

Список литературы

- [1] D. Palmer-Brown and M. Kang, Adfunn: An adaptive function neural network, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 1–4, Coimbra, Portugal, 2005, Springer.
- [2] B. Beliczynski, Certain comments on data preparation for neural networks based modelling, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 5–8, Coimbra, Portugal, 2005, Springer.
- [3] H. Saxen and F. Pettersson, A simple method for selection of inputs and structure of feedforward neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 9–12, Coimbra, Portugal, 2005, Springer.
- [4] M. Huk and H. Kwasnicka, The concept and properties of sigma-if neural network, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 13–17, Coimbra, Portugal, 2005, Springer.
- [5] W. Bellil, C. Amar, and A. Alimi, Beta wavelet networks for function approximation, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 18–21, Coimbra, Portugal, 2005, Springer.
- [6] P. Cruz, Speeding up backpropagation with multiplicative batch update step, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 22–24, Coimbra, Portugal, 2005, Springer.
- [7] J. Sima, Generating sequential triangle strips by using hopfield nets, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 25–28, Coimbra, Portugal, 2005, Springer.
- [8] S. I. Bauk, S. M. Perovich, and A. Lompar, The linear approximation method to the modified hopfield neural network parameters analysis, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 29–32, Coimbra, Portugal, 2005, Springer.
- [9] S. M. Perovich, S. I. Bauk, and N. Konjevic, The analytical analysis of hopfield neuron parameters by the application of special trans function theory, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 33–37, Coimbra, Portugal, 2005, Springer.
- [10] M. Jankovic and H. Ogawa, Time-oriented hierarchical method for computation of minor components, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 38–41, Coimbra, Portugal, 2005, Springer.
- [11] H. Soula, G. Beslon, and J. Favrel, Evolution versus learning in temporal neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 42–45, Coimbra, Portugal, 2005, Springer.
- [12] V. Kurkova, Minimization of empirical error over perceptron networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 46–49, Coimbra, Portugal, 2005, Springer.
- [13] A. Horzyk, Interval basis neural network, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 50–53, Coimbra, Portugal, 2005, Springer.

- [14] J. Eidson, B. Hamilton, and V. Kanevsky, Learning from randomly-distributed inaccurate measurements, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 54–61, Coimbra, Portugal, 2005, Springer.
- [15] H. Sun, Combining topological and cardinal directional relation information in qsr, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 62–65, Coimbra, Portugal, 2005, Springer.
- [16] H. Altincay, An evidence theoretic ensemble design technique, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 66–69, Coimbra, Portugal, 2005, Springer.
- [17] O. Hoshino, Cortical modulation of synaptic efficacies through norepinephrine, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 70–73, Coimbra, Portugal, 2005, Springer.
- [18] N. Davey, L. Calcraft, and R. Adams, Associative memories with small world connectivity, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 74–77, Coimbra, Portugal, 2005, Springer.
- [19] M. Murata and S. Ozawa, A memory-based reinforcement learning model utilizing macro-actions, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 78–81, Coimbra, Portugal, 2005, Springer.
- [20] C. C. Peck, J. Kozloski, G. A. Cecchi, and A. R. Rao, A biologically motivated classifier that preserves implicit relationship information in layered networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 82–85, Coimbra, Portugal, 2005, Springer.
- [21] Y. Yatsuzuka and Y. Ho, Large scale hetero-associative networks with very high classification ability and attractor discrimination consisting of cumulative-learned 3-layer neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 86–91, Coimbra, Portugal, 2005, Springer.
- [22] C. Avila, Y. Tsuji, and Y. Shiraishi, Crack width prediction of rc structures by artificial neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 92–95, Coimbra, Portugal, 2005, Springer.
- [23] B. Lamrini, A. Benhammou, A. Karama, and M.-V. L. Lann, A neural network system for modelling of coagulant dosage used in drinking water treatment, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 96–99, Coimbra, Portugal, 2005, Springer.
- [24] M. Ronnholm, K. Arve, K. Eranen, F. Klingstedt, T. Salmi, H. Saxen, and J. Westerholm, Ann modeling applied to nox reduction with octane. ann future in personal vehicles, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 100–103, Coimbra, Portugal, 2005, Springer.
- [25] M. Helle and H. Saxen, A method for detecting cause-effects in data from complex processes, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 104–107, Coimbra, Portugal, 2005, Springer.

- [26] M. Trebar and U. Lotric, Predictive data mining on rubber compound database, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 108–111, Coimbra, Portugal, 2005, Springer.
- [27] Z. Bingul and H. M. Ertunc, Applying neural network to inverse kinematic problem for 6r robot manipulator with offset wrist, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 112–115, Coimbra, Portugal, 2005, Springer.
- [28] L. Zhang, J. Sitte, and U. Rueckert, Local cluster neural network chip for control, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 116–119, Coimbra, Portugal, 2005, Springer.
- [29] M. Boumehraz and K. Benmahammed, A switching controller for nonlinear systems via fuzzy models, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 120–123, Coimbra, Portugal, 2005, Springer.
- [30] T. Ohba and M. Ishida, Competitive decentralized autonomous neural net controllers, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 124–127, Coimbra, Portugal, 2005, Springer.
- [31] T. M. Jelleli and A. M. Alimi, Improved hierarchical fuzzy control scheme, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 128–131, Coimbra, Portugal, 2005, Springer.
- [32] I. Gabrijel and A. Dobnikar, On-line inference of finite automata in noisy environments, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 132–135, Coimbra, Portugal, 2005, Springer.
- [33] D. W. Pearson and M. Batton-Hubert, Improved clustering by rotation of cluster centres, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 136–139, Coimbra, Portugal, 2005, Springer.
- [34] K. A. J. Doherty, R. G. Adams, and N. Davey, Hierarchical growing neural gas, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 140–143, Coimbra, Portugal, 2005, Springer.
- [35] R. Rastegar, A. Hariri, and M. Meybodi, A fuzzy clustering algorithm using cellular learning automata based evolutionary algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 144–150, Coimbra, Portugal, 2005, Springer.
- [36] U. Moller, Estimating the number of clusters from distributional results of partitioning a given data set, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 151–154, Coimbra, Portugal, 2005, Springer.
- [37] H. A. Boubacar, S. Lecoeuche, and S. Maouche, Audyc neural network using a new gaussian densities merge mechanism, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 155–158, Coimbra, Portugal, 2005, Springer.

- [38] M. Boudour and A. Hellal, The growing hierarchical self-organizing feature maps and genetic algorithms for large scale power system security, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 159–163, Coimbra, Portugal, 2005, Springer.
- [39] F. Boudjemai, P. B. Enberg, and J. G. Postaire, 3d self organizing convex neural network architectures, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 164–167, Coimbra, Portugal, 2005, Springer.
- [40] K. Marzouki and T. Yamakawa, Novel learning algorithm aiming at generating a unique units distribution in standard som, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 168–172, Coimbra, Portugal, 2005, Springer.
- [41] T. Tambouratzis, Som-based estimation of meteorological profiles, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 173–176, Coimbra, Portugal, 2005, Springer.
- [42] C. Garcia and J. Moreno, An efficient heuristic for the traveling salesman problem based on a growing som-like algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 177–180, Coimbra, Portugal, 2005, Springer.
- [43] H. Niska, T. Hiltunen, A. Karppinen, and M. Kolehmainen, Evolutionary design and evaluation of modeling system for forecasting urban airborne maximum pollutant concentrations, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 181–184, Coimbra, Portugal, 2005, Springer.
- [44] G. W. Braught, Evolving evolvability: Evolving both representations and operators, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 185–188, Coimbra, Portugal, 2005, Springer.
- [45] A. Gaspar-Cunha, A multi-objective evolutionary algorithm for solving traveling salesman problems: Application to the design of polymer extruders, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 189–193, Coimbra, Portugal, 2005, Springer.
- [46] M. Koppen, R. Vicente-Garcia, and B. Nickolay, The pareto-box problem for the modelling of evolutionary multiobjective optimization algorithms, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 194–197, Coimbra, Portugal, 2005, Springer.
- [47] J. Jedrzejowicz and P. Jedrzejowicz, Implementation and experimental validation of the population learning algorithm applied to solving gap instances, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 198–201, Coimbra, Portugal, 2005, Springer.
- [48] S. Shakya, J. McCall, and D. F. Brown, Estimating the distribution in an eda, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 202–205, Coimbra, Portugal, 2005, Springer.
- [49] P. Jonkergouw, E. Keedwell, and S.-T. Khu, Modelling chlorine decay in water networks with genetic programming, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 206–209, Coimbra, Portugal, 2005, Springer.

- [50] D. Curran and C. O’Riordan, Evolving blackjack strategies using cultural learning, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 210–213, Coimbra, Portugal, 2005, Springer.
- [51] N. Gupta and V. K. Agrawal, Two-criterion optimization in state assignment for synchronous finite state machines using nsga-ii, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 214–217, Coimbra, Portugal, 2005, Springer.
- [52] M. Affenzeller and S. Wagner, Offspring selection: A new self-adaptive selection scheme for genetic algorithms, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 218–221, Coimbra, Portugal, 2005, Springer.
- [53] J. Kubalik, Using genetic algorithms with real-coded binary representation for solving non-stationary problems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 222–225, Coimbra, Portugal, 2005, Springer.
- [54] A. Agrawal, I. Mitchell, P. Passmore, and I. Litovski, Dynamics in proportionate selection, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 226–229, Coimbra, Portugal, 2005, Springer.
- [55] L. E. Da Costa and J.-A. Landry, Generating grammatical plant models with genetic algorithms, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 230–234, Coimbra, Portugal, 2005, Springer.
- [56] J. Tavares, F. B. Pereira, and E. Costa, Golomb rulers: Experiments with marks representation, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 235–238, Coimbra, Portugal, 2005, Springer.
- [57] J. Tavares, T. Leitao, F. B. Pereira, and E. Costa, Evolving segments length in golomb rulers, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 239–242, Coimbra, Portugal, 2005, Springer.
- [58] S. Silva, P. J. N. Silva, and E. Costa, Resource-limited genetic programming: Replacing tree depth limits, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 243–246, Coimbra, Portugal, 2005, Springer.
- [59] Y. Kilani and A. Mohdizin, Treating some constraints as hard speeds up the esg local search algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 247–249, Coimbra, Portugal, 2005, Springer.
- [60] L. M. Wang, X. Shi, G. Chen, H. W. Ge, H. P. Lee, and Y. C. Liang, Applications of pso algorithm and oif elman neural network to assessment and forecasting for atmospheric quality, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 250–254, Coimbra, Portugal, 2005, Springer.
- [61] T. R. Machado and H. S. Lopes, A hybrid particle swarm optimization model for the traveling salesman problem, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 255–258, Coimbra, Portugal, 2005, Springer.

- [62] B. Kaewkamnerdpong and P. J. Bentley, Perceptive particle swarm optimisation, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 259–263, Coimbra, Portugal, 2005, Springer.
- [63] P. Pinto, T. A. Runkler, and J. M. Sousa, Wasp swarm optimization of logistic systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 264–267, Coimbra, Portugal, 2005, Springer.
- [64] I. L. Schoeman and A. P. Engelbrecht, A parallel vector-based particle swarm optimizer, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 268–271, Coimbra, Portugal, 2005, Springer.
- [65] A. Sicard, J. Ospina, and M. Velez, Numerical simulations of a possible hypercomputational quantum algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 272–275, Coimbra, Portugal, 2005, Springer.
- [66] M. Udrescu, L. Prodan, and M. Vladutiu, Efficient quantum circuits simulation with the bubble bit technique, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 276–279, Coimbra, Portugal, 2005, Springer.
- [67] A. Pereira and R. Rodrigues, Redundant quantum arithmetic, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 280–283, Coimbra, Portugal, 2005, Springer.
- [68] T. Abualrub, A. Ghayeb, and X. Zeng, A special class of additive cyclic codes for dna computing, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 284–287, Coimbra, Portugal, 2005, Springer.
- [69] M. Rocha, J. Neves, and A. Veloso, Evolutionary algorithms for static and dynamic optimization of fed-batch fermentation processes, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 288–291, Coimbra, Portugal, 2005, Springer.
- [70] R. Oliveira and R. Salcedo, Benchmark testing of simulated annealing, adaptive random search and genetic algorithms for the global optimization of bioprocesses, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 292–295, Coimbra, Portugal, 2005, Springer.
- [71] A. Teixeira, A. Cunha, J. Clemente, P. M. Alves, M. J. T. Carrondo, and R. Oliveira, Dynamic modelling and optimisation of a ammalian cells process using hybrid grey-box systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 296–299, Coimbra, Portugal, 2005, Springer.
- [72] R. Oliveira, A. Cunha, J. Clemente, and M. J. T. Carrondo, Adaptive do-based control of substrate feeding in high cell density cultures operated under oxygen transfer limitation, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 300–303, Coimbra, Portugal, 2005, Springer.
- [73] M. Rocha, P. Cortez, and J. Neves, Evolutionary design of neural networks for classification and regression, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 304–307, Coimbra, Portugal, 2005, Springer.

- [74] D. Gangadhar, Pelican - protein-structure alignment using cellular automaton models, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 308–311, Coimbra, Portugal, 2005, Springer.
- [75] S. Brunetti, D. Dutta, S. Liberatori, E. Mori, and D. Varrazzo, An efficient algorithm for de novo peptide sequencing, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 312–315, Coimbra, Portugal, 2005, Springer.
- [76] A. Bisler, Emergent behavior of interacting groups of communicative agents, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 316–320, Coimbra, Portugal, 2005, Springer.
- [77] A. Krishna, A. Narayanan, and E. C. Keedwell, Reverse engineering gene networks with artificial neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 325–328, Coimbra, Portugal, 2005, Springer.
- [78] F. Barth and E. Gomi, A meta-level architecture for adaptive applications, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 329–332, Coimbra, Portugal, 2005, Springer.
- [79] H. Pistori, P. S. Martins, and A. A. de Castro, Jr., Adaptive finite state automata and genetic algorithms: Merging individual adaptation and population evolution, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 333–336, Coimbra, Portugal, 2005, Springer.
- [80] A. R. Camolesi, Modeling a tool for the generation of programming environments for adaptive formalisms, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 337–340, Coimbra, Portugal, 2005, Springer.
- [81] T. C. Pedrazzi, A. H. Tchemra, and R. L. A. Rocha, Adaptive decision tables: A case study of their application to decision-taking problems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 341–344, Coimbra, Portugal, 2005, Springer.
- [82] M. A. de Abreu de Sousa and A. R. Hirakawa, Robotic mapping and navigation in unknown environments using adaptive automata, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 345–348, Coimbra, Portugal, 2005, Springer.
- [83] J. J. Neto and P. S. M. Silva, An adaptive framework for the design of software specification languages, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 349–352, Coimbra, Portugal, 2005, Springer.
- [84] Q. Li, Z. Shi, and Z. Shi, Swarm intelligence clustering algorithm based on attractor, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 353–356, Coimbra, Portugal, 2005, Springer.
- [85] C. A. Silva, J. M. Sousa, T. Runkler, and J. M. G. S. da Costa, Ant-based distributed optimization for supply chain management, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 357–360, Coimbra, Portugal, 2005, Springer.
- [86] U. Honig and W. Schiffmann, Comparison of nature inspired and deterministic scheduling heuristics considering optimal schedules, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 361–364, Coimbra, Portugal, 2005, Springer.

- [87] A. Acan and A. Gunay, An external memory supported aco for the frequency assignment problem, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 365–368, Coimbra, Portugal, 2005, Springer.
- [88] M. Holena, Neural-networks for extraction of fuzzy logic rules with application to eeg data, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 369–372, Coimbra, Portugal, 2005, Springer.
- [89] R. Barzamini, M. B. Menhaj, S. Kamalvand, and M. A. Fasihi, A new neuro-based method for short term load forecasting of iran national power system, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 373–376, Coimbra, Portugal, 2005, Springer.
- [90] N. Viet and M. Kleiber, Approximating the algebraic solution of systems of interval linear equations with use of neural networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 377–380, Coimbra, Portugal, 2005, Springer.
- [91] D. Rehor, J. Tozicka, and P. Slavik, Visualization of meta-reasoning in multi-agent systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 385–388, Coimbra, Portugal, 2005, Springer.
- [92] C. Wu, Y. Liang, H. Lee, and C. Lu, Intelligent agent inspired genetic algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 389–392, Coimbra, Portugal, 2005, Springer.
- [93] G. Bontempi, M. Birattari, and P. E. Meyer, Combining lazy learning, racing and subsampling for effective feature selection, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 393–396, Coimbra, Portugal, 2005, Springer.
- [94] D. G. Kaklamanos and K. G. Margaritis, Personalized news access, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 397–400, Coimbra, Portugal, 2005, Springer.
- [95] R.-M. Xin and W.-L. Zuo, A more accurate text classifier for positive and unlabeled data, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 401–404, Coimbra, Portugal, 2005, Springer.
- [96] H. Kawasnicka and M. Paradowski, Efficiency aspects of neural network architecture evolution using direct and indirect encoding, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 405–408, Coimbra, Portugal, 2005, Springer.
- [97] S. Hayward, Genetic algorithm optimization of an artificial neural network for financial applications, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 409–416, Coimbra, Portugal, 2005, Springer.
- [98] A. Vieira, J. C. Neves, and B. Ribeiro, A method to improve generalization of neural networks: Application to the problem of bankruptcy prediction, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 417–420, Coimbra, Portugal, 2005, Springer.

- [99] A. Dantas and J. Seixas, An adaptive neural system for financial time series tracking, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 421–424, Coimbra, Portugal, 2005, Springer.
- [100] R. Joshi, C. Reeves, and C. Johnston, Probabilistic artificial neural networks for malignant melanoma prognosis, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 425–428, Coimbra, Portugal, 2005, Springer.
- [101] S. Kita, S. Maekawa, S. Ozawa, and S. Abe, Boosting kernel discriminant analysis with adaptive kernel selection, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 429–432, Coimbra, Portugal, 2005, Springer.
- [102] K. Petra and S. Terezic, Product kernel regularization networks, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 433–436, Coimbra, Portugal, 2005, Springer.
- [103] Q. Liu, A. H. Sung, and B. M. Ribeiro, Statistical correlations and machine learning for steganalysis, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 437–440, Coimbra, Portugal, 2005, Springer.
- [104] S. Doan and S. Horiguchi, The use of multi-criteria in feature selection to enhance text categorization, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 441–444, Coimbra, Portugal, 2005, Springer.
- [105] C. Silva and B. Ribeiro, Text classification from partially labeled distributed data, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 445–448, Coimbra, Portugal, 2005, Springer.
- [106] K. Li, Y. Li, C. Teng, and Y. Wang, Solving the roots of cyclic-code generated polynomial by using evolutionary computation, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 449–453, Coimbra, Portugal, 2005, Springer.
- [107] E. Corchado, A. Herrero, B. Barua, and J. M. Saiz, Intrusion detection system based on a cooperative topology preserving method, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 454–457, Coimbra, Portugal, 2005, Springer.
- [108] S. Mukkamala, A. H. Sung, and B. M. Ribeiro, Model selection for kernel based intrusion detection systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 458–461, Coimbra, Portugal, 2005, Springer.
- [109] E. Tamura, J. V. Busquets-Mataix, J. J. S. Martin, and A. M. Campoy, A comparison of three genetic algorithms for locking-cache contents selection in real-time systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 462–465, Coimbra, Portugal, 2005, Springer.
- [110] H. Dongfeng and L. Wenhui, A binary digital watermarking scheme based on the orthogonal vector and ica-scs denoising, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 466–469, Coimbra, Portugal, 2005, Springer.

- [111] S. Morita, Simulating binocular eye movements based on 3-d short-term memory image in reading, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 470–473, Coimbra, Portugal, 2005, Springer.
- [112] W. Cao, C. Xu, and S. Wang, An algorithm for face pose adjustment based on eye location, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 474–477, Coimbra, Portugal, 2005, Springer.
- [113] S. Rahnamayan, H. R. Tizhoosh, and M. Salama, Learning image filtering from a gold sample based on genetic on genetic optimization of morphological processing, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 478–481, Coimbra, Portugal, 2005, Springer.
- [114] C. Shirota, M. Y. Barretto, and C. Itiki, Associative memories and diagnostic classification of emg signals, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 482–485, Coimbra, Portugal, 2005, Springer.
- [115] K. Shibata, Discretization of series of communication signals in noisy environment by reinforcement learning, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 486–489, Coimbra, Portugal, 2005, Springer.
- [116] W. Cao, X. Pan, and S. Wang, The research of speaker-independent continuous mandarin chinese digits speech-recognition based on the dynamic search method of high-dimension space vertex cover, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 490–493, Coimbra, Portugal, 2005, Springer.
- [117] M. Marolt, A connectionist model of finding partial groups in music recordings with application to music transcription, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 494–497, Coimbra, Portugal, 2005, Springer.
- [118] M. Kherallah, F. Bouri, and M. A. Alimi, Toward an on-line handwriting recognition system based on visual coding and genetic algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 502–505, Coimbra, Portugal, 2005, Springer.
- [119] D. Torres and C. Rocco, Assessing the reliability of complex networks through hybrid intelligent systems, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 510–513, Coimbra, Portugal, 2005, Springer.
- [120] R. Vaculin and R. Neruda, Autonomous behavior of computational agents, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 514–517, Coimbra, Portugal, 2005, Springer.
- [121] J. Koutnik and M. Snorek, Neural network generating hidden markov chain, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 518–521, Coimbra, Portugal, 2005, Springer.
- [122] M. Ciglaric, B. S. M. Pancur, and A. Dobnikar, Datamining in grid environment, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 522–525, Coimbra, Portugal, 2005, Springer.

- [123] M. Yoshikawa, T. Fujino, and H. Terai, Parallel placement procedure based on distributed genetic algorithms, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 526–529, Coimbra, Portugal, 2005, Springer.
- [124] F. G. Lobo, C. F. Lima, and H. Martires, Massive parallelization of the compact genetic algorithm, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 530–533, Coimbra, Portugal, 2005, Springer.
- [125] U. Lotric and A. Dobnikar, Parallel implementations of feed-forward neural network using mpi and c# on .net platform, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 534–537, Coimbra, Portugal, 2005, Springer.
- [126] S. Wagner and M. Affenzeller, Heuristiclab: A generic and extensible optimization environment, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 538–541, Coimbra, Portugal, 2005, Springer.
- [127] C. Osterman, C. Rego, and D. Gamboa, The satellite list: A reversible doubly-linked list, in *Adaptive and Natural Computing Algorithms*, edited by B. Ribeiro, R. F. Albrecht, A. Dobnikar, D. W. Pearson, and N. C. Steele, Springer Computer Series, pp. 542–545, Coimbra, Portugal, 2005, Springer.