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 macroactions, 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 et al., 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 qap 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. Mohdzin, 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 et al., 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. Ghrayeb 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 et al., 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. Terezie, 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. Baruque 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 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.