Guo, Ian Ferguson, and Adrian Stoica. High temperature experiments for circuit self-recovery. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 792–803, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Li1] Xiaodong Li. Adaptively choosing neighbourhood bests using species in a particle swarm optimizer for multimodal function optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 105–116, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Li2] Xiaodong Li. Better spread and convergence: Particle swarm multiobjective optimization using the maximin fitness function. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 117–128, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [LL] Cláudio F. Lima and Fernando G. Lobo. Parameter-less optimization with the extended compact genetic algorithm and iterated local search. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1328–1339, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [LTB<sup>+</sup>] Jörg Langeheine, Martin Trefzer, Daniel Brüderle, Karlheinz Meier, and Johannes Schemmel. On the evolution of analog electronic circuits using building blocks on a cmos fpga. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1316–1327, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [LtEH] Anthony M.L. Liekens, Huub M.M. ten Eikelder, and Peter A.J. Hilbers. Predicting genetic drift in 2x2 games. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 549–560, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [LWGS] Monte Lunacek, Darrell Whitley, Philip Gabriel, and Graeme Stephens. Comparing search algorithms for the temperature inversion problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1340–1351, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Men] Anil Menon. Inequality’s arrow: The role of greed and order in genetic algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke,

- Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1352–1364, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MH] Jason H. Moore and Lance W. Hahn. Systems biology modeling in human genetics using petri nets and grammatical evolution. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 392–401, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Mil] Julian Francis Miller. Evolving a self-repairing, self-regulating, french flag organism. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 129–139, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MLD] Chris Miles, Sushil J. Louis, and Rich Drewes. Trap avoidance in strategic computer game playing with case injected genetic algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1365–1376, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MMC] Efrén Mezura-Montes and Carlos A. Coello Coello. An improved diversity mechanism for solving constrained optimization problems using a multimembered evolution strategy. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 700–712, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MMP] Giancarlo Mauri, Roberto Mosca, and Giulio Pavesi. A ga approach to the definition of regulatory signals in genomic sequences. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 380–391, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MP] Alberto Moraglio and Riccardo Poli. Topological interpretation of crossover. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1377–1388, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [MS] Christopher K. Monson and Kevin D. Seppi. The kalman swarm: A new approach to particle motion in swarm optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector,

Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 140–150, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [MT] Michail Maniadakis and Panos Trahanias. Evolution tunes coevolution: Modelling robot cognition mechanisms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 640–641, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Mum] Christine L. Mumford. Simple population replacement strategies for a steady-state multi-objective evolutionary algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1389–1400, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [NB] Sohail Nadimi and Bir Bhanu. Cooperative coevolution fusion for moving object detection. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 587–589, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [NR] Miguel Nicolau and Conor Ryan. Crossover, population dynamics, and convergence in the gauge system. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1414–1425, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [NRC] Olfa Nasraoui, Carlos Rojas, and Cesar Cardona. Dynamic and scalable evolutionary data mining: An approach based on a self-adaptive multiple expression mechanism. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1401–1413, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [NS] Tadashi Nakano and Tatsuya Suda. Adaptive and evolvable network services. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 151–162, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [NW] Frank Neumann and Ingo Wegener. Randomized local search, evolutionary algorithms, and the minimum spanning tree problem. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 713–724, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [OB] Michael O'Neill and Anthony Brabazon. Grammatical swarm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 163–174, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [OSCG] Kei Ohnishi, Kumara Sastry, Ying-Ping Chen, and David E. Goldberg. Inducing sequentiality using grammatical genetic codes. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 1426–1437, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PC] Gregorio Toscano Pulido and Carlos A. Coello Coello. Using clustering techniques to improve the performance of a multi-objective particle swarm optimizer. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 225–237, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PCG] Ying ping Chen and David E. Goldberg. Introducing subchromosome representations to the linkage learning genetic algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 971–982, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PDR] Michael R. Peterson, Travis E. Doom, and Michael L. Raymer. Ga-facilitated knowledge discovery and pattern recognition optimization applied to the biochemistry of protein solvation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 426–437, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PDVR] Ramón Alfonso Palacios-Durazo and Manuel Valenzuela-Rendón. Similarities between co-evolution and learning classifier systems and their applications. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 561–572, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PI] Topon Kumar Paul and Hitoshi Iba. Identification of informative genes for molecular classification using probabilistic model building genetic algorithm. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 414–425, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [PMdMO] E.J. Solteiro Pires, J.A. Tenreiro Machado, and P.B. de Moura Oliveira. Robot trajectory planning using multi-objective genetic algorithm optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 615–626, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PPGV] K.E. Parsopoulos, E.I. Papageorgiou, P.P. Groumpos, and M.N. Vrahatis. Evolutionary computation techniques for optimizing fuzzy cognitive maps in radiation therapy systems. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 402–413, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PT] Rainer W. Paine and Jun Tani. Evolved motor primitives and sequences in a hierarchical recurrent neural network. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 603–614, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [PWL] Liviu Panait, R. Paul Wiegand, and Sean Luke. A sensitivity analysis of a cooperative coevolutionary algorithm biased for optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 573–584, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [qQmShY<sup>+</sup>] Zhen qiang Qi, Shen min Song, Zhao hua Yang, Guang da Hu, and Fu en Zhang. A novel immune feedback control algorithm and its applications. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 318–320, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [RCM] Marylyn D. Ritchie, Christopher S. Coffey, and Jason H. Moore. Genetic programming neural networks as a bioinformatics tool for human genetics. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 438–448, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [RP] John Rieffel and Jordan Pollack. The emergence of ontogenic scaffolding in a stochastic development environment. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 804–815, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [RzH] Jonathan E. Rowe and Džena Hidović. An evolution strategy using a continuous version of the gray-code neighbourhood distribution. In Kalyanmoy Deb, Riccardo Poli, Wolfgang



- Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 725–736, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SBCC] Emmanuel Sapin, Olivier Bailleux, Jean-Jacques Chabrier, and Pierre Collet. A new universal cellular automaton discovered by evolutionary algorithms. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 175–187, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SBE] Thomas Stibor, Kpatscha M. Bayarou, and Claudia Eckert. An investigation of r-chunk detector generation on higher alphabets. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 299–307, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SF] Luke Sheneman and James A. Foster. Evolving better multiple sequence alignments. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 449–460, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SHH<sup>+</sup>] Li-Sun Shu, Shinn-Jang Ho, Shinn-Ying Ho, Jian-Hung Chen, and Ming-Hao Hung. A novel multi-objective orthogonal simulated annealing algorithm for solving multi-objective optimization problems with a large number of parameters. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 737–747, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SOD] Yann Semet, Una-May O’Reilly, and Frédo Durand. An interactive artificial ant approach to non-photorealistic rendering. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 188–200, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SPS<sup>+</sup>] Felix Streichert, Hannes Planatscher, Christian Spieth, Holger Ulmer, and Andreas Zell. Comparing genetic programming and evolution strategies on inferring gene regulatory networks. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 471–480, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [SSSZ] Christian Spieth, Felix Streichert, Nora Speer, and Andreas Zell. Optimizing topology and parameters of gene regulatory network models from time-series experiments. In

Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 461–470, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [Sto] Tobias Storch. On the choice of the population size. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 748–760, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Tal] Walter A. Talbott. Automatic creation of team-control plans using an assignment branch in genetic programming. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 201–212, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [TE] Jon Timmis and Camilla Edmonds. A comment on opt-ainet: An immune network algorithm for optimisation. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 308–317, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [TRB] Ivan Tanev, Thomas Ray, and Andrzej Buller. Evolution, robustness, and adaptation of sidewinding locomotion of simulated snake-like robot. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 627–639, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [TS] Yann Thoma and Eduardo Sanchez. A reconfigurable chip for evolvable hardware. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 816–827, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [TY] Ivan Tanev and Kikuo Yuta. Implications of epigenetic learning via modification of histones on performance of genetic programming. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 213–224, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [Wit] Carsten Witt. An analysis of the (1+1) ea on simple pseudo-boolean functions. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume

3102 of *Lecture Notes in Computer Science*, pages 761–773, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.

- [XZ1] Xiao-Feng Xie and Wen-Jun Zhang. Solving engineering design problems by social cognitive optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 261–262, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [XZ2] Xiao-Feng Xie and Wen-Jun Zhang. Swaf: Swarm algorithm framework for numerical optimization. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 238–250, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [YI] Kohsuke Yanai and Hitoshi Iba. Program evolution by integrating edp and gp. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 774–785, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.
- [YSCC] Jinn-Moon Yang, Tsai-Wei Shen, Yen-Fu Chen, and Yi-Yuan Chiu. An evolutionary approach with pharmacophore-based scoring functions for virtual database screening. In Kalyanmoy Deb, Riccardo Poli, Wolfgang Banzhaf, Hans-Georg Beyer, Edmund Burke, Paul Darwen, Dipankar Dasgupta, Dario Floreano, James Foster, Mark Harman, Owen Holland, Pier Luca Lanzi, Lee Spector, Andrea Tettamanzi, Dirk Thierens, and Andy Tyrrell, editors, *Genetic and Evolutionary Computation – GECCO-2004, Part I*, volume 3102 of *Lecture Notes in Computer Science*, pages 481–492, Seattle, WA, USA, 26-30 June 2004. Springer-Verlag.